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Physics Abstracts

Science Abstracts Series A
July–December 1982

Subject Index (M – Z)

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CONTENTS

Title page	i	Subject index	S2613
Abbreviations and acronyms	iii		

SIX-MONTHLY INDEXES TO SCIENCE ABSTRACTS

Cumulative indexes to Science Abstracts are published twice a year covering the period January-June and July-December. They comprise author and subject indexes and some specialised or 'small' indexes. For Physics Abstracts and Electrical & Electronics Abstracts the Author Index and Subject Index are published as separate volumes. In this case the Small Indexes are included in the Author Index volume.

Cumulative author and subject indexes for preceding years are also available. For details please see inside back cover.

Subject Index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1. Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles listed under it. The majority of the subject headings fall into the following catagories: property, phenomena, substance or named objects, instrument, device, theory, method, process, application, event.

2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.

3. If you do not find the subject heading you first chose, try a more general heading.

4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal preceded by the last digit of the current year, e.g. 2-12345; i.e. Abstract number 12345 in the abstracts journal for 1982

The language of the article, if it is not in English, is also indicated. e.g. oxide glasses, viscosity in glass transition range (Japanese) 2-22290.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usuallly ignored. (e.g. α-brass, 5-sulphosalicylic, 31 Cygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists; alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe- list e.g. Fe-Al, ... Fe-Co, ... Fe-Si, ... Fe-Si-B,... FeCo, ... FeSi and so on in this order.

Physics Abstracts

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Physics Abstracts is published twice monthly by the Institution of Electrical Engineers. Twice-yearly subject and author indexes covering the period January-June and July-December are included in the subscription. Printed by Unwin Brothers Ltd., Old Woking, Surrey, England. Second class postage paid at Piscataway, NJ 08854 USA. POSTMASTER; Send address changes to INSPEC/IEEE SERVICE CENTER, 445 Hoes Lane, Piscataway, NJ08854

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Physics Abstracts

Science Abstracts Series A

SCIENCE ABSTRACTS

Subject Index (M – Z)

Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject headings. **Inorganic substances** are usually given by their chemical formulae. Iron and aluminium garnets appear in the formulae lists as MIG and MAG (where M is metal element, e.g. YIG and YAG); $(Pb,La)(Zr,Ti)O_3$ and $Ce_2Mg_3(NO_3)_{12}$ appear as PLZT and CMN respectively. **Organic substances** including **liquid crystals** are not given as formulae but common abbreviations are used.

ABS resin	acrylonitrile-butadiene-styrene
AC	alternating current
ACV	air cushion vehicle
A/D	analogue-to-digital
ADC	analogue digital conversion
ADP	administrative data processing
AE	acoustic emission
AEC	atomic electron correlation(s)
AES	Auger electron spectra(oscopy)
AF	audio frequency
AFC	automatic frequency control
AFL	abstract family of languages
AFMR	antiferromagnetic resonance
AGC	automatic gain control
AGR	advanced gas-cooled reactor
ALARA	as low as reasonably achievable
ALU	arithmetic logic unit
AM	amplitude modulation
APACHE	accelerator for physics and chemistry of heavy elements
APR	acoustic paramagnetic resonance
APS	appearance potential spectra(oscopy)
APW	augmented plane wave
ARMA	autoregressive moving average
ASCII	American standard code for information exchange
ATC	air traffic control
ATE	automatic test equipment
ATM	Axilrod-Teller-Moto
ATR	attenuated total reflection
ATWS	anticipated transients without scram
AVC	automatic volume control
BARITT	barrier injection transit time
BBEA	4-butoxybenzal-4'-ethylaniline
BBGKY	Bogoliubov-Born-Green-Kirkwood-Yvon
BCC	body centred cubic
BCD	binary-code decimal
BCS	Bardeen-Cooper-Schrieffer
BFO	beat-frequency oscillator
BH	buried heterostructure
BWO	backward wave oscillator
BWR	boiling water reactor
BWT	backward wave tube
CAD	computer aided design
CAE	computer aided engineering
CAI	computer assisted instruction
CAM	computer aided manufacturing
CARS	coherent antiStokes Raman scattering (spectra)
CATV	community antenna TV
CB	citizen band
CBI	computer based instruction
CBOOA	cyanobenzylidene octyloxyaniline
CCBA	coupled channel Born approximation
C-CD	charge-coupled device
CDFR	commercial demonstration fast reactor
CDI	collector diffusion isolation
CDM	code division multiplexing
CDW	charge-density wave
CEM	channel electron multiplier
CEPA	coupled electron pair approximation
CERN	Conseil Européen pour la Recherche Nucléaire
CESR	conduction electron spin resonance
CGTO	contracted Gaussian-type orbital
CHF	coupled Hartree-Fock
CI	configuration interaction
CIDEP	chemically induced dynamical electron polarisation
CIDNP	chemically induced dynamical nuclear polarisation
CIEH	charge iterated extended Huckel
CIHY	configuration interaction Hylleras
CMI	computer managed instruction
CMOS	complementary metal-oxide-semiconductor
CNC	computerised numerical control
CNDO	complete neglect of differential overlap
COC	cholesteryl oleyl carbonate
COM	computer output to microform (fiche or film)
COOB	4,4'-cyano-octyloxy-biphenyl
CP	charge, parity
CPA	coherent potential approximation
CPA	critical path analysis
CPM	critical path method
CPSK	coherent phase shift keying
CPT	charge, parity, time
CPU	central processing unit
CRO	cathode ray oscilloscope
CRSR	coherent resonant Stokes rotation
CRT	cathode ray tube
CS	coupled states
CSM	continuous slowing down models
CSRS	coherent Stokes-Raman spectra(oscopy)
CT	computerised tomography
CTR	controlled thermonuclear reactor
CVD	chemical vapour deposition
CW	continuous wave
D/A	digital-to-analogue
DAC	digital analogue conversion
DBMS	database management system
DBR	distributed Bragg reflector
DC	direct current
DDC	direct digital control
DIP	dual in-line package
DDL	diode-diode logic
DECENT	distribution of exact classical energy transfer
DESY	Deutsches Electron Synchrotron
DF	Dirac-Fock
DFB	distributed feedback
DH	double heterostructure
DIL	dual-in-line
DITE	divertor in torus experiment
DLTS	deep level transient spectra(oscopy)
DM	delta modulation
DMA	direct memory access
DMM	digital multimeter
DMOS	double diffused metal-oxide-semiconductor
DMSO	dimethylsulphoxide
DNA	deoxyribonucleic acid
DNMR	double nuclear magnetic resonance
DOBAMBC	p-decyloxybenzylidene p'-amino 2-methyl butyl cinnamate
DOD	different orbitals for different spins
DORIS	Dopple-ring-Speicher
DOS	disc operating system

DOVETT	double velocity transit time
DP	data processing
DPCM	differential pulse code modulation
DPPH	diphenylpicrylhydrazyl
DPSK	differential phase shift keying
DSC	differential scanning calorimetry
DTA	differential thermal analysis
DVM	digital voltmeter
DV-Xα	discrete variational Xα method
DWBA	distorted wave Born approximation
DWIA	distorted wave impulse approximation
E1,E2	electric dipole, quadrupole
E^{2}PROM	electronically erasable read-only-memory
EAROM	electronically alterable read-only-memory
EAS	extensive air shower
EB	exponential Born
EBBA	4-ethoxybenzylidene-4'n-butylaniline
EBIC	electron beam induced current(s)
EBR	experimental breeder reactor
EBT	Elmo Bumpy Torus
ECC	emergency core cooling
ECCM	electronic counter-counter measures
ECELR	epithermal critical experiment laboratory reactor
ECG	electrocardiography (-gram)
ECL	emitter coupled logic
ECM	electronic countermeasures
EDA	ethylene diamine
EDP	electronic data processing
EDTA	ethylene diamine tetra-acetic acid
EEBAC	ethyl-4-(4'ethoxy-benzylidene-amino) cinnimate
EEG	electroencephalography (-gram)
EELS	electron energy loss spectra(oscopy)
EEPROM	electrically erasable programmable read-only-memory
EFM	extended Flygare method
EFT	electronic funds transfer
EHD	electrohydrodynamics
EHF	extremely high frequency
EHP	electron-hole potential method
EHT	extended Huckel theory
EHV	extra high voltage
ELDOR	electron electron double resonance
ELF	extremely low frequency
EM	electromagnetic
EMC	electromagnetic compatibility
EMF	electromotive force
EMG	electromyography (-gram)
EMI	electromagnetic interference
EMP	electromagnetic pulse
ENDOR	electron nuclear double resonance
ENG	electronic newsgathering
EOF	end of file
EPEN	empirical potential energy function based on interactions of electrons and nuclei
EPMA	electron probe microanalysis
EPR	electron paramagnetic resonance
EPROM	erasable programmable read-only-memory
ERG	electroretinography (-gram)
ESCA	electron spectroscopy for chemical analysis
ESCAR	experimental superconducting accelerating ring
ESFI	epitaxial silicon film on insulator
ESS	electronic switching system
EUV	extreme ultraviolet
EW	electronic warfare
EXAFS	extended X-ray absorption fine structure
FAMOS	floating gate avalanche metal-oxide-semiconductor
FBR	fast breeder reactor
FCC	face centred cubic
FDM	frequency division multiplex(ing)
FDNC	frequency dependent negative conductance
FDNR	frequency dependent negative resistance
FEM	field emission microscopy
FET	field effect transistor
FFHR	fusion-fission hybrid reactor
FFT	fast Fourier transform
FFTF	fast flux test facilities
FIM	field ion microscopy
FIR	finite impulse response
FM	frequency modulation
FMIT	fission materials irradiation test facility
FMR	ferromagnetic resonance
FMSR	fast mixed spectrum reactor
FPT	finite perturbation theory
FPLA	field programmable logic array
FSK	frequency-shift keying
FSGO	floating spherical Gaussian orbitals
FTR	fast test reactor
GAMBIT	gate modulated bipolar transistor
GANIL	grand accelerateur national a ions Lourds
GCFR	gas-cooled fast breeder reactor
GCM	generator coordinate method
GDR	giant dipole resonance
GHF-NO-CI	generalised Hartree-Fock/natural orbital/ configuration interactions
GIAO	gauge-invariant atomic orbitals
GO	Gaussian orbitals
GOO	generalised Overhauser orbitals
GPM	ground potential model
GTO	Gaussian-type orbitals
GVB	generalised valence bond
HAM	hydrogenic atoms in molecules
HBAB	hexyloxybenzylidene-p' aminobenzonitrile
HBT	N-(p-hexyloxybenzylidene)-p-toluidene
HCDA	hypothetical core disruptive accident
HCP	hexagonal close packed
HEED	high energy electron diffraction
HEMP	high altitude electromagnetic pulse
HF	high frequency or Hartree-Fock
HFB	Hartree-Fock-Bogoliubov
HFER	hot fuel examination facility
HFIR	high flux isotope reactor
HFO	Hartree-Fock-Overhauser
HFS	hyperfine structure
HGMS	high gradient magnetic separation
HIXE	heavy ion induced X-ray emission
HLW	high level waste (radioactive)
HMO	Huckel molecular orbitals
HOAB	heptyloxyazoxybenzene
HOBHA	p-n-heptyloxy-benzylidene-p-n heptylaniline
HOMO	highest occupied molecular orbitals
HTGR	high temperature gas-cooled reactor
HV	high voltage
HVEM	high voltage electron microscopy
HWR	heavy water reactor
IAEA	International Atomic Energy Authority Agency
IBA	interacting boson approximation
IBM	interacting boson model
IBPBAC	isobutyl-4-(4'-phenylbenzylideneamino) cinnamate
IC	integrated circuit
ICDF	intermediate coupling Dirac-Fock
ICF	inertial confinement fusion
IDT	interdigital transducer
IEPA	independent electron pair approximation
IETS	inelastic electron tunnelling spectra(oscopy)
IF	intermediate frequency
IGFET	insulated gate field effect transistor

IIR	infinite impulse response
IKO	Institute v. Kernph Ouder Amsterdam
I^2L	integrated injection logic
I^3L	isoplanar I^2L
ILS	instrument landing system
IMPATT	impact avalanche transit time
INDO	intermediate neglect of differential overlap
INDOR	internuclear double resonance
ING	intense neutron generator
INO	iterative natural orbital
INTELSAT	international telecommunications satellite consortium
I/O	input/output
IOC-α	inclusion of the overlap charges in the omega
IPSS	international packet switching service
IR	infrared
IRDO	intermediate retention of differential overlap
IRS	information retrieval system
ISABELLE	intersecting storage and acceleration
ISFET	ion-sensitive field effect transistor
ISL	integrated Schottky logic
ISR	intersecting storage ring
ISX	impurity study experiment
ITC	ionic thermocurrents
ITEP	Institute of Theoretical and Experimental Physics
ITR	ignition test reactor
IU	Indiana University
IVO	improved virtual orbitals
JAERI	Japan Atomic Energy Research Institute
JET	Joint European torus
JFET	junction field effect transistor
JINR	Joint Institute for Nuclear Research
KEK	Japan National Laboratory for High Energy Physics
KKR	Korringa-Kohn-Rostoker
LAMPF	Los Alamos meson physics facility
LC	inductance-capacitance
LCAO	linear combination of atomic orbitals
LCBO	linear combinations of (semi-localised) band orbitals
LCD	liquid crystal display/device
LCGO	linear combination of Gaussian orbitals
LCP	large coil program
LCRO	linear combination of Rydberg orbitals
LEC	liquid encapsulated Czochralski
LED	light emitting diode
LEED	low energy electron diffraction
LEP	large electron positron
LET	linear energy transfer
LF	low frequency
LMC	Large Magellanic Cloud
LMFBR	liquid metal fast breeder reactor
LMTO	linear combination of muffin tin orbitals
LNG	liquified natural gas
LOCA	loss of coolant accident
LOCE	loss of coolant experiment
LOFT	loss of flow test facility
LPE	liquid phase epitaxy
LSA	limited space charge accumulation
LSD	local spin density
LSI	large-scale integration
LTE	local thermodynamic equilibrium
LUMO	lowest unoccupied molecular orbitals
LV	low voltage
LWBR	light water breeder reactor
LWR	light water reactor
MADO	Mulliken approximation for differential overlap
M1,M2	magnetic dipole, quadrupole
MBBA	4-methoxybenzylidene-4'-n-butyl-aniline
MBE	molecular beam epitaxy
MBPT	many body perturbation theory
MCD	magnetic circular dichroism
MCSCF	multiconfiguration self-consistent-field
MCPESCF	multiconfiguration paired excitation SCF
MCZDO	multi-centre zero differential overlap
MCX_α	multiconfiguration X_α
MEC	molecular electron correlation(s)
MEDO	multipole expansion of diatomic overlap
MESFET	metal-semiconductor field effect transistor
MF	medium frequency
MFP	mean free path
MHD	magnetohydrodynamics
MIC	microwave integrated circuit
MIDP	microwave induced delayed phosphorescence
MIEHM	modified iterative extended Huckel method
MIM	metal-insulator-metal
MIMD	multiple input multiple data
MIS	metal-insulator-semiconductor or management information system
MIT	Massachusetts Institute of Technology
MM	millimetre
MMF	magnetomotive force
MNOS	metal-nitride-oxide-semiconductor
MO	molecular orbitals
MOCIC	molecular orbital constraint of interaction coordinates
MOCVD	metal-organic chemical vapour deposition
MODPOT	model potential
MOS	metal-oxide-semiconductor
MOSFET	metal-oxide-semiconductor field effect transistor
MOST	metal-oxide-semiconductor transistor
MRD	multi-refrence double excitation
MRINDO	modified Rydberg INDO
MS	management science
MSI	medium scale integration
MSK	minimum shift keying
MSR	molten salt reactor
MSU	Michigan State University
MTBF	mean-time between failures
MTF	modulation transfer function
MTX_α	muffin-tin X_α
MUF	maximum usable frequency
MWPC	multiwire proportional chamber
NAL	National Accelerator Laboratory
NAND	not-and(logic)
NC	numerical control
NCMET	non-closed shell many electron theory
NDDO	neglect of diatomic differential overlap
NDT	nondestructive testing
NEMO	non-empirical molecular orbitals
NEVE	non-empirical valence-electron
NHS	National Health Service
NIC	negative impedance convertor
NMOS	N-channel metal-oxide-semiconductor
NMR	nuclear magnetic resonance
NMR-ON	NMR on oriented nuclei
NNNDO	neglect of non-neighbour differential overlap
NOR	not-or(logic)
NQR	nuclear quadrupole resonance
NRC	nuclear regulatory committee
NRM	natural remanent magnetisation
NSSS	nuclear steam supply system
NTO	natural transition orbitals
OCR	optical character recognition
ODMR	optical detection of magnetic resonance
OEM	original equipment manufacture
OER	oxygen enhancement ratio

OPHF	orbital polarised Hartree-Fock
OPW	orthogonal plane wave
OR	operations research
ORELA	Oak Ridge electron linear accelerator
ORNL	Oak Ridge National Laboratory
OS	operating system
OTEC	ocean thermal energy conversion
OTF	optical transfer function
PAA	paraazoxyanisole
PABX	private automatic branch exchange
PAC	perturbed angular correlation
PAHR	post accident heat removal
PAM	pulse amplitude modulation
PAP	paraazoxyphenetole
PBF	power bursts facility
PBR	pebble bed reactor
PBX	private branch exchange
PC	printed circuit
PCAC	partially conserved axial currents
PCB	printed circuit board
PCES	phase change energy storage
PCGVB	pairwise correlated generalised valence bond
PCILOCC	perturbative configuration interaction using localised orbitals for crystal calculation
PCM	pulse code modulation
PCRV	prestressed concrete reactor vessel
PCX	plasma confinement experiment
PDX	poloidal divertor experiment
PEP	positron electron proton
PET	polyethylene terephthallate
PETRA	positron electron tandem ringbeschleuniger anlage
PF	power factor
PFM	pulse frequency modulation
PFR	prototype fast reactor
PHWR	pressurised heavy water reactor
PID(PI,PD)	proportional+integral+differential (derivative)
PIXE	proton induced X-ray emission
PLA	phase locked arrays or programmable logic array
PLBR	prototype large breeder reactor
PLC	programmable logic control
PLL	phase locked loops
PLT	Princeton Large Torus
PM	pulse modulation
PMMA	polmethyylmethacrylate
PMDR	phosphorescence microwave double resonance
PMOS	P-channel metal-oxide-semiconductor
PMR	proton magnetic resonance
PNDO	partial neglect of differential overlap
PNO-CI	pair natural orbital configuration interaction
POL	pair orthogonalised Lowdin
POPAE	protons on protons and electrons
POPOP	phenyl-oxazolyl-phenyl-oxazolyl-phenyl
POS	point of sale
PPDP/S	Pariser-Parr-Del Bene-Pople/Segal calculations
PPI	plan position indicator
PPM	pulse position modulation or parts per million
PPP	Pariser-Parr-Pople
PRDDO	parial retention of diatomic differential overlap
PRF	pulse recurrence (repetition) frequency
PROM	programmable read-only-memory or Pockels readout optical modulator
PS	proton synchrotron (CERN)
PSK	phase shift keying
PTFE	polytetrafluoroethylene
PTM	pulse time modulation
PVC	polyvinyl chloride
PWA	partial wave analysis
PWB	printed wiring board
PWBA	plane wave Born approximation
PWIA	plane wave impulse approximation
PWM	pulse width modulation
PWR	pressurised water reactor
QCD	quantum chromodynamics
QDMBPT	quasi-degenerate many-body perturbation theory
QED	quantum electrodynamics
QPSK	quaternary phase shift keying
RAM	random access memory
RBE	relative biological effectiveness
RC	resistance-capacitance
RCNDO	Rydberg CNDO
RCS	rapid cycling synchrotron
R & D	research and development
RF	radio frequency
RFI	radio frequency interference
RG	renormalisation group
RHEED	reflection high energy electron diffraction
RHF	restricted Hartree-Fock
RINDO	Rydberg INDO
RKKY	Rudermann-Kittel Kasuya-Yosida
RLC	resistance-inductance-capacitance
RMS	root-mean-square
RNA	ribonucleic acid
ROM	read-only memory
RPA	random phase approximation
RPAE	random phase approximation with exchange
RPM	relaxation potential model or revolutions per minute
RTG	radioisotope thermoelectric generators
SACCI	symmetry adapted cluster configuration interaction
SAMO	simulated ab initio molecular orbitals
SAW	surface acoustic waves
SCC	stress corrosion cracking
SCF	self consistent field
SCL	space charge limited
SCPT	self consistent perturbation theory
SCR	silicon controlled rectifier
SDM	space division multiplexing
SDO	shielded diatomic orbitals
SEHF	spin extended Hartree-Fock
SEM	scanning electron microscope
SFE	solar-flare effect
SGEMP	system generated electromagnetic pulse
SGHWR	steam generating heavy water reactor
SHF	superhigh frequency
SHG	second harmonic generation
SIMS	secondary ion mass spectra(oscopy)
SIN	Swiss Institute of Nuclear Research
SINDO	scaled INDO
SISAM	spectrometer with interference selective amplitude modulation
SIT	static induction transistor
SMC	Small Magellanic Cloud
S/N	signal-to-noise
SOG	strongly orthogonal geminal
SOS	silicon on sapphire
SPA	separated pair approximation
SPC	stored program control
SPEAR	Stanford positron electron asymmetric ring
SPHF	spin polarised Hartree-Fock
SPIN-CIPSI	spin symsmetry adapted generalisation of CIPSI
SPS	super proton synchrotron (CERN)
SREMP	source region electromagnetic pulse
SQUID	superconducting quantum interference device
SRMCASE	symmetry-restricted-multiconfiguration annihilation of single excitations
SSB	single sideband

SSBW	surface skimming bulk wave
SSC	sudden storm commencement
SSI	small scale integration
SST	supersonic transport
STD	salinity-temperature-depth or subscriber trunk dialling
STEC	solar thermal energy conversion
STEM	scanning transmission electron microscopy
STO	Slater-type orbitals
STOL	short take-off and landing
STP	Slater-transfer Preuss
SW	short wave
SWR	standing wave ratio
SXAPS	soft X-ray appearance potential spectrum
TBBA	terephthal-butylaniline
TCNE	tetracyanoethylene
TCNQ	tetracyanoquinodimethane
TCR	temperature coefficient of resistance
TDHF	time dependent Hartree-Fock
TDM	time division multiplex(ing)
TDMA	time division multiple access
TDPAC	time differential perturbed angular correlation
TDS	thermal desorption spectra(oscopy)
TE	transverse electric
TEA	transversely excited atmosphere
TEGFET	two-dimensional electron gas field effect transistor
TEM	transverse electromagnetic or transmission electron microscopy
TEXT	Texas Experimental Tokamak
TFTR	Tokamak fusion test reactor
TGA	thermogravimetric analysis
TGFB	triglycine fluoroberyllate
TGS	triglycine sulphate
TGSe	triglycine selenate
TJS	transverse junction stripe
TLD	thermoluminescent dosimeter(-ry)
TM	transverse magnetic
TMI	Three Mile Island
TMMC	tetramethylammonium manganese chloride
TMMTSF	tetramethyltetraselenofulvalene
TMTTF	tetramethyltetrathiofulvalene
TOP	transient overpower accident
TNS	The next step
TRAPATT	trapped plasma avalanche triggered transit
TREAT	transient reactor test facility
TRM	thermoremanent magnetisation
TSC	thermally stimulated currents
TSEE	thermally stimulated exo-electron emission
TTF	tetrathiofulvalinium
TTL	transistor transistor logic
TTT	tetrathiotetracene
TUCA	transient undercooling accident
TV	television
TW	travelling wave
TWT	travelling wave tube
UART	universal asynchronous receiver/transmitter
UCHF	uncoupled Hartree-Fock
UHF	ultra high frequency or unrestricted Hartree-Fock
UHPS	underground hydroelectric pumped storage
UHV	ultra high voltage
UKAEA	United Kingdom Atomic Energy Authority
ULA	uncommitted logic array
ULF	ultra low frequency
UMD	unitised microwave devices
UPS	ultraviolet photoelectron spectra
US	ultrasonic
UV	ultraviolet
VAD	vapour phase axial deposition
VB	valence bond
VCR	video cassette recorder
VDM	vector dominance model
VDU	visual display unit
VHF	very high frequency
VLBI	very long base line interferometry
VLF	very low frequency
VLSI	very large scale integration
VMOS	vertical channel metal-oxide-semiconductor
VOR	VHF omnidirectional range
VPE	vapour phase epitaxy
VRC	visual record computer
VRDDO	variable retention of diatomic differential
VS	virtual storage
VSB	vestigial sideband
VSEPR	valence shell electron pair repulsion
VSWR	voltage standing wave ratio
VTOL	vertical take-off and landing
VTR	voltage transformation ratio or video tape recorder
VUV	vacuum ultraviolet
VVER	water moderated water cooled reactors
WKB	Wentzel-Kramers-Brillouin
WP	word processing
WWER	water moderated water cooled reactors
XPS	X-ray photoelectron spectra
ZEBRA	zero energy breeder reactor assembly
ZGS	zero gradient synchrotron
ZPPR	zero power plutonium reactor

Subject Index

M-centres
CaO, F_2^{2+} defect, hole burning, optical spin-echo spectra 2−104298
KCl:Li, $Li(F2^+)_A$ centre lasing action 2−85980
$KCl_{0.9}Br_{0.1}$ crystals, Hurter-Driffield charact. and optical storage 2−81041
KI:Li^+, F and M centres, luminescence and absorption spectra 2−67115
$KI(F_2^+)_A$ centre laser, continuous timing between 2 and 4 μm 2−90900
LiF crystals, X-ray luminesc. obs. of F-aggregate colour centres 2−110931
LiF crystals containing F_2^- centres, Nd laser induced bleaching 2−60180
LiF crysts., with colour centres, passive shutter appls., residual losses 2−81061
LiF, F_2^- colour centers, optical pumping of YAG:Nd laser 2−102804
LiF, $F_2(F_2^+)(F_2^-)$ centres, formation and pumping by electron beam bombardment 2−90901
LiF, lasing action and spectra of M-centres 2−75580
LiF:F_2^+ centre tunable ring laser 2−85998
LiF:Mg,OH crystals, gamma-irrad. new emission centres 2−116248
MgO:Fe(Mn), colour centres induced by neutron irrad. 2−98081
NaF, alkaline earth impurity doped, CW laser operation with F_2^+-type colour centres 2−60085
NaF, single freq. laser using $(F_2^+)^*$ centres, 1.0 to 1.15 μm range 2−108886
NaF:Li, single crystal, stability of electronic colour centres 2−91958
Nd^{3+}:YAG laser, passively Q switched by LiF crysts. containing colour centres, charact. 2−85978

M-regions *see Sun*

Mach number
see also acoustic wave velocity; shock waves
acoustic turbulence, 1-D, asymptotic props., shock fronts 2−65619
compressible fluid flow stability at high Mach numbers 2−81318
flat plate moving at high Mach numbers, unsteady boundary-layer induced pressures 2−81323
supersonic boundary layer on cooled surface, laminar to turbulent transition 2−75931

Mach principle *see cosmology; space-time configurations*

machine bearings
steel, martensitic stainless, wear against WC up to 500°C 2−83238
surface profile and texture meas. by laser interferometric transducer 2−112869
thermomechanical effects on sliding surfaces, conf., Columbus, USA (June 1981) 2−101124

machine insulation
MHD generator interelectrode insulating insert, elec. strength increase by blowing air *(Ukrainian)* 2−83504

machine testing
holographic interferometry applications *(Hungarian)* 2−114216

machine theory
EM field equations solution by two parameter iteration method, electric machines design appl. 2−90769
nonlinear magnetic field problems with complex current sources, finite element anal. 2−102686

machine tools
lathing system for contact lens production, computer controlled 2−109082
noise at final installation site, meas. 2−60303

machine windings
see also rotors; stators
induction motor CC Cu winding conductors, mechanical props. *(Czech)* 2−111230
induction motor windings with non-linear magnetisation charact., current shape anal. *(Slovak)* 2−56889
multifilament superconductor, energy consumption and performance *(Slovak)* 2−72128
turbogenerators, bonding material requirements and development 2−62097

machines, electric *see electric machines*

machining
see also cutting; electrolytic polishing; electron beam machining; grinding; laser beam machining; spark machining
free-lapping machining method, shaping kinematics 2−70715
GCFR fuel pins, remote pressurisation and resealing 2−108022
optical components, precision machining, design and specification 2−109088
Fe, cast, spheroidal graphite, fatigue strength of machined and as-cast surfaces 2−93602

macromolecular configurations
actinoxanthin, mol. struct., X-ray diffr. study 2−67943
alfalfa mosaic virus coat protein, orientation in hexagonal cryst. array, X-ray diffr. study 2−99877
aminosilane coupling agents, in aq. solns. and partially cured solids, struct. 2−97899
B-DNA, interaction with Na^+ and H_2O structural determ. 2−114141
bacteriorhodopsin, linking regions between helices, electron microscopy 2−62554
bacteriorhodopsin, Schiff base group, struct. of retinylidene chromophores, Raman spectra 2−88502
barnase (a ribonuclease), molecular structure 2−83549
biological macromolecules, struct. determ. by small angle scatt. 2−88509
biological molecule, electron tunnelling connection with conform. mobility and isolated degrees of freedom 2−78286
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
branched macromolecules, conformation statistics by Monte Carlo method *(Polish)* 2−75484
catalase, beef liver, mol. struct., X-ray diffr. study 2−67942
catalase, Penicillium vitale, mol. struct., X-ray diffr. study 2−67941

macromolecular configurations continued
chromatin fibrils, models of organisation 2−67934
comb-like polymers, solns., intramol. structurisation investig. *(Russian)* 2−65120
copolymers, complex radical synthesis mechanism, unit distrib. and comp. heterogeneity *(Russian)* 2−78096
crystallography, fiber diffraction data, phasing using isomorphous replacement and layer line splitting 2−97834
crystallography, phase problem, determinantal soln. using stereochem. information 2−97833
16α, 17α-cyclohex-3′-enoprogesterone, cryst. and mol. struct. and biological activity, X-ray diffr. study 2−67940
cytochrome c_{550} protein, three-phase struct. invariants 2−83547
cytochrome c, cryst. and soln., comparison of struct. by high-angle X-ray scatt. 2−57774
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
DNA, B form structure, refinement on X-ray and energy criteria basis 2−105646
DNA, helicity in complexes with RecA protein 2−105648
DNA, new struct. and dynamic aspects as revealed by NMR, review 2−116871
DNA, rodlike segments, theory for intrinsic curvature in toroidal structs. 2−116870
DNA, supercoiled PM2, conformational changes studied using ^{111}In-histone as label for perturbed γ-γ ang. correl. technique 2−78287
DNA, topological aspects and biophysical appl., theory, review 2−96785
DNA conformation, dynamics, and interactions in soln. 2−99889
DNA with left-handed nature induced by supercoiling 2−116875
Edwards's model for long polymer chains 2−102677
elastomers, strength and useful life, network degree influence *(German)* 2−67532
enniatin B, ionophonic antibiotic, mol. and cryst. struct., X-ray diffr. study 2−67939
epoxy binders, strain-strength props. above glass transition temp. 2−83186
epoxy systems, high-resoln. dark-field imaging 2−97941
ethyl glycine residue, valine and isoleucine side chain on C_α conformational anal. 2−85849
F-actin, struct. as helix with random variable twist 2−93987
ferritin clusters, point-projection imaging of macromolecular contours 2−69302
fibre diffr. patterns, anal. for helical macromol. struct. studies 2−115100
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
flexible polymers, Ptitsyn-Eizner lambda param. study 2−75480
globular protein, collective variable description of small-amplitude conformational fluctuations 2−73192
$(gly\text{-}pro\text{-}hypro)_n$, models of polymer struct. 2−67932
haemoglobin multilayers, LF elect. props. 2−73184
half-tone representation of molecular surfaces 2−90746
helical hydrophobic moment as meas. of helix amphiphilicity of proteins 2−116876
histone H1, theoretical prediction of tertiary struct. 2−111614
histones H2A and H2B, spatial packing of polypeptide chains 2−57775
histones H3 and H4, model of spatial packing of polypeptide chains 2−67933
leghaemoglobin derivatives, ferro and ferri states, multichannel X-ray diffractometry study 2−57778
luciferase of luminous bacteria, electron microscopic investig. of mol. struct. 2−105645
maleic acid copolymer with styrene in aq. salt soln., conformational transition studied by derivative spectroscopy 2−65119
metal substituted carbonic anhydrases, spectroscopic investigation, binding sites 2−111613
metallomacrocycle cofacial assembly, elec. conductive polymer 2−56569
methacrylonitrile-styrene copolymers in dil. soln., conform. changes, light scatt. obs. 2−60866
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
myosin molecule, protein complex bound to rod part, secondary struct. and amino acid comp. 2−99879
N,N′-di-n-hexyladipamide, a model for nylon 6,6 2−76323
nucleic acids, torsion and bending, time resolved fluoresc. obs. 2−62550
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
nucleotides in aq. solns., conformation study by NMR lanthanide shift 2−67931
pancreatic polypeptide, avian, cryst. struct. anal. at 1.37 Å resolution 2−105651
partially flexible macromolecules, liq. crystalline ordering 2−97920
peptides, molecular size and confirmation 2−99880
persistent chain model, anisotropic light scatt. *(Russian)* 2−70466
poly(2,6-dimethyl-1,4-phenylene oxide) in soln., conformational behaviour, sedimentation and permeabilities 2−75479
poly(α-L-glutamic acid) in N,N-dimethylformamide, electrooptical props. and conformation, electric birefringence study 2−80856
poly(acetylene), mol. struct. and elec. cond. 2−98609
poly (dimethylsiloxane) in methylethylketone, interaction parameter depend. on mol. wt. and conc. 2−108752
poly-n-nonyloxyphenol poly-p-methacryloyl oxybenzoate, hydrodynamic and conform. props. *(Russian)* 2−108755
polyacetylene, bond lengths, bond strengths and electron-lattice coupling calc. 2−76625
polyacetylene chains, ab initio HF calcs. using Christoffersen basis set 2−70457
polyacetylenes, electronic struct., mol. architecture depend. 2−55000

macromolecular configurations continued
1,2-polybutadienes, hydrogenated, configurational sequences, ^{13}C NMR spectra 2−65882
1,2-polybutadienes, hydrogenated struct. characterisation by ^{13}C NMR 2−77394
polybutadienes, linear and star-shaped, in soln., US attenuation and vel. meas. 2−76599
polyelectrolyte chain, unscreened model, swelling corrections relevance 2−108745
polyethylene, branched, partial crystallisation, molecular model 2−109700
polyethylene, conform. influence on wide-angle neutron scatt. patterns, folding models 2−91815
polyethylene, high-density, cryst., wear, morphological study 2−83240
polyethylene, mol. struct. uniformity 2−80858
polyethylene, molten, local struct., wide-angle X-ray scatt. 2−109659
polyethylene, solid and molten, rotational isomers distrib., IR spectra study 2−108753
polyethylene, ultraoriented, birefringence calc. fusing model structures 2−110811
polyethylene chain, breaking energy with missing H atom 2−115153
polyethylene chain, configs. and dynamics, excluded vol. effect on inner segments 2−96781
polyethylene crystals, randomly reentrant chain folding, neutron scattering anal. 2−97940
polyethylene single cryst., chain folding, mixed-cryst. IR obs., effect of crystn. temp. 2−110850
polyethylene terephthalate, amorphous, conform. changes during vol. recovery, Fourier transform IR spectra obs. 2−61906
polyethylene-deuteropolyethylene mixed cryst. blends, wide-angle neutron scatt. obs. of folding nature 2−91816
polyimide systems, high-resoln. dark-field imaging 2−97941
polyisoprene chains, unperturbed dimensions 2−75478
polymer, star shaped, model for conformation, conc. depend. 2−54998
polymer chain, fractal dimensionality 2−79487
polymer chains, ordered and disordered systems, treatment by lattice methods 2−108751
polymer macromolecules, optically anisotropic, struct., depolarised light scatt. obs. 2−99144
polymer melts, chain dimensions in melt, Monte Carlo studies 2−102673
polymers, adsorbed at solid-soln. interface, config. investig. by small angle neutron scatt. and NMR 2−114140
polymers, conformational state relax., time correl. functions 2−108750
polymers, model, long range interactions calc. using unit cell arbitrary concept 2−80850
polymers, self-avoiding rings, statistical props., Monte Carlo technique 2−70460
polymers, static coherent scatt. function, conformational space renormalisation 2−70464
polymers thermal expansion effect on diffr. intensity from molecules 2−80849
polymethylene chains, conform. changes in soln., Monte Carlo calcs. *(Russian)* 2−76267
polypeptide chains of histones H2A, H2B, H3 and H4 as part of octamer, packing 2−99878
polypeptide liquid crystal, cholesteric, microscopic model 2−55838
polyphenylenes, electronic struct., mol. architecture depend. 2−55000
polypyromellitimide, shock induced elec. polarization, mol. struct. effect 2−77444
polystage equilibrium theory 2−65118
polystyrene, shock induced elec. polarization, mol. struct. effect 2−77444
polystyrene gel, isotactic, extended and threefold helical conforms., solvent geometry effect 2−78144
polystyrenes in isorefractive PMMA-toluene solvents, light scatt. obs., radii of gyration, virial coeffs., θ condition 2−116730
polysulphone, shock induced elec. polarization, mol. struct. effect 2−77444
polythienylene, electronic struct., mol. architecture depend. 2−55000
poly[α,ω-alkanedioyl(1′,4′-dioxyphenyl)-oxy-4-benzoate]s, mol. wts., structs., NMR obs. *(French)* 2−70458
protein conformation, determ. from electron spin relax. data 2−93986
protein structures, computer-generated schematic diagrams 2−93989
protein terminal regions, conformation anal. 2−99884
protein-ligand interactions, conformations, transferred NOE theory and appls. 2−105647
proteins, atomic displacements, temp. depend., local nonharmonic pots. 2−57777
proteins, formulation of monolayer arrays, negative staining C film technique 2−117165
proteins, molecular size and confirmation 2−99880
proteins, Mossbauer effect rel. to conformational mobility and moisture content 2−67950
proteins, selforganisation, directed mechanism, model calc. 2−67945
proteins, X-ray diffr. study, multiwavelength method with synchrotron radiation 2−65806
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2−73190
ribosomal RNA, struct., X-ray neutron scatt. and electron microscopy study 2−67944
ring polymer, prob. of knots calc. 2−102675
RNA base overlap model 2−93988
RNA polymerase of Escherichia coli, quaternary struct., TEM obs. and model 2−78285
serum albumin, bovine, press. induced denaturation, photon correl. spectroscopy 2−114139
sodium dodecylsulphate-protein complex, binding, light scatt. study 2−70459
struct., bonding, conformational anal. of Cα side chain 2−85848
styrene-acrylamide copolymers, IR spectra, temp. var. effects 2−96780
styrene-acrylic acid copolymers, IR spectra, temp. var. effects 2−96780
styrene-acrylonitrile copolymer solns., hydrodynamic characts. and light scatt. *(Russian)* 2−108756
subcellular macromolecular arrays, model, periodic struct. anal. in STEM 2−78507
tomato bushy stunt virus, struct. of expanded state 2−88503
topologically entangled molecules, configurational props. 2−53689
vinyl monomers, radical polymerisation, mol. mass and branching centre distribs. *(Russian)* 2−111494
viral DNAs, evolutionary selection for perfect hairpin structs. 2−99888
X-ray diffraction crystallography techniques using synchrotron source 2−102670

macromolecular configurations continued
X-ray scatt., anomalous, use of synchrotron radiation 2−68224
X-ray studies of biological macromols., review 2−63794

macromolecular dynamics
aromatic heterocyclic polymers, rigidity and tractability rel. to mol. swivels 2−70463
biological molecule, electron tunnelling connection with conform. mobility and isolated degrees of freedom 2−78286
branched macromolecules, conformation statistics by Monte Carlo method *(Polish)* 2−75484
directed branched polymers and directed percolation Flory approx. 2−85852
DNA, new struct. and dynamic aspects as revealed by NMR, review 2−116871
DNA conformation, dynamics, and interactions in soln. 2−99889
DNA molecular motion, meas. by triplet anisotropy decay 2−93984
α-helical protein, particlelike excitations in chain model 2−80853
helical wormlike chains, gyration radius, statistical mechs. 2−96784
lipid, thermotropic mesomorphism of Acholeplasma laidlawii B, temp. induced phase transition, Fourier transform IR spectra 2−116889
macromolecules, fluorescence polarisation anisotropy decay 2−54996
multichain systems, two- and three-dimens. screening length determ. 2−114143
mutually entangled long flexible molecules, statistical gauge theory of topological entanglements 2−114144
oligooxypropylene, filled, mol. mobility, dielec. loss obs., filler conc. effect *(Russian)* 2−66977
partially flexible macromolecules, liq. crystalline ordering 2−97920
PMMA copolymers with anthracene chromosphores, intrachain luminesc. quenching *(Russian)* 2−110946
PMMA-polymethyl acrylate copolymers, benzene soln., chain motion, elementary processes 2−93107
poly (dimethylsiloxane) in methylethylketone, interaction parameter depend. on mol. wt. and conc. 2−108752
poly-1,3-pentadiene stereoisomers, vibr. spectra anal. 2−75482
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
poly-ω-methacryloyl oxycarboxylic esters, solns., intramol. mobility obs. *(Russian)* 2−108754
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
cis-polyacetylene, doped, electronic and vibrational struct., finite model 2−76891
polyacetylene, vibrational props., dynamical model 2−76607
polyelectrolyte, persistence length, electrostatic contrib. 2−90747
polyelectrolyte mols., flexibility, electrostatic contrib. to persistence length 2−90748
polyethylene chain, configs. and dynamics, excluded vol. effect on inner segments 2−96781
polyheteroarylene fibre reinforced epoxide binder composites, ^{1}H NMR study of mol. mobility 2−116073
polymer, glassy, nonequil. nature obs. using Fickian diffusion of alkane permeants 2−66292
polymer, nonlinear stress in oscillatory shear fields, reptative motions 2−109904
polymer, self-repelling chain, short-distance monomer correlations 2−65117
polymer, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polymer chain, fractal dimensionality 2−79487
polymer melts, diffusion controlled processes, entanglement effects, reaction kinetics 2−67749
polymer soln., nonentangled systems, diffusion-controlled reactions, kinetics study 2−67748
polymer solutions dynamics, screening effects 2−75485
polymer-protein interactions, excluded vol. theory, polymer chain, statistics 2−102674
polymers, conformational space renormalisation, random and self-avoiding walks 2−75481
polymers, conformational state relax., time correl. functions 2−108750
polymers, highly conducting, electronic struct., ab initio calculations 2−80851
polymers, scaling theory appl. *(Czech)* 2−85850
polymers, self-avoiding rings, statistical props., Monte Carlo technique 2−70460
polymers, self-avoiding walks, critical phenomena approach 2−80857
polymers, statistics of chains embedded on a diamond lattice 2−96782
polymethylene chains, ring closure dynamics, reaction rates, Brownian motion 2−59982
polystyrene, atactic, depolarisation ratios and low temp. Raman spectra 2−108747
polystyrenes in isorefractive PMMA-toluene solvents, light scatt. obs., radii of gyration, virial coeffs., θ condition 2−116730
polyurethanes, dil. soln., intrapolymer interactions between excited singlet states 2−114025
segmentally flexible macromolecules, diffusion, bead models 2−96783
self-repelling ring polymers, spatial correl. 2−54997
trypsin, conformational fluctuations of protein mol. 2−73185
two long flexible polymers, interactions, gauge theory of topological entanglements 2−114145
vesicles, two dimens., Monte Carlo study 2−105668
vinyl polymers, dil. soln., intrapolymer interactions between excited singlet states 2−114025

macromolecular energy levels
enzymatic catalysis, electronic aspects, frontier orbital perturbation theory 2−116724
lactate dehydrogenase, active centre, CNDO/2, INDO and EHT calcs. 2−80854
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
cis-polyacetylene, doped, electronic and vibrational struct., finite model 2−76891
polyacetylene, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polymers, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polymers, highly conducting, electronic struct., ab initio calculations 2−80851

macromolecular energy levels continued
polymers, model, long range interactions calc. using unit cell arbitrary concept 2−80850
polymers, one-dimens. cond., electronic struct., ab initio SCF LCAO calc. 2−76892

macromolecular spectra
see also spectra of organic molecules and substances
agar-H_2O system, mol. dynamics and entropy changes, PMR study 2−78281
alkylene glycol terephthalate copolymers with mesogenic p-oxygenzoate units, thermal transitions 2−61139
allylbenzene-(R)-3,7-dimethyl-7-octene copolymers, opt. active, chiroptical props., main chain-side group distance depend. 2−61867
biological macromolecules, low temp. photolysis and recomb. kinetics, Fourier transform IR spectra 2−116881
biomolecules investig. by CARS 2−78292
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
carboxymyoglobin, photodissociated, IR spectra at low temp., haeme pocket behaviour 2−105657
chlorophyll in barley leaves with blocked carotenoid biosynthesis, luminesc. analysis of triplet states 2−78307
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
cis-polyacetylene, resonant Raman scatt., theoretical anal. 2−77524
cytochrome P-450, spin labelled, complex ST-EPR and EPR spectra, selective removal of spectral components 2−88504
DNA, molecular dynamics investig. by dielec. relax. meas. 2−88497
DNA from old rat tissues, circular dichroism spectrum similarity to γ-irrad. DNA 2−105785
DNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
DNA molecular motion, meas. by triplet anisotropy decay 2−93984
enzymes, photoabsorpt. and photoelectron spectra in vacuum-UV region 2−105658
epoxy polymer film, Fourier transform IR spectra using heated ATR for T_g determ. 2−116167
ESR spectrum, theoretical anal. 2−77372
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
haematoporphyrin derivative, two-step laser activation 2−78289
haematoporphyrin derivative aggregated species 2−75476
kappa-casein, biopolymer, far-IR spectra 2−108749
lipid thermotropic mesmorphism of Acholeplasma laidlawii B, temp. induced phase transition, Fourier transform IR spectra 2−116889
lysozyme in D_2O, dynamics of Overhauser effects 2−85853
lysozyme-Cu^{2+} complex, hen egg-white, ENDOR study 2−62561
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
macromolecules, fluorescence polarisation anisotropy decay 2−54996
maleic acid copolymer with styrene in aq. salt soln., conformational transition studied by derivative spectroscopy 2−65119
metal substituted carbonic anhydrases, spectroscopic investigation, binding sites 2−111613
methacrylonitrile-styrene copolymers in dil. soln., conform. changes, light scatt. obs. 2−60866
nucleic acid components, excited-state props. 2−99899
nucleic acids, torsion and bending, time resolved fluoresc. obs. 2−62550
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
peptides, functional group spectroscopy using Fourier transform IR absorbance subtraction 2−116882
persistent chain model, anisotropic light scatt. *(Russian)* 2−70466
photosynthesis, modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
photosynthesis modelling, solid polymer films with high protoporphyrin IX conc., spectral characts. 2−78312
plant leaves, mag. modulation of fluoresc. intensity, primary photosynthetic reactions 2−78310
β-poly(L-adanine-ND), Fermi resonance of unperturbed ND stretching mode 2−70462
poly(vinyl pyrrolidine), mol. wt. determ. by fluorimetric const. evaluation 2−85851
poly-1,3-pentadiene stereoisomers, vibr. spectra anal. 2−75482
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
poly-N-vinyl-3-methyl-2-pyrrolidones, opt. active, synthesis and characteris. 2−61866
poly-N-vinylcarbazole, nitrated, soln., electronic excitation energy transfer, fluorescence and phosphorescence study *(Russian)* 2−77592
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2−93185
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, doped, elec. cond. mechanism, IR absorption and reflection spectra study 2−77520
cis-polyacetylene, doped, IR vibr. spectra, finite model 2−76891
polyacetylene, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polyacetylene, ENDOR spectrum meas. 2−77421
polyacetylene, ESR linebreadth narrowing mechanisms, expt. study 2−77358
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene, IR spectra, vibronic charge oscills. 2−116171
polyacetylene, partially reson. Raman scatt. meas. 2−77523
polyacetylene, pure and doped, ^1H NMR spin-lattice relax. rate, freq. and temp. depend. meas. 2−77406
polyacetylene, resonance Raman scatt. and photoluminescence props., review 2−77522
polyacetylene, vibrational props., dynamical model 2−76607
1,2-polybutadienes, hydrogenated, configurational sequences, ^{13}C NMR spectra 2−65882
polyesters, synthesis and emission props. 2−88356
polyethylene, oriented high-density, O_3-O_2 oxidation effect on low-temp. stress relax., IR spectra obs. *(Russian)* 2−67408
polyethylene mechanical degradation, free radicals and end groups from chain scission 2−90751
polyethylene single cryst., chain folding, mixed-cryst. IR obs., effect of crystn. temp. 2−110850

macromolecular spectra continued
polyethylene terephthalate, amorphous, conform. changes during vol. recovery, Fourier transform IR spectra obs. 2−61906
polyethylenimine backbone polynucleotide models, UV absorpt. spectra 2−116866
polymer film, stretched, partially oriented mol. fluoresc. polarization, electronic transition moment 2−77609
polymers, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polyoxymethylene cryst. conformational regularity, IR study 2−93200
polyoxymethylene hexagonal cryst., IR and Raman vibr. spectra 2−77501
polypropylene film, stretched, time-resolved Fourier transform IR spectra, stretching-relax. obs. 2−116287
polystyrene, atactic, depolarisation ratios and low temp. Raman spectra 2−108747
polystyrene, mol. wt. determ. by fluorimetric const. evaluation 2−85851
poly[α,ω-alkanedioyl(1′,4′-dioxyphenyl)-oxy-4-benzoate]s, mol. wts., structs., NMR obs. *(French)* 2−70458
proteins, Mossbauer effect rel. to conformational mobility and moisture content 2−67950
proteins, PMR spectra simplification 2−54999
proteins, two-dimens. NOE, J cross-peak effects 2−90749
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2−73190
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
rod-like macromolecules, lengths and diameters, intensity fluctuation spectrosc. meas. 2−70465
rotational isomers distrib., IR spectra study 2−108753
serum albumin, bovine, press. induced denaturation, photon correl. spectroscopy 2−114139
sodium dodecylsulphate-protein complex, binding, light scatt. study 2−70459
spherical and cylindrical binary mixtures, scatt. light normalised second-order factorial moment meas. 2−114188
styrene-acrylamide copolymers, IR spectra, temp. var. effects 2−96780
styrene-acrylic acid copolymers, IR spectra, temp. var. effects 2−96780
trypsin inhibitor, bovine pancreas, two dimens. nucl. Overhauser expt. 2−90750
PVC, derivative spectra, resolution enhancement, band width and shape effect 2−64121

macromolecules
see also DNA; macromolecular configurations; macromolecular dynamics; macromolecular energy levels; macromolecular spectra; polymers; proteins
agar-H_2O system, mol. dynamics and entropy changes, PMR study 2−78281
autofluorography of labelled macromols. on 2D gels, rapid electronic method 2−78515
biological macromolecules, hydrodynamic parameter evaluation, FORTRAN IV program 2−99881
collagen solns., rat skin, dynamic light scatt. studies 2−105654
crystal structure refinement with X-ray and neutron diffr. data from single crysts. 2−60840
crystallography with synchrotron radiation, photographic data collection and polarisation correction 2−81628
electrostatic potential molecular surfaces, computer graphics representations 2−105642
fluorescence polarisation anisotropy decay 2−54996
lactate dehydrogenase, active centre, CNDO/2, INDO and EHT calcs. 2−80854
nucleic acid bases, high-power UV laser radiation effect, two-stage photodecomposition 2−100066
nucleic acid complexes with Ag^+ ions, thermodynamic characts. 2−99873
nucleic acid components, high intensity UV exposure, two-photon photochemistry 2−99900
nucleic acids, torsion and bending, time resolved fluoresc. obs. 2−62550
nucleic acids in HeLa tumour cells, rate of synthesis, ultrashort UV laser pulse action 2−100064
β-poly(L-adanine-ND), Fermi resonance of unperturbed ND stretching mode 2−70462
polyethylene, nematic systems, chair statistics theory 2−65116
polystage equilibrium theory 2−65118
polytetrafluoroethylene, nematic systems, chair statistics theory 2−65116
proteins and viruses, method to increase lifetimes under X-ray exposure 2−117155
ribosomes, Artemia, sedimented in a CsCl density gradient, quasi-elastic light scatt. 2−83722
RNA, transfer, significance and mechanism of divalent-ion binding 2−93981
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
rod-like polymer soln. phase behaviour, Gaussian distrib. of chain lengths effects 2−91753
segmentally flexible macromolecules; diffusion, bead models 2−96783
spherical and cylindrical binary mixtures, scatt. light normalised second-order factorial moment meas. 2−114188
X-ray crystallographic studies, area detector data acquisition system 2−85478

Madelung constant *see lattice energy*

magamps *see magnetic amplifiers*

Magellanic Clouds
see also Large Magellanic Cloud; Small Magellanic Cloud
blue globular clusters, ages and chemical abundances 2−84286
chemical enrichment from RR Lyrae star obs. 2−89357
early type stars, comparison of winds in Small Magellanic Cloud/Galaxy, spectral obs. 2−84218
globular cluster extended giant branches, age from photometric anal. 2−89322
globular clusters, late-type stellar content from IR and visual obs. 2−58414
interacting galaxies model, rel. to dynamics of Magellanic Stream 2−68904
interstellar medium pre-shock densities from SNR and emission nebulae, VBLUW photometry 2−101015
RR Lyrae stars, metallicity, ages and mass determ., obs. 2−89357
old star cluster system, integrated UBV colours 2−84287
star formation test from search for Cepheids 2−117672
supergiants and hypergiants, VBLUW photometry obs. 2−63441

Magellanic Clouds continued
tidal pressure effect on Galaxy corona 2−63679
C abundance in H II regions, IUE obs. 2−58444
C stars scarcity brighter than $M_{bol}=-6.5$, theory 2−117672
H_2O maser survey, SHF obs. 2−79204

Maggi-Righi-Leduc effect *see thermomagnetic effects*

magnesium
see also nuclei with .....
air pollution in Nepal Himalayas, due to domestic fires 2−62527
Andaman Sea, Ca, Mg and fluoride concs. of seawater 2−63000
atom, doublet P shape reson., second order propagator calc. 2−80509
atom, electron impact ionisation, inner-shell alignment, distorted-wave approx. appl. 2−102635
atom, metastable levels transitions, frequency sub-mm wavelength standards appl. 2−107293
atom, X-ray photoelectron spectra, shake-up satellites calcs. 2−59765
atoms, electron impact double ionisation cross sections 2−75444
atoms, multipole optical transition calcs. by relativistic SCF method 2−80541
atoms, resonance phenomena and post-collision effects with electrons *(Russian)* 2−108724
determination in waste water by radionuclide X-ray fluoresc. anal. 2−78164
dislocation dipole structures formed as result of basal slip *(Russian)* 2−115238
dislocation motion through flexible and reactionable dislocation forest, computer simulation 2−98090
electrical resist. anisotropy meas. 2−98617
electron irrad., peaking effect, internal friction, irrad. temp. effects 2−92107
electron irrad., surface defect peak in EELS, V^--centres 2−92715
electron irradiated, Frenkel defects study by diffuse X-ray scatt. 2−65989
electron-phonon interaction, proximity electron tunnelling spectra determ. 2−103922
Fermi surface parameters, Fourier transform of positron annihilation curves 2−98524
film, weak localisation,magnetoresist. meas. 2−82324
film, with Au submonolayers, spin-orbit coupling effect on weak localisation, magnetocond. meas. 2−66495
film, with Fe submonolayer, mag. scatt. time meas. by weak localisation 2−92599
film formation by direct ion beam deposition 2−116387
giant stars, late type, Mg emission variability intepretation with chromosphere and corona, UV obs. 2−68754
grain boundary during high temp. deform. *(Japanese)* 2−55983
HCP, static lattice Green function, force model dependence and asymptotic props. 2−109934
high pressure structural phase transition, first principles total energy calc. 2−66207
hydriding using Fe particles as dissoc. adsorption catalyst 2−67650
isotope targets prepared by vapour deposition 2−108179
K absorption spectra, satellite struct. 2−87902
lattice relax. at surface, work function, surface energy 2−87008
liquid, structure factors, pseudopotential and WCA method 2−65844
$Mg^{2+}+H_2O$ interactions pseudopotentials representation 2−75366
Mg production process economics projection and impacts on cost of magnesium hydrides 2−73158
muonic X-ray cascade, refilling rates 2−85847
particles, g-factor quantum size effect, EPR study 2−104693
phase automodulation, nonlinear inelastic reed 2−56087
sputtering, atomic excitations, optical spectrometry study 2−77689
surface, adsorbed O_2 layer, photoelectric work function meas., Fowler method 2−87371
surface (0001), electronic struct., angle-resolved photoemission study 2−115845
surface (0001), interatomic pot. considerations in low energy Ar^+ scatt. 2−77666
vacancy props., positron annihilation, thermal expansion studies 2−103753
$Al_xGa_{1-x}As$:Mg, acceptor states, photoluminesc. study 2−104931
$Al_xGa_{1-x}As$:Mg^+, ion implantation study, rel. to elec. activation 2−86692
Be target, Ar^+ ion sputtering, at. excitation 2−75372
CaO:Mg, neutron or electron irrad., circular polarised luminesc. from F- and F_A-centres 2−110915
Fe_2O_3:Mg, solid solubility, elec. and photoelectric behaviour 2−61146
GaAs:^{24}Mg, ion channelling, electronic stopping power, SIMS study 2−103867
GaAs:Mg, epitaxial layers, impurity redistrib., SIMS study 2−98344
GaAs:Mg, implanted, pulsed ruby laser annealing, SIMS and elec. obs. 2−56023
GaAs:Mg, MBE, doping behaviour 2−92386
GaAs:Mg, organometallic-VPE growth, doping control 2−87991
GaP:Mg, LPE growth, minority carrier lifetime, photoluminescence study 2−82488
$Gd_3Ga_5O_{12}$:Mg, Zr, channelling study 2−81841
GeO_2:Mg, X-irrad., hole centre ESR study 2−87592
H_2 storage capacity of Mg, synthesis and study of reversible hydrides based on Mg rich alloys of La, Ce, and mischmetal *(French)* 2−78261
$Hg_{1-x}Cd_xTe$:Mg, ion implanted, elec. and optical props. from IR refl. spectra 2−116218
HgTe:Mg, conduction band struct., Hall effect and magnetoresist. study 2−115662
InP:Mg, implanted, impurity redistrib. during annealing, SIMS study 2−98144
InP:Mg epitaxial layers, shallow acceptor excited states, luminesc. study 2−57156
InP:Mg VPE layers, implanted and unimplanted, near-edge emission 2−57157
InSb:Mg, implanted, ion current density and dose effect on radiation defects 2−76533
LiF:Mg, impurity-vacancy pair clustering, trimer form., dielec. losses and TSC meas. 2−115419
LiF:Mg, phosphor, thermolum., carrier capture during irrad. 2−104973
LiF:Mg, shocked and recovered, dislocations obs. 2−81790
LiF:Mg, TLD-100, clustering and precip., dielec. loss study 2−92213
LiF:Mg, TLD-100, thermoluminesc. meas., clustering and precip. effects 2−93291
LiF:Mg, Ti, gamma-irrad., laser heating in thermolum. dosimetry 2−104971
LiF:Mg, Ti, thermoluminesc., Z-centre model 2−57195

magnesium continued
LiF:Mg, Ti, thermoluminescence sensitivity optimisation method 2−104972
LiF:Mg,OH, radiation point defect condensation at dislocations *(Russian)* 2−71494
LiF:Mg,OH crystals, gamma-irrad. new emission centres 2−116248
LiF:Mg^{2+}, internal friction and charged dislocations 2−81793
Mg I and Mg II reson. lines, Stark width meas. in wall stabilised arc 2−70182
Mg II 2800 Å resonance line emission in different rot. vel. and metal abundance stars 2−100896
Mg II circumstellar lines in red giant hybrid atmosphere stars 2−79092
Mg II optically thick lines in quiescent solar prominence 2−58311
Mg ions, Born-approx. electron ionisation cross section, oscillator strengths, proton stopping power calc. 2−96644
Mg sequence, n=3 singlet complex, short range interactions involving plunging configurations 2−65074
Mg XI in solar corona, X-ray spectra 2−68714
Mg XI ion recombining laser plasma, population inversion meas. 2−85948
Mg^+, dielectronic recombination cross section 2−105468
Mg^{2+}, hydration shells, nonadditive effects 2−80457
Mg-Si MIS solar cells, fundamental props. 2−88442
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
Mg-SiO_x-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
$Mg+H^+$, H^- form., ang. distrib., differential cross sections meas. 2−96722
Mg+Li, optically pumped, LiMg* excimer chemiluminesc. intensities, form. and decay kinetics 2−83353
$Mg+N_2O$, quenching, cross sections, kinetics, chemiluminescence 2−111496
Mg^++Ar, collisional excitation mechanism, coupled channel impact parameter approx. 2−54948
Mg^++Ca collisions, total charge transfer cross section 2−114091
$Mg^{2+}+H_2PO_4^-$ interactions, ab initio SCF study, model of cation binding to nucleic acid 2−88344
MgI, laser-excitation technique for the measurement of absolute transition probabilities of weak atomic lines 2−70191
MgI, oscillator strengths from metastable ^3P levels, expt. determ. 2−96506
^{24}Mg, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{26}Mg enrichment using quadrupole mass filter as commercial isotope separator 2−74850
$Mg^*+N_2O(O_2)$, reactions undersingle collision conditions, MgO laser fluoresc. study 2−80714
Mg^*+SOCl_2, chemiluminesc. and chemiionising reactions absolute cross sections 2−83381
RbBr:Mg^+, optical absorption, thermolum. and emission studies 2−61986
Si:O, Mg influence of Mg on IR absorpt. and elec. cond. props. 2−87258
SiO-H_2-Mg condensed vapours, IR spectra, appl. to O-rich stars 2−94703
Ti+Mg, heavy ion-atom collision, double to single K vacancy production ratio 2−90678

magnesium alloys
see also magnesium compounds
microstructural aspects of superplasticity 2−83182
superplasticity in commercial and experimental composition sheets 2−105271
Volcoloy, antiferromagnetic Invar type alloy in Mn-Ge system *(Japanese)* 2−77291
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Ag-Mg, equiatomic, rheological behaviour of β' phase 2−57421
Ag-Mg, liq. and solid, conc. and temp. depend. of mag. susceptibility 2−56826
Ag-Mg polycryst. target, detection of low energy ion-induced secondary electron emission 2−82975
AgMg, electronic energy bands, Fermi surface 2−92448
Ag_3Mg, ordered and disordered, cold-worked, internal friction and shear modulus meas. 2−116484
Al-(Zn)-Mg, fatigue crack behaviour at low stress intensities 2−62191
Al-Cu-Mg, 2024 alloy, ageing effects and plane strain constraint on ductility 2−67441
Al-Cu-Mg, ageing, elec. cond. study using eddy current meas. 2−88230
Al-Cu-Mg, high tensile strength, environmental fatigue strength and fracture *(Japanese)* 2−93612
Al-Cu-Mg, prestrained by pulling, corrosion fatigue crack length distrib. *(Japanese)* 2−93613
Al-Cu-Mg, transient creep 2−76574
Al-Cu-Mg (1.3,1.3 at.%), high temp. ageing, coherent precipitation obs. *(Russian)* 2−99429
Al-Cu-Mg (4.5, 1.5 wt.%), alloy 2124, H embrittlement 2−57468
Al-Cu-Mg eutectic alloys, unidirectionally solidified, structure, and mech. props. *(Korean)* 2−67312
Al-Cu-Mg-Mn-Si-Fe sheet, fracture toughness and crit. crack length, inhibiting layer effect 2−72826
Al-Cu-Mg-Zn, acoustic emission during static deform. 2−72777
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al-Fe-Mg (0.25, 0.11 wt.%) alloy, alternating periodic serrations in tensile curves 2−99497
Al-Li-Mg, Mg effect on Young's modulus 2−57391
Al-Li-Mg system, Guinier-Preston zones, coarsening mechanism, SAXS study 2−62129
Al-Li-Mn(Zr)(Mg)(Cu), corrosion behaviour, correl. with microstruct. 2−88253
Al-Mg, adsorption of O_2, SIMS studies 2−104169
Al-Mg, dil., electron irrad., self-interstitial-impurity complexes, internal friction study 2−56007
Al-Mg, dilute, dislocation pinning by impurity atmospheres, nucleation mechanism, theory *(Russian)* 2−86666
Al-Mg, dislocation motion, impurity atmospheres and effective activation parameters, theory 2−115233
Al-Mg, dispersion hardening, X-ray matrix reflections, double maxima study *(Russian)* 2−93522
Al-Mg, heat-treated, deform. and fracture processes by acoustic emission method 2−105420
Al-Mg, microstruct. development during rolling 2−83136

magnesium alloys continued
Al-Mg, oxide formation, Mg diffusion, Auger and SEM study 2−82009
Al-Mg, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Al-Mg, recrystn. after cold rolling, optical and electron microscopy study 2−88098
Al-Mg, strain localisation under tension 2−111246
Al-Mg, thermal cycling influence on alloying elements soln. 2−72738
Al-Mg, twin-rolling casting, centreline segregation 2−116435
Al-Mg (3 at.%), solid soln., correl. between creep and dislocation substruct. 2−105249
Al-Mg (3 wt.%) alloy, corrosion and corrosion inhibition in seawater 2−57512
Al-Mg (4 wt.%), mech. alloyed powder alloy, tensile behaviour 2−105259
Al-Mg (5, 10 wt.%), modulated struct. and Guinier-Preston zones 2−111184
Al-Mg (5 at.%), high temp. deform. under combined high frequency stresses *(Japanese)* 2−105237
Al-Mg (5 wt.%), creep-fatigue interactions, mechanisms 2−99540
Al-Mg (5 wt.%), steady state creep, pre-strain effects, dislocation slip 2−77867
Al-Mg (5 wt.%) solid soln., Harper-Dorn creep, mech. and microstruct. characts. 2−72755
Al-Mg (8wt.%), grain boundary segregation 2−88087
Al-Mg alloy adhesive joints, surface anal. and bonding 2−116679
Al-Mg alloys, polycrystalline, second-order elastic moduli, US vel. study 2−72748
Al-Mg based alloys, surface corrosion during heat treatment 2−99598
Al-Mg-MgO, oxide dispersion strengthened, high temp. deform. 2−93554
Al-Mg-Mn-Zr-Ca-Ti, chem. comp. optimisation rel. to fracture toughness, Mn, Zr, Cr and Ti additions effect 2−77945
Al-Mg-Sc alloy, elastic strain caused by $ScAl_3$ precipitates, electron microscopy study *(Russian)* 2−105207
Al-Mg-Si, J_{Ic} evaluation by R-curve and stretched-zone-width methods *(Japanese)* 2−111399
Al-Mg-Si (6000) series alloys, exfoliation corrosion obs. in water 2−93671
Al-Mg-Si-Cu-Cr, quench sensitivity, effects of Cu and Cr 2−105174
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al-Mg-V, candidate material for NET/INTOR first wall, development and evaluation 2−69834
Al-Mg-Zn, 7070, crack closure and crack propag. rates 2−56076
Al-Mg-Zn-Cu, 7075-T7351, localised corrosion, environmental factors 2−67640
Al-Mg(-Cu), water corrosion study by gas chromatography 2−88255
Al-Mg(3 wt.%), high temp. creep, stress sensitivity parameter 2−77869
Al-Si-Mg-Sr, hypoeutectic, modified by pure Sr, microstruct. and mech. props. 2−99386
Al-Si-Mg-ZiO_2, dispersion hardening 2−57362
Al-Si-Ni-Mg-Cu, Ni, Mg, and Cu additions effect on tensile strength, hardness, abrasion and thermal expansion *(Korean)* 2−57418
Al-Zn-Mg, aged at 20, 80 and 120°C, decomp., quench conditions influence *(French)* 2−72743
Al-Zn-Mg, decomp. kinetics, effect of small Mg additions 2−99388
Al-Zn-Mg, high tensile strength, environmental fatigue strength and fracture *(Japanese)* 2−93612
Al-Zn-Mg, isothermal ageing, O-180°C, after direct quench, mech. props. and microstruct. 2−93536
Al-Zn-Mg, microhardness with technical impurities, development during two-step ageing treatment 2−93537
Al-Zn-Mg, slatiness of fracture after rolling 2−111303
Al-Zn-Mg, stress corrosion cracking susceptibility, effect of thickness of tartaric acid-anodised film 2−67604
Al-Zn-Mg, stress corrosion behavior of weldments, effect of heat input rate and postweld heat treatment *(Korean)* 2−67633
Al-Zn-Mg, struct. and strength after duplex ageing 2−72727
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
Al-Zn-Mg alloys, influence of alloying additions (Cr, Cu and Li) on thermal oxidation 2−105359
Al-Zn-Mg granules, resist to deform. 2−116412
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
Al-Zn-Mg-Cu, near threshold fatigue crack growth rates, effect of purity and dispersoid type 2−72840
Al-Zn-Mg-Cu, precip., DSC study 2−99430
Al-Zn-Mg-Cu, recrystallised grain size, effect of heating rate 2−57371
Al-Zn-Mg-Cu, superplastic alloy, cavitation, influence of hydrostatic press. and multiaxial straining 2−116494
Al-Zn-Mg-Cu (6.2, 2.5, 1.7 wt.%), fatigue crack growth, micromechanisms 2−105273
Al-Zn-Mg-Cu alloy V95, fatigue crack kinetics, influence of water and its inhibiting 2−88282
Al-Zn-Mg-Cu alloys, fractography of long-transverse SCC 2−77977
Al-Zn-Mg-Cu-Cr, 7XXX series alloys, influence of microstruct. and strength on fracture 2−111293
Al_2O_3 fibre reinforced Al-Mg, fabrication method 2−67259
Au_3Mg, high resolution images by high-voltage electron microscopy 2−81636
B fibre reinforced Al-Cu-Mg-Mn, hot pressing, reaction between fibres and matrix 2−83068
CU_2Mg-type struct., at dias. in voids rel. to unit-cell dimensions 2−109747
Cd-Mg, molten, short range order and conc. fluctuations 2−91757
$CeMg_3$, mag. struct., neutron diffr. study 2−82565
Cr-MgO, sintered, struct. and mech. props. 2−67544
Cr-MgO-B, struct. and mech. props. 2−72783
Cu-Cu_2Mg system, metastable cubic phase form. by quenching from liq. state 2−99396
Cu-Mg alloy, disintegration kinetics upon natural ageing, X-ray diffuse scatt. study 2−77850
Fe-Mg, cast, nodular, mech. props. and cryst. struct., effect of heat treatment 2−83113
GdMg, biaxial mag. structs. 2−104580
Li-Mg, asymmetric slip, thermal activation parameters 2−86676
Li-Mg, BCC solid soln., soft X-ray emission and self-absorpt. spectra meas. 2−99229
Li-Mg, thermo-EMF meas. *(Russian)* 2−82326
Li-Mg liq. alloys, ^7Li Knight shift 2−56956
Mg-Al, solid soln., creep behaviour at elev. temp. 2−83164

magnesium alloys continued
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
Mg-Al-Y system, phase diagram, isothermal sections at 400°C 2−83091
Mg-B interstitial solns., interaction parameters anal. 2−98307
Mg-Bi(Sb), Krupkowski method for thermodynamic props. 2−76708
Mg-Cd alloys, ordering energy, pseudopot. calc. 2−103687
Mg-Ga liq. system, thermodynamics studies 2−66257
Mg-In alloys, ordering energy, pseudopot. calc. 2−103687
Mg-Li-Al-Cd, superplastic deform., effect on struct. and props. 2−62180
Mg-Li-Cd-Al system, isothermal section in Mg-rich range 2−99398
Mg-Li-Y system, isothermal sections and mech. props. in Mg-rich region 2−111142
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
Mg-Mn, dilute, cryst. field effect on magnetisation 2−82660
Mg-Ni-H_2 alloys, press.-composition isotherms, const. vol. method 2−66178
Mg-Sm, supersaturated solid soln., precipitation study *(Russian)* 2−116443
Mg-Zn, amorphous, electron transport props., comp. depend. 2−104339
Mg-Zn-Cd, wrought MA15, cyclic crack resist. of metal and weld joint 2−99556
Mg-Zn-Gd, amorphous, elec. resist., mag. interference effect 2−82312
MgBi, molten, short range order and conc. fluctuations 2−91757
MgCa, metallic glass, struct. stability 2−65863
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
MgMn, hexagonal, spin glass behaviour 2−66861
$Mg_2Ni_{1-x}Be_x$ alloys H_2 absorption by beryllium substitution, pressure-composition isotherms 2−105602
Mg_3Pb, molten semiconductors, US velocity, temp. depend. 2−76600
Mg_3Pb, third-order elastic consts. and low temp. limit of Gruneisen parameter, Axe shell model 2−76631
Mg_2Sn, molten semiconductors, US velocity, temp. depend. 2−76600
$Mg_{0.7}Zn_{0.3}$ metallic glass, nearly free electron energy bands, pseudopot. formalsm 2−71855
$Mg_{70}Zn_{30}$, amorphous, crystn., positron annihilation, X-ray diffr. and elec. resist. study 2−103635
$NdMg_3$, mag. struct., neutron diffr. study 2−82565
Sr_6Mg_{23} and $SrMg_4$, cryst. struct. relationships 2−60927

magnesium compounds
see also magnesium alloys
acetate tetrahydrate:Co^{2+}, EPR spectra 2−61757
cordierite based crystallised glass, damage resistance of fortified surfaces 2−111339
eutectoid decomp. process influence on physico-chem. props. 2−99404
formate, monoclinic and orthorhombic forms, struct. and thermal stability, X-ray diffr. and IR spectra obs. *(French)* 2−60939
fused, retrograde stability of periclase rel. to cracking 2−83103
Mg production process economics projection and impacts on cost of magnesium hydrides 2−73158
mullite form. kinetics, grain comp. and component activity effects 2−77271
olivine track detectors, low energy ion implantation, chem. reactivity 2−70089
Shirasu volcanic glass-CaO-MgO system, glass form. composition range, props. *(Japanese)* 2−88049
sulphides, IR matrix isolation spectra 2−75284
tetraphenylporphyrin, fluoresc. excitation in supersonic expansion 2−90610
Al-Mg-O-N, phase equilib. 2−88072
$Al_2Mg(OH)_2(Si_4O_{10})(Ca,Na)_x.4H_2O$, bentonite, texture changes during vibr. grinding and after ageing *(Czech)* 2−88101
Al_2O_3, MgO doped, grain boundary meas. technique 2−109812
Al_2O_3-MgO, adsorpt. of acetone, IR obs., rel. to acid-base props. 2−96574
Al_2O_3-ZrO_2-MgO, MgO and ZrO_2 effects on microstruct. and mech. props. 2−88038
Au-MgO cermet thin films, cosputtered, reflectivity meas., percolation threshold and grain size effects 2−82942
Au-MgO granular films, optical props., topological considerations 2−62002
$BaGeO_3$-Al_2O_3-CaF_2-MgF_2:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
$CaMgSi_2O_6$-$CaTiAl_2O_6$, diopside, crystal struct., Ti^{4+} role 2−86655
$Ca_2NaMg_2V_3O_{12}$, tetrahedral sites and elec. field gradient distrib., ^{51}V NMR study 2−110665
CaO-MgO-Ca_2SiO_4=$Ca_4Al_2Fe_2O_{10}$ magnesia-dolomite refractories, thermal equilib. 2−62111
CaO-MgO-SiO_2(-TiO_2) diopside glasses, nucleation kinetics, small-angle X-ray scatt. study 2−115141
CaO-MgO-V_2O_5, phase diagram 2−111157
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2−87973
$Ce_2Mg_3(NO_3)_{12}.24H_2O$, influence of environment on dynamic susceptibility in strong mag. field 2−56822
$(Cr,Fe,Al,Mg)_3O_4$ spinel, cation atom distrib., channelling effect in electron-induced X-ray emission 2−98018
Cr-MgO condensates, second phase particles distrib. *(Russian)* 2−67314
$CsMg_{1-x}Co_xCl_3$, disordered ID antiferromag., Raman scatt. from Co^{2+} excitations 2−67039
$CsMgI_3$:Sc(In)(Ce)(Gd)(Ho)(Er)(Tm) thermoluminescence and energy storage 2−99198
$Cu_xMg_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
CuO-NiO-MgO system, X-ray powder diffr. study at 1000°C 2−86636
$(Fe,Mg)Cl_2$, anhydrous single crysts., in-situ purification and Bridgman growth 2−111060
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
HfO_2-MgO, phase equilibria, 1670 to 3070K 2−72682
HfO_2-MgO system, struct. and phase props. *(Ukrainian)* 2−57336
HfO_2-MgO-Nb_2O_5(Ta_2O_5), ordered fluorite related phase 2−111159
K(Mg, Fe)$_3AlSi_3O_{10}F_2$, fluorphlogopite, cryst. struct. anal. 2−98041
$KMgF_3$, electronic energy band struct. 2−82225
$KMgF_3$:Tm^{2+}, paramagnetic centres, ENDOR, transferred hyperfine interaction parameters 2−61789
$K_{0.91}Na_{0.03}(Mg_{1.91}Fe_{0.05}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
β''-$K_2O.Mg0.5Al_2O_3$, ionic cond. and IR absorption spectra 2−92260

magnesium compounds continued
LiF-MgF_2, Suzuki phase, nucleation characts. 2−86831
$LiMgPO_4$, olivine type cpd. cryst. struct. and cryst. chemistry 2−115189
$(Mg,Fe)_2Al_4Si_5O_{18}$ in H_2O, cordierite, high press. phase transition 2−92172
$(Mg_x, Fe_{1-x})_yO$, magnesiowustite, polycryst., elastic props., press. and temp. depend. 2−58038
$(Mg,Fe)SiO_4$ olivines, single cryst. spectra, 5000-40000 cm^{-1}, up to 200 kbar 2−93214
$(Mg,Fe)_2SiO_4$, atomic C depth profiling meas. 2−99721
Mg-Si O-N glass, dissolution kinetics of β-Si_3N_4 2−88071
$MgAlF_5$, struct. and pot. energy surfaces, ab initio MO studies 2−54757
$MgAl_2O_4$, ceramic, neutron irrad. damage 2−115301
$MgAl_2O_4$, fission neutron irradiation, structural props. study 2−80187
$MgAl_2O_4$, fusion materials, radiation damage parameters, neutron and x-ray interactions 2−74898
$MgAl_2O_4$ natural spinel, charact. energy losses from channelled 100 keV electrons 2−81838
$MgAl_2O_4$, spinel, γ- and X-irrad., defect trap levels TSC and thermoluminesc. study 2−56608
$MgAl_2O_4$, work softening, plastic deformation, slip and dislocation climb 2−86678
$Mg_2Al_4Si_5O_{18}$:TiO_2, changes in spectral props. at initial stages of crystn. 2−72529
MgB_4O_7, thermoluminesc. props., sensitivity and fading characts. 2−61985
MgB_4O_7:Dy, thermoluminescent props., dosimetric props. study 2−78457
$MgCaSiO_4$, vibr., isotope shift, IR and Raman study 2−77507
$MgCl_2$, anhydrous single crysts., in-situ purification and Bridgman growth 2−111060
$MgCl_2$ aq. solns., densities and apparent molar vols. 2−98176
$MgCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2−60865
$MgCl_2$:Fe^{2+}, Co^{2+}, optical absorpt. spectra 2−93234
$MgCl_2$:Fe^{2+}(Co^{2+}), optical absorpt. spectra 2−93234
$MgCl_2$-LiCl(CsCl) binary melts, surface tension *(Japanese)* 2−76782
$MgCl_2.6H_2O$, Cl K-absorpt. spectra, absorpt. fine struct. 2−105000
MgF, potential energy curves and dissociation energy 2−70163
MgF_2 coatings, damage threshold, light wave interf. and film microstruct. influence 2−71500
MgF_2 films, vacuum deposited, Young's modulus, internal stress and internal friction meas. 2−82185
MgF_2, IR wavelength modulation spectroscopy of laser window materials 2−60191
MgF_2, optical films, mechanical props. 2−82191
MgF_2, phase transitions in shock-compressed samples, X-ray study 2−76667
MgF_2 tetragonal cryst., minimisation procedure for lattice energies calc. 2−60917
MgF_2, thermal neutron irradiated, point defects study 2−65985
MgF_2 UV laser window material, low-level losses 2−97161
MgF_2:CaF_2, recrystallisation pressing, struct. and strength 2−99524
MgF_2:Co(Ni) lasers, liq. N_2 cooled, pulse-pumped operation 2−102800
MgF_2:Er^{3+}(Ni^{2+}), optical props. of impurity ions 2−93276
MgF_2/Al beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
MgF_2/ZnS reflective coatings, loss factors, surface scatt., volume scatt. and absorptance *(Chinese)* 2−55061
MgF_2-ZnS quarterwave layers forming dielec. laser mirrors, temp. depend. of phase anisotropy 2−97145
$(Mg_{5.58}Fe_{0.08}^{2+}Fe_{0.2}^{3+}Al_{0.14})(Si_{3.66}Al_{0.34})O_{10}(OH)_8$, lizardite, cryst. struct., polymorphism 2−98008
$MgFe_2O_4$, low temp. formation, characterisation 2−62093
$MgFe_2O_4$-$CoFe_2O_4$ mixed ferrite, initial susceptibility, coercive force, mag. domain behaviour 2−116030
$Mg_{0.6}Fe_{0.4}O$, eqn. of state at Earth mantle press. 2−78645
$(Mg_{1-x}Fe_x)_2SiO_4$, single-crystal olivine, floating-zone growth 2−77727
Mg_2GeO_4, olivine-spinel phase transform,. rel. to martensitic transform. of olivine in Earth's mantle 2−100373
Mg_2GeO_4 spinel, deformed, cation stacking faults, TEM study 2−76463
MgH ($X^2\Sigma^+$), spin splitting consts., ab initio calcs. 2−75167
MgH, $A\Pi^2$-$X\Sigma^2$ system oscillator strength comparison with solar photosphere 2−70186
$MgHPO_4.3H_2O$, newberyite, crystn. and effect of pH and conc. 2−62055
MgHe system, ab initio CI pot. energy curves 2−80765
$MgI_2.6H_2O$, cryst. struct., neutron diffr. data 2−55896
$MgIn_2S_4$, partially-inverse spinel, cryst. struct. and far IR absorpt. meas. 2−91906
$Mg_2KH(AsO_4)_2.15H_2O$, X-ray cryst. struct. determ. 2−55908
$Mg_2KH(PO_4)_2.15H_2O$, X-ray cryst. struct. determ. 2−55908
MgMn ferrite magnetization, electron beam interaction 2−66868
$Mg_{1-x}Mn_xFe_2O_4$ ferrites, elect. resistivity and cation distrib. 2−110343
$Mg_xMn_{2.9}Fe_{0.1}O_4$, Mossbauer study 2−104782
$Mg_{1-x}Mn_xFe_2O$$4 ferrite, abrupt behaviour of dielec. const. and loss tangent 2−66970
$MgMoO_4$, cryst. struct., modified closest packing with two types of tetrahedra 2−103725
$Mg(NCS)_2.4H_2O$; cryst. struct. determ. 2−76408
$MgNH_4PO_4.6H_2O$, struvite, crystn. and effect of pH and conc. 2−62055
$Mg(NH_4)_2(SO_4)_2.6H_2O$:CrO_4^{2-}, irradiated, EPR studies 2−61753
$Mg(NO_3)_2$, dry impregnation with MoO on Al_2O_3, cryst. struct. 2−109761
$MgNaIO_4.7H_2O$, cryst. struct. determ. 2−55907
$MgNb_2O_6$ single crystals, flux growth, X-ray diffr. obs. of columbite struct. 2−99313
MgO, 2−110930
MgO (001), chemisorption of H_2 and CO, ab initio SCF calc. 2−104158
MgO (111) polar surface, electronic struct. 2−110416
MgO, addition to Al_2O_3, influence on polymorphic transitions 2−111169
MgO, additively coloured, photoluminescence, mag. circular polarisation and ODMR study 2−61948
MgO, adsorpt. of metal carbonyls, decarbonylation, spectrosc. obs. 2−64958
MgO and Cr doped MgO, surface diffusion 2−76785
MgO, anelastic deform. effect on high temp. stress relaxation 2−67410
MgO, atomic C depth profiling meas. 2−99721
MgO, cathodoluminesc., electron beam effect meas. 2−110951
MgO, cathodoluminesc. emission in SEM 2−110954
MgO, cathodoluminescence at hardness indents, correlation with dislocation struct. 2−72563
MgO, ceramic, neutron irrad. damage 2−115301
magnesium compounds continued
MgO crystal, cathodolum., from dislocations, purity influence 2−77599
MgO crystal, elec. breakdown at high temp. 2−77450
MgO crystal predeformed at high temp., high voltage electron microscopy straining expt. 2−65998
MgO detector based on controlled secondary electron emission 2−108270
MgO, electron beam evaporated film, optical absorpt., RHEED and cathodoluminesc. study 2−93306
MgO, extrinsic secondary grain boundary dislocations 2−91980
MgO, far-IR absorption, 300-1500K, multiphonon processes 2−93174
MgO film, IR spectra study of optical vibr. modes 2−67133
MgO films, AC elec. breakdown meas. 2−72421
MgO films, electron beam evaporated, RHEED, optical absorpt. and cathodoluminesc. 2−110209
MgO, fission neutron irradiation, structural props. study 2−80187
MgO, Franck-Condon factors, rot. depend. 2−59862
MgO, high-purity fusions, sintering, effect of CeO_2, ZrO_2 and Y_2O_3 additives 2−57324
MgO, IR wavelength modulation spectroscopy of laser window materials 2−60191
MgO, indented, cathodoluminesc. in SEM, effect of electron beam, expt. study 2−87874
MgO insulated nuclear instrument cable, gamma radiation and temp. effects 2−69765
MgO, intrinsic secondary grain boundary screw dislocations, TEM study 2−91979
MgO, localisation effects in electron energy loss signals, characteristic loss rocking curves 2−72589
MgO, magnesiowustite, magnetisation changes due to stress waves 2−87544
MgO_2 mechanically treated powder, struct. under impact, X-ray and Mn^{2+} ESR study 2−93472
MgO, morphology of dislocation etch pits on cube faces in acids 2−103764
MgO, neutron and γ-ray effects on dissolution and corrosion 2−76688
MgO, Ni doped single crystal, thermal diffusivity/cond. 2−110056
MgO particles, effects of addition on sintering of Ag-Ni 2−88027
MgO, periclase, shock-loaded, struct. deform. 2−76586
MgO, plastic deform., cathodoluminescence and photoluminesc. of slip bands, SEM study 2−67125
MgO powder, spectra due to O^{2-} transition, appl. to interstellar 220 nm feature 2−84302
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
MgO, shock loaded ceramic, glass transition 2−71647
MgO single cryst., cathodlum. from cutting damage 2−93286
MgO, single cryst., wear props., roles of brittle microfracture and plastic flow 2−62235
MgO, single crystal, electron energy loss spectroscopy, direction depend. meas. 2−93340
MgO, small crystal, surface energy and struct., STEM study 2−56327
MgO smoke cryst. surfaces, energy losses of fast electrons 2−62028
MgO smoke crystal surfaces, electron microdiffr. studies of potential field 2−71296
MgO smoke particles, surface plasmons, low electron energy loss imaging 2−67168
MgO surface, image force for fast electrons 2−111000
MgO surface, UV irrad., thermal desorpt. of isotopically exchanged O_2 2−66351
MgO surface (001), Au atom sticking coeff. meas. with torsion microbalance 2−66374
MgO, surface crack obs. with scanning acoustic microscope 2−57552
MgO, surface struct., ionic bonding, He diffr., Auger and LEED study 2−86996
MgO, thermochemically reduced, phosphoresc., role of H ions 2−72546
MgO, thermoluminescent mechanisms involving transition metal ion impurities and V-type centres under UV irrad. 2−116279
MgO:Au dislocation loops, decoration obs. 2−71452
MgO:Cr^{3+}, nonradiative transitions and energy levels 2−72548
MgO:Fe^{3+}, quenched crystals, kinetic reactions 2−57380
MgO:Fe(Mn), colour centres induced by neutron irrad. 2−98081
MgO:Li, struct. and electronic props. of minute Li aggregates *(French)* 2−61391
MgO:Li^+ crystal, dielec. behaviour 2−87661
MgO:Mn^{2+}, polycryst., EPR central transition lines, deformation broadening obs. *(Russian)* 2−116058
MgO:Ti(Gd), single cryst., dielec. props. 2−110741
MgO-Al_2O_3, transparent ceramic, coprecipitation followed by calcination 2−99379
MgO-Al_2O_3-Cr_2O_3, kinetics of soln. in oxide melts 2−88063
MgO-B_2O_3 glass, phase relations, NMR and X-ray diffr. study 2−98247
MgO-Cr_2O_3(Fe_xO_y)(Al_2O_3)-$CaO.SiO_2$, fused, retrograde stability of periclase rel. to cracking 2−83103
MgO-Fe_2O_3, magnesioferrite, magnetisation changes due to stress waves 2−87544
MgO-Fe_2O_3, solid-phase interaction, ESR investig. 2−87579
MgO-FeO-$Fe_{2/3}O$, cation interdiffusivity in magnesiowustite solid soln., O_2 press. depend. 2−76753
MgO-TiO_2 mixtures, reaction sintering 2−99376
MgO-V_2O_3-VO_2 sytem, phase diagram *(French)* 2−72674
MgO_2 single crystals, polishing with vibr. sliding in water, characts. 2−88250
$Mg(OH)_2$ periodic crystallisation from gel media, spacing coeff., flocculation value 2−87961
$Mg(OH)_2$, periodic crystallisation in agar-agar gel 2−116350
MgO(001), surface rumpling from RHEED Kikuchi pattern changes 2−86984
MgO.3.5Al_2O_3 single crystal, non-stoichiometric spinel, precipitation 2−88085
MgO.Al_2O_3, high-purity fusions, sintering, effect of Y_2O_3 additive 2−57324
MgO.nAl_2O_3 spinels, climb dissoc. in {113} planes 2−91976
MgO.nAl_2O_3 spinels, mech. props., comp. influence origin 2−92080
Mg_2PN_3 wurtzite type cryst., evidence for PN_4 tetrahedra *(French)* 2−65967
$Mg_2P_2O_7.2H_2O$, synthetic, X-ray cryst. struct. determ. 2−55900
$Mg(Pt(Cn)_4).yH_2O$, luminesc., mag. field effects 2−82899
$MgSO_4$ aq. solns., densities and apparent molar vols. 2−98176
$MgSO_4$, decomp., kinetics, solar energy storage *(French)* 2−93948
$MgS_2O_3.6H_2O$, cryst. struct. determ. 2−91893
$MgSO_4.7H_2O$, contact nucleation at low impact energy levels 2−76334
Mg_2Si(Ge), electron-phonon interaction, phonon cond. 2−66152

magnesium compounds continued
$MgSiO_3$, single-crystal X-ray diffr. study 2−115184
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
$MgSiO_3$-$MnSiO_3$, metasilicate glass, crystn. high-resolution EM 2−97936
Mg_2SiO_4, forsterite, deformed at high temp., dislocation study *(French)* 2−60995
Mg_2SiO_4, forsterite, defect struct., graphical representation 2−81780
Mg_2SiO_4, forsterite, single cryst., Brillouin scatt. meas. up to 40 kbar 2−57115
Mg_2SiO_4, olivines, cryst. struct., interatomic pot. function method 2−97979
Mg_2SiO_4 single crystal, chemical and thermal etching 2−67598
Mg_2SiO_4, vibr., isotope shift, IR and Raman study 2−77507
Mg_2SiO_4:Tb, phosphor, thermolum., carrier capture during irrad. 2−104973
$Mg_2Si_2O_6$, cryst. struct., net atomic charges and electron density distrib., X-ray diffr. study 2−91935
$Mg_3Si_2O_5(OH)_4$, electronic absorpt. spectra, crystal field parameters 2−104907
$Mg^{[2]}TeO_4$, Mossbauer spectroscopy 2−64201
$Mg_{1+x}Ti_{0.x}FeO_4$ spinel, mol. field coeffs. and exchange interactions 2−66801
$MgTiO_3$ ceramics, dielec. props. deviation 2−87647
$MgTiO_3$:Fe^{3+}, Mossbauer and EPR studies 2−104773
$MgUO_2(SO_4)_2.11H_2O$, X-ray diffr., crystal struct. 2−76394
$MgWO_4$, solubility in metal chloride melts, crystallisation 2−86874
$MgWO_4$:Ni^{II}, electronic ligand-field spectrum meas. 2−72526
MgX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
$MgY_2Mg_2Ge_3O_{12}$:Cr^{3+}, broad-band emission 2−104914
$Mg_xZn_{1-x}Fe_2O_4$, Mossbauer spectra, isomer shifts, quadrupole coupling consts. and effective mag. fields calc. 2−82755
$(Mn_{1-x}Mg_x)_3(PO_4)_2$, cryst. struct. and homogeneity ranges, X-ray diffr. study 2−115195
Na_2MgAlF_7, weberite, space group, X-ray diffr. study 2−103676
$Na_x(Ti,Mg)_2(O,F)_4$, cryst. struct., cond. channels 2−86652
$Na_x(Ti,Mg)_2(O,F)_4$, solid electrolyte, Na cation distrib. *(Russian)* 2−56249
$Ni_xMg_{1-x}Fe_2O_4$, FMR and magnetisation meas. 2−82723
$Ni_xMg_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib. of Mg^{2+} ions, magnetisation meas. 2−60938
P_2O_5-SnO_2-MgO, Mossbauer and IR spectra quadrupole splitting 2−104767
$PbMg_{0.33}Nb_{0.66}O_3$, ferroelec., electro-optic and strain-optic effects 2−93159
$PbMg_{1/3}Nb_{2/3}O_3$, pyrocurrents, dielectric polarisation *(Russian)* 2−61834
$PbMg_{1/3}Nb_{2/3}O_3$, reflectivity, dielectric const., electrooptic effect., vacuum UV reflection spectra obs. 2−61924
$Pb(Mg_{1/3}Nb_{2/3})O_3$ type materials, electrostrictive effect 2−87683
Sb_2O_3/MgF_2 broad band semitransparent dielec. reflectors, use of transient assemblies 2−109004
Si_3N_4, MgO-fluxed, soln.-precipitation creep 2−99492
Si_3N_4-MgO (1 and 5 wt.%), hot pressed, passive and active oxidation 2−111340
Si_3N_4-SiO_2-MgO-Mg_3N_4 rel. to integranular phase of hot pressed Si_3N_4 2−111158
SiO_2-Al_2O_3-CaO MgO:Ce, U glass-forming melts, U chem., redox interactions 2−93771
SiO_2-Al_2O_3-Fe_2O_3-CaO-MgO-Na_2O basalt glass, surface conc. profile, AES study 2−93333
SiO_2-Al_2O_3-MgO gel glasses, prep. and crystn. characts. 2−76319
SiO_2-$MgAl_2O_4$ glasses, three-dimens. network struct. 2−115142
SiO_2-MgO-Si_3N_4, phase diagram, computer-based calc. 2−62101
SiO_2-Na_2O-CaO-MgO-R_2O_3 (R=rare earth) glass struct., diffr. methods anal. 2−55859
UCl_4-$MgCl_2$ melt, density and surface tension meas. 2−113676
V:MgF_2, cryst. struct. computer simulation 2−55924
ZnS/MgF_2 multilayer optical filter for light sources 2−114394
ZnS-MgF_2 dielectric narrow-band interf. filter stabilisation 2−70661
ZrO_2-MgO ceramics, rare earth oxide stabilised, elec. conducting, for MHD generator electrodes 2−88043
ZrO_2-MgO-Nb_2O_5(Ta_2O_5), ordered fluorite related phase 2−111159

magnetic aftereffect
ferrites, disaccommodation of complex mag. susceptibility in AC mag. field, domain wall theory 2−87552
$CdCr_2Se_4$, effect of light on mag. after effects 2−87553
Co alloy, FCC, diffusion of H,D, and T, mag. aftereffect meas. 2−82027
Co-H(D), based alloy, mag. relax., isotope effects and diffusion 2−77382
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
Fe, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
Fe-Al(V)(Si), dilute alloy, electron irrad., impurity-interstitial trapping sites, mag. aftereffect spectra study 2−56895
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Si-Al, electric steel sheets, mag. aftereffects meas. 2−82670
Fe-Si; mobility transfer loci owing to orientation aftereffect for steadily moving 180° Bloch wall 2−87528
Fe-Ti, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous zero magnetostriction alloy, mag. aftereffect 2−72290
$Fe_{80}M_3B_{17}$ metallic glasses, (M=transition metal), mag. after-effect meas. 2−87549
$Fe_{80-x}Ni_xP_{20-y}B_y$, amorphous ferromag. alloys, mag. aftereffect spectra 2−56894
Fe_3O_4, magnetite, single- and poly-crystalline, mag. after effects, relax. spectra 2−77332
FeSi, dilute, mag. relax. on electron irrad. 2−61743
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
$Mn_4Al_{43}C$, magnetic viscosity 2−72291
Ni alloys, dil., diffusion of H,D, and T, mag. aftereffect meas. 2−82027
Ni-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
Pd-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
YIG:Fe^{2+}, irreversible photomag. effect 2−98918
$Y_{2.6}Sm_{0.4}Ga_{1.1}Fe_{3.9}O_{12}$ epitaxial bubble garnet film, mag. props. 2−87561

magnetic amplifiers
fluxgate detectors with push-pull mag. amplifiers, static mag. field appls. *(German)* 2−89751

magnetic anisotropy
see also induced anisotropy (magnetic)
actnide monopnictides and monochalcogenides, Coqblin-Schneffer interaction and mag. orderings and excitations theory 2−72184
Alnico magnets, anisotropic, model for field computation 2−82638
amorphous, ribbons, mag. anisotropy distrib., internal stress fields *(Chinese)* 2−110602
amorphous alloys, mag. domain struct. under elastic stresses 2−82634
amorphous ferromagnet, magnetostriction, phenomenological theory 2−72324
anisotropic Heisenberg spin glass, Parisi solutions 2−98902
antiferromagnet, monoclinic, easy magnetisation axis direction, temp. depend. *(Russian)* 2−115997
antiferromagnets, rhombohedral, with weak spin anisotropy, renormalised field theory 2−104626
antiferromagnets, weakly anisotropic, renormalised field theory for Gaussian random fields 2−104625
aromatic compounds, condensed, cryst. and mol. diamag. susceptibility and anisotropy calc. *(French)* 2−96770
basalt, mag. anisotropy and rel. to other mag. characts. 2−62952
bubble films, AC susceptibility technique for characterisation 2−72314
bubble material parameters, effects of finite anisotropy parameter in determ. 2−110613
cerium monopnictides and monochalcogenides, Coqblin-Schneffer interaction and mag. orderings and excitations theory 2−72184
classical ferromag. spin systems, contour probability estimation 2−77249
coercive force due to domain wall pinning 2−72281
p,p'-di-n-heptylazoxybenzene, diamag. susceptibility, ^1H NMR, chem. shift 2−98979
ferrimagnetic materials, exchange striction and crystal lattice in domains and domain walls 2−72186
ferrites, magnetoelastic hysteresis 2−87566
ferrites, polycrystn., ferromag. resonance line dispersion 2−116069
ferromagnet, monoclinic, easy magnetisation axis direction, temp. depend. *(Russian)* 2−115997
ferromagnet, single ion anisotropy, exchange interactions, order parameter, free energy, quantum theory 2−72194
ferromagnet, uniaxial with dislocations, magnetisation distribution, singular lines, domain formation *(Russian)* 2−82664
ferromagnetic chain, soliton dynamics 2−77296
ferromagnetic resonance study of anisotropy of single domain particles 2−56946
ferromagnets, macroscopic behaviour with random and statistically vanishing anisotropy 2−72193
ferromagnets, mag. anisotropy, correlation with inhomogeneity, spin freezing effects 2−115998
film, twisted domain walls, micromag. theory 2−104671
film, ultrathin, FMR and static magnetisation orientations 2−104710
garnet epitaxial films, bubble characterisation for process control 2−72313
garnet film, magnetic profile, FMR determ. 2−72355
garnet films, with orthorhombic anisotropy, fast 1- and 2-μm bubbles 2−77342
guanidinium V(III) sulphate hexahydrate, mag. props. 2−92873
Heisenberg amorphous ferromagnet with random anisotropy, mag. props. 2−61685
Heisenberg ferromagnet, dil. anisotropic, correl. lengths and transition temp., renormalisation group scaling methods 2−66863
Heisenberg ferromagnet, simple cubic, with uniaxial and Ising anisotropies, two-magnon bound states and resons. 2−56841
Heisenberg ferromagnet, with single ion planar anisotropy, Dyson Maleev transform. 2−66743
Heisenberg ferromagnetic chain, with easy-plane anisotropy, magnons, solitons and crit. field 2−110571
Heisenberg magnet, anisotropic, cluster variational calc. 2−92954
Heisenberg magnet, S=1 two-sublattice uniaxial, spin wave interactions 2−110572
Heisenberg spin glasses, anisotropy-triad dynamics 2−56883
Heisenberg-Ising ferromagnet, with uniaxial anisotropy, Curie temp. calcs. 2−66806
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
hexagonal antiferromagnet, mag. ordering 2−110567
irrelevant operators and momentum-shell recursion relations in $d=2+\epsilon$ dimensions 2−98891
Ising ferromagnets with random anisotropy 2−61684
Ising spin glass, random anisotropy study 2−72228
Ising-Heisenberg chain at low temps., mag. excitations 2−115986
liquid cryst. mixtures, diamagnetic susceptibility anisotropies, ^1H NMR study 2−65850
metal, amorphous, magnetomechanical props., model 2−77354
metals, surface magnetism, polarised electrons 2−66890
metamagnets, uniaxial, ladder approx. 2−66807
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
multicritical points in a system with random single-ion anisotropy 2−104622
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
naphthacene, diamagnetic anisotropies, crystalline and molecular *(French)* 2−61690
one-dimensional Heisenberg ferromagnets with single site anisotropy, and nonlinear Schrodinger eqns., gauge equivalence 2−110560
Permalloy film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Permalloy-FeMn system, uniaxial anisotropy temp. depend. 2−72192
polycrystalline materials, meas. by pulsed mag. fields 2−112934
polycrystalline samples in strong pulsed mag. field, meas. technique for anisotropy *(Polish)* 2−107351
polymers, electron delocalisation, diamag. anisotropy study 2−98838
rare earth alloy, $R_2\{Co_{1-x}Fe_x\}_{17}$, magnetic anisotropy 2−72191
rare earth alloys, RCo_2, C15 type, ^{59}Co NMR study, hyperfine field anisotropy 2−66934
rare earth alloys $R_2(Co_{1-x}Fe_x)_7$, magnetic anisotropy phase diagram 2−98883
rare earth metals, spin wave spectrum, effects of ribbon bridge on fermi surface *(Russian)* 2−82584
review of magnetic order in solids 2−110586

magnetic anisotropy continued
sodium magnesium chromium(III) oxalate, single cryst. mag. props. 2−82589
spin 1 ferromag. chains, spin wave excitation spectrum, variational approx. 2−104601
spin glass, Heisenberg, Onsager anisotropies 2−104650
square lattice anisotropic Potts ferromag., renormalisation group anal. 2−110557
steel, mild, mech. stress meas. by means of mag. field strength rotation 2−62340
steel, transformer, method for determ. energy of mag. anisotropy induced by coatings 2−72188
steel wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
symmetry in case of predominant exchange interaction *(Russian)* 2−104608
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
ultrathin crystal, ferromag. resonance and magnetization 2−66921
uniaxial Heisenberg ferromagnet, exact low temp. renormalisation and uniform mode damping 2−56814
vanishing anisotropy systems, macroscopic theory 2−82592
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Au-Fe, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
$BaCo_2Ti_2Fe_8O_{19}$, magnetocryst. anisotropy temp. depend., ferromag. reson. and magnetisation study 2−56849
$BaFe_{12}O_{19}$:Gd(Dy)(Ho)(Er)(Yb), dopant effects on mag. props. 2−92968
BiYIG, film, bubbles, mag. props. 2−72315
$(BiYLu)_3Fe_5O_{12}$ bubble film, mag. props., FMR study 2−72317
CC Ni-Mn, spin glass alloy, effective anisotropy field, EPR study 2−72333
CO, magnetisation direction, temp. depend., 1 MV Lorentz electron microscopy study 2−77286
$CdCr_2S_4$ crystal, ferromag. resonance, nonstoichiometry effect 2−104709
CdMn, hexagonal, spin glass behaviour 2−66861
$CeAl_3$, low temperature sp. ht., thermal expansion and Gruneisen parameter 2−66246
CeBi, p-f valence mixing, anomalous mag. and transport props. 2−56514
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
$Ce_2Co_{17-x}T_x$ (T=Ti, V, Cr, Mn, Fe, Cu, Zr, Hf), mag. and crystallographic props. 2−72200
$Ce_2Co_{17-x}Zr_x$, struct. and mag. props. 2−61741
CeSb, p-f valence mixing, anomalous mag. and transport props. 2−56514
Co textured films, NMR and mag. meas. *(Russian)* 2−98994
Co-Cr film, RF sputtered, HCP phase and perpendicular mag. anisotropy, N_2 induced 2−56394
Co-Fe, mag. props., review 2−82652
Co-P, amorphous ferromagnet, ferromagnetic saturation *(Russian)* 2−87491
Co-P amorphous alloys, annealing effect on anisotropy 2−88229
CoB amorphous alloys, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
$CoCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
CoP amorphous alloy, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
CoS_2 single cryst., ferromagnetic and paramagnetic resonance 2−116066
$CoSiF_6.6H_2O$, uniaxial press. effect on struct. phase transition, mag. anisotropy study 2−66196
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874
Cu complex, copper chloride dimethyl sulphoxide, pseudo one-dimens. system, antiferromag. reson. study 2−77381
Cu complex, $CuCl_2$.TMSO, Heisenberg 1-D ferromag., single cryst. mag. studies 2−66802
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
Cu-Mn-Al, exchange anisotropy, hysteresis loops and coercive force study 2−66866
Cu-Mn(-Au) spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Cu-Ni thin film, static and dynamic mag. studies 2−72303
Cu-Ni(Cu-Ni-Fe), mictomagnetic aged alloy, mag. susceptibility and elec. resist. meas. *(Russian)* 2−98885
Dy, critical field anomalies and anisotropy 2−98878
Dy-Fe intermetallic cpds., mag. and cryst. props., X-ray and Mossbauer study 2−92877
DyAl, mag. moments and anisotropy, neutron diffr. and cryst. field calc. 2−115976
$Dy_{0.52}Cu_6$$.d_{48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
$Dy(Fe_xAl_{1-x})_2$ Laves phases, mag. and cryst. props., X-ray and Mossbauer study 2−92899
$ErFeO_3$, spin reorientation, Mossbauer study 2−82756
Fe film, ferromag., Brillouin light scatt. by spin waves 2−66872
Fe garnet films, interrelation of exchange energy, anisotropy and the Neel temp. 2−82676
Fe MBE film, {110} orientation, on GaAs, mag. props. 2−66874
Fe, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Fe powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
Fe-B-Si-C(Co), Metglas 2605, magnetostriction and mag. anisotropy, meas. using magnetisation loops under stress 2−77352
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-garnet films, hard-stripe domains, investig. 2−104673
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
Fe-N thin films, RF sputtered, static mag. and Mossbauer study 2−82641
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Ni films, periodic domain walls interactions, electron microscopy study *(Russian)* 2−87560
Fe-Ni Invar alloys, magnetocrystalline anisotropy, torque meas. 2−110576
Fe-Pt Invar alloys, disordered, mag. props. suggesting premartensitic transform. 2−87490
magnetic anisotropy continued
Fe-Si, electric steel sheets, fully processed mag. anisotropy, cutting strains effect 2−82590
Fe-Si, electric steel sheets, semi-processed, mag. anisotropy, cutting strains effect 2−82591
Fe-Si, electrotechnical steel type 2011, mag. induction anisotropy determ. 2−92898
$Fe_{80}B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$FeCl_2$, ladder approximation for uniaxial metamagnets 2−66807
$(Fe_{1-x}Co_x)_7Se_8$, mag. easy-axis transition, magnetisation and mag. torque study 2−66810
$Fe(HCOO)_2.2H_2O$, paramag. susceptibility anal. *(Japanese)* 2−92862
$Fe_xMn_{1-x}F_2$, random anisotropic antiferromag., crit. behaviour, mag. birefringence study 2−77295
$Fe_{78}Mo_2B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$(Fe_{1-x}Mo_x)_{75}P_{16}B_6Al_3$, amorphous, anomalous crit. behaviour, random anisotropy effects 2−72232
$Fe_{40}Ni_{40}B_{20}$, surface conditions influence in mag. props. 2−82593
$(Fe_xNi_{1-x})_{80}B_{20}$, glass, mag. props. and crystn., Mossbauer study 2−104754
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$Fe_{40}Ni_{40}P_{14}B_6$, Metglasses, thermomagnetic treatments 2−88110
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
Fe_xSi_{1-x} amorphous thin film, mag. anisotropy, Mossbauer and ESR study 2−93087
Gd-Co, amorphous alloy films, changes in struct., mag. anisotropy and mag. domains *(Chinese)* 2−62238
Gd-Co amorphous films, perpendicular mag. anisotropy, effect of O_2 and N_2 addition 2−72299
Gd-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Gd-Tb, magnetocrystalline anisotropy meas. 2−98873
Gd-Y, critical field anomalies and anisotropy 2−98878
$Gd_{0.52}Ag_{0.48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
GdCo amorphous bubble film, FMR spectra, angular depend. 2−72354
GdCo amorphous RF sputtered films, substrate bias effect on film composition and mag. props. 2−56900
GdCo film, bias-sputtered, perpendicular anisotropy rel. to microstruct. 2−72297
$Gd_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
GdFe amorphous bubble film, FMR spectra, angular depend. 2−72354
$GdFeO_3$, magnetisation, H-T phase diagram, Fe^{3+}-Gd^{3+} exchange interactions 2−77284
$Gd_3Ga_5O_{12}$ films, mag. moment flip wave velocity *(Russian)* 2−56898
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
Ho-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Ho_2Co_{17}, magnetic anisotropy 2−72190
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
Ho_2Fe_{17}, magnetic anisotropy 2−72190
HoNi, magnetisation easy direction, temp. depend., mag. torque study 2−72166
$K_2CO_{1-x}Fe_xF_4$, magnons, Raman study 2−104596
K_2CuF_4, two-dimens. ferromag., mag. susceptibility, X-Y anisotropy in Heisenberg system 2−116011
Li ferrite, polycryst., anisotropy field determ. from FMR linewidths 2−66809
MgMn, hexagonal, spin glass behaviour 2−66861
Mn ferrite crystal, Young's modulus and internal stresses, mag. field effects 2−56909
MnBi thin films, polycryst., with perpendicular anisotropy, domain wall coercivity 2−72310
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
Mn$_3$Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study, anisotropy energy anal. 2−110568
$NdAlO_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdCl_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
NdF_3, paramag. susceptibility and optical spectra *(French)* 2−92856
NdOCl, paramag. susceptibility and optical spectra *(French)* 2−92856
$Nd_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
Ni film, single cryst., saturation magnetisation and anisotropy const., ferromag. reson., temp. depend. 2−56896
Ni film, with oblique mag. anisotropy, anomalous magnetisation loop 2−56897
Ni, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Ni, magnetoelastic coupling and magnetisation 2−116046
Ni powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
Ni, surface anisotropy irrelevance for mag. crit. behaviour near free surface 2−92923
Ni-Fe, mag. props., review 2−82652
Ni-Fe-Co magnetic alloys with stepwise hysteresis loop 2−61738
Ni_3Al, weak itinerant ferromag., magnetocrystalline anisotropy 2−92900
$NiBr_2$, helimagnetic state, inelastic neutron scatt. study of mag. excitations 2−98861
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
NiFe thin films with uniaxial anisotropy, head-on domain walls 2−72309
Pd-Co films, epitaxial, polycryst. and amorphous, transverse anisotropy meas. *(Russian)* 2−92975
Pd-Ni thin film, static and dynamic mag. studies 2−72303
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2−72284
$SmCo_5$ permanent magnet, coercivity 2−72284
Sm_2Co_{17}, mag. props., effect of heat treatment and addition of Fe, Mn, V and Sn *(German)* 2−67575
Sm_2Co_{17-x}, struct. and mag. props. 2−61741
$Sm_2(Co_{1-x}M_x)_{17}$, M=Mn, Zr, struct. and mag. props. 2−72280
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2−72171
$SnCo_5$, mag. anisotropy due to strong J-mixing 2−56847
Tb-Ho, critical field anomalies and anisotropy 2−98878
Tb_2Co_7, mag. anisotropy, cryst. symmetry effects 2−92901
$TbFe_2$ amorphous film, mag. and elec. props. *(Chinese)* 2−104750
$Tb_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
ThF_4−BaF_2−MnF_2, spin glasses, AC susceptibility, local anisotropy 2−92876
UBr_3, magnetic susceptibility meas. from room temp. to liq. He temp., antiferromag. interaction 2−92883
V^{3+}:guanidinium aluminium sulphate hexahydrate, mag. props. 2−92873

magnetic anisotropy continued
$(YBiCa)_3(FeSi)_5O_{12}$, bubble film, growth induced anisotropy, FMR 2−72316
$Y_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
YIG film, magnetization meas. from ferrimag. resonance and antiresonance 2−66875
YIG:Ca film, mag. dichroism study of Fe^{4+} centres 2−72461
YIG:Ca(Ge)(Si) garnets, rapid diffusion processes 2−71719
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334
YIG:Pr^{4+}, cryst. growth from melt, spontaneous magnetisation and mag. anisotropy meas. 2−77273
YIG:Si(Ge), magnetocrystalline anisotropy of Fe^{2+} at zero temp. 2−56848
$Y_{1-x}Pr_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706
$Y_{1-x}Sm_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706
$Y_{1-x}Sm_xFe_3O_3$, exchange interaction and mag. anisotropy 2−72187
$(YSmLuCa)_3(FeGe)_5O_{12}$ films, ion implanted, cubic anisotropy meas. 2−77340
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312
$ZnF_2-BaF_2-DyF_3(HoF_3)$, spin glasses, AC susceptibility, local anisotropy 2−92876
ZnMn, hexagonal, spin glass behaviour 2−66861

magnetic annealing
see also induced anisotropy (magnetic)
metallic glasses, directional ordering study 2−87555
CrCoFe permanent magnet, powder metallurgy processing 2−72652
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study 2−72376
$(Fe_{0.063}Co_{0.937})_{75}Si_{15}B_{10}$, amorphous, zero-magnetostriction induced mag. anisotropy, formation kinetics meas. 2−72189
$Fe_{80}M_3B_{17}$ amorphous alloy, (M=transition metal), mag. and stress annealing 2−87554
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
Ni, cold rolled, recovery and recrystallisation in magnetic fields 2−62142

magnetic bays *see geomagnetic variations*

magnetic bottles
see also magnetic mirrors
ion cyclotron resonance heating, confinement, fusion appl. 2−91633
H, spin-polarised, confinement, prod. and props. 2−71770

magnetic breakdown
crystal electrons in mag. field, second order perturbation for general periodic pots. 2−71852
Al, mag. breakdown from temp. variations of magnetoresistivity *(Russian)* 2−98624
Zn, magnetothermoelectric power and magnetic-breakthrough orbits, oscillations obs. *(Russian)* 2−98627

magnetic bubble devices
see also magnetic bubble memories
domain static and dynamic characteristics, materials and device applications 2−98923
garnet epitaxial bubble film, ion implantation strain annealing, propag. device stability 2−88100
garnet epitaxial films, bubble characterisation for process control 2−72313
Ni-Fe bubble overlay I-bars, magnetisation distrib., saturation 2−82663

magnetic bubble memories
electronic still-picture camera using magnetic bubble memory for digital recording 2−107431
thin films, amorphous and cryst., electron and spin density distrib., bubble memories appl. 2−82677
$Gd_3Ga_5O_{12}$, cryst. growth and prep. defects, bubble memory substrates appl. 2−93405
$(YSmLuCa)_3(GeFe)_5O_{12}$-metal interface, mag. parameters, bubble memories 2−72318

magnetic bubbles
see also magnetic bubble devices
bubble films, AC susceptibility technique for characterisation 2−72314
determination of magnetic bubble material length and magnetization from stripe domain measurement using Faraday rotation 2−92982
domain static and dynamic characteristics, materials and device applications 2−98923
domain wall dynamics, reson. RF absorpt. study 2−56901
easy magnetisation axis tilt effect on bubble parameters *(Russian)* 2−104669
finite anisotropy parameter, effects in determ. of material parameters 2−110613
garnet, single crystal, wall struct. of mag. bubbles *(Japanese)* 2−66881
garnet bubble film, effective domain wall mass meas., reson. techniques 2−77345
garnet epitaxial film, bubble domain radial expansion dynamics 2−77344
garnet epitaxial films, bubble characterisation for process control 2−72313
garnet film, ion implanted, charge wall dynamics, Faraday effect study 2−72311
garnet films, with orthorhombic anisotropy, fast 1- and 2-μm bubbles 2−77342
garnet ion implanted-bubble films, CEMS characterisation 2−72387
garnet magnetic bubble LPE films, mag. parameter drift control *(Chinese)* 2−110612
garnets, ion implantation border line, pot. barrier study 2−77339
interaction with Permalloy overlay, interaction energy determ. method 2−87564
rare earth magnetic garnet epitaxial bubble film, rare earth segregation 2−72633
resonant domain wall oscills., magnetooptic study 2−77341
surface effects on domain walls props. in bubble materials *(Russian)* 2−87559
thin film, bubble domain lattice, dynamic props., weak planar static mag. field effects *(Russian)* 2−98921
transport of magnetic bubbles by domain interaction, theory 2−98922
BiYIG, film, bubbles, mag. props. 2−72315

magnetic bubbles continued
$(BiYLu)_3Fe_5O_{12}$ bubble film, mag. props., FMR study 2−72317
$Eu_{0.53}Y_{2.45}Pb_{0.03}Fe_{3.85}Ga_{1.1}$ $4O_{12}$ epitaxial bubble film, dynamic props. 2−72319
Fe-garnet films, hard-stripe domains, investig. 2−104673
Gd-Co, amorphous alloy films, changes in struct., mag. anisotropy and mag. domains *(Chinese)* 2−62238
GdCo amorphous bubble film, FMR spectra, angular depend. 2−72354
GdFe amorphous bubble film, FMR spectra, angular depend. 2−72354
$(Y,Bi)_3(Fe,Ga)_5O_{12}$ film, two-layer, bistable mag. bubble domain wall dynamics 2−66880
$(Y,Sm,Lu,Ca)_3(Fe,Ge)_5O_{12}$ films, H^+ implanted, laser annealing 2−76492
$(YBiCa)_3(FeSi)_5O_{12}$, bubble film, growth induced anisotropy, FMR 2−72316
$(YGdTm)_3(FeGa)_5O_{12}$, bubble motion, vertical Bloch line annihilation during creep 2−77343
YIG epitaxial films, mag. bubble collapse field and FMR spectrum, ion implantation and annealing effects 2−104670
$(YSm)_3(FeGa)_5O_{12}$ epitaxial films, bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2−104669
$Y_{2.6}Sm_{0.4}Ga_{1.1}Fe_{3.9}O_{12}$ epitaxial bubble garnet film, mag. props. 2−87561
$(YSmLuCa)_3(GeFe)_5O_{12}$-metal interface, mag. parameters, bubble memories 2−72318
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312

magnetic circuits
No entries

magnetic circular dichroism
achiral chromophore, singlet-triplet transition, circular dichroism generation 2−75334
diamond, GR1 centre, vibronic model, rel. to MCD spectrum 2−67087
electric field effects on molecular spectra 2−80580
imidazoles, MCD modelling using π-electron approx. 2−90590
11-(methoxycarbonyl)-cyclohept[a]azulenylium tetrafluoroborate, MCD and IR absorpt. spectra 2−75337
1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-dianhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
naphthalic anhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
polyquinocycloalkanes, MCD spectra and electronic spectra 2−80582
symmetry restrictions for natural and induced circular dichroism and optical activity for all point groups 2−110809
tropylium cation, bridged, charge transfer transitions, MCD, UV obs., CNDO/S calcs. 2−85717
Al, matrix isolated, MCD study 2−80537
Al_2O_3-Ho_2O_3-SiO_2, amorphous, EPR, optically detected EPR, and MCD meas., spin glass props. 2−56924
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
CdI_2:Ni^{2+}(Co^{2+}), phonon side bands in absorpt. spectra 2−99161
CoS_2, pyrite-type ferromag., obs. of strong IR magneto-optical effect 2−116157
$Cs_2NpO_2Cl_4$, cryst., electronic struct., charge transfer transitions 2−82853
$CsNpO_2(NO_3)_3$, cryst., electronic struct., charge transfer transitions 2−82853
$EuCl_6^{3-}$, solns., symmetry, MCD and visible obs. 2−108600
Fe complex, $Fe(bipyridyl)_3^{2+}$ in host lattice, circular dichroism of CT bands 2−93162
Fe III complex, Fe III haeme-fluoride, absorpt. and MCD spectra 2−102492
Ga, matrix isolated, MCD study 2−80537
Gd-Co, RF-sputtered amorphous film, magneto-optical spectra *(Japanese)* 2−116158
KBr:Sn^{2+} cryst., mag. circular dichroism 2−93163
KCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
LiF:U, fluoresc. and MCD spectra 2−57160
NaF:U, fluoresc. and MCD spectra 2−57160
Ni, matrix isolated, MCD study 2−80537
$NpO_2Cl_4^{2-}$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
$NpO_2(NO_3)_3^-$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
Os complex, $Os(bipyridyl)_3^{2+}$ in host lattice, circular dichroism of CT bands 2−93162
PbI_2:Ni^{2+}, phonon side bands in absorpt. spectra 2−99161
Pd, matrix isolated, MCD study 2−80537
RbCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
$RbFeCl_{3-x}B_x$, magnetically disordered, optical, Raman and MCD study 2−77544
Ru complex, $Ru(bipyridyl)_3^{2+}$ in host lattice, circular dichroism of CT bands 2−93162
$Y_3Al_{5-x}Fe_xO_{12}$, mag. circular dichroism and IR absorption spectra of $^6A_1$-^4E transition 2−87749
YIG:Ca film, mag. dichroism study of Fe^{4+} centres 2−72461

magnetic cooling
NQR, pulse spectrometer, sensitivity improvement by mag. cooling 2−89762
nuclear refrigeration, limitations for ultralow temp. achievement 2−107331
refrigeration, review of developments from O_2 liquefaction to nucl. cooling 2−112910
temperature controller for adiabatic demagnetisation expts. 2−95337
very low temp. prod. based on adiabatic demagnetisation cooling *(Japanese)* 2−89728
$Ca(OH)_2$, ferromag. ordering of proton spins 2−110585
Cu powder nuclear demagnetisation for cooling of liq. ^3He and dil. ^3He-^4He solns., simulation 2−95386
$FeCO_3$, antiferromag. indirect detection of cooling by adiabatic magnetisation 2−98884
Gd compounds for mag. refrigeration, 2 to 20K 2−64050
$Gd_3Ga_5O_{12}$, mag. refrigeration material, heat capacity meas. 2−64050

magnetic core stores
low Curie temp. magnetic material characteristics for thermosensors *(Japanese)* 2−69209

magnetic cores
10 kHz flux-controlled magnetic core loss tester 2−74473
AC force transducer using amorphous ribbon cores 2−84613

magnetic cores continued
low Curie temp. magnetic material characteristics for thermosensors *(Japanese)* 2−69209
steel, high Si, ribbons, roller quenched, mag. props., pot. core material of elec. machines and power transformers 2−87522
steel, laminated sheet, mag. props. for normal fluxes 2−82673
Fe carbonyl based high-frequency magnetic powder materials 2−77331
Fe carbonyl powder based sintered magnetic material, polyorganosilazane resin bonded 2−67261
Fe powder, carbonyl, manufacturing conditions and influence on mag. permeability temp. coeff. 2−67242
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si (3 wt.%), grain orientation and core loss relationships in high permeability materials 2−83245

magnetic devices
see also ferrite devices; magnetic amplifiers; magnetic lenses; magnetic thin film devices; magnetostrictive devices
high-pressure magnetic fluid circulation pump 2−107339
NMR relaxation meters, impulse programming system *(Rumanian)* 2−64073
particle methods, comparison of AC and DC fields 2−88295

magnetic dipoles *see magnetic moments*

magnetic disaccomodation *see magnetic aftereffect*

magnetic disc and drum storage
electronic still-picture camera using CCD solid-state imager and mag. disc 2−107432
magnetometer for measuring mag. props. of mag. recording disc 2−107350

magnetic disc storage *see magnetic disc and drum storage*

magnetic domain walls
above-threshold domain boundary motion *(Russian)* 2−56886
amorphous alloys, mag. domain struct. under elastic stresses 2−82634
antiferromagnets, magnetoelastic oscills. of domain walls, magnetostrictive strains 2−72256
Barkhausen coercivity, domain wall proving numerical model 2−92964
Bloch wall motion nonlinearity, onset of chaotic regime and Barkhausen noise anal. 2−61733
bubble domains, reson. domain wall oscills., magnetooptic study 2−77341
bubble lattices, domain wall dynamics, reson. RF absorpt. study 2−56901
bubble materials, domain wall props., surface effects *(Russian)* 2−87559
coercive force due to domain wall pinning, theory 2−66864
coercive force due to domain wall pinning 2−72281
eddy current losses and domain wall bowing in infinite sheet of bar-like domains 2−82684
ferrimagnetic materials, exchange striction and crystal lattice in domains and domain walls 2−72186
ferrite spinel, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625
ferrites, disaccommodation of complex mag. susceptibility in AC mag. field, domain wall theory 2−87552
ferromagnet, anisotropic, 1-D magnetisation eqns., soliton solns. *(Russian)* 2−82665
ferromagnet, Barkhausen coercivity, domain wall motion 2−82639
ferromagnet, domain wall dynamic drag by dislocations, magnon interactions *(Russian)* 2−82637
ferromagnet, uniaxial, 2−66865
ferromagnetic, amplitude division electron interferometry studies 2−89874
ferromagnetic plate, domain wall dynamic retardation by dislocations 2−92979
ferromagnetic plate, magnetoelastic states near spin reorientation transition 2−82675
ferromagnetic slab, impure, single Bloch wall thermodynamics 2−82636
garnet, single crystal, wall struct. of mag. bubbles *(Japanese)* 2−66881
garnet bubble film, effective domain wall mass meas., reson. techniques 2−77345
garnet film, domain wall motion damping parameter, FMR study 2−77346
garnet film, ion implanted, charge wall dynamics, Faraday effect study 2−72311
kinetic Ising system, domain growth kinetics and fluctuations 2−104654
laminations, monocryst., eddy-current limited domain wall motion 2−82633
maximum velocity, effect of finite rise time of mag. field 2−104656
NMR freq. shift and echo of nuclear spins in domain wall 2−104727
one-dimensional Bloch line arrays, collective excitations 2−98904
orthoferrite plate, magnetoelastic states near spin reorientation transition 2−82675
Permalloy film, wall clusters and domain structure conversions 2−82628
poly(cobalt n-butylphosphinate), weak ferromagnetism and domain wall motion, susceptibility study 2−82570
polycrystalline materials, bulged wall Globus model, friction and energy terms calc. 2−77320
rare earth-transition metal alloys, domain walls, role of the long-range exchange *(Russian)* 2−98905
single-crystal ferrites, domain boundary inhomogeneous oscills. 2−104653
soft ferromagnetic layers, free wall clusters 2−87531
soft magnetic layers, free wall cluster conversion 2−87532
spherical particles with single plane domain boundary, magnetisation reversal 2−61736
steel, electric, grain oriented, core loss, effect of degree of grain orientation alignment *(Japanese)* 2−104652
steel, low Si electrical, mag. ageing characts., coercive force enhancement 2−116034
steel, Si, grain oriented, laser processing for reducing core loss 2−72255
thin film, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625
twisted with perpendicular anisotropy, micromag. theory 2−104671
vanishing anisotropy systems, macroscopic theory 2−82592
$BaFe_{12}O_{19}$ and $BaFe_{18}O_{27}$, ^{57}Fe spin echo NMR spectra in domains and domain walls 2−104742
$CdCr_2Se_4$, effect of light on mag. after effects 2−87553
$CdCr_2Se_4$, photomagnetisation of Landau-Lifshitz domain struct. *(Russian)* 2−87750
$Cd_xCu_{1-x}Fe_2O_4$, mag. props., hyperfine interaction, Mossbauer study 2−116103
CoB amorphous alloys, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ ribbons, domain pattern annealing effect 2−92978

magnetic domain walls continued
CoP amorphous alloy, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
$CrBr_3$, domain wall magnetisation temp. depend. *(Russian)* 2−87545
$CsCoBr_3$, propagating domain walls, inelastic neutron scatt. study 2−104599
Cu-Mn spin glass, remanent magnetisation reversal, mag. domain walls obs. 2−98893
Dy, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
$(Eu,Tm,Y,Ca)_3(Fe,Ge)_5O_{12}$ thin film system, domain boundaries *(Russian)* 2−77338
Fe, magnetic domain walls, dislocation struct. effects, magnetomech. damping study 2−56885
Fe, thin film, crosstie walls, mag. field effects, electrostatic TEM study 2−82682
Fe-Ni films, periodic domain walls interactions, electron microscopy study *(Russian)* 2−87560
Fe-Si, grain-oriented and amorphous ribbon, power loss, mag. flux harmonics and domain motion meas. 2−82648
Fe-Si (3 wt.%), grain orientated sheets, effect of spike closure domains on remanence and magnetisation curve 2−82630
Fe-Si (3 wt.%), magnetisation reversal propag., Barkhausen expts. 2−82656
Fe-Si (3 wt.%), ruckling process, surface domain wall obs. 2−82632
Fe-Si (3 wt.%) sheets, grain-oriented, magnetisation mechanisms 2−82657
Fe-Si (33 at.%) amorphous films, domain struct. characts. 2−82685
Fe-Si (3wt.%) single crystal, saw tooth domain struct. and charged wall observed in gradient field *(Japanese)* 2−77321
Fe-Si alloy, single cryst., mag. domain walls, X-ray diffraction contrast obs. 2−87521
Fe-Si; mobility transfer loci owing to orientation aftereffect for steadily moving 180° Bloch wall 2−87528
$GdCo_5$, magnetisation reversal, domain wall vel., temp. depend. 2−82643
$Gd_3Ga_5O_{12}$ films, mag. moment flip wave velocity *(Russian)* 2−56898
$Ho_{50}Tb_{50}$, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
$Mn_{54}Al_{43}C$, magnetic viscosity 2−72291
MnBi thin films, polycryst., with perpendicular anisotropy, domain wall coercivity 2−72310
Ni base alloys, ferromagnetic, low temp. mobility of domain walls 2−87529
Ni, moving mag. domain wall video images using real time topography 2−86509
Ni single crystal, $(1\bar{1}0)$, white synchrotron radiation topography, mag. field effect 2−86623
Ni-Fe films, domain wall struct., low-angle electron deflection study 2−87562
NiFe thin films with uniaxial anisotropy, head-on domain walls 2−72309
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
$Ni_{0.5}Zn_{0.5}Fe_2O_4$, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2−77320
SiFe laminations, skew domain wall bowing and shearing, asymmetric roll orientation 2−82680
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
$Sm_2(Co,Cu,Zr,Fe)_{17}$, coercive force due to domain wall pinning, theory 2−66864
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2−72284
$Sm_2(Co,Mn)_{17}$, domain struct. parameters 2−72252
$SmCo_5$ and Sm_2Co_{17}, abrupt magnetisation switching anisotropy *(Russian)* 2−104658
SmTmCaGe garnet (100) films, Neel walls and line transitions 2−110614
$(Y,Bi)_3(Fe,Ga)_5O_{12}$ film, two-layer, bistable mag. bubble domain wall dynamics 2−66880
$Y_2BiFe_{3.8}Ga_{1.2}O_{12}$ epitaxial film, nonlinear resonance of domain walls 2−87563
$YFeO_3$, supersonic domain boundary dynamics *(Russian)* 2−82635
YIG, Bloch line dynamics *(Russian)* 2−92958
YIG, domain wall mobility, initial susceptibility freq. spectra study 2−92957
YIG, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2−77320
YIG:Ga, Gd film, confined stripe domain lattice, mag. domain walls normal modes obs. 2−92980
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312

magnetic domains
see also magnetic bubbles; magnetic domain walls
amorphous, ribbons, mag. anisotropy distrib., internal stress fields *(Chinese)* 2−110602
amorphous alloys, mag. domain struct. under elastic stresses 2−82634
current-conducting two-dimensional layer containing circular hole, magnetic field components *(German)* 2−72257
diffraction studies using X-rays, γ-rays, and neutrons 2−61747
electron microscopy, conference, Kyoto, Japan (May 1981) 2−68953
ferrimagnetic materials, exchange striction and crystal lattice in domains and domain walls 2−72186
ferromagnet, uniaxial, 2−66865
ferromagnet, uniaxial with dislocations, magnetisation distribution, singular lines, domain formation *(Russian)* 2−82664
ferromagnetic, magnetoacoustic electron reson. of periodic domain structs. *(Russian)* 2−66882
ferromagnetic domain struct., parameters, neutron depolarisation and correlation functions 2−116026
ferromagnetic media interface, surface spin waves and domains struct. 2−115993
ferromagnetic thin film, micromag. struct., electron holography technique 2−92981
garnet film, 2−82681
garnet film, magnetic, domain lattice FMR 2−66879
garnet films containing Bi, magneto-optical props. and thermomagnetic recording *(Russian)* 2−61715
garnet thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
metallic glass ribbon, plate wave velocity and attenuation, mag. field depend. 2−77350
origin and role in ferromagnetics 2−61732
Permalloy film, domain struct. and magnetisation switching *(Russian)* 2−104668

magnetic domains continued
permalloy film, mapping, off-axis Fresnel holographic method in TEM 2−113070
small magnetoresistive elements, domain formation 2−72305
steel, Si, grain orientated, magnetomech. damping and mag. domain struct. 2−56907
three-layer film, crit. parameters for optical data storage appl. *(Russian)* 2−85900
titanomagnetite grains in deep-sea basalts, low temp. mag. hysteresis rel. to domain state and coercivity 2−78642
two-dimensional planar magnet, eqn. of motion of spin vortex 2−66738
uniaxial magnetic films in magnetic fields with spatial periodicity, domain structure 2−104655
$BaFe_{12}O_{19}$ and $BaFe_{18}O_{27}$, ^{57}Fe spin echo NMR spectra in domains and domain walls 2−104742
CO, magnetisation direction, temp. depend., 1 MV Lorentz electron microscopy study 2−77286
CaF_2, nuclear spin diffusion of rare ^{43}Ca spin species 2−92915
$Ca(OH)_2$, ferromag. ordering of proton spins 2−110585
$Cd_{1-x}Ag_xCr_2Se_4$, photomagnetisation obs. *(Russian)* 2−56912
Co-Fe, mag. props., review 2−82652
Co-P amorphous alloys, annealing effect on anisotropy 2−88229
CoF_2, noncollinear state, magneto-optical study *(Russian)* 2−61883
Cu-Mn-Al, exchange anisotropy, hysteresis loops and coercive force study 2−66866
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$Eu_{0.54}Sr_{0.46}S$, ferromag. and spin glass states, magneto-optical rot. and microscopy study 2−72458
Fe, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Fe, magnetic domain wall motion, wall-defect interactions, mag. meas. 2−116028
Fe, thin film, twisted domains, magnetisation, electrostatic TEM study 2−82683
Fe-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-B-Si-C amorphous ribbon, mag. props., deleterious effect of Al 2−87525
Fe-Ni-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-Si, grain oriented, domain struct. obs. using high voltage SEM 2−87527
Fe-Si, single cryst., domain struct. depend. on freq. of demagnetising fields 2−87526
Fe-Si (3 wt.%), domain struct. dynamics and EM losses, relationship to cryst. lattice *(Russian)* 2−87524
Fe-Si (3 wt.%), grain orientation and core loss relationships in high permeability materials 2−83245
Fe-Si (33 at.%) amorphous films, domain struct. characts. 2−82685
Fe-Si (3wt.%) single crystal, saw tooth domain struct. and charged wall observed in gradient field *(Japanese)* 2−77321
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Si sheets, mag. domain struct. and stray field behaviour, grain orientation effects 2−82631
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
FeSi sheets, effect of stacking on coercivity 2−56887
Gd-Fe thin films, comp. graded, mag. field meas. appl. 2−112939
GdFe amorphous thin films, induced anisotropy and temp. effect on domain struct. 2−104609
$HoMo_6S_8$ type magnetic superconductors, mag. field effect and supercurrent 2−104529
K_2CuF_4, ferromag. stripe domain struct., diffraction efficiency, perturbation theory calc. 2−116029
K_2CuF_4 ferromagnetic stripe domains, mag. phase grating multiwave diffr. theory 2−57064
$MgFe_2O_4$-$CoFe_2O_4$ mixed ferrite, initial susceptibility, coercive force, mag. domain behaviour 2−116030
r-Mn-Cu(Fe), single-domain antiferromagnet, mag. struct. study 2−87478
α-MnS, linear optical anisotropy and domain struct. at two successive antiferromag. transitions 2−56856
MnZn ferrite, monocrystalline 2−87530
MnZn ferrites, hydrostatic press. effect on both sides of thermal spectra secondary peak 2−87570
Nb, Shubnikov phase, domain branching obs. *(Russian)* 2−110604
$Nd_xSm_{1-x}Co_5$, magnetisation curve anomalies meas., 4.2 to 100K *(Russian)* 2−92960
Ni, deformed, small-angle cold neutron scatt. study 2−71548
Ni, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Ni single cryst., magnetoelastic dispersion 2−77355
Ni-Fe, mag. props., review 2−82652
Si-Fe, domain structs. and stress distrib. due to ball-point scratching 2−82629
SiFe, stacked HI-B sheets, domain interactions, eddy current losses 2−82679
Sm-transition metal alloys, domain struct. characts. appl. to phase anal. 2−72253
$Sm_2(Co,Mn)_{17}$, domain struct. parameters 2−72252
$SmCo_5$ permanent magnet, coercivity 2−72284
$Sm(Co_{0.69}Fe_{0.22}Cu_{0.07}Zr_{0.02})_{7.22}$, magnetic hardening 2−72283
$Sm_{0.45}Y_{2.55}Fe_{3.85}Ga_{1.15}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$Y_{2.1}Bi_{0.9}Fe_{3.9}Ga_{1.1}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$YCrO_3$, magnetoelastic props., domain struct. changes at spin reorientation transition 2−104680
$YFeO_3$ orthoferrite crystal, oblique cylindrical domains, dynamics in gradient pulsed field 2−116031
YIG:Si, mag. domain struct., photoinduced mag. effects 2−104672
$(YSmCa)_3(FeGe)_5O_{12}$ epitaxial film, cylindrical mag. domain behavior in ion implantation advancement channel 2−77347
magnetic double refraction *see magneto-optical effects*
magnetic double resonance
see also CIDEP; double nuclear magnetic resonance; dynamic nuclear polarisation; ELDOR; ENDOR; microwave-optical double resonance; nuclear polarisation
double NQR spectrometer 2−89763
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2−102526
NQR detection by double resonance spectrometer 2−84678
magnetic drum storage *see magnetic disc and drum storage*
magnetic epitaxial layers
γ-Fe_2O_3-Mn_2O_3, resonance meas. of mag. moment 2−72295
garnet epitaxial bubble film, ion implantation strain annealing, propag. device stability 2−88100
garnet epitaxial film, bubble domain radial expansion dynamics 2−77344
garnet epitaxial films, bubble characterisation for process control 2−72313
garnet film, magnetic, domain lattice FMR 2−66879
garnet films containing Bi, magneto-optical props. and thermomagnetic recording *(Russian)* 2−61715
garnet LPE growth, interfacial and volume transport processes 2−110195
garnet magnetic bubble LPE films, mag. parameter drift control *(Chinese)* 2−110612
garnet thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
rare earth garnet epitaxial films, induced mag. anisotropy 2−72308
rare earth magnetic garnet epitaxial bubble film, rare earth segregation 2−72633
$Y_{3-x-y}La_xPb_yFe_{5-y}Ga_yO_{12}$, epitaxial layers, interface anal. using SIMS 2−82171
$(BiYLu)_3Fe_5O_{12}$ bubble film, mag. props., FMR study 2−72317
$Eu_{0.53}Y_{2.45}Pb_{0.03}Fe_{3.85}Ga_{1.15}O_{12}$ epitaxial bubble film, dynamic props. 2−72319
Fe film, single cryst., first order transitions in magnetisation 2−66813
Fe garnet films, interrelation of exchange energy, anisotropy and the Neel temp. 2−82676
Fe MBE film, {110} orientation, on GaAs, mag. props. 2−66874
γ-Fe_2O_3, epitaxial growth induced anisotropy, expt. study 2−77287
$Gd_{3-x}Pb_xFe_{5-x}Ge_xO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
$Gd_{3-x}Pb_xFe_{5-x}Sn_xO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
Mn-Zn ferrite synthesis from Na_2O-B_2O_3 flux under CO-CO_2 ambients 2−72612
Ni, single cryst., saturation magnetisation and anisotropy const., ferromag. reson., temp. depend. 2−56896
Pd-Co films, epitaxial, polycryst. and amorphous, transverse anisotropy meas. *(Russian)* 2−92975
$Sm_{0.85}Tm_{2.15}Fe_5O_{12}$, epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
$Sm_{0.45}Y_{2.55}Fe_{3.85}Ga_{1.15}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$Y_2BiFe_{3.8}Ga_{1.2}O_{12}$ epitaxial film, nonlinear resonance of domain walls 2−87563
$Y_{2.1}Bi_{0.9}Fe_{3.9}Ga_{1.1}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$Y_3Fe_5O_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
YIG epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
YIG epitaxial films, mag. bubble collapse field and FMR spectrum, ion implantation and annealing effects 2−104670
YIG film, magnetization meas. from ferrimag. resonance and antiresonance 2−66875
YIG:Ca film, mag. dichroism study of Fe^{4+} centres 2−72461
YIG:Tm,Ca,Ge,Ne layers, ionimplanted, annealing effects on cryst. and mag. props. 2−77333
$(YSmCa)_3(FeGe)_5O_{12}$ epitaxial film, cylindrical mag. domain behavior in ion implantation advancement channel 2−77347
$(YSm)_3(FeGa)_5O_{12}$ epitaxial films, bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2−104669
$Y_{2.6}Sm_{0.4}Ga_{1.1}Fe_{3.9}O_{12}$ epitaxial bubble garnet film, mag. props. 2−87561
$(YSmLuCa)_3(GeFe)_5O_{12}$-metal interface, mag. parameters, bubble memories 2−72318
magnetic field effects
see also biomagnetism; galvanomagnetic effects; magnetic levitation; magnetic properties of substances; magnetic separation; magneto-optical effects; magnetoacoustic effects; magnetocaloric effects; magnetoelectric effects; magnetohydrodynamics; magnetomechanical effects; particle optics; Scott effect; Senftleben-Beenakker effect; thermal magnetoresistance; thermomagnetic treatment
adsorbed diatomic molecules, dissociation, surface mag. field, laser and phonon continuum effects 2−87063
bacterial growth rate, effects of LF mag. field 2−83599
Bayard-Alpert gauge, sensitivity, mag. field effects 2−53778
benzophenone derivatives in micelles, photochem. processes under high mag. fields, laser photolysis study 2−72992
binary liquid metal, convective instability in horizontal layer, mag. field effect 2−98318
charged particle ellipsoid cloud, motion with and without external mag. field *(Russian)* 2−80886
chloroplasts, mag. oriented, field conc. and temp. depend. of fluoresc. polarisation 2−100040
cholesteric phase, self-diffusion, spatial modulation, mag. field distortion 2−103618
conference on biological effects and medical uses of elec. and mag. fields, London, England (May 1982) 2−79285
convective flow in rectangular boxes, external mag. field effect, linearised theory 2−114791
coronene, soln., NMR spectra, dipolar mag. field effects 2−59819
dibensylketone in micelles, photochem. processes under high mag. fields, laser photolysis study 2−72992
discharge ignition in transverse mag. field, time-depend. props. 2−81611
ECG, effect of rapid rise-time mag. fields in rats 2−116980
electron scattering cross section in strong mag. field *(Russian)* 2−96736
environmental power frequency magnetic fields and suicide 2−83598
ferrofluid mag. drops, instability under mag. field 2−110093
ferroliquids, in mag. and elec. fields, dielec. permeability *(Russian)* 2−61731
gravitating cylinder stability, effect of helical mag. field, astrophysical appl. 2−73827
gyroscope, fibre-optic, sensitivity to environmental mag. fields 2−60249
Hall effect devices, response to inhomogeneous mag. fields 2−64071

magnetic field effects continued
hydrogen bond systems, mag. field effects on proton transfer *(Ukrainian)* 2−104037
ion beams, intense pulsed, propag. across mag. field 2−85445
LF ulsed mag. field effects on cells, system for in vitro effects investigation 2−117147
linear induction pump, instability suppression by external mag. field 2−103147
magnetic dipoles system, equilibrium states in transverse EM field, circular currents *(Russian)* 2−96816
manometer, capacitance diaphragm, sensitivity to static mag. fields 2−112886
MBBA, homeotropic, mag. field-stimulated anisotropy of DSM2-front propagation 2−97910
methylpyropheophorbide, soln., NMR spectra, dipolar mag. field effects 2−59819
mice, male, effects of 800 Hz field obs. 2−83596
molecular gas, heat conduction, electric and mag. field effects 2−86365
narrow gap semiconductors, plasmon assisted recombination in mag. field 2−92657
neurons, clonal line, ^{3}H-noradrenaline potentiation by low-intensity pulsed mag. fields 2−62675
neutrino propagator, EM corrections in Weinberg theory, deflection in external field 2−59070
optical fibre transmission, reduction of EM interference *(Japanese)* 2−65397
organic photosemiconductor, model systems for primary photoprocess in photobiology *(Russian)* 2−62574
paramagnetic gas kinematic coeffs. depend. on mag. field, resonance struct. *(Russian)* 2−71056
particle methods, comparison of AC and DC fields 2−88295
photoelectronic sensors, perturbing magnetic fields effects on performance 2−89812
photosynthetic reaction centres, anisotropic mag. interactions of primary radical ion pair 2−116893
plastic insulator flashover, mag. inhibition, expt. study 2−91695
quantum mech. systems, strong mag. field effect *(Russian)* 2−53594
quinone-depleted photosynthetic reaction centers, triplet quantum yield mag. field depend. spin-spin effect 2−72994
random Ising model in mag. field, T=0, effective field distrib. 2−98832
relativistic electron beam in metallic drift tube, numerical simulation 2−108773
relativistic electron radiation spectrum in spatially periodic transverse mag. field *(Chinese)* 2−55051
rigid body, rapidly twisted, small oscills. in mag. field 2−53499
semiconductor, amplification of optical phonons by radiation field under strong mag. field 2−56130
semiconductors, diamond like, mag. Γ_8 subbands, Luttinger method, perturbation theory calc. 2−56436
soda-glass detector, mag. field effects on fission track recording charact. 2−70087
space charge fluctuations, constant magnetic field effect on electron cloud in equilibrium 2−93362
spinodal decomposition, magnetic field effects 2−98291
spontaneous neutron-antineutron transitions, mag. field effects 2−95717
steel, mag. field treatment, field strength depend., X-ray obs. *(Russian)* 2−67354
steel, mild, mech. stress meas. by means of mag. field strength rotation 2−62340
Stormer's problem, singularity *(French)* 2−89127
two-dimensional random system, single particle density of states, mag. field effect 2−61327
volume resonator, intrinsic mag. field effect on secondary electron discharge 2−109617
$BaMoO_4$, periodic precip. in SiO_2 gel, elec. and mag. fields effects 2−93397
$Co_xMo_6S_8$, superconductive props. 2−66689
Cs Rydberg atoms in magnetic fields, at. spectrum Landau limit 2−85573
H atom, in mag. field, semiclassical perturbation theory calcs. 2−59696
H atom, magnetic field effect, energy levels, oscillator strengths, calc. on CRAY-1 computer 2−96483
H highly excited, diabatic energy levels in high mag. fields, scaling laws 2−102407
H_2^+ energy and props. in mag. field 2−59695
H_2^+, energy values in superstrong mag. field, adiabatic approx. 2−59724
He-Ne intra-cavity laser alignment *(Chinese)* 2−65274
^{3}He, superfluid B, collective modes, in weak mag. field, Fermi liquid corrections 2−82058
InSb melt, suppression of thermal convection by transverse mag. field 2−86600
Ni single crystal, (1$\bar{1}$0), white synchrotron radiation topography, mag. field effect 2−86623
$P_{0.93}Sn_{0.07}Se$ long-wavelength laser diode, emission spectra, temp. and mag. field effects 2−81012
$Rb_{0.68}WO_3$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
UAl_2, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
Zn, electron drag and phonon drag on mobile dislocations, distinction using mag. field influence 2−109809
$Zr(Fe_{0.32}Co_{0.68})_2$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065

magnetic field measurement
see also field plotting; fluxmeters; magnetometers
anisotropy of polycrystalline samples in strong pulsed mag. field, meas. technique *(Polish)* 2−107351
autodyne, low-temp., for NMR mag. field meas. 2−84673
biomedical measurement, extremely low current, in completely magnetically shielded room *(German)* 2−68098
broadband magnetic field sensors, design considerations 2−112942
direction-of-action meas. using concentrically rotating elements, theory *(Japanese)* 2−79618
Dynamics Explorer-A and -B, triaxial fluxgate magnetometer meas. 2−58208
electron holographic obs. of mag. fields microscopic distribution 2−101428

magnetic field measurement continued
fibre optic sensors, applications 2−75705
fibre-optic interferometer sensors for weak magnetic fields 2−89757
fibre-optic magnetic field sensors, thermal phase noise anal. 2−102948
fibreoptic sensors, introduction 2−81105
fluxgate detectors with push-pull mag. amplifiers, static mag. field appls. *(German)* 2−89751
Hall teslameter testing installation 2−53796
Hall-effect sensors, appl. in magnetic field meas. for position control *(German)* 2−74403
integrated Si magnetotransistor micro-transducer, rotation and angle detection appl. 2−95325
lightning environmental parameters meas. related to interaction with electronic systems 2−79543
magnetic bubble material magnetisation from stripe domain meas. using Faraday rotation 2−92982
magnetic coil design for weak mag. material meas. *(Chinese)* 2−58802
magnetic field standardization at frequencies above 30 MHz 2−74378
magnetic sensor, high sensitivity, using inijunction transistor 2−64070
magneto-optic current sensing with optical fibres *(Japanese)* 2−89755
magnetoresistive Permalloy mag. field sensor 2−112933
magnetoresistive thin ferromag. film magnetometer for weak magnetic field measurement 2−89758
magnetostatic variometer parameters computing, primary transducer stability assurance 2−58863
micro-sensor using magnetoresistive comparator 2−64079
microprocessor-controlled saturated-core magnetometer *(German)* 2−84672
microthermostat for a Hall detector 2−101391
multipole magnetic standard for calibrating harmonic induction magnetic field probes 2−58770
NMR Gaussmeter, accurate gauge for HF splitting meas. 2−107354
null element and instrument for measuring magnetic field using a sealed contact 2−79625
optical fibre polarisation modifying props., polarisation time domain reflectometry meas. 2−91080
optical method for mag. field meas. 2−64074
portable dosimeter with data acquisition capabilities 2−53798
probe for mapping strong HF fields 2−95408
pulsed, using Faraday effect, compensation method 2−95412
quantum magnetometer with optical pumping for measuring strong, rapidly varying fields 2−112938
reference Hall teslameter for the range of 0.01-10 T 2−53795
satellite remote sensing of Earth magnetic field 2−73731
SQUID applications in meas. of weak mag. fields 2−89759
SQUID magnetometers use for small magnetic moments meas. sample holder 2−95417
SQUID-gradiometers, optical coupling, appl. to biomagnetic meas. *(German)* 2−117152
standard magnetic field radiated by two loop antennas in a coplane 2−112941
standard pulsed EM fields generation, using biconical antenna 2−79624
superconducting screening-filters for ultralow freq. magnetic field meas. 2−58855
superregenerative magnetic-field sensor controlled by nuclear magnetic-resonance signal 2−95410
thermal stabilizer for a Hall detector 2−101392
TOKIWA large-aperture spectrometer magnet, computer-controlled field measuring system 2−96362
weak magnetic field measurement using inductance variation magnetometer 2−89758
well logging dipmeters electronic systems, high-temp. component selection 2−89055
Co-Cr perpendicular magnetic recording films, meas. of M-H curve 2−116039
Gd-Fe thin films, comp. graded, mag. field meas. appl. 2−112939

magnetic field variations, earth *see geomagnetic variations*

magnetic fields
see also electromagnetic fields; geomagnetism; interplanetary magnetic fields; interstellar magnetic fields; magnetic field effects; magnetic field measurement; solar magnetism; superconducting critical field
2-D magnetic fields for grid system with arbitrary distortions of grid lines, numerical calc. 2−90765
AC, LF, system for reducing, in vicinity of scanning electron microscope 2−74575
accretion discs, energy and ang. momentum removal along field lines 2−89141
Alfven wave spatial resonance heating of plasma in twisted mag. field 2−97754
Alnico magnets, anisotropic, model for field computation 2−82638
astrophysical magnetic fields, dynamo action in high-conductivity limit 2−100723
astrophysical magnetic fields, impossibility of mean-field dynamos with spherical symmetry of motions 2−100724
astrophysical plasmas, MHD equilibrium of helically symmetric fields 2−112310
astrophysical plasmas MHD equilib., nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
in axisymmetric boundaries, scalar finite element solutions 2−55025
B2 1321+31 (NGC 5127), large radio galaxy, mag. field struct. from multifreq. obs. 2−89396
Bianchi type EM cosmology, Type I Hamiltonian 2−68937
black hole, mag. fields and accretion discs 2−106772
black hole accretion disc, inner edge field 2−63699
blast wave with frozen in magnetic field, approx. treatment 2−58239
charged particle radiation in mag. systems 2−80884
compression in viscous boundary layer 2−68702
conducting sphere in steady mag. field and perpendicular oscillatory mag. field, mag. fields induced calc. 2−80873
cosmic magnetic fields origin, role of parity nonconservation 2−63227
Crab Nebula, supernova remnant model, role of magnetic fields 2−84305
current carrying finite arc segment, vector pot. and mag. field, thin sheet approx. 2−80870
current dipoles embedded in conducting space, boundary integral formulation 2−90770
current-conducting two-dimensional layer containing circular hole, magnetic field components *(German)* 2−72257
DA 240, giant radio galaxy, hotspot mag. field orientation from polarisation obs. 2−94836
Dirichlet problem solution via Fredholm integral eqns. 2−96793

magnetic fields continued
energy density, idealised model 2−107052
ferromagnetic prolate spheroidal bodies and current bands, mag. induction calc. 2−90767
ferromagnetic spherical bodies and current bands, mag. induction calc. 2−90766
field aligned currents distrib. from mag. field obs., correl. with ionospheric phenomena 2−112269
fluids in electric and magnetic fields: pressure variation and stability 2−75490
force-free mag. field eqns., invariant solns. *(Ukrainian)* 2−102679
free electron laser with axial mag. field, theory 2−80977
gas ring laser unidirectional lasing region control using mag. field 2−81001
generation by a differentially rotating cylinder, appl. to dynamo modelling 2−85864
generation by laser jet plasma at low laser radiation densities 2−97763
helical wiggler, mag. field calc. 2−65237
high-latitude disturbance fields, corotating component evidence 2−112247
intergalactic magnetic fields and rotation in Euclidean cosmological models 2−58508
liquid, highly conducting turbulent, mag. field correlation tensor *(Russian)* 2−97665
low-inductance charge accumulator for superstrong magnetic field pulses 2−69207
macroscopic theory of surface-distributed electrokinetic fields *(French)* 2−114148
magnetic field, vector potential and their derivatives due to currents in closed polygons of wire 2−65128
magnetically insulated electron flow, two-dimensional time-dependent theory 2−96819
magnetosheath steady state mag. field 2−100670
magnetostatic fields, integral and differential eqns. formulation, numerical solns. 2−55017
magnetostatic fields, nonlinear medium, fixed point theorem calc. 2−55015
magnetostatic problems, saturable media iterative algorithms 2−55016
magnetostatics, 3D mag. vector problem, point iterative algorithm 2−55013
magnetostatics, 3D problem, Fredholm integral eqn. 2−55012
magnetostatics, 3D problem, vector pot. formalism 2−55011
magnetostatics, anisotropic nonlinear 3D problems, two scalar pot. finite element anal. 2−55009
magnetostatics, boundary elements method 2−55007
magnetostatics, complementary and dual energy finite element principles 2−55006
magnetostatics, coupled differential-integral eqn. formulation 2−55008
magnetostatics, linearised scalar pot. formulation, discrete parametric boundary problem 2−55010
MHD oscillatory flow with heat transfer in a flat plate channel 2−76035
nonlinear magnetic field problems with complex current sources, finite element anal. 2−102686
numerical computation, conf., Chicago, USA (Sept. 1981) 2−53411
parallel fields stability with fluid motion along field lines 2−103217
plane parallel potential determination 2−90764
planetary interiors, field generation 2−89176
plasma layer with magnetic field, radiative transfer by reflection 2−117586
plasma transport in a stochastic magnetic field ambipolar electric field and ambipolar diffusion 2−97709
propagation in transversely magnetized compressible plasma between two parallel planes 2−97744
pulse mag. field, of 37.8 T during 20 ms in 20 mm diameter *(Chinese)* 2−69206
pulsed magnetic fields, generation, magnetometry and appl., review 2−112934
radio galaxies in Abell 566, mag. field press. from radio and X-ray obs. 2−106934
radio sources, mag. field struct. determ. from spectral polarisation props. of optically thin synchrotron radiation 2−112309
random force-free fields, turbulence effect 2−106509
reinforcement bead of welded joint, tangential component of magnetic field 2−89756
relativistic electrons in a spatially periodic transverse mag. field 2−102703
resistance thermometers, TSKUM carbon and KGG semiconductor, behaviour in magnetic field up to 18 T 2−112898
saturable, EMF, torque and stiffness, finite element anal., stationary method 2−80874
single sheet tester using H coil, mag. field anal. 2−83309
stability of frozen magnetic field in a superconducting shield 2−95413
synthesis, Fredholm integral eqn. regularisation technique 2−55014
thin circular and rectangular plates, eddy current losses 2−65127
thin moving conductor interaction in magnetically active plasma 2−91618
three-dimensional field computation 2−55028
toroidal conductors, mag. field calc. 2−65126
transient EM fields due to circular current loop over conducting half-space 2−85860
transient magnetic field calculations with TRIDIF 2−55019
two dimens. problems, NMLAP finite element program 2−55018
two dimensional magnetohydrostatic equilibria blowing up by press./elec. field increase 2−100721
vacuum magnetic fields with dense flux surfaces 2−96800

magnetic film stores
see also magnetic bubble devices
Fe-Ni film, periodic domain wall interactions, data storage appl. *(Russian)* 2−87560

magnetic films *see magnetic thin films*

magnetic fluids
agglomerate form., mag. susceptibility, Monte Carlo calc. 2−82669
drops, oscills., mag. field effects 2−103181
ferrofluid droplets, in mag. field, deform. study 2−56303
ferrofluid mag. drops, instability under mag. field 2−110093
ferrofluid mag. susceptibility measuring installation *(Rumanian)* 2−95418
ferroliquids, in mag. and elec. fields, dielec. permeability *(Russian)* 2−61731
interface stability between moving layers 2−86321
kerosene-Fe_3O_4, mag. fluid, elec. cond. meas. 2−104363
liquid cylindrical layer break-up, viscosity and nonuniform heating effects 2−86281

magnetic fluids continued
nonlinear field effects, magnetostriction, statistical mechanics theory 2−104678
paramagnetic incompressible fluid flow through porous annulus 2−71023
particle aggregation in colloids in high magnetic fields 2−104681
particles in external mag. field, surface and bulk struct. 2−82688
refrigerator, use of ferrofluid as heat-exchange fluid 2−79588
thermal convection in a horizontal layer of magnetic fluids 2−114792
Fe particles in Hg, aggregate size, mag. prop., US vel. study 2−82668
^{3}He, liq., magnetic susceptibility in high mag. fields, manometric meas. 2−82560
^{4}He, liq., magnetic susceptibility in high mag., fields, manometric meas. 2−82560

magnetic flux
see also flux creep; flux flow; flux-line lattice; flux pinning; fluxmeters; skin effect
2-D magnetic fields for grid system with arbitrary distortions of grid lines, numerical calc. 2−90765
Aharonov-Bohm effect, exptl. demonstration of winding number depend. 2−74258
fluxgate detectors with push-pull mag. amplifiers, static mag. field appls. *(German)* 2−89751
pulse power applications of flux compression generators 2−91641
quantised Hall effect and other macroscopic quantum phenomena in normal conductors 2−61445
quantum, elementary derivation 2−84410
steel, laminated sheet, mag. props. for normal fluxes 2−82673
superconductors, technical, sources of acoustic emission 2−86799
type II superconductor, oscillating disc, hysteresis losses and mag. phenomena 2−66729
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si, grain-oriented and amorphous ribbon, power loss, mag. flux harmonics and domain motion meas. 2−82648
Fe-Si ribbon-form alloys, rapid quenching preparation techniques, soft mag. props. *(Japanese)* 2−67240
Si cylinder, mag. flux cumulation by shock-compressed conductive region propag. 2−92984

magnetic flux jumping *see Meissner effect*

magnetic glasses *see spin glasses*

magnetic hardness *see ferromagnetic properties of substances*

magnetic heads
Fe-Si-Al Sendust ribbon, rapidly quenched, annealing effect on coercive force 2−72273
Ni-Fe patterns for thin film heads, selective microelectrodeposition 2−83046

magnetic hysteresis
contactless conductivity and rotational hysteresis measurements using a gas turbine 2−84667
deep-sea basalts containing large titanomagnetite grains, low temp. mag. hysteresis 2−78642
dynamic hysteresis loop meas. using computer-controlled digital voltmeters 2−69208
electromagnetic finite element calculation, inclusion of hysteresis processes 2−55026
ferrites, magnetoelastic hysteresis 2−87566
ferromagnetic hysteresis loop recording of characteristic parameters 2−79562
ferromagnetic material, magnetic interference meas. and study of methodological problems 2−79628
ferromagnetic materials, magnetic phase transform. control using Barkhausen effect and hysteresis loop 2−116677
ferromagnetic slab, impure, single Bloch wall thermodynamics 2−82636
high S/N hysteresis loop tracer, inexpensive *(Japanese)* 2−69210
Josephson tunnel junctions, long, vortex penetration and self-resonant effects 2−56789
metal, ferromagnetic, strain amplitude dependent damping, mech. model *(Japanese)* 2−56904
metals, surface magnetism, polarised electrons 2−66890
numerical computation, conf., Chicago, USA (Sept. 1981) 2−53411
rare earth small particles, cryst. struct. and mag. props. 2−77330
rare earth-Co matrix magnets heated in dry air, thermal stability and temp. coeffs. 2−72292
recording materials, rotational hysteresis meas. with gas turbine 2−74472
spherical particles with single plane domain boundary, magnetisation reversal 2−61736
spin glasses, magnetisation process, hysteresis loops, two spin cluster model anal. 2−56884
steel, inspection of products with little variation in coercive force 2−93737
steel plate, Fe losses under nonsinusoidal excitation waves 2−82674
superconducting wires, monofilamentary nonideal type II supercond. linear array, abnormal transverse fieldeffect 2−56775
titanomagnetite grains in deep-sea basalts, low temp. mag. hysteresis rel. to domain state and coercivity 2−78642
transient magnetic field calculations with TRIDIF 2−55019
type II superconductor, oscillating disc, hysteresis losses and mag. phenomena 2−66729
Au-Fe_l spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
$Ba_xLa_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
$Ba_xNd_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
$Ba_xSm_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
Co sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-Cr perpendicular magnetic recording films, meas. of M-H curve 2−116039
Co-Fe-Nb semihard mag. alloy, cold working effects on precipitate morphologies rel. to mag. hysteresis 2−92962
Co-Ni, sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-P amorphous alloys, annealing effect on anisotropy 2−88229
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Cr_7Se_8, mictomagnetism, mag. susceptibility and magnetisation studies 2−72219
cu-Mn, spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866

magnetic hysteresis continued
Cu-Mn-Al, exchange anisotropy, hysteresis loops and coercive force study 2−66866
Cu-Sn, martensitic transform., influence of β-phase holding *(Russian)* 2−67333
Fe, thin film, twisted domains, magnetisation, electrostatic TEM study 2−82683
Fe whiskers, Barkhausen jump field distrib. 2−87540
Fe-Mn, shape memory and plasticity transform., superelasticity *(Russian)* 2−67332
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Si (3 wt.%), magnetoelastic hysteresis loop rel. to phase depend. mech. energy of vibrs. *(Russian)* 2−98927
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
$Fe_{0.968-x}Mn_xSi_{0.032}$ system, Mossbauer and mag. studies 2−82761
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
$Fe_yNi_{80-y}P_{14}B_6$, amorphous alloy, mag. props. study, phase diagram 2−110580
$Fe_yNi_{80-y}P_{14}B_6$, ESR study in reentrant phase, mag. props. meas. 2−72331
FeO_x, berthollide type, reactive sputtering prep., struct. and props. 2−82158
$FeTiH_{1.9}$, Pauli paramagnet, mag. susceptibility, magnetisation, hysteresis 2−66765
$Fe_{3-x}Ti_xO_4$, low temp. mag. props. 2−87543
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., field induced 'exchange-flips' 2−66811
$Hf_{0.8}Ta_{0.2}Fe_2$, ferromagnetic-antiferromag. transition, magnetisation and Mossbauer study 2−87493
$LaCoO_3$-$LaMnO_3$, magnetic susceptibility and hysteresis loops meas. 2−77276
$MgFe_2O_4$-$CoFe_2O_4$ mixed ferrite, initial susceptibility, coercive force, mag. domain behaviour 2−116030
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
Ni-Co, relation between damping capacity and magnetomech. props. 2−57397
Ni-Fe-Co magnetic alloys with stepwise hysteresis loop 2−61738
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
$R_2(Co\text{-}M)_{17}$ (R=rare earth), residual induction, mag. props., permanent magnets appl. 2−82662
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742

magnetic impurity interactions
Anderson model, asymmetric, density of states 2−66406
Anderson model, one dimensional periodic Hamiltonian, finite cell calcs. 2−66407
Anderson model, two-impurity, thermodynamic scaling theory 2−66408
antiferromagnetic insulators, impure, role of S_2-nonconserving interaction in spin dynamics 2−66794
antiferromagnetic superconductor, impurity and spin-fluctuation effects 2−82525
Beth-ansatz approach to the Kondo model with arbitrary impurity spin 2−92866
coercive force due to domain wall pinning 2−72281
crystal, magnetically diluted, paramag. impurities, NMR line shape, exchange interaction effects 2−66930
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2−110566
Heisenberg ferromagnet, semifinite, localized impurity states 2−66747
insulator, low-temp. magnon thermal cond. 2−66307
Kondo model, thermodynamic eqns. 2−104362
Kondo system, Bloch eqns. 2−66767
m-component magnet with correlated impurities, critical behaviour 2−98896
magnetic interaction of ion in solid, energy-level splitting 2−77288
one-dimensional interacting Fermi system with mag. impurities, magnetisation curve 2−82658
proximity tunnelling, magnetic impurities effect, theory 2−72120
semiconductors, interaction between mag. impurities in strong EM field *(Russian)* 2−61707
spin glass, itinerant model, mag. impurity conc. depend., paramag.-spin glass transition 2−82609
theory of magnetism, statics and dynamics, book 2−68978
TMMC:Cu, high temp. dynamics; effect of impurities, EPR study 2−98944
TMMC, mag. props. study 2−66786
two-dimensional Anderson localisation in presence of paramag. impurities and spin-orbit scatt. 2−66490
AG-Mn, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Au-Fe, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
$CoCO_3$:Mn^{2+}, interactions between magnons and impurity excitations 2−98858
CoF_2:Mn^{2+}, interactions between magnons and impurity excitations 2−98858
$Co_{1-x}^{}Mn_xF_2$, mag. excitation spectrum rearrangement *(Russian)* 2−61772
Cr^{3+} pairs, interacting mag. ions, D_{3h} symmetry 2−98874
Cr-Co-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Fe-V alloys, mag. susceptibility and thermal expansion 2−98855
Cu-Co(Fe)(Mn) alloys, spin glass state form. investig. *(Russian)* 2−56875
Cu-Cr, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Cu-Cr(-Fe), (-Mn), dilute alloys, ionic model, energy level splitting, NMR study 2−66932
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
CuFe dilute mag. alloys, g-factor, mag. field splitting of microcontact spectrum *(Russian)* 2−98527

magnetic impurity interactions continued
CuMn dilute mag. alloys, g-factor, mag. field splitting of microcontact spectrum *(Russian)* 2−98527
$Fe^{199}Au$, elec. quadrupole interaction, NMR-ON meas. 2−116075
FeF_2:Mn, localised magnon-pair modes 2−72182
Gd-As, dil., As hyperfine interaction, IPAC study 2−92544
$GdCu_{1-x}Ga_x$, mag. order 2−98845
In film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
$La_{3-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
$LaMnO_{3.09}$, distorted, mag. transition above Curie point, magnetisation and magnetoresist. study 2−110582
OsF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2−66805
Pb film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
Pr, hyperfine interactions, mag. impurities and antiferromag. ordering 2−104582
RuF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2−66805
Se, powder, mag. susceptibility consts. meas. 2−87474
Sn, film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
VPd_3-Fe, itinerant ferromagnetism study 2−66750

magnetic inks *see magnetic fluids*

magnetic leakage
Barkhausen regions in conducting sheets with bar domains, eddy current distrib., theory 2−77324
Barkhausen switching in conducting sheets with bar domains, power losses calc. 2−77323
rare earth-Co matrix magnets heated in dry air, thermal stability and temp. coeffs. 2−72292
soft magnetic materials, mag. loss model 2−82655
steel, electrotechnical, on-line, single sheet and Epstein power loss testing 2−83307
steel, high Si, ribbons, roller quenched, mag. props., pot. core material of elec. machines and power transformers 2−87522
steel, laminated sheet, mag. props. for normal fluxes 2−82673
steel, low Si electrical, mag. ageing characts., coercive force enhancement 2−116034
steel, Si, grain oriented, laser processing for reducing core loss 2−72255
steel, Si (3 wt.%), grain oriented, for transformers, mag. losses 2−72272
steel, Si-Al bearing electrical, internal oxidation and mag. props., annealing conditions influence 2−72724
steel plate, Fe losses under nonsinusoidal excitation waves 2−82674
steel transformer plates, mag. props., rapid cooling effects *(Russian)* 2−104666
transformer, leakage field, magnetostatics, 3D problem, Fredholm integral eqn. 2−55012
turbomolecular pumps, leakage mag. field effects meas. 2−84643
Co-Fe-Si-B amorphous ribbons, with induced mag. anisotropy, influence of applied tensile stress on power loss 2−82686
Fe-Si, elec. steel grain-orientated sheets, commercial production, review 2−83243
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si, electric steel sheets, mag. losses with large biasing DC flux density 2−82650
Fe-Si, grain orientated, mag. loss meas. using Epstein square, error anal. 2−79620
Fe-Si, grain-oriented and amorphous ribbon, power loss, mag. flux harmonics and domain motion meas. 2−82648
Fe-Si (3 wt.%), grain orientation and core loss relationships in high permeability materials 2−83245
Fe-Si (3 wt.%), mag. loss model 2−82655
Fe-Si (3 wt.%), mag. props. meas. using single strip tester and Epstein frame 2−83308
Fe-Si (3 wt.%), rotational power loss meas., 30 to 100 Hz, using torque magnetometer 2−82651
Fe-Si (3 wt.%), total power loss meas. 2−79621
Fe-Si (3wt.%) sheets, grain-oriented, core loss heterogeneity 2−72260
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Si sheets, mag. domain struct. and stray field behaviour, grain orientation effects 2−82631
Fe-Si-Al, dil. alloy, mech. props., elec. cond. and mag. losses meas. 2−83217
Fe-Si(6.5 wt%), ribbon formed by melt spinning technique, mag. props. 2−110603
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{25}B_{15})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$Fe_{40}Ni_{40}P_{14}B_6$ amorphous mag. alloys, correlation between power loss and viscosity field 2−87523
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
Nb_3Sn, supercond., low bulk pinning, min. in AC losses 2−92842
SiFe laminations, skew domain wall bowing and shearing, asymmetric roll orientation 2−82680

magnetic lenses
see also aberrations
achromatic quadrupole lenses as probe-forming lens for high-energy ions 2−95544
beta-ray monochromator, current regulator for magnetic lens 2−107447
effective length measurement of pulsed quadrupole lens *(Chinese)* 2−108206
electron focusing and dual-channel deflection systems with combined mag. and electrostatic fields, optical props. 2−65146
low-energy ion beam transport, periodic focusing structure 2−75088
multipole lens, third order transfer matrix 2−102295
optimisation of magnetic lens with pole-piece of finite inside diameter 2−85880
proton and nuclear microprobe developments 2−95550
Russian quadruplet, rotational misalignments 2−108197
superconducting shielding lens, asymmetric, for TEM and STEM 2−64180

magnetic levitation
Emsland Transrapid test facility (TVE) for high speed maglev system, goal, requirements and design *(German)* 2−70474

magnetic levitation continued
Emsland Transrapid test facility data processing and safety system *(German)* 2−70478
Emsland Transrapid test facility guide for maglev systems testing *(German)* 2−70475
heteropolar linear synchronous motor (LSM) theoretical design, construction and testing for combined propulsion and levitation 2−70479
induction machines in heave mode, dynamic behaviour anal. using finite element and Fourier anal. 2−80871
liquid metals, levitation melting in mag. fields, Navier-Stokes eqn. 2−70838
maglev train development status in German Federal Republic *(German)* 2−70473
metals, levitation-melting process in mag. field, fluid dynamical aspects 2−70839
repulsive magnetic levitated train, anal. of characts. by space harmonic technique 2−114147
single-sided linear induction motor with solid iron secondaries, reaction forces prediction using computer model 2−80872
TRANSRAPID 06−concept of the vehicle *(German)* 2−70476
Transrapid 06 maglev system propulsion by iron-cored long-stator synchronous motor *(German)* 2−70477

magnetic lines of force *see magnetic flux*

magnetic liquids *see magnetic fluids*

magnetic losses *see magnetic leakage*

magnetic materials
see also ferrites; garnets; magnetic fluids; magnetic thin films; permalloy; permanent magnets
conference, Atlanta, GA, USA (Nov. 1981) 2−63738
soft magnetic materials, conf., Grenoble, France (Sept. 1981) 2−79276

magnetic materials, amorphous *see magnetic properties of amorphous substances*

magnetic memories *see magnetic storage*

magnetic mirrors
Alfven ion cyclotron fluctuations in end-cell plasma in tandem mirror expt. 2−65721
Alfven wave instability by fast ions in a plasma in mag. mirror field 2−60745
ambipolar potential, effects on confinement in EBT, radial transport calc. 2−103423
ambipolar potential effects in TMX 2−103431
ambipolar potential formation in TMX 2−103420
ambipolar potentials in tandem mirrors and bumpy tori, conf., Oak Ridge, TN, USA (May 1981) 2−101125
axisymmetric mirror, flute stabilisation by cold line-tied blanket 2−109496
axisymmetric mirror machine, stability using guiding centre plasma model 2−109568
bumpy cylinder, equilibrium and stability two-dimens. MHD calc. 2−103371
bumpy cylinder, kinetic stability anal., Vlasov-Maxwell eqns. 2−103372
bumpy tori, ambipolar pot. control by fast wave heating 2−103433
central cell confinement in MFTF-B 2−103429
EBR, coupled ring-core stability 2−103363
EBT, Al impurities, rel. to ambipolar potential 2−103464
EBT, ambipolar pot., theory 2−103417
EBT, anomalous transport, rel. to ambipolar field 2−103425
EBT, core β limits, effect on reactor performance 2−103374
EBT, fluctuating electric field, effect on H and impurity ions 2−103424
EBT, interchange and compressional Alfven instabilities, anal. theory 2−103369
EBT, reactor, potential control, heating and confinement 2−103426
EBT stability theory, conf. Oak Ridge, TN, USA (May 1981) 2−101126
EBT transport, ambipolar pot. formation, rapid impurity ion loss 2−103296
eigenmode stability analysis for a bumpy torus 2−103366
electric field bumpy torus, radial electric field and pot. control 2−103427
electron cyclotron reson. discharge, microwave heated, X-ray bremsstrahlung meas. 2−114983
electron-cyclotron resonant heated electron distribution functions, bounce-averaged Fokker-Planck calc. 2−103307
electrons transverse charging into mag. mirror, theory 2−86454
Elmo Bumpy Torus, multispecies ambipolar phenomena 2−103419
end loss in open confinement fusion systems, time-variable boundaries effect 2−91654
field error effects on ambipolar potential, in EBT 2−103421
field errors in EBT, effect on ambipolar pot. 2−103422
field reversal by rotating waves 2−71237
fluctuation measurements in EBT 2−103298
hot electron plasma stability, in EBT 2−103368
hot-electron ring stability at the University of Tennessee 2−103365
instabilities in a small axisymmetric mirror 2−103361
ion cyclotron heating, effect on ambipolar pot., in Nagoya Bumpy Torus 2−103434
ion cyclotron resonance heating, EBT-S expts. 2−103402
ion cyclotron waves and turbulent end plugging in mag. mirror based fusion devices 2−103334
ion tail formation in EBT, power requirements, kinetic transport model 2−103297
large axisymmetric mirror expt., electrostatic pot. meas. 2−103430
LF mode stability in tandem mirrors and bumpy tori 2−97733
line cusp, turbulent, leak width scaling 2−91656
low β plasma, leak width through magnetic mirrors 2−109581
microstability of the EBT boundary 2−103370
monte Carlo position-dependent angular source biasing 2−54639
Ogra-3 trap, electron heating, diffusion coeffs., oscillations, plasma pot. *(Russian)* 2−60782
plasma-magnetic field boundary, electron losses *(Russian)* 2−60781
potential variations in open mag. geometries 2−103418
quadrupole minimum-|B| mirror, plasma heating at twice ion cyclotron freq. 2−109540
radial eigenmode problem for EBT, numerical soln. 2−103367
reduced MHD eqns. 2−109477
review, book contrib. 2−71254
space potential measurements on EBT 2−103462
space potential profiles, in Nagoya Bumpy Torus 2−103463
tandem mirror, electron ring stabilised, high-m ballooning stability 2−109506
tandem mirror, hot-electron plasma as anchor 2−81561
tandem mirror, potential distrib. in Phaedius 2−103461

magnetic mirrors continued
tandem mirror concept for high β plasma confinement 2−115038
tandem mirror confinement, macroscopic stability limits obs. 2−60793
tandem mirror devices, particle motion, stability anal. 2−103416
Tandem Mirror Experiment, ambipolar potential form., axial confinement 2−55770
Tandem Mirror Experiment, central cell, space potential meas., heavy ion beam probe 2−103460
tandem mirror experiment, X-ray spectrum meas. 2−115045
tandem mirror expt., impurity conc. and radiated power meas. 2−97770
tandem mirror plasma, ambipolar pot., transiting electrons effect 2−103428
tandem mirror traps, microstability and plasma interaction along mag. field 2−109492
tandem mirror with axisymmetric central-cell ion confinement 2−81559
tandem mirrors, electrostatic pot. parallel variation drives instabilities 2−109571
tandem mirrors, reson. and neoclassical transport, collisional limits 2−97714
tandem transport and ambipolarity in the resonant plateau regime 2−55772
theta pinch, linear, end plugging by pulsed mag. mirrors 2−86466
TMX upgrade, plasma pots. form. and control 2−103432
travelling mirror adiabatic magnetic compressor, scalings 2−103415
He plasma, mirror confined, HF plugging, freq. depend. 2−86461

magnetic moments
see also atomic magnetic moment; hyperon magnetic moment; local moments in dilute systems; meson magnetic moment; molecular moments; nuclear magnetic moment; proton magnetic moment
aromatic hydrocarbon water suspensions, const. mag. moment existence, magnetooptical methods 2−82829
baryon mag. moments in broken SU(6) symmetry model 2−54161
baryon mag. moments in nonrelativistic quark model 2−54065
baryon magnetic moment, in variable pressure bag model 2−113242
baryon magnetic moments in the quark model and pion cloud contributions 2−59151
baryons, mag. moments, QCD enhancement and quenching effect 2−54157
baryons, magnetic moment and structure 2−95916
C $DyCo_2$ $_xFe_xHy$, lattice parameters and mag. characts. 2−56891
electric field effects on molecular spectra 2−80580
electron magnetic moment at high temp., one-loop QED correction 2−107662
electron mass and anomalous mag. moment 2−59093
electronic struct. and magnetism 2−104241
ethane, collision induced adsorpt. in microwave and IR region 2−54838
γ-Fe_2O_3-Mn_2O_3, thin epitaxial film, resonance meas. of mag. moment 2−72295
ferromagnetic metals, spin fluctuations, temp. variation of local moment and short range order 2−61717
ferromagnets, macroscopic behaviour with random and statistically vanishing anisotropy 2−72193
fluid body, mag. moments produced by dynamo action in high-conductivity limit 2−100723
hadron magnetic moments, from SU(3) subsectors of SU(N) 2−54123
hexagonal antiferromagnet, mag. ordering 2−110567
Hubbard model, local moments 2−82606
insulators, magnetic interaction between local mag. moments 2−115996
intermediate-valence cpds., 4f-electron dynamics, mag. and phonon props. 2−56112
Ising spin glass, dynamic nature of freezing process, Monte Carlo simulation 2−61723
magnetic dipoles system, equilibrium states in transverse EM field, circular currents *(Russian)* 2−96816
massless quark, Schrodinger vs. Dirac eqn. 2−64299
metal complexes, metal-formylhydrazide, synthesis and characterisation 2−110848
metals, symmetric Anderson model *(Russian)* 2−56808
mullite form. kinetics, grain comp. and component activity effects 2−77271
naive nonrelativistic quark model hybrid, pion effects, baryon mass, mag. moment 2−101676
noble metal-Co alloys, dil., mag. behaviour Co atoms 2−115971
nucleon magnetic moment, spin orbit term in gluon exchange QCD pot. 2−79835
photon, upper limit 2−64328
rare earth alloys, RCo_2, C15 type, ^{59}Co NMR study, hyperfine field anisotropy 2−66934
rare earth alloys, RMn_2 (R=Tb, Dy, Er), mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
rare earth alloys RAlGa, mag. props. study 2−72141
rare earth ternary cpds., mag. and supercond. props. 2−115937
rare earth-Co alloys, RCo_2, (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Tm), anomalous hyperfine field and orbital moment 2−56973
relativistic quark model in infinite momentum frame and nucleons static characts. 2−79843
review of magnetic order in solids 2−110586
semiconductors, magnetic interaction between local mag. moments 2−115996
small-κ superconductors, energy gap and vortex creation energy 2−72126
spin $^1/_2$ particle, gravitational anomalous magnetic moment 2−74299
SQUID magnetometers use for small magnetic moments meas. sample holder 2−95417
steel plate, Fe losses under nonsinusoidal excitation waves 2−82674
subquark models of leptons and quarks, observable effects 2−79850
superparamagnetism, magnetisation moment, discrete orientation model *(Russian)* 2−87548
surface and interface mag. props. 2−66772
ternary alloys, conc., onset of magnetism, review 2−56853
transition metal intermetallics, short range order above T_c, paramag. neutron scatt. study 2−72139
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
transition metals, energy band calcs. of magnetism 2−66749
transition metals, ferromag., chemisorption of H, self-consistent model 2−115554
transition metals, local and non-local spin susceptibilities calc. 2−98854
transition metals, local moments and magnetic ordering 2−77289
transition metals, surface mag. moments and electronic struct., Hubbard model 2−115980

magnetic moments continued
Δ magnetic moment from radiative πN scatt. 2−59254
μ^+ magnetic moment meas. by stroboscopic muon-spin-rotation technique 2−54159
$Cd_{1-x}Mn_xTe$, exciton luminescence spin splitting *(Russian)* 2−61976
Ce alloys, antiferromagnetic, reduced moment, crit. behaviour 2−66815
$Ce_2Co_{17-x}Zr_x$, struct. and mag. props. 2−61741
$CeMo_6S_8$, mag. props. under press. 2−56911
CeS_x, heat capacity and mag. order 2−104017
$(Cn_{1-x}Co_x)_2MnSn$ Heusler alloy, mag. transition 2−72203
Co-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
Co-Mn, mag. moment distrib. study 2−82566
Co-V, mag. moment distrib., neutron scatt. study 2−72172
$CoCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$CoFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$Co_xNi_{1-x}MnGe$, mag. phase diagram, antiferromag.-ferromagnetic transition, neutron diffr. study 2−72206
Cr, electronic structure model using mag. state and electron occupancies correl. 2−104237
Cr, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$(Cr_{1-y}V_y)_{0.14}Te$, mag. phase diagram, thermomagnetic props., mag. moments 2−87494
Cu complexes, ESR and optical absorpt. 2−98943
Cu film on Ni (100), electronic and mag. struct., interface magnetisation 2−82695
Cu-Ni compositionally modulated thin film, mag. behaviour, struct. 2−98920
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
$CuO-B_2O_3K_2O$ glass, ^{11}B NMR and mag. susceptibility 2−104587
Dy-Fe intermetallic cpds., mag. and cryst. props., X-ray and Mossbauer study 2−92877
DyAl, mag. moments and anisotropy, neutron diffr. and cryst. field calc. 2−115976
$Dy_{2-x}YFe_{17}$, mag. props. 2−115984
$ErCo_{2-x}Fe_x$, Laves phase cpds. and their hybrides, mag. behaviour 2−56855
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2−56911
Fe complex, rapid spin equilib., relax. time 2−82753
Fe, ferromagnetic transition, character 2−56872
Fe overlayer on Pd(111), mag. behaviour, photoemission, LEED and Auger study 2−110611
Fe, short range order above T_c, paramag. neutron scatt. study 2−72139
Fe-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
Fe-Co, BCC, mag. moments and lattice consts., band theory 2−72133
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Co-Ni system, mag. moment, CPA calc. *(Russian)* 2−115981
Fe-Cr alloys, existence of spin glass region 2−66830
Fe-Cr(-Mo), Neel temp. and elec. resist., mag. moment-spin density wave coupling 2−82573
Fe-Ni, atomic ordering effects on mag. props., superlattice form., TEM study 2−92966
Fe-Si-B metallic glasses, substituted, saturation magnetisation 2−87481
Fe-V, mag. moment distrib., diffuse neutron scatt. study 2−72151
Fe_3Al, hyperfine field and mag. moment, Mossbauer study 2−72380
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
$Fe_{1-x}B_x$, amorphous, electronic struct., variation of mag. moment 2−66427
$FeFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
Fe_3Ga, magnetic struct., neutron diffr. obs. 2−92871
$(Fe_{1-x}Ni_x)_{80}B_{20}$, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
Fe_2O_3, acousto-optical modulation, permittivity *(Russian)* 2−57051
Fe_xP_{1-x}, amorphous, electronic struct., variation of mag. moment 2−66427
FeRh, paramag., ferromagnetic and antiferromag., band struct., muffin-tin calc. 2−82216
Fe_7Se_8, transition metal substituted, paramagnetism 2−66762
Gd-Ge, mag. props., interband mixing effect *(Ukrainian)* 2−77261
Gd-La alloys, band struct., elec. resistivity and mag. moment 2−76912
GdCoSi, synthesis, mag. props. and struct., X-ray and mag. tortion balance anal. 2−72176
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
$Gd_3Ga_5O_{12}$ films, mag. moment flip wave velocity *(Russian)* 2−56898
GdMg, biaxial mag. structs. 2−104580
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
GdMnSi, synthesis, mag. props. and struct., X-ray and mag. tortion balance anal. 2−72176
$GdNi_5$, spin polarised energy band struct. calcs. 2−92449
Gd_xNi_{1-x}, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
$HoAl_2$, conduction electron polarisation temp. depend., neutron diffr. study 2−72146
$HoCo_{2-x}Fe_x$, Laves phase cpds. and their hybrides, mag. behaviour 2−56855
$Ho(Co_{1-x}Ni_x)_2$, mol. moments rapid changes, magnetisation and spin-echo NMR study 2−72167
$Ho_xLu_{1-x}Rh_4B_4$, superconductivity and mag. props., μSR meas. 2−72101
$HoMn_2$, cubic and hexagonal, site magnetisation, neutron diffr. study 2−72145
HoP, biaxial mag. structs. 2−104580
$HoVO_4$, Van Vleck enhanced nucl. antiferromag., collective excitations, effective nucl. Hamiltonian 2−61680
In-Mn alloys, dil., supercond., T_c depression produced by ion implantation 2−77221
Ir-Fe dil. alloy, high field Mossbauer study 2−99001
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$LaFe_4P_4$, superconductivity and mag. props., Mossbauer study 2−72102
$LaNi_5$, spin polarised energy band struct. calcs. 2−92449
$Mg_{1-x}Mn_xFe_2O_4$ ferrites, elect. resistivity and cation distrib. 2−110343
Mn, electronic structure model using mag. state and electron occupancies correl. 2−104237
γ-Mn, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$Mn_{1-x}Cr_x(Fe_x)B$, Invar like props. 2−72174

magnetic moments continued
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
$NdAl_2$, complete mag. moment vector, magnetisation meas. 2−66784
$Nd_xLa_{1-x}B_6$, solid solns., mag. susceptibility 2−77257
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
Ni, ferromagnetic transition, character 2−56872
Ni, paramag. susceptibility, temp. depend., small Pd additions influence 2−98842
Ni particles on Spherocarb, mag. props. and particle size 2−92973
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$NiFe_2O_4$-$CaFe_2O_4$, magnetic props. *(Japanese)* 2−82578
$NiS_{1.4}Se_{0.6}$, mag. moment distrib., ^{61}Ni NMR study 2−115975
Pd_3Fe and Pd_3FeH_x, electronic struct. and mag. props. in ordered and disordered phases 2−76917
$PrAl_2$, complete mag. moment vector, magnetisation meas. 2−66784
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
$Pr_{1-x}Y_xCo_2$, Curie temp. magnetisation and NMR, Co local environment effect 2−116071
$PuSb_2$, magnetic props. 2−92872
$R_2(Co\text{-}M)_{17}$ (R=rare earth), residual induction, mag. props., permanent magnets appl. 2−82662
RFe_3, magnetisation meas. and mol. field theory anal. 2−92963
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
Sc, spin fluctuation quenching, specific heat 2−77304
Sm_2Co_{17-x}, struct. and mag. props. 2−61741
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2−72171
$Sm_3Fe_5O_{12}$, mag. phase transitions, Ising ordering hypothesis *(Russian)* 2−56860
$TbCO_{2-x}Fe_xHy$, lattice parameters and mag. charcts. 2−56891
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
$Tb(Fe_xCo_{1-x})_2$, pseudobinary intermetallic compound, mag. struct., neutron diffraction study *(Russian)* 2−98846
Tb_5Ge_3, mag. ordering and struct., incommensurate phase transition, neutron diffr. study 2−115977
$TiBe_{2-x}M_x$ (M=Cu, Ag, Au, Fe), magnetisation meas. in high and low fields 2−56839
$Tm_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
U_2Te_3, cubic, ferromagnetic struct. study, neutron diffr. patterns 2−104586
$U_{1-x}Th_xSb$, Kondo behaviour, ferromag. and antiferromag. behaviour, transport and mag. meas. 2−77032
V complex, VO(IV)-quadridentate naphthaldimine ligands, mag. and spectral props. 2−110849
V, susceptibility and local moments, temp. depend. in paramag. state 2−104576
V_3S_4, mag. susceptibility, mag. moments and sp. ht. 2−98852
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
YCo_5, density of states and mag. moments, appl. of CPA and continued fraction method 2−66411
$Y(Co_{1-x}M_x)_5$, M=Ni, Cu, Al, Ti, V, Cr, Mn, Fe, struct. and mag. props. 2−91874
$Y(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
YIG:Pr^{4+}, cryst. growth from melt, spontaneous magnetisation and mag. anisotropy meas. 2−77273
$Y_{1-x}Pr_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706
$Y_{1-x}Sm_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706
$Yb_xMo_6S_8$, mag. props. under press. 2−56911
$Yb_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
$Zr(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2−98853

magnetic monopoles
't Hooft-Polyakov monopoles, Fermi statistics admission 2−113110
Adler-Bell-Jackiw anomaly and fermion number breaking in mag. monopole presence 2−107509
astronomical monopole occurrence in solar system 2−106519
axially symmetric SU(2) multimonopoles 2−64228
axially symmetric SU(N) Bogomolny eqns., Backlund transformation 2−95660
axion models with no domain wall problem 2−101621
BPS monopole scatt., classical dynamics 2−53962
charge quantisation, topological meaning 2−74597
charged particle in mag. monopole field, Jackiw transformation in path integral 2−113197
charges and monopoles, quantum field theory regularisation 2−84837
compact single gauge group with arbitrary symmetry breaking, mag. monopole solns. 2−113104
confined magnetic charge, chiral anomaly, magnetostatics, integrability 2−101534
confinement at high temp. 2−64230
cosmological annihilation, two- and three-body contributions 2−117585
cosmological evolution of monopoles connected by strings 2−58516
cosmology, magnetic monopoles prod. by primordial black holes rel. to cosmic baryon number 2−79255
Dirac's mag. monopoles and gravitational monopole relationships, gauge theory of gravitation 2−74303
Dirac monopole, dynamic SO (3,1) symm. *(Russian)* 2−107565
Dirac monopoles, relativistic quantum field theory, charge quantisation, renormalisation 2−59019
discrete axial symmetry, SU(2) monopole rings, N=3 soln., Corrigan-Goddard conditions 2−74627
dylons, chiral limit charge, spin, statistics, anomalous charges 2−69373
dyon, Julia-Zee, fermion emission, S-matrix 2−69350
dyon, rotating, Kerr-Newman metric, black hole soln. 2−79447
dyon field, fermion bound states 2−95642
dyon spin and statistics, use of Dirac string rots. 2−84879
dyons, field equation and equation of motion 2−107527
dyons, generalised field eqns., quaternionic formulation 2−89889
dyons of charge $e\theta/2\pi$, gauge transformation topology in Georgi-Glashow model 2−59038
Einstein-Yang-Mills monopoles and dyons, stability 2−89883
EM field with Dirac's monopoles, canonical quantisation 2−79810
exact rotating dyon solution with Tomimatsu-Sato metric 2−64302
finitely separatd multimonopoles generated as solitons 2−53959
galactic magnetic field survival 2−117584
gauge theories, classical solns. spherically symmetric monopoles, Lax pairs, Toda lattice 2−54000

magnetic monopoles continued
grand unification mag. monopoles, ionisation loss, semiclassical theory 2−113181
grand unified monopole catalysation of baryon number violation 2−113187
grand unified theories, mag. monopole suppression 2−95707
grand unified theories, monopoles and early Universe, review 2−79790
gravitating Julia-Zee Dyon and the cosmological term 2−84816
gravitational field with Heavisidean monopoles, linear eqns., quaterionic form 2−63881
Harrison-Neugebauer-type transformations for instantons, multicharged monopoles as limits 2−95623
't Hooft-Polyakov monopole, accelerating, fields calc. 2−101521
inflationary universe scenario, Coleman-Weinberg GUT, monopoles 2−106985
Lagrangian for Dirac monopoles 2−113121
lattice gauge-Higgs system, magnetic monopole, mag. charge distrib. 2−59034
longitudinal motion in Kerr-Newman dyon space-time 2−107205
massive, number density and flux in Universe 2−74634
massive cosmic monopole search, upper limit 2−84052
massless fermion vacuum, dyon disappearance 2−69351
mixed SO(3) SU(2) lattice gauge theories, phase structure, monopoles 2−53949
monopole+charged particle composites, mag. flux, ang. momenta, statistics 2−69051
natural monopole suppression in supersymmetric SU(5) model 2−79800
non-Abelian, exact results 2−107548
nonAbelian classical source, gauge field solns. 2−53975
nonAbelian mag. monopoles, internal struct. 2−101555
pair creation in energetic collisions 2−89925
pair prod. rate at strong coupling in weak external fields 2−64265
pure Su(3) and SU(2) Yang-Mills theories without Higgs scalars, magnetic monopoles 2−101553
quantum field theory of charges and monopoles 2−59013
quantum field theory of elec. and mag. charges, IR problem and radiation effects 2−89894
quasi-Abelian Yang-Mills configurations, topological props. and mag. charge 2−107525
rotating dyon black hole, exact soln. 2−53632
self-dual, gauge field theory solutions 2−107514
self-dual magnetic monopoles 2−69437
slow, stopping power 2−75132
slow monopoles stopping power 2−54730
SO(3) lattice gauge theory, monopoles, vortices, confinement 2−89896
sourceless static Yang-Mills systems 2−59022
static axially symmetric self-dual gauge fields, algebraic construction 2−84796
static Euclidean anti-self-dual SU(2) Yang-Mills eqns. perturbation 2−79772
static monopole and geodesics 2−58997
statistical mechanics of quarks and hadrons, conf., Rielefeld, Germany (Aug. 1980) 2−53423
SU(2) adjoint Higgs model 2−95788
SU(2) lattice gauge theory, Z_2 mag. monopoles 2−59047
SU(2) lattice gauge theory dynamics, monopoles and vortices 2−79745
SU(2) monopoles, Corrigan-Goddard conditions for n monopoles, exact solns. 2−79764
SU(2) multimonopoles close together, Higgs fields 2−84792
SU(2) theory, self-dual axially symmetric Abelian background 2−113171
SU(2) Yang-Mills-Higgs monopoles in Atiyah-Drinfeld-Hitchin-Manin-Nahm construction 2−101563
SU(4) and SO(6) monopole solns. in tensor representation 2−95596
SU(5) hierarchical supersymmetric models, monopole prod., cosmological consequences 2−79798
SU(5) monopole solns. using 5×5 tensor representation 2−95702
SU(N) magnetic monopoles, topological study 2−95625
SU(N) monopole solutions with spherical symm., inverse scatt. method 2−54015
superconductive detector for moving mag. monopoles 2−84932
superheavy confined monopole annihilation, energy loss mechanisms 2−64247
superheavy magnetic monopoles 2−84828
superheavy monopoles and baryon asymmetry 2−59083
supersymm. field theory 2−101594
supersymmetric grand unified theories and the early universe 2−107577
supersymmetric SU(2) gauge theories, elec. dipole moment for monopoles 2−107663
suppression factor in SU(2)-SO(3) lattice gauge system 2−107557
thermal production of superheavy monopoles in early Universe 2−106987
thermoacoustic detectability 2−113188
Tomimatsu-Sato-Yamakazi spacetime, exact dyon soln. 2−113122
two Heavisidean monopole system energies 2−63882
Wu-Yang differential spaces, monopole scatt. *(Russian)* 2−107653
Yang-Mills theories, Abelian dominance and quark confinement 2−84853
Z_p lattice gauge model, phase struct. in presence of θ parameter, dyonic condensation 2−79741

magnetic permeability
Alnico magnets, anisotropic, model for field computation 2−82638
ALNICO steel, mag. props. *(Chinese)* 2−72262
dielectric slab, heating under EM illum. 2−109176
electromagnets gap permeance determ. using Monte-Carlo method *(Russian)* 2−56888
ferroelectric with ellipsoidal particle mixture, randomly oriented, mag. permeability *(Russian)* 2−98917
magnetostatic fields, nonlinear medium, fixed point theorem calc. 2−55015
material media, mag. permeability definition 2−104663
metals, ferromagnetic, exchange cond. shift, ferromagnetic antiresonance study 2−98683
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Permalloy film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Permalloy-type materials, soft mag. props., appls. in electronic ultravacuum equipment 2−69299
soft magnetic materials, compact, mag. props. and appls. in instruments and devices 2−82653
steel, electric, grain oriented, core loss, effect of degree of grain orientation alignment *(Japanese)* 2−104652
magnetic permeability continued
steel, inspection of products with little variation in coercive force 2−93737
steel, laminated sheet, mag. props. for normal fluxes 2−82673
steel, Si (3 wt.%), grain oriented, for transformers, mag. losses 2−72272
steel, Si-Al bearing electrical, internal oxidation and mag. props., annealing conditions influence 2−72724
Co-Fe, mag. props., review 2−82652
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
Fe powder, carbonyl, manufacturing conditions and influence on mag. permeability temp. coeff. 2−67242
Fe-Al (12 wt.%), high permeability mechanism, soft mag. props. 2−82654
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si, high permeability elec. steel, Goss texture, surface energy and primary texture effects 2−83135
Fe-Si (3wt.%) sheets, grain-oriented, core loss heterogeneity 2−72260
Fe-Si(6.5 wt%), ribbon formed by melt spinning technique, mag. props. 2−110603
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{25}B_{15})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous zero magnetostriction alloy, mag. aftereffect 2−72290
$Fe_{60}Ni_{20}B_{20}$ amorphous alloys, influence of heating on mag. props. 2−87535
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
MnZn ferrite, monocrystalline 2−87530
Ni-Fe, mag. props., review 2−82652
Y-Co alloy, Y_5Co_{19} phase identification by thermomag. anal. 2−77292
YIG film, magnetization meas. from ferrimag. resonance and antiresonance 2−66875

magnetic permeability measurement
HF and UHF COMECON metrological provisions 2−58801
HF permeameter for reversible permeability meas. 2−58864
reference materials for bicomplex permeability properties at high and ultrahigh frequencies 2−53794
standard for 1 to 200 MHz range, Soviet state special unit standard 2−58862
standard specimens, meas. at high and superhigh freq. 2−79626

magnetic pinch *see pinch effect*

magnetic properties of amorphous substances
alloy, random binary, with short range order of atomic arrangement, magnetisation 2−116035
alloys, amorphous, mag. field depend. of forced magnetostriction 2−98930
alloys, mag. domain struct. under elastic stresses 2−82634
alloys, study of struct. relax. by ferromag. reson. with spin exchange 2−87598
amorphous ferromagnet, tunnel states *(Russian)* 2−104604
amorphous magnetic thin film and magneto-optical memory *(Japanese)* 2−92977
ferromagnet, magnetostriction, phenomenological theory 2−72324
ferromagnetic alloys, amorphous, kinetics of induced uniaxial mag. anisotropy rotation 2−87489
ferromagnetic amorphous alloys, industrial appl. *(Japanese)* 2−77325
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
ferromagnetic and spin glass states 2−116017
ferromagnetic phase transition for cryst. and amorphous materials, mol. field theory 2−72225
Heisenberg amorphous ferromagnet with random anisotropy, mag. props. 2−61685
irreversible magnetising properties in amorphous and crystalline material, propag. props. 2−87539
magnetoelastic modes in amorphous ribbons, theoretical model 2−77353
metal, amorphous, magnetomechanical props., model 2−77354
metallic glass ribbon, plate wave velocity and attenuation, mag. field depend. 2−77350
metallic glass tape, ferromag., localized struct. variation detection by acoustic emission 2−71361
metallic glasses, directional ordering study 2−87555
nuclear methods of analysis, conf., Balatonfured, Hungary (Aug. 1981) 2−101112
particles, ferromag., magnetisation calc. 2−72265
particles in external mag. field, surface and bulk struct. 2−82688
polarised neutron scatt. studies 2−104579
polychinons, ladder and partly-ladder, paramag. characts., irrad. effects 2−104571
polyparaphenylenes, EPR study of mag. props. and struct. defects 2−104701
rare earth alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
rare earth alloys, induced mag., singlet-singlet model 2−104560
rare earth alloys, magnetic, amorphous, obtained by high speed cooling 2−105100
rare earth amorphous alloys, cryst. elec. field and local symm., mag. props. 2−72170
review 2−77270
ribbons, mag. anisotropy distrib., internal stress fields *(Chinese)* 2−110602
ternary alloys, conc., onset of magnetism, review 2−56853
transformations in amorphous and mictomagnetic materials 2−61712
Au_4Mn, random alloy, magnetisation calc. using short range order 2−116035
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
Co amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co-Fe-Si-B amorphous ribbons, with induced mag. anisotropy, influence of applied tensile stress on power loss 2−82686
Co-Gd amorphous films, struct. and mag. props., Mossbauer study *(Russian)* 2−77429
Co-P_x amorphous ferromagnet, ferromagnetic saturation *(Russian)* 2−87491
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264

magnetic properties of amorphous substances continued
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
$CoFe_2O_4$-P_2O_5 amorphous cpd., prep. and mag. props. 2−61735
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ ribbons, domain pattern annealing effect 2−92978
Co_xSi_{1-x} amorphous sputtered films, anomalous Hall effect 2−71950
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
$Dy_{0.52}Cu_0$$.$$d_{48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
$Eu_{80}Au_{20}$ and $Eu_{60}Yb_{20}Au_{20}$, amorphous, Mossbauer study 2−82757
Fe-B metallic glasses, rare earth additives, mag. props. study 2−87498
Fe-B metallic glasses, transition metal substituted, mag. props. and thermal stability 2−87497
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-B-Si metallic glass, crystn. kinetics, DSC study 2−71364
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-B-Si-C amorphous ribbon, mag. props., deleterious effect of Al 2−87525
Fe-B-Si-C(Co), Metglas 2605, magnetostriction and mag. anisotropy, meas. using magnetisation loops under stress 2−77352
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
Fe-based metallic glasses, mag. excitations, neutron diffr. study 2−115992
Fe-Bi-Si metallic glass, form. and mag. props. 2−103648
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Cr-B amorphous Invar alloy, Curie temp. and high field susceptibility, press. effects 2−72322
Fe-Mn, amorphous, ferromagnet-spin glass transition, ESR linewidth meas. 2−77305
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Ni-B based amorphous ferromags., aging effects on mag. props. 2−98909
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Ni-P-B based metallic glasses, Mossbauer study under press. 2−72385
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si, grain-oriented and amorphous ribbon, power loss, mag. flux harmonics and domain motion meas. 2−82648
Fe-Si (33 at.%) amorphous films, domain struct. characts. 2−82685
Fe-Si-B metallic glasses, substituted, saturation magnetisation 2−87481
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948
$Fe_{74}Zr_{26}$, amorphous, mag., Mossbauer, and resist. study 2−72384
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
$Fe_{1-x}B_x$, amorphous, spin waves, inelastic neutron scatt. study 2−72179
$Fe_{80}B_{20}$, amorphous, aging effects on mag. props. 2−98909
$Fe_{80}B_{20}$, Metglasses, thermomagnetic treatments 2−88110
Fe_xB_{1-x}, amorphous, magnetization and magnetoresist. in high mag. fields 2−61740
Fe_xB_{1-x} amorphous films, spin glass behaviour and non-ergodicity, FMR study 2−98897
Fe_xB_{100-x}, amorphous, mag. hyperfine interactions, Mossbauer study 2−82764
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{25}B_{15})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$(Fe_{0.82}B_{0.18})_{0.9}R_xLa_{1-x}$ (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er), amorphous, exchange interactions 2−72185
$Fe_{81.5}B_{14.5}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
$Fe_{81.5}B_{14.5}Si_4$, metallic glass, struct. relax., effect of quench rate 2−81683
$Fe_{80}B_{15}Si_{5-x}Ge_x$, amorphous, Curie temp. and crystn. behaviour 2−87496
$Fe_{83}B_{12}Si_6$, Metglas, ferromag. reson. absorpt. and ferromag. antireson. transmission meas. 2−72353
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study 2−72376
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$(Fe_{0.063}Co_{0.937})_{75}Si_{15}B_{10}$, amorphous, zero-magnetostriction induced mag. anisotropy, formation kinetics meas. 2−72189
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous zero magnetostriction alloy, mag. aftereffect 2−72290
$(Fe_{1-x}Co_x)_{90}Zr_{10}$ amorphous alloys, mag. induced anisotropy meas. 2−92896
$Fe_{70}Cr_{10}P_{13}C_7$, amorphous, spin waves 2−92884
$Fe_{81}Hf_{19}$, amorphous, mag., Mossbauer, and resist. study 2−72384
$Fe_{80}M_3B_{17}$ amorphous alloy, (M=transition metal), mag. and stress annealing 2−87554
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe_{78}Mo_2B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$(Fe_{1-c}Mo_c)_{75}P_{16}B_6Al_3$, amorphous, anomalous crit. behaviour, random anisotropy effects 2−72232
$Fe(NO_3)_3$, glassy paramag., Fe^{3+} Mossbauer spectra, spin-spin relax., microscopic model 2−93077
$(Fe_{1-x}Ni_x)_{75}B_{25}$, amorphous, magnetisation and crysts. 2−72266
$Fe_{40}Ni_{40}B_{20}$, $Co_{75}Fe_5B_{15}Si_5$ and $Co_{55}Fe_5Ni_{20}(SiB)_{20}$, amorphous, crystn. in RF mag. field, Mossbauer study 2−103634
$Fe_{40}Ni_{40}B_{20}$, surface conditions influence in mag. props. 2−82593
$Fe_{60}Ni_{20}B_{20}$ amorphous alloys, influence of heating on mag. props. 2−87535
$(Fe_xNi_{1-x})_{80}B_{20}$, glass, mag. props. and crystn., Mossbauer study 2−104754
magnetic properties of amorphous substances continued
$Fe_{10}Ni_{70}B_{16}P_4$, amorphous, mag. phase transition, magnetisation and DC susceptibility meas. 2−56857
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{47}Ni_{25}B_{18}Si_{10}$ amorphous alloy, ferromag. resonance, neutron effects 2−87597
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, metallic glass, mag. hyperfine field distrib., Mossbauer study 2−87640
$Fe_{32}Ni_{36}Cr_{14}P_{12}P_6$, amorphous, Mossbauer study under press. 2−72385
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, ferromag. phase transition, mol. field theory 2−72225
$Fe_{40}Ni_{40}P_{14}B_6$ amorphous mag. alloys, correlation between power loss and viscosity field 2−87523
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
$Fe_{40}Ni_{40}P_{14}B_6$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{80-x}Ni_xP_{20-y}B_y$, amorphous ferromag. alloys, mag. aftereffect spectra 2−56894
$Fe_yNi_{80-y}P_{14}B_6$, amorphous alloy, mag. props. study, phase diagram 2−110580
$Fe_yNi_{80-y}P_{14}B_6$, ESR study in reentrant phase 2−72331
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
$Fe_2O_3.H_2O$ gel, pure, prep., struct. and mag. props. 2−67769
$Fe_2O_3.xH4d2O$ gel, pure, prep., struct. and mag. props. 2−67770
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
Fe_xSi_{1-x} ferromag. alloys, amorphous and crystalline, even magneto-optic spectroscopy 2−104857
Gd Co amorphous films, torque curves meas. *(Russian)* 2−98926
Gd-Co, amorphous alloy films, changes in struct., mag. anisotropy and mag. domains *(Chinese)* 2−62238
Gd-Co amorphous films, perpendicular mag. anisotropy, effect of O_2 and N_2 addition 2−72299
Gd-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
$Gd_{0.52}Ag_{0.48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
$Gd_{80}Au_{20}$, amorphous, Mossbauer study 2−82757
GdCo amorphous bubble film, FMR spectra, angular depend. 2−72354
GdCo amorphous film, compensation temp., substrate effects, Hall effect study 2−92974
GdCo amorphous RF sputtered films, substrate bias effect on film composition and mag. props. 2−56900
GdCo film, bias-sputtered, perpendicular anisotropy rel. to microstruct. 2−72297
$Gd_{1-x}Co_x$ amorphous films, oxidation, FMR study 2−82724
GdFe amorphous bubble film, FMR spectra, angular depend. 2−72354
GdFe amorphous thin films, induced anisotropy and temp. effect on domain struct. 2−104609
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
Ho-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
$KFeS_2$, effect of amorphisation in mag. props. 2−82659
$Mg_{1-x}Fe_x$, amorphous, Mossbauer effect and mag. props. 2−66965
$Mg_{0.7}Zn_{0.3}$ metallic glass, energy bands and Pauli spin susceptibility, pseudopot. formalism 2−71855
Nd-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
Ni-B, amorphous mag. props. 2−92967
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
$(Ni_{0.93}Fe_{0.07})_{80}P_{10}B_{10}$, amorphous, magnetization, annealing influence 2−104660
Pd-Co films, epitaxial, polycryst. and amorphous, transverse anisotropy meas. *(Russian)* 2−92975
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
Pr alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
Pr amorphous alloys, low temp. mag. props. 2−56870
Pr-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
$(PrRd8_0Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
$(Sb_2S_3)_x(SbI_3)_yFe_z$, glassy semicond., spin glass like behaviour 2−56871
Se, magnetic susceptibility constants meas. for amorphous, cryst. and powders 2−87474
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
Y-Co(Ni)(Fe), amorphous, mag. props. due to 3d magnetism 2−72269
YFe_2, amorphous, melt-spinning prep., mag. props. 2−72267
YFe_2, amorphous, struct. relax., Mossbauer study 2−72383
$Y_{0.33}Fe_{0.67}$ amorphous spin glass, spin dynamics, inelastic neutron scatt. study 2−98892
YIG, amorphous, Mossbauer Zeeman spectrum, linewidth asymm. 2−110736
YIG, amorphous speromag., quadrupole energy shifts of ^{57}Fe Mossbauer lines 2−72386
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726

magnetic properties of dilute alloys *see magnetic properties of dilute systems*

magnetic properties of dilute systems
see also local moments in dilute systems; magnetic impurity interactions
annealed system, mag. mixture, Potts model 2−77299
critical temperature, conc. fluctuations effect, theory 2−104624
ferromagnet, spin wave excitations, fractal effects 2−72180
Heisenberg ferromagnet, dil. anisotropic, correl. lengths and transition temp., renormalisation group scaling methods 2−66863
Ising chain, impurity magnetisation in transverse field, weak coupling expansion 2−66853

magnetic properties of dilute systems continued
magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
metamagnet, dilute, quasiequilib. transitions, Ising model 2−98879
Ag-rare earth ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
alloy, liq. and solid., conc. and dil., temp.-conc. relationships of susceptibility 2−66766
$Ce_{1-x}Y_xAl_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
Cr-Fe, mag. first-order transition, susceptibility and latent heat study 2−98880
Cr-Si, mag. first-order transition, susceptibility and latent heat study 2−98880
Cu-Cr(-Fe), (-Mn), dilute alloys, ionic model, energy level splitting, NMR study 2−66932
$Cu_yCr_xM_{2-y}S_4$ (M=Sn, Ti), mag., EPR, and Mossbauer meas. 2−98840
Fe-As(Ga)(Ir)(Mn)(Nb)(Ru)(V), dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
$Fe_{1-x}V_x$, disordered, spin wave dispersion relations 2−77279
$Fe_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
$Mn_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
Ni-Mn(Pt), dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Ni-Pd alloy, paramag. susceptibility, temp. depend., small Pd additions influence 2−98842
$(Pd_{0.9966}Fe_{0.0034})_{0.95}Mn_{0.05}$, nonlinear mag. susceptibility and sp. ht. meas. 2−87480

magnetic properties of fine particles
see also superparamagnetism
anisotropy of single domain particles, ferromag. reson. study 2−56946
cylindrical ferromagnetic particle system, magnetization *(Russian)* 2−98916
disperse mag. particles with two sizes, magnetisation 2−106103
ferroelectric with ellipsoidal particle mixture, randomly oriented, mag. permeability *(Russian)* 2−98917
graphite diamagnetic suspension in const. mag. field 2−110609
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
powder, interaction with polyester binder, particles packing and orientation behaviour *(Japanese)* 2−87547
powder particles, magnetic parameters spread, method for anal. 2−89752
powderous soft mag. rings, inhomogeneity meas. 2−79622
rare earth small particles, cryst. struct. and mag. props. 2−77330
rare earth-Co permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
zeolite catalyst, ZSM-5(Fe), magnetisation, Mossbauer and catalytic props. meas. 2−77433
CrCoFe permanent magnet, powder metallurgy processing 2−72652
CrO_2:Fe particles, noncollinear mag. struct., Mossbauer study 2−77329
Cu-Co dilute alloy powders, mag. characts. scatter 2−72289
Cu-Ni alloy particles, Ni impurity distrib., mag. props. study 2−76485
Cu-Ni-Fe disperse ferromag. particles, mag. state transition with charge in interparticle distance *(Russian)* 2−104665
$Cu_{2.8}AlMn_{0.2}$, solid soln. containing disperse ferromag. Cu_2MnAl inclusions, martensitic transition obs. *(Russian)* 2−98915
Fe acicular particles, mag. props. and morphology, heat treatment effects 2−77328
Fe carbonyl powder based sintered magnetic material, polyorganosilazane resin bonded 2−67261
Fe powder, carbonyl, manufacturing conditions and influence on mag. permeability temp. coeff. 2−67242
Fe powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
Fe-Co powder, form., struct., and mag. props., electrolysis conditions effect 2−83063
Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
Fe_3O_4, magnetite, multidomain powders magnetostrictive control of coercive force 2−100374
Fe_3O_4 particles in silicate matrix, superparamag. and ferrimag. props., magnetisation study 2−92972
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Ni particles on Spherocarb, mag. props. and particle size 2−92973
Ni powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
Se, powder, mag. susceptibility consts. meas. 2−87474
$SmCo_5$ permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
YCo_2 powders, ferromagnet and Mossbauer props., grinding effects *(Russian)* 2−87546

magnetic properties of substances
see also antiferromagnetic properties of substances; demagnetisation; diamagnetic properties of substances; ferrimagnetic properties of substances; ferromagnetic properties of substances; magnetic permeability; magnetic properties of amorphous substances; magnetic properties of dilute systems; magnetic properties of fine particles; magnetic structure; magnetic surface phenomena; magnetic susceptibility; magnetic transitions; magnetisation; magnetocaloric effects; paramagnetic properties of substances
disordered systems and localisation, conf., Rome, Italy (May 1981) 2−63750
magnetically ordered solids, NMR spectrometer appls. *(Czech)* 2−58865
metallic glasses, review of applications *(Hungarian)* 2−104558
oxides, physical and chemical props. handbook 2−94927
review of magnetic order in solids 2−110586
soft magnetic materials, conf., Grenoble, France (Sept. 1981) 2−79276
$Ce_{0.75}La_{0.25}B_6$, Kondo state, transport and mag. props. 2−56832
Co complex, 2-fluoro- and 4-fluoro-2-nitroaniline cobalt(II), mag. moments, IR and visible study 2−93203
Cu complex, 2-fluoro-and 4-fluoro-2-nitroaniline copper(II), mag. moments, IR and visible study 2−93203
Ni complex, 2-fluoro- and 4-fluoro-2-nitroaniline nickel(II), mag. moments, IR and visible study 2−93203

magnetic read/write heads *see magnetic heads*

magnetic recording
see also tape recorders; thermomagnetic recording
analog magnetic audio recording techniques *(Japanese)* 2−91197
rotational hysteresis meas. with gas turbine 2−74472
thin film recording materials, corrosion 2−72864
Co-Cr perpendicular magnetic recording films, meas. of M-H curve 2−116039
γ-Fe_2O_3 sputtered thin film disks, high density recording charact. 2−77335

magnetic relaxation
see also ferromagnetic relaxation; magnetic resonance; spin-lattice relaxation; spin-spin relaxation
histidyl residues of normal human adult haemoglobin, proton longitudinal relax. study 2−111623
liquids subjected to space-ordered light radiation, proton mag. relax. *(Ukrainian)* 2−116077
NQR coherent relaxometer, transceiver 2−89764
nuclear, caused by spin-rotational interaction, stochastic differential eqn. study 2−82742
polymer, transverse mag. relax. time depend. on mol. wt. *(Russian)* 2−66966
superparamagnets, ideal, mag. relax., Monte Carlo simulation 2−110610
time-evolution of spin relax., power spectrum determ. 2−116053
time-evolution of spin relax., rot. diffusion eqn. 2−116052
DyAg, cryst. and amorphous, electronic relax. and hyperfine fields, Mossbauer study 2−116098
Fe_3O_2, magnetite, single- and poly-crystalline, mag. after effects. relax. spectra 2−77332
Re surface, nuclear spin relaxation of alkali metal atoms 2−98991

magnetic resonance
see also acoustic magnetic resonance; antiferromagnetic resonance; atomic beam magnetic resonance; ferrimagnetic resonance; ferromagnetic resonance; laser magnetic resonance; magnetic double resonance; magnetic relaxation; molecular beam magnetic resonance; nuclear magnetic resonance; paramagnetic resonance
bubble lattices, domain wall dynamics, reson. RF absorpt. study 2−56901
correlation functions of particles hopping on a chain 2−82330
ferrocytochrome C, mag. resonance-Raman optical activity 2−85674
intercalation compounds, conf., Triest, Italy (July 1981) 2−74165
linewidth, indirect interaction of effective spins via a phonon field 2−104682
moment method extension to continuous level scheme 2−110618
pheophytin a anion radical, liq. soln., hyperfine coupling, ENDOR and TRIPLE resons. obs. 2−108589
polarised neutrons, spatial spin resonance in amplitude-modulation mag. fields *(Russian)* 2−104683
polycrystalline and powder samples, mag. reson. spectra simulation 2−92988
spectra, simulation using stochastic Liouville eqn. with pade approximants 2−85692
two-level atom, mag. reson. signal in rapid freq. scanning conditions 2−70171
vibrations and microwaves in solids 2−99066
$IrBr_6^{2-}$, Zeeman levels, mag. optical activity-reson. Raman spectra 2−85668

magnetic resonance spectrometers
battery-driven high-power pulsed NMR amplifier using commercial broadband transistor amplifier modules 2−84679
broad-band NMR spectrometers, high-temp. attachment for up to 7700°C 2−69216
Bruker WP-200 spectrometer modification for NMR obs. in solids 2−53802
CW NMR dispersion spectrometers using cryogenic tunnel diode RF oscillator 2−69217
digital pulse train generator for NMR and NQR spectrometers 2−107357
double NQR spectrometer 2−89763
double NQR-NMR spectrometer, program device 2−89765
double resonance spectrometer for pure NQR detection 2−84678
ESR spectrometer, modification to the heater unit in the Diapazon temperature control 2−112944
ferromagnetic resonance spectrometer, digital recording system 2−69215
high-power radio frequency irradiation system with automatic tuning for NQR appls. 2−95416
high-temperature EPR cavity for application of uniaxial stress 2−53804
loop gap resonator, use in microwave lumped circuit ESR 2−84680
magnetic field stabilizer for nuclear magnetic resonance pulse spectrometers 2−107356
multinuclear NMR spectrometer using high mixing frequencies for RF generation and detection 2−79638
NMR, CW spectrometer, high field meas. appl. *(German)* 2−112943
NMR, linear scan generator for magnetic resonance spectra 2−69212
NMR, switched receiver and transducer for 0.5 to 10 MHz range 2−69213
NMR, video pulse signal simulator with specified envelope form 2−69214
NMR and EPR resonant structures matching 2−74476
NMR spectrometers, appl. to mag. ordered solids meas. *(Czech)* 2−58865
NMR spin echo spectrometer for magnetically ordered materials 2−93060
NQR coherent relaxometer, transceiver 2−89764
NQR spectrometer, regenerative wideband transistorised transducer 2−89768
NQR spectrometer as a device for meas. T_2* 2−107365
NQR spectrometer signal accumulator 2−89766
NQR super-regenerative spectrometer for spin-spin relaxation time meas. 2−108569
phase coherent pulsed NMR spectrometer 2−64080
pulsed coherent NMR spectrometer 2−84674
pulsed magnetic field spectral apparatus for molecules and crystals at 4.2 to 77K 2−58866
pump generator for a double nuclear-quadrupole resonance spectrometer to irradiate quadrupolar nuclei 2−79630
saturation transfer electron paramagnetic resonance spectrometer, fast determ. of field modulation amplitude at various field modulation frequencies 2−95421
solenoidal magnet NMR spectrometer, mag. susceptibility 2−107366
splitting factors, g-values, meas. in EPR spectroscopy, microprocessor-based unit 2−101433
superregenerative magnetic-field sensor controlled by nuclear magnetic-resonance signal 2−95410

magnetic resonance spectrometers continued
wall-less microwave cavity for optical detection of magnetic resonance 2−79640
wideband voltage amp. for NMR pulse spectrometer 2−107355

magnetic resonance spectroscopy
acoustic ringing, pulse strategies for suppression 2−107372
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
B_0 homogeneity spatial extent in high-resolution NMR expt., high-order gradient effects 2−53803
binuclear shift reagents for NMR spectroscopy 2−114014
broadband heteronuclear decoupling 2−89771
coal, anal. ^{13}C NMR with cross polarisation and magic angle spinning, spin dynamics 2−116736
coherence transfer NMR, echoes and antiechoes, double quantum freq. sign determ. 2−79636
conductive samples heat transfer in NMR with RF decoupling 2−55403
digital NQR signal store, short pulse, amplitude-time convertor 2−89767
dilute spins in solids, high resolution ^1H NMR obs. 2−58867
distortionless enhancement of NMR signals by polarization transfer 2−89777
ENDOR, RF coil construction for cavity 2−107371
EPR amplitude meas. using g-value controlled device 2−64081
EPR spectra simulation, modulation effects inclusion 2−53800
far-IR laser mag. reson. spectroscopy 2−74474
fast deconvolution procedure for inhomogneous bell-shaped lines and appl. to spin-relax. studies 2−77357
fast magnetic-resonance scanning, Z signal study under harmonic freq. modulation 2−58871
forbidden transitions in spin-1 and AX spin systems, selective excitation in NMR spectrosc. 2−101432
Hadamard NMR spectroscopy saturation and correlation expansion description 2−74475
heteronuclear 2-dimens. NMR spectroscopy, coherence transfer echo realignment effects 2−69222
heteronuclear solid-state correlation spectroscopy 2−93018
heteronuclear systems, remote nuclei detect. using relayed coherence transfer NMR 2−90571
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
high-resolution solid-state NMR spectroscopy 2−79629
isotropic ESR spectra simulation, transportable BASIC program 2−108582
kinetics, multiple pulse FT NMR investig. method 2−89769
liquid struct. NMR spectroscopy at high-press. 2−98990
liquids, magic angle sample spinning 2−107373
longitudinal magnetisation detection of electronic spin system irradiated by transverse RF fields 2−107358
low magnetogyric ratio nuclei, spin lattice relax. meas. using INEPT signal enhancement 2−89772
magic angle NMR, dipolar and scaled chem. shift interactions 2−108554
magic angle NMR, optical alignment technique 2−79634
magic angle sample spinning technique using rot. synchronised pulses 2−80658
magic angle setting using quadrupolar nuclides 2−79633
magic angle spinning NMR, appl. to ^{11}B, ^{27}Al and ^{29}Si 2−82728
magic-echo sequence for second-moment meas. 2−107369
magnetic field gradient coil for NMR meas. 2−58868
microwave cavities, cm and m ranges, for EPR expts. 2−95420
mid-IR laser mag. reson. spectroscopy 2−75330
modulation effects, density operator calcs. 2−69218
monosaccharidic (-dn) and ^{13}C enriched compounds, ^1H and ^{13}C two dimens. spectroscopy *(French)* 2−80679
multiplicity determ. in ^{13}C NMR 2−89776
multiplicity differentiation, magic angle ^{13}C spin-echo J-modulation study 2−89778
NMR, enthalpy-entropy compensation problems investig. 2−85698
NMR, high resolution, in solids *(Japanese)* 2−93027
NMR, mag. suscept. broadening, susceptibility matching effects 2−69221
NMR population inversion, symmetrical composite pulse sequence 2−89774
NMR probe, high temperature 2−101434
NMR spectrometer, microprocessor-based data acquisition and anal. system 2−89780
NMR spectroscopy, 90 degrees single passage 2−107359
nonequilibrium spin states, meas. 3 cm ESR facility 2−84675
NQR, adiabatic demagnetisation method 2−107360
NQR, conference, Moscow, USSR, 21-4 Sept. 1981 2−107006
NQR, electrical effects obs. method 2−89761
NQR, pulse spectrometer, sensitivity improvement by mag. cooling 2−89762
NQR, two-freq. method, relax. theory, superposition of quantum states 2−107362
NQR, Zeeman effect, pulsed spectrometer appl. spin. echo envelope shape 2−93055
NQR dynamic line narrowing 2−107364
nuclear quadrupole echoes, advanced and lagged 2−107361
organic compounds molecular weight determ. by NMR spectroscopy 2−75470
organometallic compounds containing ^{103}Rh, ^{183}W and ^{57}Fe, P-irrad. INEPT expt. 2−87604
oriented systems, 2-dimens. spin-echo spin-echo spectrosc. 2−69219
paramagnetic resonance, demonstration apparatus 2−84426
parametric resonance in zero field under two-freq. action 2−113943
phase-modulation ESR spectroscopy, relaxation charcts. 2−110620
polyatomic molecules, hyperfine struct. corrections, P odd effects *(Russian)* 2−108736
polymers under stress, acoustic emission and EPR studies 2−66133
pulse sequence for 2-dimens. chem. shift correl. spectroscopy 2−58869
pulsed spin locking theory in pure quadrupole resonance 2−110711
pyroelectric detection of magnetic resonance 2−77379
quantitative flow FT ^1H NMR, repetitive pulse conditions 2−107367
recovery-preparation time in pulsed FT NMR 2−89775
relayed coherence transfer spectroscopy, structural determ. 2−90580
saturation transfer EPR, signal phase depend. rel. to rot. correl. times 2−89760
skyline projections in 2-dimens. NMR spectrosc. 2−107370
spectral densities, NMR relax. investig. using tracing method involving freq.-reduced variables 2−89770
spin randomisation in heteronuclear pulse sequences 2−107368

magnetic resonance spectroscopy continued
spin systems, nuclear mag. double reson. with double modulated RF field 2−77423
spin-spin coupling, heteronuclear two-dimens. J spectroscopy 2−89773
spinning NMR samples, pH control and rapid mixing 2−79631
splitting factors, g-values, meas. in EPR spectroscopy, microprocessor-based unit 2−101433
stored ions, microwave spectra, motional side band resonances, theoretical and expt. study 2−90470
strain modulated EPR, second harmonic detection, technique for measuring strain parameters degenerate lines 2−53801
three-frequency NMR, chemical shifts, scalar couplings and multiplicities 2−69224
TINDOR triple resonance technique, sing determ. of long-range couplign const. 2−58870
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
two-dimensional nuclear Overhauser spectroscopy, chem. exchange, coherent transfer effects 2−69220
two-step pulse sequence for protonated C signal cancellation 2−79635
^{13}C chem. shifts, meas. in solids 2−79632
^{13}C NMR triple reson. using simultaneous F and H^+ decoupling 2−80659
^{13}C NMR spectroscopy, attached H^+ multiplicity test 2−74477
D NMR probe for liq. cryst. orientational ordering 2−89779
^{4}He-alkali metal plasmas, He and free electron mag. reson. signal separation 2−113915

magnetic screening *see magnetic shielding*

magnetic semiconductor materials *see magnetic semiconductors*

magnetic semiconductors
acoustohelicon wave excitation by laser beam modulation 2−66578
conference, Linz, Austria (Sept. 1981) 2−89445
electrostatic wave excitation at microwave beam difference freq. 2−104406
ferrimagnetic, Goldstone magnons, energy spectra and relax. coeffs. calc. 2−61702
ferromagnet, spin system cooling in high freq. EM field, electron-magnon interaction mechanism 2−56846
ferromagnet, spin wave excitation by strong static elec. field 2−61748
ferromagnetic semiconductor, broad band, density of states in vicinity of Curie point, Dyson eqn. soln. 2−66412
ferromagnetic semiconductor, critical shift of cond. bound bottom 2−77255
ferromagnetic semiconductor, elec. cond. in quantising mag. field *(Russian)* 2−104385
ferromagnetic semiconductor, homogeneous state instability 2−92932
ferromagnetic semiconductors, mag. polarons, review 2−87160
magnon instability, population and damping in presence of two rad. fields 2−66799
MIS structs., 2-D electron gas, subband struct. and magnetisation 2−104497
s-f model with Coulomb repulsion, thermodynamics of two atomic cluster spin $^1/_2$ 2−66822
semimagnetic semiconductors, acceptor states in mag. field 2−98582
semimagnetic semiconductors, mag. props. 2−98898
$BaAs_3$, elec. cond. and mag. props. 2−92907
$CaAs_3$, elec. cond. and mag. props. 2−92907
$Cd_{1-x}Ag_xCr_2Se_4$, photomagnetisation obs. *(Russian)* 2−56912
$CdCr_{2x}In_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$CdCr_2Se_4$, effect of light on mag. after effects 2−87553
$CdCr_2Se_4$, ferromag. semicond., cathodoluminesc. study 2−87876
$CdCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
$CdCr_2Se_4$, photomagnetisation of Landau-Lifshitz domain struct. *(Russian)* 2−87750
$CdCr_2Se_4$, s-conduction band splitting, photoluminesc. study 2−87849
$CdCr_2Se_4$ single crystals, production of ohmic contacts 2−77179
$CdCr_2Se_4$:In, Ag defect single cryst. growth, elec. and mag. charcts., dopant influence 2−91842
$(Cd_{1-x}Mn_x)_3As_2$, Landau levels, cyclotron effective mass and effective g-factor 2−110269
$(Cd_{1-x}Mn_x)_3As_2$, Shubnikov-de Haas effects 2−98677
$Cd_{1-x}Mn_xSe$, electric-dipole spin reson. of bound electronic states 2−110820
$Cd_{1-x}Mn_xSe$, exciton and phonon spectra, photoluminesc. and Raman scatt. study 2−110942
$Cd_{1-x}Mn_xSe$, stimulated spin-flip Raman scatt., laser emission obs. 2−114287
$Cd_{0.7}Mn_{0.3}Te$, valence band, XPS and UPS studies 2−93369
$Cd_{1-x}Mn_xTe$, 'antiferromag. phase', neutron scatt. studies 2−92868
$Cd_{1-x}Mn_xTe$, absorpt. edge temp. depend. 2−61903
$Cd_{1-x}Mn_xTe$, absorption edge pinning, transmission and piezotransmission meas. 2−72443
$Cd_{1-x}Mn_xTe$, exciton luminescence spin splitting *(Russian)* 2−61976
$Cd_{1-x}Mn_xTe$, semimag. semicond., photoluminescence band excitation spectra 2−82898
$Cd_{1-x}Mn_xTe$, semimagnetic, Raman scatt. by phonons and magnons 2−77531
$Cd_{1-x}Mn_xTe$, simple excitons in intermediate mag. held, energy levels calc. 2−61365
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Cd_{1-x}Mn_xTe$, spin-flip Raman scatt. 2−110870
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
CdTe:Mn, photo-induced spin glass 2−87513
$CeSb_{1-x}Te_x$, elec. and mag. props. 2−66523
$Co_{0.7}Cu_{0.3}Cr_2S_{4-x}Se_x$, ferrimag. semicond., elec. cond. and thermoelec. coeff. meas. 2−115763
Co_3O_4, elec. cond., crit. behavior near antiferromag. phase transition 2−98648
$xCuCr_2S_4$-$(1-x)Ga_{0.67}Cr_2S_4$ ($0 \leq x \leq 0.4$) semiconducting spinel, spin-glass state 2−66840
Eu chalcogenides, undoped ferromag., real spin 7/2, density of states and band edge shift 2−76885
EuO $(Eu_{1-x}Gd_xO)$ (Eu_{1-x}), mag. semicond., s-d exchange interaction, current carriers effect, expt. study 2−92895
EuO(S), conduction band states, effect of electron-magnon interaction 2−66439
EuP_3, elec. cond. and mag. props. 2−92907
$Eu_{0.99}R_{0.01}Se$ (R=Sr, Sm), hyperfine fields at ^{153}Eu, NMR study 2−66924

magnetic semiconductors continued
EuS film, magnetisation curves in critical temp. range examined by magnetooptic and photomodulation methods 2−66869
EuSe, magnetic transition, press. induced 2−87504
$Hg_{1-x-y}Cd_xMn_yTe$, semimag. semicond., magneto-optical studies 2−99097
$HgCr_2Se_4$, FMR characts., 1.8 to 130K 2−82725
$HgCr_2Se_4$, Hall effect during ferromagnetic transition 2−110372
$HgCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
$HgCr_2Se_4$, mag. semicond., elec. optical and mag. studies 2−87288
$Hg_{1-x}Fe_xTe$ crystal, Shubnikov-de Haas oscillation amplitude anomalies 2−77099
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xSe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
n-HgMnTe, optical determ. of exchange interaction 2−104605
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
$Hg_{1-x}Mn_xTe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xTe$, optical absorpt. 2−77549
$Hg_{1-x}Mn_xTe$, spin glass transition and Hall coeff. anomalous temp. depend. *(Russian)* 2−82610
$Mg_{1-x}Mn_xFe_2O_4$ ferrites, elect. resistivity and cation distrib. 2−110343
p-$Mn_xCd_{1-x}Te$ crystal, elec. cond., Hall effect and photocond. meas. 2−87263
α-MnS, linear optical anisotropy and domain struct. at two successive antiferromag. transitions 2−56856
MnSb, thermal and elec. props. 2−104087
MnTe, antiferromag. semicond., Mossbauer and X-ray study 2−61795
$Mn_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
$Mn_xZn_{1-x}Te$, disordered, mag-correlations, neutron diffr. study 2−66758
Ni-Zn ferrite, extraordinary Hall effect and carrier scatt 2−82383
$(Ni_{0.4}Zn_{0.6})Fe_2O_4$ ferrite, switching and surface line emission spectrum obs. under pulse voltage 2−115831
$Ni_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
Si:P, heavily doped, as amorphous antiferromagnet 2−77283
$Sn_{1-x}Cr_xTe$ degenerate mag. semiconductor, struct. transform.-induced mag. ordering 2−56852
$Sn_{1-x}Mn_xTe$, low field AC mag. susceptibility 2−92874
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2−92969
$ZnCr_{2x}Al_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591

magnetic separation
red blood cells, HGMS 2−88518

magnetic shielding
biomagnetic and bioelectric fields, very low, meas. in mag. shielded room *(German)* 2−111655
biomedical measurement, extremely low current, in completely magnetically shielded room *(German)* 2−68098
compact torus experiment, diagnostic equipment screen room 2−84608
large volume magnetic shield, design, construction, and perform. 2−53793
Permalloy-type materials, soft mag. props., appls. in electronic ultravacuum equipment 2−69299
turbomolecular pumps, leakage mag. field effects meas. 2−84643
type II superconductors, surface effects influence on hysteresis losses 2−61671
$NaBrO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387
$NaNO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387

magnetic shielding, nuclear *see nuclear screening*

magnetic stars
A, Am and Ap spectroscopic binaries, composite spectra *(French)* 2−79106
abundance stratifications in peculiar stars, detect. through curve of growth method 2−68783
Am stars, spectrophotometric studies rel. to effective temps., radii and bolometric magnitudes 2−84238
Am stars, UV photometric data 2−63377
Ap stars, calc. of Stokes parameters for line emission 2−94747
Ap stars, classification properties within Vilnius Geneva system 2−73955
Ap stars, global mag. field effect on upper main sequence envelopes 2−63422
Ap stars, low energy cosmic ray production and accel. in interstellar space 2−100673
Ap stars, magnetic field models anal. 2−79123
Ap stars, meridional circulation versus diffusion 2−94727
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
Ap stars, photometric obs. of four objects 2−94744
Ap stars, physical parameters, relations from energy distrib. curves 2−58356
Ap stars, spectroscopic detect. of surface chemical inhomogeneities in absence of spectrum variability *(Russian)* 2−100958
Ap stars, stability and oscillations of stars with mag. fields 2−100908
Ap stars in Scorpio-Centaurus association, slow metal enrichment from visible obs. 2−100935
Ap stars in southern hemisphere, objective-prism discoveries 2−79077
γ and 56 Arietis, magnetic Ap stars, nature of vars. of H lines 2−94745
broadband linear polarisation from magnetised stellar atmospheres numerical tables for mag. intensification mechanism 2−112431
53 Camelopardalis, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
κ Cancri, Hg-Mn star, abundances from UV spectra anal. 2−94728
κ Cancri, Hg-Mn star, search for medium-Z elements in UV spectrum 2−106723
α^2 Canum Venaticorum, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
α Caris Majoris, Am star, CNO abundances from visible obs. 2−68759
α Caris majoris (Sirius), anal. of spectrum in 3600 to 4200 Å region 2−84232
ι Cassiopeiae, radial vel. and equivalent width vars. 2−79104
convective stellar models with radiation press., adiabatic oscill., mag. field effect 2−94701
ι Coronae Borealis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
β Coronae Borealis, magnetic Ap star, nature of vars. of H lines 2−94745

magnetic stars continued
Cox 15, 24, 38 and C, Ap stars in open cluster NGC 2516, obs. 2−58364
HD 119213, 170000, 173650, Ap stars, line blocking effect on light curves 2−106720
HD 147010, Ap Si star, spectrum variability and rot. period 2−68788
HD 215441, Ap star, mag. field surface struct. 2−84237
HD 25354 and 152107, binary Ap stars, spectral var. and orbit/rot. synchronism 2−112455
HD 29647, Hg-Mn star, radial vel. distance and luminosity, visible obs. *(Russian)* 2−68794
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 37776, intermediate He star, confirmation of light variability 2−84229
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
φ Herculis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
HR 151, 239 and 7461, δ Scuti stars with Ap star characts., nature 2−100954
HR 465, spectrum of Ap star near rare-earth min. phase 2−106719
HR 5049, binary Co Ap star, pulsations and orbit determ. 2−106742
line transfer equation of radiation in mag. field presence in non LTE atm. 2−78967
magnetic white dwarfs, MHD instability 2−68606
metallic line stars, classification properties within Vilnius Geneva system 2−73955
metallic line stars spectra, catalogue of Ca II K line profiles/equivalent widths 2−84111
peculiar B and A stars, spectrophotometry 2−112457
radial magnetic field gradient in atmospheres of magnetic stars, results for 53 Camelopardalis and Canum Venaticorum 2−94743
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
residual fields of extinct dynamos 2−63449
20 Tauri, He weak star, abundance from model atm. anal. and visible obs. 2−73997
ε Ursae Majoris, spectral var. of Ap star 2−79105
He star of 1 $M_\odot$, evolution in struct. and luminosity to white dwarf stage 2−68785
He-rich stars, periodic spectrum vars. 2−106743
Hg-Mn stars, Be abundances from near UV spectra 2−112448

magnetic storage
see also magnetic core stores; magnetic disc and drum storage; magnetic film stores; magnetic tape storage
amorphous magnetic thin film and magneto-optical memory *(Japanese)* 2−92977
magneto-optical memory materials and applications *(Japanese)* 2−70510

magnetic storage devices *see magnetic storage*

magnetic storage systems *see magnetic storage*

magnetic stores *see magnetic storage*

magnetic storms
see also micropulsations
1977 July 6 and 14, plasmapause-plasmasphere struct. and dynamics from whistler obs. *(French)* 2−106382
1979 August 20, secondary component intensity time-depend. behaviour *(Russian)* 2−73807
1979 March 22 and assoc. ionospheric scintillations 2−58196
auroral electrojet conductivity ratio in substorms 2−100649
auroral substorms, decameter radiowave propagation on transpolar paths 2−106415
bay disturbances in EM field, annual variation 2−83742
cosmic ray intensity diurnal anisotropy, spectral exponent (β) on geomag. disturbed days 2−68577
current sheet of magnetotail, stability calc. 2−63190
electron flux changes and local time depend. during substorms 2−89073
energetic particle variations at onset of substorm 2−100667
event of 29th July 1977, overview of obs. and theory 2−112237
geostationary satellite radio propagation studies, Japan *(Japanese)* 2−94561
geosynchronous satellite obs. of substorm development 2−100665
Hall current closure in magnetosphere during substorms 2−73800
IMF control of high-latitudes during substorm recovery 2−112246
Indian sub-continent, EM induction in Earth by long-period storm time vars. 2−111865
initiation, correlation with photosphere mag. field orientation 2−112248
interplanetary shock generated hydromagnetic impulse in magnetosphere 2−112240
ionosphere elec. current due to sudden commencement preliminary impulse 2−100629
K_p categorisation of geomag. disturbances rel. to solar flare activity *(Chinese)* 2−68563
low-latitude storms rel. to solar wind, 1966 to 1972 period 2−112253
lunar eclipses as cause of geomagnetic activity increases 2−63177
magnetopause behaviour at onset of sudden storm commencement 2−112238
magnetosheath behaviour at onset of sudden storm commencement 2−112238
magnetosphere proton precipitation during magnetic storms, equatorial boundary 2−68549
magnetosphere substorm morphology and models 2−63191
magnetosphere substorms, relation between geomag. activity and solar wind vel. and density 2−112227
magnetospheric substorms and current system dynamics 2−58202
magnetotail plasmoid created at substorm onset 2−84019
magnetotail substorm dynamics highlights from International Magnetospheric Study 2−112268
pitch angle distrib. at geosynchronous orbit assoc. with auroral absorpt. event 2−63176
plasmasphere, refilling of geomag. force tubes with thermal plasma after mag. disturbance 2−106383
plasmasphere ELF hiss during magnetic storm variations 2−84048
polar cusp latitudinal variation during mag. storm 2−78919
pre-substorm phases and relation to solar wind interaction 2−73799
prediction by solar wind obs. by spacecraft *(Japanese)* 2−73444
prediction method based on solar wind density obs. 2−84047
proton and electron aurora study of substorms 2−94548
reconnection expt. showing double layer formation 2−106420
reconnection of mag. field lines, driven by external forces 2−78917

magnetic storms continued
reverse geomagnetic disturbance inside auroral oval, effect of northward interplanetary mag. field 2−112293
ring current particle lifetimes during mag. storms 2−112258
single vortex current in polar region generated by IMF shock 2−100658
solar cause of severe storms in 1954 to 1976 period 2−73782
storm-time dynamics model of inner magnetosphere/ionosphere 2−112245
substorm expansion phase, proton accel. and energy dispersion 2−100668
substorm occurrence throughout course of day 2−112231
substorms, Alfven waves generation of mean EMF in collisionless plasma 2−86404
sudden commencement, polarisation latitudinal reversal 2−106428
sudden commencements, correl. with type II solar radio events observed in interplanetary medium 2−94572
thermosphere response to mag. storms 2−100609
trapped particle motion following sudden commencement of storm 2−112242
upper atmosphere low latitude region, density perturbation during mag. substorm activity 2−106376
variations in 1970-1972, correl. with interplanetary mag. field components 2−84018
weak identical disturbances due to solar wind shock wave 2−117527

magnetic structure
see also canted spin arrangements
actnide monopnictides and monochalcogenides, Coqblin-Schneffer interaction and mag. orderings and excitations theory 2−72184
amorphous mag. solids, polarised neutron scatt. studies 2−104579
amorphous magnetic materials 2−77270
analysis review, mag. props. rel. to struct. 2−66780
antiferromagnet, triangular, incommensurate mag. struct., role of dipole-dipole interaction 2−66778
antiferromagnets, magnetically ordered phases, field direction depend. *(Japanese)* 2−72164
bis-methylammonium copper bromochloride, moment direction, NMR study 2−115974
cerium monopnictides and monochalcogenides, Coqblin-Schneffer interaction and mag. orderings and excitations theory 2−72184
cubic solid solns., comp. mag. transitions, mag. struct. symmetries, neutron diffr. study *(Russian)* 2−92867
ferromagnet, two-sublattice, cation distrib., new Mossbauer spectroscopy determ. method 2−56998
ferromagnetic materials, surface magnetic order investig. by electron capture spectroscopy 2−110616
garnets, Luttinger-Tisza method 2−115979
garnets, magnetic structures, Mossbauer diffr. patterns, group theoretical anal. *(Russian)* 2−116095
graphite, adsorbed O_2 monolayers, mag. props. 2−98850
Heisenberg magnet, quenched random site, with competitive exchange interactions, high temp. mag. states in simple cubic and BCC lattices 2−56816
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
incommensurable structure induction by external field *(Russian)* 2−56865
line groups 2−92870
Luttinger-Tisza method appl. to case of extended spin components 2−115979
magnetic interaction of ion in solid, energy-level splitting 2−77288
metallic glass ribbons, spin texture, Mossbauer study 2−104757
metals, surface magnetism, polarised electrons 2−66890
Mossbauer diffr. patterns, group theoretical anal. *(Russian)* 2−116095
neutron crystallography, computer programs, Cambridge Crystallography Subroutine Library, review 2−65810
one-dimensional magnetic systems, neutron scatt., review *(Japanese)* 2−82568
one-magnon scattering of polarised neutrons 2−66779
Permalloy laminated films, magnetoresistance, mag. field detection method 2−71949
pyrite lattice, annealed Ising bond mixture, phase diagram 2−82622
rare earth intermetallics, form factor anal., evidence for 5d polarisation and higher order exchange terms 2−72147
rare earth ternary cpds., mag. and supercond. props. 2−115937
surface, ferromagnetic, magnetisation, mag. struct., spin polarised LEED study 2−98910
transition metal alloys, magnetic contributions in elastic moduli 2−92077
transition metals, magnetic contributions in elastic moduli 2−92077
Au_4Mn disordered alloy, short-range order and ferromag. props., X-ray diffr. study 2−97990
$BiFeO_3$, spiral mag. ordering, neutron diffr. study 2−110569
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
$CeAl_x$ (x=2, 3, $^{11}/_3$) mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
CeB_6, mag. ordering, neutron diffr. study 2−72155
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
$CeIn_3$ mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
$CeInAg_2$, mag. struct., neutron diffr. study 2−82565
$Ce_{1-x}La_xMn_2Si_2$, mag. props. and struct. 2−87499
$CeMg_3$, mag. struct., neutron diffr. study 2−82565
Co thin films, transverse susceptibility and struct. const. 2−61744
$CoBr_2$, lattice and mag. vibr. study 2−86803
$Co_{1-x}Fe_xTiO_3$, competing mag. orderings, Mossbauer and neutron diffr. study 2−66777
$Co_xNi_{1-x}MnGe$, cryst. and mag. struct. 2−104581
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$CoUS_3$, mag. props. and struct. *(French)* 2−72143
Cr (100) surface, nonreconstructed, O induced magnetism 2−56833
$Cr_{1/3}NbS_2$, helical spin struct. due to antisymmetric exchange interaction 2−72162
CrO_2:Fe particles, noncollinear mag. struct., Mossbauer study 2−77329
$CsVCl_3$, one-dimens. Heisenberg antiferromag., mag. and neutron scatt. study 2−66774
Cu complex, $CuCl_2$.TMSO, Heisenberg 1-D ferromag., single cryst. mag. studies 2−66802
Cu-Mn spin glasses, spin struct., neutron polarisation anal. 2−110593
$Cu_xZn_{1-x}Fe_2O_4$ system, Curie temp., cation distrib., magnetisation 2−56851
DyAl, mag. moments and anisotropy, neutron diffr. and cryst. field calc. 2−115976
$Dy_3Al_5O_{12}$, mag. struct., neutron diffr. study 2−92869
$DyMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$ErRh_4B_4$ film, pair tunnelling meas. 2−87454
$(Er_{2.2}Y_{0.8})Fe_5O_{12}$, Faraday rotation anisotropy 2−72460
$EuRh_3B_2$, itinerant mag. ordering 2−104578
ε-Fe:^{57}Co, Mossbauer study of magnetism 2−66956
Fe-Cr alloys, existence of spin glass region 2−66830
Fe-Mn, electron struct. and mag. state, CPA calc. *(Russian)* 2−87135
Fe-V, mag. moment distrib., diffuse neutron scatt. study 2−72151
Fe_3Ga, magnetic struct., neutron diffr. obs. 2−92871
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe(Mn_xPt_{1-x})_3$, antiferromag. structure, neutron diffr. study *(Russian)* 2−87477
$FePS_3(Se_3)$, layer cpds., mag interactions 2−61699
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
Gd-Y alloys, mag. phases, temp. depend. of elastic props. 2−82564
GdD_{2+x}, antiferromagnetic ordering study 2−72160
GdMg, biaxial mag. structs. 2−104580
$GdMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
Ho containing ^{166m}Ho, mag. struct. determ. using low-temp. nucl. orientation 2−56984
$HoAl_2$, conduction electron polarisation temp. depend., neutron diffr. study 2−72146
HoB_4, mag. struct. and phase diagram, neutron diffr. study 2−72152
$HoCo_5$, magnetisation reorientation, neutron diffr. and Mossbauer study 2−72148
$Ho_2Co_{17}(Fe_{17})$, magnetic excitations study 2−110573
$HoMn_2$, cubic and hexagonal, site magnetisation, neutron diffr. study 2−72145
HoP, biaxial mag. structs. 2−104580
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
$LaMnO_3$, conductivity, magnetisation and neutron diffr. in mag. transitions range 2−56850
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
r-Mn-Cu(Fe), single-domain antiferromagnet, mag. struct. study 2−87478
Mn-Ni(Co) layered mag. thin films, magnetisation and struct. 2−72302
$Mn_{1.11}Al_{0.89}$ metastable alloy, mag. and struct. props., X-ray and neutron diffr. and DSC meas. 2−72163
$Mn_{1-x}Cr_xSb$, mag. phase diagram and struct. 2−104612
MnP, spiral phase, neutron polarisation anal. 2−72149
$MnPS_3(Se_3)$, layer cpds., mag interactions 2−61699
α-MnS, linear optical anisotropy and domain struct. at two successive antiferromag. transitions 2−56856
Mn_3Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study 2−110568
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
$Mn_3Sn(Ge)$, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
MnTe, antiferromag. semicond., Mossbauer and X-ray study 2−61795
$Mn_xZn_{1-x}Te$, disordered, mag-correlations, neutron diffr. study 2−66758
Nb, magnetic struct., hydride precipitation pinning centres 2−61700
Nd, magnetic structure, below 20K, use of first principles mean field theory 2−66776
NdH_2, ferromagnetism, susceptibility and magnetisation meas. 2−72159
$NdMg_3$, mag. struct., neutron diffr. study 2−82565
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
$NiPS_3(Se_3)$, layer cpds., mag interactions 2−61699
$NiSiF_6.6H_2O$, mag. prop. anomalies *(Russian)* 2−82597
$Ni_{0.3}Zn_{0.7}Fe_2O_4$:Ti^{3+}, magnetisation and cryst. struct. study 2−77274
α,β-O_2, magnetisation under high press. 2−66760
$PuSb_2$, magnetic props. 2−92872
$RbFeCl_3$, incommensurate mag. struct., role of dipole-dipole interaction 2−66778
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
SmD_{2+x}, antiferromagnetic ordering study 2−72160
$Sm_3Fe_5O_{12}$, mag. phase transitions, Ising ordering hypothesis *(Russian)* 2−56860
$Tb_{1-x}Dy_xCo_2$, spin orientation, ^{59}Co NMR study 2−66950
$Tb(Fe_xCo_{1-x})_2$, pseudobinary intermetallic compound, mag. struct., neutron diffraction study *(Russian)* 2−98846
$Tb_2Fe_3Si_5$, mag. order, neutron diffr. study 2−82567
Tb_5Ge_3, mag. ordering and struct., incommensurate phase transition, neutron diffr. study 2−115977
TbH_{2+x}, antiferromagnetic ordering 2−72158
$TbMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$Th_{6-x}Y_xMn_{23}$ hydrides, mag. props. 2−87512
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
TmSe, mixed valence cpd., high press. neutron and X-ray diffr. studies 2−56509
TmSe mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
$(Tm_xY_{1-x})_2(SO_4)_3.8H_2O$, effect of dilution on mag. ordering 2−66812
TmZn, polarised neutron study, mag. prop. 2−72157
U_2C_3, neutron irrad., mag. susceptibility, Neel temp., lattice consts. 2−66073
U_2Te_3, cubic, ferromagnetic struct. study, neutron diffr. patterns 2−104586
$(Y,Eu,Tm,Ca)_3(Fe,Ge)_5O_{12}$ system films, FMR study of mag. parameters *(Russian)* 2−77385
$Y(Al_{1-x}Fe_x)_{12}$, mag. and cryst. struct., magnetisation and Mossbauer spectra study 2−72150
$Y_3Fe_{5-x}Ga_xO_{12}$, mag. ordering influence on lattice reflection spectra *(Russian)* 2−72467
$Zn_{0.85}Co_{0.15}Fe_2O_4$, mag. struct., neutron diffr. and Mossbauer study 2−66775

magnetic superconductors
Anderson model, extended periodic, coexistent ferromagnetism and supercond. 2−92811
antiferromagnet, nonmonotonic temp. depends., phenomenological derivation using two-fluid model 2−77227

magnetic superconductors continued
antiferromagnetic superconductor, impurity and spin-fluctuation effects 2−82525
antiferromagnetic superconductors, one-dimensional, ordered state in presence of homogeneous mag. field 2−61648
coexistence of long range order, with superconductivity, review 2−61647
ferromagnetic, Lifshitz point behaviour 2−77230
ferromagnetic, percolation magnetoresist. 2−56774
ferromagnetic, superconductor, Josephson currents 2−110547
ferromagnetic superconductor, mixed state, fluctuations and instabilities 2−66727
ferromagnetic thin film, thermal oscillations 2−66710
fluctuations and defects in the spiral state of magnetic superconductors 2−92849
metallic superlattice superconductivity and magnetism 2−92819
rare earth ternary cpds., mag. and supercond. props. 2−115937
SDW state coexistence in anisotropic supercond. energy gap struct. and nonmag. impurity effects calc. 2−87443
ternary superconductors, magnetism rel. to supercond. props. 2−110517
$(TMTSF)_2PF_6$, anisotropic, SDW and supercond. coexistence, energy gap struct. and tunnelling props. calc. 2−87443
transiton metal narrow band alloys, supercond. transition temp. 2−77222
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−72105
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$ErRh_4B_4$, percolation magnetoresistance in ferromagnetic superconductors 2−56774
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
$HoMo_6S_8$, coexistence of ferromagnetism and superconductivity 2−72105
$HoMo_6S_8$ type magnetic superconductors, mag. field effect and supercurrent 2−104529
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
RMo_6S_8, coexistence of mag. order and superconductivity 2−61647
RRh_4B_4, coexistence of mag. order and superconductivity 2−61647
$Sn_xEu_{1.2-x}Mo_6S_8$, supercond. props. under high press. and high mag. field 2−110551
Y_9Co_7, mag. supercond., hybrid state, resist., magnetoresistance and AC susceptibility study 2−82571

magnetic surface phenomena
adsorbed diatomic molecules, dissociation, surface mag. field, laser and phonon continuum effects 2−87063
anisotropy of single domain particles, ferromag. reson. study 2−56946
antiferromagnet, uniaxial, surface mag. polaritons 2−71885
antiferromagnet, uniaxial, surface polaritons 2−104600
bubble materials, domain wall props., surface effects *(Russian)* 2−87559
ferrite, surface magnetostatic wave, Bragg refl. 2−115994
ferromagnet, localised surface states in case of modified ground state *(Russian)* 2−61535
ferromagnetic film, dipolar surface spin waves 2−66873
ferromagnetic materials, surface magnetic order investig. by electron capture spectroscopy 2−110616
ferromagnetic media interface, surface spin waves and domains struct. 2−115993
ferromagnetic surfaces, magnetisation, mag. struct., spin polarised LEED study 2−98910
ferromagnetism induced by surface amorphisation in layered antiferromag. system 2−87514
film, ultrathin, FMR and static magnetisation orientations 2−104710
film on Ni (100), electronic and mag. struct., interface magnetisation 2−82695
garnet film, magnetic profile, FMR determ. 2−72355
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
Heisenberg ferromagnet, surface spin wave relax. due to scatt. by surface fluctuations *(Russian)* 2−98857
magnetostatic surface waves, propag. across large amplitude gratings, theory 2−87483
metal parts, magnetisation effect on interaction of rubbing surfaces *(Russian)* 2−77952
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metals, magnetic surface states, angle resolved photoemission studies 2−66604
metals, surface magnetism, polarised electrons 2−66890
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
microstrip, magnetostatic surface wave generation, theory 2−98860
noble metal-Co alloys, dil., mag. behaviour Co atoms 2−115971
nonlinear mixing of bulk and surface magnetostatic spin waves 2−92886
one-dimensionally inhomogeneous mag. system, mean field theory 2−66740
rare earth small particles, cryst. struct. and mag. props. 2−77330
steel parts, magnetoabrasive polishing influence on macrostresses magnitude and distrib. *(Russian)* 2−77989
superparamagnets, ideal, mag. relax., Monte Carlo simulation 2−110610
surface and interface mag. props. 2−66772
transition metals, ferromag., chemisorption of H, self-consistent model 2−115554
transition metals, surface mag. moments and electronic struct., Hubbard model 2−115980
ultrathin crystal, ferromag. resonance and magnetization 2−66921
Au (111) surface, light-induced magnetisation, PES study 2−67185
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
Cr (100) surface, nonreconstructed, O induced magnetism 2−56833
Cu-Co dilute alloy powders, mag. characts. scatter 2−72289
Fe (001) film, surface states, surface magnetisation, electron spin polarisation 2−61540
Fe film, ferromag., Brillouin light scatt. by spin waves 2−66872
Fe MBE film, {110} orientation, on GaAs, mag. props. 2−66874
$Fe_{81.5}B_{14.5}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_{40}Ni_{40}B_{20}$, surface conditions influence in mag. props. 2−82593
Fe_2O_3 film, surface mag. hyperfine interactions, Mossbauer study 2−72391
FeTi, surface anal. by magnetisation meas. 2−73012
GaAs-YIG layered struct., magnetostatic surface wave amplification 2−115988
H, spin polarised, surface mag. relax. rates 2−82079

magnetic surface phenomena continued
^{3}He liquid, surface-induced magnetic susceptibility enhancement effective exchange interactions 2−82059
In film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
NH_3 adsorbed on Ni surface, decomposition rate, magnetocatalytic effect absence 2−99709
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Ni (001) surface magnetism, magnetisation, spin polarised LEED study 2−98911
Ni, surface anisotropy irrelevance for mag. crit. behaviour near free surface 2−92923
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
Pb film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
Sn, film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
UAs_xSe_{1-x}, electronic struct. and magnetism 2−66605
USb_xTe_{1-x}, electronic struct. and magnetism 2−66605
$U_xTh_{1-x}Sb(U_xY_{1-x}Sb)$, electronic struct. and magnetism 2−66605
YIG:Ga-ZnO, SAW parametric amplification obs. 2−92332

magnetic susceptibility
see also molecular magnetic susceptibility; photomagnetic effect
AC susceptibility bridge, and cryostat, for 2-300K meas. 2−112935
alloys, binary, mictomagnets, susceptibility and sp. ht., Monte Carlo calc. 2−92909
Anderson impurities, pair of interacting, Fermi liq. relations 2−56491
Anderson lattice, electrical cond., freq. depend. 2−56629
Anderson localised system, interstate interaction effect on specific heat 2−77303
Anderson mixed valence impurity, static and dynamic susceptibility 2−76990
Anderson model, generalised, ground state energy and mag. susceptibility 2−56414
Anderson model, symmetric, magnetic susceptibility 2−98531
Anderson model, two-impurity, thermodynamic scaling theory 2−66408
anisotropic antiferromagnet in Ising limit 2−98900
anisotropic Heisenberg spin glass, Parisi solutions 2−98902
annealed system, Gaussian random bond problem in 1/n expansion 2−77298
apatites, rare-earth containing, mag. props. 2−92875
aromatic compounds, condensed, cryst. and mol. diamag. susceptibility and anisotropy calc. *(French)* 2−96770
asymmetric Anderson Hamiltonian, ground state, localised electrons and charge susceptibility 2−98592
axisymmetric Anderson model soln. at T=0 *(Russian)* 2−61397
bubble films, AC susceptibility technique for characterisation 2−72314
butoxybenzylidene heptylaniline, smectic-A-smectic-C transition, mag. birefringence determ. of tilt susceptibility 2−115411
chromium phosphate, polymeric, ESR and spin dynamics 2−82710
classical ferromagnetic chains, interacting boson approach 2−66859
closed shell atoms and ions of high nuclear charge, electric and mag. susceptibilities, shielding factors 2−96774
cobalt salicylato complex, mag. susceptibility, cond., thermal and chemical anal. 2−86639
conduction electrons, nonlinear magnetisation, mag. susceptibility, electron band struct. *(Russian)* 2−98908
correlated hybridised bands in one dimension, exact results 2−56523
$DBTTF_8(MCl_6)_3$, (M=Sn, Pt, Re, Te), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
p,p′-di-n-heptylazoxybenzene, diamag. susceptibility, ^{1}H NMR, chem. shift 2−98979
dibenzotetrathiofulvane-Is complex, regular antiferromag. chain with indirect exchange interaction *(Russian)* 2−104359
dimethylammonium manganese chloride, pseudo one-dimensional antiferromag., mag. props. 2−116007
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2−110566
disordered Fermi system, spin susceptibility *(Russian)* 2−56873
dysprosium ethylsulphate, crossover to mean-field behavior at marginal dimensionality 2−77316
2D-electron gas, paramag. susceptibility 2−61689
electron gas, two-dimensional, mag. susceptibility in quantum strong mag. field limit 2−61701
electron-hole Fermi liqs., spin waves at nonzero temps. 2−92893
electron-phonon interaction, thermodynamic formulation of supercond. and normal state props. 2−103924
ferrites, disaccommodation of complex mag. susceptibility in AC mag. field, domain wall theory 2−87552
ferro- and antiferromagnetism, spin fluctuation theory of coexistence 2−104569
ferroelectric, second order phase transition, phys. props. under elec. and mag. fields 2−110782
ferroelectrics, thermodynamics near second order phase transition in external fields 2−110783
ferrofluid mag. susceptibility measuring installation *(Rumanian)* 2−95418
ferromagnet, itinerant electron, Curie-Weiss law spin susceptibility, electron-phonon interaction mechanism 2−61687
ferromagnetic metals, magnetic susceptibility, quantum oscillations in mag. field, theory *(Russian)* 2−87479
ferromagnetic phase transition for cryst. and amorphous materials, mol. field theory 2−72225
ferromagnets, axial symmetry, external mag. field depend. 2−98851
ferromagnets, mag. susceptibility and magnetisation near coupled struct. and mag. transition *(Russian)* 2−82579
ferrous formate dihydrate, paramagnetic susceptibility 2−72138
film, ferromagnetic, susceptibility and spin correlation time near Curie point, Valenta model 2−72306
fluid, mag., agglomerate form., mag., susceptibility, Monte Carlo calc. 2−82669
Frohlich polaron, phase transitions in mag. field, Feynman approx. 2−76944
garnet epitaxial films, bubble characterisation for process control 2−72313
graphite, magnetisation in ultraquantum limit in fields up to 400 kOe 2−92861
graphite intercalation compounds, electronic props., review 2−98518
graphite intercalation compounds with transition metal chlorides, mag. phases 2−56863

magnetic susceptibility continued
guanidinium V(III) sulphate hexahydrate, mag. props. 2−92873
Heisenberg amorphous ferromagnet with random anisotropy, mag. props. 2−61685
Heisenberg ferromagnets, 1-D, thermodynamic props., static domain wall solitons, perturbation calc. 2−116022
Heisenberg paramagnetic thin film, reaction field approx. 2−87473
$HMTSF(TCNQ)_x(TCNQF_4)_{1-x}$ solid soln., Mott transition 2−92471
III-V semiconductor, ionic, mag. susceptibility 2−56820
infinite susceptibility above T_c, in Migdal-Kadanoff scheme 2−72245
interacting electrons in solids, many-body theory 2−115962
intermediate-valence cpds., 4f-electron dynamics, mag. and phonon props. 2−56112
Ising lattice, triangular mag. props., Monte Carlo simulation 2−87465
Ising model, quasi-two-dimensional, crossover behaviour of susceptibility 2−61682
Ising model, random, in d dimens., susceptibility, high-temp. series expansion 2−82623
Ising model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
Ising model, regular and random, on Cayley tree, higher order susceptibilities 2−77248
Ising model, series expansion for gen. temps. 2−72239
Ising model, stochastic process for computer simulation at equilib. 2−104636
Ising model, susceptibility, high temp. series and exact relations in random fields 2−61724
Ising spin glass, dynamic nature of freezing process, Monte Carlo simulation 2−61723
Ising spin glass, random anisotropy study 2−72228
itinerant electron system, paramagnetic susceptibility study 2−82559
itinerant electron systems with local mag. moments, paramag. state, static props. 2−98837
itinerant ferromagnetism study 2−66750
itinerant-electron ferromagnet, electron-phonon interaction effects 2−92855
Kondo alloys with rare earth impurities, degenerate exchange model, Bethe ansatz technique 2−66769
Kondo effect, thermodynamics study for spins $s=^1/_2$, 1 and $^3/_2$ *(Russian)* 2−82562
Kondo lattice and mixed valence systems, Fermi surface and Fermi liq. props. 2−66768
Kondo model, thermodynamic eqns. 2−104362
Kondo problem, crossover from asymptotic freedom to infrared slavery 2−77265
Kondo problem, s-d model transform. and renormalisation 2−77264
Kondo problem, susceptibility and impurity relax. rate 2−77266
Laves phase cpds., onset of magnetism 2−87541
liquid cryst. mixtures, diamagnetic susceptibility anisotropies, ^1H NMR study 2−65850
lyotropic nematic phases with unusual anisotropies of mag. susceptibility 2−97911
mag. first-order transition, susceptibility and latent heat study 2−98880
manganese formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
measurement using solenoidal magnet NMR spectrometer 2−107366
metal, mixed-valent impurity, theory 2−115715
metal clusters, IR absorption spectrum, dielec. and mag. susceptibility, Maxwell's eqns. 2−82863
metallic glasses, $(A_xB_{1-x})_{75}P_{16}B_6Al_3$, A and B=Fe, Co, Ni, Mn or Cr, mag. phase diagrams 2−92931
metals, ferromagnetic, Shenberg effect, Fermi liq. model *(Russian)* 2−104588
metals, symmetric Anderson model *(Russian)* 2−56808
methane, solid, spin-species conversion rate 2−104632
mixed magnetic systems, susceptibility in presence of chem. short range order 2−77256
mixed valence compounds, Anderson model, asymmetric, perturbation treatment in terms of Fermi liq. theory 2−66499
mixed valence compounds, dynamical mag. susceptibility, alloy analog. treatment 2−110562
mixed valence cpds., magnetic susceptibility, periodic Anderson model 2−56818
mixed valence system, dynamical susceptibility and neutron scatt. cross-section 2−56516
mixed-valent systems, perturbative theory 2−56499
n-vector model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
narrow band gap semiconductor, mag. susceptibility theory 2−98841
neodymium ethylsulphate nonahydrate, ligand field theory 2−92541
nickel diglycine dihydrate, antiferromag., mag. susceptibility study, 0.6 to 120K 2−77272
NMR, mag. suscept. broadening, susceptibility matching effects 2−69221
organogermanium compounds diamag. susceptibilities, semiempirical calc. 2−82561
organotin compounds, diamag. susceptibilities, semiempirical calcs. 2−56819
paramagnets, strongly exchange enhanced, thermodynamic and transport props., field depend. effects 2−115969
particles in external mag. field, surface and bulk struct. 2−82688
poly(cobalt n-butylphosphinate), weak ferromagnetism and domain wall motion, susceptiblity study 2−82570
poly(para-phenylene):AsF_5, electronic props., ESR and ^{13}C NMR study 2−82737
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
polymerised Fe^{3+} acetylacetonate, mag. props. 2−104572
random spin systems, susceptibility matrix eigenvalue spectrum 2−110599
random uniaxial dipolar ferromagnet, critical behaviour 2−92935
rare earth alloys, amorphous, induced mag., singlet-singlet model 2−104560
rare earth alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
rare earth alloys, RCoSn, cryst. struct. and mag. susceptibility, 78 to 800°C *(Russian)* 2−55891
rare earth alloys, $RNiAl_2$ (R=Y, Gd, Tb, Dy, Ho, Er, Tm, Kb, Lu), mag. susceptibility and cryst. struct. *(Russian)* 2−115968
rare earth alloys RAlGa, mag. props. study 2−72141
rare earth amorphous alloys, cryst. elec. field and local symm., mag. props. 2−72170
rare earth compounds, R_5Ga_3, mag. props., struct., anal. 2−66763
magnetic susceptibility continued
rare earth compounds, RRhSi, cryst. struct. and mag. props. 2−55946
rare earth molybdates, magnetic susceptibility 2−56838
rare earth orthochromites, high temp. mag. susceptibility 2−110564
rare earth small particles, cryst. struct. and mag. props. 2−77330
RKKY spin glasses, numerical simulation studies 2−116016
semiconductors, n-type, insulating, mag. susceptibility 2−56821
semiflexible macromolecules, liquid crystal solns., susceptibility in external orienting field 2−65852
semimagnetic semiconductors, mag. props. 2−98898
short-range interactions, numerical studies 2−66844
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
sodium magnesium chromium(III) oxalate, single cryst. mag. props. 2−82589
spin glass, Heisenberg, Onsager anisotropies 2−104650
spin glass, mag. susceptibility TAP-like diagrammatic anal., Harris criterion 2−72242
spin glasses, ±J model, minimum free energy principle appl. 2−110592
spin glasses, dynamics as a treatment of the Almeida-Thouless instability 2−72233
spin glasses, exptl. techniques, review 2−66842
spin glasses, magnetic susceptibility phenomenological theory 2−98894
spin glasses, order parameter and static susceptiblity in mean-field theory 2−72237
spin glasses, order parameter fluctuations stabilisation 2−66847
spin glasses, static and dynamic props. 2−66846
spin glasses, susceptibility in presence of chem. short range order 2−77256
spin system, O(n) model, peculiarities for n<1 in mag. field 2−69107
superconducting susceptometer for high-accuracy routine operation 2−101429
superconductor-normal metal proximity sandwiches, Meissner effect, microscopic theory 2−66723
superconductors, inhomogeneous, dynamic mag. susceptibility freq. depend. meas. 2−56777
TCNQ salt, 1-methyl-3′-ethyl-2,2′-quinoselenacyanine-$(TCNQ)_2$, mag. susceptibility, spin dynamics, elec. cond. and EPR study 2−66759
TCNQ salt, (n-propyl)$_{1-x}$(n-ethyl)$_x$ quinolinium $(TCNQ)_2$, charge-transfer organic alloy, metal-insulator transition 2−87239
TCNQ salt, DBTTF-$TCNQF_4$, ESR studies 2−87575
TCNQ salt, DEDMTSF-TCNQ, phys. props., review 2−86656
TCNQ salt, $DMM(TCNQ)_2$, spin-Peierls transition 2−104255
TCNQ salt, HMTSF-TCNQ, mag. susceptibility anisotropy, 1.7 to 300K, torsion method 2−92859
TCNQ salt, HMTTF-$TCNQF_4$, separate donor and acceptor phase transitions, mag. susceptibility meas. 2−110565
TCNQ salt, NMP-TCNQ, mag. Mott insulator-metal transition, Hubbard model, mag. props. 2−76926
TCNQ salt, TMTSeF-DMTSNQ, pure and irradiated, mag. props. 2−98958
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
TCNQ salts, one-dimensional Heisenberg antiferromagnets, with random exchange 2−66858
TCNQ salts of Cu chelates, highly conducting 2−92581
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
tetra(methylamino) lithium, expanded compounds, low temp. mag. susceptibility 2−77275
tetracyanoquinodimethanides, mag. susceptibility, spin and electron exchange kinetics 2−72175
TMMC, mag. props. study 2−66786
$(TMTSF)_2(2,5\text{-}TCNQBr_2)$, struct. and phys. props. 2−55961
$(TMTSF)_2AsF_6$, antiferromagnetism 2−66787
$(TMTSF)_2ClO_4$, organic supercond., resistive and mag. susceptibility transitions 2−56754
$(TMTSF)_2FSO_3$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
$(TMTSF)_2FSO_3$, dipolar anion effect on mag. and conduct. props. 2−87232
$(TMTSF)_2PF_6$, mag. susceptibility anisotropy, 1.7 to 300K, torsion method 2−92859
$(TMTSF)_2PF_6(AsF_6)$, mag. susceptibility 2−92881
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
$TMTTF_3(MCl_4)_3$, (M=Pt, Hg, Cu), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
$(TMTTF)_2PF_6$, struct. and props., exptl. evidence for importance of interchain couplings 2−55959
$(TMTTF)_2X$ series, phys. props., role of counterion ordering 2−92469
transformations in amorphous and mictomagnetic materials 2−61712
transition metal complexes, M(hexamethylenetetramine)SO_4, struct., mag. moments, IR study 2−77517
transition metal complexes with 4-cyanopyridine N-oxide, struct., vibr., mag. moments, IR study 2−77518
transition metal cpds., intraatomic Coulomb repulsion in Hubbard model, ferromag.-paramag. transitions 2−115966
transition metals, ferromagnetic, mag. props. above T_c 2−66788
transition metals, local and non-local spin susceptibilities calc. 2−98854
(TTF)-$AuS_4C_4(CF_3)_4$, susceptibility and magnetisation 2−66785
TTF-$AuS_4C_4(CF_3)_4$, spin-Peierls phase diagram, susceptibility and magnetisation study 2−82569
TTF-TCNQ, γ-irradiated, mag. susceptibility meas. 2−87475
two-dimensional metals, effects of mag. field on dielec. const. and cond. 2−56451
two-sublattice magnetic crystals, parametric Green's functions, magnetisation theory 2−116037
valence fluctuation metals, Fermi liquidology and T/T_{sf} scaling 2−56503
valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
valence fluctuations between two mag. configurations, exactly solvable Hamiltonian 2−56522
valence-fluctuation systems, model, variational ground states, mag. responses and dilution behaviour 2−56519
van Vleck ions coupled to electron gas, induced mag., calc. in narrow-band limit 2−61681
weak ferromagnets, one-dimens. and two-dimens., differential susceptibility meas. and mag. phase diagrams 2−56840

magnetic susceptibility continued
A, superconducting granular, mag. susceptibility meas., grain clustering near T_c 2−61651
Ag, liquid, mag. susceptibility calcs. 2−98843
Ag-Mg alloy, liq. and solid, conc. and temp. depend. of mag. susceptibility 2−56826
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Ag-Mn (10.6 at.%), spin glass, mean field description, comparison of theory and expt. 2−72213
Ag-Mn spin glass, freq. and field depend. of AC susceptibility 2−61721
$AgFeCl_4$, cryst. struct., mag., optical, and ionic cond. props. 2−92266
Ag_2Te-In_2Te_3 system, molten, elec. cond. and mag. susceptibility, temp. and comp. depend. 2−61465
$AgTlTe_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
Al-Zn, NMR and diamag. susceptibility meas. *(Russian)* 2−93020
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
Au, liquid, mag. susceptibility calcs. 2−98843
Au-Fe, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
B_2O_3-Fe_2O_3-PbO-GeO_2(CaO)(As_2O_3) glass, Fe valence states, comp. dependence, Mossbauer and mag. study 2−104317
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
$BaFe_{12}O_{19}$:Gd(Dy)(Ho)(Er)(Yb), dopant effects on mag. props. 2−92968
$Ba_{1+x}Fe_2S_4$, Mossbauer spectra, mag. and elec. props. 2−66962
$Ba_xLa_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
$BaMnF_4$, magnetoelectric phenomena, freq. depend. 2−66888
$Ba_xNd_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
BaO-TiO_2-B_2O_3-SiO_2 glasses, Ti ion structs., mag. props. and EPR spectra 2−92858
$Ba_2Re_6S_{11}$, synthesis, cryst. struct., and mag. props. 2−55940
$Ba_xSm_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
$Bi\text{-}BiCl_3$, liq. state, mag. susceptibility meas. 2−92857
$Bi_{12}[A^{3+}_{1/2}B^{+V}_{1/2}]O_{20}$ (A=Fe, Co, Ga, B=P, As, V, Bi), sillenite struct., tetrahedral environment of cations A and B *(French)* 2−91913
$C_{17}FeCl_3$, stage 2 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
$C_{6.2}FeCl_3$ stager 1 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
$C_8KH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
$C_{11.3}NiCl_{2.13}$, stage 2 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
$CaLa_{1-x}Y_xCrO_4$ solid solns., struct. and mag. study 2−76391
$Ca(OH)_2$, ferromag. ordering of proton spins 2−110585
CaV_2O_5:H, Fermi glass, ESR, elec. and mag. meas. 2−72352
Cd, liquid, mag. susceptibility calcs. 2−98843
$CdCr_{2x}In_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
Ce-Si system, nonmagnetic-magnetic transition 2−61713
$CeAl_3$, thermal dilatation and sp. heat at very low temp. 2−56213
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
$CeCu_{5-x}Ni_x$, NMR and mag. susceptibility 2−66938
$Ce_xLa_{1-x}Be_{13}$, mixed valence and Kondo behaviour, lattice const. elec. resist. susceptibility 2−56515
$Ce_{1-x}M_xPd_3$, M=Sc, Y, La, intermediate valence and Gd^{3+} ESR 2−56927
$Ce_2Mg_3(NO_3)_{12}.24H_2O$, influence of environment on dynamic susceptibility in strong mag. field 2−56822
$CeMo_6S_8$, mag. props. under press. 2−56911
$Ce_{1.2}Mo_6S_8$, mag. susceptibility and elec. cond. under high press. 2−66789
$CePd_3$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
$Ce(Pd_{1-x}M_x)_3$, M=Rh, Ag, intermediate valence and Gd^{3+} ESR 2−56927
$Ce(Pd_{1-x}Rh_x)_3$, specific heat, susceptibility and resistivity across the entire mixed valence range 2−56212
$CePd_3Si_x$, Ce valence state, Si addition effect, lattice const. and susceptibility meas. 2−97997
$Ce(Rh_xPt_{1-x})_2$, intermediate valence effects in mag. susceptibility and lattice consts. 2−87200
CeS_x, heat capacity and mag. ordering 2−104017
$Ce_{1-x}Sc_xAl_2$, electronic struct. of Ce 2−71933
$CeScO_3$, prep., cell const., mag. props. 2−71423
$CeSn_3$, mixed valence cpd., anomalous NMR shifts 2−56958
$Ce_{1-x}Y_xAl_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
$Ce_{1-x}Y_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xPd_3$, electronic struct. of Ce 2−71933
Co complexes $[Co(C_5H_5NO)_6][CoCl_4]$ and $[Co(C_5H_5NO)_6][ZnCl_4]$, bimetallic, two mag. subsystems, sp. ht. and susceptibility meas. 2−66825
Co thin films, transverse susceptibility and struct. const. 2−61744
Co-Cr alloy, liq. and solid., conc. and dil., temp.-conc. relationships 2−66766
Co-Cr perpendicular magnetic recording films, meas. of M-H curve 2−116039
$CoCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$Co_{1-x}Ni_xZr_2$, supercond., anisotropy of normal state props. 2−110324
CoO-Al_2O_3-SiO_2 glass, high temp. susceptibility and paramag. Curie temp. study 2−72168
$Co(S_xSe_{1-x})_2$, metamagnetic transition, mag. props. 2−92904
$CoSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
$Co_{90}Zr_{10}$ and $Co_{36}Zr_{64}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Cr, susceptibility and local moments, temp. depend. in paramag. state 2−104576
Cr-Co-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Fe-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Si, mag. first-order transition, susceptibility and latent heat study 2−98880
Cr-Si-Fe (2, 0.5 wt.%), mag. behaviours in commensurate spin density wave state 2−92882
magnetic susceptibility continued
$CrCl_3$, mag. ordering at phase transition, Faraday rot. and susceptibility meas. 2−98882
xCr_2O_3-(1-x)$3B_2O_3$-PbO glasses, EPR and mag. susceptibility studies 2−98946
Cr_7Se_8, mictomagnetism, mag. susceptibility and magnetisation studies 2−72219
Cr_3Si, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
$(Cr_{1-y}V_y)_{0.14}Te$, mag. phase diagram, thermomagnetic props., mag. moments 2−87494
$Cs_2FeCl_5.H_2O$, Heisenberg antiferromag., sp. ht. and mag. susceptibility, 1 to 30K 2−104630
$Cs_3La(N_3)_6$, IR and Raman spectra, mag. susceptibility 2−87767
$CsMnFeF_6$, highly frustrated, very low field susceptibility 2−87482
$Cs_2NaHoCl_6$, enhanced nucl. spin antiferromag. ordering 2−104589
$Cs_2Nd(N_3)_5$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_4Nd(N_3)_7$, IR and Raman spectra, mag. susceptibility 2−87767
$CsNiFeF_6$, highly frustrated, very low field susceptibility 2−87482
$CsNiFeF_6$, spin glass props. 2−87515
$CsTiF_4$, struct. and mag. studies, antiferromagnetism, X-ray and neutron diffr. study 2−65966
$CsVCl_3$, one-dimens. Heisenberg antiferromag., mag. and neutron scatt. study 2−66774
Cu complex, $CuCl_2$.TMSO, Heisenberg 1-D ferromag., single cryst. mag. studies 2−66802
Cu complex, imidazolate-bridged Cu(II), mag. exchange 2−87488
Cu complexes, ESR and optical absorpt. 2−98943
Cu, internally oxidised, elec. and mag. props. 2−98620
Cu, liquid, mag. susceptibility calcs. 2−98843
Cu, nuclear magnetism at nK temps., mag. susceptibility and NMR study 2−104595
Cu, spontaneous nucl. ordering at nK temps.? 2−115983
Cu-Co(Fe)(Mn) alloys, spin glass state form. investig. *(Russian)* 2−56875
Cu-Cr(-Fe), (-Mn), dilute alloys, ionic model, energy level splitting, NMR study 2−66932
Cu-Fe dil. alloys, internally oxidised, elec. and mag. props. 2−98620
Cu-Fe(Mn) spin glass alloys, elec resist., Hall effect, mag. susceptibility, and EPR meas. *(Russian)* 2−82602
Cu-Mn(-Au) spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Cu-Ni alloys, elec. and mag. props. at 4K 2−77018
Cu-Ni-Fe disperse ferromag. particles, mag. state transition with charge in interparticle distance *(Russian)* 2−104665
Cu-Ni(Cu-Ni-Fe), mictomagnetic aged alloy, mag. susceptibility and elec. resist. meas. *(Russian)* 2−98885
Cu-Pb, microstruct., mech., elec., and mag. props., depend on synthesis conditions 2−56748
Cu-Sn alloys, elec. and mag. props. at 4K 2−77018
Cu_3AsS_3, elastic and mag. props., temp. depend., phase transform. 2−116009
CuBr-CuI system, physicochem. props. 2−111512
$CuCl_2.2H_2(D_2)O$, antiferromag. resonance freq., mag. susceptibility *(Russian)* 2−98966
$Cu_xCo_{3-x}O_4$, props. of spinel prep. at low temps. and normal press. 2−55945
$Cu_yCr_yM_{2-y}S_4$ (M=Sn, Ti), mag., EPR, and Mossbauer meas. 2−98840
$Cu_{0.5}Cr_{0.5}PS_3$, cryst. struct. and mag. props. 2−60946
$xCuCr_2S_4$-(1−x)$Ga_{0.67}Cr_2S_4$ ($0\leq x\leq 0.4$) semiconducting spinel, spin-glass state 2−66840
$CuInS_2(Se_2)(Te_2)$, mag. susceptibility, 4.2 to 300K 2−66761
CuO-$B_2O_3K_2O$ glass, ^{11}B NMR and mag. susceptibility 2−104587
$(CuO)_x(2B_2O_3.PbO)_{1-x}$ glasses, EPR study of mag. behaviour 2−110631
$Cu_xV_{1-x}O_2$, struct. and physical props., EPR, DTA, mag. and X-ray diffr. study *(French)* 2−81761
Cu_xZr_{1-x} ($25\leq x\leq 70$) metallic glasses, crystn. characts. 2−97928
Dy, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
Dy, paramagnetic, deviations from Curie-Weiss law 2−56825
$Dy(Fe_xAl_{1-x})_2$ Laves phases, mag. and cryst. props., X-ray and Mossbauer study 2−92899
$DyVO_4$, mag. relax. study 2−98989
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
$EuCu_2Si_2$, energy balance of mixed-valent Eu ions 2−87197
$EuGa_2Se_4$, cryst. struct. and mag. props. *(French)* 2−55949
$EuMo_6S_8$, impurity phase supercond. under press., magnetisation meas. 2−92807
$EuNi_2P_2$, intermediate valence system, mag. susceptibility and NMR meas. 2−72364
EuO(S), static and dynamic props., appl. of correlation theory 2−66742
$EuPd_2Si_2$, mixed valence cpd., mag. susceptibility, lattice const., Mossbauer isomer shift 2−56510
$EuRh_3B_2$, itinerant mag. ordering 2−104578
EuS_ySe_{1-y}, mictomagnetism, mag. phase diag., specific heat and mag. meas. 2−82607
EuSe, magnetic transition, press. induced 2−87504
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2−56911
$(Eu_xSr_{1-x})S$, dilute, possibility of dipolar spin glass 2−66837
$Eu_xSr_{1-x}S$, spin glass transition, AC susceptibility freq. depend. study 2−72221
Fe complex, bis(N,N-diethyldithiocarbamato)-iron chloride, crit. behaviour, theoretical anal. 2−72240
Fe complex, bromobis(diethyldithiocarbamato)iron(III), mag. susceptibility, Mossbauer study 2−87632
Fe complex, rapid spin equilib., relax. time 2−82753
Fe, spin waves, mag. props. 2−66795
Fe whiskers, dynamic mag. response near T_c 2−66781
Fe-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Fe-Cr-B amorphous Invar alloy, Curie temp. and high field susceptibility, press. effects 2−72322
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Ni Invar alloys, magnetocrystalline anisotropy, torque meas. 2−110576
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
γ-Fe-Ni-Cr, spin glass state characts. near crit. conc. *(Russian)* 2−98886
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948

magnetic susceptibility continued
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$Fe_{1-x}Co_xO$, mag. props. 2−104592
$Fe_{0.16}Cr_{0.84}$, spin glass, mag. relax. meas. 2−110589
$Fe_xCu_{1-x}Rh_2Se_4$, magnetic and crystallographic props. 2−92860
α-$FeGa_2S_4$ (1T), mag., elec. and Mossbauer props. *(French)* 2−72389
$Fe(HCOO)_2.2H_2O$, paramag. susceptibility anal. *(Japanese)* 2−92862
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, irreversible response study 2−104594
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_2Mo_3O_8$, cryst. growth, morphology, elec. and mag. props. 2−87960
$(Fe_{1-c}Mo_c)_{75}P_{16}B_6Al_3$, amorphous, anomalous crit. behaviour, random anisotropy effects 2−72232
$Fe_{10}Ni_{70}B_{16}P_4$, amorphous, mag. phase transition, magnetisation and DC susceptibility meas. 2−56857
$Fe_{13}Ni_{67}B_{19}Si$, amorphous, critical mag. behaviour, mag. order disorder transition 2−66821
$Fe_{65}(Ni_{0.74}Mn_{0.26})_{35}$, effect of external field on spin glass behaviour 2−61716
$Fe_yNi_{80-y}P_{14}B_6$, amorphous alloy, mag. props. study, phase diagram 2−110580
$Fe_yNi_{80-y}P_{14}B_6$, ESR study in reentrant phase, mag. props. meas. 2−72331
$FeO-Al_2O_3-SiO_2$, amorphous, spin glass, mag. behaviour 2−72226
$20Fe_2O_380(3B_2O_3(1-x)PbOxAs_2O_3)$ glass, reciprocal susceptibility, paramag. Curie temps., Curie consts. 2−110570
$FePO_4$, anhydrous, mag. phase transition, mag. susceptibility, Mossbauer spectra and neutron diffr. 2−110579
$FePS_3$, layer phases, optical and mag. props., intercalation-induced modifications 2−82875
$FePS_3(Se_3)$, layer cpds., mag interactions 2−61699
Fe_7Se_8, transition metal substituted, paramagnetism 2−66762
FeSi, mag. susceptibility variation 2−92864
FeTi, surface anal. by magnetisation meas. 2−73012
$FeTiH_{1.9}$, Pauli paramagnet, mag. susceptibility, magnetisation, hysteresis 2−66765
$FeTiO_3$, metamagnetic transition, mag. props. 2−92903
$Fe_{0.34}TiSe_2$, cryst. struct., elec., mag., and optical props. 2−81746
$Fe_{0.5}V_{5.5}O_{13}$, cryst. growth, elec. resist., Mossbauer spectra, and mag. susceptibility 2−83014
Fe_2WO_6, prep. and characterisation, struct., mag., elec. and photoelectronic props. 2−76390
$Fe_{90}Zr_{10}$, amorphous, sp. ht., suceptibility, resist. 2−72224
$FewO_4$, prep., elec., mag. and structural props. 2−92682
Gd-Ge, mag. props., interband mixing effect *(Ukrainian)* 2−77261
GdAl, spin glass, nonlinear susceptibility 2−72215
$Gd_{0.37}Al_{0.63}$ amorphous spin glass, mag. props. 2−92933
GdCoSi, synthesis, mag. props. and struct., X-ray and mag. tortion balance anal. 2−72176
$GdCu_{1-x}Ga_x$, mag. order 2−98845
GdD_{2+x}, antiferromagnetic ordering study 2−72160
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
GdMnSi, synthesis, mag. props. and struct., X-ray and mag. tortion balance anal. 2−72176
Ge, paramagnetic susceptibility obs., dislocations effect 2−56823
GeTe, magnetic susceptibility change at ferroelec. phase transition 2−77260
H atom infinite chain, ground-state energy and mag. susceptibility, ab initio correlated calc. 2−80864
H_3PO_4, diamag. susceptibility, ^{31}P NMR 2−108576
^3He, BCC, isochronic press., nucl. magnetism contrib. 2−92305
^3He, BCC, paramag. phase, exchange models, neutron scatt. test 2−71764
^3He, liq., magnetic susceptibility in high mag. fields, manometric meas. 2−82560
^3He liquid, surface-induced magnetic susceptibility enhancement effective exchange interactions 2−82059
^4He, liq., magnetic susceptibility in high mag., fields, manometric meas. 2−82560
Hf-Co-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
Hf-Cu-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
Hf-Nb-Ga and Hf-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
Hf-Ni-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
$HfNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
Hg, liquid, mag. susceptibility calcs. 2−98843
Hg-Na liq., elec. and thermodynamic props., mag. susceptibility, compound form. effect 2−82314
$HgCr_2Se_4$, mag. semicond., elec. optical and mag. studies 2−87288
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
$Ho_{50}Tb_{50}$, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
$HoVO_4$, Van Vleck paramag., ^{51}V NMR line shift, temp. depend. meas. 2−116074
$In-InBr_3$, liq. state, mag. susceptibility meas. 2−92857
$In-InCl_3$, liq. state, mag. susceptibility meas. 2−92857
InP:Yb, impurity electron state, ESR, photoluminescence and mag. susceptibility study 2−104307
In_2Te_3, liquid, Knight shift studies of cond. and struct. inhomogeneity 2−72362
K_2CuF_4, two-dimens. ferromag., mag. susceptibility, X-Y anisotropy in Heisenberg system 2−116011
K_2FeF_4, NMR study of susceptibility 2−82575
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
K_2MnF_4, quasi two dimensional Heisenberg antiferromag., mag. phase diagram 2−77300
$KPbCr_2F_9$, structural and mag. props., X-ray diffr. and EPR study 2−60949
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
magnetic susceptibility continued
$KTl_{1.5}C_x$ (x=4, 8), intercalation cpd., supercond. transition temp. and crit. field 2−92844
$KbAl_3$, mixed valence cpd., anomalous NMR shifts 2−56958
KbCuAl, mixed valence cpd., anomalous NMR shifts 2−56958
La, magnetic susceptibility, 77 to 293K, diamag. and paramag. contribs. 2−56824
$La_{1-x-y}Ce_xY_y$ system, multiple supercond. transition temps. 2−98788
$LaCoO_3$, magnetic and electronic props. *(French)* 2−82574
$LaCoO_3$-$LaMnO_3$, magnetic susceptibility and hysteresis loops meas. 2−77276
La_2CoO_4, magnetic and electronic props. *(French)* 2−82574
$La_4Co_3O_{10}$, magnetic and electronic props. *(French)* 2−82574
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$La_{1-x}Gd_xAl_2$, cryst. struct., mag., elec. and ESR props. 2−92564
$La_{3-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
$La_xGd_{1-x}TiO_3$ solid solns., mag. behaviour, mean field model 2−104659
$LaIr_3O_{11}$, semicond., elec. and paramag. props., Mossbauer resonance *(French)* 2−92614
LaIrSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
La_2LiFeO_6, high-pressure stabilisation and physical props. of Fe(V) 2−66791
$La_2MM'O_6$ (M,M'=Cr,Mn,Fe,Co,Ni; M≠M'), perovskites, prep. and characterisation 2−57314
$LaNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
LaRhSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
LiC_6, intercalate, absolute spin susceptibility, paramagnetism 2−77259
$LiFeCl_4$, cryst. struct., mag., optical, and ionic cond. props. 2−92266
$Li(ND_3)$, expanded compounds, low temp. mag. susceptibility 2−77275
$Li(NH_3)$, expanded compounds, low temp. mag. susceptibility 2−77275
$Li_xNi_{1-x}O$, magnetic susceptibility, Neel temp. *(Russian)* 2−104593
$LiTbF_4$, crossover to mean-field behavior at marginal dimensionality 2−77316
$LiTb_{1-p}Y_pF_4$, random uniaxial dipolar ferromagnet, critical behaviour 2−92935
$LiTmF_4$, influence of magnetostriction on NMR spectrum *(Russian)* 2−72361
$Lu_{1-x}(Y_{1-x})Gd_xAl_2$, cryst. struct., mag., elec. and ESR props. 2−92564
$MgFe_2O_4$-$CoFe_2O_4$ mixed ferrite, initial susceptibility, coercive force, mag. domain behaviour 2−116030
$Mg_{1.5}Ti_{0.5}FeO_4$ spinel, mol. field coeffs. and exchange interactions 2−66801
$Mg_{0.7}Zn_{0.3}$ metallic glass, energy bands and Pauli spin susceptibility, pseudopot. formalism 2−71855
Mn spin systems, cooperative phenomena at low temps. 2−92956
γ-Mn, susceptibility and local moments, temp. depend. in paramag. state 2−104576
Mn-Bi, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
$MnAs_{0.9}P_{0.1}$, mag. susceptibility meas., appl. of high press. generation method *(Japanese)* 2−89736
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$MnCO_3$, antiferromag., nuclear spin and magnetoelastic waves, susceptibility relax. *(Russian)* 2−82583
$Mn_{1-x}Cr_x(Fe_x)B$, Invar like props. 2−72174
$Mn_3Cr_2Ge_3O_{12}$ garnets, mag. phase diagram *(Russian)* 2−56861
MnCu, spin glass, nonlinear susceptibility 2−72215
MnO, mag. susceptibility and elastic consts., distance depend. exchange interaction effects 2−115995
$MnO-Al_2O_3-SiO_2$ glass, high temp. susceptibility and paramag. Curie temp. study 2−72168
$MnPS_3(Se_3)$, layer cpds., mag interactions 2−61699
MnSi, magnetisation and magnetoresistance 2−110606
MnZn ferrites, hydrostatic press. effect on both sides of thermal spectra secondary peak 2−87570
Mo_2S_3, electronic props., phase transitions 2−110354
Na-In, liq. and solid, mag. susceptibility 2−82577
Nb-H system, phase diagram and transitions, mag. susceptibility study 2−92155
NbH_x, NMR mag. cept. broadening, susceptibility matching effects 2−69221
$NbPd_3$, itinerant ferromagnetism study 2−66750
Nb_3Sb, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
$NdAlO_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdCl_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
NdF_3, paramag. susceptibility and optical spectra *(French)* 2−92856
Nd_5Ge_3, mag. transition temp., mag. ordering effects on elec. and thermal props. 2−87507
NdH_2, ferromagnetism, susceptibility and magnetisation meas. 2−72159
NdH_x, low temp. sp. ht., mag. transition, mag. susceptibility 2−61164
NdIrSi, cryst. struct., magnetisation and susceptibility 2−65969
$Nd_xLa_{1-x}B_6$, solid solns., mag. susceptibility 2−77257
$NdNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
NdOCl, paramag. susceptibility and optical spectra *(French)* 2−92856
Ni complex, (tetrabenzoporphyrinato)Ni(II)I, doubly mixed valence mol. cond., struct., mag. and charge transport props. 2−71953
Ni, density functional calculation of magnetic susceptibilities 2−66782
Ni, paramag. susceptibility, temp. depend., small Pd additions influence 2−98842
Ni platelets, dynamic mag. response near T_c 2−66781
Ni, spin waves, mag. props. 2−66795
Ni-B, amorphous mag. props. 2−92967
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
$NiPS_3$, layer phases, optical and mag. props., intercalation-induced modifications 2−82875
$NiPS_3(Se_3)$, layer cpds., mag interactions 2−61699
$NiSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
Np_2Se_5, crystallographic and mag. studies 2−86638
α,β-O_2, magnetisation under high press. 2−66760
P_2O_5-MnO_2 glass, antiferromagnetism, mag. susceptibility, Neel temp. 2−72173
$PbMo_6S_8$, supercond. and electronic props. *(Russian)* 2−98638
$Pb_{0.82}Sn_{0.18}Te$, intrinsic defects, mag. susceptibility study 2−115217
PbTe, intrinsic defects, mag. susceptibility study 2−115217

magnetic susceptibility continued
Pd-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Pd-Fe, dil., thin film, AC susceptibility, ion irrad. effects, rel. to supercond. 2−56828
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
$Pd_{1-x}Ag_x$, paramag. and diamag. susceptibility, temp. and Ag mole fraction effects 2−92863
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
$(Pd_{0.9966}Fe_{0.0034})_{0.95}Mn_{0.05}$, nonlinear mag. susceptibility and sp. ht. meas. 2−87480
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2−72208
Pr alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
PrAg, magnetisation and susceptibility meas. 2−116032
$PrNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
$(PrRd8_5Ga_{39})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
$R_2GeBe_2O_7$ (R=La,Pr,Sm,Gd,Dy,Er), cryst. struct., prep. and mag. susceptibility meas. 2−103719
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
β-$Rb_2FeF_5.H_2O$, 1-D antiferromag., cryst. struct., mag. and Mossbauer study 2−92879
$RbNiF_3$, Heisenberg ferrimagnet, mag. susceptibility, optimal transformation method 2−77277
$(Rh_{1-x}Cr_x)_3Te_4$, paramag. susceptibility, elec. resist. and lattice consts. meas. 2−72136
Sb-Cs(Na)(K), elec. and mag. props., transition to semicond. characts. 2−92709
$(Sb_2S_3)_x(SbI_3)_yFe_z$, glassy semicond., spin glass like behaviour 2−56871
Se, magnetic susceptibility constants meas. for amorphous, cryst. and powders 2−87474
Si, neutron irrad., vacancies, mag. susceptibility study 2−115309
Si, paramagnetic susceptibility obs., dislocations effect 2−56823
Si surface (111), 1×1 struct., antiferromag. ground state, dangling bond states 2−66790
SiC, mag. susceptibility meas. 2−61692
SmD_{2+x}, antiferromagnetic ordering study 2−72160
$Sn_xEu_{12-x}Mo_6S_8$, mag. field induced superconductivity 2−72100
$Sn_{1-x}Mn_xTe$, low field AC mag. susceptibility 2−92874
Ta-H system, phase diagram and transitions, mag. susceptibility study 2−92155
TaS_2 (2H), intercalation cpds., mag. susceptibility and band struct. 2−104251
TaS_2-2H, intercalation cpd. with NaOH, supercond. transition temp. and charge transfer 2−92804
Tb-Ho, paramagnetic, deviations from Curie-Weiss law 2−56825
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
$Tb_{0.27}Dy_{0.73}Fe_2$, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
$Tb_2Fe_3Si_5$, mag. order, neutron diffr. study 2−82567
TbH_{2+x}, antiferromagnetic ordering 2−72158
Tb_5Si_4, magnetic, thermal, and elec. props. 2−72177
Tc_xRe_{1-x}, isoelectronic HCP, supercond. transition temp., AC susceptibility meas. 2−56761
$ThF_4-BaF_2-MnF_2$, spin glasses, AC susceptibility, local anisotropy 2−92876
β-Ti-Mn(V)(Mo-V), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
$TiBe_2$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$TiBe_2$, weak itinerant antiferromag., SDW pairing soln. 2−92854
$TiBe_{2-x}M_x$ (M=Cu, Ag, Au, Fe), magnetisation meas. in high and low fields 2−56839
$TiBe_{1.94}O_{0.05}$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$TiTaO_4$, struct. and mag. props. 2−86634
$(Ti_{0.9}V_{0.1})_2O_3$, spin glass, nonlinear susceptibility, field depend. 2−66831
$Tl-AgTlS_2$, molten system, electronic and mag. props. 2−98647
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2−92969
$TmSc_{0.89}Te_{0.11}$, mixed valence cpd., mag. and elec. props. 2−56444
$Tm_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
UBr_3, magnetic susceptibility meas. from room temp. to liq. He temp., antiferromag. interaction 2−92883
U_2C_3, neutron irrad., mag. susceptibility, Neel temp., lattice consts. 2−66073
$U(Fe_{1-x}Mn_x)_2$, effective Curie-Weiss const., susceptibility and magnetisation meas. 2−72165
β-U_2N_3, elec. and mag. props. mag. transition temp. 2−87281
$UNi_{5-x}Cu_x$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
UO_2 complexes with Schiff bases, spectral props. 2−80586
V complex, VO(IV)-quadridentate naphthaldimine ligands, mag. and spectral props. 2−110849
V, susceptibility and local moments, temp. depend. in paramag. state 2−104576
V^{3+}:guanidinium aluminium sulphate hexahydrate, mag. props. 2−92873
V_2O_{13} single cryst., physical, elec. and mag. props. 2−66251
V_3S_4, mag. susceptibility, mag. moments and sp. ht. 2−98852
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
$V_3Si(Ge)$, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
$V_2Zr(Hf)$, mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2−61693
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2−104590
Y_9Co_7, mag. supercond., hybrid state, resist., magnetoresistance and AC susceptibility study 2−82571
$Y(Co_{1-x}Fe_x)_2$, $Y(Ir_{1-x}Fe_x)_2$ and $Hf(Co_{1-x}Fe_x)_2$, mag. ordering 2−98845
$Y(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
$Y_2GeBe_2O_7$, cryst. struct., prep. and mag. susceptibility meas. 2−103719
YIG, domain wall mobility, initial susceptibility freq. spectra study 2−92957
YIG, spin waves, mag. props. 2−66795
$(YSmLuCa)_3(FeGe)_5O_{12}$ films, ion implanted, cubic anisotropy meas. 2−77340
$YbAlB_4$, mixed valence cpd., elec. resist., mag. susceptibility, sp. ht. 2−56517
$Yb_xMo_6S_8$, mag. props. under press. 2−56911
$Yb_2(SeO_4)_3.8H_2O$, mag. susceptibilities, paramag. Curie temp., thermal and hyperfine props. 2−61691
$Yb_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
Zn, liquid, mag. susceptibility calcs. 2−98843
$ZnCr_{2x}Al_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$ZnF_2-BaF_2-DyF_3(HoF_3)$, spin glasses, AC susceptibility, local anisotropy 2−92876
ZnSe, mag. and elec. props., effect of disorder 2−82356
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
Zr-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
$ZrCo_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$Zr(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
$Zr_xHf_{1-x}V_2$, struct. nonstable supercond. Laves phase, electron spectrum peculiarities *(Russian)* 2−66433
$ZrNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781
$ZrTe_5$, negative evidences for CDWs and SDWs 2−56553

magnetic switching
garnet film, 2−82681
pulse modulator and compressor for injector triggering 2−90319
Fe powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
Fe-Co-W semihard mag. alloys for remanent reed switch appl. 2−82626
Gd-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Ho-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Ni powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038

magnetic tape equipment
see also magnetic tape storage
tape contact area meas. using interferometry 2−69242

magnetic tape recorders *see tape recorders*

magnetic tape storage
see also magnetic tape equipment
fishing trawl Door Instrumentation System 2−94543

magnetic tape stores *see magnetic tape storage*

magnetic tapes
see also magnetic tape equipment; magnetic tape storage
fine magnetic particles, prep. method for TEM specimens 2−79553
technical progress problems in magnetic tapes and motion picture films, applicationn in cinematography and television *(Russian)* 2−89845

magnetic thin film devices
see also magnetic bubble devices
ferromagnetic thin film inductance variation magnetometer for weak magnetic field measurement 2−89758
magnetoresistive thin ferromag. film magnetometer for weak magnetic field measurement 2−89758
small magnetoresistive elements, domain formation 2−72305
thin film magnetometric sensor, noise characterisation *(French)* 2−95419
γ-Fe_2O_3 sputtered thin film disks, high density recording characts. 2−77335
Ni-Fe patterns for thin film heads, selective microelectrodeposition 2−83046

magnetic thin film stores *see magnetic film stores*

magnetic thin films
see also magnetic epitaxial layers
amorphous, spin-wave resonance 2−72181
amorphous and cryst., electron and spin density distrib., bubble memories appl. 2−82677
amorphous magnetic thin film and magneto-optical memory *(Japanese)* 2−92977
anisotropy of single domain particles, ferromag. reson. study 2−56946
antiferromagnetic, guided polariton dispersion relations *(French)* 2−104263
bubble domain lattice, dynamic props., weak planar static mag. field effects *(Russian)* 2−98921
bubble films, AC susceptibility technique for characterisation 2−72314
bubble materials, domain wall props., surface effects *(Russian)* 2−87559
Co, electrocrystallisation during deposition of mag. thin films *(Russian)* 2−77761
domain walls, twisted with perpendicular anisotropy, micromag. theory 2−104671
ferrite film, reflection of magnetostatic forward waves incident obliquely on metal half-plane 2−87558
ferrite films, magnetic wave precursors, expt. and theoretical study 2−77336
ferromagnet, micromag. struct., electron holography technique 2−92981
ferromagnet, spontaneous Hall coeff. 2−110331
ferromagnetic, dipolar surface spin waves 2−66873
ferromagnetic, elastic strains in crystallite boundaries, segregated pt. defects on induced anisotropy *(Russian)* 2−66877
ferromagnetic, planar Hall effect 2−64071
ferromagnetic, susceptibility and spin correlation time near Curie point, Valenta model 2−72306
ferromagnetic film, Brillouin scatt. from magnons, Stokes-anti-Stokes asymm. 2−116202
ferromagnetic film, spin wave spectrum and linear excitation 2−98866
ferromagnetic film layered structure, dipole-exchange spin waves dispersion 2−82582
ferromagnetic metallic film, EM wave transmission impedance calc. *(Russian)* 2−87556

magnetic thin films continued
ferromagnetic thin films, magneto-optical const. meas. using automated system 2−64099
garnet bubble film, effective domain wall mass meas., reson. techniques 2−77345
garnet film, domain wall motion damping parameter, FMR study 2−77346
garnet film, ion implanted, charge wall dynamics, Faraday effect study 2−72311
garnet film, magnetic profile, FMR determ. 2−72355
garnet films, with orthorhombic anisotropy, fast 1- and 2-μm bubbles 2−77342
garnet ion implanted bubble films, CEMS characterisation 2−72387
garnet layers, ion implanted, damage evaluation, Monte Carlo simulation 2−76519
garnet thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
Heisenberg paramagnetic thin film, reaction field approx. 2−87473
isotropic magnetic film with high H_c, planar magnetron sputtering 2−72622
magnetic restructure with antimagnetic exchange interaction at surface *(Chinese)* 2−98848
magnetisation reversal in films with perpendicular anisotropy, one-dimens. theory 2−66878
magnetostrictive consts., calc. and meas. 2−82693
metallic thin films with variable driving field symmetry, reson. of standing spin waves 2−93014
Mumetal, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Permalloy, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Permalloy film, domain struct. and magnetisation switching *(Russian)* 2−104668
Permalloy film, uniaxial, relax. time under nonlinear ferromag. reson. conditions *(Russian)* 2−61771
Permalloy film, wall clusters and domain structure conversions 2−82628
Permalloy laminated films, magnetoresistance, mag. field detection method 2−71949
Permalloy-FeMn system, uniaxial anisotropy temp. depend. 2−72192
spin waves, elliptically polarised, resonance spectrum calc. 2−72307
sputtering method for deposition of magnetic films 2−111075
thin film, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625
three-layer film, crit. parameters for optical data storage appl. *(Russian)* 2−85900
ultrathin, FMR and static magnetisation orientations 2−104710
ultrathin crystal, ferromag. resonance and magnetization 2−66921
uniaxial films in magnetic fields with spatial periodicity, domain structure 2−104655
BiYIG, film, bubbles, mag. props. 2−72315
Co alloys, thin film recording materials, corrosion 2−72864
Co, polycrystalline film, saturation magnetostriction meas. 2−77337
Co sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co textured films, NMR and mag. meas. *(Russian)* 2−98994
Co thin films, transverse susceptibility and struct. const. 2−61744
Co-Cr film, RF sputtered, HCP phase and perpendicular mag. anisotropy, N_2 induced 2−56394
Co-Cr film, RF sputtered, perpendicular mag. anisotropy, magneto-optical Kerr effect and reflectivity meas. 2−61878
Co-Cr perpendicular magnetic recording films, meas. of M-H curve 2−116039
Co-Gd amorphous films, struct. and mag. props., Mossbauer study *(Russian)* 2−77429
Co-Ni, sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
Cu/Ni compositionally modulated films, magnetisation and Curie temp. meas. 2−87533
Cu-Ni compositionally modulated film, Arrott plots, computer anal. 2−72304
Cu-Ni compositionally modulated thin film, mag. behaviour, struct. 2−98920
Cu-Ni thin film, static and dynamic mag. studies 2−72303
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
$(Eu,Tm,Y,Ca)_3(Fe,Ge)_5O_{12}$ thin film system, domain boundaries *(Russian)* 2−77338
EuS film, magnetisation curves in critical temp. range examined by magnetooptic and photomodulation methods 2−66869
Fe (001) film, surface states, surface magnetisation, electron spin polarisation 2−61540
Fe film, equatorially magnetized, transmitted light intensity odd-parity effect 2−116160
Fe film, ferromag., Brillouin light scatt. by spin waves 2−66872
Fe, magnetooptical Kerr effect, mag. props. 2−77492
Fe, polycrystalline film, saturation magnetostriction meas. 2−77337
Fe, thin film, crosstie walls, mag. field effects, electrostatic TEM study 2−82682
Fe, thin film, twisted domains, magnetisation, electrostatic TEM study 2−82683
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-garnet films, hard-stripe domains, investig. 2−104673
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Ni films, periodic domain walls interactions, electron microscopy study *(Russian)* 2−87560
Fe-Si (33 at.%) amorphous films, domain struct. characts. 2−82685
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
Fe_xB_{1-x} amorphous films, spin glass behaviour and non-ergodicity, FMR study 2−98897
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
FeCo and $Fe_{0.5}Co_{0.4}Cr_{0.1}$ films, polycryst., subjected to X-irrad., magnetisation *(Russian)* 2−66876

magnetic thin films continued
FeF_3 thin films, mag. and Mossbauer studies as a function of growth model 2−82678
FeNiCo films, nucl. spin echo in NMR and FMR overlap region 2−104741
Fe_2O_3 film, surface mag. hyperfine interactions, Mossbauer study 2−72391
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
Fe_xSi_{1-x} ferromag. alloys, amorphous and crystalline, even magneto-optic spectroscopy 2−104857
Fe−phenol-formaldehyde resin, filled polymer, ferromag. adsorbents, mag. props. 2−66871
Gd Co amorphous films, torque curves meas. *(Russian)* 2−98926
Gd-Co amorphous films, perpendicular mag. anisotropy, effect of O_2 and N_2 addition 2−72299
Gd-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Gd-Fe thin films, comp. graded, mag. field meas. appl. 2−112939
GdCo amorphous bubble film, FMR spectra, angular depend. 2−72354
GdCo amorphous film, compensation temp., substrate effects, Hall effect study 2−92974
GdCo amorphous RF sputtered films, substrate bias effect on film composition and mag. props. 2−56900
GdCo film, bias-sputtered, perpendicular anisotropy rel. to microstruct. 2−72297
$Gd_{1-x}Co_x$ amorphous films, oxidation, FMR study 2−82724
GdFe amorphous bubble film, FMR spectra, angular depend. 2−72354
GdFe amorphous thin films, induced anisotropy and temp. effect on domain struct. 2−104609
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
$Gd_3Ga_5O_{12}$ films, mag. moment flip wave velocity *(Russian)* 2−56898
Ho-Co uniaxial amorphous ferrimagnet, mag. states 2−110608
Mn-Bi amorphous films, crystn. 2−98480
Mn-Ni(Co) layered mag. thin films, magnetisation and struct. 2−72302
MnBi thin films, polycryst., with perpendicular anisotropy, domain wall coercivity 2−72310
$Mn_xFe_{3-x}O_4$ ferrite thin films, spin wave resonance 2−110647
Ni film, with oblique mag. anisotropy, anomalous magnetisation loop 2−56897
Ni on flexible magnetic media 2−98919
Ni, polycrystalline film, saturation magnetostriction meas. 2−77337
Ni-Fe film, magnetization oscillations excitation *(Russian)* 2−92976
Ni-Fe films, domain wall struct., low-angle electron deflection study 2−87562
Ni-P chemically formed coatings struct. and props. *(Russian)* 2−92400
NiFe thin films with uniaxial anisotropy, head-on domain walls 2−72309
Pd-Co films, epitaxial, polycryst. and amorphous, transverse anisotropy meas. *(Russian)* 2−92975
Pd-Ni thin film, static and dynamic mag. studies 2−72303
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
SmTmCaGe garnet (100) films, Neel walls and line transitions 2−110614
$Sm_{0.45}Y_{2.55}Fe_{3.85}Ga_{1.15}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
$(Y,Bi)_3(Fe,Ga)_5O_{12}$ film, two-layer, bistable mag. bubble domain wall dynamics 2−66880
$(Y,Eu,Tm,Ca)_3(Fe,Ge)_5O_{12}$ system films, FMR study of mag. parameters *(Russian)* 2−77385
$(Y,Sm,Lu,Ca)_3(Fe,Ge)_5O_{12}$ films, H^+ implanted, laser annealing 2−76492
$(YBiCa)_3(FeSi)_5O_{12}$, bubble film, growth induced anisotropy, FMR 2−72316
$Y_{2.1}Bi_{0.9}Fe_{3.9}Ga_{1.1}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$(YGdTm)_3(FeGa)_5O_{12}$, bubble motion, vertical Bloch line annihilation during creep 2−77343
YIG film, magneto-optical 3 layer unidirectional TE-TM mode converter, film thickness and waveguide length effects calc. 2−55358
YIG films, oblique magnetization, volume and surface magnetostatic wave propag. 2−116040
YIG:Ga, Gd film, confined stripe domain lattice, mag. domain walls normal modes obs. 2−92980
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334
$(YSmLuCa)_3(FeGe)_5O_{12}$ films, ion implanted, cubic anisotropy meas. 2−77340
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312

magnetic transition temperature
see also Curie temperature; Morin temperature; Neel temperature
annealed system, Gaussian random bond problem in 1/n expansion 2−77298
cubic lattice, Ising ferromag. transition, Monte Carlo calc. 2−56881
dilute mag. system, crit. temp., conc. fluctuations effects, theory 2−104624
Heisenberg amorphous ferromagnet with random anisotropy, mag. props. 2−61685
Heisenberg ferromagnet, dil. anisotropic, correl. lengths and transition temp., renormalisation group scaling methods 2−66863
Heisenberg model, classical, chain version of const. coupling theory 2−92945
Ising ferromagnet, crit. temp., cluster variation method 2−104026
Ising ferromagnet, effective field model, influence of triplet correlations 2−66851
Ising magnets, dil. quasi-low-dimensional crit. props. 2−82619
Ising model, 3-D, critical temp., partition function numerical integration using collective variable method *(Russian)* 2−92851
Ising model, effective-field model with correls. 2−92950
Ising model, random, critical temp., generalised transfer formalism 2−116020
Ising model, random, in d dimens., susceptibility, high-temp. series expansion 2−82623
Ising model, spin glass of site-random with first and second neighbour interactions, transition temps. 2−110598
random decorated Ising model 2−72236
rare earth alloys, amorphous, induced mag., singlet-singlet model 2−104560
rare earth rhodium borides, RRh_4B_4, mag. transition temp., effect of crystalline elec. field 2−104616

magnetic transition temperature continued
spin glass, Sherrington-Kirkpatrick model, phase transition crit. temp. determined 2−98890
surface ferromagnetism induced by surface amorphization in a layered antiferromagnetic system 2−87514
$(TMTSF)_2ClO_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
transition metal alloys, ferromagnetism and spin glass ordering 2−72197
van Vleck ions coupled to electron gas, induced mag., calc. in narrow-band limit 2−61681
$Cd_{1-x}Mn_xTe$, 'antiferromag. phase', neutron scatt. studies 2−92868
Co-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$Co_{1-x}Fe_xTiO_3$, competing mag. orderings, Mossbauer and neutron diffr. study 2−66777
$DyCo_2$, vol. depend. of first order mag. transition temp. 2−98881
$ErCo_2$, vol. depend. of first order mag. transition temp. 2−98881
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217
Fe-Pd, dil. alloys., model of mag. behaviour 2−72198
Fe-Rh, mag. transitions press. depend. and bulk modulus, s-d exchange model *(Russian)* 2−92902
$Fe_{1-x}Co_xO$, mag. props. 2−104592
$Fe_4Ni_{74}Si_9B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
GdCo amorphous film, compensation temp., substrate effects, Hall effect study 2−92974
$HoCo_2$, vol. depend. of first order mag. transition temp. 2−98881
ζ-$Mn_{2.6}Ge$, mag. phase transitions, magnetisation and entropy study 2−98876
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
$Mn_{1-x}Zn_xFe_2O_4$ ferrite, exchange interactions and canted-collinear struct. transition temp. calc. 2−110575
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$(Sb_2S_3)_x(SbI_3)_yFe_z$, glassy semicond., spin glass like behaviour 2−56871
$(Tm_xY_{1-x})_2(SO_4)_3.8H_2O$, effect of dilution on mag. ordering 2−66812
β-U_2N_3, elec. and mag. props. mag. transition temp. 2−87281
$Yb_{1-x}Eu_x$, mag. interactions, Mossbauer, magnetisation and resist. meas. 2−72382
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2−98853

magnetic transitions
see also critical fluctuations; ferromagnetic-antiferromagnetic transitions; ferromagnetic-paramagnetic transitions; magnetic transition temperature; paramagnetic-antiferromagnetic transitions
acoustic vel. change due to s-d orbital redistribution during mag. transition 2−104620
anisotropic ferromagnet in both random and uniform field, multicritical point 2−56867
annealed system, mag. mixture, Potts model 2−77299
antiferromagnet, type I FCC in mag. field, realisation of q=3- and q=4-state Potts models 2−82605
antiferromagnets, rhombohedral, with weak spin anisotropy, renormalised field theory 2−104626
antiferromagnets, weakly anisotropic, renormalised field theory for Gaussian random fields 2−104625
asymmetry four-state clock model, perturbation expansion, commensurate-incommensurate transition 2−56878
Bose-Einstein ferromagnetism 2−82608
Cayley tree, combined site and bond percolation 2−77310
classical Ising-Heisenberg chain, instabilities 2−77308
cubic solid solns., comp. mag. transitions, mag. struct. symmetries, neutron diffr. study *(Russian)* 2−92867
dilute mag. alloy, antiferromagnetic spin glass transitions 2−82616
dilute magnets with long range percolation, width of crit. region 2−92913
dimethylammonium manganese chloride, pseudo one-dimensional antiferromag., mag. props. 2−116007
disordered spherical model, free energy calcs. 2−72227
electrical resistivity, temp. depend. in ferro- and paramag. region, behaviour in phase transition region 2−71944
ferromagnet, rigid, thermodynamic model, phase transition phenomena 2−92942
ferromagnet, simple isotropic compressible, Sak model 2−66827
ferromagnetic materials, magnetic phase transform. control using Barkhausen effect and hysteresis loop 2−116677
ferromagnetic semiconductor, homogeneous state instability 2−92932
ferromagnetic superconductor, Lifshitz point behaviour 2−77230
ferromagnets, mag. susceptibility and magnetisation near coupled struct. and mag. transition *(Russian)* 2−82579
ferromagnets, phase transitions, critical behaviour, field theoretical model 2−110581
ferrous and ferric compounds, spin transitions 2−66832
fluctuating valence model, real space renormalisation group study 2−56521
graphite intercalated with $FeCl_3$, Mossbauer study of mag. props. 2−99012
graphite intercalation compounds with transition metal chlorides, mag. phases 2−56863
graphite intercalation cpd. with $FeCl_3$, low and high stage, mag. order, Mossbauer study 2−87642
Heisenberg antiferromagnetic chain, S=1/2, with competing interactions, spontaneous dimerisation 2−77318
Heisenberg magnet, quenched random site, with competitive exchange interactions, high temp. mag. states in simple cubic and BCC lattices 2−56816
Heisenberg paramagnetic thin film, reaction field approx. 2−87473
Heisenberg spin-Peierls system in mag. field, commensurate and incommensurate states 2−92952
heterophase ferromagnets, exact solns., critical point effects 2−61718
incommensurable structure induction by external field *(Russian)* 2−56865
infinite susceptibility above T_c, in Migdal-Kadanoff scheme 2−72245
irrelevant operators and momentum-shell recursion relations in $d=2+\varepsilon$ dimensions 2−98891
Ising antiferromagnet, FCC, Monte Carlo study of entropy 2−82618
Ising chain, impurity magnetisation in transverse field, weak coupling expansion 2−66853
Ising ferromagnet, dipolar, phase transitions with spontaneous modulation 2−104646

magnetic transitions continued
Ising ferromagnet, inhomogeneous mean-field model 2−104640
Ising gauge model, phase transition 2−56876
Ising lattice, quantum, renormalisation group, finite model 2−104635
Ising magnetic systems, cluster approx. for q-depend. correls. 2−82800
Ising model, axial nearest neighbour, perturbation expansion, commensurate-incommensurate transition 2−56878
Ising model, axial nearest-neighbour, low temp. and near multiphase 2−61727
Ising model, finite, crit. dynamics, queueing theory 2−104638
Ising model, frustrated simple cubic, ground state and phase transition 2−92948
Ising model, one-dimens., with $1/r^2$ interaction energy, low-temp. spont. magnetisations 2−66849
Ising model, one-dimens. spin exchange model, real space dynamic renormalisation group 2−110597
Ising model, quenched dilute random-bond, crit. curve 2−56877
Ising model, random antiphase state and frustration in two dimensions 2−82620
Ising model, random field d-dimens. hypercubic model, Monte Carlo renormalisation group study 2−72238
Ising model, triangular, two- and three-spin, variational approx., phase boundaries 2−72248
Ising model site diluted, FCC and frustrated square lattice, spin glass and super-antiferromagnetism 2−77313
Ising models, frustrated, order as consequence of disorder 2−66856
Ising spin glass, dynamic nature of freezing process, Monte Carlo simulation 2−61723
itinerant electron system, mag. phase transitions 2−66753
Kondo lattice, Schrieffer-Wolff transform., mag. transition 2−115973
Landau theory, inverse temp. expansion, symm. breaking pot. method 2−79519
Laves phase cpds., onset of magnetism 2−87541
localisation model, exact solution 2−98593
low-dimensional magnetic systems, magneto-optical effects, review *(Japanese)* 2−82831
magnetite, ferri-paramagnetic transition at high-press., at Curie point 2−106108
metal, magnetic resistivity theory near ferromagnetic phase transition 2−92569
metallic glasses, $(A_xB_{1-x})_{75}P_{16}B_6Al_3$, A and B=Fe, Co, Ni, Mn or Cr, mag. phase diagrams 2−92931
metamagnet, dilute, quasiequilib. transitions, Ising model 2−98879
multicomponent spin models with transitive symm. groups, Cayley trees for special cases 2−104562
multicomponent spin models with transitive symm. groups, theory 2−104561
multicritical points in a system with random single-ion anisotropy 2−104622
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
one-dimensional Heisenberg antiferromagnet, antiferromag.-spin Peierls state phase diagram calc. 2−87469
order-parameter profile in semi-infinite systems at criticality 2−69121
orthorhombic cryst., mag. phase transition, exchange-relativistic interaction *(Russian)* 2−104611
parametrically excited spin waves, phase transition, numerical simulation *(Russian)* 2−115987
polymerised Fe^{3+} acetylacetonate, mag. props. 2−104572
Potts ferromagnet, anisotropic planar, phase diagram 2−110588
Potts model, antiferromagnetic, on square lattice, crit. behaviour anal. 2−104641
Potts model, ferromag. and antiferromag. in (1+1) and (2+1) dimensions 2−72231
Potts model, generalised three-state and antiferromag., phase transitions and entropy 2−66852
Potts model, three-dimensional three-state, phase transition 2−72205
Potts model, triangular lattice, crit. behaviour 2−104639
pyrite lattice, annealed Ising bond mixture, phase diagram 2−82622
random spin systems, susceptibility matrix eigenvalue spectrum 2−110599
rare earth alloy, $R_2[Co_{1-x}Fe_x]_{17}$, magnetic anisotropy 2−72191
RKKY spin glasses, numerical simulation studies 2−116016
s-f model with Coulomb repulsion, thermodynamics of two atomic cluster spin $^1/_2$ 2−66822
semimagnetic semiconductors, mag. props. 2−98898
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
solitons in mag. chains, functional integration approach 2−66737
spin glass, canonical, paramag. transition, Monte Carlo simulation 2−92940
spin glass, Ising model, phase transitions 2−82624
spin glass, itinerant model, mag. impurity conc. depend., paramag.-spin glass transition 2−82609
spin glass, m-vector, crit. behaviour for m=∞ 2−98888
spin glass, randomly layered Ising model on square lattice, criticality condition 2−104645
spin glass model, ground state props. 2−72244
spin glass models with short-range interactions, numerical studies 2−66844
spin glass phase transition in random-axes XY magnet 2−92918
spin glass transition, crit. behaviour in mag. field 2−66834
spin glasses, ±J model, minimum free energy principle appl. 2−110592
spin glasses, frustration effects and phase transition 2−66848
spin glasses, magnetic model with short-and long-range interactions 2−77314
spin glasses, mean field theory, recent developments 2−116015
spin glasses, nature of ordering 2−66862
spin glasses, order parameter and static susceptiblity in mean-field theory 2−72237
spin glasses, random bond model, theory 2−61719
spin glasses, static and dynamic props. 2−66846
spin glasses, uniaxial anisotropy, phase diagram 2−104621
spin orientation phase transition near the Curie temperature *(Russian)* 2−87509
spin system, O(n) model, peculiarities for n<1 in mag. field 2−69107
spin systems, renormalisation group recursions by mean-field approximations 2−82604
spin systems, semi-infinite, crossover in crit. behaviour 2−92943
spin Van der Waals model, long-range order 2−56809
spinel spin glasses, mag. phase diagram 2−92912
symmetry in mag. transitions, broken symm. effects 2−66841
ternary alloys, conc., onset of magnetism, review 2−56853

magnetic transitions continued
ternary superconductors, magnetism rel. to supercond. props. 2−110517
$(TMTSF)_2ClO_4$, organic supercond., resistive and mag. susceptibility transitions 2−56754
$(TMTSF)_2PF_6(AsF_6)$, mag. susceptibility 2−92881
$(TMTSF)_2X$ (X=ClO_4, PF_6, AsF_6), nonlinear threshold phenomena due to SDW transitions 2−92885
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
$(TMTSF)_2Z$, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
$(TMTTF)_2X$, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
transformations in amorphous and mictomagnetic materials 2−61712
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
transition metals and alloys, magnetic and structural transformations, H influence 2−67329
$(TTF)\text{-}AuS_4C_4(CF_3)_4$, susceptibility and magnetisation 2−66785
$TTF\text{-}AuS_4C_4(CF_3)_4$, spin-Peierls phase diagram, susceptibility and magnetisation study 2−82569
two dimensional ferromagnetic Heisenberg model, Monte Carlo simulation 2−87520
two-sublattice magnetic crystals, parametric Green's functions, magnetisation theory 2−116037
weak ferromagnets, one-dimens. and two-dimens., differential susceptibility meas. and mag. phase diagrams 2−56840
YIG, mag. phase diagram, Faraday effect and absorption coeff. in fields up to 10 MG 2−87508
Ag-Mn spin glasses, H-T phase diagram 2−98895
$BaAs_3$, elec. cond. and mag. props. 2−92907
$CaAs_3$, elec. cond. and mag. props. 2−92907
$Cd_xCo_{1-x}Fe_2O_4$, mag. props. and lattice dynamics, Mossbauer effect study 2−77426
$CdCr_{2-2x}In_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
Ce alloys, antiferromagnetic, reduced moment, crit. behaviour 2−66815
Ce, volume collapse in Kondo lattice 2−87476
Ce-Si, ferromagnetic dense Kondo behaviour 2−104662
Ce-Si system, nonmagnetic-magnetic transition 2−61713
$CeAl_2$, volume collapse in Kondo lattice 2−87476
CeB_6, mag. ordering, neutron diffr. study 2−72155
CeBi mag. phase transitions, anisotropic Ising model 2−116021
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
CeSb, metamagnet, mag. phase diagram, ANNNI model *(Russian)* 2−82600
CeSb, phase diagram of ANNNI model in external mag. field 2−77309
$CeSb_{1-x}Te_x$, elec. and mag. props. 2−66523
Co-Cr, mag. behaviour above crit. conc. for ferromag. 2−72204
Co-Cr(Mn), computer calc. of phase diagram *(Japanese)* 2−105120
$Co(S_xSe_{1-x})_2$, metamagnetic transition, mag. props. 2−92904
Cr, antiferromag., spin-flip transition, latent heat 2−92906
Cr, transition from nonmagnetic to antiferromagnetic state *(Russian)* 2−77293
Cr-Fe, antiferromagnetic, high press. phase diagram, neutron scatt. study 2−116000
CrSi, dil. alloys, first order phase transition from paramag. to commensurate SDW state 2−116003
$(Cr_{1-y}V_y)_{0.14}Te$, mag. phase diagram, thermomagnetic props., mag. moments 2−87494
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874
Cu complex, copper chloride dimethyl sulphoxide, pseudo one-dimens. system, antiferromag. reson. and spin-flop transition study 2−77381
Cu-Mn spin glass, magnetocaloric study of (H, T) phase diagram 2−56869
Cu-Ni-Fe disperse ferromag. particles, mag. state transition with charge in interparticle distance *(Russian)* 2−104665
$Cu_{2.8}AlMn_{0.2}$, solid soln. containing disperse ferromag. Cu_2MnAl inclusions, martensitic transition obs. *(Russian)* 2−98915
Cu_3AsS_3, elastic and mag. props., temp. depend., phase transform. 2−116009
Dy, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
Dy, first order phase transition study 2−77262
Dy-Sc, spin glass and antiferromag. transitions, bulk magnetisation study 2−72222
$Dy_3Al_5O_{12}$, mag. struct., neutron diffr. study 2−92869
DyC_2, first order phase transition study 2−77262
$DyFe_4Al_8$, Mossbauer study 2−87636
$DyFe_{1-x}Co_xO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$DyFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$ErFeO_3$, HF absorption and mag. phase diagram at low temp. spin reorientation *(Russian)* 2−61710
$EuAs_3(P_3)$, elec. cond. and mag. props. 2−92907
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
EuS_xSe_{1-x}, mictomagnetism, mag. phase diag., specific heat and mag. meas. 2−82607
EuSe, magnetic transition, press. induced 2−87504
$Eu_xSr_{1-x}S$, dil. Heisenberg system, with competing interactions, mag. ordering 2−72212
$Eu_xSr_{1-x}S$, spin glass transition, AC susceptibility freq. depend. study 2−72221
Fe complex, $(Fe_xZn_{1-x}(2\text{-pic})_3)Cl_2.EtOH$, high spin=low spin transitions, lattice expansion effect 2−87510
Fe complex, bis(N,N-diethyldithiocarbamato)-iron chloride, crit. behaviour, theoretical anal. 2−72240
Fe, ferromag., expt. search for 1st order phase transition, magnetisation meas. 2−66867
Fe, ferromag. metals, mag. transition on cooling course 2−116002
Fe film, single cryst., first order transitions in magnetisation 2−66813
Fe-Co-V, Vicalloy-2, phase and struct. transitions, mag. props. *(Russian)* 2−61714
Fe-Cr alloys, existence of spin glass region 2−66830
Fe-Mn, amorphous, ferromagnet-spin glass transition, ESR linewidth meas. 2−77305
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Ni alloys, critical, mag. struct., Arrott plots and Mossbauer spectra 2−104615

magnetic transitions continued
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
$Fe_{2-x}Cr_xCa_2O_5$ sintering, mag. transitions, solid soln. composition depend. 2−98875
$Fe_{3-x}Cr_xO_4$, heat capacity, 200 to 850K, λ=type anomaly due to ferri-paramag. transition 2−61161
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, irreversible response study 2−104594
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe_xNi_{80-x}P_{14}B_6$, amorphous alloys, ferromag.-spin glass transition, ferromag. resonance study 2−110648
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
Fe_3O_4, critical exponents and mag. eqn. of state, polarised neutron scatt. obs. 2−104628
Fe_2P, ferromag., sp. ht. meas. 2−92930
$FePO_4$, anhydrous, mag. phase transition, mag. susceptibility, Mossbauer spectra and neutron diffr. 2−110579
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
FeS, phase transitions with interactive order parameters *(Russian)* 2−61709
$Fe_{0.909}S$, magnetic transitions and crystal struct. 2−82598
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
$FeTiO_3$, metamagnetic transition, mag. props. 2−92903
$Fe_xZn_{1-x}Fe_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
^3He, solid, mag. transition 2−82070
^3He, solid, magnetic phase transition, mag. ground state 2−76771
$HgCr_2Se_4$, Hall effect during ferromagnetic transition 2−110372
Ho, first order phase transition study 2−77262
HoB_4, mag. struct. and phase diagram, neutron diffr. study 2−72152
$Ho_{0.5}Dy_{0.5}FeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
$Ho_{50}Tb_{50}$, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
In film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
K_2CuF_4, two-dimens. planar ferromag., phase transitions, neutron scatt. study 2−98877
K_2CuF_4, two-dimensional planar ferromag. Kosterlitz-Thouless transition 2−66826
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
K_2FeF_5, Neel temp. variation, Mossbauer study 2−92905
K_2MnF_4, quasi two dimensional Heisenberg antiferromag., mag. phase diagram 2−77300
$La_{1-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
$LaMnO_{3.09}$, distorted, mag. transition above Curie point, magnetisation and magnetoresist. study 2−110582
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
Mn spin systems, cooperative phenomena at low temps. 2−92956
MnAs, phase transitions with interactive order parameters *(Russian)* 2−61709
$MnAs_{1-x}P_x$ crystals, high spin-low spin mixture, charge carrier scatt., vel. to mag. ordering 2−115835
$Mn_{0.99}Fe_{0.01}As$ alloy, mag. ordered phase stability, mag. field effect *(Ukrainian)* 2−61708
ζ-$Mn_{2.6}Ge$, mag. phase transitions, magnetisation and entropy study 2−98876
MnP, evidence for Lifshitz point in mag. phase diagram 2−66814
MnP, mag. phase diagram, field parallel to hard direction 2−77297
α-MnS, linear optical anisotropy and domain struct. at two successive antiferromag. transitions 2−56856
MnSb, thermal and elec. props. 2−104087
$Mn_{0.957}Zn_{0.043}F_2$, mag. phase diagram meas., random fields effects 2−72196
$Mn_xZn_{1-x}F_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
$NdCo_3$, thermal expansion and resist., anomalies obs. at spin-reorientation transition 2−76715
Nd_xGe_3, mag. transition temp., mag. ordering effects on elec. and thermal props. 2−87507
NdH_x, low temp. sp. ht., mag. transition, mag. susceptibility 2−61164
$Nd_xSm_{1-x}Co_5$, magnetisation curve anomalies meas., 4.2 to 100K *(Russian)* 2−92960
$Nd_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
Ni, ferromag. metals, mag. transition on cooling course 2−116002
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-Ti/Cu multifilamentary supercond., proximity effect, diamag. transitions obs. 2−61664
$NiBr_2$, helimagnetic state, inelastic neutron scatt. study of mag. excitations 2−98861
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2−92938
Pb film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
Pd-Mn, ferromagnetic-spin glass transition, elec. resist. study *(Russian)* 2−82601
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
PrAg, magnetisation and susceptibility meas. 2−116032
$RSnRh_4Sn_{12}$, supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
$RbFeCl_3.2H_2O$, Mossbauer study of critical fluctuations 2−99011
$Sm_3Fe_5O_{12}$, mag. phase transitions, Ising ordering hypothesis *(Russian)* 2−56860
Sn, film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
$Sn_{1-x}Cr_xTe$ degenerate mag. semiconductor, struct. transform.-induced mag. ordering 2−56852
$Sn_{1-x}Mn_xTe$, low field AC mag. susceptibility 2−92874
$SrAs_3$, elec. cond. and mag. props. 2−92907
Tb, first order phase transition study 2−77262
Tb-Gd alloys, magnetocaloric effect and mag. props. 2−72209

magnetic transitions continued
$TbAu_2$, first order phase transition study 2−77262
Tb_5Ge_3, mag. ordering and struct., incommensurate phase transition, neutron diffr. study 2−115977
TbH_{2+x}, antiferromagnetic ordering 2−72158
$Tb_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
$TmFe_4Al_8$, Mossbauer study 2−87636
$TmFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
UAs, order-incommensurate disorder mag. transitions *(Russian)* 2−56859
$(Y,Bi)_3(Fe,Ga)_5O_{12}$ film, two-layer, bistable mag. bubble domain wall dynamics 2−66880
$YCrO_3$, magnetoelastic props., domain struct. changes at spin reorientation transition 2−104680
$ZnCr_{2x}Al_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591

magnetic traps
see also magnetic bottles
axisymmetric double cusp confinement system, RF plugged 2−115031
axisymmetric open mag. trap, first mode flute oscills., stabilisation *(Russian)* 2−103326
bar-mirror mag. well, low-temp. plasma production by electron beam collisional ionisation 2−65745
drift surface structure and orthogonality condition for magnetic field geometry *(Russian)* 2−55776
EM wave absorption in plasma resonance region in EM trap 2−55736
field reversed mirror plasma, transport, numerical simulation code 2−65695
fusion research with magnetic plasma confinement *(German)* 2−91644
Heliotron DM, mag. surface struct., pulsed electron beam meas. 2−55771
Heliotron E, heating expt. 2−81567
Heliotron E neutral beam injection system, injection power and H ion species anal. 2−65737
Jupiter IA EM trap, conc. and density profile 2−60790
nonaxisymmetric minimum-B mirrors, equilib. and stability 2−109573
tandem mirror traps, microstability and plasma interaction along mag. field 2−109492
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
torsatrons, magnetic configuration, central region, mag. surface distortions, compensation 2−71235
US magnetic fusion program strategy and progress *(German)* 2−91647

magnetic variables measurement
see also fluxmeters; magnetic field measurement; magnetic permeability measurement; magnetometers
AC magnetic meas. from 4.2 to 300K, data logging system 2−64006
AC susceptibility bridge, and cryostat, for 2-300K meas. 2−112935
certification and application of standard specimens of magnetic materials 2−84671
demagnetisation curves averaging for specimens of magnetically hard materials 2−79623
demagnetisation curves of highly coercive materials, in closed magnetic loop 2−58860
dynamic hysteresis loop meas. using computer-controlled digital voltmeters 2−69208
electrical dynamo cold rolled sheet, magnetic props. anisotropy meas. *(German)* 2−111406
EM magnitudes, metrological assurance developments *(Rumanian)* 2−74393
ferrofluid mag. susceptibility measuring installation *(Rumanian)* 2−95418
ferromagnetic material, magnetic interference meas. and study of methodological problems 2−79628
ferromagnetics at HF, primary transducers stability improvement 2−58861
Hall devices appl., magnetoreactive effect analysis using equivalent circuit 2−84670
hysteresis loop tracer, high S/N, inexpensive *(Japanese)* 2−69210
induction, Soviet primary standard 2−69125
longitudinal magnetisation detection of electronic spin system irradiated by transverse RF fields 2−107358
magnetisation meas. at high press. 4.2 to 300K 2−58859
magnetization meas. in intense pulsed magnetic fields 2−58853
magnetometer for measuring mag. props. of mag. recording disc 2−107350
magnetometers testing, stability of frozen magnetic field in a superconducting shield 2−95413
NDT, EM aspects, review 2−67720
powder particles, magnetic parameters spread, method for anal. 2−89752
powderous soft mag. rings, inhomogeneity meas. 2−79622
recording materials, rotational hysteresis meas. with gas turbine 2−74472
reluctance of prefabricated parts, NDT, magnetic meas. 2−67683
shielded room, design, construction, and perform. 2−53793
SI electromagnetic units, importance in electrodynamics and chromodynamics 2−58768
single sheet tester using H coil, mag. field anal. 2−83309
steel, electrical, nondestructive testing of mag. props., tensile stresses influence on accuracy 2−58858
steel, electrotechnical, on-line, single sheet and Epstein power loss testing 2−83307
steel, transformer, method for determ. energy of mag. anisotropy induced by coatings 2−72188
superconducting susceptometer for high-accuracy routine operation 2−101429
thin layers, magnetostrictive consts., calc. and meas. 2−82693
units of magnetisation clarification, CGS vs SI units 2−79524
Fe-Si, electrical steel, mag. induction meas. in weak mag. fields 2−89753
Fe-Si, electrotechnical steel type 2011, mag. induction anisotropy determ. 2−92898
Fe-Si, grain orientated, mag. loss meas. using Epstein square, error anal. 2−79620
Fe-Si (3 wt.%), mag. props. meas. using single strip tester and Epstein frame 2−83308
Fe-Si (3 wt.%), total power loss meas. 2−79621

magnetic wells *see magnetic traps*

magnetisation
see also Barkhausen effect; coercive force; demagnetisation; magnetic aftereffect; magnetic anisotropy; magnetic domains; magnetic hysteresis; magnetisation reversal; magnetostatic waves; remanence; spontaneous magnetisation
alloy, random binary, with short range order of atomic arrangement, magnetisation 2−116035
Alnico magnets, anisotropic, model for field computation 2−82638

magnetisation continued
amorphous particles, ferromag., magnetisation calc. 2−72265
biaxial crystals, inhomogeneous mag. structs., magnetisation, exchange interaction 2−77285
bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2−104669
bubble material, magnetisation and material length, Faraday rot. study 2−92982
bubble material parameters, effects of finite anisotropy parameter in determ. 2−110613
C $DyCo_{2-x}Fe_xHy$, lattice parameters and mag. characts. 2−56891
classical ferromagnetic chains, interacting boson approach 2−66859
conduction electrons, nonlinear magnetisation, mag. susceptibility, electron band struct. *(Russian)* 2−98908
cyclohexaneammonium copper trichloride and tribromide, mag. behaviour 2−82614
cylindrical ferromagnetic particle system, magnetization *(Russian)* 2−98916
defect magnetic field depend. on frequency of magnetising field 2−67713
dilute magnetic alloys, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
disordered magnet, Ising model with random exchange bonds, Monte Carlo study 2−87468
disperse mag. particles with two sizes, magnetisation 2−106103
dispersed magnetic particles with two particle sizes 2−106103
electron ferromagnetism in narrow energy bands, extended Hubbard model *(Russian)* 2−61688
ferroelectric, second order phase transition, phys. props. under elec. and mag. fields 2−110782
ferroelectrics, thermodynamics near second order phase transition in external fields 2−110783
ferromagnet, anisotropic, 1-D magnetisation eqns., soliton solns. *(Russian)* 2−82665
ferromagnet, magnetisation, nonlinear dynamics, soliton models, review *(Russian)* 2−92914
ferromagnet, magnetostatic interface waves 2−56845
ferromagnet, rigid, thermodynamic model, phase transition phenomena 2−92942
ferromagnet, uniaxial, 2−66865
ferromagnet, uniaxial with dislocations, magnetisation distribution, singular lines, domain formation *(Russian)* 2−82664
ferromagnetic, superconductor, Josephson currents 2−110547
ferromagnetic cubic system, field and stress depend. of magnetisation 2−92986
ferromagnetic plate, magnetoelastic states near spin reorientation transition 2−82675
ferromagnetic thin film, micromag. struct., electron holography technique 2−92981
ferromagnets, macroscopic behaviour with random and statistically vanishing anisotropy 2−72193
ferromagnets, mag. susceptibility and magnetisation near coupled struct. and mag. transition *(Russian)* 2−82579
film, ultrathin, FMR and static magnetisation orientations 2−104710
Frohlich polaron, phase transitions in mag. field, Feynman approx. 2−76944
garnet epitaxial film, bubble domain radial expansion dynamics 2−77344
garnet film, magnetic profile, FMR determ. 2−72355
Heisenberg amorphous ferromagnet with random anisotropy, mag. props. 2−61685
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
Heisenberg spin glass, magnetisation profiles 2−110600
Heisenberg spin-Peierls system in mag. field, commensurate and incommensurate states 2−92952
heterophase ferromagnets, exact solns., critical point effects 2−61718
high pressure meas. technique, 4.2 to 300K 2−58859
induction motor windings with non-linear magnetisation characts., current shape anal. *(Slovak)* 2−56889
irreversible magnetising properties in amorphous and crystalline material, propag. props. 2−87539
Ising chain, impurity magnetisation in transverse field, weak coupling expansion 2−66853
Ising chains, frustrated, ground-state and low temp. props. 2−61726
Ising lattice, triangular mag. props., Monte Carlo simulation 2−87465
Ising model, effective-field model with correls. 2−92950
Ising model, kinetic, 1-D magnetisation, response functions 2−61683
Ising model, magnetisation profile in the presence of a surface magnetic field 2−72247
Ising model, series expansion for gen. temps. 2−72239
itinerant ferromagnet, press. depend. of mag. props. 2−87502
itinerant ferromagnetism study 2−66750
Knight shift, correction due to demagnetising effects 2−77399
Laves phase cpds., onset of magnetism 2−87541
longitudinal magnetisation detection of electronic spin system irradiated by transverse RF fields 2−107358
magnetic dilute alloy, spin glass behaviour 2−92937
magnetic fluid, agglomerate form., mag. susceptibility, Monte Carlo calc. 2−82669
magnetic semicond. in MIS system, 2-D electron gas, subband struct. and magnetisation 2−104497
magnetic strength analysis review, mag. props. rel. to struct. 2−66780
magnetic superconductors, mag. prop. 2−98789
measurement system for intense pulsed magnetic fields 2−58853
metal, ferromag., magnetic props. of the generalised model 2−77326
metal ferromagnet, electronic surface levels 2−66614
metal parts, magnetisation effect on interaction of rubbing surfaces *(Russian)* 2−77952
metallic glasses, ferromagnetic, anomalous eddy currents, magnetoelastic effects 2−116047
metallic superlattice superconductivity and magnetism 2−92819
metals, acoustic spin resonance of conduction electrons *(Russian)* 2−72351
metals, surface magnetism, polarised electrons 2−66890
minerals, irreversible magnetic props. in variable field, magnetometer investig. 2−95414
mullite form. kinetics, grain comp. and component activity effects 2−77271
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
NMR, magnetization modes in weakly coupled spin systems without magnetic equivalence 2−72367

magnetisation continued
one-dimensional interacting Fermi system with mag. impurities, magnetisation curve 2−82658
orthoferrite plate, magnetoelastic states near spin reorientation transition 2−82675
paramagnets, strongly exchange enhanced, thermodynamic and transport props., field depend. effects 2−115969
particles in external mag. field, surface and bulk struct. 2−82688
Permalloy film, domain struct. and magnetisation switching *(Russian)* 2−104668
Permalloy film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
polarons, statistical props. in mag. field, thermodynamics 2−104268
polycrystalline materials, bulged wall Globus model, friction and energy terms calc. 2−77320
polymerised Fe^{3+} acetylacetonate, mag. props. 2−104572
powder particles, magnetic parameters spread, method for anal. 2−89752
random uniaxial dipolar ferromagnet, critical behaviour 2−92935
rare earth alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
rare earth alloys $R_2(Co_{1-x}Fe_x)$, magnetic anisotropy phase diagram 2−98883
rare earth amorphous alloys, cryst. elec. field and local symm., mag. props. 2−72170
rare earth compounds, R_5Ga_3, mag. props., struct., anal. 2−66763
rare earth ternary cpds., mag. and supercond. props. 2−115937
rare earth-cobalt intermetallic, R_3Co type, elec. resist. accompanying metamag. phase transitions *(Russian)* 2−66820
rare earth-transition metal intermetallics, RM_6Al_6, (M=Cu, Mn, Fe), mag. props. 2−61734
rocks, irreversible magnetic props. in variable field, magnetometer investig. 2−95414
s-f model with Coulomb repulsion, thermodynamics of two atomic cluster spin $^1/_2$ 2−66822
single-crystal ferrites, domain boundary inhomogeneous oscills. 2−104653
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
soft ferromagnetic layers, free wall clusters 2−87531
spin glass magnetisation in mag. field at low temp. 2−82617
spin glasses, exptl. techniques, review 2−66842
spin glasses, free energy surface of mean-field model, reversibility and irreversibility 2−92922
spin glasses, magnetic model with short- and long-range interactions 2−77314
spin glasses, magnetic susceptibility phenomenological theory 2−98894
spin glasses, magnetisation process, hysteresis loops, two spin cluster model anal. 2−56884
spin systems, renormalisation group recursions by mean-field approximations 2−82604
spin-glass, classical, simple model 2−104627
steel, electric grade, isotropic with planar cubic texture, prod. by two-stage treatment, mag. charact. 2−67379
steel, high speed R6M3 and R6M5, mag. and elec. props. after heat treatment, NDT appl. 2−67404
superconductors, magnetisation of cylinders in perpendicularly applied mag. fields 2−66709
superfluidity in restricted geometry, spherical model 2−104097
superparamagnets, ideal, mag. relax., Monte Carlo simulation 2−110610
surface, ferromagnetic, magnetisation, mag. struct., spin polarised LEED study 2−98910
TCNQ salts, one-dimensional Heisenberg antiferromagnets, with random exchange 2−66858
transition metals, ferromag., chemisorption of H, self-consistent model 2−115554
(TTF)-$AuS_4C_4(CF_3)_4$, susceptibility and magnetisation 2−66785
TTF-$AuS_4C_4(CF_3)_4$, spin-Peierls phase diagram, susceptibility and magnetisation study 2−82569
twinned ferromagnetic crystals, random ensemble, residual magnetisation calc. *(Russian)* 2−92959
two-dimensional kinetic Ising model, real-space dynamic renormalisation group method 2−104647
two-sublattice magnetic crystals, parametric Green's functions, magnetisation theory 2−116037
ultrathin crystal, ferromag. resonance and magnetization 2−66921
units of magnetisation clarification, CGS vs SI units 2−79524
van Vleck ions coupled to electron gas, induced mag., calc. in narrow-band limit 2−61681
Volcoloy, antiferromagnetic Invar type alloy in Mn-Ge system *(Japanese)* 2−77291
YIG ferrimagnetic double layer, magnetostatic vol. wave prop., dispersion 2−82672
zeolite catalyst, ZSM-5(Fe), magnetisation, Mossbauer and catalytic props. meas. 2−77433
Ag-Mn, dil., spin glass, temp. depend. of order parameter 2−72214
Ag-Mn, spin glass, equilib. magnetisation meas., comparison with mean field theory 2−66843
Ag-Mn (10.6 at.%), spin glass, mean field description, comparison of theory and expt. 2−72213
Ag-Mn spin glasses, H-T phase diagram 2−98895
Ag-Mn spin glasses, time and field depend. of magnetisation 2−72216
Au (111) surface, light-induced magnetisation, PES study 2−67185
Au-Fe spin glasses, time and field depend. of magnetisation 2−72216
Au_4Mn, random alloy, magnetisation calc. using short range order 2−116035
$BaCo_2Ti_2Fe_8O_{19}$, magnetocryst. anisotropy temp. depend., ferromag. reson. and magnetisation study 2−56849
$BaFe_{12}O_{19}$:Gd(Dy)(Ho)(Er)(Yb), dopant effects on mag. props. 2−92968
$BaO-TiO_2-B_2O_3-SiO_2$ glasses, Ti ion structs., mag. props. and EPR spectra 2−92858
$Bi_{3-2x}Ca_{2x}Fe_{2-y}In_yFe_{3-x}V_xO_{12}$, magneto-optical Kerr rotation *(Chinese)* 2−110819
$(BiYLu)_3Fe_5O_{12}$ bubble film, mag. props., FMR study 2−72317
CO, magnetisation direction, temp. depend., 1 MV Lorentz electron microscopy study 2−77286
Ca ferrite:PbF_2, mag. props., substitution effects *(Japanese)* 2−62240
CdMn, hexagonal, spin glass behaviour 2−66861
$Cd_{1-x}Mn_xTe$, exciton luminescence spin splitting *(Russian)* 2−61976
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
Ce-Si, ferromagnetic dense Kondo behaviour 2−104662
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
magnetisation continued
$Ce_2Co_{17-x}T_x$ (T=Ti, V, Cr, Mn, Fe, Cu, Zr, Hf), mag. and crystallographic props. 2−72200
$Ce_2Co_{17-x}Zr_x$, struct. and mag. props. 2−61741
$CeCu_2Si_2$, superconductivity 2−66691
Co-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
Co-Cr, mag. behaviour above crit. conc. for ferromag. 2−72204
Co-Mn, mag. moment distrib. study 2−82566
Co-V, mag. moment distrib., neutron scatt. study 2−72172
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
$CoBr_2$, lattice and mag. vibr. study 2−86803
$CoBr_2$, trigonal cpd., mag. excitations 2−87485
$CoCl_2$, trigonal cpd., mag. excitations 2−87485
$CoFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
$CoFe_2O_4-P_2O_5$ amorphous cpd., prep. and mag. props. 2−61735
$Co_2Mn_{1-x}Ti_xSn$ Heusler system, mag. and chem. ordering 2−93073
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$CrBr_3$, domain wall magnetisation temp. depend. *(Russian)* 2−87545
$Cr_{1/3}NbS_2$, helical spin struct. due to antisymmetric exchange interaction 2−72162
Cr_7Se_8, mictomagnetism, mag. susceptibility and magnetisation studies 2−72219
$CsNiFeF_6$, spin glass props. 2−87515
$CsTiF_4$, struct. and mag. studies, antiferromagnetism, X-ray and neutron diffr. study 2−65966
Cu complex, $CuCl_2$.TMSO, Heisenberg 1-D ferromag., single cryst. mag. studies 2−66802
Cu film on Ni (100), electronic and mag. struct., interface magnetisation 2−82695
Cu/Ni compositionally modulated films, magnetisation and Curie temp. meas. 2−87533
Cu-Ni alloy particles, Ni impurity distrib., mag. props. study 2−76485
Cu-Ni compositionally modulated film, Arrott plots, computer anal. 2−72304
Cu-Ni thin film, static and dynamic mag. studies 2−72303
$CuCl_2.2H_2(D_2)O$, antiferromag. resonance freq., mag. susceptibility *(Russian)* 2−98966
$xCuCr_2S_4-(1-x)Ga_{0.67}Cr_2S_4$ ($0 \le x \le 0.4$) semiconducting spinel, spin-glass state 2−66840
CuMn spin glass, magnetisation, calorimetric determ. rel. to Maxwell relation 2−92926
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92927
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92928
Cu_2MnAl, Heusler alloy, elec. and mag. props. 2−110326
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
Cu_2NiSn, Heusler alloy, elec. and mag. props. 2−110326
$CuSO_4.5H_2O$, proton relax. rate angular depend., deviations from point-dipolar model 2−61783
$Cu_xZn_{1-x}Fe_2O_4$ system, Curie temp., cation distrib., magnetisation 2−56851
Dy, Neel temp. investigation 2−87500
Dy-Sc, spin glass and antiferromag. transitions, bulk magnetisation study 2−72222
Dy-Sm, mag. and elec. props. 2−72201
DyAl, mag. moments and anisotropy, neutron diffr. and cryst. field calc. 2−115976
$Dy_{0.52}Cu_0$$.d_{48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
Dy_6Fe_{23}, cryst. and mag. props. 2−86626
$Dy(Fe_xAl_{1-x})_2$ Laves phases, mag. and cryst. props., X-ray and Mossbauer study 2−92899
$Dy_2(Fe_{1-x}Co_x)_{17}$, spontaneous magnetostriction 2−77356
$Dy_{2-x}YFe_{17}$, mag. props. 2−115984
$ErCo_{2-x}Fe_x$, Laves phase cpds. and their hybrides, mag. behaviour 2−56855
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
$EuGa_2Se_4$, cryst. struct. and mag. props. *(French)* 2−55949
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
$EuMo_6S_8$, impurity phase supercond. under press., magnetisation meas. 2−92807
$EuRh_3B_2$, itinerant mag. ordering 2−104578
EuS film, magnetisation curves in critical temp. range examined by magnetooptic and photomodulation methods 2−66869
EuS_ySe_{1-y}, mictomagnetism, mag. phase diag., specific heat and mag. meas. 2−82607
$Eu_xSr_{1-x}S$ alloys, ferromag., magnetisation meas., mag. eqn. of state 2−116001
Fe (001) film, surface states, surface magnetisation, electron spin polarisation 2−61540
Fe complex, bis(N,N-diethyldithiocarbamato)-iron chloride, crit. behaviour, theoretical anal. 2−72240
Fe, ferromag., expt. search for 1st order phase transition, magnetisation meas. 2−66867
Fe film, magnetooptical Kerr effect, mag. props. 2−77492
Fe film, single cryst., first order transitions in magnetisation 2−66813
Fe, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Fe, magnetic domain wall motion, wall-defect interactions, mag. meas. 2−116028
Fe, magnetisation standards 2−63963
Fe, spin waves, mag. props. 2−66795
Fe system, mag. props. near conc. ferromagnetic antiferromag. transition, neutron diffr. study *(Russian)* 2−82599
Fe, thin film, twisted domains, magnetisation, electrostatic TEM study 2−82683
Fe-B metallic glasses, rare earth additives, mag. props. study 2−87498
Fe-B metallic glasses, transition metal substituted, mag. props. and thermal stability 2−87497
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982

magnetisation continued
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Co-Ni system, mag. moment, CPA calc. *(Russian)* 2−115981
Fe-Co-V, Vicalloy-2, phase and struct. transitions, mag. props. *(Russian)* 2−61714
Fe-garnet films, hard-stripe domains, investig. 2−104673
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
Fe-N thin films, RF sputtered, static mag. and Mossbauer study 2−82641
Fe-Ni, atomic ordering effects on mag. props., superlattice form., TEM study 2−92966
γ-Fe-Ni-Cr, spin glass state characts. near crit. conc. *(Russian)* 2−98886
Fe-Ni-Cr alloy, sp. ht. and magnetis. near Curie pt., anomalous behaviour *(Russian)* 2−66836
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-polydimethylphenylsitsesquenone, filled polymer, ferromag. adsorbents, mag. props. 2−66871
Fe-Pt Invar alloys, disordered, mag. props. suggesting premartensitic transform. 2−87490
Fe-Si (3 wt.%), grain orientated sheets, effect of spike closure domains on remanence and magnetisation curve 2−82630
Fe-Si (3 wt.%), grain oriented, Barkhausen noise meas. 2−87537
Fe-Si (3 wt.%) sheets, grain-oriented, magnetisation mechanisms 2−82657
Fe-Si (3wt.%) single crystal, saw tooth domain struct. and charged wall observed in gradient field *(Japanese)* 2−77321
Fe-Si-B metallic glasses, substituted, saturation magnetisation 2−87481
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948
α-$(Fe_{1-x}Al_x)_2O_3$, Mossbauer study 2−87637
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
Fe_xB_{1-x}, amorphous, magnetization and magnetoresist. in high mag. fields 2−61740
$Fe_{84}B_{16-x}C_x$, glassy, crystallisation, magnetisation 2−55862
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{25}B_{15})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$(Fe_{0.82}B_{0.18})_{0.9}R_xLa_{1-x}$ (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er), amorphous, exchange interactions 2−72185
$FeCO_3$, antiferromag. indirect detection of cooling by adiabatic magnetisation 2−98884
FeCo and $Fe_{0.5}Co_{0.4}Cr_{0.7}$ films, polycryst., subjected to X-irrad., magnetisation *(Russian)* 2−66876
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, magnetisation study 2−72376
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$(Fe_{1-x}Co_x)_7Se_8$, mag. easy-axis transition, magnetisation and mag. torque study 2−66810
$Fe_{0.16}Cr_{0.84}$, spin glass, mag. relax. meas. 2−110589
$Fe_{70}Cr_{10}P_{13}C_7$, amorphous, spin waves 2−92884
FeF_3 thin films, mag. and Mossbauer studies as a function of growth model 2−82678
$FeFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
$FeGe_2$, canted antiferromag., magnetisation meas. *(Russian)* 2−98907
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{1-x}Mn_x)_2P$, mag. props. 2−61697
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
$(Fe_{1-x}Ni_x)_{75}B_{25}$, amorphous, magnetisation and crysts. 2−72266
$(Fe_{1-x}Ni_x)_{80}B_{20}$, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{65}(Ni_{0.74}Mn_{0.26})_{35}$, effect of external field on spin glass behaviour 2−61716
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
FeO_x, berthollide type, reactive sputtering prep., struct. and props. 2−82158
Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
Fe_3O_4 particles in silicate matrix, superparamag. and ferrimag. props., magnetisation study 2−92972
Fe_2P, pressure-induced metamag. states, magnetisation study 2−110583
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
Fe_3Pt, magnetisation near Curie temp. 2−72275
$(Fe_{1.22}Sb)_{1-x}(Fe_{1.68}Sn)_x$ solid solns., magnetisation, Curie temps. and lattice consts. meas. 2−76365
FeSi, mag. susceptibility variation 2−92864
FeTi, surface anal. by magnetisation meas. 2−73012
$FeTiH_{1.9}$, Pauli paramagnet, mag. susceptibility, magnetisation, hysteresis 2−66765
$FeTiO_3$, metamagnetic transition, mag. props. 2−92903
$Fe_{1-x}V_x$, disordered, spin wave dispersion relations 2−77279
$Fe_{3-x}V_xSi$, Mossbauer study of Fe hyperfine fields 2−87635
FeZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., field induced 'exchange-flips' 2−66811
Fe−phenol-formaldehyde resin, filled polymer, ferromag. adsorbents, mag. props. 2−66871
Gd Co amorphous films, torque curves meas. *(Russian)* 2−98926
Gd, spin reorientation transition, neutron study 2−66771
$Gd_{0.52}Ag_{0.48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
$Gd_{0.37}Al_{0.63}$, amorphous, spin glass props. 2−72271
$Gd_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
$GdCu_2$, mag. and crystallographic props., Mossbauer effect, H_2 absorption effects 2−82758
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
$Gd_{3-x}Pb_xFe_{5-y}Ge_yO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
$Gd_{3-x}Pb_xFe_{5-y}Sn_yO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
^{3}He, solid, nucl. mag. ordering 2−66318
^{3}He, superfluid, A-phase, large mag. perturbation and solitons 2−104101
magnetisation continued
^{3}He, superfluid B-phase, magnetisation nonlinear motion, spin relax. effect in pulsed NMR config. 2−61237
^{3}He, uudd, magnetisation motion in strong mag. field 2−110085
$Hf_{0.8}Ta_{0.2}Fe_2$, ferromagnetic-antiferromag. transition, magnetisation and Mossbauer study 2−87493
$Hg_{1-x}Mn_xSe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xTe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$HoAl_2$, conduction electron polarisation temp. depend., neutron diffr. study 2−72146
$HoCo_5$, magnetisation reorientation, neutron diffr. and Mossbauer study 2−72148
$HoCo_{2-x}Fe_x$, Laves phase cpds. and their hybrides, mag. behaviour 2−56855
$Ho(Co_{1-x}Ni_x)_2$, mol. moments rapid changes, magnetisation and spin-echo NMR study 2−72167
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
$HoMn_2$, cubic and hexagonal, site magnetisation, neutron diffr. study 2−72145
HoNi, magnetisation easy direction, temp. depend., mag. torque study 2−72166
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
$Ho_{1-x}Y_xCo_2$, Curie temp., magnetisation and NMR, Co local environment effect 2−116071
$KCr_{1-x}Al_x(SO_4)_2.12H_2O$, nonlinear adiabatic effects in parallel static and harmonic mag. fields 2−104574
K_2CuF_4, two-dimensional planar ferromag. Kosterlitz-Thouless transition 2−66826
K_2FeF_5, field depend. magnetisation curves, Mossbauer study 2−77435
$KFeS_2$, effect of amorphisation in mag. props. 2−82659
$La_{1-x}Ca_xCoO_3$, perovskite, prep., ferromagnetic props., rhombohedral distortion 2−61737
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$La_xGd_{1-x}TiO_3$ solid solns., mag. behaviour, mean field model 2−104659
$LaMnO_3$, conductivity, magnetisation and neutron diffr. in mag. transitions range 2−56850
$LaMnO_{3.09}$, distorted, mag. transition above Curie point, magnetisation and magnetoresist. study 2−110582
$LaNi_{1-x}Co_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{1-x}Fe_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{0.5}Mn_{0.5}O_3$, magnetic props., review *(Japanese)* 2−66870
$LiTb_{1-p}Y_pF_4$, random uniaxial dipolar ferromagnet, critical behaviour 2−92935
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
$Li_{0.5-x/2}Zn_xFe_{2.5-x/2}O_4$ ferrite, magnetisation curves 2−72274
Mg-Mn, dilute, cryst. field effect on magnetisation 2−82660
$Mg_{1-x}Fe_x$, amorphous, Mossbauer effect and mag. props. 2−66965
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
MgMn ferrite magnetization, electron beam interaction 2−66868
MgMn, hexagonal, spin glass behaviour 2−66861
$Mg_{1-x}Mn_xFe_2O_4$ ferrites, elect. resistivity and cation distrib. 2−110343
MgO, magnesiowustite, magnetisation changes due to stress waves 2−87544
MgO-Fe_2O_3, magnesioferrite, magnetisation changes due to stress waves 2−87544
Mn-Bi, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
Mn-Ni(Co) layered mag. thin films, magnetisation and struct. 2−72302
Mn-Zn ferrite synthesis from Na_2O-B_2O_3 flux under CO-CO_2 ambients 2−72612
MnAs, mag. phase transition, magnetisation, elec. resistivity, mag. field effects 2−72207
ζ-$Mn_{2.6}Ge$, mag. phase transitions, magnetisation and entropy study 2−98876
MnSi, itinerant electron helicoidal mag., magnetisation and magnetoresistance 2−110605
MnSi, magnetisation and magnetoresistance 2−110606
$NaHg_4$, superconducting, Ginzburg-Landau parameter 2−87445
Nb, superconducting, mag. props. near T_c *(Russian)* 2−61652
$NbPd_3$, itinerant ferromagnetism study 2−66750
$NdAl_2$, complete mag. moment vector, magnetisation meas. 2−66784
$NdCo_5H_x$, ferromag., magnetisation, H_2 press. and comp. depend. meas. 2−82642
Nd_5Ge_3, mag. transition temp., mag. ordering effects on elec. and thermal props. 2−87507
NdH_2, ferromagnetism, susceptibility and magnetisation meas. 2−72159
$Nd_xSm_{1-x}Co_5$, magnetisation curve anomalies meas., 4.2 to 100K *(Russian)* 2−92960
Ni (001) surface magnetism, magnetisation, spin polarised LEED study 2−98911
Ni film, single cryst., saturation magnetisation and anisotropy const., ferromag. reson., temp. depend. 2−56896
Ni film, with oblique mag. anisotropy, anomalous magnetisation loop 2−56897
Ni, magnetic anisotropy consts., interdomain configuration transitions 2−66808
Ni, magnetisation standards 2−63963
Ni, magnetoelastic coupling and magnetisation 2−116046
Ni particles on Spherocarb, mag. props. and particle size 2−92973
Ni rods under torsion, crit. stress and cryst. anisotropy effect 2−72320
Ni, spin waves, mag. props. 2−66795
Ni thin film on Cu substrate, presence and absence of magnetism 2−104667
Ni-B, amorphous mag. props. 2−92967
Ni-Cu-Al, FMR and mag. props. 2−77384
Ni-Cu-H solid soln., phase equilibria and magnetisation meas. *(Russian)* 2−98906
Ni-Fe bubble overlay I-bars, magnetisation distrib., saturation 2−82663
Ni-Fe film, magnetization oscillations excitation *(Russian)* 2−92976
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-P based amorphous alloys, local mag. props., NMR and magnetisation meas. 2−104721
Ni-Zn ferrite, extraordinary Hall effect and carrier scatt 2−82383
Ni_3Al, de Haas-van Alphen effect and band struct. 2−66422
$Ni_xCu_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib . of Mg^{2+} ions, magnetisation meas. 2−60938

magnetisation continued
$Ni_{1-x}Fe_x$ (100), spin polarised photoemission probing of magnetism 2—67184
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2—116311
$NiFe_2O_4$-$CaFe_2O_4$, magnetic props. *(Japanese)* 2—82578
$(Ni_{0.93}Fe_{0.07})_{80}P_{10}B_{10}$, amorphous, magnetization, annealing influence 2—104660
$Ni_xMg_{1-x}Fe_2O_4$, FMR and magnetisation meas. 2—82723
$Ni_xMg_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib. of Mg^{2+} ions, magnetisation meas. 2—60938
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2—92938
NiO mag. and lattice mechanical props. 2—92890
NiZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2—66502
$Ni_{0.3}Zn_{0.7}Fe_2O_4$:Ti^{4+}, magnetisation and cryst. struct. study 2—77274
$Ni_{0.5}Zn_{0.5}Fe_2O_4$, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2—77320
α,β-O_2, magnetisation under high press. 2—66760
Pd ions recoiling through Fe, Gd and Tb foils, transient mag. fields. γ-ray spectra study 2—66891
Pd-Ni thin film, static and dynamic mag. studies 2—72303
$Pd_2MnIn(Sn)$, Heusler alloy, elec. and mag. props. 2—110326
Pd_2MnSn, elec. and mag. props. 2—66522
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2—72208
Pr alloys, amorphous, mag. props., nonaxial crystal field model 2—77301
Pr amorphous alloys, low temp. mag. props. 2—56870
PrAg, magnetisation and susceptibility meas. 2—116032
$PrAg_{1-x}Cu_x$, quadrupole interactions and struct. instabilities, neutron diffr. and magnetisation study 2—71943
$PrAl_2$, complete mag. moment vector, magnetisation meas. 2—66784
$PrBe_{13}$, Van Vleck paramag., cryst. field effects, magnetisation, resist. and NMR 2—72140
Pr_3S_4:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2—72195
Pr_3Tl:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2—72195
$Pr_{1-x}Y_xCo_2$, Curie temp. magnetisation and NMR, Co local environment effect 2—116071
Rb_2CrCl_4, linear birefringence and spin correlations 2—93148
Rb_2NaHoF_6, struct. phase transition study 2—98273
$ScFe_2$, hydrogenated, ^{57}Fe Mossbauer spectroscopy 2—72388
SiFe laminations, skew domain wall bowing and shearing, asymmetric roll orientation 2—82680
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2—72284
$SmCo_5$ and Sm_2Co_{17}, abrupt magnetisation switching anisotropy *(Russian)* 2—104658
$SmCo_5$ permanent magnet, coercivity 2—72284
Sm_2Co_{17-x}, struct. and mag. props. 2—61741
$Sm(Co_{0.69}Fe_{0.22}Cu_{0.07}Zr_{0.02})_{7.22}$, magnetic hardening 2—72283
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2—72171
$Sm_x(Er,Gd)_{1-x}Co_5$, mag. props. and mag. induction temp. depend. meas. *(Russian)* 2—98914
Sn, superconducting critical current, directional asymmetry, ferromag. particles effect 2—92841
Tb-Gd alloys, magnetocaloric effect and mag. props. 2—72209
$TbCO_{2-x}Fe_xHy$, lattice parameters and mag. charcts. 2—56891
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2—61720
$Tb_{0.27}Dy_{0.73}Fe_2$, magnetostrictive materials, US induced irreversible changes in magnetisation 2—82640
$TbFe_2$ amorphous film, mag. and elec. props. *(Chinese)* 2—104750
Tb_5Si_4, magnetic, thermal, and elec. props. 2—72177
Th-Gd spin glasses, time and field depend. of magnetisation 2—72216
$Th_{6-x}Y_xMn_{23}$, mag. and crystallographic charcts. 2—56854
$TiBe_{2-x}M_x$ (M=Cu, Ag, Au, Fe), magnetisation meas. in high and low fields 2—56839
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2—115716
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2—115978
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2—92969
$Tm_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2—104591
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2—115978
TmZn, polarised neutron study, mag. prop. 2—72157
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2—92865
$U(Fe_{1-x}Mn_x)_2$, effective Curie-Weiss const., susceptibility and magnetisation meas. 2—72165
β-U_2N_3, elec. and mag. props. mag. transition temp. 2—87281
USe, critical exponent β, zero-field magnetisation, neutron scatt. study 2—61698
$U_{1-x}Th_xSb$, Kondo behaviour, ferromag. and antiferromag. behaviour, transport and mag. meas. 2—77032
V_3Si, prep., supercond. props. and normal state susceptibility 2—115931
$(Y,Eu,Tm,Ca)_3(Fe,Ge)_5O_{12}$ system films, FMR study of mag. parameters *(Russian)* 2—77385
Y-Co(Ni)(Fe), amorphous, mag. props. due to 3d magnetism 2—72269
$Y(Al_{1-x}Fe_x)_{12}$, mag. and cryst. struct., magnetisation and Mossbauer spectra study 2—72150
YCo_2 powders, ferromagnet and Mossbauer props., grinding effects *(Russian)* 2—87546
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2—104590
$Y(Co_{1-x}M_x)_5$, M=Ni, Cu, Al, Ti, V, Cr, Mn, Fe, struct. and mag. props. 2—91874
$Y_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2—104740
YFe_2, amorphous, melt-spinning prep., mag. props. 2—72267
$Y(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2—82572
$Y_3Fe_5O_{12}$ epitaxial garnet film, Faraday ellipticity 2—87745
YIG, Bloch line dynamics *(Russian)* 2—92958
YIG, FMR linewidth anisotropy origin, magnetostriction 2—77380
YIG film, magnetization meas. from ferrimag. resonance and antiresonance 2—66875
YIG phase containing glass ceramics, prep. and mag. charcts. 2—67278
YIG, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2—77320

magnetisation continued
YIG, saturation magnetisation and Curie temp. relationship meas. 2—116036
YIG, spin waves, mag. props. 2—66795
YIG:La, Ga(Tm, Ca,Ge) films, Ne^+ implanted, magnetisation, FMR and X-ray study 2—98967
YIG:Si, mag. domain struct., photoinduced mag. effects 2—104672
$YMn_{2-2c}Co_{2c}$, mag. order occurrence, comp. depend. 2—82646
$Y_{1-x}Pr_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2—61706
$Y_{1-x}Sm_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2—61706
$(YSm)_3(FeGa)_5O_{12}$ epitaxial films, bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2—104669
YSmLuCaGeIG:Ne(H), ion implanted bubble garnet film, mag. and cryst. props. 2—82644
$Yb_{1-x}Eu_x$, mag. interactions, Mossbauer, magnetisation and resist. meas. 2—72382
$Yb_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2—104591
Zn-Cr, dilute, cryst. field effect on magnetisation 2—82660
Zn-Mn, dilute, cryst. field effect on magnetisation 2—82660
$Zn_xCu_{1-x}Fe_2O_4$, ferrite, mag. ordering 2—66819
ZnMn, dilute mag. alloy, spin glass behaviour 2—92937
ZnMn, hexagonal, spin glass behaviour 2—66861
$Zr(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2—82572
$Zr(Fe_{1-x}Al_x)_2$, ferromag., mag. props., conversion to superparamagnet and spin glass on H_2 absorption 2—92965
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2—98853
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2—115989

magnetisation reversal
films, with perpendicular anisotropy, magnetisation reversal, one-dimens. theory 2—66878
recording materials, rotational hysteresis meas. with gas turbine 2—74472
spherical particles with single plane domain boundary, magnetisation reversal 2—61736
Co-Fe-Nb alloy, magnetisation reversal and Barkhausen effect 2—72277
Cu-Mn spin glass, remanent magnetisation reversal, mag. domain walls obs. 2—98893
Fe-Cr-Co permanent magnets, mag. props. and Mossbauer effect 2—72282
Fe-Si (3 wt.%), magnetisation reversal propag., Barkhausen expts. 2—82656
Fe-Si (3 wt.%), ruckling process, surface domain wall obs. 2—82632
Fe-Si bicrystalline sample, magnetisation reversal dynamics 2—72259
$GdCo_5$, magnetisation reversal, domain wall vel., temp. depend. 2—82643
$Sm_2(Co_{1-x}Fe_x)_{17}$, magnetisation reversal and coercive force, comp. depend. 2—72279

magnetism
see also antiferrimagnetism; antiferromagnetism; band model of magnetism; diamagnetism; electromagnetism; ferrimagnetism; ferromagnetism; geomagnetism; Heisenberg model; Ising model; magnetic moments; magnetic monopoles; metamagnetism; paramagnetism; rock magnetism; stellar magnetism; superparamagnetism; weak ferromagnetism; X-Y model
conference, Atlanta, GA, USA (Nov. 1981) 2—63738
self-exciting dynamo, generalised Cowling theorem 2—76034
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2—89440
theory of magnetism, statics and dynamics, book 2—68978

magneto-optical devices
amorphous magnetic thin film and magneto-optical memory *(Japanese)* 2—92977
bistable magnetooptic switch for multimode optical fibre 2—81082
dispersive magnetooptic filters 2—86075
Faraday cell sensor and fibre transmission line for mag. field meas. 2—64074
Faraday rotator for high-power glass laser systems 2—113578
fibre optical coils, tuned, Faraday rotation rel. to device appls. 2—91078
laser beam intensity stabilisation using high-efficient Faraday rotator 2—70666
polarisation modulator for pulsed laser light 2—114332
TE-TM mode convertor, 3 layer, unidirectional, film thickness and waveguide length effects calc. 2—55358
uniaxial magnetic films in magnetic fields with spatial periodicity, domain structure 2—104655
YIG:Bi thin films, waveguide type optical isolator appls., magneto-optical props. *(Japanese)* 2—81076

magneto-optical effects
see also Faraday effect; Kerr magneto-optical effect; magnetic circular dichroism; magnetoabsorption; magnetoreflectance; optical constants; Zeeman effect
alignment pseudosignals in magnetic fields 2—61879
alkali metal compounds, $M_x(Pt(CN)_4).yH_2O$, quasi-one-dimens., luminesc., mag. field effects 2—82899
anthracene, delayed fluoresc., external heavy atom and mag. field effects 2—110926
antiferromagnet, uniaxial, surface mag. polaritons 2—71885
aromatic hydrocarbon water suspensions, const. mag. moment existence, magnetooptical methods 2—82829
biexcitons, in strong mag. fields 2—66458
bubble domains, reson. domain wall oscills., magnetooptic study 2—77341
butoxybenzylidene heptylaniline, smectic-A-smectic-C transition, mag. birefringence determ. of tilt susceptibility 2—115411
crystals, magnetically ordered, light absorpt., Jones and Muller matrices 2—108780
current sensing with optical fibres *(Japanese)* 2—89755
excited states of bound excitons, photolum. and magnetooptical spectroscopy 2—116238
F-centre luminescence, effect of spin-orbit coupling on temp. depend. of mag. circular polarisation 2—87861
film waveguide sandwiched by electrooptic and magneto-optic media, non-reciprocal phenomena 2—55359
garnet bubble film, effective domain wall mass meas., reson. techniques 2—77345
glasses, Hoya AOT-5, AOT-44B and FR-5, magneto-optical dispersion meas. 2—70642
laser magnet reson., mid-IR, using Faraday and Voigt effects for sensitive detection 2—79637
low-dimensional magnetic systems, magneto-optical effects, review *(Japanese)* 2—82831

magneto-optical effects continued
magnetic linear double-refraction of light *(Russian)* 2−72464
measurement using polarisation modulation method, S/N ratio calc. 2−112956
memory materials and applications *(Japanese)* 2−70510
methanol magneto-optically modulated laser, for Faraday rot. meas. in Tokamaks 2−97788
molecular liquids, refractive index, magneto-spatial dispersion, calc. for non-interacting mols. 2−93161
narrow energy bands, opt. absorpt. in weak mag. fields *(Russian)* 2−61882
narrow gap semiconductors, conference, Linz, Austria (Sept. 1981) 2−89445
paramagnetic crystals, cubic, radiation polarisation change 2−116139
polarons, statistical props. in mag. field, thermodynamics 2−104268
pyrene-d-10 in fluorene single cryst., EPR lines and spin-lattice relax. 2−77357
quasi one-dimensional crystals $M_x(Pt(CN)_4).yH_2O$ where $M=Mg^{2+}$, K^+, Li^+, Ba^{2+}, Ca^{2+}, Na^+, luminesc., mag. field effects 2−82899
rare earth iron garnets, magnetooptic anisotropy, many-sublattice model 2−72465
semiconductors, microwave magnetoreflection in Faraday configuration *(French)* 2−72462
sodium octylbenzene sulphonate-pentanol-decane-water, microemulsion struct., mag. and elec. birefr. meas. 2−73018
solar spectrum, influence of magneto-optical effects on determ. of mag. fields from Stokes profiles 2−100878
Voigt profile functions, automatic anal. for spectral line intensity distrib. *(French)* 2−64917
white dwarf stars, magnetic, influence of magneto-optical effects on continuum 2−112443
xanthene-aromatic hydrocarbon system mixed triplet-triplet annihilation, mag. field effect 2−93256
AgCl:Br^-, pure and doped, band-gap-irrad., luminesc. centres, ODMR and level-anticrossing spectra 2−56980
AlGaAs-GaAs heterostructure, modulation doped, reson. light scatt. in strong mag. fields 2−61921
$BiLu_2Fe_5O_{12}$ garnet magneto-optical cryst., doped, near IR absorpt. reduction obs. 2−72473
Cd_3As_2, spin-flip resonances, subMM magnetospectroscopy 2−93167
$CdCr_2Se_4$, photomagnetisation of Landau-Lifshitz domain struct. *(Russian)* 2−87750
$Cd_{1-x}Mn_xSe$, electric-dipole spin reson. of bound electronic states 2−110820
$Cd_{1-x}Mn_xSe$, stimulated spin-flip Raman scatt., laser emission obs. 2−114287
CdS, excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
CsI:Na^+, exciton-Na^+ interactions, photoluminesc., ODMR and mag. circular pol. study 2−61366
$CsMnF_3$, pure, exciton dynamics and energy transfer, fluorescence meas. 2−99171
Cu_2O, relaxed excitons, optical and cyclotron reson. study 2−76938
Dy, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
EuS film, magnetisation curves in critical temp. range examined by magnetooptic and photomodulation methods 2−66869
$Eu_{0.54}Sr_{0.46}S$, ferromag. and spin glass states, magneto-optical rot. and microscopy study 2−72458
Fe film, equatorially magnetized, transmitted light intensity odd-parity effect 2−116160
Fe film, ferromag., Brillouin light scatt. by spin waves 2−66872
Fe garnet films, interrelation of exchange energy, anisotropy and the Neel temp. 2−82676
FeF_2, one-magnon Raman spectrum, effects of quadratic magneto-optical coupling 2−72482
$Fe_xMn_{1-x}F_2$, random anisotropic antiferromag., crit. behaviour, mag. birefringence study 2−77295
$Fe_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
GaAs, electrostatic effects of hydrogenic donor complexes on magneto-optical spectra 2−82279
GaAs, epitaxial layers, donors contaminants study far-IR photoconductivity method 2−56732
GaAs, high purity, grown by MBE, characterisation 2−56613
Gd, magneto-optical props. in interband absorpt. region *(Russian)* 2−61877
$Gd_{3-x}Pb_xFe_{5-y}Ge_yO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
$Gd_{3-x}Pb_xFe_{5-y}Sn_yO_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
Ge:As, bound-exciton luminesc. polarisation in longit. mag. field 2−87864
He-Ne laser, intensity stabilisation by mag. field induced light polarisation 2−65264
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
n-HgMnTe, optical determ. of exchange interaction 2−104605
HgSe, far IR magnetotransmission, cyclotron and spin-flip resons. 2−57066
Ho, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
n-InAs, effective g-value determ. by four-wave mixing spectroscopy 2−55260
InAs, two-photon optically pumped stimulated recomb. radiation in high mag. fields 2−93228
p-InSb, free and bound hole excitations, intraband transitions, magneto-optical studies 2−93165
K_2CuF_4 ferromagnetic stripe domains, mag. phase grating multiwave diffr. theory 2−57064
$LaF_3:Er^{3+}$, mag. field depend. optical dephasing 2−104856
$Mn_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
N_2 gas, mag. birefr., Cotton-Mouton const. meas. 2−91587
NO_2, mag. field decoupling in optically excited states 2−80695
Na atom, forward scatt. of reson. radiation in presence of mag. field 2−75456
Ni, ferromagnetic, band struct. calc., optical absorpt., photoemission and magneto-optical data anal. 2−66434
O_2 gas, mag. birefr., Cotton-Mouton const. meas. 2−91587
OH radical in flames, $A^2\Sigma^+$-$X^2\Pi(0\text{-}0)$ trnsition, mag. field effects 2−59813

magneto-optical effects continued
$Pb_{1-x}Sn_xTe(Se)$ solid soln., carrier g-factor longitudinal and transverse components, band gap depend. 2−76903
PbTe epitaxial film, misfit strain 2−92423
Rb_2CrCl_4, linear birefringence and spin correlations 2−93148
Rb_2CrCl_4, optical and magneto-optical study 2−93220
SbSI, ferroelec. phase transition, Raman scatt. in strong mag. field 2−57027
Si, impurity scatt. within electron-hole liq., far IR and millimetre wave studies 2−99110
Tb, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
^{136}Xe laser, $5d[3/2]_1^0$-$6p[3/2]_1$ transition in weak mag. field, polarisation bistability obs. 2−90870
$Y_3Fe_{5-x}Ga_xO_{12}$, mag. ordering influence on lattice reflection spectra *(Russian)* 2−72467
$Y_3Fe_5O_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
ZnTe, excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238

magnetoabsorption
electron-hole drops, multichannel time resolution *(Japanese)* 2−104858
garnet films containing Bi, magneto-optical props. and thermomagnetic recording *(Russian)* 2−61715
interband Landau absorption intensity depend. 2−77497
laser with anisotropic resonator and condensed active medium, absorpt. cell influence in longit. mag. field 2−70588
multichannel time-resolved meas. in far-IR magnetoabsorpt. 2−74519
semiconductor exciton, diamagnetic, absorpt. spectra in strong mag. field, theoretical anal. *(Russian)* 2−76939
$(TMTSF)_2ClO_4$, one-dimens. fluctuating supercond., energy gap, far IR magnetoabsorpt. study 2−98808
Al, superconducting, magnetoabsorpt. resonances, 35 GHz 2−57067
CS_2MnCl_4, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
CdS, two-photon magnetospectroscopy of A-exciton states 2−104260
Cu_2O, 1S exciton two-photon magnetoabsorpt. spectra, polarisation depend. meas. 2−77498
GaAs, far IR magneto-absorption, Zeeman effect, cyclotron resonance 2−99099
GaAs, photoexcited electron system, far IR magnetoabsorpt. and cyclotron reson. study 2−87744
$Hg_{1-x-y}Cd_xMn_yTe$, semimag. semicond., magneto-optical studies 2−99097
$Hg_{1-x}Cd_xSe$, band struct., interband magnetoabsorpt. meas. 2−77494
$Hg_{1-x}Cd_xSe$, band structure peculiarities from interband magnetoabsorpt. 2−92466
$Hg_{1-x}Fe_xSe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
$Hg_{1-x}Fe_xTe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
HgSe and HgS_xSe_{1-x}, band struct., interband magnetoabsorpt. meas. 2−77494
HgSe, band structure peculiarities from interband magnetoabsorpt. 2−92466
InAs-GaSb multiheterojunction, double cyclotron resonance and interband transitions 2−61574
InAs-GaSb superlattices, semimetallic, far IR magnetoabsorpt. 2−61881
InSb, band struct. parameters, exciton magnetoabsorption study 2−115659
InSb, CC two photon magnetoabsorption spectroscopy with CO_2 lasers, energy gap 2−87748
InSb, interband Landau absorption intensity 2−77497
InSb, interband magneto-absorpt. saturation 2−77496
InSb, nonlinear magneto-optics, CW CO laser pumped, interband magneto-absorption 2−93164
p-InSb, two-photon magnetoabsorpt. spectra, using CW CO_2 lasers 2−93166
InSb, Wannier-Mott exciton at absorpt. edge, quasione dimens. state in strong mag. field, expt. study 2−61369
InSe, magnetoabsorption, A exciton study 2−82830
PbTe epitaxial layers on BaF_2, misfit and thermal strains, magneto-optical and X-ray study 2−82175

magnetoacoustic effects
see also magnetoacoustic resonance
antiferromagnet, weak ferromag. moment stimulation by nonreson. mag. and sound pumping *(Russian)* 2−116044
electromagnetic-acoustic conversion, relationship between linear magnetostriction and harmonic component of EMF 2−56910
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
graphite, pyrolytic, anomalies in magnetoacoustic attenuation 2−110405
graphite, pyrolytic, second order phase transition, magnetoacoustic study 2−115828
itinerant-electron ferromagnet, electron-phonon interaction effects 2−92855
magnetic phase transition, electron s-d orbital redistribution, sound vel. change 2−104620
magnetization soliton excitation in antiferromagnetic using magnetoacoustic interaction 2−72329
magnetoelastic soliton 2−82687
metal, elastic moduli and sound velocity, quantum oscillations in mag. field, theory *(Russian)* 2−116042
metallic glass tape, ferromag., localized struct. variation detection by acoustic emission 2−71361
plasma oscillations, ionic cyclotron, parametric excitation by fast magnetosonic wave *(Russian)* 2−103360
quantum spin acoustic waves interaction with sound in quantising mag. field 2−109913
semiconductor, hypersound amplification, band nonparabolicity effects, Kane dispersion law and two band approx. 2−61525
semiconductors, degenerate, US propagation, band struct. effect 2−86800
steel, polycrystalline A-36, magnetically induced US shear wave vel. change, tensile stress effects 2−98924
surface helicons and elastic waves interaction in conducting solids 2−104410
Bi, charge carrier drift in external fields, sound amplification, I-V nonlinearity, review *(Russian)* 2−115826
Bi, magnetoacoustic attenuation coeff. versus temp. curve, anomalous peak 2−110403
Bi, second order phase transition, magnetoacoustic study 2−115828
Fe-Ni, Invar, magnetic phase transition, electron s-d orbital redistribution, sound vel. change 2−104620

magnetoacoustic effects continued
$FeGe_2$, antiferromag., US attenuation anomalies at two transitions 2−104675
Ge:Sb, US attenuation by shallow donors in mag. field 2−56649
InSb, hypersonic wave propag. in appl. mag. fields, suppression of nonlinear effects 2−115829
n-InSb, hypersound self-interaction in case of mag. freezeout of carriers 2−103905
n-InSb, quantum oscills. in magnetoacoustic attenuation 2−77132
p-InSb, US relax. time, mag. field effects 2−56650
MnO, critical dynamics near Curie temp., US attenuation study 2−98928
Mo, US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
Ni single cryst., magnetoelastic dispersion 2−77355
Sb, magnetoacoustic attenuation at high mag. fields, anomalies 2−110404
Sb, second order phase transition, magnetoacoustic study 2−115828
Tb, nonlinear acoustic props. meas. near Neel temp. 2−116051
W, US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
YIG:Ga-ZnO, SAW parametric amplification obs. 2−92332

magnetoacoustic resonance
see also ferroacoustic resonance
ferromagnetic, magnetoacoustic electron reson. of periodic domain structs. *(Russian)* 2−66882
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
metals, screening electron-phonon interaction by vortex fields, magnetoacoustic resonance *(Russian)* 2−82409
Ni, sound excitation and transmission, resonant and nonresonant, 9.37 GHz 2−61076

magnetoacoustics *see magnetoacoustic effects*

magnetocaloric effects
see also magnetic cooling; thermomagnetic recording; thermomagnetic treatment
Invar, ferromagnetic, thermomag. anal. using electron diffr. 2−110584
pyromagnetic detection, reproduction of free laser generation pulse *(Russian)* 2−60138
Cu-Mn spin glass, magnetocaloric study of (H, T) phase diagram 2−56869
$Cu_{1.8}Mo_6S_8$, sp. ht. in high mag. field, 2 to 15K, thermal relax. calorimetry study 2−89716
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
Ni, magnetoelastic coupling and magnetisation 2−116046
Tb-Gd alloys, magnetocaloric effect and mag. props. 2−72209

magnetocrystalline anisotropy *see magnetic anisotropy*

magnetoelastic effects
(110) [001] type ferromags., magnetoelastic sensitivity *(Rumanian)* 2−87571
acoustic microscope with magnetoelastic lens, beam profile meas. 2−85447
antiferroelastic Jahn-Teller cryst., metamagnetoelasticity, metamagnetoelectricity *(Russian)* 2−61746
antiferromagnet, weak ferromag. moment stimulation by nonreson. mag. and sound pumping *(Russian)* 2−116044
antiferromagnets, magnetoelastic oscills. of domain walls, magnetostrictive strains 2−72256
ferrimagnetic materials, exchange striction and crystal lattice in domains and domain walls 2−72186
ferrites, magnetoelastic hysteresis 2−87566
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
ferromagnetic crystals, elastoviscoplasticity 2−72321
film, ferromag., elastic strains in crystallite boundaries, segregated pt. defects effect on induced anisotropy *(Russian)* 2−66877
glass, toughened, residual stress meas. using magnetophotoelasticity 2−109257
Jahn Teller antiferroelastics, metamagnetoelastic and metamagnetoelectric behaviour, EPR spectra 2−98931
metal, elastic moduli and sound velocity, quantum oscillations in mag. field, theory *(Russian)* 2−116042
metallic glass ribbon, plate wave velocity and attenuation, mag. field depend. 2−77350
metallic glasses, ferromagnetic, anomalous eddy currents, magnetoelastic effects 2−116047
rare earth alloys, dil. origin of random strains., rel. to ESR of LaS:Er 2−56925
soft ferromagnetic elastic plates, coupled magnetomech. eqns. 2−116045
spin glass, magnetoelastic interaction, spin wave and elastic wave damping 2−92917
steel wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
superconductors, EM field effect, magnetoelasticity study 2−82522
torus, full, eight-coil, superconducting, magnetoelastic buckling, finite element anal. 2−103047
Ag-rare earth ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
CoPt ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
CuAu type ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
Fe, anisotropic magnetoelastic coupling consts. 2−82689
Fe-Al(Cr), elastic modulus and internal friction, mag. field effect 2−116050
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
Fe-Si (3 wt.%), magnetoelastic hysteresis loop rel. to phase depend. mech. energy of vibrs. *(Russian)* 2−98927
$FeBO_3$, parametric phonon excitation *(Russian)* 2−72328
$FeBO_3$, phonon parametric excitation, FMR nonlinear relax. 2−77349
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$LiTmF_4$, Van Vleck paramagnet, magnetoelastic interactions 2−66889
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
Ni, exchange energy meas. by high freq. sound probe 2−66804
Ni, exchange splitting of phonon assisted microwave transmission at 9.5 GHz 2−66885
Ni, magnetoelastic coupling and magnetisation 2−116046
Ni, microstrain damping loops meas. during stage II deformation 2−57389
Ni single cryst., magnetoelastic dispersion 2−77355
Ni, sound excitation and transmission, resonant and nonresonant, 9.37 GHz 2−61076

magnetoelastic effects continued
$SiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
$TiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
$YCrO_3$, magnetoelastic props., domain struct. changes at spin reorientation transition 2−104680

magnetoelastic waves
amorphous ribbon, magnetoelectric modes, theoretical model 2−77353
antiferromagnets, relaxation processes, magnetoelastic waves, sound absorption meas. 2−77408
electromagneto-thermo-mechanical plane wave attenuation in magneto-thermo-viscoelastic media, mag. field effect 2−55047
energy theorems for magnetoelastic waves in a perfectly conducting medium 2−74219
ferrimagnet, microwave propagation, book 2−58575
ferrite plate, magnetostatic wave interaction with elastic waves, dispersion laws, magnetostriction 2−72330
ferromagnetic plate, magnetoelastic states near spin reorientation transition 2−82675
garnets, inhomogeneously magnetised, magnetoelastic and magnetostatic waves obs. 2−104603
Heisenberg ferromagnetic chain, soliton magnetoelastic excitations 2−92887
magnetoclastic soliton 2−82687
orthoferrite plate, magnetoelastic states near spin reorientation transition 2−82675
propagation, nonlinear, from cylindrical cavity *(Ukrainian)* 2−116041
stationary solitary waves, propag. in uniaxial crystals 2−82687
$MnCO_3$, antiferromag., nuclear spin and magnetoelastic waves, susceptibility relax. *(Russian)* 2−82583
YIG, magnetostatic and magnetoelastic waves, interaction with growth striations obs. 2−115991

magnetoelectric effects
aerosols, magnetoelectric, disperse content determ. using spectral-transparency method 2−68487
antiferroelastic Jahn-Teller cryst., metamagnetoelasticity, metamagnetoelectricity *(Russian)* 2−61746
antiferroelectrics, exchange magnetoelectric interaction, spin wave instability *(Russian)* 2−61749
electromagnetic-acoustic conversion, relationship between linear magnetostriction and harmonic component of EMF 2−56910
1-ethyl pyridinium bromide, magnetoelec. effects in solns. and molten state 2−110615
ferromagentic semiconductors, spin wave excitation by strong static elec. field 2−61748
Jahn Teller antiferroelastics, metamagnetoelastic and metamagnetoelectric behaviour, EPR spectra 2−98931
Rochelle salt, dielectric const. var. in strong mag. field 2−110743
$BaMnF_4$, magnetoelectric phenomena, freq. depend. 2−66888
Ni-Zn ferrite/$Pb(Zr,Ti)O_3$ ceramic composite, dynamic magnetoelectric effect 2−116049

magnetofluidynamics *see magnetohydrodynamics*

magnetogasdynamics *see magnetohydrodynamics*

magnetohydrodynamic conversion
direct energy conversion devices and new technology *(French)* 2−111555
electrode material, oxides, thermal emission of electrons meas. 2−88465
magnetohydrodynamics status in 1981 2−73130
open and closed cycle MHD generation, research work *(German)* 2−62482
Soviet research *(French)* 2−62483

magnetohydrodynamic convertors
arc mode molten seed electrodes for MHD power generation 2−93931
channels, current-voltage characts. calcs. 2−105581
coal-fired MHD convertors, channel slag, form. behaviour and effects 2−57718
coal-fired MHD generator, electrical effects of slag 2−111576
current-voltage characts., two-dimens. effects 2−105582
diagonal-conducting wall MHD channels power takeoff anal. 2−93930
direct energy conversion devices and new technology *(French)* 2−111555
electrode sets fabrication, physicochem. principles 2−73129
ETL Mark VII MHD facility, construction and environmental standards control *(Japanese)* 2−57717
explosive generator, possible energy source for plasma focus 2−76209
Faraday-type combustion MHD generator, non-uniform Hall parameter effects on electrode voltage drop 2−76207
generator, stationary and transient regimes modelling 2−86483
generator interelectrode insulating insert, elec. strength increase by blowing air *(Ukrainian)* 2−83504
noble gas MHD generator, discharges in inlet region 2−91681
open cycle magnetohydrodynamic power generation fuel composition optimisation 2−93932
solar heat, direct conversion into electricity using liquid metal MHD generators 2−111575
superconducting windings for MHD generators, computational models of potential-field sources 2−93933
supersonic equilibrium plasma, cylindrical Langmuir probe meas. 2−91672
system safety analysis in MHD power generation 2−76210
tandem mirror reactor, plasma direct convertor 2−85309
two phase liquid metal MHD generator, analytical model 2−71266
$La_{1-x}CaCrO_3$ electrode material, sintering *(Chinese)* 2−83503

magnetohydrodynamic generators *see magnetohydrodynamic convertors*

magnetohydrodynamic waves
Alfven compressional waves conversion to ion-cyclotron waves in inhomogeneous mag. field 2−71162
Alfven soliton in a low-beta plasma 2−103342
Alfven solitons props. in finite-beta plasma 2−65709
Alfven surface waves in low-β plasma, existence and appl. to solar atmosphere 2−100732
Alfven wave heating in general toroidal geometry 2−81521
Alfven wave propag. in plasma magnetized by curvilinear mag. field 2−76124
Alfven wave spatial resonance heating of plasma in twisted mag. field 2−97754
Alfven waves and magneto-sensitive spectral lines *(Chinese)* 2−63238
Alfven waves generation of mean EMF in collisionless plasma 2−86404
Alfven waves in solar wind, rel. to interplanetary acceleration of energetic particles at 1 and 5 AU 2−106443

magnetohydrodynamic waves continued
Alfven waves production by cosmic rays, rel. to cosmic rays confinement by mol. clouds 2−112271
ballooning instability in toroidal plasmas 2−97722
blast wave propag. in stellar model 2−106676
cometary plasma tails, interaction with turbulent solar wind 2−106615
evolution in homogeneous isothermal medium, appl. to solar chromosphere 2−58245
gas dynamics, plane and cylindrical weak shocks 2−109419
graphite, magneto-plasma wave propag. under high mag. fields 2−71172
homogeneous medium, MHD wave propag. numerical anal. 2−76033
instability by fast ions in a plasma in mag. mirror field 2−60745
ion waves dispersion relations with finite parallel wavelength in finite beta-plasma 2−65717
ionising MHD shock waves evolution in He 2−103376
ionosphere, boundary conditions for MHD waves 2−112198
LF mode stability in tandem mirrors and bumpy tori 2−97733
LF-frequency nonlinear resonance and averaged pot. in bounded parallel fields plasma 2−65711
magneto-acoustic-gravity oscillations 2−106514
magnetogasdynamics, self-similar flows behind shock wave 2−106511
magnetogravity waves in solar atmosphere, interconversion theory and slow wave spectra 2−68717
magnetosphere energetic particle fluxes, modulation by mixed mode of transverse/compressional waves 2−106424
magnetosphere foreshock, coupled MHD wave excitation and ion accel. 2−106422
non-relativistic charged particles in MHD shock wave, adiabatic invariant 2−102704
plasma, current-carrying, drift and Alfven waves, numerical study 2−81462
plasma oscillations, ionic cyclotron, parametric excitation by fast magneto-sonic wave *(Russian)* 2−103360
relativistic hydromagnetic wave propagation and instability in an anisotropic Universe 2−89131
rotating nonisothermal compressible stratified atmosphere, Alfven wave propag. WKB approx. 2−109346
shear Alfven continuum in the low beta limit 2−97731
solar atmosphere, appl. of magneto-acoustic-gravity mode theory 2−106515
solar atmosphere, props. of wave motion in transition region and low corona from radio obs. *(Russian)* 2−100864
solar coronal holes, emanating wind, electron heating by fast mode MHD waves 2−58309
spherical shock wave propag. in exponential medium 2−106508
stellar atmosphere, spherical magnetogasdynamic shock waves vel. 2−73950
stellar chromospheres, heating when mag. fields are present 2−63366
Sun, atmosphere magnetogravity waves transformation to magnetosonic waves 2−106652
Tokamak, Alfven wave heating, MHD calc. 2−109542

magnetohydrodynamics
see also magnetohydrodynamic conversion; magnetohydrodynamic convertors; magnetohydrodynamic waves; plasma magnetohydrodynamics
accretion discs, MHD flows and radio jets prod. 2−89141
Alfven turbulence in solar ^{3}He-rich flares, stochastic Fermi accel. model 2−106442
axisymmetric jet, with varying electrical cond. in radial mag. field 2−103224
Benard convection, 2D hydrodynamic and MHD, energy conserving Galerkin approxs. 2−65588
biaxial nematics hydrodynamics with arbitrary nonsingular textures 2−81671
blast wave with frozen in magnetic field, approx. treatment 2−58239
boundary layer flow near flat plate, free convection 2−75950
boundary layer on wedge, Hall and ionslip currents effects 2−55673
bow shock, upstream, fluctuation interaction with MHD shock 2−78927
channel flow, dynamic runaway effect associated with flux expulsion 2−109418
channel flow problems, finite element method 2−103219
charged gas cloud, dynamics in mag. field 2−60665
charged particle acceleration, diffusive theory, effect of ambient mag. field and MHD shock 2−78925
compressible fluid, electrically conducting, adiabatic flow, MHD approx. 2−86346
compressible time dependent flow, symmetric toroidal dynamo field decay 2−109351
conducting liquid, vortical MHD flow, heat transfer 2−103167
conducting media, EM forces, Hall effect, MHD flow 2−86348
conducting viscous liquid, relative motion in rot. in a mag. field 2−86288
conductive fluid hydromagnetic free convection through porous media 2−97647
conductive liquid, slow flow about a sphere containing rot. mag. dipole 2−114920
convective flow of viscous fluid past infinite vertical surface 2−106506
cosmic gas dynamics, comparative study of computational methods 2−94617
dissipation-free, Hamiltonian, canonical construction 2−103227
dissipative fluids, complementary energy principles 2−53529
dissipative MHD equilibria, global stability 2−86343
duration testing of MHD anodes 2−93929
dusty gas, viscous incompressible unsteady pipe flow, MHD study 2−81400
dusty viscous flow through a circular pipe 2−109416
dynamo generation of small scale mag. fields, MHD eqns. 2−103225
dynamo mechanism for cosmic mag field prod. 2−63244
electrically conducting fluid, turbulent flow between plates in travelling mag. field 2−86268
electromagnetic pump idealised model, for molten metals *(French)* 2−69771
electromagnetically driven flow between conducting cylinders, instability sequences 2−103226
equlibrium equations with one ignorable coordinate, general integrals 2−58234
flow between two concentric rot. cylinders under influence of uniform mag. field, porous lining effect 2−114915
flow induced by harmonic oscillations of insulated infinite flat plate 2−60666
flow through astrophysical porous medium, gravit. instability 2−58237
magnetohydrodynamics continued
flow through rectangular pipe with discontinuity in wall temps., heat transfer 2−114918
flowmeter signal, information charact. 2−86360
fluctuating flow of viscoelastic fluid past porous plate in rot. medium with applied mag. field 2−114856
fluid cylinders, effect of twisted mag. field on equilib. struct. 2−106497
flux ejection dynamo effect, contrib. to geomag. dynamo and solar and stellar dynamos 2−100722
flux ejection dynamo with small diffusivity, basic props. 2−106502
flux ejection dynamo with small diffusivity, illustrative examples and astrophysical appls. 2−106503
forced MHD convection, with aligned mag. field, surface curvature effect 2−60664
forced MHD turbulence, IR props., renormalisation group approach 2−65652
free convection and mass transfer MHD flow through porous medium 2−114798
free convection flow past porous plate in rot. fluid 2−75949
free convection laminar flow, with transverse mag. field, time-depend. suction appl. 2−60663
free convective MHD flow and mass transfer past an accelerated vertical porous plate 2−114923
fusion reactor blanket, convection in conducting liquid 2−85256
galactic fountain MHD instabilities effect on radiosource scintillation and cosmic ray halo 2−63587
Hagen-Poiseuille MHD flow, stability, nonlinear theory 2−103221
Hall effect in free and forced convective flow in rot. channel 2−97664
hamiltonian description of ideal MHD revealing new invariants of motion 2−71038
Hartmann flow, heat transfer 2−60669
heat transfer in MHD flow in a rotating channel 2−109312
hydromagnetic $\alpha\omega$-dynamo, geomagnetic reversal appl. 2−78543
hydromagnetic cylindrical variable energy blast wave through self-gravitating gas 2−86344
hydromagnetic free convection flow from conducting vertical plane 2−109415
hydromagnetic planetary-gravity waves in vertically sheared zonal flow and zonal magnetic field 2−60668
incompressible fluid, electrically conducting transient laminar-vortical flow, travelling mag. field effect 2−86253
incompressible viscous fluid, flow through channel with permeable surface, MHD 2−86352
infinite conductivity, variational principle *(Russian)* 2−76038
infinite flat nonconductivity porous plate, Rayleigh's problem for MHD with suction 2−86353
infinitely conducting rotating sphere in a magnetic field 2−112701
instability in compact fluid objects, appl. to mag. white dwarfs 2−68606
interstellar magnetic field, plane-parallel fields in thin gaseous galactic disc in random motion 2−68905
interstellar medium MHD turbulence energy and interstellar medium thermal balance maintenance 2−74049
ionising shock waves in EM shock tubes 2−86304
Kelvin Helmholtz instabilities in supersonic flow with shear layers, astrophysical appl. 2−58249
liquid, highly conducting turbulent, mag. field correlation tensor *(Russian)* 2−97665
liquid metal two-phase flow pattern, transverse mag. field effect, fusion reactor heat exchanger 2−80307
liquid metals, Couette flow, linear induction motor induced MHD flow 2−81398
liquid metals, flow in nonconducting vessel, skin layer, free surface shape, MHD 2−86349
Lorentz system, liquid layer heated trimodal roll convection, MHD 2−86345
magnetic buoyancy, instability anal. 2−76036
magnetic dynamo action in high-conductivity limit, astrophysical appls. 2−100723
magnetic dynamo theory, impossibility of mean-field dynamos with spherical symmetry of motions 2−100724
magnetic liquids, drops, oscills., mag. field effects 2−103181
magnetic stars, stability and oscillations 2−100908
magnetisable liquid film effect on nonmag. liq. drop motion 2−60662
magnetogasdynamics, self-similar isothermal flows of increasing energy 2−84078
magnetohydrodynamics status in 1981 2−73130
magnetosphere, hydromagnetic stability of turbulent geomag. tail 2−100664
magnetosphere, resonance oscills. of mag. lines of force rel. to micropulsations 2−112229
magnetotail, elec. field and current generation in presence of conducting ionosphere 2−100654
metal electrode in plasma focus, evaporation, MHD mechanism *(Russian)* 2−103384
metals, levitation-melting process in mag. field, fluid dynamical aspects 2−70839
metals, molten, magnetodynamic meas. technique *(French)* 2−76049
MHD oscillatory flow with heat transfer in a flat plate channel 2−76035
nonlinear stability, energy conservation law 2−86347
2 D nonplane transient MHD flow 2−81399
nonstationary MHD flow between two vertical plates, free and forced convection 2−114921
oscillating dynamo in presence of fossil mag. field, solar cycle appl. 2−58246
parallel magnetic fields stability with fluid motion along field lines 2−103217
radiation magnetogasdynamics, sonic discontinuity propag., singular surface theory 2−76039
radio galaxies, particle reacceleration by MHD turbulence rel. to apparent radio source struct. 2−68885
radiogalaxies, collimated beam formation driven by high energy particles from nucleus, hydrodynamics and MHD 2−106942
radiogalaxy clouds interaction with intergalactic gas flow, wind instability theory *(Russian)* 2−106924
resonant electrodynamic heating in stellar and solar coronal loops, LRC circuit analogy 2−63229
self similar MHD for $\gamma=4/3$ polytrope, appl. to coronal transient 2−68607
self-exciting dynamo, generalised Cowling theorem 2−76034
semiinfinite nonconducting wall in mag. field, MHD boundary layer 2−114924

magnetohydrodynamics continued
solar chromospheric spicules, MHD slow mode shocks rel. to absence over plages and great length under coronal holes 2−100876
solar corona, energetics of steady-state flows 2−100858
solar corona, MHD rel. to struct. and dynamic features (1973 June 30) 2−68715
solar coronal arcade MHD stability, effect of photospheric line tying 2−117656
solar coronal loop transients, MHD theory 2−100874
solar coronal loops, effect of press. gradients and field line tying on mag. stability 2−100859
solar coronal loops struct. 2−58310
solar flare particles anomalous abundances and preacceleration in collapsing mag. neutral sheets 2−63346
solar flares, interacting mag. loop model for hard X-ray bursts 2−68693
solar magnetic field structure below photosphere, adiabatic flux tube models 2−63337
solar MHD model, coronal disturbance mechanism 2−84193
solar nebula, growth and decay of mag. fields rel. to effects of mag. and turbulent viscosities on nebula 2−100776
solar quasistationary primary magnetic field, rel. to intensity vars. of solar cycle *(Russian)* 2−112418
solar wind, statistical props. of MHD fluctuations assoc. with high speed streams 2−100697
spherical particle motion in liquid, drag coeffs. in EM and gravitational fields 2−103220
spiral flow in circular channel, travelling mag. field, MHD 2−86351
σ-stability, appl. to solar atmosphere 2−58242
stability of closed config. with an azimuthal current 2−60667
steady Couette flow, Hall effect 2−65655
steady flow around ellipsoid body 2−103223
steady global corona structure including holes and streams, MHD anal., model 2−79052
steady MHD Couette flow, effect of Coriolis force and Hall effect 2−86286
stellar atmospheres with mag. fields, stability 2−94678
stellar chromospheres, heating when mag. fields are present 2−63366
stellar magnetic fields, stability of toroidal flux tubes 2−63369
stratified fluid, Rayleigh-Taylor hydromagnetic instability 2−114925
stratified fluid between rot. coaxial cylinders, instability of MHD flow 2−114768
stratified rotating fluid, hydromagnetic Rayleigh-Taylor instability 2−75933
Sun, bipolar magnetic region, coronal field lines, pot. field model 2−68690
Sun, coronal magnetic arches, magnetostatic equilibria 2−79056
Sun, fibril magnetic field equilibrium form in static atmosphere 2−84188
Sun, fibril magnetic fields trapping in closed convective rolls 2−84189
Sun, flare impulsive phase X-ray/radio emission from mag. loop coronal part 2−89212
Sun, flare triggering by magnetosonic waves in neutral sheet plasma 2−94671
Sun, pulse propagation in a magnetic flux tube 2−84190
suspensions, electromagnetic field effects 2−103202
swept up massive shell, axisymmetric hypersonic MHD flow, time depend. eqns. system 2−84074
thermal convection in slowly rotating, weakly magnetic fluid shells 2−103170
thermal convection instability of two component fluid layer, theory 2−106501
thermoelectric MHD heat convection 2−97351
thin films electrically cond. liq., flow stability 2−109286
transient MHD channel flow, with axial symmetry at subsonic speed 2−86295
turbulence at low mag. Reynolds no. and large interaction parameter 2−76037
two dimensional magnetohydrostatic equilibria blowing up by press./elec. field increase, solar appl. 2−100721
unsteady boundary layer free convection flow past vertical porous plate 2−65653
unsteady hydromagnetic Couette flow in a rotating system 2−91554
unsteady hydromagnetic free convective flow through a porous medium 2−65641
unsteady MHD flow through two parallel porous plates, Laplace transform soln. 2−55655
unsteady viscoelastic flow through magnetofluidynamic porous medium in circular pipe 2−97662
variably inclined MHD plane flows, hodograph transforms. and soln. 2−109417
velocity pulsation meter, sensitivity depend. on construction parameters 2−103232
viscous fluid, flow between porous plates, heat transfer, MHD, Hall current effect 2−103216
viscous fluid, free and forced convection flow through parallel porous walls, MHD 2−103160
viscous fluid, MHD fluctuating flow past a permeable bed 2−71037
viscous incompressible flow, MHD flow between flat and wavy walls 2−103218
viscous liquid, stationary axisymmetric MHD flow, stability 2−103222
viscous rotations, non linear MHD eqn.-soln. *(Italian)* 2−114916
water oscillatory flow at 4°C past an infinite porous plate, hydromag. free convection effects 2−81401
Cs droplets removal from Ar-Cs flowing mixt. in a closed-loop MHD generator 2−91518
Hg-Ar two phase heat transfer in vertical annulus under transverse mag. field 2−114873

magnetomechanical effects
see also gyromagnetic effect; magnetoelastic effects; magnetoelastic waves; magnetostriction
coupling coeff. for periodic EM-acoustic transducers 2−81198
ferromagnetic cubic system, field and stress depend. of magnetisation 2−92986
ferromagnets, magnetomechanical damping, review 2−56906
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
Invar, magnetovolume effects, molecular orbital study 2−66884
Invar 2−66886
itinerant electron magnets, magnetovol. effects, crit. temp. press. depend. calc. 2−66886
Laves phase cpds., onset of magnetism 2−87541

magnetomechanical effects continued
metal, amorphous, magnetomechanical props., model 2−77354
metal, ferromagnetic, strain amplitude dependent damping, mech. model *(Japanese)* 2−56904
metal parts, magnetisation effect on interaction of rubbing surfaces *(Russian)* 2−77952
order-disorder first order transitions, high press. effects *(Russian)* 2−87492
piezomagnetic antiferromagnet, solitons *(Russian)* 2−104677
steel, electrical, nondestructive testing of mag. props., tensile stresses influence on accuracy 2−58858
steel, Si, grain orientated, magnetomech. damping and mag. domain struct. 2−56907
steel parts, magnetoabrasive polishing influence on macrostresses magnitude and distrib. *(Russian)* 2−77989
transition metal alloys, magnetovolume effects, molecular orbital study 2−66884
$CeMo_6S_8$, mag. props. under press. 2−56911
Co amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co-Fe-Si-B amorphous ribbons, with induced mag. anisotropy, influence of applied tensile stress on power loss 2−82686
Co-Pt (50 at.%), shear modulus, magnetomech. effects 2−56908
Cr-Fe, antiferromagnetic, high press. phase diagram, neutron scatt. study 2−116000
CrSi, dil. alloys, first order phase transition from paramag. to commensurate SDW state 2−116003
Er, magnetoelastic props. near Neel temp., elastic consts. 2−104679
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2−56911
EuTe, transferred hyperfine fields, effect of high press. and high mag. fields, Mossbauer study 2−104779
Fe, high purity mag. and magnetomechanical props., influence of grain size 2−87565
Fe, magnetic domain walls, dislocation struct. effects, magnetomech. damping study 2−56885
Fe-Cr based alloys, damping capacity, mag. field, heat treatment and cold working effects 2−57393
Fe-Rh, mag. transitions press. depend. and bulk modulus, s-d exchange model *(Russian)* 2−92902
Fe-Si (3 wt.%), grain orientated sheets, effect of spike closure domains on remanence and magnetisation curve 2−82630
Fe-Si (3 wt.%), grain oriented, Barkhausen noise meas. 2−87537
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study, magnetomech. props. appl. 2−72376
$FeGe_2$, antiferromag., US attenuation anomalies at two transitions 2−104675
$Fe_{40}Ni_{40}B_{20}$, $Co_{75}Fe_5B_{15}Si_5$ and $Co_{55}Fe_5Ni_{20}(SiB)_{20}$, amorphous, crystn. in RF mag. field, Mossbauer study 2−103634
Fe_2P, Curie temp., uniaxial stress effect, expt. study 2−87495
Fe_2P, orientational phase transition near Curie temp., press. study 2−116008
Fe_2P, pressure-induced metamag. states, magnetisation study 2−110583
Gd Co amorphous films, torque curves meas. *(Russian)* 2−98926
Mn ferrite crystal, Young's modulus and internal stresses, mag. field effects 2−56909
$MnAs_{0.9}P_{0.1}$, mag. susceptibility meas., appl. of high press. generation method *(Japanese)* 2−89736
MnZn ferrite, monocrystalline 2−87530
MnZn ferrites, hydrostatic press. effect on both sides of thermal spectra secondary peak 2−87570
Ni ferrites, dynamic elasticity moduli, mag. polarisation depend. 2−77348
Ni, polycrystalline, internal friction, plastic deformation and mag. field effects *(Russian)* 2−116489
Ni-Co, relation between damping capacity and magnetomech. props. 2−57397
$NiSiF_6.6H_2O$, Curie temp., anomalous press. depend. *(Russian)* 2−115999
Si cylinder, mag. flux cumulation by shock-compressed conductive region propag. 2−92984
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2−104590
YFe_2, local mag. fields temp. depend., vol. expansion effects, NMR study 2−56955

magnetometers
see also magnetic field measurement
autodyne, low-temp., for NMR mag. field meas. 2−84673
fibre-optic interferometer sensors for weak magnetic fields 2−89757
fibre-optic magnetic-field sensors employing metallic glasses 2−95415
fluxgate magnetometer using triaxial magnetic field feedback compensation, spherical coil design 2−64077
high-press. cell for obs. of rocks subject to large stresses 2−68518
inductance variation magnetometer for weak magnetic field measurement 2−89758
irreversible mag. props. of rocks and minerals, meas. device 2−95414
magnetisation meas. at high press. 4.2 to 300K 2−58859
magnetoresistive Permalloy mag. field sensor 2−112933
magnetoresistive thin ferromag. film magnetometer for weak magnetic field measurement 2−89758
microprocessor-controlled saturated-core magnetometer *(German)* 2−84672
proton magnetometer precession signal processing, channel optimisation 2−112165
proton magnetometer sensors 2−83970
pulsed magnetic fields, generation, magnetometry and appl., review 2−112934
quantum magnetometer with optical pumping for measuring strong, rapidly varying fields 2−112938
rotating sample, contactless magnetoresistance meas. 2−53797
Shl-1 magnetic induction meter, upgrading for fields up to 15 T 2−58857
single mode fibre magnetometer, Ni-coated, fabrication and testing 2−60245
solid state compass, application 2−112940
SQUID magnetometer for meas. of miniature eye movements 2−94218
SQUID magnetometer using Nb thin-film microbridge 2−107352
SQUID magnetometers use for small magnetic moments meas. sample holder 2−95417
testing, stability of frozen magnetic field in a superconducting shield 2−95413

magnetometers continued
thin film magnetometric sensor, noise characterisation *(French)* 2−95419
torque magnetometer for rot. power loss meas. in Fe-Si 2−82651
transfer curve magnetometer for measuring mag. props. of mag. recording disc 2−107350
triaxial fluxgate magnetometer on Dynamics Explorer-A and -B 2−58208
UOSAT, magnetometer and associated electronics 2−117499
vibrating, general theory of induced signal 2−79619
vibrating sample device, detection coil, sensitivity function and sample geometry effects 2−112936
vibrating sample magnetometer, appl. to mag. measurements on metal hydrides 2−82642
vibrating sample magnetometer, electronics and gas cleaning system 2−79627
vibration magnetometer with a balancing circuit for the coils and frequency doubling 2−58856
Nb integrated DC SQUID gradiometer 2−112932
YIG magnetometer, phase-locked, for remote meas. of small field changes in fluctuating background 2−112937

magnetooptics *see magneto-optical effects*

magnetoplasma *see plasma*

magnetoplasmadynamics *see plasma magnetohydrodynamics*

magnetoreflectance
microprocessor-controlled magneto-optics apparatus 2−112878
Bi:Sb, ion implanted, electronic struct., magnetorefl. study 2−99095
Bi:Sn, magnetoreflection study, band struct. 2−87747
$Pb_{1-x}Sn_xSe$, interband magnetoreflectivity meas. 2−110821
PbTe epitaxial layers on BaF_2, misfit and thermal strains, magneto-optical and X-ray study 2−82175

magnetoresistance
see also Corbino effect
Anderson localization, two-dimensional system, magnetoresist., self-consistent treatment 2−61435
Anderson two-dimensional localised system, magnetoconductance 2−110320
diamond, synthetic, magnetoresistance 2−77097
disordered systems, localisation, transport phenomena 2−115710
disordered systems, two-dimens., nonlinear and nonequilibrium props., conductivity, mag. field effect 2−77008
electron gas, 2-D, magnetoconductance impurity scatt., Born approx. 2−87215
electron gas, two-dimensional, disordered interacting, magnetoresist. and Hall effect 2−61434
graphite, artificial single crystal, magnetoresistor, higher waiting temp. 2−98671
graphite, electronic phase transition, resistance magnetoresistance study 2−87306
graphite highly oriented magnetoresist. at 77K and 4.2K 2−110370
inversion layers, hopping cond. in two-dimensional impurity band 2−104464
Lorentz model, two dimensional, theory of magneto-transport 2−87211
metal, magnetic resistivity theory near ferromagnetic phase transition 2−92569
metal, magnetoresistance of mixed valent Tm impurities 2−87229
metal film, ultrathin, localization, resistivity and magnetoresistance 2−61617
metal wire, localization DC skin effect and linear magnetoresistance 2−87228
metal-insulator transition, localisation and correl. effects 2−115664
metallic disordered systems, cond., temp., mag. field, and freq. depend. 2−98608
metallic films and wires, longitudinal magnetoresist., quasiclassical kinetic eqns. 2−61615
metallic films and wires, longitudinal magnetoresist., size effect calc. *(Russian)* 2−98763
metallic thin films, anomalous magnetoresistance anal. 2−77205
metals, magnetoresistance, transverse, Kondo effect in quantising mag. field, theory *(Russian)* 2−115730
metals, weak anti-localisation in presence of spin-orbit coupling 2−92601
micro-sensor using magnetoresistive comparator, for magnetic field meas. 2−64079
Mooij criterion and weak localization 2−87216
MOS, positive magnetoresist. due to mag. field parallel to surface 2−61600
noble metal-rare earth alloys, dil., magnetotransport and EPR props. 2−104355
paramagnets, strongly exchange enhanced, thermodynamic and transport props., field depend. effects 2−115969
Permalloy laminated films, magnetoresistance, mag. field detection method 2−71949
position detector using ferrite closure, electrical capacitance meas. basis 2−112885
random elastic scatt., long-range correlation and localisation 2−66518
rare earth alloys, amorphous, resistivity and magnetoresist., crystal field and exchange interactions 2−92560
rare earth-cobalt intermetallic, R_3Co type, elec. resist. accompanying metamag. phase transitions *(Russian)* 2−66820
rotating sample magnetometer, contactless magnetoresistance meas. 2−53797
semiconductor, hopping conduction in an arbitrary magnetic field 2−92665
semiconductor, impurity screening in strong mag. fields and influence on transverse cond. 2−92667
semiconductor, magneto-Hall and magnetoresist. coeffs., mixed-carrier effects 2−82378
semiconductor, magnetoresistance, size effect under conditions of mutual drag of heated electrons and phonons 2−61493
semiconductor, magnetoresistance influence on high mag. field Van der Pauw expts. 2−104396
semiconductor, two-carrier, magnetoresist. anal. 2−92662
semiconductor cryogenic resistance thermometers for meas. in mag. fields *(Russian)* 2−64036
semiconductors, correlation effects on hopping cond. and magnetoresistance 2−87265
semiconductors, hot carrier galvanomag. effects in high mag. fields, Boltzmann eqn. calc. 2−110371
semiconductors, intrinsic, quantum-limit magnetoresist. 2−82382
semiconductors, magnetoresistance, transverse, Kondo effect in quantising mag. field, theory *(Russian)* 2−115730

magnetoresistance continued
semiconductors, microwave magnetoreflection in Faraday configuration *(French)* 2−72462
semiconductors, transverse galvanomagnetic phenomena *(Russian)* 2−61497
SOS films, non-homogeneous elec. transport, galvanomag. expts., internal stress influence 2−115904
spin glass alloys, transverse magnetoresistance study 2−77022
superconductors, ferromag., percolation magnetoresist. 2−56774
thin bicrystalline plates, oscillatory depend. of magnetoresist. *(Russian)* 2−61613
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2ClO_4$, magnetotransport under press. 2−56556
$(TMTSF)_2ClO_4$, Shubnikov-de Haas oscills. 2−115731
$(TMTSF)_2PF_6$, low temp. cond., Hall effect and magnetoresist., effect of radiation damage 2−87240
$(TMTSF)_2PF_6$, magnetoresist. and Hall effect in semicond. phase 2−56620
$(TMTSF)_2PF_6$, magnetotransport under press. 2−56556
$(TMTSF)_2PF_6$, pure and radiation damaged, magnetotransport and nonlinear effects 2−56555
$(TMTSF)_2PF_6$, radiation damage effect on cond. 2−87243
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
transducer, with superconducting control lines, design and response 2−64011
two dimensional system, magnetotransport, electron-impurity, electron-phonon and electron-electron interactions, quantum the ory 2−56542
two-dimensional disordered electron gas, magnetoresist. and Hall resist. calc. 2−77092
two-dimensional electron localization and Coulomb interactions 2−61387
two-dimensional system, disordered, mutual interactions in weakly localised regime, spin-orbit scatt. 2−66511
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
valence fluctuations between two mag. configurations, exactly solvable Hamiltonian 2−56522
weakly disordered two-dimens. system., localisation and interaction effects 2−87213
zinc blende narrow gap semiconds., pressure spectroscopy of localized levels 2−92526
Ag thin film, resistance, magnetoresistance, weak localisation *(Russian)* 2−87417
Al, mag. breakdown from temp. variations of magnetoresistivity *(Russian)* 2−98624
Al-Si (11.3 at.%), fast quenched eutectic alloy, effect of heat treatment on supercond. props. 2−61654
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
Au film, magnetoresist., positive, and elec. resist. at low temp. 2−66661
$(Au_{1-x}Cu_x)$ Mn spin glass alloys, low-field magnetoresist. 2−82323
Bi, charge carrier drift in external fields, sound amplification, I-V nonlinearity, review *(Russian)* 2−115826
Bi, magnetoresistance rel. to temp. meas. in 4K region *(French)* 2−64031
Bi microcylinders, flux quantisation effect in tilted mag. field *(Russian)* 2−98670
Bi plate, surface effect on transverse magnetoresist. *(Russian)* 2−56624
Bi thin film, longit. magnetoresist. max. *(Russian)* 2−115788
Bi thin films, magnetoresist. anomalies in quantum correction region *(Russian)* 2−66574
Bi thin wires, size effects, resist., magnetoresist., and thermoelec. power meas. 2−92632
Bi thin wires, transverse magnetoresist. in high elec. and quantum mag. fields *(Russian)* 2−56614
p-Bi:Sn, transverse magnetoresistance and Hall effect 2−77093
Bi-Sb thin film, longit. magnetoresist. max. *(Russian)* 2−115788
Bi-Sn(Te), dilute alloys, anomalous magnetoresistivity in quantising mag. field 2−92664
$p\text{-}Bi_{0.9}Sb_{0.1}$ under uniaxial tension, topological electronic transitions 2−66424
$Bi_{1-x}Sb_x$ films, semimetal-semicond. transition, thickness depend., resist. and magnetoresist. meas. *(Russian)* 2−82411
$Bi_{1-x}Sb_x$ resonance shock ionisation in mag. field *(Russian)* 2−56618
$Bi_{14}Te_{11}S_{10}$ thin cryst., two-dimens. cond. and magnetocond. 2−71985
C evaporated films, electron transport, semicond. and hole metal behaviour 2−61461
C fibres, elec. props. study 2−92559
C-glass resistors, low-temperature thermometry in high magnetic fields 2−101401
$(Cd_{1-x}Mn_x)_3As_2$, Shubnikov-de Haas effects 2−98677
$p\text{-}CdSnAs_2$:Ga, transport coeffs., temp., field, and press. depend. 2−77061
$Cd_{3-x}Zn_xAs_2$, Shubnikov de Haas oscills. 2−92673
CeBi, p-f valence mixing, anomalous mag. and transport props. 2−56514
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
$CeCu_2Si_2$, mixed valence state, elec. resist., mag. field and press. effects 2−110329
CeSb, p-f valence mixing, anomalous mag. and transport props. 2−56514
Cu film, coupled fine particles, electron localization and transport props. 2−61618
Cu films, elec. cond. localisation effects and negative magnetoresist. obs. 2−82476
Cu-Ni alloys, elec. and mag. props. at 4K 2−77018
Cu-SiO_2 granular films, elec. props., electron localisation in metallic regime 2−72081
Cu-Sn alloys, elec. and mag. props. at 4K 2−77018
Cu_2MnAl, Heusler alloy, elec. and mag. props. 2−110326
Cu_2NiSn, Heusler alloy, elec. and mag. props. 2−110326
$ErRh_4B_4$, percolation magnetoresistance in ferromagnetic superconductors 2−56774
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
Fe_xB_{1-x}, amorphous, magnetization and magnetoresist. in high mag. fields 2−61740
$Fe_{80-x}Cr_xB_{14}Si_6$, amorphous, magnetoresist. mag. props. 2−71947
$Fe_{80-x}Ni_xB_{20}$ ($Fe_{80-x}Ni_xP_{14}B_6$), amorphous, magnetoresist. mag. props. 2−71947
$\gamma\text{-}Fe_{82-x}Ni_xCr_{18}$, transport and galvanomag. props. near crit. comp., 4.2 to 300K *(Russian)* 2−61444

magnetoresistance continued
α-Fe_2O_3, haematite, weak ferromag., magnetoresist. anisotropy meas. *(Russian)* 2−92659
$Fe_{80-x}W_xB_{14}S_6$, amorphous, magnetoresist. mag. props. 2−71947
n-GaAlAs-GaAs heterojunction interface, MBE grown, 2-D electron gas, tangential magnetoresist. study 2−77162
GaAs, doped with conducting inclusions, negative geometric magnetoresistance *(Russian)* 2−104517
n-GaAs, epitaxial film, magnetoresistance, electric field effect 2−77100
n-GaAs, impurity scatt. in quantising mag. fields 2−115792
GaAs impurity subsystem, metal-insulator transition *(Russian)* 2−71872
n-GaAs, magnetoresist. of hot electrons at 77K 2−61495
n-GaAs, metal-semiconductor transition in strong mag. fields 2−92708
GaAs:Ge(Se), neutron transmutation doped, elec. props., metal-nonmetal transition 2−87284
GaAs-$Al_{1-x}Ga_xAs$ heterojunction, modulation doped, two-dimens. electron gas, Shubnikov-de Haas effect obs. 2−110457
GaAs-$Al_xGa_{1-x}As$ heterojunction, two-dimens. electron system, magneto-phonon reson. obs. 2−98734
GaAs-AlGaAs heterojunctions, 20-electron gas, f-factor enhancement, Shubnikov-de Haas oscills. 2−56685
GaAs-AlGaAs heterojunction, two-dimensional magnetotransport in the extreme quantum limit 2−82376
GaAs-GaAlAs multilayers, high field magneto-transport, spin splitting, g-factors 2−56684
$Ga_{0.47}In_{0.53}As$-InP heterojunction, 2D electron gas, quantum oscills., magnetoresistance study 2−110466
Gd, transverse magnetoresist., Fermi surface topology 2−104228
n-Ge, impurity scatt. in quantising mag. fields 2−115792
n-Ge, magnetophonon reson. obs. 2−98672
n-Ge, many-valley semicond., hot electrons in quantising mag. field 2−56622
p-Ge, negative magnetoresistance obs. *(Russian)* 2−56617
n-Ge, S-type current-voltage charact. in crossed heating elec. and quantising mag. fields 2−115795
p-Ge, strongly doped, anomalous magnetoresistance *(Russian)* 2−82377
n-Ge:As(Sb), heavily doped, press. effects on magnetoconductivity *(Russian)* 2−56619
Ge-Si alloys, magnetoresistance and carrier mobility 2−56621
$HfTe_5$:Ar, low-dimensional cond., Hall effect and transverse magnetoresist. 2−92663
HgCdTe epitaxial layers, Shubnikov-de Haas effect *(French)* 2−61486
n-$Hg_{0.8}Cd_{0.2}Te$, magnetotransport meas. in extreme mag. quantum limit 2−92669
$Hg_{1-x}Cd_xTe$, elec. cond., magnetoresist. and Hall effect, temp. depend. meas. 2−77049
n-$Hg_{1-x}Cd_xTe$, mag. freeze-out modification due to reson. levels 2−92670
$Hg_{1-x}Cd_xTe$, magnetoresist. anomaly in extreme quantum limit, 1.4 to 4.2K 2−92668
$Hg_{1-x}Cd_xTe$, zero-gap semicond., cond. and Hall coeff., anomalous temp. depend. 2−115757
$Hg_{1-x}Fe_xTe$ crystal, Shubnikov-de Haas oscillation amplitude anomalies 2−77099
HgTe:Mg, conduction band struct., Hall effect and magnetoresist. study 2−115662
InAs accumulation layer, subband populations in tipped mag. fields, Shubnikov-de Haas oscills. 2−56707
InAs-GaSb superlattice, Shubnikov-de Haas oscills. under tilted mag. fields 2−56687
n-InAs-GaSb superlattice, cyclotron resonance and Shubnikov de Haas study 2−87131
$In_{0.53}Ga_{0.47}As$-$In_{0.48}Al_{0.52}As$ interface, MBE grown, two-dimens. electron gas 2−98730
$In_{0.53}Ga_{0.47}As$-InP heterojunction, two-dimensional electron gas study 2−77161
In_2O_3 film, weak localization, anomalous transport props. 2−61627
In_2O_3, films, magnetoconductive effects, Anderson localisation 2−56740
InP (100), electron cond. in surface subbands 2−115846
InP, MIS struct., electron subbands, magnetoconductance oscills. cyclotron resonance and surface cond. meas. 2−56708
InSb, magnetoresistance meas. for two-carrier state 2−92662
n-InSb, magnetotransport meas. in extreme mag. quantum limit 2−92669
InSb, residual impurities and inhomogeneities, galvanomagnetic meas. 2−110369
n-InSb, transverse breakdown study *(Russian)* 2−92642
InSb-TlSb eutectic alloy, galvanomagnetic props. 2−104399
K, magnetoresistance, open-orbit spectra, effective medium theory 2−77023
K, open orbits, rel. to high-field magnetoresistance 2−87227
KC_x (x=4,5,8), intercalation compound, Shubnikov-de Haas oscill. freqs., expt. meas. methods 2−82210
$LaMnO_{3.09}$, distorted, mag. transition above Curie point, magnetisation and magnetoresist. study 2−110582
Li cylindrical film, Aaron-Bohm effect *(Russian)* 2−87418
Mg film, with Au submonolayers, spin-orbit coupling effect on weak localisation, magnetocond. meas. 2−66495
Mg film, with Fe submonolayer, mag. scatt. time meas. by weak localisation 2−92599
Mg thin film, weak localisation,magnetoresist. meas. 2−82324
MnSi, itinerant electron helicoidal mag., magnetisation and magnetoresistance 2−110605
MnSi, magnetisation and magnetoresistance 2−110606
MoS_2 samples, transport phenomena, solid-gas interaction evidence 2−56590
NbS_3, cryst. struct., semicond. elec. props. 2−60954
Nb_3S_4, quasi 1-D, elec. cond., magnetoresistance 2−87247
$NbSe_3$, cryst. struct., semicond. elec. props., X-ray diffr. study 2−60954
Ni film, elec. cond., temp. and mag. field depend. meas. 2−66660
Ni-Ag two-layer thin films, magnetoresist. *(Russian)* 2−66664
Ni-Fe, ultrahigh vacuum deposition, magnetisation, resistivity and stress 2−82482
$Pb_{1-x}Mn_xTe$, quantum transport and mag. energy levels, Shubnikov-de Haas oscills. 2−98676
n-$PbSe_{1-x}Te_x$, Shubnikov-de Haas effect meas., 1.2 to 4.2K 2−76902
$Pb_{1-x}Sn_xSe$, Fermi surface, Shubnikov-de Haas oscillations ang. depend. study 2−82211
n-$Pb_{1-x}Sn_xTe$, Fermi surface and cond. band, Shubnikov-de Haas study 2−115644
n-PbTe epitaxial (111) layer, weak and strong field magnetoresist. meas., 1.8 to 300K 2−87424
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169

magnetoresistance continued
$Pd_2MnIn(Sn)$, Heusler alloy, elec. and mag. props. 2−110326
Pd_2MnSn, elec. and mag. props. 2−66522
Pr, transverse magnetoresist., Fermi surface topology 2−104228
Pt thin film, non-ohmic cond. and magnetoresistance 2−87419
RbC_x (x=2,3,5,8), intercalation compound, Shubnikov-de Haas oscill. freqs., expt. meas. methods 2−82210
$(SN)_x$:Na(Br) and $(SN)_x$, elec. cond. and magnetoresist. meas., 0.2 to 4.2K 2−92586
n-Si (100) MOSFET inversion layers, zeros of transverse magneto-resist. 2−66650
Si, anisotropic size effect with plasma injected in mag. field 2−92677
Si, anomalous magnetoresistance in two-dimensional hole gas *(Russian)* 2−72012
Si inversion layer, conductance, logarithmic corrections, localisation and interaction effects 2−61598
Si inversion layer, inelastic electron-electron scatt. time 2−61599
Si, inversion layers, logarithmic and power law corrections 2−72064
Si inversion layers, valley splitting and degeneracy, Shubnikov-de Haas oscills. 2−56706
Si MOS inversion layer, Anderson localization, neg. magnetoresist. 2−61597
Si MOSFET, magnetoresistance study 2−115900
Si MOSFET, tilted inversion layer, tunnelling 2−77193
n-Si, magnetoelectric effect, spin dependent electrical polarisabilities 2−82375
Si, tipped inversion layers, tunnelling, Shubnikov-de Haas data 2−56705
Si:H, amorphous film, magnetoresistance study 2−92790
a-Si:H, RF sputtered, elec. and EPR meas. 2−115791
Si-SiO_2, MOSFET inversion layer, energy loss of warm electrons, Shubnikov-de Haas study 2−56703
TaS_3, cryst. struct., semicond. elec. props. 2−60954
TiO_x, metallic elec. and thermal cond., magnetoresistance, O conc. and temp. depend. 2−61439
TiS_2, elec. resist., T^2 temp. depend. 2−66550
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
Y, transverse magnetoresist., Fermi surface topology 2−104228
Y_9Co_7, mag. supercond., hybrid state, resist., magnetoresistance and AC susceptibility study 2−82571
$ZrSe_2$, elec. resist., T^2 temp. depend. 2−66550

magnetoresistance, thermal *see thermal magnetoresistance*

magnetoresistivity *see magnetoresistance*

magnetosphere
see also magnetospheric electromagnetic wave propagation; radiation belts
active spaceborne expts., lab. expts. and numerical simulation 2−112294
Alfven instability due to coupling with ionosphere 2−63179
Alfven wave generation by deceleration of plasma convection 2−89076
Alfven wave instability due to coupling with ionosphere 2−63175
analogy with rapid X-ray bursters 2−79147
auroral arcs, 3-D phenomena at boundaries between mag. flux tubes 2−68573
auroral kilometric radiation, growth rate calcs. 2−84042
auroral kilometric radiation, theoretical review 2−58206
auroral kilometric radiation, theory of fine struct. 2−78920
auroral kilometric radiation generation at high altitudes 2−94554
auroral plasma, double layers and solitary wave obs. 2−71191
auroras, oval, rel. to polar cap, in northward interplanetary mag. field 2−68546
Birkeland current densities, relation to interplanetary mag. field and solar wind props. 2−100663
Birkeland current systems, regions 1 and 2, energy coupling 2−106425
Birkeland currents obs. simultaneously by MAGSAT and TRIAD satellites 2−100660
boundary layer, reverse draping of mag. field lines 2−100655
boundary layer at subsolar point, energetic ion composition 2−84026
bow shock, accel. processes for solar wind particles 2−63187
bow shock, anal. of surface elec. currents 2−100652
bow shock, electron heating 2−94566
bow shock, perpendicular config., hybrid simulation model 2−106470
bow shock, simulation of high Mach number magnetosonic shock wave 2−73790
bow shock, upstream, fluctuation interaction with MHD shock 2−78927
bow shock particle acceleration mechanisms 2−63247
bow shock region, upstream escape of ions 2−100657
collective ion acceleration by relativistic electron rings 2−112270
conference on magnetosphere plasma and electric fields origin at Yosemite, CA, USA (Jan. 1982) 2−107012
conical pitch angle distrib. of low energy ions of ionospheric origin 2−84037
convection, EM disturbances, convection study *(Russian)* 2−63171
convection causes, review of developments during International Magnetospheric Study 2−112261
cosmic infrasound in the atmosphere *(Russian)* 2−106320
cosmic ray intensity diurnal anisotropy, spectral exponent (β) on geomag. disturbed days 2−68577
cosmic ray intensity diurnal anisotropy, spectral exponent vars. on mag. quiet days 2−68578
current sheet of magnetotail, stability calc. 2−63190
cusp region and auroral zone field-aligned currents 2−68561
dawnside chorus and energetic electron obs. at geosynchronous orbit 2−68571
dayside magnetopause, ion trapping boundary and longitudinal standing waves 2−63173
decimetric emission caused by solar flare events 2−112230
diffuse electrostatic emissions due to thermal fluctuations 2−68569
double layer formation during current sheet disruption 2−106420
double layer motions and ion counterstreaming 2−89081
Dynamics Explorer mission, spin-scan auroral imaging photometers 2−58226
Dynamics Explorer program, general 2−58224
dynamo, effect on estimates of accuracy of geomag. field approximations 2−111851
eccentric dipole coordinates, for Magsat data presentation and anal. of external current effects 2−100661
electric and mag. field model for storm-time conditions 2−112244
electric current through enclosed by MAGSAT orbit 2−100630

magnetosphere continued
electric field distrib. on large and small scales 2−89083
electric field spikes near to plasmasheet boundary 2−100659
electron density vars., VLF diagnostics 2−94567
electron flux changes and local time depend. during substorms 2−89073
electrostatic ion cyclotron turbulence in strong plasma inhomogeneity regions, effect on ionosphere 2−84017
electrostatic sinusoidal density drift instability, theory 2−89080
EM vel. gradient instabilities 2−106417
energetic particle fluxes, modulation by mixed mode of transverse/compressional waves 2−106424
energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
field aligned curents distrib. from mag. field obs., correl. with ionospheric phenomena 2−112269
field aligned currents and polar mag. disturbances 2−117532
field aligned currents in late afternoon sector 2−106414
field aligned ion streams in midnight region 2−84036
field-aligned current response to IMF changes 2−89075
field-aligned current systems, mag. perturbations modelling technique 2−100632
field-aligned currents deduced from radar ion drift obs. 2−84045
field-aligned currents in polar cusp rel. to interplanetary variations 2−112251
foreshock, coupled MHD wave excitation and ion accel. 2−106422
foreshock, energetic nuclei flux, sunward diffusion, bow shock and magnetosheath effects 2−106421
foreshock/bowshock quasi parallel shocks, large amplitude mag. variations 2−112236
geomagnetic activity annual wave 2−94564
geomagnetic activity depend. on solar wind velocity 2−117523
geomagnetic activity rel. to preceding lunar eclipses 2−63177
geomagnetic indices coupling function with solar wind parameters 2−112264
geomagnetic tail, effect of electrostatic turbulence on hydromagnetic stability 2−100664
GEOS mission to explore magnetosphere-solar wind interaction 2−63212
Hall current closure in magnetosphere during substorms 2−73800
Harang discontinuity and plasmapause boundary changes 2−106409
hidden low-energy ions seen in geosynchronous shadow zone 2−89074
High-Altitude Plasma Instrument for Dynamics Explorer-A 2−58180
high-energy H^+ and α particles in Earth's magnetosphere 2−73794
high-latitude disturbance fields, corotating component evidence 2−112247
hydromagnetic waves of long-period inside plasmasphere 2−73792
IMF vector relation to high-latitude geomag. field vector 2−117531
International Magnetospheric Study, results up to 1982 February 2−112267
interplanetary magnetic field rel. to geomag. variations (2-60 min.) 2−78915
interplanetary shock generated hydromagnetic impulse in magnetosphere 2−112240
inverted V events, 3-D phenomena at boundaries between mag. flux tubes 2−68573
ion acoustic wave form generated at bow shock 2−84020
ion composition of boundary layer, PROGNOZ-7 obs. 2−58207
ion composition review 2−112262
ionosphere coupling, Vasyliunas approach anal. 2−112222
ionosphere electrical coupling, IMS satellite obs. review 2−112223
ionosphere electrodynamic interaction, highlights from International Magnetospheric Study 2−112268
ionosphere equivalent currents representing IMF sector effects 2−112219
ionosphere interactions, effect on high latitude ionosphere charged particle var. 2−100625
ionosphere-plasmasphere plasma flows, rel. to midlatitude electron density vars. in topside ionosphere 2−112194
K_p categorisation of geomag. disturbances rel. to solar flare activity *(Chinese)* 2−68563
laboratory model, UCR T-1 terrella facility 2−100662
Landau damping of steepening magnetosonic wave 2−63178
lower hybrid drift instability in nonantiparallel reversed field plasma 2−73791
magnetic activity predictors based on solar wind and IMF parameters 2−84046
magnetic flux tube and elec. current descriptions of plasma and energy flow 2−58205
magnetopause, conf., Oct. 1980, Garching, W.Germany 2−79272
magnetopause, fine struct. of front side 2−84023
magnetopause, high temporal resolution energetic particle obs. 2−84024
magnetopause, magnetic flux transfer events 2−84028
magnetopause, particle obs. during mag. flux transfer events 2−84029
magnetopause, role of IMF B_y component in balance of forces 2−117526
magnetopause, struct. of dayside low-latitude energetic electron layer 2−84032
magnetopause and magnetosheath particle processes deduced from aurora obs. 2−112190
magnetopause at subsolar point, energetic ion composition 2−84026
magnetopause behaviour at onset of sudden storm commencement 2−112238
magnetopause current layer thickness and dynamics 2−84022
magnetopause flux transfer events, model of quasi-trapped particle distrib. 2−84030
tailward magnetopause mag. field beyond 10 R_E 2−84043
magnetopause plasma convection due to ion drift waves 2−84044
magnetopause plasma instability and obs. fluctuations 2−112254
magnetopause region Rossby type hydromagnetic waves 2−117528
magnetopause shape calculation 2−112256
magnetopause trapping boundary, ISEE 1 and 2 obs. 2−84025
magnetosheath, flux transfer event quasi-trapped particle model 2−84030
magnetosheath, trapped particle obs. showing flux transfer event 2−73795
magnetosheath behaviour at onset of sudden storm commencement 2−112238
magnetosheath magnetic flux transfer events 2−84028
magnetosheath steady state mag. field 2−100670
magnetotail, elec. field and current generation in presence of conducting ionosphere 2−100654
magnetotail, model of time-depend. convection 2−84033
magnetotail boundary and energy transfer processes 2−100656
magnetotail current sheet, energetic particles pitch angle scatt. 2−100669
magnetotail current sheet ion acceleration 2−84034
magnetotail elec. currents during substorm conditions 2−112244
magnetosphere continued
magnetotail electric field distrib. depend. on magnetosheath mag. field and plasma flow 2−73785
magnetotail height to neutral point height ratio 2−112256
magnetotail magnetic field intensity, effect on polar cap convection-interplanetary mag. field relation 2−73789
magnetotail plasma lobes with outflowing ionospheric ions 2−78922
magnetotail plasmoid created at substorm onset 2−84019
magnetotail substorm dynamics highlights from International Magnetospheric Study 2−112268
Magsat mission 2−100699
micropulsations, boundary conditions for MHD waves at ionosphere 2−112198
micropulsations, resonance props. of magnetospheric lines of force 2−112229
mid-latitude ionospheric thermal plasma, dynamic interaction with plasmasphere, review 2−83987
nature relative to other planet magnetospheres 2−89177
nonadiabatic regions in dipole mag. field, theory 2−112226
outflowing ion beams on auroral field lines 2−112257
pitch angle distrib. at geosynchronous orbit assoc. with auroral absorpt. event 2−63176
plasma, LH drift instability as a dissipation mechanism *(Russian)* 2−78916
plasma and elec. field boundaries during a July 1977 disturbed day 2−112243
plasma behaviour during electron streaming events and mag. reconnection 2−112234
plasma convection 2−117520
plasma convection rel. to auroral oval geomag. field, effect of northward interplanetary mag. field 2−112293
plasma density at geosynchronous orbit deduced from Pc 3-4 obs. 2−68572
plasma drift meas. from GEOS 2−63149
plasma ion cyclotron instability at frontal boundary layer 2−73786
plasma magnetodynamic flow, one-fluid plasma theory 2−112255
plasma sheet interaction with lobes of magnetotail 2−84035
plasma sheet role in elec. field and current formation 2−117530
plasma transport through magnetopause by impulsive mechanism 2−78921
plasma wave research in International Magnetospheric Study 2−112265
plasma waves near magnetopause 2−84021
plasmapause discontinuity and injection event, diamagnetic effects 2−100648
plasmapause plasma density from myriametric radiofreq. radiation obs. 2−73775
plasmapause-plasmasphere struct. and dynamics results from ground-based and satellite obs. of whistlers *(French)* 2−106382
plasmas sheet, quiet time convection elec. field props. 2−63188
plasmasphere, O^+ and H^+ distrib. model 2−106408
plasmasphere, plasma temp. determ. from thin sheath approx. 2−106354
plasmasphere, refilling of geomag. force tubes with thermal plasma after mag. disturbance 2−106383
plasmasphere 'hot' zone characteristics 2−117519
plasmasphere confinement by geomag. field, mapping from obs. of near-Earth UV environment 2−117513
plasmasphere ELF hiss during magnetic storm variations 2−84048
plasmasphere relativistic electrons dynamics 2−100653
polar cap, plasma convection with interplanetary mag. field component 2−68564
polar cap arcs, elec. and mag. field obs. 2−83998
polar cap size and potential predicted by magnetosphere-ionosphere coupling model 2−112213
polar cap ULF/lower ELF EM pulsations 2−112260
polar cusp latitudinal variation during mag. storm 2−78919
polar cusps near solstice, field aligned currents, particles and plasma drifts 2−106426
polar ionosphere, magnetosphere coupling, elec. fields and plasma charcts. 2−112221
poles, penetration of solar cosmic ray protons and α particles 2−84016
pre-substorm phases and relation to solar wind interaction 2−73799
proton precipitation during magnetic storms, equatorial boundary 2−68549
protons, noise prod. in Space Telescope digicon 2−117590
pulsations of high energy electrons from precipitating particles anal. 2−106418
quasi-stationary reconnection at dayside magnetopause 2−84027
quasistatic electric fields, GEOS and ISEE obs. 2−89082
quasiviscous interaction with solar wind, relation between geomag. activity and solar wind vel. and density 2−112227
reconnection model involving local structures 2−112233
reconnection near magnetopause suggested by plasma flow obs. 2−84031
reconnection of mag. field lines, driven by external forces 2−78917
reconnection processes, implications of lower hybrid drift instability 2−73791
review 2−89071
ring current energy injection rel. to solar wind interaction 2−112250
ring current particle lifetimes during mag. storms 2−112258
Rossby type hydromagnetic waves, theory 2−117528
S-shaped electrostatic pot. structs. for auroral zone transversals 2−68574
secondary component intensity time-depend. behviour in mag. storm 20 August 1979 *(Russian)* 2−73807
SEPAC Spacelab-1 expts. with particle accelerators, plasma accelerator and charger *(Japanese)* 2−84062
single vortex current in polar region generated by IMF shock 2−100658
solar cosmic rays in magnetosphere, depend. on solar activity 2−117541
solar cosmic rays interaction, diaphragming of particle stream entering magnetospheric clefts 2−112228
solar influence on Earth magnetosphere, review 2−94474
solar protons in high-latit. magnetosphere, spectral charcts. at initial anisotropic stage of propag. 2−112225
solar wind control of elec. currents responsible for geomag. variations 2−94565
solar wind energy coupling function 2−100671
solar wind energy transfer through magnetopause of open magnetosphere 2−68567
solar wind energy transfer to magnetosphere, scaling relations 2−73797
solar wind interaction highlights from International Magnetospheric Study 2−112268
solar wind interaction studied by means of mag. storm occurrence 2−112253

magnetosphere continued
solar wind-magnetosphere interaction 2−73798
solar-wind-magnetosphere interaction, rel. to MHD Kelvin-Helmholtz instability 2−109505
Sq(H) causes on abnormal quiet days 2−68550
standing hydromagnetic waves, ISEE 1 and 2 obs. 2−89077
storm-time dynamics model of inner magnetosphere/ionosphere 2−112245
Stormer's problem, variational eqns. *(French)* 2−75501
substorm morphology and models 2−63191
substorm onset charged particle variations 2−100667
substorms, Alfven waves generation of mean EMF in collisionless plasma 2−86404
substorms and current system dynamics 2−58202
suprauroral region, ion accel. and distrib. due to lower hybrid mode interactions 2−73788
trapped particle motion following sudden commencement of storm 2−112242
trapped particles, diffusion by stochastic force 2−89117
turbulent electric fields (up to 14 Hz) in nightside magnetosphere 2−68568
two-dimens. model inc. current system 2−89072
ULF pulsation mode coupling 2−63189
VLF chorus bursts characts. and ionosphere-magnetosphere interaction 2−112210
VLF emission mechanism 2−68570
VLF emission mechanisms and variations 2−68562
VLF line emission, ISEE 1 obs. 2−89078
VLF non-thermal emissions from plasmapause at midnight 2−112252
VLF wave growth and discrete emission triggering 2−89079
wave-particle interaction, Landau reson. in whistler waves 2−84040
weak identical disturbances due to solar wind shock wave 2−117527
whistlers, meas. of polarisation and intensity, design of radio-receiver system 2−58141
H^+ and electron spectrometer for satellite meas. 2−73715

magnetospheric electromagnetic wave propagation
auroral kilometric radiation emission cone at low freq. 2−63174
damping of waves propagating nearly perpendicular to field lines 2−112259
decameter radiowave propagation on transpolar paths during auroral substorms 2−106415
ducting of auroral kilometric radiation obs. out to 4 Earth radii 2−78918
ELF wave injection experiments 2−84039
HF propagation between mag. conjugate points, ionosphere effects 2−117524
low frequency waves three dimensional trajectories 2−106419
magneto-active collisional plasma, attenuation and refr. coeffs. 2−109520
plasmasphere ELF hiss during magnetic storm variations 2−84048
ray theory of radiowave propagation using magneto-ionic formula 2−73769
VLF and LF emission review 2−106430
VLF diagnostics of electron density variations within the magnetosphere 2−94567
VLF wave propagation 2−73787
VLF waveguide formation near plasmapause? 2−117525
whistler coherent wave-particle interactions 2−100666
whistler ducts, mag. and elec. fields, models *(Chinese)* 2−84015
whistler ionospheric exit points obs. in Canada 2−89065
whistler mode propagation in elec. fields theory 2−84041
whistler oblique mode propagation in hot anisotropic plasma 2−68565
whistler propagation to ground at low-latitudes 2−84004
whistler wave propag., electron enforced gyroresonance 2−112249
whistler wave propagation in density ducts 2−68566
whistlers in hot anisotropic plasma, propag. at small angle to mag. field, refr. index 2−89084

magnetostatic wave devices
variometer parameters computing, primary transducer stability assurance 2−58863

magnetostatic waves
ferrimagnet, microwave propagation, book 2−58575
ferrite, surface magnetostatic wave, Bragg refl. 2−115994
ferrite films, magnetic wave precursors, expt. and theoretical study 2−77336
ferrite-semiconductor struct., cylindrical, azimuthal electron drag by magnetostatic waves 2−92730
ferrites, nondispersive magnetostatic forward volume waves under field gradient control 2−72326
ferromagnet, magnetostatic interface waves 2−56845
ferromagnet, magnetostatic surface wave resonance interaction with plasma wave 2−72183
garnets, inhomogeneously magnetised, magnetoelastic and magnetostatic waves obs. 2−104603
microstrip, magnetostatic surface wave generation, theory 2−98860
nonlinear mixing of bulk and surface magnetostatic spin waves 2−92886
polycrystalline slab, nonstationary magnetostatic waves 2−87487
reflection from a metal half-plane of magnetostatic waves in a film magnetized normal to the surface 2−87558
semiconductor, surface magnetoplasma wave propag. 2−77108
single-crystal ferrites, domain boundary inhomogeneous oscills. 2−104653
surface wave dispersion in presence of travelling elastic deform. waves 2−98932
surface waves, propag. across large amplitude gratings, theory 2−87483
variational principle for magnetostatic potential 2−98862
volume waves, scattering by metal half-sheet, theory 2−87484
YIG ferrimagnetic double layer, magnetostatic vol. wave prop., dispersion 2−82672
GaAs-YIG layered struct., magnetostatic surface wave amplification 2−115988
YIG films, oblique magnetization, volume and surface magnetostatic wave propag. 2−116040
YIG, magnetostatic and magnetoelastic waves, interaction with growth striations obs. 2−115991

magnetostriction
alloys, amorphous, mag. field depend. of forced magnetostriction 2−98930
amorphous alloys, mag. domain struct. under elastic stresses 2−82634
amorphous ferromagnet, magnetostriction, phenomenological theory 2−72324
antiferromagnets, magnetoelastic oscills. of domain walls, magnetostrictive strains 2−72256
Casimir electrostriction and magnetostriction forces calc. for $\epsilon\mu 1$ 2−101631

magnetostriction continued
diffraction studies using X-rays, γ-rays, and neutrons 2−61747
dilatometer for the study of rare earths at cryogenic temperatures *(French)* 2−64014
electromagnetic-acoustic conversion, relationship between linear magnetostriction and harmonic component of EMF 2−56910
ferrimagnetic materials, exchange striction and crystal lattice in domains and domain walls 2−72186
ferrite plate, magnetostatic wave interaction with elastic waves, dispersion laws, magnetostriction 2−72330
ferrites, magnetoelastic hysteresis 2−87566
ferrites, Villari effect depend. on magnetocrystalline props. and magnetostriction 2−87567
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
ferromagnetic magnetostrictive polycryst. material vibrs., hysteresis damping, phenomenological theory 2−66883
ferromagnetic plate, magnetoelastic states near spin reorientation transition 2−82675
fluids in electric and magnetic fields: pressure variation and stability 2−75490
metallic glass ribbon, plate wave velocity and attenuation, mag. field depend. 2−77350
metallic glasses, ferromagnetic, anomalous eddy currents, magnetoelastic effects 2−116047
nonlinear field effects, magnetostriction, statistical mechanics theory 2−104678
orthoferrite plate, magnetoelastic states near spin reorientation transition 2−82675
particles in external mag. field, surface and bulk struct. 2−82688
plate, nonhomogeneous magnetostrictive thin circular, with central hole, dynamic vibr. and stresses 2−109217
steel, C, type St.3, stress meas., combined use of longitudinal and transverse effects of magnetostriction 2−62350
steel, electric grade, isotropic with planar cubic texture, prod. by two-stage treatment, mag. charact. 2−67379
steel, high-speed, pulsed mag. fields effect on fatigue resist., magnetostrictive substruct. strengthening *(Russian)* 2−67487
steel, Si, grain oriented sheets, dynamic magnetostriction meas. 2−56902
steel, transformer, method for determ. energy of mag. anisotropy induced by coatings 2−72188
steel transformer plates, mag. props., rapid cooling effects *(Russian)* 2−104666
thin layers, magnetostrictive consts., calc. and meas, 2−82693
Ag-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Ag-rare earth ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
Ag-Tb(Dy)(Ho)(Tm), dilute alloys, magnetostriction, free energy calc., single ion Hamiltonian 2−92987
$Al_xFe_{3-x}O_4$, single and polycryst., magnetostriction meas. 2−87569
Au-Fe, spin glass alloy, vol. and shape magnetostriction 2−104674
AuTb dilute monocrysts., magnetostriction, ion-lattice coupling parameters 2−92985
AuYb dilute monocrysts., magnetostriction, ion-lattice coupling parameters 2−92985
Bi, magnetostriction in quantising mag. fields 2−116048
BiYIG, film, bubbles, mag. props. 2−72315
Co, polycrystalline film, saturation magnetostriction meas. 2−77337
Co-Fe, mag. props., review 2−82652
Co-Fe, magnetostriction meas. at high stress levels 2−82692
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
CoPt ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
Cu-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
CuAu type ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
$Dy_2(Fe_{1-x}Co_x)_{17}$, spontaneous magnetostriction 2−77356
$DyFe_{1-x}Co_xO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$DyFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
Fe, polycrystalline film, saturation magnetostriction meas. 2−77337
Fe-B-Si-C(Co), Metglas 2605, magnetostriction and mag. anisotropy, meas. using magnetisation loops under stress 2−77352
Fe-Cr-B amorphous Invar alloy, Curie temp. and high field susceptibility, press. effects 2−72322
Fe-Si (3 wt.%), grain oriented, magnetostriction meas. at high stress levels 2−82692
Fe-Si ($3^1/_4$ wt.%), grain oriented, magnetostriction effects at angles to the rolling direction 2−82691
Fe-Si ($3^1/_4$ wt.%) grain-oriented elec. steel strip, magnetostriction, stress and temp. effects meas. 2−82690
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
Fe_3O_4, magnetite, multidomain powders magnetostrictive control of coercive force 2−100374
GdFe amorphous thin films, induced anisotropy and temp. effect on domain struct. 2−104609
$Ho_{0.5}Dy_{0.5}FeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
La-Sb-Dy, dilute alloys, magnetostriction, free energy calc., single ion Hamiltonian 2−92987
$LiTmF_4$, influence of magnetostriction on NMR spectrum *(Russian)* 2−72361
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
MnAs, mag. phase transition, magnetisation, elec. resistivity, mag. field effects 2−72207
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
$Mn_{1+\delta}Sn$, spontaneous magnetostriction and Curie temp. press. depend. meas. *(Russian)* 2−116043
$NdCo_3$, thermal expansion and resist., anomalies obs. at spin-reorientation transition 2−76715
Ni, ferromagnetic, EM excitation of acoustic waves, orientational anomalies 2−86801
Ni, magnetoelastic coupling and magnetisation 2−116046
Ni, polycrystalline film, saturation magnetostriction meas. 2−77337
Ni rods under torsion, crit. stress and cryst. anisotropy effect 2−72320
Ni-Fe, mag. props., review 2−82652

magnetostriction continued
NiZn ferrite, Villari effect depend. on magnetocrystalline props. and magnetostriction 2−87567
NiZn ferrites containing Co, magnetostriction meas. 2−87568
Pd, paramagnetostriction anisotropy meas. 2−98929
Pd-Rh, paramagnetostriction anisotropy meas. 2−98929
$Sm_xDy_{1-x}Fe_2$, magnetostriction, temp. depend. meas. 2−77351
$Sm_{0.85}Tm_{2.15}Fe_5O_{12}$, epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
$TmFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$YCrO_3$, magnetoelastic props., domain struct. changes at spin reorientation transition 2−104680
YIG epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
YIG, FMR linewidth anisotropy origin, magnetostriction 2−77380
YIG:Ca(Ge)(Si) garnets, rapid diffusion processes 2−71719
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334

magnetostrictive devices
rare-earth iron square ring dipole transducer 2−109149
strain meas., magnetic tape extensometer *(French)* 2−89754
ultrasonic magnetostrictive transducers, analysis of a radial-mode vibratory system with nonlinear characteristics 2−91207
Fe-Co-Mn-V cryogenic magnetostrictive transducer 2−81200

magnetostrictive microphones *see microphones*

magnetostrictive transducers *see magnetostrictive devices; transducers*

magnetothermal effects *see magnetocaloric effects*

magnetrons
high energy neutral beam injector for fusion reactor based on magnetron 2−75094
hot cathode arc discharges initiation by electron confinement in Penning and magnetron configurations 2−91701
microprocessor-controlled magnetron reactive sputtering system for optical films 2−57289
planar magnetron characteristics at high power input rel. to film deposition 2−57291
planar magnetron high-rate sputtering techniques *(Polish)* 2−57284
planar magnetron-type RF sputtering device, high deposition rate *(Japanese)* 2−67216
reactive magnetron sputtering of TiN films, elec. resistivity, comparison with other metals 2−57293
rippled-field magnetron 2−58839
steady state magnetron H^- source for fusion reactors 2−75095
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806

magnets
see also electromagnets; permanent magnets; superconducting magnets
wiggler and undulator magnets for synchrotron radiation, overview 2−85438

magnons
see also phonon-magnon interactions; spin waves
anisotropic Heisenberg chain, solitons and spin complexes 2−72250
antiferroelectrics, exchange magnetoelectric interaction, spin wave instability *(Russian)* 2−61749
antiferromagnet, nuclear spin relax. at ultralow temps. 2−72372
antiferromagnet, uniaxial, surface mag. polaritons 2−71885
antiferromagnet, uniaxial, surface polaritons 2−104600
antiferromagnet, weak ferromag. moment stimulation by nonreson. mag. and sound pumping *(Russian)* 2−116044
antiferromagnetic insulators, impure, role of S_2-nonconserving interaction in spin dynamics 2−66794
antiferromagnets, relaxation processes, magnetoelastic waves, sound absorption meas. 2−77408
bis(methylammonium)copper tetrachloride, quasi-two-dimensional ferromag., proton spin-lattice relax. 2−61780
bis-methylammonium copper tetrachloride, spin wave instability, subthreshold parallel pumping 2−110574
Brillouin-Mandelstam scatt. from magnons, review 2−67069
ferrimagnetic semiconductors, Goldstone magnons, energy spectra and relax. coeffs. calc. 2−61702
ferromagentic semiconductors, spin wave excitation by strong static elec. field 2−61748
ferromagnet, classical one-dimens. easyplane, dynamic struct. factors, computer simulation 2−66796
ferromagnet, domain wall dynamic drag by dislocations, magnon interactions *(Russian)* 2−82637
ferromagnetic and antiferromagnetic cryst., reflectivity spectra, permeability tensor, magnons 2−77473
ferromagnetic film, Brillouin scatt. from magnons, Stokes-anti-Stokes asymm. 2−116202
ferromagnetic insulator, low-temp. magnon thermal cond. 2−66307
ferromagnetic plate, domain wall dynamic retardation by dislocations 2−92979
ferromagnetic semiconductor, elec. cond. in quantising mag. field *(Russian)* 2−104385
ferromagnetic semiconductors, electron-magnum impurity states in energetic spectrum 2−98578
ferromagnetic semiconductors, spin system cooling in high freq. EM field, electron-magnon interaction mechanism 2−56846
Heisenberg chains, ferromag., excitation spectrum 2−66741
Heisenberg ferromagnet, magnons at the Curie temperature 2−66793
Heisenberg ferromagnet, polarised neutron scatt. cross section calcs. 2−104584
Heisenberg ferromagnet, simple cubic, with uniaxial and Ising anisotropies, two-magnon bound states and resons. 2−56841
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
Heisenberg ferromagnetic chain, with easy-plane anisotropy, magnons, solitons and crit. field 2−110571
Heisenberg xxz chains, excitation spectrum, magnons 2−104568
Ising-Heisenberg ferromagnetic chain, excitation spectrum at zero field 2−82615
magnetic semiconductor, magnon instability, population and damping in presence of two rad. fields 2−66799
magnetic structures, one-magnon scattering of polarised neutrons 2−66779
magnetism theory, statics and dynamics, book 2−68978
normal metal point contacts, non-Ohm's law behaviour 2−87375
quantum XY spin chain, solitons and magnons 2−66797
rare earth metals, spin wave spectrum, effects of ribbon bridge on fermi surface *(Russian)* 2−82584

magnons continued
TMMC, one-magnon and two-magnon spectra in mag. field 2−98863
$BaMnF_4$, magnetoelectric phenomena, freq. depend. 2−66888
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
$Cd_{1-x}Mn_xTe$, semimagnetic, Raman scatt. by phonons and magnons 2−77531
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
$CoBr_2$, lattice and mag. vibr. study 2−86803
$CoCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$CoCO_3:Mn^{2+}$, interactions between magnons and impurity excitations 2−98858
CoF_2, far-IR reflectivity of optical magnons 2−98864
$CoF_2:Mn^{2+}$, interactions between magnons and impurity excitations 2−98858
$CsMg_{1-x}Co_xCl_3$, disordered ID antiferromag., Raman scatt. from Co^{2+} excitations 2−67039
$CsMnCl_3.2D_2O$, hot magnon sideband in fluorescence spectrum 2−82918
EuO(S), conduction band states, effect of electron-magnon interaction 2−66439
Fe-based metallic glasses, mag. excitations, neutron diffr. study 2−115992
Fe-Ni, ferromagnetic state, electronic struct., electron-magnon interaction effects 2−82217
$Fe_{1-x}B_x$, amorphous, spin waves, inelastic neutron scatt. study 2−72179
$FeBO_3$, parametric phonon excitation *(Russian)* 2−72328
$Fe_{1-x}Cd_xCl_2$, dilute antiferromagnet, Raman scatt. from magnons, Ising cluster model 2−61893
$FeCl_2$, ladder approximation for uniaxial metamagnets 2−66807
$FeCl_2$, spin wave interactions in antiferromag. phase 2−110572
$Fe_{1-x}Co_xCl_2$, Raman study of excitations 2−72483
$Fe_{70}Cr_{10}P_{13}C_7$, amorphous, spin waves 2−92884
FeF_2, far-IR reflectivity of optical magnons 2−98864
FeF_2, one-magnon Raman spectrum, effects of quadratic magneto-optical coupling 2−72482
$FeF_2:Mn$, localised magnon-pair modes 2−72182
$HgCr_2Se_4$, mag. semicond., elec. optical and mag. studies 2−87288
$K_2CO_{1-x}Fe_xF_4$, magnons, Raman study 2−104596
K_2CuF_4, spin wave instability, subthreshold parallel pumping 2−110574
K_3FeF_4, two-magnon Raman scatt., spin wave anal. 2−82865
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$MnCO_3$, antiferromag., nuclear spin and magnetoelastic waves, susceptibility relax. *(Russian)* 2−82583
Nb, superconductivity, paramagnon suppression, tunnelling estimates 2−61667
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
NiO mag. and lattice mechanical props. 2−92890
Pd-Co(Fe)(Ni), anomalous Hall effect, cond. tensor *(Russian)* 2−77021
Rb_2CoF_4, magnon Raman scatt., AFMR 2−72356
$Rb_2CrCl_4:Mn^{2+}$, ionic ferromag., impurity induced absorpt. bands 2−110896
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
V, superconductivity, paramagnon suppression, tunnelling estimates 2−61667
YIG, FMR linewidth anisotropy origin, magnetostriction 2−77380
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2−115989

Magnus effect *see fluid dynamics*

maintenance *see maintenance engineering*

maintenance engineering
AGR, fuel plug units, maintenance 2−108156
application of robot technology as applied to the inspection and repair of active nuclear plants 2−108064
fission reactor maintenance, electrical penetrator for biological shield 2−108067
fusion reactor maintenance, opportunistic replacement of parts 2−69901
hot experimental facility, remote maintenance requirements 2−108026
Hot Fuel Examination Facility, Ar cell, decontamination and refurbishment 2−108152
instrumentation control and maintenance *(Japanese)* 2−89699
PWR feedwater control valves, computerised acoustic monitoring 2−74892
PWR fuel assemblies, poolside reconstitution 2−102077
Ni-Cd batteries, hermetically sealed, data, maintenance and use *(Croatian)* 2−88424

Majorana forces *see nuclear forces*

majority algebra *see algebra*

Malter effect *see secondary electron emission*

man-machine systems
natural language man-machine dialogue in TULIPS-2 artificial intelligence system 2−114562
nuclear power plant control and instrumentation system reliability *(Japanese)* 2−74857
nuclear power plant operation, advanced display-control concepts 2−85173
nuclear power station man-machine interfaces *(Japanese)* 2−74858
remote visual displays for nuclear maintenance tasks, optimisation methodology 2−54535
visual scene perception in manual control 2−94052

management
see also research and development management
alpha waste management strategy within fuel cycle, incentives for integration 2−107991
Doel nuclear site waste treatment building 2−107990
hospital photographic department management 2−95502
nuclear fuel and waste management problem 2−69712
nuclear waste management policy in France 2−107989
nuclear waste related to elec. prod. unit, management cost 2−107979
photovoltaic technology transfer from terrestrial to space, governing factors 2−83495
radioactive waste management in Belgium, general perpesctives 2−107981
radioactive waste management program of the Commission of the European Communites 2−107983
radioactive waste management programs in UK 2−107982
radioactive waste management strategy, approach for development 2−107986

management continued
reactor waste, symp., Kungalv, Sweden (Sept. 1981) 2−112656
review of waste management practices at nuclear facilities pays 2−113670
Soviet energy programme for 1980s, review 2−78170

management information systems
see also database management systems
aquatic environmental database and anal. system, power station appls. 2−78276
chemical laboratory automation developments 2−79545
nuclear reactor fuel element manufacturing, computer data acquisition system 2−102093

Mandelstam representation
No entries

manganese
see also nuclei with .....
abundance in waters of Baffin Bay and Canadian Arctic Archipelago 2−83850
atom, behaviour of Raman resonance scattering across the K X-ray absorption edge 2−102423
atom, electron impact excitation 2−108719
atom, resonant photoemission 2−90489
atoms, inner-shell ionisation by ultra relativistic electron impact, density effect search 2−70426
binary phases with α-Mn cryst. struct., computer prediction 2−76366
chalcogenide glasses: Mn^{2+}, EPR study, HFS at $g \simeq 4.3$ 2−110625
determination, using coherent forward scatt. spectrometry 2−88391
determination in air (Tehran) by neutron activation anal. 2−78162
determination in steels using proton-induced prompt γ-ray emission 2−67779
energy band calcs. of magnetism 2−66749
film, elec. resist., DC elec. field effect 2−87421
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
inorganic glasses, Fe^{3+} and Mn^{2+} doped, glass transition, EPR obs. 2−92995
leukocytes:mn^{2+} suspensions, H^+ NMR relax. 2−116895
Magela Creek, N.Territory, Australia, natural trace metal concs. 2−88930
magnetic susceptibility and local moments, temp. depend. in paramag. state 2−104576
overlayer on Cu(100), LEED, AES and UPS study 2−87111
tris-sarcosine-calcium chloride: Mn^{2+}, ^1H ENDOR spectra 2−93062
vapour laser, compact 534.1 nm high pulse repetition freq., construction techniques 2−60104
AgCl:Mn^{2+}, dielec. relax., ionic thermocurrent method 2−99033
AlN:Mn, luminesc. and EPR spectra 2−57174
$BaTiO_3$:Mn^{2+}, spin-spin relax. study 2−77407
CaF_2:Mn, EPR rigid lattice dipolar broadening 2−104689
$CdSiP_2$:Mn^{2+}, ESR spectrum 2−82708
CdTe:Mn, bound exciton luminesc. spectra, giant spin splitting 2−93266
CdTe:Mn, deep impurity centre spin relax., exciton interactions 2−61760
CdTe:Mn, photo-induced spin glass 2−87513
$CoCO_3$:Mn^{2+}, interactions between magnons and impurity excitations 2−98858
CoF_2:Mn^{2+}, interactions between magnons and impurity excitations 2−98858
$CoK_2(SO_4)_2.6H_2O$:Mn, phase transition effects in EPR 2−56915
Cr, electronic structure model using mag. state and electron occupancies correl. 2−104237
Cu_2MnAl, Heusler alloy, decomp. of β-phase 2−88086
FeF_2:Mn_2 localised magnon-pair modes 2−72182
FeS_2:Mn^{2+}, ESR spectra temp. depend. 2−87584
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2−86699
GaAs:Mn, epitaxial layers, impurity redistrib., SIMS study 2−98344
GaAs:Mn_2 MBE, Mn incorporation behavior 2−104191
GaSe:Mn^{2+}-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
p-$In_xGa_{1-x}As_yP_{1-y}$:Mn epitaxial layers, doping characts., elec. and luminesc. props. 2−76866
InP:Mn, deep level photolum. study 2−104930
InP:Mn, impurity states electronic struct., ESR and optical absorpt. study 2−82285
InP:Mn, single crystal Czochralski growth and props. 2−93406
InSb:Mn, deep levels in band gap, photocond. study 2−115706
KCl:Mn^{2+}, positron annihilation, impurity induced positive ion vacancies 2−99213
K_2SO_4-$ZnSO_4$:Mn^{2+}, glass, dopant site symmetry, ESR study 2−98947
$Li_2B_4O_7$:Mn, Cu, suitability of different props. for medical dosimetry 2−100129
$Li_2B_4O_7$:Mn TLD phosphor, light conversion efficiency for α-particles rel. to ^{60}Co gamma radiation 2−75136
LiH, X-rayed at low temps., ESR studies of Mn^{2+} centre 2−98950
d-$LiIO_3$:Mn^{2+}, superhyperfine and ^7Li quadrupolar interactions, ENDOR and RF discrete saturation study 2−56535
MgO:Mn_5 colour centres induced by neutron irrad. 2−98081
MgO:Mn^{2+}, polycryst., EPR central transition lines, deformation broadening obs. *(Russian)* 2−116058
Mn complex, Mn[bromotriphenylphosphoric oxide], photo-, mechano- and electroluminescence 2−93294
Mn II, interstellar lines, UV oscillator strengths and abundances 2−112522
Mn II line transition probabilities, 237 to 357 nm, arc emission meas. 2−80524
Mn^{2+} in aq. soln., thermal electron transfer correl., photoelectron emission 2−70408
Mn^{2+} spin-Hamiltonian param. anal. in alkali chlorides 2−87196
Mn-activation detector calibration for intense pulsed energetic neutron sources 2−102355
Mn^{2+}-citric acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mn^{2+}-malic acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
$Mn^+ + O_2(N_2O)$ andothermic reaction, translational energy depend. of cross sections 2−62389
Mn_5 high-spin molecule, S=25/2, ESR study 2−85701
NaCl:Ca (Sr)(Mn)(Pb)(Cd), mech. strengthening and impurity precip. 2−88093

manganese continued
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaCl:Pb, Mn, excitation and emission spectra 2−104952
NaN_3:Mn^{2+}, EPR study of cation vacancy-Mn^{2+} pairs 2−61752
PbF_2:Mn, EPR rigid lattice dipolar broadening 2−104689
$Pb_5Ge_3O_{11}$:Mn^{2+}, ESR spectra, hyperfine interactions 2−87585
$PbTiO_3$:Mn ceramics, Mn doping effect on dielec. and ferroelec. props. *(Chinese)* 2−72431
Rb_2CrCl_4:Mn^{2+}, ionic ferromag., impurity induced absorpt. bands 2−110896
Rb_2ZnCl_4:Mn^{2+}, slow soliton motion inferred from EPR meas. at $T=T_c+\varepsilon$ 2−72337
Si:Mn, B, $Mn^{2+}B^-$ pairs, EPR study 2−110628
Si:Mn, deep levels under hydrostatic press., isothermal capacitance study 2−66477
Si:Mn, Zn, donor-acceptor complexes, DLTS and TSC meas. *(German)* 2−98579
α-Si:Mn^+, doping by ion implantation, dark cond. meas. 2−98128
p-Si:$Mn^+Al^-(B^-)$, DTA and electron beam anal., doping effects *(German)* 2−92010
SrO-Li_2O_5-P_2O_5:Mn, Ce, luminesc. system, whitlockite phase struct. 2−98015
$Zn(ClO_4)_2.6H_2O$:Mn^{2+}, EPR study of phase transition 2−81946
$ZnGeP_2$:Mn^{2+}, ESR spectrum 2−82708
ZnS:Mg AC thin film electroluminescent devices, luminescence-voltage characts. 2−104967
ZnS:Mn, Cu, Cl DC electrolum. films, field enhanced changes in comp. and struct. 2−116263
ZnS:Mn, pulse excited, afterglow of Mn centres 2−110924
ZnS:Mn, RF sputtered thin film, electroluminescence *(Japanese)* 2−61979
ZnS:Mn,Cu,Cl, amorphous and cryst. electrolum. film, elec. cond. props. meas. 2−87429
ZnS:Mn AC electrolum. thin film device, Mn^{2+} emission saturation 2−116265
ZnS:Mn AC thin film electrolum. devices, UV irrad., current and light generation 2−116266
ZnS:Mn electrolum. films grown by at. layer epitaxy, ageing process 2−116264
ZnS:Mn electroluminesc. material, image storage tube appls. *(Czech)* 2−82826
ZnS:Mn film, sputter deposit, luminesc. and struct. props. variation with annealing 2−93287
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956
ZnS:Mn thin films, physical and elec. characts. 2−61622
ZnS:Mn-Cu_xS p-n heterojunction DC electroluminesc. struct, degradation theory based on donor diffusion 2−57186
ZnS:Mn^{2+}, EPR spectrum, axial field parameter 2−66905
ZnS:Mn^{2+}, hexagonal and cubic, Zeeman effects on ^4E-levels 2−115720
ZnS:Mn^{2+} and ZnCdS:Mn^{2+}, electrolum. and photolum. props. 2−57184
ZnS(Se):Mn, epitaxial layers grown organometallic CVD 2−116378
ZnSe:Mn^{2+}, Zeeman splitting of $^4T_1$, $^4T_2$, and ^4E states, luminesc. study 2−57063

manganese alloys
see also Elinvar; Invar; manganese compounds
binary alloys, liq. and solid., enthalpies of formation 2−61175
Heusler alloys, X_2MnY (X=Ni, Cu, Pd; Y=Al, Sn), Stoner and spin wave excitation spectra, OPW calcs. 2−115990
MANGALIOY, elinvar type alloys, nonferromag., characts. *(Japanese)* 2−77881
metallic glasses, $(A_xB_{1-x})_{75}P_{16}B_6Al_3$, A and B=Fe, Co, Ni, Mn or Cr, mag. phase diagrams 2−92931
optimum heat treatment selection 2−105200
Permalloy-FeMn system, uniaxial anisotropy temp. depend. 2−72192
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
steel, austenitic, high Mn content plate for fusion reactor construction 2−69835
AG-Mn, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Ag-Mn, dil., spin glass, temp. depend. of order parameter 2−72214
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Ag-Mn, spin glass, equilib. magnetisation meas., comparison with mean field theory 2−66843
Ag-Mn, spin glass, muon spin relax. studies 2−72395
Ag-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Ag-Mn (10.6 at.%), spin glass, mean field description, comparison of theory and expt. 2−72213
Ag-Mn spin glass, freq. and field depend. of AC susceptibility 2−61721
Ag-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Ag-Mn spin glasses, H-T phase diagram 2−98895
Ag-Mn spin glasses, time and field depend. of magnetisation 2−72216
Al-Cu, Mn, Ti, Cd and Zr impurities effect on ageing, electron microscopy study *(Russian)* 2−93539
Al-Cu-Mg (1.3, 1.3 at.%), high temp. ageing, coherence loss, electron microscopy study *(Russian)* 2−93540
Al-Cu-Mg-Mn-Si-Fe sheet, fracture toughness and crit. crack length, inhibiting layer effect 2−72826
Al-Li-Mn(Zr)(Mg)(Cu), corrosion behaviour, correl. with microstruct. 2−88253
Al-Mg-Mn-Zr-Ca-Ti, chem. comp. optimisation rel. to fracture toughness, Mn, Zr, Cr and Ti additions effect 2−77945
Al-Mn, Mn effect on corrosion behaviour, metallographic study 2−62256
Al-Mn, muon diffusion and trapping 2−110049
Al-Mn, muon localisation, impurity trapping effects 2−72396
Al-Mn, peritectic reactions and transforms, mechanisms 2−83087
Al-Mn, unhomogenized, recrystn. 2−83138
Al-Mn (1 wt.%) alloy, texture development during continuous grain growth 2−105186
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
Al-Mn (1.2 wt.%), rapid solidification with pulsed laser, microstructural and surface modification 2−67323
Al-Mn (1.5×10^{-2} at.%), thermal quenching, positron anihilation study 2−104994
Al-Mn extended solid soln., as-quenched, conc. depend. of hardness and lattice parameter 2−116518
Al-Mn solid soln., precip. and recrystn., internal friction obs., fine-grained struct. *(French)* 2−77842

manganese alloys continued
Au-Mn, structure, high resolution electron microscope and electron diffr. study of Au_3Mn phase 2−86627
Au-Mn alloys, thermodynamic anal. 2−99402
Au-Mn spin glass, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
Au-Mn system, periodic antiphase boundary structs. derived from DO_{22} struct. 2−81716
Au-Mn system, two-dimensional antiphase struct., high voltage-high resolution electron microscopy 2−81970
$(Au_{1-x}Cu_x)$ Mn spin glass alloys, low-field magnetoresist. 2−82323
Au_2Mn, micro-texture study 2−61265
$Au_{22}Mn_6$, antiphase struct., one-dimensional, high-voltage high-resolution electron microscopy study 2−60923
$Au_{35}Mn_{13}$, superstructure, diffr. studies 2−86628
Au_4Mn disordered alloy, short-range order and ferromag. props., X-ray diffr. study 2−97990
Au_4Mn, random alloy, magnetisation calc. using short range order 2−116035
B fibre reinforced Al-Cu-Mg-Mn, hot pressing, reaction between fibres and matrix 2−83068
CdMn, hexagonal, spin glass behaviour 2−66861
$Ce_{1-x}La_xMn_2Si_2$, mag. props. and struct. 2−87499
$Ce(Mn,Ni)_{11}$, cyclic intergrowth and crystal structures 2−65975
$(Cn_{1-x}Co_x)_2MnSn$ Heusler alloy, mag. transition 2−72203
Co-Cu-Mn, computer calc. of phase diagrams *(Japanese)* 2−105121
Co-Mn, computer calc. of phase diagram *(Japanese)* 2−105120
Co-Mn, mag. moment distrib. study 2−82566
Co-Mn (0-35 wt.%) alloys, oxidation at high temps. 2−72884
Co-Mn system, phase equilibrium for activity determ. 2−83096
Co-Mn-B, amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co_2MnSn, Heusler alloys, band struct., SAPW calc. 2−82215
$Co_2Mn_{1-x}Ti_xSn$ Heusler system, mag. and chem. ordering 2−93073
$Co_xNi_{1-x}MnGe$, cryst. and mag. struct. 2−104581
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
Cr-Mn, spin density wave states, tight-binding approx. 2−66751
Cr-Mn single crystals, first order incommensurate-commensurate transform. 2−92175
Cu-Al-Mn alloys, influence of Mn on phase shifts *(French)* 2−99543
Cu-Mn, dil., mag. impurity system, spin-resolved scatt., de Haas-van Alphen study 2−82563
Cu-Mn, manganin, elec. resist. meas. to 100 kbar, press. gauge appl. 2−89735
Cu-Mn, solid soln. hardened, crit. resolved shear stress, low temp. anomaly 2−93523
cu-Mn, spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
Cu-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Cu-Mn, spin glass state form. investig. *(Russian)* 2−56875
Cu-Mn (10 at.%), spin glass, lattice location of Mn 2−71489
Cu-Mn spin glass, elec resist., Hall effect, mag. susceptibility, and EPR meas. *(Russian)* 2−82602
Cu-Mn spin glass, LF ESR, lineshape and temp. depend. 2−104692
Cu-Mn spin glass, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
Cu-Mn spin glass, magnetocaloric study of (H, T) phase diagram 2−56869
Cu-Mn spin glass, remanent magnetisation reversal, mag. domain walls obs. 2−98893
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
Cu-Mn spin glasses, cooperative phenomena at low temps. 2−92956
Cu-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Cu-Mn spin glasses, spin struct., neutron polarisation anal. 2−110593
Cu-Mn-Al, exchange anisotropy, hysteresis loops and coercive force study 2−66866
Cu-Mn-Al alloy, influence of static tension on vibration damping behaviour *(Japanese)* 2−97416
Cu-Mn(-Au) spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Mn-Fe (45.19, 0.95, 1.40 wt.%) constantan wire, elec. resist., press. effect *(Japanese)* 2−98623
$Cu_{2.8}AlMn_{0.2}$, solid soln. containing disperse ferromag. Cu_2MnAl inclusions, martensitic transition obs. *(Russian)* 2−98915
CuMn dilute mag. alloys, g-factor, mag. field splitting of microcontact spectrum *(Russian)* 2−98527
CuMn spin glass, magnetisation, calorimetric determ. rel. to Maxwell relation 2−92926
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92927
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92928
Cu_2MnAl, Heusler alloy, elec. and mag. props. 2−110326
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
CuMnSb, elec. cond. meas. 2−104348
$DyMn_2$, mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
$ErMn_2$, mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
$Er(Mn_{1-x}Cu_x)_2$ quasibinary system, HCP struct., stability, Cu effects investig. 2−115179
Fe-Co-Mn-V cryogenic magnetostrictive transducer 2−81200
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-Mn, amorphous, ferromagnet-spin glass transition, ESR linewidth meas. 2−77305
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
Fe-Mn, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Fe-Mn, electron struct. and mag. state, CPA calc. *(Russian)* 2−87135
Fe-Mn, $\epsilon \rightarrow \alpha + \beta$ transform. on heating 2−105142
Fe-Mn, liq., activity coeff. of Mn, meas. by isobaric method *(Japanese)* 2−83084
Fe-Mn, microstruct. and phase transform. mechanism, lenticular struct. origin 2−99424
Fe-Mn, shape memory and plasticity transform., superelasticity *(Russian)* 2−67332
Fe-Mn alloys, $\gamma \rightarrow \alpha$ polymorphic transition and α-phase struct. *(Russian)* 2−103684
Fe-Mn electron irrad., rad. induced segregation at internal sinks 2−86731
manganese alloys continued
Fe-Mn ferromagnetic solid soln., electron density perturbation, residual resistivity 2−77019
Fe-Mn solid solns., vol. effects in thermodynamics at high temps. 2−61172
Fe-Mn-Al-C, nonequilib. ordered austenite wire fabrication by in-rotating-water spinning method, mech. props. 2−93532
Fe-Mn-Cr-Mo-C-P, metallography rel. to sintering 2−116665
Fe-Mn-Cr-Ni systems, alloy comp. effects on lattice parameters regarding γ, ε and α phases *(German)* 2−88058
Fe-Mn-Ni alloys, influence of comp. and plastic deform. on paramag. phase content 2−83246
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Mn-Si, shape memory effect in $\gamma \rightleftharpoons \epsilon$ martensitic transform. 2−83114
Fe-Mn-Si (30, 1 wt.%), single crysts., hardening due to pre-existing ϵ-martensite 2−116493
Fe-Sb-Mn, dil., impurity pair interactions, resist. and NMR meas. 2−82317
Fe-Ti(Cr)(Mn)(Ni)(Rh)(W), in contact with SiC single cryst., adhesion, friction and wear 2−88199
Fe-V-Si-Mn-C, internal friction meas. *(Russian)* 2−88115
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, irreversible response study 2−104594
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe(Mn_xPt_{1-x})_3$, antiferromag. structure, neutron diffr. study *(Russian)* 2−87477
$Fe_{0.968-x}Mn_xSi_{0.032}$ system, Mossbauer and mag. studies 2−82761
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
$Fe_{65}(Ni_{0.74}Mn_{0.26})_{35}$, effect of external field on spin glass behaviour 2−61716
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, mag. props. meas. 2−92880
Gd-Mn, charge transfer and isomer shift, ^{155}Gd Mossbauer spectra 2−104777
$Gd_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
$Gd_2(Co_{1-x}Mn_x)_{17}$, NMR spin echo study 2−93060
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
$HoMn_2$, cubic and hexagonal, site magnetisation, neutron diffr. study 2−72145
In-Mn, ion beam induced precipitate dissolution, characterisation by supercond. transition temp. meas. 2−86740
In-Mn alloys, dil., supercond., T_c depression produced by ion implantation 2−77221
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
Mg-Mn, dilute, cryst. field effect on magnetisation 2−82660
$Mg_{1-x}Fe_x$, amorphous, Mossbauer effect and mag. props. 2−66965
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
MgMn, hexagonal, spin glass behaviour 2−66861
Mn-Bi, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
Mn-Bi amorphous films, crystn. 2−98480
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
r-Mn-Cu(Fe), single-domain antiferromagnet, mag. struct. study 2−87478
Mn-Ni alloy, FCC, martensitic transform. 2−105144
Mn-Ni(Co) layered mag. thin films, magnetisation and struct. 2−72302
Mn-Si (25 to 37.5 at.% Si), phase comp. and thermodynamic props. 2−83094
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
Mn-Zn ferrous ferrites, raw material and process condition effects on props. 2−83059
$Mn_{1.11}Al_{0.89}$ metastable alloy, mag. and struct. props., X-ray and neutron diffr. and DSC meas. 2−72163
$Mn_{54}Al_{43}C$, magnetic viscosity 2−72291
MnBi thin films, polycryst., with perpendicular anisotropy, domain wall coercivity 2−72310
$Mn_{1-x}Cr_x(Fe_xB)$, Invar like props. 2−72174
$Mn_{1-x}Cr_xSb$, mag. phase diagram and struct. 2−104612
MnCu, spin glass, nonlinear susceptibility 2−72215
γ-$Mn_{82}Cu_{18}$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
$(Mn_{1-x}Fe_x)_{0.95}Cu_{0.05}$, γ-phase, damping capacity and Young's modulus 2−57394
γ-$Mn_{87}Fe_{10}Cu_3$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
ζ-$Mn_{2.4}Ge$, mag. phase transitions, magnetisation and entropy study 2−98876
Mn_3Ge, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
$Mn_{1-x}Ni_x$, γ-phase, damping capacity and Young's modulus 2−57394
$MnSi_{0.25}$ quenched alloy, cryst. struct., cyclic fourling method, electron diffr. and TEM study 2−91880
$Mn_{1+\delta}Sn$, spontaneous magnetostriction and Curie temp. press. depend. meas. *(Russian)* 2−116043
Mn_3Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study 2−110568
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
Mn_3Sn, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
^{52}Mn in Fe, Co and Ni, NMR ON study 2−98971
Ni-Al-Mn $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-Mn, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-Mn, spin glass alloy, effective anisotropy field, EPR study 2−72333
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
Ni-Mn (9 at.%), refractive index, UV study, temp. effect 2−67014
Ni-Mn liquid alloy, Mn activity 2−83089
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
$Ni_3(Mn,Ti)$ alloys, electronic characts., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447

manganese alloys continued
$Ni_{0.86}Mn_{0.14}$, optical cond. meas. 1 to 4.9 eV, rel. to electron struct. *(Russian)* 2−99147
Ni_3Mn, optical consts., 0.25 to 17 μm, alloy ordering effects *(Russian)* 2−87728
Ni_3Mn, ordered alloys, fundamentals mechanisms of neutron damage 2−103830
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2−92938
Pb-Mn alloy, supercond., with localised excited states in energy gap, strong coupling theory 2−104543
Pd-Mn, ferromagnetic-spin glass transition, elec. resist. study *(Russian)* 2−82601
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
Pd-Mn, Pd based solid soln., diffusivity of H meas. 2−104058
Pd-Mn-H soln., dil., thermodynamic props. 2−56195
$(Pd_{0.9966}Fe_{0.0034})_{0.95}Mn_{0.05}$, nonlinear mag. susceptibility and sp. ht. meas. 2−87480
Pd_3Mn ordered alloy, coincidence patterns, high resolution electron microscopy study 2−86528
$Pd_2MnIn(Sn)$, Heusler alloy, elec. and mag. props. 2−110326
Pd_2MnSn, elec. and mag. props. 2−66522
$Pd_2MnSn_xIn_{1-x}$, ferromag. to antiferromag. transition, NMR study 2−104613
Pt-Mn, Kondo system, nucl. spin relax. of host metal, field depend. 2−116083
Pt-Mn, spin glass, sp. ht. meas., 0.5 to 20K 2−98887
Si-Mn, supersaturated solid soln., Mn interstitials, disintegration kinetics *(Russian)* 2−92222
$Sm_2(Co,Mn)_{17}$, domain struct. parameters 2−72252
$Sm_2(Co_{1-x}Mn_x)_{17}$, struct. and mag. props. 2−72280
Sr_6Mg_{38}, cryst. struct. determ. 2−91869
$TbMn_2$, mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
$Th_{6-x}Y_xMn_{23}$, mag. and crystallographic characts. 2−56854
α/β-Ti Mn alloys, low cycle fatigue life 2−105319
Ti-Al-Mn, salt corrosion tendency, alloying influence 2−88287
Ti-Mn, anomalous solid soln. struct. *(Russian)* 2−97994
α-β Ti-Mn, fatigue crack propag., plastic zone sizes and strain partitioning 2−72835
α-β Ti-Mn, near threshold retardation of fatigue crack propag., oxide growth effect 2−72836
Ti-Mn (5 wt.%), martensitic interface, martensite, TEM lattice fringe imaging 2−57353
Ti-Mn (6.5 wt.%), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
α-B-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77884
α-β-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77885
$U(Fe_{1-x}Mn_x)_2$, effective Curie-Weiss const., susceptibility and magnetisation meas. 2−72165
UMnAl, absorption of H_2, thermodynamic and struct. study 2−56196
$Y(Co,Mn)_5$, metastable character, decomposition behaviour, precipitation 2−67342
$Y(Co_{1-x}Mn_x)_5$, struct. and mag. props. 2−91874
$Y_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
$Y_2(Co_{1-x}Mn_x)_{17}$, NMR spin echo study 2−93060
$Y_2(Co_{1-x}Mn_x)_{17}$, Y transferred hyperfine fields, NMR study 2−66951
YMn_2, first-order struct. phase transition, lattice parameter study *(Russian)* 2−103974
$YMn_{2-2c}Co_{2c}$, mag. order occurrence, comp. depend. 2−82646
Zn-Mn, dilute, cryst. field effect on magnetisation 2−82660
ZnMn, dilute mag. alloy, spin glass behaviour 2−92937
ZnMn, hexagonal, spin glass behaviour 2−66861
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2−98853

manganese compounds
see also manganese alloys
complex, $[MnF_6]^{4-}$, superhyperfine interactions, Hartree-Fock-Roothaan calc. 2−87210
discharge charact., Li/MnO_2 cells, at low temp. 2−116790
γ-Fe_2O_3-Mn_2O_3, thin epitaxial film, resonance meas. of mag. moment 2−72295
formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
hydride system for electric power storage *(German)* 2−62508
Mn complex, $Mn_{0.81}[Pt(Co_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
$MnCl_2$:Co^{2+}, IR absorpt. spectra 2−110897
oxides, interatomic Auger transitions, rel. to metal oxidation 2−82965
rare earth compounds, $RMn_2Si_2(Ge_2)$, NMR studies in ferromag. state 2−82730
TMMC:Cu, heavily doped, ESR study 2−72334
TMMC:Cu, high temp. dynamics, effect of impurities, EPR study 2−98944
TMMC, sp. ht. contrib. from mag. solitons 2−72234
transition metal complexes, M(hexamethylenetetramine)SO_4, struct., mag. moments, IR study 2−77517
X-ray K absorption spectrum, chemical effects on main peak 2−57211
BaF_2-MnF_2-GaF_3, ternary system, identification of 4 new structural types *(French)* 2−55948
BaF_2-MnF_2-RF_3 (R=Dy, Ho, Er, Tm, Yb, Lu, Y), glass form., quenching, IR study *(French)* 2−91808
$BaMnF_4$, incommensurate transition, phason light scatt. 2−76660
$BaMnF_4$, magnetoelectric phenomena, freq. depend. 2−66888
$BaMnF_4$, phase transitions, specific heat 2−76661
CaO-SiO_2-MnO melt, viscosity and IR spectra obs. 2−61184
$(Cd_{1-x}Mn_x)_3As_2$, Landau levels, cyclotron effective mass and effective g-factor 2−110269
$(Cd_{1-x}Mn_x)_3As_2$, Shubnikov-de Haas effects 2−98677
$Cd_{1-x}Mn_xSe$, electric-dipole spin reson. of bound electronic states 2−110820
$Cd_{1-x}Mn_xSe$, exciton and phonon spectra, photoluminesc. and Raman scatt. study 2−110942
$Cd_{1-x}Mn_xSe$, stimulated spin-flip Raman scatt., laser emission obs. 2−114287
$Cd_{1-x}Mn_xTe$, 'antiferromag. phase', neutron scatt. studies 2−92868
$Cd_{1-x}Mn_xTe$, absorpt. edge temp. depend. 2−61903

manganese compounds continued
$Cd_{1-x}Mn_xTe$, absorption edge pinning, transmission and piezotransmission meas. 2−72443
$Cd_{1-x}Mn_xTe$, exciton luminescence spin splitting *(Russian)* 2−61976
$Cd_{1-x}Mn_xTe$, semimag. semicond., photoluminescence band excitation spectra 2−82898
$Cd_{1-x}Mn_xTe$, semimagnetic, Raman scatt. by phonons and magnons 2−77531
$Cd_{1-x}Mn_xTe$, simple excitons in intermediate mag. held, energy levels calc. 2−61365
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Cd_{1-x}Mn_xTe$, spin-flip Raman scatt. 2−110870
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
$Co_{1-c}Mn_cF_2$, mag. excitation spectrum rearrangement *(Russian)* 2−61772
$Co_xMn_{3-x-y}Fe_yO_4$, hyperfine interactions, Mossbauer study 2−72393
CrB-MnB system, phase diagram, 600 to 2400°C 2−62106
$Cr(CO)_6$:$Mn(CO)_4NO$, gamma-irrad., anisotropic EPR spectrum 2−82717
$CsMnCl_3.2D_2O$, hot magnon sideband in fluorescence spectrum 2−82918
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874
$CsMnF_3$, pure, exciton dynamics and energy transfer, fluorescence meas. 2−99171
$CsMnF_3$, spin wave interaction with nuclear spin subsystem *(Russian)* 2−61703
$CsMnFeF_6$, highly frustrated, very low field susceptibility 2−87482
$Cu_{1-x}Mn_xFe_2O_4$, spin struct. and hyperfine fields, Mossbauer study 2−66959
$(Fe,Mn)_3(PO_4)_2$ graftonite-type solid solns., cation distrib. 2−115186
$(Fe_{1-x}Mn_x)_2P$, mag. props. 2−61697
Fe_2O_3-MgO-MnO-CoO (41, 3, 1 mol.%) ferrite film, thermal and thermomag. treatment 2−72294
$FeSiO_3$-$MnSiO_3$, metasilicate glass, crystn. high-resolution EM 2−97936
$Ga_{1-x}Mn_xSb$ solid solns., carrier scatt. mechanisms 2−56571
GdMnSi, synthesis, mag. props. and struct., X-ray and mag. tortion balance anal. 2−72176
Ge-In(Mn)-Te, X-ray investigation of GeTe-based solid solutions 2−109756
$Ge_{1-x}Mn_xTe$, solid solutions, thermoelectric props. 2−98680
$Hg_{1-x-y}Cd_xMn_yTe$, semimag. semicond., magneto-optical studies 2−99097
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xSe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
n-HgMnTe, optical determ. of exchange interaction 2−104605
$Hg_{1-x}Mn_xTe$, indirect exchange interaction, perturbation theory calc. 2−82587
$Hg_{1-x}Mn_xTe$, longitudinal electron thermoelec. power in quantising mag. fields 2−72013
$Hg_{1-x}Mn_xTe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xTe$, optical absorpt. 2−77549
$Hg_{1-x}Mn_xTe$, spin glass transition and Hall coeff. anomalous temp. depend. *(Russian)* 2−82610
$KClO_4$:MnO_4^-, reson. Raman profile line shapes from optical absorpt. data 2−93233
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$KMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2−103710
$KMnF_3$, struct. phase transition, precursor effect in lattice const., single-wall pot. model 2−92185
$K_{0.01}Na_{0.03}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
$LaNi_{0.5}Mn_{0.5}O_3$, magnetic props., review *(Japanese)* 2−66870
Li/MnO_2 batteries, structure, features and future prospects 2−83466
$Mg_{0.04}Fe_{2.96}O_4$, cryst. struct. determ., cryst. defects 2−91888
MgMn ferrite magnetization, electron beam interaction 2−66868
$Mg_{1-x}Mn_xFe_2O_4$ ferrites, elect. resistivity and cation distrib. 2−110343
$Mg_xMn_{2.9}Fe_{0.1}O_4$, Mossbauer study 2−104782
$Mg_{1-x}Mn_xFe_2O$$4 ferrite, abrupt behaviour of dielec. const. and loss tangent 2−66970
$MgSiO_3$-$MnSiO_3$, metasilicate glass, crystn. high-resolution EM 2−97936
$(Mn,Fe)_8Si_6O_{15}(OH,Cl)_{10}$, mcGillite, one-layer monoclinic struct., electron microscopy and electron ciffr. 2−115181
$(Mn,Fe)_8Si_6O_{15}(OH,Cl)_{10}$, mcGillite, polytypism and disorder, electron microscopy study 2−115182
Mn complex, $Mn(CH_2NO)_6^{2-}$, isotope effects, struct., IR obs. 2−75269
Mn dry batteries, Japanese development history *(Japanese)* 2−73094
Mn ferrite crystal, Young's modulus and internal stresses, mag. field effects 2−56909
Mn II complex, Mn(4-cyanopyridine N-oxide)$_2$ $(NCS)_2$, struct., vibr., mag. moments, IR study 2−77518
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435
Mn-Zn ferrite synthesis from Na_2O-B_2O_3 flux under CO-CO_2 ambients 2−72612
Mn-Zn spinel ferrites, prep. by wet chemical method, Mossbauer study 2−56990
MnAs, mag. phase transition, magnetisation, elec. resistivity, mag. field effects 2−72207
MnAs, phase transitions with interactive order parameters *(Russian)* 2−61709
$MnAs_{0.9}P_{0.1}$, mag. susceptibility meas., appl. of high press. generation method *(Japanese)* 2−89736
$MnAs_{1-x}P_x$ crystals, high spin-low spin mixture, charge carrier scatt. 2−115835
MnB-FeB system, phase diagram, 600 to 2400°C 2−62106
$MnBr_2$, Mn^{2+} 3d shells, effective occupation number calc. 2−92503
$MnBr_2.4H_2O$, heat capacity near Neel temp. 2−72229
$Mn(CN)_6^{4-}$, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$MnCO_3$, antiferromag., nuclear spin and magnetoelastic waves, susceptibility relax. *(Russian)* 2−82583
$MnCO_3$, weak ferromag. moment stimulation by nonreson. mag. and sound pumping *(Russian)* 2−116044
$Mn(CO)_5$, radical, CO matrix isolated, IR and visible obs. 2−80600
$Mn_2(CO)_{10}$, cryst. struct., bonding, charge density 2−55901

manganese compounds continued
$Mn_2(CO)_{10}$, high press. phase transitions, Raman study 2−76650
p-$Mn_xCd_{1-x}Te$ crystal, elec. cond., Hall effect and photocond. meas. 2−87263
$MnCl_2$, antiferromag. reson. obs. 2−104708
$MnCl_2$, high symm. layer cryst., interlayer force constants, linear chain model 2−71390
$MnCl_2$, Mn^{2+} 3d shells, effective occupation number calc. 2−92503
$MnCl_2$-graphite intercalation cpd., charge transfer and islands, X-ray diffr. study 2−91932
$Mn_3Cr_2Ge_3O_{12}$ garnets, mag. phase diagram *(Russian)* 2−56861
MnF_2, intermediate state antiferromagnetic resonance *(Russian)* 2−87599
MnF_2, Mn^{2+} 3d shells, effective occupation number calc. 2−92503
MnF_2, muon rotation study of critical relax. 2−110740
MnF_2, pressure-induced phase transition sequence 2−66208
MnF_2:Er^{3+}(Ni^{2+}), optical props. of impurity ions 2−93276
$Mn_{0.99}Fe_{0.01}As$ alloy, mag. ordered phase stability, mag. field effect *(Ukrainian)* 2−61708
$MnFe_2O_4$, bonding, EXAFS study 2−99226
$MnFe_2O_4$, IR transmission and reflection spectra 2−57074
$Mn_xFe_{3-x}O_4$ ferrite thin films, spin wave resonance 2−110647
$Mn_{0.23}Ga_{1.85}S_3$, cryst. struct., least squares method *(French)* 2−65963
$MnH_3P_3O_6.2H_2O$, cryst. struct. determ. 2−91881
$(Mn_{1-x}M_x)_3(PO_4)_2$ (M=Fe, Mg, Co, Ni, Cu, Zn, Ca), cryst. struct. and homogeneity ranges, X-ray diffr. study 2−115195
$MnNi_2O_4$, struct., elec. cond. and X-ray spectra 2−65954
MnO, critical dynamics near Curie temp., US attenuation study 2−98928
MnO, lattice dynamics, three-body force shell and deform. dipole model effects 2−56114
MnO, mag. susceptibility and elastic consts., distance depend. exchange interaction effects 2−115995
MnO-Al_2O_3 system, growth by Verneuil method, phase composition 2−105062
MnO-Al_2O_3-SiO_2 glass, high temp. susceptibility and paramag. Curie temp. study 2−72168
MnO-MnS, reactions and sintering, struct. props. variation 2−88015
MnO-NiO, anal. phase diagram calculation from expt. activity data 2−99408
MnO-SiO_2-Al_2O_3 melt, viscosity and IR spectra obs. 2−61184
MnO_2 alkaline batteries, struct. and charact. *(Japanese)* 2−73095
MnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
MnO_2, struct.-activity relationships rel. to cell performance 2−109753
MnO_4^- in RbBr matrix, reson. Raman spectra of vibr. 2−85670
MnO_4^- ion, ^{18}O enriched, in RbBr matrix, reson. Raman spectrum 2−116183
MnO_4^{3-}, force consts., modified valence force field calcs. 2−116196
MnP, evidence for Lifshitz point in mag. phase diagram 2−66814
MnP, mag. phase diagram, field parallel to hard direction 2−77297
MnP, spiral phase, neutron polarisation anal. 2−72149
$MnPS_3$-$Na^+(K^+)(Rb^+)(Cs^+)$ intercalated, IR and Raman vibr. study 2−87769
$MnPS_3(Se_3)$, layer cpds., mag interactions 2−61699
$MnRe(CO)_{10}$, high press. phase transitions, Raman study 2−76650
α-MnS, linear optical anisotropy and domain struct. at two successive antiferromag. transitions 2−56856
$MnSO_4$ solution, aq., X-ray diffr. study 2−91755
$MnSO_4.5H_2O$, X-ray diffr. study 2−91755
MnSb, thermal and elec. props. 2−104087
MnSi, extreme UV valence band photoemission 2−111022
MnSi, itinerant electron systems with local mag. moments, paramag. state, static props. 2−98837
MnSi, itinerant electron helicoidal mag., magnetisation and magnetoresistance 2−110605
MnSi, magnetisation and magnetoresistance 2−110606
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
$MnSiO_3$-$MnGeO_3$ system, phase diagram 2−72683
$nMn_2SiO_4.MnF_2$ (1<n<4), unit-cell consts., X-ray powder diffr. data 2−115194
$Mn_{1/4}TaS_2$, X-ray core level photoemission, charge transfer effects 2−111023
MnTe, antiferromag. semicond., Mossbauer and X-ray study 2−61795
$MnWO_4$, elec. cond. and thermoelec. power, 300 to 1200K 2−87268
MnZn ferrite, monocrystalline 2−87530
MnZn ferrite, temp. and time stability 2−82694
MnZn ferrites, humidity and resistivity 2−87276
MnZn ferrites, hydrostatic press. effect on both sides of thermal spectra secondary peak 2−87570
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
$Mn_{0.957}Zn_{0.043}F_2$, mag. phase diagram meas., random fields effects 2−72196
$Mn_{1-x}Zn_xF_2$, heat capacity meas. for x<0.1 2−72210
$Mn_xZn_{1-x}F_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
$Mn_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
$Mn_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
$Mn_{1-x}Zn_xFe_2O_4$ ferrite, exchange interactions and canted-collinear struct. transition temp. calc. 2−110575
$Mn_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
$Mn_xZn_{1-x}Te$, disordered, mag-correlations, neutron diffr. study 2−66758
$Mn_2ZrF_8.6H_2O$, cryst. struct. determ. 2−86647
$NiMnCrO_4$ spinel valence struct., X-ray spectroscopic determ. 2−115652
$Ni_xMn_{3-x-y}Fe_yO_4$, hyperfine interactions, Mossbauer study 2−72393
$NiO-Mn_2O_3$, CuO doped, NTC thermistor material, CuO impurity influence on elec. props. 2−66545
P_2O_5-MnO_2 glass, antiferromagnetism, mag. susceptibility, Neel temp. 2−72173
PbF_2-GaF_3-MnF_2:Er^{3+}, fluoride glasses, optical transition probabilities, Judd-Ofelt method 2−61960
$Pb_{1-x}Mn_xS$ solid solns., energy band gap temp. and composition depend., photovoltaic effect meas. 2−110450
$Pb_{1-x}Mn_xTe$, influence of In and Ga on kinetic props. 2−87261
$Pb_{1-x}Mn_xTe$, quantum transport and mag. energy levels, Shubnikov-de Haas oscills. 2−98676
$Pb(Zr_xTi_{1-x})O_3+yMnO_2$ solid solution, piezoelectric props. 2−87684
$(Pd_{1-x}Mn_x)H$, mag. and supercond. ordering 2−98845
$Rb_2Cr_{1-x}Mn_xCl_4$, mag. props. study 2−87505
manganese compounds continued
T-RbMnBr$_3$, cryst. struct. determ. *(German)* 2−76369
$Rb_2Mn_{1-x}Cr_xCl_4$ spin glass, thermoremanent magnetisation 2−110607
$Sn_{1-x}Mn_xTe$, low field AC mag. susceptibility 2−92874
ThF_4−BaF_2−MnF_2, spin glasses, AC susceptibility, local anisotropy 2−92876
$TiMnSi_2$, orthorhombic type cryst. struct., X-ray diffr. anal. 2−103696
$Tl_2MnAs_2S_5$, synthetic, cryst. struct. determ. 2−65973
$TlMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2−103710
ZnO-Bi_2O_3-CoO-MnO-Sb_2O_3, ceramic, influence of comp. on dielectric losses 2−87660
$Zr(Ca, Mn)_2(Fe,Al)_4Ti_3O_{16}$, cubic cryst. cpd. found in Radwaste ceramic, characteris. 2−103705
manometers
see also pressure measurement
capacitance diaphragm, sensitivity to static mag. fields 2−112886
capacitance diaphragm manometers for press. meas. in mag. fusion devices 2−84655
gas flow local velocity meas. at low pressures 2−74390
loaded-piston, graphical method of determ. referred area of piston 2−79563
magnetic discharge manometer, planar, 5×10^{-2} to 10^{-7} torr 2−69188
magnetic discharge manometric transducers, time charact. 2−69189
small-volume differential manometer for ultrasonic velocity and absorption measurements 2−97328
manufacture
see also electronic equipment manufacture; steel manufacture
miniature Ag/Zn batteries, construction and mass production technology 2−116791
optical fibres manufacture by MCVD technique *(French)* 2−70692
manufacturing ADP *see manufacturing data processing*
manufacturing data processing
nuclear reactor fuel element manufacturing, computer data acquisition system 2−102093
prismatic components fabrication, computer-assisted part-list-orientated generation of technological production documentations *(German)* 2−81128
manufacturing industries
aircraft engine noise control in aircraft manufacturing industry 2−60299
solar absorber-convertors, manufacturing industry, current state in UK 2−67885
many-body problems
see also BCS theory; quantum statistical mechanics; renormalisation
alkali halide crystal compressibility 2−98178
atomic transitions, relativistic many-body theory, eqn. of motion approach 2−96477
charged particle wake, quantum theory 2−53545
coagulation-fragmentation equation, geometric interpretation 2−63812
collective motion theory in many-body quantum mechanics, valleys and fall lines on Riemannian manifold 2−74202
collective rotations of asymmetrically deformed many-body systems 2−107155
continuum statistical mechanics, Dobrushin uniqueness techniques and decay of correl. 2−112800
decaying states, variational approach, generator coord. method 2−74238
electron continuum capture in the three-body problem 2−70413
electron gas, correlation energy, Ferrell's validity criterion, exchange and correl. contribs. 2−82262
fermion nonequilibrium momentum distrib. relaxation 2−59320
geometric methods in quantum many-body problems 2−95125
hadron interferometry, dynamics vs. symmetrisation 2−53661
heavy-ion transfer reactions as quantal many-body systems probe 2−54242
highly negative ions, existence, quantum many-body problem, geom. methods appl. 2−107136
intermolecular interaction energies, transferable pot. function from quantum mechanical calcs. 2−108664
Lippmann's identity in weak topology 2−84474
low-energy direct nuclear reactions, resonating group method 2−54345
many-body interacting systems, quantum theory, semiclassical description 2−84968
many-boson systems, fractional parentage coeffs., calc. 2−79468
nuclear matter, quasispin systems irreversible dynamics 2−69592
nuclei and particles, book 2−53444
nucleus, nucleon mass operator, analytical struct. *(Russian)* 2−79943
pionic nuclear excitations, review 2−79956
quantum mechanics and nonlinear waves, book 2−58555
recombining particles, large cluster form, during excitation in solids 2−61379
relativistic heavy ion collisions, thermodynamic model for deuteron prod. 2−54432
relativistic quantum mechanics of particles with direct interactions 2−112745
relativistically interacting particles, Hamiltonian, role of constraints and Poincare operator 2−112752
resonances, complex coordinates theory 2−79392
resonating group eqn. structure 2−54332
scattering theory, subtraction technique appl. 2−85008
symmetric group S_N, transformation coeffs. between standard and non-standard representation 2−101205
three particle system with short-range interaction, long-range interaction effect *(Ukrainian)* 2−53597
three-particle relativistic harmonic dynamics in the constraint formalism 2−101163
three-particle scatt. theory, limiting relation 2−54330
time-dependent scatt. theory for identical particles 2−53578
transition metals, cyclotron masses and many-body effects, relativistic APW calc. 2−56426
unitary group irreducible representation for U(p+q)⌊U(p)⊗(q) 2−95090
β decay, orbital K-electron shakeoff 2−54325
Be, spectroscopic parameters, V^N and V^{N-1} potential results in many-body calcs. 2−75206
^{3}H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{A}He, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
Li, KVV Auger spectrum, line-shape, many-body effects 2−80555
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360

many-particle systems *see statistical mechanics*
many-valley semiconductor materials *see many-valley semiconductors*
many-valley semiconductors
band structure parameters 2−115661
compensated, Auger processes involving bound carriers, theory *(Russian)* 2−115785
conductivity, phonon inequilib. effect in an EM heating field 2−82342
electric-dipole transitions in intervalley multiplets 2−115708
impurity doped, electron correlations effect 2−115682
metal-insulator transition stress depend. 2−110252
multiexciton complexes bound to donors 2−82247
non-equilibrium electrons, natural oscills. and current, elec. field depend. 2−61475
photoelectric effects from indirect interband and intervalley transitions assisted by acoustic waves 2−61519
polarisation-dependent photocond. and surface photocurrent 2−115821
single donor impurities, core excitons shallow-deep instability 2−82282
single-donor impurities and core excitons, real-space eqn. 2−82281
uniaxially deformed, free carrier light absorpt., theory 2−57053
$Al_xGa_{1-x}As$, Γ-X-junction position, effect of alternating exial press. meas. 2−66449
$Bi_{0.9}Sb_{0.1}$, many-valley semicond., elec. cond. anisotropy under tension, HF magnetoplasma study 2−87287
$Bi_{1-x}Sb_x$, helicon propag. 2−115798
$Ga_{1-x}Al_xAs$, Hall electron mobility, scatt. parameters 2−115790
GaAs, hot-electron plasma, excitation of electrostatic oscillations, calc. 2−66580
$Ga_xIn_{1-x}Sb$, voltage-current curves, scatt. effects, Monte Carlo calc. 2−104382
n-Ge, magnetophonon reson. obs. 2−98672
n-Ge, many-valley semicond., hot electrons in quantising mag. field 2−56622
n-Ge, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
GeTe, intervalley Jahn-Teller effect and polymorphic ferroelectric transitions 2−87208
InP, transverse electric field effects on electron transport props. 2−98651
PbTe-$Pb_{1-x}Sn_xTe$ superlattices, prepared by hot wall epitaxy, optical props. 2−99208
Si (111) inversion layers, valley degeneracy and intersubband spectroscopy 2−61542
Si (111) surface inversion layers, subband separations, effects of exchange-correl. and surface strain 2−61543
Si inversion layers, valley splitting and degeneracy, Shubnikov-de Haas oscills. 2−56706
n-Si, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
n-Si, transverse photovoltaic effect, intervalley relax. time 2−115819
Si:P(As)(Li), D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:$S^+(Se^+)(Te^+)$, multivalley spin splitting of $1s(T_2)$ states 2−77000
many-valued logics
see also logic circuits
ocean surveillance, attribute problem, combined probabilistic and fuzzy set technique 2−63147
manybody problems *see many-body problems*
map drawing *see cartography*
marine systems
see also ships
acoustic imaging, medical and underwater surveillance systems, microprocessor controlled 2−81192
computer-generated image visual systems for marine simulator training 2−79334
fishing trawl, instrumentation system to meas. temp., cond. and depth 2−94543
oceanography, one-bit microprocessor controlled data acquisition system [for wave recorders] 2−83978
underwater sound research, position control for acoustic probe 2−81193
Markarian galaxies
see also Seyfert galaxies
Markarian 1066, Seyfert 2 galaxy, visible spectral obs. 2−117750
Markarian 1400, 1447, 1457, 1485, Seyfert features, visible obs. 2−117613
Markarian 1400 to 1500, catalogue, nature and spectral obs. 2−117613
Markarian 1413, quasi-stellar nature, visible obs. 2−117613
Markarian 290, Seyfert 1 galaxy, central region struct., visible spectral obs. 2−63627
Markarian 298(=IC 1182-4), Seyfert 1 galaxy, centre struct., visible obs. 2−117749
Markarian 325 (NGC 7653), clumpy irregular galaxy, recent star forming activity, visible obs. 2−112554
Markarian 325 (NGC 7673), clumpy irregular, imagery 2−74093
Markarian 348, giant H I envelope, radio mapping of Seyfert galaxy 2−74092
Markarian 348, mass, radial vel. and diameter from visible spectra obs. *(Russian)* 2−68907
markarian 376, Seyfert galaxy, optical polarisation obs. 2−68890
Markarian 421 and 501, CCD photometry of BL Lac objects 2−101029
Markarian 501, hard X-ray/γ-ray, obs. anal. 2−74087
Markarian 509, Seyfert 1 galaxy, spectra, superimposed Galaxy halo lines, obs. 2−79200
Markarian 509, Seyfert galaxy, emission line profiles anal. 2−89354
Markarian 558, nucleus parameters from spectral obs. 2−117760
Markarian 7, 296 and 432, star formation and chemical abundances in clumpy irregular galaxies 2−58446
Markarian 8 and 325, clumpy irregular galaxies, clumpy nature, UV obs. 2−63646
Markaryan 314 (NGC 7468), remarkable galaxy with three bright regions, photometric and spectroscopic obs. 2−101042
Markaryan 673, 686, spectrophotometric and isodensitometric obs. *(Russian)* 2−101073
Markaryan 744, intermediate Seyfert galaxy, internal vel. field determ. 2−101041
master list of nonstellar optical astronomical objects 2−58563
nuclei numbers and existence, criteria 2−58455
red shift determination, visible obs. 2−74098
redshift distribution of Markarian galaxies in Bootes, rel. to intergalactic void 2−68898
Seyfert galaxies, emission-line profiles 2−101056
Seyfert galaxies, IR photometry obs. 2−74084
Markarian galaxies continued
Seyfert galaxies, UBVR obs. 2−117751
Seyfert galaxies in clusters, fraction *(Russian)* 2−68911
Markov chains *see Markov processes*
Markov processes
Boltzmann eqn., linearised, probabilistic representation of solutions 2−95281
cell-to-cell mapping for nonlinear dynamical systems, generalised theory 2−53676
circulation, Hill's theory, Markov chain model 2−68040
correlation functions for quasi-linear response theory 2−101364
damage models, nonstationary, cumulative 2−103032
deterministic dynamics, generation of Markovian strings 2−101317
discrete chaotic system, Markov chain formulation 2−53674
divacancy random walk on FCC lattice, Markovian master eqn. formalism 2−71698
field evaporation events as Markov chains, time of flight atom probe study of Ir, Pt-Rh alloys and metallic glasses 2−93381
Fokker-Planck eqn. reduction to diffusion eqn. and radiation boundary condition 2−101304
free Euclidean EM field, Markov property 2−84834
Gaussian functional integrals in statistical physics, explicit evaluation 2−53668
linear system with Markov perturbation, eqns. for moments and stability conditions 2−53666
Markov methods of analysis of stochastic quantum dynamics of quasiclassical open systems 2−95115
nonequilibrium statistical mech., non-Markov eqns. of motion, validity 2−84518
nonequilibrium statistical operator, Markov-form integral eqn. including memory effects 2−53670
nonhomogeneous and semi-Markov systems with arbitrary state space, asymptotic enlargement *(Ukrainian)* 2−58703
nonMarkoffian diffusion in 1D disordered lattice 2−95242
point random motion steering, bang-bang strategies using interrupted obs. 2−53494
polycrystal, brittle fracture, grain boundary and transgranular competing mechanisms, theory *(Russian)* 2−99515
probability methods in homogenization schemes for transport processes 2−58734
quantum dynamical semigroups, path integrals and stationary phase approx. 2−95230
quantum statistical system control 2−95231
quartic anharmonic oscillator in stochastic electrodynamics 2−95036
quasi-ergodic, asymptotic enlargement *(Ukrainian)* 2−74322
random fields and chains on trees 2−79343
random Gibbs fields on lattice, compactness and maximal Gibbs state 2−84548
randomly forced two dimens. flow, nonequilib. probability distrib. 2−97511
rarefied multicomponent ionised gas, collision processes, physico-probabilistic analogue model 2−55705
Rayleigh gas, one-dimensional long-time tail in vel. correlations 2−55692
Rayleigh piston, diffusion modeling 2−58709
second-order periodic differential operator generated, stationary and reversible processes *(Chinese)* 2−69087
single-step one dimensional process, anal. function 2−74323
weak convergence of Markov jump-processes to diffusion process *(French)* 2−53665
winter strength in upper Danube region, Markov chain model 2−106205
SiO_2, breakdown statistics and defect densities, theoretical and expt. study 2−110770
Mars
Amazonis Planitia ignimbrites 2−58285
Antoniadi crater, compensation depth from gravity and topography anal. 2−112366
astrolabe observations at CERGA Observatory (February 1980-May 1980) *(French)* 2−100796
atmosphere, effects of solar tides on general circulation 2−100800
atmosphere, H_2O content, global and seasonal variation 2−89180
atmosphere, planetary scale wave struct. 2−58283
atmosphere, reference atmos. model 2−94632
atmosphere $^{15}N/^{14}N$ ratio, effect of dissipation and exogenous sources 2−106590
atmosphere CO content estimate from spectra anal. 2−106591
atmosphere seasonal movement due to snow evaporation and condensation 2−106593
atmosphere-solar wind interactions 2−100695
first-order theory, Hansen's method *(Chinese)* 2−84135
gravity anomalies, topography and tectonics 2−106592
infrared refl. spectra and chem. composition of surface 2−89181
IR heterodyne spectroscopy 2−73858
IR spectra and thermal emission models 2−58282
lee waves behind isolated topography 2−84137
long clouds over surface slopes 2−63292
Olympus Mons, aureole deposits, Voyager Orbiter pictures 2−58284
optical reflectivity of rocky surfaces, Kubelka-Munk theory 2−78999
perturbations on lunar orbital motion, errors in ephemerides 2−73872
perturbations on Moon in ELP 2000, soln. 2−73870
Phobos, tidal rigidity 2−100798
Phobos gravitational field model 2−84136
photogrammetry of the Viking Lander imagery 2−94624
rear-IR photopolarimeter obs. 2−117604
regolith-atmosphere exchange of H_2O and CO_2 on Mars, effects on atmospheric history and climate change 2−112367
Rima Tenuis, obs., (December 1981 and January 1982) 2−58281
solar wind interaction with planet, electron flux obs. 2−100694
surface, book 2−89493
surface props., opposition effect, Viking Orbiter TV pictures 2−100799
Syrtis Major, radar meas. of small-scale surface texture 2−100797
Tharsis region, palaeo-slopes, vent areas and local topography 2−89182
Tharsis region and mass anomaly, gravity field 2−63291
topographic map 2−89174
upper atmosphere and ionosphere, probe meas. 2−89178
Viking Mission, spectral investigations of Mars 2−112365
martensitic-austenitic transformations *see reverse martensitic transformations*
martensitic steel
fatigue crack propagation expts. *(Japanese)* 2−57462
ferritic, Cr-Mo-V-W, low temp. irrad. with (n,α)He prod., effect on tensile props. 2−71508

martensitic steel continued
fracture, delayed, high temp. deformation influence *(Russian)* 2−93586
hardening by ageing and γ to ε martensitic transform. for 20G18S2F *(Russian)* 2−77832
low alloy, quenched, lath martensite struct., TEM study 2−111420
maraging steel, 00Kh11N10M2T, struct. changes and mech. props. caused by reverse α to γ transition *(Russian)* 2−77819
martensite plate size distribution, determ. by kernel estimation 2−88081
medium C low tempered, dislocation density determ. in pack martensite 2−60981
phase transformations in martensitic steel, acoustic emission analysis 2−111430
rail, high-strength, hardenability, chem. comp. influence 2−72730
stainless, corrosion fatigue crack initiation mechanisms, influence of corrosion conditions 2−116594
stainless, Cr-Mo-V, weldments, transform. and tempering 2−88107
stainless, fatigue crack growth rate, sea salt effect 2−78022
stainless, ferritic/martensitic, suitability for first wall/blanket material 2−69891
stainless, fracture mechanics, fusion reactor first wall struct. appl. 2−69837
stainless, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
stainless, stress corrosion cracking, review 2−72862
stainless, stress-rupture strength of metal and weld joints, Cl ions and H_2S containing medium 2−99602
stainless, wear against WC up to 500°C 2−83238
stainless Cr-Ni, high-strength corrosion-resistant, fatigue resist. in air and seawater 2−99561
stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
thermal fatigue cracking, appl. of low cycle fatigue data 2−88153
thickness distribution in martensite crystals 2−72907
Cr, corrosion fatigue props., effect of heat treatment 2−111301
Cr, ferritic, struct. and props., sintering technology, influence 2−83193
Cr, nitrided, microstruct. 2−105381
Cr, precip. and decomp., DSC study *(Korean)* 2−62128
Cr-Mo-V, stainless, stress corrosion cracking susceptibility 2−78017
Cr-Mo-V type, performance under low-cycle fatigue at elevated temp. *(French)* 2−78054
Mn-Si-(Nb), low alloy, heat treated, $M_{23}C_6$ type carbides form. 2−116469
Ni-Mo-Co, age-hardening, weld struct., hot stage microscopic invest. 2−111190

martensitic transformations
see also shape memory effects
brittle material, martensitic transformation toughening mechanics 2−88080
creep and strain hardening model 2−83115
dynamic effects, plate impingement at an obstacle *(Czech)* 2−116440
generalised lattice correspondence theory 2−71611
inclusion, coherent, elasticity theory by means of non-metric geometry 2−60971
interphase boundaries, differential dislocation density calc. 2−60980
M_s temperature calculations, validity of existing empirical formulae 2−62125
metals, austenitic region shape deformation under martensitic transformation, electron microscopic determ. 2−116629
misfit dislocation form. during twinning or martensitic transforms. *(Russian)* 2−76438
Mn, irrad. with 46 MeV Ni^+, microstruct. before and after 2−92051
nonlocal nonequilibrium thermodynamic description 2−115407
nucleation of α and ε phases, role of dislocations and stacking fault energies *(Russian)* 2−62126
olivine-spinel phase transformation in Earth upper mantle, martensitic transform. hypothesis 2−100373
phase transformations in martensitic steel, acoustic emission analysis 2−111430
pseudo-elasticity, temp. and force criteria *(Russian)* 2−92081
pseudoelasticity, review 2−88141
steel, 20G18S2F, hardening by ageing and γ to ε martensitic transform. *(Russian)* 2−77832
steel, alloy, weld metal similar to X20 CrMoV121, heat treatment effect on phase transform. and mech. props. 2−62144
steel, austenitic, deformation induced martensitic transform. and transform. induced plasticity 2−83116
steel, austenitic, Ni-Mo, strength increase by γ-α-γ transition cycles during slow heating *(Russian)* 2−105225
steel, austenitic stainless, Cr-Mn, uniaxial tensile props., Li exposure influence 2−80178
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless, partially martensitic, deformation mode effect on sensitisation 2−67423
steel, austenitic stainless, Sb^+ ion implantation, martensitic transition, Rutherford backscatt. study 2−76658
steel, austenitic stainless, strengthened by phase strain hardening and ageing 2−72741
steel, austenitic stainless, strengthening by low temp. deform. 2−105182
steel, austenitic stainless deform.-induced transform., effect of strain rate and strain state 2−77886
steel, Cr-Mo-Mb-V, used in vapour generators for fast neutron reactors 2−77826
steel, cyclic strength and damping capacity, effect of stability of austenite struct. in deform. 2−111307
steel, die, hardened with vanadium carbonitride, props. 2−111211
steel, low C, deformed lath martensitic struct., recrystn. and form. of austenite 2−111195
steel, low-alloy, superplasticity and polymorphic transforms. 2−62177
steel, M_s temp. eqn., effect of Si and Co 2−62125
steel, martensite plate size distribution, determ. by kernel estimation 2−88081
steel, Mn, superplasticity and polymorphic transforms. 2−62177
steel, Ni type, austenite struct. state influence on martensite transform. characts. 2−93508
steel, Ni-Co-Mo, maraging, biphase struct., low-cycle impact fatigue strength 2−67530
steel, stainless, austenitic, hydrogen induced α'-martensite form., TEM obs. of microcracks 2−99512
steel, stainless, austenitic Cr-Ni, combined shock loading and high-speed deform. effects 2−99560

martensitic transformations continued
steel, stainless, rapid solidification 2−83106
steel, stainless, SUS 304 *(Japanese)* 2−67635
steel, stainless, Type 304, shock-loaded, transform. mechanism and α'-martensite morphology 2−93509
steel, stainless, type 316L, cathodically H charged, martensitic transitions at crack tip 2−111313
steel, tool, 01 commercial, stereological technique appl. to martensitic transform 2−111410
steel 20, electron-autoradiographic investig. of $\alpha \rightarrow \gamma$ transform. 2−67337
steel wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
stereological technique appl. assessment 2−111410
weld, grain growth diagrams 2−116422
Al-Zn-Cu, electron diffr. determ. of soft directions in cryst. lattice at premartensite stage 2−60925
$CeAl_2$, volume mismatch substitution, $\gamma \rightarrow \alpha$ transition 2−66197
$CePd_3$, volume mismatch substitution, $\gamma \rightarrow \alpha$ transition 2−66197
Co textured films, NMR and mag. meas. *(Russian)* 2−98994
Cu-Al (9.8-11 wt.%), dual-phase struct.-prop. relationship, alloy behaviour 2−77834
Cu-Al and Cu-Al-Ni(Zn)(Si), β-type alloys, internal friction amplitude dependence meas. *(Russian)* 2−99469
Cu-Al-Mn alloys, influence of Mn on phase shifts *(French)* 2−99543
Cu-Al-Ni (14, 3.4 wt.%), shape memory alloy, shape strains assoc. with thermally-induced and stress-induced martensite 2−57350
Cu-Al-Zu, damping capacity, quenching and Zn addition effects 2−116441
Cu-based shape memory alloys, ageing 2−88144
Cu-Sn, martensitic transform., influence of β-phase holding *(Russian)* 2−67333
Cu-Zn Al, martensitic, rapid solidification effects 2−111175
β-Cu-Zn-Al, ordered, martensitic phases, premartensitic states and struct. *(Russian)* 2−62123
Cu-Zn-Al, shape memory alloys, review 2−88143
Cu-Zn-Al, thermoelastic martensitic transform., nucleation, localised soft mode model 2−99427
Cu-Zn-Al (32.23, 1.84 wt.%), martensitic transform. and shape memory effect *(Chinese)* 2−62122
Cu-Zn-Al alloy, martensite structures for various quenching conditions 2−93510
Cu-Zn-Al quenched alloys, martensitic structs., electron diffr. study 2−62124
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
$Cu_{2.8}AlMn_{0.2}$, solid soln. containing disperse ferromag. Cu_2MnAl inclusions, martensitic transition obs. *(Russian)* 2−98915
β-CuAlNi, pseudoelastic, thermal effect in β_1-β'_1 transform. 2−111177
Fe alloys, α'-martensite, crystallographic parameters *(Russian)* 2−91872
Fe and Fe-Ni alloys, low temp. pulsed action, γ-α transitions, radiative tracers *(Ukrainian)* 2−105141
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe, superplasticity and polymorphic transforms. 2−62177
Fe-Al-C alloy, abnormally high tetragonality of martensite lattice, origin 2−97996
Fe-C-P (1.4, 0.02 wt.%), stereological technique appl. to martensitic transform. 2−111410
Fe-Cr, packet martensite, struct. changes during annealing, electron microscopy study *(Russian)* 2−99425
Fe-Cr-C (3,1.5 wt.%) martensite cryst., midribs *(Russian)* 2−115249
Fe-Mn alloy, $\varepsilon \rightarrow \alpha + \beta$ transform. on heating 2−105142
Fe-Mn-Cr-Ni systems, alloy comp. effects on lattice parameters regarding γ, ε and α phases *(German)* 2−88058
Fe-Ni, ferrite-austenite orientational relationships during $\gamma \rightarrow \alpha$ transformation *(Russian)* 2−93505
Fe-Ni, packet martensite, struct. changes during annealing, electron microscopy study *(Russian)* 2−99425
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni (29.9 wt.%) alloy, anomalous diffusion of C, martensitic transform. role 2−71727
Fe-Ni (31.2 wt.%); direct and reverse martensitic transforms., impulse duration influence *(Russian)* 2−67335
Fe-Ni-C, nucleation of burst martensite 2−57351
Fe-Ni-C, substruct. of lenticular martensite 2−72697
Fe-Ni-C alloys, precipitation and distrib. of carbides, effects on martensitic transform. and electrochem. behaviour *(French)* 2−99433
Fe-Ni-Co-Ti, martensite and austenite, disperse γ' particles elastic deform. and $\gamma \rightleftharpoons \alpha$ transitions *(Russian)* 2−88078
Fe-Ni-Co-Ti (23, 10, 10, wt.%), martensitic transformation 2−83118
Fe-Ni-Mo, martensitic γ to α transform., purity depend. *(Russian)* 2−99426
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle disperion 2−57352
Fe-Pt Invar alloys, disordered, mag. props. suggesting premartensitic transform. 2−87490
Fe_3Pt, ordered, thermoelastic martensitic transform. free energy changes 2−105143
Gd martensitic transformation on tribophysical pulverisation, HEED study 2−93506
Gd, tribophysical pulverisation, martensitic transformations *(German)* 2−93634
Mn-Ni alloy, FCC packing of transformed and untransformed material domains, martensitic transform. 2−105144
Ni-Ti, electron-phonon interaction contrib. to phonon dispersion curve, pre-martensitic phenomena 2−81915
Rb, martensitic transform. obs., de Haas-van Alphen meas. 2−93507
steel, Al, US treatment effect on C redistrib. and austenitic-martensitic transform. *(Russian)* 2−67331
Tb, tribophysical pulverisation, martensitic transformations *(German)* 2−93634
Ti alloy, near-α IMI 829, weldment, struct. and transform. characts. 2−116439
Ti alloy weldments, dissimilar, solute banding effect on transforms. 2−93503
Ti-Mn (5 wt.%), martensitic interface, martensite, TEM lattice fringe imaging 2−57353
Ti-Ni, phase hardening during martensitic transformations *(Russian)* 2−93504

martensitic transformations continued
Ti-V-Fe-Al alloy, shape memory with large temp. hysteresis 2−111249
TiNi, influence of Pd on martensitic transformation 2−83117
TiNi, phys. props. temp. depend., martensitic transform. rel. to phase diagram 2−111176
$Ti_{50}Ni_{40}Cu_{10}$, first-order martensitic transforms., and contrib. to shape memory effect *(Russian)* 2−67336
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., compositional depend. of one-third reflections from matrix 2−111173
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., morphology and crystal struct. 2−111174
U, effect on supercond. 2−110526
α-U, superconducting transition temp., martensitic transformations, domain form. 2−98791
WC-Co (25 wt.%), transverse rupture strength 2−105289

martensitic transformations, reverse *see reverse martensitic transformations*

maser clocks *see atomic clocks*

masers
1-CM rutile travelling wave maser, 26 to 29 GHz, design 2−114226
astrophysical masers, collisional pumping rate, rot. state depend. 2−117583
Cherenkov maser oscillator, high power operation 2−114225
cyclotron resonance maser config., operation at higher cyclotron harmonics 2−96877
cyclotron resonance masers, helical, electron beam prod. by three-electrode electron gun 2−70534
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
electron cyclotron maser, basic model anal. 2−65195
electron cyclotron maser *(Chinese)* 2−80922
electron cyclotron maser oscillator, quasi-optical 2−80927
electron-cyclotron masers, as source of certain solar and stellar radio bursts 2−112312
free electron hybrid laser device, GYROFEL, estimation of intracavity power levels 2−108891
free electron masers with Bragg resonators *(Russian)* 2−80926
G43.2−0.1, new OH maser source, 1612 MHz obs. *(Russian)* 2−106946
gyromonotron performance, large signal beam efficiency calc. 2−96875
gyrotron or electron cyclotron resonance maser 2−53462
gyrotron resonator, tapered analytic theory 2−96876
gyrotron travelling wave amplifier, analysis of oscillations 2−96872
gyrotron travelling wave amplifier, velocity spread and wall resists effects 2−96873
gyrotron travelling wave amplifier, wide-band fast wave amplifier construction 2−96874
international time and freq. comparison by orbiting H maser clock 2−64000
interstellar H_2O and OH masers, evolution 2−112541
interstellar masers brightness temp. determ. 2−58437
interstellar OH and H_2O masers, associated IR sources, JKL obs. 2−94807
interstellar OH masers, cooling by OH IR line emission 2−106874
M16, evolved H II region, obs. of compact far-IR source assoc. with H_2O maser 2−63561
maser source of water vapour line, interplanetary oscillations 2−100829
molecular beam maser employing quasi-optical resonators, oscill. behaviour, spectroscopic appls. 2−108846
noise, Callen-Welton thermal noise theory 2−80923
noncollinear single-resonator maser oscillator, radiation parameter generation in field of wide pump beams 2−75550
nonmonochromatic modes of masers 2−90857
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
OH 205.1−14.1, unusual OH maser, intensity vars. of left circularly polarised component (1980 to 1982) 2−79238
OH 351.78−0.54, interstellar OH maser source, radio and IR obs. 2−112600
OH main line masers in VY Canis Majoris, VLBI obs. 2−63419
OH/IR maser stars, type II, search for IR counterparts, luminosities, IR obs. 2−58349
quantum paramagnetic travelling-wave amp. with constant slow wave w.r.t. group velocity in tuning band 2−60057
ruby single crystal travelling-wave symmetrically pumped maser, 4 cm 2−70535
Rydberg atoms and radiation 2−70159
Rydberg superradiance 2−60055
semiregular variable stars, short period, different type of maser star 2−63420
Sharpless 106, bipolar nebula nearby H_2O maser, search for 20 μm source 2−68856
SiO maser in Orion, time var. of vel. struct. of maser emission envelope 2−68875
state-selected beam low temp. H_2 maser, recent progress 2−58797
Sun, electron-cyclotron maser emission from flaring loops, plasma effects 2−112409
Sun, flaring loops, maser excitation, radiowave heating and electron precipitation 2−100854
W49N, H II region, H_2O maser maps, obs. 2−68914
W51 NORTH, IR and H_2O maser sources, H_2 emission, IR obs. 2−79228
W51 NORTH H_2O maser source characts. IR/SHF obs. 2−79227
H, atomic clock time scale, China 2−79538
H, NASA research maser characts. NR model 2−80924
H, passive, time keeping performance comparison with Cs standard 2−107309
H, Shanghai Observatory maser developments 2−80925
H, time and frequency standards, Shanghai Observatory appl. 2−79525
H, with state-mixed beam 2−90856
H_2 extremely small maser prototype 2−90859
H_2 masers, comparison between frequency stability of active and passive types 2−58796
H_2 masers, low temp., using liquid He coated walls 2−60056
H_2 masers, passive, use as frequency standards 2−58795
H_2 VLG-11 masers, long term performance 2−90858
H_2O maser detection in Sharpless 106 molecular cloud, SHF obs. 2−101017
H_2O maser outburst in Orion, nature and line profiles, model *(Russian)* 2−68877
H_2O maser search near H II region Sharpless 106, obs. 2−101012
H_2O maser survey of Magellanic Clouds, SHF obs. 2−79204

masers continued
H_2O masers, high velocity, search in regions of star form. 2−74072
H_2O masers in Orion A, anal. of VLBI obs. using CS-type computer-software 2−68634
H_2O survey of galactic plane at 22 GHz 2−79189
$LiIO_3$ single-resonator maser oscillator, radiation parameter generation in field of wide pump beams 2−75550
OH maser emission assoc. with W49N, distrib. of $^2\pi_{3/2}$ J=3.2 emission 2−79188
OH maser emission in bipolar nebulae, UHF obs. 2−106836
OH masers in galactic NH_3 sources 2−106944
OH masers in H II regions W4(OH) and Sagittarius B2, UHF obs. 2−74047
OH Type II southern maser sources, IR counterparts 2−79243
OH/IR sources, VLBI maps of maser spots, model 2−106837
OH-IR stars near galactic centre, appl. to delineation of Galaxy central bar struct. 2−63640
SiO, masing and non-masing emission from evolved stars, EHF obs. 2−89228
SiO vibrationally excited masers in late type stars and Orion, EHF obs. 2−84219

masking (acoustic) *see hearing; speech intelligibility*

masks
see also semiconductor device manufacture
automatic single-barrel photorepeater for LSI masks fabrication 2−69276
integrated optical ccts., masks, fabrication by Ar laser beam writing 2−75732
integrated optics, planar holographic lenses, fabrication from shaped Bragg gratings from circular fringe patterns 2−65412
photomask fabrication, integrated optics, step-and-repeat process 2−65420
PMMA film, ion-bombarded, high resoln. photomasks prep., LSI appls. 2−77799
X-ray lithography masks, optically-transparent 2−87117
Al_2O_3, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
GaAs/GaAlAs lasers nonplanar structures fabrication, by metalogranic chemical vapour deposition 2−85958
$NiSi_2$(NiSi)(Ni_2Si), ion bombardment damage and annealing, sheet resist. study 2−56044
Pd_2Si (PdSi) 2−56044
Pt_2Si(PtSi), ion bombardment damage and annealing, sheet resist. study 2−56044
Si_3N_4, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
Si_3N_4 film stability, stoichiometry deviation effect 2−115632
SiO_2, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588

masonry dams *see dams*

mass
see also atomic mass; elementary particle mass; molecular weight
Abell 2069, X-ray cluster of galaxies with multiple subcondensations, mass distrib. 2−68910
Earth interior, soln. of direct problem of gravimetry for special classes of mass distrib. 2−117184
galaxies, late-type, of low surface brightness, H I and total masses 2−94834
galaxies, masses in theory of form. by quasar explosions 2−68902
galaxies, orbital masses from homogeneous sample of double galaxies 2−101043
galaxy clusters, mass distrib. functions rel. to mass segregation, relaxation and Coulomb logarithm 2−58475
Geminid meteors, mass distrib. index from high-resolution radar studies 2−94660
gravity inverse problem, equivalent mass redistribs. and appl. to gravity anomalies interpretation 2−117182
IC 1727 and NGC 672, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
Markaryan 744, Seyfert galaxy, mass and internal vel. field 2−101041
NGC 5905, NCG 5908, double spiral galaxy, rot. curves and masses from H I obs. 2−68894
NGC 672 and IC 1727, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
NGC 7814, edge-on spiral galaxy, surface photometry rel. to light, colour and mass distrib. in disc. and spheroid 2−89365
inner planets, equality of inertial and gravit. masses rel. to anomalous motions 2−68603
Sa-type galaxies, global H I mass-luminosity ratios from H I obs. 2−89366
spherical galaxies, M/L and vel. anisotropy determ. method rel. to massive black hole in (M87) 2−94835
spiral galaxies, edge-on, surface photometry rel. three-dimensional light and mass distribs. 2−89364
spiral galaxies, mass and luminosity distribs. rel. to Tully-Fisher relation 2−58450

mass analyzers *see mass spectrometer components and accessories*

mass differences
see also baryon mass; lepton mass; mass formulae; meson mass
charge $^2/_3$ quark mass constraints from $K_L \rightarrow \mu^+\mu^-$ and K_L-K_S mass difference 2−113189
electromagnetic mass differences in relativistic quark confining potential model 2−107660
electron, self-energy due to EM interaction, vacuum fluctuation effects 2−107604
QCD perturbation theory, hadron energy shift and mass difference *(Chinese)* 2−54077
quark potential model for light and heavy quark systems 2−54103
up-down quark mass difference in MIT bag model 2−69464
d-u quark effective mass difference expression 2−69424
K^0-$\bar{K}^0$ system fundamental parameters determ. in energy range 30-110 GeV 2−69463
K_L-K_S mass difference, left-right symmetric electroweak theory, constraint on mass scale 2−64250
$\nu p \rightarrow \Sigma_c^{++}\mu^-$, quasi-elastic prod. Σ_c^{++}-Λ_c^+ mass difference 2−54134
tt quarkonia mass difference, QCD calc. *(Russian)* 2−64309
Υ-η_b mass difference, QCD calc. *(Russian)* 2−64309

mass filters *see mass spectrometer components and accessories*

mass formulae
see also baryon mass; lepton mass; mass differences; meson mass
anomalous mass dimension to two loops in quantum chromodynamics 2−89934
baryon mass spectra, (56, 0^+) states, quark-diquark contrib. 2−74674
baryon mass splitting in quark model with broken symmetry 2−69439
baryon masses in relativistic quark-diquark model 2−84883
charged lepton masses, semiclassical Reissner-Nordstrom model, leptospin splitting 2−79793
CP violation, mass matrix in Higgs-boson model 2−69387
dibaryon reson. masses *(Russian)* 2−54124
fermion masses, from large mass scale, rel. to GUTs, composite quark/lepton 2−95704
fermion masses from effective potentials in internal space 2−59135
glueball mass, in SU(2) lattice gauge theory, Monte Carlo calc. 2−107635
grand unified theories, hierarchical fermion masses 2−54125
lattice gauge theories with fermions on lattice, strong-coupling limit 2−101549
lowest-lying baryon and meson states masses in SU(2) Yang-Mills theory 2−53944
meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
meson resonances, spectrum and leptonic decay widths in QCD *(Russian)* 2−74653
meson resonances mass spectrum and leptonic decay widths in QCD 2−79836
mesons, SU(4) quark model, mass relations, Regge trajectory *(Chinese)* 2−54121
multiquark charm hadrons, mass spectra, MIT bag model, with SU(4) flavour symm. 2−84884
O(10), grand unified theories subgroup structure with appl. to fermion mass matrix 2−54020
pseudoscalar mass spectrum as evidence for gluons, anomalies and topological charge 2−59136
QCD, hadron classification, meson mass scales *(Russian)* 2−74649
QCD, hadron masses, instantons role 2−107615
quarkonium spectroscopy in heavy $Q\bar{Q}$ bags approach 2−79846
ratio 2−69438
Regge trajectory slopes and intercepts, relation in topological expansion and string model 2−54126
Schwinger W(3) group, boson representations, mass formula 2−69360
spectroscopy of hadrons containing one heavy quark, D and F weak decay 2−84882
$SU(3)_C \times SU(2) \times U(1)$ gauge GUT, low-energy parameters, particle masses 2−107589
SU(3) subsectors of SU(N) generators, hadron properties 2−54123
weak current algebra, composite W bosons and weak interactions universality 2−101683
γ spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
ψ, spectroscopy from phenomenological confinement approach 2−79854
ψ spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
ψ spectroscopy from phenomenological confinement approach 2−79854

mass measurement
see also weighing
electronic balances, method for high accuracy meas. of mass 2−53739
film growth, ellipsometric microgravimetry anal. 2−92410
galaxy clusters mass determination, potential-estimation method 2−106929
gas volumetric mass meas. using micro-flowmeter *(French)* 2−91562
load cell mass comparator, 30 kg capacity 2−107304
physical effects restricting accuracy in maintaining standard for unit of mass 2−95308

mass spectra
see also mass spectrometers; mass spectroscopic chemical analysis; mass spectroscopy; secondary ion mass spectra; time of flight mass spectra
2(1H)pyrimidinone, and substituted derivatives, electron impact fragmentation, mass spectra 2−108725
adenines, selectively labeled, electron ionisation spectra and mass spectrometry 2−108737
n-alkanes, mass spectrometric fragmentation, statistical theory test 2−102669
benzene, multiphoton ionisation mass spectroscopy 2−64158
chlorotrifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
complexes, thermomechanical props. of clustering reactions in gas phase 2−78081
dichlorodifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
1,4-dimethylbenzene ion, fragmentation, mass spectra *(Russian)* 2−84736
double-energy fission fragment meas., mass resolution correction 2−108318
ethane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
field desorption high resolution mass spectrometry utilising multichannel scaling techniques 2−53888
inert gas atoms and molecules, partial electron impact ionisation cross sections 2−90713
iodomethane($-d_3$) metastable cation, unimol., collision-induced and photoinduced dissoc. 2−75467
ion clusters, struct., stability, form. and props., rel. to nucleation, liq. props. and surface states 2−90756
ionic species produced by DC corona discharge in air 2−103513
iron pentacarbonyl, clusters, multiple-reson. mass spectroscopy 2−95515
isobutane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
isopropyl o-toluate mass spectra 2−90740
line mass spectra, calcs. obtained by modulation 2−85828
metal microclusters, inert gas condensation, mass spectra study 2−103969
N-methyl 2H,3,4-dihydro 1,3-benzoxazines, retro Diels-Alder reaction, mass spectra 2−57611
methyl ion+methane, gas phase reaction, mechanistic study, ab initio MO calcs. 2−99647
neopentane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
n-octane ion produced by low energy electron impact ionisation, mass spectra meas. 2−96748

mass spectra continued
2-oxo-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
propane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
propane, collision induced dissoc., metastable ions, mass spectra 2−96749
propane ion, C skeletal rearrangement, obtained by photoelectron-coincident photoion mass spectrometry 2−72972
2-propanol, protonated dimer, multiphoton dissoc., mass anal. 2−80742
pyridine, appearance pots., breakdown curves and metastable peak shapes, time depend. mass spectra 2−90515
rate consts., mass spectrometric study 2−72962
sucrose, laser desorpt. mass spectrometry, thermal aspects 2−75469
tetrachloromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
2,4,6,9-tetrathiaadamantane and its methyl derivatives, synthesis, mass and ^{1}H-NMR spectra 2−114016
2-thio-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
trichlorofluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
Venus atmosphere, minor constituents, mass spectrometry by Venera landers *(Russian)* 2−106579
p-xylene, multiphoton ionisation mass spectroscopy at 193 and 248 nm 2−70348
$Al^+ + O_2$, cross section, mass spectroscopy 2−105464
Ar_3^+, metastable cluster ion, unimolecular dissoc., temp. depend., mass spectra 2−99650
ArH_3^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
ArN_2^+ cluster ions, unimolecular and electron impact dissoc. 2−62380
Au film, adsorption of water, work function and thermal desorption mass spectrometry study 2−98468
BCl_3, and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_2Cl_4, and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_4Cl_4 and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
$Ba^+ + O_2$ (H_2O), cross section, mass spectroscopy 2−105464
BaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
CD^+, laser induced fluoresc. study 2−59853
CH^+, laser induced fluoresc. study 2−59853
CO dimers, electron impact fragmentation, IR laser and mass spectrosc. anal. 2−59947
CO_2 cluster, collision induced dissoc., metastable ions, mass spectra 2−96749
CO_2 clusters, multiply charged, critical sizes for stability 2−85856
CaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
Cu-Cr, thermodynamic study and phase diagram by mass spectrometry 2−56219
GaAs, electrical defect, Hall effect, SIMS and mass spectra meas. 2−76984
H_3^+-He^{++}, mass spectra obs. *(Japanese)* 2−113034
H_3^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
HNC, heat of form. determ. by ion cyclotron double reson. spectroscopy 2−83403
H_2O cluster ions, high mol. wt., form. in expansion of ionised gas mixtures 2−108760
He^+-D_2^+, mass spectra obs. *(Japanese)* 2−113034
In_2Te_3, evaporation, 725-895K, mass spectroscopic investigation 2−86845
Ir surface (110), interaction of H_2 and cyclopropane, thermal desorpt. mass spectrometry study 2−87062
Ir tape, covered by graphite monolayer, adsorpt. of K 2−115569
LaC_7, identification and atomisation energies by high temp. mass spectrometry 2−67761
LaC_8, identification and atomisation energies by high temp. mass spectrometry 2−67761
LaF_3 epitaxial films, MBE growth on Si substrate, MIS capacitance and mass spectra study 2−76861
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
NH_3-cluster ions, collision induced dissoc., metastable ions, mass spectra 2−96749
$(NH_3)_{n-2}NH_4^+$ cluster, (n=2-8), multiphoton ionisation mass spectra 2−70347
NH_2OH, photoionisation mass spectrometry, heats of formation of HNO^+ and NOH^+ 2−108642
$N_2O^{+*} \rightarrow NO^+ + N$, metastable decay, mass spectrosc. obs. 2−93780
Ne isotope separation in DC arc 2−85829
Ne, nonlinear cyclotron electron resonance spectrum in nonuniform field *(Russian)* 2−86381
$PbWO_4$, vapour form., by sublimation mass spectrometric investigation 2−86846
Pt (111), chemisorption from polar solvents, superlattice form., LEED, AES and mass spectra study 2−92354
$Rb^* + Rb$, collisional ionis. 2−90681
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
SO_2, ion-mol. reactions, low pressure, metastable transitions, mass spectrosc. investig. 2−93781
Si, adsorption of O_2, pulsed laser atom-probe study 2−110129
Si:H amorphous film, glow discharge deposition, plasma spectroscopy 2−115605
1,1,1-trichloroethane, IR enhanced multiphoton ionis. mass spectrum 2−80748
UO_2 kernelled HTR fuel particles, production of CO during burn-up 2−102045
$VCl_3(VOCl_3)$, electron impact dissociative ionisation, mass spectra study 2−96750
Xe isotope separation in DC arc 2−85829
XeF, at. beam scatt. study with mag. anal. 2−108738
^{168}Yb, isotope shift meas. by selective laser mass spectroscopy 2−108427

mass spectrometer applications
see also isotope separation; mass spectroscopic chemical analysis
atomic hydrogen, high-flux beam production using helium-temp. beam source 2−101492
energetic ion mass spectrometer for space appls. 2−53892

mass spectrometer applications continued
on-line quantitative analytical tool appl. 2−89853
partial pressure monitoring, in industrial vacuum plant 2−89734
process control, simplicity and viability 2−89851
process control instrumentation, conf., London, England (March 1981) 2−89444

mass spectrometer components and accessories
see also ion sources
abundance ratio meas. system for transient mass species 2−79709
directional ion energy analyzer 2−95518
Einzel lens, design, for improved resolution ion kinetic energy spectra 2−74566
electric deflectors with a spatial main path, ion optics 2−53890
electrode and mag. pole struct., fringing field integrals calcs. 2−74565
electrostatic multipole lens, third-order ion optics, appl. mass spectrometers 2−79705
emitter wires for field desorpt. and ionisation, resistive heating 2−101490
frequency-scanning marginal oscillator for ion cyclotron resonance spectroscopy 2−95517
frequency-swept detector for ion cyclotron resonance mass spectrometers 2−58964
frequency-swept quadrupole mass filter 2−74564
gas detectors for time and energy meas. using time-of-flight technique 2−90377
glass vacuum device for meas. photodesorption efficiency, of mols. 2−84732
heavy ions mass identification by time-of-flight techniques 2−90347
high mass resolution in medium-heavy ion reactions using short ion pulses 2−90345
ion mass and energy analyser 2−101488
ion source of a mass spectrometer with an electrostatically collimated electron beam 2−89848
ion-electron transducer for registering weak ion fluxes 2−107443
magnetic spectrometer, time determ. with large area thin plastic scintillator 2−90396
mass identified ions, lateral diffusion meas. system 2−91586
MI-1201 mass spectrometer ion source for temps. of 400 to 1400K 2−95516
particle identification for heavy ions in time-of-flight spectrometer 2−90346
pulse height analysers, modular system, CAMAC RAM controllers, microprocessor and LSI appls, 2−85511
quadrupole mass filters, design and performance, review 2−84735
quadrupole prefilter with vertical motion mount 2−84734
sample dryer for thermal ionization mass spectrometer, TTL, programmable 2−95520
time-zero detector for heavy ions mass identification 2−64156
Cu/Be electron multipliers, rejuvenation 2−69294
LaB_6 cathodes in mass spectrometry 2−113031

mass spectrometers
see also ion optics; mass spectra; mass spectroscopy
angle resolved mass spectrometry by Z-deflected scanning 2−113033
automated transportable mass spectrometer for isotopic anal. 2−74563
automated transportable mass spectrometer for nuclear material safeguards 2−80382
Bragg curve spectroscopy ionisation chamber, at Legnaro, heavy-ion mass and charge determ. 2−85471
Cherenkov 90-channel mass spectrometer for detection of γ quanta and electrons 2−64771
cloned mass spectrometer 2−113027
collision phenomena in mass spectrometer for isotope separation 2−108215
cryoscopic instrument for analysis of organic compounds 2−57659
double focusing mass spectrometer, design 2−113035
double time-of-flight mass spectrometer for dE/dx meas. of fission fragments 2−64157
drift tube guard ring design, appln. to swarm expts. 2−89849
Dynamics Explorer Wind and Temperature Spectrometer 2−58177
electron-ion coincidence spectrometer, appl. to 1,4-dimethylbenzene fragmentation *(Russian)* 2−84736
Energetic Ion Composition Spectrometer (EICS) for the Dynamics Explorer-A 2−58179
energetic ion mass spectrometer for space appls. 2−53892
Fourier transform mass spectrometer, collision-induced dissoc. 2−53887
gas discharge ion source, plasma diagnosis with a mass spectrometer 2−103467
Giotto experiments 2−68589
hybrid sector/quadrupole mass spectrometer 2−53886
impact mass spectrometer for Giotto probe, electronic system 2−78955
ion+molecule reactions, guided-beam tandem mass spectrometer 2−93782
ion cyclotron reson. detectors, freq. scanned, double reson. 2−95515
ion mass spectrometer appl. in ion composition meas. in space 2−94612
ions generated by electron ionisation, photodissoc. in ionisation chamber of double focusing mass spectrometer 2−113032
light ion mass spectrometer for space-plasma investigations 2−64159
medical, quadrupole gas analysers *(German)* 2−57881
MKh-7301 monopole mass spectrometer for nonstationary plasma obs. 2−109592
neutral mass spectrometer on Dynamics Explorer B 2−58178
process control, simplicity and viability 2−89851
quadrupole, instrument design and optimisation in gas chromatography/mass spectroscopy/Fourier transform IR spectroscopy 2−116755
quadrupole, microprocessor controlled 2−89852
quadrupole mass spectrometers, fragment ion pattern coefficients 2−79707
radioactivity distribution in spark-source mass spectrometer 2−54670
sector type tandem mass spectrometer, assembly and operation *(Japanese)* 2−113036
SIMS, double channel instrument 2−95523
SIMS, quadrupole mass spectrometer with energy filtering 2−95524
SIMS instrument, appln. to residual gas analysis using DIDA microprobe 2−78150
SIMS spectrometer with direct imaging laser ionization 2−95527
single focusing mass spectrometer with large incident and exit angles *(Japanese)* 2−113034
spacecraft ion mass spectrometer design using multiple solid state detectors 2−75130
triple analyser instrument for high resolution study 2−79706

mass spectrometry *see mass spectroscopy*

mass spectroscopic chemical analysis
see also atom probe field ion microscopy; ion microanalysis; ion microprobe analysis; isotope separation; mass spectra; secondary ion mass spectra; secondary ion mass spectroscopy
adenines, selectively labeled, electron ionisation spectra and mass spectrometry 2−108737
arc furnace electricity consumption reduction by preheating scrap with heat recovered from fumes *(German)* 2−73023
automated transportable mass spectrometer for isotopic anal. 2−74563
bioorganic molecules and biological specimens, laser-induced micromass spectrometry 2−100180
biotite samples age estimation by Rb-Sr method *(Japanese)* 2−94366
blood, trace analysis of Ag, Cu, Cd, Pb and Tl by isotope dilution surface ionisation mass spectrometry *(Japanese)* 2−93983
bromobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
chemically reacting mol. beams, directional pattern use in mass spectrometry 2−99733
chlorobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
cloned mass spectrometer for specificity increase 2−113027
dissector ion microanalyser, performance and use 2−95566
electrostatic mirrors and lenses, three-cylinder design, mass spectrometer appl. 2−89847
gas chromatography/mass spectroscopy/Fourier transform IR spectroscopy, instrument design and optimisation 2−116755
gas chromatography/mass spectroscopy/Fourier transform IR spectroscopy, small FTIR spectrometer system use 2−116756
gas mixtures and isotopes in free supersonic jet, spatial separation of components 2−88392
gas-phase acidities from triple quadrupole mass spectrometers 2−78153
Hewlett Packard product range review, gas chromatography/mass spectromters *(Italian)* 2−73024
high temperature mass spectrometry technique and appls. *(German)* 2−99741
ion beam spectroscopy of solids and surfaces 2−93853
ion etching instrument for depth profiling with SIMS or ion-impact induced radiation 2−95528
ion microanalyser, dual primary ion source and mass filter 2−95540
ion microprobe mass analyser using positive primary ions and electron gun, insulator anal. 2−95565
ion probes A-DIDA, advances 2−95568
long-lived doubly charged atomic negative ions, search using mass spectrometer 2−101491
mass identified ions, lateral diffusion meas. system 2−91586
mass spectrometer applications and ion chemistry, book 2−89496
medical mass spectrometer, quadrupole gas analysers *(German)* 2−57881
methane, collision induced decomposition, mass spectrometry study 2−79706
on-line quantitative analytical tool appl. 2−89853
organic acids, laser desorpt. mass spectroscopy 2−69295
plasma etching endpoint detection in a batch loaded planar etcher 2−71267
process control, simplicity and viability 2−89851
production line processes, microprocessor controlled quadrupole mass spectrometer 2−89852
quadrupole-based SIMS instruments, design and performance, review 2−84735
residual gas analysis, deviation of cracking patterns, effect on accuracy 2−93856
semiconductor materials, RF plasma etching, end point detection using optical emission spectra and mass spectrometers 2−72859
silver oxalate, thermal decomposition, mech. pretreatment effects, mass-spectrometric thermoanalysis 2−62397
SIMS, depth profiling, resolution, dynamic range and sensitivity 2−89850
SIMS, quadrupole mass spectrometer with energy filtering 2−95524
SIMS, secondary ion optics system for use with quadrupole mass spectrometer 2−95526
SIMS analysis, spatially three-dimensional instrumental aspects 2−95521
SIMS equipment for use in iron and steel anal. 2−95525
SIMS equipment Riber MIQ 156, improvements and appls. 2−95529
SIMS instrumentation construction problems 2−95522
solar energy conversion technologies, solid-gas interface meas. techniques, review 2−87044
solar energy conversion technologies, surface analytical techniques, review 2−88412
spark-source photographic mass-spectra, program for automated processing *(Russian)* 2−83421
theoretical aspects of mass spectrometry 2−113028
time-zero detector for heavy ions mass identification 2−64156
Al films, vacuum deposited, effects of impurities on emittance 2−98317
CO_2 electron-beam-controlled closed-cycle laser, gas mixture catalytic regeneration 2−70584
Cs^+ ion source on COALA ion microprobe for negative ion SIMS 2−95538
F+Si surface, reaction, gas phase products anal. 2−83409
H isotopes, mass spectrometric anal. 2−90297
$(H_2O)_nH^+$, collision-induced dissoc. using triple quadrupole 2−102678
$H_2S^+ \rightarrow S^+ + H_2$, metastable reaction, mechanism, product energy distrib., mass spectra anal. 2−57597
He isotopes, mass spectrometric anal. 2−90297
I laser pumped by open discharge radiation, active mixture regeneration, chromatographic mass-spectroscopic anal. 2−114260
InP, dissoc. under vacuum, kinetics 2−116691
Li molecules with Bi and Pb, atomisation energies determ. 2−60710
Li, SIMS analysis involving Li^+ implantation and matrix effects 2−78152
NO_3^- form. from gaseous ethyl nitrate, reaction mechanism, high press. mass spectrometric meas., 2−72960
NaCl:O^{2-}, γ-irrad., annealing, radiolysis products studied by mass spectrometry *(Russian)* 2−78167
Ni surfaces (001) and (111), O_2 interaction, SIMS investig., residual hydrogenated cpds. intervention 2−73015
Ni-O surface, interaction with H_2 and H_2O, SIMS study 2−99708
PbI_2 film surface layer, band gap illumination effects 2−92368
PbI_2, surface, photolysis and conductivity, desorption, quadrupole mass spectra study 2−66617
Pu, anal. using mass spectroscopy 2−74567

mass spectroscopic chemical analysis continued
SF_4 detection in sparked SF_6 using high press. mass spectrometry 2−88387
$Sn_2P_2S_6$, thermal evaporation, ferroelectric props. 2−71622
U, anal. using mass spectroscopy 2−74567
UF, UF_2, UF_3 and UF_4, gaseous equilibria, reaction enthalpies and entropies, bond dissoc. energies 2−60709
UO_2 pellets, occluded gas anal. by mass spectrometer and fuel quality control 2−85140
ZnO, thermodesorpt. of atomic O 2−67768
ZrF_4+F^-, enthalpies of reaction, mass spectrometric determ. 2−116719
$ZrF_4+ZrF_5^-$, enthalpies of reaction, mass spectrometric determ. 2−116719

mass spectroscopy
see also atom probe field ion microscopy; mass spectra; mass spectrometers; secondary ion mass spectroscopy
analogue device for particle identification 2−107442
applications and ion chemistry, book 2−89496
applications progress in research and instrumentation 2−68971
automatic data classification in mass spectroscopy 2−53799
borate glasses, surface anal. by fast atom bombardment mass spectrometry 2−83424
collisionally-induced dissoc. mass spectrometry, containment of parent and daughter ions in triple quadrupoles 2−74568
developments in quantitative mass spectrometry 2−53885
dielectric film form. on ion source 2−69293
fast atom bombardment mass spectrometry for surface anal. 2−83424
field desorption high resolution mass spectrometry utilising multichannel scaling techniques 2−53888
field desorption mass spectrometry 2−113029
gas-phase acidities from triple quadrupole mass spectrometers 2−78153
high-resolution vibrational electron energy-loss spectroscopy of solid surfaces, apparatus 2−89869
long-lived doubly charged atomic negative ions, search using mass spectrometer 2−101491
mass identified ions, lateral diffusion meas. system 2−91586
multiphoton ionisation mass spectroscopy 2−64158
n-octane, collision with SiO_2 surface, vibr. energy transfer, mass spectrosc. obs. 2−114082
organic acids, laser desorpt. mass spectroscopy 2−69295
organic compounds, mass transfer charact. by mass spectrometric anal. 2−60359
organic solids, thermal desorpt. prod. of gas phase ions, mass spectrometry appl. 2−115535
parity and time reversal violating interactions obs. by trapped ion spectroscopy 2−70440
pharmaceuticals, trace anal. by combined liq. chromatography/desorpt. mass spectrometry 2−99731
pulse current meas. of electron multipliers counting efficiency *(Japanese)* 2−89866
quadrupole traps, 3D, ion mobility characteristics, Hill equation appl., angular momentum effect *(French)* 2−101489
residual gas analysis, deviation of cracking patterns, effect on accuracy 2−93856
sucrose, laser desorpt. mass spectrometry, thermal aspects 2−75469
theoretical aspects of mass spectrometry 2−113028
thermal emission mass spectrometry, ion source 2−74567
$(ArCO_2)^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
^{249}Bk, metal, vapour press. and thermodynamics 2−104022
$C_3H_4^{+}+C_3H_4$ reaction in propyne and allene, long lived collision complex form., exothermicity effect 2−111473
$(CO,CO_2)^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
$(CO_2)_2^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
Hg_2, vaporisation equilib., mass spectrometric obs. 2−103965
Li oxide systems, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
Li_2O-SiO_2, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
NH_2^{+}+methylamine (methanol), reaction kinetics, mass spectrosc. investig. 2−93786
NbO, NbO-Nb vaporisation study by mass spectrometric methods 2−92170
Nd-Sm mixture, isotope ratios determ. by resonance ionisation mass spectrometry 2−116761
SiC:Al, implanted ion diffusion, profile anal. by STMS 2−109824
TaO layers, Ta, quantitative anal. by sputtered neutral mass spectrometry 2−93842

mass standards *see measurement standards*

mass transfer
γ-ray burst source (1979 March 5) neutron star accretion mechanism *(Chinese)* 2−79246
2A 0311−227, AM Herculis star, wavelength independent modulation from accretion column emission 2−94775
2A 0311−227 (EF Eridani), AM Herculis star, accretion column model, visible/IR obs. 2−89311
ablating surface, cooled with swirled-film, mass transfer 2−70925
accreting neutron stars, He shell flash, H-rich envelope effects 2−94766
accreting white dwarfs, He shell flash and evolution 2−89252
accretion disc winds driven by super Eddington velocities, appl. 2−84077
accretion disc winds driven by super-Eddington luminosities, thermal and spectral props. 2−84076
accretion disc winds driven by super-Eddington velocities, dynamical theory 2−84075
accretion flow, X-ray heated, stability and time depend. 2−117575
accretion flow, X-ray heated, steady flow region 2−117574
accretion flows in astrophysics, vortex funnels theory 2−58233
Ae/Be short period binaries, possible mass transfer and relation to Algol binaries 2−74031
Algol-like binary stars, evidence for mass transfer from transient photometric disturbances 2−112483
alveolar-capillary membrane, modelling of mass transfer *(Russian)* 2−62568
R Aquarii, symbiotic star, mass ejection rel. to elongated extension of stellar image 2−117685
R Aquarii, symbiotic star, outburst due to episodic mass transfer 2−94732
mass transfer continued
aqueous binary soln., solidification, heat and solute transport anal. in dendrite tip region 2−65470
aqueous binary soln., solidification heat and solute transport anal. of basal plane region 2−65469
V1343 Aquilae, relativistic jets nature, role of mass transfer between components 2−79128
V1343 Aquilae (SS 433), early type star mass transfer to secondary accretion disc 2−63471
V1343 Aquilae (SS 433), stellar wind mass loss rel. to simultaneous radio and X-ray activity 2−112453
artery wall, mass transport 2−73293
axisymmetric jet impinging flat plates, mass transfer, surface press. fluctuations influence 2−91503
bibliography of Soviet works from 1980 to 1981 2−89501
bibliography of Soviet works on heat and mass transfer 2−94938
bibliography of Soviet works on heat and mass transfer 1979-81 2−63772
binary gaseous mixture, nonstationary state of heat and mass transfer processes 2−60536
binary gravitating system, sudden loss of mass 2−107045
binary melt, crystallisation, nonequilib. two-phase zone model, convection effects 2−109719
binary stars, effects of mass loss on evolution 2−63536
binary stars, eqns. of motion of systems with variable masses 2−68831
binary stars, evolution and mass transfer rates in highly compact systems 2−68812
close binary stars, far UV excesses obs. from five colour band UV photometry 2−63514
binary stars, for evolution with mass transfer 2−100912
binary stars, mass transfer rel. to bifurcation points in evolution of medium-mass binaries 2−106782
binary stars, period changes in detached close systems due to anisotropic mass ejection 2−74017
binary stars mass transfer effect on evolution 2−68832
black hole, mag. fields and accretion discs 2−106772
black hole imbedded in mag. field, conducting medium accretion 2−112772
black hole spherically symmetric accretion, electron pair production 2−100720
black holes, accreting, in galactic nuclei, effects of pancake detonation of stars 2−63654
black holes, constraints on gamma-ray production by spherical accretion with e^+-e^- pair prod. 2−68808
black holes, optically thick accretion, critical points 2−89293
black holes, spherical accretion and synchrotron emission 2−79136
black holes accretion of spheroidal dust shells, gravitational radiation 2−117703
black holes spherical accretion, multiple Compton scatt. effect on temp. and emission spectra 2−58379
blue stragglers exhibiting peculiar charact., mass transfer hypothesis 2−84288
boundary layer, stratified, turbulent, heat-and-mass transfer *(Ukrainian)* 2−60530
bubble and packed bubble columns, with downcomers, hydrodynamic and mass transfer charact. 2−109394
bubble dynamics, review and some recent results 2−55641
η Carinae, Hα line profile obs. rel. to massive circumstellar shells 2−106724
Cassiopeia A progenitor, implications for stellar mass and mass loss of remnant N/H ratio 2−63417
cataclysmic binary stars, radiation emissions and accretion 2−100959
ZZ Ceti stars, accreted H mass determ. 2−94712
channel flow, free surface, turbulence struct. and transport mechanism study 2−65646
chemically reactive gas condensation on horizontal tube, heat and mass transfer in boundary layer 2−60672
circulating well, aquifer mass transfer, temp. profile 2−91225
coefficients in packed beds at very low Reynolds numbers 2−91531
cold oxide traps, solution of heat and mass transfer problem 2−60381
FK Comae Berenicis, coalescing binary, mass transfer, Hα obs. and anal. 2−117675
common envelope binaries of blue supergiant+neutron star, evolution and mass loss rates 2−63538
concrete slab, surface heated, heat and mass transfer, evaporation-recondensation mechanism 2−114621
convective accretion disks and dwarf nova outburst onsets 2−117679
convective diffusion equation, asymptotic solutions, fluid flow, mass transfer and heat transfer 2−91455
convective mass transfer in porous media, boundary and inertia effects 2−97645
Couette flow in a flat conduit 2−114912
crystal surface mass transfer processes in crystallisation and melting 2−103963
CW 1103+254, AM Herculis star, two accretion stream model from photometric and spectroscopic obs. 2−94751
CI Cygni, symbiotic star, accretion disc struct. rel. to UV obs. during 1980 eclipse 2−63437
CH Cygni, symbiotic star, supercritical accretion rel. to spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
V1357 Cygni (Cygnus X-1), light curve anal., accretion disc transient streams effect, UBV obs. 2−106816
discrete solids in partially-filled pipe flow, transport models 2−97641
dissolution of rough wall in plane channel, mass transfer depend. on struct. of stream 2−60651
dissolved species in pulsating crack, advection-diffusion eqn., numerical soln. 2−91569
dwarf cataclysmic binary stars, effect of gravit. wave radiation on mass exchange and evolution *(Russian)* 2−106751
dwarf novae viscous accretion disc outbursts and mass flow, light curve anal. 2−63456
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. rel. to gas streaming 2−58381
ethyl alcohol, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2−60503
evaporating liquid, mass transfer effect on surface wave spectrum 2−109349
external mass transfer in packed sorbent beds, direct meas. 2−91414
2Dflow between parallel plates, mass transfer, turbulence promoters effect, flow separation obs. by visualisation 2−97513
flow past infinite porous plate in rotating fluid, effects of mass transfer and free-convection currents 2−106498

mass transfer continued
fluid sphere in non-Newtonian fluids, surfactant effect on terminal vel. and mass transfer 2−103190
fluidised bed, mass transfer between gas and solid 2−114896
free convection and mass transfer MHD flow through porous medium 2−114798
free convective mass transport, electro-chemical flow visualisation 2−103161
free convective MHD flow and mass transfer past an accelerated vertical porous plate 2−114923
frost form. on vertical cylinder in free convective flow 2−91437
galactic mass loss, mild evolutionary correction to ang. size test 2−68882
galaxies, intergalactic gas inflow rel. to chemical evolution of two-component galaxies 2−106897
Galaxy centre black hole, accretion rate 2−63670
gamma-ray burst source, neutron star accreted layer thermonuclear model, shock wave 2−94862
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861
gas absorption into falling laminar non-Newtonian films 2−81369
gas diffusion in porous media, mass transfer in transition region calc. 2−70995
gas-solid reacting systems, heat and mass transfer, thermodynamic approach 2−65635
GX 339−4, accretion flow cyclotron radiation 2−94776
HD 77581, X-ray binary accretion struct., effect of supergiant rot. axis forced precession *(Russian)* 2−68828
heat-flow distribution and combined heat-mass transfer processes at the contact interface of a friction pair 2−60360
TX Herculis, detached close binary star, anisotropic mass ejection rel. to period changes 2−74017
TX Herculis, detached close binary system, chromospheric activity and mass ejection rel. to period behaviour 2−74018
HZ Herculis, spectral line profiles, taking mass transfer into account 2−94786
HZ Herculis, X-ray binary precessing tilted accretion disc periodic mass transfer models 2−84264
AM Herculis stars, 2-second period, standoff accretion shock height instability, model predictions 2−94777
n-hexane, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2−60503
high speed turbulent models at rough wall boundary layers 2−91403
hyperbolic system of two differential eqns., group props. 2−79499
incompressible flows, turbulence models 2−97534
incompressible separated flow, laminar and turbulent boundary layers, heat, mass and momentum transfer *(German)* 2−81335
Indian developments and appl., w.r.t. international status 2−81205
inner-flow regions with closed streamlines at high Peclet numbers, mass and heat transfer 2−114607
intercrystallite crack development by diffusion mass transfer, kinetics 2−81289
Kryopoulos grown crystals, cryst. shape 2−65908
laminar duct flow, heat and mass transfer with mist form. 2−109269
laminar film flow, mathematical model, heat and mass transfer in two-phase flow 2−97495
laminar incompressible flow, boundary layers, unsteady mixed convection 2−91448
laminar liquid films, chemical reactions, gas absorpt., mass transfer 2−65656
laminar unsteady boundary layer accelerated flow past vertical porous limiting surface 2−55536
laminar vortex flow, mass transfer, forced convection *(French)* 2−55561
LB 3459 O-type subdwarf eclipsing binary form. from mass exchange in first giant phase 2−63504
liquid film mass transfer coeffs. for column packed with partially wetted rings 2−103138
liquids, boiling and cryogenic, acoustic cavitation and vapour bubble dynamics 2−55623
long-period variable stars, mass loss rates theory 2−94748
magnetised white dwarfs, time depend. accretion, shock height oscills., hydrodynamic solns. 2−94773
magnetized neutron stars, low-luminosity accretion 2−89291
Mars, regolith-atmosphere exchange of H_2O and CO_2 rel. to atmospheric history and climate change 2−112367
mass transfer between fluidized bed and capillary-porous body 2−60638
massive common envelope binary stars, evolution and mass loss 2−63537
massive stars, influence of initial stellar comp. and mass loss on evolution 2−106682
MBD 1730−335, accretion onto neutron star mag. poles rel. to two modes in type II bursts *(Russian)* 2−112509
metallic layer contact system, diffusion-induced boundary migration during heating 2−86952
metals, molten, local velocity and mass transfer meas. using incorporated mag. probe 2−114949
BT Monocerotis (Nova 1939), eclipsing nova, mass transfer rate 2−68776
neutron star, magnetosphere accretion disk interface, Kelvin-Helmholtz instabilities 2−112480
neutron star accretion, H-He flash as gamma ray burst origin 2−106959
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron star accretion in Wolf-Rayet binary systems, rel. to absence of X-ray pulsars *(Russian)* 2−106750
neutron star gamma ray sources spectra, role of cyclotron reson. processes 2−58374
neutron stars, surface thermonuclear processes, model calcs. 2−84259
non-Newtonian turbulent boundary layer, mass and heat transfer 2−75828
nonequilibrium fluid, heat and mass transport, entropy, relax. phenomenological eqns. 2−103011
nonisothermal chemical reaction at the particle surface in a laminar flow 2−91429
nonreacting turbulent flow of jet in opposing stream, heat, mass and momentum transport meas. 2−65573
numerical method for simulation 2−95277
O-type and related stars, radio and IR emission rel. to mass loss 2−63415
O-type stars, mass loss and evolution, symposium, Vancouver Island, Canada (1978 June 5 to 9) 2−58541
O-type stars, stellar wind mass loss rel. to evolution and Wolf-Rayet connection 2−63477
O-type stars, UV view of stellar winds 2−63385
mass transfer continued
Of stars, mass loss during H burning stage rel. to evolution into Wolf-Rayet stars 2−63479
Of-type stars, stellar wind mass loss rel. to evolution to WN7/WN8 stars 2−63478
open inclined surface solar regenerators, anal. for absorption coding applications by numerical and analytical models comparison 2−67889
organic compounds, mass transfer charact. by mass spectrometric anal. 2−60359
particle-liquid mass transfer in viscoelastic media 2−114880
phase flkow, axial change effects on mass transfer and dispersion coeffs. 2−71016
planet accretion in red giant envelope/wind, transform. to low mass star, cataclysmic binary form. 2−112454
planetary nebulae with close binary nuclei, corrections to ang. momentum loss 2−89259
polymers, semicryst., sliding against steel, wear and material transfer 2−83241
polyoxyethylene soln., pipe flow, mass transfer, NMR study 2−103192
porous bodies, surface phenomena occurring due to heat and mass transfer processes 2−109315
porous half space, heated, transient heat and mass transfer, self-similar temp., press. and moisture distrib. 2−114603
porous medium bounded by porous plate, free convection and mass transfer 2−114898
powders, mass transfer routes in reactions 2−72963
power-law fluids, axisymmetric stagnation point flow and mass transfer 2−81367
protoplanetary nebula, mass loss and evolution 2−100772
protostellar objects, excess line emission due to natal material accretion 2−89249
PSR 1913+116, binary pulsar, period from spiral-in history, accretion effects 2−68799
PTFE, semicryst., sliding against steel, wear and material transfer 2−83241
VV Puppis, time-resolved spectroscopy rel. to accretion column struct. 2−112449
red giant mass loss variation between Population I and II systems 2−94711
2S 1223−624 (GX 301−2), X-ray binary, neutron star accretion model 2−89312
U Sagittae, Algol system mass transfer and subgiant radius var., uvbyl obs. 2−74027
Saturn, excess thermal flux due to material accretion from Titan 2−84147
α^1 Scorpii, mass loss rate from IUE obs. of α^2 Scorpii 2−58334
shear gas flow, diffusion to a particle in arbitrary surface reaction kinetics 2−114926
shock wave propag., vaporisation heat and mass transfer 2−114849
spheres, single, in low Reynolds number flow, heat or mass transfer 2−65584
spherical bubble dynamics in incompressible liquid, Rayleigh Plesset eqn., non-Newtonian behaviour 2−71019
stars, critical mass loss rates from OB-type stars for evolution to Wolf-Rayet stars 2−63393
stars, effects of mass loss by stellar wind on evolution 2−63392
stars, effects of mass loss on evolution of single stars 2−63391
stars in semidetached binaries, conservative mass transfer calc. using response functions 2−112490
steady accretion disks structure, depend. on mass of central star and accretion rate 2−100913
steady transonic duct flow, aerodynamics interaction of heat transfer 2−70930
steel, ferritic, anodic disoln. in H_2SO_4 influence of Cr on mass transfer limitation 2−67612
stellar accretion effects on evolution, hydrodynamical anal. 2−68751
stellar coronae, effect of heating on energy balance and mass loss rate 2−112425
stellar magnetosphere with accreted magnetised mass. equilib. config. 2−100905
stellar mass loss rate, effects of stochastic fluctuations on evolution 2−106674
stellar winds, radiatively driven, line acceleration and mass loss rates 2−106668
stellar winds, theory of mass loss from hot stars 2−63394
stratified fluid, freely convective mass transport 2−60607
suspensions, fluid dynamics and mass transfer *(German)* 2−86322
thermal boundary layer, diffusion controlled, mass and heat transfer 2−65577
transfer of momentum, mass, and heat in bubble columns *(German)* 2−86278
translating drop in elec. field, heat and mass transfer 2−91428
transonic flows, heat and mass addition, similarity rules 2−103186
transport processes and unit operations (book) 2−63767
triangular duct with narrow apex angle, fully developed flow, turbulence and mass transfer meas. 2−70919
turbulent air stream, liq. evaporation, heat and mass transfer 2−65586
turbulent boundary layer, reactive material injection, combustion 2−114778
turbulent liquid jets, heat and mass transfer 2−71003
turbulent pipe flow, dispersion of released H_2O droplets, mass transfer 2−65650
turbulent pipe flow, relation between mass transfer and corrosion 2−76024
two region slab with eroding boundary, transient mass diffusion problem 2−97683
two-fluid vapour-liquid flow, interfacial exchange relations, regime-map approach 2−97634
unstable flow characts. over rectangular cavity and effect on mass exchange 2−91551
V-VI-VII compounds, chem. transport during crystn. from vapour 2−81698
vapour bubbles in boiling liquid, growth and collapse 2−109396
vapour filtration in dispersed media, heat and mass transfer eqns. 2−60640
vapour-gas mix., heat and mass transfer on high-rate evaporation of liqs. 2−91421
TW Virginis, dwarf nova during outburst, winds and mass transfer 2−117674
viscous incompressible fluid, laminar flow past accelerated plate, mass transfer effect 2−65560

mass transfer continued
white dwarf, accreting in binary system, evolution model up to Type I supernova 2−63482
white dwarf binary systems, accretion rate rel. to new model for Type I supernovae 2−63484
hot white dwarfs, accretion rates rel. to props. quasi-static approximation 2−106691
white dwarfs, H-shell burning and diffusion, accretion rate effects 2−89253
white dwarfs, He-rich with metal features, grain accretion from interstellar medium 2−117667
white dwarfs, mass accretion rate rel. to secular evolution and Type I supernovae 2−112439
Wolf-Rayet binary stars, conservative and non-conservative evolutionary computations 2−63480
X-ray binaries, pulse period distrib. gap, accretion effects on neutron stars 2−58388
X-ray binary, neutron star accretion, magnetosphere and evolution within two stream model 2−74014
X-ray binary stars, effects of X-ray heating and ionisation on stellar winds 2−106775
X-ray burst sources, accreting neutron star envelope, shell flashes 2−94863
X-ray sources, recurrent, effect of stellar wind vel. on eccentric-orbit binary model 2−84275
X-ray transients, neutron star thermonuclear evolution model and accretion 2−94860
Al_2O_3 sphere in KCl single cryst., crowdion mass transfer mechanism in localized stress relaxation *(Russian)* 2−66121
Be-stars, mass loss from UV spectra 2−73991
C/O white dwarf, accretion rate effect on evolution, nova 2−89268
Cu powder electrodeposition at gas-evolving electrodes, mass transfer role 2−62090
Fe and Fe-Ni alloys, low temp. pulsed action, γ-α transitions, radiative tracers *(Ukrainian)* 2−105141
Fe-Ni, laser surface alloying, mass transport effects, theory 2−93660
GaInAsP-InP buried heterostruct. laser fabrication 2−60095
MgF_2:CaF_2, recrystallisation pressing, struct. and strength 2−99524
$MgSO_4$, decomp., kinetics, solar energy storage *(French)* 2−93948
Ni film-electrolyte system, transient processes initiation by IR laser pulse 2−82046
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
Ti alloys, high melting point, low temp. plasma interaction *(Russian)* 2−99595
Ti particle dispersion regularity, in high temp. Ar jet, with combustion *(Russian)* 2−60599

master equation
atoms, laser induced autoionisation, spontaneous emission effect 2−70200
Boson subsystem, reduction up to lowest order 2−58695
chemical reaction system, fluctuations, space-time correlation *(Chinese)* 2−111459
conductivity of a lattice-gas with coulomb-interactions 2−101353
desorption times, from rate equn., master eqn. and Fokker-Planck eqn. 2−61284
disordered 1-D chain, low freq. hopping cond., coherent medium approx., master eqn. 2−77010
disordered system, particle diffusion, long-time tail effects 2−74369
divacancy random walk on FCC lattice, Markovian master eqn. formalism 2−71698
ethyl acetate, multiphoton dissoc., master eqn. description 2−96654
evolution equations, fluxes and the elimination of fast-relaxing variables 2−58761
exact, convolutionless master eqns. equivalence 2−74310
heavy-ion collisions, light particle emission 2−85092
infinite state system, master eqn. properties 2−63799
Ising model, kinetic, real-space renormalisation group approach 2−104642
isomerisation, probabilistic dynamics, sub master eqn. 2−88352
level crossings, master eqn. 2−54348
Liouville space theory of sequential quantum processes, appl. to system with internal reservoir 2−95227
Liouville space theory of sequential quantum processes 2−95226
N-component system, step growth, master eqn. approach in column variables 2−91852
neutron-induced reaction, ang. distrib. calc. based on exciton model 2−69665
non-Markov processes, theory of mean first passage time 2−79470
nonequilibrium, collision operator singularity, rel. to pseudo Markovian eqn., Lee model appl. 2−63894
nonequilibrium system, linear response, generalised eqn. of motion derivation 2−101303
nonMarkoffian diffusion in 1D disordered lattice 2−95242
physisorption kinetic eqns., compensation effect 2−115532
quantum dynamical semigroups, path integrals and stationary phase approx. 2−95230
quasi-one-dimensional electronic conductors, freq. depend. cond. 2−87235
quasi-particle transport with intermediate degree of coherence, disorder effect, mean square displacement calc. 2−74365
random one-dimensional hopping systems, quasi-localisation effects 2−87234
reaction diffusion systems, multivariate master eqn. stochastic derivation 2−93752
reaction-diffusion system fluctuations *(Chinese)* 2−111450
Schrodinger-like equations, nonlinear, dissipative, master eqn. derivation 2−79466
solution time relaxation, large system behaviour 2−79502
stochastically driven systems, finite size effects, use of Poisson representation 2−101328
surface step growth, master eqn. approach 2−98403
surface-adspecies system, laser/phonon stimulated processes, synergistic effects, master eqn. approach 2−66371
unstable state dynamics, master equation evaluation 2−58714
vinyl cyanide IR multiphoton dissoc., fragments internal state distrib. effect 2−59872

materials
see also individual materials, e.g. ceramics
bitumen, Maxwell-Norton rheological model *(French)* 2−60494
engineering appl., book 2−89499
engineering materials investig. using atom-probe techniques 2−109642
EXAFS studies in materials science, review 2−93388
fabrics, colour characts. rel. to fibre characts., struct. factors and type of dye, spectrophotometric obs. 2−107381
powdered milk subsitute, moisture determ. by near IR photoacoustic spectrosc. 2−89731

materials handling
see also fission reactor fuel preparation and reprocessing; fluidised beds; grinding; transportation
coal fines, pelletisation, process engineering 2−73056
Fuels and Materials Examination Facility, transfer tunnel transporter 2−107975
GCFR fuel pins, remote pressurisation and resealing 2−108022
hot experimental facility, remote handling electromech. three-axis development 2−108025
Hot Fuel Examination Facility, Ar cell, decontamination and refurbishment 2−108152
Hot Fuel Examination Facility, data acquisition and process control system 2−107968
hot fuel examination facility, flow path for FFTF components 2−107965
Hot Fuel Examination Facility, in-cell materials handling 2−107972
hot fuel examination facility, operating philosophy and experience 2−107964
in-reactor maintenance and repairs 2−108066
irradiation chamber for expts. with solid-state nuclear track detectors 2−70109
nuclear fuel casks, cooldown testing 2−75063
radioactive spent fuel shipping cask, transport experience *(Japanese)* 2−96124
remote visual displays for nuclear maintenance tasks, optimisation methodology 2−54535
research reactor, concrete biological shielding, demolition and removal 2−108155
safe automated fabrication, batch furnace operation, chemical anal., automated handling 2−108024
sodium safety facility, test sections, handling at Hot Fuel Examination Facility 2−107971
sugar cane, aerodynamics of pneumatic drag, mathematical model for more efficient sorting methods *(Spanish)* 2−55609
TEM, high-resolution, appl. to processing of ceramics 2−97881
transportation of nuclear material 2−108158
TREAT specimens, handling in Hot Fuel Examination Facility 2−107970
Pu container, for air transport, safeguards appl. 2−107959
Pu fuelled fission reactor assemblies 2−102191
PuO_2, raw material, large package transportation design 2−102031

materials preparation
see also crystal growth; hot pressing; powder metallurgy; powder technology; sintering; vulcanisation
A15 continuous filamentary superconductors, metallurgy 2−67263
A15 multifilamentary superconductors, alternative fabrication technologies 2−67264
accelerator target prep. by painting 2−108184
accelerator targets and isotopic sputter-ion source targets, prep. techniques 2−108191
acetylene-methylacetylene copolymer film, conductive, synthesis 2−57327
actinide targets preps. for solid state research 2−108182
anthra[9,1-cd:10,5-c'd']bis[1,2]dithiol (diselenol) and their polyiodides, prep. 2−93465
4,4'-biselenopyranylidene based charge transfer complexes and radical ion salts with TCNQ and DDQ 2−92577
borosilicate glasses, composition profile, near surface, SIMS study 2−115144
bubble migration inside a liq. drop in a space laboratory 2−57312
$CC^{248}Cm$ targets prep. for superheavy element synthesis 2−108185
ceramic binding materials, heat resistant, prep., fundamental principles 2−111121
ceramic polycrystals, struct. reliability, processing-depend. phenomenon 2−77908
ceramics, development and production 2−88031
diamond, explosive shock synthesis prod., polycrystalline, polishing performance 2−72921
diamond formation, from glassy C under high pressure and temp. conditions 2−99363
fusion reactor materials, pot. for using rapid solidification for improved irrad. performance 2−108107
glass chemical comp. rel. to struct. and phys. props. 2−91803
glass fibre reinforced fluorocarbon resins 2−72665
glass thin films, sol/gel prep. and characterisation, SIMS study 2−82093
glasses, sol-gel method and prep. from melt, comparison 2−77791
glasses and glass-ceramics, prep. from gels, conf., Padova, Italy (Oct. 1981) 2−74151
inorganic synthesis under shock-wave compression 2−78099
melt-spinning process, Kavesh's model of ribbon form. 2−93467
metal chalcogenides, mechanochemical synthesis, explosions *(German)* 2−62053
metal-organic precursors, powder synthesis 2−99364
metallic glasses, based on U, Np or Pu, formation 2−72651
multilayer targets with thin ferromagnetic layers for transient field expts. 2−108194
nuclear fuel, characterisation and quality control, conf., Karlsruhe, Germany (June 1981) 2−84372
nuclear target development, conf., Gatlinburg, TN, USA (Oct. 1980) 2−106997
organic conductors, design, synthesis and characterization of mol. components 2−92575
phosphates, polymeric vitreous, gas phase synthesis laws 2−111084
phospholipid multilayer, oriented monodomains, polarized Raman spectra 2−73207
PMMA film, ion-bombarded, high resoln. photomasks prep., LSI appls. 2−77799
poly-p-phenylene, highly conducting, prep. by solid-state polymerization 2−57614
poly-p-phenylene vinylene, doped, conductive, synthesis and elec. props. 2−57327
polyethylene fibre, ultrahigh strength, prep. by zone annealing method, mech. props. *(Japanese)* 2−88051
polymers, conductive, cond., Las Vegas, NV, USA (Aug. 1980) 2−53430
polyolefin-polystyrene blends, thermomech. anal. 2−77801
polypyrrole film, conductive, electrosynthesis and behaviour 2−57615
rare earth titanates, $R_2O_3.2TiO_2$, prep. by coprecipitation, crystal struct. 2−72610

materials preparation continued
Shirasu volcanic glass-CaO-MgO system, glass form. composition range, props. *(Japanese)* 2−88049
silicate glass, prep. from colloidal gels by sintering 2−72663
sol-gel process, history and principles 2−77792
space research effect on materials science and engineering 2−57313
stable and actinide isotope targets prep. for nucl. meas. 2−108196
steatite ceramics, extruded, texture effects, glass phase influence 2−111117
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, neutron irrad., microstruct. 2−108112
steel, austenitic stainless, refinement, for corrosion resist. improvement 2−72870
steel, stainless 316L, fibre reinforced bioglass, processing and static mech. props. 2−57412
superconducting material fabrication technology, review 2−67256
superconductor materials science, metallurgy, fabrication and applications, conf., Sintra, Portugal (Aug. 1980) 2−63751
synthesis and cryst. struct. *(French)* 2−91915
target preparation by piezoelectric jet device 2−108193
target preparation of vapour deposition, Weizmann Institute activities report 2−108192
tetraazaannulene macrocyclic complexes, metalloorganic conducting materials, synthesis and characterization 2−56564
tetrakis (deuteriomethyl) tetraselenafulvalene, preparation 2−93464
tetraselenafulvalenes, substituted, synthesis from dimethylphosgene iminium chloride 2−93463
tetraselenafulvalinium based one-dimensional solids, prep. and props. 2−92583
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
$(TMTSF)_2X$ salts, prep. struct. and anion effects 2−55957
transition-metal cation-TCNQ-cyclam complexes, synthesis and elec. resist. 2−93466
TTF based one-dimensional solids, prep. and props. 2−92583
$Ag_4Al_3Si_3O_{12}I$, synthesis by solution-solid mixing, X-ray diffr. characts. 2−83052
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2−115145
Al_2O_3 fibre, prep. and changes of microstruct. by heat treatment *(Japanese)* 2−116417
Al_2O_3 fibre reinforced Al-Mg, fabrication method 2−67259
β-Al_2O_3:$Ag^+(Cu^+)$, solid ceramic electrolyte, cells for thermodynamic studies 2−99378
alloy film preparation, evaporation kinetics from melt *(Russian)* 2−66393
^{241}Am-Ce alloys investigation for target appl. 2−108183
B_2O_3-Na_2O-Na_2SO_4 system, synthesis and cond. of glasses *(French)* 2−56248
$Ba_3P_6O_{18}.9H_2O$, preparation and props. 2−72643
$BaPt_2S_3$, synthesis and struct. *(German)* 2−86637
$Ba_2Re_6S_{11}$, synthesis, cryst. struct., and mag. props. 2−55940
$BaTiO_3$, ferroelectric film, prep. from solns. of metal alcoholates 2−72635
$BaTiO_3$-$SrTiO_3$ ceramic mixture, reaction rates 2−77789
^{135}Ba target prep. on thick backings by heavy-ion sputtering technique 2−108178
Be sample prep. for accelerator radiometric dating by BeO reduction evaporation 2−112155
C fibre reinforced plastics, appls. to RF components of satellite payloads *(German)* 2−88052
C, fibrous and particulate, catalytic graphitisation, process characts. and mechanism 2−78129
C, pyrolyte, low. temp. prep. from cis-1,2-dichloroethylene 2−78075
C, radial electron density distribution meas. of PTFE reduction product 2−76308
Ca-Yb-O, bivalent Yb form. 2−111468
$Ca_4La(NH)_6Si_4P(V, As)_2O_{26}$; solid phase synthesis, apatite struct. 2−111067
$CeBO_3$, preparation from CeO_2 and B_2O_3, characterisation 2−72645
$CoFe_2O_4$-P_2O_5 amorphous cpd., prep. and mag. props. 2−61735
$CsRHP_3O_{10}$, (R=rare earth), preparation, composition and stability 2−72644
$CsR(PO_3)_4$ (R=rare earth), preparation, composition and stability 2−72644
$CsSbF_2SO_4$, synthesis and cryst. struct. *(French)* 2−91915
Cu coated shell char particle reinforced Al-Si composites, prep. and props. 2−67258
Cu-V-Si superconducting filament produced by glass-coated melt spinning 2−83066
$Cu_xCo_{3-x}O_4$, props. of spinel prep. at low temps. and normal press. 2−55945
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-Mn-Al-C, nonequilib. ordered austenite wire fabrication by in-rotating-water spinning method, mech. props. 2−93532
Fe-P-C amorphous wires, prod. by in-rotating-water spinning, mech. props. 2−57317
$Fe_{72}Cr_9P_{13}C_7$, amorphous powder, spark erosion prep., corrosion study 2−105384
$Ga_xMo_2S_4$, preparation and crystallochem. props. 2−65949
$[rGa(OH)_2]_6P_6O_{18}.12H_2O$, preparation and props. 2−72643
Gd targets prep. for superheavy element synthesis 2−108185
GeO_2-SiO_2 glasses from gels to increase oxidation resist. of porous Si-containing ceramics 2−77797
$HNbO_3$, cubic perovskite, ion exchange prep. from $LiNbO_3$, characterisation 2−60953
$HTaO_3$, cubic perovskite, ion exchange prep. from $LiTaO_3$, characterisation 2−60953
K targets prep. from KI by vacuum evaporation 2−108177
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
La_2LiFeO_6, high-pressure stabilisation and physical props. of Fe(V) 2−66791
$LiNa_2PO_4$, synthesis and props. 2−111102
Li_2NaPO_4, synthesis and props. 2−111102
Li_xVO_2, preparation and lattice parameters 2−81752
$LuPO_4$:Nd^{3+}, Eu^{3+}, optical spectra, crystal field interactions 2−67074
Mo-Zr-C, cubic solid soln., prep. and props. 2−71395
Na_2PO_3F, prep. from mixture of Na_2CO_3, H_3PO_4 and NH_4HF_2 2−72615
Nb-Ga high T_c supercond. wires, prep. by heating and quenching in liq. He 2−77770
Nb-Si, shock synthesis by gun method 2−77769
Nb-Ti superconducting materials, review 2−67255

materials preparation continued
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Sn superconducting composite wires, fabrication by solid-liquid diffusion method 2−67237
Ni-P metallic glasses, polymorphism rel. to processing conditions, Knight shift meas. 2−91811
Ni-Zn ferrite fillers for elastic magnetic materials 2−72658
NiO/Fe, solid-state displacement reaction at 1000°C 2−77805
Pb_2AlNbO_6, prep., polymorphic transition from pyrochlore to perovskite struct. 2−77787
Pb_2MnTaO_6, prep., polymorphic transition from pyrochlore to perovskite struct. 2−77787
PbO-Bi_2O_3, prep. and electrophysical props. of compounds 2−72619
Pd (II) complexes, palladium-azobenzene ligands complexes, synthesis and characterisation 2−76288
polyimide:Pd filled polymer film, conductive, synthesis and characterization 2−57328
$PrBO_3$, preparation from PrO_x and B_2O_3, characterisation 2−72645
$RbRHP_3O_{10}$ (R=rare earth), preparation, composition and stability 2−72644
$RbR(PO_3)_4$ (R=rare earth), preparation, composition and stability 2−72644
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Sb_2S_3-PbS glass, prep. and props. 2−71367
Si, solar grade for solar cells, production from rice hulls 2−77763
$Si_3Al_4N_4C_3$, new compound with wurtzite struct. 2−57321
Si_3N_4 structure form. mechanism 2−103708
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SiO_2 free films, preparation by etching 2−77731
SiO_2 glass fibres, sol-gel process prep. from silicon tetraethoxide 2−77793
SiO_2-Al_2O_3-MgO gel glasses, prep. and crystn. characts. 2−76319
SiO_2-B_2O_3 system, glass form. by gel process from metal alkoxides 2−88048
$Sr_4La(Nd)_6Si_4P(V, As)_2O_{26}$, solid phase synthesis, apatite struct. 2−111067
$Sr_2Rd_6S_{11}$, synthesis cryst. struct. 2−55940
$SrTiO_3$, matrix material for molten carbonate fuel cell electrolyte structs. 2−88426
$SrVO_3$-$EuVO_3$, perovskite struct., prep. and props. of solid solns. 2−72646
T target fabrication for rotating target neutron source 2−108189
$TbBO_3$, preparation from TbO_x and B_2O_3, characterisation 2−72645
ThO_2 powders, from hydrothermal denitration, ceramic quality 2−111115
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
Ti powder, prod. from Na-thermic reaction mass 2−116410
Ti+H_2 self-propag. high-temp reaction, hydride synthesis 2−111112
$TiC_{0.96}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
$TiC_{0.51}N_{0.49}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
TiO_2-SiO_2 gel prep. to obtain high homogeneity glasses by low temp. synthesis 2−77796
UO_2, LWR fuels prod. and characts. *(German)* 2−85158
UO_2-Gd_2O_3, LWR fuels prod. and characts. *(German)* 2−85158
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
^{235}U target prep. on thick backings by heavy-ion sputtering technique 2−108178
WC-Co, as-milled Co distrib. 2−111118
YIG, microcrystalline, activation energy, synthesis by hot spray, spray dry and sol-gel methods 2−72659
ZnSe, optical ceramic, synthesis and props. 2−111123

materials testing
see also acoustic applications; corrosion testing; creep testing; dynamic testing; electron beam applications; fatigue testing; fracture toughness testing; hardness testing; insulation testing; mechanical testing; nondestructive testing; notch testing; ultrasonic materials testing
10 kHz flux-controlled magnetic core loss tester 2−74473
atomic emission analysis, R&D and QA appl. 2−73028
bone, human compact, creep under various specimen storage and test conditions 2−94099
brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
carbon steels, wear characts. under varying lead *(Japanese)* 2−62344
cemented carbides, stereology, review 2−111443
ceramic, brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramics, tensile strength, determ. by radial compression methods 2−67698
cermets, equipment for examination at high temps. 2−116646
claddings, laminar, methods of props. determ., review 2−93700
coatings, albedo dynamic thickness control by high energy electrons 2−111438
compression testing at constant true strain rates, high speed control systems 2−72914
concrete, frame-specimens, applicability of indirect tensile test method *(Japanese)* 2−62320
cylinders, circular, with holes under compression, strain anal. using multiaperture white light speckle method *(Chinese)* 2−103117
data acquisition and eval., microcomputer appl. *(German)* 2−116658
demagnetisation curves of highly coercive materials determ., in closed magnetic loop 2−58860
diffusion-pump oil, Dow Corning type 704, vacuum flashover 2−91706
dispersant effectiveness test based on the drop-weight interfacial tension test method 2−67685
elastic wave scattering by 2D flaws, theory, Born approx. 2−92103
electrical dynamo cold rolled sheet, magnetic props. anisotropy meas. *(German)* 2−111406
electro-chemical techniques, for yielding and crack detection 2−83303
erofuge, apparatus for particle erosion testing 2−72850
erosion-corrosion behaviour, appl. of thin layer surface activation technique 2−88299
ferromagnets, deformation measurement, with electromech. strain gauge 2−93705
fibre reinforced composite, continuous fibre type, fibre vol. fraction determ. 2−93692
fibre reinforced composites, methods of testing in shear 2−93731
fibre reinforced thermoplastics, matrix-fibre adhesion strength estimation 2−105407

materials testing continued
fibre testing, strand test for routine strength and modulus evaluation 2−67677
fracture structure defects observation, opt. system 2−93716
fusion material, irrad., miniaturised disc bend test development 2−88316
fusion material, small scale ductility tests, bulge test applicability 2−88314
fusion material test device, accelerator component development 2−85237
fusion materials, Fast Flux Test Facility, instrumented in-reactor test capabilities 2−85235
fusion materials, irrad. test cell diagnostics 2−85234
fusion materials, mechanical-radiation effects test capsule for simulating in-reactor environments 2−88311
fusion materials-radiation effects facility, use of Los Alamos Meson Physics Facility 2−85239
fusion reactor materials, reduced gradient test module, neutronics anal. 2−85305
glass, tensile strength, determ. by radial compression methods 2−67698
glass hemispherical shells, load-carrying capacity, shape imperfections influence 2−111253
graphite, synthetic, methods of mech. testing at 20°C, review 2−72898
graphite fibre reinforced resin, tensile testing at 316°C, gripping system appls. 2−105399
hardness testing, standard machines, precision and accuracy 2−78063
Intense Pulsed Neutron Irradiation Source-I, neutron irrad. facilities 2−85236
metal fasteners, ductility monitoring during production 2−62370
metal multilayer joints, equipment for examination at high temps. 2−116646
metal-metal adhesive bonds, interfacial failure, short beam shear test method use 2−105414
metallic materials, residual life prediction 2−111434
metallic materials, tensile test diagram construction, with deform. anisotropy 2−105406
metallic solid, wear meas. using Falex Lubricant Testing Machine 2−111425
metals, dynamic elastic limit determination 2−116628
metals, elongation, uniform, determ. from stress-strain curves 2−62313
metals, fracture, method for fibrous content estimation 2−93703
metals, internal friction, and elastic characts. determ., installation for 4.2 to 1200K 2−67701
metals, plastic, Brinell hardness rel. to mech. characts. 2−116635
metals, plastic strain anisotropy, statistical method appl. 2−105405
metals, purity examination, by residual elec. resistivity method, review 2−116638
metals, sheet, residual stresses determ. 2−72902
metals, supercond., subsurface layers quality eval., electrophys. methods 2−115959
micro-indentation tests, Bernhardt's formula, generalisation 2−62304
miniature tensile specimen technology for neutron irrad. materials testing 2−88312
mobile emission spectrometer for reliable recognition of materials 2−99637
optical fibres, long length, failure prediction based on proof testing 2−97242
organic coatings on multiple glass fibre strands dynamic mechanical testing 2−78023
organic filled plastics, components determ. by thermogravimetric anal. 2−83321
photoconducting material defect detection, nondestructive testing methods 2−105402
plastics, long static loading behaviour, computer aided data acqu. and eval. *(German)* 2−62334
plastics, nondestructive testing using thermography *(French)* 2−93725
polyester shells, pressurised, circular cylindrical, postbuckling behaviour, expt. 2−70879
polyethylene treeing phenomena obs., effect of absorbed O_2 2−99040
polymer film, UHF meas. of thickness and dielectric const., recursive algorithm applicability 2−111437
polymers, state and development *(German)* 2−111419
polymers, stratified structures, determ. by plasma etching gravimetry *(German)* 2−67690
polymers, tough, rheological installation for testing in liq. media 2−116645
polymers impact testing based on velocity and acceleration meas. 2−105427
refractories, acoustic emission and deformation-fracture behaviour under three-point bend test 2−62230
refractory lining of industrial furnace, wear testing using (γ, n) 2−99609
rubber, natural and polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
rubber and rubberlike materials, elastic and loss moduli meas. 2−83314
sandwich beam, nonlinear compressive and tensile stress/strain curves determ. method 2−91346
scale on steel, adhesion strength meas. methods 2−62369
semiconductor and insulating crystals testing, homogeneity in refractive index meas. methods standardisation 2−96862
semiconductor material props. meas., tester prototype design *(Polish)* 2−99608
semiconductor materials, carrier diffusion length meas. 2−101409
semiconductor materials nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
single sheet tester using H coil, mag. field anal. 2−83309
split-Hopkinson pressure bar system, testing at high constant strain rates 2−57554
standard substances in metrological research 2−79529
steel, abrasive wear resistance evaluation method 2−93713
steel, austenite stainless, unstable fracture, theoretical and expt. study with soft tensile testing machine 2−111262
steel, crack development determination, electropotential method appl. 2−116642
steel, critical brittleness temperatures, methods for determ. 2−105403
steel, electrotechnical, on-line, single sheet and Epstein power loss testing 2−83307
steel, fracture structure defects observation, opt. system 2−93716
steel, heat-resist., plasticity and strength determ. under long-term tensile stress 2−105404
steel, high-tensile, retarded failure tendency determ. method 2−116644
steel, low C, elongation, uniform, determ. from stress-strain curves 2−62313
steel, low-temperature, struct. strength eval. criteria 2−72924
materials testing continued
steel, microduplex, superplastic deform. activation energy, differential temp. tests 2−88325
steel, mild, mech. behaviour invest. by combined-stress testing machine 2−105419
steel, Ni-Cr, wear meas. using Falex Lubricant Testing Machine 2−111425
steel, sheet, residual stresses determ. 2−72902
steel, stainless, low-temperature, struct. strength eval. criteria 2−72924
steel, stainless, Type 316 irrad., miniature tensile specimen testing 2−88312
steel, structural, ductile-brittle transition temp. determ. 2−116631
steel, structural, mech. test method for low strain rates 2−93709
steel, structural ductility diagrams plotting 2−93710
steel, structural recrystallisation, test method for heating at specified rates 2−116639
tensile tests, at low temps., apparatus *(Chinese)* 2−111391
texture meas. by pole figures, inhomogeneous *(German)* 2−111447
transparent materials, abrasion meas. with hazemeter 2−78036
tubular samples, fracture during compression 2−83214
Zircaloy-2, oxygen embrittlement on long-term exposure to fission product oxides 2−69707
Al alloy ADT-M, plastic strain anisotropy, statistical method appl. 2−105405
Al alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Al alloys, vacancies generation study during oxidation, electron microscope method 2−72897
C fibre strand, tensile test damping method 2−72915
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322
Fe-Si (3 wt.%), mag. props. meas. using single strip tester and Epstein frame 2−83308
$MgAl_2O_4$, fission neutron irradiation, structural props. study 2−80187
MgO, fission neutron irradiation, structural props. study 2−80187
Ni alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
SiC, siliconised, strengthening and proof testing 2−88168
Ta protective coatings on Al, Cu, AISI 316L, Inconel 600 for fusion reactor appl. 2−74911
Ti alloys, pseudo-α, thermal stability and eval. methods 2−105325
UO_2 pellets, thermal shock resist., bench tests and calcs. *(German)* 2−85144
WC-Co, phase comp. determ. and regulation by two-freq. mag. method 2−67241

mathematical analysis
see also approximation theory; Bessel functions; calculus; catastrophe theory; differential equations; eigenvalues and eigenfunctions; Fourier analysis; integral equations; numerical analysis; series (mathematics); spectral analysis; transforms
No entries

mathematical logic *see formal logic*

mathematical programming
see also dynamic programming; linear programming; nonlinear programming
natural resources programming models and scarcity rents 2−78171

mathematics
see also algebra; combinatorial mathematics; convergence; duality (mathematics); equations; formal logic; functions; geometry; mathematical analysis; number theory; probability; statistics; topology
book, mathematical techniques in crystallography and materials science 2−94931
inverse problems theory, ill-posedness, regularisation and no. of degrees of freedom 2−75509
reciprocity and conservation relations for a class of equations pertaining to mathematical physics *(Rumanian)* 2−69004

matrices *see matrix algebra*

matrix algebra
see also S-matrix theory
Benjamin-Ono eqn., related algebra to N-soliton soln. 2−112714
block-diagonal least squares matrices, standard deviations, cryst. struct. refinement 2−81694
chemistry appls., matrix-diagonalization with a programmable calculator, using HP-41C/CV 2−64855
Clifford algebras, Pauli-Dirac matrix generators 2−89530
complex orthogonal and symplectic Lie algebras, versal deformations of elements 2−74625
computational fluid dynamics, future prospects 2−109264
continua, unbounded, homogeneous, finite element formulation 2−103029
dielectric reflection grating, arbitrary thickness, chain-matrix analysis 2−55316
dioptric power matrices rel. to lens effectivity 2−73394
EM field algebraic classification, Penrouse-type diagrams 2−74237
industrial thermodynamic systems modelling and anal. using process graph model 2−107281
infinite dimensional Jacobi matrix, upper bound on number of eigenvalues 2−95072
IR-ellipsometric spectroscopy with Fourier spectrometer, Mueller-matrix appl. *(German)* 2−64128
iterative optical vector-matrix processors, use of acoustooptic transducers 2−80905
Jones matrix method, extended, off-axis light transmission through birefr. networks 2−75512
linear manifolds intersection, projector operator 2−79387
Lorentz group, causality, Hermitian matrix proof 2−58608
molecular normal mode calc. and force field refinement, matrix methods 2−108441
multilayer plate contact problem, matrix method of mixed boundary value soln. *(Ukrainian)* 2−103111
one-dimensional percolation problem, transfer-matrix approach 2−101338
optical couplers, codirectional and contradirectional, polarisation evolution 2−109037
optical matrix-matrix multiplier based on outer product decomposition 2−91024
optical system synthesis 2−90817
ordinary differential equations and the symmetric eigenvalue problem 2−95133
polarisation optics, connection between Mueller and Jones matrices 2−102716
polarised light scattering, basic phase matrix 2−89136

matrix algebra continued
polycrystalline materials, grain misorientation determ. by electron microscopy 2−116630
quantum chemistry computation, CRAY-1 application 2−96439
quasi-monochromatic partially polarised source coherence matrix expansions, object reconstruction problem appl. 2−108814
relativistic first-order wave equations, lower bound on minimal degree of matrices 2−101523
rigid body displacement anal. from initial and final position data, linear algebra approach 2−101172
scattering theory, T-matrix approach convergence 2−95141
sparse matrix solver, node-oriented, for fission reactor design 2−107931
spectrum generating algebra and closed form expression for r^k-radial Coulomb matrix elements 2−95041
spiral filament radiation, analytical determ. of polarisation degree 2−102894
spurious reflection of elastic waves in nonuniform meshes of constant and linear strain finite elements 2−114704
T-matrix approach to scatt. of acoustic, EM and elastic waves 2−89551
transformation, appl. to quantum mech. problems 2−79339
tridiagonalisation, rel. to recursion method 2−110224
U(p)×U(q) basis U(p+q) and U(p,q) degenerate series representations 2−101582
vectorizable eigenvalue solver for sparse matrices 2−53481
Zernike aberration coefficient conversion to Seidel and higher-order power-series aberration coeffs. 2−90832

matrix isolation spectra
see also Shpolskii spectra
acenaphthenequinone, in 1,4-dibromonaphthalene matrix, phosphoresc. study 2−67107
acetaldehyde free radicals in solid Ar, IR vibr. spectra prod. from F atom reaction 2−105453
acetonitrile, nematic liq. cryst. matrix, sample spinning, linewidth, NMR relax. study 2−65004
alcohols, Fourier transform far-IR matrix isolation spectra, vibr. freqs. of H bonded system 2−113978
alkali metal antimonites, IR spectra isolated in N_2 matrix, bond angles estimation 2−80595
alkali metal arsenites, IR spectra isolated in N_2 matrix, bond angles estimation 2−80595
alkali metal phosphites, IR spectra isolated in N_2 matrix, bond angles estimation 2−80595
alkane radical cations, radiation prod., the use of freons and perfluoro(cyclo)alkanes as matrix 2−80642
alkene-halogen complexes studied by matrix isolation vibrational spectroscopy 2−70260
aromatic compounds, simple, struct. luminesc. in matrices, environmental anal. appls. *(German)* 2−80720
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
benzene-Br atom complex, matrix isolation IR and UV spectra 2−108494
benzil in benzophenone-d_{10}, ENDOR and electron nuclear-nuclear triple reson. study, ^{17}O hyperfine coupling 2−98995
benzophenone, $n\pi^*$ triplet state in glassy matrices, time-resolved ESR detect. 2−59826
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
biphenyl, Ar matrix isolated, two-colour resonance photoionisation 2−85751
biphenyl-d_0(d_{10}), matrix photoionisation, isotope shift, UV-visible obs. 2−70350
bromobenzene cations, matrix isolated, formed by radiolysis, EPR spectra 2−96630
chlorin photoisomer, in n-hexane, $S_1 \leftarrow S_0$ transition, Zeeman effect, photochem. hole-burning obs. 2−80697
chlorophyll a, directed energy transfer due to orientational energy level broadening 2−114010
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
diacetylene in solid Ar, near UV spectra at 9K, vibr. struct. 2−108545
diacetylene mol. in solid Ar at 8K, photolysis, vacuum UV spectra, vibr. struct. 2−80648
o-difluorobenzene in nematic liq. crysts., struct., orientation, ^1H and ^{19}F NMR spectra 2−108571
1,8-diphenyl-1,3,5,7-octatetraene, fluoresc. and absorpt. spectra, transition moments, intensity distrib. 2−90608
trans-transdiphenylbutadiene, fluoresc. yield and decay time 2−80700
dye molecules in amorphous solids, phonon-induced fluoresc. changes 2−54893
ethanols trapped in low temp. matrices, far-IR studies 2−75273
ethene-HF, H-bonded pi complex, matrix isolated, vibr., IR obs. 2−90536
ethylene ozonides, secondary, photolysis, pyrolysis and matrix IR spectra 2−113979
first row atoms, electronic struct. in electronic host systems 2−102358
fluoroalcohol-base complexes, IR studies in gas phase, CCl_4 soln. and Ar matrix 2−80597
fluoroethanols trapped in low temp. matrices, far-IR studies 2−75273
fluoromethane, matrix isolated, rot.-librational motion, IR obs. 2−90537
fluoromethane, matrix isolated, vibr. relax., fluoresc. study 2−90613
formaldehyde-NH_3 (acetonitrile), struct., vibr., IR obs. 2−75277
fulminic acid, rare gas matrix isolated, isomerisation, photolysis, IR and UV obs. 2−75264
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
IR-matrix spectroscopy of organic molecules with 7-12 atoms 2−80594
isobacteriochlorin, synthetic, in glassy matrix, fluoresc. spectrum and energy selection 2−70319
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2−102526
metals particles isolated in Ar matrices, surface plasmon absorpt. bands. 2−85684
methanol, aggregates in cryogenic matrices, IR hole burning 2−80860
methyl nitrite aggregates in cryogenic matrices, IR hole burning 2−80860
methyl nitrite-d_0(d_3), vibr., force consts., IR obs. 2−85659
methylammonium ion in liq. cryst., ^{14}N nucl. quadrupole coupling const. 2−80664
methylammonium ion in low temp. methylammonium chloride and its dervatives, empirical force field calcs. 2−114132

matrix isolation spectra continued
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
naphthalene, Ar matrix isolated, two-colour resonance photoionisation 2−85751
organic mols., matrix isolated, inhomogeneous broadening of spectra 2−75357
pentacene, isolated, out of plane vibrations 2−75240
perfluoropyridine cation, in Ne matrix, optical absorpt. spectrum 2−108541
perylene molecules in cadmium arachidate Langmuir film, amorphous, phonon-induced fluoresc. changes 2−54893
phenazine in fluorene crystal, photoexcited triplet state, NQR, electron spin-echo detection 2−102497
phenyl alkyne cations, Ar matrix isolated vibr., visible UV obs. 2−108544
1-phenyl-1-propyne, Ar matrix isolated, two-colour resonance photoionisation 2−85751
1-phenylethanol, in MBBA liq. cryst., orientation, D NMR 2−80663
pheophytin a, directed energy transfer due to orientational energy level broadening 2−114010
phthalocyanine, free base, in normal alkane matrices, laser fluoresc. and excitation spectra 2−96614
pinenes, matrix-isolated, vibr. circular dichroism 2−80696
polar molecules in inert gas matrices, far-IR Fourier transform spectroscopy obs. of mol. motion 2−113977
polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2−93193
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2−67755
pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
pyridine-N-oxide, thermotropic nematic phase, NMR spectrum, chemical shift 2−87608
reactions in Ar matrix, IR spectra of prods., vibr. 2−96564
small molecules in ion-exchange resins, ^{13}C NMR 2−65015
ternary oxides, tetrahedral, trends in matrix isolated IR spectra 2−80598
tetracene, isolated, out of plane vibrations 2−75240
tetracene, stretched polyethylene film isolated, site-selection polarisation fluoresc. obs. 2−85723
thioformaldehyde-d_0(d_2), matrix isolated form., vibr., IR obs. 2−96556
toluene (-d_3) (-d_7) in solid crystalline phases, IR and Raman spectra, effect of internal rot. of CHD_2 group 2−80587
trichloromethane, IR and Raman vibr. spectra in low temp. matrices 2−80599
trifluoromethane, IR and Raman vibr. spectra in low temp. matrices 2−80599
2,4,5-trimethylbenzaldehyde, triplet state Stark spectrosc. above phosphoresc. origin 2−90593
triphenylene, excited triplet state IR spectroscopy 2−80596
vanadyl acetoacetonate, in n-alkanes, rot. relax., ESR obs. 2−85702
zinc porphin in n-alkane host crystals, phosphorescent ^3E_u state, EPR and spin-lattice relax. 2−85705
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
Ag_x+pyridine, matrix reactions, vibr., IR spectra relationship to SERS 2−111470
Al, matrix isolated, MCD study 2−80537
$^{79}Br_2$ in Ar and Kr matrices photochemical dynamics, IR spectra and relax. dynamics 2−102475
BrO_4^{2-} radical anions form. by attachment of O to bromate in solid matrix, EPR spectra obs. 2−59827
$^{79}Br_2$ in Xe matrices, photochemical dynamics, radiative lifetime meas. 2−96621
CO, in solid α-CO, vibr. transition line broadening by diagonal disorder 2−90631
CO in solid N_2, high resolution laser spectroscopy, dipolar broadening effect on vibr. transitions 2−102535
CO, isotopic mols. in solid α-CO, IR emission and absorpt. spectra 2−70238
CO matrix isolated, high-resolution coherent Raman spectrosc. 2−75297
$^{12}C^{17}O$ in solid N_2, IR transient antihole burning, spectral transfer 2−108978
CO_2 in inert gas matrices, vacuum UV photolysis 2−108602
$^{12,13}CO^+$, matrix isolated in Ne, EST study 2−102508
Ca sulphides, IR matrix isolation spectra 2−75284
Cd Z 2−75284
Cu clusters isolated in O_2 matrices, UV photoemission studies 2−108757
Cu complex, Cu-olefin co-condensation complex chemistry, optical spectra in Ar matrix 2−80641
Cu, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
Cu_2, $a^3\Sigma_u^+$ state, Ne matrix isolation, absorpt. and fluoresc. obs. 2−114027
Cu_2, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
CuO_2, Ar matrix isolated, laser induced fluoresc. obs. 2−65039
^{151}Eu atoms and mols. in solid Ar, matrix isolation and Mossbauer study 2−54807
$FClO_3^-$ radical anion, ESR spectra and struct. 2−65022
Fe atoms in Ar matrices, visible and near IR fluoresc. spectra 2−102419
Fe small molecules, in Ne matrix, EXAFS and matrix isolation spectra studies 2−80650
Ga, matrix isolated, MCD study 2−80537
$GdCl_3$ in rare gas solids, EPR anal. 2−102509
GdF_3 in rare gas solids, EPR anal. 2−102509
H, spin polarised, in solid H_2 matrix, Overhauser effect 2−54878
H_2, Rydberg state, Ne matrix isolated, vibr., UV obs. 2−108542
HCN, matrix isolated in Ar, intermolecular vibrs., far-IR obs. 2−113973
HCl in Ar, broadening of rot. lines, phonon coupling effect 2−102540
HCl in Ar matrices, IR spectra, vibr., proton affinities 2−80608
HCl in liquid Ar, local interactions, spectroscopic demonstration, cryosystems 2−70248
HCl isolated in solid Ar, molecular dynamics calcs. 2−102465
HF-CO_2 (N_2O), Ar matrix isolated, librational motion, IR obs. 2−64971
HNO, photochem. complexation in low temp. matrices, IR obs. 2−67737
H_2O, LF motions in low temp. matrices 2−75272
H_2O_4, struct., bonding, IR matrix isolation spectra 2−96560
HONO, in N_2 and Ar matrices, IR laser photoisomerisation study 2−111471
HSiF, form., struct. and matrix isolated IR spectrum 2−108493
HSiOH, form., matrix isolation IR spectra, isotope effects 2−108492
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
Kr, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
Mg sulphides, IR matrix isolation spectra 2−75284

matrix isolation spectra continued
Mn_2 high-spin molecule, S=25/2, ESR study 2−85701
$Mn(CO)_5$, radical, CO matrix isolated, IR and visible obs. 2−80600
MnO_4^- in RbBr matrix, reson. Raman spectra of vibr. 2−85670
Mo, matrix isolation, ESR study 2−70296
MoN, matrix isolation, electronic states, ESR study 2−70296
N_2, matrix isolated in Ar, N_2, mol. vibr., Raman obs. 2−70250
N_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
$^{14,15}NH_3$, matrix isolated in Ne, EST study 2−102508
Na and Na_2 matrix isolated, visible spectra 2−108414
Ni, matrix isolated, MCD study 2−80537
O_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
$OVCl_3$, matrix isolated and vapour phase, force consts., vibr. IR obs. 2−108515
PO_4^{4-}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
Pb(II)tetraphenylporphyrin, cation radical, optical and ESR spectra 2−80682
Pd, matrix isolated, MCD study 2−80537
Ru(II) complex, Ru(2,2′-bis-isoquinoline)$_3^{2+}$, ligand centred luminesc. 2−90599
SF_6 in low temp. Xe matrix, preferred orientation, IR obs. 2−59798
SF_6 isolated in Ar matrix, IR diode laser spectrum 2−70236
Sb_4 in inert gas matrices, Raman and fluoresc. spectra, vibr. modes 2−108521
$SiHCl_3+O_2(O_3)$, UV photolysis in solid Ar, IR spectrum 2−88365
SiH_3NCO, vibr. spectra and normal coord. anal. 2−96572
Sr sulphides, IR matrix isolation spectra 2−75284
Tl^{2+}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
Xe, matrix isolated in Ar, emission spectra, excitation spectra and life-times 2−54795
Zn sulphides, IR matrix isolation spectra 2−75284

matrix isolation spectroscopy
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
Fourier transform IR, performance and developments 2−113002
Fourier transform IR spectroscopy detection in gas chromatography, complex sample analysis 2−116754
IR-matrix spectroscopy of organic molecules with 7-12 atoms 2−80594
H atoms, trapping sites in Ar and Ne matrices 2−69256

Matteucci effect
No entries

maximum principle
see also dynamic programming
entropy and Bayes' theorem *(French)* 2−89646
maximum entropy principle in two-dimensional spectral analysis, astronomical appl. 2−112339
shafts of revolution, grooved, torsion, max. principles and bounds on stress conc. factors 2−109177
turbulence, statistical mechanics, max. chaos variational principle 2−55542

Maxwell-Boltzmann distribution *see statistical mechanics*

Maxwell effect *see flow birefringence*

Maxwell equations *see electromagnetism*

MBE *see molecular beam epitaxial growth*

mean free path, carrier *see carrier mean free path*

measurement
see also specific measurements, e.g. frequency measurement
see also instruments; measurement by laser beam; recording; reflectometry; testing; units (measurement)
flutter spectral measurements using stationary pressure transducers in turbines 2−60690
metrology, evolution from pre-history to present day *(French)* 2−74191
quality assurance and accuracy, Rumanian Inst. of Metrology review *(Rumanian)* 2−74377
solar cells metrology 2−99784

measurement by laser beam
see also laser velocimeters; plasma diagnostics by laser beam
acousto-optic deflector, travelling US field, meas. using laser anemometer config. 2−114575
amplitude-measuring wire/slope-measuring laser water wave gauge comparison 2−81418
angle, microcomputer-based certifying device using reference transducer 2−63976
atmosphere specific gas density meas., using Pb-salt diode laser 2−57758
audio component vibration meas. by laser vibrometer 2−89703
bathymetry, using short-pulse high-repetition-rate CuBr laser 2−90917
bubble size distribution meas., sewage aeration tanks model appl. *(German)* 2−81427
calorimeter of high sensitivity, principles and construction *(Chinese)* 2−58825
calorimetry, polarisation sensitive technique 2−65290
cola drink, taste anal. using differential light scatt. props. 2−105708
collinear laser spectroscopy for H(D) Balmer α-line, metrological appl. 2−95485
continuous single mode dye laser scanning up to 150 GHz *(French)* 2−55241
curved surfaces, strain determ. using far field objective laser speckles 2−91361
CW dye laser, combined operation with synchroscan streak camera 2−101487
diagnostic probes for flames, combustion products and sprays 2−89824
diaphragm NDT using laser speckle photography 2−57545
differential spectral reflectance effect on DIAL meas. 2−100545
Doppler anemometry, influence of axial modes of CW lasers *(German)* 2−71052
Doppler anemometry, simultaneous meas. of particle velocity, size and concentration *(German)* 2−64211
Doppler microscope for blood flow vel. meas. 2−94261
Doppler velocimetry, sediment erosion meas. appl. 2−68539
dual-beam second-derivative tunable diode laser IR spectrometer for trace gas meas. appls. 2−101471
dynamic problems, multiple ruby laser system for high speed photography 2−103131
electronic energy transport between excited states in donor-acceptor systems, examination by laser system 2−74517
far IR lasers phase-locked by Stark effect, optical frequency meas. appl. 2−102845
far-IR laser mag. reson. spectroscopy 2−74474
fibre interferometer for minute biological displacements meas. 2−73411

measurement by laser beam continued
film thickness determ., laser interferometry technique 2−63969
flow meas. in turbomachines, using laser double focus method *(German)* 2−81415
flow velocity distribution meas. in horizontal circular pipe using laser Doppler velocimeter *(Japanese)* 2−114956
flowing gas temp., concentration and density, by laser-ray scattering apparatus *(German)* 2−81420
fluid flow measurement, laser Doppler velocimetry, review 2−91566
gas properties, measurement without inertia *(French)* 2−63967
gasdynamic jet, seeded, visualisation by laser light *(German)* 2−55681
gases, vibr.-translational relax. time meas. using reson. laser spectrophones 2−58912
geometrical parameters of objects testing, by annular structure of laser beams 2−58783
haematocrit determination, optical method 2−83627
high bandwidth single mode fibre spectral meas. using tunable InGaAsP laser 2−65248
hot atom phenomena probing, by laser photolysis 2−59970
Hot Fuel Examination facility, element laser profilometer system 2−107967
impact testing of polymers based on velocity and acceleration meas. 2−105427
interference length measurement, data processing, dial and interpolation combination *(Chinese)* 2−97066
interferometer with spatial division of wavefront 2−84697
interferometry for laser diagnostics 2−95456
IR source for spectroscopy, CO_2 laser appl. 2−81042
IR window material absorpt. coeff. meas. using laser photo-acoustic technique *(Chinese)* 2−91033
large droplets, light scatt. device for sizing and velocimetry using ring-shaped laser beam 2−95316
laser probe laboratory setup 2−75621
LASSO experiment and its operational organization 2−89670
length measurement, by means of laser *(German)* 2−95319
length measurement using IR two-wavelength He-Xe laser interferometer 2−79534
length measurement with laser interferometer, atm. influence compensation, metric unit conversion 2−112966
liquids, fluoresc. highly absorbing, laser meas. of spectral extinction coeffs. 2−74504
long-range laser measurements influence of atmospheric conditions on accuracy 2−100557
methane-air flame, OH number density meas. using laser induced fluoresc., vibr. level relax. effects 2−116695
microscope employing laser interferometry for cosmic ray track meas. in plastic detector 2−64841
microscopically inhomogeneous flows, seed-particle-track images, rapid digitised storage 2−97676
modulation depth measurement in wavelength modulation spectrometer using laser light 2−53846
monitoring of reactive atms. species, optogalvanic wavelength calibration 2−93966
neutral gas, reduced-density channel, meas. by laser deflection technique 2−58790
nonNewtonian flow, use of laser velocimeters *(French)* 2−91563
optometry as measure of eye's ability to accommodate to information displays 2−88702
particle beam measurement by obs. of deformation of metal foil 2−69310
photoelastic plane model subjected to an impact, stress determ. method 2−97477
physics postulates stable lasers and optical freq. testing standards 2−69127
plate deformation meas., laser speckle photography as alternative to holographic interferometry 2−86244
precise time transfer techniques, satellite laser ranging, Indian contribution 2−89671
pressure continuous measurement using laser interferometer *(German)* 2−79531
pulsed SAW meas., phase sensitive laser probe 2−109137
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
Raman spectroscopy, development and industrial appl. 2−69253
Raman spectroscopy, gas-particle system temp. and concentration determ., combustion processes obs. appl. *(German)* 2−81421
relief checking for large surface areas 2−69135
SAW, laser beam diffr. for investigating props. of planar structures *(German)* 2−102843
scoliosis evaluation by laser scanning of body cross sections *(Japanese)* 2−62727
shells, conical, stringer reinforced, dynamic characts., speckle struct. method 2−114746
slab target remote characterisation with a pulsed laser 2−85885
solar neutrino detection using laser radiochemical Ga detector 2−78957
solid mechanics problems, appl. of subjective laser speckle method 2−91354
spacecraft altitude determination using ground-based laser 2−90967
speckle metrology of surface displacement, digital imaging techniques in stress analysis 2−91359
speckle pattern interferometry, vibration meas. appl. 2−79657
speckle photography for point vel. meas. in slow flows 2−76043
spectroscopy, conf., Jasper, Alberta, Canada (1981) 2−63748
standardisation problems in optical instrumentation 2−112991
strain gauge, simplified laser speckle, surface displacement detect. 2−91360
stress visualisation using interferometric holography *(Spanish)* 2−86238
strip, cold rolled, optical surface inspection system with on-line signal processing *(German)* 2−72939
supernarrow spectral line detect. using double-mode laser frequency resonances 2−64127
supersonic jet coherent struct., instability and mixing zone visualisation using laser light sheets *(French)* 2−86362
surface profile and texture meas. by laser interferometric transducer 2−112869
surface roughness meas. by laser speckle method *(Czech)* 2−69132
TGS:alanine pyroelect. cryst., domain struct. meas. by laser probe techniques 2−61847
thermal transport properties determ. for thin fibres by composite method using laser-flash technique 2−104088
thermal wave imaging techniques status and appl. 2−112895

measurement by laser beam continued
thin film, low absorbing, 2-D thickness distrib. determ. using new laser interferometry 2−112961
time-standard synchronization, Lasso experiment scheduling and data processing at the Sirio-2 Lassoo Coordination Centre 2−89695
trajectory elongation on paths with localised refr. index inhomogeneities of air 2−106277
tunable diode laser spectrometer using sweep integration for high-sensitivity trace gas detect. 2−106325
tunable laser electronic spectroscopy 2−74507
tunable laser optical fibre probe based absorption spectroscopy for combustion meas. appls. 2−101465
turbidity multichannel instrument using scanning He-Ne laser system, bacteria numbers estimation appl. 2−117178
two-phase flow, using laser Doppler anemometry, data collection and processing *(German)* 2−65675
US power determination, μW range, using laser interferometry, medical appl. 2−91193
variable displacement resolution by laser interferometry 2−107298
video disc characterisation 2−91006
visual fatigue in display work, laser optometer expts. 2−88548
^{14}C, meas. in CO_2, tunable diode laser sensitivity spectroscopy 2−65103
Cs frequency standard realisation, CO_2 laser phase-locking 2−102844
$^{166}ErII$, lifetime meas. using fast-beam laser-modulation spectroscopy 2−108423
Ge, dispersive and refr. index meas. using diode lasers 2−112958
He-Ne laser probe for SAW measurements 2−81184
InSb, interband magneto-absorpt. saturation 2−77496
^{139}La II, $5d^2$ and $5d6s$ levels, HFS constant meas. 2−59954
NO monitoring system using tunable laser and microcomputer aided signal processing system 2−93971
Na_2, surface emission from liq. Na, laser diagnostics 2−70444
Nd:YAG, resonators comparison for airborne depth sounding 2−70603
O_2 quadrupole transitions, tunable diode laser sensitivity spectroscopy 2−65103
Si, polycrystalline, grain boundary recomb. vel. determ., laser spot technique for photoconductance meas. 2−77087
Si wafers, surface deform. meas. using interferometric techniques 2−84691
SiO_2 glass, low absorpt. loss, temp. depend., laser calorimetry study 2−114391
UF_6, laser induced fluoresc. and absorpt., temp. controlled vacuum cell and two-stage pumping system 2−84637
Zr vapour, density meas. by laser resonant absorption 2−91588

measurement errors
acoustic receiver sensitivity meas. in deadened meas. volume 2−60326
approximation of the error distributions of instruments 2−63960
approximations used in undergraduate physics, accuracy 2−107036
atmosphere total O_3 concs., standard error of trend estimate rel. to natural and man-made variability 2−100454
balances manufacturing accuracy determ., for precision level-arm balances 2−58791
binary star speckle interferometry, accuracy 2−58269
bone strain measurements and anal., in vivo, accuracy enhancement 2−117170
calibration of broadband meters in presence of source fluctuations 2−112855
cardiac time varying parameters, unconstrained, sensitivity to errors in meas. afterload and preload 2−73386
cathode strips read-out MWPC, avalanche localisation along wire, systematic errors evaluation 2−90397
cerebral blood flow, regional, errors in determ. by Xe enhanced computerised tomography 2−62759
chemical shift, precision 2−59824
chromometer scales comparison errors reduction, using meteoric propagation of radio waves 2−69146
computerised tomography, design constraints, theoretical review 2−94176
computerised tomography guided stereotaxis, localisation error sensitivity 2−94166
Coupled Fast Reactivity Measurement Facility, central flux spectrum, sensitivity and error anal. 2−54541
crystallisation interface temp., DTA and DSC meas. errors anal. 2−103628
current transformers, error calculation for electronic compensation implementation *(Rumanian)* 2−89739
cylindrical surfaces checking with circle gauges 2−89689
diameter meas. using girdling method, friction effect correction 2−63973
differential refractometer, effect of liquid optical density on meas. error 2−58888
diffusion furnaces, temp. profile meas., systematic error model *(German)* 2−58819
ear canal volume, evaluation of tympanometric estimates 2−88640
eddy current crack detection technique, accuracy considerations, comput. aspects 2−67723
eddy current testing of heat exchanger tubing, accuracy and repeatability 2−72932
errors in derived kinematic variables from fixed accelerometer config. 2−95328
EXAFS oscillations, amplitude in absorpt., reflectivity and luminesc. meas., attenuation factors 2−57209
Fabry-Perot interferometer, errors computing due to non-parallel mirrors 2−58893
flame, axisymmetric, temp. distrib. meas. by holographic interferometry, refr. effects 2−69170
frequency meas. based on pulse coincidence principle, accuracy analysis 2−58798
galaxies redshifts, errors corrections rel. to gravitational mechanics of systems of galaxies 2−101055
gas anal., compensation for nonoptimal transducer selection *(Russian)* 2−67790
gas chromatography with Fourier transform IR spectroscopy detection, interferometer stability, error sources 2−116753
gas flow vel. and temp. simultaneous meas., noncontact optoacoustic technique 2−97669
geomagnetic data, estimation of errors of lunar tidal harmonics 2−105915
hardness testing, diamond-pyramid method, accuracy reassessment 2−67676
HF permeameter for reversible permeability meas. 2−58864
human joint rotation measurement, errors in centre and angle 2−117171

measurement errors continued
HV measurement errors of optoelectronic measurements due to lack of parallelism of the light beam in the Kerr cell 2−95399
image-position error assoc. with a quadrant detector 2−84592
instruments, optimal disposition and integration for known nominal trajectory *(Russian)* 2−84587
interference-microscopic film thickness meas. *(German)* 2−112864
ion selective electrodes, double known addition method, error propag., Monte Carlo simulation 2−116732
IR radiometer meas. errors caused by background radiation, minimization 2−84683
IUE data reduction, parameterisation of motion of IUE reseau grids and spectral formats 2−68616
jet noise source distrib. meas., accuracy of polar correl. technique 2−65436
joint motion description for humans, meas. errors effect 2−62670
laser Doppler anemometry, systematic error elimination *(Russian)* 2−114930
laser radiation displacement influence on units transmission of relative distribution of power density 2−86023
laser wavelength meas., errors identification and elimination 2−60134
laser-radiation energy meas., working standard errors determ. 2−84591
liquid refr. index meas. using interf. device, depend. on press. and temp. 2−116143
magnetic induction measurement on elec. steel in weak mag. fields 2−89753
measuring instrument systematic error, correction via data compression *(Russian)* 2−79523
meteor height detection using radar techniques, error estimation *(Italian)* 2−89153
meteor path plotting, errors in visual obs. 2−106628
microprocessor-controlled microwave tester, Narda Model 7000 A Analyser system *(German)* 2−112925
microtopographical parameters determ. by digital and analogue methods, statistical accuracy estimation 2−95320
molecular weight averages determ. by gel permeation chromatography, data analysis effect on accuracy and precision 2−116763
myelinated nerve fibre, anal. of certain errors in voltage-clamp meas. 2−117164
neutron radiation absorbed energy meas., maximum error evaluation 2−59657
optical component surface testing, interferogram processing precision analysis 2−60212
optical fibre preform refractive index profile meas., focusing method, computer simulation, errors 2−91052
optoelectronic meas. of density and moisture, using functional equation of radiation flux 2−58836
orbit selection for the Stanford Relativity Gyroscope experiment 2−84511
photogrammetry, close-range, photo coordinates errors rel. to orientation problem 2−111840
photogrammetry, mensuration tests using digital images 2−111839
photometric methods for determ. of optical consts. of absorbing films, accuracy anal. 2−95435
PMC 190, new photoelectric meridian circle at Tokyo Astronomical Observatory, instrumental errors determ. 2−100735
precision and accuracy of measurement problems 2−101371
precision instruments errors determ. and correction *(German)* 2−112854
prediction error variance, time and frequency instabilities analysis 2−107294
proteins, X-ray crystallography, atomic coordinates, RMS errors calc. 2−99876
proton magnetometer precession signal processing, measurement errors 2−112165
quality criteria in checking means of measurement 2−63958
radial velocities of galaxies detected in Arecibo 2380 MHz survey, standard error and zero error 2−101050
radiometer standard sources certification, based on absolutely black body 2−95439
random *(Russian)* 2−84588
recording systems phase-freq. characts. 2−95302
residual gas analysis, deviation of cracking patterns, effect on accuracy 2−93856
resolution convection, algorithm, with error anal. 2−89648
reverse ballistic expts., meas. problems 2−70878
satellite electrophotometer, high-speed, two-channel, operating in photon-counting regime, performance *(Russian)* 2−94605
spectrophotometer errors due to slit width setting 2−69228
standard specimens metrological characts. evaluation, from interlaboratory expt. data 2−79530
stars, external and systematic parallax errors 2−58331
static metrological properties of instrumentation as multivariable random process *(Polish)* 2−89651
statistical characteristics of test signals for measurement information systems 2−63959
statistical significance 2−89650
stellar proper motions, correction for accidental errors *(Russian)* 2−63384
strain gauge, transverse sensitivity, simplified method for eliminating error 2−79555
strains gauges, resistance, accuracy and reliability *(German)* 2−79565
superposition comparator, motion-error immunity in photo-coordinate determ. 2−74384
surface temperature measurement using separated contacts, error anal. *(French)* 2−64038
surface temperatures, direct contact meas. method, transient regime, errors, response time *(French)* 2−64037
systematic measurement errors with two microphone sound intensity meters 2−114574
temperature, of semitransparent materials with low heat cond., systematic errors investig. *(Russian)* 2−64028
test points selection, for automatic checking of meas. facilities 2−63957
thermal measurements, anal. of random errors *(Hungarian)* 2−79575
thermal-hydraulic transient expts., uncertainty anal. method 2−85180
thermocouples checking in range 300-1200°C, metrological certification of test equipment 2−95370
thermometer calibration for narrow temp. range 2−64033
transition metals, group III, electron energy absorption spectrometry *(German)* 2−113084
typhoon positioning errors over NW Pacific Ocean, statistical anal. *(Chinese)* 2−88948
unit-dimension transmitting system, events probability computing 2−58767

measurement errors continued
US flowmeters, multichannel, errors due to flow structure variations in pipes 2−97674
US pulsed Doppler blood flow meas., accuracy calcs. 2−111758
velocity measurement of objects moving beyond turbulent layer, accuracy estimate 2−112876
VLF propagation phase velocity meas., time scale synchronisation effect 2−58774
VLF signals instant of arrival meas., error determ. and elimination 2−58799
water content meas. using NMR content meters, errors with materials containing combined H 2−99736
X-ray anomalous dispersion technique, partial struct. factors determ., computer simulation 2−81633
X-ray diffraction, multiwavelength method with synchrotron radiation, termination errors 2−65806
X-ray scatt., small angle, phase boundary thickness determ., error anal. 2−65799
XPS thickness determination of superthin surface films, elastic scatt. of photoelectrons influence *(Russian)* 2−67191
Co-based alloy, foil thickness meas. from convergent-beam diffr. patterns, error assessment 2−95557
Fe-Si, grain orientated, mag. loss meas. using Epstein square, error anal. 2−79620

measurement standards
see also atomic clocks; temperature scales
28 THz absolute frequency reference grid 2−58793
94 m^3 reverberation chamber qualification 2−60328
astronomical time measurements, Survey of India 2−84064
atomic clock time scale, China, H-masers appl. 2−79538
atomic frequency standards, use of optical pumping by lasers 2−89683
Auger electron spectra, calibration of differentiation, atomic standard 2−107474
capacitance meas. in 1 to 100 MHz range, Soviet All-Union Verification Scheme 2−58843
Chinese primary freq. standards, features and evaluation results 2−63992
chromometer scales comparison errors reduction, using meteoric propagation of radio waves 2−69146
clocks, effect of violation of strong equivalence principle 2−69058
clocks, modeling of frequency random walk instability and effects on spectral spreading 2−95314
composition meas., standard specimens metrological charcts. evaluation, from interlaboratory expt. data 2−79530
Deep Space Network, frequency and timing capabilities 2−63999
definition, reproduction, and maintenance of the units for physical quantities and standards 2−58769
Earth's surface, time and frequency generation and maintenance at arbitrary points 2−94614
electric field strength at 100 MHz, international intercomparison 2−112877
electrical measurements and standards, progress in instrumentation *(Rumanian)* 2−74382
electron flux meas. using inductive transducer 2−80406
EM magnitudes, metrological assurance developments *(Rumanian)* 2−74393
EM parameters of materials meas., HF and UHF range, COMECON metrological provisions 2−58801
EMF standards maintenance and comparison at BIPM 2−112927
EMF units reproduction accuracy increase 2−89652
far IR lasers, frequency control and modulation by Stark effect 2−60130
filament lamps parameters determ., IES approved method for electrical and photometric meas. 2−69234
fluorescent lamps parameters determ., IES approved method electrical and photometric meas. 2−69233
frequency, appln. of stimulated resonance Raman transitions 2−58909
frequency, based on high-resolution optical Ramsey resonances in Ca at. beam 2−102409
frequency activities overview at National Physical Laboratories, New Delhi, India 2−89658
frequency and time, present status in Indonesia 2−89659
frequency noises analysis in quartz resonators 2−63966
frequency stability determ., bias due to addition of time interval meas. 2−107307
frequency standards, reliability, serviceability and performance 2−89661
frequency sub-mm wavelength standards, based on Mg(Ca) metastable beam 2−107293
gamma spectrometric sources, standard reference data development 2−60327
high stability clocks in space 2−79535
Hungary, thermal measurement standards *(Hungarian)* 2−79527
hyperfine splittings due to blackbody radiator, influence on freq. standards 2−64910
impedance, coaxial waveguide characteristic impedance meas., high-precision verification system 2−53743
impedance working standards, for coaxial waveguides meas. 2−53742
international atomic time, stability and accuracy 2−79537
international atomic time TAI 2−63986
International Radio Consultative Committee role in co-ordination of time and frequency activities 2−89665
international time and freq. comparison by orbiting H maser clock 2−64000
ionisation-chamber equipment meas., neutron radiation absorbed doses determ. 2−96392
ionising radiation, metrological assurance, standards and instrumentation *(Rumanian)* 2−75133
ionization gauges, secondary standard, sensitivity, electrode displacement influence *(Japanese)* 2−112915
IR radiation detector and radiometer, 220 to 900K range 2−53721
isotope (^{18}O,T,D) measurement techniques for hydrological purpose 2−73718
laser cooled stored ion expts. at NBS, appls. to freq. standards 2−63996
laser emission power relative density distribution, standard meas. facility 2−53725
laser energy meas., working standard 2−53724
laser frequency standard based on mono-ion oscillator 2−89656
laser mean power and energy standards, digital meas. instruments charcts. 2−114345
laser power meas. in visible region, international intercomparison of He-Ne and Ar-ion lasers 2−102771
laser radiation mean power unit, working standard 2−53723

measurement standards continued
laser radiation meas. transducer, standard means for meas. dynamic parameters 2−65276
laser radiation pulse power meas., metrological provision 2−90962
laser radiation wavelength unit, Soviet meas. standards 2−58773
laser-produced plasma and BRV-source plasma radiometric comparison at normal incidence 2−91664
laser-radiation energy meas., working standard errors determ. 2−84591
lasers with nonlinearly absorbing cells, absorption saturation method, ultimate precision 2−55279
LASSO experiment and its operational organization 2−89670
length measurement with laser interferometer, atm. influence compensation, metric unit conversion 2−112966
length rod-shaped standards thermal behaviour *(German)* 2−112863
length standards and calibration 2−79528
ϵ Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
LF time signals for time and frequency dissemination system of moderate accuracy, sophistication and cost 2−89673
loss angle of solid dielectrics meas., verification facility 2−58844
magnetic field radiation by two loop antennas in coplane 2−112941
magnetic field standardization at frequencies above 30 MHz 2−74378
magnetic induction unit, Soviet primary standard 2−69125
magnetic materials standard specimens certification and appl. 2−84671
magnetic permeability meas., Soviet state special unit standard 2−58862
magnetic permeability meas., standard specimens for meas. at high and superhigh freq. 2−79626
maser time keeping performance comparison with Cs standard, using passive H maser 2−107309
mass, physical effects restricting accuracy in maintaining standard 2−95308
metre, frequency-stabilised lasers appl. 2−84595
metre, prospects of new definition 2−63961
metre defined on speed of light, and geodetic application *(German)* 2−74379
metre redefinition, laser freq. meas. 2−53718
metrology, evolution from pre-history to present day *(French)* 2−74191
microwave attenuation standards, UK improvements 2−101382
microwave Ramsey pattern in laser pumped Cs beam, appls. in freq. standard 2−63993
modulation effects in passive Rb freq. standards 2−63964
mono-ion oscillator as potential ultimate laser frequency standard 2−89681
multipole magnetic standard for calibrating harmonic induction magnetic field probes 2−58770
NBS primary freq. standard, design considerations and performance 2−63989
Netherlands calibration service NKO 2−112858
neutron flux density unit reproduction by neutron-activation method 2−96406
NRC primary time standards, performance 2−63988
oblique light particle detection instrums. detection capability, calibration 2−107481
one-inch laboratory standard condenser microphone, coupler for calibration up to 20 kHz *(Japanese)* 2−102983
optical freq. standards using supernarrow resonances on E-line of P(7) transition of ν_3 band in methane 2−58772
optical frequency measurement at NRC and progress towards frequency measurement of visible light 2−64002
optical frequency standards, appl. of laser cooling of atoms 2−63998
optical instrumentation standardisation problems 2−112991
optical laser frequency standards, phase-stabilization technique 2−58792
optical radiation magnitudes, progress in measurements calibration and standards *(Rumanian)* 2−74480
optical time scale based on freq. stable He-Ne/CH_4 laser oscill. period 2−101379
optical time scale using freq. stabilized laser 2−64004
permittivity meas., reference materials certification 2−53788
permittivity meas., reference materials for superhigh permittivity 2−53789
permittivity meas., USSR-Bulgarian development of standard specimens 2−84664
permittivity of solid and liquid dielectrics meas., in $10\text{-}10^7$ Hz range, Soviet state standards 2−53722
physico-chemical magnitudes, metrological assurance *(Rumanian)* 2−74381
physics postulates stable lasers and optical freq. testing standards 2−69127
portable precision DC voltage-current transfer standard for electrometer calibration 2−107290
precise T&F intercomparison between NPL, India and PTB, Federal Republic of Germany via Satellite Symphonie-1 2−89677
precise time transfer techniques, satellite laser ranging, Indian contribution 2−89671
precise time-keeping, time and frequency transfer using SABCTV 2−89675
precision EM meas., conf., Boulder, CO, USA (June-July 1982) 2−101128
precision time-keeping, modern methods, evolution of TAI and UTC 2−89668
prediction error variance, time and frequency instabilities analysis 2−107294
pressure and vacuum standard review, primary standards 2−95313
primary caesium clock development, review, satellite time comparison techniques and NRC 2−89672
primary freq. standards and precision spectroscopy, impact of lasers 2−63994
pulsed EM fields generation, using biconical antenna 2−79624
quality criteria in checking means of measurement 2−63958
quartz oscillators, new advances and impact on quantum standards 2−63965
radionuclides standard specimens appl. 2−85448
radionuclides standard specimens certification 2−85449
rectilinearity and planarity deviations meas., metrological support in USSR 2−69134
reference materials for bicomplex permeability properties at high and ultrahigh frequencies 2−53794
reference piezoelectric accelerometer, medium frequency range *(French)* 2−65548
Rumanian Institute of Metrology mechanical sector, progress in standards and measurement *(Rumanian)* 2−74408
Rumanian national calibration system *(Rumanian)* 2−74380

measurement standards continued
saturated absorption stabilized lasers, metrological aspects 2−60133
secondary time/freq. standards, heterodyne double-PLL structure appl. 2−79526
semiautomatic γ-dosimeter standard line *(Bulgarian)* 2−85403
Shuttle experiment to demonstrate high-accuracy global time and frequency transfer 2−101387
single sheet tester using H coil, mag. field anal. 2−83309
single-phase induction electrometers, service reliability, Bulgarian standard BDS-2279-74 *(Bulgarian)* 2−79609
sound measuring instruments, calibration and standards 2−60334
sound pressure standard realisation using one-inch laboratory standard microphones 2−89680
sound source waveform synthesizer using digital means *(Japanese)* 2−102987
spinning rotor viscosity gauge, vacuum gauge and transfer standard appl. 2−84652
state-selected beam low temp. H_2 maser, recent progress 2−58797
steel, X-ray fluorescence analysis, calibration standards 2−73040
stellar photometric standards, secondary sequences for limiting JF photography 2−106819
stellar photometry, energy distribs. in continuous spectra of five spectrophotometric standards *(Russian)* 2−94704
stellar photometry, magnitudes of comparison star sequence T Tauri star DR Tauri 2−94716
strain-gauge load cell, advantages over electronic proving ring 2−101381
substances standardisation in metrological research 2−79529
superconducting devices, precision metrology appl. 2−94937
superconduction stabilised oscillator as a frequency standard *(German)* 2−69123
T/F comparisons, precise international, ground and satellite TV systems 2−89674
temperature meas. in 0-400°C range, experience with GOST 8.009-72 standard 2−112901
temperature measurement, instrumentation and calibration standards *(Rumanian)* 2−74410
temperature measurement, standards laboratory design and calibration 2−112857
thermal and electrical cond. of standard reference material, SRM-735, obs. of anomalous behaviour 2−104343
thermal noise meas. using Josephson junction thermometer, effect of additive noise and bandpass filter 2−112902
thermal noise-power standard, precision HF termination, function, special features *(German)* 2−107345
time, BCR-project on time comparison via OTS-2 2−112874
time and frequency, astronomical research appl. 2−89156
time and frequency, methods and techniques used in New Zealand 2−89660
time and frequency in Japan 2−89664
time and frequency in Korea, and dissemination by AM/FM broadcasting network 2−89663
time and frequency meas., conf., New Delhi, India (Feb. 1981) 2−95306
time and frequency meas., recent activities at Radio Research Laboratories 2−89657
time and frequency services in Kenya, establishment, future radio broadcasting appl. 2−89662
time and frequency signals transmission, over Cuban TV channels 2−69145
time and frequency standards, Shanghai Observatory 2−79525
time dissemination capabilities via navigation satellites 2−89676
time scale realisation, US Naval Observatory time scale at the operational level 2−107308
time scales synchronisation, using Loran-C navigation system 2−69144
time synchronisation via INSAT-1 direct reception system 2−89678
time-keeping methods in pulsar observation 2−79540
time-standard synchronization, Lasso experiment scheduling and data processing at the Sirio-2 Lassoo Coordination Centre 2−89695
time/frequency services of the US National Bureau of Standards and some alternatives for future improvement 2−89666
timing receiver, satellite, NNSS 2−89679
ultrasonic testing, unification of specifications 2−89655
units and standards of measurement, review 2−107288
vacuum gauge calibration using spinning rotor gauge 2−79603
vacuum standards, secondary standard ionisation gauge, calibration 2−84654
vapour pressure, comparative ebulliometric apparatus 2−58771
vibration and shock meas., using accelerometers 2−53717
vibration and shock measurement, transducer calibration, comparison and direct m ethods 2−58806
VLF phase meas. for precise T&F intercomparison 2−89667
VLF propagation phase velocity meas., time scale synchronisation effect 2−58774
VLF signals instant of arrival meas., error determ. and elimination 2−58799
VLF studies at NPL, New Delhi−experimental set-up and morphology of the data 2−89669
voltage, AC Josephson effect 2−63962
voltage, using Josephson point-contact junction 2−112930
voltage meas. using Josephson potentiometers 2−112928
voltage unit reproduction based on Josephson effect, Italian (IEN) participation 2−112929
warship's master clock system for time/frequency reference 2−95305
waveguide cryogenic microwave noise standard 2−74471
Al mirror specular reflectance standards, prep. and calibration 2−114405
Ar mini-arc, dispersed source for absolute calibration 2−86066
$^{135}Ba^+$, hyperfine struct. determ. rel. to microwave freq. standard possibilities 2−65105
$^{137}Ba^+$, hyperfine struct. determ. rel. to microwave freq. standard possibilities 2−65105
CO_2, wavenumber meas. standards, Fourier transform spectrometer spectral range extension 2−74522
Cs atomic beam freq. standard, beam profile 2−107305
Cs atomic clocks, global time scale matching through transportation of clocks *(German)* 2−112856
Cs based devices, realisation of improved clock performance 2−63984
Cs beam freq. standard at radio research laboratories, Tokyo 2−63991
Cs beam freq. standard NRLM-II 2−63990
Cs beam frequency standard, optically-pumped 2−53720
Cs beam primary freq. standards, improved performances with new-design resonators 2−63995
measurement standards continued
Cs beam time and frequency primary standards in Federal Republic of Germany 2−63987
Cs frequency standard realisation, CO_2 laser phase-locking 2−102844
Cs, primary clocks performance, Canadian (NRC) research 2−107310
Cs primary clocks with 'exclusive flop-out' beam optics 2−69124
Cs Rydberg states, millimetre, wave spectroscopy, appln. to freq. metrology 2−58918
Fe, magnetisation standards 2−63963
Fe, X-ray fluorescence analysis, calibration standards 2−73040
^{55}Fe soln., international comparison of activity meas. 2−108317
H maser, NASA NR model charact. 2−80924
H_2 extremely small maser prototype 2−90859
H_2 masers, comparison between frequency stability of active and passive types 2−58796
H_2 masers, passive, use as frequency standards 2−58795
H_2 VLG-11 masers, long term performance 2−90858
Hg ion freq. standard, prospects 2−63997
$^{201}Hg^+$ stored ion microwave and optical freq. standards 2−89682
N_2O absorpt. lines for calibration of tunable IR lasers 2−74170
N_2O, wavenumbers meas. standards, Fourier transform spectrometer spectral range extension 2−74522
Ni, magnetisation standards 2−63963
^{16}O, energy of 6.13 MeV γ-transition related to ^{198}Au standard 2−95959
Rb atomic clock, satellite-borne, sapphire lamp development and appl. 2−89685
Rb atomic frequency standard, optically pumped 2−89684
Rb frequency standards, progress and prospects 2−58794
Rb frequency standards based on hyperfine transitions meas. 2−107306
Rb miniature high performance freq. standard, design and performance 2−89686
^{125}Sb-^{154}Eu-^{155}Eu, NBS long-lived mixed-radionuclide standards, photon emission rates determ. 2−59579

measurement systems
multichannel information-measurement system for astrophysical appl. 2−80400
physics postulates stable lasers and optical freq. testing standards 2−69127
pulse shape measuring system 2−102349
semiconductor field effect measurement, apparatus used 2−66563
spectroscopy, DLTS, design and construction of measuring instrument *(Japanese)* 2−89821
static characteristics linearisation by analogue and numerical methods *(Slovak)* 2−107287

measurement theory
A/D conversion algorithmic approach 2−95301
Bohm-Bub hidden-variable theory, partial meas. 2−58635
calibration theories without Faddeev-Popov ghosts *(Russian)* 2−79425
classical photon behaviour, relativistic Hamiltonian description, Aspect expts. interpretation 2−53571
digital time and freq. meas., statistical description 2−89696
dynamic charact. of meas. facilities computing, input and output signals integration 2−89649
electric, compensation methods, general survey *(German)* 2−79610
elongation measurement of thin sheets, regression formula *(German)* 2−95300
exponential data, deviation detection using integration and difference plots 2−63956
Gaussian functional measures, nonstandard infinite dimensional vector space approach 2−95076
general quantum meas., local transition maps 2−74239
homogeneous resistive materials, pot. fluctuation meas., Green's function anal. of induced EMF between electrodes 2−58851
Jordan algebras and meas. systems 2−112732
light vel., one-way meas. 2−84414
magnetic/gravitational field direction-of-action meas. using concentrically rotating elements, theory *(Japanese)* 2−79618
measuring chains typology *(French)* 2−53714
observation, state vector collapse, vel. to psychokinetic effect 2−79395
photon counting statistics, dead time corrections, quantum theory 2−55104
physical effects restricting accuracy in maintaining standard for unit of mass 2−95308
plane angle as dimensional quantity 2−69133
quantum gravity indirect evidence 2−53651
quantum gravity indirect evidence 2−53652
quantum mechanics, probability rule derivation 2−95103
quantum meters threshold capabilities 2−69080
quantum noise and quantum nondemolition meas. 2−95102
space-time theories *(Hungarian)* 2−101264
static characteristics linearisation by analogue and numerical methods *(Slovak)* 2−107287
statistical characteristics of test signals for measurement information systems 2−63959
strain gauge, transverse sensitivity, simplified method for eliminating error 2−79555
uncertainty circle in the coordinate measuring technique *(German)* 2−84589
$K^0\bar{K}^0$ system nonseparability test 2−101229

mechanical birefringence
see also photoelasticity
elliptical optical fibre or preform, stress profile meas. 2−97201
fibre-optic waveguides, single-mode, with weak birefr., polarisation props. rel. to device appl. 2−70696
fibres, highly birefringent, wavelength depend. of birefr. 2−91070
glass fibre reinforced epoxy, E and S type fibres manufactured by drawing in different environments, loss of load transfer, direct comparison 2−88131
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
metal-coated optical plate, thermally induced laser interf. and birefr. 2−108928
nylon 6/inorganic salt fiber, struct. and dynamic mech. behaviour, drawing effect 2−109695
optical fibre polarisation modifying props., polarisation time domain reflectometry meas. 2−91080
polarisation-maintaining single-mode-fibre interferometer for autocorrelation function meas. 2−114452
polarising components using stressed optical fibres 2−97175

mechanical birefringence continued
polyethylene, high-density, dynamic birefringence, α-relax. mechanism 2−110812
polyethylene, ultraoriented, birefringence calc. fusing model structures 2−110811
polyurethanes SKU-10, opt. and mech. props. under pulsed and static loads 2−62159
potassium and phthalate single cryst., elasto-optic behaviour 2−93151
single mode azimuthally inhomogeneous fibre, finite element anal. of stress-induced birefringence 2−75698
single mode elliptically cladded fibres, normalised stress charact. 2−102938
single-mode fibre, stimulated four-photon mixing by bending-induced birefringence, freq. tuning 2−114433
single-mode fibres, polarisation-maintaining, stress-induced birefr. and elliptical core types 2−75689
stressed birefringent medium, matrix transformations for passage of polarised light 2−93150
Cr films, clean and adsorbate-covered, optical spectra 2−87890
GaAs, piezobirefringence dispersion due to strain-dependent lattice effects 2−67017
$Pb_3(PO_4)_2$-$Pb_3(AsO_4)_2$, stepwise ferroelastic transition, Raman X-ray, neutron and stress birefringence study 2−115402
ZnSe crystal vapour phase growth, longit. stress during fabrication cooling time, parasitic birefr. 2−91844

mechanical contact
see also abrasion; friction; lubrication; wear
articular joints, technique for meas. of instantaneous in vitro contact stress distribs. 2−105865
bonded solid film, effect of load area of contact and contact stress on wear mechanisms 2−88224
boundary-value soln., mixed, of thermoelasticity, thermal crack and contact problems 2−81233
bowl dynamics, simulation 2−112690
casing, plasto-elastic rotation, interaction with elastic filler, numerical model *(Russian)* 2−81296
circular interface between dissimilar media, arc crack plane problem 2−109247
constrained problems in elasticity, finite element methods 2−79362
contact problems with friction, numerical realisation 2−97472
curved bodies, elastically and geometrically identical, rough contact, failure due to brittle fracture 2−97470
cylinder, circular, of finite size, dynamic and static contact problems of elasticity theory 2−55514
cylinder, elastic, supersonic rolling with friction on plane, closed form soln. 2−109253
cylinder, rubberised, compression by flat base, contact stresses *(Russian)* 2−60486
cylinders, elastic layer covered rolling contact driving a loaded sheet in the nip 2−91345
cylinders, rough, compressed between smooth flat surfaces of hard blocks, deform. 2−109210
cylindrical bodies with surface layer of increased pliability, internal compression 2−86237
deformation conjointness zone disturbance in contact problems of elasticity theory, numerical determ. *(Ukrainian)* 2−103110
die, asymmetric, rigid, acting on nonhomogeneous half space, contact problem with wear 2−103112
diffusion processes in semiinfinite electrically conducting media, contact phenomena influence 2−86921
dislocation layers and contact problems 2−97465
elastic bodies contact, dual finite element analysis 2−60485
elastic contact problems, singular integro-differential eqns., approx. soln. 2−70877
elastic half-space, surface loaded, subsurface and surface cracking due to Hertzian contact 2−114732
elastic space with spherical crack, contact problem *(Ukrainian)* 2−114723
frictional interface, elastic wave refl., refr. and absorpt., P and SV motion 2−97425
frictional interface between two elastic solids, disturbance caused by plane elastic pulse 2−97471
half-plane, Green's functions for transient thermoelastic contact problems 2−103116
half-plane, periodic elastoplastic contact problem 2−65540
half-space, two-dimens., thermal stress for moving heat input, plane stress care 2−103115
infinite plane with curved notch, contact problem of elasticity theory 2−65539
interference fits, photoelastic study on progress of interference 2−81299
junction of three bars, stress waves 2−97424
laminated plates, dynamic contact problems, numerical simulation 2−114739
liquid metal-solid interface, true contact area, expt. study 2−56328
metallic plates, collision surface, stability tangential discontinuity 2−115354
multilayer plate contact problem, matrix method of mixed boundary value soln. *(Ukrainian)* 2−103111
nonlinearly elastic rods, large buckled states under torsion, thrust and gravity 2−55462
numerical solution of geometrically nonlinear contact problems 2−81294
periodic contact problem with allowance for additional load acting away from die 2−114740
phase contact problems in presence of adhesion, method of fictitious absorpt. 2−114735
photoelastic isodynes, determ. of contact stresses 2−65544
plane contact problems with nonlinear friction, asymptotic methods appl. 2−91341
plasticity, technological problem formulation and soln. 2−114679
plate, circular, reinforced with stiff rings, contact problem 2−91342
plate, elastic anisotropic, reinforced by stiffener, contact problem 2−60491
plate, elastic circular, on elastic half space, vibr., direct soln. method 2−97426
plate, unbounded, reinforced by infinite homogeneous damaged stringer, discrete interaction 2−81292
plate attached to a half space through a viscous couplant, Rayleigh wave scatt. 2−91313
plate interaction with rib twisted by moment *(Ukrainian)* 2−114736
plate pressed onto rigid base, elastic contact, stress anal. 2−75907
plates, bending, frictionless contact *(French)* 2−55516

mechanical contact continued
plug forcing out of rigid-plastic obstacle by bullet *(Russian)* 2−81295
PMMA thin films, time dependence effects in shear 2−67554
polyvinyl alcohol thin films, time dependence effects in shear 2−67554
punch, sectionally smooth-ended, stress on elastic half-space, axisymm. contact problem 2−60490
rigid inclusion pressed between two dissimilar elastic half-planes, plane-strain problem 2−91343
ring, thin, elastic, incomplete, impinging on a frictional barrier, stick/slip conditions 2−103114
rings, square, subjected to in-plane crushing, plastic collapse analysis 2−109200
round die acting on elastic half-space, axisymm. contact problem *(Ukrainian)* 2−103108
shell, nonlinear, shallow, interaction with rigid punch, contact problem *(Ukrainian)* 2−103109
shell, spherical, fluid filled, contact interaction with hard spherical base, asymptotic integration *(Russian)* 2−60487
shell cylindrical, in contact with elastic medium, free oscills., asymptotic analysis 2−60455
slider, cylindrical, cantilevered, elastic edge stress singularities 2−103113
solids with initial gap between, contact transmission of wave motion 2−109219
steel, C, rolling-contact fatigue, effect of tangential traction and surface roughness 2−111256
stress problems, singularity considerations in numerical soln. 2−114741
strip, elastic, moving across rigid step, numerical soln. 2−109252
strip on rigid foundation, elastic stability 2−60438
thermomechanical effects on sliding surfaces, conf., Columbus, USA (June 1981) 2−101124
unilateral contact problems, reduced integration penalty methods, smoothing technique 2−60489

mechanical engineering
cut-off temp. calc., combined heat pump-boiler system performance optimisation *(Italian)* 2−78241
microcomputer-based system for instrumented impact testing 2−78038

mechanical engineering computing
see also computerised control
composite panels buckling behaviour 2−114693
computer aided thermal design analysis of dies used in the pressure die casting process 2−65455
cross-correlation flowmeter, technique development using signal processing 2−114958
diamond anvil under stress, CAD study 2−112917
FASOR−a program for stress, buckling and vibration of shells of revolution 2−70855
general structures, creep induced buckling 2−114692
luminous fog lamp mounting assembly dynamic design and mechanical strength enhancement *(Russian)* 2−79351
materials testing, ultrasonic evaluation using digital imaging and image processing 2−67719
modified secant Newton method for non-linear problems 2−109191
plate theories, refined, numerical methods 2−114669
structural systems minimum weight design 2−114670
wire drawing, plastic flow and stress/strain distrib., calc., computer program 2−99480

mechanical impact *see impact (mechanical)*

mechanical interfaces *see mechanical contact*

mechanical organs *see artificial organs*

mechanical permeability *see permeability*

mechanical properties of liquids
see also elasticity of liquids
butyloxybenzylidene octylaniline, shear mech. impedance near crystalline-B-smectic-A phase transition, US study 2−56190
nematic liquid crystals, mechanical stress effects 2−55831
rubber, one-component liq., for elec. insulation, prep. and charact. *(Japanese)* 2−83076
rubber solution, temp. transitions, mech. losses, vibr. freq., effective viscosity, struct. development *(Russian)* 2−65837
viscous bodies, under various modes of loading, deformation and stress calc. *(Czech)* 2−109262

mechanical properties of solids *see mechanical properties of substances*

mechanical properties of substances
see also anelasticity; bending; brittleness; creep; deformation; elastic aftereffect; elastic moduli; elasticity; fracture; hardness; internal stresses; mechanical properties of liquids; mechanical strength; photoelasticity; photoplasticity; plasticity; slip; stress relaxation; stress/strain relations; tribology; viscoelasticity
epoxy resin, amine cured, thermal modification, thermal and mech. obs. 2−111206
films, fibrils and interfaces, micromechanics, review 2−82188
metallic glasses, review of applications *(Hungarian)* 2−104558
oxides, physical and chemical props. handbook 2−94927
plastic foams, mech. props. change during storage, prediction 2−116508
polyurethane foam, mech. props. change during storage, prediction 2−116508
surface phase mechanics and thermodynamics, review *(French)* 2−66341
transition metal nitrides, phase diagrams and props., review 2−77813
underground energy storage in hard rock, geotechnical data base 2−99841
Cr_2O_3 plasma sprayed, control of mech. props. using IR specular reflection 2−77607
CuAu, ordered alloy, mechanical props. meas. *(Russian)* 2−88091
Si as mechanical material, review 2−92072
$TiC_{0.96}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
$TiC_{0.51}N_{0.49}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072

mechanical relaxation *see anelastic relaxation*

mechanical strength
for fatigue strength, see fatigue; for creep strength see creep fracture
see also bending strength; compressive strength; fracture toughness; impact strength; notch strength; shear strength; tensile strength; yield strength
atomic chain, temp.-force instability, breaking strength 2−86789
bonded joint strength determ. by simulating electroacoustic channel of resonant instrument 2−83332
bone, human, mech. impedance, drilling tests 2−116957
bone, mech. behaviour, effect of moisture 2−83593

mechanical strength continued
borosilicate glass with antireflective surface, strength and fatigue 2−83209
carbide γ/γ' directional eutectic, fracture under creep conditions *(Russian)* 2−99517
cellular materials, three-dimens., elasticity, collapse strength 2−91248
ceramic-like body, process design, prod. from recycled waste glass, green strength 2−111125
ceramics, brittle, inertia as a factor in dynamic strength 2−111277
ceramics, failure prediction by strength and fracture mechanics, comparison 2−88165
ceramics, fibrous, low-density, mech. props., micromech. model 2−77909
composite cylindrical shells, deform. under combined dynamic loading 2−91286
cordierite based crystallised glass, damage resistance of fortified surfaces 2−111339
damage accumulation in solids under load, computer modelling 2−92099
ductile-brittle transition, kinetic criterion, rel. to fracture kinetics *(Russian)* 2−76575
E-glass fibres, strength of single fibres in water 2−83263
elastomers, strength and useful life, network degree influence *(German)* 2−67532
Elinvar, Fe-Mn-V-C, dispersion hardened, nonmag., mech. characts. 2−62132
epoxy binders, strain-strength props. above glass transition temp. 2−83186
femur, human, material props. and strength behaviour of compact bone tissue *(German)* 2−105710
fibre optic army systems, survivability 2−114444
fibre reinforced composites, probability model 2−93620
fibre reinforced composites, short fibre, probabilistic theory of strength, variable fibre length and orientation 2−67433
fibre reinforced thermosetting plastics, mechanical strength with various fibrous fillers 2−98183
fibrous materials under series-parallel struct. and equal load sharing, asymptotic distribs. for failure 2−97458
glass, cellular, strength limiting defect detection by dielectric meas. 2−105392
glass, crack initiation, acid-enhanced 2−77911
glass fibre reinforced epoxy, short fibres, matrix effect on fracture toughness 2−62205
glass fibre reinforced plastics, interface strength, temp. depend. *(Japanese)* 2−57419
glass fibre reinforced polyester resin, long term strength in dil. H_2SO_4 2−88196
glass fibres, strength distrib., degree of expt. skill effect on flaws *(Japanese)* 2−57420
glass hemispherical shells, load-carrying capacity, shape imperfections influence 2−111253
glass shell, sectional, with dismantable joint, strength and damage content 2−105431
glued joints, strength eval. 2−72903
laminated cylindrical shell, strength on nonproportional loading 2−114725
mechanical disintegration prediction 2−81887
metallic materials, residual life prediction 2−111434
metallic materials, statistical strength *(Japanese)* 2−111188
metals, long-term strength estimation with stepwise stress changes 2−109890
metals, structural strength, effect of different factors 2−116552
nonmetallic structural materials, brittle, strength testing 2−72910
optical fibres, factors affecting low strength breaks, fractographic an alysis 2−75688
PLZT, piezoelectric. ceramic, mech. strength 2−77907
polyimide and polyamide-imide, stress relax. meas. in T_2 atmos. 2−88134
polymer base anisotropic materials, long-term strength prediction 2−92083
polymer blend, mech. strength and flow behaviour, mixing effect *(Japanese)* 2−83179
polymer glasses, in surface active medium, strength, time depend. *(Russian)* 2−109891
reinforced shells of revolution, carrying capacity 2−81254
rubber, natural and polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
sand-cement motar, acoustic emission and longevity under steady load 2−93619
β'- Sialon, density, microstruct. and strength, heating rate effects 2−116467
silica, crack blunting in water and silicic acid soln. 2−111276
sitall, luminescence defectoscopy of strength rel. to phase composition 2−99485
solids, fracture and strengthening, phenomenological theory 2−66119
specific strength, units of meas. 2−95304
steel, alloy, roll, heat treatment influence on struct. and props. 2−67393
steel, austenitic, Ni-Mo, strength increase by γ-α-γ transition cycles during slow heating *(Russian)* 2−105225
steel, austenitic stainless, strengthening and weakening of austenite during hot deformation 2−72734
steel, boriding, with high-freq. current heating 2−67644
steel, Cr-Mn, medium C, design for wear appls. 2−83235
steel, Cr-Mn-Si, deform. under high pressure, effect on temper brittleness 2−67391
steel, Cr-Mo, heat resist., partially recryst. struct. effect 2−67399
steel, Cr-Mo type HT-9, microstruct. effect on mech. props. rel. to fusion reactor apps. 2−88108
steel, heat-resist., plasticity and strength determ. under long-term tensile stress 2−105404
steel, low C, strengthening and weakening of austenite during hot deformation 2−72734
steel, low-temperature, struct. strength eval. criteria 2−72924
steel, medium C, behaviour in gaseous NH_3 under temp.-force loading 2−111380
steel, medium-C low-alloy En 24, intercritical treatments, duplex struct. 2−105189
steel, mild, ultimate strength and hardness, mech. props. from extreme values, reliability based design 2−99511
steel, Mn-Ni, low-C, cast, replacing Ni with Mn for low temp. operation 2−72731
steel, Ni, hot deform., substruct. effect on austenite strength 2−72735
steel, Ni, Mn and Ni-Mn based, maraging, economically alloyed, heat treatment influence on struct. and props. 2−67394
steel, reinforcing, decarburisation in corrosive medium 2−88288
steel, stainless, low-temperature, struct. strength eval. criteria 2−72924
mechanical strength continued
steel, stainless, maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
steel, stainless, Ni-Cr-Mo-Nb-Al, precip.-hardening, struct. and props. after heat treatment 2−72728
steel, stainless, powder metallurgical, mech. props., sintering environment influence 2−72782
steel, structural, fracture toughness rel. to strength, struct. aspects 2−77946
steel, structural, toughening by preliminary thermomech. treatment, grain size red. *(Russian)* 2−62149
steel, structural strength, effect of different factors 2−116552
steel joints, polymer glued, strength eval. 2−72903
structural materials, ultimate stress states, dispersion anal. 2−115335
struts, steel, subjected to impulsive loading with linear attenuation, dynamic anal. *(Chinese)* 2−103073
superhard materials, plasticity and strength investigations by microindentation method 2−116668
thermodynamic approaches to the problem of strength, review 2−76570
thin-walled cylindrical shells with reinforcing stringers, upper crit. loads rel. to stability loss 2−81265
trabecular bone, multiaxial strength tests 2−62668
X-ray lithography masks, optically-transparent 2−87117
Al alloy 2024-T3, perforated sheets, reinforcement by thermal shock with laser beams 2−116452
Al-Al_2O_3, powder metallurgical, heat resistant, props. 2−72875
Al-BN plasma spray deposited composite coatings, props. 2−83231
Al-Cr-Zr, powder metallurgical, heat resistant, props. 2−72875
Al-Cu-Mg eutectic alloys, unidirectionally solidified, structure, and mech. props. *(Korean)* 2−67312
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
AlN polytype ceramic formation, mech. props. *(Japanese)* 2−88044
B fibre reinforced Al, acoustic emission and longevity under steady load 2−93619
B fibres, strength characts., changes during annealing *(Russian)* 2−72796
BN, hardness load depend., structural state, fracture, cracks 2−83229
$BaTiO_3$ piezoelectric. ceramic, mech. strength 2−77907
C fibre, containing ZrO_2, effect of low temp. Ar plasma 2−67585
C fibres, surface structure effect on strength, in appl. of carbide coating in metal melt 2−83067
Cr-MgO-B, struct. and mech. props. 2−72783
Cr-Ni steel, Kh16N15M3B, reactor irrad. in N_2O_4 medium, effect on strength and plasticity 2−116613
Cu-Al-Zu, damping capacity, quenching and Zn addition effects 2−116441
CuAu, ordered alloy, mechanical props. meas. *(Russian)* 2−88091
EuO-Fe cermet, fabrication for reactor control-arm plates 2−107947
Fe, Armco, behaviour in gaseous NH_3 under temp.-force loading 2−111380
p-GaS, single crystal, mechanical and electrical strength *(Russian)* 2−92636
p-GaSe, single crystal, mechanical and electrical strength *(Russian)* 2−92636
Mg-Li-Al-Cd, superplastic deform., effect on struct. and props. 2−62180
MgF_2:CaF_2, recrystallisation pressing, struct. and strength 2−99524
Mo fibre reinforced Ni-Cr, TiN coating on fibres influence on props. 2−67455
Mo, strength and ductility in complex stress state, 293-173K 2−111251
Ni-Al-Cr (W)(Ti), Ni_3Al based structural alloy, props. 2−72874
Ni-Al-Nb-Ti high-temperature strength alloys, mech. props. prediction, struct. factors influence 2−72771
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Cr-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Mo steel, phase transitions during heating and strengthening *(Russian)* 2−116438
Pb alloys, ternary, US crystallisation *(Russian)* 2−67201
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
$(Pb_{0.8}Sr_{0.2})Bi_2Nb_2O$, piezoelectric. ceramic, mech. strength 2−77907
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483
Si_3N_4, effects of oxidation and oxidation under load on strength distribs. 2−99491
Si_3N_4, hot pressed, grooved by single-point grinding, residual stresses 2−57455
Si_3N_4-Y_2O_3 (6 wt.%), density, microstruct. and strength, heating rate effects 2−116467
SiO_2 fibres, strength/fatigue expts. 2−116523
TaC single-crystal powders, morphology, hardness, and grinding ability 2−83230
Ti-Al-Mo-Zr, struct. and mech. props., relationship offer superplastic deform. 2−62178
TiC single-crystal powders, morphology, hardness, and grinding ability 2−83230
WC-Ni cemented carbides, prep. and props. 2−111119
ZrC-C composites, strength 2−116544
ZrO_2, sintered, struct. and fracture behaviour 2−88187
ZrO_2-Y_2O_3 single crystal, room temp. strength and fracture 2−111274
ZrO_2-Y_2O_3-Bi_2O_3, Bi_2O_3 effect on elec. and mech. props. 2−67265

mechanical testing
see also creep testing; dynamic testing; fatigue testing; fracture toughness testing; hardness testing; materials testing; mechanical variables measurement; notch testing
acrylate-coated fibres, UV-cured, environmental testing 2−114443
apparatus for studying plastic deformation under rapid tensioning 2−78061
bending test for tension and compression stress-strain curves 2−105401
coatings, anticorrosion, abrasion testing device 2−116637
concrete, frame-specimens, applicability of indirect tensile test method *(Japanese)* 2−62320
crack propagation at material interfaces, crack profiles determ. 2−116627
crack tip opening displacement testing 2−57585
critical brittleness temperatures, determ. methods for materials and design elements 2−105403
deformation measurement problems, refl. holography appl. 2−103118
double torsion test, crack front shape effects 2−116653
friction machine recorder, sensitivity improvement 2−62316
fusion material, irrad., miniaturised disc bend test development 2−88316
fusion material, small scale ductility tests, bulge test applicability 2−88314

mechanical testing continued
fusion materials, mechanical-radiation effects test capsule for simulating in-reactor environments 2−88311
glued joints, strength eval. 2−72903
graphite, synthetic, methods of mech. testing at 20°C, review 2−72898
graphite fibre reinforced resin, tensile testing at 316°C, gripping system appls. 2−105399
low-temperature attachment 2−62315
machine compliance determination 2−93714
metal filaments, decimicron, prep. and tensile testing 2−62314
metal-metal adhesive bonds, interfacial failure, short beam shear test method use 2−105414
metallic materials, torsion testing *(German)* 2−72925
metals, brittleness transition temperature determination in impact strength testing, deform. criterion 2−116632
miniature tensile specimen technology for neutron irrad. materials testing 2−88312
optical sensor for closed-loop mechanical testing 2−105426
organic coatings on multiple glass fibre strands dynamic mechanical testing 2−78023
plane strain compression testing technique for constrained surrounded crystals *(French)* 2−105428
polymers impact testing based on velocity and acceleration meas. 2−105427
sandwich beam, nonlinear compressive and tensile stress/strain curves determ. method 2−91346
sheet materials, testing under shearing load 2−116636
spine joints of small mammals, mech. testing 2−62876
static tensile testing system, automated 2−67702
steel, ferritic weld metal, COD and Charpy V test data correlation 2−57586
steel, microduplex, superplastic deform. activation energy, differential temp. tests 2−88325
steel, mild, mech. behaviour invest. by combined-stress testing machine 2−105419
steel, Nb-V-N, low-alloy, hot forming simulation in multistage tensile test *(German)* 2−116468
steel, stainless, Type 316 irrad., miniature tensile specimen testing 2−88312
steel, structural, durability eval. taking account of defects 2−111431
steel, structural, mech. test method for low strain rates 2−93709
steel joints, polymer glued, strength eval. 2−72903
stress intensity factors determination by photoelastic method 2−70882
structural elements, test installation for stress/strain state, using method of optically active coatings 2−67700
tensile test diagram construction of metallic materials with deform. anisotropy 2−105406
tensile testing, specimen loading rate determ. 2−93702
tensile testing using projection moire, neck development meas. 2−105425
texture development at low-strain and significance 2−67380
time-dependent phenomena obs. using holographic interferometry partial exposure method *(German)* 2−81303
upsetting of circular cylinder, assessment of free surface strains and stresses 2−93733
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322

mechanical variables control
this heading is restricted to those variables which are not covered by other specific headings. See also, for example, force control; thickness control; velocity control; vibration control
Czochralski growth apparatus, automatic, phantom controlled 2−67209

mechanical variables measurement
see also elastic moduli measurement; force measurement; pressure measurement; shock measurement; strain measurement; stress measurement; torque measurement; vibration measurement
16 mm raw film stock, frictional props. meas. 2−69274
biomedicine, use of Si strain gauges, stability problems *(Czech)* 2−62803
deformation measurement problems, refl. holography appl. 2−103118
fluorescence polarisation meas., rel. to uniaxial deform. models 2−103133
impedance gauge based on vibrating rod strain meas. 2−91353
internal friction in solids, torsion pendulum meas. technique 2−98197
internal surface deformation meas. of thick-walled structural shells, optical method 2−55523
laser speckle subjective method, appl. to solid mechanics problems 2−91354
marine propeller deflection meas. projected grid moire technique 2−64102
metal subsurface crack and plastic deform. detect. using the photoacoustic effect *(Chinese)* 2−97473
metallic solid, wear meas. using Falex Lubricant Testing Machine 2−111425
micromechanical props. meas., automatic system 2−107320
plate, rectangular, clamped, subjected to point force, deform. meas. using double exposure holographic interferometry *(Chinese)* 2−97474
powder coherent strength meas. by tensile rupture test method *(Japanese)* 2−64022
resonant systems Q-factor and internal friction meas., using digital meter 2−58813
Rumanian Institute of Metrology mechanical sector, progress in standards and measurement *(Rumanian)* 2−74408
specific strength, units of meas. 2−95304
steel, Ni-Cr, wear meas. using Falex Lubricant Testing Machine 2−111425
wind tunnel models, position and deform. meas. using optical sensor *(French)* 2−107300
wire tension meas. in multiwire proportional chambers *(Chinese)* 2−59609

mechanical waves *see elastic waves*

mechanics
see also bending; biomechanics; celestial mechanics; classical mechanics; damping; density; dynamics; fluid mechanics; intermolecular mechanics; kinematics; momentum; relativistic mechanics; statics; statistical mechanics; wave mechanics
foundations and applications, book 2−84403
sliding flexible sheets, inviscid theory 2−97468

mechanics of fluids *see fluid mechanics*

mechanoception
arterial baroreceptors, review *(Japanese)* 2−57832
brainstem auditory, visual and somatosensory evoked pots. in leukodystrophies 2−111698
cockroach giant interneuron system, multivariate statistical anal. of the response to wind puffs 2−73268

mechanoception continued
crayfish antennule to water current stimuli, temporal-structure change of impulse train in mechanoreceptors 2−100014
echolocating Atlantic bottlenese dolphins, acoustic emission monitoring 2−78354
epidermis of human skin, pyroelec. and piezoelec. sensor layer 2−100013
fish, lateral line stimulation patterns rel. to rigidity 2−88573
force-sensitive interneurons in the spinal cord of the cat 2−116940
impulsive vibrations, whole-body, slow vertex pots. evoked in recumbent men 2−111712
joint position sense, afferent and efferent components, interpretation of kinaesthetic illusion 2−83579
lingual vibrotactile sensitivity research instrumentation, modification for elimination of tongue clamping procedure 2−111828
lung, upper airway receptors in humans, physiological stimulus 2−78380
mass perception rel. to body wt. changes, space flight appl. 2−62640
masseter EMG, silent periods due to mech. stimuli, acoustic masking effect 2−62630
microelectronic visual and tactile devices to aid speech and understanding in the deaf 2−78489
muscle spindles, β motor stimulation effects on interpretation of signals 2−94081
nervous system serving mechanoreceptors, structure determ. 2−68029
neurons, single, impulse-coded and analogue signalling 2−83580
Optacon-optical to tactile convertor, to help blind people read printed text *(French)* 2−78408
position and motion sense, role of joint receptors and other afferents 2−94082
pulmonary stretch receptor input, central integration in expiration control 2−116938
rotation perception thresholds, variability and psychometric curves, comparison with hearing thresholds 2−68028
rotatory evoked cortical potential meas. in man *(German)* 2−62641
somatosensory evoked potentials, short latency, median nerve stimulation 2−94084
somatosensory evoked potentials, short latency, peroneal nerve stimulation 2−94085
somatosensory evoked potentials, subcortical, prevertebral recording in man 2−68030
somatosensory evoked pots., central conduction time obs. for humans aged 10 to 79 2−111711
somatosensory evoked pots. in man, interference approach to study 2−94083
somatosensory evoked spinal and scalp-recorded potentials following posterior tibial nerve simulation in man, short latency 2−111710
somatosensory potentials, early, finger stimulation, non-cephalic reference recording 2−94086
spatial orientation and oculomotor control in humans, some contribs. of touch, press. and kinesthesis 2−57831
stretch receptors of the heart, review *(Japanese)* 2−57833
tactile artificial sight: segmentation of images for scene simplification 2−57928
tibial nerve, posterior, stimulation, origin of evoked far-field subcortical pots. 2−68031
vibrotactile hearing substitution device for the very deaf 2−68199
weight sensation quantification by EMG *(Japanese)* 2−62855

medical administrative data processing
see also medical computing
radiation therapy, computer appl., conf., Kawasaki and Tokyo, Japan (Sept. 1980) 2−100123

medical computing
see also medical administrative data processing; medical diagnostic computing
acoustic imaging, medical and underwater surveillance systems, microprocessor controlled 2−81192
adrenal gland uptakes, computer program for determination 2−117057
ambulatory blood pressure recordings, microcomputer anal. 2−83691
auditory evoked potentials, computing-routine for logarithmic display 2−83675
automatic left ventricular outlining 2−117055
blood cell image classifying system *(Japanese)* 2−105861
cardiac left ventricular afterload parameters, automatic estimation procedure using a systemic vascular bed model 2−100149
cardiac left ventricular haemodynamics and chamber dimensions, computer-graphic anal. 2−100148
cardiology application, conf., Florence, Italy (Sep. 81) 2−79282
deconvolution program for processing radiotracer dilution curves 2−117056
defibrillator analyser, microprocessor-based 2−57930
dental radiographs, digitised image processing for improved diagnosis 2−68143
Doppler US waveforms, online identification and quantification 2−68085
ECG component analysis using a computer 2−117143
ECG data acquisition reduction and analysis, microcomputer based 2−117100
EEG, statistical data analysis, computer managed 2−117144
EEG signal analysis, appl. of model of N-pole with random processes 2−83542
electrocardiographic rhythm analysis using Lorenz plot and microcomputer *(Japanese)* 2−73383
electrocardiosignals, computerised processing *(Russian)* 2−62808
emergency simulation by microcomputer and video disc 2−83696
EMG, single-site microcomputer identification of temporal pattern differences, prosthesis and orthosis appl. 2−83701
foetal heart rate during labour, variability computation using microcomputer 2−100133
image analysis, algorithms for morphological features extraction 2−68186
image understanding system, identification of artery branches in cineangiograms 2−100115
images, anal. automation 2−62702
interface between several cameras and two computers, using differential analog transmission 2−117065
laryngeal surgery, perturbation anal. use for objective assessment 2−57879
left ventricular boundary automated extraction from ^{99m}Tc gated blood pool scintigrams 2−68144
master hearing aid, computer program for fitting aid to residual hearing characteristics of individual patients 2−111706
nerve fibre velocity spectrum estimation by computer 2−57949

medical computing continued
nerve tonic activity of vagus and depressor nerves, component analysis of electrograms by computer 2−78317
nuclear medicine, data acquisition and processing unit *(French)* 2−68122
peak detection algorithm of biological signals 2−117102
petit mal epilepsy seizure, microcomputer based detection and quantification 2−100134
radiation therapy, computer appl., conf., Kawasaki and Tokyo, Japan (Sept. 1980) 2−100123
radioisotope imaging, edge detection algorithm, performance evaluation 2−100110
radionuclide angiocardiographic approaches to shunt assessment, simulation-based sensitivity study 2−73317
radiotherapy dosimetry, review system for cooperative group research 2−68161
radiotherapy planning, limitations of 2D programs 2−94181
spirogram analysis for quiet breathing 2−100023
spontaneous breathing, linear modelling of ventilatory mechanics 2−73273
TLDs, ^{6}LiF, estimation of zero dose reading build up due to neutron prod . ^{3}He, computer programme 2−64689
US arteriography, new technique for carotid bifurcation imaging 2−78401
vascular flow of eye fundus, fluorometry and differential, luminosity integration as perfusion time function, angiographic photographs appl. 2−57890
ventricular function meas., data processing 2−100102

medical diagnostic computing
see also computerised signal processing
arterial stenosis, on-line classification of severity by Doppler US signals anal. 2−117022
cancer cell diagnosis, computerised picture processing appl. *(Japanese)* 2−105848
cancer early detection by blood cell electrophoresis meas. using microcomputer 2−117127
cardio-pulmonary assessment using computerised rotating vane spirometer 2−117123
computerised tomography, theoretical foundations and practical realisation in Soviet Union 2−78426
dynamic sequence handling 2−100100
ECG diagnosis using digital differentiation 2−111810
electrocardiomultigraphimeter as a basic instrument for developing effective personal computing in cardiology 2−100151
ERG stimulator microprocessor based 2−73384
fatty liver and cirrhosis diagnosed by US texture discriminant analysis 2−57878
nuclear medicine, computer applications, meeting, Paris, France (Sept. 1982) 2−94895
nuclear medicine, picture processing, computer appls. 2−100099
nuclear spin tomography for medical diagnosis *(German)* 2−68190
tomography equipment development, image reconstruction technique, HEADTOME system *(Japanese)* 2−105849
trends in medical electronics in Japan, 1979 and 1980 *(Japanese)* 2−94245
X-ray image recognition, automatic systems, comparative analysis 2−78410

medical effects of radiation *see biological effects of radiation*

medical electronics *see biomedical electronics*

medical information processing *see medical administrative data processing; medical computing*

medical sciences *see medicine*

medicine
see also biomedical engineering; cardiology; health hazards; patient diagnosis; patient monitoring; patient treatment; physiology
book, medical phys. and physiology meas. 2−63761
data for medical phys., book 2−112665
in vivo neutron activation−a method of analysing the living human body 2−88653
isotopic generator for ^{212}Pb and ^{212}Bi 2−78446
nuclear medicine department, radioactive liq. waste 2−68171
nuclear medicine departments, surface contamination evaluation, least square method appl. 2−68170
nuclear medicine laboratory workers, ^{133}Xe radiation exposure dosimetry 2−94206
optics applications, conf., Graz, Austria (Sept. 1981) 2−107021
radioisotope researches and appls., 30 years progress, review 2−58554
UV radiation applications, book 2−84395
^{15}O, prod. of clinically useful quantities via ^{16}O(γ,n)^{15}O 2−94203
^{238}Pu,Be neutron source, effect of collimator and depth in phantom on neutron spectrum 2−117069

Meissner effect
distinction between a perfect conductor and a superconductor 2−104535
Josephson network, multiconnected, partial destruction of Meissner state 2−98813
London equation, Meissner-Ochsenfeld effect, Lagrangian methods 2−104537
London equations, Meissner-Ochsenfeld effect, classical derivation 2−104536
magnetic flux quantum, elementary derivation 2−84410
superconductor-normal metal proximity sandwiches, Meissner effect, microscopic theory 2−66723
$(TMTSF)_2ClO_4$, deuterated, organic supercond. Meissner anisotropy 2−56776
$BaPb_{1-x}Bi_xO_3$, cryst. growth from molten KCl solvent and supercond. props. 2−77719
$CeCu_2Si_2$, superconductivity 2−66691
$Ce_{1-x}Gd_xRu_2$, self induced vortex state, Meissner effect, NMR study 2−87463
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$(SN)_x$, cryst. struct., prep., band struct., Fermi surface and Meissner effect *(Japanese)* 2−82212

Meissner-Ochsenfeld effect *see Meissner effect*

melting
see also melting point; zone melting
alkylene glycol terephthalate copolymers with mesogenic p-oxygenzoate units, thermal transitions 2−61139
alloy melts, binary, contact melting study for interdiffusion coeff. determ. 2−71700
alloys, vacuum induction melting 2−69177
amorphous, ion implanted, ultrarapid cryst. growth and impurity segregation during laser annealing 2−86722

melting continued
aniline, o-, m- and p-halogen derivatives, thermodynamic studies of melting 2−103948
benzene, melting and mol. motions, X-ray diffr. study 2−109959
binary system with chem. interaction of components, contract melting props. *(Russian)* 2−66183
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
cholesteryl hexanoate, phase transitions, high press. study 2−71642
cholesteryl pentanoate, phase transitions, high press. study 2−71642
commensurate adsorbed surface phases, domain walls and melting 2−110148
crystal melting and Lindemann's law 2−86834
crystal surface mass transfer processes in crystallisation and melting 2−103963
crystalline substances, automatic melting-point determ. device 2−115393
cubic crystals, thermal potential, mechanical instability, and melting entropy 2−92165
dislocation melting, gauge theory 2−76645
dislocation vector systems, melting in two dimens., Monte Carlo study 2−71620
EBBA, melting and crystn. processes, thermal anal. 2−92198
electrically exploding wire, melting front stability 2−103406
electron lattice, two dimensional, shear modulus calc., anharmonic effects 2−61378
fibres, surface energy characterisation 2−56326
first wall materials vaporisation and melting in fusion devices 2−74919
frozen coal thawing using Thawtron microwave device 2−73058
gauge theory of dislocations in solids and melting as a Meissner-Higgs effect 2−109793
glass, by direct induction heating in ceramic container 2−59472
graphite, physisorbed monolayer of Kr, commensurate melting and commensurate-incommensurate transition, X-ray study 2−115548
graphite with submonolayer Ar, melting, synchrotron X-ray study 2−104153
graphite-Br_2 intercalation cpd., struct. phase transitions, Raman scatt. study 2−86863
hard cyclic hexamer system, rotary, phase, phase transitions, expt. modelling study 2−115155
heat transfer problems, evaluation of enthalpy method soln. 2−65471
n-heptadecane, heat source, melting, solidification, heat transfer, interface motion 2−55404
p-n-hexyloxybenzylidene-p'-toluidine, phase relation, DTA and microscopic studies 2−91770
ice, fusion rate, heat transfer, finite element anal. 2−55407
ionic crystal, contact melting, external electrostatic field effect *(Russian)* 2−66182
ionic system, thermodynamic props. and crit. points, charged hard sphere model *(Russian)* 2−61107
laser beam scanning of solid, temp. profiles calc. 2−92028
laser radiation thermoelastic action on surface of a solid 2−115285
latent heat thermal energy storage in horizontal cylindrical capsule, high Rayleigh no. calcs. 2−116853
liquid metals, levitation melting in mag. fields, Navier-Stokes eqn. 2−70838
liquid-solid interface inertia 2−109962
melted layer between vertical plates, convection onset 2−92159
melting, solid, melting as a critical transition 2−81937
metallic limiters in Doublet III, changes in near-surface microstructure 2−74901
metallic surfaces, laser irradiated, regrowth, surface nonuniformities and coupling phenomena 2−61030
metals, levitation-melting process in mag. field, fluid dynamical aspects 2−70839
metals, Lindemann fusion theory, lattice struct. effects 2−81936
methane-d_4, incommensurate monolayers on graphite, melting transition, neutron diffr. lineshape anal. 2−66356
molecular dynamics study for two dimensions 2−81938
naphthalene-Cu interface, viscosity and thickness of quasi-liquid layer during melting *(Russian)* 2−115396
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
organic material pulsed laser heating, optimum energy and duration 2−71499
paraffins, two dimens. dislocation theory of melting 2−103959
phase change material, melting within a spherical enclosure 2−91438
poly(ethylene terephthalate), crystal perfection and crystallinity, melting behaviour, wide angle X-ray diffr. 2−65879
polydiacetylenes, struct.-property rels., colour changes 2−71375
polyethylene, linear, ultrahigh modulus, melting, superheating effects 2−103955
polyethylene-1,3,5-tribomobenzene mixture, eutectic solidification and oriented growth 2−92164
polypropylene films blended with ethylene-propylene copolymers and polyisobutylene, morphology, crystallisation, melting 2−65881
polystyrene-polyethylene oxide (polyisoprene) block copolymer-solvent systems, liq. cryst. textures 2−115130
polyvinylidene fluoride films, γ-irrad., piezoelectric props. 2−87687
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, high-temp. struct. changes, X-ray diffractometer investig. 2−76652
qualitative theory, dislocation dynamics, cooperative diffusion 2−81928
rare gas solids, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922
saline water, laminar buoyancy-driven flow near melting ice surface, transport meas. 2−70901
saline water, laminar buoyancy-induced flows near melting ice surface 2−70900
semiconductors, electron subsystem entropy changes during melting 2−81990
snow at Paradise, Mt. Rainier, Washington, ashfall effect on melt rate 2−63006
soft disk systems, melting, computer simulation 2−56152
soft-sphere crystals, shear-induced melting, thermodynamic props. 2−71621
steel, phase and struct. transitions caused by laser heating, original struct. effect *(Russian)* 2−77814
1,2,4-trichlorobenzene-n-decane-n-tetradecane mixtures, melting, density, viscosity and thermodynamic props. 2−71666
two-dimensional, grain boundary theory 2−56164
two-dimensional, Kosterlitz-Thouless anal. 2−66187
two-dimensional, Laplacian roughening models 2−103956

melting continued
two-dimensional Lennard-Jones system, melting, Monte Carlo simulation 2−92166
two-dimensional nonequilibrium structures, melting 2−115392
two-dimensional solid, relax. and fluctuation effects near melting transition, mol. dynamics simulation 2−103957
two-dimensional system, dislocations and melting, crit. point behaviour 2−92167
vertical wall melting on condensation of steam 2−91439
viscous fluid flow and heat transfer, phase transition effects 2−81337
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
Al_2O_3, shock loaded ceramic, glass transition 2−71647
Ar, freezing line, liq. theory and perturbation theory 2−109960
^{36}Ar submonolayers on Grafoil, struct. and phase transitions, neutron diffr. study 2−98488
C fibres, surface energy characterisation 2−56326
CaF_2, entropy change in fast-ion transitions 2−71640
$CaO-Al_2O_3-CaF_2$, melt struct., anion packing 2−71325
$CaO-Ga_2O_3-GeO_2$ system, phase form. 2−111150
CdSe-ZnSe-CdS, fusibility diagrams calc. 2−86843
Co-Cr alloy, incipient melting phenomena, morphological obs. 2−93501
Co-Si film, laser melted, lamellar eutectic solidification 2−116431
Cu, phase transformation wave excitation by action of square surface heat pulse 2−62120
Cu single crystal, melting during solid particle erosion 2−67562
Cu-Al-Fe, surface oxidation, suppression during laser surface treatment 2−83294
Fe alloy, friction glazing, surface melting interpret. of white etching areas 2−67550
Fe-Al bronze, laser-surface-melted self-quenched, cavitation erosion 2−76491
Fe-Co-Cr system, phase diagram, thermodynamic evaluation 2−72667
GaAs, ion implanted, pulsed laser annealing, dopant profile redistrib. and surface melting duration 2−56024
Ge, laser pulse interaction, 2.7 μm 2−77627
He surface, two-dimens. electron lattice, phonon-ripplon coupled modes 2−110089
^3He adsorbed layers, on Grafoil, melting, neutron scatt. study 2−71763
^3He melting curve thermometry 2−58823
^3He, solid, mag. transition 2−82070
^4He, solid, interface with liq. ^4He and ^3He-^4He solns., equilib. props. 2−115489
^4He solid-liq. interface, quantum state, crystn. waves 2−115490
HfO_2-CaO, phase equilib., 1600 to 2800°C 2−88069
InGaAsP-InP layers, catastrophic degradation, laser induced 2−61022
InSb, LPE regrowth by CW laser annealing, expt. study 2−56029
$K_2MoO_4-Pb_2MoO_5$, fusibility diagrams 2−111152
$K_2WO_4-UO_2WO_4$, reactions, and phase diagram, DTA study 2−88066
$LiNa_3PO_4$, synthesis and props. 2−111102
$LiNbO_3-Fe_2O_3$ solid soln. single cryst., congruently melting, phase transition 2−98264
MgO, shock loaded ceramic, glass transition 2−71647
$Na_2MoO_4-Pb_2MoO_5$, fusibility diagrams 2−111152
Ne physisorbed on Grafoil near monolayer completion, neutron diffr. and vapour press. study 2−98462
Ni single crystal, laser irradiated, epitaxial regrowth and defects 2−61031
Ni, surface oxidation, suppression during laser surface treatment 2−83294
Ni-C, semiliquid sintered material and melted-solidified material, modular graphite content *(Japanese)* 2−77817
Ni-Hf, surface oxidation, suppression during laser surface treatment 2−83294
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
PbO, fusibility diagram and p-T diagram 2−111149
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
$ScF_3-BaF_2-YF_3(ThF_4)(NaF)$, glass, phys. props. *(French)* 2−91809
$ScF_3-ThF_4-YF_3$, glass, phys. props. *(French)* 2−91809
Si, amorphous film, melting threshold energy in laser annealing 2−92026
Si, electron-hole plasma instability 2−87161
Si film, CW laser melting, threshold behaviour 2−56411
Si films, microscopy during laser melting 2−66403
Si, ion implanted, pulsed laser annealing, melting model and Raman scatt. 2−98155
Si, laser annealing by nanosecond pulses, temp. rise and carrier conc., computer model 2−86723
Si, laser scanned, temp. profile calc. 2−92028
Si, melting and cryst. growth, X-ray topographic obs. 2−65900
Si, melting and laser annealing using pulsed lasers 2−66052
Si, pulsed laser annealing, energy absorption, melting 2−81820
Si:P, As, Sb, ion implanted, multiphase electron beam annealed, impurity profiles 2−103803
SiO_2, eqn. of state at high shock pressures, optical pyrometry study 2−69171
Sn and Sn-Pb, material ejection from shocked surfaces 2−71569
$SrCl_2$, entropy change in fast-ion transitions 2−71640
Ta, material ejection from shocked surfaces 2−71569
TiC, fused single-cryst., struct. and props., melting conditions influence 2−81779
$TiS_2Ag_{0.33}$, superlattice melting study 2−103958
Tl_2GeS_3, heat of melting, phase equilibra 2−66171
Tl_4GeS_4, heat of melting, phase equilibria 2−66171

melting point
alkali metal perrhenates, temp. and enthalpies of melting 2−103950
4(4′-n-alkoxybenzoyloxy)-3-methoxy benzaldehyde, mesomorphism, lateral substitution effect 2−61134
4(4′-n-alkoxybenzoyloxy)-3-methoxy-benzylidene-4″-toluidines (4″-anisidines), mesomorphism, lateral substitution effect 2−61134
chalcides, melting point relations 2−92161
crystalline substances, automatic melting-point determ. device 2−115393
crystallization, kinetic theory 2−103954
equations of states derived from shock wave expts., theoretical anal. 2−71602
halides, melting point relations 2−92161
latent heat storage materials, effect of impurities on melting temp. heat of fusion and sp. ht. 2−62503
liquid alloys, binary, diffusion coeffs. 2−71686
metals, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
melting point continued
nylon 12, soln. crystn., morphology, crystal form and thermal behaviour 2−91818
organic solids, melting point rel. to reactivity 2−103951
oxides, melting point measurements, in solar furnace in different atms. 2−58830
oxides, melting point relations 2−92161
poly(ethylene terephthalate) flowing melts, Raman spectroscopy 2−72497
poly(ethylene terephthalate-co-p-oxybenzoate), phase transitions 2−98279
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
practical reference temperatures using melting point techniques 2−107289
submonolayer film on elastic substrate, incommensurate struct., phase diag., Debye-Waller factor *(Russian)* 2−82178
thermal diffusivity determ. of solid materials near melting point 2−115394
transition metal compounds, melting point, p-T phase diagram at high press. of H 2−71618
transition metal nitrides, phase diagrams and props., review 2−77813
Be, equations of states derived from shock wave expts., theoretical anal. 2−71602
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2−105065
Fe, equations of states derived from shock wave expts., theoretical anal. 2−71602
β-Ga, metastable, neutron inelastic scatt. study of phonons at melting temp. 2−56119
GaAs, amorphous and cryst., melting point, laser and electron beam annealing 2−109829
Ge, melting point, press. depend., Lindeman law calc. 2−56165
Ge, melting point, press. derivatives 2−61117
Ge, melting temp., vol. depend., Debye model 2−86825
$LiAlO_2$/molten carbonate structs., compressive strength anal. 2−61050
$Na_2O-CaO-Ca_3(PO_4)_2-Na_3PO_4-Na_2SiO_3-CaSiO_3$, subsolidus struct. 2−111151
$PbO-Bi_2O_3$, prep. and electrophysical props. of compounds 2−72619
Pd, determ. by pulse heating method, temp. reference point appl. 2−58822
Si, amorphous, melting temp., time resolved optical refl. meas. 2−56163
Si, amorphous and cryst., melting point, laser and electron beam annealing 2−109829
Si, melting point, press. depend., Lindeman law calc. 2−56165
Si, melting point, press. derivatives 2−61117
Si, melting temp., vol. depend., Debye model 2−86825
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
Ti alloys, high melting point, low temp. plasma interaction *(Russian)* 2−99595
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
Tl-Se-Te, vitrification, physicochemical props. 2−76313
W, radiance temp. at melting pt. 2−115442
Zr-H, melting point, p-T phase diagram at high press. of H 2−71618

membranes
see also biomembranes; lipid bilayers; osmosis
acceleration waves in isotropic elastic membranes, propag. 2−53519
aerodynamic force singularities of aeroelastically unstable two-dimensional panels 2−91301
annular membrane under axial load 2−91257
artificial membrane blood oxygenator, type MOST-122, development results 2−78495
cellulose acetate membranes, CO_2 permeability *(Spanish)* 2−86307
cylindrical, nonlinear elastic axisymmetric deformation with torsion 2−103033
dimyristoyl phosophatidylcholine water dispersions, press. induced phase transitions, Raman spectra 2−82839
electrochemical oxygen sensors, membrane type, metrological properties *(Polish)* 2−93850
fluorocarbon gas-filled acoustic lens 2−75810
four-component systems, with polymeric surfactants, form. and struct. investig. 2−93827
gas diffusion through porous membranes, laser control, phenomenological model 2−55661
isotropic elastic membranes, general and area-preserving, universal solns. 2−53518
lipid monolayers, viscoelasticity and phase transitions 2−116723
macroscopically ordered, fluoresc. depolarisation 2−67763
millipore-DOPH membranes, membrane-resistance oscillations anal. 2−88517
nafion membrane, restricted diffusion, neutron incoherent scatt. study 2−83418
Nafion polymer membranes, exchanged with Fe^{2+}, Fe^{3+}, and Eu^{3+}, Mossbauer spectroscopy 2−97943
oscillations, wave equations 2−69005
perfluorosulfonate ionomer membranes, phase separation 2−86881
Portland cement membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
selective skin, model, transient diffusion 2−88376
shells, parabolic, existence and uniqueness criteria of membrane state 2−114635
spinodal decomposition, stabilised, model of surface struct. formation 2−61144
surface charge density, membrane potential and slat flux 2−62431
water electrolysis, electrocatalysts and separators for use in KOH and LiOH solutions 2−62407
X-ray lithography masks, optically-transparent 2−87117
β-Al_2O_3-K_2O, superionic conducting membrane, prod. by ion exchange 2−76733
CaCl transport through Nuclepore membranes, flows and activation energy 2−84560
Pd membrane pumps in thermonucl. power plants, material sputtering effects 2−79601
ThO_2 membranes, electroosmosis, higher order phenomenological coeffs. 2−73010

memories *see digital storage*

memory devices *see digital storage*

mendelevium
see also nuclei with .....
No entries

mendelevium compounds
No entries

mercury (metal)
see also nuclei with .....
atmosphere, meas. of total airborne Hg in Sweden rel. to possible origin 2−68467
atom, 6^3P_1 state, hyperfine struct., radiative lifetime, fluoresc. obs. 2−108424
atom, elastic electron scatt. cross section, resonances obs. 2−108710
atom, electron coincidence spectra, momentum distrib. calc. using relativistic and nonrelativistic HF wavefunctions 2−85738
atom, electron impact, K-shell ionisation, relativistic effects, plane wave Born approx. 2−85818
atom, electron impact excitation, integrated state multipoles, light emission 2−54969
atom, electron impact excited $6^1S_0 \rightarrow 6^1P$, transition using stepwise electron and laser excitation, isotope specific anal. 2−80819
atom, excitation by forward scatt. electrons, polarisation of 6^3P_1-6^1S_0 line 2−85813
atom, metastable, diffusion coeffs. in inert gases, temp. depend. 2−97693
atom, near threshold double photoionisation 2−85602
atom, optical pumping, quenching, visible triplet radiation transport 2−113948
atom, photoelectron polarisation in subshell ionisation with unpolarised light, Fano effect 2−54819
atom, photoemission of high ang. momentum electrons, relativistic and pot. barrier effects, exchange terms 2−113951
atom, time resolved study of prod. from $HgBr_2$ photolysis 2−93801
atom+inert gas, interaction pot. determ. on basis of diffusion coeff. temp. depend. 2−108669
atomic, atmospheric, remote meas. using differential absorpt. lidar 2−78274
determination in human hair for pollution monitoring, by neutron activation anal. 2−57666
dielectric anomaly and vapour-liq. phase transition 2−66192
discharge, positive column, line emission, collisional excitation cross sections 2−65778
discharge, press. determ. from self-reversed spectral lines 2−91669
discharge positive column, electron energy distrib. meas. and Boltzmann eqn. calc. 2−76227
electrostatic withdrawal through holes in SiO_2 film *(Russian)* 2−86981
expanded fluid, thermoelec. power, transition from liq. semicond. to plasma state 2−82387
filaments in chrysotile-asbestos matrix, heat capacity near supercond. transition 2−66254
films, electron localisation and superconductivity *(Russian)* 2−72107
frequency standard using Hg ions 2−63997
gas phase, sequential two-photon laser-induced fluoresc. detect. 2−99737
gaseous, electron stabilisation of high-density fluctuations 2−86379
laser emitting at 435.8, 546.1 nm, using HgI_2 photodissociation 2−96937
liquid, mag. susceptibility calcs. 2−98843
liquid, stability of convection rolls in vertical mag. field 2−91434
liquid, thermodynamic props., density and elec. cond. in metal-nonmetal transition range 2−61170
microelements in fungicidal coatings, relative intensity of Hg, Sn spectral lines 2−109092
mirror, wave-front inversion by dynamic-holography methods 2−114380
organic and total Hg in seawater around Japanese archipelago 2−62510
pollution in Saguenay Fjord sediments, 1940-76 chronology 2−62511
Rayleigh-Benard expt., period doubling cascade, quantitative meas. 2−60510
seawater, meas. method for adsorption rate onto particulates 2−106361
superconductor, type I, supercooled and superheated metastable phases, average lifetime meas. *(Russian)* 2−115957
superfluorescent laser action at 404.7 nm, Hg produced by $HgBr_2$ photodissociation by ArF laser 2−96934
thermal diffusivity determ. of solid materials near melting point 2−115394
vapour, continuously tunable narrow-band radiation generation from 1220 to 1174 Å 2−97110
vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
vapour, freq. up-conversion to VUV 2−81021
vapour, glow discharge, laser scattering diagnostics 2−97784
vapour, metastable states, wall losses, kinetic theory 2−113906
vapour, optical pumping, reson. radiation transport 2−113905
vapour, saturation spectroscopy and reson. degenerate four-wave mixing at 54 6.1 nm 2−64993
vapour, UV reservoir states quantum yield and lifetime, dimer form., luminesc. 2−113926
vapour discharge, appl. of orbital limited theory to electrostatic probe meas. 2−103465
Ar-Hg plasma fluoresc. lamps, radiation prod. efficiency, mol. gas admixture effects 2−76070
CdS:Hg crystal, optical absorpt. and luminesc. *(Russian)* 2−104841
He-Hg ion lasers with transverse RF discharge excitation 2−86002
Hg, flow in vertical annuli, free convection heat transfer 2−55563
Hg^+, hyperfine splittings shift due to blackbody radiation 2−64910
Hg/methylmercury ratios in Canada and Japan rivers 2−93955
Hg-Ar discharge, analytical model for low-pressure gas discharges 2−81596
Hg-Ar mixtures, glow discharge plasma, electron kinetic investigations, transport processes 2−115061
Hg-Ar two phase heat transfer in vertical annulus under transverse mag. field 2−114873
Hg-Ar-Ne discharge, electron energy distrib., electrokinetic charact. 2−65788
Hg-Cd amalgam, metastability breakdown detection *(French)* 2−88362
Hg-K pumping lamps, expt. study *(Chinese)* 2−91014
Hg-Ne-Ar discharge, low pressure, electron energy distrib., plasma basic eqns. 2−65789
Hg-solution interface, adsorpt. of poly-DL-alanine 2−71790
Hg-solution interface, adsorpt. of α-naphthoic acid (α-naphthoate ion) 2−110159
Hg-Xe system, metal-insulator transition 2−66451
Hg+HgBr (Br), collisional de-excitation, ion-pair form. in entrance channel, quenching rate coeff. 2−72973
Hg+K($4\ ^2P_{3/2}$), rainbow scatt. at thermal energies 2−80778
Hg+Na*, excited state pots., rainbow scatt., polarisation effects 2−85776
Hg_2, vaporisation equilib., mass spectrometric obs. 2−103965
$^{201}Hg^+$ stored ion microwave and optical freq. standards 2−89682

mercury (metal) continued
Hg^*+CO (NO), electronic to vibr. energy transfer, isotope effects 2−102593
Na-Hg vapour, fluorescence quantum efficiency meas. for 253.7 nm radiation 2−85586
Tl-Hg broadband excimer emission, two photon dissociation of TlI-Hg mixture 2−90875
TlI-Hg mixture, two photon dissociation, atomic Tl laser and Tl-Hg excimer formation 2−90875

Mercury (planet)
atmosphere top, solar radiation aspects 2−58278
Caloris impact event, far-field tectonics 2−63288
global volcanism and tectonic histories 2−63287
perihelion motion, special relativity corrections, rel. to general relativity 2−58227

mercury alloys
see also mercury compounds
liquid, electronic density of states, Green's function and perturbative calcs. 2−71854
Fe-Hg magnetic fluid, aggregate size, mag. props., US vel. study 2−82668
Hg-Bi, dil., expanded fluid, thermoelec. power, transition from liq. semicond. to plasma state 2−82387
Hg-Bi, dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Cd, dil., expanded fluid, thermoelec. power, transition from liq. semicond. to plasma state 2−82387
Hg-Cd, dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Cd(-Bi)(-Na)(-Pb) dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Cs, liq., anomalous electronic props., higher order correl. effects 2−104340
Hg-Cs, liq. alloys, molar vol. and thermal expansion coeff. meas. 2−109879
Hg-Na, dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Na liq., elec. and thermodynamic props., mag. susceptibility, compound form. effect 2−82314
Hg-Pb, dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Sn, dil. liq., EMF and vapour press. values, Duhem integration, second law of thermodynamics confirmation 2−81982
Hg-Tl, liq., anomalous electronic props., higher order correl. effects 2−104340
Hg-Tl, liq. alloys, molar vol. and thermal expansion coeff. meas. 2−109879
Li-Hg, impurity solubility, dislocation and deformation effects, ESR study *(Russian)* 2−103996
Na-Hg, liquid, thermodynamic and struct. props., EMF meas. 2−81986
$NaHg_4$, superconducting, Ginzburg-Landau parameter 2−87445
Sn-Tl-Hg, liq. alloys, viscosity and elec. resist. 2−71694

mercury arc rectifiers
MFTF HVDC beam components protection by electronic crowbar 2−74948
TFTR multistage ignition crowbar development 2−69949

mercury compounds
see also mercury alloys
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
α-HgI_2 single crystals, plastic defects, X-ray topographs 2−109784
$Ag_2HgI_2(NO_3)_2.H_2O$, cryst. struct. determ. 2−71411
Cd-Hg-Te system, eutectic microstructures obs. 2−111155
$Cd_xHg_{1-x}Se$ mixed cryst., Γ point band struct. parameter, elec. and thermomagnetic studies 2−76923
$Cd_xHg_{1-x}Se$, US attenuation and vel. meas. near zero-gap state 2−92118
CdHgTe electronically scanned photovoltaic hybrid detector array for 8-14 μm band 2−64107
$Cd_{0.17}Hg_{0.83}Te$, narrow-gap semicond., dielec. const. anomaly 2−93099
$Cd_{0.2}Hg_{0.8}Te$, anodic oxide layers, interface struct., SIMS-AES XPS investig. 2−104208
$Cd_xHg_{1-x}Te$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
$Cd_xHg_{1-x}Te$ and related materials, self-diffusion and impurity diffusion 2−110033
$Cd_xHg_{1-x}Te$, brittle to plastic transition, microhardness and optical transmission meas. 2−86783
p-$Cd_xHg_{1-x}Te$, characterisation of MBE grown layers 2−110198
$Cd_xHg_{1-x}Te$, compositional uniformity, directed crystn. from melt 2−76333
$Cd_xHg_{1-x}Te$ crystal, size effect, Hall coeff. temp. depend. 2−115802
$Cd_xHg_{1-x}Te$, growth by pressurised cast-recrystallise-anneal technique 2−111068
$Cd_xHg_{1-x}Te$ high quality epitaxial films, growth by sputter deposition 2−116362
p-$Cd_xHg_{1-x}Te$, hole conc. routine characterisation, Hall coeff. and bulk cond. meas. 2−82351
$Cd_xHg_{1-x}Te$ IR detector developments 2−107406
n-$Cd_xHg_{1-x}Te$ layers, MBE growth, struct. and elec. props. 2−99340
$Cd_xHg_{1-x}Te$, MBE growth and elec. characterisation 2−93431
$Cd_xHg_{1-x}Te$, MBE growth 2−93433
$Cd_xHg_{1-x}Te$, mag. field induced Mott transition *(Russian)* 2−87147
$Cd_xHg_{1-x}Te$, mech. props. in four-point bending, lower yield stress 2−115336
$Cd_xHg_{1-x}Te$, narrow gap, absorption coeff. and optical band gap 2−116146
n-$Cd_xHg_{1-x}Te$, photoconductivity relax. study 2−104426
$Cd_xHg_{1-x}Te$, photoluminescence 2−93278
$Cd_xHg_{1-x}Te$ sputtered epitaxial layers, structural and elec. props. 2−92424
$Cd_xHg_{1-x}Te$, elec. behaviour of impurities, Hall effect and minority carrier lifetime meas. 2−77091
$Cs_2HgBr_4(Cl_4)(I_4)$ wafers, dielec. permittivity temp. depend. 2−66974
(Hg, Cd)Te, carrier lifetime rel. to wafer processing parameters 2−72001
(Hg,Cd)Te, optical phase conjugation by degenerate and spin-resonant four-wave mixing 2−102879
(Hg,Cd)Te, photochemical oxidation 2−111345
n-(Hg,Cd)Te, degenerate, two-band Auger recombination lifetime 2−93336
Hg (II) complex, 5-benzythio-1,2,4-triazole, IR obs. 2−113991

mercury compounds continued
Hg complex, 2-amino- and 2-ethylamino-1,3,4-thiadiazole complexes, IR and Raman obs. 2−54848
Hg II complex, $Hg(4\text{-cyanopyridine N-oxide})_2(NCS)_2$, struct., vibr., mag. moments, IR study 2−77518
Hg-Cd-Te liquidus-solidus phase diagram, pair approx. 2−88074
Hg-Cd-Te phase diagram and thermodynamic props. anal. 2−88073
$Hg_3AlF_5.2H_2O$, cryst. struct. determ. 2−55894
$Hg_{3-\delta}AsF_6$, conductivity of 1D electrons in anisotrpic 3D medium 2−92574
$Hg_{3-\delta}AsF_6$, incommensurate, low-freq. dynamics, crossover theory 2−103918
$Hg_{3-\delta}AsF_6$, powder pattern X-ray scatt. lineshape 2−76238
$Hg_{3-\delta}AsF_6$, quasi-one-dimensional incommensurate, Fermi surface 2−110229
$Hg_{3-\delta}AsF_6$, resistivity at high temp. and sp. ht. at low temp. 2−92585
$Hg_{3-\delta}AsF_6$ resistivity, temp. depend. 2−115735
$Hg_{3-\delta}AsF_6$, two dimensional metal, nuclear spin relaxation in high mag. field 2−93038
$Hg_{8-\delta}AsF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
$Hg_{3-\delta}AsF_6(SbF_6)$, Fermi surface, de Haas-van Alphen freqs. 2−76900
HgBr discharge excited laser system, parameterisation studies, laser output and fluoresc. meas. 2−86003
HgBr electron-beam-ionised discharge laser studies, fluoresc. and laser performance data 2−85951
HgBr injection-locked laser oscillator spectrum, injected intensity effect 2−55123
HgBr laser, pulsed discharge exciter design and testing 2−90936
HgBr lasers, electrode and laser tube materials for long life operation 2−86004
HgBr, optical excitation of neutral channel upper laser levels, fluoresc. efficiency 2−85952
HgBr-Ar discharge, electron beam energy deposition in mag. guide field, HgBr fluorescence study 2−115059
$HgBr+Hg(Br_2)$, collisional de-excitation, ion-pair form. in entrance channel, quenching rate coeff. 2−72973
$HgBr_2$ photodissociation laser, spectral props. 2−70554
$HgBr_2$ photolysis, Hg prod., time resolved study 2−93801
Hg_2Br_2, single crystal, UV absorpt. spectra meas. 2−110881
HgBr* laser, compact high temp. UV preionised TE discharge tube 2−96995
$Hg(CN)_2$, high press. phase transitions, Raman study 2−76650
$Hg_{1-x-y}Cd_xMn_yTe$, semimag. semicond., magneto-optical studies 2−99097
$Hg_{1-x}Cd_xSe$, band struct., interband magnetoabsorpt. meas. 2−77494
$Hg_{1-x}Cd_xSe$, band structure peculiarities from interband magnetoabsorpt. 2−92466
HgCdTe, CW degenerate four-wave mixing, large optical nonlinearities 2−108938
HgCdTe detector for potential super-long (2-6 μm) wavelength fibre optics appls. 2−95468
HgCdTe, electronic props., MIS IR devices 2−87295
HgCdTe epitaxial layers, Shubnikov-de Haas effect *(French)* 2−61486
HgCdTe epitaxial layers, implantation-induced defects behaviour 2−87379
HgCdTe, implantation induced damage, effects of implantation and annealing temps. 2−86695
HgCdTe photoconductors, effect of diffusion and drift on generation-recombination noise 2−87324
HgCdTe, physics and chemistry, workshop, Minneapolis, MN, USA (Oct. 1981) 2−89437
HgCdTe, transport props. rel. to acceptor levels 2−92633
$Hg_{0.7}Cd_{0.3}Te$, carrier lifetime meas. by population modulation spectroscopy 2−92658
$Hg_{0.7}Cd_{0.3}Te$, photocond. props. 4.2 to 300K, recombination mechanisms *(French)* 2−61508
$Hg_{0.7}Cd_{0.3}Te$-anodic oxide interface, photoelec. and field effect props. 2−87398
$Hg_{0.795}Cd_{0.205}Te$ IR detector, for large biasing fields, thermal noise 2−107399
$Hg_{0.8}Cd_{0.2}Te$, anodic oxidation, electrochemical and XPS study 2−77964
n-$Hg_{0.8}Cd_{0.2}Te$, magnetotransport meas. in extreme mag. quantum limit 2−92669
$Hg_{0.8}Cd_{0.2}Te$, mercury vapour press. at liquidus temp. 2−66184
$Hg_{0.8}Cd_{0.2}Te$, photoconductivity lifetime, recombination below 20K 2−92683
$Hg_{0.8}Cd_{0.2}Te$, surface anodic oxide film composition, ion beam effects, XPS study 2−71832
$Hg_{0.8}Cd_{0.2}Te:B^+(Al^+)$, ion implantation, IR reflectivity study 2−116191
$Hg_{0.836}Cd_{0.164}Te$, Hall coeff. phase transition under hydrostatic press. 2−92674
$Hg_{1-x}Cd_xTe$, annealing and ion implantation damage, Rutherford backscatt. and channelling study 2−86763
$Hg_{1-x}Cd_xTe$, anodic oxidation mechanism, expt. study 2−72853
$Hg_{1-x}Cd_xTe$, bandgap spin-orbit splitting resonance 2−115719
$Hg_{1-x}Cd_xTe$, bulk vacancy electron states, tight binding calc. 2−87178
$Hg_{1-x}Cd_xTe$, cleaved (110) surface room temp., evaporation stability, XPS and UPS study 2−87040
$Hg_{1-x}Cd_xTe$, conductivity-type conversion, annealing effects 2−87272
$Hg_{1-x}Cd_xTe$ crystals, second phase investig. 2−92225
$Hg_{1-x}Cd_xTe$, deep level defect traps, DLTS study 2−87175
$Hg_{1-x}Cd_xTe$, defect energy levels, deep levels, chemical trends 2−87184
$Hg_{1-x}Cd_xTe$, differentiation of low temp. recomb. proceses, photocond. lifetimes meas. 2−115813
$Hg_{1-x}Cd_xTe$, disordered, band struct., CPA calc. 2−87138
$Hg_{1-x}Cd_xTe$, disordered complex bound struct., CPA calc. 2−87129
$Hg_{1-x}Cd_xTe$, elec. cond., magnetoresist. and Hall effect, temp. depend. meas. 2−77049
p-$Hg_{1-x}Cd_xTe$, electron irrad., carrier lifetime, annealing effects 2−56610
n-$Hg_{1-x}Cd_xTe$, electron mobilities at low temps., theory 2−87253
$Hg_{1-x}Cd_xTe$, electronic struct., localised orbital calc. 2−87139
$Hg_{1-x}Cd_xTe$, electronic struct., UPS study and virtual cryst. breakdown 2−87942
$Hg_{1-x}Cd_xTe$ film growth by laser included evaporation and deposition 2−87989
$Hg_{1-x}Cd_xTe$, impurity-to-band tunnelling 2−87179
$Hg_{1-x}Cd_xTe$, isothermal epitaxial growth, elec. props. optimisation 2−93452
n-$Hg_{1-x}Cd_xTe$, mag. freeze-out modification due to reson. levels 2−92670
mercury compounds continued
$Hg_{1-x}Cd_xTe$, magnetoresist. anomaly in extreme quantum limit, 1.4 to 4.2K 2−92668
$Hg_{1-x}Cd_xTe$, metalorganic CVD epitaxial growth 2−88000
$Hg_{1-x}Cd_xTe$, n-channel, 2D-subband 2−92465
p-$Hg_{1-x}Cd_xTe$, narrow gap low carrier conc., elec. props. 2−77047
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
p-$Hg_{1-x}Cd_xTe$, nonradiative recomb. at deep impurity levels 2−92527
$Hg_{1-x}Cd_xTe$, photo-Hall meas. on laser-generated electron-hole plasmas 2−87323
$Hg_{1-x}Cd_xTe$, photo-Hall meas. of high-density photoexcited electrons 2−92700
$Hg_{1-x}Cd_xTe$, photoluminescence spectrum meas. 2−87844
$Hg_{1-x}Cd_xTe$, plasma anodisation, MIS structure fabrication 2−57505
$Hg_{1-x}Cd_xTe$, plasma anodised, interface study 2−104489
$Hg_{1-x}Cd_xTe$, precipitation and phase stability 2−86879
$Hg_{1-x}Cd_xTe$, quasi-local acceptor level spectrum 2−87188
$Hg_{1-x}Cd_xTe$, recrystallised skin junctions, electron beam induced currents study 2−86895
$Hg_{1-x}Cd_xTe$, resonant states, influence on optical props., three-band Koster-Slater model 2−56468
$Hg_{1-x}Cd_xTe$, shallow and deep defect levels, alloy broadening, pseudopot. theory 2−87177
$Hg_{1-x}Cd_xTe$, shallow donor binding energies, effect of band non-parabolicity 2−98581
$Hg_{1-x}Cd_xTe$, solid soln., plasma reflectance spectra meas., effect of damaged surface layer 2−67064
$Hg_{1-x}Cd_xTe$, some props. of high-density electron-hole plasma 2−87296
$Hg_{1-x}Cd_xTe$, surface and interface electronic props. derived from III-V cpds. theory 2−87355
$Hg_{1-x}Cd_xTe$, surface electronic struct. and cation bonds, tight binding calc. and UPS study 2−110428
$Hg_{1-x}Cd_xTe$, third-order optical susceptibility, four-wave mixing study 2−114354
$Hg_{1-x}Cd_xTe$ wafers, metallographic obs. of compositional inhomogeneities 2−111411
$Hg_{1-x}Cd_xTe$, zero-gap semiconductor, cond. study 2−104380
$Hg_{1-x}Cd_xTe$, zero-gap semicond., cond. and Hall coeff., anomalous temp. depend. 2−115757
$Hg_{1-x}Cd_xTe:B$, ion implantation, elec. cond., annealing effects, SIMS study 2−66026
$Hg_{1-x}Cd_xTe:Mg$, ion implanted, elec. and optical props. from IR refl. spectra 2−116218
$Hg_{1-x}Cd_xTe$-CdTe ion implanted epilayers, elec. and optical props. 2−115927
$Hg_{1-x}Cd_xTe$-CdTe LPE layers, electron mobility near zero band-gap crossing 2−87426
$Hg_{1-x}Cd_xTe$-native oxide MIS struct., elec. props. meas. 2−87399
HgCl, visible laser, tuning charact., laser emission spectra 2−60065
$HgCl_2$, ferroelastic transition, soft modes and central peak neutron scatt. study *(French)* 2−66198
$HgCl_2$, growth-induced inhomogeneities, electron optical investigation 2−109710
$HgCl_2$, $HgBr_2$, production of light polarisers 2−109009
$HgCl_2$, plasmatic etching, study of treated surface layer 2−111336
$HgCl_2$, single crystal, apparatus for selfcontrolled growth from vapour 2−111037
$HgCl_2$, single crystal, UV absorpt. spectra meas. 2−110881
$HgCl_2$, surface layer hardness, stress and etching behaviour, surface treatment effects 2−111335
$Hg_2(Cl_xBr_{1-x})_2$, phase transition temp., comp. depend. 2−86864
$Hg_2(Cl_xBr_{1-x})_2$, Raman scatt. on acoustic soft mode from Brillouin zone boundary *(Russian)* 2−57097
$Hg_2Cl_2(Br_2)(I_2)$, Raman study of soft modes at high press. 2−93202
$Hg(ClO_4)_2$-$HClO_4$-H_2O, vibr., IR and Raman study *(Russian)* 2−87801
$HgCr_2Se_4$, FMR charact., 1.8 to 130K 2−82725
$HgCr_2Se_4$, Hall effect during ferromagnetic transition 2−110372
$HgCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
$HgCr_2Se_4$, mag. semicond., elec. optical and mag. studies 2−87288
$Hg_{1-x}Fe_xSe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
$Hg_{1-x}Fe_xTe$ crystal, Shubnikov-de Haas oscillation amplitude anomalies 2−77099
$Hg_{1-x}Fe_xTe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
$HgHPO_4$, cryst. struct., Patterson method 2−55898
HgI_2 counters, purification, crystal growth, device fabrication 2−80393
HgI_2 detector unit, implantable and externally powered, for radioisotope studies in small animals 2−57936
HgI_2 detectors at room temp., present status 2−90366
HgI_2, Fano factor meas. rel. to X-ray detector appl. 2−79731
HgI_2 gamma-radiation detectors development, appl. in nuclear medicine for blood flow meas. 2−73322
α-HgI_2, lattice const. thermal expansions 2−98312
HgI_2, photoluminescence, 4.2 to 77K 2−57158
HgI_2 position sensitive detector, operating charact. 2−70059
HgI_2, red, cyclotron reson. of electrons and holes, anisotropy of effective masses 2−82719
α-HgI_2, single cryst., low temp. heat transport 2−66305
HgI_2 solid state detector for X-ray astronomy 2−78953
Hg(II) complex, 2-aminobenzothiazole mercury, conductometric, IR and Raman study 2−110867
Hg(II) mixed metal complexes with Ni(II), chem. anal., spectra, EPR study 2−110630
$HgINO_3$, cryst. struct. refinement 2−71410
HgISCN powder, ^{203}Hg, ^{35}S or ^{131}I labelled, thermal effect on photolysis 2−78118
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xSe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
n-HgMnTe, optical determ. of exchange interaction 2−104605
$Hg_{1-x}Mn_xTe$ ($0<x<0.075$), anomalous temp. depend. of resistivity and Hall coeff. at low temps. *(Russian)* 2−98637
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
$Hg_{1-x}Mn_xTe$, indirect exchange interaction, perturbation theory calc. 2−82587
$Hg_{1-x}Mn_xTe$, longitudinal electron thermoelec. power in quantising mag. fields 2−72013
$Hg_{1-x}Mn_xTe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xTe$, optical absorpt. 2−77549

mercury compounds continued
$Hg_{1-x}Mn_xTe$, spin glass transition and Hall coeff. anomalous temp. depend. *(Russian)* 2−82610
$HgMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$Hg(NCS)_2$-hexamethylenetetramine, tetradentate behaviour, struct., IR obs. 2−75278
$HgNH_2NO_3$, naturally occurring, cryst. struct. 2−81753
$HgNaPO_4$, cryst. struct. determ. 2−55920
HgO, struct. of new form produced by exposing Hg to open air 2−55944
$Hg_6Re_2O_{10}$, cryst. struct. determ. *(French)* 2−103703
HgS, crytallisation from KSCN melts, solubilities 2−111043
HgS, gyrotropic, linear and circular bulk photovoltaic effect 2−104417
HgS, sputter-deposited film, comp. determ. by electron microprobe anal. *(Japanese)* 2−92399
HgS_xSe_{1-x}, band struct., interband magnetoabsorpt. meas. 2−77494
$Hg_{3-\delta}SbF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
HgSe, 2-D surface electron states, tunnelling spectra study 2−72044
HgSe, band struct., interband magnetoabsorpt. meas. 2−77494
HgSe, band structure peculiarities from interband magnetoabsorpt. 2−92466
HgSe, elec. props. at very high press. 2−82412
HgSe, far IR magnetotransmission, cyclotron and spin-flip resons. 2−57066
HgSe, lattice dynamics, neutron scatt. study 2−98227
HgSe, sublimation press. determ., 620 to 933K 2−81941
n-HgSe-Al_2O_3-Pb junction, tunnelling spectroscopy study 2−92777
HgTe, anodic oxidation and electrochem. surface treatment obs. 2−93641
HgTe, brittle to plastic transition, microhardness and optical transmission meas. 2−86783
HgTe, elec. props. at very high press. 2−82412
HgTe, epitaxial growth by MOVPE process, props. 2−62071
HgTe, high acceptor conc., cond. processes, multiple scatt. 2−98636
HgTe, lattice dynamics, neutron scatt. study 2−98227
HgTe, lattice thermal cond., three phonon scatt., SDV model 2−82042
HgTe, magnetic Γ_8 subbands, Luttinger method perturbation theory calc. 2−56436
HgTe, press. induced semicond.-metal transitions, energy band struct. 2−82234
HgTe, stoichiometric deviation, X-ray diffr. investig. 2−104007
n-HgTe, zero-gap semiconductor, carrier statistics 2−92623
HgTe:Mg, conduction band struct., Hall effect and magnetoresist. study 2−115662
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2−87366
HgTe-CdTe superlattice, band structure, envelope-function approx. 2−104472
HgTe(Se), lattice dynamics, rigid ion model, neutron scatt. study 2−86809
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
$HgX_2+Xe(^3P_2),(Xe(^3P_1))$, X=Cl, Br, I, dissoc. excitation rate consts. meas. 2−116693
$^{200}Hg\ ^{79}Br$, B→X spectrum, excimer laser 2−75555

mercury lamps *see mercury vapour lamps*

mercury vapour lamps
acoustic fundamental longitudinal reson. obs. 2−91690
noise power absolute meas., above 100 GHz, using untuned cavity 2−75644
Hg-K pumping lamps, expt. study *(Chinese)* 2−91014

mercury vapour rectifiers *see mercury arc rectifiers*

m.e.s.f.e.t. *see Schottky gate field effect transistors*

mesic atoms
conference on mesons and light nuclei, Liblico, Czechoslovakia (June 1981) 2−58527
Lee model in quantum field theory 2−85846
pion-nucleus S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
pionic atom, second-order shift, Klein-Gordon eqn. calc. 2−64889
pionic atoms, anomalous energy shifts 2−80848
pionic atoms, dynamical mass difference effects 2−108740
pionic very heavy atom anomalies, level shifts and widths of 3d states 2−59972
spin-orbit contribution to isotope, isomer shifts *(Russian)* 2−96480
K^-p atom, anomalous Coulomb effect 2−59981
^{48}Ca pionic atom, level shifts and widths, radial sensitivity to strong probes 2−69525
H atoms, effective meson-atom interaction pot. *(Russian)* 2−54993
H, pionic, low energy scatt. parameter and energy shift connection 2−96778
H, π-mesic, Coulomb correction in πN scatt. 2−84910
H_K, 1S state, strong interaction shift and width 2−59976
He, pionic atom, cascade, X-ray emission meas. 2−90744
$^3He(\pi^-,X)$, total and partial K-X-ray yields, pnn-and dn-reaction channels 2−113569
$^{\Lambda}Ne$, A=20, 22, pionic K_{α} X-ray energies and linewidths 2−108742
$^{16}O(\pi,\pi)$, scattering length, 3-body model, nucleon binding, exclusion principle, optical pot. 2−107910

mesic molecules
adiabatic expansion conversion in three-body problem *(Russian)* 2−59980
mesomolecular system props., strong interaction influence 2−96777
organic molecules, Π^4- capture probabilities, mesomolecular model 2−85845
review 2−108744

mesomorphic state *see liquid crystals*

meson absorption
microscopic theory of pion prod. and absorpt. 2−79985
nuclear medium effects in pion absorption potentials 2−90168
pion absorpt., fundamental interactions and processes 2−79986
pion absorption probability by α-cluster in nuclei 2−95981
pion prod. and absorpt. in nuclei, conf., Bloomington, IN, USA (Oct. 1981) 2−79266
pion production and absorpt. in relativistic field theory 2−85012
pion-nucleus optical pot., pion absorpt. contrib. 2−74779
pions absorption and pion-nucleus optical pot. 2−59421
quark models and pion prod. models of physics at short distance 2−79987
C(π, 2N), contrib. towards pion-nucleus optical pot., reaction cross section 2−96048

meson absorption continued
(p,π), systematics in pion prod. and absorpt., expt. overview 2−80001
(π^+,^{3}He), pion-induced fission study in model using harmonic oscillator cluster wave functions 2−80038
(π,p) on nuclei A>3, pion absorpt., review 2−80000
(π^-,x) on light nuclei, x=p or d, cross section for continuum and discrete states 2−59422
$^{197}Au(\pi^-,X)$, stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
$^{12}C(\pi^-,X)$, stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
$^{12}C(\pi^-,nX)$, X=p,d,t, emission parameters calc. in TRINUC program 2−96053
$^{40}Ca(\pi^-,X)$, energy spectra following pion absorpt., exciton model description 2−113572
$Ca(\pi^-,X)$, stopped π^-, p,d,t, ^{3}He, α emission energy spectra 2−96047
$^{59}Co(\pi^-,X)$, stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
$^4He(\pi^-,n)$, 100-290 MeV, differential cross section, multinucleon absorption mech. *(Chinese)* 2−80040
$^{\Lambda}Li(\pi^-,X)$, stopped π^-, A=6, 7, X=p, d, t, inclusive energy spectra, missing mass spectra 2−113567

meson-baryon interactions
see also kaon-baryon interactions; meson-baryon scattering; pion-baryon interactions
Isgur-Karl model application, comparison with SU(6) and diquark models 2−113246
proton collisions, hadron multiplicities, quark combinatorial anal. *(Russian)* 2−64300

meson-baryon scattering
see also kaon-baryon scattering; meson-baryon interactions; pion-baryon scattering
DN→DN, backward scatt. sum rules, rel. to charm hadroprod. 2−101754

meson capture
see also mesic atoms; mesic molecules; radioactivity
$^1H(\pi^-,\gamma)$, (π^-,π^0), 27.4, 39.3 MeV, radiative capture and charge exchange scatt. length 2−59407

meson decay
see also kaon decay; meson hadronic decay; meson leptonic decay; pion decay
charm particles, lifetime, experimental results review 2−101714
decay width calc. by composite field theory *(Chinese)* 2−107547
gluino search in e^+e^- annihilation, quarkonium decays 2−79897
OZI forbidden decay, QCD beyond leading order 2−64289
pseudoscalar meson decay constant-pomeron residue relation 2−95821
pseudoscalar mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
quarkonia decays in perturbative QCD 2−79816
scalar meson decay, triangular quark diagrams, rel. to vector dominance model *(Russian)* 2−95825
semileptonic, relativistic harmonic oscillator model 2−101705
spectroscopy of hadrons containing one heavy quark, D and F weak decay 2−84882
vector meson radiative decay, EM current operator, SU(3) scalar term 2−95841
vector mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
A_2, radiative width determ. from two-photon exchange prod. 2−107665
B meson decay, high-tranverse-momentum leptons 2−54189
B meson semileptonic decay study at CESR 2−79893
c$\bar{c}$(b$\bar{b}$) systems, effective power law pot., predicted mass, decay widths, fine-hyperfine splittings 2−101677
D^0 semileptonic decay branching ratio 2−84923
$D^{\pm}(D^0)$ meson lifetime meas., review 2−79865
$e^+e^-\rightarrow\mu X$, beauty lifetime, weak mixing angles, standard model anal. 2−89973
$\eta\rightarrow\gamma\gamma$ in SU(5) classification scheme 2−84899
$\eta_c\rightarrow2\gamma$, gluon condensate effects 2−95765
$\eta_c\rightarrow2\gamma$, three point functions contributions, relativistic corrections 2−79886
η', radiative width determ. from two-photon exchange prod. 2−107665
$\eta'\rightarrow\gamma\gamma$, radiative width meas. 2−79901
$F^{\pm}$ meson lifetime meas., review 2−79865
$J/\psi\rightarrow\gamma+$axion, branching ratio, upper limit 2−54166
$J/\psi\rightarrow\gamma a$, a=axion, unambiguous test for axion 2−69470
ψ decays, configuration mixing effects, QCD calc., rel. to confining pot. 2−54140
$\psi\rightarrow ggg$, gluon recomb. functions 2−101664
$\psi\rightarrow G\gamma$, glueball obs. 2−79862
q$\bar{q}$ exclusive decay probability, in QCD, with account for gg states *(Russian)* 2−64293
$\Upsilon\rightarrow\gamma X$, axion production upper limit 2−101723
$\Upsilon\rightarrow\gamma a$, a=axion, unambiguous test for axion 2−69470
$\zeta\rightarrow H^0\gamma$, toponium decay, Higgs prod. mechanism 2−107572

meson detection and measurement
dE/dx meas. in Ne, Ar, Kr, Xe and pure hydrocarbons 2−108312
drift chamber module fabrication for pion set up 2−85485
fine-grain marble calorimeter, response and resolution for hadronic and EM showers 2−108239
lead glass shower detector at SLAC hybrid facility 2−90394
localised discharge spark counter, status and future development 2−90356
low energy magnetic pion spectrometer 2−108218
pressurised UV photoionization threshold Cherenkov counter operation 2−64763
ring-imaging Cherenkov detector for 200 GeV/c particles identification 2−64761
π^- energy meas. using multilayer semiconductor spectrometer 2−64825
Si detector telescope as active target for charm particles lifetime meas. 2−90337

meson-deuteron interactions
see also meson-deuteron scattering
$\pi^-d\rightarrow N^*\pi^-(p_s)$, 3.65 GeV, $\Delta(1232)$ and N*(1688) forward prod. *(Russian)* 2−89974
$d\pi\rightarrow NN$, deuteron quadrupolarisation, rel. to reverse interaction *(Russian)* 2−95867
$K^-d\rightarrow p\lambda\pi^-$, Λp mass distrib calc. at rest and in flight at 700 MeV/c 2−107677
$K^-d\rightarrow\Sigma^-p\pi^0(\pi^+\pi^-)$, 1.45, 1.65 GeV/c, dibaryon resonance prod. 2−79909
$\pi d\rightarrow\pi pn$, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
π^-d, 200 GeV/c, double-collision, diquarks in baryons 2−101768

meson-deuteron interactions continued
π^+d→pp, 80-417 MeV, differential cross section meas. 2−90163
π^+d→pp in six-quark model of two nucleon current 2−79987
$\pi^\pm$d→pp$\pi^\pm$n, three-body calc. in Δ-resonance region 2−74776

meson-deuteron scattering
see also meson-deuteron interactions
π^+ d, 120, 138 MeV, elastic scatt., tensor polarisation, rel. to dibaryon resons. 2−101764
πd, 0.4-1 GeV, backward scatt., relativistic model ang. distrib., *(Russian)* 2−107915
πd, 100-300 MeV elastic scatt. cross section calc. using optical pot. 2−85100
πd, 219-294 MeV, polarised d, iT_{11} meas., dibaryon reson. effects study 2−85097
πd, double scattering, rel. to additive quark model 2−54101
πd, elastic scatt., 245-539 MeV, phase shift anal. 2−113294
πd, general anal. using amplitudes *(Russian)* 2−74780
πd, πNN dynamics, $^3F_3$ diproton anomaly 2−74763

meson effects
foot skin reaction, mouse, dose dependence of pion RBE values rel. to X-rays 2−78391
π^--induced β-activity in extended foils, 2D meas., cancer treatment dosimetry appl. 2−73369

meson field theory
see also nuclear forces
abnormal nuclear matter and pion condensation in σ-models 2−74739
bilocal lattice meson fields, relativistic partial difference eqn. 2−113127
massive sine-Gordon eqn. in first few regions of collapse 2−53925
meson degrees of freedom in nuclei, review 2−59253
neutron rich matter, pion condensation at finite temp., π-field thermal excitations 2−95929
nuclear matter, pionic field, soliton-like states *(Russian)* 2−101831
one-meson sector in static models, explicit T-matrix 2−53974
pion condensates, line-like defects, disorder field theory 2−84959
pion in nuclear physics and QCD 2−54065
self-consistent meson fields with vanishing expectation values 2−84963
semi-inclusive momentum distribution of the hadron in the quantum field at short distance 2−84885
superspace, negative dimensions, and quantum field theories 2−95610
unified gauge theories, renormalisation group constraints, Yukawa and scalar quartic couplings 2−79806

meson hadronic decay
see also kaon hadronic decay
amplitude helicity suppression, relativistic quark models 2−54148
boson resonance, decay into two pseudoscalar mesons, quark-gluon model *(Russian)* 2−95824
charm particle, following γp→X, 20 GeV 2−89969
charmonium, magnetic dipole transitions, relativistic corrections 2−95843
charmonium, P-state decay, quark confining pot. 2−74682
E(1440), meson-decay modes of glueballs 2−79867
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
exlusive processes in QCD 2−54091
heavy mesons exclusive decay study 2−101706
heavy paraquarkonia decay, GGG and qq̄G jets anal. in perturbative QCD 2−54146
heavy quarkonium systems, hadronic channel influence 2−95798
quarkonium, relativistic corrections to dipole decay amplitudes 2−95842
quarkonium decay, renormalisation group predictions 2−101710
storage, charmed and heavier mesons weak hadronic decays in QCD 2−64318
toponium decays, weak tbW coupling meas., neutral current coupling 2−79866
weak nonleptonic processes of strange and charmed mesons, unified SU(4) description 2−59085
B, nonleptonic decay rate, in SU(6) six-quark model 2−54143
B decay, charged multiplicity 2−101707
B decays, penguin effects in five flavour SU(2)×U(1) model, QCD corrections 2−95826
B meson decays at Υ''' 2−95819
B*→Bγ, upper limits on B meson mass 2−101724
$\chi_1{}^{++}$(3507), $\chi_2{}^{++}$(3553) radiative decays to J/ψ 2−95878
D→Kπ, quark dynamics 2−107658
D→Kπ, weak decays using QCD corrected hamiltonian and $1/N_c$ expansion 2−101709
D mesons nonleptonic decays, coupled channel unitarity appl. 2−95823
D semileptonic and nonleptonic weak decays, branching ratios, quark mass effects 2−64320
D^0, nonleptonic decays by cq̄ annihilation, two-gluon radiation 2−59143
D^0 meson lifetime meas. 2−64319
$D^\pm$, D^0, $\bar{D}^0$ lifetime meas. in LEBC-EHS expt. 2−79916
D*→Dπ^0 decay rates in quark model 2−95786
$D^{*\pm}$→$D^0\pi^\pm$→$K^\pm\pi^+\pi^-$, obs. from e^+e^- 2−101744
e^+e^-→2 jets, AA̅ pair prod., possible 5 GeV pseudoscalar meson weak decay 2−113283
e^+e^-→KX at Ψ(4s) resonance, Ψ→BB̅ and B→charged and neutral K 2−69453
η→γγ(π$^+\pi^-\gamma$)(π$^0\gamma\gamma$)(3π), coloured quark field theory, PCAC approx. 2−89967
η→π$^0\gamma\gamma$, decay width, δ(980) quark struct., quark diagram anomalies *(Russian)* 2−113278
η'→δπ→ηππ, δ(980) meson quark struct. *(Russian)* 2−84890
f→KK̅, decay branching ratio 2−69492
f→π$^+\pi^-$, evaluation of incompletely measured spin density matrix 2−101711
F$^-$→K$^+$K$^-\pi^-$, lifetime meas. in LEBC-EHS expt. 2−79916
F^+, nonleptonic decays by cq̄ annihilation, two-gluon radiation 2−59143
gg 0^+ state, scalar decuplet neutral mesons, hadronic decay widths 2−113265
$\bar{\Gamma}$ meson decay study at CESR 2−79893
γN→DD̅, 40-150 GeV, $D^\pm$ lifetime, electronic meas. 2−69454
h→KK̅, decay branching ratio 2−69492
J/ψ→BB̅, B=baryon, isospin-violating EM contrib. 2−69456
J/ψ→γK$^+$K$^-\pi^0$ radiative decay 1440 MeV pseudoscalar state identification 2−95820
J/ψ→γγη, evidence for θ reson. in radiative decays 2−54165
J/ψ→γf(1270), decay branching ratio and polarisation meas. 2−95822
K→κπ, weak decays using QCD corrected hamiltonian and $1/N_c$ expansion 2−101709
φ→$\pi^+\pi^-$, decay probability meas. *(Russian)* 2−54147

meson hadronic decay continued
ψ bound states decay and thrust distrib. in e^+e^- annihilation 2−101748
ψ decay, QCD scale parameter Λ, analytical continuation effects influence 2−113211
ψ→η(η')γ, pseudoscalar mesons mixing in SU(3)$_c$ quark-gluon model 2−54145
ψ→πγ(η'γ), SU(3) breaking effects enhancement, Ward identities appl. 2−59136
ψ→γ+glueball, vertex const. in QCD 2−79863
ψ→γη(η'), decay rates and anomalous Ward identities 2−113266
ψ→γι(1440)→γK$^+$K$^-\pi^0$, L(1440) state study in Crystal Ball detector 2−79883
ψ→γρ$^0\rho^0$, observation, branching fraction 2−101721
ψ→γθ(1640)→γγη, glueball and exotic meson candidates study 2−79884
ψ→γθ(1640)→γγη, θ(1640) state study in Crystal Ball detector 2−79883
ψ→ι(1440)→K̄Kπ, glueball and exotic meson candidates study 2−79884
ψ→φS*(φf'), 2^+ glueball effects 2−113237
ψ'→γη$_c$', 3592 MeV state study in Crystal Ball detector 2−79883
ψ'→γγψ, branching ratio, multipole struct., χ spin 2−74690
ψ'→ψπ^0(η), decay rates and anomalous Ward identities 2−113266
qq̄→hX, hadron cluster production *(Russian)* 2−95857
qq̄g hybrid mesons, hadronic decay widths and modes, ι(1440) and θ(1640) 2−113267
ρ(770)→4π, π,ω,A_1,A_2 contribs., broken SU(6)×O(3) model 2−113268
ρ→ππγ, tests for ρ meson as gauge particle 2−54164
ρ$^+$→π$^+\pi^0$ in SLAC lattice QCD theory 2−69455
S*(980)→ππ, S* background contrib., current algebra theory for ππ scatt. 2−95716
θ(1640), obs. in γγ→ρ$^0\rho^0$ 2−107718
T(3S)→π$^+\pi^-$T(1S), branching ratio, di-pion invariant mass distrib. 2−101708
T(9.46) decay, gluon props. study, QCD expt. tests 2−54093
T decay, QCD scale parameter Λ, analytical continuation effects influence 2−113211
T→gluons, QCD corrections to gluonic width 2−54142
T→γππ, exclusive decay, perturbative QCD calcs. 2−59154
T→hadrons, 3 gluon decay mechanism 2−54099
T→hadrons, evidence for QCD gluon emission 2−79894
T→K$^-$K^0(D$^+$D$^-$), decay rates calcs. using perturbative QCD 2−54144
T'→*2π, scalar meson dominance model 2−101712
T'(T)→π$^+\pi^-\gamma$, scalar meson dominance model 2−101713
T'''→BB*, B meson mass limits 2−101724
V→Pγ, radiative decays, meson mass effects on transition moments 2−101722
V→Pγ, spin interaction affected interquark distances, effect on radiative decay 2−64330

meson interactions *see lepton-hadron interactions; meson-baryon interactions; meson-deuteron interactions; meson-meson interactions; meson-nucleus reactions; photon-hadron interactions*

meson leptonic decay
see also kaon leptonic decay
harmonic oscillator cum centrifugal pot., Klein-Gordon eqn. meson spectroscopy 2−107631
heavy meson resonance decay, muon pair ang. distrib. 2−113282
heavy quark systems, leptonic widths, duality and gluonic radiative corrections 2−95818
meson→μe in composite quark and lepton model 2−95804
meson resonances mass spectrum and leptonic decay widths in QCD 2−79836
pseudoscalar meson decay, P→l$^+$l$^-$+γ, bound state quark model calculations 2−101667
pseudoscalar meson decay constants in a quark confinement model 2−84889
quarkonium potential model with a non-zero gluon effective mass for charmonium and Υ *(Chinese)* 2−95778
resonances spectrum and leptonic decay widths in QCD *(Russian)* 2−74653
toponium mass spectra in Martin potential model, bottomonia e^+e^- decay 2−107641
B neutral mesons induced decay and mixing, top quark mass 2−69434
cc̄(bb̄) systems, effective power law pot., predicted mass, decay widths, fine-hyperfine splittings 2−101677
M_{l2}→lν$_e$, l=electron, muon, pseudoscalar mesons leptonic decay constant expt. determ. 2−69451
φ→μ$^+\mu^-$, decay probability meas. *(Russian)* 2−54147
π→eν$_e$γ, radiative decay, axial form factor, QCD nonperturbative contrib. 2−84895
π→lνM, Majoron emission in Gelmini-Roncadelli gauge model 2−54048
π→μν, parent identification from mixed π/K beam 2−113793
π$^-$→l$^-$+$\bar{\nu}_l$+a, decay in axion presence *(Russian)* 2−69452
π^0→e$^+$e$^-$, mass spectrum, branching ratio 2−69449
π^0→e$^+$e$^-$, rare decay, vector dominance model 2−79864
π^0→νν̄γ, branching ratio, Weinberg model calc. 2−59141
π$^+$→μ$^+\nu_\mu$, ν_μ mass upper limit from π decay in flight 2−89961
ψ bound states decay and thrust distrib. in e^+e^- annihilation 2−101748
QQ̄→l$^+$l$^-$+Higgs boson or pseudo Goldstone boson, discrimination between technicolour and Higgs breaking 2−54139
Υ and related mesons, EM corrections 2−64331
Υ leptonic width in leading order QCD 2−54142
Υ→μ$^+\mu^-$, upper limit, from μ$^+$N→μ$^+\mu^-$ 2−89971

meson magnetic moment
η→γγγ in SU(5) classification scheme 2−84899
γγ→ρ$^\pm\pi^\pm$, cross-section, ρ mag. moment, Born model calcs. 2−74667
QQ̄ states, moment ratios and depend. on quark mass definition 2−113239

meson mass
$CP_2{}^{N-1}$ model with quarks on lattice, lattice fermion, pion mass, PCAC 2−69338
hadrons containing heavy quark, masses from QCD sum rules 2−79820
harmonic oscillator cum centrifugal pot., Klein-Gordon eqn. meson spectroscopy 2−107631
lattice gauge theories with fermions on lattice, strong-coupling limit 2−101549
lowest-lying baryon and meson states masses in SU(2) Yang-Mills theory 2−53944
QCD, dynamical chiral symm. breaking, pseudoscalar meson spectra *(Russian)* 2−95771
QCD, hadron classification, meson mass scales *(Russian)* 2−74649
quarkonium potential model with a non-zero gluon effective mass for charmonium and Υ *(Chinese)* 2−95778

meson mass continued
SU(3) lattice QCD, hopping parameter expansion, meson and quark masses 2−69410
SU(3) lattice QCD, meson spectrum, quark masses, analytic calc. 2−89939
toponium mass spectra in Martin potential model, bottomonia e^+e^- decay 2−107641
two-meson states, with arbitrary ang. momenta, exchange operator matrix elements 2−74671
unitarised quark model, axial meson props., A_1, B, D, E, H, Q_1, Q_2, χ(3507) 2−107639
vector meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
vector mesons, with natural J^{PC}, unified Bethe-Salpeter wave functions, mass 2−74609
Yang-Mills theory, quark confinement, Abelian dominances, oblique confinement, η′ mass 2−101653
0 meson mass precision determ. from $K\bar{K}$ mass histograms 2−79911
B, from $B^* \rightarrow B\gamma$ search 2−101724
$c\bar{c}(b\bar{b})$ systems, effective power law pot., predicted mass, decay widths, fine-hyperfine splittings 2−101677
η_1 mass, perturbative QCD estimate, $U_A(1)$ current 2−64278
η′ meson first radial excitation mass estimation 2−89937
γ spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
H meson and deviations from ideal mixing 2−95805
(μ,π) and (μ,γ) invariant masses from decay of possible neutral heavy lepton 2−95834
ψ family mass spectra 2−59113
ψ spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
ψ'-η_c hyperfine splitting, potential model calcs., charmonium mass spectrum 2−107650
Υ family, mass spectra 2−59113
V→Pγ, radiative decays, meson mass effects on transition moments 2−101722

meson-meson interactions
see also meson-meson scattering; pion-pion interactions
No entries

meson-meson scattering
see also meson-meson interactions; pion-pion scattering
No entries

meson-nucleus reactions
for inelastic meson-nucleus scattering, see "meson-nucleus scattering"
see also kaon-nucleus reactions; meson-baryon interactions; meson capture; pion-nucleus reactions
Coulomb field interactions, photon prod., constituent interactions 2−59404

meson-nucleus scattering
see also kaon-nucleus scattering; meson-baryon scattering; pion-nucleus scattering
covariant single-hole optical pot. model 2−74777

meson photoproduction
inelastic J/Ψ photoproduction with linearly polarised photons, QCD based models predictions 2−54176
vector mesons photoproduction study, H-Be target setup 2−108202
vector-meson diffractive photoproduction, polarisation characts. *(Russian)* 2−54175
δp→0, 2.8-4.8 GeV, differential cross-section, spin density matrix elements 2−54179
$\gamma_s \rightarrow K^+K^-$, 2.8-4.8 GeV, 0 meson diffractive prod. 2−54179
γd→π^0d, coherent prod. at intermediate energies 2−69474
γγ exclusive channels, threshold enhancements and resonant effects 2−101785
γγ→$\rho^0\rho^0$, cross-section, 1.6 GeV bound state 2−59208
γγ→$\rho^0\rho^0$, θ(1640) effects near threshold 2−107718
γγ→$\rho^\pm\pi^+$, cross-section, ρ mag. moment, Born model calcs. 2−74667
γγ→ρρ, near-threshold cross-section, 2^+ glueball interpretation 2−84931
γN, 20-40 GeV, two-particle final states photoproduction 2−84900
γN, charmed hadron inclusive photoproduction in VDM *(Russian)* 2−74694
γN→(J/ψ)X, momentum distrib. for inelastic J/γ photoproduction in QCD 2−54177
γN→cc̄X, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
γN→π, pol. γ, quark models test 2−101735
γn→π^-n, 300 to 700 MeV, differential cross sections *(Japanese)* 2−107670
γp, large p_T photoproduction in hard scatt. expansion 2−101734
γp→pπ, pol. γ, pol. p, 300-420 MeV, polarisation parameters near resonance *(Russian)* 2−59163
γp→π^0p, 450 to 975 MeV, differential cross-section *(Japanese)* 2−107671
γq→Mq subprocess, higher twist contrib. in QCD 2−74692
πp→π^+n, sum rules, rel. to poor man's absorpt. model 2−59162
$^{10}B(\gamma,\pi^+)^{10}Be$, differential and total cross section calc. 2−85023
$^{10}B(\gamma,\pi^\pm)$, 17, 29, 42 MeV, charged pion photoproduction cross section meas. 2−85026
$^4He(\gamma,\pi^0)^4He$, 1.5-4.5 GeV, π^0 photoproduction cross section meas. *(Russian)* 2−54357
$^{14}N(\gamma,\pi^\pm)^{14}C$, charged pions threshold photoproduction study 2−95988
$^{16}O(\gamma,\pi^+)^{16}N$, differential and total cross section calc. 2−85023

meson production
see also kaon production; meson photoproduction; pion production
charm states hadronic production models 2−84845
charmed final states muproduction, gluon attributes, overview 2−54094
hadronic inclusive meson prod., particle correls., recombination model from Kuti-Weisskopf struct. functions 2−95882
hN→X, meson cumulative prod., quark-parton model *(Russian)* 2−74700
suppressed production of some bottom and top hadrons 2−69361
upsilon physics at CESR 2−59166
B meson production, rel. to bb̄ spectroscopy 2−54099
e^+e^- annihilation, 29 GeV, $D^{*\pm}$ prod. 2−101741
e^+e^- annihilation, exclusive heavy meson prod. in QCD perturbation theory 2−64334
e^+e^- annihilation, neutral conjugate heavy mesons, dilepton charge asymmetry, CP violation 2−95856
e^+e^- annihilation, π, K, ρ and p̄ prod., quark combinatorics calc. *(Russian)* 2−95858
e^+e^- annihilation in TRISTAN energy region, 1^- topponium prod., initial-state radiative corrections 2−107672

meson production continued
$e^+e^-\rightarrow D^*X$, 10.4 GeV, inclusive charged prod. 2−101744
$e^+e^-\rightarrow e^+e^-\eta'$, 17.15 GeV, cross section meas. 2−79901
$e^+e^-\rightarrow e^+e^-\eta'(e^+e^-A_2)$, η′ and A_2 radiative widths determ. 2−107665
$e^+e^-\rightarrow K_S^0K^\pm\pi^\mp$, 1.4-2.2 GeV, φ′ obs. 2−74697
$e^+e^-\rightarrow\rho\eta(\rho\pi)(\phi\pi)(\phi\eta)$, 1.4-2.18 GeV, cross section meas. 2−84903
$e^+e^-\rightarrow VX$, vector mesons structure functions in QCD framework using relativistic quark model *(Russian)* 2−74699
ep, ρ^0 mesons electroproduction cross section 2−54178
γγ, high energy, vector meson diffractive prod., energy depend. 2−113317
γγ→$\pi^0\pi^0$ ($\pi^0\eta$), f(1270) and A_2(1310) production 2−54226
γγ→ρρ, threshold enhancement, low energy vector dominance model description 2−113319
γN→J/ψX, inelastic neutrinoproduction of J/ψ in QCD-based model 2−101736
$K^-p\rightarrow K^+K^-(\Lambda/\Sigma^0)$, 18.5 GeV/c, high mass φ-like state 2−54214
$K^+p\rightarrow f(1270)X$, 32 GeV, inclusive cross-section, rel. to quark recomb. model 2−59202
μN, inelastic muoproduction of J/ψ, ψ′, Υ in QCD based model 2−101736
μN, 1209 GeV, heavy neutral muon mass lower limit and bottom hadron prod. 2−95849
μN, multimuon prod., review 2−79892
$\mu^-N\rightarrow\mu^-\psi X$, QCD parton model test, photon-gluon fusion model *(Russian)* 2−95851
$\mu^+N\rightarrow\mu^+\mu^-$, 280 Gev, Υ prod. limit 2−89971
μp, 100, 150 GeV, ρ, ρ′ and 0 diffractive prod., mass distrib. 2−95850
$\mu^-p\rightarrow\mu^-J/\psi X$, deep inelastic heavy reson. prod., azimuthal depend. 2−101737
NN→π^0(η)(Δ), 2 GeV, obs. in relativistic nucleus collisions 2−101919
NN→ψX, quark model anal. 2−101665
$\nu(\bar{\nu})N\rightarrow\mu^-(\mu^+)C\bar{C}X\rightarrow\mu^-\mu^-(\mu^+\mu^+)X$, diffractive charm-anticharm prod. model 2−89959
pN, 350 GeV, charm particle pairs forward prod. study 2−84922
pN, 350 GeV, limits on D^0-$\bar{D}^0$ mixing and bottom particle prod. cross section 2−84923
pN→φX, 70 GeV/c, inclusive prod. cross-section, rel. to quark-parton model *(Russian)* 2−59199
pp, 360 GeV, charm prod. in LEBC-EHS expt. 2−79916
p̄p, 7.3 GeV/c, inclusive baryon and meson reson. prod. cross sections 2−69488
pp, beauty prod. at ISR using two Cherenkov counters 2−84919
p̄p, pseudoscalar meson flux, axions, ghosts, standard model chiral predictions test 2−89984
p̄p, toponium prod. and decay characts. study 2−107698
p̄p annihilation, meson resonances, glueballs, quark-gluon interactions, review 2−113312
pp→DX, 10^3-10^5 GeV, multiple prod. model *(Russian)* 2−59197
pp→pK^+K^-p, pol.p, 11.75 GeV/c, φ meson prod. 2−74714
p̄p(pp), hadronic toponium prod. 2−79921
φ, production in pp→X at 63 GeV/c 2−107706
π^-N, 150, 280 GeV, ψψ prod. evidence from multimuon prod., cross section 2−101781
π^-N, 185 GeV/c, $\chi_1{}^{++}$(3507) and $\chi_2{}^{++}$(3553) hadronic prod. meas. 2−95878
π^-N, 278 GeV, charm particle pairs forward prod. study 2−84922
π^-N, 278 GeV, limits on D^0-$\bar{D}^0$ mixing and bottom particle prod. cross section 2−84923
π^-N, 40 GeV/C, evidence for 0^- S resonance in $\pi^+\pi^-\pi^-$ systems 2−89981
$\pi^-N\rightarrow\eta X$, 3.8 GeV/c, η-meson prod. cross section *(Russian)* 2−74704
π^-p, 360 GeV, charm prod. in LEBC-EHS expt. 2−79916
$\pi^-p\rightarrow D^{*-}X$, 16 GeV/c, peripheral prod. cross-section 2−64344
$\pi^-p\rightarrow K_S^0K_S^0$, 23 GeV/c, new 0^{++} meson obs., possible scalar decuplet 2−74716
ψ production, from 2−79842
ρ^0, production in pp→X at 63 GeV/c 2−107706
ρ′(1600) parameters, from $e^+e^-\rightarrow 4\pi^\pm$ width, current algebra calc. using $\tau\rightarrow\pi\rho\nu$ 2−74629
Z^0 decay, exclusive heavy meson prod. in QCD perturbation theory, Z^0 width 2−64334

meson resonances
see also D mesons; eta meson resonances; omega mesons; phi mesons; psi mesons; rho mesons
3π final state interactions, simplified parametrisation 2−95697
anisotropic chromodynamics, particle matrix elements for electroweak currents 2−107619
baryon-vector-meson couplings in quark model with chromodynamics 2−54095
bound quark-antiquark states, inverse relativistic problems for charm 2−64268
charmonium properties in bag-like potential approach 2−69435
composite quark-lepton model, generation, confinement and S^0 scalar mesons 2−79849
decay into two pseudoscalar mesons, quark-gluon model *(Russian)* 2−95824
E(1440), meson-decay modes of glueballs 2−79867
exotic meson reson. with $J^{PP}=1^{-+}$ from QCD sum rules *(Russian)* 2−74655
exotic mesons with $J^{PC}=1^{-+}$ from QCD sum rules 2−79824
frozen and broken colour, Lipkin's mechanism, matrix Schrodinger eqn., semiclassical limit 2−89933
heavy quark systems, leading nonperturbative effects, vacuum fluctuations in QCD 2−113213
heavy quark systems, leptonic widths, duality and gluonic radiative corrections 2−95818
heavy quarkonium energy levels, pre-Coulomb asymptotics, in QCD *(Russian)* 2−95775
mass spectrum and leptonic decay widths in QCD 2−79836
QCD, EM transition form factor of 1^{++} meson, large momentum behaviour *(Chinese)* 2−79827
QCD, L=1 light quark mesons 2−59115
QCD charmonium sum rules, higher gluonic power correction calcs. 2−64279
quarkonia, level struct., relativistic effects 2−95609
quarkonia potential by a numerical inversion method with given end-point behavior 2−74658
quarkonium, relativistic corrections to dipole decay amplitudes 2−95842
quarkonium, review 2−84855
quarkonium decay, renormalisation group predictions 2−101710

meson resonances continued
quarkonium potential model with a non-zero gluon effective mass for charmonium and Υ *(Chinese)* 2−95778
quarkonium spectroscopy in heavy QQ̄ bags approach 2−79846
quarkonium systems, interquark pot. using gluon condensate and quark screening 2−64277
radially excited pseudoscalar states and glueball G(1440) 2−84858
relativistic string model, exotic mesons and glueballs 2−54109
scalar qq̄ nonet in QCD, spontaneous breakdown of chiral symmetry 2−101650
SO(10) GUT, mass relations and neutrino oscillations, t mass, B lifetime 2−84819
spectrum and leptonic decay widths in QCD *(Russian)* 2−74653
SU(2)×SU(2)×SU(2)×SU(2) symmetry scheme for new particles 2−54106
suppressed production of some bottom and top hadrons 2−69361
SVZ duality in two-dimensional QCD, charmonium and bottomium predictions 2−113214
symmetry violation in quark models of mesons 2−95764
toponium mass spectra in Martin potential model, bottomonia e^+e^- decay 2−107641
unitarised quark model, axial meson props., A_1, B, D, E, H, Q_1, Q_2, χ(3507) 2−107639
upsilon physics at CESR 2−59166
vector meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
A_2, radiative width determ. from two-photon exchange prod. 2−107665
$A_3(A_3)$ tensor mesons in QCD sum rules 2−79837
B, nonleptonic decay rate, in SU(6) six-quark model 2−54143
B, production, rel. to bb̄ spectroscopy 2−54099
B→D(D*)eν, relativistic harmonic oscillator model 2−101705
B decay, charged multiplicity 2−101707
B decays, penguin effects in five flavour SU(2)×U(1) model, QCD corrections 2−95826
B meson decays at Υ''' 2−95819
B neutral mesons induced decay and mixing, top quark mass 2−69434
B^0-$\bar{B}^0$ transition amplitudes in six-quark model 2−54105
B_s^0-$\bar{B}_s^0$ transition amplitudes in six-quark model 2−54105
B*→Bγ, upper limits on B meson mass 2−101724
BB̄ widths of diquoniums in various models 2−59120
δ(980), quark struct. from η'→ηππ *(Russian)* 2−84890
e^+e^- annihilation in TRISTAN energy region, 1^- topponium prod., initial-state radiative corrections 2−107672
e^+e^- exclusive hadronic channels, weak neutral current and axial resonance signals 2−59165
e^+e^-→hadrons, struct. investig. 2−54187
e^+e^-→KX at Ψ(4s) resonance, Ψ→BB̄ and B→charged and neutral K 2−69453
e^+e^-→Υ, PLUTO detector expts., review 2−79903
eN→eX, X includes ψ, Υ or other heavy resonance, differential cross section 2−113282
ε(1300-1400), possible identification in $\pi^-p\to\eta\eta n$ *(Russian)* 2−54208
η→$\pi^0\gamma\gamma$, decay width, δ(980) quark struct., quark diagram anomalies *(Russian)* 2−113278
f(1270)-glueball mixture phenomenology 2−69416
f→KK̄, decay branching ratio 2−69492
f→$\pi^+\pi^-$, evaluation of incompletely measured spin density matrix 2−101711
f tensor mesons in QCD sum rules 2−79837
gg 0^+ state, scalar decuplet neutral mesons, hadronic decay widths 2−113265
Γ meson decay study at CESR 2−79893
γ spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
γγ→$\rho^0\rho^0$, threshold enhancement, possible isoscalar $J^{PC}=0^{++}$ exotic state 2−59206
γγ→$\rho^0\rho^0$, θ(1640) effects near threshold 2−107718
γN, 20-40 GeV, two-particle final states photoproduction 2−84900
γN→ccX, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
h→KK̄, decay branching ratio 2−69492
H meson and deviations from ideal mixing 2−95805
i(1440), gluonia in MIT bag model 2−54115
J/ψ→γ$K^+K^-\pi^0$ radiative decay 1440 MeV pseudoscalar state identification 2−95820
J/ψ→γγη, evidence for θ reson. in radiative decays 2−54165
K^-p→f(1270)X, 32 GeV, inclusive cross-section, rel. to quark recomb. model 2−59202
μN, 1209 GeV, heavy neutral muon mass lower limit and bottom hadron prod. 2−95849
μN, multimuon prod., review 2−79892
μN→μX, X includes ψ, Υ or other heavy resonance, differential cross section 2−113282
$\mu^+N\to\mu^+\mu^-$, 280 Gev, Υ prod. limit 2−89971
NN→$\pi^0(\eta)(\Delta)$, 2 GeV, obs. in relativistic nucleus collisions 2−101919
pn, 19 GeV/c, ρ^0, ω(780), f^0, g non-strange meson inclusive prod., structure functions 2−107708
pp, 6, 9 GeV/c, p and f meson prod., narrow exotic mesons 2−101762
pp, 7.3 GeV/c, inclusive baryon and meson reson. prod. cross sections 2−69488
pp annihilation, meson resonances, glueballs, quark-gluon interactions, review 2−113312
pp(pp), hadronic toponium prod. 2−79921
pp→π^0+charmonium, diff. cross section, pp resonance formation, soft pion emission 2−64338
π^-N, 185 GeV/c, χ_1^{++}(3507) and χ_2^{++}(3553) hadronic prod. meas. 2−95878
π^-N, 40 GeV/C, evidence for 0^- S resonance in $\pi^+\pi^-\pi^-$ systems 2−89981
ψ, spectroscopy from phenomenological confinement approach 2−79854
ψ bound states decay and thrust distrib. in e^+e^- annihilation 2−101748
QQ̄, production in e^+3^- annihilation 2−101753
qq̄ bound state, annihilation vertex, relativistic Bethe-Salpeter model, renormalisation 2−101539
QQ̄ states, moment ratios and depend. on quark mass definition 2−113239
qq̄g hybrid mesons, hadronic decay widths and modes, ι(1440) and θ(1640) 2−113267
qq̄g mesons, bag model spectrum 2−89943
qqq̄q̄ baryonium states, Bethe-Salpeter relativistic theory 2−107487
Υ⁰-Ῡ⁰ transition amplitudes in six-quark model 2−54105

meson resonances continued
tt̄ and tū spectra and electric dipole transitions, interquark force test 2−107646
tt̄ quarkonia mass difference, QCD calc. *(Russian)* 2−64309
θ(1640), gluonia in MIT bag model 2−54115
Υ(3S)→$\pi^+\pi^-$Υ(1S), branching ratio, di-pion invariant mass distrib. 2−101708
Υ(9.46) decay, gluon props. study, QCD expt. tests 2−54093
Υ(9.4), eron-antieron bound state 2−59738
Υ and related mesons, EM corrections 2−64331
Υ family, mass spectra 2−59113
Υ→gluons, QCD corrections to gluonic width 2−54142
Υ→γX, axion production upper limit 2−101723
Υ→γa, a=axion, unambiguous test for axion 2−69470
Υ→γππ, exclusive decay, perturbative QCD calcs. 2−59154
Υ→hadrons, evidence for QCD gluon emission 2−79894
Υ→hadrons, QCD scale parameter Λ, analytical continuation effects influence 2−113211
Υ→$K^+K^s(D^+D^-)$, decay rates calcs. using perturbative QCD 2−54144
Υ mesons, fine and hyperfine structure in Coulomb plus linear pot. model 2−79826
Υ→$\mu^+\mu^-$, upper limit, from $\mu^+N\to\mu^+\mu^-$ 2−89971
Υ particle spectrum from interquark pot. *(Russian)* 2−101655
Υ spectroscopy, review 2−54099
Υ states, hadronic channel influence, P-matrix formalism 2−95798
Υ-η_b mass difference, QCD calc. *(Russian)* 2−64309
Υ'→*2π, scalar meson dominance model 2−101712
Υ'(Υ)→$\pi^+\pi^-\gamma$, scalar meson dominance model 2−101713
Υ''→BB*, B meson mass limits 2−101724
T_c^0-$\bar{T}_c^0$ transition amplitudes in six-quark model 2−54105

meson scattering *see lepton-hadron scattering; meson-baryon scattering; meson-deuteron scattering; meson-meson scattering; meson-nucleus scattering; photon-hadron scattering*

meson spin and parity
vector mesons, with natural J^{PC}, unified Bethe-Salpeter wave functions, mass 2−74609
f→$\pi^+\pi^-$, evaluation of incompletely measured spin density matrix 2−101711

mesonic atoms *see mesic atoms*

mesonic molecules *see mesic molecules*

mesons
for μ mesons see muons
see also cosmic ray mesons; eta mesons; kaons; meson resonances; pions
elementary particle properties review 2−89481
gauge symmetries without scalar mesons, spontaneous breakdown 2−59003
neutral mesons, form factor in QCD, with account for gg states *(Russian)* 2−64293
origin, nuclear exchange force theory 2−59250
pseudoscalar meson properties, Laplace transform analysis of Weinberg sum rules 2−113178
quantum logic explanation 2−58637
quark and diquark fragmentation into mesons and baryons 2−113240
Regge trajectory, rel. to SU(4) mass relations *(Chinese)* 2−54121
relativistic effects for quarks within hardrons 2−95779
relativistic spin depend. generalisation of linear pot. between two quarks, mesons 2−84869
scalar mesons in the unitarized quark model 2−101672
cc̄(bb̄) systems, effective power law pot., predicted mass, decay widths, fine-hyperfine splittings 2−101677

mesosphere
aerosol dispersion *(Russian)* 2−100465
aerosol stratification and variability *(Russian)* 2−88951
aerosols, suspended, distrib. *(Russian)* 2−106372
equatorial middle atmosphere, inertial stability 2−78894
global heating rate due to O_3 absorpt. of solar radiation 2−117420
gravity wave induced drag and diffusion in momentum budget 2−106373
gravity waves and diurnal tides, VHF radar obs. 2−83910
internal gravity waves saturation 2−106374
ion and electron density determ. by sounding rocket method 2−63122
IR background, non-LTE high-altitude effects 2−117515
lidar (infrared) obs. of cloud and aerosol from space, optical calcs. 2−94500
long-period oscill. at 60 to 110 km altitude 2−94546
low-latitude mesosphere, coupling with lower atmosphere rel. to lunar tidal var. in ionospheric absorpt. 2−106387
mesopause, horizontal structure, gravity wave interpretation 2−100500
mesopause, nightglow emissions rel. to NO and water vapour concs., noctilucent clouds and radio wave absorpt. 2−112201
mesopause, positive ion comp. meas. in presence of noctilucent clouds 2−63151
noctilucent clouds over W.Europe during 1981 2−94469
planetary waves, meridional shear effects and critical latitudes 2−106225
planetary waves, meridional shear effects for nonsingular wind profiles 2−106224
radiative heating and cooling algorithm for use in dynamical model 2−112039
sunlight extinction and scattering by dust at 60 km 2−112131
temperature and composition by analytical static model 2−68543
tidal winds obs. from Australia and Japan 2−63047
tides, equatorial radar backscatter obs. over Peru 2−63045
warmings in 1980/1, mid-latitude ground-based lidar study of temp. 2−106253
water vapour absorption at 22 GHz and H_2O mixing ratio 2−63046
wind field correlation with auroral electrojet fluctuations 2−83993
wind measurement by radar obs. ionospheric drift 2−106356
wind velocity fluctuations, power spectrum at 86 km altitude 2−100449
zonal mean flow of atmos. up to 100 km, 3-D global model 2−73638
H_2O conc. variability in mesosphere, microwave emission study 2−78755
NO_x mesosphere conc. increase due to particle precipitation 2−88958
NO_x, mesospheric, distrib., variation and chemistry 2−88957
O_2^+, reaction paths to water clusters in cold mesosphere 2−100499
O_3 concentration variations during total eclipse, airglow obs. 2−100613
O_3 diurnal variation determ. from rockets 2−63061
Si negative ion chemistry 2−100612
SiO_3^- atmospheric chem. 2−94547

metal castings *see castings*
metal clusters
alkali metal clusters, binding energy, cryst. growth, HMD method 2−115158
heterogeneous nucleation on cleavage steps, theory 2−86832
ionized cluster beam deposition, vaporized metal cluster form., kinetic energy effect 2−115603
IR absorption spectrum, dielec. and mag. susceptibility, Maxwell's eqns. 2−82863
metallic glasses, crystalline embryo model 2−97927
small metal atom clusters, electrochem. props., rel. to surface enhanced Raman scatt. 2−116173
transition metal cluster chemistry and implications for hydrogen embrittlement, alloy behaviour and metal catalysts 2−91832
transition metal clusters in activated intermetallic hydrogen sorbers, ferromag.-paramagnetic transition 2−66233
Al cluster, CO adsorpt. 2−87057
Al-Al_2O_3 films, cluster size distrib. near metal-insulator transition 2−82169
Al_{13} clusters, cubo-octahedral, electronic struct. calc. 2−82269
$Al_{12}V$ clusters, cubo-octahedral, electronic struct. calc. 2−82269
Au epitaxial clusters, struct. and shape 2−110183
Au film growth on amorphous C, Au cluster density time depend. calc. 2−92411
Au film growth on amorphous C, Au clusters surface diffusion, computer simulation 2−92412
Au film growth on NaCl, Au cluster mobility meas. to 123K 2−92409
Bi, inert gas condensation of metal microclusters 2−103969
Cr, SIMS, very small clusters study 2−77683
Cr_5Al_8, SIMS, very small clusters study 2−77683
Cu clusters, electronic struct., SCF calcs. 2−85855
Cu clusters isolated in O_2 matrices, UV photoemission studies 2−108757
Cu, SIMS, very small clusters study 2−77683
Cu-Cr(Al) alloys, SIMS, very small clusters study 2−77683
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
Cu_6BiS_6, cubic, modulated struct. 2−91900
In, inert gas condensation of metal microclusters 2−103969
Li, atomic cluster, CNDO/BW study of different crystallographic structs. 2−59988
Li, surfaces (100) and (110), BCC, H atom-cluster interactions, ab initio CI calc. 2−116325
Ni_2 and Ni_4, ionisation manifolds comparison using symmetry broken SCF wave functions 2−102667
Pb clusters, formation by adiabatic expansion and ionisation pot. meas. 2−85854
Pb, inert gas condensation of metal microclusters 2−103969
Pt-IR clusters, catalysts, EXAFS study 2−67149
Sb, inert gas condensation of metal microclusters 2−103969
Zn vapour, dimerisation in supersonic carrier gas 2−65122
metal corrosion *see corrosion*
metal-insulator boundaries
see also metal-insulator-metal structures
band struct., effect on tunnelling conduction *(Russian)* 2−77199
flow theory model, elec. cond. 2−104487
interface dipole energy theory 2−115891
poly-1-vinyl-1,2,4-triazole-metal boundaries, charge carrier photoinjection 2−61587
superficial changes of dielectrics in contact with electrodes subjected to corona discharge 2−104131
Thomas-Fermi metal-dielectric surface, scaling relations and analytic soln. 2−104484
Al/W/NiSi structure, use of thin W barrier to inhibit Al+NiSi reaction 2−98472
Al-Al_2O_3:Cu porous anodic film, elec. props. meas. 2−82501
Au-β-PbF_2 thin film interface, XPS and elec. meas. 2−87080
NiSi, Al contact using thin W barrier 2−87393
Pd-SiO_2:Na MOS device, H_2 induced flat-band voltage shift 2−61607
SnO_2-Si solar cell, barrier height, temp. and voltage depend. 2−78219
metal-insulator-metal devices
W-Gd point contact M/M diode, improved performance 2−98761
metal-insulator-metal structures
band struct., effect on tunnelling conduction *(Russian)* 2−77199
doped with TCNQ, comparison of optical spectra with tunnelling spectra 2−72072
drift of carriers in dielec. films with blocking electrodes, quasistatic approx. 2−104502
electroformed struct., forming process and memory states obs. 2−104503
electroreflectance meas. 2−93160
insulating thin films, conduction mechanisms *(Spanish)* 2−72091
interfacial reactions, AES study 2−92291
metal-polymer-metal system, thermally stimulated spontaneous current 2−82771
noise meas., 10 Hz-10 kHz *(Japanese)* 2−58840
normal metal tunnel junction phenomena, stationary state model 2−110492
polymer-electrode interface, penetration of metal into polymer based on electrochem. reaction 2−62404
polypropylene evaporated films between Cu electrodes, I-V characts. and breakdown strength 2−110512
single-carrier space-charge controlled conduction 2−104499
p-terpenyl/TCNE MIM structs., elec. cond., Poole-Frenkel coeff. 2−72073
thermionic emission in MIM junctions, linear response 2−99291
tunnel conductivity calcs. *(Russian)* 2−61611
Al/SiO-B_2O_3/Au thin film struct., elec. cond. and field electron emission, theoretical model *(French)* 2−72076
Al-Al_2O_3:thiourea-Pb structs., IETS spectra, comparison of expt. and theoretical intensities 2−92778
Al-Al_2O_3-Ag tunnel junction, adsorbed mol. monolayers, surface enhanced Raman spectra obs. 2−82867
Al-Al_2O_3-Ag(Au)(Cu) tunnel structures, photon emission, expt. study 2−82471
Al-Al_2O_3-Au struct., dielec. props. meas. at low freq. *(French)* 2−72075
Al-Al_2O_3-Au(Cu)(Ag) tunnel junctions, electron energy loss function image in light emission 2−116267
Al-Al_2O_3-Pb tunnel junctions, voltage annealing with alternating polarity 2−104500
Al-AlN-Al, ion plated thin film capacitor, dielec. and AC cond. props., annealing effects 2−61825
Al-insulator-Ag, prep. of tunnel junctions 2−77234
metal-insulator-metal structures continued
Al-oxide-Pb tunnel junctions, water infused, thermal and voltage annealing 2−82472
Al-oxide-Pb tunnel junctions, effect of top electrode deposition rate on tunnelling characts. 2−82473
Al_2O_3 in MIMS struct., deep trapping levels, photoelec. spectrosc. obs. 2−82405
Au-Al_2O_3-Au(Al) tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Au-FeF_3-Au struct., FeF_3 film polarisation 2−61821
$Bi_{12}SiO_{20}$, pulsed and steady-state photocond. and TSC meas. in MIM struct. 2−92695
Li-Al_2O_3-Cu layers, electron tunnelling, ESR study 2−82714
MoO_3 thin film MIM capacitors, elec. characts., temp. depend. 2−115914
Nb MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
Ni-Al_2O_3-Al tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Si_3N_4 MIM struct., electron beam induced leakage currents meas. 2−56744
SiO-GeO_2 film, electroformed MIM struct., elec. cond., temp. effects obs. 2−72074
Ta MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
W-Ni point-contact diode, expt. nonlinearity coeffs. 2−56723
Yb_2O_3 thin films, elec. cond. and permittivity in MIM struct. 2−98775
metal-insulator-semiconductor devices
see also charge-coupled devices
amorphous solar cells, theory of Schottky barrier heights 2−116827
dielectric film in MOS capacitor, localized conduction 2−61633
MOS capacitor, flat band voltage shift during avalanche injection, modelling 2−56721
MOS capacitors, X-ray irrad. effects, deep traps 2−77194
MOS device, oxide and interface charge generation by electron injection 2−56718
MOS devices, n-type and p-type Si, non-equilib. generation lifetime meas. 2−110491
MOS solar cells, high efficiency, by anodic oxidation processes 2−88448
polysilicon MOS tunnel devices with internal gain, use as photodetectors 2−64106
solar cell, I-V characteristics, analytical eqn. derivation 2−57705
solar cell, open circuit voltage modification due to nonuniform insulating layer 2−88434
solar cells, image tone effects, theoretical anal. 2−73116
solar cells, interface states effect on performance 2−99802
solar cells, open circuit voltage, insulator layer thickness depend. 2−99794
thin-film capacitance humidity sensor, fabrication using planar MOS technology 2−64054
tunnelling relaxation time meas., in thin oxide metal oxide semiconductor capacitors 2−66641
Al-Al_2O_3-GaAs MOD diode, electron beam evaporation prep. 2−62068
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V characts. 2−105555
Be-Si MIS solar cell, with textured surface, large active area 2−88443
CdS MIS diodes green electrolum. and photolum. study 2−72558
HgCdTe, electronic props., MIS IR devices 2−87295
InGaAs MIS diode, C-V characts., composition depend. 2−77188
InGaAsP MIS diode, C-V characts., composition depend. 2−77188
InP MIS diode, C-V characts., composition depend. 2−77188
InP MIS Schottky barrier solar cells, instability obs. 2−88447
InP MIS Schottky diodes, plasma oxidation prep. and characts. 2−61591
InP MISFET, optically gated, high gain optical detector appl. 2−53835
Pd MOS capacitor, H_2 detection props. in H_2-O_2 mixture 2−112882
Pt MOS capacitor, H_2 detection props. in H_2-O_2 mixture 2−112882
Si, amorphous, MIS solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
p-Si MIS inversion layer solar cell, two-dimensional model 2−73125
Si solar cells, MIS and SIS technologies, fabrication technology *(Slovak)* 2−67859
Si:O^{4+}(C^{4+}), MOS capacitors and Schottky diodes, ion implantation, elec. props. 2−86696
p-Si-Mg solar cells, fundamental props. 2−88442
Si-SiO_x-Ag MOS solar cell degradation; TEM and elec. study 2−93908
SiO_2 MOS capacitors, dielec. breakdown, effect of plasma cleaning 2−61831
SnO_2/In_2O_3-SiO_x-n-Si solar cell, edge leakage suppression at low illumination levels 2−57706
$ZnSe_xS_{1-x}$ MIS diodes, blue and violet electroluminescence emission 2−72067
metal-insulator-semiconductor integrated circuits *see field effect integrated circuits*
metal-insulator-semiconductor structures
amorphous semiconductors, electronic gap state density, calc. from field effect and C-V data 2−76886
conductor-insulator-semiconductor organic solar cells, development, features and characts. 2−83499
current-voltage characts., analytical expression 2−98756
dielectric layers in MIS struct., stationary distrib. of mobile ions 2−82015
DLTS, relationship between charge- and current based spectroscopy 2−87180
drift of carriers in dielec. films with blocking electrodes, quasistatic approx. 2−104502
effective-mass theory for electrons in heterostructures 2−110231
electron gas, two-dimensional plasma waves, instabilities and amplification, theoretical anal. 2−61501
ellipticity and Faraday rotation due to 2-D electron gas 2−110822
gate-voltage optimisation for generation processes evaluation using C-t method *(Slovak)* 2−72061
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
III-V compound semiconductor MIS interfaces and their applications, review *(Japanese)* 2−87400
III-V semiconductors, Schottky barrier form. and MOS interface states, unified model 2−87372
insulating film, contact-limited currents, theory 2−82504
interface charge inhomogeneities, surface photovoltage meas. 2−115899
interfacial reactions, AES study 2−92291

metal-insulator-semiconductor structures continued
inversion layers, resonance electron-phonon interaction, light absorption 2−82468
Langmuir-Blodgett films on semiconductors 2−56715
magnetic semicond., 2-D electron gas, subband struct. and magnetisation 2−104497
metal-Al_2O_3-SiO_2-Si struct., charge profile, photoionisation study 2−66648
metal-SiO_2-n-Si structure Schottky barriers tunnelling exponent 2−82441
minority carrier accumulation and capacitance under light illum. 2−115907
minority carrier lifetime, simultaneous determ. of bulk and surface layer lifetimes using C(t) charcts. *(Chinese)* 2−66643
MNOS, CVD Si_3N_4 layer depth inhomogeneity, pot. distrib., effective resist. and etch rate exam. 2−92769
MNOS capacitors, determ. of energy density distribution and capture cross-section of interface states 2−66652
MNOS capacitors, flatband voltage shifts interpretation in terms of charge distribs. 2−115902
MNOS struct., Si_3N_4 layer, charge density distrib., surface states 2−92773
MNOS structure, degraded, charcts. restoration at room temp., effect of light on restoration rate 2−87406
MNOS structure, nonstationary cond. in region of strong elec. fields 2−87405
MNOS structure, surface state density evaluation 2−61602
MNOS structures in region of punchthrough current, conductance and noise 2−104498
MNOS thin oxide structs., discharging process calcs. by multiple tunnellings 2−110479
MOS, accurate Si-SiO_2 interface handling for mathematical simulation 2−115905
MOS, bulk generation lifetime and surface generation vel., rapid determ. by saturation capacitance meas. *(Chinese)* 2−92760
MOS, metal-SiO_2-Si structs., voltage and freq. depend. of simulated RF plasma annealing 2−66639
MOS, positive magnetoresist. due to mag. field parallel to surface 2−61600
MOS, transport of broadening charge packets at surfaces 2−104490
MOS capacitor struct., interface state density deduced from DLTS and Terman meas. 2−98748
MOS capacitor structure, elect. charcts. of interface between laser-recrystall. poly-Si and underlying insulator 2−92770
MOS capacitors, nonequilibrium surface potential vs. gate voltage charcts. meas. 2−92774
MOS characterization by phase shift impedance technique 2−61605
MOS devices, fast neutron irrad. effects *(Rumanian)* 2−87402
MOS interface states, EPR 2−61603
MOS ion-implanted structs., dopant density from maximum-minimum capacitance ratio 2−77195
MOS junction, condensation of electron pancakes 2−87404
MOS minority carrier lifetime improvement by F ion implantation in Si 2−66651
MOS struct., work function difference meas. technique 2−104495
MOS structure, generation lifetime and surface generation velocity determ. *(Chinese)* 2−92762
MOS structure, ion implanted, capacitance-voltage charcts., temp. depend. 2−77191
MOS structure, min. value of IF space-charge capacitance 2−66654
MOS structure, single electrode pots. related to flat-band voltage meas. 2−82454
MOS structure, two-dimensional space-charge layer in a tilted magnetic field 2−82466
MOS structure diagnostics by nonequilibrium linear voltage ramp technique 2−61604
MOS structure with buried layers, props. from nonequilib. C-V meas. 2−87396
MOS structure with nonuniform and degenerate doping, strong inversion and terminal voltages 2−92767
MOS structures, bulk generation lifetime distrib. and surface generation velocity determ. *(Chinese)* 2−66644
MOS structures, gas ionization bulb breakdown voltage calibration device 2−64063
MOS structures, ion-implanted, charge transport and storage 2−92759
MOS structures, radiation damage by X-ray irradiation *(Chinese)* 2−66645
MOS systems, reactive sputter etching of SiO_2 effect on elec. props. 2−115903
null Faraday rotation, intraband and interband transitions 2−61500
oxide film growth on Si, procedure and reaction kinetics, application in solar cells 2−99791
polar MOS, new magnetosensitive element, magnetoelastic charcts. 2−64072
polyacetylene MIS struct., field effect props. meas. 2−92772
SAMOS structures, charge retention, thermionic electron emission model 2−56696
secondary ion energy distribution during sputtering 2−99285
semiconductor, density of localised states, evaluation from field effect data, theory 2−76887
semiconductor, space-charge capacitance, quantum effects 2−77080
SOS films, investigation by optical absorption meas. *(Chinese)* 2−92764
subband physics with real interfaces, review 2−61610
two-dimensional systems, electronic props., review 2−82467
Al-Al_2O_3-graphite composite system, threshold switching charcts. correl. with fracture path 2−105331
Al-Al_2O_3-n-InSb MOS struct., quantum size effects and negative resist. obs. 2−77187
Al-Si_3N_4-SiO_2-Si MNOS struct., charge trapping, oxide thickness effects, capacitance and internal photoelec. effect study 2−98751
Al-Si_3N_4-SiO_2-Si structure, AES and internal photoelec. effect technique meas. 2−82163
Al-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Al-SiO_2-Si, B-ion implanted MOS structure, radiation defect spectra study by TSC method 2−66646
Al-SiO_2-Si, MOS capacitor, electron irrad., interface state spectrum, gate bias effect, DLTS study 2−66640
Al-SiO_2-Si, MOS structure, surface state density determ. based on Hill-Coleman technique 2−77192
Al-SiO_2-Si, MOS struct., low temp. var. of oxide change and surface state density conc. under γ-irrad. 2−104496

metal-insulator-semiconductor structures continued
Al-SiO_2-Si capacitor, Cc Si-SiO_2 interface, slow and fast states induced by hot electrons, expt. study at Si0-SiO_2 interface 2−87395
Al-SiO_2-Si capacitors, avalanche injected, positive charge effects on flat-band voltage shift meas. 2−87394
Al-SiO_2-Si MIS capacitor, DLTS study 2−115896
Al-SiO_2-Si MOS struct., H_2 anneal effects on metal-semicond. work function difference 2−92771
Al-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Al-SiO_2-Si structure, prep. under UHV conditions 2−56716
Al-SiO_2-Si structures, resonant tunnel switching 2−98757
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
Al-SiO_2-SiC, MOS struct., elec. props. meas. 2−72060
AlN epitaxial films on Si, electronic conduction in MIS struct. 2−87434
Au/$Si_{12}Te_{48}As_{30}Ge_{10}$/$Al_2O_3$/Al structure, current-voltage charcts. 2−61589
Au-oxide-*n*-GaAs MIS struct., barrier height meas. by internal photoemission technique 2−72063
Au-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V charcts. calc., model 2−92775
Au-$SrTiO_3$-SiO_2-Si struct., electron beam deposited, nonvolatile memory props. 2−72068
$(Ba,Sr)TiO_3$ films on Si substrate, ferroelec. behaviour 2−66996
BaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
C-CdS-metal, switching struct., with potential barrier, elec. charcts. 2−87407
CaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
CdS-MIS struct. for interface state determ. in CdS-Cu_2S heterojunction solar cell 2−78229
CdTe MSM and MISIM radiation detectors, elec. field intensity distrib. 2−77200
Er-$ErSi_2$-Si, Schottky barrier diodes, $ErSi_2$ surface morphology, SEM study 2−92313
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs MIS structs., relationship between charge- and current-based DLTS 2−87180
GaAs MIS structure dielectric dispersion prop. meas. at very low freq. *(Japanese)* 2−64069
GaAs MOS interface states, DLTS and photoionisation study 2−110488
GaAs MOS struct., photoionisation cross-section and interface state threshold meas. 2−98759
p-GaAs, reduction of fast surface states 2−66602
GaAs, Schottky barrier form., MOS interface states 2−82428
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
n-GaAs-Sn(Ag)(Al)(Au) MIS Schottky barriers, electron trapping in oxide layer 2−77196
p-$Ga_{0.47}In_{0.53}As$:Zn-SiO_2 MIS struct., interface states and field effects meas. 2−98758
GaN-GaAs MIS capacitors, interface states charcts., G-V, C-V and transient capacitance anal. 2−92776
GaSb, Schottky barrier form., MOS interface states 2−82428
$Hg_{1-x}Cd_xTe$, anodic oxidation and MOS struct. elec. props. 2−72853
$Hg_{1-x}Cd_xTe$, plasma anodisation, MIS structure fabrication 2−57505
$Hg_{1-x}Cd_xTe$, plasma anodised, interface study 2−104489
$Hg_{1-x}Cd_xTe$, surface and interface electronic props. derived from III-V cpds. theory 2−87355
$Hg_{1-x}Cd_xTe$-native oxide MIS struct., elec. props. meas. 2−87399
n-HgSe-Al_2O_3-Pb junction, tunnelling spectroscopy study 2−92777
InAs MIS diode, interface state distrib. determ., spectroscopic meas. method 2−66647
InAs MOS interfaces, reson. inelastic light scatt. 2−61919
InP (100) MIS system, energy levels of n-channel accumulation layer 2−61541
InP, MIS struct., electron subbands, magnetoconductance oscills. cyclotron resonance and surface cond. meas. 2−56708
InP MOS interface states, DLTS and photoionisation study 2−110488
InP MOS struct., photoionisation cross-section and interface state threshold meas. 2−98759
n-InP, oxidation using nitric acid, elec. props. of Au-oxide-n-InP structs. exam. 2−67581
InP, Schottky barrier form., MOS interface states 2−82428
InP-P_3N_5 MIS devices with CVD P_3N_5 gate simulating film, elec. props. 2−99346
InP-Si_3N_4 interface, I-V, C-V and MISFET charcts., CVD, surface pot. var. 2−56710
InP-SiO_2 interface, I-V, C-V and MISFET charcts., CVD, surface pot. var. 2−56710
InP-SiO_2 MIS struct. and enhancement mode MISFET, expt. study 2−98760
p-InSb inversion layer, electron-phonon interaction, cyclotron resonance study 2−56939
InSb MIS structs., tunnel charging of traps in oxide layer 2−115909
InSb MIS structures with dielectrics prep. at low temps., charge instability mechanism 2−61601
LaF_3 epitaxial films, MBE growth on Si substrate, MIS capacitance and mass spectra study 2−76861
Mg-SiO_2-Si tunnel junctions, tunneling spectroscopy of electron space charge layers on (111)-Si 2−87403
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
Mg-SiO_x-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
Mo-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Ni-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
PbTe MIS structs., field effect studies, DC cond. and Hall effect 2−115895
p-PbTe/mica/Ag struct., field effect study, Hall coeff. and mobility 2−110490
Pd MOS struct., dissoc. of adsorbed H_2, UPS study 2−105510

metal-insulator-semiconductor structures continued
Pd MOS structs. for meas. of catalytic reaction rate constants on Pd 2−88379
Pd-MOS structures, hydrogen sensitivity and long term behaviour 2−64008
Pd-SiO_2:Na MOS device, H_2 induced flat-band voltage shift 2−61607
n-Si (100) MOSFET inversion layers, zeros of transverse magneto-resist. 2−66650
Si, amorphous, MIS struct., theory of photocapacitance 2−98755
Si MOS inversion layer, Anderson localization, neg. magnetoresist. 2−61597
Si MOS inversion layers, Hall effect in strong mag. fields 2−61489
Si MOS inversion layers as two-dimensional conductor *(Japanese)* 2−82469
Si MOS struct., charge motion, TSC meas. 2−115911
Si MOS struct., fast surface states, photovoltage spectra study 2−56697
Si MOS structures, Fowler-Nordheim tunnelling data anal. 2−98749
Si structure, Faraday rotation for inversion layer electrons, Appel-Overhauser model 2−87746
Si:Au-SiO_2 MOS struct., Au related. interface states, quasi-static capacitance study 2−72069
Si:H, amorphous, field effect conductance, annealing and light induced changes meas. 2−98750
Si:H, amorphous, Schottky barrier and MOS structs., barrier heights, photoemission study 2−82465
Si:H amorphous MIS struct., Langmuir-Blodgett film 2−87410
Si:N, amorphous CVD film, elec. cond., field effect and gap state density meas. 2−87193
Si/WSi_2($MoSi_2$)-based composite electrodes for MOS-type capacitor structs., elec. props. 2−98752
Si-AlN-Au(Al), interface barrier heights, internal photoemission study 2−82464
Si-MOS structures, interface-state density investigation 2−66653
Si-SiGe/TiO_x/Pt tandem type amorphous solar cells, spectral response width, plasma anal. 2−83487
Si-SiO_2, MOS capacitance, surface pot. and surface states 2−72059
Si-SiO_2, MOS inversion layer, stress induced supercond., electron-phonon coupling 2−56702
Si-SiO_2 interface, Fowler-Nordheim tunnelling 2−82462
Si-SiO_2 interface in MOS struct. positive state generation during Fowler-Nordheim tunnelling 2−77189
Si-SiO_2 interface states, effect of trichloroethylene, C-V measurement techniques 2−72065
Si-SiO_2 interfaces, electron trapping, injection mode dependent phenomena 2−66655
Si-SiO_2 layers in MOS n-p junctions, electrochemical doping with As^+, diffusion coeff., C-V plots 2−66287
Si-SiO_2 MOS interface states, optical excitation by IR light 2−56714
Si-SiO_2 MOS struct., interface charge inhomogeneities, surface photovoltage meas. 2−115899
Si-SiO_2 MOS struct. etched in chloroform RF discharge, charge props. *(Russian)* 2−61592
Si-SiO_2 MOS struct. with $PbTiO_3$ layer, electronic props., laser annealing effect 2−82792
n-Si-SiO_2 MOS structure, interface minority carrier traps, optical DLTS study 2−77186
Si-SiO_2 MOS system, interface state generation 2−87408
Si-SiO_2-Al, oxide ultra thin film growth kinetics, Auger and EELS study 2−87112
Si-SiO_2-Al_2O_3 struct., radiation effects *(Chinese)* 2−92761
Si-SiO_2-metal system, trapping energy distrib. of mobile ions at interfaces, various metal gates *(Chinese)* 2−92765
Si-SiO_2, MOS inversion layer high field electron vel., time of flight technique 2−56704
Si_3N_4 film in MNS struct., carrier conduction, thickness effects 2−66681
Si_3N_4 films, N-rich, composition and elec. cond., MNOS device appls. 2−56743
SiO_2 film, reaction with Al during MIS manufacture, AES and EELS study 2−98474
SiO_2 films, thermally nitrided, MOS characts. 2−61590
SiO_2 MOS struct., current induced trap generation 2−56694
SiO_2 MOS struct., X-ray induced photocurrent, contact injection effects meas. 2−82395
SiO_2 MOS structs., electron trapping, injection mode depend. phenomena 2−56695
SiO_2, NH_3 annealed films for thin-gate insulator in MOS structs. 2−92766
SiO_2, plasma deposition, indirect 2−116383
SiO_2, thermally grown layer, Cl implantation 2−61010
SiO_2-Si interface states and charge generation by electron tunnelling 2−56720
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
p-SnTe, MIS structure, field effect studies 2−104491
SnTe:In film, field effect studies, In effect 2−77210
$TiSi_2$, appls. in MOS technology 2−104501
ZnSe MIS structures, blue electroluminescence and I-V characts 2−61982

metal-insulator transition
see also electrical conductivity transitions; minimum metallic conductivity
alkali halide crystals, Anderson transition in electronic colour centre systems 2−92504
Anderson localisation, finite size scaling approach 2−71929
Anderson localisation, percolation and 1 to 3D crossover, metal insulator transition 2−92470
Anderson mobility edge, crit. props., field theoretic formulation 2−71927
Anderson transition, renormalisation group transform. 2−66493
anisotropic inhomogeneous media, cond. *(Russian)* 2−92558
bis(ethylenedithiolo)-TTF, metal-semiconductor transition suppression, two dimensionality 2−87150
composite thin film, granular, metal-insulator transition 2−66452
correlation and disorder effects 2−71874
$DBTTF_8(MCl_6)_3$, (M=Sn, Pt, Re, Te), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
dilute three-dimensional systems, energy levels, eigenfunction localisation 2−66420
disordered 1-D chain, hopping cond. between localised centres, metal-insulator transition 2−77009
disordered 2-D system, Anderson transition, elec. conductivity, power-law localisation effect 2−61359

metal-insulator transition continued
disordered electronic system, freq. depend. cond. near Anderson transition 2−77135
disordered electronic systems, mobility edge, electron-electron interactions effect 2−71876
disordered systems, crit. behaviour at mobility edge of Anderson model 2−71873
disordered systems, metal-insulator and supercond. transitions, polarisation catastrophe, freq. depend. 2−71869
disordered systems and localisation, conf., Rome, Italy (May 1981) 2−63750
disperse systems, semiconductor-metal phase transition, mixed state and transition hysteresis 2−71870
Falicov-Kimball model, electron hopping 2−98543
Falicov-Kimball model, extended, phase transition, role of d-band width 2−76993
Falikov-Kimball model in absence of random arrangement of localised holes assumption 2−76930
fluoranthenyl cation radical salts, cryst. struct., phase transitions and electrochem. crystallisation 2−71430
fluoroanthenyl radical cation salts—a new family of organic metals 2−92579
Goldstone symmetry violation in incommensurate systems 2−69122
granular materials, resistivity at zero temp. coeff. 2−66600
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
$HMTSF(TCNQ)_x(TCNQF_4)_{1-x}$ solid soln., Mott transition 2−92471
Hubbard model, metal-insulator transition, Fermi surface, Green's function method 2−61360
hybridised bands, narrow and wide, extended Anderson model-based theory 2−82194
inhomogeneous superconductors, resist. transition, heat capacity transition, upper crit. field 2−110523
inversion layers, noise near metal-insulator transition, power spectra meas. 2−66649
localisation and correl. effects 2−115664
metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
mixed conductors, semicond.-metal transition, superionic transition, phenomenological model 2−61529
mixed valence semiconductors, elec. resist. 2−56574
mixed valent systems, phenomenological model 2−66450
one-dimensional conductors, phase diagram, band filling effect 2−98545
one-dimensional conductors, radiation effects on cond., review 2−71496
one-dimensional electron-phonon system, CDW dielec. response in precrit. region 2−110251
one-dimensional lattice, localisation in presence of incommensurate pots. 2−66494
one-dimensional metals, superconducting and insulating phases 2−115738
one-dimensional random chains, hopping cond. 2−87236
ordered systems, localisation, correl. induced metal-insulator transition, Hubbard model 2−71875
trans-polyacetylene:Li film, visible spectra 2−116206
polyacetylene, doped, modulated crystal, excitations near commensurate-incommensurate transition 2−92179
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene derivatives, thermoelec. power studies 2−98681
polyacetylene film, nonuniform doping effect on resistivity, metal-insulator transition 2−104518
quasi 1-D cond., spin density wave effects on nucl. spin lattice relax. 2−93042
random metal-insulator mixtures, percolation processes 2−66453
rare earth trihydrides, RH_3, electronic phase transitions, excitonic insulator model 2−87151
review 2−92472
ruby, Anderson localisation and transition, off-diagonal dipolar interactions 2−87148
ruby, Anderson transition study 2−104254
semiconductor, impurity doped, electron correlations effect 2−115682
semiconductor, n-type, dielectric enhancement near metal-nonmetal transition 2−61361
semiconductors, direct gap, optical absorpt. and refr., complex optical dielec. function 2−93139
semiconductors, doped, impurity band form., multiple scatt. calcs. 2−66482
semiconductors, doped, metal-insulator transition stress depend. 2−110252
semimetal alloy films, quantum size effect and semimetal-semicond. transition, theory 2−82494
TCNQ salt, $(MTPP)_{1-x}(MTPA)_x(TCNQ)_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
TCNQ salt, $(n\text{-propyl})_{1-x}(n\text{-ethyl})_x$ quinolinium $(TCNQ)_2$, charge-transfer organic alloy, metal-insulator transition 2−87239
TCNQ salt, $DMM(TCNQ)_2$, spin-Peierls transition 2−104255
TCNQ salt, HMTTF-$TCNQF_4$, separate donor and acceptor phase transitions, mag. susceptibility meas. 2−110565
TCNQ salt, NMP-TCNQ, mag. Mott insulator-metal transition, Hubbard model, mag. props. 2−76926
TCNQ salt, quinolinium$(TCNQ)_2$, conductivity, freq. and temp. depend. 2−92593
TCNQ salt, trimethylammonium iodide-TCNQ, neutron diffr. study of phase transitions at 150K, 90K 2−76653
$TMTSF_2ReO_4$, metal-insulator transition 2−71867
$(TMTSF)_2AsF_6$, antiferromagnetism 2−66787
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2FSO_3$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
$(TMTSF)_2FSO_3$, dipolar anion effect on mag. and conduct. props. 2−87232
$(TMTSF)_2PF_6$, pure and radiation damaged, magnetotransport and nonlinear effects 2−56555
$(TMTSF)_2PF_6$, radiation damage effect on cond. 2−87243
$(TMTSF)_2ReO_4$, press. depend. of metal-insulator transition and supercond. transition 2−56753
$(TMTSF)_2X$, organic metal and supercond., chemistry and electrocrystallisation 2−55871
$(TMTSF)_2X$, $X=ReO_4^-,PF_6^-$, IR study of charge density waves 2−76951

metal-insulator transition continued
(TMTSF)$_2$X family of organic metals, spin density waves, mag. props. review 2−66893
(TMTSF)$_2$Z, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
TMTSF salt, (TMTSF)$_2$PF$_6$, sound vel. meas. 2−61075
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
TMTSF-DMTCNQ, X-ray irrad., elec. props. of stable metallic phase 2−87145
(TMTST)$_2$X (X=PF$_6$, AsF$_6$, ClO$_4$, etc.), semimetallic SDW state, Hubbard model 2−115736
TMTTF$_8$(MCl$_6$)$_3$, (M=Pt, Hg, Cu), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
(TMTTF)$_2$X, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
(TMTTF)$_2$X family of organic charge transfer salts, supercond. obs. 2−56756
(TMTTF)$_2$X series, phys. props., role of counterion ordering 2−92469
transition metal monosulphides, metal-dielec. phase transition, two-band model 2−71871
(TTF)(SCN)$_{0.57}$, specific heat meas. 2−86902
(TTF)Br$_{0.72}$, specific heat meas. 2−86902
(TTF)Cl$_{0.67}$, specific heat meas. 2−86902
TTF-p-chloranil, neutral-to-ionic transition, optical refl. spectra study 2−110889
TTF-TCNQ, electron irrad. effects 2−103821
TTF-TCNQ, thermoelec. power, press. depend., 4 to 300K 2−92573
TTT complex, TTT$_2$I$_3$, metal-dielectric phase transition temp., dopant effects 2−76927
two dimensional, two component system, galvanomagnetic props., metal-dielec. transition *(Russian)* 2−82309
AgTlTe$_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
Al-Al$_2$O$_3$ films, cluster size distrib. near metal-insulator transition 2−82169
BaVS$_3$, stoichiometric, phase transitions at 240K and 80K, X-ray diffr. study 2−61125
Cd$_x$Hg$_{1-x}$Te, mag. field induced Mott transition *(Russian)* 2−87147
CeH$_x$, valence band and 4f and 3d levels, XPS study 2−77704
Co$_x$Ni$_{1-x}$S$_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
Cu$_{2-x}$S, CDW and struct. transition, X-ray diffr. study 2−92189
FeNb$_3$Se$_{10}$, metal-insulator and CDW transitions correlation, elec. cond. press. depend. study 2−77133
Fe$_3$O$_4$, electronic superstruct. 2−71866
Fe$_3$O$_4$, magnetite, polar Kerr rot., temp. depend., 100 to 300K 2−72457
Fe$_3$O$_4$, mixed valence, elec. cond. below Verwey temp. 2−71968
Fe$_x$V$_{2-x}$O$_4$, semicond.-metal transition, IR spectra, elec. cond. and DTA study 2−87751
GaAs impurity subsystem, metal-insulator transition *(Russian)* 2−71872
n-GaAs, metal-semiconductor transition in strong mag. fields 2−92708
GaAs:Ge(Se), neutron transmutation doped, elec. props., metal-nonmetal transition 2−87284
Ge, photogalvanic piezomagnetic effect *(Russian)* 2−82401
Ge:Sb, temp.-depend. cond. 2−110353
H$_{14}$ rings, metallic and mol., SCF^{14} and CI calcs., transition from metallic to insulating system 2−108405
Hg, dielectric anomaly and vapour-liq. phase transition 2−66192
Hg, gaseous, electron stabilisation of high-density fluctuations 2−86379
Hg, liquid, thermodynamic props., density and elec. cond. in metal-nonmetal transition range 2−61170
Hg-Xe system, metal-insulator transition 2−66451
HgTe, press. induced semicond.-metal transitions, energy band struct. 2−82234
IrO$_x$ film, amorphous nonmetal-crystalline metal transition 2−109980
K$_2$Pt(CN)$_4$Br$_{0.3}$.3D$_2$O, under press., metal-semiconductor transition 2−76929
K$_2$Pt(CN)$_4$Br$_{0.3}$.3H$_2$O, mixed valence state and metal-nonmetal transition 2−56494
K$_{1.75}$Pt(CnN)$_4$.1.5H$_2$O, electronic props. and Peierls transition, polarised refl. study 2−82858
K$_x$Rb$_{1-x}$Au, indirect small gap semiconductor, electronic props. 2−92473
Kr, BCC-FCC allotropy, F-bands and metallisation 2−56185
La$_{2-x}$R$_x$CuO$_4$ (R=Pr, Nd), struct. transitions, elec. props., semicond.-metal transition 2−81949
La$_2$Cu$_{1-x}$Ni$_x$O$_4$, struct. transitions, elec. props., semicond.-metal transition 2−81949
Nb-Cu layered system, conductivity transition 2−110253
NbO$_2$ films, RF sputtered, crystallisation, DTA and elec. cond., semicond.-metal transition 2−104441
Ni$_{1-x}$Cu$_x$S$_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
NiS$_{2-x}$Se$_x$, phase diagram in Ni-rich region, Hubbard model 2−66816
Pb$_{1-x}$Sn$_x$Te:In, band struct. at high In conc., elec. cond. press. depend. study 2−82230
Pb$_{1-x}$Sn$_x$Te:In, semicond.-metal transitions, IR illumination induced dynamics 2−72036
Rb$_3$(H$_3$O)$_{0.5}$[Pt(CN)$_4$](O$_3$SO.H.OSO$_3$)$_{0.5}$.0.8H$_2$O, cryst. struct., elec. cond. 2−91929
Se-Te, liquid, thermodynamic and elec. props., inhomogeneous struct. model 2−98314
n-Si, dielectric enhancement near metal-nonmetal transition 2−61361
Si, shock loaded, structural semicond.-metal transition obs. 2−86792
Si surface (111), electron-photon interaction and metal-insulator transition 2−87358
Si:P, giant dielectric const. near metal-insulator transition 2−87650
Si:P, highly doped, metal-insulator transition, optical and precursive props. 2−72038
Si:P, metal-insulator transition stress tuning at mK temperatures 2−71868
Si:P, metal-insulator transition, minimum metallic cond. 2−98544
Si-Ge, solid soln., press.-vol. relation, covalent-metallic transition 2−82232
Si-Ge solid solns., pressure-induced covalent-metallic phase transition, pseudopot. calc. 2−87149
SmS, pressure-induced elastic softening, elastic const. meas. 2−92075
Sn, epitaxial layer, semicond.-metal phase change, electron microscopy study 2−66666
(TMTSF)$_X$ family of organic charge transfer salts, supercond. obs. 2−56756
Ti$_3$O$_5$, mixed valence, elec. cond. below Verwey temp. 2−71968
Ti$_4$O$_7$, mixed valence, elec. cond. below Verwey temp. 2−71968
TmSe, pressure-induced valence transition, X-ray diffr. study 2−82233
TmSe$_{0.89}$Te$_{0.11}$, mixed valence cpd., mag. and elec. props. 2−56444
UO$_2$, high pressure behaviour, X-ray powder diffr. study 2−56178
(V$_{0.99}$Cr$_{0.01}$)$_2$O$_3$, metal-insulator transition, domain effects 2−76928
VO$_2$ and VO$_2$:Al, IR absorpt. 2−104879
VO$_2$ film metal-semicond. phase transition, laser resonator Q-switching 2−90952
Xe,liq., shock compression to 130 GPa 2−66130
Xe, BCC-FCC allotropy, F-bands and metallisation 2−56185
Xe, FCC, electron press., self consistent relativistic LMTO calcs. 2−92499
Xe, solid, optical absorpt. edge at very high press., rel. to metallisation 2−110244
ZnSe, exciton-plasmon Mott transition 2−56443
metal-oxide-semiconductor devices *see metal-insulator-semiconductor devices*
metal-oxide-semiconductor field effect transistors *see insulated gate field effect transistors*
metal-oxide semiconductor structures *see metal-insulator-semiconductor structures*
metal-semiconductor boundaries *see semiconductor-metal boundaries*
metal semiconductor field effect transistors *see Schottky gate field effect transistors*
metal-semiconductor-metal structures
LF admittance behaviour *(Russian)* 2−66658
Ag-Bi$_{12}$TiO$_{20}$-Al, local levels in forbidden band of Bi$_{12}$TiO$_{20}$ 2−71899
Ag$_3$AsS$_3$ and Ag$_3$SbS$_3$ based metal-semiconductor-metal systems, dynamic I-V and transient charact., charge transport mechanism 2−92779
Al/amorphous Se/Al struct., capacitance and photocapacitance, time depend. meas. 2−56724
Al- amorphous Si-Ni(Au) struct., tunnelling characteristics meas. 2−66657
Al-Si-Ti structure, use of Ti thin layers to retard reaction of Al with Si 2−71737
Au-phthalocyanine-Au struct., current-voltage characteristics with injecting and blocking contacts 2−72077
CdTe MSM and MISIM radiation detectors, elec. field intensity distrib. 2−77200
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
V$_2$O$_5$-P$_2$O$_5$ glass, metal-semicond.-metal struct., dielec. depolarisation currents and loss meas. *(Russian)* 2−61612
metal theory
see also band structure of crystalline metals and alloys; electron gas; lattice dynamics of metallic crystals
acoustic plasmon formation conditions 2−76953
Auger spectra, intensity distrib. *(Russian)* 2−77631
bimetallic interface, surface plasmons, non-existance of hydrodynamic soln. 2−72052
core polarisabilities 2−99026
core-hole Green's function, dispersion theory 2−82267
current rectification effect, anomalous skin effect *(Russian)* 2−82391
direct generation of ultrasound by EM radiation 2−104409
dislocation-induced elec. resist. rel to antiferromag. ordering at dislocations *(Russian)* 2−104360
disordered systems, cond., temp., mag. field, and freq. depend. 2−98608
dynamic electron-electron Coulomb correlations, direct evidence 2−56452
elastic moduli and sound velocity, quantum oscillations in mag. field, theory *(Russian)* 2−116042
electrical resist., local phonon modes effect 2−82336
electron energy in field of periodic perturbing pot. *(Russian)* 2−61332
electron liquid, dynamic structure factor 2−82263
electron liquid, dynamic structure factor 2−82264
electron relax. time under acoustic phonon scatt. in quantising mag. field *(Russian)* 2−66533
electron-electron scatt. resist., sample depend. 2−82337
electronic surface props., propagation matrix method, Schrodinger eqn. soln. 2−82438
equation of state of metals at Earth core conditions 2−117300
ferromagnetic, magnetic susceptibility, quantum oscillations in mag. field, theory *(Russian)* 2−87479
films, electron liquid, quantum waves, resonance approx. *(Russian)* 2−87414
hot electron inelastic scatt. by opt. phonons, Fermi surface shape, theoretical anal. *(Russian)* 2−61477
impure metals, phonon spectrum calcs. *(Russian)* 2−92130
impurity state, muffin-tin pot. for impurity, Friedel theory and Anderson model *(Japanese)* 2−82271
incommensurate charge density wave phase-amplitude instabilities 2−115683
interatomic correls. of valence electrons, Hubbard model 2−110274
interstitial quantum tunnelling at low temp. 2−115468
irradiated metals, defect clusters, generation rate, distrib. profile 2−98079
jellium, effective interactions including exchange 2−71894
liquid and solid, eqn. of state and struct., mol. dynamics study using model pseudopot. 2−71606
localised dynamic perturbations in metals, fermion versus boson description 2−82193
magnetoresistance, transverse, Kondo effect in quantising mag. field, theory *(Russian)* 2−115730
magnetoresistance of mixed valent Tm impurities 2−87229
metal-insulator transition, localisation and correl. effects 2−115664
metal-metal interface, electron transmission coeff. 2−92731
noble metals, electronic props., one parameter model pot. 2−61331
nonequilibrium current fluctuations, irreversible thermodynamics 2−84584
nonferromagnetic metals, elec. resist., temp. depend., 70 to 300K *(Russian)* 2−82315
one-dimensional interacting Fermi system with mag. impurities, magnetisation curve 2−82658
one-dimensional metals, thermopower calc. 2−71951
open Fermi surface, sound pulse propagation *(Russian)* 2−61078
open-orbit effects in thermal magnetoresistance 2−104346
plate, thin, low-temp. cond., surface scatt., temp. and thickness depend., size effects *(Russian)* 2−66616
point defects, electronic props., review 2−92519
rough surface, effect of spatial dispersion on classical field enhancement factors 2−104462
self-diffusion entropies and activation volumes 2−71701
simple metals, electron-electron interactions 2−87134

metal theory continued
simple metals, face dependent surface props. 2−98721
simple metals, interionic interactions model, elastic consts. and phonon spectra calc. 2−81711
superconductive superlattices, critical prop. singularities 2−104530
surface, phonons and collective excitations, hydrodynamic model 2−104138
surface, pressure distrib., density functional theory 2−77146
surface, randomly rough, elec. field enhancement, surface enhanced Raman scatt. 2−87790
surface Bernstein modes 2−82420
surface bound portions, theory of desorption 2−87195
surface electrodynamics, elect. field generation by oscill. dipole polarisation of surface 2−56655
surface electrons, book contrib. 2−66615
surface exchange energy, wave vector fluctuations 2−72049
surface positron binding calcs. 2−98707
surface scatt. effects on resist. 2−104361
symmetric Anderson model *(Russian)* 2−56808
total energy calc. method 2−71898
transition metal, correlation energy 2−87165
transition metal, electronic structure model using mag. state and electron occupancies correl. 2−104237
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
transition metals, electron-electron interactions 2−87134
transition metals, group III, electron energy absorption spectrometry *(German)* 2−113084
transition metals, ionic potentials calc. from resonance model, S-matrix theory appl. 2−76879
transition metals, total energy computation by model electron density functional 2−61384
two-dimensional metal, quantum Hall effect, impurity and edge effects 2−61446
vacancy migration, trapping and clustering by γ-ray spectra 2−56996
weak anti-localisation in presence of spin-orbit coupling 2−92601
work function of metals, relation between theory and expt. 2−92728
XPS and Auger energy shifts for metallic elements, density functional calcs. 2−93370
Li, total energy calc. method 2−71898
Nb:H_2, ultra small angle X-ray and neutron scatt. 2−86521
V:H_2, ultra small angle X-ray and neutron scatt. 2−86521

metal vapour lamps
see also mercury vapour lamps
HID lamps nonequilibrium vaporization effects during warmup 2−95436
Sn/Na halide lamps in ceramic envelopes, characts. features 2−95437
K-Rb pumping lamps, expt. study *(Chinese)* 2−91014
Na, high pressure illuminants, perception of object colour 2−99975
Na vapour lamp, high press., reson. radiat. on power calc. 2−75643
U hollow cathode discharge and atlas, optogalvanic effect for pulsed laser wavelength calibration 2−71270

metallic epitaxial layers
Ni-monolayer on Cu (111), LEED study using reliability (R) factors 2−110116
review of growth and struct. on metal substrates 2−110187
Ag, epitaxial growth on mica, previous substrate heat treatment effects, RHEED study 2−93428
Ag epitaxial layers, inner potential meas. 2−92725
Ag MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
Ag VPE growth on Ag(Cu), Auger line shape anal. 2−110186
Ag/Au epitaxial system, initial stages of growth, LEED study 2−92404
Ag-Au epitaxial system, LEED spectra, influence of ion-core scatt. 2−86525
Ag-GaAs (001), Ag MBE growth and interfacial diffusion, AES, LEED and SEM study 2−93432
Al, epitaxial growth on polycryst. Si surface, micro-probe RHEED study 2−61308
Al MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
Au 2−110193
Au epitaxial clusters, struct. and shape 2−110183
Au epitaxial film, elec. resistivity meas. 2−87416
Au epitaxial film, short support free, residual resist. determ. from current-voltage curves *(German)* 2−72080
Au epitaxial layers, inner potential meas. 2−92725
Au, epitaxially evap. film, texture anal. and pole figure determ. using TEM *(German)* 2−111448
Au film, epitaxial growth on pure and doped NaCl and KCl substrates 2−115621
Au film on Pd(001) expt. evidence for nucleation of partial dislocations 2−71455
Au films, high-angle tilt boundary faceting, electron microscopy study *(Russian)* 2−87093
Au particles vacuum deposited onto AgBr films, habit 2−110194
Au/Cr/Au epitaxial metal film sandwiches, supercond. transition temp. 2−87440
$CoSi_2$ epitaxial films, Ar-ion implanted, elec. and struct. props. 2−87413
$CoSi_2$-Si interface, lattice imaging 2−115609
$CoSi_2$-Si system, epitaxy, effects of nucleation and growth 2−115610
Cr, on W (110) face, adsorbed O and Cs effect on work function, two-stage oxidation phenomenon *(Russian)* 2−61298
Cu epitaxial layers, inner potential meas. 2−92725
Cu, VPE growth on Cu, Auger line shape anal. 2−110186
Cu/Cr epitaxial film, ion mixing during RF sputtering deposition 2−82161
Fe epitaxial growth on W(110), periodic lattice distortions, LEED and Auger study 2−82170
Nb-Ta single cryst. superlattices, MBE growth, HEED study 2−82166
Ni-Cu misfit boundaries, grown-in dislocation generation during 3D nucleation and growth 2−103772
$NiSi_2$ epitaxial films, Ar-ion implanted, elec. and struct. props. 2−87413
$NiSi_2$-Si interface, lattice imaging 2−115609
Pd_2Si epitaxial films, Ar-ion implanted, elec. and struct. props. 2−87413
Pd_2Si films, formation temp. dependence of resistivity 2−82484
Sn film, graphoepitaxial electrodeposition, expt. study 2−87083
Ti-Ag layered crystals, VPE synthesis, soft X-ray monochromator appl. 2−83040
Tl epitaxial growth on Cu(100), LEED, AES, UPS and EELS studies 2−56398

metallic glasses
amorphous metal ribbon reinforced resin matrix composite, mech. props. 2−57410
binary, diffuse X-ray and neutron scatt., chem. short range order 2−55858
binding energy of metalloid atoms in transition metals 2−91806
cold drawing and intrinsic ductility 2−111201
commutative model of tunnelling states 2−115646
commutative model of two-level systems 2−92920
composite, metal matrix, fabrication feasibility using vac. hot pressing 2−99372
crystalline embryo model 2−97927
crystallisation, positron annihilation study 2−104989
directional ordering study 2−87555
electrical resistance, low temp., evidence for correlation effects 2−77017
$Fe_5Co_{70}Si_{15}B_{10}$ ($Fe_{40}Ni_{40}P_{14}B_6$), glassy, free vol., positron annihilation study 2−104987
ferromagnetic, anomalous eddy currents, magnetoelastic effects 2−116047
fibre-optic magnetic-field sensors employing metallic glasses 2−95415
field evaporation events as Markov chains, time of flight atom probe study 2−93381
formation in hammer and anvil apparatus, cooling rates 2−67239
fusion reactor materials, pot. for using rapid solidification for improved irrad. performance 2−108107
hyperfine field distrib. and struct. 2−103643
hyperfine fields, review 2−104324
irreversible magnetising properties in amorphous and crystalline material, propag. props. 2−87539
local struct., Mossbauer and X-ray diffr. study 2−103645
local structure theory and expt. data review 2−103631
mag. domain struct. under elastic stresses 2−82634
magnetic phase diagrams of glassy $(A_xB_{1-x})_{75}P_{16}B_6Al_3$ alloys, A and B=Fe, Co, Ni, Mn or Cr 2−92931
magnetic structure, polarised neutron scatt. studies 2−104579
magnetomechanical props., model 2−77354
melt spinning parameters and ribbon geometry 2−116405
melt-spinning process, Kavesh's model of ribbon form. 2−93467
Metglas ribbon reinforced epoxy, impact resist. 2−111270
Metglass 2826, Z 2−99527
multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
near-eutectic alloys, based on U, Np or Pu, formation 2−72651
non-commutative model, systematic perturbation calc. 2−115733
plastic deform. near glass transition, amorphous soap bubble raft model 2−98391
positron annihilation expts., review 2−104986
powder prep. by H_2 charging 2−93474
preparation, props., struct. and appls., review 2−97930
rare earth amorphous alloys, cryst. elec. field and local symm., mag. props. 2−72170
resonant electron scatt. 2−61437
review, of applications *(Hungarian)* 2−104558
ribbon, plate wave velocity and attenuation, mag. field depend. 2−77350
ribbons, spin texture, Mossbauer study 2−104757
strain localisation, inhomogeneous flow 2−56069
structural relaxation in amorphous alloys by ferromag. reson. with spin exchange 2−87598
structural stability, using pseudopot. formalism 2−65863
structural studies by positron annihilation, review 2−103646
tape, ferromag., localized struct. variation detection by acoustic emission 2−71361
thermal oxidation kinetics 2−67621
thermal transform., composition effects, DSC obs. 2−81962
transition metal-metalloid glasses, atomic radii, radial distrib. function 2−65871
$Au_{55}Pb_{22.5}Sb_{22.5}$, metallic glass spheres, prep. and surface characteristics 2−55851
B-Fe(Ni), phase comp. and cryst. struct. meas. 2−88055
$B_{20}Fe_{40}Ni_{40}$, metallic glass, He ion irrad., sputtering and blistering 2−76521
$Bi_{0.7}Sb_{0.3}$ amorphous film, crystn. under gaseous He stream, T≤4.2K *(Russian)* 2−115586
$Ca_{1-x}Al_x$ metallic glass, elec. cond. 2−98612
Ca_xAl_{1-x}, electronic struct., photoemission and soft X-ray spectra 2−104234
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
Co amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co-B, phase comp. and cryst. struct. meas. 2−88055
Co-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
Co-Fe-Si-B amorphous ribbons, with induced mag. anisotropy, influence of applied tensile stress on power loss 2−82686
Co-Si-B with and without group IV-VIII transition metals, amorphous wire prod. by melt spinning into rotating water, mech. props. 2−105104
Co-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
Co-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
$Co_{1-x}B_x$ metallic glass, struct., neutron diffr., Mossbauer and EXAFS study 2−103640
$Co_{100-x}B_x$ metallic glasses, structural investigation 2−86571
$Co_{70.3}Fe_{4.7}Si_{15}B_{10}$, amorphous, crystn., Mossbauer and X-ray diffr. study 2−103636
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ ribbons, domain pattern annealing effect 2−92978
CoP, ion implanted, elec. resistivity and channelling studies 2−104337
$Co_{90}Zr_{10}$ and $Co_{36}Zr_{94}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Co_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
Cr-bearing, N as potential alloying element 2−83078
Cr-Ni (45 wt.%) film, amorphous sputtered, crystn. 2−110211
Cu Zr metallic glasses, electronic density of states, cluster calc. 2−71848
Cu-Ag, amorphous films with high stability 2−104196
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
Cu_{40} Zr_{60} metallic glass, elec. resist. as function of press. and temp. 2−56547
$CuZr_2$, electronic density of states for cryst. and amorphous phases 2−76909
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688

metallic glasses continued
$Cu_{50}Zr_{50}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Cu_{57}Zr_{43}$ amorphous alloy, EXAFS spectra meas. and calc. 2−99222
$Cu_{60}Zr_{40}$, amorphous, initial quench effect on thermal behaviour 2−91813
$Cu_{60}Zr_{40}$, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
$Cu_{60}Zr_{40}$, bend testing, heat treatment effect on mech. props. 2−88322
$Cu_{60}Zr_{40}$ glass, electronic struct. 2−104236
$Cu_{68}Zr_{32}$, amorphous, elastic moduli, hardness and density 2−99472
Cu_xZr_{1-x} ($25 \leq x \leq 70$) metallic glasses, crystn. charcts. 2−97928
Cu_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
$Eu_{80}Au_{20}$ and $Eu_{60}Yb_{20}Au_{20}$, amorphous, Mossbauer study 2−82757
Fe alloy, friction glazing, surface melting interpret. of white etching areas 2−67550
Fe amorphous alloys, industrial appl. *(Japanese)* 2−77325
Fe-B, amorphous, elastic moduli, hardness and density 2−99472
Fe-B alloy, amorphous, heat treatment conditions influence on crystn. and struct. *(Russian)* 2−65868
Fe-B alloy, quenched from liq state, crystn., microstruct. and hardness 2−111166
Fe-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-B metallic glass ribbons, mag. hyperfine field distrib., Mossbauer study 2−104763
Fe-B metallic glasses, comparison of struct. meas. 2−91807
Fe-B metallic glasses, crystn., calc. and calorimetric meas. 2−71369
Fe-B metallic glasses, rare earth additives, mag. props. study 2−87498
Fe-B metallic glasses, secondary ion emission, sensitivity by factors, matrix effect 2−99289
Fe-B metallic glasses, transition metal substituted, mag. props. and thermal stability 2−87497
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-B-Si, form. and mag. props. 2−103648
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-B-Si metallic glass, crystn. kinetics, DSC study 2−71364
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-B-Si-C(Co), Metglas 2605, magnetostriction and mag. anisotropy, meas. using magnetisation loops under stress 2−77352
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
Fe-B-Si(Cr) metallic glass ribbon, elec. resist. free volume depend. 2−110322
Fe-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
Fe-Cr-Al-P-C alloys, amorphous corrosion resist. 2−78016
Fe-Cr-B amorphous Invar alloy, Curie temp. and high field susceptibility, press. effects 2−72322
Fe-Ni-B based amorphous ferromags., aging effects on mag. props. 2−98909
Fe-Ni-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
Fe-Ni-Mo-B, annealed, phase transforms 2−67302
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-Ni-P-B based metallic glasses, Mossbauer study under press. 2−72385
Fe-P-C amorphous wires, prod. by in-rotating-water spinning, mech. props. 2−57317
Fe-P-C metallic glass ribbons, mag. hyperfine field distrib., Mossbauer study 2−104763
Fe-Si-B amorphous wires, produced by in-rotating-water spinning method, mech. props. 2−111233
Fe-Si-B metallic glasses, substituted, saturation magnetisation 2−87481
Fe-Sn metallic glass, struct., forming ability and elec. cond. 2−103653
Fe-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
$Fe_{1-x}B_x$, amorphous, electronic struct. 2−66427
$Fe_{1-x}B_x$, amorphous, spin waves, inelastic neutron scatt. study 2−72179
$Fe_{1-x}B_x$ glass, crystn. kinetics, Mossbauer and DSC study 2−103632
$Fe_{1-x}B_x$ metallic glass, atomic struct., Mossbauer study 2−103639
$Fe_{100-x}B_x$, metallic glass, electrochem. corrosion and Mossbauer spectra, composition and processing parameters effects 2−93640
$Fe_{100-x}B_x$, metallic glasses, hyperfine fields and local environment 2−104320
$Fe_{80}B_{20}$ alloy glass, partial radial distrib. functions calc., X-ray and neutron diffr. 2−91814
$Fe_{80}B_{20}$, amorphous, aging effects on mag. props. 2−98909
$Fe_{80}B_{20}$, amorphous, crystn., annealing, elec. resist. meas. 2−55853
$Fe_{80}B_{20}$, amorphous, electronic props., struct. related effects, EELS study 2−67163
$Fe_{80}B_{20}$, amorphous, irradiated, structural relax. 2−55864
$Fe_{80}B_{20}$, amorphous alloy, ion irrad. effects, conversion electron Mossbauer spectra study 2−61043
$Fe_{80}B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{80}B_{20}$, response to irradiation with 800 MeV protons 2−80188
$Fe_{81}B_{19}$, metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
$Fe_{82}B_{18}$, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
$Fe_{84}B_{16}$, amorphous, mag. excitations, neutron diffr. study 2−115992
$Fe_{85}B_{15}$, amorphous, struct. and crystn. study by Mossbauer spectroscopy *(Russian)* 2−93075
Fe_xB_{1-x}, amorphous, magnetization and magnetoresist. in high mag. fields 2−61740
Fe_xB_{100-x}, amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
$Fe_{82}B_{18-x}Be_x$, ferromagnets, Auger CVV spectra as probe of electronic struct. 2−76906
$Fe_{84}B_{16-x}C_x$, glassy, crystallisation, magnetisation 2−55862
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{21}B_{19})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$Fe_{78}B_{20}Mo_2$, amorphous, crystn., annealing, elec. resist. meas. 2−55853
$(Fe_{0.82}B_{0.18})_{0.9}R_xLa_{1-x}$ (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er), amorphous, exchange interactions 2−72185
$Fe_{81}B_{14}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
$Fe_{81}B_{14}Si_4$, metallic glass, struct. relax., effect of quench rate 2−81683
metallic glasses continued
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
$Fe_{81}B_{13.5}Si_{3.5}C_2$, amorphous, Mossbauer study 2−99013
$Fe_{81}B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
$Fe_{83}B_{14}Si_{1.5}C_{1.5}$, metallic glass, crystn. kinetics study using thermoelec. power meas. 2−86575
$Fe_{80}B_{15}Si_{5-x}Ge_x$, amorphous, Curie temp. and crystn. behaviour 2−87496
$Fe_{82}Bi_{12}Si_6$, Metglas, ferromag. reson. absorpt. and ferromag. antireson. transmission meas. 2−72353
$Fe_{80-x}Co_xB_{20}$ ($Fe_{80-x}C_xB_{20}$), amorphous, crystn., Mossbauer study 2−103633
$(Fe_xCo_{1-x})_{78}B_{22}$ and $(Fe_xCo_{1-x})_{72}Si_2B_{26}$ glasses, ^{57}Fe substitution effects, Mossbauer study 2−110738
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study 2−72376
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$(Fe_{0.063}Co_{0.937})_{75}Si_{15}B_{10}$, amorphous, zero-magnetostriction induced mag. anisotropy, formation kinetics meas. 2−72189
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous struct., X-ray diffr. study 2−65866
$Fe_{4.7}Co_{70.3}Si_{13}B_{10}$, amorphous zero magnetostriction alloy, mag. aftereffect 2−72290
$(Fe_{1-x}Co_x)_{90}Zr_{10}$ amorphous alloys, mag. induced anisotropy meas. 2−92896
$Fe_{80-x}Cr_xB_{14}Si_6$, amorphous, magnetoresist. mag. props. 2−71947
$Fe_{74}Cr_6P_{10}C_7Si_3$, amorphous, appearance pot. spectroscopy, electronic struct. effects 2−105005
$Fe_{80}M_3B_{17}$ amorphous alloy, (M=transition metal), mag. and stress annealing 2−87554
$Fe_{80}M_3B_{17}$, M=transition metal, metallic glass, Mossbauer and corrosion studies 2−104769
$Fe_{80}M_3B_{17}$ metallic glasses, (M=transition metal), mag. after-effect meas. 2−87549
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe_{78}Mo_2B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$(Fe_{93}Mo_7)_{80}B_{10}P_{10}$, amorphous, mag. excitations, neutron diffr. study 2−115992
$(Fe_{1-c}Mo_c)_{75}P_{16}B_6Al_3$, amorphous, anomalous crit. behaviour, random anisotropy effects 2−72232
$(Fe_{1-x}Ni_x)_{75}B_{25}$, amorphous, magnetisation and crysts. 2−72266
$Fe_{40}Ni_6B_{20}$, diffusion rates of Au 2−104057
$Fe_{40}Ni_{40}B_{20}$, amorphous, in-core, reactor irradiated, props. 2−102047
$Fe_{40}Ni_{40}B_{20}$, amorphous, neutron irrad. and annealed density changes 2−109850
$Fe_{40}Ni_{40}B_{20}$, $Co_{75}Fe_5B_{15}Si_5$ and $Co_{55}Fe_5Ni_{20}(SiB)_{20}$, amorphous, crystn. in RF mag. field, Mossbauer study 2−103634
$Fe_{40}Ni_{40}B_{20}$, metallic glass, short-range ordering during structural relax. 2−71359
$Fe_{40}Ni_{40}B_{20}$, metallic glass, rel. between struct. relax. and sp. ht. 2−72750
$Fe_{40}Ni_{40}B_{20}$, metallic glass, Vitrovac 0040, crystallisation, TEM obs. 2−116474
$Fe_{40}Ni_{40}B_{20}$, surface conditions influence in mag. props. 2−82593
$Fe_{60}Ni_{20}B_{20}$ amorphous alloys, influence of heating on mag. props. 2−87535
$Fe_{80-x}Ni_xB_{20}$ ($Fe_{80-x}Ni_xP_{14}B_6$), amorphous, magnetoresist. mag. props. 2−71947
$(Fe_xNi_{1-x})_{80}B_{20}$, glass, mag. props. and crystn., Mossbauer study 2−104754
$Fe_{10}Ni_{70}B_{16}P_4$, amorphous, mag. phase transition, magnetisation and DC susceptibility meas. 2−56857
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, Metglas, heat treatment effect on internal friction 2−62151
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, thin passive films, comparison of AES and XPS anal. 2−78004
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, metallic glass, mag. hyperfine field distrib., Mossbauer study 2−87640
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$ metallic glass, crystn., hardness and tensile deformation meas. 2−91784
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, amorphous and polycryst., He ion bombardment 2−103856
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$ metallic glass, hydrogen embrittlement 2−116599
$Fe_{32}Ni_{36}Cr_{14}P_{12}P_6$, amorphous, Mossbauer study under press. 2−72385
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, elastic moduli, hardness and density 2−99472
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, ion implantation, He bubble and blister formation 2−115314
$Fe_{40}Ni_{38}Mo_4B_{18}$, crystn., TEM study 2−65867
$Fe_{40}Ni_{38}Mo_4B_{18}$, metallic glass, struct. evolution during crystallisation 2−109682
$Fe_{40}Ni_{38}Mo_4B_{18}$ metallic glass ribbon, elec. resist. free volume depend. 2−110322
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, ferromag. phase transition, mol. field theory 2−72225
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous activation energy of crystallisation 2−81681
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, press. distrib. under compression to 250 kbar, fluorescence study 2−83171
$Fe_{40}Ni_{40}P_{14}B_6$ amorphous mag. alloys, correlation between power loss and viscosity field 2−87523
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous films, STEM obs. of crystn. 2−109688
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass ribbons, P conc. meas. using neutron generator *(Russian)* 2−99742
$Fe_{40}Ni_{40}P_{14}B_6$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{40}Ni_{40}P_{14}B_6$, Metglas 2826, crystn. kinetics, effect of tensile stress 2−103652
$Fe_{40}Ni_{40}P_{14}B_6$, response to irradiation with 800 MeV protons 2−80188
$Fe_{40}Ni_{40}P_{16}B_4$, amorphous, electron state of Fe *(Russian)* 2−76905

metallic glasses continued
$Fe_{80-x}Ni_xP_{20-y}B_y$, amorphous ferromag. alloys, mag. aftereffect spectra 2−56894
$Fe_xNi_{80-x}P_{14}B_6$, amorphous alloy, mag. props. study, phase diagram 2−110580
$Fe_xNi_{80-y}P_{14}B_6$, ESR study in reentrant phase 2−72331
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
$Fe_{40}Ni_{40}Si_{14}$ $(P_{14})B_6$ metallic glass, positron annihilation, electron irrad. and heat treatment effects 2−104992
Fe_xP_{1-x}, amorphous, electronic struct. 2−66427
$Fe_{75}P_{15}C_{10}$, amorphous, mag. excitations, neutron diffr. study 2−115992
$Fe_xPd_{83-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
$Fe_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
$Fe_{75}Si_xB_{25-x}$, glass, crystn., Mossbauer study 2−103637
$Fe_{80-x}W_xB_{14}S_6$, amorphous, magnetoresist. mag. props. 2−71947
$Fe_{90}Zr_{10}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Fe_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
$Gd_{80}Au_{20}$, amorphous, Mossbauer study 2−82757
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
H, solubility, diffusivity and trapping 2−81964
Hf-Nb-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
$La_{0.8}Al_{0.2}$, amorphous, fracture surface morphology *(Russian)* 2−99518
$La_{100-x}Al_x$, amorphous, supercond. transition temp. press. depend. 2−115932
MgCa, metallic glass, struct. stability 2−65863
$Mg_{0.7}Zn_{0.3}$ metallic glass, nearly free electron energy bands, pseudopot. formalsm 2−71855
$Mg_{70}Zn_{30}$, amorphous, crystn., positron annihilation, X-ray diffr. and elec. resist. study 2−103635
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
$(Mo_{0.60}Ru_{0.40})_{100-x}B_x$ metallic glasses, low temp. sp.ht. 2−104019
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., characts. 2−87104
N as potential alloying element 2−83078
Nb-Si, shock synthesis by gun method 2−77769
$Nb_{55}Rh_{45}(Nb_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
$Nb_{81}Si_{19}$, amorphous, crystn. under high press. and form. of A15 phase 2−86572
Ni-Al-Co(Cr)(Fe)(Mn)(Si) $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-B alloy glasses, positron annihilation, comparison with Compton scatt. 2−104991
Ni-Cr alloy film, amorphous, struct. and crystn. 2−55863
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
Ni-P, polymorphism rel. to processing conditions, Knight shift meas. 2−91811
Ni-P amorphous alloys, resist. meas. rel. to prep. 2−92561
Ni-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
$Ni_{80}B_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
$Ni_xFe_{80-x}B_{20}$ metallic glass, surface B composition, $^{10}B(n,^4He)^7Li$ nuclear reaction meas. 2−104121
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
$(Ni_{0.93}Fe_{0.07})_{80}P_{10}B_{10}$, amorphous, magnetization, annealing influence 2−104660
$Ni_{60}Nb_{40}$ glass-metal matrix composite, fabrication feasibility using vac. hot pressing 2−99372
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
NiP, ion implanted, elec. resistivity and channelling studies 2−104337
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
$Ni_{82}P_{18}$, amorphous, ion implanted, TDPAC study 2−104771
$Ni_{39.9}Pd_{21.8}P_{18.3}$, H in amorphous alloys 2−81963
$Ni_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
$NiZr_2$, diffusion rates of Pb, Pt and Au, pretreatments effect 2−71726
$Ni_{33.3}Zr_{66.7}$, diffusion rates of Au 2−104057
$Ni_{64}Zr_{36}$, diffusion rates of Au 2−104057
Ni_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
Pd-Ge, glassy and cryst., electronic struct., AES and XPS study 2−82213
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
$Pd_{76}Au_6Si_{18}$, DSC, relax. and struct. change 2−65864
$Pd_{77.5}Cu_6Si_{16.5}$, diffusion rates of Au 2−104057
$Pd_{77.5}Cu_6Si_{16.5}$, H in amorphous alloys 2−81963
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
Pd_4Ge, metallic glass, crystn. kinetics 2−81682
$Pd_{0.4}Ni_{0.4}P_{0.2}$, amorphous, US attenuation, 0.3 to 2K, temp. and freq. depend. 2−56098
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
Pd_xSi, metallic glass, multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
$Pd_{80}Si_{20}$, radiation damage by heavy ions 2−103853
$Pd_{80}Si_{14.8}Cu_{5.2}$ eutectic, laser beam interaction 2−99435
$Pd_{30}Zr_{70}$ metallic glass, elec. resist. as function of press. and temp. 2−56547
Pd_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
$(Pr_{80}Ga_{20})_{100-x}Fe_x$, mag., Mossbauer, and struct. studies 2−72270
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Sb-Zn, amorphous, form. and crystn. 2−76322
$Ta_{55}Rh_{45}(Ta_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
YFe_2, amorphous, melt-spinning prep., mag. props. 2−72267
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526
metallic glasses continued
$Zr_3Pd(Rh)$ amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

metallic thin films
see also discontinuous metallic thin films; electronic conduction in metallic thin films; metallic epitaxial layers; metallic glasses; metallisation
AES, composition depth profiling, depth depend. of depth resolution 2−105013
alloy films, RF sputter deposition 2−99334
amorphous phase form. by mol. beam condensation, prep. and struct., review *(Russian)* 2−56381
anomalous magnetoresistance anal. 2−77205
Auger and ATR spectroscopy and electrical resistance meas. for investigating metallic surfaces 2−72078
binary alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
chemically deposited, struct., precipitation etching *(German, English)* 2−116663
cluster heterogeneous nucleation on cleavage steps, theory 2−86832
Co, electrocrystallisation during deposition of mag. thin films *(Russian)* 2−77761
constantan film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
cube corner prisms, metal coated, polarisation props. 2−102905
deposition, planar magnetron characteristics at high power input 2−57291
disordered, resistance, weak localisation and dimensional crossover 2−110497
disordered system, nucl. spin relax. rate 2−104735
electrodynamic props., cyclotron reson. *(Russian)* 2−56945
electromigration failure, simple estimate 2−56268
electron liquid, quantum waves, resonance approx. *(Russian)* 2−87414
ferromagnet, spontaneous Hall coeff. 2−110331
ferromagnetic, EM wave transmission impedance calc. *(Russian)* 2−87556
Hall coefficient, general expression 2−92781
heating by laser beam pulses of metal film-semicond. system 2−93332
interactions of metal films on semiconductors, book contrib. 2−61213
interdiffusion on GaAs and InP, book contrib. 2−61215
ion beam technology applied to deposition process 2−57304
ion plating on plastic substrate 2−116386
laser induced formation of submicron holes 2−66046
layer contact system, diffusion-induced boundary migration during heating 2−86952
local phonon density of states and its influence on supercond. props. 2−56321
low loss surface imaging STEM studies 2−110181
magnetoresistance, longitudinal, of films and wires, quasiclassical kinetic eqns. 2−61615
magnetoresistance, longitudinal, size effect calc. *(Russian)* 2−98763
metal-C films, graded index, solar absorbing, prod. by dual cathode sputtering 2−99335
metal-semiconductor interface interaction studied by soft X-ray photoemission spectroscopy 2−110051
metallic foils, high-speed casting by double-roller quenching technique 2−99370
optical characteristics rel. to damping length for surface EM wave 2−87724
photodeposition by UV laser light 2−77751
photodeposition of metal films with ultraviolet laser light 2−92395
polycrystalline, optical refl. and elec. resist., effect of grain boundary scatt. 2−99205
polymer-metal interface chem. interactions, correlation with adhesion 2−78132
quantitative analysis method using X-ray fluorescence *(French)* 2−73037
reflective coating, failure by cracking 2−61319
resistivity and temp. coeff. of resist., transient hot strip method 2−110500
secondary ion emission, fission fragment induced 2−99244
semiconductor-metal interface chem. reaction and diffusion 2−86954
semicontinuous films, elec. resist., growth and nucleation, computer simulation 2−92784
simultaneous X-ray EDS meas. of thickness and composition *(Chinese)* 2−109630
standing spin wave reson. with variable driving field symm. 2−93014
surface covered by soft metal film, friction between single protuberance and surface 2−88203
thin film, neutralisation of 50-230 keV H ions 2−111015
thin films, diffusion-induced grain boundary migration 2−71735
thin plate, Sondheimer effect in multichannel electron reflection by surface 2−104508
transparent cond. film, planar magnetron sputtering 2−105074
tubular collectors, evacuated, solar-selective absorber foils bonding 2−111588
ultrathin films on piezoelectric substrate, secondary acoustoelectric current 2−66594
UV laser photodeposition, nucleation mechanism study 2−105067
vacuum condensed, texture form., ion beam induced 2−115601
volume EM, surface polaritons and SAWs, theory of three-wave mixing 2−82937
Ag colloid, form. on float glass surface by heat treatment, optical props. 2−92398
Ag deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Ag evaporated film, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
Ag evaporated films, surface morphology under anodic and cathodic load and during ageing 2−98504
Ag film, bicryst., gas bubble growth 2−115607
Ag film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
Ag film, growth on Pd, AES and electron microscopy study *(French)* 2−71839
Ag film, ion beam epiplantation on Si 2−116389
Ag film, surface photoemission in 4d band 2−87952
Ag film, void growth 2−115606
Ag film, volume EM, surface EM and SAWs, three-wave mixing 2−82936
Ag film on Al substrate, differential reflectivity, nonlocal electrodynamics 2−87884

metallic thin films continued
Ag film on GaAs {001}, Auger lineshape variation during epitaxial growth 2−87916
Ag films, clean and adsorbate-covered, optical spectra 2−87890
Ag films, struct. and internal stresses in various gases, ultrahigh vacuum measurements 2−82174
Ag films, surface plasmons, light emission efficiency meas. 2−77151
Ag films, thermal cond, meas. 2−56728
Ag films growth on Si(100) and (111), LEED, AES and angle-resolved UPS study 2−92413
Ag, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Ag, surface polaritons, attenuated total refl. 2−116288
Ag thin film, resistance, magnetoresistance, weak localisation *(Russian)* 2−87417
Ag, thin films, homogeneous, emissivity calc. 2−71677
Ag-Ge, amorphous film, struct., elec. and optical props. 2−82483
Ag-Si layer struct., B implantation depth profiles 2−103804
Ag_2 film, IR surface plasmon attenuation coeffs. 2−110434
Al (111) surfaces, CO exposed, Auger electron spectroscopy, electron beam stimulated chemisorption 2−82088
Al evaporated film, absolute refl. meas. using high-precision multipass reflectometer 2−101446
Al film, evaporated, oxidation studied by AES, EELS and electron stimulated desorpt. 2−76855
Al film, picosecond electron diffr. study 2−91730
Al films, laser machined holes, TEM, SEM and numerical study 2−86725
Al films on quartz substrate, optical props., open wove resonator characts. *(Russian)* 2−93312
Al, granular reson. absorpt. of light, plasma reson. 2−67134
Al layer on C target, laser produced plasma, ablation thickness estimation by ion expansion anal. 2−91636
Al magnetron sputtered film overlaid with plasma SiN film, trapped Ar induced deformation 2−82155
Al, polycryst., correl. between struct. and elec. props. *(Russian)* 2−66663
Al, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Al, semiconductor-metal interfacial reaction at room temp. 2−56267
Al, size depend. cond., electron density and mean free path 2−110498
Al, surface topography meas. using α-particle energy loss distrib. 2−76552
Al, thin film, blistering by helium ions, TEM study 2−56049
Al thin film, neutralisation of 50-230 keV H ions 2−111015
Al, thin film, on GaAs substrate, positron-annihilation study 2−82952
Al, thin film, quantum size effect study by resonant tunnelling *(Rumanian)* 2−87420
Al thin film deposition in Ar using DC planar magnetron sputtering, O_2-partial press. condition effects 2−57294
Al:He thin film, He ion bombardment, TEM, SEM and α-particle backscatt. study 2−115319
Al-Al_2Cu submicron eutectic thin-film struct. 2−104186
Al-Ce(Gd)(Dy)(Tm) thin films, crystallographic phases following electron beam annealing 2−55888
Al-Cr(Ni)-Al layer system anal. by Rutherford backscatt. spectrometry 2−105177
Al-Cu films, amorphous, crystallisation 2−71837
Al-Cu films, X-ray microanalysis using STEM *(German)* 2−97876
Al-Cu thin film with polyimide passivation, electromigration 2−98503
Al-Cu thin films, large grain growth during recrystn. annealing, elec. resist. and TEM study 2−111203
Al-Sb multilayered film, laser induced crystn. 2−61316
alloy film preparation, evaporation kinetics from melt *(Russian)* 2−66393
Au, adsorption of water, work function and thermal desorption mass spectrometry study 2−98468
Au, alpha particle stopping cross section at energies below 3 MeV 2−66085
Au, bicryst. film, ion implanted with Cr(Co)(Pb)(Au), struct., TEM study 2−92418
Au deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Au, diffusion and reactions 2−71702
Au epitaxial film, elec. resistivity meas. 2−87416
Au evaporated film, tensile fracture, SEM and TEM obs. *(Japanese)* 2−115631
Au, exoelectron transfer through evaporated films *(Japanese)* 2−57275
Au film, (111), vapour deposited, surface and inclined planar defect electron-microscope images 2−71844
Au film, condensed, lattice dynamics and substruct. *(Russian)* 2−92425
Au film, IR surface plasmon attenuation coeffs. 2−110434
Au film, magnetoresist., positive, and elec. resist. at low temp. 2−66661
Au film, sputtering yield of Ar^+ and Ar^{2+} ions 2−67180
Au film, surface roughness determ. from X-ray diffr. meas. 2−110180
Au film electroless, on CdTe cryst., characterization 2−87081
Au film growth on amorphous C, Au cluster density time depend. calc. 2−92411
Au film growth on amorphous C, Au clusters surface diffusion, computer simulation 2−92412
Au film growth on NaCl, Au cluster mobility meas. to 123K 2−92409
Au film on glass microballoons, thickness meas. using X-ray peak rationing in SEM 2−87119
Au film; nonscalar 1/f cond. fluctuations 2−82413
Au, on GaAs, solid state reactions, cryst. struct. and microstruct. correlation 2−115616
Au, on n-TiO_2 wafer, photocatalysts, pot. meas. 2−110469
Au, semiconductor-metal interfacial reaction at room temp. 2−56267
Au single crystal film, electronic energy loss of H, D, He at 600 eV-15 keV 2−66087
Au, size depend. cond., electron density and mean free path 2−110498
Au, tensile fracture *(Japanese)* 2−82182
Au, tensile fracture mechanism, SEM study *(Japanese)* 2−92428
Au thin film, nonlinear volt-ampere characts. *(Russian)* 2−104506
Au thin film on sapphire substrate, surface phonon scatt. 2−82114
Au/Ag thin films, diffusion-induced grain boundary migration 2−71735
Au/Al thin film diffusion couple, elastic props., SAW vel. study 2−82183
Au-AG two-layer film, grain boundary diffusion investig. by elec. resist. method 2−76874
Au-Cu sputtered surface, AES, quantitative anal., backscattering correction factors 2−57221
$AuIn_2$ film, O_2 and Ar plasma interaction, sheet resist. 2−77204
B, metallic vapour-quenched thin film with Al type cryst. struct. 2−110214
Ba film adsorbed on Re, work function, elec. props. *(Russian)* 2−61560
Bi amorphous film, crystn. under gaseous He stream, T≤4.2K *(Russian)* 2−115586
Bi layer, vapour deposited, photolithography and optical characts. control for photography 2−89846
$Bi_{0.7}Sb_{0.3}$ amorphous film, crystn. under gaseous He stream, T≤4.2K *(Russian)* 2−115586
Ca, elec. cond. and defect density, annealing study 2−77206
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
Cd film, UV photoelectron spectroscopy and Auger anal. in same apparatus 2−84749
Cd laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
Cd, UPS and Auger anal., use of combined study apparatus 2−116341
Cd-Pb submicron eutectic thin-film struct. 2−104186
Co black selective surface growth by spray pyrolysis for optimum photothermal conversion 2−57727
Co conducting film deposition on glass fibre substrate, growth rate rel. to substrate temp. 2−111085
Co-Cr-Al-Y (22, 11, 0.5 wt.%) coating, oxide form. at 700°C 2−116621
Co-Si contact, barrier height 2−92752
Co-Si film, laser melted, lamellar eutectic solidification 2−116431
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
$CoSi_2$-Si interface, lattice imaging 2−115609
Co_xSi_{1-x} amorphous sputtered films, anomalous Hall effect 2−71950
Cr black, selective solar absorber, optical response, high temp. substrate oxidation 2−99840
Cr, electron beam evap. thin film, struct. and props. *(Korean)* 2−57301
Cr film, evaporated, scanning ion microscope study, ion probe forming and secondary electron images *(Japanese)* 2−113051
Cr film interaction with Si, bilayer silicide form. 2−86949
Cr film on (001) Cu substrate, misfit twin crystals *(Japanese)* 2−104194
Cr films, clean and adsorbate-covered, optical spectra 2−87890
Cr films, laser machined holes, TEM, SEM and numerical study 2−86725
Cr films, vacuum deposited, interaction with various gases, internal stress and resist. study 2−82186
Cr films on K8 glass substrate exposed to pulsed laser heating, thermal stresses 2−82113
Cr, pyrolytic, comp. and nature of impurities 2−82157
Cr, sputtered, internal stresses, optical reflectance, 2−82181
Cr-Cu, polycrystalline films, elec. resist. study 2−61614
Cr-Cu alloy, mech. props., thickness depend. 2−115628
Cr-La (0.3 wt.%), films, dislocations, struct. and composition 2−115600
Cr-Ni (45 wt.%) film, amorphous sputtered, crystn. 2−110211
Cs thick film oxidation, multiplet struct. in photoemission studies 2−72596
Cs, thin film, neutralisation of 50-230 keV H ions 2−111015
Cu, alpha particle stopping cross section at energies below 3 MeV 2−66085
Cu clusters isolated in O_2 matrices, UV photoemission studies 2−108757
Cu deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Cu film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
Cu films, elec. cond. localisation effects and negative magnetoresist. obs. 2−82476
Cu, inelastic mean free paths of Auger electrons 2−93335
Cu maculose films, nature and distrib. function of cluster dimensions 2−56400
Cu, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Cu, semiconductor-metal interfacial reaction at room temp. 2−56267
Cu, size depend. cond., electron density and mean free path 2−110498
Cu, twin boundary struct., high resolution electron microscopy study 2−71471
Cu/Ni compositionally modulated films, magnetisation and Curie temp. meas. 2−87533
Cu/Ni thin films, interdiffusion, Auger study 2−82035
Cu-Ag, amorphous films with high stability 2−104196
Cu-Cd film on Cu (111), struct., electrolyte effect 2−61312
Cu-Cr multilayer composites, yield point, struct. influence *(Russian)* 2−67446
Cu-Ni multilayer films, interdiffusion, Auger electron depth profiling 2−82038
Cu-Si thin films, simultaneous X-ray EDS meas. of thickness and composition *(Chinese)* 2−109630
α-Cu-Zn(Ga)(Al)(Ge), electronic struct., piezorefl. study 2−57052
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
CuAu vacuum deposited films, mech. twinning 2−98492
CuAu-I(II), vacuum deposited ordered thin films, mech. twinning obs. 2−82173
Er, stopping power and straggling of protons and ^4He ions 2−56051
Fe (001) film, surface states, surface magnetisation, electron spin polarisation 2−61540
Fe film, electrodeposited, sputtering yield 2−77676
Fe film, oxide layer, Mossbauer and ESCA meas. 2−76848
Fe, struct., X-ray diffr. study 2−104200
Fe-Al (45 at.%) film, electronic struct., X-ray emission spectra study 2−61338
Fe-Co films, IR absorpt. props. meas., order-disorder phase transition effect *(Russian)* 2−93297
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Sb layered films, absence of mag. moment, Mossbauer study 2−115592
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous films, STEM obs. of crystn. 2−109688
Ga film, low temp. ion beam irradiation 2−103858
Ga liquid layer dispersion on surface of Ag film *(Russian)* 2−71778
Gd films obtained in discharge with oscillating electrons, struct. and props. 2−66665
Gd:Ar film, ion implanted, impurity depth distrib. 2−110215
Gd-Co, RF-sputtered amorphous film, magneto-optical spectra *(Japanese)* 2−116158
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
In adatom desorption and film growth on Si (111), RHEED study 2−92367

metallic thin films continued
In film, coated with phthalocyanine mols., luminesc. and transmittance meas. 2−85731
In film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
In, strength characts., struct. and temp. effect 2−76875
Ir film on n-Si, silicide form., AES study 2−86951
Ir-V film, contact reaction with Si 2−86950
IrO_x film, amorphous nonmetal-crystalline metal transition 2−109980
Kb amorphous film, crystn. under gaseous He stream, T≤4.2K *(Russian)* 2−115586
Li cylindrical film, Aaron-Bohm effect *(Russian)* 2−87418
Li-B film, electron diffr. study 2−110182
Mg film, with Au submonolayers, spin-orbit coupling effect on weak localisation, magnetocond. meas. 2−66495
Mg film formation by direct ion beam deposition 2−116387
Mg thin film, weak localisation,magnetoresist. meas. 2−82324
Mg with Fe submonolayer, mag. scatt. time meas. by weak localisation 2−92599
Mn overlayer on Cu(100), LEED, AES and UPS study 2−87111
Mo film, As ion implantation, stopping power, SIMS study 2−56053
Mo film, electrolysis prep., growth rate anisotropy and struct. *(Russian)* 2−61304
Mo film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
Mo film on Si, ion beam induced interfacial reactions, TEM obs. 2−110050
Mo film on Si, $MoSi_2$ formation, impurity effects 2−115580
Mo, sputtered, internal stresses, optical reflectance, 2−82181
Mo, thin film, on GaAs substrate, positron-annihilation study 2−82952
Mo thin film, simple technique for deposition based on plasma induced dissociation of $Mo(CO)_6$ 2−83037
Mo-W bilayer film, solid state disilicide form., annealing and ion implantation effects 2−92371
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb, film, stress modification by ion bombardment during deposition 2−82180
Nb-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
Ni film, adhesion to X-ray damaged PTFE 2−76872
Ni film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2−61019
Ni film, electrodeposited, sputtering yield 2−77676
Ni film, ion implanted, influence of disorder on resistivity 2−61616
Ni, film, UV absorption spectra, absorption coeff. 2−82939
Ni film interaction with Si, bilayer silicide form. 2−86949
Ni film-electrolyte system, transient processes initiation by IR laser pulse 2−82046
Ni films and coatings, porosity and internal stresses, annealing and thermal cycling effects *(Russian)* 2−76870
Ni, inelastic mean free paths of Auger electrons 2−93335
Ni, sputter deposited on polymer surfaces, XPS study of 'hot' atom interactions 2−93805
Ni thin film on Cu substrate, presence and absence of magnetism 2−104667
Ni/Cr thin-film structures, sputter depth profiles obtained from emission of Auger electrons and X-rays 2−77682
Ni-Ag co-evaporated amorphous thin films, thermal evolution 2−71835
Ni-Ag two-layer thin films, magnetoresist. *(Russian)* 2−66664
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-Cr alloy, amorphous, struct. and crystn. 2−55863
Ni-Fe, ultrahigh vacuum deposition, magnetisation, resistivity and stress 2−82482
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
NiPt/Si interface, NiSi formation at silicide/Si interface 2−104078
$NiSi_2$-Si interface, lattice imaging 2−115609
or film, nonscalar 1/f cond. fluctuations 2−82413
Os, on Si, formation of silicides 2−104077
Pb film, reducing grain size by use of nucleants 2−104188
Pb film, UV photoelectron spectroscopy and Auger anal. in same apparatus 2−84749
Pb film formation by direct ion beam deposition 2−116387
Pb film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
Pb films, strain relax. meas. on Si substrates 2−82189
Pb, growth of monolayers and ultrathin films on Cu 2−71829
Pb overlayer adsorption on Cu, surface structural characterization by secondary electron emission 2−87923
Pb thin films, on substrate, low-temp. strain behaviour 2−110218
Pb, UPS and Auger anal., use of combined study apparatus 2−116341
Pb ultra thin overlayers on Ag surface, oxidation, UPS and XPS study 2−83267
Pb-Bi(In) films, strain relax. meas. on Si substrates 2−82189
Pb-Pd alloy polycrystalline films, grain size reduction by coevaporation 2−71815
Pb-Sn submicron eutectic thin-film struct. 2−104186
Pd, physical-chemical interaction with Si substrates 2−61211
Pd, semiconductor-metal interfacial reaction at room temp. 2−56267
Pd/Sn thin film diffusion couples, microstructural determ. of fast diffusion species 2−71741
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2−92289
Pd-Fe, dil., thin film, AC susceptibility, ion irrad. effects, rel. to supercond. 2−56828
Pd-Pb(Sn), thin film couple, single intermetallic cpd. form., X-ray diffr. obs. 2−92288
Pd-SiO_2-Si struct., isothermal H_2 desorpt. 2−110135
Pd-V alloys, physical-chemical interaction with Si substrates 2−61211
Pd_2Si films, formation temp. dependence of resistivity 2−82484
Pd_2Si films at Pd-Si interfaces, X-ray study of domain struct. and stress 2−115614
$Pd_{80}Si_{20}$ evaporated film, amorphous, radioactive tracer diffusion 2−92429
Pn-In-Au, RF oxidation, XPS and ellipsometric study 2−57530
Pt film, DC reactively sputtered, C detection by $^{12}C(d,p_0)^{13}C$ reaction 2−62447
Pt film interaction with Si, bilayer silicide form. 2−86949
Pt particulate films, CO chemisorption 2−76818
Pt, sputtered, internal stresses, optical reflectance, 2−82181

metallic thin films continued
Pt thin film, non-ohmic cond. and magnetoresistance 2−87419
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Pt-Al reaction, thermal study, and its effects on contact resistance to Si 2−87388
Rh film on n-Si, silicide form., AES study 2−86951
Ru, on Si, formation of silicides 2−104077
Se, ion plated on α-brass, adhesion and interface chemistry 2−66405
Si-Al, amorphous thin film, thermopower, elec. cond. and optical absorption 2−72079
Si-metal interface, low temp. intermixing reactions 2−115579
Sm, elec. props., effects of pressure, ageing and in situ annealing 2−87422
Sm:Ar film, ion implanted, impurity depth distrib. 2−110215
Sn coating on glass, chemical bond nature, Mossbauer spectra 2−99009
Sn, epitaxial layer, semicond.-metal phase change, electron microscopy study 2−66666
Sn, film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
Sn films, excess low-freq. noise, effect of substrate 2−61533
Sn, growth of monolayers and urathin films on Cu 2−71829
Sn, vacuum deposited thin films, microstruct. 2−116369
Ta, film growth of evaporated layers, struct. changes, elec. resist. study 2−92414
Ta, sputtered, internal stresses, optical reflectance, 2−82181
Tb-Fe amorphous films, struct., decomposition, crystallisation *(Chinese)* 2−104176
$TbFe_2$ amorphous film, mag. and elec. props. *(Chinese)* 2−104750
Ti film, adsorption of water vapour, elec. cond. and work function 2−66354
Ti film, reactive magnetron sputtering 2−87980
Ti films on Si, processing using multiscanned electron beam, $TiSi_2$ formation 2−104180
Ti intermediate layer, retardation of reaction in Al-Si elec. contacts 2−71737
Ti thin film deposition in Ar using DC planar magnetron sputtering, O_2-partial press. condition effects 2−57294
Ti-Fe, prep. by sputtering from composite targets with fine metal wires *(Japanese)* 2−99333
Ti-Fe film, composite cathode sputtered, struct. and comp., expt. study 2−56390
Ti-Fe films, elec. cond., composition depend. 2−56727
TiN thin films, preparation method 2−105075
V thin films, on oxidised Si wafers, scanning Auger microscopy studies on high-temp. annealing 2−76863
V-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
W, thin film, on GaAs substrate, positron-annihilation study 2−82952
Yb thin film, avalanche crystallisation *(Russian)* 2−61131
Zn laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
Zn thin films, optical props. 2−67137

metallisation
see also electrodeposition
arc metallisation, electrode heating efficiency and coeff. of material use *(Russian)* 2−67582
diode struct., fused glass passivation characts., rel. to avalanche breakdown voltage 2−57501
film stress control for improved device performance, using simultaneous ion bombardment 2−99331
interactions of metal films on semiconductors 2−61213
laser-enhanced plating and etching, mechanisms and appls. 2−77758
microprocessor controlled, dry pumped, high-vacuum coating system for thick film depositions 2−69183
Penning sputtering source, HIM-10 type, appls. *(Hungarian)* 2−93419
plasmatron sputtering, high rate, methods and appls. in microelectronics 2−116365
semiconductor-metal interfacial reaction at room temp. 2−56267
silicide epitaxial films Si substrates, characterisation by ion channelling and backscattering techniques 2−56403
silicide formation, mechanisms and interfacial layers, book contrib. 2−61214
transition metal silicides, thin films, resistivities, rel. to sintering temp. 2−77203
UV laser photodeposition, nucleation mechanism study 2−105067
Al, reactive ion etching using $SiCl_4$ 2−57531
Al-Cu thin film with polyimide passivation, electromigration 2−98503
Al-Si/Si ohmic contacts to shallow junctions 2−98741
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
Al-transition metal nitride (carbide) films, interfacial reactions, expt. study 2−56368
p-$Al_{0.7}Ga_{0.3}As$-pGaAs-nGaAs, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
Al_2O_3 powder, plasma metallization *(Russian)* 2−67272
Au thin films, diffusion and reactions 2−71702
GaAs, interdiffusion of metal films, book contrib. 2−61215
GaAs, metallised, volatile component loss and contact resistance during annealing 2−92753
n-GaAs:Au, impurity profile, electroetching meas. 2−56001
GaP, metallised, volatile component loss and contact resistance during annealing 2−92753
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
I_2, solid, cryst. struct., pressure effects 2−115176
InP, interdiffusion of metal films, book contrib. 2−61215
p-InP, low resistance ohmic contacts using Au-Zn-Cr-Au metallisation 2−104482
InP/InGaAsP double heterogeneous epitaxial wafers, stress induced defect migration 2−92287
Mo, etching using carbon tetrachloride/O_2 mixture gas 2−62273
Mo/Ge/GaAs 2−87386
Ni/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
Pd_2Si film on Si, formation temp. depend. of resist. in Pd_2Si 2−82484
Pt-Al reaction, thermal study, and its effects on contact resistance to Si 2−87388
Pt_2Si localized growth causing Ti/Pt/Au beam lead metallization instability, soft X-ray spectra 2−115608
Si MOS struct., charge motion, TSC meas. 2−115911
Si, metallisation, Ni electroless deposition 2−62080

metallisation continued
Si photovoltaic cell reliability attributes investigation 2−116814
Si solar cell, flat-spot power loss phenomenon at low temp. and low intensity 2−116819
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si-Pd (Pd-V), physical-chemical interaction, junction layer struct., elec. and phys. props. 2−61211
Si-Ti (Ni) interface, laser and electron beam irrad., silicide form. 2−66377
SiO_2 film, reaction with Al, AES and EELS study 2−98474
Ta/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
$TaSi_2$ evaporated and sputtered films, resist., stress and etching behaviour under various residual gas conditions 2−87094
Ti films on Si, processing using multiscanned electron beam, $TiSi_2$ formation 2−104180
TiW/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
W-GaAs Schottky barrier, elec. props. and interface chem., XPS study 2−115853

metallising *see metallisation*

metallo-organic compounds *see organometallic compounds*

metallocenes *see organometallic compounds*

metallography
see also electron diffraction examination of materials; electron microscopy; optical microscopy
bainite, an atom-probe study of incomplete reaction phenomena 2−73020
diamond, explosive shock synthesis prod., polycrystalline, polishing performance 2−72921
differential reflectometer, use in metallography 2−111421
discrete particle sectioning correction methods based on section diameter and area, comparisons 2−72923
electromechanical polishing apparatus 2−116666
equipment for specimen examination at high temperatures 2−116646
failure obs., appl. of optical microscopy *(German, English)* 2−57569
grinding with diamond using special technique *(German, English)* 2−116664
inverse polar figures calc. method for hexagonal symm. metals 2−93694
metal electropolishing rel. to other types of metal dissolution 2−57568
metallic films, chemically deposited, struct., precipitation etching *(German, English)* 2−116663
polycrystalline materials, grain misorientation determ. by electron microscopy 2−116630
sintered materials, brittle fracture microstruct., comparative investig. by SEM and replica TEM 2−67695
steel, 3% Si, role of cold work on secondary recrystn. *(Korean)* 2−83134
steel, alloy, heat treatment into lower bainite, C distrib., alloying elements influence *(Russian)* 2−67389
steel, alloy, nitrided, etching techniques 2−72922
steel, austenitic stainless, corrosion inhibition expts. in liq. Li 2−80171
steel, austenitic stainless, heat treated weldments, quantitative anal. of δ-ferrites, σ- and $M_{23}C_6$ carbide phases 2−88307
steel, austenitic stainless, intergranular corrosion, struct. influence 2−72876
steel, Cr-Mn, high-N, precip. and intercryst. corrosion after isothermal annealing 2−72729
steel, Cr-Mo-V martensitic stainless, weldments, transform. and tempering 2−88107
steel, Cr-Ni-Mo-Mn, Mo distrib. during long-term holding between 554 and 654°C *(French)* 2−72700
steel, ferritic, corrosion inhibition expts. in liq. Li 2−80171
steel, low-C, chem. scaled, anomalous interlayers 2−99416
steel, stainless, Cr-Ni-Al, sheet, fractographic investigation of failure 2−72823
steel, stainless, maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
steel, stainless 2−72824
steel, tool, 01 commercial, stereological technique appl. to martensitic transform 2−111410
steel, tool, high speed, S 6-5-2 (M2), Nb and C effects on struct. and tool life *(German)* 2−57360
steel, tool, vol. fraction or primary carbides, new procedure for determ. 2−57564
stereological technique appl. to martensitic transform. 2−111410
subgrain misorientation determ., statistical verification of Kikuchi line shift technique appl. 2−111409
sulphides, optical const. meas. rel. to metallography *(German, English)* 2−111422
texture of FCC metals, graphic kinematics using computer *(French)* 2−78055
X-ray method for determination of retained austenite in textured steels 2−93730
$Ag_{48}Zn_{50}Au_2(Cu_2)$, order-disorder transform., metallographic, resistivity, microanal. and X-ray obs. 2−111171
Al coating on steel, porosity determ. using electron probe microanalysis 2−99624
Al, fractographic inspection in air and vacuum *(Japanese)* 2−62319
Al_2O_3, effects of Cr_2O_3 additions on sintering and mech. props. 2−99375
β-Al_2O_3-Na_2O, ultrafast ceramographic specimen prep. 2−111408
Cr-Mo-O system, stability and morphology 2−67305
Cu-Al-Mn alloys, influence of Mn on phase shifts *(French)* 2−99543
Fe, cast, nodular, statistical study of graphite and pearlite *(German, English)* 2−111423
Fe, cast, solidification kinetics, flake and nodular graphite 2−72688
Fe, electropolishing rel. to other types of metal dissolution 2−57568
Fe, nitrided, etching techniques 2−72922
Fe-Al-Si alloy, sputtered granules, characters, before and after annealing *(Russian)* 2−67368
Fe-C-P (1.4, 0.02 wt.%), stereological technique appl. to martensitic transform. 2−111410
Fe-Mn-Cr-Mo-C-P, metallography rel. to sintering 2−116665
Fe-Si (3 wt.%), surface-active Sb influence on recrystn. and texture *(Czech)* 2−67374
FeS_2 electrodes in Li-Al cells, phase relationships 2−88422
$Hg_{1-x}Cd_xTe$ wafers, metallographic obs. of compositional inhomogeneities 2−111411
La-Co-Ni phase diagram, X-ray and metallographic study *(Chinese)* 2−93489

metallography continued
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb_3Sn, form. kinetics by diffusion method *(Russian)* 2−66301
Ni alloys, quantitative evaluating exposures, stereological models 2−83313
Ni-based superalloys, phase identification, by interference film microscopy 2−62322
Ni-Cr, aluminide coatings, form. kinetics and microstruct. 2−116620
Ni-Cr-C, phase diagram, 1000-1200°C, thermodynamic study *(Czech)* 2−116425
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
Ni-Zr cast superalloy, solution and transform. of Ni_xZr *(Chinese)* 2−62098
$SnMo_6S_8$ Chevrel phase, stoichiometry, rel. to supercond. props. 2−66242
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2−67315
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
Zr-Ir system, phase equilib. study using thermal anal., metallographic and X-ray methods 2−83090
Zr-Nb (2.5 wt.%), metallographic obs. of hydride morphology at H_2 induced crack tip 2−88174
ZrO_2-Gd_2O_3 cubic lattice solid solution microstructure 2−116624

metallurgical industries
see also forging; rolling mills
metals industries, US applications 2−62321
scrap Pb recovery from batteries, electrolytic method 2−62406
steel, liquid, EM stirrer for slab mould *(French)* 2−77766
Al industry process control using X-ray anal. system 2−116706

metallurgy
see also ageing; alloys; crystal microstructure; deformation; electrical properties of substances; hardening; heat treatment; magnetic properties of substances; materials testing; mechanical properties of substances; metallography; metallurgical industries; metals; metalworking; phase diagrams; phase transformations; physical chemistry; powder metallurgy; precipitation; recrystallisation; surface treatment; zone refining
ion implantation and microanalysis techniques appl. *(Italian)* 2−93639
ionic microscopy, metallurgical appls. 2−101505
Spacelab payload for materials science expts. 2−116346
superconductor materials science, metallurgy, fabrication and applications, conf., Sintra, Portugal (Aug. 1980) 2−63751

metalorganic compounds *see organometallic compounds*

metals
see also actinides; alkali metals; alkaline earth metals; aluminium; bimetals; cadmium; gallium; indium; lattice dynamics of metallic crystals; lead; mercury (metal); metallic thin films; rare earth metals; thallium; thermoelectric effects in metals and alloys; tin; transition metals; zinc
abrasion, SEM obs. of worn surfaces 2−67568
abrasive wear, analytical model of blast wear intensity 2−67569
acoustic ellipsometry, EM couplingless acoustic wave generation 2−65434
acoustic spin resonance of conduction electrons *(Russian)* 2−72351
adsorbate covered metal surface model, transmission characts. 2−72599
adsorbed mols. giant Raman scatt., review 2−110966
adsorbed particle, spontaneous Raman processes, cross section growth *(Russian)* 2−59810
adsorbed vibrationally excited molecules, indirect vibr. coupling, jellium model 2−82116
amorphous, self-diffusion, vacancy migration *(Russian)* 2−98330
amorphous, strain localisation, inhomogeneous flow 2−56069
amorphous, supercond. props. *(Russian)* 2−66695
amorphous ferromagnets, thermopower 2−82325
Anderson-Hubbard model elementary excitations, Bose excitations in paramagnetic media 2−61694
anodic breakdown of passive films 2−77991
anomalous skin effect and optical props., phenomenological model 2−99079
antiferromagnetic, spin fluctuation theory 2−110577
atomic absorption spectrophotometry, appln. to chemical analysis of minerals and metals 2−64087
atomic absorption spectroscopy, sources with selective modulation of emission spectrum 2−62439
Auger and X-ray photoemission shifts, embedded-atom calcs. 2−54822
austenitic region shape deformation under martensitic transformation, electron microscopic determ. 2−116629
balls, continuous inspection of hardening quality on prod. line 2−93698
BCC, fission neutron damage rates and efficiencies 2−103835
BCC, mech. props., effects of low-temp. neutron irrad. 2−103845
BCC, noncentral force 2−98216
BCC, radiation damage, Mossbauer spectroscopy study 2−103808
BCC lattice, fracture after cooling, cold brittleness *(Russian)* 2−77902
BCC single crystal, plastic deform. at very low temps. 2−57431
beam under bending and tension, rheological effects, steady state creep law *(Polish)* 2−81247
brittleness transition temperature determination in impact strength testing, deform. criterion 2−116632
bubble nucleation and growth, low temp., by He bombardment 2−76536
cascade damage, ion-irrad. study 2−103860
case-hardened layers, hardness and thickness monitoring 2−111415
CESR lineshape calc. under anomalous skin effect conditions 2−61768
charged metallic target, interaction of laser-breakdown plasma, potential step 2−71228
chemicothermal treatment in glow discharge, ion bombardment effect 2−111376
chemisorbed atoms, friction coeff., electron correlation 2−92345
coating thickness meas., eddy current and magnetic methods 2−107296
coatings, vac. plasma sprayed 2−62274
core-electron photoemission spectra shape 2−77701
corrosion cracking, physicochem. aspects 2−88284
corrosion scales, elevated-temp., erosion rate 2−67570
crack detection, direct current method appl. *(German)* 2−78049
crack front spreading, steady state fracture kinetics 2−109242
creep, deform. kinetic theory 2−115341
creep, influence of stacking fault energy 2−66110
creep, self-consistent determ. of time-depend. behaviour 2−92089
creep behaviour, Class II, modified constitutive eqn. 2−71550

metals continued
creep fracture, time under arbitrary stress and temp. new extrapolation method *(Japanese)* 2−77924
critical crack opening, method for determ. in creep 2−116640
critical stress intensity coefficient determination, using specimens of different size 2−62311
cubic, brittle fracture surface energy, evaluation by lattice dynamical method *(Chinese)* 2−61059
cubic metals, phase-shift anal. of impurity problem 2−61398
cyclic straining, stress and strain relaxation *(Czech)* 2−115352
defect structs. below surface after neutron or ion irrad., monoenergetic positron study 2−92052
deformation, rate-dependent, elevated temps., constitutive eqns. 2−105265
deformation meas. by US technique 2−57577
deformed, theory of dislocation cell sizes 2−103760
deposited amino acid overlayers, secondary ion emission 2−105032
desorption rate constants, quantum theoretical evaluation 2−87074
diffusion mobility of atoms in metal cryst. containing refl. or absorpt. barriers, random walk calc. *(Russian)* 2−61192
diffusion of H, isotope effects, theory 2−98341
dissimilar, unlubricated sliding wear, review of recent literature 2−57494
ductile, abrasive wear *(German)* 2−83242
ductile, erosive wear, by particle-laden high rel. liq. jet 2−67567
dynamic elastic limit determination 2−116628
elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
electrodeposited on surface with modified dispersed phase substrate, microdistrib. of electrodeposit *(Russian)* 2−67627
electrodeposits, surface roughness and max. deposition rate, periodic reverse current effect 2−116705
electrolyte-metal interface, double layer, nonlocal electrostatic model 2−87369
electron beam evaporation, plasma form. *(Russian)* 2−71504
electron emission during laser bombardment, time of flight energy meas. 2−62023
electron energy loss in simple metals and semiconductors, review 2−57222
electron Fermi liquid, spontaneous violation of reflection symm. 2−76949
electron microscopy, quantitative analysis 2−97882
electron mirror reflection coeff., determ. impedance *(Russian)* 2−72587
electron-hole pair excitation, localized dynamics perturbations, boson approx. 2−76948
electronic surface props., propagation matrix method, Schrodinger eqn. soln. 2−82438
electropolishing rel. to other types of metal dissolution 2−57568
elongation, uniform, determ. from stress-strain curves 2−62313
EM second harmonic US generation 2−65425
entropy, role in phase transformations 2−104030
epitaxial monolayer, equilib. config. in Nishiyama-Wassermann orientation, misfit accommodation 2−115626
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
fatigue crack growth, effect of vacuum, review 2−93600
fatigue crack growth period determination, using microfractographic anal. 2−88305
fatigue crack growth thresholds 2−92102
fatigue damage accumulation, math. model 2−56078
fatigue failure curves interpretation, analogy 2−78059
fatigue limit determination, method for specimens damaged by cracks 2−72901
fatigue testing, ultrasonic inspection procedures 2−93711
fatigue testing with asymmetric load cycle, overall stresses determ. 2−62312
FCC, active slip systems, contribution to deform. phenomena by indentation of cube face 2−66009
FCC, dechannelling by defects and on lattice site location of H, review 2−66097
FCC, fission neutron damage rates and efficiencies 2−103835
FCC, internal friction, time evolution under irrad., peaking effect 2−98196
FCC, neutron irrad., low temp., saturation phenomena 2−103836
FCC, pure, fatigue, role of strain hardening 2−111257
FCC, saturation of flow stress 2−93574
FCC, struct. of (001) twist boundaries, screw dislocations 2−91986
FCC, surface free energy anisotropy, computer model *(Russian)* 2−87007
FCC, texture, graphic kinematics using computer *(French)* 2−78055
FCC and BCC, energy and wave functions of interstitial H(D) 2−109787
FCC metals, self-interstitials, hyperfine interaction evidence, theoretical anal. 2−71437
Fermi-sea recoil effects in XPS, one dimensional model 2−87951
ferromagnet, electronic surface levels 2−66614
ferromagnetic, itinerant electron magnets, spin correlations 2−115964
ferromagnetic, Shenberg effect, Fermi liq. model *(Russian)* 2−104588
ferromagnetic, strain amplitude dependent damping, mech. model *(Japanese)* 2−56904
ferromagnetic metals, magnetic props. of the generalised model 2−77326
ferromagnetic metals, nucl. spin-lattice relax., s-d exchange interaction effects, theory *(Russian)* 2−98981
ferromagnetic metals, spin fluctuations, temp. variation of local moment and short range order 2−61717
fibre reinforced metal matrix composites, stress redistrib. on local loss of plastic stability of fibres 2−116540
field evaporated ions, post-ionization, multiply charged states 2−87955
filaments, decimicron, prep. and tensile testing 2−62314
film surface magnetoplasmons, quantum theory, RPA approx. 2−82259
finite cluster description of electromigration 2−86956
fission foil targets prep. for fission ionisation chambers by painting 2−108184
flat and stepped surfaces, Xe adsorption energy profiles 2−115561
float polishing for ultrafine finishing 2−60267
flow localisation in uniaxial tension, computer simulation 2−109884
foils, EXAFS spectra meas. using energy dispersive camera 2−84769
forming, rigid-plastic anal. using finite element method, formulation for finite deform. 2−105180
fracture, method for fibrous content estimation 2−93703
fracture toughness initiation, at high loading rates by stress waves, new expt. method 2−105432
free electron, X-ray emission satellite band shapes, electron-hole recombination 2−77626
free-electron metal, adsorption of He, kinetics, polarization induced dissipation 2−98447
friction, intrinsic property 2−61061

metals continued
friction and wear, strain and failure processes investigation by acoustic emission method 2−116633
fusion material, microhardness test techniques for high energy neutron source expts. 2−88313
fusion material, total He generation cross sections for fast neutrons 2−85231
fusion material, void nucleation by gas atoms, He generation rate and conc. effect 2−86720
gas bubbles, pressurized, strain contrast in TEM 2−71307
grain boundary struct. review 2−60997
grain boundary surface energy, electronic component, perturbation calc. 2−104467
H impurity electronic struct., μSR studies, review 2−99014
hardening curves analysis 2−111202
hardness testing, criteria for meas. scales selection 2−111416
hardness testing dynamic method using digital recording and measurement instrumentation *(Spanish)* 2−57563
HCP, dislocation struct. *(Chinese)* 2−109795
HCP, fission neutron damage rates and efficiencies 2−103835
HCP, lattice dynamics, three-body interaction model 2−98215
heating by mobile heat sources *(Russian)* 2−65457
heavy-ion bombarded, sputtering from elastic collision spikes 2−77653
hexagonal symmetry, inverse polar figures calc. method 2−93694
hysteresis loop, statistical theory 2−98185
impurities in metals, thermodynamic scaling theory 2−56490
impurity configurational fluctuations, scaling approach 2−56507
inert gas atom-surface inelastic scatt. on metal surface, electron-hole pair excitation 2−77686
internal friction, and elastic characts. determ., installation for 4.2 to 1200K 2−67701
ion and neutron bombarded, primary recoil spectra and subcascade effects meas. 2−76529
ionic implantation for SIMS quantification, corrosion study 2−99744
irradiated, recovery during second stage of annealing *(Russian)* 2−62138
irradiated, void growth, cyclic pulsed temp. effect 2−86717
irradiated structure, evolution, effect of cascades 2−86713
jellium metal, atomic adsorption, adatom binding at surface ledges 2−82148
kinetic ion-electron emission, review 2−77648
laboratory equipment corrosion resistance, review 2−62278
laser evaporation, reaction to radiation intensity modulation 2−92171
laser irradiated surfaces, regrowth, surface nonuniformities and coupling phenomena 2−61030
laser stimulated nonequilibrium EM emission 2−87915
laser surface alloying, review 2−116609
laser-generated acoustic waveforms, quantitative meas. 2−92112
laser-induced chemical etching, of metals and semiconductors 2−78133
levitation-melting process in mag. field, fluid dynamical aspects 2−70839
Lindemann, fusion theory, lattice struct. effects 2−81936
long-term strength estimation with stepwise stress changes 2−109890
macroscopic permittivity, local field effects, Fermi liq. theory 2−104280
magnetism theory, statics and dynamics, book 2−68978
metal, strain meas. by optical correlation method 2−105393
metal-metal interface interactions, similarity to metal-semiconductor interfaces 2−115578
metastable alloy form. by ion implantation, impurity lattice location 2−115260
meteoritic, Richardton H5 chondrite, metal discontinuous precipitation reaction 2−73918
mirrors, pulsed laser initiation of surface plasma, exoelectron emission 2−60144
mirrors, superpolished, deterioration by blue haze 2−102902
mixed-valent impurity, theory 2−115715
molecules adsorbed on small metal sphere, slow electron inelastic scatt. 2−116312
molten, local velocity and mass transfer meas. using incorporated mag. probe 2−114949
molten, magnetodynamic meas. techniques *(French)* 2−76049
momentum depend. positron annihilation rate 2−99214
muffin-tin pot., non self consistent, model of self-consistency simulation 2−98522
multielectron core excitation spectra, surface effects 2−87912
multiparameter eddy-current inspection, nonlinear theory fundamentals 2−62359
multiparameters inspection by eddy currents, numerical anal. of system of eqn. in nonlinear theory 2−67704
multiphase layered oxide growth, general formulation 2−77990
multiphase oxide film growth by cation interstitial diffusion 2−62272
muon$^+$ nonMarkovian spin relax., kinetic eqns. 2−93094
noble metals, electromigration, theory 2−82039
noble metals with rare earth impurities, magnetotransport and EPR props. 2−66528
nondestructive composite test unit 2−93699
nonlinear cyclotron resonance theory, second harmonic generation 2−98965
nonlinear waves during low temp. strain, heat evolution *(Russian)* 2−61653
nonlocal and local exchange, work function and surface energies 2−87370
normal metal point contacts, non-Ohm's law behaviour 2−87375
optical characteristics rel. to damping length for surface EM wave 2−87724
optical surfaces, intrinsic and roughness-induced absorpt. of EM radiation 2−70632
Orowan mechanism for abrupt localized flow and fracture initiation ahead of yielding notch 2−111266
oxide film growth, conditions for form. of new oxide 2−87090
particles, adsorbed mol., IR spectra, metal-surface selection rules calc. 2−90552
particles, surface plasmon lifetime 2−61382
particles isolated in Ar matrices, surface plasmon absorpt. bands. 2−85684
phase boundary, energy calc. *(French)* 2−87079
phase transformation wave excitation by action of square surface heat pulse 2−62120
phonon heat capacity enhancement at low temp. 2−115433
phonon limited elec. resist. calc. 2−92600
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
phonon spectra in Frohlich approach, appl. to transition metals 2−92132
phonon spectrum Taylor singularities *(Russian)* 2−92131

metals continued
physical kinetics, theoretical aspects, book 2−58569
pitting dissolution in aqueous soln., stability 2−77992
plasmon satellite in valence band PES spectra 2−116334
plastic, Brinell hardness rel. to mech. characts. 2−116635
plastic flow, low temp. instability, computer simulation 2−56068
plastic strain anisotropy, statistical method appl. 2−105405
point contact spectroscopy of g-values 2−66425
polymer quenchants, use in surface heat treatment of metals 2−116471
polymer sandwich laminates, bending and springback theory 2−76568
positive muon probe appls., review 2−72397
positron lifetime meas., apparatus 2−111396
powders, phonon echoes *(Japanese)* 2−115375
pressure treatment, thermoplasticity, math. modelling *(Russian)* 2−72720
pseudopot. theory, density functional formalism 2−115637
pseudopotential elastic const. calcs. *(Chinese)* 2−109880
pulsating current electrodeposition fundamentals, max. practical deposition rate 2−67230
purity examination, by residual elec. resistivity method, review 2−116638
quantum EM excitations 2−104408
quasi-one-dimensional, displacive transitions, Peierls transitions 2−81955
radiation damage initiation and energy spectra formation of primary knocked atoms, nucl. reaction effect 2−76526
radiative creep, effect of defect struct. 2−88151
rapid solidification plasma deposition, struct. of production 2−62114
Rayleigh acoustic waves, interaction with electrons, tilt effect 2−66595
residual life prediction 2−111434
SAW directional pulses, laser generation 2−92333
screening electron-phonon interaction by vortex fields, magnetoacoustic resonance *(Russian)* 2−82409
secondary ion emission, pseudo-atom calc. 2−82971
sheet, FCC and BCC, planar anisotropy rel. to texture *(Korean)* 2−116505
sheet, hydrogen embrittlement under multiaxial loading conditions, punch-stretch testing, fracture limit diagram 2−88323
sheet, residual stresses determ. 2−72902
sheet metal, notched tensile elongation and anisotropic ductility 2−62175
sheet metals, neck growth and forming limits 2−93561
shells with variable thickness and local inhomogeneities, multilayer, neutron absorption radiometric inspection 2−67707
shock adiabatic curves, statistical anal., theory 2−61173
shock wave and high strain rate deform., conf., Alburquerque, USA (June 1980) 2−84381
shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
SIMS, isotope fractionation effects obs. 2−67784
sintered metallic materials, elastic modulus, model 2−105208
sintering, appl. of surface oxide model 2−88020
small metal sphere, EM response, general nonlocal theory 2−104830
small metallic particles, quantum size effect in optical props. 2−87721
Snoek-Koster peak concept 2−66122
Snoek-Koster peak in BCC metals, model 2−66124
Snoek-Koster peaks BCC metals, phys. models, review 2−66123
Snoek-Koster relaxation, core diffusion and unpinning, models analysis 2−66126
Snoek-Koster relaxation, kink-pair-form. theory 2−66125
solidification in-situ electron microscopy *(French)* 2−62116
solution composition and electrode potential in pits, crevices and cracks, review 2−99606
spherically converging shock wave propag. study 2−81280
sputtering and secondary ion yields under O_2^+ ion bombardment 2−99268
sputtering with O_2^+, etch patterns surface struct. and SIMS 2−99283
statistical props. of mech. strength *(Japanese)* 2−99493
statistical strength *(Japanese)* 2−111188
stopping power for slow ions, electron exchange and correl. effects 2−86767
strain hardening, Orowan mechanism below the root of yielding crack-like notch 2−111267
stress relaxation behaviour, self-consistent scheme 2−93551
structural strength, effect of different factors 2−116552
submicron particles, heating in hot gas 2−60770
subsurface crack and plastic deform. detect. using the photoacoustic effect *(Chinese)* 2−97473
superconducting, subsurface layers quality eval., electrophys. methods 2−115959
superlattice superconductivity and magnetism 2−92819
surface, adsorbed atoms and mols., IR and EELS vibr. spectroscopy study 2−116162
surface, adsorbed layers, surface enhanced Raman spectroscopy 2−99133
surface, adsorbed mol. vibr., charge transfer effects, EHD model 2−56323
surface, adsorbed molecules, enhanced IR absorption 2−87797
surface, atomic reactive scatt., energy dissipative trajectory theory 2−93348
surface, chemisorbed atoms, surface bond energy estimation 2−82117
surface, electron density, analytic formula 2−77013
surface, electron emission under pulsed laser irrad. 2−83010
surface, interaction with charge or atom, complex self energy 2−87933
surface, interaction with He atom, first order theory, perturbation calc. 2−77672
surface, ion and atom interaction, excitation probability in time-depend. external pot. 2−77673
surface, laser pulse interaction, plasma evolution process 2−82961
surface, non-adiabatic processes 2−87939
surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
surface, oriented adsorption, selection rule, IR spectra 2−87065
surface, rough, EM wave scatt. 2−114154
surface, second harmonic generation with surface plasmon excitation 2−60163
surface, sinusoidal, surface plasmon polariton modes, contrib. of surface enhanced Raman scatt. 2−110845
surface, sticking and inelastic scatt., electron-hole pair creation mechanism 2−99258
surface, sticking probability, electron-hole pair mechanism, temp. depend. 2−56336
surface (100), atom motion dynamics for BCC and FCC materials 2−66340
surface dipole moments, variations due to anisotropy and chemisorption 2−82439
metals continued
surface enhanced Raman scatt. 2−104885
surface enhanced Raman spectra, surface roughness effect 2−82837
surface films and metallurgy related to lubrication and wear 2−109902
surface layer cracks, high frequency monitoring 2−57576
surface layers, effect of spark discharge and electrolytic plasma *(Russian)* 2−62267
surface of ductile metals, shadow moire contouring of impact craters 2−101384
surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
surface roughness inspection for exoemission investigations, X-ray photoelectron spectroscopy study 2−57581
surface tension, electron density modulation effect 2−87009
surface treatment using pulser *(German)* 2−83271
swelling, radiation-induced, effect of defect struct. 2−86721
targets, semi-infinite, penetration by deforming projectiles 2−89525
tensile test diagram construction, with deform. anisotropy 2−105406
tensile testing, specimen loading rate determ. 2−93702
textured, HCP struct., elastic props. anisotropy *(Russian)* 2−77858
thermal diffusivity of metals, photoacoustic meas., elimination of 'drum effect' 2−55406
thermal surface impulse, temp. field calcs. 2−60372
thermodynamic potential, many-point ring diagrams, degeneracy 2−81988
thermopower cross over effect and thermal cond. peak 2−77025
thin foils, stopping power meas., angle dependent energy loss of 7 MeV protons 2−71529
thin wires, Thouless maximum metallic resistance 2−66512
total energy calc. method 2−71898
transient Nernst-Ettingshausen effect of hot electrons *(Russian)* 2−115732
US wave polarization plane rotation rate in metal, meas. method 2−86189
vacuum seal materials and dielectric breaks for fusion reactor appl. 2−80190
void nucleation, stress and temp. driven 2−76429
void ordering during irrad., bifurcation and phase transition 2−61020
wear meas. using Falex Lubricant Testing Machine 2−111425
wear mechanism, electron approach 2−109903
wires, longitudinal magnetoresist., size effect calc. *(Russian)* 2−98763
X-ray absorpt. edge spectra, Nozieres-de Dominics theory, temp. effect 2−72578
X-ray absorption, emission and photoemission spectral lineshapes 2−111033
X-ray emission and photoemission spectra, dynamic effects and final-state rule, numerical model 2−82958
X-ray excited Auger spectra, Fermi energy and dipole barriers, review 2−116329
X-ray photoemission spectra, shake-off sidebands due to final state interaction shape resons. 2−111031
X-ray spectra, low energy double plasmon satellites 2−62020
yield loci, mono- and polycrystals, analytical description *(German)* 2−76571
yield strength, review *(Chinese)* 2−62165
zone integration method for joint densities of states 2−110230
H solubility, deviations from Sievert's law 2−71656
He bubble form. and swelling 2−109788

metalworking
see also bending; cold working; forging; hot working
mathematical modelling of metalworking processes 2−105258
superalloys, gas turbine hot section components fabrication, using advanced forming methods 2−93475
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458

metamagnetism
cyclohexaneammonium copper trichloride and tribromide, mag. behaviour 2−82614
dilute, quasiequilib. transitions, Ising model 2−98879
fluctuation-driven phase transitions, spatial anisotropy effect on order 2−103944
Jahn Teller antiferroelastics, metamagnetoelastic and metamagnetoelectric behaviour, EPR spectra 2−98931
ladder approximation for uniaxial metamagnets 2−66807
phase equilib. curve in case of strong cryst. field anisotropy *(Russian)* 2−82594
rare earth-cobalt intermetallic, R_3Co type, elec. resist. accompanying metamag. phase transitions *(Russian)* 2−66820
review of magnetic order in solids 2−110586
spontaneous, new spin Hamiltonian for microphysical two-sublattice model 2−56858
CeSb, metamagnet, mag. phase diagram, ANNNI model *(Russian)* 2−82600
$Co(S_xSe_{1-x})_2$, metamagnetic transition, mag. props. 2−92904
$ErFeO_3$, HF absorption and mag. phase diagram at low temp. spin reorientation *(Russian)* 2−61710
$FeCl_2$, dil. metamagnet, quasiequilib. transitions, Ising model 2−98879
$FeCl_2$, ladder approximation for uniaxial metamagnets 2−66807
$FeCl_2$, spin wave interactions in antiferromag. phase 2−110572
Fe_2P, Curie temp., uniaxial stress effect, expt. study 2−87495
Fe_2P, pressure-induced metamag. states, magnetisation study 2−110583
$FeTiO_3$, metamagnetic transition, mag. props. 2−92903
Y-Co, amorphous, mag. props. due to 3d magnetism 2−72269

meteor trails *see meteors*

meteorite craters
Brent crater, Ontario, Canada, chem. evidence for chondritic projectile 2−62956
Callisto, mechanical model of Valhalla basin 2−73896
Cretaceous-Tertiary boundary event, and extinction of marine plankton 2−94368
diameter dependence on projectile kinetic energy 2−106576
diamond formation *(Russian)* 2−83813
El'gygytgyn crater, probable comp. of meteorite *(Russian)* 2−63327
explosion experiments using 10-ton chem. detonations in sediments 2−73559
far-field tectonics of large impact events 2−63288
Gusev comet crater (S.Russia) and Cretaceous-Tertiary extinctions 2−62959
Karnensk comet crater (S.Russia) and Cretaceous-Tertiary extinctions 2−62959

meteorite craters continued
Lappajarvi meteorite crater, Finland, geochemistry of impact melt and basement rocks 2−106119
lunar microcraters used to determine interplanetary dust dynamics 2−63314
magnetic anomalies due to meteorite impact affecting pre-existing fields 2−73880
Mercury, global volcanism and tectonic histories 2−63287
Moon, impact basin formation 2−100779
Nordlinger Ries crater, bedrock age and impact breccia temp. history 2−106121
oceanic plateaus, are they impact features? 2−117306
planets, cratering history rel. to fragmentation debris near young stars 2−106572
scaling rules in theory of impact processes 2−73879
shock wave apparatus for studying minerals at high pressure and impact phenomena on planetary surfaces 2−78852
tektite target material composition of different tektite groups 2−117305
TOODY-WONDY calculations of penetration events 2−78654
Venus, age of atmos. deduced from crater statistics 2−78995
Zhamanshin crater, SEM investigations of surface structs. 2−88875

meteorites
see also meteors; micrometeorites
Allende, HAL inclusion chem. comp. and origin 2−117637
Allende, inclusion EK 1-4-1, trace element conc. 2−117638
Allende, intergrowth of mica and montmorillonite 2−117639
Allende, isotopically distinguishable carbon phases 2−84181
Allende, unusual layered mineral in spherules 2−117640
Allende meteorite, Ca-Ti-Cr isotopic anomalies in inclusion rel. to $n\beta$ process 2−112397
Antarctic, storage at Lunar Sample Building 2−78985
Antarctic meteorites, origin of high surface densities on blue ice fields *(German)* 2−94662
Bjurbole (L4 chondrite), U-Th-Pb age and radiogenic Pb problem 2−63322
Blue Angel, hibonite inclusion from Murchison meteorite, mineralogy and petrology 2−84178
Brent crater, Ontario, Canada, chem. evidence for chondritic projectile 2−62956
Canyon Diablo, ion microprobe mass anal. of Ni, Co, Ga and Cu distrib. 2−106637
Chainpur chondrite, evidence for primitive nebular components in chondrules 2−100849
Chantonnay (L6f) chondrite, complex veins petrogenesis 2−106632
chondrites, accretionary dark rims 2−73917
chondrites, Ca and Al rich inclusions, particle comp., solar nebula condensation processes 2−84115
chondrites, olivine-porphyritic fluid droplet chondrules, cooling history 2−79049
chondritic meteorites, fission tracks and search for siderophile superheavy elements 2−68686
chondritic phosphates, ^{244}Pu conc. and significance in meteorites fission track dating 2−68685
Cold Bokkeveld, H_2, C, N_2 conc. and isotopes in carbonaceous chondrites 2−68683
composition, C organic and inorganic compounds *(Polish)* 2−106636
conference at Bern, Switzerland (August 1981) 2−74154
cosmic ray nuclear track record of events in early solar system 2−68583
cosmic ray radionuclide production due to solar protons 2−89100
Cretaceous-Tertiary boundary meteorite impact, traces of cosmic catastrophe *(Russian)* 2−83820
diamond formation *(Russian)* 2−83813
E-chondrites, inert gases study 2−63325
El'gygytgyn meteorite, probable composition *(Russian)* 2−63327
enstatite chondrite groups, compositional classification 2−84179
Eocene impact 34.4 Myr BP, extinctions 2−94663
equilibrated L-chondrites, U-Th-Pb age and radiogenic Pb 2−63322
falls on Earth's surface, study of relative rates 2−89209
fireball-meteorite link, Prairie Network data anal. 2−58306
growth from solar nebula 2−73865
howardite olivine, origin and implications for parent body *(French)* 2−84180
Hvittis, U distrib. in enstatite chondrite 2−79047
impact mechanics of the Cretaceous-Tertiary extinction bolide 2−94497
impacts on planetary surfaces, rel. to origin and evolution of planetary atmospheres 2−112357
inclusions, elemental and isotopic abundance anomalies interpretation 2−89169
Johnstown, mineralogy and composition of brecciated orthopyroxenite 2−63324
Kirin chondrite, Ar isotope evidence for impact history 2−63326
L6 chondrites, incipient shock melts compositions 2−106631
Madiun, Indonesia, chondrite, classification, petrography and chemistry 2−89208
mesosiderites, metamorphic reactions, phosphate/silicate abundance 2−79050
metal silicate extraction technique 2−117492
Mighei carbonaceous chondrite matrix, ordered mixed layer struct. 2−84176
Murchison, C, H and N isotopes in carbonaceous chondrites 2−68684
Murchison, carbonaceous chondrite with corundum-rich inclusion 2−68682
Murchison, enantiomeric comp. of amino acids in carbonaceous chondrite 2−73919
Murchison, H_2, C, N_2 conc. and isotopes in carbonaceous chondrites 2−68683
Murchison (C2), basic N-heterocyclic compounds 2−79048
Murchison carbonaceous chondrite, ^{244}Pu fission tracks 2−63323
Murray, C, H and N isotopes in carbonaceous chondrites 2−68684
Murray, H_2, C, N_2 conc. and isotopes in carbonaceous chondrites 2−68683
Nakhla, origin and evolution from rare earth element abundances and age 2−117636
Nilpena ureilite, unusual polymict breccia, mineralogy and comp. rel. to origin 2−100847
noble gases, element and isotope abundances rel. to origin and age *(Japanese)* 2−117635
noble gases sorption by $(Fe,Cr)_3O_4$ (chromite)+C, rel. to meteoritic noble gases trapping 2−100845

meteorites continued
noble gases sorption by Fe_3O_4 (magnetite)+C, rel. to meteoritic noble gases trapping 2−100844
noble gases sorption by sulphides and spinels, rel. to origin of planetary gases 2−100846
Nordlinger Ries crater, bedrock age and impact breccia temp. history 2−106121
Norton County, caswellsilverite new mineral ($NaCrS_2$) 2−68681
Odessa, ion microprobe mass anal. of Ni, Co, Ga and Cu distrib. 2−106637
Orgueil, C, H and N isotopes in carbonaceous chondrites 2−68684
Orgueil, H_2, C, N_2 conc. and isotopes in carbonaceous chondrites 2−68683
origin of rapidly solidified grains in chrondrites and irons 2−89205
Peace River, obs. of olivine high-density polymorphs 2−73547
Plainview (H5) chondrite, carbonaceous xenolith, evidence for aqueous alteration 2−84177
Renazzo, C, H and N isotopes in carbonaceous chondrites 2−68684
Renazzo, H_2, C, N_2 conc. and isotopes in carbonaceous chondrites 2−68683
Richardton H5 chondrite, metal discontinuous precipitation reaction 2−73918
sample preparation 2−100747
spectral reflectance meas. by bidirectional and integrating sphere methods 2−78975
Staroe Boriskino, metamorphosis expts. on C2 chondrite 2−106634
Tannasilm (L4 chondrite), U-Th-Pb age and radiogenic Pb problem 2−63322
terrestrial age of meteorite fall, estimation using thermoluminescence data 2−84100
terrestrial bombardment, role of galactic spiral arms and comets in terrerstrial catastrophism 2−79039
Tibooburra, new Australian meteorite find, comparison with other carbonaceous chondrites of high petrologic grade 2−89207
troilite, meteoritic phase transitions and domains, TEM obs. 2−117641
unequilibrated ordinary chondrites, discovery of fine Ni-poor Fe-Ni grains in olivine 2−100848
Fe groups IAB and III CD origin, S-saturated Fe, Ni melt crystallisation 2−100843
Fe meteorites, dendritic solidification to explain Ge-Ni variations 2−73916
Fe meteorites, search for superheavy element fission evidence 2−106635
FeNi alloys from Fe meteorites, order-disorder transitions, Mossbauer spectra study 2−67328
$^{78}Kr/^{83}Kr$ abundance ratio, implications of $^{82}Se(n,\gamma)$ energy measurements 2−113445
^{6}Li content of irons (non-cosmogenic) 2−106633
Ne isotope depth profiles due to cosmic ray irradiation 2−63200
Sm/Nd ratio determination method using laboratory standard solutions 2−63253
Ti isotope ratios of lunar, terrestrial and meteorite samples 2−84113
U distrib. in silicate inclusions in irons and stony-irons 2−89204
Zr isotopic composition, implications for ^{92}Nb as solar system chronometer 2−84116

meteoroids
see also meteorites; meteors
dust modulated by Moon producing ice forming nucleus, effect on rainfall 2−88971
Geminid meteor stream, evolution of orbit 2−94661
Geminid meteors, mass distrib. index from high-resolution radar studies 2−94660
influx rate to Earth 2−100842
influx to Earth from meteor obs. 2−100841
interplanetary dust as origin for radio and photographic meteors 2−100840
orbit evolution under influence of planets' secular perturbations 2−84174
orbit similarities with comets and asteroids 2−94633

meteorological instruments
see also anemometers; barometers; hygrometers
air pollution measurement with new tethered radiosonde design 2−67904
air temp. meas. equipment with teletyperwiter recording *(Rumanian)* 2−68505
airborne meteorological data acquisition and communications system ASDAR 2−68527
Aitken nuclei counters, intercomparison of different instruments 2−63104
automatic processing system of meterological radar data in real time using the ASVT-M-3000 computer *(Russian)* 2−58174
calorimetric apparatus, appl. to meas. of incoming longwave atmospheric radiation from clear sky 2−100555
cloud droplet size meas., calibration of light-scatt. counter 2−58162
dew-point hygrometry, for total precipitable water 2−58163
Doppler acoustic system, pollutant dispersion appls. 2−73179
double polarisation radar for detection of rain and good weather *(French)* 2−100597
entomological radar, potential appl. to study of sea-breeze fronts 2−100529
Fabry-Perot photoelectric spectrometer, Doppler width (temp.) and shift (wind) determ., min. sample number 2−83950
fluoride in rainwater, ion-selective electrode measurement methodology 2−62534
haze measurement method using dial radiometer 2−94528
humidity measurement electric circuits *(German)* 2−112163
LIDAR, alexandrite tunable narrowband laser appls. 2−114311
Meteosat IR sensors, calibration techniques 2−94522
Meteosat-1 radiometer response adjustment by ground processing 2−68590
microcomputer controlled data acquisition system for lightning strike current recording 2−68538
mm wave radiometer for temp. profile meas. *(Chinese)* 2−78860
moisture sounding radiometer, millimetre-wave, for high altitude remote sensing 2−117480
multidirectional Si photodiode array for solar radiance meas. 2−83973
radiocommunication appls. in Japan, 1979 to 1980 *(Japanese)* 2−94532
rain sampler for subsequent chem. analysis 2−106327
raindrop size and elec. charge meas. with disdrometer 2−63125
raindrop size meas. with microphone device *(Japanese)* 2−58170
raingauges, cloud-seeding expt. using automatic recording network 2−89046
raingauges used in mm wave propagation experiment program *(Japanese)* 2−58169

meteorological instruments continued
sensor calibration for cloud liquid water content meas. 2−89044
shipboard automated instrument system and computing subroutines *(Russian)* 2−63129
solar radiation beneath cloud, meas. by dial radiometer technique 2−94528
solid-state Shuttle-launched meteorological sensor 2−117478
turbulence meas. over vegetated surfaces using drag anemometer 2−63127
wall-to-atmosphere heat tranfer meas., impulse sensors *(French)* 2−64026
portable water vapour monitor, for day or night use 2−106543
wind speed and direction indicator, remote display, log scale 2−117473
LiCl dew point measuring apparatus, modified, use *(German)* 2−73716

meteorological optics *see atmospheric optics*

meteorology
see also climatology; weather forecasting; wind
2-3 week nonlinear resonances *(Chinese)* 2−78735
Abastumani Forest Aerosol Experiment, (August 1978), weather conditions, solar and atm. radiation *(Russian)* 2−117401
adjustment to geostropy, initial conditions of primitive eqn. model 2−73663
aerosol conc. in stratosphere, solar activity depend. 2−83921
aerosol modelling in marine boundary layer, generation, transport and decay processes 2−117389
Ahmedabad, India, sea-level press. rel. to lunar tidal var. in ionospheric absorpt. 2−106387
aircraft tracking system for coordinated research missions 2−100570
Joint Airport Weather Studies Project (JAWS) 2−89010
albedo evaluation problems in satellite remote sensing 2−94512
Alfred Wegener, contribs. to physics of atmosphere 2−63790
Alfred Wegener (1880-1930), biographical account on 100th birthday and 50th anniversary of death 2−63789
ALPEX project, airborne sensors chart alpine weather patterns 2−112137
angular momentum interannual variability rel. to Earth rotation changes 2−58101
annual average temperature, relation to H isotope ratios in tree cellulose and climatic significance 2−89000
Antarctic glazed snow surface, sublimation and condensation study 2−117367
Antarctica and Southern Ocean, conf., Dec. 1979, Canberra, Australia 2−112648
Arabian Sea, tropical depression nature during SW monsoon onset 2−112078
arctic tundra energy balance study 2−88998
Argos system appls. 2−111990
Argos system for data collection and location by satellite 2−112153
Asia, 500 mb daily circulation index *(Chinese)* 2−112090
tropical Atlantic, temp. and dynamics affected by intertropical convergence *(Russian)* 2−88897
atmosphere precipitation along Pacific coast of North America, variability (1851 to 1980) 2−73616
Australian wet season onset prediction from Darwin rainfall anal. 2−106181
axisymmetric thermal convection in rot. fluid annulus 2−75956
balloon ascent through horizontal winds, theory 2−94466
baroclinic wave nonlinear vacillation dynamics 2−117409
baroclinically unstable disturbances of atmos., calc. of amplitudes 2−73635
barometric pressure correlation with E,-region critical freq. 2−112070
barotropic disturbances affected by topography and basic flow *(Chinese)* 2−112000
W Bay of Bengal, sea surface and atmos. conditions during MONEX 2−78763
Belgium, weather (during 1981 AD) *(French)* 2−106203
Belgium, weather during 1980 AD *(French)* 2−68447
Bet Degan, Israel, precipitation forecasts for 12 hour period, radiosonde profile appl. 2−100425
Bihar wet and dry spells occurrence, importance for agriculture 2−68394
blocking, quasi-geostrophic barotropic model bifurcation 2−94475
blocking of global flow, mechanism 2−73631
blocking of N Hemisphere flow, wave interaction theory 2−73632
Bombay, India, humidity and turbidity parameters 2−68409
British Isles, daily weather types, annual freqs. (1861-1980) 2−106177
Bruggen, Germany, katabatic wind study 2−73646
Cairngorm summit, Scotland, August weather, instrumentation comparison 2−106291
Chesapeake Bay, air pollution meteorology on summer day, model 2−93957
NE China, anomalously low summer temp. *(Chinese)* 2−78743
N.China, cold front heavy rain in summer, analysis *(Chinese)* 2−88995
China, new approach to climatic division *(Chinese)* 2−88942
climatic crises, meteorological factors *(French)* 2−63083
closed contour extraction application to meteorological pictures 2−88975
cloud areas, area-perimeter relation rel. to fractals theory 2−88987
cloud cover on global scale, methods for archiving data 2−63100
cloud seeding, of stratiform and cumuliform cloud *(Chinese)* 2−78742
cloud seeding effectiveness, statistical anal. of Climax obs. 2−112063
cloud seeding of stratiform cloud with AgI or CO_2, microphys. study 2−112068
cloud seeding over last 35 years 2−106202
cloud seeding potential of High Plains area, central USA 2−58104
cloud seeding with PbI_2 and AgI, laboratory expts. 2−58105
cold air activities, lunar influence *(Chinese)* 2−88992
cold front evolution, numerical model 2−94445
cold fronts synoptic analysis, model 2−88986
convection in a rot. laterally heated annulus, laboratory expts. 2−63031
convection in rot. laterally heated annulus, laboratory expts. 2−63030
convective evolution in FACE experimental area 2−112051
corrosion of steel structs. in Europe, study of atmos. conditions 2−72886
mid-Cretaceous general circulation and climate 2−106076
cumulus cloud ensemble interaction with large-scale atmos. 2−83906
cumulus convection effect on midlatitude quasi-geostrophic weather systems 2−73665
cumulus convective activity of GATE modulated by large scale flow 2−117411
tropical cyclone development in westerly airstream, model 2−78745
cyclone formation energetics at middle latitudes 2−100521
cyclone movements effect on press. and geomag. var. *(Russian)* 2−105919
data series analysis, significance tests *(German)* 2−106343
delayed action of ocean-atmosphere system 2−100542

meteorology continued
Delhi, India, vars. of temp. struct. parameter of boundary layer during monsoon months 2−100432
dispersion of pair of particles, Lagrangian Monte Carlo calc. 2−68458
drying rate in marine boundary layer, model 2−83881
duststorm monitoring system combining satellite and surface data 2−63130
Earth rotation, excitation of annual wobble 2−88719
Earth rotation variations rel. to weather and climate *(Chinese)* 2−112005
central England, cold spell of December (1981) 2−100530
Europe, wintertime zonal circulation 2−68452
central European area, statistical struct. of climatic fluctuations 2−68475
FGGE research activities at ECMWF 2−100565
FGGE satellite observing system during SOP-1, assessment 2−100424
flooding in India, rel. to sunspot cycle 2−58116
S Florida, convection rel. to peninsular-scale forcing 2−112015
Florida Area Cumulus Experiment 1970-6, rainfall results 2−88961
flux-gradient relationships during 1976 ITCE from micrometeorological data 2−68412
forest canopy boundary layer, turbulent exchange and micrometeorology 2−78722
free oscillations of primitive eqns. of motion in spherical coords. *(Chinese)* 2−78738
free Rossby waves, anal. of instability at finite amplitude 2−100472
severe frontal rainband over Central Valley, California 2−94443
frontogenesis, mathematical theory 2−100531
frontogenesis near ground, effect of non-adiabatic processes *(German)* 2−73650
frontogenesis over S. Yangtze in spring, spatial structure *(Chinese)* 2−63015
frost penetration into ground, heat balance calc. 2−88921
general circulation model (barotropic), zonal filtering calcs. 2−63021
general circulation model of large-scale features 2−68449
general circulation model radiative transfer scheme 2−68460
geomagnetic disturbances correl. with Vorticity Area Index 2−106269
geostrophic wind subject to orographic forcing, theory *(German)* 2−100444
global atm. pressure at sea level, primitive eqn. model *(Chinese)* 2−78744
global circulation, barotropic model with orographic and momentum forcing 2−73636
global circulation and importance of gravity waves *(Chinese)* 2−112001
global circulation during FGGE special obs. periods 2−100504
global climate model involving max. entropy production 2−100539
global Rossby waves, theory and obs. 2−94440
global UV radiation at ground level, influence of effective cloud amount, horizontal visibility and total O_3 2−100462
GMS-2 geostationary meteorological satellite, USB Tracking, Telemetry and Command system *(Japanese)* 2−83965
gravity field changes due to atmos. press. variations 2−117181
N Great Plains, USA, obs. of mountain-generated cumulonimbus rainfall 2−100483
central Gulf Coast, frontal overrunning and offshore-onshore temp. diff. 2−83915
Hadley cell symmetric baroclinic instability 2−117412
Hadley circulation, affect of stratosphere on stability of flow *(French)* 2−63063
Haifa Bay, E.Mediterranean Sea, seiches excitation by meteorological fronts 2−117307
hail forecasting, appl. of numerical model of cumulus cloud *(Chinese)* 2−88945
height of isobaric surfaces, meas. by radar altimetry method 2−58164
horizontal diffusion in atmos., Lagrangian dynamical theory 2−68404
horizontal propagation of meteorological disturbances, latent heat release effects 2−68429
hydrometeorological institute in Czechoslovakia, regional telecommunication centre *(Czech)* 2−58127
ice crystal growth by riming 2−63070
ice nucleation depend. on particle size 2−112050
India 1979 monsoon, onset delay, effects of extratropical blocking highs and flow patterns 2−112082
India weather and climate rel. to solar activity 2−88976
N Indian Ocean, evaporative water loss 2−94370
Indian sea areas, cyclonic storms and depressions in 1979, wind, press. and tracks 2−88965
Indian seas anticyclone form. due to warm seas, effect on monsoons 2−68372
Indian tornadoes, distribution and assoc. meteorological conditions 2−68443
insolation mesoscale variability determination from satellite data 2−100482
interannual variability of climate (large-scale) 2−106264
Israel, potential evaporation inland distribution 2−78746
jet stream formation at low level over China *(Chinese)* 2−112095
large-scale circulation, nonlinear model of long waves 2−68450
lidar meteorology, review of developments 2−106335
line-of-sight radio link, 160 km, received signal level measurements 2−117404
Long Island, New York, ionic species concentrations in precipitation rel. to meteorological variables 2−83535
long-period thermodynamic oscillations of ocean-atm. system 2−78689
low-visibility weather conditions, integrated approach to atmospheric optical propag. 2−106316
lunar tide (18.6 year) seen in Japanese air press. data 2−73619
map typing technique using obliquely rot. principal components 2−63124
marine boundary layer, meteorological models for optical props. 2−117452
mediocre climate, photoelectric photometry possibilities in astronomy 2−112125
meridional energy transfer in ocean and atmos. *(Russian)* 2−73566
mesoscale buoyancy or gravity waves, power spectra study 2−100447
mesoscale lows over E China, formation and maintenance *(Chinese)* 2−112089
mesoscale mean flows with turning, stability props. 2−73662
mesoscale rain system of Yangzi-Hwai valley, China *(Chinese)* 2−112098
mesoscale wind variability in lower 5 km of atmos. 2−112065
Meteosat data integrated processing, cloud-top height maps 2−78750
Metosat-1 imagery, navigation and deformation modelling 2−68506
microwave radio meteorology, fading by beam focusing 2−106295
midlatitude synoptic scale disturbances, pulse asymptotics of Charney baroclinic instability problem 2−100467
military application 2−100493

meteorology continued
mixing height occurrence in Central Scotland 2−83878
SW monsoon, instability study of onset-vortex 2−100525
monsoon climate/general circulation model, with Earth orbit changes 2−117435
monsoon depression development over Bay of Bengal 2−106270
monsoon onset conditions, sensitivity to differential heating 2−117413
summer monsoon over India, precipitable water and dew point relations 2−106271
mountain range causing leftward deflection on N Hemisphere wind 2−83904
mountainous region atmos. flow and effect of Coriolis force *(Russian)* 2−78759
narrow cold frontal rainband substructure 2−94444
Nepal, weather on mountain trek in February (1981) 2−100528
Nobeyama, Japan, 1978-80 obs. *(Japanese)* 2−68320
central North America, drought of 1804 to 1805 AD 2−68471
W. North Dakota, convective rain volume estimation 2−68534
north hemisphere circulation features by 2-D quasigeostrophic model *(Chinese)* 2−112092
Northern Hemisphere, barotropic instability of winter zonal flow 2−73633
Northern Hemisphere, general circulation in summer 2−83902
Northern Hemisphere, linear trends in tropospheric geopotential height and temp. patterns 2−100469
numerical forecasting of subsynoptic system, expt. *(Chinese)* 2−88947
numerical weather prediction, normal mode initialisation rel. to gravity waves generation by quasi-geostrophic forcing 2−100473
numerical weather prediction, scheme for retaining Hadley circulation during nonlinear normal mode initialisation 2−112009
NW Pacific Ocean, anal. of troposphere upper cold low using GMS satellite data 2−100461
ocean atmospheric boundary layers, parameterisation 2−68411
Oklahoma dryline and tornadoes on 8 June 1974 2−94441
operational forecasting system devel. at Meteorological Office 2−100495
Orissa, India, tornado of April 1978, synoptic conditions and form. 2−112080
oscillations of stratosphere due to forced planetary waves 2−73639
NW Pacific, upper tropospheric cold lows, diagnostics 2−112014
Pacific atmos. circulation, CO_2 conc. variability study 2−112064
equatorial Pacific dynamic response to sea surface temp. anomalies 2−117410
Pacific Ocean, vars. in tropical sea surface temp. and surface wind fields assoc. with El Nino 2−111931
N Pacific subtropical high interaction and E Pacific SST *(Chinese)* 2−112093
Poker Flat, Alaska, spectrum of atmospheric vel. fluctuations at 8 km altitude 2−100449
pollution prediction models for oxidant conc. in California coast region 2−63014
precipitation long-range prediction, thermodynamic model *(Chinese)* 2−88943
rain areas, area-perimeter relation rel. to fractals theory 2−88987
rainfall modification due to effects of power station 2−78802
rainfall rate distribution, empirical model derived from meas. in Congo 2−78748
rawinsonde random meas. errors and effects on derived quantities 2−106333
relative dispersion of particles in atoms., theory 2−68457
Rocky Mountains standing wave momentum exchange with ground 2−100507
rotating Hadley cell, baroclinic instability 2−73634
satellite climatology, ICL distributed array processor appls. 2−100575
satellites, on-line processing of high resoln. imagery 2−117467
science, politics and international atmospheric and oceanic programmes, review 2−112136
sea salt deposition on ceramic insulators of power lines 2−94463
seasonality of circulation response to sea-surface temp. anomalies 2−83903
sec-breeze front at Canberra, radar study of insects 2−100529
SESAME-AVE IV, severe storm triggering mechanisms 2−100426
severe convective weather, occurrence conditions 2−78819
Sierra Nevada Mts, USA, seeding of towering cumuli 2−63053
snow, effects on atmospheric near-millimetre wave propag. charcts. 2−117396
solar cycle influence of temp. in England during Maunder minimum 2−78753
solar influence on terrestrial weather and climate, review 2−94474
solar radiation data, computational methods validation 2−67863
solar wind mag sector struct. correl. with Vorticity Area Index 2−106269
solitary waves in a compressible fluid, theory 2−63067
Soufriere volcano, ash transport across Atlantic to Africa 2−106056
Soufriere volcano eruption plume development 2−106055
South Polar Plateau, heat, aerosol and water vapour transport 2−117423
South Pole, surface heat balance study 2−117422
Southern Hemisphere, dispersion of TWERLE balloons released at 150 mb level 2−73644
Southern Oscillation, role of Pacific sea surface temp. anomalies 2−117410
Southern Oscillation and influence on oceans 2−100497
Southern Plains, USA, wintertime mesoscale cold front temp. and press. anal. 2−94431
tropical squall line, mesoscale air motions 2−106188
squall line genesis over China rel. to heavy rainfall *(Chinese)* 2−88990
stationary planetary waves forced by topography and diabatic heating 2−117408
statistical approach to historical records of flood and drought, results 2−100485
steady state fronts struct., momentum/heat diffusion effects and condensation/surface motion effects 2−78766
stochastic simulation of atmos. with localised precision 2−83926
storm environments during AVE-SESAME-1979 first period 2−78725
storm trajectories in E United States, determ. from D/H isotopic comp. of precipitation 2−68444
strategies in forecasting and anal. 2−117430
stratified meteorological formations over sea, obs. made from helicopter *(Russian)* 2−63073
stratosphere sudden warming, theoretical description 2−117418
stratosphere warming event, February 1979, NO altitude distrib. meas. 2−100455
meteorology continued
stratosphere warming event in February 1979, NO_2 and HNO_3 meas. at 54°N 2−100456
subcloud layer energetics of precipitating convection 2−106187
sunspot numbers correl. with weather of United States 2−63068
synoptic and subsynoptic subtropical weather systems, theory *(Chinese)* 2−78739
synoptic kinetic energy exchange with sub-synoptic scale motion *(Chinese)* 2−78737
Taiwan, eigenvector anal. of meteorological anomaly patterns 2−100423
Tanzania, areal cloudiness at near-equatorial stations 2−68469
Tateno, Japan, abnormally cool 1980 summer, temp., sunshine and solar radiation anal. 2−100459
High Tatra mountains, Czechoslovakia, daily and yearly radiation balance 2−117382
temperature forecasts at 100 mk level, for Concorde aircraft 2−112071
temperature inversion, effects on incoming longwave atmospheric radiation from clear sky 2−100555
Texas river flood recurrences from sediment record 2−78714
Thailand, surface wind distrib. 2−78809
TIROS meteorological satellite system, historical review and future developments 2−63206
topographic effect of mountain ridge on squall line *(Chinese)* 2−112099
tornado development from Oklahoma dryline 2−94442
transmittance occurrence frequency in several wavelength regions, Ypenburg airfield, The Hague (1977-81) 2−94488
tropical circulation over ocean influenced by sea temp. anomalies *(Chinese)* 2−112004
tropical convection during GATE, review 2−58112
tropical easterly jet, numerical model of barotropic instability 2−73637
tropical forcing causing large scale stationary waves 2−100502
tropical meteorology, four-dimensional anal. expt. during GATE period 2−100466
tropical meteorology, stability of Walker circulation 2−100468
tropical region summer-mean flow 2−73664
tropical storm Agnes transformation into extratropical cyclone, observed fields and vertical motions 2−112011
tropical storm Agnes transformation into extratropical cyclone, moisture, vorticity and kinetic energy budgets 2−112012
typhoon track forecasting over NW Pacific Ocean, statistical anal. of positioning errors *(Chinese)* 2−88948
UK isobaric patterns rel. to central England temp. and England-Wales rainfall 2−68468
undecennial variation of meteorological microseisms, existence and amplitude *(French)* 2−73614
United States, atmos. temp. correl. with Pacific sea surface temp. 2−63050
United States, meteorology rel. to transport of aerosols of high Cl conc. 2−63062
United States, twentieth century changes in winter climatic regions 2−73672
unstable disturbances in westerly and easterly current *(Chinese)* 2−112002
upper-level troughs of N China, with and without heavy rain *(Chinese)* 2−112097
urban air quality model, sensitivity to input data 2−58106
urban heat islands, present state of knowledge 2−68448
vertical struct. of forced circulation in tropics 2−68451
violent valley winds, role of inversion layer in air flow dynamics 2−100470
volcanic eruption plume dynamics, April 1979 eruption 2−73519
S Wales, heavy rainfall occurrence and assoc. meteorology 2−106164
weather forecasting, appl. of obs. of atmosphere microwave thermal radiation *(Russian)* 2−94472
weather forecasting, extraction of humidity, geopotential thickness and stability from satellite radiometer data 2−63101
weather forecasting using supercomputers 2−73618
weather station as example for microcomputer sensorics *(German)* 2−100440
wind, energy potential in Andaman, Nicobar and Lakshadweep Islands 2−67815
wind remote sensing, SASS wind ambiguity removal by direct minimisation 2−112013
windiness index for United Kingdom, formulation 2−112072
winter monsoon, Hadley and Walker circulations in thermally driven motions in equatorial β-plane 2−112010
winter strength in upper Danube region, Markov chain model 2−106205
Worthing area, Sussex, 1980/1 heavy rainfalls anal. and synoptic situation 2−106163
Yamuna River, India, floods, rainfall and assoc. synoptic situations anal. 2−111979
Zenker weather system thermal conditions *(German)* 2−117383
zonal mean flow of atmos. up to 100 km, 3-D global model 2−73638
zonally averaged meteorological fields variances, latit. depend. 2−112008
CO_2 exchange through surface of the Black Sea 2−117360
SO_2, air pollutant long-range transport model *(German)* 2−94424

meteors
see also meteorites; meteoroids
acoustics, classification and nature 2−79045
asteroid orbit associated meteor radiants 2−79044
brightness relative to spectral type 2−100841
detection using large solar arrays, nighttime astronomical appl. 2−73843
fireball over Midlands (1982 August 16) 2−117633
fireball-meteorite link, Prairie Network data anal. 2−58306
fluctuations method, appl. to meteor astronomy 2−94659
Geminid meteor shower (1980), high-resolution radar studies 2−94660
Geminid meteor stream, 1980, anal. of visual, photographic and radio obs. 2−106630
Geminid meteor stream, evolution of orbit 2−94661
Geminids, flux determ. from radar obs. allowing for deceleration 2−73851
Geminids, shower flux for 1959 to 1978 radar obs. 2−73850
height measurement using radar techniques, error estimation *(Italian)* 2−89153
Lyrid meteor stream, brief intense return, (1982 April 22) 2−68679
Perseid stream, node stability and motion 2−79046
plotting errors in visual meteor observations 2−106628
position and velocity in original orbit *(Japanese)* 2−68680
Quadrantid meteor stream, search for assoc. short term. vars. of zodiacal light 2−89197
Quadrantids, celestial mechanics of meteor stream 2−79042

meteors continued
Quadrantils, shower radiant and activity (1971 to 1980) 2−84175
radar observation of meteor bodies distrib., plotting algorithm *(Russian)* 2−100839
radar observation technique to meas. shower flux 2−73850
radio and photographic, origin in interplanetary dust 2−100840
radio meteor ionisation columns, initial radii meas. determ. method 2−63107
radio meteor winds over Waltair, variations from radar obs. 2−78892
radiowave propagation, chromometer scales comparison errors reduction 2−69146
reflection of radio waves from a meteor trail containing two kinds of ions 2−117634
selectivity function of radio obs., evaluation method 2−84173
shower flux determ. technique using radar echo data 2−73851
Tunguska meteor fall, 1908 June 30, anal. of physical, chemical, optical and historical impacts 2−106629
twin meteor shower theoretical radiants 2−79043
upper atmosphere, Meteor Wind Radar System at Waltair, Nagarampalem field station, meteor echoes 2−117491
metering
see also ammeters; electrometers; frequency meters; galvanometers; level meters; ohmmeters; phase meters; standing wave meters; volt-ampere meters; voltmeters; watthour meters; wattmeters
customer-owned dispersed wind-powered generators, prep. by utilities 2−93867
meters *see metering*
metrology *see measurement*
metrosils *see varistors*
MHD *see magnetohydrodynamics*
MHD convertors *see magnetohydrodynamic convertors*
mica
biotite mica, electron and α-particle damage, implications for track formation mechanisms 2−59660
biotite mica U-bearing veins and inclusion, U-content calc. 2−68523
biotite samples age estimation by Rb-Sr method *(Japanese)* 2−94366
detector, alpha-recoil track registration props. study 2−70090
emissive props. in 7 to 15 μm spectral region 2−91015
muscovite mica, fission fragment tracks, thermal annealing 2−113833
muscovite mica, solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
Muscovite mica detectors, etched track profiles, SEM studies 2−70091
muscovite mica substrate for Cu epitaxy 2−115617
muscovite mica track detectors, low energy ion implantation, chem. reactivity 2−70089
muscovite mica track detectors, low energy ion track-etch pits study 2−70088
Muscovite mica track recorders, fission track counting, optical efficiency and observer objectivity 2−64836
nuclear track detector for $^{238}U(^{84}Kr, X)$, reaction study 2−64422
octahedral distortion, rel. to stability in 1 M micas 2−60960
oxybiotite, coexisting 1 M and 2 M_1 cryst. struct., polytypism 2−91856
reinforced cellular soda-lime glass composite, fabrication, mica dehydration effect 2−93485
substrate, deposition of II-VI semiconductor films, effect of island sublayers of Ag 2−88005
surface adhesion, effect of meniscus forces, appl. of macroscopic thermodynamics 2−56300
track microfilters for hot contaminated air surveillance 2−64830
track recorder, track counting, Buffon needle method 2−64837
Micelle systems *see colloids*
microassembling
see also lead bonding
ion beam induced adhesion in electronic stopping region 2−101496
microcalorimeters *see calorimeters*
microchemical analysis *see chemical analysis*
microcircuits *see integrated circuits*
microcomputers
for microcomputer applications see under relevant applications e.g. computerised control; natural sciences computing
see also microprocessor chips; personal computing
applications in experimental physics 2−94966
materials testing, data acquisition and eval., microcomputer appl. *(German)* 2−116658
multiprocessing system, high-energy physics expt. appls. 2−85513
physics applications, conf., Stara Lesna, Czechoslovakia (May 1981) 2−84364
portable microcomputer unit for Pu γ-ray spectra anal. 2−74394
microcopying *see microphotography*
microelectrodes
biomedical stimulation electrodes, miniature, implantable, Ta/Ta_2O_5 2−57927
ion-sensitive microelectrode, triple-barrelled for simultaneous meas. of two extracellular ion activities 2−117166
multielectrode array for simultaneous recording of field pots. and unit activity 2−62849
multielectrode fabrication for simultaneous recording of nerve impulses using IC techniques *(Japanese)* 2−62856
myocardial conduction vel., electrode system for in vitro determ., canine expts. 2−117162
precision manipulator for neurophysiological investigation of animal brains using microelectrode with step motor drive 2−78517
single microelectrode voltage clamping of membrane pot. of isolated smooth muscle cell 2−62879
spinal neurons, mouse, spontaneous activity, photoetched microelectrode meas. 2−62586
stereotaxic system, independent coordinated positioning of microelectrodes 2−62863
C fibre electrodes for neuroscience research 2−68212
microelectronics *see integrated circuits*
microfarad meters *see capacitance measurement*
microfilming *see microphotography*
microhardness *see hardness*
micromanometers *see manometers*
micrometeorites
dust retrieval from Pacific Ocean sediment 2−89206
lunar impact melt volatisation 2−106567
micrometeoroids *see meteoroids*
micrometers *see micrometry*
micrometry
see also interferometry; strain gauges
uncured insulating layer thickness meas. by potentiometric micrometer 2−74469
wear and corrosion meas. by thin layer activation technique 2−95324
microphones
built-in tape recorder, uses of electret microphones 2−102995
calibration in infrasound range 2−55385
capacitor microphone calibration, sensitivity variation with level obs. 2−55389
Knowles miniature microphones for noise meas. inside ear muffs 2−97324
multichannel radio microphone operation, improvements by use of advanced receiver techniques 2−86195
one-inch laboratory standard condenser microphone, coupler for calibration up to 20 kHz *(Japanese)* 2−102983
piezopolymer microphones, sensitivities to air-borne sound and vibration *(German)* 2−86192
PTFE, organic electret for condenser microphones, electret lifetime, annealing, thermally stimulated depolarisation meas. 2−72407
sound pressure standard realisation using one-inch laboratory standard microphones 2−89680
structures and characteristics, users guide 2−65438
temperature coefficient of sensitivity, meas. method *(Japanese)* 2−102984
three-port two-microphone cavity for acoustical calibrations 2−75818
VHF high band wireless microphones and equipment 2−97335
wire-less, simultaneous use several transmitters *(German)* 2−91195
wireless microphones, extension of dynamic range 2−91199
microphonics *see microphones*
microphony
5 kV vacuum feedthrough connector with low capacitance and microphony 2−75122
microphotography
detail rendition of microfilm, depend. on exposure *(German)* 2−64142
seed photography using SEM 2−107455
vibration control in lab. 2−58930
microphotometers *see densitometry; photometers*
microprobe analysis, electron *see electron probe analysis*
microprobe analysis, ion *see ion microprobe analysis*
microprocessor chips
city gas detector using thick film hybrid IC sensors and single-chip microcomputer 2−95356
COP420 for Pt resistance thermometer A/D convertor *(French)* 2−107325
physics applications, conf., Stara Lesna, Czechoslovakia (May 1981) 2−84364
microprocessor systems *see microcomputers*
microprocessors *see microcomputers; microprocessor chips*
micropulsations
aurora obs. by radar during irregular micropulsation burst 2−68554
azimuthal dependence of Pc 4, 5 characts. 2−63180
charged particle behaviour in ultralow freq. mag. pulsation 2−73793
correlation of satellite and ground based obs. of Pc pulsations, review 2−63181
damping of long-period pulsations by ionosphere 2−63186
harmonic structure of Pc 3-4 pulsations 2−68572
harmonics of Pc 4 and 5 2−89077
hydromagnetic waves of long-period inside plasmasphere 2−73792
International Magnetospheric Study anal. review 2−112266
interplanetary mag. field rel. to 2-60 min. period phenomena 2−78915
ionospheric control of polarisation of low-latitude pulsations 2−106429
ionospheric response to Pc 5 micropulsations 2−63166
latitude dependence of Pc 3-4 pulsation periods 2−78914
low-freq. pulsation generation by energetic particles 2−63184
magnetosphere, resonance oscills. of mag. lines of force rel. to micropulsations 2−112229
magnetosphere polar cap ULF/lower ELF EM pulsations 2−112260
MHD waves propag. in ionosphere, boundary conditions 2−112198
multisatellite simultaneous obs. of micropulsations, review of results 2−63182
Pc 1 and 2 generation in magnetosphere frontal boundary layer plasma interactions 2−73786
Pc 1 emissions in afternoon sector prior to SSC 2−112239
Pc 1-2 pulsation spectra and heavy ion effects 2−94563
Pc 3, nighttime equatorial effects over India 2−78924
PC 3, nonlinear reson. theory 2−106427
Pc 3 generation mechanism and Rossby hydromagnetic waves 2−117528
Pc 4,5 and energetic particle fluxes, modulation by mixed mode of transverse/compressional waves 2−106424
Pc 5 event of unusual persistance, Nov. 14-15 1979 event 2−84038
Pc 5 pulsation and associated elec. currents in ionosphere 2−83995
Pi 2, meridional distrib. of spectra and intensity 2−112232
Pi 2 oscillation attenuation in ionosphere 2−117529
Pi pulsation generated by unstable Alfven waves 2−89076
polar conductivities of air recording, instrument for 0.01-1.0 Hz geomagnetic pulsations 2−117493
solar activity cycle depend. of micropulsations *(Russian)* 2−58203
solar wind control of daytime pulsations 2−63185
substorm associated mag. pulsations at synchronous orbit 2−63183
sudden impulse generated micropulsation, July 1977 event 2−112241
ULF pulsation mode coupling 2−63189
ULF pulsations, theory of wave phase variation 2−73796
microrecording *see microphotography*
microreduction *see microphotography*
microscopes
see also acoustic microscopes; electron microscopes; ion microscopes; optical microscopes
electron beam lithography, pattern registration meas. with irregular and offset lines 2−69247
X-ray shadow projection microscopy of microwire 2−64207
microscopy
see also electron microscopy; ion microscopy; optical microscopy
bibliography of microscopic equipment, methods and appls. 2−58577
biomedical sciences, optics appls., conf., Graz, Austria (Sept. 1981) 2−107021
conference on phys. and engng. in medical imaging, Pacific Grove, USA (Mar. 82) 2−107017

microscopy continued
microscope employing laser interferometry for cosmic ray track meas. in plastic detector 2−64841
neurons, molluscan, morphology, visualisation by microscopy 2−62864
polypropylene, crystallising, impurity diffusion rel. to annealing 2−104049
microstructure, crystal *see crystal microstructure*
microtomes *see laboratory apparatus and techniques*
microtrons
application to neutron analysis of ores and rocks 2−62440
Czechoslovak microtron, bremsstrahlung power spectra, photon output *(Czech)* 2−59575
Czechoslovakian, 23 MeV *(Czech)* 2−59574
external beam injection calcs. 2−85424
MAX accelerator system with race-track microtron and pulse-stretcher/storage rings 2−90327
X-band microtron RF accessories 2−59577
microwave acoustic devices *see acoustic microwave devices*
microwave amplifiers
see also masers; microwave parametric amplifiers
coaxial structure for packaged MESFET operation at top noise and gain performance at 24 GHz 2−100734
gyrotron travelling wave amplifier, analysis of oscillations 2−96872
gyrotron travelling wave amplifier, velocity spread and wall resists effects 2−96873
gyrotron travelling wave amplifier, wide-band fast wave amplifier construction 2−96874
GaAs hot-electron diffusion const., Monte Carlo calc. 2−98656
InP, hot-electron diffusion const., Monte Carlo calc. 2−98656
microwave antenna arrays
imaging focal-plane array at 119 μm 2−112973
microwave antennas
see also waveguide antennas
biomedical hyperthermia, embedded insulated antenna 2−62732
microstrip antennas, developments and trends towards bandwidth increase 2−68108
SHF 10 m dia. steerable Cassegrain, solar radiofrequency observations appl. *(Japanese)* 2−94603
microwave detectors
composite bolometers, evaluation at 0.4K 2−53834
Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
modulation-type radiometers, appl. for centimetre band sky survey work with RATAN-600 radio telescope 2−94608
noise sources calibration using RF-switched radiometer with IF attenuation 2−112990
power and energy meter calibration for far IR/near MM wave spectral region 2−95470
radiometer with Josephson detector *(Russian)* 2−73842
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
rocket plume radiometry using lab. H_2O jet simulation 2−90520
satellite remote sensing technology development, Japanese Marine Observation Satellite program 2−73820
semiconductor device physics, book 2−53437
superconductive photon-assisted tunnelling for MM wave video detect. 2−98815
$NbSe_3$ whiskers, quasi-one-dimensional, microwave and MM EM signal detection and conversion 2−116302
microwave devices
see also acoustic microwave devices; Gunn devices; masers; microwave parametric devices; solid-state microwave devices; waveguides
active microwave delay line for reducing the dead time in electron-spin echo spectrometer 2−79639
cavities, cm and m ranges, for EPR expts. 2−95420
ferrimagnet, microwave propagation, book 2−58575
substrate film thickness meas. using microwave device 2−101410
X-band microtron RF accessories 2−59577
microwave filters
far IR and subMM wavelength filters, book 2−112668
multilayer all-dielectric bandpass filter design using microwave filter principles 2−109015
microwave generation
see also microwave oscillators; relativistic electron beam tubes
cavity improved design for ^{15}N spectroscopic analysis 2−78161
diffraction radiation generator near-MM sources, unstable resonator and output coupling 2−97010
flash X-ray tube, microwave and hard X-ray prod. 2−101507
sub-mm, laser three-level gas excited by two unidirectional waves, amplification 2−70552
Nb-NbO_x-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455
microwave heaters *see radiofrequency heating*
microwave heating *see radiofrequency heating*
microwave holography
complex imaging system at X band, image construction and image quality improvement *(Japanese)* 2−114217
digital in-line holographic techniques for long wavelength imaging 2−109126
plasma diagnostics with computer-imaged microwave holography 2−91673
radiofrequency microcomputer-controlled holographic system, dependency of imaging characts. on references phase 2−114222
synthetic aperture tomographic imaging for microwave diagnostics 2−80915
microwave induced delayed phosphorescence *see MIDP*
microwave-infrared double resonance *see microwave-optical double resonance*
microwave integrated circuits
see also hybrid integrated circuits
Ti/Pt/Au thin film circuits, conductive via processing utilising RF sputtering and electrodeposition 2−99338
microwave links
13 GHz line-of-sight link rainfall and attenuation statistics 2−117426
atmospheric-induced fading on 23 km links at 9.6, 11.4, 28.8 GHz 2−112034
attenuation, relation to rainfall rate statistical distribution in equatorial and tropical climates 2−100414
attenuation beyond 10 GHz, rain profile characterisation using 2nd order approx. 2−94435
depolarisation due to snowfall at 34.5 GHz 2−68466
microwave links continued
line-of-sight radio link, 160 km, received signal level measurements 2−117404
microwave radio meteorology, fading by beam focusing 2−106295
rain attenuation prediction methods for microwave paths in Greece 2−100533
rain attenuation statistics for slant path at 11.6 GHz using Italian Sirio satellite expts. 2−78749
raypath parameters in tropospheric multipath propagation 2−106212
signal strength fluctuations in two line-of-sight microwave links during the eclipse of February 16, 1980 2−106660
sodar-derived boundary layer information appl. 2−78790
space systems environmental effects 2−88487
microwave measurement
see also microwave reflectometry
4 and 6 GHz depolarisation correlation on satellite to ground slant paths 2−63024
admittance meas. using bridge sampling methods, 250 kHz to 5 GHz range 2−101427
attenuation standards, UK improvements 2−101382
coal, dielectric properties, frequency-dependence application in industrial heating 2−104808
coaxial waveguide terminations, 16/4.58 mm, characteristic impedance meas., high-precision verification system 2−53743
coaxial waveguides, impedance working standards 2−53742
conducting films, elec. characterisation by contactless microwave cavity technique *(French)* 2−101418
dielectric parameters of solids at microwave freq., evaluation method 2−53786
dielectric props. of solid and liquid dielectrics, using resonance technique 2−53787
dielectric-conductor mixtures, permeability meas. in microwave range *(Polish)* 2−53781
ferroelectrics, dielectric props. meas. in microwave range 2−95405
fibrous material, thickness independ. moisture meas. using Gunn oscillators *(German)* 2−74426
foam-covered sea, empirical microwave emissivity model 2−100393
high stability clocks in space 2−79535
incident EHF microwave in transient narrow gap arc, electron density meas. 2−103472
interferometer design for plasma density meas. 2−69312
microprocessor-controlled phase analysis for a 2-mm microwave interferometer on the TCA Tokamak 2−81588
MM and sub-MM wavelength interferometry, use of two-oscillator operating modes 2−76199
MM-wave anechoic chamber, absorber testing method for the oblique incidence 2−91162
MM-wave noise meas. utilizing cross-correl. receiver, pitfalls 2−84661
Narda Model 7000 A Analyser system, microprocessor-controlled microwave tester *(German)* 2−112925
NDT, EM aspects, review 2−67720
passive microwave remote sensing of Earth from space, review 2−106362
pentachloronitrobenzene monocrystal 10 GHz dielectric absorption and anisotropic permittivity obs. *(Japanese)* 2−72420
permittivity meas. of low loss materials using dispersive Fourier transform spectrometric technique 2−101426
plasma, high density, electron denstiy determ., microwave method 2−86476
power, working standard 2−95400
radiometric method for living tissue semiconductor props. meas., tumour location appl. 2−111818
rain attenuation of mm waves, large scale artificial rainfall and FM/CW radar appl. *(Japanese)* 2−94539
remote sensing, active and passive, book 2−89497
resistivity, non-destructive meas. using microwaves *(Chinese)* 2−89737
resonant transmittance model for mm-wave propagation, IR modelling techniques appl. 2−112035
scanning resonance quasioptical millimeter wave polarimeter 2−69198
sea state meas. using radar 2−68384
sensor for measuring small movement of biological subject 2−88710
snow water equiv. estimation, microwave radiometry 2−106336
soil evaporation, active microwave radar meas. 2−68533
substrate film thickness meas. using microwave device 2−101410
thermoluminescent dosimetry using rare earth doped $BaSO_4$ phosphor 2−87877
thin film permittivity meas. technique 2−89747
time-domain measurement using waveform recorder and spectrum analyzer 2−101413
tissue permittivity in vivo meas. using coaxial line sensor and network analyser 2−105879
water vapour, excess path length estimation by max. likelihood method, multialgorithm program 2−106290
waveguide cryogenic microwave noise standard 2−74471
GaAs, electron drift velocity meas. using variable frequency microwave time-of-flight technique 2−98664
GaAs, velocity/field characteristic meas. using HF modulated solid-state laser diode 2−82350
Nb superconducting resonators, characterisation using 10 GHz ultrastable oscillator 2−112923
PbS polycrystalline film, cond. and permittivity meas. at microwave freqs. *(Russian)* 2−95403
PbTe polycrystalline film, cond. and permittivity meas. at microwave freqs. *(Russian)* 2−95403
Si, velocity/field characteristic meas. using HF modulated solid-state laser diode 2−82350
microwave-optical double resonance
see also PMDR
acetone, zero field splitting, ODMR and phosphoresc. study 2−114022
alkali halides, F centre pairs, exchange effects in ODESR 2−56981
alkali metal halide cryst., triplet excitons, hyperfine interactions ESR optical registration study 2−87629
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
anthracene/tetracyanobenzene, charge transfer cryst., ODMR and EPR spectra calc., triplet excition coherent motion effects 2−56445
^{17}O-benzophenone, photoexcited, ODMR and ENDOR, orbital rot. in lowest triplet state 2−59831
chlorophyll a, n-octane soln., triplet state, fluoresc., ODMR 2−85708
4,4'-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
dressed molecular energy levels probing by IR-RF double reson. 2−65030

microwave-optical double resonance continued
exciton-exciton interaction freq. averaging, NMR use in exciton spectroscopy *(Russian)* 2−71884
formic acid, ν_3 vibr.-rot. band, Stark spectroscopy and laser microwave ODR, vibr.-rot. band 2−102516
peri-hexabenzocoronene triplet state, symm. distortions and pseudo-Jahn-Teller effect, MODOR obs. 2−75196
lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
molecular beam optical-RF double resonance, laser induced coherence effects 2−65029
molecules, tetrahedral, IR-MW double reson. spectroscopy using a tunable diode laser 2−59834
pyrochlorophyllide a-apomyoglobin complex, triplet state, zero-field fluoresc. ODMR 2−85709
5,6,11,12-tetraphenyletracene polycrystalline layers, triplet exciton pair mag.-reson. spectrum, detected from fluoresc. yield 2−116094
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
trifluoroiodomethane, IR microwave double reson. investig. 2−80693
trifluoromethane-d_1, IR-RF two photon investig. 2−80694
wall-less microwave cavity for optical detection of magnetic resonance 2−79640
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
AgCl, triplet excitons, hyperfine interactions ESR optical registration study 2−87629
AgCl:Br^-, pure and doped, band-gap-irrad., luminesc. centres, ODMR and level-anticrossing spectra 2−56980
Al_2O_3-Ho_2O_3-SiO_2, amorphous, EPR, optically detected EPR, and MCD meas., spin glass props. 2−56924
As_2Se_3, cryst. and amorphous, exciton and pair recomb., ODMR study 2−93067
CO^+, MODR spectra, fluoresc. 2−70309
CaBr radicals, mol. beams and IR-RF double reson. studies 2−59835
CaCl, radicals, mol. beams and IR-RF double reson. studies 2−59835
$Ca^{35}Cl$, $A^2\Pi$ excited state hyperfine struct. 2−85839
CaF radicals, mol. beams and IR-RF double reson. studies 2−59835
CaF_2:Pr^{3+}, optically detected NMR, hole burning 2−72379
CaO, electron transfer between F-centres, luminescence, ODMR study 2−98999
CsI:Na^+, exciton-Na^+ interactions, photoluminesc., ODMR and mag. circular pol. study 2−61366
GaAs, optical detection of NMR, nuclear relax. near shallow donors 2−82747
GaAs:Cr, spin dependent carrier capture, ODMR study 2−98998
GaP, ODMR study of P_{Ga} antisite defect 2−98573
GaP:Cu, photoluminescence, excitons 2−116249
^4He, fine structure of Rydberg states in intervals nF-nG, n=5,6 2−65107
KCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
KCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
$^{41}KCl(^{39}KCl)$, F-centres, relaxed excited states, ODMR study 2−61790
Li^+, laser-microwave spectroscopy 2−64902
$M^+ + N$, excited state charge-exchange cross sections, ODMR 2−102611
MgO, additively coloured, photoluminescence, mag. circular polarisation and ODMR study 2−61948
NH_2, excited vibronic states, microwave optical double reson. obs. 2−90588
NH_2 in $\tilde{X}\ ^2B_1(000)$, MOD spectra, fine and hyperfine parameters 2−108595
NO_2, RF dressed mol., optical saturation reson. 2−65028
$NaNO_2$:Ag^+, triplet state, quadrupole interaction, optically detected ESR and ENDOR 2−116093
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
P, amorphous, radiative, triplet luminescence and metastable states, ODMR study 2−93265
$^{85}RbCl$ ($^{87}RbCl$), F-centres, relaxed excited states, ODMR study 2−61790
RbCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
RbCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
a-Si, dangling bond centres energy level, ODMR study 2−110732
Si:H, amorphous, ODMR obs. of luminescence fatigue 2−104954
Si:H, amorphous, spin-depend. recombination at dangling bonds 2−77424
Si:H, amorphous, temp. depend. of room temp. ODMR signals 2−104749
Si:H, F, amorphous, ODMR study 2−93065
a-Si:H, time resolved ODMR by frequency response spectroscopy 2−82745
a-Si:H and a-Si:H,F, dangling bond centres energy level, ODMR study 2−110732
SiH_4, rot., stark effect, IR-RF double reson. obs. 2−85710
$^{171}Yb^+$, electrodynamically confined, optical pumping double reson. microwave obs. 2−80521
ZnO:In, ODMR and ENDOR study 2−82748
ZnO:In(Ga), ESR and ODMR obs. of shallow donors 2−116061
ZnS, vacancy optically detected mag. resonance 2−77425
ZnS:Cu, donor-acceptor recombination, ODMR study 2−99185
ZnS:Cu, ODMR study of IR photolum. 2−93066
ZnS_xSe_{1-x}, donor-A-centre pairs, ODMR and phosphoresc. study 2−56978
ZnSe, Zn-annealed, deep levels and associated carrier recomb. processes 2−110289
ZnSe:Cu, photoluminesc. bands, ODMR study 2−56979
ZnTe:Cl, EPR study of deep Cl-associated centre 2−110642

microwave oscillators
see also Gunn oscillators; microwave parametric oscillators; tunnel diode oscillators
gyrotron oscillators, pulsed and CW, plasma heating 2−76149
Nb superconducting resonators, characterisation using 10 GHz ultrastable oscillator 2−112923

microwave parametric amplifiers
Josephson junction, subharmonic freqs. and chaos, theory, parametric amplifier appl. 2−92833
superconductor-insulator-superconductor reflection parametric amplifier 2−98811

microwave parametric devices
see also microwave parametric amplifiers; microwave parametric oscillators
No entries

microwave parametric oscillators
SAW, transverse, parametric excitation by microwave elec. field 2−87345

microwave reflectometry
see also swept-frequency reflectometry; time-domain reflectometry
MM-wave complex impedance bridge, 94 GHz 2−74467
plasma column, HF high press., diagnostics meas. by microwave reflectometer 2−97791
six-port reflectometer for millimetric wavelengths 2−112931

microwave region *see microwaves*

microwave spectra
see also molecular rotation; molecular vibration; radiofrequency and microwave spectra of diatomic inorganic molecules; radiofrequency and microwave spectra of organic molecules and substances; radiofrequency and microwave spectra of polyatomic inorganic molecules
absorptive optical bistability at microwave frequencies 2−114355
dielectrics, low-loss, MM wave absorpt. meas. using untuned cavity resonator 2−99030
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
linear molecules, microwave linewidth param. 2−102536
millimeter wave spectroscopy, new developments 2−75251
molecular ions in glow discharges, microwave spectroscopy 2−75244
unstable molecules, gas-phase microwave rot. spectroscopy, new developments 2−75243
Si, impurity scatt. within electron-hole liq., far IR and millimetre wave studies 2−99110

microwave spectrometers
see also magnetic resonance spectrometers
millimeter-wave spectrometer, sensitivity and response time improvements 2−89825
pulse spectrometer for millimeter and submillimeter ranges 2−107342
synchronised sample clocking, using mutlivibrator cct. *(French)* 2−58841

microwave spectroscopy
see also magnetic resonance spectroscopy; microwave spectrometers; paramagnetic resonance
absorption meas. in polar liquids in freq. range 50 to 660 GHz 2−53784
book, IR and MM waves, systems and components 2−112668
conference, Norwich, England (Sept. 1981) 2−74152
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
high resolution tunable submillimeter spectroscopy, new techniques and applications 2−64132
millimeter wave spectroscopy, new developments 2−75251
molecular beam maser employing quasi-optical resonators, oscill. behaviour, spectroscopic appls. 2−108846
Stark effect measurement by microwave Fourier transform spectroscopy 2−89826
submillimetre laser with off-axis pump beam injection for heterodyne radiometry/spectroscopy 2−90928
Cs Rydberg states, millimetre, wave spectroscopy, appln. to freq. metrology 2−58918

microwave tubes
see also electron bombarded semiconductor devices; electron-wave tubes; relativistic electron beam tubes
diffraction radiation generator near-MM sources, unstable resonator and output coupling 2−97010
gyromonotron performance, large signal beam efficiency calc. 2−96875
gyrotron resonator, tapered analytic theory 2−96876
RF heating of plasmas appl. 2−69169

microwaves
ferrimagnet, microwave propagation, book 2−58575
plasma, EM wave depolarization in nonlinear transillumination 2−91619
thermionic energy convertor microwave power enhancement of the plasma conductivity 2−105584
vibrations and microwaves in solids 2−99066
$Be_3Al_2Si_6O_{18}$:Cr, emerald cryst., MM wave quantum amplification 2−93329
Ni, exchange splitting of phonon assisted microwave transmission at 9.5 GHz 2−66885
$PtSb_2$, narrow-gap semiconductor, elec. props. in DC and microwave fields 2−87313

mictomagnetism
see also spin glasses
alloys, binary, mictomagnets, susceptibility and sp. ht., Monte Carlo calc. 2−92909
magnetic transformations in amorphous and mictomagnetic materials 2−61712
review of magnetic order in solids 2−110586
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Ce_{1-x}Y_xAl_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
Cr_7Se_8, mictomagnetism, mag. susceptibility and magnetisation studies 2−72219
Cu-Mn-Al, exchange anisotropy, hysteresis loops and coercive force study 2−66866
Cu-Ni(Cu-Ni-Fe), mictomagnetic aged alloy, mag. susceptibility and elec. resist. meas. *(Russian)* 2−98885
EuS_ySe_{1-y}, mictomagnetism, mag. phase diag., specific heat and mag. meas. 2−82607
$Fe_2O_3.H_2O$ gel, pure, prep., struct. and mag. props. 2−67769
$Fe_2O_3.xH4d2O$ gel, pure, prep., struct. and mag. props. 2−67770
$Li_{0.5-x/2}Zn_xFe_{2.5-x/2}O_4$ ferrite, magnetisation curves 2−72274
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010

MIDP
acetone, zero field splitting, ODMR and phosphoresc. study 2−114022

Mie theory *see electromagnetic wave scattering*

mild steel *see carbon steel*

military administrative data processing *see military computing*

military ADP *see military computing*

military computing
airborne reconnaissance, conf., San Diego, CA, USA (Aug. 1981) 2−74146

military equipment
see also aircraft; military systems; ships
Common Module imaging spectral radiometer 2−109074

military equipment continued
fibre optic army systems, survivability 2−114444
infrared astronomy, scientific/military thrusts and instrumentation, conference, Washington, DC (1981 April 21 to 22) 2−84371
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
nuclear protection, RA73 gamma ray detector, SIM80 gamma ray simulator 2−100131
reconnaissance, long range oblique photography camera system 2−74530
reconnaissance prism panoramic cameras 2−74529
military systems
see also military equipment
airborne reconnaissance, conf., San Diego, CA, USA (Aug. 1981) 2−74146
digital image quality and interpretability by military photointerpreters, database and hardcopy studies 2−55085
health care telecommunications, US Army example 2−88688
mobile solar power system for military applications 2−57710
reconnaissance by photographic imagery, using code block 2−74532
Milky Way *see the Galaxy*
milliammeters *see ammeters*
mills, rolling *see rolling mills*
m.i.m. devices *see metal-insulator-metal devices*
m.i.m. structures *see metal-insulator-metal structures*
MINDO calculations
acetates, protonated, struct. and fragmentations, MINDO/3 calcs., heats of form. 2−113889
bi(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformational anal., CNDO/2, MNDO and PPP calcs. 2−96459
cycloheptatriene, conformation effects, valence isomerisation to norcaradiene, MINDO/3 calcs. 2−111461
cyclooctatetraenes containing annealed cyclobutene and cyclobutadiene rings, MINDO/3 study 2−113882
ethylene, unrestricted HF instabilities in nuclear spin spin coupling calcs., MNDO calcs. 2−85553
ethylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
flavins, reduction, ionisation pot. MINDO/3 calcs. 2−113887
hydrocarbon molecules, neutral and ionic, heat of form., MINDO/3 calcs. *(German)* 2−93809
methylphenols, electronic and mol. struct., protonation, MINDO/3 study 2−102391
naphthalene, two-photon spectrum of b_{2u} modes, vibronic activity 2−80750
phenol, electronic and mol. struct., protonation, MINDO/3 study 2−102391
polyacetylene, cis-trans isomerisation mechanisms due to thermal treatment and doping 2−83371
polyacetylene, cis-trans isomerisation on doping and heat treatment, MINDO/3 calc. 2−93791
porphine, free base, isomer ground and excited state calcs. 2−113890
propylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
sirohydrochlorin, isomer ground and excited state calcs. 2−113890
TCNQ-TTF complex, intermol. interactions, closed-shell MINDO/3 calcs. *(German)* 2−108389
2,4,6-trinitrotoluene, mol. struct., X-ray investig., direct calcs. 2−85552
unrestricted HF instabilities in nuclear spin spin coupling calcs., MNDO calcs. 2−85553
NO_3^- form. from gaseous ethyl nitrate, reaction mechanism, high press. mass spectrometric meas., 2−72960
mineral oil industry *see petroleum industry*
mineral processing industry
uranium ores prospecting, extraction and prospecting *(French)* 2−58140
mineralogy *see minerals*
minerals
see also lunar rocks and minerals; mineral processing industry
amber, powdered, NMR study of C site chemistry 2−106112
amphiboles, calcic, Fe^{2+} identification in M4 site, extended Huckel method 2−91899
amphiboles, calcic, Fe^{2+} identification in M4 site, optical spectrum 2−93172
amphiboles and other hydrous pyriboles, mineralogy book 2−84401
anorthite-gehlenite system, crystn. of glass-forming melts 2−71371
apatite, fission track induced radiation damage study using absorpt. spectroscopy 2−70111
apatite, fission tracks thermal history and length distrib. 2−70092
apatite, ion induced track formation mechanism 2−59664
apatites, rare-earth containing, mag. props. 2−92875
arcanite, K_2SO_4, phase transition, thermodynamic and phenomenological study 2−61129
atomic absorption spectrophotometry, appln. to chemical analysis of minerals and metals 2−64087
barite, morphological lattice and reciprocal crystal 2−115169
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
binary mixtures, anal. by gamma-gamma method, two-beam probe optimisation 2−73026
bone, mineral-collagen orientation relationships 2−105644
calzirtite, fluorite-related superstruct., cryst. struct. determ. 2−55934
cassiterite spectrochemical analysis, using Mossbauer resonance analyser 2−57658
caswellsilverite ($NaCrS_2$), new mineral from meteorite 2−68681
cerussite, morphological lattice and reciprocal crystal 2−115169
chlorides (NaCl, CsCl, AgCl), compressibility and Moelwyn-Hughes parameters at high-press. 2−58040
chrome diopside, deformation by mechanical twinning process 2−100372
clay, electron diffraction structural investigation, principal results 2−86523
clinopyroxenes, sodic, ^{57}Fe Mossbauer spectral anal. 2−93068
cordierite, high-press. phase transition 2−106104
corundum, Cr impurity rel. to dislocation struct. 2−98095
diamond, garnet inclusions and state of Earth's upper mantle 2−62929
elbaite, Al-rich, cryst. struct. refinement 2−103729
electrical resistivity at high temp. and press. 2−106111
electron microscopy, quantitative analysis 2−97882
elemental mapping using electron microprobe 2−97865
EM, high resolution applied to chem. problems, conf., New York, USA, (Aug. 1981) 2−94904
fairchildite, synthetic, $K_2Ca(CO_3)_2$, struct., X-ray study 2−60961
feldspars, non-centrosymm., SHG test 2−115192
minerals continued
feldspars, X-ray irrad. defects, thermoluminesc. and optical absorpt. study 2−110958
feldspars in basaltic rocks, appl. of thermoluminesc. as weathering tracer 2−62953
fission track temp. age theory 2−73508
fluorite, colouring by neutron and gamma radiation 2−103816
fluorite, thermoluminescence rel. to pretreatment history 2−72566
forsterite plasticity at upper mantle pressures 2−106082
fusing with continuous laser for $^{40}Ar/^{39}Ar$ dating 2−63119
geological materials identification, appl. of spectroscopic remote sensing 2−112156
gillespite, Fe^{2+} Mossbauer spectra, mag. relax. effects 2−61793
glendonite precursor identified as $CaCO_3.6H_2O$ 2−106096
haematite diagenetic growth in pelagic limestones, rock magnetism study 2−68311
Hartland pluton, mineral and whole rock ages 2−78647
hedenbergite, deformation by mechanical twinning process 2−100372
hydroxyapatites, IR ν(OH) bands, temp. depend. 2−108465
irreversible magnetic props. in variable field, magnetometer investig. 2−95414
kaolin, mech. strength rel. to specific surface 2−57403
kaolinite, freq. and temp. variation of dielec. props. 2−68337
knorringite, stability at upper mantle conditions 2−58023
lateritic ores, Ni and Fe determination using radioisotope X-ray fluoresc. 2−57665
lattice reorientation during plastic deformation, vorticity eqn. 2−83811
lonsdalite, in diamond, ESR spectra, structural defects 2−72344
Madiun (Indonesia) meteorite, classification, petrography and chemistry 2−89208
magmatic minerals from Mount St. Helens, rel. to chemical changes in lakes within blast zone 2−88929
magnesiowustite, elastic props. of polycrystalline samples 2−58038
magnesiowustite, eqn. of state at Earth mantle press. 2−78645
magnetic ore prospecting, inversion problem 2−78862
magnetite, ferri-paramagnetic transition at high-press. at Curie point 2−106108
magnetite, magnetic blocking temps., field depend., coercive force data 2−58039
magnetite, multidomain powders magnetostrictive control of coercive force 2−100374
magnetite in natural materials, grain size determ., use of mag. methods 2−106341
mantle fragments in high velocity eruptions, metasomatic introduction of volatile bearing minerals before melting 2−73506
mantle relevant minerals, elec. cond. meas. 2−78651
marcasite, natural, orthorhombic, obs. of cryst. defects 2−76452
mcGillite, one-layer monoclinic struct., electron microscopy and electron ciffr. 2−115181
mcGillite, polytypism and disorder, electron microscopy study 2−115182
methane hydrate, acoustic vel. from Brillouin spectra obs. 2−109909
mica, oxybiotite, coexisting 1 M and 2 M_1 cryst. struct., polytypism 2−91856
mineralogy and petrology, conf., July 1980, Paris 2−58524
molybdenite, ^{98}Tc content rel. to solar neutrino flux 2−89227
monazite, search for superheavy elements 2−83436
natural gas hydrates of northern area of W Siberia, theoretical prospects 2−58041
neutron activation analysis, M-10 microtron appl. 2−62440
New Brunswick mineral deposits rel. to Appalachian tectonic evolution 2−100352
Nilpena ureilite, unusual polymict breccia, mineralogy and comp. rel. to origin 2−100847
olivine, 'spinel to β-phase' transition mechanism 2−73547
olivine, grain boundary migration expts. 2−117299
olivine, high-pressure recovery, creep mechanisms and activation volume 2−100375
olivine, O_2 partial press. effect on dislocation recovery, creep mechanism constraint 2−106117
olivine in unequilibrated ordinary chondrites, discovery of fine Ni-poor Fe-Ni grains 2−100848
olivine-spinel phase transformation in Earth upper mantle, martensitic transform. hypothesis 2−100373
olivine-spinel phase transition at Earth mantle conditions 2−106105
opaque, identification by reflection spectra 2−87719
opaque mineralogy submarine intrusive rocks 2−78644
ores, induced polarization prospecting *(German)* 2−106345
perovskites of type $A^{2+}{}_3B^{4+}M^{5+}{}_2O_9$, order-disorder phenomena *(German)* 2−91857
phosphate/silicate abundance in mesosiderites, metamorphic reaction evidence 2−79050
porphyry Mo deposit, recognition using artificial intelligence program 2−117501
pyrophylite, US radiation from crack in strained specimen 2−117295
quartz, zonal struct. study 2−98042
radioactive mineral detection using CR-39 α-particle autoradiographs 2−68524
rock-forming, thermal capacity, rel. to mean at. wt. 2−104013
shock wave apparatus for studying minerals at high pressure and impact phenomena on planetary surfaces 2−78852
silicalite, crystallographically distinct tetrahedral sites, resolution by solid state NMR 2−71424
silicate classification based on cryst. chem. 2−103730
silicate minerals, electronic and ionic polarizabilities 2−90732
silicates, SIMS anal., expt. procedures 2−95532
space group ambiguity resolution, optical SHG study 2−115187
spinels in meteorites, sorption of noble gases rel. to origin of planetary gases 2−100846
structural patterns, structural genetic trends 2−86605
sulphide minerals in meteorites, sorption of noble gases rel. to origin of planetary gases 2−100846
thermo-EMF measuring instrument using probe method 2−69168
Tibooburra meteorite, new carbonaceous chondrite of high petrologic grade, mineralogy and comp. 2−89207
titanomagnetite (Al substituted), thermoremanence of monodomain samples 2−88867
titanomagnetite grains in deep-sea basalts, low temp. mag. hysteresis rel. to domain state and coercivity 2−78642
tourmalines, cryst. chem. aspects 2−103729
troilite, meteoritic phase transitions and domains, TEM obs. 2−117641

minerals continued
Tuva, USSR, metallogeny, importance of tectonic-magmatic activity 2−83815
U-bearing veins and inclusion, U-content calc. 2−68523
Ukrainian Shield, crustal thickness rel. to one content *(Russian)* 2−106024
X-ray crystallography, at high pressures, 1933-1980: a bibliography 2−63771
Young's modulus determ. by X-ray method 2−99616
zeolite, hydrated, protonic conduction 2−82014
zeolite, VSZ-4 crystals, hydrothermal growth and characteris. 2−99311
ZSM-5, siliceous zeolite catalyst, crystallographically distinct tetrahedral sites, resolution by solid state NMR 2−71424
α-recoil damage and preferential soln. effect, track prod. mechanism 2−64778
$Al_{14.6}Fe_{4.3}Mg_{1.4}TiZn_{0.6}(Ga,Mn,Na)_{0.1}O_{30}(OH)_2$, hogbomite-8H, cryst. struct. 2−91901
$Al_2Mg(OH)_2(Si_4O_{10})(Ca,Na)_x.4H_2O$, bentonite, texture changes during vibr. grinding and after ageing *(Czech)* 2−88101
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896
$Al_2SiO_4F_2$, fluor-topaz, thermodynamic props. 2−92226
B mapping using CR-39 polycarbonate plastic detector 2−68522
Ca amphibole schist, Fe^{2+} and Fe^{3+} conc. determ. by Mossbauer spectroscopy 2−99738
$CaCO_3$:^{210}Po, radiation effects, EPR obs., rel. to paleodose determ. 2−78652
$CaCO_3.6H_2O$ in organic sediment of Antarctic shelf 2−106096
$CaMgSi_2O_6$-$CaTiAl_2O_6$, diopside, crystal struct., Ti^{4+} role 2−86655
$CaScSi_3O_8(OH)$, cascandite, cryst. struct., X-ray diffr. study 2−98009
$Ca_{1.4}Sr_{0.1}Al_{3.8}Si_{8.3}O_{24}.13H_2O$, chabazite, cation-site location, cryst. struct. 2−55937
$CaWO_4$:Ho^{3+}, scheelite, ESR line shape, elec. field effects 2−87586
$(Fe,Cr)_3O_4$ (chromite)+C, in meteorites, noble gases sorption 2−100845
Fe_3O_4+C in meteorites, noble gases sorption 2−100844
Fe_2SiO_4, fayalite, melt-grown, Fe^{2+} content, Mossbauer effect 2−93069
$FeTiO_3$ spinel, natural, oxidation-reduction reactions, electron microscopy 2−72986
$K(Mg,Fe)_3AlSi_3O_{10}F_2$, fluorphlogopite, cryst. struct. anal. 2−98041
$K_{0.01}Na_{0.03}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
$(Mg,Fe)_2Al_4Si_5O_{18}$ in H_2O, cordierite, high press. phase transition 2−92172
$(Mg,Fe)SiO_4$ olivines, single cryst. spectra, 5000-40000 cm^{-1}, up to 200 kbar 2−93214
$(Mg_{5.58}Fe_{0.08}^{2+}Fe_{0.2}^{3+}Al_{0.14})(Si_{3.66}Al_{0.34})O_{10}(OH)_8$, lizardite, cryst. struct., polymorphism 2−98008
$NiMnCrO_4$ spinel valence struct., X-ray spectroscopic determ. 2−115652
Pb retention by zircon in granite at elevated temp. and press. 2−93976
$(Si_{2-x}Fe_x^{3+})(Fe_{3-x}^{2+}Fe_x^{3+})O_3(OH)_4$, cronstedtite, thermally-activated charge transfer, electron hopping, Mossbauer spectra 2−66561
Th-U fission radiography for geological materials 2−112154
U ore, eval. using modified automatic spark counting system 2−75120
U ore exploration and earthquake prediction from Rn transport in Earth 2−73725
Xe hydrate, acoustic vel. from Brillouin spectra obs. 2−109909

mines (coal) *see mining*

mines (mineral) *see mining*

minicomputers
for minicomputer aaapplications see under relevantapplications; administrative data processing; computerised control; natural sciences computing see also electronic calculators
32K, calc., display and comparison of images electron microscope 2−95562

minimisation
see also minimisation of switching nets
cell tracking, modelling and minimisation approach 2−73208
elliptic variational inequalities, mixed formulation and approximation 2−84436
incompressible finite elasticity, appl. of existence and approx. results for nonlinear mixed problems 2−69021
particle momenta estimation, minimisation parameters choice using 4-momentum conservation law 2−108308
plasma confinement, optimal control 2−97766
speech vocoding, frequency weighted Itakura-Saito spectral distance measure 2−97308

minimisation of switching nets
No entries

minimum metallic conductivity
alloys, amorphous, resist. minimum, review *(Japanese)* 2−115725
metal-insulator transitions, review 2−92472
Bi film, elec. cond., grain boundaries effect 2−82491
Si inversion layer, two-dimens. electron gas, localisation and interaction effects 2−72071
Si:P, metal-insulator transition, minimum metallic cond. 2−98544

mining
see also mineral processing industry
aquifer in Kent, England, contamination by salt from coal mine 2−63005
coal mine overburden in New Mexico, USA, sonic logging study 2−78891
coal seam ash content determination by elec. and gamma-ray logging 2−63116
dust explosion temps. meas., IR optical pyrometers design 2−53772
flaw detection in mine hoist transportation systems 2−78064
marine technologies for the 1990s 2−67881
opencast coal extraction sites, noise levels 2−60300
spatial remote sensing and mining research *(French)* 2−68310
N Staffordshire, induced seismicity 2−106007
theodolites, mining, T-30M and T-30MK types, specifications 2−109002
uranium ores prospecting, extraction and prospecting *(French)* 2−58140

minor planets *see asteroids*

minority carrier conduction *see minority carriers*

minority carriers
direct band-gap semiconductor films, minority carrier diffusion lengths, lateral variation meas. technique. 2−98770
LED, proton damage effects 2−71517
MIS amorphous solar cells, theory of Schottky barrier heights 2−116827
MOS minority carrier lifetime improvement by F ion implantation in Si 2−66651
MOS structures, bulk generation lifetime distrib. and surface generation velocity determ. *(Chinese)* 2−66644

minority carriers continued
MOS systems, reactive sputter etching of SiO_2 effect on elec. props. 2−115903
narrow gap semiconductors, plasmon assisted recombination in mag. field 2−92657
p-n junction solar cells, doping and temp. dependences of minority-carrier diffusion length and lifetime 2−99804
semiconductor, ambipolar mobility determ. by flying light spot expt., theory 2−89745
semiconductor, diffusion length meas. using microscopic electron probe 2−71996
semiconductor, highly doped, energy gap narrowing determ., minority carrier recomb. as function of doping conc. 2−92645
semiconductor, III-V, band to band transitions, lifetime and probabilities, minority carrier lifetime 2−93253
semiconductor, SHF wave scatt., mathematical model *(Russian)* 2−82959
semiconductor, transition metal doped, photoanodes, steady state photoresponse in aq. soln. 2−115815
semiconductor surface barrier devices, I-V charact. including recomb. effects 2−82459
semiconductors, Auger recombination, minority carrier lifetime, impurity and phonon scatt. effects 2−87299
semiconductors, lifetime meas. by electron beam technique 2−66570
p-Si(Li) parameter meas. during drift compensation 2−74465
simultaneous determination of bulk and surface layer lifetimes using MIS structures C(t) charact. *(Chinese)* 2−66643
solar cell, liquid-junction, illuminated semiconductor-electrolyte interface, steady-state model 2−116802
solar cell, short circuit current, nonlinear behaviour with light intensity depend. minority carrier lifetime 2−67857
solar cell under illumination, minority carrier life-time determ. from steady-state and transient response 2−78208
solar cells, back-surface field, minority carrier lifetime determ. in base by forward current-induced voltage decay and photovoltage decay methods 2−99807
solar cells, P ion implanted from solid ion source, minority carrier lifetime meas. 2−84737
transients diffusion in high freq. elec. field 2−104413
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V charact. 2−105555
p-$Al_{0.7}Ga_{0.3}As$-p-GaAs-n-GaAs solar cell, minority carrier diffusion length modification 2−92644
$Al_xGa_{1-x}As$, compositionally graded, electron drift vel., time-resolved optical refl. meas. 2−115771
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V charact. calc., model 2−92775
$Cd_xHg_{1-x}Te$, elec. behaviour of impurities, Hall effect and minority carrier lifetime meas. 2−77091
n-CdSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
CdTe, bulk grown and epitaxial samples, minority carrier diffusion length 2−115776
CdTe epitaxial layers, charact. and annealing behaviour of deep levels 2−104288
CdTe, n- and p-type, photoelectrochem. determ. of minority carrier diffusion length 2−115777
CdTe, thermoelectric power, effects of bipolar photoconductors, photo-Hall effect meas. 2−87310
p-GaAs electrochemical electrode, cathodic photocurrent meas., surface recombination and trapping effects 2−92746
GaAs IMPATT diodes, γ-ray irrad. effects on elec. and recombination props. 2−76501
p-GaAs MBE film, lightly doped, dynamic SIMS study 2−87097
GaAs, minority carrier lifetime meas. using SEM with intensity modulated electron beam 2−87301
GaAs, minority carrier lifetime and diffusion length, EBIC method in SEM 2−98667
GaAs p-n homojunction solar cell, minority carrier diffusion length modification 2−92644
n-GaAs, photocurrent determ. of hole diffusion lengths 2−82396
GaAs polycrystalline n-type film, hole diffusion lengths, lateral variation meas. technique 2−98770
p-GaAs:Ge LPE layer, electron diffusion length determ. by EBIC method 2−56736
GaAs:O, deep electron traps, elec. and optical props. 2−98585
GaAs-AlAs p-n structs., voltage relax. and electrolum. intensity 2−92741
$GaAs_{0.35}P_{0.65}$:N VPE LEDs, deep centre studies by photocapacitance method 2−56637
$GaAs_{1-x}P_x$ epilayer, minority carrier lifetime and diffusion length, EBIC method in SEM 2−98667
$GaAs_{1-x}P_x$, minority carrier lifetime meas. using SEM with intensity modulated electron beam 2−87301
GaP:Mg, LPE growth, minority carrier lifetime, photoluminescence study 2−82488
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
Ge, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Ge:$He^+(Ar^+)$, ion implantation, surface recombination kinetics meas. 2−66031
n-Ge:Sb, defect cluster form. and shaping after high-energy particle irrad. 2−76535
(Hg, Cd)Te, carrier lifetime rel. to wafer processing parameters 2−72001
$Hg_{1-x}Cd_xTe$, deep level defect traps, DLTS study 2−87175
p-$In_{0.53}$ $Ga_{0.47}As$ epitaxial layers, minority carrier high field transport meas. 2−82493
p-$In_{0.53}Ga_{0.47}As$ film, high field transport charact. of minority electrons 2−98699
InGaAsP-InP DH LED, aged, dark defects 2−91974
MIS structure, minority carrier accumulation and capacitance under light illum. 2−115907
Mg-SiO_x-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
Pb-Sn chalcogenide photodiodes, quantum efficiency and R_0A product, struct. effect 2−107403
Si, dislocations, interpretation of EBIC contrast 2−71453
Si, excess minority carrier transient decay, surface recomb. effects, laser pulse sample heating 2−77086
Si, interband Auger recomb. rate, carrier density depend. 2−77088
Si, LPE, minority carrier lifetime 2−72637

minority carriers continued
Si, minority carrier diffusion length, electron beam induced current meas., cryst. imperfections effect 2−71998
p-Si, minority carrier diffusion length meas., computer modelling of surface photovoltage method 2−72007
Si n^+-p junction leakage behaviour, O precip. effects 2−61568
Si n^+-p solar cell, minority carrier lifetime and diffusion length determ. by selfbiased capacitance meas. 2−116818
Si, neutron transmutation doped detectors with improved carrier lifetime 2−59597
Si, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Si, polycrystalline, grain boundaries, chem., compositional and elec. props. 2−76458
Si, polycrystalline, grain boundary recomb. vel. determ., laser spot technique for photoconductance meas. 2−77087
Si, polycrystalline, grain boundary recombination rate determ. by scanned spot excitation methods 2−115774
Si, polycrystalline for solar cell appl., photolum. charact. 2−87843
Si ribbons, defects, elec. characts. and crystallography, EBIC and HVEM study 2−66014
Si solar cell, high efficiency, laser processing 2−57702
Si solar cells, current status, efficiency improvement prospects 2−116804
Si:Au, minority carrier capture cross section meas. 2−66569
Si:O, minority carrier lifetime, heating effects 2−104394
Si:Pt, minority carrier capture cross section meas. 2−66569
n-Si-SiO_2 MOS structure, interface minority carrier traps, optical DLTS study 2−77186
SiO_2 interface degradation and minority carrier lifetime effects of laser beam processing 2−61609
p-WSe_2, recomb. sites and minority carrier diffusion length, charge collection microscopy 2−87294
n-ZnSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
p-ZnTe, photoelectrochem. determ. of minority carrier diffusion length 2−115777

mirages *see atmospheric optics; light refraction*

mirrors
achromatic reflector, designs for mixed two-component deposition, constrained optimisation method 2−70653
Acme catadioptric telescope design 2−95422
airborne instruments enhancement, graphite/epoxy materials appl. 2−74478
all-mirror system, Fourier transform props. 2−108809
aluminization at Okayama Astrophysical Observatory *(Japanese)* 2−117605
amplification regime, reversing mirror charact. control 2−81026
annular mirror surface deform. due to effect of axisymmetric load 2−91021
aspheric corrector design for high aperture objective operating in photon limited conditions 2−55294
aspheric surface testing using computer-generated holograms *(Chinese)* 2−91017
aspherical, for IR Fourier spectrometers, galvanoplastic manufacturing *(German)* 2−70644
aspherical open optical cavity props. 2−108914
aspherical surface shape testing using a laser interferometer 2−97247
astronomical 5 m telescope, optical system config. 2−112330
astronomical telescope, Leoncito, 2.2 m, coude conversion 2−73841
asymmetric second-stage concentrator design 2−57679
broad band semitransparent dielec. reflectors, use of transient assemblies 2−109004
camera, wide-angle pinhole, employing reflecting mirror 2−89835
Cassegrain solar furnace concentration 2−99764
Cassegrainian solar furnace, computational investigation 2−73065
cleaving tool for semiconductor lasers, for facet mirror form 2−65418
concentrating photovoltaic systems for generating power in satellites 2−93909
coupled optical cavities with common partial reflector, very high freq. intensity oscills. 2−108991
deformable glass, thickness profile determ. for variable focus device 2−70648
deformable mirror adaptive optic systems, holographic phase conjugation and Strehl ratio 2−108824
deformable mirror as phase aberration corrector for fusion beam trains 2−97031
deformable mirror requirements 2−102900
deformable mirror use as spatial fitler, appl. to circular beams 2−55303
deformable mirrors, adaptive optics problems and prospects 2−102834
deformable primary mirror design, space telescope appls. 2−102895
diamond turned mirrors for synchrotron radiation 2−86070
dielectric mirror, refl. or light scatt. meas. using simple single beam device 2−114403
dye laser, passively mode locked, stability and astigmatic analysis of six-mirror ring cavity 2−60120
dye lasers, single-mode wedge, continuous-scanning system 2−75617
electrostatic dust protection for optical elements in Earth-mounted and satellite orbital systems 2−55289
electrostatic mirrors and lenses, three-cylinder design, mass spectrometer appl. 2−89847
enhanced reflecting mirrors for large diameter laser beam expanders, interferometry 2−97038
focal reducer, flat-field, reflecting 2−73840
focusing heliostats for solar power stations, design and development 2−73066
four-wave wavefront reversal, influence of linear absorpt. and refl. 2−55278
gamma ruticons, spatial-freq. response 2−91088
geometrical distortion compensation by a deformable mirror 2−102734
glass, float, X-ray mirror reflectivities from 3.8 to 50 keV 2−84755
grazing-incidence mirror system, props. and performance 2−84762
heliostat and related instruments, principles and practical arrangements 2−100742
ideal second stages in tandem with parabolic concentrators 2−65330
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
integrated optics topography problems *(German)* 2−75724
interference mirrors, multilayered, ang. props. 2−81045
intraresonator phase conjugating mirror for beam distortion reduction 2−102824

mirrors continued
IR laser reflector, dielectric-enhanced, wavefront error, interferometric meas. in visible light 2−95455
irradiators computation method, application to 3-panel system with plane mirrors 2−114397
KrF laser amplifier with phase-conjugate Brillouin retroreflectors 2−108865
large astronomical mirrors, thermal gradient effects in optical testing 2−91016
laser beam expander, two-element 2−81053
laser beam expanders, large diameter, interferometric anal. 2−95454
laser beam reflectors, mirror figure-of-merit and material index-of-goodness 2−97140
laser biconical reflectors, single-layer-coated, polarisation-preserving 2−97150
laser induced damage in optical materials, symposium, Boulder, CO, USA (Sept.-Oct. 1980) 2−58546
laser mirror, 2.8 μm, evaporation technique for low absorption 2−55299
laser mirror dynamic distortion meas. *(Chinese)* 2−97027
laser mirrors, multilayer thickness nonuniformities required for wave front error tolerances 2−65337
laser mirrors, repetitively pulsed, thermal distortions, analytical model 2−86022
laser mirrors, water-cooled, Fresnel ripple mapping 2−97040
laser mirrors for far VUV spectral region 2−81046
laser resonator, retroreflecting corner cube mirror, modes 2−80999
laser resonator reflecting grating freq.-selective losses 2−65342
laser resonators with reflecting axicons, wavefront aberrations 2−75604
lasers, pulsed, with time depend. output mirror reflectivity, energy output optimisation calc. 2−65263
line-of-sight steering and stabilization 2−60216
liquid film shaping of optical elements under normal and reduced gravity 2−102904
local optical correction system, beam control concept 2−102835
luminaire reflectors CAD, new method for optimising candlepower distribution 2−97144
metal, optical characteristics rel. to damping length for surface EM wave 2−87724
metal mirrors, pulsed laser initiation of surface plasma, exoelectron emission 2−60144
metal optical surfaces, intrinsic and roughness-induced absorpt. of EM radiation 2−70632
metal refl. at visible, IR wavelengths, rel. to laser mirror appls. 2−67083
metal superpolished mirrors, deterioration by blue haze 2−102902
metallic mirrors, absorpt., coeff. meas. at 10.6 μm using calorimetric technique 2−70649
mirror, large rectangular, replication 2−109086
model solar power unit using heterophotocells and solar radiation concentrators 2−73110
multipass cavity, laser beam polarisation modifications between two spherical mirrors 2−102830
multiple images in plane mirrors 2−53472
multiple mirror telescope performance, piston and tilt errors effects 2−97142
narrow stripe-geometry DH lasers, mode reflectivity 2−102795
non-imaging transformers, ideal, new class 2−108996
nonlinear reflection coeff. mirror, resonator Q-switching using VO_2 film metal-semicond. phase transition 2−90952
one mirror photograph method for meas. of spatial motion of body 2−101482
optical materials for high-power lasers, advances 2−81006
parabolic mirror, f/6, 200 mm, testing using holographic Twyman-Green interferometer 2−102742
parabolic mirror concentrators design and production technology for operation with high-current solar cells 2−114398
parabolic mirrors and Fresnel lenses comparison as solar energy concentrators 2−83456
parabolic reflectors, defocusing caused by obliquely incident rays 2−65334
phase conjugate mirror optical resonators, orthogonality props. 2−65262
phase conjugate mirror resonator 2−70623
phase-conjugate resonators, intracavity amplitude perturbations, numerical anal. 2−65261
phased sectional mirror, image quality anal. 2−75657
piezoelectric drive solid mirrors, local deform. meas., freq. depend. 2−109000
plane grating and elliptical mirro config. for soft X-ray region monochromators 2−58989
plane mirror and reflective prism optical system, computer calc. of vector triad 2−109001
plasma mirror, laser generated, for Nd:glass GILAS laser 2−114317
polygon, rotating, field curvature as consequence of light beam deflection 2−55313
polymeric coatings on mirrors, photochem. degradation, study using FT-IR reflection absorbance 2−79691
power plants, tower-type, system of tolerances 2−99828
pseudo-conjugation/compensation of high-power optical trains, precision corner, lens and K-mirror arrays 2−102899
radiographic mirror device to plot topometric schemes for preradiation preparation of patients *(Russian)* 2−62739
RATAN-600 radio telescope, plane-mirror operation 2−94595
rectangular waveguide resonators with conventional and phase-conjugate mirrors, mode discrimination, coupling losses 2−90941
reflectors, coated, laser damage testing at excimer laser wavelenths 2−97028
resonators with mirrors formed by sets of retroreflecting elements 2−70651
retrodirective arrays for phase conjugation approx. 2−70647
retroreflecting mirror resonator, laser radiation angular distrib. form. characts. 2−70587
rhodamine 6G tunable dye laser pumped by pulsed Xe ion laser *(Chinese)* 2−90922
ring laser props. with misadjusted spatially inhomogeneous medium 2−97013
ring optical resonator with flat mirrors, threshold gain study *(Russian)* 2−86013
sagittal depth determ., comments 2−60208
segmented aperture averager, optical anal. 2−97141
segmented mirror polishing experiment 2−55361
semiconductor lasers, longitudinal mode control by rectangular conical diffractor system, wavelength-division-multiplexing transmission 2−55190

mirrors continued
solar energy concentrators, trough-type, stationary one-and two-faceted plane side wall configuration with tubular receiver at trough base, optimal geometries 2−78188
solar energy conductors electroforming of metallic facets 2−97138
solar energy conversion technologies, interface microstruct. and microchem., research needs 2−87078
solar energy conversion technologies, interface needs and design requirements 2−88457
solar energy conversion technologies, mech. integrity of solid-solid interface, review 2−87077
solar energy conversion technologies, solid-gas interface reactions, research needs 2−88378
solar energy conversion technologies, solid-solid interface research needs, adhesion abrasion and polymer coatings 2−88247
solar materials, interfacial phenomena and features, review 2−88458
solar power station with mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
solar powerplant steam generator surface incident radiant energy computation 2−116782
solar powerplant tracking system cost considerations 2−116786
spatial multimirror optical resonator geometry influence on sensitivity to disalignment 2−97017
spherical optical resonator, interf. function, diffr. correction for length meas. by mirror displacement *(German)* 2−69246
spherical primary mirror with aspheric corrector plates located near focus, optimum soln. 2−65332
spherical resonator equivalence to arbitrary phase-conjugate resonators 2−75635
stationary reflector-augmented flat-plate collectors geometry optimisation for improved performance 2−99836
surface autocovariance functions, visible scatt. rel. to roughness scales 2−81043
surface ripple effects on image quality astron. telescope performance appls. 2−108994
surface shape testing, interferogram processing precision analysis 2−60212
surface testing, fringe contrast improvement in Fizeau interferoscope 2−55297
swivel, two-mirror, operating in parallel rays, kinematic calc. using vector-matrix method 2−75668
telescope mirror, fully segmented, figure control 2−106525
telescopic system of two mirrors, calc. of paraxial props., wave aberration *(Czech)* 2−55292
Temos 4, mosaic telescope problem soln. *(French)* 2−94600
tetrahedral reflector with plane reflecting faces for autocollimation 2−109013
thin-film lasers with two-dimens. periodic structs. 2−96988
three coordinate goniometer, reflector modification *(Russian)* 2−97153
three-mirror telescope anastigmats, classification 2−91019
toroidal mirror pairs, imaging performance for grazing-incidence appls., comparison 2−102896
transmission X-ray mirror using soap films 2−84754
triple reflector using mirror wall tiles 2−107056
two-mirror aberration free systems, second mirror figure determ. 2−81044
unstable resonator with aspherical mirrors 2−108995
unstable ring resonator with self imaging aperture, mode anal. 2−108907
unstable ring resonator with self-imaging aperture, modes 2−97157
UV reflector films, multiple-shot laser damage thresholds at 248, 308 nm 2−65281
V-trough concentrators geometrical configuration optimisation for improved performance 2−78191
wave front reversal system performance, effect of inhomogeneity drift along a beam propag. line 2−102882
wavefront compensation with pseudoconjugation, precision corner, lens and K-mirror arrays 2−70646
wavefront reversal, compensation for optical beam small-scale nonlinear distortions 2−70624
wavefront sensing and control aspects in a high energy laser optical train 2−102836
waveguide mode diffraction at open end of two-dimens. metallic waveguide, indeterminate Pade approxs. 2−90809
waveguide resonators, with phase-conjugate mirror 2−60126
X-ray mirror reflectivities from 3.8 to 50 keV 2−84756
X-rays, ultrasoft, scatt. from polished surface, rel. to X-ray mirror development 2−87898
Ag mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
Ag mirror production, comparison of $SnCl_2$, $SnCl_4$ sensitizing agents in electroless deposition 2−72641
Ag-glass mirrors durability in moist acid vapours, applications in outdoor environments 2−67843
Al first surface mirror specular reflectance standards, prep. and calibration 2−114405
Al mirror design for large aperture precision collimator, long wavelength IR sensor test facility 2−102958
Al reflective layers, back side protection with varnish coatings 2−97147
Al/Al_2O_3 coated mirrors, reflectance (170-1000 nm) rel. to Al_2O_3 film thickness 2−81047
AlGaAs DH lasers, narrow stripe, gain-guided, proton-bombarded, LPE grown, far field asymm. 2−108877
AlGaAs lasers with micro-cleaved mirrors suitable for monolithic integration 2−65259
Au mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
$BaTiO_3$, phase-conjugating mirror with CW gain 2−90993
C, diamond-like, ion-beam deposited, improved optical elements for high powered lasers 2−65323
CO_2 laser with plasma mirror, electron-beam-controlled 2−70582
CO_2 TE hybrid unstable resonator laser, single longit. and transverse mode operation 2−65198
Cu cooled mirror, absorbed laser power, calorimetric meas. 2−86027
Cu, damage thresholds for short pulse IR lasers 2−108923
Cu mirror, diamond-turned, laser-induced damage, spot size dependence meas. 2−114343
Cu mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
Cu mirrors used in CO_2-ICF laser systems, optical damage limitations 2−60145
$GaAs-Al_xGa_{1-x}As$ solar cells with various types of concentrating systems 2−99788

mirrors continued
He-Ne internal mirror lasers, freq. stabilisation by flowing-water method 2−70594
He-Ne laser, 633 nm, $^{127}I_2$ stabilised, power shifts for various mirror curvatures, report 2−97056
KrF with phase-conjugate Brillouin mirror 2−60136
Mo optical components, polishing procedures for surface texture reduction 2−102898
Nd:glass active-mirror laser amplifier, flashlamp-induced thermal distortion 2−102799
SiC, chemical vapour deposited, mirror material evaluation for synchrotron radiation 2−86071
$Sr_{1-x}Ba_xNb_2O_6$, use in amplifying CW phase conjugate mirror 2−75632
Y_2O_3-SiO_2 UV laser mirror deposition and optical characteristics *(Hungarian)* 2−55213
ZnS-MgF_2 quarterwave layers forming dielec. laser mirrors, temp. depend. of phase anisotropy 2−97145
ZnS-SrF_2 nine-layer dielectric mirrors, radiation strength 2−70598

m.i.s. devices *see metal-insulator-semiconductor devices*

m.i.s. integrated circuits *see field effect integrated circuits*

m.i.s. structures *see metal-insulator-semiconductor structures*

miscibility *see solubility*

missiles
detection of missile signatures 8 to 13 μm, IR zoom lens system design 2−102903

mixed conductivity
benzophenone-polyiodine complexes, electronic and ionic cond. 2−104440
coumarin-polyiodine complexes, electronic and ionic cond. 2−104440
glass electrode, with ionic and ionic-electronic conducting layers 2−105491
glasses, oxide Fe-containing, elec. cond. 2−110406
polyacetylene:AsF_5, solitons, inhomogeneous doping, EPR, DC cond. 2−61531
rare earth tungstates, mixed cond. 2−72035
semicond.-metal transition, superionic transition, phenomenological model 2−61529
solid electrolyte failure, electronic cond. increase, impurity effects 2−115837
Ag chalcogenides, mixed conductors, electronic relax. time, phonon modes 2−115836
Ag_3AsS_3, electrical conductivity, electronic and ionic components, temp. depend. 2−77136
α-Al_2O_3:H, H donors, mixed conductivity study 2−82274
α-Al_2O_3, native disorder, determ. of parameters 2−76432
Cu_2Se, mixed cond., influence of cation disordering on elec. cond. 2−104439
$DyO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$ErO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
GaAs:Cr, photoconductivity, instability, mixed cond. anal. 2−72026
$GdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$Li_2Cu_2(MoO_4)_3$, electrical cond., ionic and electronic 2−72034
LiH, solid, elec. cond., H_2 press. effect 2−66598
$NdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$PbBr_2$, elec. cond. meas. 2−72037
PbO:TiO_2, mixed conductivity, defect model, temp. and press. depend. 2−115834
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
SiO_2-B_2O_3-Sb_2O_3-Na_2O glasses, electronic and ionic cond. 2−87348
$Sr(Sr_{1/3}Nb_{2/3})O_3$, band gap, electron mobility, Schottky disorder, elec. cond. meas. 2−61530
$Zr_{0.94}Ca_{0.06}O_{1.94}$, partially stabilized, elec. cond. rel. to temp. and O_2 partial press. 2−115833
ZrF_4-BaF_2-$(BaCl_2)$, glasses, mixed cond. as function of temp. 2−115832
$(ZrO_2)_x(C_2O_2)_{1-x}$ solid solns., elec. cond., O_2 press. depend. *(French)* 2−98704

mixed state
see also flux creep; flux flow; flux-line lattice; flux pinning
Abiskosov vortex state near upper crit. field, Ginzburg-Landau theory 2−66726
ferromagnetic superconductor, mixed state, fluctuations and instabilities 2−66727
Josephson tunnel junctions, long, vortex penetration and self-resonant effects 2−56789
phase transition, type I to type II, thermodynamic theory 2−82524
rare earth ternary cpds., mag. and supercond. props. 2−115937
small-κ superconductors, energy gap and vortex creation energy 2−72126
two-dimensional vortex lattices, melting in self-consistent harmonic approx. 2−110065
type I superconductivity, current induced destruction role of one- and two-dimensional mixed state 2−61670
type II superconductors, thermodynamic potentials 2−104552
vortex lines, uniform movement 2−56804
Al thin film, inhomogeneous current state, vortex lines, C-V characts. study *(Russian)* 2−82549
$Ce_{1-x}Gd_xRu_2$, self induced vortex state, Meissner effect, NMR study 2−87463
Nb, peak effect near $H(c_1)$, crit. current meas. 2−77245
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785

mixed valence compounds
Anderson coupled two-impurity system, Hartree-Fock staggered ground states 2−56489
Anderson lattice, electrical cond., freq. depend. 2−56629
Anderson mixed valence impurity, static and dynamic susceptibility 2−76990
Anderson model, asymmetric, density of states 2−66406
Anderson model, asymmetric, perturbation treatment in terms of Fermi liq. theory 2−66499
Anderson model, one dimensional periodic Hamiltonian, finite cell calcs. 2−66407
Anderson model, two-impurity, thermodynamic scaling theory 2−66408
charge fluctuations and the absence of order in mixed-valence materials 2−56501
Class II mixed valence oxovanadates, hopping and delocalised electrons 2−66497

mixed valence compounds continued
classification of states at the Fermi energy in mixed valence systems 2−56422
conference on valence fluctuations in solids, Santa Barbara, California (Jan. 1981) 2−53422
correlated hybridised bands in one dimension, exact results 2−56523
de Haas-van Alphen effect, theory 2−92442
diagrammtic summation, approx., for intermediate valence system 2−56524
diatomic-molecule model for a mixed-valence system 2−56525
dynamical mag. susceptibility, alloy analog. treatment 2−110562
dynamical susceptibility and neutron scatt. cross-section 2−56516
dynamical susceptibility of intermediate-valence compounds, periodic Anderson model calc. 2−56527
dynamics of 4f-electrons in intermediate-valence compounds, mag. and phonon props. 2−56112
electrical resist., phonon contrib. 2−56541
electrical resistivity, impurity contribs. 2−56544
electrical resistivity, periodic Anderson model with off-site hybridisation 2−56545
electrical resistivity, valence fluctuation scatt. 2−56543
electron-phonon coupling in intermediate-valence compounds 2−56133
equation of state, theory based on metallic H_2 2−56520
Falicov-Kimball model, extended, phase transition, role of d-band width 2−76993
Falicov-Kimball model, spinless, with hybridisation, alloy analog approx. 2−104218
Fermi liquidology and T/T_{sf} scaling 2−56503
Fermi surface and Fermi liq. props. 2−66768
fluctuation effects at 0K 2−56495
fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
fluoride heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
Goldstone diagrammatic approach 2−61416
ground state, single parameter trial wave function 2−115713
Hamiltonian, exactly solvable, for valence fluctuations between two mag. configurations 2−56522
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
impurity, intermediate valence, f-level Green's function, excitation spectrum 2−76989
iron sulphides, mixed-valence compounds, valence meas. using Mossbauer ^{57}Fe isomer shift 2−61798
Kondo lattice-mixed valence transitions 2−115714
Kondo-problem in the nonlocal spin state of compounds with intermediate valence *(Russian)* 2−61696
lanthanides, nature of 3d shake-down satellites, photoelectron spectroscopy 2−62045
local density of states, real space renormalisation of Anderson chain, alloy approx. 2−66414
local Fermi liquid theory of intermediate valence systems 2−56500
magnetic properties for system with two mag. configurations 2−56810
magnetic susceptibility, periodic Anderson model 2−56818
metal, mixed-valent impurity, theory 2−115715
metal-insulator transition, phenomenological model 2−66450
metal-insulator transitions, review 2−92472
oxide heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
perturbation techniques for electron systems with strong local correlations 2−56461
perturbative theory of mixed-valent systems 2−56499
phonon anomalies rel. to electronic struct. 2−56115
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
phonon-induced instabilities, phase transitions, f-d model 2−87198
phthalic anhydride cryst., mixing of states and two-particle excitations *(Russian)* 2−104892
rare earth chalcogenides, rare earth valence evaluation by X-ray absorption spectroscopy 2−57214
rare earth cpds., mixed valence in a periodic Anderson lattice 2−82296
rare earth intermetallic compounds, model of mixed valence 2−104318
rare earth mixed valent cpds., homogeneous, lattice vibrs. 2−76608
rare earth systems, intermediate valence core-electron spectroscopy 2−57265
real-space renormalization group study of a fluctuating valence model 2−56521
relativistic band structure calcs., spin polarized, local density functional theory appl. 2−56423
replicate core levels and 4f excitation energies in fluctuating valence materials 2−56504
resonant photoemission and core-level spectroscopy of intermediate valence materials 2−57264
s(d)-f model, intermediate valency, phase diag. and transitions, strain effects 2−98596
screening effects in core-level spectra 2−110309
semiconductors, elec. resist. 2−56574
spinless model, renormalisation group technique appl. 2−56508
superconductor, mixed valence impurities effect on transition temp., sp.ht. discontinuity, and crit. field 2−61641
systematics of valence fluctuation systems 2−56498
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
tetraazaannulene macrocyclic complexes, metalloorganic conducting materials, synthesis and characterization 2−56564
TMTSF complexes, XPS study 2−77703
TTF salts, highly conductive, temp. dependence of reflectance spectra 2−87786
two-impurity Anderson model in local moment regime, path-integral study 2−56829
variational ground states, magnetic responses, and dilution behavior of model valence-fluctuation systems 2−56519
variational study of intermediate valence 2−56505
Wigner crystallised ground state, stability anal. 2−92490
As_2Se-GeSe-SnSe, glass, Sn valence states, Mossbauer, optical and electron spectroscopy study 2−71935
B_2O_3-Fe_2O_3-PbO-GeO_2(CaO)(As_2O_3) glass, Fe valence states, comp. dependence, Mossbauer and mag. study 2−104317
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
mixed valence compounds continued
$2CaO.K_2O.xFe_2O_3.(5-x)P_2O_5$ glass, elec. cond., temp. depend. anomaly 2−56580
Ce alloys, AB_2 Laves phase, evaluation of Ce metallic radius 2−56526
Ce alloys, reson. photoemission studies 2−57267
Ce alloys, surface and bulk props. of Ce, XPS and X-ray absorption spectra 2−57268
Ce compounds, UPS, 4-f level energy, width and volume coupling 2−57266
Ce intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
γ-Ce, mixed valence, X-ray absorption spectra 2−76991
Ce-Si system, nonmagnetic-magnetic transition 2−61713
$Ce(Ag_{0.3}Pd_{0.7})_3$, mixed valency photoemission study 2−87199
$CeAl_x$ (x=2, 3, $^{11}/_3$) mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
CeB_6 mixed valence cpd., anomalous props. 2−56511
$CeBe_{13}$:Er, ESR thermal broadening 2−61762
CeBi, p-f valence mixing, anomalous mag. and transport props. 2−56514
$CeCo_x$, intermediate valence state of Ce, interconfiguration fluctuation model 2−76994
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
$CeCo_5(Ce_2Co_7)(CeCo_2Si_2)$, X-ray L_{III} absorpt. spectra of tetravalent Ce *(Russian)* 2−99218
$CeCu_5$, intermediate valence state of Ce, interconfiguration fluctuation model 2−76994
$CeCu_2Si_2$, mixed valence, X-ray absorption spectra 2−76991
$CeCu_2Si_2$, mixed valence state, elec. resist., mag. field and press. effects 2−110329
$CeIn_3$ mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
$Ce_xLa_{1-x}Be_{13}$, mixed valence and Kondo behaviour, lattice const. elec. resist. susceptibility 2−56515
$Ce_xLa_{1-x}Be_{13}$, thermal expansion temp. driven valence change 2−56226
$Ce_{0.9-x}La_xTh_{0.1}$, mixed valent ground-state, elec. resist., localisation transition 2−56551
$Ce_{1-x}M_2Pd_3$, M=Sc, Y, La, intermediate valence and Gd^{3+} ESR 2−56927
CeM_2Si_2 (M=Fe, Co, Ni, Cu), valence state of Ce rel. to thermoelec. power, X-ray absorpt. spectra meas. 2−61448
$CeNi_x$, intermediate valence state of Ce, interconfiguration fluctuation model 2−76994
$Ce(Ni_{1-x}Cu_x)_5$ and $Ce(Co_{1-x}Cu_x)_5$, mixed valence, Ce^{3+}-Ce^{4f} electronic transition, X-ray K line shift study 2−56497
$CePd_3$, electronic struct. from resonant photoemission and optical reflectivity spectra 2−66498
$CePd_3$, f-states, optical refl. study 2−77550
$CePd_3$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
$CePd_3$, mixed valence, X-ray absorption spectra 2−76991
$CePd_3$ mixed valence cpd., optical absorpt. signature near 20 meV 2−57111
$CePd_3$, mixed valency photoemission study 2−87199
$CePd_3(CeSn_3)(CeBe_{13})$ mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$Ce(Pd_{1-x}Rh_x)_3$, specific heat, susceptibility and resistivity across the entire mixed valence range 2−56212
$CePd_3Si_x$, Ce valence state, Si addition effect, lattice const. and susceptibility meas. 2−97997
$CeRh_3$, mixed valency photoemission study 2−87199
$Ce(Rh_xPt_{1-x})_2$, intermediate valence effects in mag. susceptibility and lattice consts. 2−87200
CeSb, p-f valence mixing, anomalous mag. and transport props. 2−56514
$Ce_{1-x}Sc_xAl_2$, electronic struct. of Ce 2−71933
$CeSn_3$, Fermi surface, linearised APW calc. 2−98525
$CeSn_3$, mixed valence cpd., anomalous NMR shifts 2−56958
$CeSn_3$, mixed valent cpd., Fermi surface props. 2−56427
$CeSn_3$, mixed valent props. 2−56506
$CeSn_3$, spin fluctuation quenching in heat capacity 2−82611
α-$Ce_{0.9}Th_{0.1}$, ground state studied by resonant photoemission 2−56496
$Ce_{1-x}Y_xAl_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
$Ce_{1-x}Y_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xPd_3$, electronic struct. of Ce 2−71933
$CoFe_2O_4$ ferrite, valence states, NMR study 2−110667
Cs, phase transition, press. estimate 2−70155
EuB_6, compressibility, valency and intermediate valence effects 2−56072
$EuCu_2Si_2$, energy balance of mixed-valent Eu ions 2−87197
$EuCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
$EuCu_2Si_2$, valence fluctuation study by 3d core level XPS 2−57269
$EuFe_4Al_8$ mixed valence cpd., magnetically ordered, XPS study 2−56513
$EuNi_2P_2$, intermediate valence system, mag. susceptibility and NMR meas. 2−72364
$EuPd_2Si_2$, cooperative config. change, isomer shift meas. 2−66964
$EuPd_2Si_2$, mixed valence cpd., mag. susceptibility, lattice const., Mossbauer isomer shift 2−56510
$EuPd_2Si_2$, surface shifts, photoelectron spectra study 2−62047
Fe_2O_3-TeO_2 glass, Mossbauer effect and elec. cond. meas. 2−87639
Fe_3O_4, mixed valence, elec. cond. below Verwey temp. 2−71968
GdB_6, compressibility, valency and intermediate valence effects 2−56072
$K_2P_x(CN)_4Br_{0.3}.3.2H_2O$, quasi-one-dimensional cond., phys. props., review *(Japanese)* 2−82332
$K_2Pt(CN)_4$-$K_2Pt(CN)_6$ cryst., laser excited luminesc. and absorpt. study of mixed valence 2−71932
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
$KbAl_3$, mixed valence cpd., anomalous NMR shifts 2−56958
$KbCu_2Si_2$ mixed valence cpd., optical absorpt. signature near 20 meV 2−57111
La, magnetic susceptibility, 77 to 293K, diamag. and paramag. contribs. 2−56824
LaB_6, compressibility, valency and intermediate valence effects 2−56072
$La_{1-x}Pr_x$, intermediate valence materials, press. expts. 2−56502
Ni complex, (tetrabenzoporphyrinato)Ni(II)I, doubly mixed valence mol. cond., struct., mag. and charge transport props. 2−71953
Pd complex, bis(en)palladium(II) dichlorobis(en) palladium(IV) tetraperchlorate, cryst. struct. 2−65940
$PrCo_5$, X-ray L_{III} absorpt. spectra of tetravalent Pr *(Russian)* 2−99218
$Sc_{1-x}Ce_xAl_2$:Gd, EPR, intermediate valence 2−56926
SmB_6, compressibility, valency and intermediate valence effects 2−56072
SmB_6, core level EELS and XPS spectra 2−72588
SmB_6, dynamic mag. response 2−72132

mixed valence compounds continued
SmB_6, intermediate valent, phonon softening, Raman spectra study 2−57081
SmB_6, mixed valence cpd., small energy gap, electron tunnelling and IR spectrum 2−56442
SmB_6 mixed valence cpd., anomalous props. 2−56511
SmB_6, point contact spectroscopy of dynamic resistance 2−56591
$SmCe_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$Sm_xLa_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$Sm_{1-x}La_x(Yb_x)B_6$, valence instabilities and elec. props. 2−56595
$Sm_{1-x}R_xB_6$ (R=La, Gd, Dy), solid solns., valence states, X-ray absorption spectra study 2−87202
$Sm_{1-x}R_xS$, (R=rare earth), solid solns., intermediate valency state, X-ray line shift study 2−87201
SmS collapsed phase, Hall effect and elec. resist., press. and temp. depend. 2−56625
SmS, eqn. of state of intermediate valence solids, theory based on metallic H_2 2−56520
SmS, mixed valence, lattice dynamics 2−76621
SmS, mixed valence cpd., quasi-insulating to Fermi liq. regime change under press. 2−56518
SmS, press. induced change of valence, phonon coupling, extended Falicov-Kimball model 2−56183
$SmS_{1-x}O_x$, local electronic struct. 2−56488
SmS(Se), intermediate valence materials, press. expts. 2−56502
$Sm_{1-x}Y_xS$, mixed valent, X-ray absorption studies 2−57215
$Sm_{1-x}Y_xS$, surface core-level shift calcs. 2−104457
$Sm_xY_{1-x}S$, EXAFS theory, valence fluctuation 2−82956
Sn-Nd(Pr)(Ce), liquid, dil., 4f spin dynamics, TDPAD study 2−56992
Ti_3O_5, mixed valence, elec. cond. below Verwey temp. 2−71968
Ti_4O_7, mixed valence, elec. cond. below Verwey temp. 2−71968
Tm compounds, valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
Tm impurities in metal, cond. and magnetoresist. 2−87229
Tm, mixed valence, X-ray absorption spectra 2−76991
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2−92969
TmSe crystals, valence and phase instabilities, review 2−110307
TmSe, hybridisation energy gap, inelastic neutron scatt. obs. 2−61352
TmSe, mixed valence, X-ray absorption spectra 2−76991
TmSe, mixed valence cpd., high press. neutron and X-ray diffr. studies 2−56509
TmSe mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
TmSe, mixed valent cpd., dielec. response, anomalous features 2−56457
TmSe mixed-valence cpd., paramag. neutron spectra meas. 2−104577
TmSe, point contact spectroscopy of dynamic resistance 2−56591
TmSe, pressure-induced valence transition, X-ray diffr. study 2−82233
TmSe single cryst., inelastic neutron scatt. studies 2−55956
TmSe, trivalent and intermediate valent, spin dynamics, inelastic neutron scatt. meas. 2−72156
Tm_xSe and $TmSe_{1-y}Te_y$, intermediate valent, phonon and elastic anomalies 2−56116
Tm_xSe, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
$TmSe_{0.89}Te_{0.11}$, mixed valence cpd., mag. and elec. props. 2−56444
$TmSe_{1-x}Te_x$, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
$Tm_xY_{1-x}Se(S)$, single site mixed valence, PES studies 2−110308
UN(S)(Te) single crystal, neutron scatt. from spins and phonons 2−56837
$UNi_{5-x}Cu_x$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
Yb intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
$YbAl_3$ mixed valence cpd., elastic props. 2−56067
$YbAlB_4$, mixed valence cpd., elec. resist., mag. susceptibility, sp. ht. 2−56517
YbCuAl, mixed valence cpd., anomalous NMR shifts 2−56958
$YbCu_2Si_2$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$YbCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
$YbNi_{1-x}Cu_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2−104319

mixers (circuits)
see also frequency convertors; radio receivers
metal-semiconductor junctions as freq. convertors, book 2−112668
NQR coherent relaxometer, receiver section, wideband amplifier with mixer 2−89764
Pb/Bi/Jn oxide-Pb/Bi tunnel junction, quasiparticle mixer and other appls. 2−98812
W-GaAs Schottky diode mixer for visible laser light and microwave harmonics up to 0.43 THz 2−112972

mixes *see mixtures*

mixing
see also blending; dissolving; heat of mixing; mixtures; solubility; solutions
alloys, molten, cpd. forming, thermodynamic props. in weak interaction approx. 2−91759
alloys, molten, regular and cpd. forming, short range order and conc. fluctuations 2−91757
atmosphere 2−100431
binary liq. mixtures, entropy of mixing, mass density and viscosity meas. 2−86917
contact boundary mixing, stationary shock wave effects 2−60707
discharge jet interaction with multiple port diffusers 2−86318
electrolyte solutions, excess Gibbs mixing free energy 2−84578
feature cine film dubbing console 2−109133
free swirling jets, turbulent mixing, marker nephelometry study 2−103196
inviscid homogeneous turbulence, development of mixing and isotropy 2−97516
ion bombardment induced atomic mixing, sputtering assessment 2−98166
jet, swirling, confined, turbulent mixing *(Russian)* 2−81331
large-scale jet-mixing struct., coherence with press. field 2−65625
liquid alloys, binary, compound-forming, entropy of mixing 2−103999
liquid alloys, binary, surface tension 2−98393
liquid metal alloys, entropy of mixing 2−115420
liquids non-random mixing theory, for liq. mixtures 2−66230
lung, gas mixing by cardiogenic oscills., theoretical quantitative anal. 2−78382

mixing continued
lung, glass tube models, longitudinal gas mixing, effects of gravity and branching 2−111719
lung, hindrance to diffusive gas mixing in hyperbaric environements 2−78359
methane-N_2 mixing, reson. photoacoustic spectroscopy detection 2−53843
mixing-layer-wedge system, self oscillating vortex form., nonlinear stability theory 2−70910
optical glass, industrial high-speed stirring method development for founding in ceramic containers 2−75738
particle diffusion and heat exchange in stagnant fluidised bed 2−103207
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
polymer blends, phys. and thermodynamic props., review 2−67450
post-production dubbing by computer-assisted digital sound mixer 2−109134
rare earth titanates, $R_2O_3.2TiO_2$, prep. by coprecipitation, crystal struct. 2−72610
rivers, transverse mixing models, parameter identification 2−58096
Saturn atmosphere, eddy mixing coeff. determ. 2−112387
solar pond mixing layer development interferometric study in laboratory simulation 2−83516
spinning NMR samples, pH control and rapid mixing 2−79631
stable salinity gradients, heated from below or cooled from above 2−65634
stratified fluid, boundary mixing 2−109391
supersonic jet coherent struct., instability and mixing zone visualisation using laser light sheets *(French)* 2−86362
supersonic mixing nozzles, laser induced fluoresc. visualisation 2−109423
turbulent coaxial flows swirled in opposite directions 2−103155
two-phase flow obtained by injection of liquefied N_2 into water flow 2−97675
viscoplastic fluids, mixing displacement from channel 2−60649
viscous liquids, mixing and fluid dispersion 2−81406
vortex merging and subharmonics in mixing layers 2−91465
water, thermally stratified buoyant flows, mixing and heat transfer study 2−70942
Al-Ge-Sn, liq. alloy, thermodynamic props., EMF meas. 2−104031
$Al_xGa_{1-x}As$, growth of variance epitaxial layers, by isothermal mixing of melts 2−88009
Ar-He-O_2, ion implantation source, source gas composition and ion current spectrum, optimisation by gas mixing 2−69296
B fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
C fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
CO chemical laser produced by supersonically mixing CS-S-O_2, computer model 2−90881
LiCl-KCl, liq. state, ion mobility mol. dynamic simulation 2−110022
Mn-Zn ferrous ferrites, raw material and process condition effects on props. 2−83059
N_2-O_2, ion implantation source, source gas composition and ion current spectrum, optimisation by gas mixing 2−69296
Na-Sn, liquid, entropy of mixing 2−103999
$NaAl(SiGe)_3O_8$ feldspars, glassy and cryst., ideal mixing of Si and Ge, calorimetric study 2−115414
Ni-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Ni-Si interface, ion beam mixing, expt. study 2−66376
Pt-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865

mixing, heat of *see heat of mixing*

mixing circuits *see mixers (circuits)*

mixtures
see also critical mixtures; mixing; solutions
acetonitrile-ethanol-paraffin, liq.-liq. equilibr. study 2−103971
acetonitrile-methanol-paraffin, liq.-liq. equilibr. study 2−103971
acetylene-O_2 mixture, transition from burning to detonation 2−83387
alkali nitrate-$AgNO_3$ mixtures, nonisothermal, Soret coeffs. and transport props. 2−71678
n-alkane mixtures, excess heat capacities meas. 2−81972
n-alkane mixtures, excess thermodynamic functions, corresponding states principle calcs. 2−81987
1-alkanols-n-octane binary mixt., isentropic compressibilities at 303.15K 2−109878
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2−76282
BBCA-p^Ap^T liquid crystal mixture, US absorption study 2−71580
benzene-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
benzene-n-dodecane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
benzene-n-hexane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
binary, free convection in square cylinder, thermal diffusion effects 2−109166
binary elastic, theory of coupled thermoelasticity 2−91249
binary gas mixtures, competitive adsorpt. on energetically heterogeneous solids 2−110160
binary Lennard-Jones fluid mixture, liquid-vapour interface, surface segregation and tension 2−115495
binary liquid, quadrupolar and dipolar elec. field effects 2−66922
binary liquid, with upper crit. point, dielec. relax. meas. 2−72413
binary mixture, stability of plane-parallel convective flow 2−55556
binary mixture crit. soln. point, coexistence curve, noncritical fluctuations and Fisher renormalisation 2−103937
binary mixtures, nucleation obs. 2−109963
binary mixtures boundary, surface film thickening 2−104213
binary molten salt mixtures, sound vel., excess thermodynamic parameters 2−76595
n-butanol-cyclohexane mixture, US wave vel. and free vol. 2−71573
butyl alcohol-butyraldehyde, dynamic viscosity meas. 2−104044
carbon tetrachloride-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
carbon tetrachloride-phenol (cresol), mol. interactions, US study 2−61067
CB15-E9 liq. cryst. mixtures, blue phase IIB, possible non-existence 2−76674
chiral-racemic mixture, cholesteric pitch and blue phases 2−71643
chloroform liquid mixtures, association const. det. using US vel. data 2−71575

mixtures continued
chloroform-acetone binary liq. mixtures, viscosities 2−71687
cholesteric blue phases, in mixtures and in an elec. field 2−76285
cholesteric-nematic mixture, compressional deform. response 2−97912
cholesteryl myristate/ethyl p-aminobenzoate liquid crystalline mixtures, US vel., density and compressibility study 2−71581
convex molecule mixtures, conformal soln. theory *(German)* 2−55823
p,p′-cyano-n-pentylbiphenyl/p-p′-dialkylazoxybenzenes, intermol. forces, dielec. meas. 2−76290
1-cyanoadamantane, compact cryst. and powder, dielec. spectra, vol. fraction dependence, expt. and theoretical study 2−99022
dense hard-sphere fluid mixtures, equilib. statistical mech. theory 2−107229
o-dichlorobenzene-cyclohexane(carbon tetrachloride), molar and available vol., free length, isentropic compressibility meas. 2−86770
1,2-dichloroethane-alkanol mixtures, isentropic compressibilities and sound vels. meas. 2−81893
dioxan-lactic acid mixtures, calc. of free volume and internal pressure from US vel. and viscosity data 2−71579
DMF/water mixture at 25°C, US absorption 2−76596
eethanol-n-heptane, vapour-liquid equilbria, ebulliometric technique 2−98252
ellipsoidal particle in binary mixture, thermophoresis 2−114959
ethane-Ne mixtures, positronium form. 2−75475
ethanol-n-nonane, vapour-liquid equilbria, ebulliometric technique 2−98252
ethanol-n-propanol (methanol) mixtures, nucleation obs. 2−109963
ethanol-water mixtures, cluster formation 2−55001
ethanol-water-ethylene glycol mixture, viscous behaviour 2−71688
fluid, Kac-tail limit, kinetic variational theory 2−86533
fluid, Redlich-Kwong-Soave volumes, consistent correction 2−98237
fluid mixtures, chem. pot., computer simulation 2−103577
fluorocarbons-hydrocarbons nonideal mixtures, surface tension against water 2−71773
gas mixture, nonlinearity effect on process of separation by thermal diffusion 2−60705
gas mixtures, barodiffusion coeff. calc. *(Russian)* 2−60703
gas mixtures, binary, adsorption on energetically heterogeneous solids, const. mole fractions 2−76814
gas mixtures, gasdynamic separation, theory 2−75998
gas mixtures, nonstationary mixed convection problem 2−97690
gas-liquid mixtures, acoustic nonlinearity of bubbles 2−60612
gaseous, mol. nonequilib. vibr. excitation behind shock wave front 2−108692
gases, binary diffusion, second virial coeff. meas. 2−60697
glycerine-water, immersion of plane plate, natural convection 2−55566
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2−87780
hydroxyl-carbonyl binary liquid mixtures, molecular interaction study using US meas. 2−71576
inert gas mixtures, interatomic pots. calcs. 2−90642
ionised and neutral gas mixture, nonlinear transport processes and irreversible thermodynamics 2−58748
isobutyric acid-H_2O binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
isobutyric acid-H_2O-D_2O, phase behaviour near critical point, phase diagram, scatt., ang. depend. 2−61119
liquid, free-vol., non-random mixing theory 2−66230
liquid, methane-propylene mixtures, concentration fluctuations and sound absorption 2−115358
liquid, nonconformal, computer simulation of behaviour 2−60850
liquid crystal/dye mixtures, UV stability determ., quantitative method 2−62416
liquid crystals binary mixtures, thermal props., review 2−103605
liquid mixture activity coeff. based on local area fraction concept *(Japanese)* 2−92169
liquid mixtures, 2-fluid theory and thermodynamic props. 2−110015
liquids, surface tension prediction, generalised corresponding-states method 2−86975
2,6-lutidine-water mixtures, wetting transition, capillary parameters meas. 2−71775
mesomorphic polymer and monomer liq. cryst. mixture, nematic phases 2−115410
methane-O_2, vibr.-rot. energy transfer, relax. times calcs. 2−85785
methane/decane, computer simulation of nonconformal mixture 2−60850
methanol-ethanol (n-propanol) mixtures, nucleation obs. 2−109963
methanol-water mixtures, cluster formation 2−55001
3-methylpentane-nitroethane critical binary mixture, critical divergence of US absorpt. 2−76598
multicomponent, true boiling points determ., laboratory device 2−58815
multicomponent mixtures, prediction of latent heat of vaporisation 2−98253
nematic fluids, Flory statistical mechanics, steric effects 2−60873
nematic liq. cryst. binary mixture, induced smectic phase, theory 2−109983
nematic liq. cryst. binary mixtures of terminal nonpolar cpds., reentrant nematic phase, X-ray study 2−109984
nematic liquid crysts. and their mixtures, alignment mechanisms and procedures 2−55832
nematic thermotropic and lyotropic liq. cryst. mixtures, obs. of apparent high strength singularities 2−103612
nitroethane+3-methylpentane mixt., thermally excited capillary waves, light scatt. spectroscopy 2−75982
nonequilibrium stationary states, constitutive eqns., extended irreversible thermodynamic theory 2−63950
16-OCB binary mixtures, smectic A-nematic transition, elastic constant temp. depend. 2−56191
6OCB-8OCB, reentrant nematic phase, ^1H spin relax., freq. depend. 2−93033
organic binary mixtures, excess thermodynamic props., temp. depend. 2−71667
organic liquids, study of acoustic parameters using US vel. and density data 2−71578
polar molecule binary mixtures in dil. soln., dielec. relax. 2−61828
poly(ethylene oxide)-PMMA, spherulitic crystallisation, light microscopy study 2−109701
polycrystalline, qualitative X-ray phase anal., computer appl. 2−67688
polyester/chlorinated PVC blends, miscibility study by calorimetric glass transition temp. meas. 2−92219
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
mixtures continued
polyethylene-1,3,5-tribomobenzene mixture, eutectic solidification and oriented growth 2−92164
2-propanol mixtures, cluster formation 2−55001
propanol-decanol mixtures, dielec. relax., time-domain spectrosc. obs. *(French)* 2−99028
1-propanol-water mixtures, cluster formation 2−55001
propylene-Kr liquid mixture, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
pyridine-chloroform-methanol (n-butanol) mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
rigid spheres of different size, coordination numbers, number of nearest neighbour interactions in mixture estimation 2−98238
simple liquids and mixtures, mol. theory, review 2−55821
solid, solubility in supercritical fluids 2−98285
solid binary mixture, periodic spinodal decomposition 2−110000
solvent, thermodynamics of gas solubility 2−66231
stratifying mixtures, thermodynamic props. *(Russian)* 2−104027
superfluid liquid mixture, dissipative hydrodynamic eqns. *(Russian)* 2−66317
terminal polar two-ring organic cpds., re-entrant nematic phase, phase diagrams 2−115132
ternary nonelectrolyte liquid mixtures, diffusion thermoeffect, theory 2−104038
tetrachloromethane-trichloromethane, liq. mixtures, vibr.-energy transfer, Brillouin scatt. study 2−57114
toluene-acetone binary liq. mixtures, viscosities 2−71687
toluene-chlorobenzene-bromobenzene, heats of transport, diffusion thermoeffect meas. 2−104039
1,2,4-trichlorobenzene-n-decane-n-tetradecane mixtures, melting, density, viscosity and thermodynamic props. 2−71666
trifluorobromomethane-Ar, compressibility factors calc. from refractive index meas. 2−76058
Ar-N_2 mixtures, gaseous, viscosities, capillary flow meas. 2−110026
Ar-Xe-NF_3 mixtures, electron attachment const. determ. 2−80809
$CO+N_2$ mixture, Raman scatt., rot. and vibr. relax. *(Russian)* 2−54856
CO_2-He(Ne)(Ar) gas, thermal cond. meas. 2−103250
CO_2-N_2 mixture, vibr. relax., IR luminesc. kinetics obs. 2−75388
CO_2-N_2-He gas mixt., press. shift in atmospheric press. 2−96641
CO_2-n-paraffins, Peng-Robinson equation of state, interaction parameters determ. 2−66160
CS_2-O_2 mixtures, self-ignition, conditions, spectrosc. investig. 2−62402
$Ca(NO_3)_2$-$KnNO_3$ mixture, hypersonic relax., Brillouin scatt. study, transverse mode obs. close to Rayleigh line 2−71591
H-He shock layer, radiating, convective heat flux, opaque admixture blowing effects 2−81358
H_2O-Ar vapour, enthalpy of mixing, assoc. model 2−86886
H_2O-D_2O mixtures, neutron diffraction obs. at 25°C 2−109653
He-Cd mixture hollow cathode discharge, population density meas. 2−71284
He-Ne laser line, linewidth and profile meas. method using optogalvanic spectroscopy 2−70542
^3He-^4He, properties and early history 2−53452
Mn^{2+}-citric acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mn^{2+}-malic acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
N_2/CO_2 mixtures, double discharge TEA CO_2 laser uniform excitation 2−60058
NH_3-N_2 mid-IR high power tunable laser, development and appl. 2−65257
$NiGa_MSi(Sn)_N$, phase diagram invest. 2−67303
$NiIn_MSi(Ge)_N$, phase diagram invest. 2−67303
O_2-Ar mixture, flow in nozzles, chem. and vibr. disequilib. effects 2−81381
Pd (II) complexes, palladium-azobenzene ligands complexes, synthesis and characterisation 2−76288
Se-Te liq. mixtures, NMR 2−98970

mm waves *see microwaves*

MO calculations *see molecular orbitals calculations*

mobility, carrier *see carrier mobility*

modelling
see also brain models; catastrophe theory; identification; physiological models; semiconductor device models; simulation
atmospheric photochemical modelling 2−111985
atomic model of planetary systems 2−117618
Blackjack III plasma diode hydromagnetic insulation 2−91682
Bridgman-type crystal growth, thermal modelling, analytical one dimens. analysis 2−109715
Bridgman-type crystal growth, thermal modelling, analytical two dimens. analysis 2−109716
ceramic-metal composites, internal centrifugal zone growth, mathematical modelling 2−60897
ceramics, internal centrifugal zone growth, mathematical modelling 2−60897
climate models with suspended particles 2−112103
climatology, CO_2 increase-atmospheric warming models, differences 2−112102
diffusers, random phase, correl. props. for multiplex holography 2−65338
effective output and availability of wind turbines for household loads 2−67808
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
geophysical prospecting, modelling of EM systems, local inhomogeneities detection at sea *(Russian)* 2−100594
geothermal energy policy and market share in western United States calc. 2−67820
glow discharge macroscopic model, effective field concept 2−103540
hard alloys, elastic deform. during compression, math. modelling 2−77863
incompressible non isothermal flow, two-dimens. modelling *(French)* 2−55531
interstellar chemical evolution, laboratory simulation 2−106831
IR and microwave radiometry, statistical modeling of scene variability 2−112980
mass transfer in electrode cells, mathematical modelling *(Russian)* 2−105552
metalworking processes, math. modelling 2−105258
Metosat-1 imagery, navigation and deformation modelling 2−68506
natural resources programming models and scarcity rents 2−78171
particle layer luminescence, two-const. models, p-layer model 2−65155

modelling continued
porous medium, microgeometric modelling, quantitative methods 2−94364
resonant transmittance model for mm-wave propagation, IR modelling techniques appl. 2−112035
seismic detectors, dynamic modelling of in-hole mounts 2−78868
self-assembly processes with interacting bonds, math. model, biological systems appl. 2−83540
snowmelt-runoff 2−106153
subsonic flexible tube flutter anomaly, fluid and structural damping model 2−91545
turbulent shear flows, mathematical modelling 2−81328
two-phase flow through porous media, three dimens., randomised, network model 2−91510
wakes, two-dimens. formation at very high Reynolds number, secondary shedding effect 2−103171
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
SF_6, compressed, electrode surface roughness modelling and prediction of breakdown 2−103527
Si, generation kinetics oxide charges and surface states during oxidation 2−66611
WC-Co, elastic deform. during compression, math. modelling 2−77863

modelling, computer *see computer-aided analysis*

models *see modelling*

modems
superconducting modulation-amplification-demodulation amplifier for weak sonic and infrasonic radio signals 2−89052

moderation (neutron) *see neutron moderation*

moderators
see also beryllium; graphite; heavy water
graphite, irradiation-induced creep testing, computer-supervised data logger 2−69762
graphite, nucl. grade, particulate, kinetics and equil. of Cs sorption and desorption 2−74796
graphite, nuclear grade, dimensions, thermal expansion coeffs., neutron effects 2−64473
graphite, oxidation rate profile, MEDIC model validation 2−64486
graphite, poisoned with absorbers, neutron diffusion calc. 2−85118
graphite, pore population balance eqn. 2−69744
graphite moderator bricks, radiolytic corrosion in commercial AGR, model 2−64484
heat deposition meas. in ZING-P′ pulsed spallation neutron source 2−102028
HTGR fuel element graphite, gasification as HEAD-END process *(German)* 2−80127
HTR fuel elements, dry mechanical graphite separation process *(German)* 2−90239
HTR spherical fuel elements, graphic matrix materials *(German)* 2−90245
INTOR, graphite moderated breeder blanket designs, neutronics anal. 2−80256
polyethylene, power densities in spallation neutron source environments 2−102027
stress-free, irradiation technology, at Petten HFR 2−69705
AlB_{12}, gas behaviour in hot pressed specimens 2−64489
B_4C, irradiated, crack propag. induced by swelling and thermal gradients 2−77912
D_2O, thermodynamic properties in SI units 2−74179
H bound in moderators, thermal neutron scatt. cross sections, data tables 2−101137
H, liquid, power densities in spallation neutron source environments 2−102027

modes, laser *see laser modes*

modes, lattice vibrations *see lattice dynamics*

modes, vibration *see vibrations*

modular circuits *see modules*

modulation
see also amplitude modulation; demodulation; modulation spectroscopy; modulators; optical modulation; pulse modulation; Schwarz-Hora effect
Bayard-Alpert gauge, three-grid modulated, static characteristics *(Japanese)* 2−79604
digital high frequency radiocommunications, applications of microprocessors 2−73781

modulation factor *see modulation*

modulation index *see modulation*

modulation spectroscopy
see also appearance potential spectroscopy; electroabsorption; electroreflectance; magnetoabsorption; magnetoreflectance; piezoreflectance; thermoreflectance
acousto-optical modulators, appl. to high-resolution saturation spectroscopy 2−74518
EPR spectra simulation, modulation effects inclusion 2−53800
flames, point-absorption measurements using spatially resolved optical Stark-modulation spectroscopy 2−78109
FM sideband optical heterodyne techniques and laser freq. control for precision spectroscopy 2−64122
FM spectroscopy and frequency domain optical memories 2−64123
frequency modulation excitation spectroscopy 2−74514
heterodyne saturation spectroscopy through freq. modulation of the saturating beam 2−74512
IR wavelength modulation spectroscopy of laser window materials 2−60191
linear dichroic IR spectroscopy, theory and appls. 2−74521
liquids, comparison of schemes for four-photon spectroscopy with high spectra resolution 2−114363
MBBA, liq. cryst., fluctuations, phase transition, electroreflection method 2−76305
nonlinear UV-laser intermodulated fluoresc. spectroscopy of 2 ^3S-5 ^3P transition in ^{3}He and ^{4}He 2−95487
NPOOB liq. cryst., fluctuations, phase transition, electroreflection method 2−76305
optical pump-probe spectroscopy, multiple modulation 2−79689
phase-modulation laser spectroscopy 2−69261
photoelectrochemical spectroscopy, stress modulated 2−84707
polarisation-modulation fluoresc. method, appl. to highly excited mols. 2−114040
selective modulation interferometric spectrometer as tunable optical filter 2−109017

modulation spectroscopy continued
^{166}ErII, lifetime meas. using fast-beam laser-modulation spectroscopy 2−108423
$Hg_{0.7}Cd_{0.3}Te$, carrier lifetime meas. by population modulation spectroscopy 2−92658
InSb, electron stimulated IR luminesc., HF modulation interferometric obs. 2−116271

modulation transfer function *see optical transfer function*

modulator-demodulators *see modems*

modulators
see also modems; modulation
magnetic pulse modulator and compressor for injector triggering 2−90319
MM and sub-MM wavelength interferometry, use of two-oscillator operating modes 2−76199
stripline magnetic modulators for lasers and accelerators 2−97024

modules
see also CAMAC
AMICA sample preparation system for laboratory automation 2−79549
electronic equipment rectangular modules arrays, heat transfer and press. drop charact. 2−91219
flat-plate photovoltaic modules qualification testing 2−116812
photovoltaic array reliability optimization 2−116811
photovoltaic module control test specifications laid down by Commission of European Communities 2−62479
photovoltaic module reliability improvement through application testing and failure analysis 2−116809
photovoltaic modules performance and failure analysis in power generating systems 2−116810
semiconductor laser module for single-mode fibre transmission system using confocal lenses 2−86129
semiconductor thermoelectric modules for heating and cooling appls. in instruments *(German)* 2−107318
terrestrial solar cells, accelerated stress testing 2−116813
transducer design, combined semiconductor and magnetic transductor technology appl. *(German)* 2−74405

modulus, Young's *see Young's modulus*

moire fringes
16 mm cine cameras, image steadiness meas. instrument using moire fringes 2−107441
biomedical sciences, optics appls., conf., Graz, Austria (Sept. 1981) 2−107021
composite material structural performance evaluation, moire methods appl. 2−105424
contour interval interpolation by phase modulation 2−101455
curved smooth surface 3D shape, high sensitivity moire topography for error meas. 2−69138
deformed state examination, interference optical methods, survey 2−114745
diffusing object contouring in real time with moire interference 2−69139
displacement fields (U, W), simultaneous detect. using moire interferometry 2−101450
displacements, strains, contours and slopes of surfaces determ., holographic moire method 2−86241
graphite fibre reinforced epoxy laminate, fatigue damage detection using out-of-plane Moire interferometry 2−88178
graphite-epoxy laminates, thermal expansion coeffs. determ. by moire interferometry 2−64100
high resolution moire photography for engineering structure deform. meas. 2−103124
holographic moire in real time 2−90838
impact craters, shadow moire contouring 2−101384
incoherent-and-multiplicative type moire fringe phenomenon review 2−96822
interferometry, for strain gauges calibration 2−114743
interferometry developments, in-plane displacements determ. 2−84694
interferometry near the theoretical limit 2−79651
linear grid with a lenticular grating, moire pattern 2−90807
liquid level measurement using moire technique 2−107394
marine propeller deflection meas. projected grid moire technique 2−64102
moire metrical topography with micrometer resolution 2−107299
orthogonal-states-grating moire, multi-colour and polarisation type sets of filters 2−70660
patterning, graphic method 2−70497
plate bending studies using reflection moire methods 2−103126
plate static and dynamic flexure, grating techniques of slope and curvature meas. 2−103132
rotating structure analysis using image derotated hologram interferometry and moire techniques 2−86243
scanned halftone pictures, moire patterns 2−108805
shadow and projection moire techniques for absolute or relative mapping of surface shapes 2−101383
specimen-grid moire techniques in large scale steel testing 2−105423
speckle and moire pattern fringe smoothing by computer processing 2−114183
strain testing, Al and Ni alloys, high-temp. linear grids appl. 2−93712
sucrose solutions, ref.-index meas. by moire deflectometry 2−112959
tensile testing using projection moire, neck development meas. 2−105425
three-dimensional cracked body problems, optical methods use in stress analysis 2−103130
time-average in-plane moire method for the analysis of nonsinusoidal cyclic loading 2−91347
topography, automatic fringe anal. 2−95452
topography, double illumination method generalization 2−112860
topography, Earth remote sensing 2−78533
topography, fringe localisation 2−96823
topography, fringe localisation 2−102715
topography, fringe visibility and exposure time enhancement 2−95449
topography, projection type, fringe formula 2−96824
topography, review from birth to practical appl. 2−95448
topography, rigid body motion correction 2−68099
topography, use of unsymmetric moire fringes 2−95451
topography using developed recording methods 2−95450
unsymmetric moire fringe form., appl. in moire topography 2−95451
Al-Cu (4 wt.%), θ′ precipitates, lattice image obs. 2−76363
GaAsP, composition modulated, electron microscopy intensity distribs., moire fringe images 2−97873
Si, deformed, stacking faults, dislocations, X-ray moire pattern study *(Russian)* 2−91990

moistening *see wetting*
moisture
see also humidity
effect on mechanical behaviour of compact bone tissue 2−83593
gelatin, dichromated film, optical charcts. during holographic recording, latent image stage *(Russian)* 2−102754
N Germany, atm. convection, effect of soil moisture and orography *(German)* 2−100498
soil, thermal IR meas. of vegetation temps. 2−106157
soil information and thermal microwave emission 2−106156
soil moisture, surface temp. meas. in agricultural fields of central California 2−111928
soil moisture content, effect on microwave emission 2−106155
soil moisture determination, use of C-band radar 2−106122
Co-polybutadiene interface chemistry, ^{57}Co emission Mossbauer spectroscopy 2−87638
moisture content *see moisture*
moisture control
see also humidity control
photographic emulsion with cellulose triacetate base, moisture control methods *(Russian)* 2−89844
moisture measurement
see also humidity measurement
atmospheric one-channel meas. using self-emission 1.35 cm H_2O line 2−68465
fibrous material, thickness independ. moisture meas. using Gunn oscillators *(German)* 2−74426
neutron gauging, region of influence calc. 2−112913
optoelectronic, using functional equation of radiation flux 2−58836
soil, measurement by microwave radiometry remote sensing 2−58149
soil moisture determ. by conductor heat loss meas. *(German)* 2−68540
soil moisture remote sensing by radar, land surface roughness effects 2−58151
solids, moisture determ. by near IR photoacoustic spectrosc. 2−89731
steam turbine steam wetness measurement using calorimeter with two stage heating, application in corrosion protection *(Czech)* 2−107333
water content meas. using NMR content meters, errors with materials containing combined H 2−99736
weather station as example for microcomputer sensorics *(German)* 2−100440
TiO_2/SnO_2 ceramic moisture sensor, elec. resistance stability, SEM, powder X-ray diffr. exam. 2−74398
molar volume *see density*
molecular alignment *see molecular orientation*
molecular beam electric resonance
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
HF-Cl_2, struct., hyperfine consts., mol. beam elec. reson. 2−108553
H_2S.HF, struct., H bond stereochemistry, spectrosc. obs. 2−102499
molecular beam epitaxial growth
$A_{1-x}B_x$ layers, Monte Carlo simulation 2−76859
binary and pseudobinary model systems, growth and struct., Monte Carlo simulation 2−110206
group III arsenide MBE layers, composition, substrate temp. effect 2−87098
II-VI semiconductors, bulk and epitaxial growth, impurity role 2−116347
III-V semicond. epitaxial growth, appl. to compound semiconductor device technology 2−77741
InGaAs MBE layers, energy gap calc. using Phillips Van Vechten dielec. model, photoluminesc. 2−61939
MBE growth and elec. characterisation 2−93431
molecular beam source, collimating effusion cell 2−57298
semiconducting MBE films, interface microstruct. props. 2−87082
semiconductor, modulated structs., MBE growth and electronic struct. 2−77167
semiconductor diode BH lasers, ultra-low-threshold, graded-index waveguide, separate confinement 2−114310
semiconductor growth, ion-surface interactions, review 2−110201
semiconductor materials 2−53471
semiconductor modulated struct., electronic struct. and growth, review 2−56683
system, for molecular beam epitaxy *(Chinese)* 2−72625
three temperature method as an origin of MBE, review 2−77743
Ag film on GaAs {001}, Auger lineshape variation during epitaxial growth 2−87916
Ag MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
Ag-GaAs (001), Ag MBE growth and interfacial diffusion, AES, LEED and SEM study 2−93432
(Al,Ga)As/GaAs heterostruct., MBE grown, interface quality and electron mobility, substrate temp. effects 2−56385
Al MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
Al-GaAs and Al-$Al_{1-x}Ga_xAs$-GaAs MBE contacts, Schottky barriers, stability props. meas. 2−98723
(AlGa)As strip BH lasers prepared by hybrid crystal growth 2−80951
AlGaAs-GaAs, tunnel heterojunction, MBE growth and elec. props., multigap cascade solar cell interconnect appl. 2−57701
$Al_xGa_{1-x}As$, composition control and superlattice fabrication by pulsed MBE 2−99342
$Al_xGa_{1-x}As$ epitaxial layers, MBE growth, substrate temp. influence on morphology 2−76853
$Al_xGa_{1-x}As$, pulse beam technique for composition control of MBE 2−83027
$Al_xGa_{1-x}As$-Al-$Al_yGa_{1-y}As$ struct., instabilities in MBE growth 2−66395
$Al_xGa_{1-x}As$-GaAs heterostruct., modulation doped, MBE grown, carrier mobility, substrate temp. effect 2−61567
$Al_xGa_{1-x}As$-GaAs interface, extrinsic layer, photolum. study 2−115576
$Al_xGa_{1-x}As$(100) epitaxial surface, photoemission study 2−93371
$(Al_xGa_{1-x})_yIn_{1-y}As$ lattice matched to InP substrate, MBE growth 2−105080
AlSb, MBE growth on GaAs(GaSb)(InAs) and RHEED characterisation 2−87087
AuGeNi ohmic contacts to MBE grown GaAs epitaxial layers, charact. 2−66637
BaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
CaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
molecular beam epitaxial growth continued
p-$Cd_xHg_{1-x}Te$, characterisation of MBE grown layers 2−110198
n-$Cd_xHg_{1-x}Te$ layers, MBE growth, struct. and elec. props. 2−99340
$Cd_xHg_{1-x}Te$, MBE growth 2−93433
CdTe, bulk grown and epitaxial samples, minority carrier diffusion length 2−115776
CdTe film, heteroepitaxial, MBE growth on InSb (001) 2−56374
CdTe, MBE growth 2−93433
CdTe, MBE growth and elec. characterisation 2−93431
CdTe:In, MBE growth, effects of doping on electron conc. and photolum. 2−76846
$CoSi_2$-Si(111), MBE growth, Rutherford backscattering, TEM and LEED studies 2−66385
CuCl films on mica, MBE 2−115622
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
Fe film, {110} orientation, on GaAs, mag. props. 2−66874
$Ga_xAl_{1-x}As$, MBE grown, persistent photocond. centres, capacitance spectroscopy meas. 2−98688
GaAs (001)-2×4 reconstructed surface band struct. 2−72042
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs epitaxial layers, MBE and LPE, luminesc. props. 2−72564
GaAs, epitaxial layers, biexcitons in quantum wells 2−92479
GaAs, high purity, grown by MBE, characterisation 2−56613
GaAs, high purity, MBE grown, residual donor conc., photothermal ionisation spectroscopy study 2−66032
GaAs, MBE, Mn incorporation behavior 2−104191
p-GaAs, MBE grown, impurity characterization by far-IR photoconductivity in high mag. fields 2−66565
GaAs, MBE grown (100) autoepitaxial films and substrates, struct. and comp. and surfaces 2−56383
GaAs, MBE growth on Ge (100), interface morphology, RHEED study 2−56386
GaAs, planar doped barrier design and growth by MBE 2−93425
p-GaAs, quantum wells, bound excitons, photoluminescence 2−104956
GaAs, step development during MBE growth, RHEED study 2−76860
GaAs substrate for MBE, thermal removal of surface C 2−116572
GaAs, tunnel junctions for multigap cascade solar cells 2−57701
GaAs, whisker growth during MBE 2−76876
GaAs:Si(Be) artificial doping superlattices, MBE growth, elec. and optical props. 2−92735
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
GaAs-Al single crystal microjunctions by MBE 2−82456
GaAs-$Al_xGa_{1-x}As$:Si, heterojunction barriers, elec. transport and MBE growth 2−82448
GaAs-AlGaAs heterostructures grown by MBE and their application to devices *(Japanese)* 2−87380
GaAs-InAs(100) heterojunction, MBE grown, lattice disorder, Rutherford backscatt. and channelling study 2−110202
GaAs(:Ge), MBE grown, deep levels and photoluminesc., MBE As_2/As_4 flux ratio effects 2−99341
$Ga_{0.47}In_{0.53}As$ high mobility thin epitaxial layers grown by MBE 2−115585
$Ga_{0.47}In_{0.53}As$, MBE grown, Si doping and elec. props. meas. 2−92005
n-$Ga_{0.47}In_{0.53}As$, quasi-Schottky barrier diode using fully depleted p^+-$Ga_{0.47}In_{0.53}As$ layer, MBE growth 2−56668
GaInAsP-InP DH lasers, MBE grown, 1.3 micron 2−114273
$Ga_xIn_{1-x}P$:Be(Sn), MBE growth using Pb flux and elec. characterisation 2−87987
GaP, heteroepitaxial MBE growth on Si (100), elec. props., heterojunction form. 2−57297
GaP, MBE growth, P_2 beam source technique 2−57300
GaP polar-on-nonpolar MBE on Si(211), nucleation and growth, sublattice ordering 2−110204
Ge, MBE growth on GaAs (100), interface morphology, RHEED study 2−56386
Ge-GaAs, (110) and (111), MBE grown, interface morphology, RHEED study 2−98470
Ge-GaAs (100) heterojunction, MBE growth, surface processes, LEED and photoemission study 2−110203
InAs-GaAs, heterojunction band discontinuities, MBE growth, XPS study 2−77166
InGaAlP DH layers, MBE growth on (100) GaAs substrates, laser appls. 2−104206
InGaAlP on (100)GaAs, MBE growth 2−104189
$In_{0.77}Ga_{0.23}As$, lattice-mismatched MBE growth on InP 2−57296
InP, high quality, MBE growth 2−116367
InSb-InBi solid solns., grown by MBE, charact. 2−104190
LaF_3 epitaxial films, MBE growth on Si substrate, MIS capacitance and mass spectra study 2−76861
Nb-Ta single cryst. superlattices, MBE growth, HEED study 2−82166
$Pb_{1-x}Ge_xTe$ thin film structures, growth by MBE 2−92393
$Pb_{1-x}Sn_xSe$, thin layers, grown by 'hot wall' method 2−72627
$Pb_{1-x}Sn_xTe$ MBE film struct. 2−104184
Si, impurity doping processes, book 2−68985
Si, low energy BF_2^+ ion doping during MBE 2−92003
Si, MBE apparatus, high rate deposition on standard format wafers 2−57299
Si, MBE growth, etching of SiO_2 films 2−67218
Si, MBE growth kinetics 2−82153
Si, n^+/p, solar cells formed by partially ionised MBE, I-V charcts. 2−116834
Si:Ga, doping during MBE, AES and isothermal desorpt. spectra study 2−109819
Si-SiO_2 struct., Si MBE growth, RHEED study 2−92757
SiO MBE films on GaAs, deposition conditions, Auger anal., and elec. charcts. 2−87116
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZnSe thin films, selective area MBE, electrolum. device appl. 2−92387
ZnSe:Ga, MBE growth and elec. cond. and photoluminesc. props. meas., blue LED appl. 2−87986
molecular beam magnetic resonance
Na_2, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619

molecular beams
see also molecular beam electric resonance; molecular beam magnetic resonance; molecule-surface impact; particle velocity analysis
acetaldehyde+O(^{3}P), prod. distrib., mol. beam-laser induced fluoresc. study 2−116689
acetylene, pulsed mol. beam, rot. temp., CARS 2−96582
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
alkali metal clusters, photoionisation and fragmentation in supersonic mol. beams 2−102547
benzene clusters, UV spectr a 2−75487
bromotrifluoromethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
chemical reaction study in crossed at. and mol. beams 2−72949
chemically reacting mol. beams, directional pattern use in mass spectrometry 2−99733
chloroethene molecular beam, pulsed, optical study 2−80562
chloropentafluoroethane, multiple-photon excited, quasicontinuum struct. 2−59783
chloropentafluoroethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
dichlorodifluoromethane molecular beam, pulsed, optical study 2−80562
ethylene, pulsed mol. beam, rot. temp., CARS 2−96582
ethylene-Ar clusters, in supersonic mol. beam, CARS 2−80861
fast molecular ions passage through thin foils, collisional effects 2−80843
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
incomplete vibrational relaxation, stochastic models 2−54927
intensities in sonic nozzle expansions, non-Maxwellian vel. distrib. 2−70446
ionisation gauge, calibration, 10^{-7} to 10^{-12} mbar, mol. beam method 2−53779
lanthanide gas phase, UVPES 2−85739
methane, pulsed and CW mol. beam CARS spectroscopy 2−59812
methyl iodide in seeded supersonic beam, focusing, rot. state selection and orientation 2−85616
multitube collimators driven at high pressure for molecular spectroscopy 2−84738
optical-RF double resonance, laser induced coherence effects 2−65029
propane, collision induced dissoc., metastable ions, mass spectra 2−96749
pulsed molecular beam, CARS, saturation broadening 2−96575
pulsed molecular beams charact., car fuel injector appl. 2−97613
quasimolecules, intramolecular interactions, mol. beam spectroscopic studies 2−75365
scatt. of NO, angular and vel. distribs. 2−99250
scattered from Ag (111) speed distrib. meas. for monatomic, diatomic and polyatomic mols. 2−57240
supersonic expansions from slit source nozzle, characterisation 2−70377
supersonic mol. beam source with internal β-emitter, charged mol. cluster prod. 2−90758
Ar+H_2O, dissociative excitation, crossed mol. beam and luminesc. study 2−57602
CO dimers, electron impact fragmentation, IR laser and mass spectrosc. anal. 2−59947
CO+Na*, (^{2}P) state quenching, stereochem. effects, expt. and calcs. 2−108605
CO_2 cluster, collision induced dissoc., metastable ions, mass spectra 2−96749
CaBr radicals, mol. beams and IR-RF double reson. studies 2−59835
CaCl, electric deflection obs. of ground state dipole moment 2−80844
CaCl, radicals, mol. beams and IR-RF double reson. studies 2−59835
CaF radicals, mol. beams and IR-RF double reson. studies 2−59835
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
D-T filled ICF target, positioning and freezing using cold mol. beam and quadrupole elec. field 2−85245
HCN, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HF, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
H_2O 2−90754
I+Kr(Xe), interaction pots., crossed-beam meas. 2−108661
NH_3 beam, collision-induced transitions, double reson. studies 2−59903
NH_3 molecular beam, pulsed, optical study 2−80562
NH_3-cluster ions, collision induced dissoc., metastable ions, mass spectra 2−96749
NO, adsorption-desorption kinetics on Pt (111), mol. beam study 2−104144
NO, and beam scatt. from graphite, angular distrib., rot. state population fluoresc. study 2−105023
NO+Pt(111) interaction, laser induced fluoresc. study 2−67182
NO_2+Ba, beam chemiluminesc., excitation functions 2−67734
$(NO_2)_3$+Ba, beam chemiluminesc., excitation functions 2−67734
Na_2, $a^3\Pi_u \leftarrow X^1\Sigma_g$ transition, 625 nm, hyperfine struct. 2−59814
Na_3+SF_6, mol. beam reaction, triple electron jump mechanism 2−88360
O_2, elastic electron scatt., cross section, ang. distrib. meas. 2−114108
SF_6, supersonic, use in Ramsey fringe observation in 10 micron spectral region 2−58892
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644

molecular biophysics
see also biomembrane transport; biomolecular effects of radiation; DNA; lipid bilayers; proteins
actin filaments, SI-decorated, struct. calc. from X-ray diffr. data, phases from electron micrographs 2−116879
actinomycin, vibr. struct., Raman obs. 2−57781
actinomycin-DNA, vibr. struct., Raman obs. 2−57781
actinoxanthin, mol. struct., X-ray diffr. study 2−67943
adenine 5′-nucleotides, C(8)-substituted, NMR study of conformation using lanthanide probes and NOE meas. 2−54884
adenine-thymine base pair, double H-bonding, CNDO/S calcs., molecular orbital correls. and orbital energy shifts 2−96452
adenines, selectively labeled, electron ionisation spectra and mass spectrometry 2−108737
adrenocorticotropic hormone oligopeptides, crystallisation expts. 2−78283
adriamycin, absorpt., fluoresc. and Raman obs. 2−57780
adrimycin-DNA, absorpt., fluoresc. and Raman obs. 2−57780

molecular biophysics continued
agar-H_2O system, mol. dynamics and entropy changes, PMR study 2−78281
aggregates, non-bonded interaction energy calculation 2−62848
alamethicin, dipole moment rel. to voltage-dependent conductance of lipid bilayers 2−73203
alamethicin in octanol/dioxane, voltage-dependent pore former, struct. and dipolar props. 2−111616
alanine (-d_n), CH stretching vibr. circular dichroism and fixed partial charge calcs. 2−108447
alanine (-d_n), IR vibr. circular dichroism, vibr. anal. and Raman spectra 2−108446
alfalfa mosaic virus coat protein, orientation in hexagonal cryst. array, X-ray diffr. study 2−99877
alpha-helix protein molecules, E. coli, vibr. struct. of Davydov solitons 2−83545
amino acids, aq. solns., study by NMR method using a lanthanide shift reagent 2−111814
apomyoglobin-chlorophyllide, high mol. wt. complexes, giant circular dichroism obs. 2−88507
autofluorography of labelled macromols. on 2D gels, rapid electronic method 2−78515
B-DNA, interaction with Na^+ and H_2O structural determ. 2−114141
bacteria possessing Ni(III) octahedrally coord. EPR centre 2−105659
bacteriochlorophyllic pigments, triplet-triplet energy transfer 2−108668
bacteriorhodopsin, lateral and rot. diffusion in lipid bilayers 2−111634
bacteriorhodopsin, linking regions between helices, electron microscopy 2−62554
bacteriorhodopsin, Schiff base group, struct. of retinylidene chromophores, Raman spectra 2−88502
bacteriorhodopsin's primary photoproduct, resonance Raman spectra, distorted 13-cis retinal chromophore 2−88508
bacteriorhodopsin in purple membrane, photoselection and circular dichroism 2−67969
barnase (a ribonuclease), molecular structure 2−83549
N-benzene sulphonyl DL-α-alanine, cryst. and mol. struct., X-ray study 2−99882
biological macromolecules, struct. determ. by small angle scatt. 2−88509
biological specimens, EM image averaging, limits imposed by imperfect crystallinity 2−78518
biopolymer denaturing, enthalpy rel. to low temp. heat capacity of helix and coil macromols. 2−67956
blood, trace analysis of Ag, Cu, Cd, Pb and Tl by isotope dilution surface ionisation mass spectrometry *(Japanese)* 2−93983
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
bone, human, stresses and struct., neutron diffr. obs. 2−62660
bone, mineral orientation in rabbit femur, small-angle X-ray scatt. study 2−62556
bone, mineral-collagen orientation relationships 2−105644
Bose-Einstein condensation, derivation of kinetic equation in Frohlich anharmonic model 2−116868
calcium oxalate, precipitation, nucleation and growth kinetics, temp. effect 2−76336
calcium oxalate monohydrate, dissolution kinetics, const. comp. study 2−76681
carboxymyoglobin, photodissociated, IR spectra at low temp., haeme pocket behaviour 2−105657
carotenoids series, triplet-triplet energy transfer 2−108668
CARS, appl. to biomols. investig. 2−78292
catalase, beef liver, mol. struct., X-ray diffr. study 2−67942
catalase, Penicillium vitale, mol. struct., X-ray diffr. study 2−67941
cellulose and some model compounds, struct. rel. to mol. movements dynamics 2−57773
chlorophyll, fluoresc. and EPR signal kinetics in whole leaves of higher plants 2−116880
chlorophyll, in soln., lipid vesicles and liposomes, conc. quenching, fluoresc. study 2−67955
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll a, intermol. interactions in vivo, reson. Raman spectroscopy obs. 2−105638
chlorophyll a, loop currents 2−111612
chlorophyll b in 2-methyltetrahydrofuran, site energies distrib. determ., fluoresc. spectra 2−116862
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
chlorophyll-protein complexes, electrochem. regulation of excitation energy transfer 2−111620
6-chloropurine, IR absorpt. spectra obs. 2−54840
chromatin fibres, electron micrographs, Fourier analysis and optical diffr. 2−111826
chromatin fibrils, models of organisation 2−67934
collagen, solid state, far IR spectra 2−67954
collagen, temp. stability rel. to biological functions 2−67958
collagen solns., rat skin, dynamic light scatt. studies 2−105654
collagen-fibrils, characterisation of leucine side-chain reorientation by solid-state ^{2}H NMR 2−88499
collagen-glyoxal complex, solid state, far IR spectra 2−67954
cis-syn mesocyclobutadi-2′-deoxyuridine, 2-dimens. PMR 2−80671
2,2′-cyclocytidine hydrochloride, cyclonucleoside cryst. and mol. struct., X-ray study 2−99883
16α, 17α-cyclohex-3′-enoprogesterone, cryst. and mol. struct. and biological activity, X-ray diffr. study 2−67940
cytidine 2′-phosphate, chem. shift and ^{1}H-^{1}H decoupling detect., effect of RNase 2−59825
cytochrome c_3 anhydrous film, percolative elec. cond. obs. 2−99875
cytochrome c_{550} protein, three-phase struct. invariants 2−83547
cytochrome c, cryst. and soln., comparison of struct. by high-angle X-ray scatt. 2−57774
cytochrome P-450, spin labelled, complex ST-EPR and EPR spectra, selective removal of spectral components 2−88504
Davydov solitons, dynamics 2−105643
diacridines, antitumour activity, CNDO/2 calcs. 2−80484
N,N′-dimethyl-4, 4′-bipyridylium chloride+electron donor, charge transfer spectra 2−57772
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
dipalmitoyl phosphatidyl ethanolamine, Langmuir-Blodgett film, elec. props. meas. 2−116891
dipalmitoyllecithin, lipid bilayer, fractional order phase transform. 2−116877

molecular biophysics continued
L-α-dipalmitoylphosphatidylcholine, lamellar liposome, biomembranes, phase transition study 2−78304
dipalmitoylphosphatidylcholine vesicles, small, unilamellar, photon correl. spectroscopy study of stability 2−111632
DNA, B form structure, refinement on X-ray and energy criteria basis 2−105646
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
DNA, H bond lifetime, nonradiative transition prob. study *(Russian)* 2−62552
DNA, helicity in complexes with RecA protein 2−105648
DNA, molecular dynamics investig. by dielec. relax. meas. 2−88497
DNA, molecular modification, fast heavy ion induced desorpt. mass spectrometry 2−100170
DNA, rodlike segments, theory for intrinsic curvature in toroidal structs. 2−116870
DNA, supercoiled PM2, conformational changes studied using ^{111}In-histone as label for perturbed γ-γ ang. correl. technique 2−78287
DNA, topological aspects and biophysical appl., theory, review 2−96785
DNA, torsional rigidity from supercoiling data 2−99874
DNA binding sequence d(GpC) and actinomycin, struct. of pseudo intercalated complex 2−73191
DNA conformation, dynamics, and interactions in soln. 2−99889
DNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
DNA molecular motion, meas. by triplet anisotropy decay 2−93984
DNA with left-handed nature induced by supercoiling 2−116875
DNA-binding proteins, homology rel. to conserved super-secondary struct. 2−99887
DNA-drug interactions rel. to intercalation 2−116861
DNA-molecule, double-strand, direct imaging 2−73194
DNA-protein recognition, mol. basis inferred from cro repressor struct. 2−105641
dynamic behaviour of biological macromolecules, multivariate statistical anal. 2−116869
egg phosphatidylcholine, single-walled liposomes, neutron small angle scatt. 2−116890
electron microscopy, towards higher resolution, review 2−117175
electron microscopy of biomols, 3D struct. determ. from 2D crysts. 2−100178
electron tunnelling connection with conform. mobility and isolated degrees of freedom 2−78286
electrostatic potential molecular surfaces, computer graphics representations 2−105642
EM, high resolution applied to chem. problems, conf., New York, USA, (Aug. 1981) 2−94904
enniatin B, ionophonic antibiotic, mol. and cryst. struct., X-ray diffr. study 2−67939
enzyme-substrate interactions, ^1H spin-lattice relax. 2−59822
enzymes, photoabsorpt. and photoelectron spectra in vacuum-UV region 2−105658
enzymes, solid state, far IR spectra 2−67954
erythrocyte membrane submitted to a bending stress, spin label study of mol. struct. 2−105667
N-ethyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
F-actin, struct. as helix with random variable twist 2−93987
fatty acids, spin labelled, covalently attached to boundary of intrinsic membrane protein, EPR, chemical exchange 2−105655
ferredoxin, anomalous scatterers position in cryst. struct., two-wavelength techniques 2−115092
ferredoxin, from B. stearothermophilus, electron spin-lattice relax. 2−70299
ferritin clusters, unstained, point-projection imaging 2−94263
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
fibrinogen, α-chain extensions obs. by electron microscopy specimen preparation technique 2−73195
flavins, reduction, ionisation pot. MINDO/3 calcs. 2−113887
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2−62553
fluorophenyl retinal and its bacteriorhodopsin analogue, XPS study 2−111625
5-fluorouracil-adenine (guanine), pairing arrangement, mutagenic effect, iterative EHT calcs. 2−64883
formatedehydrogenase enzyme, radii of inertia, X-ray and neutron scatt. study 2−105652
α-(N)-formyl isoquinoline thiosemicarbazones antitumour activity, electronic struct., CNDOC 2−108379
freeze-fracture electron microscopic analysis of solutions of biological molecules 2−83548
functional site mapping, electron microscopy 2−99892
gamma-gamma directional correlation study of model membranes 2−73204
globular protein, collective variable description of small-amplitude conformational fuctuations 2−73192
(gly-pro-hypro)$_n$, models of polymer struct. 2−67932
guanyl-RNase C_2, microfungi, Asp. clavatus, crystn. modifications 2−57779
haematoporphyrin derivative, fluoresc. and absorpt. props. 2−62558
haematoporphyrin derivative, two-step laser activation 2−78289
haematoporphyrin derivative aggregated species 2−75476
haemoglobin, dissolved, human, configuration of the 4 Fe atoms, anomalous dispersion obs. 2−67937
haemoglobin, Jahn-Teller effect 2−93982
haemoglobin, metamagnetic props. 2−105709
haemoglobin, normal and abormal, human, H NMR investigation of proximal histidyl residues 2−99895
haemoglobin, R-state Fe-imidazole freq., time-resolved resonance Raman spectroscopy obs. 2−73197
haemoglobin, rat, hydrated monocrystals, reproducibility of electron diffr. intensity data 2−116884
haemoglobin, solns., O_2 diffusivity investig. 2−88523
haemoglobin, tracer diffusion coeff determ. by pulsed field gradient NMR 2−105640
haemoglobin multilayers, LF elect. props. 2−73184
haemoproteins, Fe(II)⇄Fe(III) cooperative mol. distortive transitions, ligand field theory 2−76649
helical hydrophobic moment as meas. of helix amphiphilicity of proteins 2−116876
molecular biophysics continued
hemeproteins, EPR crystallography, direction cosines 2−83710
histidyl residues of normal human adult haemoglobin, proton longitudinal relax. study 2−111623
histone H1, theoretical prediction of tertiary struct. 2−111614
histones H2A and H2B, spatial packing of polypeptide chains 2−57775
histones H3 and H4, model of spatial packing of polypeptide chains 2−67933
histones H3 and H4 from calf thymus, cryst. of tetramer 2−99891
N-hydroxy-2-naphthylamine with guanine and adenine, stacking interactions 2−105639
immobilised protein systems, ^2H NMR of water 2−67951
immunoglobulin, human, Ig G1, cryst. struct. calc., multiple isomorphous replacement method 2−116873
inorganic ring systems, anticancer, dynamical conformational anal. using microcomputer system 2−73188
ion induced mass spectrometry role in biochemistry 2−100169
ion pairs in aq. soln. study, appl. to binding of cholinergic neuotransmitters to synaptic receptors 2−67928
isoxazolyl pencillins, conformational energy calcs. 2−116872
kappa-casein, biopolymer, far-IR spectra 2−108749
α-keratin fibres thermally stimulated depolarized currents, correl. walk model 2−88498
lactate dehydrogenase, active centre, CNDO/2, INDO and EHT calcs. 2−80854
lambda repressor operator-binding domain, struct. and DNA recognition 2−99886
lecithin bilayers, ripple phase, mol. interaction, statistical mech. model 2−99914
leghaemoglobin derivatives, ferro and ferri states, multichannel X-ray diffractometry study 2−57778
leukocytes:mn^{2+} suspensions, H^+ NMR relax. 2−116895
light-harvesting chlorophyll a/b-protein complex, fine struct. of circular dichroic spectrum 2−67946
lipid, thermotropic mesomorphism of Acholeplasma laidlawii B, temp. induced phase transition, Fourier transform IR spectra 2−116889
lipid bilayer, model membrane, mol. dynamics simulation 2−67974
lipid bilayers, acyl chain motion, statistical mechanical model 2−78301
lipid bilayers, molecular motions, lateral and transverse diffusion 2−78303
lipid bilayers, multilamellar and vesicle systems, mol. motion, NMR line breadth 2−78302
lipid bilayers, order parameters in hydrocarbon chains 2−62555
lipid monolayers phase transitions theoretical model 2−78300
lipid-water systems, phasic transition models, evaluation by optical analogy 2−57776
lipophilic fluorescein derivatives, prep., spectral props., appl. to plasma LDL 2−67953
luciferase of luminous bacteria, electron microscopic investig. of mol. struct. 2−105645
lysozyme in D_2O, dynamics of Overhauser effects 2−85853
lysozyme-Cu^{2+} complex, hen egg-white, ENDOR study 2−62561
macromolecular crystallography, fiber diffraction data, phasing using isomorphous replacement and layer line splitting 2−97834
macromolecular crystallography, phase problem, determinantal soln. using stereochem. information 2−97833
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
macromolecule biosynthesis, entropy increase 2−105637
macromolecules, anomalous X-ray scatt., use of synchrotron radiation 2−68224
macromolecules, hydrodynamic parameter evaluation, FORTRAN IV program 2−99881
macromolecules, low temp. photolysis and recomb. kinetics, Fourier transform IR spectra 2−116881
malignant and healthy tissue, improved characterisation by NMR lineshape relax. correls. 2−93990
melanin, optical props., role of water 2−105653
membranes, phase transitions, first order, pseudo-crit. props., statistical mechanics theory 2−67975
membranes and model liq. cryst. systems, phasic transitions 2−67963
metal substituted carbonic anhydrases, spectroscopic investigation, binding sites 2−111613
metalloproteins, zero-field splitting consts., CW microwave saturation determ. 2−70302
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
N-methyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
N-methylacetanide-lactams, H bonding, IR obs. 2−83544
microcrystals, molecular arrangement visualization method 2−117174
microglobulin, Human β_2, NMR investig. 2−78290
mononucleosomes, polyion diffusion, doppler shift spectrosc. investig. 2−66263
mononucleotide solutions, ^{31}P NMR, chem. shift *(French)* 2−75315
mononucleotide solutions ^{31}P NMR, chem. shift *(French)* 2−75316
muscle, cardiac, contraction model 2−116867
muscle, thin filament regulated, activation by Ca^{2+} ion, nearest-neighbour lattice statistics 2−116903
muscle contraction for mechanical transients, sliding-filament cross-bridge ensemble model 2−68037
muscle cross-bridges, 3D disorder of dipolar probes in a helical array 2−111611
muscle structure investigation, cryo-methods and image anal. 2−83719
myelin sheath, struct. destabilisation by repetitive propagation of action pots. 2−111648
myosin molecule, protein complex bound to rod part, secondary struct. and amino acid comp. 2−99879
myosin rod amino acid sequence, matching of periodic charge distribs. with cross-bridge spacings in muscle 2−111617
myosin S-1, X-ray scatt. rel. to steric blocking model of muscle control 2−105656
2-naphthylamine metabolite with guanine and adenine, stacking interactions 2−105639
1- and 2-naphthylnitrenium ion with guanine and adenine, stacking interactions 2−105639
negative staining, of protein cryst. struct. 2−73408
nucleic acid complexes with Ag^+ ions, thermodynamic characts. 2−99873
nucleic acid components, excited-state props. 2−99899
nucleic acid constituents, photochemistry, ESR and spin-trapping investig. 2−111624
nucleic acids, EM, contrast variation method 2−94262

molecular biophysics continued
nucleic acids, torsion and bending, time resolved fluoresc. obs. 2−62550
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
nucleotide metal ion complexes, binary and ternary, ^{1}H-NMR shift studies 2−108581
nucleotides, aq. solns., study by NMR method using a lanthanide shift reagent 2−111814
nucleotides in aq. solns., conformation study by NMR lanthanide shift 2−67931
oligotripeptide isomorphous to collagen, $(gly\text{-}pro\text{-}pro)_{10}$, diffr. effects in X-ray patterns 2−111622
operator DNA, wrapping by N-terminal arms of λ repressor 2−99885
20-oxopregnase hormones, configs., PCILO calcs. 2−102387
oxyhaemoglobin, human, Fe-O-O bond 2−67936
pancreatic polypeptide, avian, cryst. struct. anal. at 1.37 Å resolution 2−105651
pancreatic trypsin inhibitor, 2-dimens. NOE and chem. exchange spectrosc. 2−69220
peptide-ion model complexes, charge transfer, induced polarisation 2−73183
peptides, functional group spectroscopy using Fourier transform IR absorbance subtraction 2−116882
peptides, molecular size and confirmation 2−99880
phage T2 DNA solns., hydrodynamic props., investigation using a rot. viscometer 2−67929
phenyl penicillins, conformational energy calcs. 2−116872
phospholipid bilayers, hydrocarbon tail region, fast dynamic processes 2−94004
phospholipid bilayers, press. induced phase transitions, Landau phenomenological theory 2−83551
phospholipid bilayers, press. induced phase transitions, Landau phenomenological theory 2−105669
phospholipid multilayer, oriented monodomains, polarized Raman spectra 2−73207
phospholipids, synthetic Langmuir films, elec. props. meas. 2−72092
phospholipids in inverted micelles, small mols. interactions, NMR spectra 2−99913
photopigments of microorganisms, laser microspectrofluorometry 2−99901
photosynthetic membranes, electochromic response of carotenoids 2−99912
physics data handbook 2−58565
PMR, wide-line second moment, rel. to unit cell proton density 2−103570
polar transport mechanism for biological pattern formation 2−73187
polyethylenimine backbone polynucleotide models, synthesis and ^{1}H and ^{13}C NMR characterisation 2−116865
polyethylenimine backbone polynucleotide models, UV absorpt. spectra 2−116866
polyion diffusion in low ionic strength buffers, electrolyte polarisation effects obs. 2−66264
polymers, helix struct., vibr. spectrum low-freq. branches and low temp. thermal capacity *(Russian)* 2−56137
polypeptide chains of histones H2A, H2B, H3 and H4 as part of octamer, packing 2−99878
polypeptides, Fermi resonance anal. of unperturbed ND stretching fundamental 2−70462
porphyrin, biogenous, solid solns., luminesc. study 2−67952
porphyrins, energy states, spectroscopy study, mol. biology 2−62560
porphyrins, etio-, corpo- and meso-, fine-struct. luminesc. on selective laser excitation 2−111619
prolyl residues, struct. characts., review 2−73189
protein conformation, determ. from electron spin relax. data 2−93986
protein constituents, photochemistry, ESR and spin-trapping investig. 2−111624
protein crystallography, crystal cooling device for use with synchrotron radiation 2−68209
protein crystallography, RESTRAIN, restrained least squares refinement program 2−68207
protein dynamics, solid state PMK studies 2−88501
protein terminal regions, conformation anal. 2−99884
protein-At bond, nature of 2−62549
protein-bound pigments, spectroscopic and photochem. props. 2−99893
protein-ligand interactions, conformations, transferred NOE theory and appls. 2−105647
protein-nucleic acid associations, interactions between functional groups, review 2−83546
proteins, atomic displacements, temp. depend., local nonharmonic pots. 2−57777
proteins, dipolar NMR relaxation of nonprotonated axomatic C, struct. and dynamical effects 2−99896
proteins, formulation of monolayer arrays, negative staining C film technique 2−117165
proteins, molecular size and confirmation 2−99880
proteins, Mossbauer effect rel. to conformational mobility and moisture content 2−67950
proteins, PMR spectra simplification 2−54999
proteins, secondary structure, dark field TEM, sources of image instabilities 2−117173
proteins, selforganisation, directed mechanism, model calc. 2−67945
proteins, solid state, far IR spectra 2−67954
proteins, solid state dynamics by nucl. mag. relax. 2−73186
proteins, three-dimensional structure determ., electron microscopy 2−100184
proteins, X-ray crystallography, atomic coordinates, RMS errors calc. 2−99876
proteins, X-ray diffr. study, multiwavelength method with synchrotron radiation 2−65806
protochlorophyllid pigment complex, energy migration 2−111621
protohaeme, binding of CO, ligand diffusion effects in solvents 2−78282
pteridines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2−108378
purine 2′-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
purple membrane of Halobacterium halobium, IR spectrum rel. to proton conduction mechanism 2−94003
pyrimidine 2′-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
quantum biology and quantum pharmacology, conf., Palm Coast, USA (Mar. 1981) 2−74145
quinazolines, substituted, CNDO calcs., enzyme inhibition potencies 2−85545
molecular biophysics continued
red blood cell suspensions, O_2 diffusivity investig. 2−88523
retinal photoreceptors, intact vertebrate, lamellar structure, verification of phases 2−62596
rhodopsin, photoreceptor membrane multilaminar films, photon-correlation spectroscopy combined with integrated optics study 2−88500
rhodopsin chromophore, and desmethyl analogues, theory, neg. counter charge, optical absorption 2−62551
rhodopsin-GTP-binding proteins, interactions, kinetics and stoichiometric anal., light scatt. meas. 2−57771
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2−73190
ribosomal crystalline arrays of large subunits from Escherichia coli 2−99890
ribosomal RNA, struct., X-ray neutron scatt. and electron microscopy study 2−67944
ribosomes, Artemia, sedimented in a CsCl density gradient, quasi-elastic light scatt. 2−83722
ribosomes, distribution of RNA and protein, EM, contrast variation method 2−94262
RNA, transfer, significance and mechanism of divalent-ion binding 2−93981
RNA base overlap model 2−93988
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
RNA molecules, single- and double-stranded, improved visualisation by STEM 2−73193
sarcoplasmic reticulum, lipid-protein interactions rel. to ionophore A23187, EPR and fluoresc. obs. 2−67930
sarcoplasmic reticulum, liq. diffr. anal., solvent electron contrast variation 2−62559
serine proteinases, catalytic rate enhancement, electrostatic effect 2−116864
serum albumin, borine, temp. depend. of viscosity 2−116948
serum albumin, bovine, press. induced denaturation, photon correl. spectroscopy 2−114139
sodium urate crystals, growth morphologies rel to human stone form. 2−76348
solution conform. and dynamics, with internal motions, ^{1}H NMR anal. of relax. data 2−116863
stellacyanin, metal-binding site studies using X-ray absorpt. spectroscopy 2−93985
structure determination, STEM, heavy atom imaging 2−100185
surface binding rates of nonfluoresc. mols., determ. by total internal refl. and fluoresc. correl. spectroscopy 2−94258
T4 bacteriophages, protein and DNA components, EM, contrast variation method 2−94262
T7 bacteriophage, struct. study by small-angle neutron scatt. 2−105650
thermitase, negative staining to reveal struct. 2−73408
thyroglobulin, investigation of intrinsic fluoresc. 2−67949
tissue NMR relaxation times, rel. to local inflammatory response, rat and rabbit expts. 2−83550
tomato bushy stunt virus, struct. of expanded state 2−88503
triazines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2−108378
troponin complex, prediction of approx. quaternary struct. 2−105649
trypsin, conformational fluctuations of protein mol. 2−73185
trypsin inhibitor, bovine pancreas, two dimens. nucl. Overhauser expt. 2−90750
tyrosine hydroxyl groups in proteins, Fermi reson. Raman doublet anal. 2−114000
urinary stone research, growth morphology of calcium oxalate trihydrate 2−76335
UV spectroscopy of DNA, far- and vacuum-, prospects and difficulties 2−94259
viral DNAs, evolutionary selection for perfect hairpin structs. 2−99888
water crystallisation, grapevine tissue, possible mechanism of process, ^{1}H NMR obs. 2−111615
water crystallisation in plant tissues 2−57783
X-ray studies of biological macromols., review 2−63794
Al(III)-phosphate complexes, aq. solns., ^{27}Al NMR obs. 2−108575
Au_{11} cluster compound, STEM obs. 2−114146
Ca phosphates, crystallisation, homopolymer additive effect rel. to renal stone form. 2−76341
$CaHPO_4.2H_2O$, crystallisation, representation of growth curves 2−76340
$Ca_5(PO_4)_3OH$, hydroxyapatite, crystallisation, representation of growth curves 2−76340
Cu complex, (L-proline-L-alanine)Cu(II).2.5 H_2O, crystal struct., X-ray determ. 2−116878
Fe-S proteins, electronic struct. calc. on active site models 2−108746
Pt complex, cis-diamino dichloro platinum(II) analogs, antitumour activity, INDO-SCF calcs. 2−80485

molecular bonds *see bonds (chemical)*

molecular clusters
alcohol-alkane systems, solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
alcohols solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
alkali halide doubly charged cluster, energy surface and stability 2−80863
alkali iodide clusters stability, secondary ion mass spectrometry 2−70468
alkali metal clusters, photoionisation and fragmentation in supersonic mol. beams 2−102547
atmosphere, negative ion mol. clusters 2−83922
benzene, cryogenic soln., mol. aggregates, IR study 2−67031
$(benzene)_2$ clusters, IR vibr. predissoc. spectroscopy 2−59989
$(benzene)_3$ clusters, IR vibr. predissoc. spectroscopy 2−59989
benzene clusters, mass-selective two-colour photoionisation 2−75486
benzene clusters, UV spectr a 2−75487
bis (π-polyeryl)nickel clusters, electron correl. and HF instability, INDO MO calcs. 2−96460
cluster integrals, statistical mechanics evaluations 2−112803
corrosion-resistant supersonic expansion cluster source 2−65125
diamond, (111) surface relax. and reconstruction, CNDO/2 calcs. 2−82097
electron impact ionisation obs. of cluster props. 2−90757
ethanol-water mixtures, cluster formation 2−55001
ethylene-Ar clusters, in supersonic mol. beam, CARS 2−80861
gas phase clusters, photoelectron-photoion coincidence spectroscopy for obtaining photoelectron spectrum 2−80862
H, cluster ions, prod. in supersonic nozzle, mol. weight distrib. 2−70470

molecular clusters continued
ion clusters, struct., stability, form. and props., rel. to nucleation, liq. props. and surface states 2−90756
ion-clusters, collisions with atoms and condensed matter, vicinage effects 2−75489
iron pentacarbonyl, clusters, multiple-reson. mass spectroscopy 2−95515
methanol, aggregates in cryogenic matrices, IR hole burning 2−80860
methanol-water mixtures, cluster formation 2−55001
methyl nitrite aggregates in cryogenic matrices, IR hole burning 2−80860
methyllithium clusters, binding energies, geometry, ab initio SCF STO calcs. 2−96787
naphthalene clusters, triplet states, phosphoresc. lineshape anal. using spin-spin and spin-orbit interactions 2−96615
2-propanol mixtures, cluster formation 2−55001
1-propanol-water mixtures, cluster formation 2−55001
pyrazine, cryogenic soln., mol. aggregates, IR study 2−67031
solids and surfaces, charact. by ion beams and mass spectrometry, review 2−93346
trinuclear mixed-valence clusters, electron delocalisation 2−90753
two-particle cluster integral, dielectric constant expansion 2−112802
van der Waals complexes, degenerate states of coupled vibrs., dynamic Jahn-Teller effect 2−59878
Al surface (111), O chemisorption, quantum chem. cluster model 2−110127
ArN_2 cluster ions, unimol. and collision induced dissoc. 2−90759
B subhalide clusters, stability, valence state index 2−85857
CO dimers, electron impact fragmentation, IR laser and mass spectrosc. anal. 2−59947
CO_2 cluster, collision induced dissoc., metastable ions, mass spectra 2−96749
CO_2 clusters, +ve and −ve, prod. using supersonic mol. beam source with β-emitter 2−90758
CO_2 clusters, multiply charged, critical sizes for stability 2−85856
H_n^+ clusters, even- and odd-numbered, ab initio SCF and SD-CI calcs. 2−108759
$(HF)_n$, n=2-6 cluster, IR vibr. predissoc. spectroscopy 2−59989
H_2O 2−90754
H_2O cluster ions, high mol. wt., form. in expansion of ionised gas mixtures 2−108760
H_2O clusters, +ve and −ve, prod. using supersonic mol. beam source with β-emitter 2−90758
H_2O, expanding vapour flows, cluster conc. determ., time of flight mass spectra 2−55002
H_2O, mol. clusters responsible for far IR spectral absorpt. 2−83940
$(H_2O)_8+D^+$, solvating collisions, trajectories calcs., mechanism 2−90654
$(H_2O)_n$ monolayer cluster on AgI hexagonal substrate, Monte Carlo studies 2−110140
$(H_2O)_nH^+$, collision-induced dissoc. using triple quadrupole 2−102678
$H_{1,2}Os_3(CO)_{10}R$ (R=organic moiety), metal mol. clusters, UV photoelectron spectra 2−65124
$(LiF)_n$ clusters, energy struct., polarisation model 2−65121
NH_3-cluster ions, collision induced dissoc., metastable ions, mass spectra 2−96749
$(NH_3)_{n-2}NH_4^+$ cluster, (n=2-8), multiphoton ionisation mass spectra 2−70347
$(NO_2)_n+Ba$, beam chemiluminesc., excitation functions 2−67734
Os complexes, $(\mu_2\text{-}H)_2Os_3(CO)_{10}$, vibr. spectroscopy, normal coordinate calcs., force const. 2−70469
$Os_3(CO)_{12}$ metal mol. clusters, UV photoelectron spectra 2−65124
OsO_4, cryogenic soln., mol. aggregates, IR study 2−67031
Ru complex, $H_3Ru_3(\mu_3\text{-}CH)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex, $H_3Ru_3(\mu\text{-}CU)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex clusters, vibr., resonance Raman obs. 2−75488
$Ru_3(CO)_{12}$, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
SF_6, clusters, vibr. predissociation, IR obs. 2−55005
Si, (111) surface relax. and reconstruction, CNDO/2 calcs. 2−82097
$Si:P_2(P_2^+)$, multiple scatt. Xα mol. cluster model of complex defects 2−76977
SiC cluster, electronic component of free energy in gas phase 2−59987
$W_4(OC_2H_5)_{16}$, bonding, second order Jahn Teller effect 2−70467
Xe_2 and Xe_3, photoelectron-photoion coincidence spectroscopy for obtaining photoelectron spectrum 2−80862

molecular collision processes *see elastic scattering of atoms and molecules; molecular inelastic collisions*

molecular configuration interactions *see molecular electron correlations*

molecular configurations
see also bond angles; bond lengths; inorganic molecule configurations; isomerism; macromolecular configurations; molecular orbitals calculations; organic molecule configurations; X-ray diffraction examination of molecular structure
algorithm for Brownian dynamics simulations 2−63902
analysis using method based on electrostatic repulsion and attraction 2−113845
atomic, molecular and solid state theory, and computational quantum chemistry, conference, Flagler Beach, FL, USA (March 1981) 2−79267
Cartesian coordinates parallel calc. of atoms in mols. and mol. complexes 2−90433
conformational studies by IR and Raman spectra 2−80633
double-rotor molecules, scalar and vectorial props., conform. depend., symmetry effects 2−59960
electric field effects on molecular spectra 2−80580
electric field effects on mols., mol. geometry model 2−59723
electron correlation effects on mol. struct. and props. 2−80409
ELLIDS program, for mol. struct. with probability ellipsoids of atomic thermal vibrs., graphical representations 2−55811
framework group classification of symmetry 2−114126
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
internal space, stability rel. to isotope substitution 2−59684
ions, stereochemical struct. studied using electrostatic accelerator 2−54982
ions and atoms encased in rings, cages and crypts, mech. stability anal. 2−102378
physics data handbook 2−58565
polyatomic molecules, geometric parameters, average values calc. 2−75150
quadratic response functions within the time-dependent Hartree-Fock approximation 2−96429

molecular configurations continued
quasimolecular system symmetrisation, compact computer program 2−90434
quixotic molecules, $AB_2(AH_3)(AH_5)(HAB_2)$ classes, geom. and electronic struct., INDO and CNDO calc. 2−102386
quixotic molecules, hypothetical HAB, geom., electronic struct. and common props. 2−85551
relayed coherence transfer spectroscopy, structural determ. 2−90580
review of methods of solving mol. struct. 2−65108
sextet polynomial, graph theoretical identity 2−90430
study by long-range $H^+\text{-}^{13}C$ NMR spin coupling const. technique 2−85694
tetra-atomic mols., out-of-plane vibr., rigid bender model 2−85617
triatomic system, bending process, applicability of momentum density approach 2−85519
tunnel effect on molecular states under permutation inversion groups 2−85542

molecular conformations *see molecular configurations*

molecular dissociation
see also heat of dissociation; molecular dissociation energies; molecular electron impact dissociation; molecular photodissociation; molecular predissociation
acetaldehyde, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
acetone, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
acetone cations, dissoc. dynamics, surprisal anal. 2−105457
acetone ions, dissoc., intramol. energy redistrib. 2−54924
acetylene+$He^+(Ar^+)$, excitational dissoc. optical emission from excited fragments 2−105470
acetylene dimer ion, unimolecular decomposition 2−111479
adsorbed diatomic molecules, dissociation, surface mag. field, laser and phonon continuum effects 2−87063
alkoxy radical+O_2, reaction, thermal source of HO_2 radicals 2−62384
aminoanthraquinone dyes, spectra, solvent effects 2−75302
aqueous acid solns. dissoc. consts., anion effects by PMR spectroscopy 2−65017
benzene, cracking, effect on Pt aggregates on Y-type zeolites 2−65123
benzoic acid, enthalpy of sublimation and dimerisation in vapour phase 2−109966
borates, classification and crystal-chemical role of mol. water, thermal decomp. 2−78088
bromobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
t-butylhydroperoxide, state-to-state unimol. reaction, kinetics investig. 2−62392
charged particle impact, threshold fragmentation 2−102583
chemisorption of NO and NH_3 on Co, UPS, XPS and work function meas. 2−62430
chlorobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
chlorodifluoroethane, CW IR laser induced reaction kinetics 2−105493
chloroethane, IR multiphoton decomposition and energy depend. absorpt. cross section 2−93770
CO, adsorbed on Mo, mol. dissociation, pulsed voltage and pulsed laser atom-probe study 2−76828
collision induced dissociation, Wigner distrib. trajectory method 2−83367
copper acetate, Cu negative ion emission by mol. sputtering 2−57229
covalent and ionic systems Auger induced decomposition/dissociation 2−76834
diatomic molecules, rot. consts. representation and extrapolation, improved method 2−54826
diatomic molecules, vibr. excited, collisional dissoc. 2−80791
diatomic molecules in inert gas, rot. dissoc. theory 2−80792
diatomic molecules thermal dissociation with bound electron excited states 2−93764
1,2-dichloropropane, thermal, unsensitized IR laser and laser SiF_4 sensitised decomposition 2−93769
dissociating gases, transport phenomena calcs. 2−86308
energy partitioning, statistical theory 2−93768
1,2-epoxypropane, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
ethane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
ethanol, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
ethanol ionic dissociation studied by photoelectron-photoion coincidence spectroscopy 2−75468
ethylene, adsorpt. and decomp. on Ni (100) surface 2−83407
ethylene cation, mol. spectrosc. and unimol. decay, nonadiabatic effects and conical intersections 2−108468
ethylene on Fe(110), adsorbed layers, characterisation by Auger electron spectra, decomposition 2−73029
fluorotetraallylic tin radical, non-RRKM decomposition 2−88340
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
gaseous molecular targets, dissoc. by fast ion beams 2−54933
hydrocarbons, adsorpt. and decomp., effect on Pt aggregates on Y-type zeolites 2−65123
hydroxymethylene radical, unimol. reactions, energy barriers calcs. 2−62383
inert gas atom alkali halide molecules, dissoc. ionisation, momentum model 2−114098
ion dissoc. expts. interpretation 2−80775
ion dissociation in foils, quantitative anal. 2−54932
isobutane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
isoelectronic molecules, dissociation process, ab initio study 2−88355
methane, CH bond dissoc., ab initio pot. energy curve 2−93758
methane, double ionisation threshold, ion lifetime, MCSCF and CI calcs. 2−64888
methane cations, collision-induced dissoc., mol. dynamics obs. 2−93779
methanol, adsorption, oxidation and decomposition on Ag (111), UPS and XPS study 2−76826
methanol, decomposition on Ni (100) 2−83413
methanol, thermal desorpt. and decomp., on Pd(100), spectrosc. obs. 2−92344
methoxy radical, unimol. reactions, energy barriers calcs. 2−62383
N-methyl 2H,3,4-dihydro 1,3-benzoxazines, retro Diels-Alder reaction, mass spectra 2−57611

molecular dissociation continued
methylene ion, dissoc. detection by low pressure gas detectors 2−57595
methylmercury halides+$Xe(^3P_2)$($Xe(^3P_1)$), dissoc. excitation rate consts. meas. 2−116693
molecular dissoc. in thin foils, optical obs. 2−54934
molecular ions, molecular struct., and interaction with matter, conference, Haifa, Israel (Jan. 1981) 2−53410
neopentane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
nonsecond-quantised radiation effect on chemical systems 2−116690
n-octane, collision with SiO_2 surface, vibr. energy transfer, mass spectrosc. obs. 2−114082
polyatomic mol. systems, unimol. decomposition, semiclassical multichannel branching model 2−62374
polyatomic scatt., system-bath decomposition of reaction path Hamiltonian, quantum perturbative treatment 2−111454
polyatomic systems, photofragmentation, prod. energy partitionings studied by classical trajectory method 2−88364
polyatomics, intramolecular dynamics, TDHF 2−113955
preequilibrium distribution of the charge states of fragments of molecular ions in gaseous targets 2−54953
propane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
propyne, chemisorpt. on Fe(110) and Fe(100) surfaces, decomposition, UPS 2−62427
radiative excitation and multiphoton dissociation in mag. field *(Russian)* 2−54905
silver acetate, Ag negative ion emission by mol. sputtering 2−57229
tetrahalomethanes and decomposition products, CNDO/2 calcs. *(German)* 2−64877
three-dimens. model system, collision induced dissoc. calcs. 2−85775
transition metal carbonyls, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
trifluoroiodomethane, sensitised dissoc. with isotopic selectivity using SF_6 2−80832
unimolecular decay, quantum stochasticity model 2−93750
unimolecular decompositions studied using sector type tandem mass spectrometer *(Japanese)* 2−113036
unimolecular dissociation, first passage times and kinetics, multiphoton dissoc. 2−83366
vinyl fluoride, chemically energised, decomposition, energy partitioning meas. using IR chemiluminesc. technique 2−88343
Ar+H_2O, dissociative excitation, crossed mol. beam and luminesc. study 2−57602
Ar_2 collisions, trimer form., atom exchange and dissoc. 2−105463
Ar_3^+, metastable cluster ion, unimolecular dissoc., temp. depend., mass spectra 2−99650
ArN_2 cluster ions, unimol. and collision induced dissoc. 2−90759
ArN_2^+ cluster ions, unimolecular and electron impact dissoc. 2−62380
C, energy loss of H_2^+ traversing ultra-thin foils, cluster effects 2−81855
C, molecular state of H_2^+ traversing ultra-thin foils 2−81856
C_2^+ molecular ion structure study using charge-coupled imaging device 2−75458
C_3, neutral and ion mols., struct. determ. by Coulomb explosion 2−93795
CN^+ molecular ion structure study using charge-coupled imaging device 2−75458
CO, adsorption and dissociation on stepped Ni surface, SEM study 2−92358
CO^+ Coulomb explosion influence on C^{3+} Auger lineshape 2−78068
CO+H, dissociation in interstellar shock heated regions 2−68861
CaCl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
ClNO, VUV photodissoc., fluoresc., rot. level distrib. 2−96623
CsH, laser induced fluoresc. doublet, vibr.-rot. levels near dissoc. limit 2−70324
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
H+H_2 reaction, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
H_2, dissociation on clean and contaminated Pd surfaces, UPS study 2−105510
H_2 in stellar envelopes, parameters of ionisation-dissociation shock waves *(Russian)* 2−73956
2-MeV H_2^+ beam, UV-laser photofragmentation 2−54902
H_2^+ dissociation by C foils, interatomic separation and relative vel. distrib. calc. 2−75370
H_2^+ ions, Coulomb explosion, measurement on the extended range of the wake 2−57594
H_2+H, dissociation in interstellar shock heated regions 2−68861
H_2+H, molecular dissociation, collision induced, cross sections, appl. to mol. clouds 2−90653
H_3^+, dissoc. detection by low pressure gas detectors 2−57595
H_3^+ ions, 2.9 MeV, dissoc. products, struct. 2−54979
HBr, dissociative electron attachment, H^- form., nonadiabatic transitions 2−85781
H_2O, adsorption and decomp. on Co surfaces, LEED, UPS, surface pot., and thermal desorption study 2−104160
H_2O dissociation, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
$(H_2O)_nH^+$, collision-induced dissoc. using triple quadrupole 2−102678
$H_2S^+ \rightarrow S^+ + H_2$, metastable reaction, mechanism, product energy distrib., mass spectra anal. 2−57597
HeH^+ 2 MeV beam, internuclear separation distrib., ion-source depend. 2−75459
HeH^+, molecular dissoc. in thin foils, optical obs. 2−54934
$HgX_2+Xe(^3P_2)$,($Xe(^3P_1)$), X=Cl, Br, I, dissoc. excitation rate consts. meas. 2−116693
I_2, rot. consts. representation and extrapolation, improved method 2−54826
I_2Ne, intramolecular energy transfer, dissoc., time depend. SCF approx. 2−108452
InP, dissoc. under vacuum, kinetics 2−116691
$Kr^+ + O_2(CO)(N_2O)(OCS)$, fine struct. state depend. reactivity 2−105471
LaC_7, identification and atomisation energies by high temp. mass spectrometry 2−67761
LaC_8, identification and atomisation energies by high temp. mass spectrometry 2−67761
$MgSO_4$, decomp., kinetics, solar energy storage *(French)* 2−93948
N_2 in decaying plasma, dissociation and ionisation 2−81447
N_2 possible source for $N^+(^3S)$ in aurora 2−63160
N_2^+ molecular ion dissoc. at S and N covered Ni (110) surface 2−78069
molecular dissociation continued
N_2^{2+} ions, dissoc. into N^+ ions, kinetic energy spectra 2−72965
NCNO, pot. surface for dissoc., ab initio CI calcs. 2−62394
NCO neutral and ion mols., struct. determ. by Coulomb explosion 2−93795
NH_3 adsorption and decomposition on W(100), XPS study, core level binding energy interpretation using equiv. core approx. 2−115558
NH_3 decomposition on Pt and Fe surfaces at high temp., NH radical prod. 2−72959
NH_3, electron-ion recombination coeff. at high densities 2−93760
NH_3, on polycryst. Mo surface, AES obs. 2−67157
NO adsorption on Cu(100) and Cu(110) 2−110128
NO^+, unimol. dissoc., threshold photoelectron-photoion coincidence obs. 2−90638
N_2O, adsorpt. on W(110) and Ru(001), XPS and UPS mes., horizontal and vertical configurations 2−73009
N_2O_4, in circular pipes, dissoc., heat transfer in turbulent flow 2−70918
N_2O_4, relax., unsteady quasi-1-dimens. flow 2−86262
N_2O_4, specific heat at const. volume and dissociation effect *(Russian)* 2−55694
$N_2O^+ \rightarrow NO^+ + N$, metastable decay, mass spectrosc. obs. 2−93780
$2NO_2 \rightleftarrows 2NO + O_2$, friction law, averaged vel. profile in turbulent reactive tube flow *(Russian)* 2−55548
Ne_2^* potentials for dissoc., rel. to Ne+Ne collisions 2−67743
Ni (110) surfaces, S and N covered, N_2^+ mol. ion dissoc. 2−78069
O_2 dissociation rates in lower thermosphere, effect of gravity waves 2−112187
O_3, absorbed in porous particles, rel. to ball lightning 2−105512
O_3, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
OH^+ break-up in thin C foil, H^0 component study 2−75371
OH^+, dissoc., study of neutral H-component 2−57592
OH^+, dissoc. detection by low pressure gas detectors 2−57595
OH^+ ions in Li target, dissoc. 2−57593
OH^+ molecular ion structure study using charge-coupled imaging device 2−75458
SF_6, multiphoton excitation, role in sensitised dissoc. with isotopic selectivity 2−80832
SF_5Cl, sensitised dissoc. with isotopic selectivity using SF_6 2−80832
SF_5Cl+SF_6, sensitised dissoc. by laser-excited absorber 2−65070
SO_2 decomposition kinetics on Pt (111), AES study 2−105509
SO_2 ionisation and dissociation in Io plasma torus 2−106602
SiH_4, laser dissociation, Si film prod. *(Chinese)* 2−62074
SrCl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
UF_6+SF_6, sensitised dissoc. by laser-excited absorber 2−65070
$XeOF_4+SF_6$ sensitised dissoc. by laser-excited absorber 2−65070
ZnO, thermodesorpt. of atomic O 2−67768

molecular dissociation energies
arsines, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
CS radical, band intensity parameters and ground state dissociation energy 2−114045
cyanogen-HF(HCl), H-bonded complex, dissoc. energies, ab initio SCF MO calcs. 2−64859
diatomic molecules, estimation from spectroscopic data 2−90729
diatomic systems, HF Slater wave functions calc. 2−96441
diatoms, dissociation energy from pot. curves 2−108731
germanes, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
isoelectronic molecules, dissociation process, ab initio study 2−88355
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
phosphines, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
silanes, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
triatomic ions, equilib. geometries and dissociations, mol. pseudopotential calcs. 2−75161
tricyclo[4.4.0.0^{3,8}]decane, electronic distrib. chemical effects, atomisation energy calcs. *(French)* 2−108730
trimethylsilane+Br, kinetics and equilib. in very low press. reactor 2−93757
Al_2, pot. energy curves and dissociation energy 2−114062
AsS^+ mol., true pot. energy curves, dissociation energy, r-centroids, Franck-Condon factors 2−75205
BaF, potential energy curves and dissociation energy 2−70163
BeCl, electronic ground states, dissociation energies 2−70375
BeF, potential energy curves and dissociation energy 2−70163
BiF, dissoc. energies and pot. energies curves 2−70373
CN* radical, dissociation energy from pot. curves 2−108731
CaF, potential energy curves and dissociation energy 2−70163
Cs_2, dissoc. energy, fluoresc. spectra 2−80703
CsH, $X^1\Sigma^+$ state, laser induced fluoresc. spectrum, pot. energy curve, avoided crossing region 2−108607
GaH, electronic ground states, dissociation energies 2−70375
HCN, highly excited, struct., force const., dissoc. energies, mol. pot. 2−96676
HCl-Xe(Ar), far IR spectra, temp. depend., intermol. pot. well depths 2−102473
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
$^{200}Hg\ ^{79}Br$, B→X spectrum, excimer laser 2−75555
Li_2, reson. two-photon ionis., ionis. pot. calcs. 2−80741
LiH, electronic ground states, dissociation energies 2−70375
LuF gaseous mol., pot. energy curves and dissociation energy 2−113909
MgF, potential energy curves and dissociation energy 2−70163
Mo_2, bonding, spin-polarised cellular multiple scatt. calcs. 2−80448
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
Ne-inert gas dimens., photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
O_3^+, laser photodissoc. and O_3 ion energetics 2−102554
$^{121}Sb^{123}Sb$ mol. bands, RKRV curves, Franck-Condon factors 2−64966

molecular dissociation energies continued
Sr_2 excimer, dissoc. energy, laser induced fluoresc. obs. 2−96628
SrF, potential energy curves and dissociation energy 2−70163
Te_2, laser induced fluoresc. spectrum studied by Fourier transform spectrometry, RKR pot. and dissoc. energies 2−65043
UF, UF_2, UF_3 and UF_4, gaseous equilibria, reaction enthalpies and entropies, bond dissoc. energies 2−60709
VO molecule, dissociation energy calc. 2−90730
XeF, pot. energy curves, dissoc. energy, ionisation pot. 2−54783

molecular dynamics method
1:1 electrolytes, restricted primitive model, mol. dynamics simulation 2−97886
adatom coalescence and cluster motion on amorphous surfaces, mol. dynamics simulation 2−56351
agar-H_2O system, mol. dynamics and entropy changes, PMR study 2−78281
anisotropic solid, fluctuations, and thermodynamic props. 2−115435
carbon tetrachloride, liq. and plastic cryst., mol. dynamics calcs. 2−65839
chemical reactions, molecular dynamics with stochastic boundary conditions 2−101298
crack propagation, steady state, mol. dynamics simulation 2−92098
dense fluid at a hard wall, mol. dynamics simulation 2−76265
dense fluids, mol. dynamics system, stationary nonequilibrium state prod., thermodynamics 2−70841
dichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2−86536
dichloromethane liq., mol. dynamics simulation with 3×3 and 5×5 site-site interactions 2−76261
ethane, external force field, mol. dynamics simulation 2−81656
FCC (111) Lennard-Jones system, surface self-diffusion theory 2−98327
ferromagnet, classical one-dimens. easyplane, dynamic struct. factors, computer simulation 2−66796
fluid, chemical potential, mol. dynamics simulation 2−103579
Fokker Planck Kramers autocorrel. functions and IR spectra for molecule dipole orientation 2−104860
glass structure and diffusion, mol. dynamics calc. 2−91789
grain boundaries, computer mol. dynamics study, migration, sliding and annihilation, 2D solid 2−103781
grain boundaries, computer mole. dynamics study, coupled sliding and migration, 3D simulation 2−103780
hard core molecular fluid, mol. dynamics simulation 2−91739
hard discs, vel. autocorrel. function, mol. dynamics calcs. 2−109650
Heisenberg chain, classical isotropic, spin dynamicss, computer simulation 2−98899
Heisenberg ferromagnet, polarised neutron scatt. cross section calcs. 2−104584
interparticle velocity correlations in simple liquids 2−109649
ionic and dipolar systems, Monte Carlo and molecular dynamics simulations, periodic boundary conditions 2−81644
laser annealing expt., mol. dynamics simulation 2−109828
Lennard-Jones two centre fluids, thermodynamic props., mol. dynamics simulations 2−81648
liquid metal, electronic density of states, two-dimens. model, computer expt. 2−92446
liquid mixture, nonconformal, computer simulation of behaviour 2−60850
liquid state chem. reactions dynamics, R-dependent correl. functions modelling 2−99642
melting, molecular dynamics study for two dimensions 2−81938
methyl fluoride, liquid, case representative of joint expt. and theoretical progress 2−76272
methylene chloride, liq., IR spectra, rot. diffusion, temp. depend., mol. dynamics simulation 2−57068
molecular diffusion in anisotropic liqs., equilib. props., mol. dynamics simulation 2−86531
molecular orientation at gas-liquid interface, for model fluids 2−115496
molecules in anisotropic liq., rise and fall transients, mol. dynamics simulation 2−86532
molten salts, ionic transport props., mass and size effects 2−56230
NH_4Cl conc. aq. solns., NH_4^+ ion coordination 2−71322
plasma ion-ion recombination theory 2−109460
plastic flow 2−86775
propane-like molecules, external force field, mol. dynamics simulation 2−81656
rigid ions dynamic simulation in liq. and solids using Ewald sum, MDIONS program 2−65826
simple fluids, transport props. at low temps. and high press. 2−71691
soft-sphere crystals, shear-induced melting, thermodynamic props. 2−71621
surface, atom ejection processes, influence of lattice atom pot. function 2−93343
surface diffusion of adatoms and vacancies, molecular dynamics study 2−87061
tetrachloromethane, liq., collision effects, mol. dynamics study 2−81651
trichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2−86536
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962
two-dimensional solid, relax. and fluctuation effects near melting transition, mol. dynamics simulation 2−103957
two-dimensional struct., shock-induced signals, microscopic constraints 2−76584
water, intermolecular pots., X-ray scatt. 2−86537
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
Ar, dense gas and liq., polarisability anisotropy induced light scatt. spectra 2−97701
Ar:$N_2(O_2)$(CO) impurities, mol. dynamics calc. 2−115154
BeF_2-NdF_3 based glasses, absorpt. and emission spectra of Nd^{3+}, at. struct. computer simulation 2−57149
CS_2, liq. Lennard-Jones pot., struct. and dynamics, computer simulation 2−97901
CsCN, phonons in rotator phase 2−109921
Fe, impurity migration stimulated by generation and recombination of Frenkel pair 2−76749
Li, Debye-Waller factor calc. method 2−81923
LiCl-KCl, liq. state, ion mobility mol. dynamic simulation 2−110022
N_2 liquid dynamics, neutron inelastic scatt. 2−81659
N_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871

molecular dynamics method continued
Na, liquid and solid, eqn. of state and struct., mol. dynamics study using model pseudopot. 2−71606
$NaNO_2$, paraelectric phase critical fluctuations 2−82797
$NaNO_2$, solid and molten, paraelectric phase, molecular dynamics computer simulations, struct. 2−98035
O_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
PbF_2, ionic disorder computer simulation 2−92259
Pt surface (110), cross-channel diffusion mechanism anal. 2−61288
Rb, Debye-Waller factor calc. method 2−81923
SiO_2, amorphous, freq. spectrum, mol. dynamics simulation 2−61100
SiO_2 glass, thermodynamic, struct. and dynamical props., mol. dynamics study 2−76321

molecular electron correlations
acetaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetone, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetylene-derived radical, lowest-lying doublet states, MCSCF CI wavefunctions calcs. 2−96465
acetylenes, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
4-(9-anthryl)-N,N-dimethylaniline, intramol. charge transfer, INDO/S CI and PCILO calcs. 2−90688
benzaldehyde, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
benzene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
benzene type rings and linear chains, correlation effects, PPP calc. 2−80490
benzonitrile, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
bis (π-polyeryl)nickel clusters, electron correl. and HF instability, INDO MO calcs. 2−96460
chloromethane, valence orbitals, momentum distribs. and separation energies 2−108371
chloromethanes, electron spectra, electron correl. and mol. effects 2−108700
CI, fast method for triply and quadruply excited config. 2−75193
cluster energies and wavefunctions, CI and CCD calcs. 2−80494
conjugated π systems, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
cyclobutadiene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
cyclopentadienyl radical, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
density function method, rel. between electronic energy and one electron pot. 2−75148
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2−90461
1,2-difluoroethylene, cis-trans energy difference, electron correl. and polarisation functions 2−113867
dioxirane, symmetric ring opening, nonadiabatic interactions, ab initio CI calcs. 2−67736
dioxodiazacycloalkanes, singlet-triplet transition, CNDO/S-CI SCF MO calcs. 2−64879
direct configuration interaction method, diagrammatic construction 2−80495
Downward Robb algorithm, combinatorial aspects, unitary group approach to CI treatment 2−80422
(e,2e) spectroscopy, electron correl. and mol. effects 2−108700
electronic momentum distrib. and mol. struct., binary (e,2e) spectrosc. obs. 2−108699
electronic wavefunctions calc., MCSCF, CI and numerical SCF method 2−80420
ethyl radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
ethylene, multireference CI, perturbative var. approach 2−59711
ethylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
ethylene, V-N bands. system, ab initio nonadiabatic vibronic calcs. 2−75194
explicitly correl. CI studies using spherical Gaussians 2−102366
extended geminal models, electron correl. energy calc. 2−102398
fluorene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
formaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
formyl radical, lower excited states, ab initio CI calcs. 2−59706
homonuclear diatomic mols., Hartree-Fock and CI calcs. 2−108394
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
indene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
inert gas diatoms, polarisabilities, SCF computations, collision induced Raman spectra 2−70441
integral dependent spin couplings in CI calculations 2−80499
K clusters, pseudopot. CI calcs. 2−59984
ketene imine, electronic struct., ab initio SCF and CI calcs. 2−75180
methane, double ionisation threshold, ion lifetime, MCSCF and CI calcs. 2−64888
11-(methoxycarbonyl)-cyclohept[a]azulenylium tetrafluoroborate, MCD and IR absorpt. spectra 2−75337
methyl carbene triplet radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2−96469
methylsilane, vertical excitation energies for singlet and triplet states, ab initio calcs., photochemistry 2−72996
microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
molecular struct. and props., electron correlation effects 2−80409
multiconfiguration reference state functions, self-consistent electron pairs method 2−59712
multiple scattering model, interstitial integrals 2−108342
multireference direct configuration interaction calcs., graphical unitary group approach 2−80421
1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-dianhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
naphthalic anhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
nitrobenzene, photoelectron angular distrib. and PES assignments 2−102531

molecular electron correlations continued
nitromethane, photoelectron angular distrib. and PES assignments 2−102531
perturbative configuration interaction method, appl. to intermol. and intramol. calcs. 2−102399
polarisation function additivity and electron correl. effects in ab initio MO calcs. 2−96424
polyacetylene, bond lengths, bond strengths and electron-lattice coupling calc. 2−76625
polyacetylenes, electronic struct., mol. architecture depend. 2−55000
polydiacetylene model systems, excited states correl. effects 2−80493
polyenes, finite, correl. states, exact PPP results 2−75190
polyenes, solute electron correlation energy, environment effects, UV spectral shifts calc. 2−90460
polyphenylenes, electronic struct., mol. architecture depend. 2−55000
polythienylene, electronic struct., mol. architecture depend. 2−55000
porphine, free base, isomer ground and excited state calcs. 2−113890
potential energy hypersurfaces, HF and multiconfigurational SCF soln., CI gradient techniques 2−96469
propylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
propylene, potential-energy and dipole moment surfaces 2−102410
second-order perturbation energy, calc. from external double excitations, CASSCF calcs 2−64887
silabenzene, electronic states, INDO/S-CI calcs. 2−108382
sirohydrochlorin, isomer ground and excited state calcs. 2−113890
size-consistent methods as starting points for calculations with multiconfigurational reference functions 2−59681
solute electron correlation energy, environment effects 2−90460
styrene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
transition dipole moments calc. by biexcited CI method *(French)* 2−108407
trifluoromethyl ion, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
vinyl radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
ArHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
B_2, energy differences using an accurate local density functional, spin-flip energies calc. using Xalpha approx. 2−70122
$B_3N_3H_6^+$ radical, photoelectron spectrum, theoretical models calcs. 2−80722
BO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
BO, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
BO_2, density matrix treatment, atomisation energies, equilib. distances and ionisation pot. 2−80500
Be, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
BeN, low-lying electronic states, ab initio calcs. 2−80505
BeN^-, low-lying electronic states, ab initio calcs. 2−80505
C ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
C-Li, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
$C^+ + H_2$, pot. energy surfaces, CEPA calcs. 2−93766
C_2, energy differences using an accurate local density functional, spin-flip energies calc. using Xalpha approx. 2−70122
CCN^+, microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
CCl, $A^2\Delta$ state predissoc. investig. 2−80747
CH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
CN, $A^2\Pi$ and $B^2\Sigma^+$ states, radiative lifetime determ. from CI calcs. 2−85746
CO, CI and coupled cluster approx. relationship 2−59710
CO, importance of f basis functions in molecular electron correl. energy calcs., diagrammatic perturbation body 2−59713
CO^+, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
CO+Na*, (^{3}P) state quenching, stereochem. effects, expt. and calcs. 2−108605
CO_2, density matrix treatment, atomisation energies, equilib. distances and ionisation pot. 2−80500
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
F ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
F_2, mag. props., electron correl. effects 2−108398
Fe_3, electronic band structure, ab initio HF and CI calcs. 2−108400
H + formaldehyde, rate const., pot. energy surface, transition state theory, ab initio CI calcs. 2−72980
H_{14}, metallic and mol. rings, SCF and CI calcs. 2−108405
H_2, chemisorbed on Cu(100), many-electron embedding theory 2−110139
H_2, electron scatt., low energy, ab initio optical pot. appl., correl. and polarisation effects 2−75429
H_2, intermolecular forces via hybrid HF SCF plus damped dispersion energy calcs., spherical model 2−70372
H_2 mag. props., electron correl. effects 2−108398
H_2, spin orbit coupling consts. as function of internuclear distance, CI and STO calcs. 2−108401
H_2 + ethynyl radical → $H_2 + C_2H_2$ reaction rate const., ab initio determ. 2−83358
$(H_2)_2$ pot. surface and interaction between H_2 mols. at low temp., correl. effects 2−96484
H_n^+ clusters, even- and odd-numbered, ab initio SCF and SD-CI calcs. 2−108759
HCN, C-state, photofragment fluoresc. spectrum 2−85754
HCN, isotope effects, dipole moments, vibr., SCF, MRD-CI calcs. 2−85563
HCN, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
HCN(HNC), one-electron bases for electron correl. methods 2−80498
HCNO, pot-functions, equilib. functions, ab initio MO calcs. 2−90441
HCl, electronic spectrum assignment, ab initio CI calcs. 2−70211
HCl, electronic struct. and photodissoc. 2−102376
HCl, low lying resonance, CI calcs. 2−59709
HF, mag. props., electron correl. effects 2−108398
HF, multipole moments and polarisabilities, CI and perturbation theory methods 2−75192
HF, pot. energy curve, Rydberg-valence mixing, spectra, ab initio CI calcs. 2−54777
HNSO, force field, vibr. freq., ab initio CI and basis set calcs. 2−75195
H_2O, extended geminal models, electron correl. energy calc. 2−102398
H_2O, inner-valence ionisation, satellite peaks, symmetry adapted cluster CI calcs. 2−64886
$H_2O \rightarrow O(^1D_g) + H_2(^1\Sigma_g^+)$, photodissoc., pot. energy surfaces, MRD CI calcs. 2 90636
H_2O, pot. energy of ground state, MCSCF and MR-CI calcs. 2−102396
$(H_2O)_2$, valence ionisation energies, CI calcs., photoelectron spectrum assignment 2−96463
H_2S^+, zero-field splitting of $^3\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
H_2SiSi and its isomers, stability and bonding, generalised valence bond pot. study, SCF MO calc. 2−64884
KCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
Li clusters, pseudopot. CI calcs. 2−59984
Li, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
$LiBH_4$ + formaldehyde (acetaldehyde), carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
Li_2C, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
LiH, ab initio SCF and CI studies, FSGO calcs., HF function determ. 2−102397
LiH, correl. energy, pot. energy surface, Green's function Monte Carlo method 2−96468
LiON, struct., isomerisation, ab initio CI SCF calcs. *(French)* 2−108395
MgHe system, ab initio CI pot. energy curves 2−80765
N_2, differential and total photoionisation cross sections 2−70354
N_3, Jahn-Teller distortion, struct., SCF and CI calcs. 2−108396
NCNO, pot. surface for dissoc., ab initio CI calcs. 2−62394
NH_2, Rydberg excited state, vibr. freq., MRDCI calcs. 2−113892
N_2H_2, one-electron bases for electron correl. methods 2−80498
NO, β and δ systems, IR band intensities and electronic transition moments calcs. 2−59715
NO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
NO, valence and Rydberg states, SCF and CI calcs. 2−96470
NO, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
N_2O^+, photoelectron spectrum, vibronic struct., electron correl., strong non-Condon effects, Green's function calc. 2−96633
Na clusters, pseudopot. CI calcs. 2−59984
NaCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
Ne isoelectronic sequence, third order correl. energies 2−80501
Ne_2, pair polarisability, CI calcs. 2−102395
NeHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
O ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
$O^{3+} + H$, charge exchange, rot. coupling matrix, ab initio CI calcs. 2−85799
O_2, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
O_2^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
OH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
P_3, Jahn-Teller distortion, struct., SCF and CI calcs. 2−108396
PH_2^+, electronic struct., geometry and charge distrib. calcs. 2−59705
PH_3, excited states, photodissociation, ab initio HF and CI calcs. 2−85561
Pb_2 electronic states, relativistic quantum mech. calcs. 2−113866
SH, pot. energy curves, ab initio MRD CI calcs. 2−80503
ScH, electronic states, d bond, multiconfigurational SCF/CI calcs. 2−80497
SiF_3^-, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
TlH, mol. struct., relativistic ab initio CI calcs. 2−85562

molecular electron impact dissociation
2(1H)pyrimidinone, and substituted derivatives, electron impact fragmentation, mass spectra 2−108725
chlorotrifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
dichlorodifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
dissociative electron attachment, thermomechanical parameters, time of flight mass anal. 2−85821
dye vapors, cataphoresis and dissociation in DC glow discharge positive column 2−91692
electron impact dissoc., atomic radiation, simulation of Doppler profiles, mag. sublevels population effect 2−108726
fluoroalkanes, electron impact, total dissoc. cross-sections 2−59950
fluoroethylene anions, $^2\Pi$, dissoc., dissociative electron attachment spectrosc. obs. 2−59932
methane, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
methane-d_0 (-d_4), electron impact dissoc., product ion laser induced fluoresc. 2−96619
methane-d_1(d_3), electron impact, dissociative excitation, balmer emission, isotope effect 2−54975
polyatomic mols., electron scatt., shape resons. and electron transmission spectrosc. 2−80828
propane, collision induced dissoc., metastable ions, mass spectra 2−96749
tetrachloromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
trichlorofluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
ArN_2^+ cluster ions, unimolecular and electron impact dissoc. 2−62380
CO dimers, electron impact fragmentation, IR laser and mass spectrosc. anal. 2−59947
CO_2 cluster, collision induced dissoc., metastable ions, mass spectra 2−96749
Cl_2, dissociative electron attachment reaction, Cl_2^- resonant states, symmetry 2−114120
Cl_2, ground state dissociative electron attachment rate meas. 2−65097

molecular electron impact dissociation continued
D_2, electron impact dissoc., at. translational energy distrib. 2−70429
D_2O, electron impact dissoc., OD excitation and polarisation anal. 2−102648
H_2, electron impact dissoc., H Balmer-alpha line emission and atom energy in ion-source discharge 2−70190
H_2 electron impact dissoc., at. translational energy distrib. 2−70429
H_2 in Jovian aurora, H atoms prod. rate and fluoresc. spectrum from 1200 to 1700 Å 2−63237
HCl, ground state dissociative electron attachment rate meas. 2−65097
HCl, vibr. excitation by slow electrons, antibounded intermediate state *(Russian)* 2−85827
H_2O, optical excitation functions 2−114119
I_2, state-to-state dissociative electron capture rate, optogalvanic demonstration 2−59949
N_2, electron impact dissoc. and ionis. in elec. discharges 2−65096
N_2, electron impact dissociative excitation, prod. of N emission 2−70430
N_2^+, electron impact dissoc. recombination, metastable N yield 2−96752
NH_3, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
NH_3-cluster ions, collision induced dissoc., metastable ions, mass spectra 2−96749
N_2O, dissociative electroionisation study, NO^+ and N_2^+ dissoc. channels 2−85823
SF_6, electron scatt., total cross section meas., ToF obs. 2−54971
$VCl_3(VOCl_3)$, electron impact dissociative ionisation, mass spectra study 2−96750

molecular electron impact excitation
see also electron spectra
butadiene, valence excited states, electron impact spectra 2−85734
clusters, electron impact ionisation obs. of cluster props. 2−90757
1,3-cyclohexadiene, valence excited states, electron impact spectra 2−85734
diatomic molecules, slow electron reson. scatt., semiclass. calcs. *(Russian)* 2−54972
2,3-dimethyl-1,3-butadiene, valence excited states, electron impact spectra 2−85734
effective cross-section meas. *(Spanish)* 2−85811
electron scatt., exchange interactions, numerical stabilisation procedures 2−85825
gaseous positronics−past, present, and future 2−75419
multiparticle systems, inelastic electron scatt., mol. distrib. function determ. *(Russian)* 2−91745
cis-1,3-pentadiene, valence excited states, electron impact spectra 2−85734
polar molecules, in interstellar clouds, spectral intensity, electron impact effects 2−112533
positron lifetime spectra, positronium form. 2−75422
positron-gas cross-section measurements 2−75420
scattering intensity of fast electrons with change in vibr. states of molecules 2−75446
transition metal oxides, 3d, L_{23} edge, EELS 2−108636
Ar-Hg plasma fluoresc. lamps, radiation prod. efficiency, mol. gas admixture effects 2−76070
Ar-NF_3 mixtures, electron beam excited, fluoresc. from ArF* obs. 2−70325
BF_3, electron impact, shape resonance enhanced vibr. excitation 2−65099
BaF_2, solid, inelastic electron scatt., 4d shell excitation 2−85819
CO, positron scatt., total cross section, retarding pot. time of flight method 2−108706
CO, radiative decay lifetimes and optical excitation functions meas. using electron impact excitation 2−70187
CO, reson. scatt. of slow electron, vibr. excitation cross sections, quasiclassical calc. *(Russian)* 2−54973
CO, slow electron reson. scatt., semiclass. calcs. *(Russian)* 2−54972
CO, vibr., radiative lifetimes determ. optical emission functions 2−90722
CO_2, electron (positron) impact, total cross-sections meas. 2−59937
Cl_2, electron impact excitation, valence states, pot. energy curves, spectra 2−54974
DCP^+, electron impact excited $\tilde{A}^2\Sigma^+ \rightarrow \tilde{X}^2\pi_i$ emission spectra 2−80640
H_2 discharge, H_2 vibr. population distrib. and negative ion conc. calc. 2−90501
H_2, electron (positron) impact, total cross-sections meas. 2−59937
H_2, electron impact, parameter free nonadiabatic polarisation pot. 2−59948
H_2, electron impact, UV emissions, Werner- and Lyman-band system 2−70432
H_2, electron inelastic scatt., high-energy, X-B and X-E transitions 2−102650
H_2, electron scattering, energy unresolved differential cross-section calcs. 2−102623
H_2, electron thermalisation, relax. time 2−65098
H_2 fluorescence spectrum (1200 to 1700 Å) due to electron impact, rel. to Jovian aurora 2−63237
H_2 physisorbed on flat surface, rotational excitation by low-energy electron scatt. 2−102651
HCP^+, electron impact excited $\tilde{A}^2\Sigma^+ \rightarrow \tilde{X}^2\pi_i$ emission spectra 2−80640
HCl, vibr. excitation by slow electrons, antibounded intermediate state *(Russian)* 2−85827
HCl, vibrational excitation in electron beam excited Ar-HCl mixture, expt. study 2−96747
H_2O, optical excitation functions 2−114119
Kr_2F, electron beam pulse irrad., fluorescence lifetime and quenching rate const. 2−108727
N_2, electron (positron) impact, total cross-sections meas. 2−59937
N_2, electron beam diagnostics, secondary processes 2−85826
N_2, electron impact dissociative excitation, prod. of N emission 2−70430
N_2, positron scatt., total cross section, retarding pot. time of flight method 2−108706
N_2 possible source for $N^+(^5S)$ in aurora 2−63160
N_2, reson. scatt. of slow electron, vibr. excitation cross sections, quasiclassical calc. *(Russian)* 2−54973
N_2, slow electron reson. scatt., semiclass. calcs. *(Russian)* 2−54972
N_2, vibrational excitation, effect of ground state mols. 2−108693
NO, electron-impact excitation to long-lived Rydberg states 2−90723
O_2, electron-impact excitation to long-lived Rydberg states 2−90723

molecular electron impact ionisation
see also electron spectra
adenines, selectively labeled, electron ionisation spectra and mass spectrometry 2−108737
benzyl chloride parent ions struct., biomol. isomerisation process 2−78078
chloromethane, valence orbitals, momentum distribs. and separation energies 2−108371
(e,2e) reaction theory 2−108712
inert gas atoms and molecules, partial electron impact ionisation cross sections 2−90713
n-octane ion produced by low energy electron impact ionisation, mass spectra meas. 2−96748
quasielastic electron knockout in atoms, molecules and solids, wave functions 2−102630
tetrafluoromethane, ionisation, electron coincidence spectra, Green's function study 2−108622
trifluoromethane, ionisation, electron coincidence spectra, Green's function study 2−108622
$(ArCO_2)^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
$(CO,CO_2)^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
CO_2, binary (e, 2e) spectroscopy and momentum space chem. 2−102649
$(CO_2)_2^+$, electron impact ionisation in supersonic mol. beam, appearance pots. 2−108728
H_2, low energy electrons ionisation yield, statistical fluctuations 2−102594
N_2, electron beam diagnostics, secondary processes 2−85826
N_2, electron impact dissoc. and ionis. in elec. discharges 2−65096
N_2, vibrational excitation, effect of ground state mols. 2−108693
N_2O, dissociative electroionisation study, NO^+ and N_2^+ dissoc. channels 2−85823
N_2O, valence electron separation energies and momentum distrib. 2−96751
$VCl_3(VOCl_3)$, electron impact dissociative ionisation, mass spectra study 2−96750

molecular electron scattering *see elastic scattering of electrons by atoms and molecules; molecular electron impact dissociation; molecular electron impact excitation; molecular electron impact ionisation*

molecular electronic states
see also charge transfer states; molecular metastable states; triplet state
acenes, electronic struct., ab initio interpretation of XPS data 2−90444
acetic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
acetylene, isotopically labelled, fragmentation, visible-UV emission study 2−85756
acetylene+$He^+(Ar^+)$, excitational dissoc. optical emission from excited fragments 2−105470
acetylene-derived radical, lowest-lying doublet states, MCSCF CI wavefunctions calcs. 2−96465
adamantanethione-d_2, ^{1}npi* excited state inversion barrier and optical activity 2−96610
adamantanone-d_2 ^{1}npi* excited state inversion barrier and optical activity 2−96610
aldoximes, electronic props., struct., ab initio SCF calcs. 2−85531
alkali dimers and dimer cations, pot. curves, spectrosc. rule 2−80757
alkali trimer anions and cations, electronic struct., vibr. freq. calc., electron affinity 2−70121
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
annulenes, with/without bond alternating aromaticity, HMO approx. 2−85558
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2−108616
anthracenes, electron deficient, fluoresc. singlet state quenching 2−65037
aromatic sulphinylamines electronic struct., PES and CNDO/S LCAO MO calcs. 2−85742
aromatic systems, collective levels, Green's functions method 2−108333
2-arylalkanoates, geometric and electronic struct., topographical similarity to cyclopropane carboxylates 2−75137
azaphenanthrenes, excited states, nonradiative deactivation by acids in aprotic solvents 2−108618
aziridinyl cyclophosphazines and rel. compounds, electronic struct., CNDO/2 calcs. 2−96454
benzaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
benzaldehyde, excited states, nucl. config. effect on two-step photoionisation 2−114055
1,2-benzanthracene, secondary luminesc. during higher electronic states excitation 2−116246
benzene, ground vibr. state, rot. consts., IR obs. 2−85663
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2−63769
benzene, nonradiative transition rates, out-of-plane modes effects 2−80699
benzene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
benzophenone, dipole moments and electronic charge distrib., INDO calc. 2−75185
benzophenone, photodestruct., mean quantum yield, radiation intensity effects 2−57624
p-benzosemiquinone free-radical anions, reson. Raman spectra 2−80619
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2−75276
biphenyl, Ar matrix isolated, two-colour resonance photoionisation 2−85751
p,p'-biphenylsemiquinone free-radical anions, reson. Raman spectra 2−80619
2,2'-bipyridine, lowest electronic states, two-photon excitation spectra 2−70237
9,9-bis(acridizium-yl)-perchlorate, fluoresc., singlet excitation states geometry, solvent and temp. effect *(German)* 2−90621
bromotrifluoromethane; ground and excited states, rot., microwave obs. 2−59791
butadiene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butadiene, valence excited states, electron impact spectra 2−85734
butatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
carbonylcyanide, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
carbonyls, excited states, electronic struct., INDO/2V_{N-1} pot. model appl. 2−59701

molecular electronic states continued
character table of double group from tables of two of its subgroups 2−80438
chlorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
chromium diformate, ground and ionic states, correl. effects calcs. 2−80465
conjugated π systems, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
crude Born Oppenheimer potentials, vibronic coupling model 2−102459
CS radical, band intensity parameters and ground state dissociation energy 2−114045
cyclic alkanes, S_1 state deactivation, fluoresc. lifetime meas. 2−85722
cyclobutadiene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
1,3-cyclohexadiene, valence excited states, electron impact spectra 2−85734
cyclopentadienyl radical, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
cyclopentadienylindium, electronic struct., CNDO calcs., dipole moment and orbital energies 2−90453
cyclopentanone, $^1n\pi^*$ excited state, racemization 2−80704
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
diabatic states, novel variational definition 2−102412
diatomic first and second row mols., SCF-Xα-SW electron densities with overlapping sphere approx. 2−90451
diatomic ion beam-surface reaction, quantum mechanical model 2−99705
diatomic mol.+target, $^2\Sigma^+$ electronic state, rot. inelastic collisions 2−75403
diatomic molecules, dipole and transition moment, vibr. intensities 2−85625
diatomic molecules, vibr. excited fast electron scatt., appl. to electron diffr. 2−108711
diatomic photofragments, excited states, light absorpt. and emission polarisation 2−113967
diatomics, $^2\pi$ state, centrifugal distortion contrib. to rot. spectra 2−85622
1,6-dicarba-closo-hexaborane electronic struct., CNDO approx. 2−90456
1,1-dichloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
2,5-dichloropyrine, UV electronic absorpt. spectrum 2−54861
dicyanoacetylene cation, laser-induced fluoresc. and photoelectron-photoion coincidence obs. 2−85729
dicyanodiazomethane, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
1,4-dihydroxyanthraquinone-$d_0(d_2)$, electronic states, vibr. Raman and IR study 2−57070
2,3-dimethyl-1,3-butadiene, valence excited states, electron impact spectra 2−85734
dioxirane, symmetric ring opening, nonadiabatic interactions, ab initio CI calcs. 2−67736
1,1diphenylethanes, S_0, S_1- and T_1-state, geometrical and electronic struct., bond lengths and angles *(German)* 2−90429
diradical states, struct., building-up principles 2−64845
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
double beam three photon absorption theory 2−108651
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2−70320
electric field effects on mols., mol. geometry model 2−59723
electron density theory 2−108334
electronic and mol. struct., protonation, MINDO/3 study 2−102391
electronic wavefunctions calc., MCSCF, CI and numerical SCF method 2−80420
energetic anal. of electronic struct. of mol., MO SCF PPP method appl. 2−75149
ethyl acetate, cation radical, equilib. struct., SCF MO LCAO CNDO calcs. 2−96456
ethylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
ethylene, V-N bands. system, ab initio nonadiabatic vibronic calcs. 2−75194
ethylene cation, mol. spectrosc. and unimol. decay, nonadiabatic effects and conical intersections 2−108468
excited quasimolecular state form., autoionisation, electron spectra 2−59894
excited state, chemically pumped, superfluorescence 2−65064
excited states, energy variation method 2−102406
fermic acid, excited state, optically pumped, microwave obs. 2−75245
fluorene energetics, electronic-vibr. spectroscopy and laser induced fluorescence 2−70322
fluorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
fluorobenzenes, lowest virtual MO orbitals, electronic props., ab initio STO-3G calcs. 2−113856
fluoroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
fluoroethylene anions, $^2\Pi$, dissoc., dissociative electron attachment spectrosc. obs. 2−59932
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
formaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
formaldehyde in $\tilde{A}^1A_2$ and $\tilde{a}^3A_2$ electronic states, geometry and inversion pot. function 2−108666
formaldoxime, electronic spectrum, ab initio CI study 2−54758
formic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2−85715
α-(N)-formyl isoquinoline thiosemicarbazones antitumour activity, electronic struct., CNDOC 2−108379
formyl radical, lower excited states, ab initio CI calcs. 2−59706
glyoxal complexes, vibr. predissoc. decay channels 2−59867
group IVB element compounds, ^{35}Cl NQR, electronic effects of substituents 2−108564
haemoglobin, R-state Fe-imidazole freq., time-resolved resonance Raman spectroscopy obs. 2−73197
hexatriacontane, angular- and light-polarisation dependent valence UV photoelectron spectra, electronic struct. 2−99294
hexatriene, excited states and pairing relations 2−54770
molecular electronic states continued
hexatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
hydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
hydrocarbons, mol. struct. and stability, STO calcs. 2−80453
hydroxipyrenetrisulphonate, $HClO_4$ soln., dissoc., protonation, rot. diffusion, phasefluorimetric study 2−78119
2-(2′-hydroxy-5′-methylphenyl)-benzotriazole, solns., excited state relax., fluoresc. lifetimes 2−85727
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
inert gas monohalides, mol. ground state spin-orbit splitting 2−102405
4-isocyanate-trans-stilbene, donor substituted, excited state, dipole moments, PPP calcs. *(German)* 2−64882
ketene imine, electronic struct., ab initio SCF and CI calcs. 2−75180
lanthanide complexes, f-f radiationless transitions 2−90612
linear molecule, closed electronic shell, g-factor calcs. *(Russian)* 2−85520
linear molecules, collisional rot. excitation 2−65076
localised, excluded vol. interactions effect 2−59676
lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrin-pyridine anion complexes, degenerate electronic states, hole burning method obs. 2−113900
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2−54855
methane, higher excited vibr. states 2−90502
methane, interacting upper states of ν_1, ν_3, $2\nu_2$, $\nu_2+\nu_4$ bands, mol. consts. 2−85621
methanol-d_3, torsion levels, Fermi reson., internal rot., Doppler limited IR obs. 2−85660
3-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
methoxy radical, ^2E state, spin-orbit coupling const. meas. 2−59692
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
methyl acetate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl formate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl radical, electronic states, resonance enhanced multiphoton ionisation obs. 2−65062
(S)-3-methyl-2-p-fluorophenylbutyric acid, geometric and electronic struct. 2−75137
methylamine-d_2, 0-0 band rot. struct., in UV absorpt. spectrum 2−90562
methylene, 2^1A_1 state, Newton-Raphson eqns., MCSCF calcs. 2−108345
methylene ($^3B_1$, $^1A_1$), electronic states, multiconfigurational coupled-cluster theory 2−80416
1-methylhydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
methylphenols, electronic and mol. struct., protonation, MINDO/3 study 2−102391
methylsulphuryl radical, electronic struct. ab initio SCF-MO calcs. 2−85533
3-methylsydnone(-d_4), vibr. spectra, force field and electronic struct. 2−75230
molybdenum deformate, ground and ionic states, correl. effects calcs. 2−80465
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
MX_2 ionic states, pot. surfaces 2−80771
naphthalene, Ar matrix isolated, two-colour resonance photoionisation 2−85751
naphthalene, two-photon spectrum of b_{2u} modes, vibronic activity 2−80750
naphthothia-diazines and naphthoselina-diazines, electronic struct., STO-3G calc. and XPS meas. 2−90445
neutron impact, electronic excitation 2−90724
5-nitrofuran derivatives, radical anion electronic struct., EPR, electronic absorpt., and INDO calc. 2−96606
nonlinear radiative processes, UV inert-gas halogen laser study 2−65002
nonlinear semi-rigid molecules, nucl. hyperfine interactions, effective Hamiltonian 2−80462
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
$O_2(E^3\Sigma_u^-)$, Newton-Raphson eqns., MCSCF calcs. 2−108345
octatetraene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
organic fluorophores, excited state lifetimes, optoelectronic cross-correl. determ. 2−90477
oxo-compounds, unsaturated, ionisation, hole-mixing effects 2−59857
paraphenylenes, electronic struct., ab initio interpretation of XPS data 2−90444
cis-1,3-pentadiene, valence excited states, electron impact spectra 2−85734
perfluoropyridine cation, in Ne matrix, optical absorpt. spectrum 2−108541
periodic mol. systems, ground state energies, charge distrib., PCILO method 2−70132
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2−54855
polyacenes, linear, electronic struct. calc. using SCF-RPA method 2−108375
polyatomic molecules, electronic struct., (e,2e) spectrosc. obs. 2−108698
polyatomic molecules, higher excited vibr. states 2−90502
polyatomic mols., high-lying vibr. states, statistical wavefunction method calcs. 2−90495
polydiacetylene model systems, excited states correl. effects 2−80493
polyene systems, intermediate states, two-photon spectra 2−90639

molecular electronic states continued
polyenes, infinite, RHF singlet ground state instabilities, PPP calcs. 2−102392
polyenes, infinite, RHF triplet ground state instabilities, PPP calcs. 2−102393
porphine, free base, isomer ground and excited state calcs. 2−113890
porphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
porphyrins, energy states, spectroscopy study, mol. biology 2−62560
propylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
propylene, potential-energy and dipole moment surfaces 2−102410
pyrazine, $^1B_{3u}(n\pi^*)$ state, intermediate level struct., quantum beats, electronic relax. 2−59785
pyrazine, jet-coded, quantum beats, fluoresc. obs. 2−59846
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2−59842
pyrene, excited singlet and excimer states, absorpt. bands 2−102462
pyridine(-d_5), vibr. struct. in valence electron spectra 2−96535
pyrimidine, jet-coded, quantum beats, fluoresc. obs. 2−59846
quixotic molecules, $AB_2(AH_3)(AH_5)(HAB_2)$ classes, geom. and electronic struct., INDO and CNDO calc. 2−102386
quixotic molecules, hypothetical HAB, geom., electronic struct. and common props. 2−85551
radiationless transition Z 2−114038
resonance electronic Raman effect theory 2−80634
ring π systems, covalent states, UHF wave functions 2−102362
rotational Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
selective spectrum simplification by laser level labeling 2−64961
silabenzene, electronic states, INDO/S-CI calcs. 2−108382
silicates, bonding, computational quantum chemistry study 2−97980
silyl acetylene, ground vibr. state, Stark effect, microwave obs. 2−102466
sirohydrochlorin, isomer ground and excited state calcs. 2−113890
stability of molecular eigenstates 2−96422
tetrachloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
tetrathiafulvalene, electronic structure calc. using ab initio HF Slater procedure, photoemission spectra 2−64863
s-tetrazine, vibronic coupling of electronic states by b_{3g} vibrs. 2−59777
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2−64964
thioformaldehyde, UV $\tilde{B}^1A_2 \leftarrow \tilde{X}^1A_1$ absorpt. spectrum 2−70273
three-level systems, vibr. relax., interference effects, rate eqn. description 2−102589
transition metal α-diimine complexes 2−75291
d^1-transition metal oxohalo complexes, electronic struct., SCF-MS-Xalpha study 2−70145
transition metals sulphides, first and second row, electronic struct., SCF-SW-Xalpha cluster calcs. 2−70143
tricarbonyl(norbornadiene)iron, grand and cationic hole states, struct., INDO MO study 2−108385
trichloroethylbenzene, ionis. pots. and intramol. charge transfer, photoelectron spectra, electronic struct. 2−90626
sym-trichlorotrifluorobenzyl cation $\tilde{X}^2E''$ state, Jahn-Teller distortion from fluoresc. studies 2−75197
trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2−90523
trifluoroiodomethane cation, electronic states multiphoton dissoc., photon-photoelectron coincidence study 2−65058
trifluoronitrosomethane, state-selective photodissociation dynamics, visible obs. 2−65060
trimethylammonium aluminium trichloride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2−85544
trimethylammonium aluminium trihydride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2−85544
two-level system in strong electronic coupling limit, Green's functions and optical line shapes 2−59861
unsaturated heterocompounds, architectural laws of electronic struct. 2−108339
urazole, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
zinc etioporphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
zinc tetrabenzoporphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
Al(III)complex, sulphonated phthalocyanine, excited singlet and triplet state electron transfer reactions 2−78089
Al_2O, electronic struct. and mol. topology, ab initio calcs. 2−54764
Al_2O_2, electronic struct. and mol. topology, ab initio calcs. 2−54764
$Ar^+ + N_2(CO)$, charge transfer, spin-orbit states, threshold electron-secondary ion coincidence study 2−96715
ArH^+, IR spectra, vibr.-rot. bands and mol. consts., Dunham coeff. 2−64976
BO, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
B_2O, electronic struct. and mol. topology, ab initio calcs. 2−54764
B_2O_2, electronic struct. and mol. topology, ab initio calcs. 2−54764
$Ba + N_2O(O_3)$, chemiluminescence of BaO*, vibr. transitions 2−93797
BeCl, electronic ground states, dissociation energies 2−70375
BeF_2, $^3B_2$ and $^3A_2$ states, electronic splitting 2−85532
BeN, low-lying electronic states, ab initio calcs. 2−80505
BeN^-, low-lying electronic states, ab initio calcs. 2−80505
Bi_2, A-X band system, lifetimes, transition moment 2−65051
$^{79}Br_2$ in Ar and Kr matrices photochemical dynamics, IR spectra and relax. dynamics 2−102475
BrCl, $B^3\Pi(0^+)$ manifold, laser-induced fluoresc. obs. 2−114030
$^{79}Br_2$, two-photon processes, δ-approx. (reflection) method 2−102560
C-Li, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
C_2, $^1\Sigma_g^+$ state, Newton-Raphson eqns., MCSCF calcs. 2−108345
C_2, electronic excitation behind shock front 2−59918
$C_2 + H_2(O_2)$(methane) reactions, temp. depend. 2−93765
CCl, $A^2\Delta$ state predissoc. investig. 2−80747
CF radical, far-IR rot. spectrum 2−75255
CH, excited state lifetimes 2−96645
CH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
C_2H, radical, rot. consts., excited states, IR obs. 2−64972
CH_3F^+, ^2E state, spin-orbit coupling const. meas. 2−59692
CN, electronic excitation behind shock front 2−59918
molecular electronic states continued
$CN(X^2\Sigma^+)$, vibr. and rot. distrib. from ICN photolysis 2−64951
CO, EELS with new position-sensitive multidetector spectrometer in 6 to 10.9 eV energy region 2−85824
CO, in solid α-CO, vibr. transition line broadening by diagonal disorder 2−90631
CO, rot. anal., Fourier transform IR obs. 2−75261
CO, rot.-excited from formaldehyde photodissociation, fluoresc. obs. 2−108645
CO, Rydberg series in 2-electron excited region 2−102491
CO, valence Auger spectrum, MS Xalpha calcs. 2−80739
CO, vibr., radiative lifetimes determ. optical emission functions 2−90722
CO^+, electronic states, spin-rot. coupling, RKR pot., deperturbation anal. 2−85624
CO^+, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
CO_2, π_g^3 3ppi $_u{}^3\Sigma_u^- \leftarrow \tilde{X}^1\Sigma_g^+$ transition, rot.-resolved Rydberg absorpt. 2−114013
$CO_2 + N_2(O_2)$(Ar), collisional excitation cross section meas. 2−90670
COS, photoabsorption cross sections, extreme-UV obs. 2−65001
COS, Rydberg state assignments 2−70138
CO(a $^3\Pi$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
CS_2, $^1B_2$ state, fluoresc. spectrum 2−59843
Ca_2 photodissoc., coherence effect rel. to Ca at. fluoresc. polarisation *(French)* 2−96498
Ca_2, transition moments, pot. energy curves, green and red spectra 2−85629
CaCl, electric deflection obs. of ground state dipole moment 2−80844
CaCl, $X^2\Sigma^+$ ground state, hyperfine struct. studied by mol. beam and laser RF double reson. 2−70306
CaH, low lying electronic $B^2\Sigma$ state, radiative lifetimes, oscillator strengths meas. 2−65054
CaO, sub-Doppler spectrum, rot. anal. and deperturbation 2−64996
$CaO + N_2O$, collisional population transfer excited states, kinetic models 2−96686
Cl_2, $B^3\Pi(0_u^+)$ state, spontaneous predissoc. mechanism and rate consts. 2−114057
ClF_3, electronic struct. and bonding, reaction energy, extensive RHF ab initio calcs. 2−96433
ClFCl(ClClF), electronic struct., CNDO/2 and INDO calcs. 2−102389
ClO, fundamental band, isotope effects, IR obs. 2−75263
Co complex, $CO_12(CO)_6$ where L=ethyne, propyne and butyne, electronic struct., CNDO/2 calcs. 2−96455
Co(111) complex, vibronic lifetimes, red shift, Raman spectra 2−75294
$(CrOCl_4)^-$, electronic struct., SCF-MS-Xalpha calc., EPR spectra, EHT calcs. 2−70144
Cu clusters, electronic struct., SCF calcs. 2−85855
Cu_2 cooled metal clusters, laser spectroscopy 2−108762
Cu_2, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
$CuCl_6^{5-}$, electronic struct., multiple scatt. Xalpha calc., harmonic force const. 2−108376
CuH, RKR turning points of $A(^1\Sigma^+)$, $B(^3\Pi(0^+))$ and $X(^1\Sigma^+)$ states, pot. energy curves 2−70165
CuO, IR $Y^2\Sigma^+$-$X^2\Pi_i$ transition, laser induced fluoresc., interpretation of $X^2\Pi_i$ ground state 2−64977
DCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
DI, visible and UV spectra, electronic struct. 2−85682
F_2, ground and excited states, variational cellular calcs. 2−80447
$F_2 + Ga(In)$, product form. rate, excited states, chemiluminescence obs. 2−83359
F_3, electronic struct., CNDO/2 and INDO calcs. 2−102389
F_2Cl, electronic struct., CNDO/2 and INDO calcs. 2−102389
FH_2^+ ground state, near Hartree-Fock calcs. 2−80460
$F_3NO(PO)$, photoelectron spectra, bond struct., Xα approx. 2−54769
Fe complex, trans$[(\eta^5\text{-}C_5H_5)Fe(CO)_2]_2$, instability, HF function, INDO calcs. 2−64880
Fe-S proteins, electronic struct. calc. on active site models 2−108746
Fe_2, electronic band structure, ab initio HF and CI calcs. 2−108400
Fe(II), porphyrin complexes, electronic struct., Mossbauer spectra, ab initio LCAO SCF calcs. 2−108596
Fz, valence shell dipole excitation, electron energy-loss meas., RPA exchange calcs. 2−65088
GaH, electronic ground states, dissociation energies 2−70375
GeH^+, rot. anal., visible spectra 2−85678
GeO, low lying electronic states, vibrational numbering determ. from isotope shifts 2−64850
H-bonded molecules, ^2D quadrupole coupling, ab initio SCF calcs. 2−80655
$H + Li^{3+}$, electron capture, mol. treatment, impact parameter approx. 2−85797
H_2, $^1\Sigma_g^+$ state, energy expectation values, semiclassical calcs. 2−59678
H_2, binding energy origin, Bohr orbit model and Ruedenberg's theory 2−84424
H_2, doubly-excited states, correlated prolate-spheroidal wavefunction 2−54743
H_2, electron inelastic scatt., high-energy, X-B and X-E transitions 2−102650
p-H_2, excited states, three-photon reson. ionisation 2−96667
H_2, radiative transition probability meas. 2−114052
H_2, Rydberg state, Ne matrix isolated, vibr., UV obs. 2−108542
H_2^-, potential energy function for $^2\Sigma_u^+$ shape reson. state at SCF level 2−70374
H_2^+, electronic states, Coulomb potential with many fixed centres, Sturmian methods *(French)* 2−64865
H_2^+ energy and props. in mag. field 2−59695
H_2^+, energy values in superstrong mag. field, adiabatic approx. 2−59724
H_2^+ traversing ultra thin C foils, form. of bound and unbound mol. states 2−54930
HBr, valence orbitals, electron momentum distrib. and binding energies 2−102533
HCN (HNC), ground states, freq. optimised pot. energy functions 2−90644
HCN, highly excited, struct., force const., dissoc. energies, mol. pot. 2−96676
HCP, ground states, freq. optimised pot. energy functions 2−90644
HCl, electronic spectrum assignment, ab initio CI calcs. 2−70211
HCl, electronic struct. and photodissoc. 2−102376
HCl, vibronic transitions and photoionis., photoelectron spectrosc. obs. 2−108626
HCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065

molecular electronic states continued
HCl^+, ground state, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
$H_3(D_3)$, IR and visible electric emission spectra 2−113974
HF, pot. energy curve, Rydberg-valence mixing, spectra, ab initio CI calcs. 2−54777
HI, valence orbitals, electron momentum distrib. and binding energies 2−102533
HI, visible and UV spectra, electronic struct. 2−85681
HNO^+, vibronic and rot. struct., visible spectrum, ab initio study 2−85677
HO_2, photodissoc. at 193 and 248 nm, $O(^1D)$ obs., quenching rates 2−72999
$H_2O \rightarrow O(^1D_g)+H_2(^1\Sigma_g^+)$, photodissoc., pot. energy surfaces, MRD CI calcs. 2−90636
$(H_2O)_2$, photoelectron spectrum, vertical ionisation energies 2−59856
H_2S^+, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
$H_3(^2\Sigma_g^+)$, electronic states, multiconfigurational coupled-cluster theory 2−80416
He_2, excited states, diagrammatic QDMBPT 2−108370
$HeH_2(^1A_1)$, electronic states, multiconfigurational coupled-cluster theory 2−80416
Hg vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
$^{200}Hg\ ^{79}Br$, B→X spectrum, excimer laser 2−75555
I_2, ion-pair state, laser excitation, fluoresc. obs. 2−96616
I_2, ion-pair state, two-photon excitation, fluoresc. obs. 2−85721
I_2, transition strengths, visible and IR obs. 2−70244
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2−102401
Li-Lewis base complexes, struct. and props., ab initio unrestricted HF MO calcs. 2−75172
Li_2, laser excitation, collision induced transitions 2−90611
Li_2C, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
LiH, electronic ground states, dissociation energies 2−70375
LiHe, van der Waals mol., rovibration struct., optical double reson. 2−70308
LiON, struct., isomerisation, ab initio CI SCF calcs. *(French)* 2−108395
$Li_2(^1\Sigma_g^+)$, excited state, ion-pair interaction effect on vibr. energy spectrum 2−80567
^6LiH, ground state pot. energy curve determ., fluoresc. study 2−108412
$^7Li_2$, pulsed optical-optical double reson. spectroscopy 2−65026
Li_2^*+Xe, rot. inelastic cross sections, vel. depend. 2−108685
LuF gaseous mol., pot. energy curves and dissociation energy 2−113909
MgH $(X^2\Sigma^+)$, spin splitting consts., ab initio calcs. 2−75167
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
Mo-Mo quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
Mo_2, bonding, spin-polarised cellular multiple scatt. calcs. 2−80448
MoN, matrix isolation, electronic states, ESR study 2−70296
N_2, Herman IR system obs. and formation kinetics study in pulsed-discharge apparatus 2−102472
N_2, Rydberg states, rot. transitions, optogalvanic study 2−90516
N_2, second positive system at laser threshold, high resolution studies 2−59776
N_2, vibrational excitation, effect of ground state mols. 2−108693
N_2^+ $B^2\Sigma_u^+$, v=0 state effective cross-section meas. 2−70157
N_2+He(2^3S), Penning ionis., intermediate Rydberg states obs. 2−65082
$N_2(B^3\Pi_g)$, collision induced transition, time-resolved fluoresc. 2−59908
$N_2(B^3\pi_g)$, quenching by ethanol, reaction rate meas. from plasma flow 2−75339
NCNO, pot. surface for dissoc., ab initio CI calcs. 2−62394
NF^+, ground state, VuV photoelectron spectrosc. and ab initio calcs., ionisation 2−114043
NF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
NH, $c^1\Pi$-$a^1\Delta$ system, rot. anal. 2−90504
NH^-, excited state, Feshbach resonances, QDMBPT 2−85540
NH+propane, insertion and fragmentation products, press. depend. 2−83352
NH_2, $\tilde{A}^2A_1$ state, rot. energy transfer, time resolved fluoresc. 2−114033
NH_2, excited vibronic states, microwave optical double reson. obs. 2−90588
NH_2, Rydberg excited state, vibr. freq., MRDCI calcs. 2−113892
NH_3 beam, collision-induced transitions, double reson. studies 2−59903
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
NH_4 radical, ground state, electronic struct., Rydberg spectra, SCF-Xα-SW calcs. 2−64874
$NH_2BH_2CO_2H$, and dimer, geometry, moments, pot., ab initio calcs. 2−85546
NO, excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960
NO, Rydberg-valence interactions, multiphoton UPS 2−85745
NO, valence and Rydberg states, SCF and CI calcs. 2−96470
NO, valence states, (e,2e) spectroscopy 2−70340
NO, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
NO_2, excited states, nucl. config. effect on two-step photoionisation 2−114055
NO_2, ground state energy level struct., microwave obs. 2−90522
NO_2, mag. field decoupling in optically excited states 2−80695
NO_2, photodissociation, fluoresc. and UV obs. 2−80712
N_2O, valence electron separation energies and momentum distrib. 2−96751
NO*, vibr. excited, quenching rate consts., fluoresc. study 2−83360
$N_2^+(X^2\Sigma_g)$, final state coupling in photoelectron spectra 2−114044
Na_2, autoionising Rydberg states, optical-optical double reson. obs. 2−59829
Na_2, autoionising Rydberg states, ionisation pot. determ. 2−70352
Na_2, spectra by laser level labelling, two-photon transitions 2−65063
Na_2^+ ionic quasimolecule prepared by ion-atom crossed beam expt. by laser excitation 2−65080
$Na_2(A^1\Sigma_u^+ \rightarrow X^1\Sigma_g^+)$ fluoresc. and continuous spectrum 2−90609
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
Ne_2, ground and excited states, variational cellular calcs. 2−80447
Ni complex, bis(O-phenylenediamido)nickel electronic struct., EHT and MS Xalpha calcs. 2−75189
Ni complex, bis(β-dithioketonato)Ni(II) ground and cationic hole states electronic struct., INDO calcs. 2−96461
NiC, electronic struct., ab initio GUB calcs. 2−85559
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
NpF_6 vapour, electronically excited states, fluoresc. obs. 2−59852
O_2, $^1\Delta_g$ dimol emissions, hot band intensities 2−114050
O_2, $^1\Delta g$ singlet state lifetime, solvent effects 2−70345
O_2, electronic excitation energies, oscillator strengths and polarisabilities, MCRPA evaluation 2−80793
O_2, mol., soln., lowest excited singlet state decay and reactions 2−74167
O_2, spectral line parameters, atm. transmission functions calcs. 2−78841
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
O_2^+, excited state, optical double resonance study 2−70307
O_2^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
O_2^+, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O_2^{2+}, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O_3, recombination form., vibr. relax. 2−90671
O_3, repulsive pot. energy surfaces, fluoresc. spectrum 2−108609
OD $(A^2\Sigma^+)$ radicals, electron impact dissoc. of D_2O, excitation and polarisation anal. 2−102648
OH, $A^2\Sigma^+$, $B^2\Sigma^+$ and $C^2\Sigma^+$ states, radiative lifetimes and dipole moments 2−102538
OH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
OH^-, excited state, Feshbach resonances, QDMBPT 2−85540
PF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
PH_3, excited states, photodissociation, ab initio HF and CI calcs. 2−85561
Pb_2 electronic states, relativistic quantum mech. calcs. 2−113866
$PdCl_4^{2-}$, electronic struct., non-empirical pseudopotential methods 2−96446
Pt complex, cis-diamino dichloro platinum(II) analogs, antitumour activity, INDO-SCF calcs. 2−80485
PuF_6 vapour, electronically excited states, fluoresc. obs. 2−59852
Rh double oxides $MRhO_2$, MRh_2O_4, $RhMO_4$, and Rh_2MO_6, electronic struct., XPS and ESCA data 2−70338
RuF_6^- complex, charge-transfer electronic spectrum calc. using scatt.-wave method 2−108372
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
S-N ring systems, 3, 4, 5 and 6 membered, localised MO calcs. 2−59707
S_2, $B^3\Sigma_u^-$ and $B''^3\Pi_0$ states, fluoresc., rot. anal. 2−114031
SF_6, force consts., excited vibr. states, Lennard-Jones and Morse pots. 2−90647
SF_6, resonance excited vibr. spectrum, CARS method study *(Russian)* 2−70249
SF_6, two-photon Q branch reson., nonlinear IR obs. 2−102471
SH, pot. energy curves, ab initio MRD CI calcs. 2−80503
SO, $^3\Delta$ state, rel. to rot. anal. of $A^3\Pi$-$X^3\Sigma$ spectrum 2−113869
SO, highly excited vibr. states, millimetre wave, mol. consts. 2−64962
SO radical, $A^3\Pi$ and $B^3\ \Sigma^-$ excited states, vibr. level lifetimes 2−114049
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
SO_2, $C(^1B_2)$ state, quantum beats, fluoresc. obs. 2−59847
ScH, electronic states, d bond, multiconfigurational SCF/CI calcs. 2−80497
Si_2 valence states, QDMBPT, ab initio treatment 2−108369
Si^{2+}, valence states, QDMBPT, ab initio treatment 2−108369
SiCl, electronic states, rot., mol. consts., UV obs. 2−54866
SiF, Rydberg electronic states obs. between 42000 and 50000 cm^{-1}, rot. anal. 2−54865
SiH_3I, vibr. excited states, microwave obs. 2−90525
SnO, $(X^1\Sigma)$ state, gas phase high temp. photoelectron spectroscopy 2−80724
SnO electronic transitions, Doppler limited laser spectroscopy 2−75345
Sr_2 excimer, dissoc. energy, laser induced fluoresc. obs. 2−96628
$^{130}Te_2$, ground electronic state, Lande factor meas. 2−108641
$TiBr_4$, electronic structure and spectra SW Xα calcs. 2−114051
$TiCl_4$, electronic structure and spectra SW Xα calcs. 2−114051
TlH, mol. struct., relativistic ab initio CI calcs. 2−85562
UO_2 complexes with Schiff bases, spectral props. 2−80586
UO_2^{2+}, XPS evidence for 5f bonding participation 2−80729
VCl_4, electronic structure and spectra SW Xα calcs. 2−114051
VO, higher multiplicity Σ electronic states, spin-orbit distortion, hyperfine struct. 2−80418
VO, rot. struct., spin-orbit coupling, Fourier transform IR obs. 2−75262
W-W quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
XeF, at. beam scatt. study with mag. anal. 2−108738
XeF from Xe-F collision, laser induced reson., stimulated emission 2−80784

molecular electronic structure *see molecular electronic states*

molecular energy level calculations
see also molecular electron correlations; molecular orbitals calculations; molecular rotation calculations; molecular rotation-vibration calculations; molecular vibration calculations; VB calculations
aliphatic molecules, rot. isomerism, PCILO calcs. 2−54983
alternant conjugated hydrocarbons, physical and chemical props., use of concept of quasispin 2−80408
antisymmetrised geminal power and projected AGP wavefunctions 2−79390
antisymmetrised geminal power wavefunctions, rels. to electronic struct. 2−80423
aromatic systems, collective levels, Green's functions method 2−108333
atom diatomic mol. scatt., extended wave packet dynamics appl. 2−102569
atomic and molecular systems, ionisation pot., electron affinities, MBPT, resolvent operator approach 2−54741
BeF_2/BeF_2^-, struct. changes, second order phase transition 2−75142
benzoid hydrocarbons, individual Kekule valence structs., graph-theoretical approach 2−80486
benzoid systems, individual Kekule valence structs., graph-theoretical approach to pseudodegenerate states 2−80487
biphenyl molecules, constant relating total mol. energy to sum of valence eigenvalues, CNDO and INDO methods 2−75188
bond-order matrix, physical prop. calcs. 2−113851
Cartesian coordinates parallel calc. of atoms in mols. and mol. complexes 2−90433

molecular energy level calculations continued
charge densities and electrostatic interactions, pseudoatom approach 2−108340
classical quasiperiodic motion, quantum analog 2−80436
closed shell systems, MBPT, resolvent operator approach 2−54746
closed-shell mols., coupled pair many electron theory, quasilinearised form 2−59680
coherent states representation, semiclassical approx. 2−72944
computational strategies for ab initio calcs. on large mols. 2−80424
conjugated mols. in strong EM field, props., Huckel approx. calcs. *(Russian)* 2−54901
correlation energy, electron propagator calcs. 2−102359
density functional theory, non-Born Oppenheimer Legendre and Maxwell rels., equilib. and stability conditions 2−108330
density matrix energy functional, approx. 2−80427
diatomic molecule, vibr.-rot. wave functions, rot. harmonic expression 2−102458
diatomic molecules, generalised pseudospin system, SU(4) invariant Hamiltonian, time depend. mean field method 2−75162
diatomic molecules, homogeneity charact. of electronic energy 2−113848
diatomic mols., energy expectation values, semiclassical calcs. 2−59678
dye films, adsorbed, electron affinity, statistical energy levels 2−58937
electronic properties asymmetry rel. to nucl. core isotopic asymmetry 2−113897
electronic wavefunctions calc., MCSCF, CI and numerical SCF method 2−80420
energetic anal. of electronic struct. of mol., MO SCF PPP method appl. 2−75149
ethane, electron density difference maps 2−90427
ethane($-d_3$), Fermi reson. effect in ν_7 CH stretching fundamentals 2−90497
exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
excited states, energy variation method 2−102406
field theoretical methods in chemical physics, book 2−94932
ground state electronic extracule densities 2−80446
Hamiltonian operator for mol. in external EM field 2−113853
harmonic oscillators, perturbed, connections between perturbation theory and Van Vleck transformation 2−63837
hydrocarbons, energy and electron distrib. variations, exchange and Coulomb integrals *(French)* 2−75173
hydrocarbons, energy and electron distrib. variations, valence-bond method calcs. *(French)* 2−75191
ketenimine, struct., electronic props., force consts., inversion barrier, non-empirical calcs. 2−64858
Kompaneets and Pavlovskii eqn. for mol. systems, electronic energy calc. 2−102365
large-scale computer systems 2−96425
level set topologies and convexity relations for Hamiltonians with linear parameters 2−59677
Lie algebra and mol. shell model 2−80426
linear molecule in EM field, energy operator *(Russian)* 2−54744
localised core levels, spin-polarised calcs., Slater transition state method, errors 2−59699
matrix-diagonalization with a programmable calculator 2−64855
methane, approx. HF wave functions, reduced local energy criterion 2−80452
methylene ($^3B_1$, $^1A_1$), electronic states, multiconfigurational coupled-cluster theory 2−80416
Morse oscillators, perturbed, hypervirial treatment 2−108665
Morse rotating oscillator, energies, wave functions and matrix elements 2−80764
multidimensional many-body theory, van Vleck formalism 2−54739
multireference direct configuration interaction calcs., graphical unitary group approach 2−80421
nonadiabatic coupling matrix elements, perturbative determ. 2−70126
nonalternate hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nonbenzoid hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nonharmonic bound systems, minimum energy uncertainty Gaussian wave packets, dynamics 2−96423
nonlinear semi-rigid, molecules, nucl. hyperfine interactions, mol. Hamiltonian calcs. 2−80461
nuclear charge space and electronic energy function, level set topology 2−102360
open shell systems, electronic struct., nonempirical calc. 2−96428
open shell systems, MBPT, resolvent operator approach 2−54747
overlap integrals of atomic orbitals with arbitrary quantum number in mol. systems of coordinates 2−75143
oxalic acid, constant relating total mol. energy to sum of valence eigenvalues, CNDO and INDO methods 2−75188
partition technique and molecular graph theory 2−80425
perturbation at large order, conf. proceedings of international workshop (March 1981) 2−53412
perturbation theory, constant denominator, for mol. energy calcs. 2−113854
phenyl-S bonds, substituent effects transmission CNDO/C calcs. 2−90459
polyenes, linear electron correl., electron SPA 2−96443
positive ions, photoexcited, average internal energy, source temp. effect 2−116710
potential energy curves, perturbative calcs., improved virtual orbitals 2−102413
relativistic molecular wave equations, basis set expansions 2−102402
S-matrix poles calc. using Schwinger variational principle 2−113852
siloxanes, geometry, energetics, pot. energy functions 2−114069
size-consistent methods as starting points for calculations with multiconfigurational reference functions 2−59681
theoretical chemistry, conf., Colorado, USA (June 1981) 2−107002
thioacrolein, mol. struct., electronic props., ab initio SCF calcs. 2−64869
thioglyoxal, mol. struct., electronic props., ab initio SCF calcs. 2−64869
total mol. energy, HF-SCF calcs. 2−102373
transition metal complexes, charge distrib., 2-parameter relation calcs., XPS data 2−75165
trinuclear mixed-valence clusters, electron delocalisation 2−90753
trivial off-diagonal Hellmann-Feynman formulas 2−64848
two-Coulomb centre problem, highly excited states, mol. energy splitting 2−96421
two-electron repulsion integrals, calc. from supermatrix elements, FORTRAN program 2−108341

molecular energy level calculations continued
unrestricted HF solutions, with spatial point symm., instabilities, classification, interconnection 2−75178
vibrational pot. function, energy in effective nucl. charge model 2−96677
virial fragments and the Hohenberg-Kohn functional 2−80430
wave functions for weakly coupled bound states 2−70127
Ar.HCl quasimol., rot. vibr. energy level calc. 2−75232
BeH_2, coupled cluster singles and doubles method 2−54738
BeH_2, electron relax., INDO calcs. *(German)* 2−85555
CH^+, $A^1\Pi$ state, Λ-doubling of energy levels, rot. adiabatic treatment 2−59689
CO, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
CO_2/CO_2^-, struct. changes, second order phase transition 2−75142
CuO, $^2\Pi$ ground state, centrifugal distortion in spin-orbit coupling 2−64956
H, critical positron mass, lower bound for binding 2−75474
H_2, $^1\Sigma_g^+$ state, energy expectation values, semiclassical calcs. 2−59678
H_2, doubly-excited states, correlated prolate-spheroidal wavefunction 2−54743
H_2, ground state, HF energy, corrections to an incomplete basis set 2−108366
H_2, quasi-bound and bound energy levels of H_gH, matrix method calc. 2−75166
H_2, second order correl. energies, variational SCF calcs. 2−113860
H_2^+, ground-state energy calc. in strong mag. field *(Russian)* 2−53594
H_2^+ ion, mol. struct., scatt. theory calc., convergence props. 2−54751
H_3/H_3^+, struct. changes, second order phase transition 2−75142
HD^+, asymmetry of electron distrib. calc. 2−59693
HD^+, vibr. rot. spectroscopy 2−80840
H_2O, approx. HF wave functions, reduced local energy criterion 2−80452
H_2O, coupled cluster singles and doubles method 2−54738
H_2O, energy and property optimisation, Gaussian basis set calcs. 2−70119
H_2O, ground state, HF energy, corrections to an incomplete basis set 2−108366
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
$H_2(^2\Sigma_u^+)$, electronic states, multiconfigurational coupled-cluster theory 2−80416
$HeH_2(^1A_1)$, electronic states, multiconfigurational coupled-cluster theory 2−80416
IO_6^{2-}, back donation effect, Xα calcs. 2−80474
Li_2, ground state, HF energy, corrections to an incomplete basis set 2−108366
$(LiF)_n$ clusters, energy struct., polarisation model 2−65121
LiH_n antisymmetrised geminal power wavefunctions, rels. to electronic struct. 2−80423
LiH, ground state, HF energy, corrections to an incomplete basis set 2−108366
LiH, second order correl. energies, variational SCF calcs. 2−113860
N_2, electron density difference maps 2−90427
NH_3, lower vibr. energy levels, variational calc. 2−80576
NH_3, molecular vibr. rot. states, high and very high resolution spectroscopy 2−80838
NH_3/NH_3^+, struct. changes, second order phase transition 2−75142
NiO, superposition errors, contracted basis set investigation 2−85537
O_2, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
O_2, exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
$PbMo_6S_8$, electronic struct. and charge distrib., CSF MS Xalpha calcs., relativistic effect 2−96451
PdH, superposition errors, contracted basis set investigation 2−85537
$Ru_3(CO)_{12}$, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
RuF_6^-, total electron density model, Xα scatt.-wave method 2−80466
SiF_6^{2-}, back donation effect, Xα calcs. 2−80474
SiH_3 molecules, continuous phase transitions 2−90446
$TiCl_4$ total electron density model, Xα scatt.-wave method 2−80466

molecular energy levels
see also macromolecular energy levels; molecular electronic states; molecular energy level calculations; molecular fine structure; molecular hyperfine structure; molecular libration; molecular polarisability; molecular reorientation; molecular resonant states; molecular rotation; molecular rotation-vibration; molecular vibration; molecular vibronic states; nuclear screening
diatomic molecules multiplet states, Λ-type doubling 2−80734
dressed molecular energy levels probing by IR-RF double reson. 2−65030
electron population anal., appl. of density basis function for second-row atoms 2−64849
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
hyper-Raman scattering in systems with electronic degeneracy 2−89823
polyacenes, linear mols., ionisation pot., topological resonance energy 2−64870
polyatomic molecules, energy level symmetry props. over the abstract nucl. charge space 2−113850
three-site model, through bridge electron transfer, propagator study 2−85536
H_2, ortho and para, Raman scatt., effects of energy level degeneration *(Russian)* 2−54857
H_2 thyratron, metastable species form. 2−54936
NO_2, RF dressed mol., optical saturation reson. 2−65028
TeO, $bO^+ \rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
TeS, $bO^+ \rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
U(IV) cpds., nephelauxetic effect 2−59860
XeF_6, mol. level splitting, Longuet-Higgins groups 2−102415

molecular excitation *see beam-foil spectra; chemical reactions; Davydov splitting; discharges (electric); molecular fluorescence; optical pumping; photoionisation; radiation quenching*

molecular fine structure
acridine, fine-struct. luminesc. 2−80718
9-aminoacridine, fine-struct. luminesc. 2−80718
biphenyl-$d_0(d_{10})$, matrix photoionisation, isotope shift, UV-visible obs. 2−70350
butadiynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
chiral molecule, mirror asymmetric effect calc. in electron scatt. 2−70417

molecular fine structure continued
cyanopropynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
diatomics, $^2\pi$ state, centrifugal distortion contrib. to rot. spectra 2−85622
ethylene on Fe(110), adsorbed layers, characterisation by Auger electron spectra, decomposition 2−73029
ethynyl radical, interstellar, fine struct. and hyperfine consts. from obs. in Orion 2−63556
spin free multishell electron configurations, symmetry adaptation 2−102361
CN radical in its ground state, vibr.-rot. transitions, IR laser spectrum, spin-rot. fine struct. 2−59800
CO^+ excited vibr. state, millimetre wave spectrum 2−90527
CO_2, vibr. fine struct., natural lifetime, K X-ray emission obs. 2−54869
NH_2 in $\tilde{X}\ ^2B_1(000)$, MOD spectra, fine and hyperfine parameters 2−108595
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960
NaH, photodissociation, fine struct., ang. distrib., quantum mech. calcs. 2−108646
PbS, AO^+-$X^1\Sigma^+$ transition, rot. and vibr. struct. studied by sub-Doppler laser spectroscopy, isotope shifts 2−85630
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023

molecular fluorescence
acetaldehyde+$O(^3P)$, prod. distrib., mol. beam-laser induced fluoresc. study 2−116689
acetylene, $\tilde{A}$-$\tilde{X}$ transition in 220 nm wavelength region, fluoresc. excitation spectrum 2−59851
acetylene photoexcitation, photofragment emission, fluoresc. obs. 2−65040
acridine, fine-struct. luminesc. 2−80718
adriamycin, absorpt., fluoresc. and Raman obs. 2−57780
adrimycin-DNA, absorpt., fluoresc. and Raman obs. 2−57780
air pollutants, simultaneous concentration monitoring using dye laser visible and UV freqs., SO_2, NO, NO_2 2−62540
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
amino coumarins, in supersonic Ar jet, $\pi\pi^*$ absorpt., UV and fluoresc. study 2−114011
2-amino-7-nitrofluorene solutions, stimulated emission charact., statistical intermol. process effect 2−60074
3- amino-N-methylphthalimide solutions, stimulated emission charact., statistical intermol. process effect 2−60074
9-aminoacridine, fine-struct. luminesc. 2−80718
9-aminofluorene, anomalous fluoresc., solvent effects 2−90603
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
aminophthalimide, solvent effects on absorption and fluoresc. *(German)* 2−54894
analytical derivatisations reactions, fluoresc. polarisation change appls. 2−93755
anthracene, delayed fluoresc., external heavy atom and mag. field effects 2−110926
anthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
anthracene, triplet-triplet annihilation, spin-statistical factor 2−64890
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2−108616
anthracenes, $^1B_{3u}^+$ state delayed fluorescence, hetero-triplet-triplet annihilation 2−70321
anthracenes, electron deficient, fluoresc. singlet state quenching 2−65037
anthraquinone derivatives, radiationless deactivation and picosec. fluoresc. lifetimes 2−114028
N-aryl carbazoles, twisted intramol. charge transfer states, fluoresc. obs. 2−59924
aryl ethylenes, and related cpds., assoc., photochem. reactions, spectrosc. obs. 2−54867
7-azaindole, electronic excitation, mol. struct. and reactivity changes 2−108620
1,2-benzanthracene, secondary luminesc. during higher electronic states excitation 2−116246
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
benzene clusters, mass-selective two-colour photoionisation 2−75486
benzene clusters, UV spectr a 2−75487
benzenes isotopically labelled, two-photon hot band spectra, Duschinsky effect 2−85680
benzo(a)phenazine, electronic excitation, mol. struct. and reactivity changes 2−108620
benzo(a)pyrene and its 9- and 3-hydroxy derivatives, fluoresc. excitation and emission spectra, solvent effects 2−70330
1,2-benzoanthracene electronic-vibr. Raman spectra, Shpol'skii effect 2−70264
benzophenone+biacetyl energy transfer, phosphoresc. and fluoresc. decay study 2−75386
benzoxazoles, excited, intramol. proton transfer, tautomeric fluoresc., isotope effect 2−105447
1,12-benzperylene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
benzyl radicals in gas phase, laser-induced fluoresc., excitation spectrum 2−80702
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2−75276
2,2′-bipyridine, fluoresc. spectrum, role of associate form. and rot. isomerism, ab initio SCF calcs. 2−90604
9,9-bis(acridizium-yl)-perchlorate, fluoresc., singlet excitation states geometry, solvent and temp. effect *(German)* 2−90621
chlorine-e_6 and complexes, luminesc. spectral-polarisation study 2−70328
1-chloro-1-fluoroethylene IR laser photolysis, press. and power depend., expt. and modelling calcs. 2−102550
chlorodiacetylene cation, spectroscopic studies 2−75343
chlorodifluoromethane, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chlorophyll, fluoresc. and EPR signal kinetics in whole leaves of higher plants 2−116880
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll a, n-octane soln., triplet state, fluoresc., ODMR 2−85708
chlorophyll b in 2-methyltetrahydrofuran, site energies distrib. determ., fluoresc. spectra 2−116862
molecular fluorescence continued
chlorophyll fluorescence, light induced, photoinhibition of intact Bryopsis chloroplasts illuminated under anaerobic conditions 2−111636
chlorophyll fluorescence from the ocean exact 1-D soln. 2−106124
chlorophyll in higher plants, primary photosynthesis processes, pulsed fluorometry 2−99921
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
chloroplasts, spinach, picosecond fluoresc. meas. rel. to energy migration in photosynthesis 2−116892
chlorotrifluoroethylene, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chrysene crystal, purification and decay time of delayed fluorescence 2−76483
collision systems, spontaneous emission, fluoresc. line shapes, dynamical theory 2−70380
compartmentalised systems, partition consts. evaluation from fluoresc. quenching 2−111505
complex organic compounds, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041
coronene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
coumarin dyes, substituted, laser gain charact. 2−108869
4-cyano-2,6,N,N-tetramethylaniline, twisted internal charge transfer state fluoresc. 2−108615
cyclic alkanes, S_1 state deactivation, fluoresc. lifetime meas. 2−85722
cyclopentanone, $^1n\pi^*$ excited state, racemization 2−80704
cyclopropane, vibr. relax., IR laser-induced fluoresc. investig. 2−108683
cyclopropane energy transfer rate const. from pulsed laser generated thermal lens spectrometer signal 2−80790
decay curves, numerical deconvolution, regularisation operators use with Lagrange multipliers, in FORTRAN 2−65034
dephasing processes effects on fluoresc. 2−102519
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
diatomic molecules, laser induced spectroscopy 2−59845
diatomic molecules laser dynamics using raising and lowering operators 2−70341
dichloroacetylene cation, spectroscopic studies 2−75343
dicyanoacetylene cation, laser-induced fluoresc. and photoelectron-photoion coincidence obs. 2−85729
3,3′-diethyl thiacarbocyanine iodide, picosecond time-resolved spectroscopic studies 2−96557
p-difluorobenzene vibr. relax. in ground state, stimulated emission pumping preparation 2−96698
difluorocarbene emission spectra from fluorocarbon plasmas, rel. to fluorocarbon polymer form. 2−55787
diiodomethane, UV laser multiphoton excitation, photofragment fluoresc. 2−114058
dimethyl-diacetylene, laser induced fluoresc. obs. 2−75346
p-(dimethylamino)benzonitrile in propanol soln., ps. dynamics of twisted internal CT phenomena 2−75347
4-dimethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2−114034
9,10-dimethylanthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
diphenanthrylpropanes, intramol. singlet and triplet excimers, fluoresc. 2−90600
diphenyl ketyl radical, fluoresc. quenching by methyl methacrylate and p-chlorobenzenediazonium tetrafluoroborate 2−90602
1,8-diphenyl-1,3,5,7-octatetraene, fluoresc. and absorpt. spectra, transition moments, intensity distrib. 2−90608
trans-transdiphenylbutadiene, fluoresc. yield and decay time 2−80700
diphenylhexatriene, on Ag surface, spectra, intense quadrupole transitions 2−108524
diphenylhexatriene in intact erythrocyte membranes, fluoresc. polarisation determ., scatt. artifacts 2−111641
diphenyloctatetraene, on Ag surface, spectra, intense quadrupole transitions 2−108524
donor-acceptor systems, examination of electronic energy transport between excited states 2−74517
dye cresyl violet perchlorate, fluoresc. lifetime and orientational relax. times, laser phase fluorimetry *(German)* 2−80707
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2−70320
dye molecules in amorphous solids, phonon-induced fluoresc. changes 2−54893
electron impact excitation, effective cross-section meas. *(Spanish)* 2−85811
electronic excitation, transfer during vibr. relax. 2−96702
ethoxy radial, $\tilde{A}\rightarrow\tilde{X}$ fluoresc. spectra, collision-free lifetimes 2−96618
etiolated bean leaves, illumination at low temp., fluoresc. lifetime spectra 2−111618
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
flame species identification using laser saturation fluoresc. spectrosc. 2−93839
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2−62553
fluoranthene, in dielectric liqs., photoionisation, fluoresc. obs. 2−85749
fluorene energetics, electronic-vibr. spectroscopy and laser induced fluorescence 2−70322
fluoresc., in CTAB and CTAC micelles, fluoresc. study 2−85718
fluoromethane, matrix isolated, vibr. relax., fluoresc. study 2−90613
fluoromethane-d_3+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
fluorophores, interacting, dynamic depolarisation effect of internal rot. and energy transfer 2−108439
free base porphin, isolated, ultracold, laser spectrosc. 2−80698
gases, cooling or heating through energy transfer using lasers 2−102440
haematoporphyrin derivative, fluoresc. and absorpt. props. 2−62558
haematoporphyrin derivative aggregated species 2−75476
harmine, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2−96627
harmol, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2−96627
cata-hexabenzocoronene triplet state, symm. distortions and pseudo-Jahn-Teller effect, MODOR obs. 2−75196
hexafluorobenzene, laser induced fluoresc. obs. 2−75346
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147

molecular fluorescence continued
hydrocarbons, C_1-C_4, intramol. vibr. relax., IR fluoresc. obs. 2—59839
hydroxipyrenetrisulphonate, $HClO_4$ soln., dissoc., protonation, rot. diffusion, phasefluorimetric study 2—78119
2-(2′-hydroxy-5′-methylphenyl)-benzotriazole, solns., excited state relax., fluoresc. lifetimes 2—85727
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2—85719
ion geminate and homogeneous recombination and fluoresc. quenching, Debye-Smoluchowski eqns. 2—83379
ion-molecule collisions, internal state distrib., fluorescence and IR spectroscopy study 2—96694
jet cooled ions and ion clusters, laser induced fluoresc. obs. 2—75346
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2—102526
laser dye two-photon absorpt. cross-section meas. at 1.06 μm 2—54908
laser dyes, fluoresc. quantum yield determ. by computer evaluation 2—65048
laser-induced fluorescence in spectroscopy, dynamics, and diagnostics 2—108417
lasers in chemistry, conf., New York, USA, (August 1982) 2—107005
malachite green, fluoresc. polarisation anisotropy and kinetics as a function of solvent viscosity 2—70323
malachite green heucocyanide, intramol. electron transfer, psec. resolved fluoresc. and transient absorpt. 2—114026
membrane systems, macroscopically ordered, fluoresc. depolarisation 2—67763
mesopheophytin a and complexes, luminesc. spectral-polarisation study 2—70328
methane-air flame, OH number density meas. using laser induced fluoresc., vibr. level relax. effects 2—116695
methane-d_4 + He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2—75381
methane/air atmospheric flame, laser-induced OH fluoresc. spatially resolved with diode array detector 2—65031
methane/air flame, in plane OH combustion species visualisation, quantitative 2—116696
methane/air sooting diffusion flames, laser induced visible fluorescence 2—116699
methoxy radial, $\tilde{A} \rightarrow \tilde{X}$ fluoresc. spectra, collision-free lifetimes 2—96618
methyl salicylate, freq. dispersed and picosecond time resolved fluoresc. characteristics of blue-emitting form 2—102525
methylene ($-d_2$), Renner-Teller effect, laser induced fluoresc., radiative lifetimes, vibronic levels 2—80717
methylene blue in water and acetonitrile, photoinduced electron ejection 2—75348
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2—102522
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2—85719
model potential method used to compute ionisation energies and dipole moments 2—59967
molecular aggregates, fluorescence depolarisation *(Russian)* 2—85732
molecules in small particles, fluoresc. and Raman scatt., double reson. 2—104878
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2—90620
3-monomethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2—114034
multicxponential fluorescence decays, relation between phase-modulation and pulse fluorometry 2—102527
neutral red, soln. anti-Stokes fluoresc., shift investig. 2—96620
nitromethane, gas phase, picosecond UV photolysis and laser induced fluoresc. probing 2—105494
nucleic acid components, excited-state props. 2—99899
organic prolate mols., rot. motion in soln., luminesc. study 2—104966
1,3,4- oxadiazoline-2-imine, 3,5-distributed, UV, visible and fluoresc. spectra *(German)* 2—90566
pentacene, isolated, out of plane vibrations 2—75240
pentafluorobenzene, laser induced fluoresc. obs. 2—75346
perylene molecules in cadmium arachidate Langmuir film, amorphous, phonon-induced fluoresc. changes 2—54893
phenols, H bonded, dispersed fluoresc. spectra in supersonic free jet 2—108610
phenyl nitrenes, spectral and photochem. props. 2—70318
phenylacetylene, charge transfer states, two-photon obs., INDO/S calcs. 2—70366
phospholipid vesicles, multilamellar, fluoresc. depolarisation studies of phase transition after microwave irrad. 2—111732
photobleaching recovery, modulation detection 2—88373
photopigments of microorganisms, laser microspectrofluorometry 2—99901
phthalocyanine, free base, in normal alkane matrices, laser fluoresc. and excitation spectra 2—96614
phthalocyanine molecules coated on In films, luminesc. and transmittance meas. 2—85731
phycobilins in red algae, low-temp. delayed fluoresc. 2—111640
phycobilisomes, reversible changes in fluoresc. and absorpt. on exposure to light 2—57791
picosecond phase fluorometry by mode-locked CW lasers 2—102528
pinacyanol iodide, internal-conversion, fluoresc. lifetime temp. depend. meas. 2—108601
polarized photofluorescence spectroscopy with circularly polarized light 2—54892
poly(α-methyl styrene) in solution, excimer struct., fluoresoent emission, polarisation 2—65046
poly-N-vinylcarbazole, nitrated, soln., electronic excitation energy transfer, fluorescence and phosphorescence study *(Russian)* 2—77592
polyatomic molecules, absorpt. and fluoresc. spectra, semiclassical calc. 2—96540
polyatomic molecules, diffuse luminesc. spectra, exciting radiation effect 2—108619
polyatomic molecules, free, fluoresc. polarisation 2—70327
polyatomic molecules containing OH groups, πi and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2—70215
polyatomic mols. in soln., intermolecular relax., vibronic spectra kinetics 2—113960
polychromatic radiation, periodic pulse train, reson. transformation by mols., secondary radiation 2—114060
polymers containing trans 1,2-dicarbazolylcyclobutane or carbazolyl struct., fluoresc. quantum yields and lifetimes 2—90605
polymethine dyes, vibronic fluoresc. spectra fine struct. 2—114037
molecular fluorescence continued
polynuclear aromatic hydrocarbons, luminesc. and fluoresc. spectra, pattern recognition appls. 2—90596
polystyrene in solution, excimer struct., fluorescent emission, polarisation 2—65046
polyurethanes, dil. soln., intrapolymer interactions between excited singlet states 2—114025
POPOP vapour excitation efficiency by wide-band flashlamp radiation 2—65047
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2—67755
porphyrin, highly excited states, polarisation-modulation fluoresc. study 2—114040
porphyrins, triplet state population, fluoresc. obs. 2—75349
PPO-POPOP scintillator multicomponent soln., tuning range enlargement *(Chinese)* 2—60072
propane highly sooting atmospheric flame, laser-induced OH fluoresc. spatially resolved with diode array detector 2—65031
propylene oxide, primary decomposition to singlet methylene, laser-induced fluoresc. obs. 2—108647
propynal and its deuterated compounds, deactivation of $S_1(nTi^*)$ state, fluoresc. lifetimes 2—70317
protein-bound pigments, spectroscopic and photochem. props. 2—99893
pyrazine, jet-coded, quantum beats, fluoresc. obs. 2—59846
pyrazine, jet-cooled, picosecond excitation, fluoresc. decay and quantum beats, mag. field effects 2—90601
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2—59842
pyrene, excited monomer and excimer fluoresc. meas., simultaneous energy transfer 2—108617
pyrene, fluoresc. quenching by tertiary alkylamine in cholesteric solvent 2—65036
pyrene, intersystem crossing, temp. depend. 2—102545
pyrene-dimethylaniline, donor to radical pair electron transfer, triplet form., delayed fluoresc. obs. 2—85720
pyridine, triplet state, dynamical spectroscopy 2—102524
pyrimidine, jet-coded, quantum beats, fluoresc. obs. 2—59846
pyrochlorophyllide a-apomyoglobin complex, triplet state, zero-field fluoresc. ODMR 2—85709
quantum yield determ. using solvent spontaneous Raman scatt. as internal standard 2—96626
quinine bisulphate in aq. H_2So_4 soln., complex fluoresc. decay 2—75340
rhodamine B monomer and dimer, population and rot. kinetics using picosecond transient spectrometry 2—102521
rhodamine-6G solutions, stimulated emission, light quenching of fluoresc. effect 2—60073
sarcoplasmic reticulum, lipid-protein interactions rel. to ionophore A23187, EPR and fluoresc. obs. 2—67930
stilbene, picosecond excitation and trans-cis isomerisation in supersonic jet 2—83347
trans-stilbene, soln., fluoresc. lifetime, temp. depend. 2—70315
trans-stilbenes-donor-acceptor substituted, in nonpolar and low visions solvents, viscosity depend. of fluoresc. quantum yields *(German)* 2—82921
styrene-β-D_2 vapour, single vibronic level fluoresc. and Raman spectra, torsional pot. function determ. 2—108613
styrylpyridines, conformational equilib., absorpt. and fluoresc. spectra in soln. 2—108614
surface binding rates of nonfluoresc. mols., determ. by total internal refl. and fluoresc. correl. spectroscopy 2—94258
tetracene, isolated, out of plane vibrations 2—75240
tetracene, stretched polyethylene film isolated, site-selection polarisation fluoresc. obs. 2—85723
tetradeuterophenanthrenes, vapour phase fluoresc. lifetimes, position depend. deuterium effects 2—85725
N,N,N′,N′-tetramethyl-p-phenylenediamine, recombination fluoresc., electric field quenching, two-photon ionisation 2—102518
s-tetrazine vapour, fluoresc. meas., S_1 vibronic level assignments, polarisation and lifetime meas. 2—108611
thiabendazole homologues, fluoresc., solvent effects 2—59840
thioindigo, exciplex form. and fluoresc. quenching by electron donors 2—85724
thioindigo, fluoresc. spectrum, intensity distrib. and emission-absorpt. mirror symmetry 2—114039
three-level systems, laser-excited fluoresc., saturation parameters 2—114966
thyroglobulin, investigation of intrinsic fluoresc. 2—67949
time domain measuring system of mol. fluoresc., real-time monitor, pulsed dye laser control 2—74505
1,3,5-trichlorobenzene, laser induced fluoresc. obs. 2—75346
sym-trichlorotrifluorobenzyl cation $\tilde{X}^2E''$ state, Jahn-Teller distortion from fluoresc. studies 2—75197
1,3,5-trifluorobenzene, laser induced fluoresc. obs. 2—75346
trifluoronitrosomethane, state-selective photodissociation dynamics, visible obs. 2—65060
two-atom molecules, vibr. line widths determ. by means of intensity correl. study of reson. fluoresc. 2—65045
two-level systems, laser-excited fluoresc., saturation parameters 2—114966
vanadyl phthalocyanine electronic transitions in soln. and solid state 2—61938
vinyl cyanide IR multiphoton dissoc., fragments internal state distrib. effect 2—59872
vinyl polymers, dil. soln., intrapolymer interactions between excited singlet states 2—114025
zinc etioporphyrin, highly excited states, polarisation-modulation fluoresc. study 2—114040
zinc porphyrin, in micellar soln., fluoresc. intensity oscills. 2—65038
zinc tetrabenzoporphyrin, highly excited states, polarisation-modulation fluoresc. study 2—114040
Ag (111), NO, molecule-surface collision, rot. polarisation obs. 2—77687
Ar + NO, rot. excitation, interference effects resolution, laser induced fluoresc. 2—102592
Ar_2F^*, form. kinetics, fluoresc. meas. of electron beam excited Ar/F_2, Ar/NF_3 mixtures 2—80708
Ar_2F^* in electron beam excited $Ar\text{-}NF_3$ mixtures, fluoresc. obs. 2—70325
BCl_3 molecule, fluorescence excited by intense IR laser radiation, pulse optical-acoustic-optimal effect *(Chinese)* 2—75338
$BO + O_2$, reaction kinetics studied by laser induced fluoresc. 2—72952
$Ba + NO_2(N_2O)$, nascent metastable products, chemiluminescence study 2—93796
1,2-benzpyrene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2—65042

molecular fluorescence continued
Bi_2, laser induced fluoresc. of 0-6, 1-6 and 0-5 bands of transition $4O_u^+$-XO_g^+ 2−54889
BrCl, $B^3\Pi(0^+)$ manifold, laser-induced fluoresc. obs. 2−114030
$^{79}Br_2$ in Xe matrices, photochemical dynamics, radiative lifetime meas. 2−96621
CD^+, laser induced fluoresc. study 2−59853
CD^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2−96619
CF_2 radicals in C_2F_6 and CF_4 discharge plasmas, laser induced fluorescence study 2−81575
CH^+, laser induced fluoresc. study 2−59853
CH^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2−96619
$CH^+(CD^+)$, $A^1\Pi$—$X^1\Sigma^+$ system, laser-induced fluoresc. 2−75344
CN, photofragment fluoresc. spectrum of HCN C-state 2−85754
CO Ar, laser-induced fluorescence, vibr. nonequilib. effects 2−59838
CO, rot.-excited from formaldehyde photodissociation, fluoresc. obs. 2−108645
CO^+, MODR spectra, fluoresc. 2−70309
$CO+Ar^+(CO^+)$, thermal energy charge transfer reactions, laser induced fluoresc. study 2−90683
CO_2, IR emission, self-trapping 2−75258
CO_2 in inert gas matrices, vacuum UV photolysis 2−108602
CO_2^+, Fox-Duffendack-Barker system reson. fluoresc. 2−84163
C_2O radical in C_3O_2+O flame identification by laser induced fluoresc. 2−96617
COF_2, IR fluoresc. from intermediate mode ν_{6a}, vibr. energy transfer 2−90616
CS_2, $^1B_2$ state, fluoresc. spectrum 2−59843
CaBr radicals, mol. beams and IR-RF double reson. studies 2−59835
CaCl, radicals, mol. beams and IR-RF double reson. studies 2−59835
CaF radicals, mol. beams and IR-RF double reson. studies 2−59835
CaO, sub-Doppler spectrum, rot. anal. and deperturbation 2−64996
Cl+methyl chloroform, reaction kinetics, time resolved reson. fluoresc. 2−105448
ClNO, VUV photodissoc., fluoresc., rot. level distrib. 2−96623
CrO_2Cl_2-He(x), mode selective nonradiative process, vibr. predissoc., fluoresc. 2−80709
Cs_2, dissoc. energy, fluoresc. spectra 2−80703
Cs_2, laser induced IR fluorescence 2−70329
Cs_2, rot. lines meas. by Doppler free polarisation spectroscopy and ODR, fluoresc., mol. const., pot. energy curves 2−80689
CsH, laser induced fluoresc. doublet, vibr.-rot. levels near dissoc. limit 2−70324
CsH, $X^1\Sigma^+$ state, laser induced fluoresc. spectrum, pot. energy curve, avoided crossing region 2−108607
Cu_2, $a^1\Sigma_g^+$ state, Ne matrix isolation, absorpt. and fluoresc. obs. 2−114027
Cu_2 cooled metal clusters, laser spectroscopy 2−108762
Cu_2, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
CuO, IR $Y^2\Sigma^+$-$X^2\Pi$, transition, laser induced fluoresc., interpretation of $X^2\Pi$, ground state 2−64977
CuO_2, Ar matrix isolated, laser induced fluoresc. obs. 2−65039
FeO, laser induced fluoresc., sub-Doppler spectroscopy 2−59854
H_2 fluorescence spectrum (1200 to 1700 Å) due to electron impact, rel. to Jovian aurora 2−63237
HBr+CO, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
HCl+CO(NO)(O_2), vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
HF+Ba(Sr), state to state reaction dynamics studied using laser induced fluoresc. 2−105458
HNO electronic spectrum, mag. field and time-resolved study 2−75342
HO+HNO_3(H_2O_2), reaction rates, flash photolysis and reson. fluoresc. 2−105460
HSO radical, Stark shift, fluoresc., electric dipole moment determ. 2−85713
HgBr discharge excited laser system, parameterisation studies, laser output and fluoresc. meas. 2−86003
HgBr electron-beam-ionised discharge laser studies, fluoresc. and laser performance data 2−85951
HgBr, optical excitation of neutral channel upper laser levels, fluoresc. efficiency 2−85952
HgBr-Ar discharge, electron beam energy deposition in mag. guide field, HgBr fluorescence study 2−115059
$HgBr_2$ photodissociation laser, spectral props. 2−70554
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
I_2, D' to A' transition, vibr. anal., Franck-Condon and band profile calcs., weak emission 2−108546
I_2, fluoresc. spectra from I_2Ar quasimol. photodissoc. cage effect 2−96661
I_2, ion-pair state, laser excitation, fluoresc. obs. 2−96616
I_2, ion-pair state, two-photon excitation, fluoresc. obs. 2−85721
I_2 molecule, laser fluoresc. studies 2−59844
I_2, state-to-state dissociative electron capture rate, optogalvanic demonstration 2−59949
I_2 vapour, IR luminescence, spectral emission density, absorption spectra *(Russian)* 2−90553
I_2+He(Xe), rotationally inelastic transitions, rate consts., laser induced fluoresc. 2−85786
ICl, supersonic expansion, laser spectrosc. 2−114032
KHe, model potential method used to compute ionisation energies and dipole moments 2−59967
$K_4(Pt_1H_5P_2O_{20}).2H_2O$, electronic spectra 2−65035
Kr_2F, electron beam pulse irrad., fluorescence lifetime and quenching rate const. 2−108727
Kr_2F tunable blue-green laser, fluoresc. and laser parametera meas. for 436 nm transition 2−96924
KrF^* broad band emission at 400 nm 2−96625
Kr_2F^* luminescence, 420 nm range, as result of KrF_2 photolysis in KrF_2-CF_4-N_2(Ar, Kr) mixtures 2−80721
Li-He (Ne), $A^2\Pi$ pots. well depths, fluoresc. obs. 2−108670
Li+Mg, optically pumped $LiMg^*$ excimer chemiluminesc. intensities, form. and decay kinetics 2−83353
^6LiH, ground state pot. energy curve determ., fluoresc study 2−108412
Mg tetraphenylporphyrin, fluoresc. excitation in supersonic expansion 2−90610
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
$N+NO_2$ reaction rate const. determ using reson. fluoresc. in discharge flow system 2−105452
N_2 underexpanded jet, compressible flow density meas. by LIF 2−97581
N_2^+, in He-N_2 afterglow, Penning ionisation, charge transfer, kinetic model 2−96716
N_2^+ symmetric charge exchange reactions, laser-induced fluoresc. obs. 2−102617
N_2^++Ar(N_2), charge transfer, vibr., laser induced fluoresc. study 2−80802
N_2^+(A to X) and N_2^+(B to X) fluoresc. excitation spectra by photon impact 2−96622
N_2($B^3\Pi_g$), collision induced transition, time-resolved fluoresc. 2−59908
NCO, $A^2\Sigma$-$X^2\Pi$ transition, laser-induced fluoresc. 2−90598
NCO radical, fluoresc., in flame, intracavity laser excitation 2−108604
ND_2, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
NH_2, (100)$\tilde{X}^2B_1$ state, mol. consts., obs. and estimation of ν_1 vibr *French* 2−54828
NH_2, $\tilde{A}^2A_1$ state, rot. energy transfer, time resolved fluoresc. 2−114033
NH_2, IR-optical double reson., vibr.-rot. transitions, fluoresc. 2−96607
NH_3 decomposition on Pt and Fe surfaces at high temp., NH radical prod. 2−72959
NH_3, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
NO, 4-photon ionisation two-colour double reson., fluoresc. de-enhanced obs. 2−85706
NO, and beam scatt. from graphite, angular distrib., rot. state population fluoresc. study 2−105023
NO atmospheric trace level detect. using sequential two-photon-laser-induced fluoresc. technique 2−78884
NO, electronically excited Rydberg states, quenching mechanism, two photon excited fluoresc. 2−59848
NO, excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO, rot. transitions in $A^2\Sigma^+$ ($v'=0$)-$X^2\Pi(v''=0)$ gamma band, two-photon absorptivity 2−80557
NO, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629
NO thermal desorpt. from Ru (001), state selected vel. meas. 2−87019
NO, two-photon fluoresc. excitation and resonant four photon ionisation spectrum, double reson. effect 2−54890
NO+Pt(111) interaction, laser induced fluoresc. study 2−67182
NO_2, A^2B_2 state, vibr., reson., fluoresc. intensities 2−102517
NO_2^+, fluorescence, dispersed and time resolved, decay times 2−90607
NO_2, optically excited, IR multiphoton pumping dynamics 2−102546
NO_2^-, photodissociation, fluoresc. and UV obs. 2−80712
NOAr, direct photodissociation, fluoresc. spectra 2−59874
NOHe, direct photodissociation, fluoresc. spectra 2−59874
NONe, direct photodissociation, fluoresc. spectra 2−59874
NO^*, vibr. excited, quenching rate consts., fluoresc. study 2−83360
Na vapour, near-reson. dye laser excited, conical emission *(Chinese)* 2−96613
Na/Na_2 free jet expansion, laser induced fluoresc., dimer form. and excitation energy transfer 2−85726
Na_2, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619
Na_2($A^1\Sigma_u^+$—$X^1\Sigma_g^+$) fluoresc. and continuous spectrum 2−90609
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
Na_2($^3\Sigma_u^+$) triplet molecule parameters 2−114067
NpF_6 vapour, electronically excited states, fluoresc obs. 2−59852
O_2+NF, energy transfer from O_2 $^1\Delta_g$ state 2−65032
O_2, repulsive pot. energy surfaces, fluoresc. spectrum 2−108609
OD ($A^2\Sigma^+$) radicals, electron impact dissoc. of D_2O, excitation and polarisation anal. 2−102648
OH fluorescence equilibrium in solar radiation field, appl. to comets' spectra 2−94646
OH laser-induced fluoresc. in flame, conc. profile, two-dimens. imaging 2−99678
OH radical species identification using laser saturation fluoresc. spectrosc 2−93839
OH, tropospheric, laser induced fluoresc. meas. influence of rot. relax 2−94480
PH_2 radical, hyperfine struct. of $\tilde{X}^2B_1$ and $\tilde{A}^2A_1$ from intermodulated fluoresc. spectroscopy 2−108735
Pb_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
PuF_6 vapour, electronically excited states, fluoresc obs. 2−59852
Rb_2, laser induced IR fluorescence 2−70329
S_2, $B^3\Sigma_u^-$ and $B''^3\Pi_u$ states, fluoresc., rot. anal. 2−114031
SO radicals, absolute absorpt. cross-sections, 190 to 235 nm 2−64998
SO_2, $C(^1B_2)$ state, quantum beats, fluoresc obs. 2−59847
SO_2 in supersonic jet, fluoresc. excitation spectrum and single rovibronic level lifetime 2−90615
SO_2, optically excited, fluoresc. induced by IR multiphoton excitation 2−70326
SO_2, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const 2−108612
$SO.^*(A^3A_2)$ fluoresc quenching by He and Ar in supersonic jet 2−80715
Sb_4 in inert gas matrices, Raman and fluoresc. spectra, vibr. modes 2−108521
SiH_4, vibr. relax., laser-induced IR luminesc. 2−114042
Sn_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
SnO electronic transitions, Doppler limited laser spectroscopy 2−75345
Sr, excimer, dissoc. energy, laser induced fluoresc obs. 2−96628
Te, laser induced fluoresc spectrum studied by Fourier transform spectrometry, RKR pot. and dissoc. energies 2−65043
Te_2, laser-induced fluoresc obs. 2−85710
UF_6, laser induced fluoresc and absorpt., temp controlled vacuum cell and two-stage pumping system 2−84617
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452
XeCl laser pumped by high-intensity electron beam 2−80916
XeCl, optical excitation of neutral channel upper laser levels, fluoresc efficiency 2−85952
Xe_2Cl, excimer state, absorpt and emission transition probabilities 2−96583
Xe_2Cl tunable blue-green laser, fluoresc and laser parameters meas for 520 nm transition 2−96924
Xe_2F^*, emission spectra and quenching kinetics meas. 2−114023

molecular fluorescence continued
$Xe(^3P_2)+HCl$, XeCl form., vibr. enhancements, rate const. determ., fluoresc., 2−72966
Xe_2^* excimer, de-excitation by SF_6 and N_2, time resolved fluoresc. study, rate const. meas. 2−70316

molecular force constants
see also Coriolis force
acetaldehyde-$d_0(d_1)(d_3)(d_4)$, force field determ., vibr., CNDO calcs. 2−64875
acetamide-$d_0(d_1)(d_2)(d_3)(d_4)(d_5)$, isotope effects, force consts., CNDO calcs. 2−96457
acetone-$d_0(d_3)(d_6)$, force field determ., vibr., CNDO calcs. 2−64875
trans-acrylyl chloride force fields and vibr., normal coord. treatment 2−80565
alkali metal cations, solution, pot. energy function models 2−59886
alkali trimer anions and cations, electronic struct., vibr. freq. calc., electron affinity 2−70121
allene, $E(A_1)(B_2)$ species, pseudo-exact force const. evaluation using fourth-order secular determinant 2−102456
anharmonic Raman intensities of overtone, combination and difference bands 2−90556
aromatic hydrocarbons, condensed, mol. vibr. 2−75368
barrelene, struct., gas phase electron diffr. obs. and force field calcs. 2−85806
benzene-$d_0(d_2)(d_3)(d_4)$, planar vibr., force field, IR obs. 2−85661
bond-order matrix, physical prop. calcs. 2−113851
bromomethane-$d_0(-d_1)$, third order vibr. problems, Redington's method calcs. *(German)* 2−108467
bromotrifluoromethane, IR vibr. and rot. anal. of parallel overtones and combination bands 2−75465
butadiynyl, rotation, spin-rot. and hyperfine consts. from $N=1\rightarrow0$ transit ion obs. in (Taurus MC-1) 2−68867
carbenes, singlet, equilib. struct. and force const. calc. using MNDO approx., electronegativity 2−59702
carbodimide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
carbonyl compounds, conjugated monosubstituted, stretching force const., geometry, ab initio calcs. 2−85538
carbonylcyanide, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
chemically reacting systems, force fields representation 2−83354
p-chloroacetophenone, IR spectrum and normal coord. anal. 2−108512
chloroethane-2-d_1, IR and Raman spectra, vibr. anal. 2−75285
chlorofluoromethane, force consts., vibr. rot., IR obs. 2−85658
chloromethane-$d_0(-d_1)$, third order vibr. problems, Redington's method calcs. *(German)* 2−108467
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
cyclobutane-$d_0(d_8)$, vibrs. geometry, force consts., ab initio HF calcs. 2−108349
di- and triatomic mols., geometry, force consts., test of new SCF method 2−108367
diatomic molecules, effective nuclear charge model 2−59778
diatomic mols., mol. force consts., bond lengths, pot. energy functions, electronegativity anal. 2−75463
dichloromethane liq., mol. dynamics simulation with 3×3 and 5×5 site-site interactions 2−76261
dicyanodiazomethane, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
dimethyl formamides, Raman and IR spectra, vibr. freq. calc. using force field base ab initio calcs. 2−85650
ethylene, force consts. developed from Green's function techniques 2−85619
ethynyl radical, interstellar, detect. of $N=3-2$ transition in Orion rel. to mol. rot. consts. determ. 2−63556
fluoromethane, anharmonic force fields, ab initio calcs. 2−75174
fluoromethane, vibr. states, Coriolis interactions 2−90514
fluoromethane-$d_0(-d_1)$, third order vibr. problems, Redington's method calcs. *(German)* 2−108467
formaldehyde, hydration, force fields representation 2−83354
formaldehyde, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
formaldehyde-$d_0(d_1)(d_2)$, force field determ., vibr., CNDO calcs. 2−64875
formamide-$d_0(d_1)(d_2)(d_3)$, isotope effects, force consts., CNDO calcs. 2−96457
glycolic acid, vibr., isotope shifts, transferable valence force field 2−75235
$(HCl)_2$, geometry, force consts., moments, ab initio SCF calcs. 2−80454
isoelectronic molecules and ions, equilib. geometries, inversion barriers and force const. calc. by MNDO method 2−70146
ketenimine, struct., electronic props., force consts., inversion barrier, non-empirical calcs. 2−64858
metal carbonyl compound $LFe(CO)_4$ where L is organophosphorous compounds, IR spectra, force const., mol. moment 2−80609
methane, inverse spectral problem, normal F_2 oscill. modes *(Russian)* 2−85636
methyl acrylate, band contour assignment of IR spectrum, force field for vibrs. *(Spanish)* 2−85665
methyl glycolate, vibr., isotope shifts, transferable valence force field 2−75235
trans-methyl nitrite, force field parameters, vibr.-internal rot. interaction model 2−102660
methyl nitrite-$d_0(d_3)$, vibr., force consts., IR obs. 2−85659
5-methyl pyrimidine, IR and Raman vibr. spectra 2−108511
methylammonium ion in low temp. methylammonium chloride and its dervatives, empirical force field calcs. 2−114132
methylethynyl mercury(II)-d_0, -d_1, d_3, -d_4, vibr. anal. and pot. energy const. 2−80563
3-methylsydnone(-d_4), vibr. spectra, force field and electronic struct. 2−75230
naphthalene, in-plane vibrs., CNDO force field calcs. 2−108381
nitrosylhalides, halogens effect on bond props. 2−102659
octahedral XY_6 mols., force consts., vibr. freq. calcs. 2−96537
organic molecules with 7-12 atoms, IR-matrix spectroscopy 2−80594
organoleadamines, primary, second and tertiary, normal coord. anal. 2−75237
pentafluorobenz, centrifugal distortion constants from pure rotational spectrum 2−80583
perfluoromethylamines, mol. struct., electron diffr. and microwave spectra, normal coordinate anal. 2−90701

molecular force constants continued
polyatomic molecules, harmonic and anharmonic force const. matrices 2−90737
polyatomic molecules, normal mode calc. and force field refinement, matrix methods 2−108441
potential energy hypersurface, second derivative rel. to force in SCF theories 2−108360
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
pyrrolidine, normal vibr. modes, valence force field calcs. 2−85628
silicates, bonding, computational quantum chemistry study 2−97980
ternary oxides, tetrahedral, trends in matrix isolated IR spectra 2−80598
tetrahedral mols., kinetic const. method for vibr. anal. 2−102665
tetrahedral mols. and ions, XY_4, normal coord. anal. and mol. consts. 2−108442
tetrahedral XY_4 ions, mol. consts., normal coordinate anal. and ionic props. 2−102664
thiazylhalides, halogens effect on bond props. 2−102659
1,1,2-trichloro-3,3-difluoro-1-propene, vapour, liq. and cryst., vibr., IR and Raman study 2−108518
trichloroacetamide, IR and Raman vibr. spectra and normal vibr. 2−80564
trifluoromethylgermanes(-d_n), IR and Raman spectra, force consts., normal coordinate anal., bonds 2−70266
trihalogenmethanes, harmonic force fields and mol. consts. 2−80837
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2−77516
triphenylene, excited triplet state IR spectroscopy 2−80596
urea-$d_0(d_4)$, isotope effects, force consts., CNDO calcs. 2−96457
vibrational data, force const. determ., isotope effects calcs. 2−90736
vibrational freqs. and harmonic force consts., mol. orbital calcs. 2−80443
vibrations, kinetic constants role, force consts, calcs. 2−59774
X-ray emission spectra, vibr., pot. energy surfaces, bond lengths and force consts. 2−65003
XY_3 type materials, force field calcs. using parametric representation method 2−96532
XY_6 type anions, mol. consts. and cation effects 2−96533
$AlCl_3$, general harmonic force field and vibr. freqs., temp. variation technique of gas-phase electron diffr. 2−80811
$AlCl_4^-$, mol. consts. and vibr. 2−85838
$AlClBr_2$, mol. const. using kinetic const. method and least square fit method 2−102457
$AlCl_2Br$, mol. const. using kinetic const. method and least square fit method 2−102457
AlX_3 (X=F, Cl, Br, I), vibr. freq. force consts. calcs. 2−108443
AsF_6^-, force const. calc. using vibr. data 2−54986
BeF_2, $^3B_2$ and $^3A_2$ states, electronic splitting 2−85532
CO, force consts., pot. energy and derivative calcs. 2−108360
$CuCl_6^{3-}$, electronic struct., multiple scatt. Xalpha calc., harmonic force const. 2−108376
D_2O, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
FCN, anharmonic force fields, ab initio calcs. 2−75174
$F_3NO(PO)$, photoelectron spectra, bond struct., Xα approx. 2−54769
$GaCl_3$, pot. energy distrib., normal coordinate calcs. 2−77516
Ge halides, pseudo exact force const. calc. 2−54985
GeH_3Cl, rovibr. anal. of ν_6 rocking fundamental and hot bands near 600 cm^{-1} 2−90509
$H+H_2$ ($v=0,1$), quasiclassical trajectory calcs. on H_3 pot. energy curve from force field data 2−102570
HBS, D isotope effects, equilib. struct., force fields, IR obs. 2−80622
HCN, anharmonic force fields, ab initio calcs. 2−75174
HCN, highly excited, struct., force const., dissoc. energies, mol. pot. 2−96676
HCl, vibr. transitions, rot. line strengths, quantum mechanical operators 2−75139
HNSO, force field, vibr. freq., ab initio CI and basis set calcs. 2−75195
H_2O, force consts., pot. energy and derivative calcs. 2−108360
H_2O, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
$H_3Si^{79,80}Br$, rovibr. anal. of ν_6 fundamental near 630 cm^{-1} 2−90508
H_3SiI, force consts., rot.-vibr. anal., IR obs. 2−64973
$HfCl_4$, gas, mol. struct. and force field, electron diffr. obs. 2−90696
$LiBeH_3$, normal vibr. freq. and force field determ. by ab initio calc. 2−108462
MnO_4^{3-}, force consts., modified valence force field calcs. 2−116196
$MoCl_6^{3-}$, force const. calc. using vibr. data 2−54986
MoO_3, vibr. anal. and characteristic consts. 2−96531
N_2, force consts., pot. energy and derivative calcs. 2−108360
NF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
NF_4^+, mol. consts. and vibr. 2−85838
$NH_2SO_3^-$, normal coordinate anal. using Urey-Bradley force field and laser Raman freq. 2−113993
NSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
O_3, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
OCS, anharmonic force fields, ab initio calcs. 2−75174
$OVCl_3$, matrix isolated and vapour phase, force consts., vibr. IR obs. 2−108515
Os complexes, $(\mu_2\text{-}H)_2Os_3(CO)_{10}$, vibr. spectroscopy, normal coordinate calcs., force const. 2−70469
PF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
PF_5, quadratic force fields, symmetry bending consts. and bond angles 2−90734
PF_6^-, force const. calc. using vibr. data 2−54986
PO_4^{3-}, mol. consts. and vibr. 2−85838
POF_3, vibr. freq. in local symm. force field *(French)* 2−108464
$PO_2F_2^-$, local symmetric force field, IR and Raman 2−90559
PO_3F^{2-}, vibr. freq. in local symm. force field *(French)* 2−108464
PSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
Pd complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
Pt complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
SF_6, force consts., excited vibr. states, Lennard-Jones and Morse pots. 2−90647
SF_6, IR spectrum binary combination bands, absolute intensities 2−108509

molecular force constants continued
$(S^{15}NH)_4$ and $(S^{15}ND)_4$, IR and Raman spectra, vibr. assignments and force consts. isotope shifts 2−59796
SO_2, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
SOF_4, quadratic force fields, symmetry bending consts. and bond angles 2−90734
ScX_3 (X=F, Cl, Br, I), vibr. freq. force consts. calcs. 2−108443
Se halides, Raman spectra, vibr. assignments, force consts. 2−70267
SiH_3NCO, vibr. spectra and normal coord. anal. 2−96572
$SnBr_6^{2-}$, force const. calc. using vibr. data 2−54986
$UO_2(2,2,6,6\text{-tetramethylheptane-}3,5\text{-dionato})_2$, mean vibr. amplitudes, normal coord. anal. 2−64948
WCl_6^{-2}, force const. calc. using vibr. data 2−54986
$ZnCl_2L_2$ tetrahedral complexes, interligand effects, vibr. spectrosc. obs. 2−90517

molecular force fields *see molecular force constants*

molecular hyperfine structure
2-adamantyl radical, EPR spectrum, alpha-proton hyperfine splitting const. 2−80726
alkyl radicals, muon-electron hyperfine coupling consts. 2−80846
1,3-benzodioxole radical cations, hyperfine splitting const., ESR, MO calcs., correl. with reactivity *(German)* 2−102511
^{17}O-benzophenone, photoexcited, ODMR and ENDOR, orbital rot. in lowest triplet state 2−59831
bromomethane, rovibrational transition, saturation spectra 2−70229
3-bromothiophene, rot. consts., nucl. quadrupole coupling, hyperfine struct., microwave obs. 2−75246
butadiynyl, rotation, spin-rot. and hyperfine consts. from N=1→0 transit ion obs. in (Taurus MC-1) 2−68867
butadiynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
butyronitrile, quadrupole coupling, hyperfine struct., microwave Fourier transform spectra 2−64965
chloroacetylene-d, hyperfine struct., beam maser meas., quadrupole coupling strengths, rot. consts. 2−108734
cyanopropynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
electronic properties asymmetry rel. to nucl. core isotopic asymmetry 2−113897
EPR, spin Hamiltonian, orthorhombic HF and g tensors 2−70297
ethynyl radical, interstellar, fine struct. and hyperfine consts. from obs. in Orion 2−63556
f-electron hyperfine interactions, point-dipole approx. calcs. 2−61421
HCN hyperfine anomalies in cold dark clouds from EHF obs. 2−94812
ions in glow discharges, microwave spectroscopy 2−75244
metalloproteins, zero-field splitting consts., CW microwave saturation determ. 2−70302
methyl, geometries and HFS consts., ab initio calcs. 2−70136
2-methylfuran radical, hyperfine splitting consts., ESR study 2−90587
2-methylthiophene, radical, hyperfine splitting consts., ESR study 2−90587
nitroxide spin probes, hyperfine coupling consts. in H_2O and CCl_4 2−54874
nitroxides, visible spectra, solvent effects and N hyperfine splitting consts. 2−114012
nitroxyl radicals, hyperfine splitting consts., g-factors pH effect on EPR spectra 2−108585
nonlinear molecule nucl. spins interactions with vibr. and rot. motions 2−113961
nonlinear semi-rigid, molecules, nucl. hyperfine interactions, mol. Hamiltonian calcs. 2−80461
nonlinear semi-rigid molecules, nucl. hyperfine interactions, effective Hamiltonian 2−80462
polyatomic molecules, hyperfine struct. corrections, P odd effects *(Russian)* 2−108736
propyne-d_1(-d_3), beam maser spectrosc. 2−90521
succinic acid radical, noncrossing of proton spin levels, ENDOR spectra 2−102512
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
d^1-transition metal oxohalo complexes, electronic struct., SCF-MS-Xalpha study 2−70145
transition metal-H_2O complex, ab initio SCF MO study, Solomon-Bloembergen eqn. appl. 2−70137
trifluoroiodomethane, quadrupole hyperfine struct. investigated by Lamb-Dip spectroscopy in 10 μm region 2−108502
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
xanthone, in n-hexane matrix, phosphoresc., optical detect. of sublevel splitting 2−80705
xanthone triplet state in-pentane, multiple emission from single site 2−75341
Bi_2, CW laser, optically pumped, hyperfine struct. 2−96914
CCl radical, microwave spectra, rot. transitions, mag. and electric quadrupole hyperfine coupling consts. 2−108476
CF, rot., Zeeman hyperfine struct., laser mag. reson. obs. 2−90584
CO^+, hyperfine and spin-rot. parameters, isotope effects, microwave obs. 2−70226
CaBr $^2\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
CaCl $^2\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
CaCl, optical spectra at sub-Doppler resolution 2−75257
CaCl, $X^2\Sigma^+$ ground state, hyperfine struct. studied by mol. beam and laser RF double reson. 2−70306
$Ca^{35}Cl$, $A^2\Pi$ excited state hyperfine struct. 2−85839
$(CrOCl_4)^-$, electronic struct., SCF-MS-Xalpha calc., EPR spectra, EHT calcs. 2−70144
Cu complex, $[Cu(bipyridyl)(OH)]_2SO_4.4H_2O$, triplet state, zero-field splitting, EPR obs. 2−80687
Cu halide ligand hyperfine interactions, MO calcs. 2−70139
$FClO_3^-$ radical anion, ESR spectra and struct. 2−65022
Fe small molecules, in Ne matrix, EXAFS and matrix isolation spectra studies 2−80650
GeH_3, geometries and HFS consts., ab initio calcs. 2−70136
HD^+, vibr. rot. spectroscopy 2−80840
HDO, hyperfine struct., beam maser meas., rot. transition freq. and deuterium quadrupole coupling tensor 2−80578
HF-Cl_2, struct., hyperfine consts., mol. beam elec. reson. 2−108553
HO_2, mm and submillimeter spectrum, effect of unpaired electron spin and nuclear hyperfine interactions 2−108483

molecular hyperfine structure continued
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
MgH ($X^2\Sigma^+$), spin splitting consts., ab initio calcs. 2−75167
Mn_5 high-spin molecule, S=25/2, ESR study 2−85701
MoN, matrix isolation, electronic states, ESR study 2−70296
NH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
NH_2, excited vibronic states, microwave optical double reson. obs. 2−90588
NH_2 in $\tilde{X}\ ^2B_1(000)$, MOD spectra, fine and hyperfine parameters 2−108595
N_2O^+, $\tilde{A}$ state, predissociation, bond-breakage mechanism, UV obs. 2−90637
Na_2, $a^3\Pi_u \leftarrow X^1\Sigma_g$ transition, 625 nm, hyperfine struct. 2−59814
Na_2, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619
O_2, liq., CC ^{17}O NMR, hyperfine splitting 2−59821
PH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
PH_2 radical, hyperfine struct. of $\tilde{X}^2B_1$ and $\tilde{A}^2A_1$ from intermodulated fluoresc. spectroscopy 2−108735
PH_2D, rot. transitions and hyperfine struct. meas., spin-rot. interactions 2−108457
Pb(II)tetraphenylporphyrin, cation radical, optical and ESR spectra 2−80682
SF radical, rot. and centrifugal distortion const., microwave obs. 2−75249
SH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
SiH_3, geometries and HFS consts., ab initio calcs. 2−70136
SrF, optical spectra at sub-Doppler resolution 2−75257
$V(CO)_6$, EPR spectra and mol. struct., Jahn Teller modes, hyperfine struct. anal. 2−70295
VO, higher multiplicity Σ electronic states, spin-orbit distortion, hyperfine struct. 2−80418
VO, rot. struct., spin-orbit coupling, Fourier transform IR obs. 2−75262

molecular inelastic collisions
see also atom-molecule collisions; atom-molecule reactions; ion-molecule collisions; ionisation of molecules; molecular electron impact dissociation; molecular electron impact excitation; molecular electron impact ionisation; molecular neutron scattering; molecular rotational-vibrational energy transfer; molecule-molecule reactions
amines, mol. relax. study by spectral density width *(French)* 2−85747
atomic, molecular and solid state theory, and computational quantum chemistry, conference, Flagler Beach, FL, USA (March 1981) 2−79267
benzophenone+biacetyl energy transfer, phosphoresc. and fluoresc. decay study 2−75386
bimolecular collisions, channel specific spectral props. and time delay 2−70382
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
charged particle impact, threshold fragmentation 2−102583
chiral mols., spin-polarised particles, inelastic differential cross section, quantum electrodynamics calc. 2−114071
crystal surface, rotationally inelastic scatt. of HD, bound-level resonances calc. 2−67175
CS and IOS approx., phase factor 2−70368
diatomic mol. $^2\Pi$ electronic state, rot. inelastic collisions with structureless target 2−96685
Dirac states for unit position and momentum, angular momentum representations 2−70367
drops, spherical, evaporation at arbitrary Knudsen numbers 2−56169
effective cross section inequalities for elastic and inelastic processes 2−114078
electronic and atomic collisions, conf., Gatlinburg, TN, USA (July 1981) 2−90640
electronic excitation energy, intermol. transfer and quenching 2−108663
energy transfer, time-correlation functions, cumulant expansions 2−85771
energy transfer in gases 2−59899
ethane, collision induced adsorpt. in microwave and IR region 2−54838
ethane, gas, O-positronium annihilation rates, density fluctuations effect s 2−54992
exact factorisation, energy sudden approx. for T-matrix 2−75364
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
fluoromethane-d_3+HCl, vibr. relax., intermol. interactions 2−75381
formaldehyde-d, (d_2) energy transfer, IR-UV double reson. study 2−65025
half collisions in mol. photodissoc. 2−59870
heavy molecule translational relaxation in low-density light gas, quantum effects 2−114081
inner-shell excitation and ionisation studies 2−58556
ionically bonded mols., stopping power, mean excitation energy, local plasma approx. calc. 2−54916
laser collision-induced gain enhancement 2−96881
methane, collision induced light scatt., three body correl. spectrum 2−80636
methane-d_4+HCl, vibr. relax., intermol. interactions 2−75381
molecular beam supersonic expansions from slit source nozzle, characterisation 2−70377
molecular ions, molecular struct., and interaction with matter, conference, Haifa, Israel (Jan. 1981) 2−53410
neopentane, vapour, collision induced light scatt. 2−103279
neutron impact, electronic excitation 2−90724
nitroxide radical, collisional spin exchange, EPR line broadening 2−114021
optically active molecule, Coulomb ionisation, spin polarisation *(Russian)* 2−59901
oxazine-17, electronic energy transfer from excited rhodamine mol., lasing efficiency 2−114263
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
purines+phenylalanine, collision complexes, ^{1}H NMR spectra 2−57591
Rayleigh scattering, depolarised, multilevel description, appl. to H D-He system, collision breadth 2−80638
simple systems, higher order correlations 2−75239
spectral functions in quasiperiodic and chaotic regimes, collisional relax. effects 2−108631
spontaneous emission, fluoresc. line shapes, dynamical theory 2−70380
tetrafluoromethane, collision induced light scatt., three body correl. spectrum 2−80636

molecular inelastic collisions continued
thioformaldehyde, gas phase phosphoresc., collisional vibr. relax. 2−108603
Ar_2 collisions, trimer form., atom exchange and dissoc. 2−105463
C_2, electronic excitation behind shock front 2−59918
CN, electronic excitation behind shock front 2−59918
$CO+D_2$, rot. excitation at 87.2 meV, differential cross sections, classical path calc. 2−108673
$CO+H_2$(He), rot. energy transfer and anisotropic intermol. pots., ab initio calcs. and expt. 2−75387
$CaO+N_2O$, collisional population transfer excited states, kinetic models 2−96686
D_2-D_2 collision pairs, absorpt. spectra of IR fundamental band, overlap parameters 2−96561
H_2, press.-induced opacity in 5 μm region 2−60716
H_2 thyratron, metastable species form. 2−54936
HD compressed by Ar, rotation and rot.-vibr. Raman spectra, collisional effects 2−108526
$(H_2O)_nH^+$, collision-induced dissoc. using triple quadrupole 2−102678
LiF (001), rotationally inelastic scatt. of HF 2−67174
N_2+ethanol, excited state N_2 quenching reaction rate meas. from plasma flow 2−75339
NH_2 radical, energy transfer, intraresonator laser spectroscopy study 2−93776
NH_3 beam, collision-induced transitions, double reson. studies 2−59903
NH_3, inversion spectrum lines, collision broadening by methyl chloride, methyl bromide, chloroform and fluoroform 2−80738
NH_3 trifluoromethane (methylfluoride), inelastic scatt., beam maser investigation, cross sections for inversion transitions 2−70379
NO, electronically excited Rydberg states, quenching mechanism, two photon excited fluoresc. 2−59848
NO, V-T transition probability, photoacoustic study 2−114047
$NO+O_2(H_2O)(N_2)(CO_2)(Ar)$, NO excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
O_2+NF, energy transfer from O_2 $^1\Delta_g$ state 2−65032
OH, interstellar, collisional pumping rel. to widespread galactic emission at 1720 MHz 2−68865
SF_6, collision induced light scatt., three body correl. spectrum 2−80636
SO_2, electronic relax., collision induced, long range interaction mechanism 2−65079
Xe_2Br^*, electron beam excited, formation and quenching kinetics 2−102573

molecular internal conversion *see nonradiative transitions*

molecular internal mechanics *see molecular vibration*

molecular internal rotation *see rotational isomerism*

molecular intersystem crossing *see nonradiative transitions*

molecular libration
see also macromolecular dynamics
AB_n molecules, torsional freq. and pot. barrier height 2−96538
acetone related mols., torsional pot. and dipole moment, conformational depend., ab initio calcs. 2−102663
L-alanine crystal, Raman spectroscopic temp. study of NH_3^+ torsional motion rel. to H-bonding 2−87779
amides, out-of-plane hydrogen bonded N-H group, temp. depend. band width 2−80736
anilinium halides, torsional and librational modes, inelastic neutron scatt., IR and Raman spectra 2−109923
benzene chromium tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene molybdenum tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene tungsten tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzenes, halogenated, in decalin, dielectric and far IR study, γ-process charact. 2−61892
biphenyl crystals, torsionally induced bands in Raman spectrum 2−87777
1-cyanoadamantane, plastic phase, internal modes, Raman study 2−99124
1,4-dichlorobenzene, lattice dynamics, rigid mol. approx. calcs., NQR and X-ray diffr. obs. 2−110693
EBBA, amorphous and cryst. phases, vibr. density of states 2−56141
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2−108469
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
p-(p-ethoxyphenylazo)phenyl alkanoates homologous series, far-IR absorpt. spectra 2−104865
ethyl halides, Raman intensities for torsional vibr. calc. 2−70255
ferrocene cryst., static disorder, mol. configuration, X-ray and lattice energy study 2−115207
m-fluoroanisole, anti rotamer, microwave spectrum and methoxy torsional freq., rot. consts. 2−96547
fluoromethane, matrix isolated, rot.-librational motion, IR obs. 2−90537
glyoxal, torsional mode, Franck-Condon factors, single vibronic level emission 2−108634
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
methane, solid, Raman spectra under high press., Gruneisen parameters 2−77502
methanol-d_3, torsion levels, Fermi reson., internal rot., Doppler limited IR obs. 2−85660
methyl silane, internal rot. studied by avoided-crossing mol. beam spectroscopy 2−108732
methylcyclopropane, torsional vibrs., Raman intensity calcs. 2−96577
methylene chloride, in decalin, dielectric and far IR study, γ-process charact. 2−61892
microvolt and millivolt molecular tunnelling spectroscopy by neutron scattering 2−71292
molecular crystals, elastic consts., noncentral force contrib., lattice dynamics 2−61084
m-nitroaniline crystal, polarised IR and Raman spectroscopic study, lattice vibrs. 2−87775
one-dimensional conductor, electron-libron modes, theory 2−103915
organic conductors, librons, review 2−86802
organic liquids, weakly assoc., orientational correl., depolarised Rayleigh scatt. 2−99138
PAA, amorphous and cryst. phases, vibr. density of states 2−56141
pinacyanol iodide, internal-conversion, fluoresc. lifetime temp. depend. meas. 2−108601
polar molecules in inert gas matrices, far-IR Fourier transform spectroscopy obs. of mol. motion 2−113977
propylene oxide, torsional vibrs., Raman intensity calcs. 2−96577

molecular libration continued
pyruvic acid, rot. transitions in first excited state, methyl group internal rot. 2−108456
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
styrene-β-D_2 vapour, single vibronic level fluoresc. and Raman spectra, torsional pot. function determ. 2−108613
toulene(-d_3), IR and Raman spectra, asymmetric stretching vibr. of $CH_3(D_3)$, torsional struct. anal. 2−70242
trifluoromethene, solid phase, spin-lattice relax., NMR study 2−110673
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2−77516
zinc formate dihydrate, librational modes of water, IR and Raman spectrosc. obs. 2−99101
CS_2, solid, intermol. modes, neutron and Raman scatt. studies 2−98211
HF-CO_2 (N_2O), Ar matrix isolated, librational motion, IR obs. 2−64971
H_2O, LF motions in low temp. matrices 2−75272
$KClO_4$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
$K_2P+(CN)_4Br_{0.3}.3.2H_2O$, NMR studies on cryst. water mol. motion 2−110652
$(K_2)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
N_2-type crystals, libration motion dynamics, anharmonic and correlation effects *(Russian)* 2−61082
N_2-type crysts., libration motion dynamics, SCF and harmonic approx. *(Russian)* 2−56103
$NaClO_3$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
ONOF, vibr. pot. function and struct. by normal coordinate anal. 2−108495

molecular librational states *see molecular libration*

molecular magnetic susceptibility
aromatic compounds, condensed, cryst. and mol. diamag. susceptibility and anisotropy calc. *(French)* 2−96770
aromatic molecules, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
benzene, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
coronene, soln., NMR spectra, dipolar mag. field effects 2−59819
exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methylpyropheophorbide, soln., NMR spectra, dipolar mag. field effects 2−59819
molecules, magnetic susceptibility anisotropies meas. by NMR 2−90733
organic compounds, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
organobimetallic compounds, $(SCN)_2Ni(NCSHgR)_2$, synthesis, elemental anal., IR and electronic spectra, mag. susceptibility 2−96571
pentacyclic mols., one-electron props., ab initio calcs. 2−64866
simple molecules, mag. susceptibility, chemical shift, HFC 2−54984
tetramethylsilane, mag. susceptibility, ^1H and ^{13}C chem. shifts, temp. depend. 2−80672
F_2, mag. props., electron correl. effects 2−108398
H_2 mag. props., electron correl. effects 2−108398
HF, mag. props., electron correl. effects 2−108398
O_2, exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560

molecular mass *see molecular weight*

molecular metastable states
anthracenes, $^1B_{3u}^+$ state delayed fluorescence, hetero-triplet-triplet annihilation 2−70321
chlorocarbene metastable states, high-resolution laser spectroscopy 2−75335
halocarbon ions, long lived electronically excited states 2−54779
2-iodo-2-trifluoromethylhexafluoropropane, electron predissociation of vibr. over-excited molecules *(Russian)* 2−54906
iodomethane(-d_3) metastable cation, unimol., collision-induced and photoinduced dissoc. 2−75467
ions, lifetimes meas. using photoion-photoelectron coincidence 2−108627
laser collision-induced gain enhancement 2−96881
organic solid solutions, burning out of metastable dips in absorpt. spectra, theory 2−91000
propane, collision induced dissoc., metastable ions, mass spectra 2−96749
triphenylene, excited triplet state IR spectroscopy 2−80596
Ar_3^+, metastable cluster ion, unimolecular dissoc., temp. depend., mass spectra 2−99650
ArN_2 cluster ions, unimol. and collision induced dissoc. 2−90759
$Ba+NO_2(N_2O)$, nascent metastable products, chemiluminescence study 2−93796
CO_2 cluster, collision induced dissoc., metastable ions, mass spectra 2−96749
CO_2 clusters, +ve and −ve, prod. using supersonic mol. beam source with β-emitter 2−90758
$^{12}C^{16}O_2$ spectroscopic constants of Fermi dyad $[10^0\nu_3, 02^0\nu_3]$ and laser sequence band transition wavenumbers 2−102479
$Ca^{35}Cl$, $A^2\Pi$ excited state hyperfine struct. 2−85839
H_2 $C^3\Pi_u$ metastable molecule formation in thyratrons 2−90465
H_3^+, IR spectra at dissoc. limit 2−64975
HI^-, time of flight mass spectrometric obs. 2−59971
H_2I^-, time of flight mass spectrometric obs. 2−59971
HOC^+, microwave spectra obs. 2−70235
$H_2S^+ \rightarrow S^+ + H_2$, metastable reaction, mechanism, product energy distrib., mass spectra anal. 2−57597
N_2, electrical breakdown induced by metastable states, expt. study 2−97813
N_2, metastable state from N recomb., collisional vibr. relax., electronic mutation 2−108684
NH_3-cluster ions, collision induced dissoc., metastable ions, mass spectra 2−96749
$N_2O^+* \rightarrow NO^+ + N$, metastable decay, mass spectrosc. obs. 2−93780
$Na_2(^3\Sigma_u^+)$ triplet molecule parameters 2−114067
O_2, $b^1\Sigma$ state deactivation by O_2 photolysis products 2−90617
O_2, magnetic dipole IR atmospheric bands 2−96551
O_2^+, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O_2^{2+}, ground and metastable states ion mobilities meas. in He, Ne 2−109451
PF($b\ ^1\Sigma^+$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050

molecular metastable states continued
SF_6, self-focusing 2−102885
SO_2, ion-mol. reactions, low pressure, metastable transitions, mass spectrosc. investig. 2−93781
SO_2*($\tilde{A}^1A_2$) fluoresc. quenching by He and Ar in supersonic jet 2−80715

molecular moments
acetone related mols., torsional pot. and dipole moment, conformational depend., ab initio calcs. 2−102663
acetylene, IR intensities, ab initio study, dipole moment derivatives 2−96553
s-cis-acrolein, microwave spectrum, rot. consts. and dipole moment 2−75242
alkali metal halides, molecules, spectroscopic constants and dipole moment calcs. 2−102561
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
4-(9-anthryl)-N,N-dimethylaniline, intramol. charge transfer, INDO/S CI and PCILO calcs. 2−90688
aromatic cpds., induced moments, polarisabilities and second hyperpolarisabilities, CNDO calcs. 2−108403
aromatic heterocyclic compounds, S-containing, proton, ^{13}C and ^{15}N chemical shifts, MO LCAO SCF method 2−75321
mono- and di-arylphosphine oxides, conformations, dipole moments, molar Kerr const. and refraction 2−75151
benzaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
benzaldehyde-phenols in carbon tetrachloride, association complexes, dipole moment studies 2−57605
benzophenone, dipole moments and electronic charge distrib., INDO calc. 2−75185
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
carbenes, highly polar, elec. dipole moments, semiempirical and ab initio calcs. 2−80449
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
4-cyano-2,6,N,N-tetramethylaniline, twisted internal charge transfer state fluoresc. 2−108615
N-(α-cyanobenzylidene)alkylamines, dipole moments, IR and PMR study 2−113983
N-(α-cyanobenzylidene)anilines, dipole moments, IR and PMR study 2−113983
cyanopolyacetylenes, elec. dipole moments, semiempirical and ab initio calcs. 2−80449
cyclobutane-$d_0(d_8)$, vibrs. geometry, force consts., ab initio HF calcs. 2−108349
cyclopentadienylindium, electronic struct., CNDO calcs., dipole moment and orbital energies 2−90453
diatomic molecules, dipole and transition moment, vibr. intensities 2−85625
diatonic mols., dipole moments, polarisability, IR rot.-vibr. spectra, appl. to sorbed mols. 2−80601
dielectric const. in fluids of classical deformable molecules 2−61811
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
3-dimethyl-amino-1-phenyl-2-propene-1-one, struct., H-bonds, dipole moments 2−114131
β-dimethylaminopropiophenone, struct., H-bonds, dipole moments 2−114131
diphenylamine and its ortho- and para-nitro derivatives, conformation calc. by atom-atom pot. method 2−75144
dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
dipole moments of groups, bonds and lone pairs, rel. to dielec. consts. 2−80836
dipole polarisabilities, mol. moments, HF approx. 2−108351
electric dipole polarisability, atomic Raman tensors, intensity sum rule 2−90432
electric field effects on molecular spectra 2−80580
electric-quadrupole radiation, possibility of observing higher polarisation moment relax. 2−108733
electron-molecule elastic scatt. operator, energy depend. 2−114104
formaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
formaldehyde-$d_0(d_2)$, dipole moment, polymerisation effect, IR obs. 2−70241
formaldoxime, infrared-infrared double resonance using an acousto-optic modulator 2−80690
formic acid, ν_3 vibr.-rot. band, Stark spectroscopy and laser microwave ODR, vibr.-rot. band 2−102516
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2−85715
formyl fluoride, ν_2 fundamental band, high resolution laser Stark and Fourier transform spectroscopy 2−108598
gases, in nonuniform electrostatic fields, dielec. theory 2−81442
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2−96546
group III/VII diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
group IV/VI diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
$(HCl)_2$, geometry, force consts., moments, ab initio SCF calcs. 2−80454
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
indole-pyridine(quinoline) NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
interacting systems, props., basis set superposition effects, dipole moments and polarisabilities 2−85768
intermolecular force, intermediate range separation, multipole moments, energy operators 2−54913
4-isocyanate-trans-stilbene, donor substituted, excited state, dipole moments, PPP calcs. *(German)* 2−64882
ketenimine, struct., electronic props., force consts., inversion barrier, nonempirical calcs. 2−64858
metal carbonyl compound $LFe(CO)_4$ where L is organophosphorous compounds, IR spectra, force const., mol. moment 2−80609
methane, microwave spectra, rel. to radioastronomy 2−75280

molecular moments continued
methanimino cation, rot. spectra and dipole moment from ab initio calcs. 2−85524
methanol-d, dipole moments, Q-branch transitions 2−90595
11-(methoxycarbonyl)-cyclohept[a]azulenylium tetrafluoroborate, MCD and IR absorpt. spectra 2−75337
methyl fluoride-$d_0(-d_3)$, optical-optical double reson., isotope effects 2−65024
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
3-methyl-4-nitropyridine-1-oxide, mol. crystal, nonlinear-optical props. obs. 2−65304
methyleneimine, laser Stark and interferometric studies 2−75333
muonic mols., deexcitation rates calc. *(Russian)* 2−70455
nonlinear semi-rigid, molecules, nucl. hyperfine interactions, mol. Hamiltonian calcs. 2−80461
nonlinear semi-rigid molecules, nucl. hyperfine interactions, effective Hamiltonian 2−80462
organic compounds, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
organic mols., dipole moments, atomic electron populations, ab initio MO theory 2−108329
2-oxopyrrolidin-1-ylacetamide, ab initio molecular energies and dipole moment anal. 2−70135
pentachlorophenolamine complexes, dipole moments, IR and UV spectra, solvent and temp. effects 2−80589
pentacyclic mols., one-electron props., ab initio calcs. 2−64866
poly(4-chlorostyrene), undiluted, temp. coeff. of the dipole moment 2−80855
poly-4-chlorostyrene-poly-4-methylstyrene copolymers, benzene solns., dipole moment temp. coeffs. 2−108748
polyatomic mols., fundamental IR absorpt. bands, vibr.-rot. transition intensities 2−90548
polyenes, induced moments, polarisabilities and second hyperpolarisabilities calcs. 2−108402
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propylene, potential-energy and dipole moment surfaces 2−102410
pyrrole pyridine(quinoline), NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
selenophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
spherical mols., dispersion induced dipole moments 2−96772
standard basis sets with polarisation functions 2−80429
tellurophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
1,1,2,2-tetramethoxydimethyldisilane, dipole moments, struct., refractometry study *(German)* 2−114135
tetrazole, annular tautomerism, electric dipole moment study, ab initio MO calcs. 2−96773
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2−64964
thioformaldehyde, laser Stark and interferometric studies 2−75333
thioformaldehyde-$d_0(d_2)$, average struct., dipole moments, quadrupole coupling, microwave obs. 2−85645
transition dipole moments calc. by biexcited CI method *(French)* 2−108407
triatomic linear molecule, vibr. g-factor theory 2−59780
vinylidene-fluoride-$d_0(-d_1)(-d_2)$, IR intensity meas., polar tensors and effective charges 2−102476
ArHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
Au_2, binding energies, equilib. distances and vibr. freq. calc. using density matrix method 2−114128
$BH(NH_2)_2$, microwave spectra and mol. struct. 2−108475
BaX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
BeH_2, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
CN, $A^2\Pi$ and $B^2\Sigma^+$ states, transition moments depend. on internuclear distance 2−85746
C_2N_2, stretching vibrs., freq. and IR intensities, anharmonic pot. energy functions, geometry and rot. consts. 2−96554
CO_2, quadrupole moment calc. 2−102432
COH^+, rot. spectra and dipole moment from ab initio calcs. 2−85524
CaCl, electric deflection obs. of ground state dipole moment 2−80844
CaCl, $X^2\Sigma^+$ ground state, hyperfine struct. studied by mol. beam and laser RF double reson. 2−70306
CaX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
Cl-like ions, electric dipole transition energies, wavelengths and oscillator strength for E1 transitions 2−79291
CsAu, binding energies, equilib. distances and vibr. freq. calc. using density matrix method 2−114128
DCN, vibr.-states, N isotope, dipole moments, laser Stark reson. spectra 2−90594
H, metastable, Lamb shift and molecular moments meas., spin polarised protons prod. 2−54778
H_2, magnetic shielding, dipole magnetisability tensor, LCAO-SCF calcs. 2−80464
H_2, quadrupole moment calcs. 2−102432
H_3BNH_3, ^{11}B, ^{10}B and ^{14}N nucl. quadrupole double reson. 2−80669
HCN, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HCN, isotope effects, dipole moments, vibr., SCF, MRD-CI calcs. 2−85563
HCl, vibr. transitions, rot. line strengths, quantum mechanical operators 2−75139
HCl-DCl isotopic pairs, dipole moment and polarisability, deuterium isotope effects 2−90735
HD in ground vibr. state, rot. spectrum, dipole moment 2−85634
HF, multipole moments and polarisabilities, CI and perturbation theory methods 2−75192
H_2O, IR spectra, computer plots of normal modes depending on time 2−80611
H_2O, vibr.-rot., quadrupole moment, g-factor, spin-rot., ab initio SCF calcs. 2−64867

molecular moments continued
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
H_2O_2, IR intensities, ab initio calculation, dipole moment derivatives 2−70243
$(H_2O)_3$, geometry, energetics and elec. props. 2−113878
$(H_2O)_4$, geometry, energetics and elec. props. 2−113878
$H_2S.HF$, struct., H bond stereochemistry, spectrosc. obs. 2−102499
HSO radical, Stark shift, fluoresc., electric dipole moment determ. 2−85713
$Hg\{Co(CO)_3L\}_2$ with L an organophosphorus ligand, stretching freq. and intensities 2−90505
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
KHe, model potential method used to compute ionisation energies and dipole moments 2−59967
KNe, model potential method used to compute ionisation energies and dipole moments 2−59967
Li_2, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
LiH, dipole moment, polarisabilities, electric field gradients and nuclear screening, bond length depend. 2−54763
LiH, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
LiH, $X^1\Sigma^+$ state, dipole polarisability function, complete active space SCF study 2−80458
MgHe system, ab initio CI pot. energy curves 2−80765
MgX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
N_2, $C^3\Pi_u$ state, $v'=1$ level perturbations and radiative props., time resolved study 2−80841
N_2, second positive system, band intensities, electronic transition moment 2−85632
NH_3-ND_3 isotopic pairs, dipole moment and polarisability, deuterium isotope effects 2−90735
$NH_2BH_2CO_2H$, and dimer, geometry, moments, pot., ab initio calcs. 2−85546
$^{14}N^{15}N$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
NeHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
O_2, quadrupole moment calc. 2−102432
OH, $A^2\Sigma^+$, $B^2\Sigma^+$ and $C^2\Sigma^+$ states, radiative lifetimes and dipole moments 2−102538
$^{16}O^{18}O$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
SF_6, electric dipole moment function for IR-active modes, ab initio calcs. 2−108510
SF_6, electrochromism data, dielectric virial coeffs. for excited states estimated from dipole moment changes 2−96771
SF_6, IR spectrum binary combination bands, absolute intensities 2−108509
SrX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882

molecular neutron diffraction *see molecular neutron scattering*

molecular neutron scattering
No entries

molecular nuclear coupling
acetoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
acetylacetonates, M(acac)$_3$ where M=Al, Ga and In, ^{13}C spin lattice relax. times, metal nucleus quadrupole coupling const. 2−102507
acetylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
aliphatic acetoxy radicals, long-range acetyl-proton coupling, EPR obs. 2−70301
alkoxy radical radiation products, g-tensor and H^+ coupling tensors 2−85695
alkoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
alkynyl mercury (II), chemical shifts, coupling consts., NMR 2−54880
5′-AMP, transverse relax., proton decoupling effects 2−80670
^{17}O-benzophenone, photoexcited, ODMR and ENDOR, orbital rot. in lowest triplet state 2−59831
borate glasses, ^{11}B NMR reson., satellites and shoulders 2−110662
3-bromothiophene, rot. consts., nucl. quadrupole coupling, hyperfine struct., microwave obs. 2−75246
bromotrifluoromethane; ground and excited states, rot., microwave obs. 2−59791
butadiene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butyronitrile, quadrupole coupling, hyperfine struct., microwave Fourier transform spectra 2−64965
ϵ-caprolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
chloroacetylene-d, hyperfine struct., beam maser meas., quadrupole coupling strengths, rot. consts. 2−108734
cubane, nucl. spin statistics, vibr. spectra 2−90573
cytidine 2′-phosphate, chem. shift and ^1H-^1H decoupling detect., effect of RNase 2−59825
2,5-dichloroanisole, small coupling consts., signs, ^1H NMR investig. 2−70287
o-difluorobenzene in nematic liq. crysts., struct., orientation, ^1H and ^{19}F NMR spectra 2−108571
dimers, H-bonded, ^2H and ^{14}N quadrupolar coupling consts., SCF MO calcs. 2−96449
2,6-dimethyl-3-nitroaniline, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
dipeptide, magic angle NMR, dipolar and scaled chem. shift interactions 2−108554
ethylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
ferredoxin, ^{13}C NMR subspectra, spin multiplicities, attached proton test appl. 2−108551
fluorobenzenes, containing free radicals, NMR relax. 2−54870
fluoroethylenes, solvent effect on spin coupling consts., FPT-INDO-solvation calcs. 2−113888
glycyl-L-alanine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
glycylglycine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504

molecular nuclear coupling continued
heteronuclear systems, remote nuclei detect. using relayed coherence transfer NMR 2−90571
hexatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
homonuclear spin systems, polarisation transfer and J-coupling, rel. to ^{13}C resons. 2−80667
indene, high-resolution ^1H NMR, anal. 2−65010
indirect nucl. spin-spin coupling tensor, symmetry rules 2−80678
inorganic systems, ^{29}Si, ^{27}Al, ^{11}B magic angle spinning NMR technique 2−82728
long-range coupling const., sign determ. using TINDOR triple reson. technique 2−58870
long-range H^+-^{13}C NMR spin coupling consts., appl. to mol. configs. study 2−85694
magic angle NMR, dipolar and scaled chem. shift interactions 2−108554
malonic acid, single crysts., EFGs, quadrupole coupling consts. and σ tensors, D NMR obs. 2−93023
methylammonium ion in liq. cryst., ^{14}N nucl. quadrupole coupling const. 2−80664
multimode vibronic coupling effects 2−80561
multiplicity differentiation, magic angle ^{13}C spin-echo J-modulation study 2−89778
octafluoronaphthalene, coupling consts., ^{19}F NMR study 2−90581
octatetraene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
organic compounds, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
organoselenium cpds. with C=Se double bonds, ^{77}Se NMR 2−65006
pentacyclic mols., one-electron props., ab initio calcs. 2−64866
peptides, aq. solns., proton connectivities investig. 2−80668
pheophytin a anion radical, liq. soln., hyperfine coupling, ENDOR and TRIPLE resons. obs. 2−108589
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propyne-d_1(-d_3), beam maser spectrosc. 2−90521
proteins, aq. solns., proton connectivities investig. 2−80668
2-pyrrolidone, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
spin-spin coupling, heteronuclear two-dimens. J spectroscopy 2−89773
symmetric top mols., rovibronic species, nucl. spin statistical weights 2−75313
tetrabutyldiphosphine disulphide, $^{31}P^{31}P$ indirect nucl. coupling anisotropy 2−108574
thioformaldehyde-d_0(d_2), average struct., dipole moments, quadrupole coupling, microwave obs. 2−85645
thymidine:5-thymyl radical, long-range spin interactions, ENDOR obs. 2−110731
trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2−90523
trimethylimidazole, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
trypsinogen, bovine, intramol. reorientation, ^{199m}Hg perturbed ang. correl. obs. 2−67938
unrestricted HF instabilities in nuclear spin spin coupling calcs., MNDO calcs. 2−85553
δ-valerolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
vinyl formate radical, γ-CH formyl-H^+ coupling, INDO-MO-SCF calcs. 2−90455
BH_4^-, nucl. spin-spin coupling tensors calcs. 2−108361
$B_{12}H_{12}{}^{2-}$, icosahedral struct., nucl. spin statistics, vibr. spectra 2−90573
^{13}C NMR triple reson. using simultaneous F and H^+ decoupling 2−80659
CN^-, $^1J(^{15}N,^{13}C)$ coupling, sign determ. 2−80674
^{13}C-^{13}C couplings, obs. with enhanced sensitivity, INEPT technique 2−65016
Cu^{2+}, compounds Cl NMR, elec. quadrupole interactions *(Japanese)* 2−70294
F^- aqueous ion, intermol. nuclear spin-spin coupling and scalar relax., quantum and statistical mech. calcs. 2−90641
$FClO_3^-$ radical, coupled transitions, higher order effects ESR spectra 2−90578
FSO_2 radical, coupled transitions, higher order effects ESR spectra 2−90578
$Ga(NO_3)_3$ in heavy water, ^{69}Ga and ^{71}Ga nuclei, mag. relax., quadrupole coupling const. 2−77405
H-bonded molecules, ^2D quadrupole coupling, ab initio SCF calcs. 2−80655
$H^{13}C^{15}N$, spin-spin coupling consts., magnitude and sign determ. 2−65008
HDO, hyperfine struct., beam maser meas., rot. transition freq. and deuterium quadrupole coupling tensor 2−80578
HF-Cl_2, struct., hyperfine consts., mol. beam elec. reson. 2−108553
$H_2{}^{17}O$ liquid, rot. correl. time, quadrupole coupling consts., PMR relax. study 2−85690
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
NH_2^-, nucl. spin-spin coupling tensors calcs. 2−108361
NH_4^+, ^{14}N Sternheimer antishielding factor meas. 2−70284
NH_4^+, nucl. spin-spin coupling tensors calcs. 2−108361
PH_2^-, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_3, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_4^+, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
^{31}P-^{31}P indirect nucl. coupling anisotropy 2−108574
Pt-Pb complexes, heteronucl. second-order coupling effects in NMR 2−80666
Pt(II) complex, cis-$(^{15}ND_3)_2Pt(OD)_2Pt(^{15}ND_3)_2{}^{2+}$, ^{195}Pt chem. shift and Pt-N coupling consts. 2−90575

molecular orbitals *see molecular energy levels*

molecular orbitals calculations
includes calculations of electronic and geometric molecular structure
see also APW calculations; EHT calculations; GO calculations; GTO calculations; HMO calculations; KKR calculations; LCAO calculations; NDO calculations; OPW calculations; PNO calculations; PPP calculations; STO calculations
1sσ molecular orbital direct ionisation, scaling law 2−90679

molecular orbitals calculations continued
acetylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
adenosine, vertical ionisation pot., UV PES 2−75354
alanine (-d_n), CH stretching vibr. circular dichroism, localised MO calcs. 2−108448
alcohol-water mixtures, H-bonding, ab initio MO calcs. 2−80469
alkenes, free radical addition, charge transfer and spin transfer during chemical bond form., MO anal. 2−99646
aminoalkyl radicals, ionisation pots., stabilisation energies, MO-SCF calcs. 2−96437
aromatic heterocyclic compounds, S-containing, proton, ^{13}C and ^{15}N chemical shifts, MO LCAO SCF method 2−75321
aromatic sulphinylamines electronic struct., PES and CNDO/S LCAO MO calcs. 2−85742
2-arylalkanoates, geometric and electronic struct., topographical similarity to cyclopropane carboxylates 2−75137
atomic Raman tensors, intensity sum rule, MO calcs. 2−90432
aziridines, N inversion barriers, hyperconjugation effects calcs. 2−96440
benzoid hydrocarbons, individual Kekule valence structs., graph-theoretical approach 2−80486
benzoid systems, individual Kekule valence structs., graph-theoretical approach to pseudodegenerate states 2−80487
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
bis(4-dimethylaminophenylimino)sulphur and struct. analogues, donor props., conform. anal., adduct form. with TCNQ 2−61454
bonding-antibonding charact., core electron binding energies and valence-shell ionisation pot. 2−75141
borepin, geometry optimisation, ab initio MO calcs. 2−108356
bullvalene, ab initio SCF MO calcs. 2−75181
carbonyl compounds, tetraatomic, lowest triplet state pot. surfaces, ab initio SCF MO calcs. 2−64872
carbonyls, excited states, electronic struct., INDO/2V_{N-1} pot. model appl. 2−59701
chloromethane, valence orbitals, momentum distribs. and separation energies 2−108371
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
conjugated compounds, CNDO and INDO method failure in conformational anal. 2−80481
coupled fragment MO method for interacting systems, rel. to frontier orbitals 2−59679
cyanogen-HF(HCl), H-bonded complex, dissoc. energies, ab initio SCF MO calcs. 2−64859
cycloheptatriene, geometry optimisation, ab initio MO calcs. 2−108356
cyclopentadienylindium, electronic struct., CNDO calcs., dipole moment and orbital energies 2−90453
cyclopentyl cation, non-empirical LCAO MO SCF investig. of ground and core-hole states 2−96445
cyclopropane-HF(HCl), H bonding, ab initio SCF-MO calcs. 2−96432
cytidine, vertical ionisation pot., UV PES 2−75354
density function method, rel. between electronic energy and one electron pot. 2−75148
diatomic molecules, two-electron integrals, elliptical basis set calc., LiH appl. 2−113879
dimers, H-bonded, ^{2}H and ^{14}N quadrupolar coupling consts., SCF MO calcs. 2−96449
dimethyl diselenide, torsional barrier heights, MO calcs. 2−102375
dimethyl ether-BF_3, electron donor acceptor complex, He I photoelectron spectra 2−90625
dioxa-bicyclo(5.1.0)octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2−59958
DMSO, bond lengths, S d orbital, geometry optimisation, ab initio calcs. 2−96444
electric field effects on mols., mol. geometry model 2−59723
electron densities, atomic orbitals, molecular orbitals representation, plotting program, in FORTRAN 2−64862
electronic structures. of solids, using mol. orbital techniques, CsCl structs. 2−54754
ethyl radical, conformational preference, ab initio UHF fragment interaction anal. 2−113876
ethylene chloride radical molecular SCF calcs. *(French)* 2−85534
ethylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
fluoroethylene, ionisation, binary (e,2e) energy spectra, Green's function study, chemical bond 2−80730
fluoromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
5-fluorouracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
formaldehyde, hydration, intermolecular interactions, SCF MO calcs. 2−85526
formyl cyanide rotational spectra from ab initio calcs. 2−59682
fragment matrix extraction for diatomics-in-molecules from ab initio calcs. on diatomics 2−75170
free radical complexes, interacting mol. orbitals and mag. reson. 2−80681
geometrical basis set for molecular computations 2−108353
$(H_8Si_2Al_2O_4)^{2-}$, zeolite model systems, nonempirical SCF MO studies 2−70142
heavy ion+atom, double-collision processes, scatt. angle depend. 2−102595
hybrid two-centre integrals, over Slater-type orbitals, computer generated formulas 2−80444
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
isocyanic acid, rotational spectra from ab initio calcs. 2−59682
localised basis sets, derivation from equivalent symm. adapted basis sets 2−80419
localised molecular orbital construction method 2−75159
metal phthalocyanines-formic acid, complexing ability, VB and MO calcs., IR obs. 2−90551
methanimino cation, rot. spectra and dipole moment from ab initio calcs. 2−85524
methyl cation, triplet state, struct., inversion barrier, ab initio MO theory 2−108354
methyl ion+methane, gas phase reaction, mechanistic study, ab initio MO calcs. 2−99647
methyl symmetric stretching vibr. in simple mols., IR spectra, MO calcs. 2−96566
(S)-3-methyl-2-p-fluorophenylbutyric acid, geometric and electronic struct. 2−75137
molecular orbitals calculations continued
5-methyloxyuracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
methylsulphuryl radical, electronic struct. ab initio SCF-MO calcs. 2−85533
model potentials in mol. calcs. 2−59690
model potentials in mol. calcs. 2−59691
momentum density maps for molecules 2−108347
nitritomethane, rotational isomers, ab initio mol. orbital calc. 2−75177
nitromethane, photoelectron angular distrib. and PES assignments 2−102531
non-orthogonal localized orbitals to study delocalization effects 2−90439
nonalternate hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nonbenzoid hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nucleophilic attack on digonal, trigonal and tetrahedral systems, frontier orbital theory appl. 2−72942
open-shell LCAO-MO-SCFC calcs., scaled one-electron Hamiltonian model, comparison with Roothaan restricted open-shell method 2−80483
open-shell molecular systems, construction of effective Hamiltonian, unrestricted HF orbital appl. 2−64847
organic compounds, struct., rot. barriers, STO-3G MO calcs. 2−108350
organic cpds., ground state reactions, HF MO theory 2−116687
organic ion radical semicond., trimerised, electron-mol. vibr. coupling 2−96536
organic mols., dipole moments, atomic electron populations, ab initio MO theory 2−108329
2-oxopyrrolidin-1-ylacetamide, ab initio molecular energies and dipole moment anal. 2−70135
pentatriacontane, adsorpt. on 100 face of alkali halides, SCF Mo simulation *(French)* 2−76809
perturbation formalism based on local Brillouin theorem to study delocalisation of bond orbitals 2−108343
polarisation function additivity and electron correl. effects in ab initio MO calcs. 2−96424
polyatomic molecules, localised atomic orbitals for atoms in molecules 2−54760
polydiacetylene model systems, excited states correl. effects 2−80493
polymorphic phase transitions, Woodward-Hoffmann orbital correl. diagrams 2−81952
pyrene, excited singlet and excimer states, absorpt. bands 2−102462
SAMO method, comparison with transferability of atomic potentials method 2−108344
second-order perturbation energy, calc. from external double excitations, CASSCF calcs 2−64887
semiconductor, sphalerite type, SHG const., equivalence of LCHO model and Phillips' theory 2−108959
simple molecules, mag. susceptibility, chemical shift, HFC 2−54984
standard basis sets with polarisation functions 2−80429
structural sorting diagram interpretation for AB compounds 2−81696
sulphones, ab initio MO calcs., geometries 2−90438
tetrazole, annular tautomerism, electric dipole moment study, ab initio MO calcs. 2−96773
thioformaldehyde, substituent effect on ionisation pot. 2−90739
thioformaldehyde-$d_0(d_1)(d_2)$, ground and triplet states, vibr., SCF MO calcs. 2−85539
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
thymidine, vertical ionisation pot., UV PES 2−75354
thymine, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
transition metal carbene complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
transition metal carbyne complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
transition metal fragments, MO electronegativities calc. using transition operator method 2−59968
transition metal ion-H_2O(amine) complexes, semiempirical CNDO calc., σ-donor ability of H_2O 2−80482
transition metal-H_2O complex, ab initio SCF MO study, Solomon-Bloembergen eqn. appl. 2−70137
s-triazine, π-and n-cations, Jahn-Teller distortion, ab initio MO calcs. 2−96473
trimethylenemethane derivatives, excitation energies calcs. 2−108410
trioxa-bicyclo(5.1.0) octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2−59958
uracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
uridine, methylated, vertical ionisation pot., UV PES 2−75354
vibrational freqs. and harmonic force consts., mol. orbital calcs. 2−80443
vinylguanidinium ion, ab initio MF-SCF-MO calcs. 2−113865
Al_{13} clusters, cubo-octahedral, electronic struct. calc. 2−82269
$Al_{12}V$ clusters, cubo-octahedral, electronic struct. calc. 2−82269
Al−O−Al, linkage stability in zedites, MO STO-3G calcs. 2−64871
BH_3, generalised localised at. orbitals in closed shell mols. 2−54761
Be, chemisorpt. of atomic H, on (0001) surface, mixed basis set calcs. 2−110138
$BeAlF_5$, struct. and pot. energy surfaces, ab initio MO studies 2−54757
BeFH, fragment matrix extraction for diatomics-in-molecules from ab initio calcs. on diatomics 2−75170
Br_2^{2-}, ab initio interaction polarisability and pair pot. 2−75179
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
CO, importance of f basis functions in molecular electron correl. energy calcs., diagrammatic perturbation body 2−59713
CO_2, oxygen K hole photoionisation cross section 2−96647
COH^+, rot. spectra and dipole moment from ab initio calcs. 2−85524
COS, Rydberg state assignments 2−70138
CO_2...HCl, ab initio SCF MO study, H-bond energies 2−54766
CO_2...HF, ab initio SCF MO study, H-bond energies 2−54766
Ca^{2+}, hydration shells, nonadditive effects 2−80457
chloromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
$Co_3(CO)_9(\mu_3\text{-}CH)$, CH fragment orientation calc., implications for metal surfaces 2−108373
Cr complexes, $Cr_2(O_2CCH_3)_4$, photoelectron spectra, interpretation using ab initio MO calcs. and correl. effect 2−96635
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
Cu halide ligand hyperfine interactions, MO calcs. 2−70139
$CuFeS_2$, electronic struct., X-ray emission and XPS study and Xα calc. 2−92455

molecular orbitals calculations continued
Fe-S proteins, electronic struct. calc. on active site models 2−108746
H_3, orbital stabilisation energy, semi-empirical MO calcs. 2−64881
HCNO, pot-functions, equilib. functions, ab initio MO calcs. 2−90441
HCl, electronic spectrum assignment, ab initio CI calcs. 2−70211
HN_3, rotational spectra from ab initio calcs. 2−59682
HNO_2, rotational isomers, ab initio mol. orbital calc. 2−75177
H_2O, geometrical basis set calcs. 2−108353
H_2O, localised orbitals, rel. to Fermi hole 2−113877
H_2O+Li_2O reaction surface, ab initio MO calc. 2−83368
$HOCO^+$, rotational spectra from ab initio calcs. 2−59682
$(H_8Si_3AlO_4)^-$, zeolite model systems, nonempirical SCF MO studies 2−70142
$H_8Si_4O_4$, zeolite model systems, nonempirical SCF MO studies 2−70142
H_2SiSi and its isomers, stability and bonding, generalised valence bond pot. study, SCF MO calc. 2−64884
^3H containing mol., electron shell restructuring due to β-decay, probability calcs. 2−79983
$He+H_2(D_2)$, collision spectrosc., triatomic mol. orbital promotion model 2−96691
$He+He^{2+}$ collisions, quasimolecular states, calc. using diabatic MO basis set 2−70384
$He^++H_2(D_2)$, collision spectrosc., triatomic mol. orbital promotion model 2−96691
IF_7, struct, vibr. assignment, and intramol. forces, pseudopot. SCF-MO studies 2−75171
KBr, ab initio interaction polarisability and pair pot. 2−75179
KCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
Li-Lewis base complex, struct. and props., ab initio unrestricted HF MO calcs. 2−75172
LiBr, ab initio interaction polarisability and pair pot. 2−75179
Mg^{2+}, hydration shells, nonadditive effects 2−80457
$MgAlF_5$, struct. and pot. energy surfaces, ab initio MO studies 2−54757
MgO:Li, struct. and electronic props. of minute Li aggregates *(French)* 2−61391
$^{24}Mg(^{17}O, ^AO)$, A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
$^{25}Mg(^{16}O, ^AO)$, A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
Mo complexes, $Mo_2(O_2CH)_4$ and $Mo_2(O_2CCH_3)_4$, photoelectron spectra, interpretation using ab initio MO calcs. and correl. effect 2−96635
NH^-, excited state, Feshbach resonances, QDMBPT 2−85540
N_2H_2, generalised localised at. orbitals in closed shell mols. 2−54761
NHDT, vibrational intensities, dichroism, Raman, IR spectra, orbital polarisability model 2−108451
N_2O_5, struct., ab initio restricted HF SCF MO calcs. 2−59685
NaBr, ab initio interaction polarisability and pair pot. 2−75179
NaCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
$NiCl_2$, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
NiO, basis sets and basis set superposition error investigated using frozen core and frozen orbital techniques 2−96412
OH^-, excited state, Feshbach resonances, QDMBPT 2−85540
$PdCl_4^{2-}$, electronic struct., non-empirical pseudopotential methods 2−96446
Pt (100), catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
Pt surface (111), CO chemisorpt. and oxidation, mol. orbital study 2−98463
$Pt(PH_3)_4$, catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
RuF_6^-, total electron density model, Xα scatt.-wave method 2−80466
RuO_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
SCO...HCl, ab initio SCF MO study, H-bond energies 2−54766
SCO...HF, ab initio SCF MO study, H-bond energies 2−54766
SF_6, electric dipole moment function for IR-active modes, ab initio calcs. 2−108510
ScO, basis sets and basis set superposition error investigated using frozen core and frozen orbital techniques 2−96412
SnO, $(X^1\Sigma)$ state, gas phase high temp. photoelectron spectroscopy 2−80724
Ti complex, Zregler-Natta catalysts, reaction path SCF-X_α-SW MO study 2−108377
$TiCl_4$ total electron density model, Xα scatt.-wave method 2−80466
TiI_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
UO_2^{2+}, electron transfer bands, wave numbers, relativistic calcs. 2−96475
$UO(UO_2)$, gaseous, relativistic mol. orbital calcs. 2−90448
VCl_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741

molecular orientation
acetylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
p-n-alkoxy benzylidene-p-amino benzoic acid, smectic C phase, chain ordering, X-ray diffr. study 2−86553
alkoxybiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
anthracene-tetracyanobenzene, triplet-exciton transport between differently oriented sites, EPR 2−116054
benzene, adsorption on Pt{001}, angle-resolved photoemission meas. 2−56340
binary liquid mixtures, quadrupolar and dipolar elec. field effects 2−66922
carbon tetrabromide, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
chlorobenzene, adsorption on Pt{001}, angle-resolved photoemission meas. 2−56340
cholesteric and blue phases, relative order parameters 2−86560
cholesteric liquid crystals, planar texture, field-induced instability calcs. 2−55835
cholesteric mesophase, dipole-dipole interaction, to orientational ordering 2−55845
cholesteric mesophase induced by chiral probe, ESR obs. 2−76279
cholesteric phases, helical alignment of field depend. structs. 2−76291
cholesteryl benzoate (laurate), refr. indices, densities, polarisabilities, and mol. order 2−60876
4-cyano-4′-alkylbiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
cyanobiphenyls, nematic, smectic, and reentrant nematic phases 2−66217
cyclohexane, liq., degenerate vibrs., rot.-vibr. relax. 2−93173
cyclopropane adsorbed on Ru (001), orientation and symmetry, EELS and photoelectron spectroscopy 2−78130
2′-deoxy-2′-fluorocytidine, crystal struct. determ. from 3-D X-ray data 2−91940
di-alkoxyazoxybenzenes, homologous series, nematic phase, high-press. thermodynamic meas. 2−71342
dichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2−86536
discotic liquid crystals, longitudinal fluctation of order parameter 2−76287
disodium cromoglycate, in mag. fields, lyotropic cholesteric and nematic phases 2−76284
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
ethylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
at gas-liquid interface, for model fluids 2−115496
graphite with physisorbed N_2, quadrupole bilayer orientational phases 2−92350
hard cyclic hexamer system, rotary, phase, phase transitions, expt. modelling study 2−115155
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
hexapentoxy-triphenylene, discotic columnar mesophase, mol. ordering, ^{13}C NMR study 2−71336
N-p-hexyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
intermolecular H^+ transfer between equivalent mols., diffusion induced tunnelling 2−88339
liq. cryst.-glass interface, total internal reflection to transmission switching 2−65846
liquid cryst., mol. phys. rel to device appls. 2−76302
liquid cryst. alignment on Al_2O_3 surfaces, tilt angle, conoscopic method 2−71344
liquid crystals, composed of non-rigid mols., relationship between second and fourth rank order parameters 2−60879
liquid crystals, dye-doped, electronic absorpt. spectra, intermol. interactions anisotropy effects 2−110886
liquid crystals, hexatic order and herring-bone packing 2−81670
liquid crystals, molecular tilt, mean field study 2−71343
liquid crystals, orientation effect of substrate surfaces *(German)* 2−86563
liquid crystals, rigid molecule model of phase transitions mol. shape effect 2−66216
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
MBBA, homeotropic, mag. field-stimulated anisotropy of DSM2-front propagation 2−97910
MBBA liq. cryst., fluctuations, phase transition, electroreflection method 2−76305
mesogenic fluids, small angle X-ray anal. of orientation fluctuation 2−76281
mesomorphism, concept of superpositional state 2−76289
mesonic mols., flexible, orientational ordering, local order tensor 2−86550
methyl iodide in seeded supersonic beam, focusing, rot. state selection and orientation 2−85616
naphthalene molecules, adsorbed on Pt(111), mol. orientation determ. by packing energy calcs. 2−87055
nematic fluids, Flory statistical mechanics, steric effects 2−60873
nematic homeotropically aligned cell in DC elec. field, alignment deterioration and surface props. meas. 2−115133
nematic liq. cryst., alignment on anisotropic substrate, Van der Waals forces, interfacial free energy 2−55840
nematic liq. cryst., alignment props., additives and surface topography effects, expt. study 2−109663
nematic liq. cryst., orientation degree and direction, polarisation absorption spectroscopy technique 2−115134
nematic liq. cryst., orientation statistics and nematic-isotropic transition 2−103620
nematic liq. cryst., tilt bias angle determ. by Rayleigh line intensity ang. distrib. 2−91764
nematic liq. crystals, order parameter fluctuations and mol. anisometry, Raman study 2−103619
nematic liquid crystal orientation, effect of US 2−109673
nematic liquid crystals, molecular alignment effect of obliquely evaporated SiO film struct. *(Japanese)* 2−92403
nematic liquid crystals, orientation in AC elec. field, IR absorpt. spectra 2−97908
nematic liquid crystals, stiffness consts. based on distributed harmonic forces between molecules 2−81870
nematic liquid crysts., equilibrium props. and phase transition 2−60874
nematic liquid crysts., order parameter and hydrodynamic viscosity temp. depend. 2−71337
nematic lyotropic liq. cryst., magnetically aligned, mol. motion, ^2D NMR study 2−81665
nematic-smectic A phase transition, microscopic theory, short-range order effects 2−103992
nitrobenzene, liq., mol. alignment, electric saturation, NMR study 2−56947
4-nonanoate 4′-cyanobiphenyl, bilayer S_A phase, tilted monolayer cybotactic groups evidence 2−55842
NPOOB liq. cryst., fluctuations, phase transition, electroreflection method 2−76305
6OCB-8OCB, reentrant nematic phase, ^1H spin relax., freq. depend. 2−93033
N-p-octyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
octyloxycyanobiphenyl, nematic, surface smectic A order, synchrotron X-ray diffr. study 2−71341
organic dipolar solutes in decalin soln., mean square torques, far-IR study 2−93178
organic prolate mols., rot. motion in soln., luminesc. study 2−104966
organic-inorganic intercalation cpds., low dimensional, photopolymerization 2−92584
orientational instability of liquid crystals in acoustic fields 2−109674
PAA polymeric additives, effect on viscosity, mol. wt. depend. *(German)* 2−98324
4-n-pentyl-d_{11}-4′-cyanobiphenyl liq. cryst., orientational ordering at high press. NMR 2−89779

molecular orientation continued
4′-N-p-pentyloxycarbonyloxy-benzylidene amino velerophenone, order parameters and distrib. function in smectic A phase, X-ray diffr. study 2−103606
perylene red mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
1-phenylethanol, in MBBA liq. cryst., orientation, D NMR 2−80663
phthalocyanine mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
poly(γ-benzyl-L-glutamate), orientation behaviour in electric field 2−71335
polycarbonate-copolyester miscible blends, mech. props. 2−72775
polyesters, thermotropic liq. cryst., orientation in high mag. fields 2−103607
polyethylene, irrad., struct. orientation in deform., in air and CCl_4 2−67457
polyethylene melt, shear-induced anisotropy in thermal cond. 2−110053
polyethylene terephthalate-p-acetoxybenzoic acid copolyester, oriented liq. crystalline, struct. anal., wide angle X-ray scatt. 2−109671
polymers, biaxially oriented, orientation distrib., functions calc. 2−109697
polymers, solid structure, cross-polarisation ^{13}C NMR spectroscopy 2−86592
polypropylene films, uni- and biaxially oriented, struct. and props. 2−86593
PTFE films, macromol. orientation, IR investig. *(Russian)* 2−110873
quadrupole bilayer orientational phases 2−92350
randomly oriented mols., optical activity 2−108637
smectic A to C transitions, orientational order, refractive indices meas. 2−86869
smectic B phase, local dipolar order induced by steric effects, dielec. correl. factor 2−91768
smectic phases, biaxially ordered, magneto-aligned, NMR spectral patterns 2−104716
TBBA, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
thermotropic liquid crystals, methylene groups orientational ordering theory 2−81669
thiourea complexes, chemisorbed on Cu and Ag electrodes, surface enhanced Raman spectroscopy 2−93811
transition metal complexes, orientation effects in EPR powder samples induced by the static magnetic field 2−104686
trichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2−86536
B_2O_3 vitreous films, mol. orientation, Raman spectra study 2−87757
CO, in solid α-CO, vibr. transition line broadening by diagonal disorder 2−90631
$Co_3(CO)_9(\mu_3\text{-}CH)$, CH fragment orientation calc., implications for metal surfaces 2−108373
2′-deoxy-2′-fluorouridine, crystal struct. determ. from 3-D X-ray data 2−91940
$Fe(CO)_5$, adsorbed (0001) graphite, dynamical props., Mossbauer study 2−56342
GaAs, cylindrical sample, adsorpt. of O_2, orientation depend., AES meas. 2−115565
H_2, solid, NMR pulse study, solid echoes and orientational ordering 2−110726
H_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
HNO_3 in graphite intercalation cpds., nucl. reson. scatt. study 2−103724
H_2O, mol. motion, activation energy temp. depend., pulse NMR method obs. 2−93024
$H_2{}^{17}O$ liquid, rot. correl. time, quadrupole coupling consts., PMR relax. study 2−85690
$KCN_xBr_{1-x}(Cl_{1-x})$, acoustic soft modes, US vel. meas. 2−81926
$K_{0.01}Na_{0.01}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
N_2, liquids, mol. vibr. dephasing rates, mol. orientations and attraction effects 2−97895
N_2, NMR linewidths, rot. and orientational relax. times, J-diffusion theory appl. 2−114015
N_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
NH_3, adsorbed on Al(111), clean and pre-covered, struct. and orientation 2−82122
$^{15}N_2$, HCP, orientational props., NMR study 2−77396
$^{15}N_2$, solid, NMR pulse study, solid echoes and orientational ordering 2−110726
Pt (100) CO chemisorption, mol. orientation, UPS study 2−98455
SF_6 in low temp. Xe matrix, preferred orientation, IR obs. 2−59798

molecular photodissociation
acetylene, isotopically labelled, fragmentation, visible-UV emission study 2−85756
acrolein supersonic molecular beam at 193 nm, laser photofragmentation dynamics 2−96656
acrylonitrile mol. beam, VUV laser photofragmentation, one-, two- and three-photon processes 2−96657
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
n-alkanes, mass spectrometric fragmentation, statistical theory test 2−102669
aromatic mols. adsorbed on Ag (110) surface, enhanced photofragmentation, Raman study 2−116725
benzaldehyde, excited states, nucl. config. effect on two-step photoionisation 2−114055
benzene, multiphoton ionisation and fragmentation, UV-laser induced 2−96651
1-bromopropane-BCl_3, dissociation under CO_2 laser irrad. *(Chinese)* 2−59866
bromotrifluoromethane, IR multiphoton dissoc. at high temps. 2−116717
bromotrifluoromethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
butadiene cations, laser photogragmentation study at 5145 Å, vibr. predissoc. 2−96659
carboxymyoglobin, photodissociated, IR spectra at low temp., haeme pocket behaviour 2−105657
carboxymyoglobin ligand photodissociation, kinetics and temp. dependence 2−68048
1-chloro-1-fluoroethylene IR laser photolysis, press. and power depend., expt. and modelling calcs. 2−102550
chlorodifluoromethane IR multiphoton dissoc., time scale and product energy at steady state 2−111501
molecular photodissociation continued
chloropentafluoroethane, multiple-photon excited, quasicontinuum struct. 2−59783
chloropentafluoroethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
chlorotrifluoromethane, IR multiphoton dissoc. at high temps. 2−116717
diatomic molecules, multiphoton dissociation, time independent quantum mechanical theory 2−102556
dichlorodifluoromethane fragmentation, multiphoton ionisation photoelectron obs. 2−70333
dichlorofluoromethane, multiple photodissoc. for H isotope separation 2−75447
diiodomethane, photolysis, yield of $I(^2P_{1/2})$ 2−99689
diiodomethane, UV laser multiphoton excitation, photofragment fluoresc. 2−114058
dimethyl mercury, laser photodissoc., methyl radical prod., vibr. and rot. excitation, IR emission studies 2−96653
ethanol dissoc. characts. in strong IR CO_2 laser field *(Chinese)* 2−96652
ethanol ionic dissociation studied by photoelectron-photoion coincidence spectroscopy 2−75468
ethyl acetate, multiphoton dissoc., master eqn. description 2−96654
ethyl chloride cation, laser photofragment at 5145 Å 2−83398
fluorene:?acridine, photochemical H abstraction from fluorene, kinetic 2−57627
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
formaldehyde, photodissociation, rot. excited CO, fluoresc. obs. 2−108645
Freon-11 in gas mixtures, multiphoton dissoc., electronically excited C_2 radical form 2−85757
gases, axial particle density gradient formation by laser induced photodissoc. 2−116713
half collisions in mol. photodissoc. 2−59870
hydrocarbons, halogenated, laser UV photofragmentation, selective bond dissoc. and wavelength specific quantum yields for I and Br 2−70360
hydroxipyrenetrisulphonate, $HClO_4$ soln., dissoc., protonation, rot. diffusion, phasefluorimetric study 2−78119
2-iodo-2-trifluoromethylhexafluoropropane, electron predissociation of vibr. over-excited molecules *(Russian)* 2−54906
iodobenzene cations, two-photon visible dissoc. 2−70364
iodomethane($-d_3$) metastable cation, unimol., collision-induced and photoinduced dissoc. 2−75467
ions generated by electron ionisation, photodissoc. in ionisation chamber of double focusing mass spectrometer 2−113032
isocyanic acid, photodissoc. at 193 nm, CO formation dynamics 2−62411
ketene, molecular beam photodissoc., methylene singlet-triplet energy splitting 2−70358
ketene, photodissoc. at 193 nm, CO formation dynamics 2−62411
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
line shapes, photodissoc. and photodesorpt. 2−80744
methane, photodissociative channels at 1216 Å 2−111498
methyl iodide, photodissoc., exact time-dependent wave packet propagation technique appl., Raman scatt. 2−70356
methyl iodide, photofragmentation dynamics, IR spectra, vibr. distrib. of methyl(ν_2) umbrella mode 2−73003
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
methyl radical, umbrella mode, photofragment IR emission spectroscopy, vibr. progression and pot. parameters 2−72997
multilevel system of band type, laser radiation action 2−65061
nonafluorobutylbromide IR multiphoton dissoc., nonafluorobutyl radical generation 2−116716
organic iodides, UV photodecomposition in nuclear facility off-gas beams 2−74839
organic liquids exposed to moderate-intensity optical radiation, free C form. mechanism 2−116714
particle concentration longit. gradient increase under laser vel.-selective photodissociation 2−70361
polarized photofluorescence spectroscopy with circularly polarized light appl. 2−54892
polyatomic molecule collisionless dissociation, laser isotope separation 2−65100
polyatomic molecule selective excitation and dissociation, appl. of tunable NH_3-N_2 laser 2−96997
polyatomic molecules, multiple-photon excitation rel. to laser-induced chemistry and isotope separation 2−85760
polyatomic molecules, photodissociation, vibr., adiabatic approach 2−85753
polyatomic molecules, vibr. levels rel. to isotopically selective collisionless dissociation 2−64953
positive ions, photoexcited, average internal energy, source temp. effect 2−116710
2-propanol, protonated dimer, multiphoton dissoc., mass anal. 2−80742
propylene oxide, primary decomposition to singlet methylene, laser-induced fluoresc. obs. 2−108647
retinol, all-trans, photodissoc. processes, biphotonic origin 2−116718
triatomic linear mol., photofragments, inverse vibr. distribs. 2−59869
trichlorofluoromethane, fragmentation, multiphoton ionisation photoelectron obs. 2−70333
trifluoroacetonitrile, rovibronic excitation, IR multiple photon dissoc. 2−96660
trifluoroiodomethane cation, electronic states multiphoton dissoc., photon-photoelectron coincidence study 2−65058
trifluoronitrosomethane, state-selective photodissociation dynamics, visible obs. 2−65060
trimethylamine, molecular beam photodissoc. isotropic ang. distrib. 2−96658
unimolecular dissociation, first passage times and kinetics, multiphoton dissoc. 2−83366
vinyl cyanide, IR multiphoton dissoc., fragment internal energy, pulse intensity distrib. effect 2−108648
vinyl cyanide IR multiphoton dissoc., fragments internal state distrib. effect 2−59872
BCl_3 isotopically selective dissoc. in strong IR laser field *(Chinese)* 2−65057
BCl_3-methanethiol, IR multiphoton dissoc. 2−70359
Br_2 steady-state saturated photodissoc. in high-power Ar^+ laser radiation field 2−96663
Br_2-CO_2-He solar-pumped electronic-to-vibrational energy transfer lasers 2−80933
CH^+, IR spectra near dissoc. limit 2−64974
CO_2 in inert gas matrices, vacuum UV photolysis 2−108602

molecular photodissociation continued
CO_2, laser-induced multiphoton dissoc., energy pooling, temp. effects 2−102555
COS, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
CS_2, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
CS_2, multiphoton ionisation and fragmentation mechanisms 2−108649
CS_2, UV photodissoc., S excited state study by flash photolysis 2−59719
Ca_2 photodissoc., coherence effect rel. to Ca at. fluoresc. polarisation *(French)* 2−96498
CdI_2 photodissociation to obtain CdI, Cd laser transitions 2−55136
CsI, Cs atom orientation depend. on exciting light parameters 2−70362
Cu_2, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
D separation by 2,2-dichloro-1,1,1-trifluoroethane multiple-photon dissoc. in two-freq. CO_2 laser field *(Chinese)* 2−96753
F^-_3, methanol solvate, IR multiphoton dissoc. 2−85755
H_3^+, IR spectra at dissoc. limit 2−64975
HCN, C-state, photofragment fluoresc. spectrum 2−85754
HCl_2, electronic struct. and photodissoc. 2−102376
HD^+ absorpt. spectra, charge exchange, photodissoc. 2−54833
HD^+, vibr. rot. spectroscopy 2−80840
HF, multiphoton dissociation, time independent quantum mechanical theory 2−102556
HI, photodissociation, H Lyman-α line by fluoresc. Doppler obs. 2−54800
HO_2, photodissoc. at 193 and 248 nm, $O(^1D)$ obs., quenching rates 2−72999
$H_2O \rightarrow O(^1D_g)+H_2(^1\Sigma_g^+)$, photodissoc., pot. energy surfaces, MRD CI calcs. 2−90636
H_2O, photodissociative channels at 1216 Å 2−111498
$HgBr_2$ photodissociation laser, spectral props. 2−70554
$HgBr_2$ photodissociation by ArF laser, superfluoresc. laser action at 404.7 nm from Hg 2−96934
$HgBr_2$ photolysis, Hg prod., time resolved study 2−93801
HgI_2 vapour photodissociation for blue-green Hg laser 2−96937
I CW photodissociation laser with cyclic circulation of gaseous trifluoromethyl iodide 2−96987
I_2Ar van der Waals complex, photodissoc. cage effect 2−96661
IBr+Xe reaction, steric effect, photodissoc. polarisation obs. 2−111477
ICN, photodissoc. and Raman scatt., semiclassical theory of radiation interaction 2−70357
N_2, multiphoton ionisation by Nd-glass laser 2−65056
ND_3, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
NH_3, photodissociative channels at 1216 Å 2−111498
NH_3, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
NO_2, excited states, nucl. config. effect on two-step photoionisation 2−114055
NO_2, optically excited, IR multiphoton pumping dynamics 2−102546
NO_2, photodissociation, fluoresc. and UV obs. 2−80712
NOAr, direct photodissociation, fluoresc. spectra 2−59874
NOCl, UV photodissociation, vibr. excited NO form., inert gas quenching 2−83360
NOHe, direct photodissociation, fluoresc. spectra 2−59874
NONe, direct photodissociation, fluoresc. spectra 2−59874
NaH, photodissociation, fine struct., ang. distrib., quantum mech. calcs. 2−108646
NaOH photolysis in upper stratosphere, photodissoc. coeff. 2−100451
O_3^-, laser photodissoc. and O_3 ion energetics 2−102554
O_3^+ photodissoc. curve 2−83397
PH_3, excited states, photodissociation, ab initio HF and CI calcs. 2−85561
SF_6, clusters, vibr. predissociation, IR obs. 2−55005
SF_6, excitation and dissociation in IR laser field, spectral characts. 2−108639
SF_6, highly vibrationally excited, single photon excimer laser photodissoc. 2−96664
SF_6, IR multiphoton excitation and dissoc. 2−59871
SF_6 $\nu_2+\nu_6$ combination band multiple photon excitation in bulk and pulsed free jet 2−96670
SO_2, multiphoton photofragmentation at 248 nm 2−102557
$SnCl_2$, photofragmentation, pot. surface time of flight spectra 2−65059
Tll photodissoc., CO_2 effect on Tl line 2−96503
Tll photodissociation for Tl laser, radiation trapping and collisional de-excitation effects 2−96938
Tll-Hg mixture, two photon dissociation, atomic Tl laser and Tl-Hg excimer formation 2−90875
UF_6, IR multiphoton absorpt., laser isotope separation of U 2−75453
UF_6, two-colour IR isotopically selective decomp. 2−75448

molecular polarisability
see also molecular moments
adsorbed centrosymmetric mols., optical SHG 2−108964
aliphatic hydrocarbons, ground state mol. polarisability calc. 2−59964
alkali metal halides, molecules, spectroscopic constants and dipole moment calcs. 2−102561
n-alkanes, soln. and gas phase, intramolecular interactions, polarisabilities, light scatt. 2−55698
trans-4-alkyl(4-cyanophenyl)-cylohexanes, nematogenic homologous series, orientational order 2−109665
2-amino-4, 6-dichloropyrimidine, bond and mol. polarisability, struct. 2−59965
aromatic cpds., induced moments, polarisabilities and second hyperpolarisabilities, CNDO calcs. 2−108403
aromatic hydrocarbons, ground state mol. polarisability calc. 2−59964
atom-in-molecule polarisabilities, modified CNDO/2 calcs. 2−96458
benzene, molecular polarisability, ab initio HF calcs. 2−90449
bond-order matrix, physical prop. calcs. 2−113851
(R)−(+)bromochlorofluoromethane, Raman optical activity, bond polarisability theory 2−96580
calculations assuming additivity of atomic static polarizabilities and dispersion coefficients 2−85837
cholesteryl benzoate (laurate), refr. indices, densities, polarisabilities, and mol. order 2−60876
circular intensity differential light scatt. of randomly oriented molecules 2−70251
CNDO/2-FPP polarizabilities 2−85564
diatonic mols., dipole moments, polarisability, IR rot.-vibr. spectra, appl. to sorbed mols. 2−80601
dipole polarisabilities, mol. moments, HF approx. 2−108351
electric dipole polarisability, atomic Raman tensors, intensity sum rule 2−90432
electric field effects on molecular spectra 2−80580
ethyl halides, Raman intensities for torsional vibr. calc. 2−70255

molecular polarisability continued
formaldehyde, hydration, intermolecular interactions, SCF MO calcs. 2−85526
formaldehyde, molecular polarisability, ab initio HF calcs. 2−90449
gases, mean mol. polarisabilities and second virial coeffs., interferometric determ. 2−97703
gases, Rayleigh scattering, weak depolarization ratio meas. using Raman spectroscopy 2−70262
hydrocarbons, saturated, bond polarizabilities, transferability to diamond 2−70443
inert gas diatoms, polarisabilities, SCF computations, collision induced Raman spectra 2−70441
interacting systems, props., basis set superposition effects, dipole moments and polarisabilities 2−85768
IR band intensities, rehybridisation model 2−80737
liquids, refractive index, magneto-spatial dispersion, calc. for non-interacting mols. 2−93161
malachite green, fluoresc. polarisation anisotropy and kinetics as a function of solvent viscosity 2−70323
medium under stimulated Raman scatt., polarisability variation 2−64990
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methyl-2,4-dinitrophenyl-aminopropanoate, mol. crystal, and nonlinear optical props. 2−65302
2-methyl-4-nitroaniline, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, and nonlinear optical props. 2−65302
molten salts, Raman spectroscopy of oxyanions, symm. stretching freq. and polarisability 2−72487
nitrosylhalides, halogens effect on bond props. 2−102659
polar molecules, binary light scatt., cross-multipole field fluctuations, time-correlation functions 2−85683
polyenes, induced moments, polarisabilities and second hyperpolarisabilities calcs. 2−108402
silicate minerals, electronic and ionic polarizabilities 2−90732
ternary oxides, tetrahedral, trends in matrix isolated IR spectra 2−80598
thiazylhalides, halogens effect on bond props. 2−102659
transition metal binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
2,4,6-trifluoropyrimidine, bond and mol. polarisability, struct. 2−59965
urea, mol. crystal, and nonlinear optical props. 2−65302
van der Waals interaction between molecule and surface, mol. rotation 2−65068
vibrational contrib. to mol. dipole polarisabilities, data tables 2−94924
Ar_2, dimers, Raman scatt., rot. and vibr. spectra, polarisability 2−70265
Br_2^{2-}, ab initio interaction polarisability and pair pot. 2−75179
CO adsorbed on Cu (100), IR spectra study 2−56359
CO_2, polarisability vibr. matrix elements calc. from Raman intensity 2−113992
$Cr_2Cl_8^{4-}$, binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
Cs_2, double reson. polarisation spectroscopy 2−65027
H_2, dipole polarisabilities, MC TDHF theory calcs. 2−96447
H_2, molecular polarisability, ab initio HF calcs. 2−90449
H_2-H_2, interaction dipole polarisabilities, MC TDHF theory calcs. 2−96447
HCl-DCl isotopic pairs, dipole moment and polarisability, deuterium isotope effects 2−90735
HF, multipole moments and polarisabilities, CI and perturbation theory methods 2−75192
H_2O, molecular polarisability, ab initio HF calcs. 2−90449
H_2S, dipole polarisability, Kerr effect, temp. depend. 2−102514
H_2S, polarisabiity variation, D-isotope effect, rot. Raman and Rayleigh scatt. study 2−75292
He_2, pair polarisabilities, non-local contrib. 2−108657
HeH^+, dynamic dipole polarisability 2−59966
KBr, ab initio interaction polarisability and pair pot. 2−75179
Kr_2, pair polarisabilities, SCF calcs. 2−113870
LiBr, ab initio interaction polarisability and pair pot. 2−75179
LiH, dipole moment, polarisabilities, electric field gradients and nuclear screening, bond length depend. 2−54763
LiH, $X^1\Sigma^+$ state, dipole polarisability function, complete active space SCF study 2−80458
$Mo_2Cl_8^{4-}$, binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
N heterocyclic radicals, CIDEP, polarisation theory test 2−75328
N_2, optical Stark splitting of rotational Raman transitions 2−59837
NH_3-ND_3 isotopic pairs, dipole moment and polarisability, deuterium isotope effects 2−90735
NHDT, vibrational intensities, dichroism, Raman, IR spectra, orbital polarisability model 2−108451
NaBr, ab initio interaction polarisability and pair pot. 2−75179
Ne_2, pair polarisability, CI calcs. 2−102395
$Ni(CO)_4$, atomic, bond and mol. polarisabilities, quantum mech. calc. 2−90731
O_2, electronic excitation energies, oscillator strengths and polarisabilities, MCRPA evaluation 2−80793
O_2, rot. quantum number, vibr.-rot. Raman spectrum, spin multiplicity effect 2−102488
Xe_2, pair polarisabilities, SCF calcs. 2−113870

molecular positron scattering *see elastic scattering of electrons by atoms and molecules; molecular electron impact dissociation; molecular electron impact excitation; molecular electron impact ionisation*

molecular potentials *see potential energy functions*

molecular predissociation
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
$(benzene)_2$ clusters, IR vibr. predissoc. spectroscopy 2−59989
$(benzene)_3$ clusters, IR vibr. predissoc. spectroscopy 2−59989
bound states, predissociation, autoionisation, photon as catalyst effect 2−75361
butadiene cations, laser photogragmentation study at 5145 Å, vibr. predissoc. 2−96659
continuous spectrum, complex rot., Weyl's theory, appl. to predissociation 2−64954
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
glyoxal complexes, vibr. predissoc. decay channels 2−59867
haloaromatics, intersystems crossing and predissoc. 2−102553

molecular predissociation continued
2-iodo-2-trifluoromethylhexafluoropropane, electron predissociation of vibr. over-excited molecules *(Russian)* 2−54906
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
photodissociation and photodesorpt. line shapes 2−80744
Van der Waals mols., rot. predissoc., coupled channel formalism calcs. 2−80756
Ar-H_2 Van der Waals mol., multichannel rot. predissoc. studied by complex-coordinate coupled channel formalisms 2−80745
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
Br_2, $B^3\Pi(0_u^+)$ state, spontaneous predissociation 2−80746
CCl, $A^2\Delta$ state predissoc. investig. 2−80747
CH, excited state lifetimes 2−96645
Cl_2, $B^3\Pi(0_u^+)$ state, spontaneous predissoc. mechanism and rate consts. 2−114057
CrO_2Cl_2-He(x), mode selective nonradiative process, vibr. predissoc., fluoresc. 2−80709
DCl, liq., vibr. energy relax., predissoc. 2−113954
H_2, predissociation of D $^1\Pi_u$ state near threshold 2−59873
HCO Ã state, predissoc., laser optogalvanic study, rot. quantum number, Coriolis interaction 2−80743
$(HF)_n$, n=2-6 cluster, IR vibr. predissoc. spectroscopy 2−59989
H_2O 2−90754
$He\mu^+$ muonic ion, bound and quasi-bound levels calc. *(French)* 2−85841
I_2Ne, intramolecular energy transfer, dissoc., time depend. SCF approx. 2−108452
Li_2, predissociated vibr.-rot. levels predicted using ab initio calcs. 2−54904
Li_2^+ $^2\Pi_u$ spontaneous emission and predissoc. calcs. 2−59868
$ND_3^+ \rightarrow ND_2^+ + D$, energy disposal in rot. predissoc. 2−93762
NO, electron-impact excitation to long-lived Rydberg states 2−90723
N_2O, dissociative electroionisation study, NO^+ and N_2^+ dissoc. channels 2−85823
N_2O^+, Ã state, predissociation, bond-breakage mechanism, UV obs. 2−90637
O_2, electron-impact excitation to long-lived Rydberg states 2−90723
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
O_2^+, excited state, optical double resonance study 2−70307
O_2^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
O_2^+, laser-induced predissoc. spectra 2−102558
$^{16}O_2^+$ and $^{18}O_2$, predissoc. studied by photoelectron-photoion coincidence spectroscopy 2−102551
SF_6, clusters, vibr. predissociation, IR obs. 2−55005

molecular quadrupole moments *see molecular moments*

molecular relaxation *see chemical reactions; molecular fluorescence; molecular inelastic collisions; molecular spectra; time resolved spectra*

molecular reorientation
see also macromolecular dynamics
acetonitrile, liq., dynamics and interactions, microwave and far-IR study 2−82869
2-adamantanone, mol. motions, NMR study 2−56960
n-aliphatic alcohols, dipole relax., spectrosc. obs. 2−61823
alkali metal halides, mol. crysts., lattice phonons, tunnel states 2−76329
4-n-alkoxy-benzylidene-amino-4′-cyanobiphenyls, smectic liq. cryst., dielec. relax. meas. 2−110753
4-n-alkyloxybenzylidene-4′-n-hexylanilines, smectic phase, reorientation of long mol. axis, dielec. dispersion study 2−65848
amyl acetate solns., microwave absorpt. 2−87914
aromatic halides, comparitive study by PMR 2−56948
benzene, melting and mol. motions, X-ray diffr. study 2−109959
benzene molecules, reorienting, proton spin-lattice relax. 2−61784
bis(3,3,3-triphenyl propanoyl)peroxide, cryst., neophyl rearrangements, X-ray and EPR obs. 2−67742
bis(3,3,3-triphenylpropanoyl)peroxide, cryst., neophyl rearrangements, EPR obs. 2−67741
4-n-butyl-4′-n-dodecyloxyazobenzene, liq. cryst. phase transitions, dielec. relax. 2−116114
caesium sulphonate salts, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
carbon tetrachloride, liq., far IR absorpt. spectra, octupole induced dipole moment correl. functions 2−72472
carbon tetrafluoride, liq., far IR absorpt. spectra, octupole induced dipole moment correl. functions 2−72472
1-chloroadamantane, plastic phase, cryst. struct., X-ray diffr. study 2−65980
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
cholesteryl hydrogen phthalate, in glassy cholesteri phase, mol. relax. 2−81667
cholesteryl linoleate, dielec. props. in smectic, cholesteric and isotropic phases 2−99031
circular intensity differential light scatt. of randomly oriented molecules 2−70251
coupled rotor-phonon system, instability 2−109916
1-cyanoadamantane, plastic phase, internal modes, Raman study 2−99124
nido-decarborane, in toluene-d_8, mol. tumbling and nucl. spin relax. 2−80676
deuteromethane, solid, incommensurate structures 2−86595
trans-1,2-dichloroethylene, ordered liq. state, NMR study 2−81652
1,2-difluorotetrachloroethane, Brillouin scatt. in glass transition region 2−61915
dimethylacetylene, methyl group rotational motion, neutron scatt. studies 2−97948
1,2-dipalmitoyl-sn-glycero-3-phosphocholine bilayers, ^2H and ^{14}N quadrupolar spin-lattice relax. 2−105505
diphenyl butadiene, rot. diffusion, UV picosec. pump-probe spectrosc. 2−80643
dipolar solids, nonexponential spin-lattice relax. 2−98983
dye cresyl violet perchlorate, fluoresc. lifetime and orientational relax. times, laser phase fluorimetry *(German)* 2−80707
ferrocene-thiourea channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
glycerol, glassy, NMR hole burning slow mol. rot. study 2−104722
hexachloro-2,4-dimethylcyclodiphosphazane, ^{35}Cl quadrupole relax. and mol. motion 2−110699
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2−87780
hexamethylbenzene, methyl group rot., sp. ht. anomaly study 2−86899

molecular reorientation continued
IBPBAC, mol. motions in three smectic phases, neutron scatt. 2−81664
incommensurate structures 2−86595
Langevin model for rotational diffusion of mol. in cryst., uniaxial rotator in N-fold pot. 2−81695
MBBA-EBBA binary mixtures, acoustical props. in pulsating mag. fields 2−115357
metal acetates, methyl group tunnelling, inelastic neutron scatt., NMR study 2−98978
methane, liq., far IR absorpt. spectra, octupole induced dipole moment correl. functions 2−72472
methyl group reorientation in solids, thermally activated 2−65888
methyl groups in solids, hindered rot., nuclear spin-lattice relax., theory 2−93036
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
methylpentachlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
molecular-tunneling spectroscopy in crystals with the use of a double-level-crossing technique 2−76331
naphthalene-d_8-TCNE (TCNB), mol. motion, ^2H NMR study 2−98969
nematic liq. cryst., dielectric relax., rotational diffusion 2−97921
nematic liq. cryst., Fredericks transition, light-induced, theoretical anal. *(Russian)* 2−71346
nematic liquid cryst. layer, acoustooptical effect on US inclined incidence *(Russian)* 2−99088
nematic liquid crystals, optically induced mol. reoientation, wave mixing and light self-focusing 2−65319
nematic liquid crysts., light spot finite size influence on laser induced reorientation 2−76283
neopentane, plastic, rot. motion studied by Raman spectroscopy 2−110841
nitromethane-d_0(-d_3), tunnel states and splitting meas. 2−60894
4-nonanoate 4′-cyanobiphenyl, bilayer S_A phase, tilted monolayer cybotactic groups evidence 2−55842
4-nonanoate-4′-cyanobiphenyl, dielec. relax. meas. in liq. cryst. phases 2−104810
octyl-cyano-byphenyl liq. cryst., light spot finite size influence on laser induced reorientation 2−76283
organic liquids, weakly assoc., orientational correl., depolarised Rayleigh scatt. 2−99138
parachlorophenoxy acetic acid, wide-time NMR studies 2−110653
pentachloroethyl-1-imino-1-chloro-2-trichloroethane, intracrystalline dynamics, ^{35}Cl NQR study 2−98993
pentamethylchlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
perchloroethane, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
perchloroethylene, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
plastic crystals, rotational diffusion, correl. function calcs. for neutron scatt. law 2−115156
plastic molecular crystals, diffuse X-ray scatt. due to orientational correl. 2−103668
polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2−93193
polyacetylene, cis-trans isomerisation mechanisms due to thermal treatment and doping 2−83371
polycrystalline solids, spin-lattice relax. times rel. to mol. motion 2−110682
polyethylene in soln., PMR relax. and mol. motion, isotopic dilution technique 2−93041
polymer, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
protein dynamics, solid state PMK studies 2−88501
proteins, solid state dynamics by nucl. mag. relax. 2−73186
pyrene-d_{10}, mol. motion, ^2H NMR study 2−98969
pyrene-d_{10}-dinitrochlorobenzene, mol. motion, ^2H NMR study 2−98969
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
rigid mols., rot. diffusion tensor calcs. 2−86530
rod-like molecules, dynamics, appl. to glass transitions 2−61141
rotational tunnelling system, three-fold, inelastic neutron scatt. spectrum, temp. depend. 2−86596
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. 2−91830
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. time depend. correlation functions 2−91831
single particle rotations in molecular crystals, book 2−58567
slow-motion lineshape divergence 2−72437
smectic B phase, local dipolar order induced by steric effects, dielec. correl. factor 2−91768
succinimide cryst., mol. reorientation and H bonding, PMR study 2−82726
tetraethyloxysilane, mol. dynamics below freezing pt., PMR relax. investig. *(German)* 2−110689
tetrahedral mols., in liquids, model tests by computer simulation 2−91738
tetramethylammonium cobalt chloride, phase transitions, ESR study 2−98267
$(TMTSF)_2PF_6$, NMR studies, methyl group rotation obs. 2−56963
para-toluenesulphonic acid hydrate, solid, H_3O^+ and CH_3 group reorientations, PMR spin-lattice relax. 2−72369
s-triazine, struct. phase change, quasiharmonic approx. 2−61126
trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
triethylammonium halides, mol. and intramol. motion, pot. barriers, PMR study 2−77390
trifluoromethene, solid phase, spin-lattice relax., NMR study 2−110673
trypsinogen, bovine, intramol. reorientation, ^{199m}Hg perturbed ang. correl. obs. 2−67938
tumbling mols., ESR parallel-edge line theory 2−90583
tyrosine side chain in cryst. enkephalin rot. jumps and ^2H NMR line shapes 2−72357
β-Al_2O_3-NH_3^+, defect struct., PMR study 2−110649
Ar:$N_2(O_2)$(CO) impurities, mol. dynamics calc. 2−115154
Ar-O_2 (N_2)(CO), liquid and plastic cryst. phase, LF Raman spectra 2−116164
CO liquid and plastic cryst. phase, LF Raman spectra 2−116164
Cl_2, fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
FeOCl intercalates with Lewis base, Fourier transform IR obs. of struct. 2−116166

molecular reorientation continued
H_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
H_3NSO_3, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
$KAl(SO_4)_2.12H_2O$:Cr^{3+}, SO_4^{2-} dynamics, ESR at high press. 2−77363
KBr:Sr, dielec. relax., impurity-conc. effects 2−104811
$(KBr)_{1-x}(KCN)_x$, orientational freezing freq. depend. 2−71382
KCN_xX_{1-x} mixed crysts., (X= Cl, Br, I), Brillouin scatt. and rot.-translational coupling 2−110876
KCl:Ca, dielec. relax., impurity-conc. effects 2−104811
$KCr(SO_4)_2.12H_2O$:Cr^{3+}, SO_4^{2-} dynamics, ESR at high press. 2−77363
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
$K_2P+(CN)_4Br_{0.3}.3.2H_2O$, NMR studies on cryst. water mol. motion 2−110652
$K_2Pt(CN)_4Br_{0.3}3.2H_2O$, H_2O mol. motion, PMR spin-lattice relax. study 2−93043
LiF:Ni(Co), dielec. relax., impurity-conc. effects 2−104811
$LiNH_4SO_4$, tunnelling, reorientation, PMR study 2−93034
N_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
N_2 liquid and plastic cryst. phase, LF Raman spectra 2−116164
N_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
NH_4ClO_4, cryst. spin-rot. relax., ^1H NMR study 2−77403
NH_4IO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
NH_4MnF_3, proton reson. and crit. relax. 2−98988
$N_2H_5NO_3$, H^+ motion, T and $T_{1\rho}$ obs. 2−104729
NH_4ReO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
$(NH_4)_2SnCl_6$ and other ammonium salts, NH_4^+ reorientation, dielec. and NMR studies 2−93108
$(NH_4)_2SnCl_6$, level crossing between NQR and tunnel systems 2−77412
$(NH_4)_2ZnCl_4$, proton mag. relax., commensurate-incommensurate transition 2−77400
NH_4ZnF_3, proton reson. and crit. relax. 2−98988
NaCl:Pb, dielec. relax., impurity-conc. effects 2−104811
$NaNO_2$, mol. crysts., lattice phonons, tunnel states 2−76329
NaOH, mol. crysts., lattice phonons, tunnel states 2−76329
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
O_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
O_2, liquid and plastic cryst. phase, LF Raman spectra 2−116164
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2−80637
Sn complexes, dithiocarbamates Sn (II), mol. group reorientation, PMR lineshape study 2−93016
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
$SrCl_2$:K, impurity-vacancy dipoles reorientation, thermally stimulated depolarisation currents study *(Russian)* 2−116112
$SrCl_2$:O_3^-, EPR and Raman spectroscopy investig. 2−56928
TGS, nuclear spin-lattice relax. time anisotropy of NH_3 groups, expt. study 2−61782

molecular reorientational states *see molecular reorientation*

molecular resonant states
see also Fermi resonance; molecular vibronic states
asymmetric-top molecules, centrifugal distortion and quasidegenerate levels 2−90512
atom-diatom van der Waals complex, branching ratios, Feshbach reson., coordinate rot. calcs. 2−70212
atom-ion low energy collisions, reson. process 2−96693
polyatomic mols., electron scatt., shape resons. and electron transmission spectrosc. 2−80828
stationary ultrashort pulses in reson. mol. medium, soliton-type soln. *(Russian)* 2−54909
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
CO_2, $C^2\Sigma_g^+$ reson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
CO_2, nonlinearly-optical excitation of symm. vibr., Fermi resonance *(Russian)* 2−80842
Cl_2, dissociative electron attachment reaction, Cl_2^- resonant states, symmetry 2−114120
Cl_2, electron impact excitation, valence states, pot. energy curves, spectra 2−54974
H_2 physisorbed on flat surface, rotational excitation by low-energy electron scatt. 2−102651
H_2^-, potential energy function for $^2\Sigma_u^+$ shape reson. state at SCF level 2−70374
HCl, electron scatt., nuclear excited Feshbach reson. 2−90708
HCl, low lying resonance, CI calcs. 2−59709
N_2, $A^2\Pi_u$ nonreson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
NH^-, excited state, Feshbach resonances, QDMBPT 2−85540
NO, 4-photon ionisation two-colour double reson., fluoresc. de-enhanced obs. 2−85706
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
OH^-, excited state, Feshbach resonances, QDMBPT 2−85540
$^{16}O_2$, microwave resonant lines meas. for electronic ground state 2−85638
SF_6, nonlinearly-optical excitation of symm. vibr., Fermi resonance *(Russian)* 2−80842

molecular rotation
see also macromolecular dynamics; molecular force constants; molecular reorientation; molecular rotation calculations; molecular rotational-vibrational energy transfer; molecular spectra; rotational isomerism
acetylene, pulsed mol. beam, rot. temp., CARS 2−96582
acetylene isotopic molecules, absorpt. spectrum, vibr. and rot. anal., ionisation pot. 2−64999
s-cis-acrolein, microwave spectrum, rot. consts. and dipole moment 2−75242
acrylonitrile mol. beam, VUV laser photofragmentation, one-, two- and three-photon processes 2−96657
adamantane-d, in dilute n-alkane solns., rot. relax., mol. quasi-hydrodynamic free space descriptions 2−76268
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
allyl alcohol, centrifugal distortion effects in microwave spectrum 2−54836
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
asymmetric top molecules in liqs., mol. rots., J-M extended diffusion models 2−80571

molecular rotation continued
atom+diatomic mol. collision, rotational energy transfer, m_j selection rule 2−70403
atom-diatom van der Waals complex, branching ratios, Feshbach reson., coordinate rot. calcs. 2−70212
azabenzenes, electronic relax., rot. state depend. 2−80507
benzene, ground vibr. state, rot. consts., IR obs. 2−85663
benzene and its isotopes, $^1B_{2u}$ from $^1A_{1g}$ two photon spectra by supersonic beam multiphoton ionisation spectroscopy 2−102559
biacetyl(−d_6), ^1A_u from $^1A_g(\pi^*$ from n) transition, laser excitation spectroscopy; 2−70223
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
3-bromothiophene, rot. consts., nucl. quadrupole coupling, hyperfine struct., microwave obs. 2−75246
bromotrifluoromethane; ground and excited states, rot., microwave obs. 2−59791
bromotrifluoromethane, IR vibr. and rot. anal. of parallel overtones and combination bands 2−75465
butadiynyl, rotation, spin-rot. and hyperfine consts. from N=1→0 transit ion obs. in (Taurus MC-1) 2−68867
butadiynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
chloroacetylene-d, hyperfine struct., beam maser meas., quadrupole coupling strengths, rot. consts. 2−108734
chlorocarbene metastable states, high-resolution laser spectroscopy 2−75335
2-chloroethanethiol, rot. isomerism and consts., microwave obs. 2−75248
chloroethene molecular beam, pulsed, optical study 2−80562
chlorofluoromethane, force consts., vibr. rot., IR obs. 2−85658
chloroform-d, in aq. solns., Raman linewidth study of rotational motion 2−85673
continuous spectrum, complex rot., Weyl's theory, appl. to predissociation 2−64954
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
cyanogen, IR spectrum in region of bending fundamental ν_5, rot. const. 2−85651
cyanopropynyl rotational transitions detected in Taurus Molecular Cloud 1, obs. 2−84297
cyclohexane in aqs. soln., rot. motion, isotropic and anisotropic Raman bands 2−80630
cyclohexanols, axial tertiary, OH-rotamer distrib., struct. information from IR spectra 2−108514
diacetylene, vibr. freq., pot. energy functions, IR intensities, SCF calcs. 2−113872
diatom surface scattering, rot. rainbows 2−59889
diatomic mol.+target, $^2\Sigma^+$ electronic state, rot. inelastic collisions 2−75403
diatomic mol. $^2\Pi$ electronic state, rot. inelastic collisions with structureless target 2−96685
diatomic molecule, vibr.-rot. wave functions, rot. harmonic expression 2−102458
diatomic molecules, centrifugal corrections of spin interactions 2−80570
diatomic molecules, laser induced spectroscopy 2−59845
diatomic molecules in inert gas, rot. dissoc. theory 2−80792
diatomic molecules laser dynamics using raising and lowering operators 2−70341
diatomic photofragments, excited states, light absorpt. and emission polarisation 2−113967
diatomics, $^2\pi$ state, centrifugal distortion contrib. to rot. spectra 2−85622
1,1-dichlorocyclopropane, rot. consts., mol. struct., HF calcs., electron diffr. obs. 2−108364
dichlorodifluoromethane molecular beam, pulsed, optical study 2−80562
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
diiodomethane, UV laser multiphoton excitation, photofragment fluoresc. 2−114058
dimethyl mercury, laser photodissoc., methyl radical prod., vibr. and rot. excitation, IR emission studies 2−96653
dimethyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
diphenyl butadiene, rot. diffusion, UV picosec. pump-probe spectrosc. 2−80643
ethane-d_6, $\nu_9+\nu_{10}$ parallel band, computer deconvoluted spectra 2−80569
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
ethyl bromide, liq., mol. rot. diffusion tensor determ., PMR study 2−114020
ethylene, gas and liq. solns., rot. anal. IR obs. 2−96573
ethylene, pulsed mol. beam, rot. temp., CARS 2−96582
ethylene, Q-switched spin-flip Raman laser rovibrational lines in 2000 cm^{-1} region 2−102487
ethylene, saturated absorpt. meas. using CO_2 waveguide laser 2−108471
ethylene-HF and ethylene-DF complex, microwave spectrum, vibr. and rot., mol. struct. 2−70230
ethynethionyl radical, 4114 Å absorpt. spectra and rot. const. 2−75300
ethynyl radical, interstellar, detect. of N=3−2 transition in Orion rel. to mol. rot. consts. determ. 2−63556
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
m-fluoroanisole, anti rotamer, microwave spectrum and methoxy torsional freq., rot. consts. 2−96547
fluoromethane, matrix isolated, rot.-librational motion, IR obs. 2−90537
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
trans-3-fluorophenol, deuterated, microwave spectrum, rot. and quartic centrifugal distortion consts. 2−90526
formaldehyde, high resolution study of $^rR(K''=3)$ struct. of 3390 Å band 2−85686
formaldehyde in $\tilde{A}^1A_2$ and $\tilde{a}^3A_2$ electronic states, geometry and inversion pot. function 2−108666
formyl cyanide rotational spectra from ab initio calcs. 2−59682
germylazide, microwave spectra and struct., rot. consts. 2−70233
germylisocyanate, microwave spectra and struct., rot. consts. 2−70233
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2−96546
group III/VII diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
group IV/VI diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
heterogeneous media, rot. levels, population inversion prod. 2−80929

molecular rotation continued
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2−87780
1-hexyne in soln., IR and isotropic Raman spectra, vibr. and rot. relax. 2−80615
high J rot. transitions, rigid rotator approx. 2−113957
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
ion+asymmetric top rigid rotor, perturbed rot. state method, adiabatic pot. curves and nonadiabatic couplings 2−85798
ion+H_2O (HDO), perturbed rot. state method, adiabatic pot. curves and nonadiabatic couplings 2−85798
ion-molecule collisions, perturbed rotational state, effect of pot. ridge 2−108691
isobutylene, microwave rot. spectra, centrifugal distortion effects 2−54837
isocyanic acid, rotational spectra from ab initio calcs. 2−59682
liquids and liq. crysts., hindered mol. rot., IR spectra study 2−110875
malononitrile, millimetre rot. spectrum meas. *(French)* 2−113970
MBBA, local molecular rot. induced by elec. field *(Russian)* 2−60886
methane, 1100 to 1800 cm^{-1} rot. assignments 2−102469
methane, ν_4 band strength determ. from diode laser line strength meas. 2−108632
methane, microwave spectra, rel. to radioastronomy 2−75280
3-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
methyl chloride, IR band study of $2\nu_2$, $\nu_2+\nu_5$, $2\nu_5{}^0$, $2\nu_5{}^{\pm 2}$, $2\nu_3+\nu_5$ and $4\nu_3$ reson. *(French)* 2−90532
methyl cyanide, rot. line press. broadening, acoustic detect. in MM wave spectroscopy 2−96544
methyl cyanide, rot. transitions, pressure shift 2−64963
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl iodide, photofragmentation dynamics, IR spectra, vibr. distrib. of methyl(ν_2) umbrella mode 2−73003
methyl iodide in seeded supersonic beam, focusing, rot. state selection and orientation 2−85616
methylamine-d_2, 0-0 band rot. struct., in UV absorpt. spectrum 2−90562
methylcyanoacetylene, ground state, rot. and centrifugal distortion consts., microwave obs. 2−75250
methyleneimine, laser Stark and interferometric studies 2−75333
methylethynyl mercury(II)-d_0, -d_1, d_3, -d_4, vibr. anal. and pot. energy const. 2−80563
microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
millimeter wave spectroscopy, new developments 2−75251
molecular anions, photodetachment, strong electron-dipole coupling 2−96649
molecular gas, vibr. rot. transitions saturation kinetics in diffusion approx. 2−81433
nitrobenzene, liq., depolarised Rayleigh light scatt., translational to rot. coupling parameters 2−72513
2-nitromalonaldehyde-d_0(-d_1), H^+ tunnelling and nitro group torsion 2−96548
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
octahedral hexahalide anions, vibr. anal., GVFF method 2−90498
operator, rotational, reduction to standard form 2−80575
pentafluorobenz, centrifugal distortion constants from pure rotational spectrum 2−80583
perfluoro methylene imine, microwave spectrum, rot. consts. 2−70232
peroxylamindisulphonate radical, rot. dynamics in alcohol solvents, EPR study 2−77374
picosecond phase fluorometry by mode-locked CW lasers 2−102528
polyatomic molecule intermediate centrifugal const. depend. on effective rot. Hamiltonian construction method 2−70216
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
propyne-d_1(-d_3), beam maser spectrosc. 2−90521
pyrazine, $^1B_{3u}(n\pi^*)$ state, intermediate level struct., quantum beats, electronic relax. 2−59785
pyruvic acid, rot. transitions in first excited state, methyl group internal rot. 2−108456
radiative excitation and multiphoton dissociation in mag. field *(Russian)* 2−54905
rhodamine B monomer and dimer, population and rot. kinetics using picosecond transient spectrometry 2−102521
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
rot. temps. of cyanodiacetylene 2−63559
saturation transfer EPR, signal phase depend. rel. to rot. correl. times 2−89760
silyl acetylene, ground vibr. state, Stark effect, microwave obs. 2−102466
simple systems, higher order correlations 2−75239
spectra, separation of rot. and vibr. motions 2−64947
tetrahedral molecules, IR-MW double reson. spectroscopy using a tunable diode laser 2−59834
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2−64964
thioformaldehyde, laser Stark and interferometric studies 2−75333
thioformaldehyde, mag. rot. spectrum of singlet-triplet perturbations in $\tilde{A}^1A_2$ state 2−114007
thioformaldehyde-d_0(d_2), vibr., rot., UV obs. 2−75305
thiomorpholine, microwave spectrum, centrifugal distortion effects 2−96549
trifluoroacetonitrile, rovibronic excitation, IR multiple photon dissoc. 2−96660
trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2−90523
trifluoroiodomethane, IR microwave double reson. investig. 2−80693
trifluoropropyne, high resolution IR spectrum, sequence struct. 2−108489
trihalogenmethanes, harmonic force fields and mol. consts. 2−80837
trimethylamine, molecular beam photodissoc. isotropic ang. distrib. 2−96658
unstable molecules, gas-phase microwave rot. spectroscopy, new developments 2−75243
van der Waals interaction between molecule and surface, mol. rotation 2−65068
Van der Waals mols., rot. predissoc., coupled channel formalism calcs. 2−80756
molecular rotation continued
vinyl cyanide, IR multiphoton dissoc., fragment internal energy, pulse intensity distrib. effect 2−108648
vinylamine, struct., ab initio MO calc. with complete geometry optimisation using three different basis sets 2−113855
ASN, $a^3\Pi$ and $A'\Pi$ states of ($\sigma\pi^*$) config., rot. anal. 2−96534
Ag (111), NO molecule-surface collision, rot. polarisation obs. 2−77687
AgBr, B-X system, rot. anal. 2−96591
$AlClBr_2$, mol. const. using kinetic const. method and least square fit method 2−102457
$AlCl_2Br$, mol. const. using kinetic const. method and least square fit method 2−102457
Ar, dimers, Raman scatt., rot. and vibr. spectra, polarisability 2−70265
Ar-H_2 Van der Waals mol., multichannel rot. predissoc. studied by complex-coordinate coupled channel formalisms 2−80745
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
Ar+HCl, vibr. and rot. relax., quasiclassical trajectories on model pot. energy surfaces 2−90673
AsH_3, submillimeter spectrum, vibr. and rot. anal., spectroscopic consts. 2−108478
BH^+, $A^2\Pi$-$X^2\Sigma^+$ band system, high-resolution obs. 2−114009
Bi_2, laser induced fluoresc. of 0-6, 1-6 and 0-5 bands of transition $AO_u{}^+$-$XO_g{}^+$ 2−54889
Bz, spin-spin interaction, vibr. and rot. const., UV obs. 2−90565
C_2 in interstellar clouds, excitation, radiative lifetimes and rot. levels 2−101009
$C_2{}^-$, $\tilde{B}^2\Sigma_u{}^-$ state rot. level lifetimes meas. 2−114048
CCN^+, microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
CCl radical, microwave spectra, rot. transitions, mag. and electric quadrupole hyperfine coupling consts. 2−108476
CF radical, far-IR rot. spectrum 2−75255
CF, rot., Zeeman hyperfine struct., laser mag. reson. obs. 2−90584
CF_2, mm and sub millimeter spectrum, prod. in DC glow discharge, rot. transition freq. 2−108481
CH^+, $A^1\Pi$-$X^1\Sigma^+$ system, emission bands, mol. consts. 2−64959
C_2H, radical, rot. consts., excited states, IR obs. 2−64972
$CH^+(CD^+)$, $A^1\Pi$←$X^1\Sigma^+$ system, laser-induced fluoresc. 2−75344
CN($X^2\Sigma^+$), vibr. and rot. distrib. from ICN photolysis 2−64951
CO, EELS with new position-sensitive multidetector spectrometer in 6 to 10.9 eV energy region 2−85824
CO, far-IR rotational emission 2−106495
CO, rot. anal., Fourier transform IR obs. 2−75261
CO^+, hyperfine and spin-rot. parameters, isotope effects, microwave obs. 2−70226
CO+D_2, rot. excitation at 87.2 meV, differential cross sections, classical path calc. 2−108673
CO+N_2 mixture, Raman scatt., rot. and vibr. relax. *(Russian)* 2−54856
CO_2, $\pi_g{}^3$ 3ppi $_u$ $^3\Sigma_u{}^-$←$\tilde{X}^1\Sigma_g{}^+$ transition, rot.-resolved Rydberg absorpt. 2−114013
CO_2, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
C_3O_2, microwave spectrum, vibr.-rot. anal., rot. and centrifugal consts. 2−108480
$^{12}C^{16}O_2$ spectroscopic constants of Fermi dyad [$10^0\nu_3$, $02^0\nu_3$] and laser sequence band transition wavenumbers 2−102479
$^{13}C^{14}N$, red system, rot. anal., mol. consts. 2−64995
CaBr $^2\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
CaCl $^2\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
CaCl, optical spectra at sub-Doppler resolution 2−75257
CaO, sub-Doppler spectrum, rot. anal. and deperturbation 2−64996
CaO, triplet system orange arc bands, rot. anal. 2−70221
CdD, arc emission spectrum, $A^2\Pi$-$X^2\Sigma^+$ system, rot. anal., spin splitting, vibr. and rot. depend. 2−64994
ClBO, mol. consts., vibr.=rot., IR diode laser and microwave spectra 2−90541
ClNO, VUV photodissoc., fluoresc., rot. level distrib. 2−96623
Cs_2, double reson. polarisation spectroscopy 2−65027
Cs_2, rot. lines meas. by Doppler free polarisation spectroscopy and ODR, fluoresc., mol. const., pot. energy curves 2−80689
CsH, $X^1\Sigma^+$ state, laser induced fluoresc. spectrum, pot. energy curve, avoided crossing region 2−108607
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
D_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
D_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
DCP^+, electron impact excited $\tilde{A}^2\Sigma^+$→$\tilde{X}^2\pi_i$ emission spectra 2−80640
DCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
$^{19}F_2$ improved rotational constants using coherent anti-Stokes Raman spectroscopy of vibr. Q branch 2−85671
FCN, excited vibr. states, rot. spectra, equilib. struct. 2−96543
GeH^+, rot. anal., visible spectra 2−85678
H_2, interstellar, rot. levels population by shock waves 2−58426
H_2, molecular, structure and screening at high press. 2−76961
H_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
H_2 physisorbed on flat surface, rotational excitation by low-energy electron scatt. 2−102651
n- and p-H_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2, rotational S(2) and S(3) transitions, freq. and transition probabilities 2−80585
H_2, solid and liq., IR spectrum, rot. double transitions 2−87755
H_2, three photon ionisation, quantum state specific detection 2−70353
$H_2{}^+$ energy and props. in mag. field 2−59695
$H_2{}^+$, rotationally resolved photoelectron ang. distrib. at λ=584 and 736Å 2−80723
HCN, excited vibr. states, direct overtone spectra, classical chaos and quantum simplicity 2−108536
HCN-HCl complex, H-bonds, rot. spectrum and mol. props. 2−59790
HCO A state, predissoc., laser optogalvanic study, rot. quantum number, Coriolis interaction 2−80743
HCP^+, electron impact excited $\tilde{A}^2\Sigma^+$→$\tilde{X}^2\pi_i$ emission spectra 2−80640
HCl in Ar, broadening of rot. lines, phonon coupling effect 2−102540
HCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
HCl^+, rot. spectrum, laser mag. reson. 2−80688
HD compressed by Ar, rotation and rot.-vibr. Raman spectra, collisional effects 2−108526
HD in ground vibr. state, rot. spectrum, dipole moment 2−85634
HD, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
HD^+, vibr. rot. spectroscopy 2−80840

molecular rotation continued
$H_3(D_3)$, IR and visible electric emission spectra 2−113974
HDO, hyperfine struct., beam maser meas., rot. transition freq. and deuterium quadrupole coupling tensor 2−80578
HDO, ion collisions, Coriolis transition and impact parameter Born theory, perturbative treatment 2−65071
$HD^{16}O$, ground state, rot. consts., IR obs. 2−75265
HN_3, rotational spectra from ab initio calcs. 2−59682
HNCO, Coriolis-induced rot. struct. in IR spectrum 2−80593
HNO^+, vibronic and rot. struct., visible spectrum, ab initio study 2−85677
HO_2, mm and submillimeter spectrum, effect of unpaired electron spin and nuclear hyperfine interactions 2−108483
H_2O, LF motions in low temp. matrices 2−75272
H_2O, lab. jet simulation of rocket plume, radiometric obs. of 752.033 GHz rot. absorpt. line 2−90520
H_2O, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
$HOCO^+$, rotational spectra from ab initio calcs. 2−59682
H_2S, polarisabiity variation, D-isotope effect, rot. Raman and Rayleigh scatt. study 2−75292
H_2S.HF, struct., H bond stereochemistry, spectrosc. obs. 2−102499
He+CO(HCl), polarisation transitions, cross sections, close-coupling study 2−80781
He+I_2, vibr. relax., Morse type pots., quantum mechanical study 2−80787
$^4He+pH_2$, transition between rot. states, phase modulated semiclassical sudden approx. 2−70378
$^{200}Hg\ ^{79}Br$, B→X spectrum, excimer laser 2−75555
I_2, high energy electronic state identification by means of ion dip spectroscopy 2−59875
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
Kr.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
MgO, Franck-Condon factors, rot. depend. 2−59862
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
N_2, $C^3\Pi_u$ state, v′=1 level perturbations and radiative props., time resolved study 2−80841
N_2 free jets, rot. levels population kinetics, electron beam meas. 2−109382
N_2, gaseous, CARS spectra, rot. diffusion model appl. 2−59808
N_2 molecular spectra induced by ion impact on Si:N 2−77657
N_2, NMR linewidths, rot. and orientational relax. times, J-diffusion theory appl. 2−114015
N_2, optical Stark splitting of rotational Raman transitions 2−59837
N_2, rot. distrib. in Ar free jet, translational temp. anisotropy effect 2−109383
N_2, Rydberg states, rot. transitions, optogalvanic study 2−90516
N_2, second positive system at laser threshold, high resolution studies 2−59776
N_2^+ $B^2\Sigma_u^+$, v=0 state effective cross-section meas. 2−70157
N_2^+, band spectrum of first negative system 2−70271
$^{14}N_2$ and $^{15}N_2$, $B^{13}\Sigma_u^- - B^3\Pi_g$ system, Fourier and IR emission spectrum, rot. anal. 2−108503
NH, $c^1\Pi$-$a^1\Delta$ system, rot. anal. 2−90504
NH^+, Franck-Condon factors, rot. depend. 2−59862
NH_2, (100)$\tilde{X}^2B_1$ state, mol. consts., obs. and estimation of ν_3 vibr. *(French)* 2−54828
NH_2, IR-optical double reson., vibr.-rot. transitions, fluoresc. 2−96607
NH_3 beam, collision-induced transitions, double reson. studies 2−59903
NH_3, far-IR spectroscopic line param. 2−70245
NH_3 molecular beam, pulsed, optical study 2−80562
NH_3 type molecules, rot. level centrifugal stretching and K-doubling, inversion motion influence 2−70217
N_2H_4, mol. struct. studied by gas phase electron diffr. 2−90700
NHD, rot. transitions, far-IR laser mag. reson. study 2−96605
NO, excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960
NO in atmospheric flame, resonantly enhanced two photon photoionisation 2−70365
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2−80566
NO, rot. transitions in $A^2\Sigma^+$ (v′=0)-$X^2\Pi$(v″=0) gamma band, two-photon absorptivity 2−80557
NO^+, Franck-Condon factors, rot. depend. 2−59862
NO+Pt(111) interaction, laser induced fluoresc. study 2−67182
NO_2, A $^2B_2$ state, vibr., reson., fluoresc. intensities 2−102517
NO_2, rot. anal. of 13200 and 13400 cm^{-1} bands by Fourier transform spectroscopy 2−113975
N_2O, absolute wavenumbers between 1118 and 1343 cm^{-1} by IR Fourier transform spectroscopy 2−113976
NS, mol. consts., isotope effects, microwave obs., relevance to radio astronomy 2−90524
Na_2, surface emission from liq. Na, laser diagnostics 2−70444
Na_2, pseudorotating, dynamic freq. shifts, ESR obs. 2−102498
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
Ne.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
O_2, magnetic dipole IR atmospheric bands 2−96551
O_2, rot. quantum number, vibr.-rot. Raman spectrum, spin multiplicity effect 2−102488
OCS, isotope effects, rot. transitions, microwave absorpt. lines 2−94923
OCS, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
OD, far-IR laser mag. reson. spectra 2−75329
OH, far-IR laser mag. reson. spectra 2−75329
OH, tropospheric, laser induced fluoresc. meas. influence of rot. relax. 2−94480
OH, $X^2\Pi$ state, vibr. rot. emission bands, rot. anal. 2−54827
OH^+, Franck-Condon factors, rot. depend. 2−59862
$^{16}O^{18}O$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
PH_2, ground state, mol. consts., anomalous lifetimes, rot. transitions 2−85633
PH_2 radical, hyperfine struct. of $\tilde{X}^2B_1$ and $\tilde{A}^2A_1$ from intermodulated fluoresc. spectroscopy 2−108735
PH_3, far-IR spectroscopic line param. 2−70245
PH_2D, rot. transitions and hyperfine struct. meas., spin-rot. interactions 2−108457

molecular rotation continued
Pb chalcogenides, rot. energy, isotopic field shift 2−85748
PbS, $AO^{\pm}$-$X^1\Sigma^+$ transition, rot. and vibr. struct. studied by sub-Doppler laser spectroscopy, isotope shifts 2−85630
S_2, $B^3\Sigma_u^-$ and $B''^3\Pi_u$ states, fluoresc., rot. anal. 2−114031
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2−80637
SF radical, rot. and centrifugal distortion const., microwave obs. 2−75249
SF_6, Doppler limited spectrum and anal. of $2\nu_1+\nu_3$ band, rot. consts. 2−85631
SF_6, ν_1 band, high resolution stimulated Raman gain spectrum 2−85669
SF_6, supercooled, ν_3 band, high-resolution IR laser spectroscopy 2−54853
SO, $^3\Delta$ state, rel. to rot. anal. of $A^3\Pi$-$X^3\Sigma$ spectrum 2−113869
SO_2, electronic relax., collision induced, long range interaction mechanism 2−65079
SOF_4, mol. struct., resolution of multiple model problem 2−90699
Se_2, $B^3\Sigma_u^-$ state, Lande factors and perturbations, pulsed dye-laser studies 2−75462
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023
$SeOF_2$, microwave rot. spectrum, centrifugal distortion effects 2−75241
SiBr, A-X system, emission spectrum 2−75238
SiCl, electronic states, rot., mol. consts., UV obs. 2−54866
SiF, Rydberg electronic states obs. between 42000 and 50000 cm^{-1}, rot. anal. 2−54865
SiH, Franck-Condon factors, rot. depend. 2−59862
SiH^+, Franck-Condon factors, rot. depend. 2−59862
SiH_4, rot., stark effect, IR-RF double reson. obs. 2−85710
SiH_3SiH_2CN, struct., vibr. assignment, microwave, IR and Raman spectra, normal coordinate anal. 2−59788
SrF, optical spectra at sub-Doppler resolution 2−75257
Tl halides, rot. energy, isotopic field shift 2−85748
UF_6, supercooled, ν_3 band, isotope shift, high-resolution IR laser spectroscopy 2−54853
VO, rot. struct., spin-orbit coupling, Fourier transform IR obs. 2−75262
WF_6, supercooled, ν_3 band, isotope shift, high-resolution IR laser spectroscopy 2−54853
Xe.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
ZrO, $B^1\Pi$-$A^1\Delta$ system, rot. and vibr. anal., IR spectra obs. 2−59794

molecular rotation calculations
bromomethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
chloromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
diatomic molecules, rot. consts. representation and extrapolation, improved method 2−54826
fluoromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
fluorophores, interacting, dynamic depolarisation effect of internal rot. and energy transfer 2−108439
hindered rotors, infinite conical well analytic model 2−101226
methanimino cation, rot. spectra and dipole moment from ab initio calcs. 2−85524
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
perturbative solution of RPA eqn. 2−108466
tetrahedral molecules AB_4, spectroscopic consts., reson. interactions of 1000, 0010 and 0100, 0001 states 2−70214
Ar+HCl, energy transfer, vibr. and translational energies effects 2−102588
Ar.HCl quasimol., rot. vibr. energy level calc. 2−75232
CH_2, Renner-Teller effect, rot. and vibr. levels, Fermi reson. effects 2−113958
CO_2 bands, rotational analysis near 4 μm 2−59793
COH^+, rot. spectra and dipole moment from ab initio calcs. 2−85524
CP molecules, B-A system study 2−54834
I_2, rot. consts. representation and extrapolation, improved method 2−54826
NO_2, spin-rot. consts., transition moments, line-widths and intensities, IR obs. 2−85662
$^{16}O_2$, microwave resonant lines meas. and rot. anal. 2−85638

molecular rotation in solids *see molecular reorientation; nuclear magnetic resonance; plastic crystals*

molecular rotation-vibration
see also macromolecular dynamics; molecular force constants; molecular rotation-vibration calculations
acetonitrile, optical pumping, rot.-vibr. anal., far-IR obs. 2−54842
bromomethane, rovibrational transition, saturation spectra 2−70229
chlorofluoromethane, force consts., vibr. rot., IR obs. 2−85658
correlation diagrams for rigid and nonrigid five-body and XY_5 six-body systems 2−75233
diatomic molecule, effective pot. analytical expression 2−90496
diatomic molecule, vibr.-rot. wave functions, rot. harmonic expression 2−102458
diatomic molecules, Morse oscillator matrix elements appropriate for vibr.-rot. intensities 2−75234
diatomic molecules, rot.-vibr. spectra 2−108453
diatomics, $^2\pi$ state, centrifugal distortion contrib. to rot. spectra 2−85622
diatonic mols., dipole moments, polarisability, IR rot.-vibr. spectra, appl. to sorbed mols. 2−80601
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2−108469
ethyl chloride, ν_9 band, vibr.-rot. anal., diode laser spectroscopy, multiphoton dissoc. studies 2−85656
ethylene, Q-switched spin-flip Raman laser rovibrational lines in 2000 cm^{-1} region 2−102487
ethylene-d_4, inactive torsion vibr. rot.-vibr. anal., IR obs. 2−80621
fluorocarbon 12, subMM laser action, rot. transitions in ν_6 vibr. band assignment 2−96906
fluoromethane-d_3, ν_2 and ν_5 bands, IR spectra 2−80623
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
formaldehyde, vibr.-rotation transition, Stark spectroscopy by saturated absorption 2−90591
formaldehyde, $\tilde{X}^1A_1$ system, selective vibr. excitation by stimulated emission pumping 2−96586
formaldoxime, infrared-infrared double resonance using an acousto-optic modulator 2−80690
formic acid, ν_3 vibr.-rot. band, Stark spectroscopy and laser microwave ODR, vibr.-rot. band 2−102516

molecular rotation-vibration continued
ion dissoc. expts. interpretation 2−80775
methinophosphide-d_0(-d_1), ν_3 vibr.-rot. band and equilib. struct. 2−64957
methyl chloride, IR band study of $2\nu_2$, $\nu_2+\nu_5$, $2\nu_5{}^0$, $2\nu_5{}^{\pm 2}$, $2\nu_3+\nu_5$ and $4\nu_3$ reson. *(French)* 2−90532
methyl cyanide, laser Stark and microwave spectra, vibr.-rot. bands 2−85714
methyl fluoride, $^{12}CH_3F$, ν_2 and ν_5 fundamental vibr.-rot. bands, high resolution spectrum 2−96559
methyl isothiocyanate, microwave spectrum, bond angle, rovibr. energy levels 2−85642
methyl radicals, IR absorpt. detection, recombination rate, reaction with O_2 study 2−85647
methyleneimine, vibr.-rot., Coriolis interaction, IR obs. 2−75260
molecular gas, vibr. rot. transitions saturation kinetics in diffusion approx. 2−81433
morse matrix elements calc. using asymptotic expansion treatment 2−102460
$^{14}NH_2$, $^{14}NO_3$ and $^{15}NO_3$, submillimeter wave, diode laser, Fourier transform and grating spectra., vibr.-rot. anal. 2−108485
polyatomic molecules, isotope substitution, vibr.-rot. centers displacement 2−85623
polyatomic symmetrical mols., XY_6, excitation by IR laser field, vibr.-rot. interaction role 2−108640
spherical top mols., vibr.-rot. bands matrix element anal. 2−70213
symmetric top mols., rovibronic species, nucl. spin statistical weights 2−75313
trifluoromethane-d_1, IR-RF two photon investig. 2−80694
Ar+HF, energy transfer, Monte Carlo quasiclassical trajectory study, vibr.-rot. states 2−96684
ArH^+, IR spectra, vibr.-rot. bands and mol. consts., Dunham coeff. 2−64976
Bi_2, CW laser, optically pumped, hyperfine struct. 2−96914
CCl radical, microwave spectra, rot. transitions, mag. and electric quadrupole hyperfine coupling consts. 2−108476
CN radical in its ground state, vibr.-rot. transitions, IR laser spectrum, spin-rot. fine struct. 2−59800
CO, laser-assisted collisional energy transfer between Rydberg states 2−65078
CO, molecular overtone transitions, quantum dynamical study, vibr.-rot. transition probabilities 2−102541
CO, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
CO_2 and CO, nonequilibrated mol. gas, vibr.-rot. bands, IR radiation transfer and emissivity 2−114927
CO_2, incoherent IR emission, amplification, coeff. determ. 2−65199
CO_2, ν_2 band, absorpt. coeffs., spectral line broadening 2−85657
CO_2 ν_2 band line mixing 2−90630
CO_2 thermally pumped gasdynamic laser, transitions between ν_1, ν_2 mode levels, 16.4 to 17.2 μm emission 2−55114
C_3O_2, microwave spectrum, vibr.-rot. anal., rot. and centrifugal consts. 2−108480
$^{13}C^{16}O_2$, high temperature, spectral meas. in 4.3 μm region 2−80584
$^{13}C^{16}O^{18}O$, high temperature, spectral meas. in 4.3 μm region 2−80584
ClBO, mol. consts., vibr.=rot., IR diode laser and microwave spectra 2−90541
CsH, laser induced fluoresc. doublet, vibr.-rot. levels near dissoc. limit 2−70324
DCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
D_2O vapour, absorption spectrum, 9160 to 9400 cm^{-1} 2−54852
GeH_3Cl, Coriolis interaction, vibr.-rot., IR obs. 2−90549
GeH_3Cl, rovibr. anal. of ν_6 rocking fundamental and hot bands near 600 cm^{-1} 2−90509
p-H_2, excited states, three-photon reson. ionisation 2−96667
H_2, spin orbit coupling consts. as function of internuclear distance, CI and STO calcs. 2−108401
H_2, vibrational preionisation, multichannel quantum-defect theory 2−75359
HCl in liquid Ar, local interactions, spectroscopic demonstration, cryosystems 2−70248
HCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
HD compressed by Ar, rotation and rot.-vibr. Raman spectra, collisional effects 2−108526
HD^+, vibr. rot. spectroscopy 2−80840
HDO vapour, absorption spectrum, 9160 to 9400 cm^{-1} 2−54852
HF, in intense laser field, classical and quantum mech. calcs. 2−102544
HF, multiphoton excitation in intense laser and static electric fields, quantum dynamics, Floquet theory 2−108652
HNC, vibr. rot. emission spectrum near 3 μm 2−80839
HNC, vibr.-rot. IR emission spectrum 2−80620
H_2O, D_2O and HDO, rot.-vibr. spectra in 9160-9390 cm^{-1} region, rot. and centrifugal consts. 2−108497
H_2O, LF motions in low temp. matrices 2−75272
H_2O, pot. energy of ground state, MCSCF and MR-CI calcs. 2−102396
H_2O vapour, absorption spectrum, 9160 to 9400 cm^{-1} 2−54852
H_2O, vibr.-rot., quadrupole moment, g-factor, spin-rot., ab initio SCF calcs. 2−64867
H_2O...HF, H-bonded heterodimer, conformation, pot. energy function, from microwave rot. spectra 2−75253
$H_3Si^{79,80}Br$, rovibr. anal. of ν_6 fundamental near 630 cm^{-1} 2−90508
H_3SiI, force consts., rot.-vibr. anal., IR obs. 2−64973
He-CO mixtures, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
$^4He+pH_2$, transition between rot. states, phase modulated semiclassical sudden approx. 2−70378
HgCl, visible laser, tuning charact., laser emission spectra 2−60065
I_2, new ion-pair state 2−114133
KCN, ab initio vibr.-rot. spectrum calcs. 2−90535
KCN, vibr.-rot. spectrum, ab initio pot. energy surface calcs. 2−80572
Li_2, predissociated vibr.-rot. levels predicted using ab initio calcs. 2−54904
LiHe, van der Waals mol., rovibration struct., optical double reson. 2−70308
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
NCO radical, rot. const., vibr. rot. band, laser mag. reson. obs. 2−75332
NH_2, IR-optical double reson., vibr.-rot. transitions, fluoresc. 2−96607
NH_2 radical, IR spectra, ν_1 and ν_3 bands obs. by difference freq. laser spectroscopy 2−108498
NH_3, molecular vibr. rot. states, high and very high resolution spectroscopy 2−80838
NH_3, rotovibrational transitions, self-broadening and self shifting 2−80568

molecular rotation-vibration continued
$^{15}NH_3$ molecule, ν_2=1 level spectroscopic constants 2−70247
$^{15}NH_3$, vibr.-rot. anal., IR obs. 2−75259
NH_2D, vibr.-rot., hyperfine struct., microwave obs. 2−85644
NO, IR vibr.-rot. emission spectrum 2−108499
NO, two-photon fluoresc. excitation and resonant four photon ionisation spectrum, double reson. effect 2−54890
NO_2, IR laser mag. reson. obs. using CO_2 laser, high K vibr.-rot. transitions 2−108586
N_2O, line interference in ν_1 rot.-vibr. band 2−64979
$NO(\nu=1$ to $7)+O_2$ vibr. relax. 2−59910
O_2, rot. quantum number, vibr.-rot. Raman spectrum, spin multiplicity effect 2−102488
O_3, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
OH atmospheric band system, line parameters 2−90629
OH, $X^2\Pi$ state, vibr. rot. emission bands, rot. anal. 2−54827
PF_5, the ν_3 band 2−85649
SO radical, $A^3\Pi$ and $B^3\Sigma^-$ excited states, vibr. level lifetimes 2−114049
SO_2 in supersonic jet, fluoresc. excitation spectrum and single rovibronic level lifetime 2−90615
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023
SiH_4, rot., stark effect, IR-RF double reson. obs. 2−85710
SiH_3I, vibr. excited states, microwave obs. 2−90525
SnO electronic transitions, Doppler limited laser spectroscopy 2−75345
$^{130}Te_2$, ground electronic state, Lande factor meas. 2−108641
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452

molecular rotation-vibration calculations
asymmetric-top molecules, centrifugal distortion and quasidegenerate levels 2−90512
complex coordinate rot. method at SCF level 2−80455
ethylene, ($^{12}C^{13}CH_4$), rovibrational parameters, IR obs. 2−90543
fluoromethane, vibr. states, Coriolis interactions 2−90514
Hamiltonian for T_d symmetry, tensor representation 2−102461
linear gas molecules, elect. reson. obs. 2−70313
methane, pentad energy levels, rovibr. anal. 2−90503
Morse rotating oscillator, energies, wave functions and matrix elements 2−80764
nonlinear molecule nucl. spins interactions with vibr. and rot. motions 2−113961
polyatomic molecule, arbitrary internal motion problem, variation method soln., internal rot., anharmonic vibrs. 2−108461
polyatomic molecules, coeffs. of relationship between exact and approx. vibr. coords. 2−64955
spectra, anal. calcs. using digital computer 2−113969
tetrahedral mols., vibr. polyads, rot.-anal. 2−90503
Weyl theory appl. to N-coupled second order differential eqns. 2−113956
Ar.HCl quasimol., rot. vibr. energy level calc. 2−75232
$^{79}Br_2$, two-photon processes, δ-approx. (reflection) method 2−102560
CS_2 gasdynamic laser, mol. vibr. rot. anal. 2−70549
$H_2O+D_2O\rightarrow 2HDO$ equilibr. const., by direct summation over rot. vibr. states 2−99663
$He\mu^+$ muonic ion, bound and quasi-bound levels calc. *(French)* 2−85841

molecular rotational energy transfer *see molecular rotational-vibrational energy transfer*

molecular rotational states *see molecular rotation*

molecular rotational-vibrational coupling *see molecular rotation-vibration*

molecular rotational-vibrational energy transfer
see also atom-molecule reactions; molecule-molecule reactions
acetone ions, dissoc., intramol. energy redistrib. 2−54924
atom+diatom, translational-rotational energy transfer, classical formalism 2−90665
atom+diatomic mol. collision, rotational energy transfer, m_J selection rule 2−70403
atom+molecule, rot. inelastic collisions propensity rules 2−102591
atom+molecule sudden theory of scatt., ab initio corrections and validity of collision model 2−90667
attached shock wave curvature, vibr. relax. effects in supersonic flow 2−114850
azulene, gas phase, time depend. thermal lensing studies 2−90669
azulene+CO_2, level to level vibr. energy transfer, energy depend. and prod. species obs. 2−102584
benzophenone+biacetyl energy transfer, phosphoresc. and fluoresc. decay study 2−75386
bifluorophoric laser dyes, intramol. TT-energy transfer 2−80943
bromotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
carbon tetrachloride, vibr. relax., spontaneous Brillouin scatt. 2−59784
chemically active plasma with molecular nonequilibrium vibration excitation 2−76071
chlorodifluoroethane, CW IR laser induced reaction kinetics 2−105493
chlorodifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chloromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chloropentafluorobenzene vapour, vibr. deactivation 2−59913
chlorotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
classical two-dimensional model for rotational-vibrational atom-diatom inelastic scattering 2−108654
classical vibr. energy exchange, 3-dimens. model calcs. 2−96696
cyanohexatriyne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
cyanooctatetryne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
cyclobutene, single collision gas-surface vibr. energy transfer, ini tial energy distrib. variation 2−62378
cyclohexane, liq., degenerate vibrs., rot.-vibr. relax. 2−93173
cyclohexane, liq., vibr. relax time, temp. depend., US props., Brillouin scatt. 2−103902
cyclopropane, vibr. relax., IR laser-induced fluoresc. investig. 2−108683
cyclopropane energy transfer rate const. from pulsed laser generated thermal lens spectrometer signal 2−80790
cyclopropane-1t_1,-2,2d_2, competitive collisional activation in vibr. energy transfer 2−70395
1-decyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
diatom+diatom collinear collisions, memory effect in stochastic approach 2−90668
diatom-diatom collisions, two-state model for low energy resonant vibr.-vibr. energy transfer 2−80788
diatomic mol.+target, $^2\Sigma^+$ electronic state, rot. inelastic collisions 2−75403

molecular rotational-vibrational energy transfer continued
diatomic molecule+inert gas atom, vibr.-rot. relax. 2−70396
diatomic molecules, vibr. excited, collisional dissoc. 2−80791
diatomic molecules in inert gas, rot. dissoc. theory 2−80792
p-difluorobenzene vibr. relax. in ground state, stimulated emission pumping preparation 2−96698
electronic excitation, transfer during vibr. relax. 2−96702
elementary state-to-state energy transfer processes 2−75385
energy transfer in gases 2−59899
energy-transfer experiments, time depend. thermal lensing technique 2−91002
exchange dephasing, quantum statistical theory 2−65075
fast reactions in energetic systems, conf., Preveza, Greece (July 1980) 2−58544
fluoromethane-d_3+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
formaldehyde-d, (d_2) energy transfer, IR-UV double reson. study 2−65025
forster-type processes in cascading systems 2−83351
free base porphin, isolated, ultracold, laser spectrosc. 2−80698
gas, vibrationally relaxing, nonlinear breaking of wave fronts 2−103183
gas-surface, collision interaction, vibr. energy transfer in reactive systems, variation of initial energy distrib. 2−62378
gaseous mixtures, mol. nonequilib. vibr. excitation behind shock wave front 2−108692
gases, vibr.-translational relax. time meas. using reson. laser spectrophones 2−58912
haloalkanes, vibr. dephasing, Raman obs. 2−102486
heterogeneous systems, mol. vibr. energy relax. processes 2−59911
hexafluorobenzene vapour, vibr. deactivation 2−59913
1-hexyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
hydrodynamics effect in vibr. energy relax. processes 2−70401
incomplete vibrational relaxation, stochastic models 2−54927
ion+polar molecule, capture collisions, adiabatic and rot., cross-section calc. 2−59907
ion-molecule scatt., vibrational excitation, time scales 2−96703
left-right asymmetry in rot. inelastic differential cross-sections, origin 2−96700
linear molecules, collisional rot. excitation 2−65076
methane+Ar, vibr. transitions, vibr.-rot. energy exchange mechanism 2−114086
methane-air flame, OH number density meas. using laser induced fluoresc., vibr. level relax. effects 2−116695
methane-d_4+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
methane-O_2, vibr.-rot. energy transfer, relax. times calcs. 2−85785
molecular aggregates, fluorescence depolarisation *(Russian)* 2−85732
molecular laser, rot. exchange kinetics 2−75559
molecules, energy transfer influence on photoacoustic spectra 2−65110
n-octane, collision with SiO_2 surface, vibr. energy transfer, mass spectrosc. obs. 2−114082
organic vapour active media, relax., processes 2−70558
orientation factor and rotation of molecules in luminescent solutions 2−59912
pentafluorobenzene vapour, vibr. deactivation 2−59913
perfect vibrationally relaxing gas, radial expansion due to connection with vacuum 2−109381
phenoxazone 9, ultrafast dichroism meas. using ultrafast polarisation spectroscopy 2−102515
polyatomic dipole mols., vibr. level population inversion behind shock wave front 2−108860
polyatomic mols., fundamental IR absorpt. bands, vibr.-rot. transition intensities 2−90548
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2−67755
positive ions, form. by multiphoton process, nonreactive intramol. relax., radiationless transitions 2−54888
propynal, near reson. vibr.-vibr. energy transfer under single collision conditions 2−85762
propyne-acetone, vibr. relax., Raman band shapes 2−90555
proton-proton hole asymmetry in gas-phase neutralisation reactions 2−105476
pyrene, excited monomer and excimer fluoresc. meas., simultaneous energy transfer 2−108617
quantum non-linear oscillators under excitation, fast phase relax. in non-monochromatic external field 2−101308
rhodamine 6G, ultrafast dichroism meas. using ultrafast polarisation spectroscopy 2−102515
selective multiphoton processes, external and internal detunings, quantum model 2−114059
stilbene, picosecond excitation and trans-cis isomerisation in supersonic jet 2−83347
tetrachloromethane-trichloromethane, liq. mixtures, vibr.-energy transfer, Brillouin scatt. study 2−57114
tetrafluoromethane, almost resonant vibr.-vibr. relax. 2−90672
three-level system, liq., non-Markovian vibr. energy relax., excitation effect 2−108690
three-level systems, vibr. relax., interference effects, rate eqn. description 2−102589
translational and rotational relaxation in external fields *(Russian)* 2−54928
vanadyl acetoacetonate, in n-alkanes, rot. relax., ESR obs. 2−85702
vibrationally relaxing gas, accel. wave breakdown 2−114822
vibrationally relaxing gas, spherical nonlinear wave propag. 2−91549
Ar+H_2, vibr.-rot.-translational energy transfer, state-to-state cross sections, Monte Carlo trajectory calcs. 2−90674
Ar+HCl, energy transfer, vibr. and translational energies effects 2−102588
Ar+HCl, vibr. and rot. relax., quasiclassical trajectories on model pot. energy surfaces 2−90673
Ar+N_2 inelastic scatt., time depend. perturbation theory 2−102590
Ar+NO, rot. excitation, interference effects resolution, laser induced fluoresc. 2−102592
Ba+$NO_2(N_2O)$, nascent metastable products, chemiluminescence study 2−93796
Br_2 in Ar, binary collision trajectories calc. using efficient computer algorithm 2−108686
BrCl, $B^3\Pi(0^+)$ manifold, laser-induced fluoresc. obs. 2−114030
CF_2 triplet state, initial vibr. distrib. and relax. following prod. from reaction 2−70393
CN^- in aq. soln., vibr. energy relax. 2−85787

molecular rotational-vibrational energy transfer continued
CO, laser-assisted collisional energy transfer between Rydberg states 2−65078
CO, shock heated, emission absorption technique for meas. vibrational temp. 2−64985
CO+atom, hyperthemal collisions, mol. anharmonicity, time correl. function 2−85783
CO+H_2(He), rot. energy transfer and anisotropic intermol. pots., ab initio calcs. and expt. 2−75387
CO+He(Ne), vibr. relax. rate coeff., ab initio calcs. 2−59906
CO+N_2, CO V-V transfer, theoretical probabilities 2−102586
CO_2 free jets, rot. energy distrib. FT IR emission spectrosc. obs. 2−108688
CO_2, radial laser-induced sound wave propag. and vibr. relax. 2−81439
CO_2-N_2 mixture, vibr. relax., IR luminesc. kinetics obs. 2−75388
CO_2+atom, hyperthemal collisions, mol. anharmonicity, time correl. function 2−85783
CO_2+He(Ne), vibr.-rot. energy transfer, cross sections, rate consts. calcs. 2−96695
CO_2+N_2, vibr.-vibr. transitions between asymmetric stretch mode, rate const., semiclassical calcs. 2−90664
CO_2+$N_2(O_2)$(Ar), collisional excitation cross section meas. 2−90670
CsCl+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
CsF+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
DF+DF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2−59909
H ^{35}Cl+H ^{37}Cl, vibr.-vibr. energy exchange process, multiquantum transitions 2−70398
H ^{35}Cl+H ^{71}Br, vibr.-vibr. energy exchange process, multiquantum transitions 2−70398
H+H_2 (v=0,1), quasiclassical trajectory calcs. on H_3 pot. energy curve from force field data 2−102570
H_2, electron thermalisation, relax. time 2−65098
o-H_2, rot. relax. time determ. 2−96701
H_2+Ar, vibr. relax. rate consts., test of linear sum rule by trajectory calcs. 2−108687
H_2+H_2, vibr. transitions, quantum mechanical and semiclassical probabilities 2−54926
HBr+CO, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
HCN, matrix isolated in Ar, intermolecular vibrs., far-IR obs. 2−113973
HCl, high-density fluid, vibr. energy relax., 150 to 345K 2−80786
HCl+CO(NO)(O_2), vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
HCl+quencher molecules, vibr. relax. rate const. meas., dipole and dispersion interactions 2−70397
HD, collision vibr. energy transfer, time domain photoacoustic relax. study 2−102587
HD, surface scatt. on Pt (111), rot. mediated selective adsorption calcs. 2−87012
HF rot. lasers, V→R multiquantum energy transfer by CO (CO_2) 2−102785
HF-DF chemical laser, rotational nonequilibrium analysis 2−80941
HF+HF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2−59909
HNO electronic spectrum, mag. field and time-resolved study 2−75342
H_2O 401 vibration relax. time meas. using acoustooptic laser spectrometer 2−85789
He+$^1B_2$ aniline, collision induced vibr. relax. 2−70399
He+H_2 inelastic scatt., time depend. perturbation theory 2−102590
He+I_2, vibr. relax., Morse type pots., quantum mechanical study 2−80787
he+p-H_2, rovibr. excitation calcs. 2−75383
He^++H_2, vibr. excitation, differential cross-sections meas. 2−75384
Hg*+CO (NO), electronic to vibr. energy transfer, isotope effects 2−102593
I_2+He(Xe), rotationally inelastic transitions, rate consts., laser induced fluoresc. 2−85786
I_2+inert gas atoms, vibr. energy transfer from highly excited anharmonic oscillators, quantum state and interaction pot. depend. 2−96697
KCl+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
Li_2, $B'\Pi_u$ state, quenching and vibr. energy transfer 2−80789
Li_2, laser excitation, collision induced transitions 2−90611
LiH-He, translational-rotational energy transfer, classical formalism 2−90665
Li_2*+Xe, rot. inelastic cross sections, vel. depend. 2−108685
N_2, free jet, rot. relax. in transition regime 2−114084
N_2 gas, rotational relaxation, classical dynamics 2−85790
N_2, metastable state from N recomb., collisional vibr. relax., electronic mutation 2−108684
N_2, vibrational excitation, effect of ground state mols. 2−108693
N_2^+ symmetric charge exchange reactions, laser-induced fluoresc. obs. 2−102617
N_2+atom, hyperthemal collisions, mol. anharmonicity, time correl. function 2−85783
N_2+CO_2, intra and inter-mol. energy transfer, semiclassical calc. 2−70394
N_2+CO(O_2), vibr. transitions, quantum mechanical and semiclassical probabilities 2−54926
N_2+Ne(O_2)(N_2)(NO)(CO_2), vibr. quenching, SIFT investig. 2−90676
N_2^++N_2, charge exchange, energy transfer dynamics 2−111475
$N_2(B^3\Pi_g)$, collision induced transition, time-resolved fluoresc. 2−59908
NH_2, A^2A_1 state, rot. energy transfer, time resolved fluoresc. 2−114033
NH_3+He, energy corrected scaling theory, further development and appl. 2−102585
NH_3+NH_3 long-range collisions in gas phase, rot. energy transfer calc. 2−85788
NO, and beam scatt. from graphite, angular distrib., rot. state population fluoresc. study 2−105023
NO scattered from Pt (111) surface, vibr. and rot. energy distrib., two-photon ionisation study 2−87932
NO, vibr.-vibr. pumped population distribs. in DC glow discharge 2−70392
NO+NO(N_2)(SF_6)(CO)(Ar)(He), rot. and spin-orbit transitions, IR-UV double reson. 2−75382
N_2O, Raman spectrum, vibr. relax. manifestations 2−108529
N_2O, vibr. relax., shock tube study 2−90666
N_2O+Ar(^{4}He)(^{3}He)(D)(HD)(n-H), vibr. relax., shock tube study 2−90666

molecular rotational-vibrational energy transfer continued
$N_2O+SF_6(CCl_4)$, vibr. relax. study using overtone bands 2−90675
$NO(v=1$ to $7)+O_2$ vibr. relax. 2−59910
Na_2+Ar, classical two-dimensional model for rotational-vibrational atom-diatom inelastic scattering 2−108654
$Na_2+Na(K)$, effective cross sections of excitation transfer 2−54925
Na_2+Ne, rotationally inelastic scatt., angularly reduced 2−114085
Na^*+CO, (^3P) state quenching, stereochem. effects, expt. and calcs. 2−108605
$Na^*+H_2(D_2)$, electronic to vibr.-rot. and translational energy transfer process, ang. distrib. 2−85791
Ne_2 excimer, triplet state, O_2 quenching rate const. 2−80711
$O+CO_2$, vibr. energy transfer, cross sections, infinite order sudden calcs. 2−85784
$O+H_2O\rightarrow 2OH$, energy partitioning, OH rot. relax. 2−57601
O^++N_2, vibr. excitation, pot. energy surface, quasiclassical trajectory reaction theory 2−99662
O_3, recombination form., vibr. relax. 2−90671
O_3+He, vibr. relax., ab initio quantum mech. calcs. 2−59905
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
$OH+H_2$, interstellar, rot. excitation cross sections rel. to OH 2−106874
$OH+H_2$, interstellar rate coeffs. for rotational excitation 2−70400
$OH+O_2$, electronic to rotational transfer, pure rot. laser appl. 2−96932
SF_6, model of vibr.-vibr. relax., mol. quasicontinuum 2−70210
SO_2, laser excited, deactivation and V-V transfer, theoretical probabilities 2−102586
SiH_4, vibr. relax., laser-induced IR luminesc. 2−114042

molecular rotational-vibrational states *see molecular rotation-vibration*

molecular rotorsional states *see molecular libration*

molecular spectra
see also macromolecular spectra; molecular fluorescence; molecular rotation; molecular spectral line breadth; molecular vibration; multiphoton spectra; optical double resonance; radiative corrections; spectra of inorganic molecules; spectra of organic molecules and substances
absorption spectrum and circular dichroism simultaneous meas. in synchrotron spectrometer 2−85712
adsorbed mols. on metal particles, IR spectra, metal-surface selection rules calc. 2−90552
bimolecular collisions, channel specific spectral props. and time delay 2−70382
complex molecules, electronic-vibr. spectra in non-Condon approx. 2−85626
conformational studies by IR and Raman spectra 2−80633
continuous spectrum, complex rot., Weyl's theory, appl. to predissociation 2−64954
diatomic molecule, classical oscill. dynamics and IR absorpt., double well pot. 2−59797
diatomic molecules, rot.-vibr. spectra 2−108453
diatomic photofragments, excited states, light absorpt. and emission polarisation 2−113967
N,N′-dimethyl-4, 4′-bipyridylium chloride+electron donor, charge transfer spectra 2−57772
electric field effects on molecular spectra 2−80580
external heavy atom effect, role of spin-orbit coupling 2−54781
field theoretical methods in chemical physics, book 2−94932
Fourier transform time-resolved IR spectroscopy of pulsed transient phenomena, progress review 2−113005
gas dynamic flow and laser spectroscopy 2−60574
gases, coherent anti-Stokes Raman spectroscopy, saturation and secondary Stokes effects 2−60153
ion-molecule collisions, internal state distrib., fluorescence and IR spectroscopy study 2−96694
ions in glow discharges, microwave spectroscopy 2−75244
IR band intensities, rehybridisation model 2−80737
linear dichroic IR spectroscopy, theory and appls. 2−74521
liquid binary mixtures, mol. vibr. linewidth and shift, conc. depend. 2−70222
mesic molecules, adiabatic expansion conversion in three-body problem *(Russian)* 2−59980
molecular spectroscopy in astronomy 2−73834
molecules, Raman and IR intensity anal., first order approx. 2−59804
N-level molecules, scattered light spectra, multicomponent struct. 2−96513
nonlinear radiative processes, UV inert-gas halogen laser study 2−65002
nonrigid-asymmetric-top spectra, qualitative features 2−59781
physics data handbook 2−58565
polar molecules, in interstellar clouds, spectral intensity, electron impact effects 2−112533
polyatomic molecules, absorpt. and fluoresc. spectra, semiclassical calc. 2−96540
polyatomic molecules, electronic spectra, transitions with axis switching 2−85627
polyatomic molecules, moments method in vibronic spectra theory 2−108473
polyatomic molecules, vibr. freq. intensity in IR spectra 2−113980
polyatomic mols., selective excitation energy, multiphonon description 2−108459
polyatomic mols. in soln., intermolecular relax., vibronic spectra kinetics 2−113960
Raman frequencies, isotropic and anisotropic, dielec. const. effects on noncoincidence 2−108525
rotational operator, reduction to standard form 2−80575
Rydberg states in radiation chemistry 2−59786
selective spectrum simplification by laser level labeling 2−64961
separation of rot. and vibr. motions 2−64947
two-level system energy level shift induced by laser pulse train *(Chinese)* 2−96505
unstable molecules, gas-phase microwave rot. spectroscopy, new developments 2−75243
UVSOR facility at IMS 2−85419
vibrational-rotational spectra, anal. calcs. using digital computer 2−113969
Cl containing compounds, Cl atom and orbital population from ^{35}Cl NQR freq. and X-ray emission spectra 2−108565
H_2 flame, molecular emission cavity anal., spectral studies 2−99675
N_2, Rydberg states, rot. transitions, optogalvanic study 2−90516
N_2^+ +He, electronic and vibronic transitions, translational energy spectroscopy 2−54935
PbO, transition moment variation with internuclear separation 2−80733

molecular spectra continued
UF_5, laser induced emission spectrum 2−96587
XeF, from Xe-F collision, laser induced reson., stimulated emission 2−80784

molecular spectral line breadth
absorption line saturated profile, acoustooptic spectrometer signal recording 2−84710
acetone, liq., isotropic line shapes and freq., press. effects, Raman spectra 2−72474
adiabatic two-photon absorption, time development in low intensity regime 2−75227
amides, out-of-plane hydrogen bonded N-H group, temp. depend. band width 2−80736
amines, mol. relax. study by spectral density width *(French)* 2−85747
Auger line shapes for solids and mols., final state rule 2−105012
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2−63769
benzene, shock wave heating, band-shape, UV obs. 2−59816
benzo(a)pyrene and its 9- and 3-hydroxy derivatives, fluoresc. excitation and emission spectra, solvent effects 2−70330
benzonitrile liq., motional param. from spectral profiles 2−71317
benzophenones, substituted, CO stretching bands, substituent effects 2−75289
1,12-benzperylene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
binary solutions, IR bandshapes and dispersion 2−96639
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
carbon tetrachloride, liq., central Lorentzian in depolarised Rayleigh spectra 2−80629
carbon tetrafluoride laser modelling 2−102776
chemically rel. mols. RCF, RCH and ROH, charge charge flux overlap model, IR intensities interpretation 2−80607
chemisorbed Z 2−115526
chlorocarbene metastable states, high-resolution laser spectroscopy 2−75335
chloroform-d, in aq. solns., Raman linewidth study of rotational motion 2−85673
chlorophyll a, directed energy transfer due to orientational energy level broadening 2−114010
chlorophyll a, intermol. interactions in vivo, reson. Raman spectroscopy obs. 2−105638
collision systems, spontaneous emission, fluoresc. line shapes, dynamical theory 2−70380
complex molecules, assoc. effect on spectral distortion 2−65053
coronene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
cyclohexane in aqs. soln., rot. motion, isotropic and anisotropic Raman bands 2−80630
1-decyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
derivative spectroscopy, resolution enhancement, band width and shape effect 2−64121
diatomic molecules multiplet states, Λ-type doubling 2−80734
dichloromethane, liq., far-IR absorpt. determ. by spot freq. meas. 2−77534
2,6-dimethyl-3-nitroaniline, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
fluoromethane, Stark-split components, reorientation and press. broadening of IR and microwave lines 2−70227
fluoromethane optically pumped laser, collisional narrowing 2−85940
Fourier transform IR spectra, band shape anal. 2−95489
glycyl-L-alanine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
glycylglycine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
heterogeneous level broadening with energy transfer, mol. struct. effects 2−54899
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2−87780
1-hexyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
ions in glow discharges, microwave spectroscopy 2−75244
line shapes, photodissoc. and photodesorpt. 2−80744
linear molecules, microwave linewidth param. 2−102536
liquid binary mixtures, mol. vibr. linewidth and shift, conc. depend. 2−70222
lycopene, reson. Raman excitation profile, inhomogeneous broadening effects 2−102484
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2−54855
methane, ν_4 band strength determ. from diode laser line strength meas. 2−108632
methane, pulsed and CW mol. beam CARS spectroscopy 2−59812
methane, vibr. states, IR spectral line assignments and strengths 2−90540
methanol, aggregates in cryogenic matrices, IR hole burning 2−80860
methanol optically pumped laser, collisional narrowing 2−85940
methoxylated isoflavones, ^1H NMR spectra, solvent effect 2−70292
methyl cyanide, rot. line press. broadening, acoustic detect. in MM wave spectroscopy 2−96544
methyl cyanide, rot. transitions, pressure shift 2−64963
methyl nitrite aggregates in cryogenic matrices, IR hole burning 2−80860
moment analysis of a model correlation function 2−108633
neopentane, vapour, collision induced light scatt. 2−103279
organic crystals, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
organic mols., matrix isolated, inhomogeneous broadening of spectra 2−75357
1,5- and 2,4-pentanediol, viscoelastic liqs., struct. relax., Brillouin light scatt. 2−72514
pheophytin a, directed energy transfer due to orientational energy level broadening 2−114010
photoatomic molecules, reson. Raman and CARS effect of inhomogeneous broadening on absorption spectra and excitation profiles 2−85672

molecular spectral line breadth continued
2-phthalonyl-4H-3, 1-benzoxazin-4-one, IR spectra, solvent effects, mol. struct. 2−54844
pinenes, matrix-isolated, vibr. circular dichroism 2−80696
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2−54855
polyatomic molecular liquids, vibr. dephasing and freq. shifts, isotropic Raman line broadening 2−61891
polyatomic molecules, diffuse luminesc. spectra, exciting radiation effect 2−108619
polyatomic molecules, vibronic spectra, vibr. struct. line intensities, nonadiabaticity 2−59779
polyatomics, intramolecular dynamics, TDHF 2−113955
polyenes, solute electron correlation energy, environment effects, UV spectral shifts calc. 2−90460
propyne-acetone, vibr. relax., Raman band shapes 2−90555
pyridinium salts, solns., IR spectra, Fermi reson. and ν_{NH} band struct. 2−64981
4(3H)-quinazolinones, IR spectra, solvent effects, mol. struct. 2−54844
reactions in Ar matrix, IR spectra of prods., vibr. 2−96564
rhodamine 6G-cresyl violet mixed solns., electronic excitation transfer and lasing with spectral broadening 2−70561
simple systems, higher order correlations 2−75239
solute electron correlation energy, environment effects 2−90460
spectral functions in quasiperiodic and chaotic regimes, collisional relax. effects 2−108631
supernarrow spectral line detect. using double-mode laser frequency resonances 2−64127
toluene, shock wave heating, band-shape, UV obs. 2−59816
transition metal oxides, 3d, L_{23} edge, EELS 2−108636
trifluoromethyl(bromo)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2−70334
trifluoromethyl(chloro)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2−70334
trifluoromethylgermanes, UV and X-ray photoelectron spectra, binding energies, CNDO/2 and EESOP charge calcs. 2−70335
trimethylimidazole, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
two-level system in strong electronic coupling limit, Green's functions and optical line shapes 2−59861
AsH_3, spectral line broadening and shift, Stark effect 2−108479
1,2-benzpyrene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
CH^+, $A^1\Pi$-$X^1\Sigma^+$ system, emission bands, mol. consts. 2−64959
CO adsorbed on Cu (100), IR spectra study 2−56359
CO, chemisorbed on Ni (100), C(KVV) Auger line shape 2−108643
CO, in solid α-CO, vibr. transition line broadening by diagonal disorder 2−90631
CO in solid N_2, high resolution laser spectroscopy, dipolar broadening effect on vibr. transitions 2−102535
CO, isotopic mols. in solid α-CO, IR emission and absorpt. spectra 2−70238
CO, line strengths, N_2 collisional broadening, IR obs. 2−75267
CO, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
CO+H_2(He), rot. energy transfer and anisotropic intermol. pots., ab initio calcs. and expt. 2−75387
CO_2, collision-broadened linewidths and band intensities near 2600 cm^{-1} 2−59792
CO_2, $\nu_1/2\nu_2$ Fermi reson., motional narrowing, Raman spectrum 2−80635
CO_2, ν_2 band, absorpt. coeffs., spectral line broadening 2−85657
CO_2 ν_2 band line mixing 2−90630
CO_2, spectral lines, correl. function model, moment anal. 2−108633
CO_2, vibr. fine struct., natural lifetime, K X-ray emission obs. 2−54869
$^{13}C^{16}O_2$, absorpt. spectrum at 2.8 μm, line positions 2−108504
CO_2-N_2-He gas mixt., press. shift in atmospheric press. 2−96641
CS_2, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
CS_2 superbroadening spectrum, 5300 Å, using focused picosecond pulses *(Chinese)* 2−96584
$^{12}C^{18}O_2$, collisional line broadening, IR obs. 2−75268
CaCl, optical spectra at sub-Doppler resolution 2−75257
ClF, cryogenic solns., vibr., IR and Raman obs. 2−70240
$GeCl_4$, liq., central Lorentzian in depolarised Rayleigh spectra 2−80629
H_2, electron impact, UV emissions, Werner- and Lyman-band system 2−70432
H_3BNH_3, ^{11}B, ^{10}B and ^{14}N nucl. quadrupole double reson. 2−80669
HCN in Orion A cloud, spectral data interpretation 2−106870
HCN, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
HCl and DCl in CCl_4, IR spectra, solute-solvent interactions 2−102478
HCl in Ar, broadening of rot. lines, phonon coupling effect 2−102540
H_2O, D_2O and HDO, rot.-vibr. spectra in 9160-9390 cm^{-1} region, rot. and centrifugal consts. 2−108497
H_2O, spectral line broadening and shift, Stark effect 2−108479
H_2O superbroadening spectrum, 5300 Å, using focused picosecond pulses *(Chinese)* 2−96584
H_2O, vap., line parameters, IR tunable diode laser meas. 2−90530
H_2O vapour, CARS spectrum, temp. depend. meas. 2−85676
H_2O vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., theory 2−80591
H_2O, vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., model 2−80592
H_2O, weak absorpt. lines meas. by time resolved intracavity laser spectroscopy 2−63091
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
H_2O_2, ν_6(b) band, IR spectra, band model anal. 2−75266
He discharge afterglow, high press., reaction kinetics theory 2−71281
He-CO, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
I_2, D′ to A′ transition, vibr. anal., Franck-Condon and band profile calcs., weak emission 2−108546
N_2, second positive system, band intensities, electronic transition moment 2−85632
NH_3, inversion line self-broadening 2−70344
NH_3, inversion spectrum line collision broadening by symmetric-top gases 2−80738
NH_3, rotovibrational transitions, self-broadening and self shifting 2−80568
NH_3, spectral line broadening and shift, Stark effect 2−108479
NH_3, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
molecular spectral line breadth continued
NO, pressure-broadening coeff., computerized tunable diode laser spectrometry 2−108486
NO_2, spin-rot. consts., transition moments, line-widths and intensities, IR obs. 2−85662
NO_3, radial, line shape, absorpt. cross section, visible obs. 2−64991
N_2O line intensity and width meas. at 7.8 μm for determining tunable diode laser spectrometer performance 2−113001
N_2O, line interference in ν_3 rot.-vibr. band 2−64979
N_2O, line shape, evolution in press. broadened IR spectra 2−80603
N_2O, simultaneous line strength and collisional width determ. from high-resolution Fourier transform spectra 2−101470
N_2O+$SF_6(CCl_4)$, vibr. relax. study using overtone bands 2−90675
$^{14}N^{16}O_2$ ν_3 band N_2-broadened lines, width temp. depend. 2−90531
Na_2, spectra by laser level labelling, two-photon transitions 2−65063
$NaNO_3$, N KVV Auger line shapes, XES and photoelectron data 2−59818
$^{20}NeH^+$ and $^{22}NeH^+$, IR spectra obs. with difference freq. laser 2−102474
NiCl, thermal emission spectrum obs., new bond systems 2−54859
O_2, absorpt. and dispersion in microwave spectra 2−102468
O_2, spectral line parameters, atm. transmission functions calcs. 2−78841
O_3, in atmosphere, air broadening coeffs. and line strengths in 9 μm region 2−106309
O_3 pressure-broadening coeff., computerized tunable diode laser spectrometry 2−108486
OCS, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
OCS+He(Ar), linewidth and lineshift, unitary S-matrix theory 2−102537
OH atmospheric band system, line parameters 2−90629
OH free radicals, collisional broadening of far-IR and microwave spectrum 2−96643
PH_3, spectral line broadening and shift, Stark effect 2−108479
PVC, derivative spectra, resolution enhancement, band width and shape effect 2−64121
$(PdCl_4)^{2-}$, symmetry forbidden transitions, oscillator strengths 2−85635
SF_6, coherent active Raman scatt. spectra *(Russian)* 2−54858
SF_6, in liq. O_2, vibr., line shift widths and intensities, IR spectra 2−80604
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const. 2−108612
SrF, optical spectra at sub-Doppler resolution 2−75257
t, extinction coeff. determ. 2−80579
Xe_2F^*, emission spectra and quenching kinetics meas. 2−114023
molecular structure (electronic) *see molecular electronic states*
molecular structure (geometrical) *see molecular configurations*
molecular torsion *see molecular libration*
molecular vibration
see also Fermi resonance; macromolecular dynamics; molecular force constants; molecular rotational-vibrational energy transfer; molecular spectra; molecular vibration calculations; molecular vibration in solids; potential energy curves and surfaces of molecules; potential energy functions
acetaldehyde free radicals in solid Ar, IR vibr. spectra prod. from F atom reaction 2−105453
acetaldehyde-$d_0(d_1)(d_3)(d_4)$, force field determ., vibr., CNDO calcs. 2−64875
acetone-$d_0(d_3)(d_6)$, force field determ., vibr., CNDO calcs. 2−64875
acetonitrile, liq., dynamics and interactions, microwave and far-IR study 2−82869
2-acetylanthracene solution in n-propanol, electronic spectrum, vibr. struct. dynamics 2−80719
acetylene, autoionising Rydberg series, photoionisation study 2−70351
acetylene, nonFranck-Condon behaviour in photoionisation, triple differential photoelectron studies 2−80731
acetylene isotopic molecules, absorpt. spectrum, vibr. and rot. anal., ionisation pot. 2−64999
acetylene-HF complex, microwave spectrum and mol. struct. 2−59789
acetylenes, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
N-acetyloxypyridinium salts, fragmentary exchange, reaction rates and mechanism, IR and NMR obs. 2−83372
acrylonitrile mol. beam, VUV laser photofragmentation, one-, two- and three-photon processes 2−96657
actinomycin, vibr. struct., Raman obs. 2−57781
actinomycin-DNA, vibr. struct., Raman obs. 2−57781
adamantanethione-d_2, ^{1}npi* excited state inversion barrier and optical activity 2−96610
adamantanone-d_2 ^{1}npi* excited state inversion barrier and optical activity 2−96610
adsorbed molecules, energy loss intensities, role of electrodynamic interactions 2−62029
alanine (-d_n), CH stretching vibr. circular dichroism, localised MO calcs. 2−108448
alanine (-d_n), CH stretching vibr. circular dichroism and fixed partial charge calcs. 2−108447
alanine (-d_n), IR vibr. circular dichroism, vibr. anal. and Raman spectra 2−108446
alcohols, Fourier transform far-IR matrix isolation spectra, vibr. freqs. of H bonded system 2−113978
alkali dimer, preparation, perturbation and predissoc., crossed laser and mol. beam studies 2−75471
alkali metal cations, solution, pot. energy function models 2−59886
alkali trimer anions and cations, electronic struct., vibr. freq. calc., electron affinity 2−70121
alkanes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
alkanes, methyl C-H stretching vibr. bands, motional collapse 2−102485
alkanes with picosecond relax. time, depolarised Rayleigh spectroscopy 2−80628
alkene-halogen complexes studied by matrix isolation vibrational spectroscopy 2−70260
alkenes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
cis-amide uracil, and derivaties, sensitivity of amide V band to H bonding 2−90632
cis-3-aminocyclohexane, OH stretching and H bonds, CNDO/2 calcs. 2−70147
aminopyrazine, electronic and vibr. spectra, vibr. anal. 2−108491
anions in aq. soln., isotropic Raman scatt., vibr. dynamics 2−82848
aromatic hydrocarbons, condensed, mol. vibr. 2−75368

molecular vibration continued
arsines, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
4,5-arylimidazole, IR absorption bands 2−108506
trans-azobenzene, Raman excitation profiles, 361 to 494 nm 2−113999
bacteriorhodopsin, Schiff base group, struct. of retinylidene chromophores, Raman spectra 2−88502
benzene, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
benzene, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2−63769
benzene, nonradiative transition rates, out-of-plane modes effects 2−80699
benzene, out of plane vibrs., valence force field calcs. 2−70219
benzene, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
benzene, sorption on Ag electrodes, surface-enhanced Raman spectra 2−61276
$(benzene)_2$ clusters, IR vibr. predissoc. spectroscopy 2−59989
$(benzene)_3$ clusters, IR vibr. predissoc. spectroscopy 2−59989
benzene 2−80631
benzene and its isotopes, $^1B_{2u}$ from $^1A_{1g}$ two photon spectra by supersonic beam multiphoton ionisation spectroscopy 2−102559
benzene clusters, UV spectr a 2−75487
benzene radical anion, vibrational spectra and freq. shifts, IR and Raman 2−108455
benzene-d_0(-d_6), local mode vibrs., spectra, model 2−59772
benzene-$d_0(d_2)(d_3)(d_4)$, planar vibr., force field, IR obs. 2−85661
1,2-benzoanthracene electronic-vibr. Raman spectra, Shpol'skii effect 2−70264
benzophenones, substituted, CO stretching bands, substituent effects 2−75289
para-benzosemiquinone radical anion, halogen derivatives, radiolytically prepared, reson. Raman spectra 2−59807
3-benzylidene-2,4-pentanediones, substituted, IR spectra, conformation 2−64983
biacetyl(−d_6), ^1A_u from $^1A_g(\pi^*$ from n) transition, laser excitation spectroscopy; 2−70223
biphenyl dianion, vibrational spectra and freq. shifts, IR and Raman 2−108455
2,2′-bipyridyl-I$2, complex, form. thermodynamics, visible and far IR obs. 2−108517
bromocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
bromotrifluoromethane, IR vibr. and rot. anal. of parallel overtones and combination bands 2−75465
butadiene cations, laser photogragmentation study at 5145 Å, vibr. predissoc. 2−96659
butanol+$SnCl_4$, complex form., vibr., IR absorpt anal. NMR obs. 2−111486
t-butylhydroperoxide, state-to-state unimol. reaction, kinetics investig. 2−62392
n-buytl chloride, pulse irrad. liq. charge transfer from solvent radical to solutes 2−90682
cadmium arachidate in contact with rough metal surfaces, monolayers, surface IR and Raman vibr. spectra 2−96562
carbodimide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
carboxymyoglobin, photodissociated, IR spectra at low temp., haeme pocket behaviour 2−105657
carotenoids, excited states, time-resolved reson. Raman spectrosc. 2−59805
chemisorbed Z 2−115526
chiral molecules, vibr. circular dichroism, mid-IR FT study 2−96609
3-chloro-2-methylpropene, vibr. spectra, normal coordinate anal. and conformational equilib. 2−114001
4-chloro-2-nitrotoluene, laser Raman and IR spectra, vibr. anal. 2−102482
chlorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
p-chlorobenzyl cyanide, Raman and IR spectra, vibr. assignment 2−90533
chlorocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
chlorodiacetylene cation, spectroscopic studies 2−75343
chlorodifluoromethane in liq. Ar, IR and Raman spectra, vibr. anal., overtone and combination bands 2−90546
chloroethane-2-d_1, IR and Raman spectra, vibr. anal. 2−75285
chlorofluoromethane, force consts., vibr. rot., IR obs. 2−85658
chloromethane, $\nu_3+\nu_5$ band study, Coriolis reson. *(French)* 2−80573
chloromethane, IR absorpt. line intensity of ν_4 and $3\nu_6$ perturbed bands *(French)* 2−114046
chloromethylphenols, vibr., laser Raman obs. 2−108523
chloropentafluorobenzene vapour, vibr. deactivation 2−59913
p-chlorophenyl isocyanate, vibr. and electronic spectra, assignments 2−90534
chlorophyll a, intermol. interactions in vivo, reson. Raman spectroscopy obs. 2−105638
chrysene, vibrs., IR and Raman obs. 2−64984
coherent radiation generation by parametric excitation of mol. vibrs. 2−55271
condensed phases, hindered mol. rot., IR spectra 2−110875
conformational studies by IR and Raman spectra 2−80633
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
18-crown-6-$K_2C_2O_4$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$K_2Cr_2O_7$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$KMnO_4$, IR and Raman vibr. spectroscopy 2−75282
cubane, nucl. spin statistics, vibr. spectra 2−90573
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
cyanogen, IR spectrum in region of bending fundamental ν_5, rot. const. 2−85651
cyclobutane-d_0(d_8), vibrs. geometry, force consts., ab initio HF calcs. 2−108349
cyclohexane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
cyclohexane, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
cyclohexane, liq., degenerate vibrs., rot.-vibr. relax. 2−93173
cyclohexane, liq., Raman-active vibr. modes, coherent excitation, spectrosc. technique 2−79681
cyclohexane, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
cyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
cis-cyclohexane-1, 3-diol, OH stretching and H bonds, CNDO/2 calcs. 2−70147
cyclohexanols, axial tertiary, OH-rotamer distrib., struct. information from IR spectra 2−108514
cyclohexanols, saturated, OH rotamers, γ-alkyl substituent effects 2−90513
cyclopropane adsorbed on Ru (001), orientation and symmetry, EELS and photoelectron spectroscopy 2−78130
cyclopropyldimethylborane, vibrational spectra and conformation 2−70257
dense medium, dephasing model for vibr. molecule 2−85620
diacetylene, vibr. freq., pot. energy functions, IR intensities, SCF calcs. 2−113872
diacetylene in solid Ar, near UV spectra at 9K, vibr. struct. 2−108545
diacetylene mol. in solid Ar at 8K, photolysis, vacuum UV spectra, vibr. struct. 2−80648
3,5diamino-1,2,4-dithiazolium salts, struct., vibr., IR obs. 2−108516
4,5-diaminopyrimidine, IR vibr. spectra 2−54841
diatomic molecular gas, nonequilibrium distrib. over vibr. states 2−96539
diatomic molecule, classical oscill. dynamics and IR absorpt., double well pot. 2−59797
diatomic molecules, dipole and transition moment, vibr. intensities 2−85625
diatomic molecules, effective nuclear charge model 2−59778
diatomic molecules, laser induced spectroscopy 2−59845
diatomic polar molecule in external electric field, electric quadrupole interaction energy 2−113959
diatomic systems, HF Slater wave functions calc. 2−96441
diazoacetophenones, IR spectrosc., substituent effects 2−64982
2,2- dibromobutane, liq., IR absorpt. spectra 2−75286
2,4-dichloroacetanilide, vibr., IR obs. 2−108490
dichloroacetylene cation, spectroscopic studies 2−75343
2,6-dichloropyrazine, IR and Raman vibr. spectra 2−96558
2,5-dichloropyridine, IR spectra, vibr. assignment 2−54839
p-difluorobenzene, selective vibr. excitation by stimulated emission pumping 2−85618
difluoromethanal, vibr. spectra, triple resonances 2−108463
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
diiodoethylarsine mols. conformations by vibr. spectroscopy 2−90727
diiodomethane, local mode vibrs., overtone bands, factorisation calcs. 2−64950
1,2-diisocyanoethane, conformation, vibr., INDO calcs., Raman and IR obs. 2−75274
1,4-dimethoxybutane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,5-dimethoxypentane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,3-dimethoxypropane, Raman and IR spectra, model cpds. of polyethers 2−70258
dimethyl formamides, Raman and IR spectra, vibr. freq. calc. using force field base ab initio calcs. 2−85650
dimethyl mercury, laser photodissoc., methyl radical prod., vibr. and rot. excitation, IR emission studies 2−96653
dimethyl sulphoxide in complex compounds, coordination centres identification from IR bands 2−75279
2,6-dimethylpyrazine, IR and Raman vibr. spectra 2−96558
dimethylsulphite, conformational anal. IR obs. 2−75270
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
dioxirane, symmetric ring opening, nonadiabatic interactions, ab initio CI calcs. 2−67736
diphenyl sulphone, solid and liq., IR spectra obs. 2−57071
dipole polarisabilities, vibr. contrib., data tables 2−94924
dipropenyl ether isomers, IR, Raman and ^{13}C NMR spectra, vibr. coupling 2−96569
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
electric lasers, pulsed, glow discharge stability 2−90879
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2−108469
ethane-d_3, ν_5 vibr. band Raman anal. 2−85675
ethane-d_6, $\nu_9+\nu_{10}$ parallel band, computer deconvoluted spectra 2−80569
ethane-d, ν_7 c-type band, Coriolis interactions, IR obs. 2−90542
ethanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
ethene-HF, H-bonded pi complex, matrix isolated, vibr., IR obs. 2−90536
ethoxy radial, $\tilde{A}\rightarrow\tilde{X}$ fluoresc. spectra, collision-free lifetimes 2−96618
ethyl chloride, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
ethyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
ethyl phenylpropiolates, p-substituent effect, IR and ^{13}C chem. shift study 2−75283
ethyl trans-cinnamates, p-substituent effect, IR and ^{13}C chem. shift study 2−75283
ethylene, ($^{12}C^{13}CH_4$), rovibrational parameters, IR obs. 2−90543
ethylene, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
ethylene, Q-switched spin-flip Raman laser rovibrational lines in 2000 cm^{-1} region 2−102487
ethylene-d_2, CH and CD stretching fundamentals, IR anal. 2−80618
ethylene-d_4, inactive torsion vibr. rot.-vibr. anal., IR obs. 2−80621
ethylene-HF and ethylene-DF complex, microwave spectrum, vibr. and rot., mol. struct. 2−70230
exciplex, formation and relax., solvent effects, vibr., pot. energy curves 2−85570
excited state, chemically pumped, superfluorescence 2−65064
fermic acid, excited state, optically pumped, microwave obs. 2−75245
ferrocytochrome C, mag. resonance-Raman optical activity 2−85674
fluorene energetics, electronic-vibr. spectroscopy and laser induced fluorescence 2−70322
fluorene-Ar(Ar_1)(Kr_1), Van der Waals mols., electronic spectroscopy by resonant two-photon ionisation 2−54907
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
fluorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
fluorobenzenes, monohalosubstituted, orientation in lyotropic mesophase, NMR 2−54881
fluoroform, near IR spectrum 2−80612

molecular vibration continued
fluorohydrocarbons, C-H chromophore IR integrated, band strengths, group additivity rule 2−113984
fluoromethane, anharmonic force fields, ab initio calcs. 2−75174
fluoromethane, matrix isolated, vibr. relax., fluoresc. study 2−90613
fluoromethane, vibr. states, Coriolis interactions 2−90514
fluoromethane submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
fluoromethane vibr. spectra, triple resonances 2−108463
trans-3-fluorophenol, deuterated, microwave spectrum, rot. and quartic centrifugal distortion consts. 2−90526
force const. determ. from vibr. data, isotope effects calcs. 2−90736
formaldehyde, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
formaldehyde, $\tilde{X}^1A_1$ system, selective vibr. excitation by stimulated emission pumping 2−96586
formaldehyde-$d_0(d_1)(d_2)$, force field determ., vibr., CNDO calcs. 2−64875
formaldehyde-d_2 submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formaldehyde-NH_3 (acetonitrile), struct., vibr., IR obs. 2−75277
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2−85715
formic acid, IR transitions, offset-locked CO_2 waveguide laser study 2−85652
formic acid submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formyl fluoride, ν_2 fundamental band, high resolution laser Stark and Fourier transform spectroscopy 2−108598
Fourier transform IR matrix isolation spectroscopy, performance and developments 2−113002
gas molecules, vibr. Q branch, Raman scatt., review 2−108527
gases with real vibr. spectra, mol. vibr. anharmonism, influence on internal energy flux *(Russian)* 2−81216
germanes, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
germylazide, microwave spectra and struct., rot. consts. 2−70233
germylisocyanate, microwave spectra and struct., rot. consts. 2−70233
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2−96546
glycolic acid, vibr., isotope shifts, transferable valence force field 2−75235
glyoxal, torsional mode, Franck-Condon factors, single vibronic level emission 2−108634
glyoxal complexes, vibr. predissoc. decay channels 2−59867
group III/VII diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
group IV/VI diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
n-hexadecane, liq. and soln., conformational order, Raman study 2−67033
hexafluoroazomethane, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexafluorobenzene vapour, vibr. deactivation 2−59913
hexafluorobut-2-ene-$d_0(d_2)$, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexyl-3 radicals, intramol. vibr. relax. 2−54829
1-hexyne in soln., IR and isotropic Raman spectra, vibr. and rot. relax. 2−80615
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
L-histidine and related cpds., aq. solns., Raman studies 2−70259
hydrocarbons, C_1-C_4, intramol. vibr. relax., IR fluoresc. obs. 2−59839
hydroxyapatites, IR ν(OH) bands, temp. depend. 2−108465
hyper-Raman scattering in systems with electronic degeneracy 2−89823
intermolecular H^+ transfer between equivalent mols., diffusion induced tunnelling 2−88339
internal degrees of freedom of atoms and mols., cooling using reson. radiation 2−54808
IR band intensities, rehybridisation model 2−80737
isopropanol-d_6-HX complex, effect of H bonds on mol. vibr. *(French)* 2−85612
kinetic constants role, force consts. calcs. 2−59774
lanthanide complexes, f-f radiationless transitions 2−90612
linear triatomic molecule, vibr. g-factor semiempirical calcs. 2−90510
liquid binary mixtures, mol. vibr. linewidth and shift, conc. depend. 2−70222
mercuric derivatives of amide thiols, vibr. spectra and struct. *(French)* 2−96542
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2−54855
methane, ν_4 band strength determ. from diode laser line strength meas. 2−108632
methane, absorpt. band interpretation in 5500-6300 cm^{-1} 2−108507
methane, higher excited vibr. states 2−90502
methane, interacting upper states of ν_1, ν_3, $2\nu_2$, $\nu_2+\nu_4$ bands, mol. consts. 2−85621
methane, IR absorpt. spectrum of $2\nu_2$ band 2−85655
methane, pentad energy levels, rovibr. anal. 2−90503
methane, vibr., ^{12}C and ^{13}C, IR obs. 2−90539
methane, vibr. states, IR spectral line assignments and strengths 2−90540
methane+Ar, vibr. transitions, vibr.-rot. energy exchange mechanism 2−114086
methane (-d_4), IR and Raman spectra, vibr. freq. and intensities, CNDO calc. 2−80632
methane dissolved in liquid freon, Raman spectrum, isotropic scatt. band profile, intermol. interactions effect 2−59809
methanes, halogen substituted liq. state, Raman band widths of totally symmetric vibr. bands 2−113998
methanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
methanol laser, optically pumped, CO stretch states and vibr. states, far IR laser lines 2−55122
4-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
p-methoxy benzyl alcohol, Raman and IR spectra, vibr. assignment 2−90533
methoxy radial, $\tilde{A}\rightarrow\tilde{X}$ fluoresc. spectra, collision-free lifetimes 2−96618

molecular vibration continued
methoxyflurane, internal rot., vibr., microwave, IR and Raman obs. 2−75252
methyl, geometries and HFS consts., ab initio calcs. 2−70136
methyl acrylate, IR spectra and struct. 2−96568
methyl alcohol, laser Stark saturation spectroscopy, IR transition assignments 2−90592
methyl alcohol, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
methyl cyanide, VUV absorpt. spectra 2−96592
methyl dimethylsilyl sulphide and its deuterated analogues, Raman spectra, conformational anal. 2−90557
methyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
methyl glycolate, vibr., isotope shifts, transferable valence force field 2−75235
methyl groups in liquids, ^{13}C spin-lattice relax. times, torsional vibrs. 2−80662
methyl iodide, photofragmentation dynamics, IR spectra, vibr. distrib. of methyl(ν_3) umbrella mode 2−73003
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
methyl isocyanide, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
methyl magnesium chloride, Grignard reagent, struct., vibr. freqs., ab initio calcs. 2−108449
trans-methyl nitrite, force field parameters, vibr.-internal rot. interaction model 2−102660
methyl nitrite-$d_0(d_3)$, vibr., force consts., IR obs. 2−85659
5-methyl pyrimidine, IR and Raman vibr. spectra 2−108511
methyl radical, geometry, restricted and unrestricted Hartree-Fock calcs. 2−85541
methyl radical, umbrella mode, photofragment IR emission spectroscopy, vibr. progression and pot. parameters 2−72997
methyl symmetric stretching vibr. in simple mols., IR spectra, MO calcs. 2−96566
methyl-phosphine (-difluoro phosphine), force field calcs., IR obs. 2−64856
methyl-phosphonic difluoride (-phosphine oxide), force field calcs., IR obs. 2−64856
methylammonium ion in low temp. methylammonium chloride and its dervatives, empirical force field calcs. 2−114132
methylcyclopropane, torsional vibrs., Raman intensity calcs. 2−96577
methyleneimine, laser Stark and interferometric studies 2−75333
methyleneimine, vibr.-rot., Coriolis interaction, IR obs. 2−75260
methylethynyl mercury(II)-d_0, -d_1, d_3, -d_4, vibr. anal. and pot. energy const. 2−80563
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
2-methylpyrazine, IR and Raman vibr. spectra 2−96558
3-methylsydnone(-d_4), vibr. spectra, force field and electronic struct. 2−75230
millimeter wave spectroscopy, new developments 2−75251
molecules in polar medium, intramolecular mode effect on non-radiative transitions 2−54891
molten salts, Raman spectroscopy of oxyanions, symm. stretching freq. and polarisability 2−72487
monomethyl fumarate and its Na salts, IR and Raman spectra, vibr. anal., struct., conjugative effects 2−90547
naphthalene, cryst., temp. depend. of thermal motion 2−103734
naphthalene, in-plane vibrs., CNDO force field calcs. 2−108381
2,6-naphthyridine electronic spectrum, n,π^* states 2−75307
2-nitromalonaldehyde-d_0(-d_1), H^+ tunnelling and nitro group torsion 2−96548
nitromethane, CH stretching IR and Raman spectra, internal rot. 2−80616
non-rigid molecule internal motion and its rel. to reaction path 2−90507
octahedral hexahalide anions, vibr. anal., GVFF method 2−90498
n-octane ion produced by low energy electron impact ionisation, mass spectra meas. 2−96748
organic compounds, ideal gas thermodynamic props., data tables 2−94922
organic ion radical semicond., trimerised, electron-mol. vibr. coupling 2−96536
oxalyl chlorofluoride, cryst. and fluid states, vibr., conformation, Raman and IR study 2−75275
oxo-hexa-acetato-tetraberyllium (II)-d_0 (d_{18}), vibr., Raman and IR obs. 2−54845
oxo-hexa-acetato-tetrazinc (II), vibr., Raman and IR obs. 2−54845
oxo-hexa-formato-tetraberyllium (II), vibr., Raman and IR obs. 2−54845
oxo-hexa-propionato-tetrazinc (II), vibr., Raman and IR obs. 2−54845
parachloroaniline, Fermi reson. in ND_2 stretching vibr. region 2−85666
parametric excitation of molecular vibrations and laser-chemical reactions, quantum approach 2−108638
parametric model of the intensities in the infrared spectra 2−108520
pentafluoroaniline, Fermi reson. in ND_2 stretching vibr. region 2−85666
pentafluorobenzene, picosecond IR double reson. 2−59830
pentafluorobenzene vapour, vibr. deactivation 2−59913
perfluoro methylene imine, microwave spectrum, rot. consts. 2−70232
perfluoromethylamines, mol. struct., electron diffr. and microwave spectra, normal coordinate anal. 2−90701
perfluoropyridine cation, in Ne matrix, optical absorpt. spectrum 2−108541
phenol-$d_0(d_1)$, isotope effects, H bonds, line shifts, vibr. spectra 2−64952
phenols, H bonded, dispersed fluoresc. spectra in supersonic free jet 2−108610
phenoxy-$d_0(d_5)$, aq. radicals, solvent effects, resonance Raman obs. 2−70254
phenyl alkyne cations, Ar matrix isolated vibr., visible UV obs. 2−108544
phenylacetylene, charge transfer states, two-photon obs., INDO/S calcs. 2−70366
phosphine-boranes and its derivatives, vibr., mean amplitudes, internal rots. 2−114129
phosphines, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
photodissociation and photodesorpt. line shapes 2−80744
phthalocyanine, free base, in normal alkane matrices, laser fluoresc. and excitation spectra 2−96614
phthalocyanine films, on Ag, enhanced Raman scattering 2−87778
pinenes, matrix-isolated, vibr. circular dichroism 2−80696
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2−54855

molecular vibration continued
polar molecules in inert gas matrices, far-IR Fourier transform spectroscopy obs. of mol. motion 2−113977
polyatomic dipole mols., vibr. level population inversion behind shock wave front 2−108860
polyatomic molecular liquids, vibr. dephasing and freq. shifts, isotropic Raman line broadening 2−61891
polyatomic molecules, anharmonic shrinkage effect on mol. vibr. on electron diffr. 2−114105
polyatomic molecules, diffuse luminesc. spectra, exciting radiation effect 2−108619
polyatomic molecules, higher excited vibr. states 2−90502
polyatomic molecules, internal rot. and harmonic vibr. calcs. 2−90511
polyatomic molecules, local mode vibrs., overtone bands, factorisation calcs. 2−64950
polyatomic molecules, normal mode calc. and force field refinement, matrix methods 2−108441
polyatomic molecules, photodissociation, vibr., adiabatic approach 2−85753
polyatomic molecules, vibr. freq. intensity in IR spectra 2−113980
polyatomic molecules containing OH groups, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
polyatomic mols., vibrationally excited, transition moment and energy spacing 2−102542
polyatomic vibr. excited mol., coupled Morse oscill., energy spacings and wave functions 2−80508
polyatomics, intramolecular dynamics, TDHF 2−113955
polypropylene film, stretched, time-resolved Fourier transform IR spectra, stretching-relax. obs. 2−116287
porphines, free base, H^+ migration dynamics, tautomerisation 2−88351
propan-l-ol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
propylene oxide, torsional vibrs., Raman intensity calcs. 2−96577
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
propyne-acetone, vibr. relax., Raman band shapes 2−90555
pyrazine, jet-cooled, picosecond excitation, fluoresc. decay and quantum beats, mag. field effects 2−90601
pyrazine dissolved in liquified gases, nπ^* absorpt. band study, 270-330 nm 2−80646
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2−59842
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2−108606
pyridine, adsorbed on Ag particles, vibr., enhanced Raman effect study 2−80631
pyridine(-d_5), vibr. struct. in valence electron spectra 2−96535
pyridine adsorbed on Ag surface, surface enhanced Raman scatt. 2−82838
pyridine dissolved in liquified gases, nπ^* absorpt. band study, 270-330 nm 2−80646
pyridinium salts, solns., IR spectra, isotope shifts 2−64980
pyrimidine dissolved in liquified gases, nπ^* absorpt. band study, 270-330 nm 2−80646
quadrupolar nuclei in mols., vibr. induced nucl. spin relax. 2−102500
Raman-active vibr. modes, coherent excitation, spectrosc. technique 2−79681
reactions in Ar matrix, IR spectra of prods., vibr. 2−96564
rotational Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
silanes, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
simple systems, higher order correlations 2−75239
small ring molecules, vibr. Hamiltonian, pseudopot. terms evaluation 2−108667
sodium malononitrile, its derivatives and isotopomers, IR spectra, vibr. coupling 2−64968
solid, gas, liq., cyclobutane-d_0(d_1), vibr., Raman and IR obs. 2−108487
spectra, separation of rot. and vibr. motions 2−64947
standard basis sets with polarisation functions 2−80429
stilbene, picosecond excitation and trans-cis isomerisation in supersonic jet 2−83347
styrene, depolarisation ratios and low temp. Raman spectra 2−108747
terephthalaldehyde, Raman and IR spectra 2−80624
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
tetra-atomic mols., out-of-plane vibr., rigid bender model 2−85617
tetracene, isolated, out of plane vibrations 2−75240
tetrachloromethane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
tetrahedral mols., kinetic const. method for vibr. anal. 2−102665
tetrahedral mols. and ions, XY_4, normal coord. anal. and mol. consts. 2−108442
tetrahedral XY_4 ions, mol. consts., normal coordinate anal. and ionic props. 2−102664
s-tetrazine, vibronic coupling of electronic states by b_{1u} vibrs. 2−59777
s-tetrazine vapour, fluoresc. meas., S_1 vibronic level assignments, polarisation and lifetime meas. 2−108611
theoretical chemistry, conf., Colorado, USA (June 1981) 2−107002
2-thiapyridone, isotope effects, H-bond IR obs. 2−108488
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2−64964
thioformaldehyde, gas phase phosphoresc., collisional vibr. relax. 2−108603
thioformaldehyde, laser Stark and interferometric studies 2−75333
thioformaldehyde, mag. rot. spectrum of singlet-triplet perturbations in $\tilde{A}^1A_2$ state 2−114007
thioformaldehyde-d_0(d_1)(d_2), ground and triplet states, vibr., SCF MO calcs. 2−85539
thioformaldehyde-d_0(d_2), matrix isolated form., vibr., IR obs. 2−96556
thioformaldehyde-d_0(d_2), vibr., rot., UV obs. 2−75305
toluene, CH stretching IR and Raman spectra, internal rot. 2−80616
toluene (-d_2) (-d_3) in solid crystalline phases, IR and Raman spectra, effect of internal rot. of CHD_2 group 2−80587
toulene(-d_3), IR and Raman spectra, asymmetric stretching vibr. of $CH_3(D_3)$, torsional struct. anal. 2−70242
triarylimidazole, quinolinyl derivatives, IR absorption bands 2−108506
triatomic linear mol., photofragments, inverse vibr. distribs. 2−59869
triatomic linear molecule, vibr. g-factor theory 2−59780
1,1,2-trichloro-3,3-difluoro-1-propene, vapour, liq. and cryst., vibr., IR and Raman study 2−108518
trichloroacetamide, IR and Raman vibr. spectra and normal vibr. 2−80564
molecular vibration continued
trichloromethane, IR and Raman vibr. spectra in low temp. matrices 2−80599
trifluoroacetonitrile, rovibronic excitation, IR multiple photon dissoc. 2−96660
trifluoroacetylfluoride, mol. struct., torsional barrier, gas phase electron diffr. 2−75432
trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2−90523
trifluoroiodomethane, IR microwave double reson. investig. 2−80693
trifluoroiodomethane, multiphoton excited, flash spectroscopy, UV and IR spectra, vibr. struct. 2−90538
trifluoromethane, IR and Raman vibr. spectra in low temp. matrices 2−80599
trifluoromethyl anilines, CF_3 substitution effect on vibrs., far IR obs. 2−108519
trifluoropropyne, high resolution IR spectrum, sequence struct. 2−108489
trihalogenmethanes, harmonic force fields and mol. consts. 2−80837
n-trimethylene oxide, ring puckering vibr., high-resolution CARS 2−64986
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2−77516
two-atom molecules, vibr. line widths determ. by means of intensity correl. study of reson. fluoresc. 2−65045
urea derivatives containing halophenyl group, intramol. NH-Cl H-bond 2−90422
van der Waals complexes, degenerate states of coupled vibrs., dynamic Jahn-Teller effect 2−59878
vibrational freqs. and harmonic force consts., mol. orbital calcs. 2−80443
vinylidene-fluoride-d_0(-d_1)(-d_2), IR intensity meas., polar tensors and effective charges 2−102476
water, Raman spectra, Fermi reson. band, association model 2−99120
water, supercooled, Raman spectra, H-bonds 2−61890
X-ray emission spectra, vibr., pot. energy surfaces, bond lengths and force consts. 2−65003
XY_6 type molecules, vibr. anal. 2−108445
Ag_3+pyridine, matrix reactions, vibr., IR spectra relationship to SERS 2−111470
Al salt solns., IR spectra 2−93169
$AlCl_3$, general harmonic force field and vibr. freqs., temp. variation technique of gas-phase electron diffr. 2−80811
$AlCl_4^-$, mol. consts. and vibr. 2−85838
$AlClBr_2$, mol. const. using kinetic const. method and least square fit method 2−102457
$AlCl_2Br$, mol. const. using kinetic const. method and least square fit method 2−102457
AlX_3 (X=F, Cl, Br, I), vibr. freq. force consts. calcs. 2−108443
Ar, dimers, Raman scatt., rot. and vibr. spectra, polarisability 2−70265
Ar+HCl, vibr. and rot. relax., quasiclassical trajectories on model pot. energy surfaces 2−90673
Ar+HF, energy transfer, Monte Carlo quasiclassical trajectory study, vibr.-rot. states 2−96684
AsH_3, spectral line broadening and shift, Stark effect 2−108479
AsH_3, submillimeter spectrum, vibr. and rot. anal., spectroscopic consts. 2−108478
Au complex, bipyridyl gold(III) chloro complex, vibrs., Raman study 2−90558
Au_2, binding energies, equilib. distances and vibr. freq. calc. using density matrix method 2−114128
Au(III) complex, 1,10-phenanthroline-$AuCl_3$, vibr. props., IR and Raman obs. 2−54851
Au(III) complex, bipyridyl-$AuCl_3$, vibr. props., IR and Raman obs. 2−54851
BCl_3, vibrational excited state relaxations, IR double resonance absorpt. investig. *(Chinese)* 2−75254
BF_3, electron impact, shape resonance enhanced vibr. excitation 2−65099
$B_{12}H_{12}^{2-}$, icosahedral struct., nucl. spin statistics, vibr. spectra 2−90573
Ba+$N_2O(O_3)$, chemiluminescence of BaO*, vibr. transitions 2−93797
$BaMnO_4$, reson. Raman spectra of vibr. 2−85670
$Ba(MnO_4)_4$, reson. Raman spectra of vibr. 2−85670
$Ba_3(MnO_4)_2$, Raman spectra of vibr. 2−85670
BeF, bonding and consequent unusual progression of vibr. spacings, VB calcs. 2−80489
Bi_2, A-X band system, lifetimes, transition moment 2−65051
$^{79}Br_2$ in Ar and Kr matrices photochemical dynamics, IR spectra and relax. dynamics 2−102475
BrF_6^+, mean amplitudes of vibr. calcs. 2−59775
Bz, spin-spin interaction, vibr. and rot. const., UV obs. 2−90565
C_2, $A^1\Pi_u$ state, vibr. levels radiative lifetimes, time resolved spectra obs. 2−63226
CF_2 triplet state, initial vibr. distrib. and relax. following prod. from reaction 2−70393
CH^+, $A^1\Pi$-$X^1\Sigma^+$ system, emission bands, mol. consts. 2−64959
$CH^+(CD^+)$, $A^1\Pi$—$X^1\Sigma^+$ system, laser-induced fluoresc. 2−75344
C_2N_2, stretching vibrs., freq. and IR intensities, anharmonic pot. energy functions, geometry and rot. consts. 2−96554
C_2N_2, VUV absorpt. spectra 2−96592
$CN(\tilde{X}^2\Sigma^+)$, vibr. and rot. distrib. from ICN photolysis 2−64951
CO adsorbed on Cu (100), IR spectra study 2−56359
CO, adsorbed on Ni (111), energy loss intensities, role of electrodynamic interactions 2−62029
CO Ar, laser-induced fluorescence, vibr. nonequilib. effects 2−59838
CO, EELS with new position-sensitive multidetector spectrometer in 6 to 10.9 eV energy region 2−85824
CO formation dynamics from photodissoc. at 193 nm of isocyanic acid and ketone 2−62411
CO, in solid α-CO, vibr. transition line broadening by diagonal disorder 2−90631
CO in solid N_2, high resolution laser spectroscopy, dipolar broadening effect on vibr. transitions 2−102535
CO, molecular overtone transitions, quantum dynamical study, vibr.-rot. transition probabilities 2−102541
CO, radiative decay lifetimes and optical excitation functions meas. using electron impact excitation 2−70187
CO, reson. scatt. of slow electron, vibr. excitation cross sections, quasiclassical calc. *(Russian)* 2−54973
CO, vibr., radiative lifetimes determ. optical emission functions 2−90722
CO vibrational mode laser excitation for ^{13}C isotope separation 2−85830
CO^+, electronic states, spin-rot. coupling, RKR pot., deperturbation anal. 2−85624
CO^+ excited vibr. state, millimetre wave spectrum 2−90527

molecular vibration continued
$CO+Ar^+(CO^+)$, thermal energy charge transfer reactions, laser induced fluoresc. study 2−90683
$CO+N_2$ mixture, Raman scatt., rot. and vibr. relax. *(Russian)* 2−54856
CO_2, adsorbed on O covered Ag (110), vibr., EELS study 2−87924
CO_2, autoionisation reson. studied using triply differential photoelectron spectroscopy 2−96648
CO_2, CK and OK emission spectra, core state vibr. excitations and symmetry breaking 2−70276
CO_2 gasdynamic laser, shock driven, vibr. temps. and gain coeff. 2−102761
CO_2 isotope lasers, sealed-off, $00°1\text{-}[10°0, 02°0]_{I \text{ and } II}$ vibr. band, transition small signal gain and saturation intensity 2−102766
CO_2 laser, gain limitations, ν_3 mode vibr. temp. meas. 2−55112
CO_2, nonlinearly-optical excitation of symm. vibr., Fermi resonance *(Russian)* 2−80842
CO_2, $\nu_1/2\nu_2$ Fermi reson., motional narrowing, Raman spectrum 2−80635
CO_2, polarisability vibr. matrix elements calc. from Raman intensity 2−113992
CO_2, π_g^{-1} 3ppi $_u{}^3\Sigma_u^- \leftarrow \tilde{X}^1\Sigma_g^+$ transition, rot.-resolved Rydberg absorpt. 2−114013
CO_2, Q branch study, CW Raman amplification spectra 2−75295
CO_2, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
CO_2+Li^+ collisions, high resolution ion energy-loss spectroscopy 2−114083
CO_2+N_2, vibr.-vibr. transitions between asymmetric stretch mode, rate const., semiclassical calcs. 2−90664
CO_3, adsorbed on O covered Ag (110), vibr., EELS study 2−87924
C_3O_2, microwave spectrum, vibr.-rot. anal., rot. and centrifugal consts. 2−108480
COF_2, IR fluoresc. from intermediate mode ν_4, vibr. energy transfer 2−90616
CP molecules, B-A system study 2−54834
CS_2, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
$^{12}C^{16}O_2$ spectroscopic constants of Fermi dyad $[10^0\nu_3, 02^0\nu_3]$ and laser sequence band transition wavenumbers 2−102479
Ca sulphides, IR matrix isolation spectra 2−75284
$Ca+F_2$, chemiluminesc. reaction, product vibr., product alignment depend. 2−83348
CaF_2 prod. in chemiluminesc. $Ca+F_3$ reaction, vibr. and alignment 2−83348
$Ca(^1P_1)+HCl(Cl_2)$ (carbon tetrachloride), reactivity, atomic reagent approach geometry effect, chemiluminescence 2−111476
$Ca_{10-x}Sr_x(PO_4)_{6-s}(VO_4)_s(OH)_2$, struct., isotope effects, IR obs. 2−57104
Cd Z 2−75284
CdD, arc emission spectrum, $A^2\Pi\text{-}X^2\Sigma^+$ system, rot. anal., spin splitting, vibr. and rot. depend. 2−64994
ClF, cryogenic solns., vibr., IR and Raman obs. 2−70240
ClO, fundamental band, isotope effects, IR obs. 2−75263
Co II halide.2TMPO complexes, IR spectra, band assignments 2−113988
CrO_2Cl_2-He(x), mode selective nonradiative process, vibr. predissoc., fluoresc. 2−80709
CsAu, binding energies, equilib. distances and vibr. freq. calc. using density matrix method 2−114128
CsH, $X^1\Sigma^+$ state, laser induced fluoresc. spectrum, pot. energy curve, avoided crossing region 2−108607
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
$CuCl_6^{3-}$, electronic struct., multiple scatt. Xalpha calc., harmonic force const. 2−108376
CuO, $^2\Pi$ ground state, centrifugal distortion in spin-orbit coupling 2−64956
CuO_2, Ar matrix isolated, laser induced fluoresc. obs. 2−65039
D_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
D_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
DCN, vibr.-states, N isotope, dipole moments, laser Stark reson. spectra 2−90594
DCP^+, electron impact excited $\bar{A}^2\Sigma^+ \rightarrow \bar{X}^2\pi_i$ emission spectra 2−80640
DCl, liq., vibr. energy relax., predissoc. 2−113954
DF+DF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2−59909
D_2O, adsorption on montmorillonite, hydration vibr., IR obs. 2−62426
D_2O, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
Er^{3+}, single-phonon nonradiative transition regularities 2−114035
$^{19}F_2$ improved rotational constants using coherent anti-Stokes Raman spectroscopy of vibr. Q branch 2−85671
$F_2+Ga(In)$, product form. rate, excited states, chemiluminescence obs. 2−83359
FCN, anharmonic force fields, ab initio calcs. 2−75174
FCN, excited vibr. states, rot. spectra, equilib. struct. 2−96543
F_2O, vibr. spectra, triple resonances 2−108463
Fe complex, $Fe(CH_2NO)_6^{2-}$, isotope effects, struct., IR obs. 2−75269
Fe(II) complex, imine complex ions, vibr., resonance Raman spectra 2−75293
Ga_2Br_6, mol. consts. calcs. 2−96530
Ga_2Cl_6, mol. consts. calcs. 2−96530
Ga_2I_6, mol. consts. calcs. 2−96530
GeH_3, geometries and HFS consts., ab initio calcs. 2−70136
GeH_3Cl, rovibr. anal. of ν_6 rocking fundamental and hot bands near 600 cm^{-1} 2−90509
GeO, low lying electronic states, vibrational numbering determ. from isotope shifts 2−64850
$H\ ^{35}Cl+H\ ^{37}Cl$, vibr.-vibr. energy exchange process, multiquantum transitions 2−70398
$H\ ^{35}Cl+H\ ^{79}Br$, vibr.-vibr. energy exchange process, multiquantum transitions 2−70398
$H+H_2O$, reaction rate enhancement, quasiclassical trajectory study 2−88338
H_2, circumstellar, vibr. excitation by UV radiation rel. to interstellar CH^+ abundance 2−84296
H_2, electron impact, UV emissions, Werner-and Lyman-band system 2−70432
H_2, gaseous, Dicke narrowing determ. by direct meas. of dephasing time 2−58919
H_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
n- and p-H_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2, Rydberg state, Ne matrix isolated, vibr., UV obs. 2−108542
H_2, vibrational autoionis., photoelectron spectrosc. obs. 2−90638
H_2, vibrational preionisation, multichannel quantum-defect theory 2−75359
molecular vibration continued
2-MeV H_2^+ beam, UV-laser photofragmentation 2−54902
H_2^+ energy and props. in mag. field 2−59695
H_2^+, energy values in superstrong mag. field, adiabatic approx. 2−59724
$H_2^+ + Ar^+$, near-reson. charge transfer, vibr. and electronic energy effects 2−75415
H_3^+, IR vibr. spectrum 2−59803
$H_3^+ + D_2 \rightarrow HD_2^+ + H_2$ reaction dynamics, reactant vibr. excitation effect on product energy and angle distrib. 2−62388
HCN (HNC), ground states, freq. optimised pot. energy functions 2−90644
HCN, anharmonic force fields, ab initio calcs. 2−75174
HCN, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HCN, excited vibr. states, direct overtone spectra, classical chaos and quantum simplicity 2−108536
HCN, integrated IR absorpt. bands intensities 2−70246
HCN, isotope effects, dipole moments, vibr., SCF, MRD-CI calcs. 2−85563
HCN, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
HCN, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
HCN, VUV absorpt. spectra 2−96592
HCNO, pot-functions, equilib. functions, ab initio MO calcs. 2−90441
HCP, ground states, freq. optimised pot. energy functions 2−90644
HCP^+, electron impact excited $\bar{A}^2\Sigma^+ \rightarrow \bar{X}^2\pi_i$ emission spectra 2−80640
HCl in Ar matrices, IR spectra, vibr., proton affinities 2−80608
HCl, vibr. transitions, rot. line strengths, quantum mechanical operators 2−75139
HCl, vibrational excitation in electron beam excited Ar-HCl mixture, expt. study 2−96747
$HCl+CO_2(N_2O)$, vibr. relax. studied using IR chemiluminesc. method, quenching probabilities 2−72969
$HClO_4.2H_2O$, IR and Raman spectra of glassy and liq. states *(French)* 2−87776
HD in ground vibr. state, rot. spectrum, dipole moment 2−85634
HD, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
$H_3(D_3)$, IR and visible electric emission spectra 2−113974
HDO in solid hydrates, Raman and IR intensity features of vibr. modes 2−108513
$HD^{16}O$, ground state, rot. consts., IR obs. 2−75265
HF, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HF oligomers, IR absorbance, band attribution 2−85648
HF+Ba(Sr), state to state reaction dynamics studied using laser induced fluoresc. 2−105458
$(HF)_n$, n=2-6 cluster, IR vibr. predissoc. spectroscopy 2−59989
HNCO, Coriolis-induced rot. struct. in IR spectrum 2−80593
HNO, photochem. complexation in low temp. matrices, IR obs. 2−67737
HNSO, force field, vibr. freq., ab initio CI and basis set calcs. 2−75195
H_2O 2−90754
H_2O dissolved in some O_2 bases, IR spectroscopic props. 2−80605
H_2O, IR spectra, computer plots of normal modes depending on time 2−80611
H_2O, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
H_2O, spectral line broadening and shift, Stark effect 2−108479
H_2O, supercooled, mol. vibr., H bond enthalpy, Raman obs. 2−110839
H_2O, vibr. spectrum, local mode degeneracies in higher overtone states 2−59782
H_2O, vibr. struct., SCF calcs. 2−108365
H_2O, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
H_2O_2, IR intensities, ab initio calculation, dipole moment derivatives 2−70243
H_3O^+, aqueous acid solns., Raman spectrum 2−113996
HOC^+, microwave spectra obs. 2−70235
H_2SO_4, struct. and torsional modes, ab initio calcs. 2−70134
$H_3Si^{79,81}Br$, rovibr. anal. of ν_6 fundamental near 630 cm^{-1} 2−90508
H_3SiI, force consts., rot.-vibr. anal., IR obs. 2−64973
$He+{}^1B_2$ aniline, collision induced vibr. relax. 2−70399
HeH^+ 2 MeV beam, internuclear separation distrib., ion-source depend. 2−75459
Hg vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
$HgBr_2$ photodissociation laser, spectral props. 2−70554
$Hg(ClO_4)_2\text{-}HClO_4\text{-}H_2O$, vibr., IR and Raman study *(Russian)* 2−87801
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
$Hg[Co(CO)_3L]_2$ with L an organophosphorus ligand, stretching freq. and intensities 2−90505
I_2, D′ to A′ transition, vibr. anal., Franck-Condon and band profile calcs., weak emission 2−108546
I_2, E region states excited by two-photon spectroscopy, kinetic obs. 2−85758
I_2, high energy electronic state identification by means of ion dip spectroscopy 2−59875
I_2, ion-pair state, two-photon excitation, fluoresc. obs. 2−85721
I_2, new ion-pair state 2−114133
I_2, state-to-state dissociative electron capture rate, optogalvanic demonstration 2−59949
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
IF_7, struct, vibr. assignment, and intramol. forces, pseudopot. SCF-MO studies 2−75171
K_2MnO_4, reson, Raman spectra of vibr. 2−85670
Li+FH, endothermic reaction, vibr. threshold, pot. energy surface 2−99658
Li_2, $B'\Pi_u$ state, quenching and vibr. energy transfer 2−80789
$LiBeH_3$, normal vibr. freq. and force field determ. by ab initio calc. 2−108462
LiH, $X^1\Sigma^+$ state, dipole polarisability function, complete active space SCF study 2−80458
LiON, struct., isomerisation, ab initio CI SCF calcs. *(French)* 2−108395
Mg sulphides, IR matrix isolation spectra 2−75284
Mg tetraphenylporphyrin, fluoresc. excitation in supersonic expansion 2−90610
MgO reaction prod. from $Mg^*+O_2(N_2O)$, laser fluoresc. study 2−80714
Mn complex, $Mn(CH_2NO)_6^{2-}$, isotope effects, struct., IR obs. 2−75269
MnO_4^- in RbBr matrix, reson. Raman spectra of vibr. 2−85670

molecular vibration continued
N_2, $C^3\Pi_u$ state, $v'=1$ level perturbations and radiative props., time resolved study 2−80841
N_2 glow discharge, low press., electron conc. radial distrib. by optical method 2−71283
N_2, liquids, mol. vibr. dephasing rates, mol. orientations and attraction effects 2−97895
N_2, matrix isolated in Ar, N_2, mol. vibr., Raman obs. 2−70250
N_2, microwave-excited, CARS meas. of vibr. temp. at low press. 2−102481
N_2, molecular vibration levels population, plasma neutrals temp. meas. in microwave discharge, CARS 2−114006
N_2, pumping effect on vibr. distrib. function 2−75236
N_2, reson. scatt. of slow electron, vibr. excitation cross sections, quasiclassical calc. *(Russian)* 2−54973
N_2^+, band spectrum of first negative system 2−70271
N_2+H^+, N_2 energy loss spectrum 2−80799
N_2^++Ar, charge transfer, threshold electron-secondary ion coincidence study 2−96717
$N_2^++Ar(N_2)$, charge transfer, vibr., laser induced fluoresc. study 2−80802
N_2^+(A to X) and N_2^+(B to X) fluoresc. excitation spectra by photon impact 2−96622
$N_2^+(B^2\Sigma_u^+)$ state vibr. population prod. in He^++N_2 charge transfer 2−70411
$N_2(B^3\pi_g)$, quenching by ethanol, reaction rate meas. from plasma flow 2−75339
ND_3, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
NF_4^+, mol. consts. and vibr. 2−85838
NH_2 containing compounds, isolated N-H stretching freq. 2−90506
NH_2, Rydberg excited state, vibr. freq., MRDCI calcs. 2−113892
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
NH_3, rotovibrational transitions, self-broadening and self shifting 2−80568
NH_3, spectral line broadening and shift, Stark effect 2−108479
NH_3, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
NH_3, vac. UV photodissoc., photofragment fluoresc. obs. 2−114056
$^{15}NH_3$, vibr.-rot. anal., IR obs. 2−75259
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2−80566
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
NO, V-T transition probability, photoacoustic study 2−114047
NO_2, A $^2B_2$ state, vibr., reson., fluoresc. intensities 2−102517
NO_2, IR laser mag. reson. obs. using CO_2 laser, high K vibr.-rot. transitions 2−108586
NO_2, photodissociation, fluoresc. and UV obs. 2−80712
NO_2, spin-rot. consts., transition moments, line-widths and intensities, IR obs. 2−85662
N_2O, Raman spectrum, vibr. relax. manifestations 2−108529
$N_2O+SF_6(CCl_4)$, vibr. relax. study using overtone bands 2−90675
NSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
$^{14}N^{15}N$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
Na_2, surface emission from liq. Na, laser diagnostics 2−70444
$Na_2(A^1\Sigma_u^+\rightarrow X^1\Sigma_g^+)$ fluoresc. and continuous spectrum 2−90609
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
Ni complex, $Ni(CH_2NO)_6^{2-}$, isotope effects, struct., IR obs. 2−75269
NiCl, thermal emission spectrum obs., new bond systems 2−54859
NiCl, thermal emission spectra in 4730 to 4390 angstrom region 2−108535
NiF, UV thermal emission spectrum of H→X and I→X systems 2−54864
O_2, magnetic dipole IR atmospheric bands 2−96551
O_2 molecular spectra induced by ion impact on B with adsorbed O 2−77657
$^{16}O_2^+$ and $^{18}O_2$, predissoc. studied by photoelectron-photoion coincidence spectroscopy 2−102551
O_2-Ar mixture, flow in nozzles, chem. and vibr. disequilib. effects 2−81381
$O_2^++O_2$, symmetric molecular charge exchange and vibr. excitations, quantum mechanical calcs. 2−96683
O_2^++Xe, near-reson. charge transfer, vibr. and electronic energy effects 2−75415
O_3, recombination form., vibr. relax. 2−90671
O_3, repulsive pot. energy surfaces, fluoresc. spectrum 2−108609
O_3, vibrationally excited, UV continuum spectroscopy 2−63092
OCS, anharmonic force fields, ab initio calcs. 2−75174
OCS, IR spectra, absorpt., overtone and combination bands meas. 2−108500
OCS, isotope effects, rot. transitions, microwave absorpt. lines 2−94923
OCS, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
OCS, relax. times, K-entropy, intramolecular dynamics 2−108470
OCS, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
OD, far-IR laser mag. reson. spectra 2−75329
$OGeF_2$, bonds, mean amplitude of vibr. calcs. 2−64949
OH, far-IR laser mag. reson. spectra 2−75329
OH^-, stretching vibr. freq. of solid hydroxides and free OH^- ions 2−82846
ONOF, vibr. pot. function and struct. by normal coordinate anal. 2−108495
$OSiF_2$, bonds, mean amplitude of vibr. calcs. 2−64949
$OVCl_3$, matrix isolated and vapour phase, force consts., vibr. IR obs. 2−108515
Os complexes, $(\mu_2\text{-}H)_2Os_3(CO)_{10}$, vibr. spectroscopy, normal coordinate calcs., force const. 2−70469
Os complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
PH_3, spectral line broadening and shift, Stark effect 2−108479
PI, $bO^+\rightarrow X_1O^+$ band, vibr. anal. 2−113966
PO in C_2H_2/air flame, two-photon ionisation processes 2−102549
PO_4^{3-}, mol. consts. and vibr. 2−85838
POF_3, force field calcs., IR obs. 2−64856
POF_3, vibr. freq. in local symm. force field *(French)* 2−108464
$PO_2F_2^-$, local symmetric force field, IR and Raman 2−90559
PO_3F^{2-}, vibr. freq. in local symm. force field *(French)* 2−108464
molecular vibration continued
PSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
Pb_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
PbS, AO^+-$X^1\Sigma^+$ transition, rot. and vibr. struct. studied by sub-Doppler laser spectroscopy, isotope shifts 2−85630
Pd complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
Pt (111), adsorbed NO vibr. coupling, IR reflection absorption spectra 2−56329
Pt complexes, ethylene-Pt cpds., inelastic neutron scatt. and spectrosc. obs. 2−108682
Pt complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
Ru, coadsorption of H_2O and O_2 on (001) surface, vibr. and struct. props. 2−104150
Ru complex, $H_3Ru_3(\mu_3\text{-}CH)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex, $H_3Ru_3(\mu\text{-}CU)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex clusters, vibr., resonance Raman obs. 2−75488
Ru complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2−80637
SF_6, coherent active Raman scatt. spectra *(Russian)* 2−54858
SF_6 cooled in free jet expansion from pulsed supersonic nozzle, multiple-photon absorpt. characts. 2−96555
SF_6, Doppler limited spectrum and anal. of $2\nu_1+\nu_3$ band, rot. consts. 2−85631
SF_6, in liq. O_2, vibr., line shift widths and intensities, IR spectra 2−80604
SF_6, mol. struct. param., temp. depend. 2−102658
SF_6, nonlinearly-optical excitation of symm. vibr., Fermi resonance *(Russian)* 2−80842
SF_6, ν_1 band, high resolution stimulated Raman gain spectrum 2−85669
SF_6 $\nu_2+\nu_6$ combination band multiple photon excitation in bulk and pulsed free jet 2−96670
SF_6, resonance excited vibr. spectrum, CARS method study *(Russian)* 2−70249
$(S^{15}NH)_4$ and $(S^{15}ND)_4$, IR and Raman spectra, vibr. assignments and force consts. isotope shifts 2−59796
SO, highly excited vibr. states, millimetre wave, mol. consts. 2−64962
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const. 2−108612
$SOBr_2$, mol. struct. gas phase electron diffr. study 2−114107
SOF_4, mol. struct., resolution of multiple model problem 2−90699
$SO(X^3\Sigma^-)$, free radicals, v=3-O vibr. overtone bands, IR obs. 2−102477
Sb_4 in inert gas matrices, Raman and fluoresc. spectra, vibr. modes 2−108521
ScX_3 (X=F, Cl, Br, I), vibr. freq. force consts. calcs. 2−108443
Se halides, Raman spectra, vibr. assignments, force consts. 2−70267
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023
SiBr, A-X system, emission spectrum 2−75238
SiH_3, geometries and HFS consts., ab initio calcs. 2−70136
SiH_4, vibr. relax., laser-induced IR luminesc. 2−114042
SiH_3I, vibr. excited states, microwave obs. 2−90525
SiH_3NCO, vibr. spectra and normal coord. anal. 2−96572
SiH_3SiH_2CN, struct., vibr. assignment, microwave, IR and Raman spectra, normal coordinate anal. 2−59788
SiO vibrationally excited masers in late type stars and Orion, EHF obs. 2−84219
SiS($a\ ^3\Sigma^+$) formation from Si+OCS chemiluminesc., dynamic constraints 2−105487
Sn_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
$SnCl_2$, photofragmentation, pot. surface time of flight spectra 2−65059
Sr sulphides, IR matrix isolation spectra 2−75284
TbO, electronic spectrum vibr. struct. anal. 2−113968
Te_2, laser induced fluoresc. spectrum studied by Fourier transform spectrometry, RKR pot. and dissoc. energies 2−65043
TeO, $bO^+\rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
TeS, $bO^+\rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
$TiCl_4$+organic O-containing cpds., complex form., mol. vibr., IR obs. 2−67747
UF_6, ν_3 transition, 16 μm, vibr. anharmonicity consts. 2−108450
UO_2(2,2,6,6-tetramethylheptane-3,5-dionato)$_2$, mean vibr. amplitudes, normal coord. anal. 2−64948
V complex, $V(CH_2NO)_4^{2-}$, isotope effects, struct., IR obs. 2−75269
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000
Xe_2* excimer, de-excitation by SF_6 and N_2, time resolved fluoresc. study, rate const. meas. 2−70316
Zn sulphides, IR matrix isolation spectra 2−75284
$ZnCl_2L_2$ tetrahedral complexes, interligand effects, vibr. spectrosc. obs. 2−90517
ZrO, $B^1\Pi$-$A^1\Delta$ system, rot. and vibr. anal., IR spectra obs. 2−59794

molecular vibration calculations
acetylene(-d_2), local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
trans-acrylyl chloride force fields and vibr., normal coord. treatment 2−80565
adsorbed mols. on metal particles, IR spectra, metal-surface selection rules calc. 2−90552
benzene, linear transitions to highly excited stretching vibrs. 2−113964
bromomethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
8-chloro-1,4-dioxaspiro[4.5]decane, point-dipole interaction, mol. mechanics calcs. 2−85613
chloromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
cyclopropane, struct. and vibr. anal., ab initio HF calcs. 2−59688
cyclopropyl radical, struct. and vibr. anal., ab initio HF calcs. 2−59688
diatomic molecules, vibrational smearing of deform. density, Hartree-Fock-Slater SCF calc. 2−80559
diethyl phosphate phospholipid head group stretching vibr., Raman bands, conformation depend. 2−70261

molecular vibration calculations continued
finite polymer chains, with end defects, approx. eqns. for calc. of chain vibr. freqs. *(Russian)* 2—54995
fluoromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2—108467
in-plane fundamental vibr. frequencies, rel. to cis-trans correlation 2—108440
methane, electronic energy and bond-stretching force const. calc. using single-centre min. basis set 2—70148
methane-d_0,-d_4,(-^{13}C), stretching overtone bonds, local mode model 2—80574
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2—75198
methyl acrylate, band contour assignment of IR spectrum, force field for vibrs. *(Spanish)* 2—85665
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2—96469
normal coordinates calcs. from centrifugal distortion plots and Coriolis coupling consts. 2—108444
octahedral XY_6 mols., force consts., vibr. freq. calcs. 2—96537
organoleadamines, primary, second and tertiary, normal coord. anal. 2—75237
n-paraffins, chains with end defects, approx. eqns. for calc. of chain vibr. freqs. *(Russian)* 2—54995
polyatomic molecules, coeffs. of relationship between exact and approx. vibr. coords. 2—64955
polyatomic molecules, vibr. levels rel. to isotopically selective collisionless dissociation 2—64953
polyatomic molecules, vibronic spectra, vibr. struct. line intensities, nonadiabaticity 2—59779
polyatomic mols., high-lying vibr. states, statistical wavefunction method calcs. 2—90495
polyatomic mols., selective excitation energy, multiphonon description 2—108459
polyatomic vibr. radiative relax. rates estimation 2—59773
pyrrolidine, normal vibr. modes, valence force field calcs. 2—85628
symmetrization rule for collision energies in molecular vibrational transitions 2—54830
symmetry group of vibrationally distorted molecules, theory 2—80560
tetrahedral molecules AB_4, spectroscopic consts., reson. interactions of 1000, 0010 and 0100, 0001 states 2—70214
tetrahedral mols., stretching overtone bonds, local mode model 2—80574
XY_3 type materials, force field calcs. using parametric representation method 2—96532
XY_6 type anions, mol. consts. and cation effects 2—96533
AlD_4^-, anharmonicity connection and mol. consts. calcs. 2—90500
AlH_4^-, anharmonicity connection and mol. consts. calcs. 2—90500
Ar+HCl, energy transfer, vibr. and translational energies effects 2—102588
BD_4^-, anharmonicity connection and mol. consts. calcs. 2—90500
BH_4^-, anharmonicity connection and mol. consts. calcs. 2—90500
Br_2, $B^3\Pi(0_u^+)$ state, spontaneous predissociation 2—80746
CH_2, Renner-Teller effect, rot. and vibr. levels, Fermi reson. effects 2—113958
$(CO_2)_2$, vibr. freq., empirical pots., ab initio calcs. 2—85615
CS_2 gasdynamic laser, mol. vibr. rot. anal. 2—70549
D_2O, anharmonic vibr. problem, soln. by var. method 2—113962
$GeH_4(GeD_4)$, stretching overtone bonds, local mode model 2—80574
H_2, anharmonic vibr. problem, soln. by var. method 2—113962
H_2 discharge, H_2 vibr. population distrib. and negative ion conc. calc. 2—90501
HCl, vibr. excitation by slow electrons, antibounded intermediate state *(Russian)* 2—85827
H_2O, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2—75231
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2—54897
$(H_2O)_2$, H bonds, vibr. intensity, ab initio calcs. 2—85528
$(H_2O)_2$-Li^+, vibr. intensity, ab initio calcs. 2—85528
H_2Se, anharmonic vibr. problem, soln. by var. method 2—113962
HeXe, multiphoton vibr. spectra, model calcs. 2—96668
I_2Ne, intramolecular energy transfer, dissoc., time depend. SCF approx. 2—108452
Li-Lewis base complexes, struct. and props., ab initio unrestricted HF MO calcs. 2—75172
$Li_2(^1\Sigma_g^+)$, excited state, ion-pair interaction effect on vibr. energy spectrum 2—80567
MoO_3, vibr. anal. and characteristic consts. 2—96531
N_2 ($B^3\pi_g$-$A^3\Sigma_u^+$) system, vibr. transition probabilities for Hulbert-Hirschfelder oscillator model 2—70218
NH_3, lower vibr. energy levels, variational calc. 2—80576
NHDT, vibrational intensities, dichroism, Raman, IR spectra, orbital polarisability model 2—108451
NO_2, anharmonic vibr. problem, soln. by var. method 2—113962
NeAr, multiphoton vibr. spectra, model calcs. 2—96668
NeXe, multiphoton vibr. spectra, model calcs. 2—96668
$^{16,18}O_3$, anharmonic vibr. problem, soln. by var. method 2—113962
OCS, vibr. band intensity in IR spectra, quantum and semiclassical theory 2—108454
SF_6, force consts., excited vibr. states, Lennard-Jones and Morse pots. 2—90647
SO_2, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2—75231
$SiH_4(SiD_4)$, stretching overtone bonds, local mode model 2—80574
$SnBr_4N_2$, pot. and vibr. consts. 2—90499
$SnCl_4N_2$ pot. and vibr. consts. 2—90499

molecular vibration in solids
adsorbed atoms and mols. on metal surface, IR and EELS vibr. spectroscopy study 2—116162
alkali halide crystals, spectral hole burning, localised vibrational modes in cryst. solids 2—104919
alkali halides:BH_4 (BD_4^-), vibr. studies by IR and Raman spectra 2—82841
alkali halides:FHF^-, IR spectra 2—82843
alkali halides:SbF_6^-, IR spectra 2—82842
alkaline earth orthosilicates, vibr., isotope shift, IR and Raman study 2—77507
n-alkanes in phase II, IR spectra, interchain vibr. coupling 2—110842
anilinium halides, torsional and librational modes, inelastic neutron scatt., IR and Raman spectra 2—109923

molecular vibration in solids continued
anthracene, luminescence obs. at 0.4K, intramol. vibr.-exciton coupling effects 2—61966
anthracene-d_{10}, phonon dispersion branches at 12K, inelastic neutron scatt. study 2—66149
1,4-anthraquinone single cryst., polarised IR absorpt. and Raman spectra, oriented-gas model 2—93192
aragonite struct. cpds., CO_3^{2-} out-of-plane calcs., intermol. vibr. coupling 2—115377
aragonite struct. crystals, internal vibr., spectral intensities 2—76606
aromatic hydrocarbons, condensed, mol. vibr. 2—75368
aromatic hydrocarbons, lattice and internal modes, temp. factors 2—81908
atoms in solids, tunnel transitions 2—98725
benzene sulphonyl chloride, ^{35}Cl NQR spectrum 2—98992
biphenyl crystals, torsionally induced bands in Raman spectrum 2—87777
3-bromothiophene, liq. and solid, vibr., Raman and IR study 2—93204
d-camphor, carbonyl stretching mode, Raman and IR spectra, high press. and temp. effects 2—67057
chloropentamethylbenzene, single cryst., vibr., IR study 2—57105
chlorophyll-a and its derivatives in solid solns., sharp line fluoresc. and vibronic spectra 2—87836
3-chlorothiophene, liq. and solid, vibr., Raman and IR study 2—93204
crystal electronic and vibr. states, group theoretical anal., site symmetry appls. *(Russian)* 2—56109
cyclohexanol, solid, IR spectra study, 93 to 304K 2—61896
cyclopropyldimethylborane, vibrational spectra and conformation 2—70257
dense mediums, vibrating mol., indirect dephasing model, perturbation expansion method 2—61085
di-potassium tartrate hemi-hydrate cryst., laser Raman and IR spectra 2—116181
2,6-dichloropyridine, solid, vibr., Raman and IR study 2—61888
1,4-dihydroxyanthraquinone-d_0(d_r), electronic states, vibr. Raman and IR study 2—57070
diphenylmethylene, mixed crystals, in benzophenone, Zeeman spectra, triplet-triplet absorpt., mag. field effects 2—87743
ditetramethylammonium uranyl tetrabromide, vibr., luminescence, IR and Raman study 2—61895
EBBA, amorphous and cryst. phases, vibr. density of states 2—56141
explosive, shocked, vibronic relaxation, press. depend. 2—76605
ferrocene cryst., static disorder, mol. configuration, X-ray and lattice energy study 2—115207
fluoromethane, adsorbed on NaCl, IR laser induced desorption by multi-quantum vibr. excitation 2—104136
free base porphin, isolated, ultracold, laser spectrosc. 2—80698
glass, near IR absorption of H_2O, OH group vibr. bands 2—99125
hydroxides, OH stretching vibr. freq., IR and Raman study 2—82846
2-hydroxycyclohexane, aq. soln.-and solid vibr., IR and Raman study 2—116177
ice, crystal phase II and IX, translational and rot. vibrs., Raman study 2—93176
ice Ih, Raman spectrum, OH stretching region, vibr. anal., anharmonic pot. energy functions 2—104867
3-iodothiophene, liq. and solid, vibr., Raman and IR study 2—93204
KCNS, λ-type order-disorder phase transition, Raman study 2—103984
lanthanide oxybromides, Matlockite-type struct., normal coord. anal. 2—66141
lanthanide oxychlorides, Matlockite-type struct., normal coord. anal. 2—66141
MBBA, amorphous and cryst. phases, vibr. density of states 2—56141
metal carbonyls, IR reflectance and Raman spectra, lattice modes 2—110851
methane, solid, Raman spectra under high press., Gruneisen parameters 2—77502
methane-d_0(-d_4) single crysts., elastic and photoelastic consts., Brillouin scatt. obs. 2—66103
methanol (d_1 or d_4)-ammonia (d_3), IR spectra, H-bond, Fermi resonance 2—72502
methanol (d_1 or d_4)-ammonia (d_3) IR spectra, H-bond, Fermi resonance 2—72502
molecular cryst. lattice, mesophases, mol. vibr. and rotation 2—103671
molecular crystals, two-particle vibr. excitations 2—109919
molecular crystals, US relax., Boltzmann eqn. approach 2—56099
m-nitroaniline, electro-optic cryst., anharmonicity of vibrs. 2—67044
p-nitroaniline, solns. and cryst., Fermi resonance, IR study 2—57103
optically induced dipoles, effect on nonlinear refr. index in crysts. 2—116144
orthovanadates $KM^{II}Cr_2(VO_4)_3$ where M=Cu, Ni, Co or Mg, IR spectra, internal vibrs. 2—99122
oxalyl chlorofluoride, cryst. and fluid states, vibr., conformation, Raman and IR study 2—75275
oxamide, Raman active internal and external modes, vibr. 2—82847
oxo-2-pyrimidinium chloride, cryst. and aq. soln., IR and Raman spectra *(French)* 2—77533
PAA, amorphous and cryst. phases, vibr. density of states 2—56141
pCC /5/CaO.3Al_2O_3 cryst., vibr. Raman spectra 2—116187
pentacene in naphthalene mixed crysts. reson. Raman scatt. study of vibr. dephasing 2—77500
n-perfluorohexane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2—98263
n-perfluorooctane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2—98263
(perylene)$_3$TCNQ, single cryst. Raman spectra, temp. depend., isotope effects 2—72470
phthalocyanine, metal-free, films, Raman spectra study 2—99119
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2—93184
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2—93185
cis-polyacetylene, doped, electronic and vibrational struct., finite model 2—76891
polyacetylene, vibrational props., dynamical model 2—76607
polymer chain in mol. cryst., motion, adiabatic approx. calcs. 2—81903
polymers, glassy, mol. vibr., IR absorption spectra study 2—104890
polymethylene, cryst. and amorphous, chains Fermi reson. and vibr. spectra 2—116172
polyoxymethylene hexagonal cryst., IR and Raman vibr. spectra 2—77501
polyvinyl alcohol, vibr. spectra, effects of simultaneous UV irrad. and heating 2—57121
potassium deuterium furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2—67056
potassium hydrogen furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2—67056

molecular vibration in solids continued
2-pyrimidone, cryst. and aq. soln., IR and Raman spectra *(French)* 2−77533
pyrogermanates, struct., IR and Raman vibr. spectroscopy 2−87759
pyrosilicates, struct., IR and Raman vibr. spectroscopy 2−87759
rigid-body vibrs. of mols. in crysts. 2−81902
trans-silbene, out-of-plane IR active vibrs. 2−77535
solid, gas, liq., cyclobutane-$d_0(d_1)$, vibr., Raman and IR obs. 2−108487
stearic acid, 1-C form, lattice vibrs., low freq. Raman active mode mixing 2−72494
TCNQ salt, KTCNQ, single cryst. Raman spectra of phase transition 2−87785
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
tetraethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
tetramethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
tetramethylammonium tetrachloro dimethylantimonates(V), low freq. IR and Raman spectra 2−72500
tetramethylammonium tetrafluoro-dimethylantimonates, low freq. IR and Raman spectra 2−72500
tetraphenylitin, Raman and far IR spectra, vibr. bands assignment 2−72480
tetraphenylmethane, Raman and far IR spectra, vibr. bands assignment 2−72480
$(TMTSF)_2PF_6$, proton magnetic resonance study 2−110687
$(TMTTF)_2X$, ($X=BF_4^-$, ClO_4^-, PF_6^-), phase transition, IR study 2−99113
TMTTF-bromanil complex, phase transition, IR study 2−99113
transition metal complexes with 4-cyanopyridine N-oxide, struct., vibr., mag. moments, IR study 2−77518
transition metals, normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
1,1,2-trichloro-3,3-difluoro-1-propene, vapour, liq. and cryst., vibr., IR and Raman study 2−108518
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2−77516
uranyl fluoride complexes, binuclear, vibr. and electronic spectra meas. 2−72488
vibronic reduction factors of Jahn-Teller impurity centres, determ. from Raman scatt., theory 2−93208
$2n(ClO_4)_2.6H_2O$, bending mode, hypochromic effect, IR study 2−99114
trans-$[(NH_3)_4(CN)_2]^+$, vibr. fine struct. of polarised absorpt. band 2−72471
Ag surface, adsorbed pyridine, resonantly stimulated desorption by polarised IR laser radiation 2−104149
$Ag_3(HN_2SO_3).NH_3.H_2O$, IR vibr. spectra 2−87766
Ag_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
Al_2O_3, stretching vibrs. of unperturbed and H-bonded OH and OD groups, appearance regions 2−116188
$Ba_3(MnO_4)_2$ lattice, factor group anal. 2−116196
$Ba(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
$(CN_3H_6)[M(CO_3)_5].4H_2O$, M=Ce, Th, cryst., vibr., IR study 2−77512
CO adsorbed on Ni (001), core level angle resolved XPS, single scatt. theory, mol. vibr. effects 2−111034
CO, adsorbed on Pt (111), vibrational spectroscopy, EELS and IR 2−110125
CO chemisorption on Ni(100), vibr. freq. and ionisation pot., generalised valence bond methods 2−66370
CO, cryst., two-phonon transitions, vibr., IR study 2−57069
CO pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
$^{12}C^{17}O$ in solid N_2, IR transient antihole burning, spectral transfer 2−108978
CS_2, solid, intermol. modes, neutron and Raman scatt. studies 2−98211
$12CaO.7Al_2O_3$, cryst., vibr. Raman spectra 2−116187
$CaWO_4$, IR spectra, vibr. exciton density of state functions 2−99106
$Ce_2(SO_4)_3.(H_2O)$, polarised Raman spectra. vibr. modes, temp. depend. *(French)* 2−72501
$CoAs_3$, far IR reflection spectra meas. and dielec. function and lattice dynamics calc. 2−110855
$CoP_3(As_3)(Sb_3)$, far IR reflection spectra meas. and dielec. function and lattice dynamics calc. 2−110855
$CsAl_3I_2$, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
CsH_2PO_4, paraelectric, -OHO-vibrs. in Raman spectra 2−93207
CsI:SO_4^{2-}, cryst., SO_4^{2-} conc. and separation factors, spectrophotometric meas. 2−57132
$Cs_3La(N_3)_6$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_2NaErCl_6:Er^{3+}$, optical absorpt. spectra and crystal field anal. 2−82882
$Cs_2Nd(N_3)_5$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_4Nd(N_3)_7$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_2UO_2Cl_4$, polarised IR absorpt. spectrum 2−104874
Cu_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
D_2-ortho molecular under press., rot.-libration transition 2−61127
FeOCl intercalates with Lewis base, Fourier transform IR obs. of struct. 2−116166
α-FeOOH IR spectra, normal coord. anal. 2−87761
GeO_2, vitreous, near IR absorption of H_2O, OH group vibr. bands 2−99125
H_2, ordered solid, IR absorpt. spectra, theory 2−104112
HCl isolated in solid Ar, molecular dynamics calcs. 2−102465
HDO in solid hydrates, Raman and IR intensity features of vibr. modes 2−108513
KAl_2Br_7, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
KCl:SO_4^{2-}, cryst., SO_4^{2-} conc. and separation factors, spectrophotometric meas. 2−57132
$KClO_4$:MnO_4^-, reson. Raman profile line shapes from optical absorpt. data 2−93233
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
$K_4Fe(CN)_6.3H_2O$, vibrational spectrum and water of crystn. sublattice struct. in ferroelec. phase 2−72506
KI(Br)(Cl):NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
$La_2(MoO_4)_3$, Raman and IR spectra, vibr. assignment 2−82850
$La_2(SO_4)_3.9(H,D)_2O$ single cryst., polarized Raman spectra, external vibr. modes, temp. effect *(French)* 2−72491
$Li_2B_4O_7$, Raman spectrum, 100 to 400K 2−67038

molecular vibration in solids continued
$LiClO_4.3H_2O$, IR stretching and bending bands of weakly bound water 2−72479
$LiI.3H_2O$, IR stretching and bending bands of weakly bound water 2−72479
$LiNH_4SO_4$, Raman scatt. internal and external vibrs., soft modes 2−82834
$Li_4P_2S_6$, synthesis, cryst. struct. and vibr. anal., X-ray diffr. study *(French)* 2−103714
$MnPS_3$-$Na^+(K^+)(Rb^+)(Cs^+)$ intercalated, IR and Raman vibr. study 2−87769
N_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
N_2 multilayer films, intramol. vibr. excitation accompanied by multiphonon transitions studied by electron impact 2−72583
N_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
NH_4Cl, Raman scatt. from nonfundamental states 2−93195
NH_3SO_3, internal modes, normal coordinate anal., Raman study 2−116178
$NaCd(HCO_2)_3$, cryst. growth and struct. characterisation, etching, X-ray diffr. and IR study 2−91920
$NaClO_4.H_2O$, IR stretching and bending bands of weakly bound water 2−72479
$NaNO_2$, phosphoresc. to fluoresc. quantum yield, energy depend. intersystem crossing and vibr. relax. 2−72536
$Na_5PMo_{10}V_2O_{40}.15H_2O$, cryst. struct. and vibr. spectra 2−98029
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
$Na_6[M(CO_3)_5]$ $12H_2O$, M=Ce, Th, cryst., vibr., IR study 2−77512
O_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
O_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
$O_2S(NAg_2)_2$ IR vibr. spectra 2−87766
$O_2S(NHAg)$, IR vibr. spectra 2−87766
$Pb(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
Pb_3O_4, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
Pd complex, near IR, IR transmission and unpolarised Raman spectra, vibr. anal. 2−104863
Pt complexes, ethylene-Pt cpds., inelastic neutron scatt. and spectrosc. obs. 2−108682
$SO_2(NH_2)_2$, IR vibr. spectra 2−87766
$SbCl_3$-aramatic hydrocarbon complexes, single crysts., isotope and Zeeman effects, NQR study 2−77413
SiO_2 vitreous, near IR absorption of H_2O, OH group vibr. bands 2−99125
$SnGeS_3$, cryst., vibr. props., Raman and far-IR study 2−67030
$Sn(Pb_2O_4)$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$SnPb(Pb_2O_4)_2$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$Sr(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
$Sr_{10}(PO_4)_{6-y}(AsO_4)_y(OH)_2$, cryst., anion migration, IR study 2−57106
$Sr_{10}(PO_4)_{6-z}(VO_4)_z(OH)_2$, cryst., anion migration, IR study 2−57106
Tl_2ZnI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450

molecular vibrational energy transfer *see molecular rotational-vibrational energy transfer*

molecular vibrational relaxation *see molecular rotational-vibrational energy transfer*

molecular vibrational states *see molecular vibration*

molecular vibronic states
amino coumarins, in supersonic Ar jet, $\pi\pi^*$ absorpt., UV and fluoresc. study 2−114011
anthracene, vibronic excitons, thermorefl. spectra study 2−82832
benzene, out of plane vibrs., valence force field calcs. 2−70219
benzene-$d_0(d_1$-$d_6)$ vibronic Jahn-Teller state splitting, UV obs. 2−108543
biphenyl-$d_0(d_{10})$, matrix photoionisation, isotope shift, UV-visible obs. 2−70350
2,2′-bipyridine, lowest electronic states, two-photon excitation spectra 2−70237
β-carotene:I_2, IR spectra, vibronic charge oscills. 2−116171
chiral molecules consisting of two polyacene chromophores, circular dichroism spectra, vibronic anal. 2−70310
chlorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
chlorophyll-a and its derivatives in solid solns., sharp line fluoresc. and vibronic spectra 2−87836
crude Born Oppenheimer potentials, vibronic coupling model 2−102459
1,4-dihalonapththalene, crystals and solid solns., singlet-triplet transition dynamics, exciton-phonon coupling 2−81904
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
1,8-diphenyl-1,3,5,7-octatetraene, fluoresc. and absorpt. spectra, transition moments, intensity distrib. 2−90608
ethylene, V-N bands. system, ab initio nonadiabatic vibronic calcs. 2−75194
fluorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
formaldehyde-d_0-d_2, $^1A_2\leftarrow{}^1A_1$ absorpt. spectrum, absolute spectrum, absolute vibronic intensities 2−85685
glyoxal, torsional mode, Franck-Condon factors, single vibronic level emission 2−108634
haemoprotein complexes, photolysis, vibronic effects 2−99691
light self-diffraction due to vibronic transition in isotropic system *(Russian)* 2−60186
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrin complexes, photolysis, vibronic effects 2−99691
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methylene ($\tilde{a}$-d_2), Renner-Teller effect, laser induced fluoresc., radiative lifetimes, vibronic levels 2−80717
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
multimode vibronic coupling effects 2−80561
multiple surface mol. motion, t-matrix approach 2−85614
naphthalene, two-photon spectrum of b_{2u} modes, vibronic activity 2−80750
organic ion radical semicond., trimerised, electron-mol. vibr. coupling 2−96536

molecular vibronic states continued
phenyl alkyne cations, Ar matrix isolated vibr., visible UV obs. 2—108544
phenylacetylene, charge transfer states, two-photon obs., INDO/S calcs. 2—70366
polyacetylene, IR spectra, vibronic charge oscills. 2—116171
polyatomic molecules, moments method in vibronic spectra theory 2—108473
polyatomic molecules, vibronic spectra, vibr. struct. line intensities, nonadiabaticity 2—59779
polyatomic mols. in soln., intermolecular relax., vibronic spectra kinetics 2—113960
polymethine dyes, vibronic fluoresc. spectra fine struct. 2—114037
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2—59842
resonance electronic Raman effect theory 2—80634
styrene-β-D_2 vapour, single vibronic level fluoresc. and Raman spectra, torsional pot. function determ. 2—108613
tetracene, stretched polyethylene film isolated, site-selection polarisation fluoresc. obs. 2—85723
3,6-tetramethyldiaminophthalinide, moments method in vibronic spectra theory 2—108473
s-tetrazine, vibronic coupling of electronic states by b_{3u} vibrs. 2—59777
s-tetrazine vapour, fluoresc. meas., S_1 vibronic level assignments, polarisation and lifetime meas. 2—108611
thioindigo, fluoresc. spectrum, intensity distrib. and emission-absorpt. mirror symmetry 2—114039
TTF-chloranil, vibronic effects in Raman and IR spectra 2—110862
two-level system in strong electronic coupling limit, Green's functions and optical line shapes 2—59861
$^{79}Br_2$ in Xe matrices, photochemical dynamics, radiative lifetime meas. 2—96621
CCN radical, Doppler limited dye laser excitation spectroscopy, spin-orbit and spin-rot. coupling const. 2—108538
CD^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2—96619
CH^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2—96619
CH_2, Renner-Teller effect, rot. and vibr. levels, Fermi reson. effects 2—113958
CrO_2Cl_2-He(x), mode selective nonradiative process, vibr. predissoc., fluoresc. 2—80709
Fe III complex, Fe III haeme-fluoride, absorpt. and MCD spectra 2—102492
HCl, vibronic transitions and photoionis., photoelectron spectrosc. obs. 2—108626
HNO^+, vibronic and rot. struct., visible spectrum, ab initio study 2—85677
$He+{}^1B_2$ aniline, collision induced vibr. relax. 2—70399
$N_2^{+\cdot}$+He, electronic and vibronic transitions, translational energy spectroscopy 2—54935
ND_3, vac. UV photodissoc., photofragment fluoresc. obs. 2—114056
NH_2, $\tilde{A}^2A_1$ state, rot. energy transfer, time resolved fluoresc. 2—114033
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2—90624
NH_3, vac. UV photodissoc., photofragment fluoresc. obs. 2—114056
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2—80566
NO_2, rot. anal. of 13200 and 13400 cm^{-1} bands by Fourier transform spectroscopy 2—113975
N_2O^+, photoelectron spectrum, vibronic struct., electron correl., strong non-Condon effects, Green's function calc. 2—96633
NpF_6 vapour, electronically excited states, fluoresc. obs. 2—59852
$^{16}O_2$ and $^{18}O_2$, predissoc. studied by photoelectron-photoion coincidence spectroscopy 2—102551
PH_2 radical, hyperfine struct. of $\tilde{X}^2B_1$ and $\tilde{A}^2A_1$ from intermodulated fluoresc. spectroscopy 2—108735
PuF_6 vapour, electronically excited states, fluoresc. obs. 2—59852
SO_2, $C(^1B_2)$ state, quantum beats, fluoresc. obs. 2—59847
SO_2 in supersonic jet, fluoresc. excitation spectrum and single rovibronic level lifetime 2—90615
SO_2, optically excited, fluoresc. induced by IR multiphoton excitation 2—70326
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const. 2—108612
UO_2^+, impurity in alkali halide aq. solns., photolum. spectra meas. *(Russian)* 2—77593

molecular weight
see also mass spectra; molecular weight determination
ABS compounds, microstruct. and deform., effect of matrix mol.wt. and rubber content 2—99488
brittle glass polymers, tensile strength elevation by entanglements 2—93621
DNA, topological aspects and biophysical appl., theory, review 2—96785
epoxy resins, mol. weight, crosslink densities, elastic moduli 2—116482
homopolymer melts, monomer correlations, neutron scatt. method 2—71329
organobimetallic compounds, $(SCN)_2Ni(NCSHgR)_2$, synthesis, elemental anal., IR and electronic spectra, mag. susceptibility 2—96571
PAA polymeric additives, effect on viscosity, mol. wt. depend. *(German)* 2—98324
paraffins, mol. wt. depend. of melting point 2—103959
peptides, molecular size and confirmation 2—99880
poly(1,3-dioxolane), crystallisation, morphology and growth rate, temp. and mol. wt. effects 2—76355
poly (dimethylsiloxane) in methylethylketone, interaction parameter depend. on mol. wt. and conc. 2—108752
poly-arylate-arylensulphonoxide block copolymers, increments of refr. indices, mol. wt. depend. *(Russian)* 2—93137
polyacetylene, conductive, mol. wt. 2—57327
polyepoxides, crosslinked, additive moduli, US meas., rel. to mol. struct. 2—109881
polyester, thermotropic nematic, phase transition entropies, influence of mol. weight 2—103990
polyethylene, mol. struct. uniformity 2—80858
polyethylene, ultrahigh-modulus, nitric acid etching and gel permeation chromatography, struct. obs. and influences 2—109693
polyethylene oxide fractions, supermol. struct., mol. wt. and crystn. conditions depend. 2—115151
polymer, transverse mag. relax. time depend. on mol. wt. *(Russian)* 2—66966
molecular weight continued
polymers, mech. props., influence of mol. wt. and mol. wt. distrib. 2—111306
polyprenol homologues struct. charact., ^{13}C NMR spectroscopy 2—90752
polypropylene isotactic film, thermo-oxidative degradation, struct. changes 2—71377
polystyrene, atactic, mol. fracture 2—72817
polystyrene high resolution electron beam negative resist with very narrow molecular weight distributions for semiconductor IC technology 2—70461
polystyrene-liquid SO_2 system, phase equilibria 2—109953
polystyrenes, high impact, melt rheology at high shear stresses 2—109261
polystyrenes in isorefractive PMMA-toluene solvents, light scatt. obs., radii of gyration, virial coeffs., θ condition 2—116730
poly[α,ω-alkanedioyl(1′,4′-dioxyphenyl)-oxy-4-benzoate]s, mol. wts., structs., NMR obs. *(French)* 2—70458
proteins, molecular size and confirmation 2—99880
vinyl monomers, radical polymerisation, mol. mass and branching centre distribs. *(Russian)* 2—111494
H_2O cluster ions, high mol. wt., form. in expansion of ionised gas mixtures 2—108760
PVC, rigid, wear, effect of mol. wt., surface roughness and sliding speed 2—111323
UO_2 complexes with Schiff bases, spectral props. 2—80586
molecular weight determination
see also mass spectra
benzoquinoline derivatives struct., mol. weight determ., IR and visible spectra 2—114125
gel permeation chromatography, data analysis effect on accuracy and precision 2—116763
organic compounds molecular weight determ. by NMR spectroscopy 2—75470
poly(vinyl pyrrolidine), mol. wt. determ. by fluorimetric const. evaluation 2—85851
polystyrene, mol. wt. determ. by fluorimetric const. evaluation 2—85851
molecule-atom collisions *see atom-molecule collisions*
molecule-ion collisions *see ion-molecule collisions*
molecule-ion reactions *see ion-molecule reactions*
molecule-molecule reactions
see also molecular rotational-vibrational energy transfer
acetylenene+B_2H_4, reaction paths, MNDO calcs. 2—93777
N-acetyloxypyridinium salts, fragmentary exchange, reaction rates and mechanism, IR and NMR obs. 2—83372
amides+$POCl_3(PCl_5)$ reactions, ^{35}Cl NQR investig. 2—111482
azulene+CO_2, level to level vibr. energy transfer, energy depend. and prod. species obs. 2—102584
bimolecular reaction kinetics, reagent density fluctuations 2—72956
butanol+$SnCl_4$, complex form., vibr., IR absorpt anal. NMR obs. 2—111486
cyanohexatriyne+H_2, classical rigid-ellipsoidal model for collisions 2—68609
methyl radicals +O_2, reaction rate const. meas. 2—85647
orientational correl., translational and rot. diffusion 2—99664
1-pentene, laser photocatalytic isomerisation and hydrogenation 2—116688
polymer melts, diffusion controlled processes, entanglement effects, reaction kinetics 2—67749
polymer soln., nonentangled systems, diffusion-controlled reactions, kinetics study 2—67748
purines+phenylalanine, collision complexes, ^1H NMR spectra 2—57591
pyridine+Ag_x, matrix reactions, vibr., IR spectra relationship to SERS 2—111470
$As_2O_5+Li_2O$ (Na_2O)(CaO)(BaO), heat of form. of arsenates meas. 2—88374
BH_3+D_2, UV-laser photochemistry, rate consts. meas., reaction mechanism 2—62413
$BH_2D+B_2H_6$, UV-laser photochemistry, rate consts. meas., reaction mechanism 2—62413
$BO+O_2$, reaction kinetics studied by laser induced fluoresc. 2—72952
$C_2+H_2(O_2)$(methane) reactions, temp. depend. 2—93765
$CO+H^+(H)$(hydride ion)(H_2), geometries and heat of reaction, MNDO calcs. 2—93778
$CO+NO_2$, laser-enhanced reaction mechanism 2—88371
$CO_2+H_2O\rightarrow H_2CO_3$, hydration, theoretical models for activation by cationic binding sites 2—57600
D_2+T_2, liq. and solid, chem. exchange reactions, IR spectra study 2—96301
DF+DF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2—59909
H_2+CO, SCF pot. anal., dispersion energy 2—85571
HCl+$CO_2(N_2O)$, vibr. relax. studied using IR chemiluminesc. method, quenching probabilities 2—72969
HCl+quencher molecules, vibr. relax. rate const. meas., dipole and dispersion interactions 2—70397
HF+HF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2—59909
$H_2O+D_2O\rightarrow 2HDO$ equilibr. const., by direct summation over rot. vibr. states 2—99663
H_2O+Li_2O reaction surface, ab initio MO calc. 2—83368
$H_2O_2+Cl_2$ singlet O_2 generation reaction, evaluation of amines as bases 2—78080
$LiBH_4$+formaldehyde (acetaldehyde), carbonyl reduction mechanism, ab initio SCF calcs. 2—67732
$N_2(A^3\Sigma_u^+)O_2$ interaction, product channels 2—72955
NO+CO, long transients in surface reactions at high pressures 2—78131
$NO+H^+(H)$(hydride ion)(H_2), geometries and heat of reaction, MNDO calcs. 2—93778
Na_3+SF_6, mol. beam reaction, triple electron jump mechanism 2—88360
No+O_3, transition states, mechanisms, angular distrib. chemiluminescence 2—105466
OH+CS_2, OCS formation, rate const. determ. 2—83350
OH+HNO_3, rate consts., product distrib. discharge flow EPR study 2—99657
SF_5Cl+SF_6, sensitised dissoc. by laser-excited absorber 2—65070
$SO+O_2(O_3)(NO_2)$, rate coeffs., chemiluminescence study 2—99651
$SO_4^{2-}+H_2O$ interactions, X-ray diffr. study in presence of Ni and Mg ions 2—78073
Si negative ion chemistry in mesosphere 2—100612
$TiCl_4$+organic O-containing cpds., complex form., mol. vibr., IR obs. 2—67747
UF_6+SF_6, sensitised dissoc. by laser-excited absorber 2—65070
$XeOF_4+SF_6$ sensitised dissoc. by laser-excited absorber 2—65070

molecule-neutron interactions *see molecular neutron scattering*
molecule-surface impact
see also sputtering
atomistic or molecular processes on clean surfaces: recent advances 2−110130
beam-surface diffr., hard-wall approx., iterative calc. method 2−57241
collision interaction, vibr. energy transfer in reactive systems, variation of initial energy distrib. 2−62378
crystal surface, rotationally inelastic scatt. of HD, bound-level resonances calc. 2−67175
cyclobutene, single collision gas-surface vibr. energy transfer, ini tial energy distrib. variation 2−62378
energy accommodation coeff., hard-cube model, multiple collisions role 2−99262
fast molecular ions passage through thin foils, collisional effects 2−80843
graphite, NO beam scatt., angular distrib., rot. state population fluoresc. study 2−105023
graphite layer covering Pt foil, Br_2 lobular scatt. 2−99269
metal surface, sticking and inelastic scatt., electron-hole pair creation mechanism 2−99258
molecular-ion dissoc. expts. interpretation 2−80775
n-octane, collision with SiO_2 surface, vibr. energy transfer, mass spectrosc. obs. 2−114082
rotational rainbows in diatom(solid) surface scattering 2−59889
scattering of atomic and mol. beams from surfaces, review 2−105034
scattering of fast molecules in successive correlated collisions on the surface of a solid 2−87937
velocity correlation, boundary conditions 2−91572
Ag (111), mol. beam scatt., speed distrib. meas. for monatomic, diatomic and polyatomic mols. 2−57240
Ag (111), NO molecule-surface collision, rot. polarisation obs. 2−77687
Ag surface (111), NO scatt., laser induced fluoresc. 2−99256
$Ag+Se_2^+$ (Te_2^+), secondary electron emission yields 2−77649
Al, polarisation wake wavelength meas. 2−80776
C, polarisation wake wavelength meas. 2−80776
C_7^+ molecular ion structure study using charge-coupled imaging device 2−75458
CN^+ molecular ion structure study using charge-coupled imaging device 2−75458
H_2^+ dissociation by C foils, interatomic separation and relative vel. distrib. calc. 2−75370
HeH^+ 2 MeV beam, internuclear separation distrib., ion-source depend. 2−75459
LiF (001), rotationally inelastic scatt. of HF 2−67174
NO+Pt(111) interaction, laser induced fluoresc. study 2−67182
OH^+ break-up in thin C foil, H^0 component study 2−75371
OH^+ molecular ion structure study using charge-coupled imaging device 2−75458
Pt (111), adsorbed CO, scatt. cross sections for thermal He and H_2 beams 2−105027
Pt (111), scattering of NO, vibr. and rot. energy distrib., two-photon ionisation study 2−87932
Pt (111) surface, scatt. of NO, angular and vel. distribs. 2−99250
Pt surface (111), HD scatt., rot. mediated selective adsorption calcs. 2−87012
Pt surface (111), interaction of NO, mol. beam study 2−57238
molecules
see also excimers; hydrogen neutral molecules; macromolecules; mesic molecules; muonic molecules; quasimolecules
No entries
Mollier diagrams *see thermodynamic properties*
molten metals *see liquid metals*
molten polymers *see polymer melts*
molybdenum
see also nuclei with .....
adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
adsorbed CO dissociation, pulsed voltage and pulsed laser atom-probe study 2−76828
adsorbed O effect on excited particle emission *(Russian)* 2−87073
adsorption of H on Cs monolayer, negative H ion production by sputtering 2−99253
anelastic relax. of self-interstitials, X-ray diffuse scatt. study 2−56082
anodic buffing and polishing, polarisation charact. 2−83292
atom, superposition errors, contracted basis set investigation 2−85537
atoms, matrix isolation, ESR study 2−70296
Auger MNN spectra and electron localisation 2−93334
backscattering of low energy H ion, energy distrib. meas. 2−67173
blistering by D^+ beam irrad. 2−74933
chemisorption of Li, image pot. contrib. to sorption energy 2−104163
chemisorption of N_2 and H_2 on densely packed cryst. planes 2−115559
chemisorption of O on (100) surface, surface EXAFS study 2−105003
coated with CVD SiC, surface damage under D^+ irradiation 2−76523
coatings, high-hardness, vac.-arc discharge plasma deposited, struct. 2−72871
cold rolled, strain texture formation, dependence on orientations distrib. function *(Russian)* 2−99441
cold rolled and annealed, dislocation struct., electron microscopy study 2−76450
cold-worked, deform. and slip behaviour, cryst. orientation effect 2−99502
composite, porous and filled, internal friction and effective elastic moduli 2−99476
core-hole lifetimes, electron spectra determ. 2−57256
creep, polycrysts., substruct.-induced stability 2−93555
creep props. and microstruct. precreeping effects, TEM obs. 2−105243
CTR gaseous environment, improvement of mech. props. 2−108106
deformed, single cryst. foils, anomalous slip induced by surface effect, HVEM study 2−86671
desorption of D on heating following D^+ implantation 2−92366
detrapping of implanted He and N 2−81808
diffusion, of ^{185}W, via grain boundaries and defects 2−71718
diffusion in Re, SIMS study 2−110041
diffusion of interstitial atoms, elastic aftereffect meas. *(German)* 2−71734
dislocation relax. peaks, internal friction study 2−60994
ductile-brittle transition, low cycle fatigue effects 2−72807
electric spark alloying with TiN, ZrN and HfN 2−67657
electrical resistivity meas., 1500 to 2650K, SRM 781 specimens 2−71946
electron irrad., self-interstitials, anelastic relax. at 4.7K 2−56083
electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
molybdenum continued
electron-stimulated desorption of O^- 2−61294
electronic struct. of 3d and 4d impurities 2−110290
electropulse compacted, porosity influence on elastic moduli 2−111223
empirical pair potentials for He interaction with substitutional Ne(Ar) 2−65065
etching using carbon tetrachloride/O_2 mixture gas 2−62273
fatigue data 2−69904
fibre reinforced Fe and Cu composites, porous, stress-strain state during compression 2−116414
film, As ion implantation, stopping power, SIMS study 2−56053
film, electrolysis prep., growth rate anisotropy and struct. *(Russian)* 2−61304
film, sputtered, internal stresses, optical reflectance, 2−82181
film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
film deposition, planar magnetron charact. at high power input 2−57291
film on Si, ion beam induced interfacial reactions, TEM obs. 2−110050
film on Si, $MoSi_2$ formation, impurity effects 2−115580
first wall materials vaporisation and melting in fusion devices 2−74919
fusion materials-radiation effects facility, use of Los Alamos Meson Physics Facility 2−85239
grain misorientation statistics meas. after recrystn. annealing *(Russian)* 2−93526
Hugoniot diagram, meas. using two-stage light-gas gun 2−69192
impurity ions radiative losses in Alcator A Tokamak 2−71112
interaction with molten Cu 2−72873
interaction with UO_2 2−59470
ion bombarded by 10 meV $^4He^+$ ions, depth depend. of radiation hardening 2−88095
ion implantation effect on microstruct., TEM obs. 2−71522
ion irrad., final damage state, mass dependence, channelling and TEM study 2−76530
ion irradiation, by H^+ and He^+ damage struct., blistering process, TEM study 2−76520
ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
irradiated, void growth, cyclic pulsed temp. effect 2−86717
irradiated with Ar ions, defects study using thermal desorption spectrometry 2−76517
laser mirros for far VUV spectral region 2−81046
limiters in Doublet III, changes in near-surface microstructure 2−74901
low dose fission neutron irrad. damage 2−103829
low overvoltage electrocatalysts for hydrogen evolving electrodes 2−73011
mechanical eqn. of state 2−83194
metallic, two-photon X-ray emission from inner-shell transitions 2−102454
metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
microcrack behaviour in neutron irrad. single crystals 2−54508
monocrystal surface (110), chemisorbed gas, desorption by low-energy ions 2−74923
neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843
neutron irrad., void coarsening during annealing 2−86734
neutron irradiated, anneal hardening, influence of purity, cold work and alloying elements 2−103843
neutron total cross-section, at 0.04-2.20 eV 2−85131
nitridation by low energy N_2^+ ion bombardment, surface pretreatment depend. 2−111349
nitridation by N_2^+ and N^+ beam bombardment, energy and dose depend. 2−111350
optical components, polishing procedures for surface texture reduction 2−102898
oxides, thin film, differential reflectometry 2−101445
phonon limited elec. resist. calc. 2−92600
plane spray coated with Al_2O_3, TiB_2 and TiC, fusion reactor struct. materials appl. 2−74914
plasma spraying on steel, with preliminary applic. of low-melting layer, coating influence on creep 2−99601
plastically deformed sample, near-surface dislocation sources 2−98088
polycrystalline, He thermal desorpt. spectra, surface relax. effects 2−115547
polycrystals, cold-worked, mechanism of work softening at elevated temp. 2−67375
porous, laser radiation effects, geometric charact. of craters 2−71501
porphyry Mo deposit, recognition using artificial intelligence program 2−117501
powder, fine, sintering 2−116413
precipitation at room temp., TEM and THDS obs., He platelet form. 2−88088
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au; stopping power meas. 2−64820
pure, mech. props., effects of low-temp. neutron irrad. 2−103845
radiative lifetime meas. using novel atomic beam source 2−75219
recrystallised foils, grain boundary migration in presence of Ni 2−83146
reflectivity at 10.6 microns, laser heating effects 2−72442
residual stresses, local, determ. from X-ray meas. *(German)* 2−93747
scattered wave functions and electronic states 2−87172
self-ion implanted, in situ annealing 2−92011
sheet, SIMS analysis of oxygen on brittle fracture surface 2−99581
shock compression measurements at pressures >1 TPa 2−76590
single crystal, creep during low energy ion irrad. *(Russian)* 2−72762
single crystals, cyclic strength at room temp. 2−111319
single crystals, fatigue failure features 2−77944
single crystals, microcrack healing in heating under uniaxial compression 2−116550
sintered sheet, electron beam welded, bend props. 2−116509
sputtering yield for, Monte Carlo calc. 2−77674
strength and ductility in complex stress state, 293-173K 2−111251
surface, damage thresholds for short pulse IR lasers 2−108923
surface, N_2^+ beam reaction in low kinetic energy region, Auger effect 2−99706
surface, polycryst. N_2 adsorpt. and NH_3 decomp. AES obs. 2−67157
surface (100), adsorpt. of CO, high resolution EELS study 2−71794
surface (100), sputtering of chemisorbed N, mass effect 2−82981
surface damage from diamond-saw emitting, positron lifetime study 2−61266
surface diffusional electrotransport of ^{63}Ni *(Russian)* 2−104083
surface polarisability change, with oxidation, XPS of physisorbed Xe 2−77451
thin film, on GaAs substrate, positron-annihilation study 2−82952

molybdenum continued
thin film, simple technique for deposition based on plasma induced dissociation of $Mo(CO)_6$ 2−83037
US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
wire, eddy current flaw detector 2−116667
wire, rolling and flattening to ribbon, electrostimulated deform. role 2−116465
wire cathode with graphite anode for high-power TE CO_2 laser 2−60107
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
yield point, neutron irrad. and impurities effects, thermal activation anal. *(Russian)* 2−115333
Al-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
Al_2O_3-Mo composite powder, room- and high-temp. thermal cond. 2−66308
Cu-Mo, ion beam microtextured surface, optical absorption coeff. 2−83277
Fe-B-Si-Ni-Mo metallic glass, crystn. kinetics, DSC study 2−71364
H ion backscatt., energy and ang. depend. 2−69849
Mo, delayed recrystn. during annealing, O effects, electron microscopy study *(Russian)* 2−88099
Mo ions on PLT Tokamak, magnetic dipole lines above 2000 Å 2−103454
Mo XVI spectra, 40-95 Å 2−85582
Mo^{3+} in phosphate fluorophosphate and fluoride glasses, ESR study *(Chinese)* 2−110621
Mo:D, ion-implanted, permeation and re-emission rate, rel. to irrad. damage 2−74937
Mo:H, diffusion and permeability 2−82023
Mo:He, radiation damage during HVEM, He effects 2−103823
Mo:N,H, defect-gas impurity interactions, positron annhilation study 2−67142
Mo/Ge/GaAs 2−87386
Mo-$CuInSe_2$ interface, capacitance-voltage and EBK study 2−87385
Mo-cup/quartz seals for lamps and lasers 2−79596
Mo-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
Mo-MoO_3 black solar selective films, XPS, optical and structural props. 2−72640
Mo-Si (111) interface reactions, synchrotron UPS and AES studies 2−110173
Mo-Si interface, $MoSi_2$ formation kinetics meas. during CW laser scanning 2−92025
Mo-Si interface, polycryst. Si film growth and disilicide formation 2−71817
Mo-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Mo-W bilayer film, solid state disilicide form., annealing and ion implantation effects 2−92371
Mo-ZrN composite powder, room- and high-temp. thermal cond. 2−66308
Mo-ZrO_2, condensates, second phase particles distrib. *(Russian)* 2−67314
Mo_2, bonding, spin-polarised cellular multiple scatt. calcs. 2−80448
SnO_2/Mo photothermal solar energy convertors, solar absorptance and thermal emittance 2−83514
Ti N-Mo, prep. by gas absorption and reactive RF sputtering 2−74913
TiB_2-Al-Mo, coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiB_2-Mo, coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiB_2-Ti-Mo, coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiC-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917

molybdenum alloys
see also molybdenum compounds
anodic buffing and polishing, polarisation charact., alloy VM-1 2−83292
dilute, fusion-neutron irrad. damage rates 2−103828
ductile-brittle transition, low cycle fatigue effects on type TZM 2−72807
Hastelloy C-276, heterogeneous precipitates, electron microscopic anal. 2−99432
Hastelloy C-276 and G, Ni-base stainless alloys, H transport rel. to H embrittlement 2−99539
Hastelloy X, carburization protection with Ti-Si enriched layers 2−116619
Inconel 625, high-temp. air oxidation 2−80115
Inconel 625, sequentially He^+ implanted, surface exfoliation suppression 2−76522
ion bombarded by 10 meV $^4He^+$ ions, depth depend. of radiation hardening 2−88095
mechanical properties and nature of fracture, in ductile-brittle transition temp. range 2−72820
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
steel, austenitic stainless, Mo alloyed, passivation, surface composition 2−77984
superalloys thermodynamics, activity coeffs. of Al, Ti, Cr, Fe, Co, Ni, Mo and W 2−99390
surface Ar^+ ion irrad. damage 2−74929
void swelling after high fluence neutron irrad. in type TZM 2−85213
weld, B impurity distrib. *(Russian)* 2−92017
Be-Mo-Zr amorphous alloy, ^9Be NMR line breadth and Knight shift 2−104720
Co-Cr-Mo alloys, hot corrosion in modified Dean's rig 2−99585
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Co-Cr-Mo-C alloys, wrought, phase transform. 2−99423
Co-Mo-Zr(B), amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Cr-Mo ferritic steel for LMFBR primary and secondary systems 2−64536
Cr-Mo solid soln. systems, high-temp. X-ray investigs., lattice and thermal props. *(Russian)* 2−66156
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-Cr-Co-Mo-Ti (24, 15, 2, 0.5 wt.%), magneto alloy, machinable, microstruct. and props. *(Chinese)* 2−72261
Fe-Cr-Ti-Mo-TiO_2, dispersion strengthened, void swelling in HVEM, influence of fabrication procedure 2−111189

molybdenum alloys continued
Fe-Cr(-Mo), Neel temp. and elec. resist., mag. moment-spin density wave coupling 2−82573
Fe-Cr(-Mo), reaction with Cl_2 gas, kinetics and mechanism 2−67639
Fe-Mn-Cr-Mo-C-P, metallography rel. to sintering 2−116665
Fe-Mo system, phase diagram and thermodynamic props. 2−111137
Fe-Mo-Cr, σ phase, range of stability 2−62100
Fe-Ni-Mo, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Fe-Ni-Mo, martensitic γ to α transform., purity depend. *(Russian)* 2−99426
Fe-Ni-Mo-B, metallic glasses, annealed, phase transforms 2−67302
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-P-Ni(Mo), powder premixes, sintered props., effect of Cu 2−88026
Fe-Si(Mo)(C), liq., density, influence of Si, Mo and C 2−61048
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), C activity, influence of alloying additions *(German)* 2−93491
$Fe_{78}B_{20}Mo_2$, amorphous, crystn., annealing, elec. resist. meas. 2−55853
$Fe_{78}Mo_2B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$(Fe_{93}Mo_7)_{80}B_{10}P_{10}$, amorphous, mag. excitations, neutron diffr. study 2−115992
$(Fe_{1-c}Mo_c)_{75}P_{16}B_6Al_3$, amorphous, anomalous crit. behaviour, random anisotropy effects 2−72232
$Fe_{40}Ni_{38}Mo_4B_{13}$, metallic glass, crystn., TEM study 2−65867
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, elastic moduli, hardness and density 2−99472
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, ion implantation, He bubble and blister formation 2−115314
$Fe_{40}Ni_{38}Mo_4B_{18}$, metallic glass, struct. evolution during crystallisation 2−109682
$Fe_{40}Ni_{38}Mo_4B_{18}$ metallic glass ribbon, elec. resist. free volume depend. 2−110322
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$Hf_{1-x}Ti_xMo_2$, high temp. equilib., struct. transformation 2−66177
Mo-B dilute alloys, nature of planar faults 2−81800
Mo-base alloys, Ni-activated recrystn., TEM and optical study *(Russian)* 2−116459
Mo-Cr powder mixtures, alloy form. during sintering 2−83065
Mo-Gd-B, phase comp. and cryst. struct. 2−116426
Mo-Hf-C, powder metallurgical, props. 2−111228
Mo-HfN (0.36 vol.%), texture changes during recrystn. annealing *(Russian)* 2−93528
Mo-RE (0-50.2 wt.%), surface Ar^+ ion irrad. damage 2−74929
Mo-Re, re effect on void swelling, in-situ obs. in HVEM 2−86743
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
Mo-Ti and alloy TZM, void swelling behaviour under heavy ion bombard. 2−86744
Mo-Ti-Zr (0.5, 0.08 wt.%), dispersion-strengthened, activation energy meas. for creep 2−67426
Mo-Ti-Zr-C, powder metallurgical, props. 2−111228
Mo-TiC (23.5 mol.%), ion bombardment, surface damage 2−74930
Mo-W (5 wt.%), creep props., effect of substructure 2−105227
Mo-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Mo-Zr-C, cubic solid soln., prep. and props. 2−71395
MoC_x, metastable semiconherent precipitate struct. anal. by diffr. contrast image matching 2−76685
MoGe, amorphous, EXAFS studies 2−93327
$(Mo_{0.60}Ru_{0.40})_{100-x}B_x$ metallic glasses, low temp. sp.ht. 2−104019
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., characts. 2−87104
$MoSi_2$-Pd protective coatings on Nb, Pd effect 2−116614
Nb-Mo, random alloy, Fermi surface, KKR-CPA calc. 2−61334
Nb-Mo alloy, energy band struct., depend. on alloy pots. 2−115648
Nb-Mo alloys, Compton profile 2−116292
Nb-Mo-Ti-Zr MN-1 alloy, nitriding effect on heat-resisting props. 2−111247
Nb-Mo-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
Nb-Mo-Zr, carbide form. and embrittlement in technical Ar at 1100°C 2−72821
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
$Nb_{1-x}Mo_x$, supercond. alloys, nuclear acoustic reson. study of electron-lattice interaction 2−56950
Ni-base eutectic superalloy, γ/γ'-α, interfacial struct. 2−82149
Ni-Cr-Fe-(Mo), long-life fatigue test results 2−62226
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-Cr-Mo-W, heat-resist., struct. and strength characts. estimation on temp. and time basis 2−111250
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Ni-Mo, disordering process investig., domain dissolution *(Russian)* 2−67327
Ni-Mo, irrad.-induced Mo_2C precip. 2−57356
Ni-Mo and Ni-Mo-W, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-Mo-Al, γ/γ'-α eutectic, directionally solidified, struct. and creep rupture 2−105326
$Ni_3(Al, Mo)$, heat-resistant, dendritic segregation 2−72698
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
Ta-Re(Mo)(Hf)(W)(Zr), athermal solid soln. hardening 2−99437
Ta-W-Re(Mo)(Hf)(Nb), athermal solid soln. hardening 2−99437
Ti-Al-Cr-Mo-V, mech. props., statistical anal. 2−72763
Ti-Al-Mo, α'' phase form. and decomp. *(Russian)* 2−99385
Ti-Al-Mo, IMI 550 fatigue testing by positron annihilation 2−62339
Ti-Al-Mo, static strength, gas absorpt. influence 2−88152
Ti-Al-Mo (5,4 wt.%), fatigue and dislocation behaviour, effects of H 2−99520
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-Al-Mo-V and Ti-Mo-Sn-Zr, salt corrosion tendency, alloying influence 2−88287

molybdenum alloys continued
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-Mo-Zr, struct. and mech. props., relationship offer superplastic deform. 2−62178
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2−99440
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
Ti-Al-Sn-Zr-Mo (6,2,4,2 wt.%), shear bands, occurrence during isothermal hot forging 2−57383
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-Sn-Zr-Mo-Si, fatigue, low cycle high temp., effects of dwell 2−62208
Ti-Al-Sn-Zr-Mo-Si (6, 2, 4, 2, 0.1 wt.%), H_2 effect on fatigue crack growth 2−72806
Ti-Al-V-Mo (8, 1, 1 wt.%), ion irradiated, segregation 2−109859
Ti-Al-V(-Mo), low cycle fatigue, effect of stress-strain behaviour 2−57439
Ti-Al-Zr-Mo, cooling rate effect on struct. 2−67315
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-V-Mo-B sheet, elastic props. anisotropy and texture hardening *(Russian)* 2−116502
Ti-Mo (10 at.%), struct. after low temp. ageing, X-ray and electron microscopy study *(Russian)* 2−93538
Ti-Mo (14-20 wt.%), β phase single crysts., stress-induced products and ductility due to lattice instability 2−105212
Ti-Mo (30 wt.%), fatigue thresholds and ductile brittle transition temp. 2−57442
Ti-Mo-V (8.8 wt.%), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
Ti-Mo-Zr, fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Ti-V-Cr-Mo, VT3-1, α'' phase form. and decomp. *(Russian)* 2−99385
α- Ti-Zr-Mo-V, optimum heat treatment selection 2−105200
TiC-Mo, TiN-Mo and TiB_2-Mo, sintering and props. 2−111109
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
V-Mo, binary alloys, fabricability and tensile strength 2−67496
V-Nb-Mo, ternary alloys, fabricability and tensile strength 2−67497
V-Ta-Mo, ternary alloys, fabricability and tensile strength 2−67497
Zn-Nb-Mo, superconductivity, specific heat 2−87447
Zr-Mo (2 at.%), pressurised, diffuse streaking accompanying $\alpha \rightarrow \omega$ transform. 2−67324
Zr-Mo-Al, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
$Zr_{1-x}Hf_xMo_2$, high temp. equilib., struct. transformation 2−66177

molybdenum compounds
see also molybdenum alloys
carbide sputtered film, effect of ion implantation on props. 2−87120
chalcogenides, ternary, Chevrel phase high field superconductors, review 2−66708
MoN film, As ion implantation, stopping power, SIMS study 2−56053
polyacetylene:$MoCl_5(WCl_6)$ films, phys. props., dopant effects 2−104880
rare earth molybdates, magnetic susceptibility 2−56838
$CdMo_6S_8$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$CeMo_6S_8$, mag. props. under press. 2−56911
$Ce_{1.2}Mo_6S_8$, mag. susceptibility and elec. cond. under high press. 2−66789
Cr-Mo-O system, stability and morphology 2−67305
$Cu_{1.8}Mo_6S_8$, sp. ht. in high mag. field, 2 to 15K, thermal relax. calorimetry study 2−89716
$Cu_{1.8}Mo_6S_{8-y}Se_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$Cu_{1.8}Mo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$Cu_{1.8}Mo_6S_{8-y}Te_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$DyMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$Eu_{1.2}Mo_6(S_{1-x}Se_x)_8$, press.-induced non-bulk supercond. 2−110521
$EuMo_6S_8$, impurity phase supercond. under press., magnetisation meas. 2−92807
$EuMo_6S_8$, valence of Eu under high press. 2−82553
$Eu_xMo_6S_8$, superconductivity, thermoelectric power, Fermi surface 2−82510
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2−56911
$Fe_xSnMo_6S_8$, influence of press. on T_c *(Russian)* 2−56763
$Ga_xMo_2S_4$, preparation and crystallochem. props. 2−65949
$GdMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
H_xMoO_3 solid state struct., H attachment study 2−98014
$H_2W_{12}PO_{40}$ and $H_3MO_{12}PO_{40}$, elec. cond. of hydrated cpds., and mixed crysts. 2−56584
$HgMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$HoMo_6S_8$, coexistence of ferromagnetism and superconductivity 2−72105
$HoMo_6S_8$ type magnetic superconductors, mag. field effect and supercurrent 2−104529
$K_{0.13}MoO_3$, optical refl. spectra, optical consts. 2−87814
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$LiMoO_2$, insertion cpd., cryst. struct., neutron powder diffr. study 2−98024
Li_xMoO_3 cathodes in Li/organic electrolyte batteries, props. 2−93889
Mo complex, $MO_3(OAc)_6(OCH_3)_2(H_2O)_3(CF_3CO_3)_2$, cryst. struct., space and Laue group changes 2−65901
Mo complexes, $Mo_2(O_2CH)_4$ and $Mo_2(O_2CCH_3)_4$, photoelectron spectra, interpretation using ab initio MO calcs. and correl. effect 2−96635
Mo-Mo quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
Mo-MoO_3 black solar selective films, XPS, optical and structural props. 2−72640
$Mo(CN)_8^{4-}$, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
$Mo(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
$Mo(CO)_6$, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
$Mo(CO)_6$, high press. phase transitions, Raman study 2−76650
$Mo(CO)_6$, IR reflectance and Raman spectra, lattice modes 2−110851
$Mo(CO)_6$, photolysis, gain line obs. 2−62422
$MoCl_6^{3-}$, force const. calc. using vibr. data 2−54986
$Mo_2Cl_8^{4-}$, binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
$MoGa_5(CuS_2)_{00556}$, cryst. struct., X-ray diffr. study 2−65953
MoN, matrix isolation, electronic states, ESR study 2−70296
MoO_2, reduced from Mo_4O_{11} and CS oxides 2−92177
MoO_3, dry impregnation with $M(NO_3)_2$ M=Be, Mg, Ca, Sr, Ba on Al_2O_3, cryst. struct. 2−109761
MoO_3 thin film, electrochemical Li incorporation, for electrochromic display appl. 2−72454
MoO_3 thin film MIM capacitors, elec. charact., temp. depend. 2−115914
MoO_3, vibr. anal. and characteristic consts. 2−96531
MoO_3-Al_2O_3, catalyst, struct. of uncrystallised Mo compounds 2−65862
MoO_3-Al_2O_3 system, reaction and degree of cryst., effect of prep. conditions 2−67206
MoO_3-V_2O_5 system, phase equilibria, electron microscopy and X-ray diffr. study 2−115391
MoO_3+Bi_2O_3, solid-state reaction kinetics and mechanism 2−83374
MoO_4^{2-} in aq. soln., precision Raman meas. 2−87764
Mo_8O_{23} and $Mo_{18}O_{52}$ as cathodes for Li cells, props. 2−93883
MoS_2, 2H polytype, electron diffr. study of twist boundaries 2−76248
MoS_2 films, lubrication and failure mechanisms, substrate surface finish influence 2−110216
MoS_2, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
MoS_2, $MoSe_2$, struct. rel. to lubrication performance 2−109901
MoS_2, of thiophene, butene and H_2S, binding energies 2−105500
n-MoS_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
MoS_2, photoelectrochem. props., solar cell appls. 2−67862
MoS_2 samples, transport phenomena, solid-gas interaction evidence 2−56590
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
Mo_2S_3, electronic props., phase transitions 2−110354
$MoS_2(Se_2)(Te_2)$, sputtered dichalcogenide layers, friction props. 2−72849
$MoSe_2$, 2H polytype, electron diffr. study of twist boundaries 2−76248
$MoSe_2$ (2H), electrolyte electroreflectance and reflectance studies 2−57060
n-$MoSe_2$, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
n-$MoSe_2$ photoelectrochem. cell, local spectral response meas. 2−93928
n-$MoSe_2$ photoelectrochemical halogen storage cell 2−62481
$MoSe_2$ single crystal, etching and dissolution kinetics, PEC solar cell appl. 2−93642
n-$MoSe_2$ single crystals photocatalytic behaviour in contact with I^-, I_2 redox couple in solar photoelectrochemical cells 2−105575
$MoSe_2$ solar cells, photovoltage, kinetic model 2−83474
n-$MoSe_2$, transverse photoconductivity, electronic mobility anisotropy 2−104419
n-$MoSe_2$/KI, I_2, formamide/Pt photoelectrochem. solar cell with layered anode and nonaq. electrolyte 2−93927
$Mo_6(Se_{1-x}Te_x)_8$, Chevrel phase cpds., ^{125}Te Mossbauer effect 2−77436
$MoSi_2$ film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
$MoSi_2$ films, sputtered and coevaporated, cryst. struct. changes on annealing 2−115590
$MoSi_2$ formation at Mo-Si interface, impurity effects 2−115580
$MoSi_2$, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
Mo_xSi_3, integrated intensities and lattice parameters 2−81747
$MoTe_2$, Hall effect, double AC measurement method *(French)* 2−58846
$PbMo_{6-x}S_{8-y}$ thin film, sputtered supercond., crit. currents and scaling laws 2−61677
$PbMo_6S_8$, charge transfer and 4d orbital splitting of Mo atom 2−76918
$PbMo_6S_8$, Chevrel phase thin films, crit. currents meas. 2−115960
$PbMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$PbMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$PbMo_6S_8$, supercond. and electronic props. *(Russian)* 2−98638
$PbMo_6S_8$, superconducting props. 2−66697
$Pb_{1.2}Mo_6S_8$, superconducting critical parameters *(Russian)* 2−61646
$PbMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
RMo_6S_8, coexistence of mag. order and superconductivity 2−61647
SeO_2-V_2O_5-MoO_3, glass formation at high pressure 2−86576
Si/$MoSi_2$-based composite electrodes for MOS-type capacitor structs., elec. props. 2−98752
$Sn_xEu_{1.2-x}Mo_6S_8$, supercond. props. under high press. and high mag. field 2−110551
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−72100
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−77224
$(Sn)_{1-x}Eu_x)_{1.2}Mo_6S_8$, superconductivity, press. effect 2−104531
$SnMo_6S_8$, Chevrel phase, stoichiometry, rel. to supercond. props. 2−66242
$SnMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$SnMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$SnMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$TbMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
α-Te_2MoO_7 and β-$TeMo_5O_{16}$, industrial oxidation catalysts, X-ray diffr. and electron microscopy study 2−61157
$Th_xPb_{1-x}Mo_6S_8$, supercond. props., effect of actinide component 2−66700
$U_xLa_{1-x}Mo_6S_8$ 2−66700
$U_xPb_{1-x}Mo_{6+y}S_8$, supercond. props., effect of actinide component 2−66700
V_2O_5-P_2O_5-MoO_3, glass, threshold switching in bulk specimens 2−98703
$Yb_xMo_6S_8$, mag. props. under press. 2−56911

moments (electric) *see electric moments*
moments (magnetic) *see magnetic moments*
moments (molecules) *see molecular moments*
momentum
see also angular momentum
Cerenkov interaction, stimulated, experimental system for study 2−90402
generalised momentum, thermodynamic restrictions on constitutive eqns. 2−58595
monitoring
see also patient monitoring; radiation monitoring
acoustic emission technology for nuclear reactor structure monitoring 2−57584
atmosphere water vapour measurement, appl. of portable monitor for day or night use 2−106543
battery charge monitor for balloon experiments 2−107343
CO_2 monitoring in an air separation plant with the ULTRAMAT 3 gas analyzer 2−116764
coating thickness monitoring, densitometric albedo method with single energy electrons 2−58788
cosmic ray trigger cct. for large solenoidal particle detectors 2−68621
crack growth in notches under torsion, DC potential drop method of monitoring 2−88303
detectors for high-energy neutrino interactions 2−70105
discharge indicators for commercial batteries, evaluation and new approach based on dynamic impedance meas. 2−111547
duststorm monitoring system combining satellite and surface data 2−63130
electrochemical corrosion monitoring non-perturbative 2−78025
electrostatic accelerator, voltage conditioning 2−96331
environmental monitoring and control hardware selection *(Russian)* 2−62541
ferrography, condition monitoring 2−88296
ferromagnetic components FITAN-2M instrument for hardness testing 2−57575
fission couple time response in neutron pulse monitoring 2−64751
fission reactor materials, safeguards, backscattered γ radiation energy distrib. from two component system 2−93734
gas turbines, vibration and overspeed monitoring 2−91136
glass fibre reinforced polyester resin sheet moulding cpd. imperfection monitoring by NDT 2−78042
large structure under corrosive environment, AE monitoring 2−111388
lead-glass calorimeters and laser based monitoring system for European Hybrid Spectrometer 2−102327
metal, surface layer cracks, high frequency monitoring 2−57576
metals, case-hardened layers, hardness and thickness monitoring 2−111415
microwire surface monitoring, electron microscopy obs. 2−93736
neutron absorption monitors, general design principles and optimisation 2−93735
nuclear power plant primary circuit structural metals, remotely controlled NDT devices, methods and technology 2−90234
plasma etch and deposition 2−111095
porous material, albedo electron densitometry, single channel method 2−89694
principal components method in NDT, multiparameter flaw detection 2−116675
steel, AE monitoring system for crack growth *(French)* 2−62371
steel reinforced concrete, AE appl. to corrosion damage charact. 2−78026
thermoset plastic connector blocks, rapid proof testing system using AE 2−83317
wind speed and direction indicator, remote display, log scale 2−117473
U mill tailings and closed low-level waste disposal sites, long-term monitoring 2−74800
UO_2 fuels, qualitative approach for characterisation 2−85160
monitoring, computerised *see computerised monitoring*
monitors *see monitoring*
monochromators
see also X-ray monochromators
BESSY experimental facility, status report 2−85415
bremsstrahlung monochromator for photo-nuclear expts. 2−64726
concave grating appl., simplified design *(German)* 2−81060
concave holographic diffr. grating, collimated illumination 2−60222
concave-grating monochromator, high-efficiency, with wavelength-independ. focusing characts. 2−102912
Czerny-Turner grating monochromator, slit width choice 2−55310
digital control and display system for monochromators 2−55311
double-beam monochromator 2−75667
fluorescence measurement by monochromator system, liquid spectral extinction coeffs. determ. 2−74504
grazing incidence monochromator design for SURF II 2−86077
grazing incidence toroidal grating monochromator, optical design 2−86079
McPherson-type normal incidence VUV scanning monochromators, focusing cam design 2−102911
modified Wadsworth monochromator matched to storage ring source, theory 2−86078
National Synchrotron Light Source in IR region 2−85420
on-blaze scanning monochromator for VUV 2−81059
plane grating monochromator, diamond turned mirrors for synchrotron radiation 2−86070
polychromator, vacuum, for DFS-40 quantometer, optical schematic and construction 2−102914
prism and diffraction monochromators, designed for 200 to 750 nm region, radiation scatt. 2−102913
programmable output intensity controller 2−91032
rectangular transmission grating optimisation for monochromator design appl. 2−86085
replica gratings contaminated by synchrotron radiation, plasma discharge cleaning 2−86086
scanning device for optical instruments 2−75666
scanning polychromator with concave diffraction grating 2−109025
spectrophotometer errors due to slit width setting 2−69228
spectrophotometry, components and quality control 2−58914
toroidal grating monochromator, beam line design and performance at ACO storage ring 2−86080
toroidal grazing incidence monochromator for ACO storage ring beam line 2−86081
vacuum, for synchrotron radiation in 15-160 nm range, absolute calibration 2−109603
monochromators continued
VUV monochromators and electron spectrometers transmission meas. using photoemission spectroscopy 2−86082
VUV spectrometers development for synchrotron radiation facilities 2−84716
monolayers
see also adsorbed layers
adsorbed, struct. factor influence on props., dimensional incompatibility 2−76868
adsorbed mixed monolayers, dynamic surface tension and surface dilational viscosity, meas. technique 2−98386
adsorbed monolayers, commensurate-incommensurate transitions, chem. pot. and press. induced 2−115405
adsorption of hydrocarbon on SiO_2-supported water surfaces, meas. using gas chromatographic technique 2−57636
amphiphilic bipolar mols. monolayer on aq. substrates, phase transition models 2−92340
benzene-hexa-alkanoate, discotic mol., two-dimens. film at air-water interface 2−115507
biological, thin insoluble layers, dynamical props. under press. *(French)* 2−62646
cadmium arachidate in contact with rough metal surfaces, monolayers, surface IR and Raman vibr. spectra 2−96562
cellulose actate on Cu, IR refl.-absorpt. spectroscopy techniques comparison 2−116748
chemisorption monolayer of atoms at surface, diffusive kinetic model *(Russian)* 2−110164
crystallisation of monomolecular layer on contracting surface, model 2−76811
dye monolayer assemblies on Ag films, exciton surface plasmon interactions 2−71879
epitaxial, Misfit accommodation, dislocations, transition to 1-D coherence 2−115625
epitaxial 2−110210
fatty acid monolayers at air-water interface, Ba^{2+} and Pb^{2+} effect 2−104145
graphite, submonolayer phases of He, Ar, Kr, Xe, density-functional theory 2−98444
graphite monolayer on Ir tape, adsorption of K 2−115569
graphite of Ar, melting, synchrotron X-ray study 2−104153
graphite with adsorbed ^{3}He and ^{4}He, multilayer physisorption, mean-field theory 2−110152
graphite with physisorbed N_2, quadrupole bilayer orientational phases 2−92350
inert gas monolayers on Ni (110) and Ga film, UPS meas. 2−57261
lipid monolayers phase transitions theoretical model 2−78300
localised monolayer gas adsorption on heterogeneous surfaces, stochastic modelling 2−115572
metal film, ultrathin, localization, resistivity and magnetoresistance 2−61617
metallic epitaxaial layer, equilib. config. in Nishiyama-Wassermann orientation, misfit accommodation 2−115626
metals, adsorbed particle, spontaneous Raman processes, cross section growth *(Russian)* 2−59810
methane-d_4, on graphite, melting transition, neutron diffr. lineshape anal. 2−66356
methanol monolayers, H^+ in electron stimulated desorpt. 2−87020
mixed monolayer assemblies, photoinduced struct. transformations 2−93800
molecular monolayers, surface enhanced Raman scatt., long and short range effects 2−102483
naphthalene molecules, adsorbed on Pt(111), mol. orientation determ. by packing energy calcs. 2−87055
organic monolayer assemblies on Ag gratings, plasmon surface polariton field enhanced Raman spectra 2−110838
phase transitions, energy heterogeneity effect 2−104155
quadrupole bilayer orientational phases 2−92350
rhodamine dyes, submonolayer coverages on SiO_2, reson. second harmonic generation, UV study 2−55261
spectrochemical analysis, IR refl.-absorpt. spectroscopy techniques comparison 2−116748
submonolayer film on elastic substrate, incommensurate struct., phase diag., Debye-Waller factor *(Russian)* 2−82178
surface-enhanced nonlinear optical effects and detection of absorbed molecular monolayers 2−65308
water-oil (air) interfaces, phase transitions in monolayers 2−66324
Ag (111), I_2 monolayer, core electron spectroscopy 2−72604
Ag monolayer on Si(111), surface passivation, LEED, Auger and photoemission anal. 2−83259
Ag with ethylene submonolayers, Raman scatt. spectra line intensities *(Russian)* 2−110857
Ar, adsorbed monolayer on lamellar halides, two-dimens. condensation, critical temp. 2−66350
Ar monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
^{36}Ar submonolayers on Grafoil, struct. and phase transitions, neutron diffr. study 2−98488
Au monolayer on Si(111), surface passivation, LEED, Auger and photoemission anal. 2−83259
Au, thickness meas., X-ray fluorescence anal. 2−69140
Be monolayer, electronic struct. calc. method 2−115844
CO chemisorbed on Cu (III), angle resolved photoelectron energy spectra 2−70331
CO, monolayer sorption on Al_2O_3 supported Co, tunnelling spectra 2−66349
CO, thermal desorpt. on Pt/TiO_2 2−105502
Co monolayer on Cu, mag. exchange splitting, photoemission, LEED and Auger study 2−98870
Cs overlayer on Si(100) 2×1, plasmon excitation obs., AES, EELS, LEED and UPS 2−115542
Cs-O mixed film coadsorpt. on Nb (110), work function and thermal stability *(Russian)* 2−104166
Cu film on Ni (100), electronic and mag. struct., interface magnetisation 2−82695
Cu, thickness meas., X-ray fluorescence anal. 2−69140
Fe submonolayer, on Mg film, mag. scatt. time meas. by weak localisation 2−92599
GaAs(110) substrate for Sb monolayer, LEED dynamic anal. 2−115110
H monolayer, electronic struct. calc. method 2−115844
H_2 condensed layers on Cu and Au, photoemission study 2−93374

monolayers continued
H_2, thermal desorpt. on Pt/TiO_2 2−105502
$(H_2O)_n$ monolayer cluster on AgI hexagonal substrate, Monte Carlo studies 2−110140
In, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
K monolayer on Pt(111) and stepped (755) surfaces, LEED, AES and TDS studies 2−56365
K submonolayer adsorbed on W, field emission flicker noise, cross-correlation coeff. 2−99306
K_2O monolayer on Pt(111) and stepped (755) surfaces, LEED, AES and TDS studies 2−56365
Kr, adsorbed monolayer on lamellar halides, two-dimens. condensation, critical temp. 2−66350
Kr adsorbed on graphite, 2D commensurate solid, stabilization by Xe 2−61287
Kr monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
Kr, on graphite, commensurate melting and commensurate-incommensurate transition, X-ray study 2−115548
Kr submonolayers on Grafoil, EXAFS study 2−82139
Mo with Cs monolayer, adsorbed H, negative H ion production by sputtering 2−99253
Ne physisorbed on Grafoil near monolayer completion, neutron diffr. and vapour press. study 2−98462
O, on Al (111), position, electronic and binding props. 2−82135
O_2 on graphite, pattern recognition optimization prediction 2−98436
Pb, growth of monolayers and ultrathin films, on Cu 2−71829
Pb on Cu cryst., secondary electron emission enhancement by adsorbed monolayer 2−62025
Pt(110), adsorbed CO, surface phase studies 2−66353
S adsorbed monolayer on Cu and Pd (110) faces, struct. *(French)* 2−71788
S monolayer on Cu(110) surface LEED diagram interpretation *(French)* 2−86524
S on Nb(110), static SIMS, ion dose effects 2−99274
Sb overlayer on GaAs(110), LEED/AES/XPS/TDS characterization 2−87060
Se, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
Sn, growth of monolayers and utrathin films on Cu 2−71829
Sn on Cu cryst., secondary electron emission enhancement by adsorbed monolayer 2−62025
Sn, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
Tl epitaxial growth on Cu(100), LEED, AES, UPS and EELS studies 2−56398
Xe, adsorbed monolayer on lamellar halides, two-dimens. condensation, critical temp. 2−66350
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515

monolithic integrated circuits
see also bipolar integrated circuits; field effect integrated circuits; large scale integration
amplifier chip 733 as low input impedance preamplifier for current-division use 2−90411
hologram interferometry microscope for IC checking 2−114219
optoelectronic devices for faster and more reliable data transmission 2−81124
photodiode arrays, self-scanned, X-ray applics. in NDT 2−72935
semiconductor device physics, book 2−53437
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs, pulse annealing techniques optimisation 2−56693
GaAs SAW charge transport, monolithic delay line appl. 2−115522
Si IC pressure transducers using piezoresistor bridge 2−74400

monomers *see molecules*

monomolecular films *see monolayers*

monomolecular layers *see monolayers*

Monte Carlo methods
ϕ^4 euclidean scalar field theory on four and three dimensional lattice, continuum limit 2−95619
$A_{1-x}B_x$ layers, MBE growth, Monte Carlo simulation 2−76859
absorbed radiation dose due to synchrotron radiation in PETRA storage ring 2−113751
adatom diffusion, Monte Carlo anal. 2−115568
adsorbed layers, order-disorder transitions, phase diagrams, adsorption isotherms 2−98275
aircraft skin structs., sonic fatigue life estimation at room and elevated temps. 2−65428
alloys, binary, cubic, tracer diffusion via vacancies, Monte Carlo calc. 2−86938
alloys, binary, mictomagnets, susceptibility and sp. ht., Monte Carlo calc. 2−92909
alloys, binary substitutional, vacancy wind effect in diffusion, Monte Carlo calc. 2−92255
antiferromagnet, FCC Ising, Monte Carlo study of entropy 2−82618
antiferromagnetic 2−82612
antiferromagnetic three-state Potts model, on square lattice, Monte Carlo renormalisation group anal. 2−77315
B-DNA, interaction with Na^+ and H_2O structural determ. 2−114141
Baxter-Wu model, Monte Carlo renormalisation group study 2−101346
Baxter-Wu model, Z(N) generalisation 2−104563
chiral Potts and asymmetric clock model, phase diagram, Monte Carlo study 2−92908
classical vibr. energy exchange, 3-dimens. model calcs. 2−96696
cluster growth on square lattice, simulation using stochastic model 2−101345
cross-section adjustment with Monte sensitivities, appl. to Winfrith Iron Benchmark 2−95979
crystal growth, effect of long-range interactions 2−76332
cubic lattice, Ising ferromag. transition, Monte Carlo calc. 2−56881
dead time distorted Poisson behaviour, correlated pulse time spectra 2−58690
defective solid, tracer diffusivity and Haven ratio, temp. depend., Monte Carlo calc. 2−86937
degenerate electron liquids, metallic densities, dielec. function and local field correction calcs. 2−104275
dense fluids and fluid mixtures, chemical pot. evaluated via computer simulation technique 2−103577
dense random packed hard sphere Bernal model, site percolation critical conc. 2−79497
diffusion in two sublattice structure, correlation effects 2−66278
diluted lattices, self-avoiding-walks, Monte Carlo anal. 2−84547
dipolar fluids, computer simulation, pair correl. function, permittivity calcs. 2−65832
dislocation vector systems, melting in two dimens., Monte Carlo study 2−71620
disordered magnet, Ising model with random exchange bonds, Monte Carlo study 2−87468
disordered systems and sampling of Monte Carlo data 2−98889
dispersive hopping transport with spatial disorder, Monte Carlo simulation 2−66515
EAS density spectra re-evaluation 2−58215
EAS high energy hadrons, charged to neutral ratio meas. 2−112286
edge penetration by radiation through collimation system 2−96348
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
electrical double layers, Gouy-Chapman theory limitations 2−116702
electrical double layers, image effects, Monte Carlo and hypernetted chain eqn. calcs. 2−81639
electromagnets gap permeance determ. using Monte-Carlo method *(Russian)* 2−56888
electron backscattering from low Z thick absorbers 2−82966
electron in gas, diffussion coeff., Monte Carlo calc. 2−81441
electron microscopy quantitative analysis, of metals and minerals 2−97882
electron ranges in gases using ionisation chamber, charge carrier diffusion influence 2−96403
electron scattering, by gas, high energy electron trajectories, 1 to 3 MeV *(French)* 2−55696
electron transport in fully ionised H plasmas, appl. to solar flares 2−106493
electron-photon cascade showers and μ mesons, transport problem soln. techniques *(Japanese)* 2−117544
emission frequencies from angle depend. partial freq. redistributions, refined algorithm 2−68608
energy and ang. distrib. of electrons emitted from spectrometer sources, Monte Carlo calcs. 2−102321
energy transfer models in solids 2−77566
ethane, liq., struct. functions, X-ray diffr. study and Monte Carlo simulation 2−103592
ethanol, dilute aq. soln., Monte Carlo calcs. 2−60859
excited glueball states in four-dimensional SU(3) lattice gauge theory 2−107633
exciton absorpt. lineshape under lattice vibrs., Monte Carlo calc. 2−82806
fast cluster finding cct. for Fermilab collider detector jet trigger 2−64804
fatigue damage, statistical simulation model of Miner's rule 2−62224
FCC alloys, very dil., free enthalpy of impurity-vacancy binding 2−81814
FCC lattice, approx. methods of studying antiferromagnetism 2−104559
few-body nuclei, exact ground states with and without three-body forces 2−59260
fibre lightguide with different shaped end faces, light distrib. anal., computer method 2−65386
fission reactor, vacuum channel, high temp., for intrareactor investigs. *(Russian)* 2−80150
fission reactor core with TBC-2M fuel assemblies, neutron distrib. *(Russian)* 2−80149
fission reactor with TBC-2M type fuel and different types of neutron reflectors, critical parameters *(Russian)* 2−80052
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
galaxies in 3-dimens. space, Monte Carlo simulation 2−58262
galaxies in rich clusters, Monte Carlo simulations 2−84319
galaxy systems, Monte-Carlo simulations of static props. of galaxies in supercluster filaments 2−84321
garnet layers, ion implanted, damage evaluation, Monte Carlo simulation 2−76519
gas, low energy electron beam relax. 2−65090
generalised spectral angular emission coefficients calc. of 3-D radiating systems with radiation characts. variation 2−60366
glass radiophotoluminescence dosimeter, absorbed dose comparison calc. by EGS code and kerma 2−96318
glueball mass, in SU(2) lattice gauge theory, Monte Carlo calc. 2−107635
gluon bremsstrahlung effects in large $p_\perp$ hadron-hadron scatt. 2−107703
gluon gas, Stefan-Boltzmann law, SU(3) Yang-Mills calc. 2−54070
graphite, adsorption of Lennard-Jones gas, Monte Carlo method 2−66359
graphite with physisorbed N_2, quadrupole bilayer orientational phases 2−92350
growth spiral morphology, Monte Carlo simulations, book contrib. 2−115162
hadron-nucleus inelastic interactions, soft particle multiplicity distribs., Monte Carlo simulation 2−107856
hadronic interactions and gigantic γ-ray family events with $\Sigma E_\gamma \geq 1000$ TeV 2−63198
hard discs, vel. autocorrel. function, mol. dynamics calcs. 2−109650
heat pumps, electric air source, in single family homes, hourly power demand, Monte Carlo model 2−62493
Heisenberg spin system, quantum statistical Monte Carlo method 2−89613
hollow dislocation core, Monte Carlo simulation 2−91849
hopping conductivity, AC, below threshold, random walks on bond percolation clusters 2−87212
hot SU(2) glue, Monte Carlo study 2−53995
III-V semiconductor photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
impurity diffusion problem solved by Monte Carlo methods 2−60527
impurity-vacancy dipoles in 2-D lattice, Monte Carlo simulation on aggregation 2−115278
inert gases, luminous layers in prebreakdown region at low press., Monte Carlo simulation 2−97702
ion beam penetration in solids, Monte Carlo simulation 2−92054
ion bombardment, near-surface composition changes, dynamic Monte Carlo simulation 2−109851
ion selective electrodes, double known addition method, error propag., Monte Carlo simulation 2−116732
ionic and dipolar systems, Monte Carlo and molecular dynamics simulations, periodic boundary conditions 2−81644

Monte Carlo methods continued
irradiated material, point defect-edge dislocation rate consts. and bias factors using lattice relax. and Monte Carlo simulations 2−86718
Ising FCC quartet model, phase struct. 2−69097
Ising lattice, triangular mag. props., Monte Carlo simulation 2−87465
Ising model, random field d-dimens. hypercubic model, Monte Carlo renormalisation group study 2−72238
Ising models, computer simulation 2−112832
Ising spin glass, dynamic nature of freezing process, Monte Carlo simulation 2−61723
Ising systems, compressible, crit. behaviour, Monte Carlo study 2−107260
Ising systems, Monte Carlo simulation using data structure 2−53687
Ising three-dimensional ferromagnet, heat capacity critical parameters 2−104637
laser radar equation in the small-angle approximation 2−90969
lattice gas, real, use of Monte Carlo simulations in study and appl. for α′ Pd-D system 2−67307
lattice gauge theories, four-dimens., Monte Carlo simulation fast algorithm 2−64214
lattice gauge theories, Monte Carlo calcs. 2−54003
lattice gauge theories, with SU(3) subgroup gauge, phase struct. 2−89904
lattice gauge theory, compact U(1) in four dimens., Monte Carlo simulation 2−69355
lattice gauge theory, Monte Carlo calcs., review 2−53916
lattice gauge theory, Monte Carlo calcs., vectorisation for CYBER 205 computer 2−95590
lattice gauge theory, Monte Carlo simulation, review 2−79733
lattice gauge-Higgs system, magnetic monopole, mag. charge distrib. 2−59034
lattice QCD with fermions, high temp. behaviour 2−95750
lattice SU(2) gauge theory, finite temp. Monte Carlo study 2−53994
lattice-gas models, 2-D and 3-D, surface tension, Monte Carlo calcs. 2−63927
Lennard-Jones fluid, Monte Carlo simulation of the grand canonical ensemble 2−91741
lidar clear atmosphere multiple scattering dependence on receiver range 2−106306
light, partially coherent, photon counting distrib., computer simulation by Monte Carlo methods 2−60015
light scattering in natural water, Monte Carlo description of time and space resolved multiple forward scatter 2−58056
linear position sensitive scintillator 2−113824
liquid metal-vapour interface struct., pseudoatom theory, computer simulation 2−115497
LMFBR, in-vessel shielding design, Monte Carlo calcs. 2−108143
long range Ising spin glass, exact results and Monte Carlo simulations 2−110595
macromolecules, branched, conformation statistics by Monte Carlo method *(Polish)* 2−75484
magnetic fluid, agglomerate form., mag. susceptibility, Monte Carlo calc. 2−82669
magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
massless Schwinger model on lattice, via local Monte Carlo algorithm 2−107508
MBE binary and pseudobinary model systems, growth and struct., Monte Carlo simulation 2−110206
methane, liq., Monte Carlo simulations, thermodynamic and struct. props. 2−91748
methanol, dil. aqs. soln., hydration struct., Monte Carlo calc. 2−72950
MFTF-B, neutron effects, Monte Carlo anal. 2−85277
micellar aggregates, cluster partition functions, Monte Carlo method 2−99710
mixed magnetic systems, susceptibility in presence of chem. short range order 2−77256
molecular beam intensities in sonic nozzle expansions, non-Maxwellian vel. distrib. 2−70446
molecular solutions, quantum intramolecular degrees of freedom, path integrals, Monte Carlo evaluation 2−103573
monodisperse superconducting granule suspension, superconductivity simulation 2−104532
monte Carlo position-dependent angular source biasing 2−54639
MORSE photon and neutron transport code, revised version 2−107929
multichain systems, two- and three-dimens. screening length determ. 2−114143
NE 213 scintillation detector, gamma-calibration 2−64749
nematic-isotropic phase transition, SC lattice model, Monte Carlo simulation, pair approx. 2−92196
nematogens, pre-transitional effects, g-factor simulation using Monte Carlo technique 2−98282
neopentane, liq., Monte Carlo simulation 2−81655
neutral beam injection heating, TEXTOR simulation, Monte Carlo method 2−81574
neutrino beams, tagged, from dissociation of mesons *(Russian)* 2−84888
neutron detector resolution effects for radiography, Monte Carlo calcs. 2−108277
neutron transport, Monte Carlo calcs., computational cost of splitting 2−54476
noble gases, virial series and computer simulation at low densities 2−91573
nuclear emulsion activation and fast neutron dosimetry 2−70010
nuclear two-body forces, spectra, random to collective behaviour transition 2−101797
nucleation, critical cluster size, Monte Carlo calc. 2−109951
O(3) lattice, topological charge 2−101514
O(3) lattice spin model, Z_2 vortices, Monte Carlo calc. in two dimens. 2−89898
O(N) lattice models, N=2-4, two dimens., Monte Carlo calcs. 2−53997
oceanographic lidar system computed laser backscatt. from turbid liqs., Monte Carlo radiative transfer model 2−94504
one dimensional Ising system, Monte Carlo simulation 2−77250
one-dimensional classical fluid, correl. functions, Monte Carlo and Percus-Yevick results 2−71319
one-dimensional fermion lattice, thermodynamic props., Monte Carlo calc. 2−84553
open charm hadronic prod. in perturbative QCD approach 2−107626
optical films, thick, for conduction of optical and IR radiation, solar cell appls. 2−99763
ordered systems, localisation, correl. induced metal-insulator transition, Hubbard model 2−71875
path integral Monte Carlo simulations 2−79406
Monte Carlo methods continued
Peierls instability, quantum fluctuation effects, Monte Carlo study 2−104253
percolation clusters, three dimensional surface struct. above p_c 2−53682
percolation problem of discs with distrib. of radii, Monte Carlo renormalisation group study 2−63910
periodic Gaussian model, helicity modulus, specific heat 2−92936
periodic QED models, U(1) gauge group with mixed actions, phase structure 2−84839
photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
photoemission, Monte Carlo simulation, 0.1 to 3 MeV 2−62044
photographic emulsion light transmission eqn., relation to photographic density *(Russian)* 2−53870
photon detector response functions, Monte Carlo calcs. 2−108233
plasma, classical two-dimens. one-component, Monte Carlo simulation 2−103438
plasma, diverted, neutral-particle transport, Monte Carlo model 2−97712
plasma afterglow, Monte Carlo simulation 2−55798
plasma ion-ion recombination theory 2−109460
point defects, reaction rate constant with traps close to cryst. surface 2−91955
POKER-CAMP, program for calc. of detector responses and phantom organ doses in γ-fields 2−59670
polar hard dumb-bell fluid, dielec. const., Monte Carlo simulation calcs. 2−81646
poly(N-hexyl-4-vinylpyridinium)bromide, ^{13}C spin relax. time, Monte Carlo method 2−75477
polyacetylene ring, quantum ground state 2−86823
polyelectrolyte solution, counterion distrib. around cylindrical polyion 2−109644
polyelectrolyte solutions, osmotic coeff., Monte Carlo method 2−57635
polyelectrolyte systems, cell model, statistical mech., Monte Carlo and Poisson-Boltzmann calcs. 2−81642
polymer melts, chain dimensions in melt, Monte Carlo studies 2−102673
polymer solution, two-dimensional, collapse transition, tricritical behaviour, Monte Carlo study 2−114142
polymerisation, in solid state, radiation induced, Monte Carlo simulation 2−105483
polymers, conformation change, dynamic lattice model, exact and Monte Carlo calcs. 2−69094
polymers, self-avoiding rings, statistical props., Monte Carlo technique 2−70460
polymethylene chains, conform. changes in soln., Monte Carlo calcs. *(Russian)* 2−76267
position sensitive photomultipliers 2−90375
position sensitive scintillation detectors for gamma-ray imaging telescope 2 100738
Potts model, three state, in 2D, interface props., Monte Carlo study 2−112828
Potts model, three-dimensional three-state, phase transition 2−72205
Potts model, three-state, dynamic crit. exponent, Monte Carlo renormalisation group method 2−74363
Potts model, three-state, with two- and three-body interactions, Monte Carlo study 2−74345
probabilistic risk assessment, uncertainty propag. techniques 2−69802
prompt γ-ray anal. probes, Monte Carlo model 2−67778
proportional wire calorimeter 2−102328
pure SU(2) lattice gauge theory, glueball masses, Monte Carlo method 2−69339
QCD, 3-dimens., at finite temp., Monte Carlo study, confinement and critical point 2−54064
QCD, glueball mass spectrum, lattice Monte Carlo calc., SU(2) gauge theory 2−59108
QCD, massless 4-D and lattice, long range chiral structure, Monte Carlo study 2−101647
quadrupole bilayer orientational phases 2−92350
quantum boson fluid, ground-state wave function struct. 2−98362
quantum spin systems, Monte Carlo simulation 2−104566
quantum well heterostructure laser, carrier collection dynamics, Monte Carlo simulation and photoluminesc. study 2−114282
Quartet Ising model, Monte Carlo study consistent with selfduality 2−53681
quasar alignments, assessment of statistical significance 2−112606
quenched Eguchi-Kawai model, Monte Carlo 2−107534
quenched Eguchi-Kawai model, spontaneous symmetry breaking 2−84798
radial electron distrib. of EAS 2−112281
radiation transport calc., vectorised Monte Carlo algorithms 2−107937
radiography antiscatter grids, Monte Carlo simulation studies of performance 2−83649
radioisotope imaging, point source scatt. contribs. from finite size objects, Monte Carlo simulation 2−111782
radioluminescence, prompt, stochastic model of radiation quality effects in quenching 2−61984
recoil implantation, Monte Carlo code, RITA 2−76476
renormalisation group studies of crit. phenomena 2−69119
review of Monte Carlo simulation technique for elementary particle theory 2−79855
RKKY spin glasses, numerical simulation studies 2−116016
Rutherford ion backscattering appls. to surface crystallography 2−111001
scattering off triaxial ellipsoid surfaces, Monte Carlo approach 2−100824
self-powered flux detectors, Monte Carlo simulation 2−64765
semiconductor, electron packet vel. and spreading fluctuations 2−115783
semiconductor film growth and doping, computer simulation 2−66390
semiconductors, electron transient response, Boltzmann eqn., Monte Carlo technique 2−61458
semiconductors, hopping cond., resistance network model, Monte Carlo calc. *(Russian)* 2−82347
semiconductors, hot electrons, self scatt., Monte Carlo simulation 2−56603
semiconductors, polar, negative diffusivity in transient regime, Monte Carlo calc. 2−56597
shell, cylindrical axially compressed, with random axisymm. imperfections, buckling, reliability calc. 2−81261
shielding at proton accelerator, absorbed dose meas., comparison with Monte Carlo calc. 2−96317
single photon emission computed tomography anal. using Monte Carlo simulation 2−73331
site percolation, high-density, on real lattices 2−95262
small-particle superconductor, Monte Carlo simulation, disorder effects 2−82518
sol-gel transition, critical behaviour percolation, kinetic model 2−105481

Monte Carlo methods continued
solid-on-solid roughening, planar model, F model, and related systems, Monte Carlo test 2−69103
solid-on-solid roughening, planar model, F model and related systems, Monte Carlo test 2−69102
space homogeneity of a stationary semi-self-maintained discharge *(Russian)* 2−76220
SPECT, anal. using Monte Carlo simulation 2−111783
spin glass, canonical, paramag. transition, Monte Carlo simulation 2−92940
spin glass magnetisation in mag. field at low temp. 2−82617
spin glass models with short-range interactions, numerical studies 2−66844
sputtering, Monte Carlo hybrid calc. of ang. distrib. of keV sputtered protons 2−72590
sputtering theory and comparison to expt. data 2−77733
square-lattice percolation clusters, surface tension, Monte Carlo simulation 2−69105
stellar semi infinite atmosphere, reson. radiative transfer, Monte Carlo calcs. 2−68733
Stockmayer molecules, thermodynamic props., Monte Carlo simulation 2−81641
structure functions, QCD evolution, heavy quark effects, Monte Carlo calc. program 2−64327
SU(2) adjoint Higgs model 2−95788
SU(2) lattice gauge theories, interquark pot., Monte Carlo evaluation 2−95753
SU(2) lattice gauge theory, potential and restoration of rot. symm., Monte Carlo simulation 2−101598
SU(2) Yang-Mills system, lattice thermodynamics 2−107511
SU(3) glueball mass numerical estimation 2−84857
SU(3) lattice gauge theory predictions for low-Q^2 phenomenology 2−54074
SU(3) Yang-Mills system, gluon matter, thermodynamic props., Monte Carlo simulation 2−101648
SU(4) lattice gauge theory, Monte Carlo algorithm vectorization 2−53927
SU(6) lattice gauge theory, phase transition, Monte Carlo study 2−69344
superconducting superheated granules, diamagnetic interactions 2−56765
superparamagnets, ideal, mag. relax., Monte Carlo simulation 2−110610
surface superlattices, lateral, transport and scatt., Monte Carlo calc. 2−104454
Taurus Molecular Cloud 1, Monte Carlo radiative transfer code rel. to cyanoacetylene (HC_3N) obs. 2−63560
ter-molecular ionic recombination, rate coeff., Monte Carlo calcs. 2−85774
thermal neutron radiography, point spread functions due to neutron scatt. 2−99610
tissue-equivalent cloud chamber gas mixture, ionisation distribs. calc. 2−88584
Tokamak, sputtering yield calcs., light ions incident on wall 2−109525
Tokamak fusion reactor, neutron streaming, staged Monte Carlo calcs., statistical errors, bias 2−64636
Tokamaks, axisymmetric and ripple, neoclassical transport coeff., Monte Carlo simulation 2−109469
toroidal plasma, neutral gas transport and impurity production, Monte Carlo calc. 2−55709
transition radiation detector, Monte Carlo calcs. *(Russian)* 2−79643
transport parameters calc. in SF_6 for non-equilibrium medium 2−103274
two dimensional ferromagnetic Heisenberg model, Monte Carlo simulation 2−87520
two-dimensional Glauber model, Monte Carlo renormalisation study 2−79498
two-dimensional Lennard-Jones system, melting, Monte Carlo simulation 2−92166
two-dimensional Lennard-Jones system, phase transitions, stability, computer simulation 2−56155
two-dimensional non-abelian spin models, vortex condensation 2−79765
two-phase equilibria and nucleation barriers near a critical point 2−103943
U(1) compact gauge theory, in four dimens., plaquette-plaquette correls., Monte Carlo study 2−79758
ultrahigh-energy EM cascades development in water and Pb including LPM effect 2−73809
vacuum plume expansions, translational nonequilib. effects 2−97612
vesicles, two dimens., Monte Carlo study 2−105668
water, fluid, in space between two structureless walls, Monte Carlo calcs. 2−115128
waterlike mols., fluid system Monte Carlo simulations, thermodynamic props. 2−65830
X-ray microanalysis, electron beam geometry influence, Monte Carlo method study *(French)* 2−73031
XPS relative intensities in solids, photoelectron mean free paths taking into account elastic collisions 2−105037
e^+e^- annihilation, general algorithm for jet event reconstruction, report 2−59168
e^+e^- annihilation, high-transverse-momentum leptons from B mesons 2−54189
e^+e^- annihilation, partons and hadrons prod., quark and gluon jet models 2−54184
e^+e^-→baryons, quark fragmentation, Monte Carlo model 2−54196
e^+e^- collisions, polarised and unpolarised, 30-150 GeV, polarised baryon prod. in SU(2)×U(1) model 2−69479
hN, exlusive descript. of multiple prod., inclusive spectra, scaling *(Russian)* 2−113311
lN, deep inelastic scatt., baryon prod. and diquark fragmentation 2−95852
pp(p̄p), heavy quark prod., Monte Carlo simulation 2−107699
Ag (111), adsorbed Ar, Kr, and Xe, two-dimens. gas phases 2−61293
Ag-Si layer struct., B implantation depth profiles 2−103804
$Al_xGa_{1-x}As$/GaAs modulation-doped structs., transport props., rel. to Monte Carlo calcs. 2−98731
Al_2O_3 amorphous thin film, struct. model, Monte Carlo calc. *(Russian)* 2−103627
Ar, accelerated projectile fragmentation, computerised track anal. 2−64835
Ar+H_2, vibr.-rot.-translational energy transfer, state-to-state cross sections, Monte Carlo trajectory calcs. 2−90674
Ar+HF, energy transfer, Monte Carlo quasiclassical trajectory study, vibr.-rot. states 2−96684

Monte Carlo methods continued
Au-Cu sputtered surface, AES, quantitative anal., backscattering correction factors 2−57221
$^{197}Au(^{20}Ne,f)$, 172 MeV, fission after incomplete fusion, correl. between fission fragments 2−113558
$^{197}Au(^{40}Ar, X)$, 343 MeV, heavy fragment pairs, coincidence studies 2−113559
$Bi_4Ge_3O_{12}$ crystal and photomultiplier tube optical coupling, Monte Carlo calcs. 2−75110
^{12}C pojectiles at 250 MeV amu^{-1}, K vacancy prod., relativistic trajectory Monte Carlo method appl. 2−80806
^{252}Cf spontaneous fission, fission fragments deexcitation, Monte Carlo calc. 2−54459
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
$Cu(^{12}C,X)$, 86 MeV/A, products yields and recoil props. 2−96039
D, spin aligned, ground-state energy, Monte Carlo calc. 2−86972
D_2-ortho molecular under press., rot.-libration transition 2−61127
F^- aqueous ion, intermol. nuclear spin-spin coupling and scalar relax., quantum and statistical mech. calcs. 2−90641
Fe-Ar liquid segmented calorimeter, performance Monte Carlo simulation 2−75097
Fe-Pd, dil. alloys., model of mag. behaviour 2−72198
$Ga_{1-x}Al_xAs$, electron drift mobility calcs. 2−77084
GaAs, high field transport and impact ionization, band struct. depend. 2−77070
n-GaAs, hot electrons, inertial props., Monte Carlo calc. 2−56628
GaAs hot-electron diffusion const., Monte Carlo calc. 2−98656
GaAs, impact ionization and high field transport, band struct. depend. 2−77069
GaAs, low-field mobility temp. depend. with optic phonon scatt., Monte Carlo calc. 2−104383
GaAs, n^+-n-n^+ Schottky device, ballistic and quasiballistic electron spectroscopy, numerical simulation 2−56669
$Ga_xIn_{1-x}Sb$, voltage-current curves, scatt. effects, Monte Carlo calc. 2−104382
^{145}Gd, complex beta-decay schemes 2−79984
p-Ge, negative differential mobility of holes, Monte Carlo study 2−77078
Ge well counter for blood flow meas. by microsphere technique 2−62847
H^+-ranges at H^+-range straggling calc., 1-1000 keV 2−76544
H_2, low energy electrons ionisation yield, statistical fluctuations 2−102594
H_2^+ dissociation by C foils, interatomic separation and relative vel. distrib. calc. 2−75370
$(H_2O)_6$ monolayer cluster on AgI hexagonal substrate, Monte Carlo studies 2−110140
H_3PO_4, polarisation model appls. 2−60861
$H_4P_2O_7$, polarisation model appls. 2−60861
$^2H(d,n)^3He$ neutron source using gas target, energy and angle straggling effects 2−64727
He, wavefunction, quality assessment using quantum Monte Carlo method 2−80411
^3He ion ranges in Fe, Cu, Zn, W, Bi, Co 2−66089
$Hg_{0.795}Cd_{0.205}Te$ IR detector, for large biasing fields, thermal noise 2−107399
$I^+ + H_2O(D_2O)$, recombination, Monte Carlo classical trajectory method 2−111481
InAs, low-field mobility temp. depend. with optic phonon scatt., Monte Carlo calc. 2−104383
InP, hot-electron diffusion const., Monte Carlo calc. 2−98656
InP submicron layer, quasiballistic cond. at 77K, numerical study 2−61569
InP, transverse electric field effects on electron transport props. 2−98651
InSb, electron mobility, Monte Carlo calc. 2−92628
K, point contact spectra, pseudopot. calc. 2−76626
KH_2PO_4 type structure, Monte Carlo simulation of order-disorder transition 2−104818
Kr gas, electron irrad., electrons energy degradation, Monte Carlo calc. 2−96743
Li+H^+(He^{2+}), electron capture and ionisation cross sections calcs. 2−54956
LiH, correl. energy, pot. energy surface, Green's function Monte Carlo method 2−96468
Li_xTiS_2, intercalation compound, elastic energy and staging 2−71391
^6Li ion ranges in Fe, Cu, Zn, W, Bi, Co 2−66089
Lu-Fe alloy, recoil mixing produced by atom beams, simulation using computer code 2−76518
$^{26}Mg(p,\gamma)^{27}Al$, stopping values and ^{27}Al lifetimes, expt. and Monte Carlo simulation 2−107806
N_2, liquid, energy difference functions in Monte Carlo simulations, free energy calcs. 2−81654
NH_3, liquid, empirical pot. for conformational, intermol. and solvation studies 2−91747
Na, point contact spectra, pseudopot. calc. 2−76626
NaI(Tl) detector, solid angles and intrinsic efficiencies for photon emission, Monte Carlo code 2−75119
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
O I 1304 Å dayglow, Monte Carlo reson. scatt. model with partial freq. redistribution 2−100618
O_3, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
Si, channelling radiation Monte Carlo calcs. and comparison with expt. 2−81848
Si(Li) detector and data processing system for energy-dispersive X-ray microanalysis 2−90373
SiO_2, electron mobility, hot electrons electronic breakdown, Monte Carlo study 2−61474
Ta_2O_5 film on GaAs substrate, thickness determ. by Monte Carlo method *(Chinese)* 2−110179
U^{44+}+inert gas target, highly charged inert gas recoil ion prod. 2−114097
^{133}Xe, lung clearance parameter estimate variability 2−117054
ZrO_2 film on Si substrate, thickness determ. by Monte Carlo method *(Chinese)* 2−110179

Moon
see also lunar seismology; lunar structure
accretion history and chemistry relative to Earth 2−63282
albedo and polarisation properties of Moon, rel. to Fresnel component of refl. light from lunar soil 2−68640
astrometric observations, appl. of pinhole system of new photoelectric meridian circle at Tokyo Astronomical Observatory 2−100736

Moon continued
cartography, selenodetic basis *(Russian)* 2−73866
composition determination from anorthosite anal. 2−117616
conference of EM induction in Earth and Moon at Istanbul, Turkey (August 1980) 2−74148
conference on Moon/planets, celestial mechanics and ephemerides at Namur, Belgium (July 1980) 2−68951
crater formation simulation expts. using 10-tons of explosives in sediments 2−73559
early crust and highland form., reexamination of planetary accretion process 2−63284
Earth-Moon system, motion around equilateral libration points, crit. stability case 2−117571
Earth-Moon system, orbit evolution and tides 2−89172
eclipses used to study luminescence and transient phenomena 2−73875
electromagnetic induction, solar wind induced, core struct. inference 2−112296
ELP 2000, perturbations due to Venus and Mars 2−73870
equator, determ. of mean inclination to ecliptic via position angles method *(Russian)* 2−73867
growth from solar nebula 2−73865
Imbrium basin, far-field tectonics 2−63288
impact basin formation 2−100779
influence on cold air activities in terrestrial atmosphere *(Chinese)* 2−88992
librations due to Earth's polar and equatorial flattenings 2−106566
light scatt. theory for rough surfaced grains 2−89142
lunar theory, Hill stability and distance curves for general three-body problem 2−78941
magnetic anomalies due to meteorite impact affecting pre-existing fields 2−73880
magnetic field nature 2−63285
McDonald Observatory laser ranging, Earth rot. determ. (1971-9) *(Chinese)* 2−111832
meteorite crater formation, factors affecting crater dimensions 2−73879
micrometeoroid impact melting and volatisation 2−106567
near side megarelief 2−100780
occultation of α Leonis and ζ Geminorum, ang. diameter determ., obs. 2−73949
occultation timings of stars used to determine FK4 reference frame rot. 2−58229
occultations of stars (1623-1942) catalogue 2−100771
orbit, oceanic tidal dissipation secular effects 2−111843
orbital evolution and origin of Moon's shape 2−78986
orbital motion, direct perturbations of Venus and Mars, errors in ephemerides 2−73872
orbital motion, progress in analytical theories 2−73868
orbital perturbations due to Earth oblateness and planets, errors in ephemerides 2−73871
orbital perturbations due to Earth oblateness and solar eccentricity/perigee, ELP soln. 2−73869
origin, constraints from W partitioning 2−78988
origin of Moon, theories of H.C. Urey and implications of deficiency of siderophile elements 2−112678
palaeomagnetic pole position displacements 2−106569
phases, correlation with rainfall through modulated meteoric dust acting as ice forming nucleus 2−88971
photometry interpretation with radiative transfer theory for planetary regolith 2−100777
polarisation properties and albedo of Moon, rel. to Fresnel component of refl. light from lunar soil 2−68640
radar scattering laws for lunar surface 2−94631
radar studies, Earth-based 2−106574
radio emission, appl. to radioastronomical adjustment of variable profile antenna 2−94596
tectonism in post-Imbrian period indicating totally molten initial state 2−89173
temperature profile of lunar interior 2−78987
tidally-induced couple due to oceans-beds friction, effect on lunar recession 2−84121
triboelectric transient lunar phenomena, model expt. 2−117617
unflooded topography, technique for lava volume estimates on artificial flooding 2−84127
volcanic landforms of Earth and Moon, comparison 2−100778
Ti isotope ratios of lunar, terrestrial and meteorite samples 2−84113

Moon structure *see lunar structure*

moonquakes *see lunar seismology*

Morin temperature
see also weak ferromagnetism
Fe_2O_3, hematite, shock compressed, point defect generation, positron annihilation study 2−86795

Morse potential
see also intermolecular mechanics; kinetic theory
atom-surface scattering, iterative solution for realistic potentials 2−99267
desorption kinetic equations 2−61283
diatomic molecules, Morse oscillator matrix elements appropriate for vibr.-rot. intensities 2−75234
diatomic molecules, vibr. excited, collisional dissoc. 2−80791
gases, transport props. for pots. with multiple extrema 2−97688
H^+ transfer reactions, kinetic isotope effect 2−70410
hypervirial treatment of Morse oscillators, perturbed 2−108665
polyatomic vibr. excited mol., coupled Morse oscill., energy spacings and wave functions 2−80508
rotating oscillator, energies, wave functions and matrix elements 2−80764
solvated atoms and cations, stability anal., rel. to electrogeneration 2−108660
Cu stepped surfaces, interaction with H, pairwise-additive model 2−56349
Cu-He interaction pot. determ. by atomic beam scatt. 2−99266
$F+H_2$, kinetic field pot., Morse function, pot. energy surface 2−85770
$H+H_2$, kinetic field pot., Morse function, pot. energy surface 2−85770
H_2, Franck-Condon factors, appl. to photoelectron spectra 2−108623
H_2^+, B state, Morse pot., eigenvalue determ. 2−54914
$HBr+CO$, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
$HCl+CO(NO)(O_2)$, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
HD, surface scatt. on Pt (111), rot. mediated selective adsorption calcs. 2−87012
$He+I_2$, vibr. relax., Morse type pots., quantum mechanical study 2−80787
N_2, Franck-Condon factors, appl. to photoelectron spectra 2−108623

Morse potential continued
NaCl, surface (001), H atom beam coherent elastic scatt., bound state resonance, Morse pot. 2−116324
SF_6, force consts., excited vibr. states, Lennard-Jones and Morse pots. 2−90647

m.o.s. devices *see metal-insulator-semiconductor devices*

m.o.s. integrated circuits *see field effect integrated circuits*

m.o.s. structures *see metal-insulator-semiconductor structures*

mosaic structure (microstructure)
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
Ni-W, eutectic alloy, directionally solidified, precip. of Ni_4W around W fibres mosaic struct. form. 2−105146

m.o.s.f.e.t *see insulated gate field effect transistors*

m.o.s.i.c. *see field effect integrated circuits*

Mossbauer effect
^{119}Sn impurity force const. changes, Mossbauer study 2−61098
Γ_8 quadruplet, Mossbauer spectra in presence of spin-lattice relax., hyperfine interaction 2−93081
amorphous materials, effect of EFG sign on ^{57}Fe Mossbauer spectra 2−99007
amorphous solids, electric field gradients, theory and expt. data review 2−104323
amorphous system hyperfine field distrib., Mossbauer study, Fourier method 2−104758
application in mineralogy, soil science, ceramics 2−53905
basilar membrane motion meas. in guinea pig using Mossbauer technique 2−100009
BCC metals, radiation damage, Mossbauer spectroscopy study 2−103808
borosilicate glasses, actinide valences 2−55854
chalcogen-iodine cations, ^{127}I Mossauer study 2−96608
clinopyroxenes, sodic, ^{57}Fe Mossbauer spectral anal. 2−93068
coherent and incoherent Mossbauer scatt. obs. by γ-ray diffractometer 2−66958
coherent detection appl. to stochastic signals 2−107477
computerised analysis method *(Chinese)* 2−61791
conversion electron Mossbauer spectrometer equipped with ceramic electron multiplier detector 2−102323
diamond: Sn, cordency and compression effects on isomer shift of impurities 2−56989
diffraction patterns, permittivity tensor, group-theoretical approach 2−77438
elec. cond. and mag. props. 2−92907
FCC metals, self-interstitials, hyperfine interaction evidence, theoretical anal. 2−71437
ferric fluorides amorphous, ^{57}Fe nucl. quadrupole splittings distrib., struct. implications 2−77003
ferrites, spinel-type, hyperfine mag. field, press. effect 2−104780
ferromagnet, two-sublattice, cation distrib., new Mossbauer spectroscopy determ. method 2−56998
float glass, effect of 5% hematite on devitrification behaviour, Mossbauer and X-ray study 2−109686
garnet ion implanted bubble films, CEMS characterisation 2−72387
garnets, magnetic structures, Mossbauer diffr. patterns, group theoretical anal. *(Russian)* 2−116095
glass coated by Sn and organic long chain mols., chemical bond nature, Mossbauer spectra 2−99009
glasses, Fe doped, impurity clustering, relax. Mossbauer studies 2−104753
glasses, nonmetallic, crystallisation, glass transition and struct. relaxation, Mossbauer studies 2−104752
graphite, pyrolytic, ^{133}Xe implanted, lattice location study by Mossbauer effect 2−55999
graphite, pyrolytic, thermally scatt. radiation diffr., X-ray and Mossbauer γ-ray diffr. study 2−62014
graphite intercalated with $FeCl_3$, Mossbauer study of mag. props. 2−99012
graphite intercalation cpd. with $FeCl_3$, low and high stage, mag. order, Mossbauer study 2−87642
graphite intercalation cpd. with $FeCl_3$, reduction and Fischer-Tropsch reactions, Mossbauer study 2−116692
hyperfine interaction, Fourier anal. 2−104766
iron sulphides, mixed-valence compounds, valence meas. using Mossbauer ^{57}Fe isomer shift 2−61798
line shape in presence of spin-phonon relax. effects 2−56995
liquids, transverse motion effect on critical Rayleigh scatt. of Mossbauer radiation 2−72390
localised diffusion in interstitial cage, Mossbauer study, model calc. 2−56983
magnetic structures, Mossbauer diffr. patterns, group theoretical anal. *(Russian)* 2−116095
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
metallic glass ribbons, spin texture, Mossbauer study 2−104757
metallic glasses, local struct., Mossbauer and X-ray diffr. study 2−103645
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
microcomputer system for Mossbauer spectra anal. 2−101389
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
microprocessor controlled spectroscopy, software package 2−107476
microprocessor-based Mossbauer fitting program 2−84772
mixed valence system, fluctuation effects at 0K 2−56495
Nafion polymer membranes, exchanged with Fe^{2+}, Fe^{3+}, and Eu^{3+}, Mossbauer spectroscopy 2−97943
paramagnetic compound in frozen aqueous solution, gamma mag. reson. obs. 2−116099
paramagnets, double gamma reson. study 2−116104
passive films, on Fe, in-situ Mossbauer studies 2−76864
plastic scintillators for single pulse transmission Mossbauer spectroscopy 2−102342
polymers, Fe doped, impurity clustering, relax. Mossbauer studies 2−104753
proteins, Mossbauer effect rel. to conformational mobility and moisture content 2−67950
quasienergetic phenomena in strong RF field, theory 2−104785
random powder spectra in ^{57}Fe Mossbauer spectroscopy, rotating sample recording 2−61800
rare earth garnets, RFe_5O_{12}, amorphous, struct. props., Mossbauer study 2−103625

Mossbauer effect continued
rare earth perovskites $R_{1-x}B_xCoO_3$, RpY,La,Eu,Dy,Gd, B=Ca,Sr, Mossbauer emission studies 2−87631
rare earth-transition metal intermetallics, RM_6Al_6, (M=Cu, Mn, Fe), mag. props. 2−61734
resonance analyser of cassiterite 2−57658
resonance detection, Mossbauer spectra 2−64206
ring detector for meas. of Rayleigh scattering of Mossbauer radiation 2−85492
rubber, siloxane polymer based, Rayleigh scatt. of Mossbauer γ-rays 2−104772
semiconductors, Mossbauer isomer shift and band struct. 2−93091
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
spectrometer, with constant velocities, recording unit 2−107478
spectrometer-computer complex, organisation principle 2−113093
spectroscopy cell for in situ catalytic studies 2−113092
stainless steel, austenitic, depth selective conversion electron Mossbauer spectra with proportional counter 2−99003
stainless steel, type SS 310 and SS 316, isomer shift, tensile stress effects 2−93093
steel, C, ion implanted with n, Fe_xN and carbonitride phases, conversion electron Mossbauer study 2−98120
steel, Cr-Mn(Ni), Mossbauer spectra, rel. to C and N incorporation 2−104751
steel, medium C, N implanted, Mossbauer surface study 2−93086
steels, austenitic stainless, Cr-Mn and Cr-Ni, electron density and charge distrib. 2−99002
stripping and fitting method for spectra anal. 2−85711
tetrameric antiferromagnetic clusters, hybrid states, Mossbauer spectra 2−82759
universal spectrometer for obtaining gamma reson. spectra of Fe containing materials 2−108222
zeolite catalyst, ZSM-5(Fe), magnetisation, Mossbauer and catalytic props. meas. 2−77433
zero-phonon line profile in Mossbauer, optical spectra, theory 2−104784
Ag-Fe(16.8 wt.%), mag. double transition, Mossbauer study 2−87503
Al, ion implantation radiation damage, Mossbauer study and math. model 2−81835
Al-alloys, Mossbauer study of Fe impurities 2−56997
Al-Co-Fe, electron irrad., ^{57}Fe diffusion, Mossbauer study 2−92254
Al-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
Al_2O_3-SiO_2-Fe_2O_3, heat treated, Fe valence-coordination state, Mossbauer study 2−103662
Am_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
As_2Se-GeSe-SnSe, glass, Sn valence states, Mossbauer, optical and electron spectroscopy study 2−71935
As_2Se_3:Au(Pt), vitreous, impurities location and valency, XPS and Mossbauer study 2−76320
As_xTe_{1-x} glasses, intrinsically broken 8-N coord. rule, ^{129}I Mossbauer study 2−81686
Au-Fe_1 spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
AuI, high press. Mossbauer study of ^{197}Au, electrical cond. 2−61794
^{197}Au, Au and Au-Cu Mossbauer isomer shift calc. from electron capture lifetime meas. 2−93076
B_2O_3-Al_2O_3-Fe_2O_3 based glasses, Fe coordination, Mossbauer study 2−103641
B_2O_3-Fe_2O_3-PbO-GeO_2(CaO)(As_2O_3) glass, Fe valence states, comp. dependence, Mossbauer and mag. study 2−104317
$BaAs_3$, elec. cond. and mag. props. 2−92907
$BaFe_{12}O_{19}$:Gd(Dy)(Ho)(Er)(Yb), dopant effects on mag. props. 2−92968
$Ba_{1+x}Fe_2S_4$, Mossbauer spectra, mag. and elec. props. 2−66962
$BaFeSi_4O_{10}$, gillespite, Fe^{2+} Mossbauer spectra, mag. relax. effects 2−61793
C electrodes, high-surface area, in-situ Mossbauer spectroscopy of adsorbed species 2−93070
Ca amphibole schist, Fe^{2+} and Fe^{3+} conc. determ. by Mossbauer spectroscopy 2−99738
$CaAs_3$, elec. cond. and mag. props. 2−92907
$Ca_2Fe_2O_5$-$LaFeO_3$ system, Mossbauer resonance study 2−61801
CaO-B_2O_3-V_2O_5-Fe_2O_3, glass, Mossbauer and ESR studies 2−66963
$Cd_xCo_{1+x-2y}Fe_2O_4$, mag. props. and lattice dynamics, Mossbauer effect study 2−77426
$Cd_xCu_{1-x}Fe_2O_4$, mag. props., hyperfine interaction, Mossbauer study 2−116103
$Cd_xFe_{3-x}O_4$, cubic spinel system, Mossbauer spectrum, electronic props. 2−104775
Co-Ga, mag. and struct. props., Mossbauer study 2−116097
Co-Gd amorphous films, struct. and mag. props., Mossbauer study *(Russian)* 2−77429
Co-polybutadiene interface chemistry, ^{57}Co emission Mossbauer spectroscopy 2−87638
$Co_{1-x}B_x$ metallic glass, struct., neutron diffr., Mossbauer and EXAFS study 2−103640
$Co_xFe_{1-x}Fe_2O_4$, Mossbauer spectra, isomer shifts, quadrupole coupling consts. and effective mag. fields calc. 2−82755
$CoFe_2O_4$-P_2O_5 amorphous cpd., prep. and mag. props. 2−61735
$Co_xFe_{3-x}O_4$, ^{57}Fe Mossbauer study 2−77428
$Co_{70.3}Fe_{4.7}Si_{15}B_{10}$, amorphous, crystn., Mossbauer and X-ray diffr. study 2−103636
$Co_{1-x}Fe_xTiO_3$, competing mag. orderings, Mossbauer and neutron diffr. study 2−66777
$Co_xMn_{3-x-y}Fe_yO_4$, hyperfine interactions, Mossbauer study 2−72393
$Co_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
$Co_2Mn_{1-x}Ti_xSn$ Heusler system, mag. and chem. ordering 2−93073
$^{57}CoCl_2$, frozen aq. soln., electron capture, Auger cascades, Mossbauer study 2−87644
$^{57}CoCl_2$, frozen aq. soln., electron capture after-effects, Mossbauer study 2−104768
CrO_2:Fe particles, noncollinear mag. struct., Mossbauer study 2−77329
$Cs_2AgAuCl_6$, high press. Mossbauer study of ^{197}Au, electrical cond. 2−61794
$Cs_2Au_2Cl_6$, high press. Mossbauer study of ^{197}Au, electrical cond. 2−61794
$CsFeF_4$, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
$Cs_2M_2Cl_6(Br_6)$ (M=Sb, Bi), doping effects, Mossbauer data and electronic props. 2−61007
Mossbauer effect continued
Cu:^{119}In (^{119}Sb), Mossbauer study of impurity-vacancy interactions 2−86705
^{63,5}Cu:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
cu-Mn, spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
$Cu_xCr_xM_{2-x}S_4$ (M=Sn, Ti), mag., EPR, and Mossbauer meas. 2−98840
$CuFe_2O_4$, cation distrib. and hyperfine parameters, Mossbauer study 2−99010
$Cu_xFe_{3-x}O_4$ cubic spinel system, Mossbauer spectrum, electronic props. 2−104775
$Cu_{1-x}M_xFe_2O_4$ (M=Mn, Ni), spin struct. and hyperfine fields, Mossbauer study 2−66959
Cu_3TaSe_4, ^{181}Ta 6.2 keV nuclear transition isomer shift 2−110737
diamond:Fe, ion implantation study by conversion electron Mossbauer spectroscopy 2−77427
Dy-Fe, hyperfine fields, Mossbauer spectra obs. 2−99005
Dy-Fe intermetallic cpds., mag. and cryst. props., X-ray and Mossbauer study 2−92877
DyAg, cryst. and amorphous, electronic relax. and hyperfine fields, Mossbauer study 2−116098
$DyFe_2$, hyperfine fields, Mossbauer spectra obs. 2−99005
Dy_6Fe_{23}, cryst. and mag. props. 2−86626
$DyFe_4Al_8$, Mossbauer study 2−87636
$Dy(Fe_xAl_{1-x})_2$ Laves phases, mag. and cryst. props., X-ray and Mossbauer study 2−92899
$Dy(Fe_{1-x}Ga_x)_2$, mag. props. and Mossbauer spectra, 4.2 to 293K *(Russian)* 2−104657
$ErFe_3H_x$, spin reorientation temp., hyperfine fields, Mossbauer study 2−93082
$ErFeO_3$, spin reorientation, Mossbauer study 2−82756
$Eu_{77.5}Al_{22.5}$, amorphous, elec. field gradient at S-state ion, Mossbauer study 2−104761
$EuAs_3(P_3)$, elec. cond. and mag. props. 2−92907
$Eu_{80}Au_{20}$ and $Eu_{60}Yb_{20}Au_{20}$, amorphous, Mossbauer study 2−82757
$EuCu_2Si_2$, energy balance of mixed-valent Eu ions 2−87197
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
$EuMo_6S_8$, valence of Eu under high press., ^{151}Eu Mossbauer study 2−82553
$EuPd_2Si_2$, cooperative config. change, isomer shift meas. 2−66964
$EuPd_2Si_2$, mixed valence cpd., mag. susceptibility, lattice const., Mossbauer isomer shift 2−56510
EuTe, transferred hyperfine fields, effect of high press. and high mag. fields, Mossbauer study 2−104779
$(Eu_{1-x}Yb_x)_{80}Au_{20}$, amorphous, elec. field gradient at S-state ion, Mossbauer study 2−104761
^{151}Eu atoms and mols. in solid Ar, matrix isolation and Mossbauer study 2−54807
$(Fe,Co)S_{1+x}$ solid solns., Mossbauer effect study of mag. behaviour 2−61797
$(Fe,Mn)_3(PO_4)_2$ graftonite-type solid solns., cation distrib. 2−115186
Fe $(ClO_4)_2.6H_2O$: ^{57}Co, Mossbauer emission and absorpt. spectra, study of phase transitions 2−61805
Fe cast, corrosion products in NH_4NO_3 solns., Mossbauer study 2−111378
Fe catalysts, Fischer-Tropsch, Mossbauer study of surface effects 2−82750
Fe complex, bromobis(diethyldithiocarbamato)iron(III), mag. susceptibility, Mossbauer study 2−87632
Fe complex, rapid spin equilib., relax. time 2−82753
Fe complexes, Fe(II, III)-N,N'-di(2-)pyridyl thiourea, Mossbauer and other spectroscopic studies 2−110735
α-Fe, corrosion and passivation, in H_2O_2 soln., Mossbauer invest. 2−116589
Fe distribution in layered silicate minerals of Indian origin, Mossbauer study 2−82754
ε-Fe phases, nitrides and carbonitrides, N substitution, influence of C, Mossbauer study 2−99389
ε-Fe:^{57}Co, Mossbauer study of magnetism 2−66956
Fe-Al, Mossbauer spectra hyperfine struct. and ordering anal., density function reconstruction 2−87643
Fe-Al (12 wt.%), high permeability mechanism, soft mag. props. 2−82654
Fe-Al-Sn, Mossbauer study of spin and charge density changes 2−116102
Fe-B metallic glass ribbons, mag. hyperfine field distrib., Mossbauer study 2−104763
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Cr (45.5 at.%), σ phase form., Mossbauer effect study 2−104776
Fe-Cr-Co permanent magnets, mag. props. and Mossbauer effect 2−72282
Fe-Mn-Ni alloys, influence of comp. and plastic deform. on paramag. phase content 2−83246
Fe-N thin films, RF sputtered, static mag. and Mossbauer study 2−82641
Fe-Ni alloys, critical, mag. struct., Arrott plots and Mossbauer spectra 2−104615
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Ni Invar alloys, FCC, linear expansion coeff. control by heat treatment *(Russian)* 2−61177
Fe-Ni-Co powders obtained by decomp. of carbonyls, Co content influence on phase comp. 2−67294
Fe-Ni-P-B based metallic glasses, Mossbauer study under press. 2−72385
Fe-P-C metallic glass ribbons, mag. hyperfine field distrib., Mossbauer study 2−104763
Fe-rich magnetites, $Fe_{3+x}O_4$, non-existence 2−83100
Fe-Sb layered films, absence of mag. moment, Mossbauer study 2−115592
Fe-Sn, hyperfine field, isomer shift, spin and charge density changes, Mossbauer study 2−93083
$Fe_{74}Zr_{26}$, amorphous, mag., Mossbauer, and resist. study 2−72384
Fe_3Al, hyperfine field and mag. moment, Mossbauer study 2−72380
α-$(Fe_{1-c}Al_c)_2O_3$, Mossbauer study 2−87637
α,β-FeB, Mossbauer spectra 2−61803
$Fe_{1-x}B_x$ amorphous, sputtered and liquid quenched, hyperfine field, Mossbauer study 2−104760
$Fe_{1-x}B_x$ glass, crystn. kinetics, Mossbauer and DSC study 2−103632
$Fe_{1-x}B_x$ metallic glass, atomic struct., Mossbauer study 2−103639
$Fe_{100-x}B_x$, metallic glass, electrochem. corrosion and Mossbauer spectra, composition and processing parameters effects 2−93640

Mossbauer effect continued
Fe_3B, high-press. Mossbauer study 2−56994
$Fe_{80}B_{20}$, amorphous alloy, ion irrad. effects, conversion electron Mossbauer spectra study 2−61043
$Fe_{85}B_{15}$, amorphous, struct. and crystn. study by Mossbauer spectroscopy *(Russian)* 2−93075
Fe_xB_{100-x}, amorphous, mag. hyperfine interactions, Mossbauer study 2−82764
Fe_xB_{100-x}, amorphous, mag. ordering temp., hyperfine fields, Mossbauer study 2−104755
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
$Fe_{84}B_{16-x}C_x$, glassy, crystallisation, magnetisation 2−55862
$Fe(BF_4)_2.6H_2O$:^{57}Co, Mossbauer emission and absorpt. spectra, study of phase transitions 2−61805
$FeBO_3$, suppression of elastic scatt. of nuclear resonance γ-quanta *(Russian)* 2−82762
$(Fe_{0.82}B_{0.18})_{0.9}R_xLa_{1-x}$ (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er), amorphous, exchange interactions 2−72185
$Fe_{81}B_{13.5}Si_{3.5}C_2$, amorphous, Mossbauer study 2−99013
$Fe_{81}B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
$Fe(CO)_5$, adsorbed (0001) graphite, dynamical props., Mossbauer study 2−56342
$Fe(ClO_4)_2$ eutectic frozen aq. soln., ligand fields, Mossbauer study 2−92543
$Fe(ClO_4)_2$, frozen aq. soln., ligand field distrib., Mossbauer study 2−104762
$Fe_{80-x}Co_xB_{20}$ ($Fe_{80-x}C_xB_{20}$), amorphous, crystn., Mossbauer study 2−103633
$(Fe_xCo_{1-x})_{78}B_{22}$ and $(Fe_xCo_{1-x})_{72}Si_2B_{26}$ glasses, ^{57}Fe substitution effects, Mossbauer study 2−110738
$Fe_{1-x}Cr_xBO_3$, ferrimagnet, Mossbauer study 2−72381
$Fe_xCu_{1-x}Rh_2Se_4$, magnetic and crystallographic props. 2−92860
FeF_3 thin films, mag. and Mossbauer studies as a function of growth model 2−82678
α-$FeGa_2S_4$ (1T), mag., elec. and Mossbauer props. *(French)* 2−72389
$Fe_{81}Hf_{19}$, amorphous, mag., Mossbauer, and resist. study 2−72384
Fe(II), porphyrin complexes, electronic struct., Mossbauer spectra, ab initio LCAO SCF calcs. 2−108596
$Fe_{80}M_3B_{17}$, M=transition metal, metallic glass, Mossbauer and corrosion studies 2−104769
$Fe_{0.968-x}Mn_xSi_{0.032}$ system, Mossbauer and mag. studies 2−82761
$Fe_2(MoO_4)_3$, ferroelastic transition, Mossbauer and elec. cond. study 2−116101
$Fe(NO_3)_3$, glassy paramag., Fe^{3+} Mossbauer spectra, spin-spin relax., microscopic model 2−93077
FeNi alloys from Fe meteorites, order-disorder transitions, Mossbauer spectra study 2−67328
$(Fe_{0.25}Ni_{0.75})_3B$, high-press. Mossbauer study 2−56994
$(Fe_{1-x}Ni_x)_{80}B_{20}$, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$Fe_{40}Ni_{40}B_{20}$, $Co_{75}Fe_5B_{15}Si_5$ and $Co_{55}Fe_5Ni_{20}(SiB)_{20}$, amorphous, crystn. in RF mag. field, Mossbauer study 2−103634
$(Fe_xNi_{1-x})_{80}B_{20}$, glass, mag. props. and crystn., Mossbauer study 2−104754
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, metallic glass, mag. hyperfine field distrib., Mossbauer study 2−87640
$Fe_{32}Ni_{36}Cr_{14}P_{12}P_6$, amorphous, Mossbauer study under press. 2−72385
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$(Fe_xNi_{1-x})_{11}Se_8$, Mossbauer study 2−104774
$Fe_4Ni_{74}Si_9B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
$FeO-Al_2O_3-SiO_2$, amorphous, spin glass, mag. behaviour 2−72226
Fe_2O_3 film, surface mag. hyperfine interactions, Mossbauer study 2−72391
γ-Fe_2O_3 layer on Fe, Mossbauer and ESCA meas. 2−76848
Fe_2O_3-TeO_2 glass, Mossbauer effect and elec. cond. meas. 2−87639
Fe_3O_4, electronic superstruct. 2−71866
Fe_3P, FeP and FeP_2 powders, Mossbauer spectroscopy 2−116105
$FePO_4$, anhydrous, mag. phase transition, mag. susceptibility, Mossbauer spectra and neutron diffr. 2−110579
$Fe_4(PO_4)_2O$, prep., cryst. struct., mag. props. and Mossbauer spectrum *(French)* 2−81749
$Fe(Pd_{1-x}Au_x)_3$, atomic ordering, quadrupole splitting in Mossbauer spectra 2−104783
FeS_4^{5-} cluster, radial densities calc. by multiple scatt. Xalpha method, bonding, Mossbauer isomer shift data 2−96450
$Fe_{1-x}S$, Mossbauer study of Fe vacancy distrib. 2−81783
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
FeSi sheets, effect of stacking on coercivity 2−56887
α-$Fe_{1-x}Si_2$, multiparticle atomic correlations, Mossbauer spectroscopy study 2−66960
Fe_xSi_{1-x} amorphous thin film, mag. anisotropy, Mossbauer and ESR study 2−93087
$Fe_{75}Si_xB_{25-x}$, glass, crystn., Mossbauer study 2−103637
Fe_2SiO_4, fayalite, melt-grown, Fe^{2+} content, Mossbauer effect 2−93069
$Fe_{80-x}Sn_xB_{20}$, amorphous ferromagnet, Sn and Fe hyperfine fields, Mossbauer study 2−92552
$FeTi_x$, H_2 storage props., XPS, Mossbauer and metallographic study 2−92347
β-FeTiH, Mossbauer isomer shifts 2−87641
$FeTiH_2$, Mossbauer isomer shifts 2−87641
θ-$Fe_{0.33}V_3O_5$, elec. field gradient, Mossbauer study 2−104759
$Fe_{0.5}V_{5.5}O_{13}$, cryst. growth, elec. resist., Mossbauer spectra, and mag. susceptibility 2−83014
$Fe_{3-x}V_xSi$, Mossbauer study of Fe hyperfine fields 2−87635
^{57}Fe, Mossbauer conversion electron spectra, electrostatic electron spectrometer appl. 2−96367
^{57}Fe, Mossbauer spectra of finite thickness cryst., elec. field gradient and electronic ground state determ., theory 2−93079
^{57}Fe Mossbauer spectroscopy, depth-selective 2−82751
$^{57}Fe_2O_3$, Mossbauer conversion electron spectra, electrostatic electron spectrometer appl. 2−96367
Ga-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
GaS, layered, atomic vibr., Mossbauer study 2−110739
Mossbauer effect continued
$Ga_xSn_yFe_{3-x-y}O_4$, Mossbauer study of A site cation arrangement 2−93071
Gd intermetallic cpds., charge transfer and isomer shift, ^{155}Gd Mossbauer spectra 2−104777
$Gd_{80}Au_{20}$, amorphous, elec. field gradient at S-state ion, Mossbauer study 2−104761
$Gd_{80}Au_{20}$, amorphous, Mossbauer study 2−82757
$GdCu_2$, mag. and crystallographic props., Mossbauer effect, H absorption effects 2−82758
GdF_3, Mossbauer spectrum, dipolar contrib. and quadrupole effect 2−93092
Gd_xNi_{1-x}, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$GdRh_4B_4$, cryst. elec. field determ., Mossbauer study 2−87207
Ge, amorphous, Mossbauer study 2−99004
Ge, Mossbauer study of implanted ^{57}Co below full amorphisation limit 2−77441
Ge:Sn, cordency and conipression effects on isomer shift of impurities 2−56989
$(Ge_{0.99}Sn_{0.01})Se_2$ glass, broken chem. order, Mossbauer study 2−81687
^{73}Ge, Mossbauer isomer shifts calc. for 67.03 and 13.3 keV transitions 2−72392
graphite:Fe, ion implantation study by conversion electron Mossbauer spectroscopy 2−77427
$Hf_{0.8}Ta_{0.2}Fe_2$, ferromagnetic-antiferromag. transition, magnetisation and Mossbauer study 2−87493
$HoCo_5$, magnetisation reorientation, neutron diffr. and Mossbauer study 2−72148
In-Fe-O system, equilib. phase diagram, solid soln. form., Mossbauer study *(French)* 2−86840
In_2Te_3:Sn, elec. inactivity of Sn impurity atoms, Mossbauer and photoelectron spectra 2−115703
Ir-Fe dil. alloy, high field Mossbauer study 2−99001
$Ir_{1-x}Pt_x$, Mossbauer spectra, localised moment continuous formation 2−82763
KCl, γ-ray diffr. by thermal diffuse scatt., Mossbauer study 2−61796
KF(Cl)(Br), Mossbauer isomer shift of $^{40}K^+$ 2−56993
$KFeF_4$, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
K_2FeF_5, field depend. magnetisation curves, Mossbauer study 2−77435
K_2FeF_5, Neel temp. variation, Mossbauer study 2−92905
$KFeS_2$, effect of amorphisation in mag. props. 2−82659
$LaFe_4P_4$, superconductivity and mag. props., Mossbauer study 2−72102
$LaIr_3O_{11}$, semicond., elec. and paramag. props., Mossbauer resonance *(French)* 2−92614
La_2LiFeO_6, high-pressure stabilisation and physical props. of Fe(V) 2−66791
$LaNi_5$, Ni microprecipitates produced by cyclic H absorpt. and desorpt., Ni^{61} Mossbauer study 2−66953
$LaNi_{1-x}Co_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{1-x}Fe_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{0.5}Mn_{0.5}O_3$, magnetic props., review *(Japanese)* 2−66870
$LiFeSnO_4$ phase, cryst. struct. charcts. 2−65942
$LiNbO_3$:Fe, single cryst., Mossbauer spectroscopy 2−110733
$Mg_{1-x}Fe_x$, amorphous, Mossbauer effect and mag. props. 2−66965
$MgFe_2O_4$, low temp. formation, characterisation 2−62093
$Mg_xMn_{2.9}Fe_{0.1}O_4$, Mossbauer study 2−104782
$Mg^{121}TeO_4$, Mossbauer spectroscopy 2−64201
$MgTiO_3$:Fe^{3+}, Mossbauer and EPR studies 2−104773
$Mg_xZn_{1-x}Fe_2O_4$, Mossbauer spectra, isomer shifts, quadrupole coupling consts. and effective mag. fields calc. 2−82755
Mn-Zn ferrite synthesis from Na_2O-B_2O_3 flux under CO-CO_2 ambients 2−72612
Mn-Zn spinel ferrites, prep. by wet chemical method, Mossbauer study 2−56990
MnTe, antiferromag. semicond., Mossbauer and X-ray study 2−61795
$Mo_6(Se_{1-x}Te_x)_8$, Chevrel phase cpds., ^{125}Te Mossbauer effect 2−77436
NH_4FeF_4, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
$Na_3Fe(CN)_6.2H_2O$, ^{57}Fe elec. hyperfine field, polarised Mossbauer study 2−93078
$NdFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
Ni, electrodeposited, cryst. struct., positron annihilation, Mossbauer and X-ray study 2−104178
Ni-Fe (24 to 35 at.%), Curie temp. meas. by Mossbauer expts. 2−77290
NiFe, 3d electron density charge on atomic ordering, Mossbauer study 2−61804
$Ni_xMn_{3-x-y}Fe_yO_4$, hyperfine interactions, Mossbauer study 2−72393
$Ni_xMn_{3-x}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
Np_2Se_5, crystallographic and mag. studies 2−86638
$NpWO_3$, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
P_2O_5-SnO_2-MgO(CaO),(SRO),(BaO), Mossbauer and IR spectra quadrupole splitting 2−104767
^{107}Pd:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
$PrFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
$(PrRd8_0Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
Pu_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
$RbFeCl_3.2H_2O$, Mossbauer study of critical fluctuations 2−99011
$RbFeF_4$, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
β-$Rb_2FeF_5.H_2O$, 1-D antiferromag., cryst. struct., mag. and Mossbauer study 2−92879
$RbFeS_2$, Bridgman growth, Mossbauer hyperfine fields and Fe^{57} resonant fraction 2−77002
^{121}Sb Mossbauer spectroscopy technique with ^{121}Te source 2−64201
$ScFe_2$, hydrogenated, ^{57}Fe Mossbauer spectroscopy 2−72388
Si, amorphous, Mossbauer study 2−99004
Si, impurity defect struct. form. by ion implantation, amorphous and cryst. comparison 2−103790
Si, ion implanted, hyperfine interaction study after thermal and laser annealing 2−99008
Si, Mossbauer study of implanted ^{57}Co below full amorphisation limit 2−77441
Si:Co, impurity lattice location, Mossbauer study 2−103785

Mossbauer effect continued
Si:Sn, cordency and compression effects on isomer shift of impurities 2−56989
$(Si_{2-x}Fe_x^{3+})(Fe_{3-x}^{2+}Fe_x^{3+})O_5(OH)_4$, cronstedtite, thermally-activated charge transfer, electron hopping, Mossbauer spectra 2−66561
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
$SmFe_2$, hyperfine fields, Mossbauer spectra obs. 2−99005
$SmFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
α-Sn, amorphous, Mossbauer study 2−99004
Sn chalcogenides, Mossbauer effect probability anal. 2−77431
Sn chalcogenides, secondary periodicity 2−77430
Sn IV halide complexes, with organophosphorus ligands, struct., elec. field gradient, investig. 2−90589
Sn/Fe interface form., chem. interdiffusion, Mossbauer study 2−104171
Sn-O amorphous system, bonding struct. and lattice dynamics, Mossbauer study 2−104770
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
SnS-BaS(Tl_2S) systems, ^{119}Sn Mossbauer spectra, chemical isomer shifts *(French)* 2−61799
SnTRe, epitaxial film, effect of thermal treatment on comp. and struct., Mossbauer and X-ray study 2−66399
$(SnTe)_x(PbSe)_{1-x}$ system, ^{119}Sn Mossbauer study *(Russian)* 2−104781
$SrLaCoO_4$:^{57}Fe, emission and absorption Mossbauer spectra, electronic structure 2−77434
$TaSe_2$ (2H) structure, CDW, interlayer interactions effects 2−76950
$TbFe_2$ amorphous film, mag. and elec. props. *(Chinese)* 2−104750
Te single crystal, amorphisation by ion implantation 2−103854
$Ti_xFe_{3-x}O_4$, cubic spinel system, Mossbauer spectrum, electronic props. 2−104775
$TmAsO_4$, local props. of Tm^{3+} and Yb^{3+}, ^{169}Tm and ^{170}Yb Mossbauer meas. 2−99006
$TmFe_2$, cubic Laves phase, Mossbauer study 2−66961
$TmFe_4Al_8$, Mossbauer study 2−87636
Tm_2Se, local prop. variation, Mossbauer study 2−87633
^{182}W, force const. and Debye temp. in Mossbauer studies, temp. depend. calc. 2−66955
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
$Y(Al_{1-x}Fe_x)_{12}$, mag. and cryst. struct., magnetisation and Mossbauer spectra study 2−72150
YCo_2 powders, ferromagnet and Mossbauer props., grinding effects *(Russian)* 2−87546
YFe_2, amorphous, struct. relax., Mossbauer study 2−72383
YFe_2, amorphous and crystalline, Mossbauer study 2−110734
YIG, amorphous, electric field gradient sign distrib., Mossbauer study 2−82765
YIG, amorphous, Mossbauer Zeeman spectrum, linewidth asymm. 2−110736
YIG, amorphous, second order quadrupole shift in Mossbauer spectrum 2−77440
YIG, amorphous speromag., quadrupole energy shifts of ^{57}Fe Mossbauer lines 2−72386
YIG film, ion-implanted substituted, depth-selective ^{57}Fe Mossbauer spectroscopy 2−82751
$YbAsO_4$, mag. ordering, ^{170}Yb Mossbauer meas. 2−99006
$Yb_{1-x}Eu_x$, mag. interactions, Mossbauer, magnetisation and resist. meas. 2−72382
Zn, corrosion inhibition in $CoCl_2$, Mossbauer study 2−111365
Zn, electric quadrupole interaction, Mossbauer study, freq. modulation technique 2−93084
$Zn_{0.85}Co_{0.15}Fe_2O_4$, mag. struct., neutron diffr. and Mossbauer study 2−66775
$(Zn)_x(Ni)_{1-x}Fe_2O_4$, Mossbauer spectra, mag. props. 2−77439
^{67}ZnS, Mossbauer spectrum under high press. 2−61802
$Zn_xSn_yFe_{3-x-y}O_4$, Mossbauer study of A site cation arrangement 2−93071
β-Zr(Fe) phase, effect of Ti in stabilisation 2−105166
$Zr_{100-x}Fe_x$, amorphous, hyperfine field distrib., spin coupling, Mossbauer study 2−104756
$Zr_{1-x}Hf_xFe_2$, isomer shift and quadrupolar interaction, Mossbauer study 2−104778

Mossbauer spectra *see Mossbauer effect*
motion picture photography *see cinematography*
Mott insulator *see localised electron states*
Mott transition *see metal-insulator transition*
movements, atmospheric *see atmospheric movements*
moving-coil instruments
ampere realisation in SI system using moving coil apparatus 2−101377
electrodynamic measuring instruments, geometry of moving coil *(Bulgarian)* 2−79608
moving coil microphones *see microphones*
MS SCF calculations *see Xalpha calculations*
MS Xalpha calculations *see Xalpha calculations*
μ-mesons *see muons*
mud *see sediments*
muffin-tin potential
alloys, random muffin-tin, itinerant electron magnetism, multiple scatt. theory 2−104570
binary alloys, multiple-scatt. theory in single-site approx. 2−76895
composition modulated alloys, electronic struct., CPA calc. 2−104224
density of states, total and component, CPA and average t-matrix approx. 2−61326
diamond, band structure, first principles calc. using localised basis set 2−110236
electron density functional method for mol. systems calcs. 2−90646
electron-phonon interactions, McMillan-Hopfield constant, transferability, rigid-muffin-tin approx. 2−61096
HCP transition metals, nucl. spin-lattice relax., ab initio ASA-SCF-LMTO linear tetrahedron calc. 2−98985
heavy element materials, electronic press., self consistent relativistic LMTO calcs. 2−92499
impurity state, muffin-tin pot. for impurity, Friedel theory and Anderson model *(Japanese)* 2−82271
metals, muffin-tin pot., non self consistent, model of self-consistency simulation 2−98522
noble metals, electromigration, theory 2−82039
muffin-tin potential continued
transition metals, electromigration, theory 2−82039
transition metals, local and non-local spin susceptibilities calc. 2−98854
Au, cyclotron masses anisotropy 2−98964
Be, high press. α-β transition at T=0 2−71628
Cu, electron-phonon effects, electron scatt. rate, mass enhancement 2−115376
Cu, electron-phonon effects, elec. and thermal resistivities, Hall effect 2−115728
Cu, vacancy, electronic struct., self-consistent calcs. of soln. of embedding problem 2−76982
$Cu_{0.9}Al_{0.1}$, bulk and surface electronic struct. 2−104238
Fe, amorphous, electronic struct. 2−66427
Fe-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
$Fe_{1-x}B_x$, amorphous, electronic struct. 2−66427
Fe_xP_{1-x}, amorphous, electronic struct. 2−66427
FeRh, paramag., ferromagnetic and antiferromag., band struct., muffin-tin calc. 2−82216
LaB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
LiC_6 intercalation compound, band struct., self consistent extended muffin tin calc. 2−82229
Mo, electronic struct. of 3d and 4d impurities 2−110290
Nb, ideal transport, rigid muffin-tin approx. calcs. 2−87221
Nb, Z 2−110290
Nb-Mo alloy, energy band struct., depend. on alloy pots. 2−115648
Pd, ideal transport, rigid muffin-tin approx. calcs. 2−87221
Pd-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Rh, electronic energy bands and optical props. KKR calc. 2−66432
RuF_6^- complex, charge-transfer electronic spectrum calc. using scatt.-wave method 2−108372
Si, phase stability, ab initio pseudopot. and linear-muffin-tin-orbitals calcs. 2−55883
Si, radiation from axially channelled electrons at low energies 2−81851
$Tl_2Mo_6Se_6$, 1-D supercond., electronic struct., SCF scatt.-wave Xα calc. 2−92461
W (001) surface electronic struct., APW and warped muffin-tin calc. 2−61343
YB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
multichannel analysers *see pulse height analysers*
multigroup diffusion *see neutron diffusion*
multimeters
Beckman 3060 multimeter, 2000 points laboratory meter *(French)* 2−79567
digital, Metertech model 3T, with built-in transistor tester 2−107316
digital, Thurlby 1503, $4^3/_4$-digit display 2−79554
electronic multimeter for AC/DC current and voltage meas. 2−84666
Fluke 8060A portable digital multimeter 2−107348
intelligent digital multimeter, $5^1/_2$-digit, standard meas., logging facilities, computer interfaces 2−53782
Metrawatt MA-3D digital multimeter 2−101422
pocket calibrator for volts and ohms, use with bench instruments 2−101423
multiperipheral models
No entries
multiphase flow
see also two-phase flow
diffusion convection problems, computer modelling 2−91454
dusty viscous incompressible gas through tube under time depend. harmonic press. gradient, laminar flow 2−97496
fluid mechanics, basic research needs review 2−60518
LMFBR, core meltdown accident, multiphase, multicomponent hydrodynamics 2−74871
multidomain multiphase fluid mechanics, Soo's eqns. 2−97627
nonequilibrium hypersonic multiphase flow, gas dynamics, appl. to lasers 2−76014
separated flows, heat exchange, separation of vortices from heated surface *(Russian)* 2−55569
surface active material concentration, bubble motion under action of gradient 2−114884
suspension, dilute, rheological behaviour, shear rate depend. of flow 2−97620
suspension, pipe flow, unsteady, numerical study 2−55648
three-phase packed and fluidised bed, heat transfer coeff. 2−71013
multiphonons *see phonons*
multiphoton spectra
see also two-photon spectra
aC-Stark-shift-induced photoelectron spin polarization in resonant multiphoton ionization 2−108599
acenaphthene, low lying singlet states, two-photon spectra 2−70363
atomic electron scattering in reson. laser radiation field, ground state-doublet reson. *(Russian)* 2−54963
atomic multiphoton free-free transitions 2−59771
atomic photoionisation, stochastic averages, quantum optical functional integration calc. 2−90846
atoms, multiphoton absorpt., linewidth, fluoresc. fluctuations 2−102453
atoms, multiphoton bound-bound transitions, review 2−96527
atoms, multiphoton ionisation, reson. effects 2−96522
atoms, resonant multiphoton ionisation, laser field correl. function 2−102452
atoms in intense laser beam, continuum Rayleigh scatt. 2−70208
benzene, liq., three-photon ionisation spectrum 2−80749
benzene, multiphoton ionisation, translational energies of fragment ions 2−96646
benzene, multiphoton ionisation and fragmentation, UV-laser induced 2−96651
bromotrifluoromethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
chlorodifluoromethane, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chloroethane, IR multiphoton decomposition and energy depend. absorpt. cross section 2−93770
chloropentafluoroethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
chlorotrifluoroethylene, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
collision induced multiphoton processes 2−96528

multiphoton spectra continued
cyanobutanone, IR multiphoton absorpt. 2−64969
dichlorodifluoromethane fragmentation, multiphoton ionisation photoelectron obs. 2−70333
2,3-dihydropyran, gas phase, multiphoton IR absorpt. 2−64970
double beam three photon absorption theory 2−108651
ethanol dissoc. characts. in strong IR CO_2 laser field *(Chinese)* 2−96652
ethyl chloride, ν_9 band, vibr.-rot. anal., diode laser spectroscopy, multiphoton dissoc. studies 2−85656
hexafluorobenzene, gas phase, multiphoton IR absorpt. 2−64970
hexafluorobenzene, IR multiphoton absorpt. 2−64969
inert gases, third-harmonic generation and multiphoton ionisation 2−70205
interference effects between different optical harmonics 2−102875
ionisation spectra, autoionisation resonance narrowing 2−85600
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
liquids, comparison of schemes for four-photon spectroscopy with high spectra resolution 2−114363
methyl radical, electronic states, resonance enhanced multiphoton ionisation obs. 2−65062
multiphoton ionisation for breakdown triggering or control Xe 2−96529
naphthalene, low lying singlet states, two-photon spectra 2−70363
organic gas phase negative ions, IR multiphoton photodetachment 2−85750
photoexcitation of quasicontinuum, unimol. relax. and partial dipole correl., interrupted coarse-grain theory 2−96665
polyatomic molecular system, multiple-photon excitation, coherent propag. effects 2−85761
polyatomic molecule vapour, multiple-photon excitation, coherent propag. effects 2−108650
positive ions, form. by multiphoton process, nonreactive intramol. relax., radiationless transitions 2−54888
propynal, near reson. vibr.-vibr. energy transfer under single collision conditions 2−85762
resonant molecular medium, stationary ultrashort pulses soliton-type soln. *(Russian)* 2−54909
retinol, all-trans, photodissoc. processes, biphotonic origin 2−116718
semiconductors, optical phonon amplification in multiphoton absorpt. 2−87722
semiconductors, three-proton two exciton absorpt., theory *(Russian)* 2−116137
slab geometry config., third harmonic generation multiphoton ionisation, cooperative effects 2−90493
solids, multiphoton absorption, intense field effects, theory 2−93133
1,1,2,2-tetrafluorocyclobutane, competitive processes in multiphoton activation, RRKM behaviour 2−75363
thermionic detector for laser spectroscopy of excited states of atoms and molecules 2−58906
three level system, population trapping and dispersion 2−54786
three-photon resonant medium, optical bistability and reversed switching effect 2−102849
trichlorofluoromethane, fragmentation, multiphoton ionisation photoelectron obs. 2−70333
trifluoroiodomethane, multiphoton excited, flash spectroscopy, UV and IR spectra, vibr. struct. 2−90538
two-level system multiphoton excitation by powerful noise field, harmonic generation 2−59770
p-xylene, multiphoton ionisation mass spectroscopy at 193 and 248 nm 2−70348
BCl_3, laser isotope separation products, IR absorpt. study 2−70437
BCl_3, laser isotope separation by multiphoton absorpt. 2−72990
CS_2, multiphoton ionisation and fragmentation mechanisms 2−108649
Cs, Balmer emission lines and photoabsorpt. spectra 2−80534
Cs, multiphoton processes, collision induced 2−96528
Cs_2, selective laser photolysis 2−99696
CsKr, selective laser photolysis 2−99696
Cs*, multiphoton ionisation, reson. effects 2−96522
F^-, methanol solvate, IR multiphoton dissoc. 2−85755
GaP, multiphoton absorption, intense field effects, theory 2−93133
H detection in H-air flames using reson. multiphoton optogalvanic-spectroscopic 2−108435
p-H_2, excited states, three-photon reson. ionisation 2−96667
H_2, three photon ionisation, quantum state specific detection 2−70353
HF, elastic field effect, IR multiple photon absorpt. 2−85759
HF, multiphoton excitation in intense laser and static electric fields, quantum dynamics, Floquet theory 2−108652
H_2S, photofragmentation mechanism studied by multiphoton ionisation photoelectron spectroscopy 2−111500
HeXe, multiphoton vibr. spectra, model calcs. 2−96668
He*, multiphoton ionisation, reson. effects 2−96522
I_2, high energy electronic state identification by means of ion dip spectroscopy 2−59875
K, three-photon resonance ionisation *(Chinese)* 2−90488
Kr, multiphoton ionisation in continuum 2−85608
N_2, multiphoton ionisation by Nd-glass laser 2−65056
NH_3, IR multiphoton absorpt. 2−64969
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
$(NH_3)_{n-2}NH_4^+$ cluster, (n=2-8), multiphoton ionisation mass spectra 2−70347
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
NO, Rydberg-valence interactions, multiphoton UPS 2−85745
Na, five photon nonresonant photoionisation, photoelectron ang. distrib. 2−64938
Na, resonant multiphoton ionisation, time development 2−80548
Na vapour, efficient tunable optical freq. tripler at autoionisation-like resonance 2−81025
NeAr, multiphoton vibr. spectra, model calcs. 2−96668
NeXe, multiphoton vibr. spectra, model calcs. 2−96668
Rb, induced three-photon light scatt. upon excitation near resonant transitions 2−75229
SF_6 cooled in free jet expansion from pulsed supersonic nozzle, multiple-photon absorpt. characts. 2−96555
SF_6, IR multiphoton excitation and dissoc. 2−59871
SF_6, model of vibr.-vibr. relax., mol. quasicontinuum 2−70210
SF_6, multiphoton absorpt. spectra at low temps. 2−75281
SF_6 $\nu_2+\nu_6$ combination band multiple photon excitation in bulk and pulsed free jet 2−96670
SiF_4, IR multiphoton absorpt. 2−64969
U II fluorescence studies, laser induced, by U photoionisation 2−96524
UF_6, laser induced emission spectrum 2−96587

multiphoton spectra continued
Xe, resonantly enhanced multiphoton ionisation, third harmonic generation 2−85609
Xe, third harmonic generation multiphoton ionisation, cooperative effects 2−90493

multiple processor systems *see computer networks*

multiple scattering SCF-X-alpha calculations *see Xalpha calculations*

multiple stars
see also binary stars
ζ Aquarii, B component IR companion detect., KL obs. 2−106792
α Centauri, components coronal X-ray emission, obs. 2−58336
VW Cephei, eclipsing binary, effect of visual companion on 2.2 μ light curve 2−106797
VW Cephei, W UMa system, photoelectric obs. and light curve vars. 2−79150
Common proper motion systems, photometry obs. 2−100974
U Coronae Borealis, eclipsing binary star, evidence for third component from times of light minima 2−100981
dark companions, astrometric detection problems 2−58231
χ Geminorum, possible triple system from photoelectric radial vels. 2−112507
HD 193077, Wolf Rayet star, neutron star secondary with possible OB third star spectra anal. 2−58351
TX Herculis, detached close binary system, period behaviour rel. to triple star model 2−74018
HR 4975, possible early-type contact system with unequal components, photometric obs. 2−79153
20 Leonis, spectroscopic-visual triple system, photoelectric obs. of Scuti component 2−89276
XY Leonis, W Ursae Majoris star, orbital period vars. rel. to presence of third body 2−106800
VV Orionis, multiple eclipsing binary, stars nature from UBV uvby obs. 2−112494
spectroscopic-visual triples, masses, mass ratios and parallaxes from astrometric studies 2−106693
supernovae, multiplicity rel. to physical classification *(Russian)* 2−106761
triple stars, Hill stability and distance curves for general three-body problem 2−78941
triple stars, study of stellar three-body problem 2−68816
visual multiple systems with variable star components, list of 112 objects 2−100770
visual multiples, numbers, IDS incompleteness and intrinsic fraction 2−100973
Wolf 630, multiple star red dwarf X-ray source, X-ray emission anal. 2−106790

multiplex transmission *see multiplexing*

multiplexers *see multiplexing equipment*

multiplexing
see also frequency division multiplexing; time division multiplexing
diffusers, random phase, correl. props. for multiplex holography 2−65338
fibre-optic communication line, expt., with spectral multiplexing of LED radiation by diffr. grating 2−114464
image multiplexing method through internal modulation of speckle patterns 2−65177
Lamb wave transducer dependent on terminal condition used in multiplexer 2−70798
nematic liquid cryst. display, multiplexible bistable, homogeneous elec. field threshold switching 2−103597
optical fibres, high-freq. broadband signal transmission, signal enhancement by spectral equalisation 2−109051
optical fibres, multimode, graded-index, mode division multiplexing 2−81083
sample-hold cct. with analogue multiplexer for multidetector systems 2−108304
spatial filtering, real-time, utilising the piezoelectric-elasto-optic effect 2−86090
white light multiplexed meas. of incoherent Fourier spectrum 2−70513
CO_2 laser fusion driver concepts, advanced 2−97070

multiplexing equipment
integrated amplifier and sample-and-hold analogue multiplexer module for proportional chamber 2−64802
micro-optic grating demultiplexer, 20-channel, 1.1 to 1.6 μm, using graded index rod lens 2−65402
optical diplexer, high efficiency, using interferometric optical circuits 2−70697
optical passive guided-wave components, review 2−75679
spectral demultiplexer with a plate waveguide 2−114472
InGaAsP-InP 4 Gbit/s multiplexer and laser, 1.3 micron, direct modulation 2−114274

multiplier phototubes *see photomultipliers*

multipliers, electron *see electron multipliers*

multipliers, frequency *see frequency multipliers*

multipliers, voltage *see voltage multipliers*

multiprocessing systems
see also distributed processing; parallel processing; pipeline processing
continuous system simulation, multiprocessor computers appl. 2−102021
fast multiprocessor system hardware based on MC68000 microprocessor 2−64805
Fermilab particle accelerator processing power, port selection system 2−96337
high-energy physics appl. 2−85510
MFTF Supervisory and Control and Diagnostic system, debugging process 2−74967
microcomputer-based, high-energy physics expt. appls. 2−85513

multivalley semiconductors *see many-valley semiconductors*

multivariable control systems
heat conduction problem, multivariable meas. and control strategies appl. 2−60355
JT-60, real-time plasma control, cascade struct., design concept 2−74969

multivariable systems
see also multivariable control systems; variable structure systems
t, theory 2−101323

multivibrators
displacement transducer design, helicoid multivibrator type 2−58807
microwave spectrometric tests, using synchronised sample clocking multivibrator cct. *(French)* 2−58841

muon absorption
No entries

muon capture
see also muonic atoms; muonic molecules; radioactivity
conference on mesons and light nuclei, Liblico, Czechoslovakia (June 1981) 2−58527
probability oscillation, rel. to periodic stopping power *(Russian)* 2−59667
radiative muon capture, light nuclei, nuclear struct. calcs. 2−59291
$(\mu,\nu_\mu\gamma)$, effective Hamiltonian, excitation spectrum 2−59336
μ^- inclusive capture rate calc. in heavy nuclei 2−101881
^{A}Ba, A=134-138, muonic X-rays, nuclear charge distrib. 2−74730
$^{12}C(\mu,X)_1$ model for nuclear response function 2−59231
$^{12}C(\mu,\nu_\mu)^{12}B$, induced pseudoscalar coupling and neutrino helicity 2−101847
$^{40}Ca(\mu,\nu_\mu\gamma)$, 40-130 MeV, photon spectra 2−59337
H, μ-capture, ortho-para transitions in ppμ muonic molecule 2−108741
^{2}H, μ^- capture, very small momentum ν_μ, mesonic exchange current corrections 2−113423
^{16}O, ground state correls., muonuclear sum rule 2−64374
$^{16}O(\mu,\nu_\mu\gamma)$, 40-130 MeV, photon spectra 2−59337

muon decay
bound-muon decay, expressions for electron spectra 2−69462
flavour-changing decay, review 2−79877
Majorana neutrinos role, effective weak Hamiltonian, CP violation 2−74687
neutrino mass and mixing effects *(Russian)* 2−95836
spin 1/2 fermion scatt., lowest order electroweak corrections, one loop amplitudes, decays, masses 2−59076
$\mu\to e\gamma$, decay prohibition in $SU(3)_{HI}\times SU(6)_L\times SU(6)_R$ theory 2−84873
$\mu\to e\gamma$, decay rate in Zee model 2−113186
$\mu\to e\gamma$, lepton-like Cabibbo angles, neutrino mixing angles and mass ratios *(Chinese)* 2−95835
$\mu\to e\gamma$, radiative decays in arbitrary order 2−74688
$\mu\to e\gamma\gamma(e\gamma)$, radiative decays and lower bounds on mass scale in composite lepton model 2−64326
$\mu\to e\nu_\mu\bar{\nu}_e(\gamma)$, energy and angle cut depend., hard bremsstrahlung effects 2−95846
$\mu^+\to e^+\gamma$, kinematically complete search for muon decay 2−95832
$\mu^+\to e^+\nu_e\bar{\nu}_\mu$ 2−113271
$\mu^+\to e^+\nu_e\bar{\nu}_\mu(e^+\nu_e\bar{\nu}\gamma)$, radiative correction to decays with massive Dirac neutrinos 2−69461

muon detection and measurement
detectors for high-energy neutrino interactions 2−70105
DUMAND, technological advances 2−59611
microscopic meas. of μSR time spectrum in pulsed muon beam 2−90419
negative muons spectral flux density meas. at very low energies 2−59668
plastic scintillator response to relativistic Ne, Ar, Fe ions and cosmic ray muons 2−80385
stopping-muon rate in Mont Blanc spark chamber telescopes 2−59658
superconducting toroidal particle detector for high-energy physics research 2−70102
two-level trigger selector for high mass di-muon expt. 2−70107

muon interactions *see lepton-hadron interactions; lepton-lepton interactions; muon-nucleon interactions; muon-nucleus reactions; photon-lepton interactions*

muon-nucleon interactions
see also muon-nucleon scattering
deep inelastic scatt., QCD related expt. results 2−54173
deep-inelastic lepton scatt., charge retention sum rules 2−64332
gluon attributes, overview 2−54094
μN, deep inelastic scatt., nucleon small bag model, R ratio 2−59124
μN, deep inelastic scatt., single hadron prod., Q^2, x and W^2 depend. meas. 2−107669
μN, deep inelastic scatt. data, perturbative QCD anal. 2−95777
μN, deep inelastic scatt. structure functions, nonperturbative QCD effects 2−84894
μN, deep inelastic structure functions, diquark model 2−101719
μN, dimuon events, shrinking cone limit and quark spin effects 2−101733
μN, inelastic muoproduction of J/ψ, ψ', T in QCD based model 2−101736
μN, 1209 GeV, heavy neutral muon mass lower limit and bottom hadron prod. 2−95849
μN, multimuon prod., review 2−79892
μN, nucleon structure function meas. 2−64329
μN deep inelastic scatt., QCD strong coupling constant examination 2−79889
$\mu N\to\mu X$, X includes ψ, T or other heavy resonance, differential cross section 2−113282
$\mu N\to X$, 32 GeV, total cross-section, multiplicity *(Russian)* 2−89968
$\mu n\to X$, struct. functions, QCD quark-parton model test 2−74652
$\mu^-N\to e^+N$, in nuclei, exotic lepton violating reaction mediated by Majorana neutrinos 2−59156
$\mu^-N\to\mu^-\psi X$, QCD parton model test, photon-gluon fusion model *(Russian)* 2−95851
μ^+N, 250 GeV, nucleon intrinsic charm component, expt. limit 2−54171
$\mu^+N\to\mu^+\mu^-$, 280 Gev, T prod. limit 2−89971
μp, 100, 150 GeV, ρ, ρ' and 0 diffractive prod., mass distrib. 2−95850
$\mu p\to X$, struct. functions, QCD quark-parton model test 2−74652
$\mu^-p\to\mu^-J/\psi X$, deep inelastic heavy reson. prod., azimuthal depend. 2−101737
$\mu^+p\to\mu c\bar{c}X$, spin-spin asymmetries, structure function depend. 2−59161
νN, deep inelastic scatt., structure function F_2, QCD anal. 2−101731
μN, structure functions, higher twist phenomena 2−79857

muon-nucleon scattering
see also muon-nucleon interactions
No entries

muon-nucleus reactions
for inelastic muon-nucleus scattering, see "muon-nucleus scattering"
see also muon capture; muon-nucleon interactions
deep inelastic scattering, $R=\sigma_L/\sigma_T$ ratio, small bag model 2−107617
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
neutrino pairs muo-production and number of generations 2−101882
$^{12}C(\bar{\mu}^-,\bar{\nu})^{12}B$, average and longitudinal recoil pol. meas. 2−107849
$Fe(\mu,\mu\nu\bar{\nu})$, cross section and scattered-muon distrib. calc. 2−54131
$H(\mu,\mu\nu\bar{\nu})$, cross section and scattered-muon distrib. calc. 2−54131
$^{207}Pb(\mu^-,\nu 6n)$, ^{201}Tl first excited state formation, excitation function struct., mechanism 2−59244
$^{32}S(\mu^-,e^-)$, muon-electron and muon-positron neutrinoless conversion study 2−59340
$^{238}U(\mu,f)$, probability in muonic atom, fission barrier enhancement 2−74783

muon-nucleus scattering
see also muon-nucleon scattering
No entries

muon probes
metals, H impurity electronic struct., μSR studies, review 2−99014
metals, muon$^+$ nonMarkovian spin relax., kinetic eqns. 2−93094
metals, positive muon probe appls., review 2−72397
microscopic meas. of μSR time spectrum in pulsed muon beam 2−90419
muonic atoms in physics, chemistry and archeometry *(German)* 2−54990
muonium chemistry, review 2−65113
muonium states in diamond, occurrence and hyperfine transitions 2−61807
quartz, muonium hyperfine freqs., meas. technique 2−99015
semiconductors, muon states transitions, spin dynamics 2−61808
spin glasses, exptl. techniques, review 2−66842
spin glasses, muon$^+$ depolarisation function calc. for dynamical processes 2−93097
spin glasses, muon spin relax. studies of spin dynamics 2−104786
spin resonance using strong pulsed RF field with pulsed muons, expt. study 2−93096
Ag-Mn, spin glass, muon spin relax. studies 2−72395
Ag-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Al, muon diffusion and trapping 2−110049
Al-Mn, muon diffusion and trapping 2−110049
Al-Mn, muon localisation, impurity trapping effects 2−72396
Au-Fe spin glasses, dynamics, muon spin relax. study 2−116106
Cu, positive muon depolarisation, 5 to 365K 2−82766
Cu-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Fe alloys, dilute, muon spin rot. studies of local mag. fields 2−72394
Fe, muon spin rot. studies of local mag. fields 2−72394
$Ho_xLu_{1-x}Rh_4B_4$, superconductivity and mag. props., μSR meas. 2−72101
KCl, depolarisation of positive muons, effect of F′-centres 2−93095
MnF_2, muon rotation study of critical relax. 2−110740
Nb, positive muon depolarisation, 5 to 365K 2−82766
Si, muonium quadrupole moment and hyperfine struct. of muonium levels 2−61806
Ta, positive muon depolarisation, 5 to 365K 2−82766
V, positive muon depolarisation, 5 to 365K 2−82766

muon production
Drell-Yan cross section factorisation 2−64269
Drell-Yan pairs, transverse momentum distrib., QCD calcs., soft emission, nonabelian effects 2−84921
$a_1+a_2\to\mu^++\mu^-+X$, general struct. of P-odd effects *(Russian)* 2−84815
$e^+e^-\to\mu^+\mu^-$, charge asymm., weak interaction effects 2−54130
$e^+e^-\to\mu^+\mu^-$, cross section, Majorana neutrino test 2−113260
$e^+e^-\to\mu^+\mu^-$, radiative corrections in Z0 region 2−107654
$e^+e^-\to\mu^+\mu^-X$, QCD effects 2−107673
$e^+e^-\to x\mu+y\gamma$, excited and stable heavy lepton prod. limits 2−64310
$\gamma N\to\mu^+\mu^-X$, deep-inelastic photoproduction, broken colour symmetry effects 2−107668
hh$\to\mu^+\mu^-$, 600 GeV, pair time distrib. at 40 m water equivalent 2−112289
$K_L^0\to\pi\mu\nu$, $(\pi^+\mu^-)$ atom creation *(Chinese)* 2−107657
$K_L^0\to\pi\mu\nu$, $\pi\nu$ hydrogen like atoms, formation rate 2−69448
$\mu^+N\to\mu^+\mu^-$, 280 Gev, T prod. limit 2−89971
$\nu(\bar{\nu})N\to\mu^-(\mu^+)C\bar{C}X\to\mu^-\mu^-(\mu^+\mu^+)X$, diffractive charm-anticharm prod. model 2−89959
$\nu(\bar{\nu})N\to\nu^+\mu^+X$, same-sign dimuons phenomenological study 2−69445
$\nu_\mu(\bar{\nu}_\mu)N\to\mu^-(\mu^-)X$, 20-200 GeV, total cross-section 2−54135
pN, high energy, massive $\mu\mu$ prod., transverse momentum distrib. *(Chinese)* 2−79913
pp, 62 GeV, associated hadronic prod. in μ-pair events, multiplicity 2−101777
$\bar{p}p\to\mu^+\mu^-X$, dimuon prod. at large transverse momentum, EM effects 2−101776
π^-N, 150, 280 GeV, $\psi\psi$ prod. evidence from multimuon prod., cross section 2−101781
π^-N, 225 GeV/c, muon pair prod., at. weight depend. 2−69499
$\pi^-N\to\mu^+\mu^-X$, 190 GeV/c, different flavour and colour hadronic systems fragmentation meas. 2−84924
$\pi^-p\to\mu^+\mu^-X$, dimuon prod. at large transverse momentum, EM effects 2−101776
$\pi^-p\to\mu^+\mu^-X$, Drell-Yan process, higher twist contrib. from direct pion coupling, QCD interpretation 2−95859
$^{12}C(p,\mu^-\nu)^{13}C$, weak muon prod. study using impulse approx. 2−59354

muon scattering *see lepton-hadron scattering; lepton-lepton scattering; muon-nucleon scattering; muon-nucleus scattering; photon-lepton scattering*

muonic atoms
applications in physics, chemistry and archeometry *(German)* 2−54990
capture probability oscillation, rel. to periodic stopping power *(Russian)* 2−59667
conference, Cambridge, MA, USA (Aug. 1980) 2−68959
magic nuclei, muonic conversion, microscopic description *(Russian)* 2−90745
$Mu+Cl_2\to MuCl+Cl$, kinetic isotope effect, pot. energy surface 2−57598
muonium-to-antimuonium conversion search 2−70454
negative muons in matter, at. and mol. aspects 2−59978
nuclear density distrib., review 2−59230
relativistic time dilatation of bound muons and the Lorentz invariance of charge 2−53461
scattering of e^- by muon$^-$p ground state 2−65114
μ^- inclusive capture rate calc. in heavy nuclei 2−101881
Al, muonic X-ray cascade, refilling rates 2−85847
^{27}Al, spectroscopic quadrupole moments from muonic X-rays 2−59238
$Ar+\mu p\to\mu Ar^*+p$, muon transfer rate meas. 2−59977
Au, muonic X-ray cascade, refilling rates 2−85847
^{A}Ba, A=134-138, muonic X-rays, nuclear charge distrib. 2−74730
^{A}C, A=12-14, K-series muonic X-ray energies determ. 2−74728
^{12}C RMS charge radius meas. from muonic X-rays with crystal spectrometer 2−113356
D, hyperfine transitions via reson. dμd formation at 34K 2−85844
He, hyperfine struct. interaction meas. 2−70456
He, muonic, hyperfine struct interval and Zeeman effect 2−70452
He, muonic, metastable state quenching, clustering 2−65115
He, muonic atom, cascade, X-ray emission meas. 2−90744
He, one-dimens., theory 2−79327
Ho, muonic X-ray cascade, refilling rates 2−85847
In, muonic X-ray cascade, refilling rates 2−85847
Mg, muonic X-ray cascade, refilling rates 2−85847

muonic atoms continued
^{24}Mg, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{25}Mg, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
^{31}P muonic atoms, X-ray transition, QED test, μh interactions 2−59974
Pu, muonic, prompt fission, muon distrib. among fragments *(Russian)* 2−107920
^{28}Si, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
Sn muonic atoms, electronic K X-rays shifts 2−54994
^{238}U(μ,f), probability in muonic atom, fission barrier enhancement 2−74783

muonic molecules
muonic H+Li, μ-mesomolecule form., charge exchange *(Russian)* 2−96779
negative muons in matter, at. and mol. aspects 2−59978
ddμ molecule, nuclear fusion rate calc. 2−107921
μ^+ magnetic moment meas. by stroboscopic muon-spin-rotation technique 2−54159
pdμ molecule, muonic molecule wave functions at small internuclear distances *(Russian)* 2−114138
H, μ-capture, ortho-para transitions in ppμ muonic molecule 2−108741
HD(HT)(TD), muonic mols., deexcitation rates calc. *(Russian)* 2−70455
Heμ^+ muonic ion, bound and quasi-bound levels calc. *(French)* 2−85841

muonium
alkyl radicals, muon-electron hyperfine coupling consts. 2−80846
anomalous, depolarisation in crysts. during fast diffusion 2−76750
chemistry, review 2−65113
detection, in water by pulsed muons 2−59973
ground-state hyperfine splitting, radiative-recoil corrections 2−85843
ground-state hyperfine splitting corrections, QED 2−85842
neutrinoless double-beta decay and muonium-antimuonium transitions 2−69440
QED, review 2−69401
QED experiments test, review 2−69403
quadrupole moment and hyperfine struct. of muonium levels in Si 2−61806
quartz, muonium hyperfine freqs., meas. technique 2−99015
spin depolarisation by hydrated electrons 2−108739
states in diamond, occurrence and hyperfine transitions 2−61807
Ge, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
Mu+F_2 collinear reactions, semi- and quasi-classical probabilities calcs. 2−105473
Mu+H_2(D_2), kinetic isotope effects, transition state theory, quantum calcs. 2−88347
MuH+H, collinear reactive scatt., reson. widths, quasiclassical model 2−93767
Si, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257

muons
see also cosmic ray muons; muon probes
anomalous g-factor correlation, resonant cavity model 2−69465
electric dipole moment, review 2−69468
QED, review 2−69401
spin kinetic energy, intrinsic mass 2−95808
(μ,π) and (μ,γ) invariant masses from decay of possible neutral heavy lepton 2−95834
μ^+ magnetic moment meas. by stroboscopic muon-spin-rotation technique 2−54159

muscle
airway smooth muscle, evidence for an Na^+ electrogenic pump 2−78322
alae nasi activation and nasal resistance in healthy subjects 2−111717
arm: resistance, speed of movement and forearm position rel. to elbow flexors recruitment 2−57834
arm movement, planar, dynamic interactions between limb segments 2−94092
arrhythmogenic mechanisms in a network of coupled excitable elements 2−88494
astronaut motor functions, pathophysiology in prolonged manned space flights 2−62790
biomechanical quantities meas., simple equipment 2−83725
blood circulation system 2−100022
blood flow, meas. method using radiolabelled microspheres, rat appl. 2−111822
cardiac, 4-electrode resistivity technique appl. 2−88704
cardiac, contraction model 2−116867
cell volume, glutaraldehyde fixative osmolarity effect, osmotic reactivity after fixation 2−73209
cellular diffusion rates of P compounds in frog muscle, appl. of pulsed-gradient ^{31}P NMR for meas. 2−73213
computerised tomography, attenuation in human muscle and fat tissue in vivo and in vitro 2−94157
contraction for mechanical transients, sliding-filament cross-bridge ensemble model 2−68037
contractions, cat, slow changes and Wiener anal. of nonlinear summation 2−83586
control, steric blocking model, rel. to myosin S-1 X-ray scatt. 2−105656
cross-bridge attachment kinetics during contraction 2−105742
cross-bridges, 3D disorder of dipolar probes in a helical array 2−111611
cryoultramicrotomy, evidence against melting and use of low temp. cement for specimen orientation 2−83715
diaphragm EMG during negative lower torso press. in quadriplegic men 2−73219
Donnan potential measurements in extended hexagonal polyelectrolyte gels such as muscle 2−73217
ECG signal model with physically significant parameters 2−94020
elbow joint, muscles across, biomech. anal. 2−62648
electrical stimulation, over-the-skin, parameters comparison for different normal muscles and subjects 2−57939
electromyographically controlled elbow locking mechanism for an upper limb prosthesis, hybrid technology appls. 2−88698
electron energy loss analysis, use in muscle studies using parallel collection 2−83728
EMG, classification by pattern-recognition method 2−83694
EMG, kinesiologic system for computer-controlled recording and processing of muscle action pots. of walking subjects 2−78471
EMG, quantitative evaluation of various signal processing techniques 2−62814

muscle continued
EMG, quantitative index independent of contraction force 2−111809
EMG, single-site microcomputer identification of temporal pattern differences, prosthesis and orthosis appl. 2−83701
EMG, surface, during muscle fatigue, dT-dL anal. 2−62580
EMG, system for quantification 2−117157
EMG, use for wt. sensation quantification *(Japanese)* 2−62855
EMG and skin temp. training for primary dysmenorrhea 2−78293
EMG of small intestine, computerised anal. of spike burst activity 2−78503
EMG parameters, evaluation for anal. and quantification of hemiparesis 2−62578
EMG pattern analysis and classification for a prosthetic arm 2−78488
EMG power spectrum and cond. vel., changes in fatigue of sustained max. efforts 2−78323
EMG responses, independently controlled, in treadmill locomotion by cats 2−78314
EMG signal frequency spectrum anal., clinical diagnosis appls. *(Italian)* 2−73389
EMG signals in normal and pathological conditions, simulation model for study 2−67989
EMG silent period parameters for clenched jaw muscles in man, computer-based anal. 2−62579
EMG to force processing, eccentric-concentric contractions on a spring-flywheel set up 2−62585
EMG to force processing, elec. analogue of Hill muscle model 2−62854
EMG to force processing, estimation of model parameters for human triceps surae muscle 2−62584
EMG to force processing, Hill muscle model parameters estimation 2−62583
EMG-force relationships in skeletal muscle 2−94013
EMG-level muscle model for fast arm movement to target 2−94090
epileptic seizures, EEG recording, removal of EMG artefact by digital filtering 2−94220
excitation-contraction coupling, rel. to slow inward Ca^{2+} currents 2−99934
exercising: energy cost, muscle activity and O_2 consumption in the disabled 2−88560
fibre conduction vel., meas. using a gradient threshold zero-crossing method 2−117108
fibre sections, algorithms for morphological features extraction 2−68186
fibres, single, intersarcomere dynamics during fixed-end contractions, quantitative model 2−111715
finger joint force predictions rel. to joint replacement design 2−100034
force prediction in locomotion, physiologically based criterion 2−62655
force-velocity relationship, training-induced alterations in humans 2−73287
forearm mechanical behaviour in response to transient perturbations 2−94091
heart, mathematical model of contractile activity and energy metabolism *(Russian)* 2−62546
heart muscle, biomechanical indicators of energy expenditure 2−100018
Hill equation, fitting to data, statistical approach 2−78280
hip musculature, D biomech. model 2−62656
malignant and healthy tissue, improved characterisation by NMR lineshape relax. correls. 2−93990
masseter EMG in man during sustained isometric contraction, effect of acoustic masking on silent period 2−62630
mechanical output, myoelec. signal as quantitative meas. 2−67991
mechanographic method for meas. of muscle tone in conscious rats 2−105866
membrane potential of isolated smooth muscle cell, single microelectrode voltage clamping 2−62879
myocardial conduction vel., electrode system for in vitro determ., canine expts. 2−117162
myocardial fibre stresses, approx. formulas 2−105752
myoelectric artificial hand, sweating effect, gain-compensated EMG amplifier 2−100156
myoelectrically controlled externally powered orthosis for the upper extremities *(German)* 2−94249
myosin behaviour during unstriated muscle contraction 2−116874
myosin rod amino acid sequence, matching of periodic charge distribs. with cross-bridge spacings 2−111617
neural prosthetics of skeletal muscle, recruitment order impact on electrode design 2−62831
neuromuscular junctions, frog, numerical anal. of voltage-clamp technique 2−111647
neuromuscular transmission in rats, long-term hypokinesia effect 2−99933
neuromusculoskeletal control system models, practical activation and retention of locomotion constraints 2−88492
post-tectonic potentiation and fatigue simulation using visco-elastic model 2−111651
postural control loop, math. modelling and simulation 2−105632
relaxation dynamics after serrate tetani of different duration 2−111714
sarcomere length, phase-locked loop meas. with high time resolution 2−78509
single motor unit, linear stochastic model 2−111649
skeletal, mech. behaviour in small oscills. 2−100031
skeletal muscle, Na^+ channel blocking rel. to proton binding 2−94001
skeletal muscle, US effect on microvascular haemodynamics, rat expts. 2−68047
skeletal muscle fibres, intra- and extracellular action potentials, volume conductor model 2−67985
skeletal muscle function, mathematical model 2−57770
skeletal muscles, canine, force response to elec. stimulation 2−57837
skeletal muscles, human, mag. signals, SQUID magnetometer study 2−94087
smooth, effect of ionising irrad. on physiological activity of cyclic adenosinemonophosphate 2−117016
smooth muscle, freeze-substitution and isothermal freeze-fixation studies to elucidate ice formation pattern 2−83717
speech production, recuitment patterns of motor units 2−88559
spinal column, human, and its musculature, struct. anal. for forces determ. 2−93979
spindles, β motor stimulation effects on interpretation of signals 2−94081
stimulation, over-the-skin, elec. parameters 2−57921
strain gauge measurement method for muscular action study *(German)* 2−88709
stress tensor, stretching and twisting 2−68039
stretch characteristics of whole muscle 2−116977

muscle continued
striated, average electrostatic pot. between filaments, rel. to simple Donnan pot. 2−73218
striated muscle mechanics, system theoretical description 2−73291
structure investigation, cryo-methods and image anal. 2−83719
tension and press. maintenance, role of fascia 2−78363
thin filament regulated muscle, activation by Ca^{2+} ion, nearest-neighbour lattice statistics 2−116903
urinary bladder, pig, series-elastic props. of smooth muscle strips 2−116964
ventilatory responses to muscular vibrs. in healthy humans 2−78361
ventricular contraction, models based on time-varying elastance, review 2−94093
ventricular myocardial action pot., simulation using math. model 2−88529
Ca turnover during skeletal muscle contraction, construction, mathematical study and numerical simulation of model 2−67990
K^+ and Cl^- channels in calf cardiac sarcolemma 2−105693
O_2 transport in skeletal muscle, mathematical model 2−116899
muscovite *see mica*
music
timbre and richness perception and appreciation in rooms for music 2−114563
music, electronic *see electronic music*
musical acoustics
amplified acoustic stringed instruments, acoustic feedback elimination using strain gauge sensors 2−55383
annular drum, effect of air cavity 2−70786
bells, warble suppression and lifetime increase 2−75797
bowed-string motion, aperiodicity 2−86184
bows, mouth bow and gourd bow 2−97320
digital synthesis of musical sound *(Japanese)* 2−81171
flute head joints, acoustical characterisation 2−75796
instrument, excitation mechanisms *(Japanese)* 2−81169
instrument tone analysis *(Japanese)* 2−81170
intermodulation distortion in sound channels in music recording, TV, cinematography *(Russian)* 2−64155
melodic accent, experiments and model 2−91176
musical instrument performance study *(Japanese)* 2−81168
Neo-Pythagorean theory of musical ratios, experimental investigations 2−55382
piano hammer and string, experimental study of force-time curves *(Japanese)* 2−91179
pitch, practically perfect performance 2−60318
pitch, terminology: use of 'practically perfect pitch' 2−60317
recognition of musical key by musicians 2−97321
singing, vocal source function formant filtering 2−79329
singing sand, freq. measurements 2−70753
sound fields in rooms, interaural crosscorrelation and listening levels *(Japanese)* 2−91161
synthesis by spectral amplitude and brightness matching of analysed musical instrument tones 2−86181
Temple Bells, distribution of sound pressure levels *(Japanese)* 2−91178
Temple Bells, variation in frequency distribution *(Japanese)* 2−91177
timbre quality appraisal of musical instruments using pattern-recognition theory 2−70788
violin, eigenmodes, input admittance and function 2−91175
violins, acoustical behaviour of old Italian violins *(German)* 2−97318
vocal tract resonance in clarinet and saxophone performance 2−86180
wind instruments, airflow modulator role in sound excitation 2−114564
musical instruments
amplified acoustic stringed instruments, acoustic feedback elimination using strain gauge sensors 2−55383
bows, acoustics 2−97320
electronic organs, automatic accompaniments facility *(Spanish)* 2−70787
excitation mechanisms *(Japanese)* 2−81169
flute head joints, acoustical characterisation 2−75796
Lyrebird electronic piano, assembly and alignment 2−75795
organ pipes sound generation mechanism, wave propagation on turbulent jets, amplitude growth 2−97319
performance study *(Japanese)* 2−81168
tone analysis *(Japanese)* 2−81170
violin, eigenmodes, input admittance and function 2−91175
violins, acoustical behaviour of old Italian violins *(German)* 2−97318
vocal tract resonance in clarinet and saxophone performance 2−86180
wind instruments, airflow modulator role in sound excitation 2−114564
N-body problems
see also celestial mechanics; many-body problems
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
antisymmetrized deuteron stripping, three-body model, appl. to $^{24}Mg(p,d)$ 2−107815
asteroid orbit evolution within restricted circular N-planet problem 2−84138
axially symmetric gravitational two-body problem 2−95170
axially symmetric gravitational two-body problem 2−95171
Calogero system quantum soln., projection method anal. 2−79422
comets, numerical power series method applied to N-body problem *(Russian)* 2−84164
deuteron-nucleus collisions, projected three-body theories 2−85066
Dirac cosmology, eqns. of motion 2−94878
Earth-Moon system, motion around equilateral libration points, crit. stability case 2−117571
eigenfunction decay in N-body quantum systems 2−95124
elliptic restricted three-body problem, stability of triangular points 2−89118
evolution and covariance in constraint dynamics 2−84440
Faddeev eqns. for finite-range forces, additional reduction *(Russian)* 2−54274
few-body nuclei, exact ground states with and without three-body forces 2−59260
few-body systems, unitary pole approx. and expansions 2−64379
four-body problem, doubly restricted circular case, partial solns. 2−73826
four-body problem, Newtonian, node elimination *(French)* 2−117570
galaxy clustering, velocity evolution 2−58473
galaxy clusters, dynamical evolution of non-point body clusters *(Russian)* 2−63688
galaxy clusters, mass segregation, relaxation and Coulomb logarithm in N-body systems 2−58475
galaxy mergers, 1200-body simulations 2−74094
general three-body problem, Hill stability and distance curves 2−78941
N-body problems continued
gravitational N-body problem, planetary case, motion asymptotic series 2−73825
Green's function, expansion using distorted field solns. 2−107128
HCP metals, lattice dynamics, three-body interaction model 2−98215
highly connected N-body eqns., factorisation 2−54331
interacting bodies, gravit. radiation, general relativistic prediction 2−89588
Kepler potentials, time-depend., constants of motion, symm., orbit eqns. 2−63816
light nuclei ground and excited states in the three-body model, variational study 2−79960
Lippmann-Schwinger eqn., uniqueness of scatt. wavefunction 2−95107
meson-nucleus scatt., covariant single-hole optical pot. model 2−74777
minimal coupling schemes in N-body reaction theory 2−107814
multpole expansions method, exponent range overflow, counteraction 2−64853
N-type collision on N-body problem submitted to homogeneous pot. *(French)* 2−100712
tri-neutron system, dominant resonance pole of S-matrix 2−59303
nuclear reaction theory, N-body approaches 2−59302
nuclear two-body forces, spectra, random to collective behaviour transition 2−101797
off-shell relative momentum definitions in relativistic theory 2−69620
planetary theory, integration consts. and mean elements for all planets *(French)* 2−78935
point masses of arbitrary magnitude in three space 2−100713
quantum theory, N-body problem, related combinatoric result 2−53569
relativistic analytical mechanics in noninertial reference frames 2−101272
relativistic classical mechanics and canonical formalism 2−79347
relativistic quantum mechanics of particles with direct interactions 2−112745
relaxation time of one-dimensional self-gravitating system, computer anal. 2−106484
restricted 3-body problem, symmetry 2−112694
restricted three body problem, ang. momentum loss in planetary nebulae with close binary nuclei 2−89259
Schwarzschilds triaxial galaxy model stability, self consistent n-body numerical expts. 2−89352
short-range correl. on one- and two-body props. of nuclei 2−54266
spurious centre-of-mass problem in dynamically determined basis, comment 2−59306
stellar three-body problem, analytical and numerical study 2−68816
Sun-Jupiter-asteroid problem, exploration of asteroid three-dimensional motion at 2/1 resonance 2−106594
systems of galaxies, corrections for redshift errors rel. to gravit. mechanics 2−101055
three body restricted problem, motion stability and characteristic exponents 2−69009
three-body Coulomb Green function and the reactions with charged particles at low energies 2−59304
three-body problem, circular restricted case, secular perturbations 2−73826
three-body problem, elliptic three dimens. restricted case, motion integrals 2−89120
three-body problem, elliptical restricted case, Jupiter-Saturn-Sun system, periodic orbits 2−89126
three-body problem, elliptical restricted case, linear stability 2−89125
three-body problem, elliptical spatial restricted case, periodic orbits construction methods *(French)* 2−106544
three-body problem, equipotentials equivalent to numerical algorithm, graphical construction 2−100713
three-body problem, general case, Hill stability *(Chinese)* 2−84066
three-body problem, generalised optical pots., rescattering effects *(Russian)* 2−59309
three-body problem, literal theory of Saturn IX (Phoebe) *(French)* 2−79021
three-body problem, planar restricted case, nonsimple 1:1 reson. at equilib. 2−100710
three-body problem, restricted case, appl. to Trojan type orbits 2−112372
three-body problem, restricted case, Lagrangian solns. of translatory-rotary motion *(Russian)* 2−78938
three-body problem, restricted case, singular invariant manifold 2−106485
three-body problem, restricted circular case, periodic solns. of translational-rotational motion 2−117572
three-body problem, restricted elliptical case, satellite perturbed motion at triangular libration point 2−117573
three-body problem, third order general planetary theory 2−84069
three-body problem, three dimens. restricted circular case, conditionally periodic solns., first approx. 2−106491
three-body problem, three-dimensional circular restricted case, explicit soln. of simplified version *(Russian)* 2−63221
three-body problem, triple collision, variational eqn. props. *(French)* 2−53497
three-body problem planar general case with equal masses, periodic orbits 2−112307
three-body problems, circular restricted case, appl. to artificial satellite rot. at libration points 2−94584
three-body problems, planar elliptic restricted case, 3/1 commensurability asteroid motion 2−78933
three-body scattering, cross-section, Hilbert space Faddeev method calc. 2−69044
three-body scattering, double scatt. waves, O(1) interferences 2−79415
three-dimensional restricted elliptical three-body problem, new class of steady and conditionally periodic solns. 2−68602
three-particle dynamics in case of finite-range forces 2−59229
three-particle equations with Coulomb interaction, bound-state soln. in momentum space 2−59305
translatory-rotatory motion of two rigid bodies, necessary conditions for existence of plane motions *(Russian)* 2−100718
two rigid bodies, translatory-rotatory motion regular solns. 2−106488
two-body dynamic problem, in general relativity, second PNA force law 2−107184
two-body inelastic scatt., cross-section, dual statistical bootstrap model 2−74669
two-body problem, axially symmetric relativistic case 2−95178
two-body problem, Kepler problem for explosive binaries *(Polish)* 2−94792
two-body problem, near-circular elliptical parameter determ. *(Russian)* 2−74199

N-body problems continued
two-body problem, perturbed, orbital elements differential eqns., soln. error propag. 2−100715
two-body problem, relativistic case, phys. distinction between normalised solns. 2−84492
two-body problem, restricted case, triaxial planet, axisymmetric satellite translational rotational motion 2−68641
two-body relativistic system, with central interaction, wave operators 2−54019
^{2}H(α, αp)n, 140 MeV, breakup, three-body model 2−107874
^{2}H(n,n), scatt. amplitude, three-body problem, integral eqn. numerical soln. 2−90098
^{2}H(π^+,π^-), 65 MeV, differential cross section, rel. to 3-body calc. *(French)* 2−59414
^{6}He$_{\Lambda\Lambda}$, microscopic GCM study, di-α_Λ clusters 2−79967
^{16}O(π,π), scattering length, 3-body model, nucleon binding, exclusion principle, optical pot. 2−107910

N/D method
D-matrix eigenvalue, multichannel T-matrix enhancements 2−107566
diproton, $^1D_2$ state, N/D anal. through pp, π^+d and ND channels 2−79786
Λ(1405), K matrix fit, s-wave N/D amplitudes 2−101609
^{1}H(K^+,K^+), N/D eqn., dispersion methods, partial wave amplitudes 2−59415
^{A}He(K^+,K^+), A=3,4, N/D eqn., dispersion methods, partial wave amplitudes 2−59415

narrow band gap semiconductor materials *see narrow band gap semiconductors*

narrow band gap semiconductors
binding energy of charged impurity centres, effect of large lattice polarisability 2−92532
conference, Linz, Austria (Sept. 1981) 2−89445
crystal growth, review 2−93390
density of states, generalised two-zone model 2−71849
dielectric const. in strong mag. field, band gap and interband hybridisation effects *(Russian)* 2−93100
excitonic insulator, optical absorpt. with various phases of order parameter, theory 2−110805
ferroelectric, phase transitions, strong EM field effects, vibronic theory 2−61839
ferroelectric semicond., Curie point and soft mode freq., mag. field effects 2−110791
ferroelectricity, interband model, anomalous photogalvanic effect and narrow-gap semiconds. 2−99073
Hubbard sub-band struct., cohesive energy 2−66419
interfacial and surface energy bands 2−92719
internal photoeffects, quantum efficiency, model 2−104418
IR high power picosecond radiation generation, by ultrafast optical switching 2−86063
IV-VI narrow band gap ferroelec. semicond., phase transitions, microscopic theory 2−110788
IV-VI semiconductor, spectrum in field of reson. light wave 2−77466
IV-VI semiconductors, lattice dynamics and phase transitions, pseudopot. theory 2−92139
IV-VI semiconductors, lattice dynamics and phase transitions, shell model, 3D highly nonlinear 2−92140
IV-VI semiconductors, phase transitions and optical props. 2−91861
LPE layer, Hall and resistivity meas., impurity doping influence 2−92796
magnetic susceptibility theory 2−98841
nonlinear optics, optical bistability, optical transistor 2−90974
plasmon assisted recombination in mag. field 2−92657
plasmon-assisted recombination, in mag. field 2−87297
pseudopotential approach to total energy calcs. 2−92500
semiconductor superlattice, narrow gap, cond. in strong. mag. field 2−77098
semiconductors, magnetic interaction between local mag. moments 2−115996
semimagnetic semiconductors, mag. props. 2−98898
space-charge capacitance, quantum effects 2−77080
state-of-the-art review 2−92432
superlattice, narrow band-gap, acoustoelectric effect 2−104437
surface polariton excitation by laser radiation 2−104264
TTF-TCNQ, partial ionicity, cohesion, charge correls. 2−109733
two-photon absorpt. coeff., pulse-width dependent, time independent 2−93209
zero-gap semiconductor, carrier statistics 2−92623
zinc blende, pressure spectroscopy of localized levels 2−92526
$BaAs_3$, elec. cond. and mag. props. 2−92907
Bi_2Se_3:Cd(In) monocrystals, struct. non-homogeneity visualisation using holographic interferometry 2−115216
$Bi_2Se_3(Te_3)$:Sn, doping effect on transport and optical props. 2−92015
Bi_2Te_3, thermoelec. props., elec. resist. and phase transitions meas. up to 9 GPa hydrostatic press. 2−87309
$CaAs_3$, elec. cond. and mag. props. 2−92907
Cd_3As_2, band struct. parameters, determ. from effective mass carrier density depend meas. 2−61356
Cd_3As_2, spin-flip resonances, subMM magnetospectroscopy 2−93167
$Cd_xHg_{1-x}Se$, US attenuation and vel. meas. near zero-gap state 2−92118
$Cd_{0.17}Hg_{0.83}Te$, dielec. const. anomaly 2−93099
p-$Cd_xHg_{1-x}Te$, hole conc. routine characterisation, Hall coeff. and bulk cond. meas. 2−82351
$Cd_xHg_{1-x}Te$, MBE growth 2−93433
$Cd_xHg_{1-x}Te$, narrow gap, absorption coeff. and optical band gap 2−116146
$Cd_xHg_{1-x}Te$, photoluminescence 2−93278
$Cd_xHg_{1-x}Te$ sputtered epitaxial layers, structural and elec. props. 2−92424
$(Cd_{1-x}Mn_x)_3As_2$, Landau levels, cyclotron effective mass and effective g-factor 2−110269
$(Cd_{1-x}Mn_x)_3As_2$, Shubnikov-de Haas effects 2−98677
$Cd_3P_2(As_2)$, far IR reflectivity meas. 2−93210
n-CdTe, electron mobilities at low temps., theory 2−87253
CdTe, MBE growth 2−93433
$Cd_{3-x}Zn_xAs_2$, Shubnikov de Haas oscills. 2−92673
EuP_3, elec. cond. and mag. props. 2−92907
GeTe, cubic and rhombohedral, band struct. 2−92468
n-(Hg,Cd)Te, degenerate, two-band Auger recombination lifetime 2−93336
$Hg_{1-x-y}Cd_xMn_yTe$, semimag. semicond., magneto-optical studies 2−99097

narrow band gap semiconductors continued
$Hg_{1-x}Cd_xSe$, band structure peculiarities from interband magnetoabsorpt. 2−92466
HgCdTe, electronic props., MIS IR devices 2−87295
HgCdTe epitaxial layers, implantation-induced defects behaviour 2−87379
HgCdTe, implantation induced damage, effects of implantation and annealing temps. 2−86695
HgCdTe photoconductors, effect of diffusion and drift on generation-recombination noise 2−87324
HgCdTe, transport props. rel. to acceptor levels 2−92633
$Hg_{0.7}Cd_{0.3}Te$, carrier lifetime meas. by population modulation spectroscopy 2−92658
n-$Hg_{0.8}Cd_{0.2}Te$, magnetotransport meas. in extreme mag. quantum limit 2−92669
$Hg_{0.836}Cd_{0.164}Te$, Hall coeff. phase transition under hydrostatic press. 2−92674
$Hg_{1-x}Cd_xTe$ crystals, second phase investig. 2−92225
$Hg_{1-x}Cd_xTe$, defect energy levels, deep levels, chemical trends 2−87184
$Hg_{1-x}Cd_xTe$, elec. cond., magnetoresist. and Hall effect, temp. depend. meas. 2−77049
n-$Hg_{1-x}Cd_xTe$, electron mobilities at low temps., theory 2−87253
$Hg_{1-x}Cd_xTe$, impurity-to-band tunnelling 2−87179
n-$Hg_{1-x}Cd_xTe$, mag. freeze-out modification due to reson. levels 2−92670
$Hg_{1-x}Cd_xTe$, magnetoresist. anomaly in extreme quantum limit, 1.4 to 4.2K 2−92668
$Hg_{1-x}Cd_xTe$, n-channel, 2D-subband 2−92465
p-$Hg_{1-x}Cd_xTe$, narrow gap low carrier conc., elec. props. 2−77047
p-$Hg_{1-x}Cd_xTe$, nonradiative recomb. at deep impurity levels 2−92527
$Hg_{1-x}Cd_xTe$, photo-Hall meas. on laser-generated electron-hole plasmas 2−87323
$Hg_{1-x}Cd_xTe$, photo-Hall meas. of high-density photoexcited electrons 2−92700
$Hg_{1-x}Cd_xTe$, solid soln., plasma reflectance spectra meas., effect of damaged surface layer 2−67064
$Hg_{1-x}Cd_xTe$, some props. of high-density electron-hole plasma 2−87296
$Hg_{1-x}Cd_xTe$, zero-gap semiconductor, cond. study 2−104380
$Hg_{1-x}Cd_xTe$, zero-gap semicond., cond. and Hall coeff., anomalous temp. depend. 2−115757
$Hg_{1-x}Cd_xTe$-CdTe LPE layers, electron mobility near zero band-gap crossing 2−87426
$Hg_{1-x}Fe_xSe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
$Hg_{1-x}Fe_xTe$, zero gap mixed cryst., IR magnetoabsorption 2−99098
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
$Hg_{1-x}Mn_xSe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
$Hg_{1-x}Mn_xTe$, longitudinal electron thermoelec. power in quantising mag. fields 2−72013
$Hg_{1-x}Mn_xTe$, narrow gap semimag. semicond., magnetisation meas. 2−98912
HgSe, band structure peculiarities from interband magnetoabsorpt. 2−92466
HgSe, lattice dynamics, neutron scatt. study 2−98227
HgTe, high acceptor conc., cond. processes, multiple scatt. 2−98636
HgTe, lattice dynamics, neutron scatt. study 2−98227
n-HgTe, zero-gap semiconductor, carrier statistics 2−92623
HgTe-CdTe superlattice, zero-gap, band structure, envelope-function approx. 2−104472
HgTe(Se), lattice dynamics, rigid ion model, neutron scatt. study 2−86809
n-InSb, ESR, uniaxial stress enhanced 2−98940
n-InSb, far IR studies of bound and free carriers as function of hydrostatic press. 2−93238
p-InSb, free and bound hole excitations, intraband transitions, magneto-optical studies 2−93165
n-InSb, free-carrier-induced optical nonlinearities, difference-freq. variation 2−65291
n-InSb, low electron conc., electron Hall mobility at high press. 2−92672
n-InSb, magnetotransport meas. in extreme mag. quantum limit 2−92669
InSb, narrow band gap, resonant impurity states in strong mag. field 2−66485
InSb, nonlinear magneto-optics, CW CO laser pumped, interband magneto-absorption 2−93164
n-InSb, strong coupling between reson. state and cryst. lattice, Hall coeff. meas. 2−92531
p-InSb, two-photon magnetoabsorpt. spectra, using CW CO_2 lasers 2−93166
InSb, Wannier-Mott exciton at absorpt. edge, quasione dimens. state in strong mag. field, expt. study 2−61369
$K_xRb_{1-x}Au$, indirect small gap semiconductor, electronic props. 2−92473
$MoSe_2$ solar cells, photovoltage, kinetic model 2−83474
P, black, high press. and temp. cryst. growth and elec. resist. meas. 2−92619
P, black, single cryst. growth from melt, X-ray structural characterisation 2−111056
(Pb,Sn,Ge)Te, dielectric props., defects influence 2−93101
$Pb_{1-x}Ge_xTe$, C_{3v}-phase, band struct. 2−92467
$Pb_{1-x}Ge_xTe$, coupled phase transitions, sp. ht. meas. 2−98277
$Pb_{1-x}Ge_xTe$ narrow band gap ferroelec. semicond., photostimulated phase transition shift 2−110789
$Pb_{1-x}Ge_xTe$, phonon and elec. resist. anomalies at displacive phase transition 2−98653
$Pb_{1-x}Mn_xTe$, quantum transport and mag. energy levels, Shubnikov-de Haas oscills. 2−98676
$PbS_{1-x}Se_x$ laser threshold and recombination 2−90897
$PbSe_xTe_{1-x}$, localised deep defect states 2−92530
n-$Pb_{1-x}Sn_xSe$, native defect energy levels, Hall study, 4.2 to 300K 2−92529
$Pb_{0.78}Sn_{0.22}Te$:In, photoferroelec. behaviour and Hall coeff., expt. study 2−87708
n-$Pb_{1-x}Sn_xTe$, Fermi surface and cond. band, Shubnikov-de Haas study 2−115644
$Pb_{1-x}Sn_xTe$ films, ion implantation induced defect levels, Hall meas. 2−92528
$Pb_{1-x}Sn_xTe$ LPE inhomogeneous layer, IR plasma reflection spectrum, vapour transport process 2−93314
$Pb_{1-x}Sn_xTe$ LPE layer, Hall and resistivity meas., impurity doping influence 2−92796
$Pb_{1-x}Sn_xTe$ laser threshold and recombination 2−90897

narrow band gap semiconductors continued
$Pb_{1-x}Sn_xTe$, phonon and elec. resist. anomalies at displacive phase transition 2−98653
$Pb_{1-x}Sn_xTe$, struct. instabilities, composition and carrier depend. 2−98652
$Pb_{1-x}Sn_xTe$:Cd(Bi), narrow band gap semicond., galvanomag. and optical props., Cd solubility and diffusion *(Russian)* 2−92666
$Pb_{1-x}Sn_xTe$:Cd(In), photoluminesc. study 2−93279
$Pb_{1-x}Sn_xTe$-PbTe(BaF_2), heterojunction, defect form. 2−92374
PbTe crystal growth by travelling heater method 2−93404
PbTe, electron-hole plasma, high density, time resolved spectrum 2−92678
PbTe epitaxial film, misfit strain 2−92423
PbTe epitaxial layer, optical four-wave mixing 2−93315
n-PbTe epitaxial layers, ionised defect scatt. mobility 2−92671
PbTe-$Pb_{1-x}Sn_xTe$ superlattices, prepared by hot wall epitaxy, optical props. 2−99208
$PtSb_2$, elec. props. in DC and microwave fields 2−87313
Sb_2Te_3 single cryst. growth by hot wall epitaxy 2−93418
α-Sn, n-type, electron irrad., acceptor point defects, elec. resist., thermoelec. power and Hall effect study 2−61394
SnTe:H epitaxial film, elec. cond. and Hall effect on H_2 desorption 2−115923
$(SnTe)_x(PbSe)_{1-x}$ system, ^{119}Sn Mossbauer study *(Russian)* 2−104781
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2−92969
WSe_2, solar cells, photovoltage, kinetic model 2−83474

natural gas technology
geopressured-geothermal reservoir production modelling requirements 2−83454
offshore structures, EM methods for underwater NDT 2−67722

natural resources
see also agriculture; dams; energy resources; mining; water supply
N Atlantic ocean basin and continental margin, geology, geophysics, geochemistry and resources 2−58035
California Desert Conservation Area, remote sensing rel. to resource inventory techniques 2−111608
Earth Resources Satellite-1 *(Japanese)* 2−89108
evaluation, electro-optical instrumentation conf. (Washington, DC, April 1981) 2−89435
Great Lakes Basin, precipitation in 1854-1979 period rel. to water resources 2−68397
limnic ecosystems, water quality models 2−73608
mapping via imaging spectroscopy, multispectral mapper concept 2−112158
marine technologies development, forecasting for 1990s 2−67881
mineral exploration, appl. of high spectral resolution airborne spectrometry 2−112157
programming models and scarcity rents 2−78171
remote sensing from Landsat-D satellite, spectral band registration by Thematic Mapper 2−112302
world's energy needs for year 2050, supply from renewable resources, what is required 2−73048

natural rubber *see rubber*

natural sciences applications of computing *see natural sciences computing*

natural sciences computing
see also astronomy computing; astrophysics computing; biology computing; chemistry computing; geophysics computing; medical computing; physics computing
electron microscopy, microscope-computer interactions and atomic resolution and spectroscopy, conf., Atlanta, GA, USA (Aug. 1981) 2−107013
STEM-computer interfacing 2−107468

Navier-Stokes equations
adsorbed systems, low-friction, linear and nonlinear hydrodynamics 2−110149
airfoil trailing edge, turbulent boundary layer, Navier-Stokes eqn. 2−65574
boundary layer in intersection of cylindrical surface and a plane 2−60495
boundary regularity for the Navier-Stokes equations in a half-space 2−107101
boundary-free incompressible flow, finite energy, global theorems 2−65558
Brillouin peaks diffusion mode coupling 2−81310
compressible flows, linearised Navier-Stokes equations 2−70976
compressible Navier-Stokes equations soln. using integral method 2−91373
compressible turbulent flow, free shear layer reattachment, Navier-Stokes eqns. 2−65576
compressible viscous flow at high Reynolds numbers, Navier Stokes eqn. soln. 2−70977
compressible viscous flow containing solid bodies, dynamics, Navier-Stokes eqn. 2−65610
computational fluid dynamics, asymptotic behavior and best approx. 2−58622
computational fluid dynamics, future prospects 2−109264
conducting viscous liquid, relative motion in rot. in a mag. field 2−86288
creeping flow about a spherical particle, theory 2−103139
cylinder drag behind a disk in supersonic flow, extremal values 2−114843
Czochralski and CACRT crystal growth numerical simulation of convective flow in melt 2−105064
dynamics of rigid bodies in incompressible viscous fluid 2−81219
elastic vessels, general soln. for flow and stress phenomena 2−83585
five mode truncated Navier-Stokes eqn., symmetry breaking 2−58621
flow betwen rotating disc and porous disc, Navier-Stokes eqns. 2−114815
flow of two immiscible liquids between rotating discs *(French)* 2−109386
flow oscillations of spike-tipped bodies Navier-Stokes eqns. soln. 2−65616
flow separation in shear-layer driven cavities 2−97484
flowfield about airfoil, time depend. Navier-Stokes eqns., hopscotch-type method 2−109265
Galerkin finite element soln., significance of chequerboarding 2−101173
homogeneous isotropic turbulence, Navier-Stokes eqns. solns. 2−81313
hydrodynamics in two dimensions and vortex theory 2−97486
hypersonic laminar viscous flows past spinning cones at angle of attack 2−91482
impactor, two-dimensional virtual, theory and obs. 2−75920
incompressible flow, heat transfer, finite element computer anal. 2−55587
incompressible flow at high Reynolds no., elliptic-vortex method for approx. Navier-Stokes eqn. 2−97487
incompressible flow between finite parallel discs 2−103141

Navier-Stokes equations continued
incompressible mixed finite elements for Stokes and Navier Stokes equation *(French)* 2−89540
incompressible non isothermal flow, two-dimens. modelling *(French)* 2−55531
incompressible rotating viscous fluid, translation of a sphere, Navier-Stokes eqns. 2−70961
incompressible viscous flow, conforming mixed finite element methods 2−75919
incompressible viscous flow, unsteady Navier-Stokes eqn. finite element soln., fractional step method 2−75918
incompressible viscous flow in cascade, numerical method *(French)* 2−76027
initial value problem for Navier Stokes eqns. with heat conduction 2−114757
inviscid homogeneous turbulence, development of mixing and isotropy 2−97516
laminar flow in 90° bifurcation, meas. and calc. 2−105736
laminar flow in porous tube with uniform mass injection 2−55653
laminar flow in two-dimensional channel, sudden expansion at high Reynolds number 2−91386
laminar incompressible flow, large Reynolds number, wake flowfield development calc. 2−70896
linear stability of plane-parallel unsteady flows 2−86261
liquid metals, levitation melting in mag. fields, Navier-Stokes eqn. 2−70838
nonequilibrium stationary states, constitutive eqns., extended irreversible thermodynamic theory 2−63950
nonhomogeneous fluid flow, Navier-Stokes eqn. soln. 2−70894
nonstationary Navier-Stokes problem, finite element approx. 2−95020
nonstationary spatial viscous gas flow in nozzles, numerical simulation *(Russian)* 2−76010
nonuniform viscosity fluid, flow in converging and diverging channels 2−71033
packed beds, flow and heat transfer anal. 2−55588
particle assemblages hydrodynamics at intermediate Reynolds number, cylindrical cell model 2−91393
plane universal Navier-Stokes motions 2−55529
potential flow, vortex filament motion and decay, Navier-Stokes eqns. 2−70965
pulsatile flow in constructed axi-symmetric tubes, numerical simulation 2−81393
pulsating instantaneous flow rate meas. using venturi meter *(Japanese)* 2−114760
radiation boundary condition 2−97485
rise of buoyant plumes in stratified environment, numerical study of flow development 2−97615
self-organization of turbulence 2−86425
shock layer flow around general bodies, boundary layers, Navier-Stokes eqn. soln. 2−70923
shock waves in gas dynamics, shock profile soln. of Boltzmann eqn. 2−114846
shock-capturing algorithm 2−114752
simple gas flows with large density gradient layers 2−76011
spectral and pseudo spectral approximations 2−114756
stationary Stokes problem, finite element subspaces with optimal rates of convergence 2−75924
steady laminar flow in twisted square tubes, Navier-Stokes eqns. 2−55535
steady rectilinear complex-lamellar universal motions of Navier-Stokes fluid 2−114820
subgrid turbulence modelling by homogenization 2−91398
supersonic external flowfield, Navier-Stokes soln. 2−114866
three dimensional supersonic flow around cylinder, vortex pattern computation 2−109325
transient incompressible fluid flow, quadratic finite element program user's manual 2−54487
transonic turbulent separated flow, Navier-Stokes eqn. 2−109355
transport-diffusion algorithm and its applications to the Navier-Stokes equations 2−69114
truncated, transition from 5-mode to 7-mode model 2−81319
turbulent compressible 2D impinging jet flowfields, Navier-Stokes computations 2−109288
turbulent shear flow, intermittent generation, statistical eqn. reformulation 2−103158
turbulent shear flow, pressure-strain rate, diagonal elements calcs. 2−65578
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
two dimensional flow between eccentric rotating cylinders 2−70956
two dimensional peristaltic flow, Navier-Stokes eqn.-soln., finite difference method 2−114901
two-dimensional torus, six-mode truncation of Navier-Stokes eqns. 2−97490
two-dimensional turbulence, spectral energy transfer, Navier-Stokes eqn. 2−86267
upwind discretisation schemes, anal. for Navier-Stokes eqns. 2−95021
viscous flows, boundary and free shear layers, Navier Stokes eqns., computation technique 2−65557
viscous fluid, between parallel plates, flow induced by vibrating plate 2−81363
viscous fluid flow, stationary and axially symmetric, numerical anal. 2−70895
viscous fluid flow and heat transfer, phase transition effects 2−81337

navigation
see also computerised navigation; inertial navigation; radar applications; radionavigation; sonar; tracking
homing instinct in animals, possible methods *(Japanese)* 2−94267
Metosat-1 imagery, navigation and deformation modelling 2−68506

NDO calculations
see also CNDO calculations; INDO calculations; MINDO calculations; PCILO calculations
acetylenene+B_2H_4, reaction paths, MNDO calcs. 2−93777
azides, equilib. struct. and force const., MNDO calcs. 2−113883
benzaldazine, thermal isomerisation, coupled N-N rot./N inversion mechanism 2−99645
carbenes, singlet, equilib. struct. and force const. calc. using MNDO approx., electronegativity 2−59702
carbenic enamine, struct. calc. using MNDO method 2−113885
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
diatomic mols., extended basis NDDO calcs. 2−113891

NDO calculations continued
enamine, struct. calc. using MNDO method 2−113885
N-ethyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
hexakis(2,6-di-tert-butyl-4-biphenyl)ethane, central bond length calcs. 2−59703
hexaphenylethane, central bond length calcs. 2−59703
isocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
isoelectronic molecules and ions, equilib. geometries, inversion barriers and force const. calc. by MNDO method 2−70146
isothiocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
N-methyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
phenylbenzoates, substituted, conform. anal., NDDO calc. 2−59961
resonance-integrals from Heisenberg eqn. of motion, theoretical formula derivation 2−102367
trifluoromethyl derivatives, geometry, intramolecular interactions, NDDO calcs. 2−64878
2,4,6-trinitrotoluene, mol. struct., X-ray investig., direct calcs. 2−85552
BCl_3 and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_2Cl_4 and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_4Cl_4 and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
$NO+H^+(H)$(hydride ion)(H_2), geometries and heat of reaction, MNDO calcs. 2−93778

nearly-free-electron approximation
disordered alloys, electronic density of states calc. 2−61325
ferromagnetic film, dipolar surface spin waves 2−66873
metals, simple, electron energy loss, review 2−57222
optical mass and electron vel., nearly-free-electron model 2−104233
semiconductors, electron energy loss, review 2−57222
surface modes, electron self-trapping 2−104461
Cd, liquid, nearly-free-electron-phonon interaction and elec. resist. temp. depend. 2−98610
Ni surface, (110), surface barrier resonances excitation map, two dimensional nearly free electron approx. 2−77147

nebulae
see also galaxies; planetary nebulae; supernova remnants
R Aquarii, variability, nebulae and blue continuum 2−106754
Barnard Loop, UV surface brightness meas. 2−74058
Barnard Loop Nebula, nearby nebulosities, H I features correl., visible obs. 2−58432
Becklin Neugebauer/Kleinmann Low region, 691 GHz CO line obs. 2−117724
Becklin-Neugebauer Kleinmann-Low region, H_2, CO and OH line emission modelling 2−106865
Becklin-Neugebauer object, NH_3 ice detect., IR obs. 2−117717
bipolar nebulae, 3 μm emission features obs. 2−89243
bipolar nebulae, stellar wind model 2−74074
bipolar nebulae origin from extreme C stars, evidence from dust shells morphology 2−112447
BN-like IR point sources, model of 9.8 μm silicate absorption band 2−101020
Bok globules, dust distrib. 2−74060
Carina, X-ray emission and assoc. early-type stars 2−84293
Carina nebula, interstellar gas in HD 93206 direction, IUE obs. 2−74057
cometary nebulae, 13 new objects *(Russian)* 2−74068
cometary nebulae, UHF obs. 2−112528
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
Cygnus Loop, monochromatic photographs with fibre glass image tube *(Russian)* 2−101027
dark clouds, collapse models 2−58418
dark clouds, pedestal features and low-mass star formation 2−84292
DEM 45, 137, 165, 174 and 208, LMC Wolf Rayet ring nebulae, kinematics obs. 2−68779
dense molecular clouds, ionization state 2−63574
diffuse nebulae in irregular galaxy NGC 6822, catalogue 2−106559
30 Doradus nebula, central star R 136a, supermassive object *(French)* 2−58346
30 Doradus nebula, in LMC, speckle obs. of possible supermassive star R136a 2−94719
Egg Nebula (GL 2688), possible planetary nebula precursor, near IR spectroscopy 2−106840
emission nebulae, reddening relations from VBLUW and UBV photometry 2−101016
emission nebulae, VBLUW photometry used to find interstellar medium pre-shock densities 2−101015
fragmentation on protostellar mass scale during dynamical collapse 2−84291
GF 2.4+1.4, ring nebula assoc. with Wolf-Rayet star, photographic and spectroscopic obs. 2−63562
GGD Herbig-Haro-like objects mol. clouds, mass outflow anisotropy 2−117730
giant molecular cloud complexes 2−89344
HD 44179 (Red Rectangle), 7.7 μm feature obs. 2−74064
Herbi-Haro objects, search for high-velocity H_2O masers 2−74072
Herbig Haro objects, emission line spectra, model and ion abundances, visible obs. 2−63578
Herbig-Haro objects, 21 new objects *(Russian)* 2−74069
Herbig-Haro objects OH and H_2O maser sources evolution 2−112541
HH100, photometric obs. of nearby variable IR source 2−94816
HH 24-27, HH 1-2, Herbig-Haro objects, obs. of nearby high-vel. mol. gas 2−112526
HH-39, Herbig-Haro object, proper motions and relation to R Monocerotis and (NGC 2261) 2−106841
IC 1795/1805, catalogue of radio sources within 30′ of Cepheus A 2−106551
IC 5146 (S125), emission nebula, atomic and ionised H obs. 2−74043
interstellar clouds structure, fundamentals and classification of solns. for simple polytropes 2−68871
Khavtassi 278, interstellar reddening law for HD 29647 in dark cloud 2−106850
kinetic chemistry of dense interstellar clouds 2−117735
Kleinmann Low Nebula mag. fields from OH maser UHF obs. 2−117726
Kleinmann-Low, 86 GHz SO emission maps, kinematics 2−106835
Kleinmann-Low Nebula, NH_3 data interpretation 2−106866
M16, evolved H II region, high resolution far-IR obs. 2−63561
nebulae continued
M16 HH1, Herbig Haro object identification, visible obs. 2−63582
M17, optical linear polarisation map 2−112536
M42 and M43 (Orion nebula), obs. of forbidden O I, O II and O III lines 2−106878
Magellanic Stream direction, detect. of galactic refl. nebulae, visible obs. 2−58469
master list of nonstellar optical astronomical objects 2−58563
NGC 1579 reflection nebula, H I cloud surrounding exciting star LkHα 101, UHF obs. 2−79186
NGC 2071, formyl ion (HCO^+) J=4-3 transition obs. 2−89341
NGC 2071, reflection nebula, H_2 2 micron emission obs. 2−89327
NGC 2071, reflection nebula, obs. of broad wings and self-reversals in CO lines 2−58425
NGC 2071 reflection nebula region, nearby mol. cloud, NH_3 mapping and star form. 2−84298
NGC 2261, cometary nebula, relation to R Monocerotis and Herbig-Haro object (HH-39) 2−106841
NGC 2261, cometary nebula illuminated by R Monocerotis, polarisation obs. 2−63581
NGC 2264 and 6334N, dust emissivity, mm spectral depend. 2−58421
NGC 6302, poly-polar nebula, wind driven, ionised gas parameters from spectral lines 2−89339
NGC 6334 interstellar complex, struct. and dynamics of 3.5 pc diameter filamentary shell 2−112535
OH 231.8+4.2, VLA obs. of 1667 MHz OH maser emission in bipolar nebula 2−106836
OMC, vibrationally excited H_2, motion and distrib. 2−63552
OMC-1, H_2 emission, vel. reddening, and temp. structure 2−63550
origin from stellar mass loss, rel. to early stages of stellar evolution 2−106672
Orion, far IR polarimetry 2−112539
Orion, thermal radiosource, large-scale density distrib. 2−117738
Orion A, detection of torsionally excited state of methanol 2−63551
Orion A cloud, HCN spectral data 2−106870
Orion B (NGC 2024), compact H II region, recomb. line and continuum map 2−101084
Orion MC 1, formyl ion (HCO^+) J=4-3 transition obs. 2−89341
Orion Nebula, colour gradients and flux and morphology, UV obs. 2−68855
Orion Nebula, optical polarisation obs. 2−68873
Orion Nebula, photographic obs. of flare stars 2−73863
Orion Nebula, time var. of vel. struct. of SiO maser emission envelope 2−68875
Orion Nebula, X-ray sources optical counterparts 2−58430
Orion Nebula H I cloud and CO cloud, mag. fields determ. UHF obs. 2−106869
Orion Nebula stars down to $m_{vis}=16$, atlas (book) 2−101145
Orion Nebula Trapezium region, S III forbidden line at 33 microns 2−106867
Orion Nebulae Trapezium region, X-ray sources list and identification, obs. 2−74075
Orion reflection nebulosity, UV surface brightness meas. 2−74058
λ Orionis, photographic image enhancement 2−89164
FU Orionis, pre-main-sequence star, evidence for fading of refl. nebula from spectral energy distrib. obs. 2−73970
radio nebulae in galactic plane, distrib. and kinematic anal. 2−63597
radio recombination lines from high emission measure nebulae 2−84294
Red Rectangle (GL 915), possible planetary nebula precursor, near IR spectroscopy 2−106840
ring nebulae around Of stars PSS search *(Russian)* 2−73999
ring nebulae assoc. with Wolf-Rayet stars, kinematics of stellar wind blown bubbles 2−68853
ring nebulae assoc. with Wolf-Rayet stars, obs. of NGC 3199, anon (MR 26), RCW 58 and (RCW 104) 2−68854
S235B, compact H II region, radio, IR and optical obs. 2−89332
Sharpless 106, bipolar H II region, internal motions from radial vels. meas. 2−74071
Sharpless 106, bipolar nebula, photometry, polarimetry and spectrophotometric obs. 2−68856
Sharpless 106 (AFGL 2584), star formation region, biconical nebulae model for IR images 2−68724
Sharpless 140, dust emissivity, mm spectral depend. 2−58421
Sharpless 308, ring nebula assoc. with Wolf-Rayet star, study of interstellar environment 2−68852
Sharpless 37 molecular cloud; radio and IR obs., energetics 2−63548
shell nebula in Sculptor group galaxy NGC 55, discovery and spectrum 2−63575
spectra IR excess for cold nebulae, gas condensation 2−58434
suprathermal evaporation of isolated spherical clouds in hot gas 2−58419
Tarantula Nebula in LMC, central star R 136 a, supermassive object *(French)* 2−58346
Taurus dark clouds, interstellar reddening law 2−106850
W40, energy exchange in molecular cloud 2−101022
H II regions, photoelectric heating 2−63566
Ni II forbidden lines used for electron density and temp. determ. 2−94589
O^{2+}, triplet line excitation 2−112540

necking
brasses, deformation localisation in tension 2−77892
ductile single crystal, nonuniform and localised deform. anal. 2−81875
fracture processes in superplastic flow 2−72828
metal fibre reinforced metal matrix composites, stress redistrib. on local loss of plastic stability of fibres 2−116540
metals, flow localisation in uniaxial tension, computer simulation 2−109884
nonuniform deformation in tension, stress, necking 2−114686
plate, circular, reinforced with stiff rings, contact problem 2−91342
polyacrylonitrile, I swelling, creep yield and conformational transition 2−76275
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
polyethylene terephthalate, deformation process instabilities in cold drawing 2−67372
polymers, deformation process instabilities in cold drawing 2−67372
polypropylene, EPDM modified, struct.-property relations under tensile and impact tensile stress *(German)* 2−67533
polysulfone, injection molded, effects of residual stress and orientation on fatigue 2−67536
rods, elastic, flexural instabilities 2−91271

necking continued
sheet metals, neck growth and forming limits 2−93561
shells, flat, natural vibr. modes 2−60458
shet metal forming, plastic instability 2−105223
steel, Cr-Mo, heat resist., partially recryst. struct. effect 2−67399
steel, diffuse necking in sheet tensile specimens 2−116496
strain hardening curves, meas. technique for obtaining true stresses and strains *(Russian)* 2−93527
strip with two-dimensional strain, neck development in stretching 2−81256
tensile plastic instability and mech. eqn. of state 2−109888
tensile testing using projection moire, neck development meas. 2−105425
Al alloy, instability and failure of internally pressurized ductile metal cylinders 2−99526
Al-Cu (2.8 wt.%) alloy, aged, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Cu, diffuse necking in sheet tensile specimens 2−116496
Cu, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Cu, pure, instability and failure of internally pressurized ductile metal cylinders 2−99526
GaAs dislocation-free crystal prod. by doping, necking procedure in LEC growth 2−76337
Mo, creep, polycrysts., substruct.-induced stability 2−93555
Ti-Mo (14-20 wt.%), β phase single crysts., stress-induced products and ductility due to lattice instability 2−105212

Neel temperature
Ising model, spin glass of site-random with first and second neighbour interactions, transition temps. 2−110598
itinerant electron antiferromagnet, nucl. relax. rate T_1^{-1} 2−87610
itinerant electron magnets, magnetovol. effects, crit. temp. press. depend. calc. 2−66886
manganese formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
manganese stearate, quasi-two-dimensional, antiferromagnetism 2−56864
one-dimensional Heisenberg antiferromagnet, antiferromag.-spin Peierls state phase diagram calc. 2−87469
order-disorder first order transitions, high press. effects *(Russian)* 2−87492
Permalloy-FeMn system, uniaxial anisotropy temp. depend. 2−72192
rare earth molybdates, magnetic susceptibility 2−56838
TMMC, mag. props. study 2−66786
Volcoloy, antiferromagnetic Invar type alloy in Mn-Ge system *(Japanese)* 2−77291
$Cd_xCo_{14-x}Fe_2O_4$, mag. props. and lattice dynamics, Mossbauer effect study 2−77426
$CeSb_{1-x}Te_x$, elec. and mag. props. 2−66523
Co_3O_4, elec. cond., crit. behavior near antiferromag. phase transition 2−98648
Co_3O_4, heat capacity and thermodynamic props., 5 to 307K, mag. transition 2−81978
Cr-Co-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Fe-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Ga, effect of press. on Neel temp. 2−72202
Cr-Si-Fe (2, 0.5 wt.%), mag. behaviours in commensurate spin density wave state 2−92882
Cr-V, dilute alloys, elastic consts., mag. transition 2−86774
xCr_2O_3-(1-x)$3B_2O_3$-PbO glasses, EPR and mag. susceptibility studies 2−98946
$Cs_2FeCl_5.H_2O$, Heisenberg antiferromag., sp. ht. and mag. susceptibility, 1 to 30K 2−104630
$Cu_{1-x}M_xFe_2O_4$ (M=Mn, Ni), spin struct. and hyperfine fields, Mossbauer study 2−66959
Dy, elec. resist. anomaly near Neel point, critical indices 2−104350
Dy, Neel temp. investigation 2−87500
Dy-Sc, spin glass and antiferromag. transitions, bulk magnetisation study 2−72222
$DyVO_4$, mag. relax. study 2−98989
Er, magnetoelastic props. near Neel temp., elastic consts. 2−104679
EuSe, magnetic transition, press. induced 2−87504
Fe garnet films, interrelation of exchange energy, anisotropy and the Neel temp. 2−82676
Fe-Cr(-Mo), Neel temp. and elec. resist., mag. moment-spin density wave coupling 2−82573
FeF_2, elastic constants between 1.5 and 298K 2−115327
$FeGe_2$, antiferromag., US attenuation anomalies at two transitions 2−104675
$Fe_xMn_{1-x}F_2$, random anisotropic antiferromag., crit. behaviour, mag. birefringence study 2−77295
$Fe(Mn_xPt_{1-x})_3$, antiferromag. structure, neutron diffr. study *(Russian)* 2−87477
$FePS_3(Se_3)$, layer cpds., mag interactions 2−61699
$Fe_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
$Fe_xZn_{1-x}Fe_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
GdD_{2+x}, antiferromagnetic ordering study 2−72160
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
^{3}He, solid, nucl. spin ordering 2−110086
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
K_3FeF_4, NMR study of susceptibility 2−82575
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
K_2FeF_5, field depend. magnetisation curves, Mossbauer study 2−77435
K_2FeF_5, Neel temp. variation, Mossbauer study 2−92905
$Li_xNi_{1-x}O$, magnetic susceptibility, Neel temp. *(Russian)* 2−104593
$MnBr_2.4H_2O$, heat capacity near Neel temp. 2−72229
$MnPS_3(Se_3)$, layer cpds., mag interactions 2−61699
$Mn_{1-x}Zn_xF_2$, heat capacity meas. for x<0.1 2−72210
$Mn_xZn_{1-x}F_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
$Mn_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
Nb-Fe inhomogeneous system, laser irrad., internal field at ^{57}Fe, atom redistrib. and antiferromag. suppression *(Russian)* 2−66929
$NiBr_2$, mag. phase transitions, sp. ht. study 2−61711

Neel temperature continued
$NiFe_2O_4$-$CaFe_2O_4$, magnetic props. *(Japanese)* 2−82578
$NiPS_3(Se_3)$, layer cpds., mag interactions 2−61699
OsF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2−66805
P_2O_5-MnO_2 glass, antiferromagnetism, mag. susceptibility, Neel temp. 2−72173
$PuSb_2$, magnetic props. 2−92872
$RbFeCl_3.2H_2O$, Mossbauer study of critical fluctuations 2−99011
β-$Rb_2FeF_5.H_2O$, 1-D antiferromag., cryst. struct., mag. and Mossbauer study 2−92879
$RbFeS_2$, Bridgman growth, Mossbauer hyperfine fields and Fe^{57} resonant fraction 2−77002
Rb_2IrCl_6, antiferromagnetism and crit. relax., NMR study 2−56961
RuF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2−66805
SmD_{2+x}, antiferromagnetic ordering study 2−72160
Tb, nonlinear acoustic props. meas. near Neel temp. 2−116051
TbH_{2+x}, antiferromagnetic ordering 2−72158
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
U_2C_3, neutron irrad., mag. susceptibility, Neel temp., lattice consts. 2−66073
V_7O_{13} single cryst., physical, elec. and mag. props. 2−66251
$Zn_xCu_{1-x}Fe_2O_4$, ferrite, mag. ordering 2−66819

negative feedback *see feedback*

negative feedback control systems *see closed loop systems*

negative ions
anal. radial orbitals, Groups II, III and IV 2−64868
anthracene, and anion, soln., DMF, transfer diffusion theory, verification by elec. cond. meas. 2−115445
anthrasemiquinone radical anions, aq. soln., stability, EPR obs. 2−90585
aqueous acid solns. dissoc. consts., anion effects by PMR spectroscopy 2−65017
benzene radical anion, vibrational spectra and freq. shifts, IR and Raman 2−108455
p-benzosemiquinone free-radical anions, reson. Raman spectra 2−80619
biphenyl dianion, vibrational spectra and freq. shifts, IR and Raman 2−108455
p,p'-biphenylsemiquinone free-radical anions, reson. Raman spectra 2−80619
o-carboranyl-substituted allyl anion, CNDO/2 calc. 2−90457
β-carotene anions, electronic absorpt. and ESR spectra 2−108539
dichlorodifluoromethane, temporary anions, electrons transmission spectroscopy, σ^* orbitals obs. 2−108702
dichlorofluoromethane, temporary anions, electrons transmission spectroscopy, σ^* orbitals obs. 2−108702
discrete spectrum absence in very negative ions, extension to. fermions 2−107137
electron photodetachment 2−90635
existence of very negtive ions, quantum many-body problem, geom. methods appl. 2−107136
fluoroethylene anions, $^2\Pi$, dissoc., dissociative electron attachment spectrosc. obs. 2−59932
free particle dynamics of negative ions in the mechanical vacuum of He II 2−86963
halogen anion+inert gas atom, elastic scatt. and electron detachment differential cross sections 2−90650
halogens, interaction pots. and mobilities 2−91584
long-lived doubly charged atomic negative ions, search using mass spectrometer 2−101491
methylene anion radical, exptl. investig. using ESR of γ-irrad. lithium alkyls 2−108588
molecular, photodetachment, strong electron-dipole coupling 2−96649
molten salts, Raman spectroscopy of oxyanions, symm. stretching freq. and polarisability 2−72487
monatomic negative ions, ground state, electron affinities calcs. 2−59694
5-nitrofuran derivatives, radical anion electronic struct., EPR, electronic absorpt., and INDO calc. 2−96606
octahedral hexahalide anions, vibr. anal., GVFF method 2−90498
organic gas phase negative ions, IR multiphoton photodetachment 2−85750
phenylamines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
phenylarsines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
phenylphosphines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
pheophytin a anion radical, liq. soln., hyperfine coupling, ENDOR and TRIPLE resons. obs. 2−108589
photoionisation in strong low-freq. field 2−80549
positronium negative ion, possible effects on 0.511 MeV γ-ray line in astrophysical sources 2−106500
production in mag. insulation diode 2−113044
self-extraction source 2−89858
tetrafluoromethane, arc discharge, enhanced photoemission from F atoms 2−103487
XY_6 type anions, mol. consts. and cation effects 2−96533
Ag negative ion emission from silver acetate target sputtering 2−57229
$AlCl_4^-$, mol. consts. and vibr. 2−85838
AlD_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
AlH_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
BD_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
BH_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
BH_4^-, nucl. spin-spin coupling tensors calcs. 2−108361
BeN^-, low-lying electronic states, ab initio calcs. 2−80505
Br_2^{2-}, ab initio interaction polarisability and pair pot. 2−75179
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
CN^-, $^1J(^{15}N,^{13}C)$ coupling, sign determ. 2−80674
CN^- in aq. soln., vibr. energy relax. 2−85787
CN^-, NMR spin-spin coupling, ab initio calc. 2−102495
Cl^-+inert gas atom, electrons detachment energy distrib. 2−90684
$Cl^-.nH_2O$ ion mobilities and collision cross-sections in Ar, Kr and Xe 2−91581
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
Cs, backscattering of thermal H atoms, H^- production 2−82987
Cs inverted negative ion sputter source 2−108172
Cu, caesiated surfaces and negative ion emission 2−99277
Cu negative ion emission from copper acetate target sputtering 2−57229

negative ions continued
D^-, Lamb-shift polarised ion sources, review 2—75075
F^- aqueous ion, intermol. nuclear spin-spin coupling and scalar relax., quantum and statistical mech. calcs. 2—90641
F^-, methanol solvate, IR multiphoton dissoc. 2—85755
$FClO_3^-$ radical anion, ESR spectra and struct. 2—65022
H^-, high-lying doubly excited states props. 2—64892
H^-, intense unpolarised negative ion sources 2—75082
H^-, Lamb-shift polarised ion sources, review 2—75075
H^-, Lamb-shift polarised ion sources improvements, working group summary 2—75076
H^- polarised ion prod., progress on ionisation stage 2—75080
H^- polarised ion prod. using optical pumping 2—75083
H^- production by proton scatt. from W, Cs and W-Cs surfaces, theoretical model 2—93351
H_2 discharge, H_2 vibr. population distrib. and negative ion conc. calc. 2—90501
$H^-(D^-)$ polarised ion source design and performance 2—90333
HI^-, time of flight mass spectrometric obs. 2—59971
H_3I^-, time of flight mass spectrometric obs. 2—59971
HSO_4, stratospheric conc. from mass spectra obs. 2—106256
H^-atomic-beam polarised ion sources, ionisation stage 2—75079
He^-, double excited states 2—70156
IO_6^{2-}, back donation effect, Xα calcs. 2—80474
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2—102401
Li^- excited at. state, 3489 Å optical transition using beam-foil spectroscopic technique 2—80511
MnO_4^{3-}, force consts., modified valence force field calcs. 2—116196
MoO_4^{2-} in aq. soln., precision Raman meas. 2—87764
N_4^-, in UV irrad. KN_3, satellite EPR resons. 2—104698
NH^-, excited state, Feshbach resonances, QDMBPT 2—85540
NH_2^-, nucl. spin-spin coupling tensors calcs. 2—108361
NO_2, thermal lensing colorimetry determ. using single laser system 2—89785
NO_3^-, stratospheric conc. from mass spectra obs. 2—106256
O_2^- in DMSO-d_6, electron spin-echo modulation, Fourier transform appls. 2—59828
OD^-, threshold photodetachment cross-sections meas. 2—102548
OH^-, excited state, Feshbach resonances, QDMBPT 2—85540
OH^-, threshold photodetachment cross-sections meas. 2—102548
$^{16}O^-$, trapped negative ions, Zeeman reson. spectroscopy 2—64913
PO_4^{3-}, mol. consts. and vibr. 2—85838
PO_2F^{2-}, vibr. freq. in local symm. force field *(French)* 2—108464
RuF_6^- complex, charge-transfer electronic spectrum calc. using scatt.-wave method 2—108372
RuF_6^-, total electron density model, Xα scatt.-wave method 2—80466
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2—80637
SF_6 arc discharge, enhanced photoemission from F atoms 2—103487
SF_6^-, reaction rates and mechanisms, flowing afterglow study 2—99677
SF_6^-, SF_5^- negative ions on heated W surface, laser-assisted negative surface ionisation 2—99233
SO_4^{2-} in aq. soln., precision Raman meas. 2—87764
$SO_4^{2-}+H_2O$ interactions, X-ray diffr. study in presence of Ni and Mg ions 2—78073
$^{32}S^-$, trapped negative ions, Zeeman reson. spectroscopy 2—64913
Si ion chemistry in mesosphere 2—100612
SiF_6^{2-}, back donation effect, Xα calcs. 2—80474
SiO_3^- atmospheric chem. 2—94547
WO_4^{2-} in aq. soln., precision Raman meas. 2—87764

negative resistance
MIM electroformed struct., forming process and memory states obs. 2—104503
semiconductor planar diode struct., negative S-type resistance due to a change in the surface recombination velocity 2—77077
semiconductors, fluctuation instability in case of negative differential cond. 2—87290
semiconductors, polar, negative diffusivity in transient regime, Monte Carlo calc. 2—56597
semiconductors, S-shaped elec. cond. characteristics at low temp. 2—77074
Al-Al_2O_3-n-InSb MOS struct., quantum size effects and negative resist. obs. 2—77187
Al_2O_3:Cu porous anodic film, elec. props. meas. 2—82501
Au-phthalocyanine-Au struct., current-voltage characteristics with injecting and blocking contacts 2—72077
$NbSe_3$, CDW motion, differential resist. study 2—66540
Si CVD film, polycryst., threshold and memory switching 2—115830
Si p-π-n diodes, current controlled negative resist obs. 2—56681
ZnTe, S-shaped elec. cond. characteristics at low temp., expt. study 2—77074

negative resistance effects
see also Gunn effect
semiconductor, dumbbell shaped struct., current oscills., neg. resist., elec. double layer 2—92635
semiconductor, hot electrons, lowest Landau level, distrib. functions, I-V characts. and neg. differential conductance 2—61476
semiconductor cryogenic resistance thermometers for meas. in mag. fields *(Russian)* 2—64036
semiconductor films with negative differential cond., EM wave propag. 2—98686
semiconductors, negative differential cond., nonequilibrium phase transitions 2—81954
semiconductors with negative differential mobility, amplification of longitudinal electron-density waves in presence of space charge 2—77105
static drift domain, fluctuation instability conditions *(Russian)* 2—104389
weakly disordered two-dimens. system., localisation and interaction effects 2—87213
Al-Te contacts, needle struct., current-voltage characts. after different types of aging *(French)* 2—61566
$Al_xGa_{1-x}As/GaAs$ heterostructures, single and multiple period modulation and doped, I-V characts., suitability for FETs 2—56682
Bi, charge carrier drift in external fields, sound amplification, I-V nonlinearity, review *(Russian)* 2—115826
Bi thin wires, transverse magnetoresist. in high elec. and quantum mag. fields *(Russian)* 2—56614
$CdIn_2S_4$, semicond., neg. resist., resistive state transitions 2—92637
Ga ring, temp.-induced elec. field domain in neg. differential cond. regime *(Russian)* 2—99076
GaAs CW lasers with inhomogeneous current injection, bistability and pulsations 2—108879

negative resistance effects continued
In ring, temp.-induced elec. field domain in neg. differential cond. regime *(Russian)* 2—99076
$TiS_{1.7}$, structural and electronic characteristics 2—115749

negative temperature coefficient thermistors *see thermistors*

nematic liquid crystals
AAHBO, nematic liq. cryst., ESR line shape 2—98937
aligned nematics, dielec. spectrosc. and mol. theory 2—65853
alignment mechanisms and procedures 2—55832
alignment on anisotropic substrate, Van der Waals forces, interfacial free energy 2—55840
alignment props., additives and surface topography effects, expt. study 2—109663
p-alkoxyazoxybenzene, expt. obs. of growth of mesophase in elec. field 2—55846
4-alkoxybenzoyl esteramides, thermotropic liq. cryst. behaviour 2—60875
4(4′-n-alkoxybenzoyloxy)-3-methoxy-benzylidene-4″-toluidines (4″-anisidines), mesomorphism, lateral substitution effect 2—61134
alkoxybiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2—71333
4-n-alkoxyphenyl 4-nitrobenzoates, liq. cryst. props. 2—103602
trans-4-alkyl(4-cyanophenyl)-cylohexanes, nematogenic homologous series, orientational order 2—109665
alkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2—76294
4-(trans-4′-n-alkylcyclohexyl) benzoic acids, synthesis and liq. cryst. props. 2—103600
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2—76282
anthraquinone-2.6-diamides, nematic liq. cryst., phase transitions 2—86552
anthraquinone-2.6-diesters, nematic liq. cryst., phase transitions 2—86552
axially symmetric mols., perturbation theory 2—97918
biaxial crystal, elastic coeff. 2—115324
biaxial mols., mean field theory 2—103615
biaxial nematics hydrodynamics with arbitrary nonsingular textures 2—81671
binary mixture, induced smectic phase, theory 2—109983
binary mixtures of terminal nonpolar cpds., reentrant nematic phase, X-ray study 2—109984
bistable twisted nematic liquid crystal boundary layer display, optical props. 2—86546
boundary and size effects for nematic-isotropic transition, mean field theory 2—98278
BPHB, nematic liq. cryst., ESR line shape 2—98937
4-n-butyl-4′-n-dodecyloxyazobenzene, liq. cryst. phase transitions, dielec. relax. 2—116114
4′-butylphenyl 4-hexyloxylbenzoate, electro-optical props., relax. near phase transition 2—99092
capacity behaviour in acoustic re-orienting field 2—76292
chain version of the constant coupling theory with application to nematic liquid crystals 2—86555
charged liquid crystals, isotropic-nematic transition 2—66215
cholesteric-nematic mixture, compressional deform. response 2—97912
clearing of a nematic liquid-crystal film with free ends in a sound field 2—61872
columnar mesophases, macroscopic evidence of mol. chirality 2—91772
constitutive eqn. 2—71338
Couette flow, Pieranski-Guyon instability 2—97505
curvature elasticity, van der Waals theory 2—97914
4-cyano-4′-alkylbiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2—71333
4-cyano-4′-n-pentylbiphenyl nematic film, diffusion coeffs. meas. by dynamic approach 2—103596
4-cyano-4′-octylbiphenyl, dielectric relax., ratational diffusion 2—97921
4-cyano-4′-pentylbiphenyl-hexamethylbenzene, isotopic to nematic transition, substrate surface effects, birefringence study 2—115408
4-cyanobenzylidene-4′-(4″-alkoxybenzoyloxy) aniline, homologues, reentrant nematic phase with pentamorphism 2—61138
cyanobiphenyls, nematic, smectic, and reentrant nematic phases 2—66217
cyanophenyl cyclohexenes, mesomorphic props. 2—76675
4-cyanophenyl-3-methyl-4-(4-n-alkoxycinnamoyloxy)benzoates, re-entrant nematic phases obs. 2—60882
4-cyanophenyl-4-(4-n-alkoxy-α-methyl cinnamoyloxy)benzoates, re-entrant nematic phases obs. 2—60882
4′-cyanophenyl-4-n-pentylcyclohexanoate, nematogenic compound, crystal and mol. struct. meas. 2—91939
cyanophenyl-thiobenzoate, dielec. const. 2—72401
4-n-decylphenyl-3′-methyl-4′-(4″-nitrobenzoyloxy)benzoate, liq. cryst. props. 2—76293
di-alkoxyazoxybenzenes, homologous series, nematic phase, high-press. thermodynamic meas. 2—71342
di-triazolo-benzoate derivatives/dye mixtures 2—62416
dialkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2—76294
dibromodifluoroethylene, director dynamics and NMR appl. of nematic liq. crystals spinning at various angles 2—103598
dielectric relax., rotational diffusion 2—97921
dielectric relaxation and Doolittle's law 2—116117
diffusion consts. from pulsed field gradient double quantum spin echo decays 2—60872
4,4′-dihexyloxyazoxybenzene-organic liq. mixtures, phase diagrams 2—109986
disc-like mols., elastic consts. and order parameters calc. 2—103613
discotic liquid crystals, solvation sites in mesophases of benzene-d_6 2—97916
disodium cromoglycate, in mag. fields, lyotropic cholesteric and nematic phases 2—76284
display, multiplexible bistable, homogeneous elec. field threshold switching 2—103597
dye-doped, electronic absorpt. spectra, intermol. interactions anisotropy effects 2—110886
dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2—103599
E_8, dielec. props. in liq. cryst. 2—104794
EBBA, amorphous and cryst. phases, vibr. density of states 2—56141
EBBA, EPR of nitroxide radical, phase transition temp. 2—56935
EBBA, melting and crystn. processes, thermal anal. 2—92198
EBBA-MBBA mixture, EPR of nitroxide radical, phase transition temp. 2—56935
EBBA-organic liq. mixtures, phase diagrams 2—109986

nematic liquid crystals continued
EHD instability, effect of temp. 2−109666
elastic constants, band and splay, in cylindrical geometry, interferometric anal. 2−71347
elastic constants determ. from noise meas. of scattered laser light 2−76559
elastic consts., molecular model 2−81871
elastically anisotropic, twist disclination 2−97917
elasticity coeff. 2−55834
electrohydrodynamic instabilities observed in a nematic phase under oblique boundary conditions 2−97913
electrooptic 4×4 matrix switch for multimode fibre-optic systems 2−70698
equilibrium props. and phase transition 2−60874
p-(p- ethoxyphenyl azo) phenyl undecylenate, liq. cryst. phase transitions, specific vol. and US vel. study 2−92199
film, optically induced birefringence, laser beam self focusing 2−55281
film, wavefront conjugation expts. 2−55276
films, acousto-electro-optical effects, thickness dependence meas. 2−116148
Flory statistical mechanics, steric effects 2−60873
flow alignment, microscopic theory 2−86547
flow pattern symmetrity, nonlineary effect 2−71350
Frank elastic consts., statistical theory 2−86561
Fredericks transition, light-induced, theoretical anal. *(Russian)* 2−71346
Frederiks transition, nonoptical, giant optical nonlinearity near threshold 2−91003
Frederiks transition, wall effect 2−76295
frequency doubling in liq. crysts., sample optical thickness 2−86049
glass-liq. cryst. interface, total internal reflection to transmission switching 2−65846
p-n-hexloxy-p'-n-amyl-a-cyanostilbene, second optical harmonic generation *(Russian)* 2−55263
4'-n-hexyloxy-4-cyanobiphenyl-4'-n-octyloxy-4-cyanobiphenyl mixture, nematic-isotropic transition, mol. ordering effect 2−76673
N-p-hexyloxybenzylidene-p-toluidine, dielec. props. in liq. cryst. 2−104794
N-p-hexyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
4'hexyloxyphenyl 4-butylbenzoate, electro-optical props., relax. near phase transition 2−99092
homeotropic, cusp-shaped hydrodynamic instability 2−91766
homeotropic, thermal oscillatory stability, theory 2−115135
homeotropically aligned cell in DC elec. field, alignment deterioration and surface props. meas. 2−115133
hydrodynamic instability, convective struct., defects 2−71349
impurity centres, order parameter distrib., Maier-Saupe model *(Russian)* 2−76307
isotropic transitions, generalised mean-field equations, appls. 2−76670
isotropic-nematic transition, Landau-de Gennes vs. molecular theory 2−76671
laser induced reorientation, light spot finite size influence 2−76283
layer, acoustooptical effect on US inclined incidence *(Russian)* 2−99088
light scattering at uniaxial-biaxial transition 2−92197
linear theory of heat conducting nematic liquid crystals 2−97909
lipid bilayers, acyl chain motion, statistical mechanical model 2−78301
lipid bilayers, multilamellar and vesicle systems, mol. motion, NMR line breadth 2−78302
low temperature compositions, opticophysical props., temp.-freq. depend. of dielec. anisotropy 2−109669
lyotropic, magnetically aligned, mol. motion, ^{2}D NMR study 2−81665
lyotropic and nematic thermotropic liq. cryst. mixtures 2−103612
lyotropic nematic phases with unusual anisotropies of mag. susceptibility 2−97911
magnetic field assisted alignment, of nematic liq. cryst. an polymeric surface 2−55830
matrix for long mols., permittivity, dielectric relax. study 2−66987
MBBA:cetyl iodide, liq. cryst. phase existence, dielec. props., electrohydrodynamic instabilities *(Russian)* 2−91777
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
MBBA, disorder-cryst. transition in frozen liq. cryst. state, X-ray diffr. obs. 2−60891
MBBA, EPR of nitroxide radical, phase transition temp. 2−56935
MBBA, fluctuations, phase transition, electroreflection method 2−76305
MBBA, homeotropic, mag. field-stimulated anisotropy of DSM2-front propagation 2−97910
MBBA, liq. cryst., nematic-isotropic transition, Landau-de Gennes model, Gaussian approx. 2−66163
MBBA, local molecular rot. induced by elec. field *(Russian)* 2−60886
MBBA, nematic liq. cryst., flexoelectrically controlled twist of texture 2−81662
MBBA, nematic liq. cryst., squint in electrohydrodynamic flow 2−97919
MBBA, optical props. of Williams domain 2−86542
MBBA, order parameter and hydrodynamic viscosity temp. depend. 2−71337
MBBA, oriented nematic liq. cryst., effect of light-wave fild and thermal-lens effect 2−91776
MBBA, photostimulated molecule transform., giant optical nonlinearity *(Russian)* 2−86043
MBBA, planar-oriented sample, light self-focusing 2−114388
MBBA, second optical harmonic generation *(Russian)* 2−55263
MBBA nematic liquid crystal, flowing US absorption anisotropy 2−61070
MBBA-EBBA binary mixtures, acoustical props. in pulsating mag. fields 2−115357
mechanical stress effects 2−55831
meosphase fluid transitions due to periodicity anomalies *(French)* 2−86870
mesomorphic polymer and monomer liq. cryst. mixture, nematic phases 2−115410
mesophase, He-Ne laser radiation nonlinearity orientation mechanism and self-focusing 2−97127
microscopic theory for thermodynamics and elastic consts. 2−81668
microscopic unified description of smectic-A, nematic and isotropic phases 2−103614
molecular alignment effect of obliquely evaporated SiO film struct. *(Japanese)* 2−92403
molecular reorientation, wave mixing and light self-focusing 2−65319
molecular tilt, mean field study 2−71343
near neighbour correlations and the dielectric properties of liquid crystals 2−104795
nematic homeotrope instability during elliptic shearing *(French)* 2−86565
nematic to smectic-A crit. point, correlations when $\nu_\parallel = 2\nu_\perp$ 2−61132
nematic liquid crystals continued
nematic-columnar phase transition, statics and dynamics 2−81959
nematic-smectic A phase transition, microscopic theory, short-range order effects 2−103992
nematic-smectic A transition, rigid mol. model, mol. shape effects 2−66216
4-nitrophenyl-4'-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2−61136
4-nonanoate-4'-cyanobiphenyl, dielec. relax. meas. in liq. cryst. phases 2−104810
4-nonyloxylphenyl-4-nitrobenzoyloxybenzoate, reentrant nematic and smectic phases *(French)* 2−92195
NPOOB, fluctuations, phase transition, electroreflection method 2−76305
6OCB-8OCB, reentrant nematic phase, ^{1}H spin relax., freq. depend. 2−93033
octyl-cyano-byphenyl liq. cryst., light spot finite size influence on laser induced reorientation 2−76283
4'-n-octyloxy-4-cyanobiphenyl, piezothermal studies in vicinity of smectic A-nematic transition 2−61133
N-p-octyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
octyloxycyanobiphenyl, nematic, surface smectic A order, synchrotron X-ray diffr. study 2−71341
one-dimensional nematics with orientation jumps, freely suspended strands of tilted columnar phases 2−86557
optical diffraction in nematic liq. crysts. with high nonlinearity 2−60185
optical uniaxial birefringence meas. 2−104844
order parameter and hydrodynamic viscosity temp. depend. 2−71337
order parameter fluctuations and mol. anisometry, Raman study 2−103619
order parameters, second and fourth rank, for liq. crysts. composed of non-rigid mols. 2−60879
orientation, effect of US 2−109673
orientation degree and direction, polarisation absorption spectroscopy technique 2−115134
orientation in AC elec. field, IR absorpt. spectra 2−97908
orientation induced by oblique evaporation surface, anchoring energy, topography 2−91769
orientation statistics and nematic-isotropic transition 2−103620
orientational instability of liquid crystals in acoustic fields 2−109674
orientational order, Raman microprobe investig. 2−60871
PAA, amorphous and cryst. phases, vibr. density of states 2−56141
PCH-1132, dielec. props. in liq. cryst. 2−104794
4-n-pentyl-4'-cyanobiphenyl-d_{15}, nematic, pretransitional behaviour, NMR investig. 2−82731
4-pentyl-4'-cyanobiphenyl nematic liq. crysts., boundary layer phase transition 2−109988
4-n-pentyl-d_{11}-4'-cyanobiphenyl liq. cryst., orientational ordering at high press. NMR 2−89779
p-n-pentyl-p'-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
4-n-pentyloxybenzylidene-4-ethylaniline, conformational changes, Raman scatt. study 2−109985
phase transition, SC lattice model, Monte Carlo simulation, pair approx. 2−92196
phase transition temp. determ. by free radical EPR 2−56936
p-phenylene di-p-substituted benzoates, esteramide analogues, thermotropic liq. cryst. behaviour 2−60875
piezoelectric effect, expt. investigation 2−109675
polyacrylates, synthesis and props., optical and electron scanning microscopy, X-ray and DSC anal. 2−109664
polyester, nematic, poly(2,2'-dimethyl-4,4'-dioxyazoxybenzenedodecanedioyl), synthesis of model cpds. 2−103610
polyester, thermotropic nematic, phase transition entropies, influence of mol. weight 2−103990
polyesters, rigid-chain, thermotropic liq. cryst., crystallites 2−76303
polyesters, thermotropic liq. cryst., orientation in high mag. fields 2−103607
polyethylene terephthalate-p-acetoxybenzoic acid copolyester, oriented liq. crystalline, struct. anal., wide angle X-ray scatt. 2−109671
pretilted nematic cell, modelling 2−60880
pretransitional effects in nematogens, g-factor simulation using Monte Carlo technique 2−98282
pretransitional effects of mixtures of nematic liquid crystals 2−76676
pyridine-N-oxide, thermotropic nematic phase, NMR spectrum, chemical shift 2−87608
re-entrant nematogens pre-transitional effects in elec. cond. 2−71339
reentrant behaviour, microscopic one-particle description 2−109670
review of liq. cryst. phases and phase transitions 2−76297
rotational viscosity coeff. meas. 2−110024
second-harmonic lasing in orientationally ordered solutions of noncentrosymmetrical molecules 2−108950
second-order domains behaviour, in elec. fields above threshold 2−55844
solubility of pleochroic dyes in nematic phases 2−104000
sound field imaging, low-frequency, by means of nematic liquid crystal acoustooptic cell 2−116150
stiffness consts. based on distributed harmonic forces between molecules 2−81870
surface, smectic-A order synchrotron X-ray diffr. study 2−86564
temporally ordered structure of nematic liq. cryst. 2−109667
terminal polar two-ring organic cpds., re-entrant nematic phase, phase diagrams 2−115132
thermotropic, diffusion, review 2−71685
tilt bias angle determ. by Rayleigh line intensity ang. distrib. 2−91764
twist cell display, viscous props., temp. depend. electrooptical performance 2−65857
twisted cell, opto-electronic bistable devices in real-time optical information processing 2−86073
uniaxial, mag. field induced order 2−103616
US propagation rel. near nematic-smectic A transition *(Russian)* 2−98202
wall defects and dynamic light scatt. relax., expt. study 2−115138
4-cyano-4'-n-pentylbiphenyl-organic liq. mixtures, phase diagrams 2−109986
p-n-octyl-p'-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
Pd (II) complexes, palladium-azobenzene ligands complexes, synthesis and characterisation 2−76288
V complex, vanadyl bisacetylacetonate in frozen liq. cryst., ENDOR study 2−72377
V^{5+} complexes, vanadyl esters and esterchlorides, quadrupole coupling consts., NQR and NMR study 2−66933

neodymium
see also nuclei with .....
atom, laser isotope separation by two-step selective photoionisation method 2−64940
Caledonian calc-alkaline volcanic arc (Scotland), Nd and Sr isotopes 2−62916
Deccan Trap flood basalt origin, isotope geochem. study 2−106017
granites from batholiths in S.E. Australia, Nd isotope characts. 2−62917
internal friction, high-temp. spectra, relax. and phase shift peaks 2−57395
isotopic systematics in three-component Earth mantle model 2−100334
laser, multistage, digital supply system for stable apparatus operation *(Bulgarian)* 2−80989
laser characteristics of microlasers based on highly conc. Nd media 2−75579
laser light, stimulated scatt. for high power lasers 2−97118
laser system with homogeneous gain distrib., amplifiers 2−55170
magnetic structure, below 20K, use of first principles mean field theory 2−66776
Nd:YAG laser for holography 2−108931
mid-ocean ridge basalt Pb, Nd and Sr isotope ratios 2−106010
$Bi_{12}SiO_{20}$:Nd, edge absorpt. spectrum, optical heterogeneities, X-ray spectral microanalysis 2−67091
$Bi_{12}SiO_{20}:Nd^{3+}$ single crystals, energy level spectroscopic study 2−67110
Cr^{3+},Nd^{3+}:GdScGa-garnet laser at 1.06 μm 2−96953
GaP:Nd epitaxial films, photoluminesc., effect of γ-irrad. 2−93267
GdF_3-CaF_2:Nd^{3+} trigonal crysts., disordered, spectroscopy and laser emission 2−82905
$Gd_3Ga_5O_{12}$:Nd crystals grown by Czochralski method, Nd effective distrib. coeff. 2−76481
$Gd_3Ga_5O_{12}:Nd^{3+}$ garnet films prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
Ge:Nd, deep level impurity states, DLTS study 2−56477
$HfSiO_4:Nd^{3+}$, EPR study 2−72341
$LaF_3:Dy^{3+}$, Pr^{3+}, fluoresc. obs., decay time meas. 2−110914
$La_{1-x}P_5O_{14}:Nd_x^{3+}$, resonant fluoresc. line narrowing 2−104943
β-La_2S_3:Nd, Ce, efficient energy transfer from band excitation to Nd^{3+} 2−67102
α-La_2S_3:Nd, photocond. meas. 2−115824
$LiYF_4:Nd^{3+}$, oscillator strengths and Nd^{3+} optical absorption lines 2−116175
$LuPO_4:Nd^{3+}$, IR absorption spectra 2−87822
$LuPO_4:Nd^{3+}$, IR spectra, Zeeman effect and fluoresc. obs. 2−72522
Nd I and Nd II, excited levels lifetimes and oscillator strengths 2−113930
Nd^{3+} doped oxide and chalcogenide glasses as potential laser materials 2−90903
Nd^{3+} in germanate glass, energy transfer from Bi^{3+}, pumping range increase 2−90906
Nd^{3+} in rare earth pentaphosphates, spectroscopic props. 2−90904
Nd: glass laser radiation ang. characts. after wavefront reversal by three-wave parametric interaction 2−114350
Nd:doped laser materials, gain saturation obs. 2−85974
Nd:garnet CW laser with nonplanar ring resonator, spatial and polarisation characts. 2−70570
Nd:garnet continuous laser, stabilisation of radiated power 2−75581
Nd:glass active-mirror laser amplifier, flashlamp-induced thermal distortion 2−102799
Nd:glass disk amplifier optical distortion of light beams in periodic operation 2−108885
Nd:glass fibre laser, lasing kinetics in periodic giant pulse regime 2−114289
Nd:glass fibre lasers, generation kinetics 2−96959
Nd:glass GILAS laser with plasma mirror 2−114317
Nd:glass laser amplifier efficiency, radiation freq. shift effect 2−65253
Nd:glass laser amplifier with spatial filters and final disc stage, exit-beam brightness restriction 2−86020
Nd:glass laser for expts. an optical discharges 2−86480
Nd:glass laser oscillator with unstable optical resonator 2−114322
Nd:glass laser radiation intensity two-freq. acoustic modulation 2−97022
Nd:glass lasers, temp. influence on lasing spectrum width 2−55166
Nd:glass multipass amplifier 2−60089
Nd:glass picosecond laser system for photolysis 2−96979
Nd:glass plate three-pass amplifier characts. 2−97053
Nd:glass six-beam high-power laser, output beam characts. 2−55186
Nd:glass slab-geometry laser performance studies 2−108888
Nd:$LiYF_4$, CW laser operation, comparison with Nd:YAG 2−60086
Nd:phosphate glass laser oscillator-amplifier system, repetitively pulsed mode-locked 2−70578
Nd:phosphate glass superluminescenc. laser with variable radiation pulse length 2−75589
Nd:Y_2O_3 laser oscillation props., point defect conc. effects 2−96954
Nd:YAG, laser props. 2−90898
Nd:YAG active-passive mode-locked oscillator 2−114286
Nd:YAG CW laser, simultaneous mode locking and Q-switching, use as picosecond pump source 2−114330
Nd:YAG CW laser with nonplanar ring resonator, temporal and spectral characts. 2−70571
Nd:YAG continuously excited laser resonator acousto-optic switch *(Polish)* 2−97006
Nd:YAG freq. doubled laser, pumping of high-efficiency deep-red $LiYF_4$:Ho(Er) lasers 2−60087
Nd:YAG laser, CW pumped acousto-optically Q-switched *(Czech)* 2−85987
Nd:YAG laser, Q-switching with continuous pumping by nonlinearly absorbing LiF cryst. with F_2^- colour centres 2−102804
Nd:YAG laser, resonators comparison for airborne depth sounding 2−70603
Nd:YAG laser beam, weak, simulation using LEDs 2−70602
Nd:YAG laser cavity, ray tracing program, flashlamp pumping uniformity rel. to component damage 2−55215
Nd:YAG laser efficiency increase using composite technology *(Chinese)* 2−90958
Nd:YAG laser light pulse single-delay meas. by intensity correlation *(Chinese)* 2−102829
Nd:YAG laser output performance, influence of Nd:YAG crystal optical homogeneity *(Chinese)* 2−96952
Nd:YAG laser pumping, multiple flash lamp system demountable design 2−90912
Nd:YAG laser radiation intensity, two-freq. acoustic modulation 2−97022
Nd:YAG laser SHG with $LiIO_3$ single crysts. 2−114371

neodymium continued
Nd:YAG laser using radiation from high-freq. electrodeless discharge, pumping system investigation and development 2−114319
Nd:YAG lasers pumped by LEDs, lasing characts. at 1.06, 1.32 μm 2−70572
Nd:YAG lasers radiation freq. doubling using CsD_2AsO_4 crysts. *(Chinese)* 2−65299
Nd:YAG polarisation-coupled stable/unstable-resonator laser oscillator, single-axial-mode operation 2−55165
Nd:YAG self-injected laser with unstable cavity 2−97003
Nd:YAG subMHz frequency-stabilised oscillator 2−108906
Nd:YAG unpolarised electro-optically Q-switched laser, report 2−96990
Nd:YAG unstable resonator, high repetition rate *(Chinese)* 2−97005
Nd:YAG/glass 1-pps 2-μsec pulse high-energy freq.-doubled laser, Raman spectroscopy of combustion processes 2−75586
Nd:YLF single-frequency active-passive mode-locked oscillator at 1.053 μm 2−90915
Nd:YLiF active mode-locked/Q-switched oscillator, temporal shape analysis 2−70592
Nd^{3+}:$BiCl_3$ glass, stimulated emission cross-sections meas. 2−90899
Nd^{3+}:glass, degenerate four-wave mixing 2−55274
Nd^{3+}:glass laser, time, energy and spectral characts., γ-ray induced defect influence 2−55169
Nd^{3+}:LNP crystal electric dipole transition intensity *(Chinese)* 2−90479
Nd^{3+}:$POCl_3$-$P_2O_3Cl_4$-$SnCl_4$:Nd^{3+}, liquid laser performance and fluorescence 2−70556
Nd^{3+}:phosphate glass, $^4I_{9/2}$ state, Stark struct. meas. under selective laser excitation 2−87867
Nd^{3+}:YAG, CW solid-state laser, forced synchronisation of axial modes 2−55230
Nd^{3+}:YAG CW laser radiation, polarisation switching using electrooptic phase modulator 2−114338
Nd^{3+}:YAG CW laser with optical delay line, constrained mode locking 2−75608
Nd^{3+}:YAG laser, passively Q switched by LiF crysts. containing colour centres, characts. 2−85978
Nd^{3+}:YAG laser, Q-switched, intracavity SHG at 0.66 μ wavelength 2−86051
Nd^{3+}:YAG laser simultaneous pumping by CW and pulsed light *(Chinese)* 2−90957
Nd^{3+}:YAG laser; time, energy and spectral characts., γ-ray induced defect influence 2−55169
Nd^{3+}:YAG ring laser with diffr. acoustooptic mode feedback 2−97015
Nd^{4+}:oxide (halide) glasses, stimulated emission cross-sections meas. 2−90899
Nd-Sm mixture, isotope ratios determ. by resonance ionisation mass spectrometry 2−116761
$^{143}Nd/^{144}Nd$ in Drake Passage seawater 2−106146
$^{143}Nd/^{144}Nd$ in oceanic basalts rel. to mantle evolution 2−73551
$^{143}Nd/^{144}Nd$ in Walvis Ridge basalts, mantle source 2−106015
$Pb_5Ge_3O_{11}:Nd^{3+}$, cryst. growth and spectroscopic props. 2−99178
SiO_2:Nd glass, plasma torch CVD and fluorescence props. meas. 2−93436
YAG:Nd, absorpt. and stimulated emission cross sections, nonreciprocity due to vibronic interactions 2−82879
YAG:Nd crystals, Czochralski grown, defect disclosure by thermolum. 2−93289
YAG:Nd crystals, radiation colour centres rel. to growth defects, absorpt. and luminesc. obs. 2−71445
YAG:Nd garnet, fluorescence lifetimes, particle size and refractive index effects 2−67114
$YAlO_3:Nd^{3+}$, luminescence and cryst. field splitting 2−116239
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
$Y_2O_3:Nd^{3+}$, energy levels, cryst. field anal., fluoresc. and IR study 2−72534
$YPO_4:Nd^{3+}$, IR spectra, Zeeman effect and fluoresc. obs. 2−72522
$ZrSiO_4:Nd^{3+}$, EPR study 2−72341

neodymium alloys
$NdSn_3$, monocryst., thermopower 2−71952
Nd-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
Nd-In system, phase diagrams and lattice spacings of cpds. 2−111141
$NdAl_2$, complete mag. moment vector, magnetisation meas. 2−66784
$NdAl_2$, quadrupole interaction at ^{111}Cd probe 2−116100
NdAlGa, mag. props. study 2−72141
$NdCo_2$, anomalous hyperfine field and orbital moment 2−56973
$NdCo_3$, thermal expansion and resist., anomalies obs. at spin-reorientation transition 2−76715
$NdFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
Nd_5Ge_3, mag. transition temp., mag. ordering effects on elec. and thermal props. 2−87507
$NdMg_3$, mag. struct., neutron diffr. study 2−82565
$NdNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
$NdPd_3$, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006
NdPtSi, cryst. struct. 2−65922
$Nd_xSm_{1-x}Co_5$, magnetisation curve anomalies meas., 4.2 to 100K *(Russian)* 2−92960
$Nd_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
Sn-Nd, liquid, dil., 4f spin dynamics, TDPAD study 2−56992
$Yb_{1-x}Nd_xAl_2$, exchange and electron spin-lattice relax., ESR study 2−82712

neodymium compounds
see also neodymium alloys
neodymium ethylsulphate nonahydrate, ligand field theory 2−92541
Al_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2−96955
$Ba_{0.75}La_{0.5}Nd_{0.1}F_{2.25}$, solid electrolyte, ionic cond. 2−92273
$Ba_xNd_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
BaO-PbO-P_2O_5-Nd_2O_3, glass, separation of luminescence-quenching processes 2−104964
$BaTiO_3$-Nd_2O_3.$3TiO_2$, formation of $BaNd_2TiO_4O_{12}$, dielec. props. 2−71417
BeF_2-NdF_3 based glasses, absorpt. and emission spectra of Nd^{3+}, at. struct. computer simulation 2−57149
BiP_5O_{14}-NdP_5O_{14}, prep. and props. of solid solutions 2−72611
CaF_2-NdF_3, radiation induced F^- interstitials, TDPAC study 2−98163

neodymium compounds continued
$Ca(Sr)_3La(Nd)_6Si_4P(V, As)_2O_{26}$, solid phase synthesis, apatite struct. 2−111067
$Cs_2Nd(N_3)_5$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_4Nd(N_3)_7$, IR and Raman spectra, mag. susceptibility 2−87767
α'-$CsNd(PO_3)_4$, struct. and luminesc. props. 2−65948
$CsNdP_4O_{12}$, cryst. and glass, room temp. fluoresc., laser material use 2−93240
Ga_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2−96955
$KNd(PO_3)_4$, struct., synthesis and optical props. 2−81765
$La_{2-x}Nd_xCuO_4$, struct. transitions, elec. props., semicond.-metal transition 2−81949
$La_{0.1}Nd_{0.9}P_5O_{14}$ CW laser at 1.051 and 1.32 μm 2−70567
Li-Nd-La phosphate glass, high conc., use in Q-switched lasers 2−55167
Li-Nd-La phosphate glass laser, high conc., efficiency at low pump energies, free lasing 2−55168
$LiNd(PO_3)_4$, IR spectra 2−72469
$LiNd(PO_4)_3$, weak fluorescence quenching 2−77559
$LiNdP_4O_{12}$, crystal struct. *(Chinese)* 2−98011
$LuPO_4$:Nd^{3+}, Eu^{3+}, optical spectra, crystal field interactions 2−67074
NbP_5O_{14}:Gd^{3+}, monoclinic-orthorhombic ferroelastic transition, EPR study 2−61763
Nd complex, bis(phthalocyaninato)Nd, compressed discs, elec. cond. props. 2−61463
$NdAlO_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957
$Nd_{4-2x}Ba_{2+2x}Zn_{2-x}O_{10-2x}$, cryst. struct. *(French)* 2−81750
$NdCl_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdCl_3.6H_2O$:Gd^{3+}, cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
$NdCl_3.6H_2O$:Gd^{3+}, spin-Hamiltonian parameter superposition model anal. 2−98600
$NdCo_5H_x$, ferromag., magnetisation, H_2 press. and comp. depend. meas. 2−82642
NdD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
NdF_3, paramag. susceptibility and optical spectra *(French)* 2−92856
Nd_5Ga_3, mag. props., struct., anal. 2−66763
NdH_2, ferromagnetism, susceptibility and magnetisation meas. 2−72159
NdH_3, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
NdH_x, low temp. sp. ht., mag. transition, mag. susceptibility 2−61164
NdIrSi, cryst. struct., magnetisation and susceptibility 2−65969
$Nd_xLa_{1-x}B_6$, solid solns., mag. susceptibility 2−77257
$Nd(MoO_4)(ReO_4)$, cryst. struct. determ. *(French)* 2−91882
$Nd(NO_3)_3.6H_2O$, cryst. struct. 2−81758
$NdNa(WO_4)_2$, radiation quenching, cross relax. and exctionic behaviour 2−93247
Nd_2NiO_4-NiO, elec. props. 2−66548
$NdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
NdO_3, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
Nd_2O_3, cubic, lattice and binding energies 2−60916
Nd_2O_3 films, electron beam evaporated, dielec. props. meas. 2−72422
Nd_2O_3-$NdPO_4$, phase diagram 2−67740
$(NdO_2)_2CO_3$, type Ia and II, optical absorption spectra and electron diffr. patterns 2−116204
NdOCl, paramag. susceptibility and optical spectra *(French)* 2−92856
NdP_5O_{14}, admixtures influence on crystallisation and props. 2−93399
NdP_5O_{14} laser, thermal effects, expt. and theory 2−102802
NdP_5O_{14} laser material, spectroscopic props. 2−90904
NdP_5O_{14}, radiation quenching, cross relax. and exctionic behaviour 2−93247
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
$Nd_2Ru_2O_7$, IR spectra and elec. cond. 2−110835
$Nd_2(SO_4)_3.8H_2O$ complexes in soln., optical absorpt. spectra 2−70270
$Nd_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Nd_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
(Pb,Nd)(Ti,Mn,In)O_3 piezoelectric ceramics, appl. to high freq. SAW filters 2−81178
(Pb, Nd)(Ti, Mn, In)O_3 piezoelectric ceramic SAW reflector, poled/unpoled domain array 2−91196
$RbNd(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
$Sr_xNd_{1-x}FeO_{3-y}$ solid soln., superstructure, microdomains, electron diffr. and microscopy study 2−91925
$(Y,Nd)Al_3(BO_3)_4$, optical rotation saturation and circular dichroism 2−104843
Y_2O_3-Nd_2O_3, solid solutions, determ. of mixing enthalpy 2−110002
ZrO_2-Y_2O_3-Nd_2O_3, ceramic, thermal aging rel. to struct. and electrophysical props. 2−111208

neon
see also nuclei with .....
adsorbed layer on graphite, fluid-solid transition line, phase diagram, lattice constant, LEED study 2−66185
adsorbed on basal plane graphite, orientational alignment 2−66361
atom, $2p^5nd$ configs., Zeeman patterns, level crossings and splittings 2−75336
atom, Compton profile, electron scatt. study and impulse approx. 2−114110
atom, diamag. susceptibility, new Thomas-Fermi model test 2−85543
atom, electron elastic scatt. at intermediate energies 45 to 750 eV, modified Born approx. 2−102622
atom, electron impact excitation, electron-photon ang. correls. 2−75445
atom, electron scatt., 10-100 eV, model pot. calcs. 2−96746
atom, electron scatt., cross sections, matrix effective pot. formalism 2−85810
atom, electron scatt., negative ion resonances, eigenchannel anal. 2−59941
atom, extended geminal models, electron correl. energy calc. 2−102398
atom, high lying atomic states, high resolution spectroscopy and collision studies 2−102418
atom, ionisation pot., electron correl. SCF, GTO, CI calcs. 2−113895
atom, KLL Auger transition rate, S matrix calcs. 2−85604
atom, metastable, double velocity selective optical pumping *(French)* 2−64930
atom, photoionisation and state selected polarised $Ne^+(2p^{52}P_{3/2})$ 2−96518
atom, positron inelastic scatt., excitation and ionisation meas. 2−75440
atom, Rydberg IR optogalvanic spectroscopy 2−59759
neon continued
atomic beam scatt. from LiF corrugated surface, quasi-hard wall model 2−62040
atomic density in gas discharge by laser reson. fluoresc. *(Russian)* 2−76075
atomic ecited states, wave function determ. 2−85568
atoms, Compton defects and asymmetries, electron impact spectra, Hartree-Slater calc. 2−90425
atoms, photoionisation from ground and excited states, autoionisation states 2−80547
atoms, polarisation intermodulated excitation (POLINEX) spectroscopy 2−59729
autoionisation produced in collisions with Al surface 2−57231
crystal, interatomic forces, cohesive energy and elastic constants. 2−55882
crystalline, cond. bands, OPW calc. *(Russian)* 2−115654
crystalline, self-localised luminesc. spectrum, fine struct. *(Russian)* 2−116227
desorption on solid Xe, transition state theory rate consts. 2−111514
discharge, bistable behaviour of modes *(German)* 2−115062
elastic electron scatt., cross section data compilation 2−54964
energy and tangential momentum accommodation coeff. of Ne adsorpt. on different vacuum flashed W surfaces 2−76805
field adsorption on W, electron-stimulated field desorption study 2−105053
gas, luminous layers in prebreakdown region at low press., Monte Carlo simulation 2−97702
gas, thermal conduct., power eqn. representation 2−60711
glow discharge tube, local dependence of emissive line intensities obs. 2−103537
hollow-cathode discharge, population inversion obs. using optogalvanic effect 2−85596
ion, $1s2s2p^N$ configuration, Auger transition 2−85605
ionisation sampling resolution and relativistic rise, dE/dx meas. 2−108312
ionization energies and electron affinities of atoms up to neon 2−53453
isoelectronic molecules, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
isoelectronic sequence, outer subshell photoionisation, ab initio calcs. 2−75222
isoelectronic sequence, third order correl. energies 2−80501
isotope separation in DC arc 2−85829
laser, high-pressure UV-preionised discharge-pumped 2−55120
liquid, critical superheating 2−92152
liquid, interatomic pair pot., combined WCA and RPA calc. 2−60857
liquid, low-angle struct. factor away from triple point 2−55827
liquid, thermodynamic props. calc. *(Russian)* 2−115436
matrix for small Fe molecules, EXAFS and matrix isolation spectra studies 2−80650
meteorites, Ne isotope depth profile due to cosmic ray irradiation 2−63200
molecule, pair polarisability, CI calcs. 2−102395
nonlinear cyclotron electron resonance spectrum in nonuniform field *(Russian)* 2−86381
Penning ionisation formula 2−103267
Penning mixture filled proportional counters, resolution depend. on gas gain 2−59594
physisorbed on Grafoil near monolayer completion, neutron diffr. and vapour press. study 2−98462
physisorption on solid inert gases and SF_6, sorption energy determ. 2−87013
plasma, level shifts and inelastic electron scatt. 2−71111
plasma, temp. depend. screening, pair pot. calcs. 2−103281
positron-gas cross-section measurements 2−75420
reson. photoionisation in vicinity of $2p^{-2}3s3p^1P$ reson. in close-coupling approx. 2−96519
self-alignment of $5d_2$-level, hollow cathode discharge 2−54810
solid, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922
substitutional, interaction with He in Mo or W 2−65065
Sun, flare Ne composition from lunar rock anal. 2−63348
thick films, adsorpt. of ^3He, heat capacity 2−98442
^{75}As atoms, stopping power in He, Ne and N_2, recoil nuclei γ-ray emission study 2−102579
CO-Ne, diffusion coeffs., viscosity meas. 2−114960
CO_2-Ne gas, thermal cond. meas. 2−103250
He-^{22}Ne laser, freq. stabilisation by intracavity polarisation spectroscopy of CH_4 2−86007
He-N_2 nuclear-pumped laser medium, kinetics model development and testing 2−96880
He-Ne, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Ne, quasiLorentzian mixture, thermal diffusion factor 2−86371
He-Ne $^{127}I_2$ stabilised lasers at 633 nm and 612 nm BIPM and IMGG intercomparison 2−102769
He-Ne 0.633 μm laser freq. stabilised to Ne saturated absorpt. *(Chinese)* 2−65202
He-Ne dual cavity laser *(Chinese)* 2−60122
He-Ne frequency locked laser, self-irrad. opto-galvanic effect 2−114336
He-Ne internal mirror lasers, freq. stabilisation by flowing-water method 2−70594
He-Ne internal mirror multimode laser, polarisation props. 2−60062
He-Ne intra-cavity laser alignment *(Chinese)* 2−65274
He-Ne intracavity laser using getter alloy ZrAl 16 *(Chinese)* 2−96972
He-Ne laser, 0.63 μm, stabilised without freq. deviation 2−60114
He-Ne laser, 633 nm, $^{127}I_2$ stabilised, power shifts for various mirror curvatures, report 2−97056
He-Ne laser, 633-nm, $^{127}I_2$ stabilised, freq. depend. on modulation amplitude and wall temp., report 2−75618
He-Ne laser, influence of foreign atoms and mols. 2−96710
He-Ne laser, intensity stabilisation by mag. field induced light polarisation 2−65264
He-Ne laser in hollow cathode discharge, output power 2−96899
He-Ne laser line, linewidth and profile meas. method using optogalvanic spectroscopy 2−70542
He-Ne laser operation, microwave field influence 2−114243
He-Ne laser power meas. in visible region, international intercomparison 2−102771
He-Ne laser radiation nonlinearity orientation mechanism and self-focusing in nematic liquid cryst. mesophase 2−97127
He-Ne laser stabilised with $^{127}I_2$, nonlinear frequency shifts at 633 nm 2−102770
He-Ne laser system, mag. induced mode locking investig. 2−80928

neon continued
He-Ne laser tube positive column region gas temp. meas. by thermal expansion method *(Chinese)* 2−95369
He-Ne lasers, discharge noise investigation *(Chinese)* 2−65201
He-Ne lasers, electrophotography appl. 2−74536
He-Ne lasers, freq. stabilised, tunable, multimode 2−86026
He-Ne lasers, methane stabilised (3.39 μm) and I_2 stabilised (633 nm), international comparisons results 2−102772
He-Ne lasers, noise, influence of the Penning process 2−114242
He-Ne lasers at 633 nm, $^{127}I_2$ stabilised, freq. shifts at low I_2 press. 2−96897
He-Ne lasers with I_2 saturated absorption freq. stabilisation *(Polish)* 2−96978
He-Ne long laser, tunable single mode operation 2−114239
He-Ne methane freq. stabilised laser oscill. period for optical time scale 2−101379
He-Ne multimode laser, radiation intensity fluctuations due to nonequidistant mode distrib. 2−55117
He-Ne ring laser, internally loss modulated, mode locked travelling wave oscillations calc. 2−55227
He-Ne ring laser, natural fluctuations of difference between opposite wave freqs. 2−70590
He-Ne ring laser, secondary mode beat stabilisation 2−114236
He-Ne single frequency stabilised laser 2−85994
He-Ne single-mode laser output, bistable behaviour obs. in polarisation 2−97050
He-Ne totally sealed-off long-lifetime laser, metal glass sealing *(Chinese)* 2−90924
He-Ne two-mode modulated-parameter laser 2−114237
He-Ne visible laser beam retroreflected through a turbulent atm., statistical props. 2−100561
He-Ne visible laser transitions, unsaturated gain coeff. and saturation intensity determ. 2−114240
He-Ne/CH_4 ultrastable lasers based on saturable absorption effect *(Polish)* 2−55187
He-Ne/I_2 linear two-mode laser, high-contrast power resons. 2−114241
He-Ne/methane ring laser, freq. stability 2−65278
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
He-Xe, hollow cathode discharges, VUV study 2−97823
HeNe laser, hologram recording 2−96857
Hg-Ar-Ne discharge, electron energy distrib., electrokinetic charact. 2−65788
Hg-Ne-Ar discharge, low pressure, electron energy distrib., plasma basic eqns. 2−65789
Na-Ne, low press. discharge, electron density meas., two-photon spectra 2−60806
Na-Ne discharge tube, optogalvanic spectroscopic expts. *(Chinese)* 2−65775
Ne II short wavelength laser design 2−65206
Ne IX, He-like ion, in solar corona, X-ray line ratios obs. 2−106640
Ne IX plasma laser, resonantly photopumped, theory 2−90873
Ne^+ beam bending by Si surfaces, computer simulation 2−79717
Ne^+ collisions with Ni (110) surface, outer-shell electronic processes 2−77665
Ne^+, electron correl. SCF, GTO, CI calcs. 2−113895
Ne^+, mobility in Ne, charge exchange cross sections 2−55695
Ne^{2+} neutralisation at surface Auger processes 2−93357
Ne^{6+}, electron impact excitation cross sections calc. 2−114112
Ne^{8+}, energy and transition probabilities correl. wavefunctions calcs. 2−113874
Ne-Ar, interatomic pot., Dunham expansion 2−102562
Ne-Ar, mixture filled proportional counter in avalanche multiplication zone for electrons 2−108251
Ne-Ar AC discharges, existence regions and discharge modes *(German)* 2−109614
Ne-CO_2 mixture filled proportional counter in avalanche multiplication zone for electrons 2−108251
Ne-E production in novae, nucleosynthesis models 2−79100
Ne-ethane mixtures, positronium form. 2−75475
Ne-F_2 mixture low-temp. plasma, splectral characts. and electric parameters 2−81457
Ne-H_2, van der Waals pot. hypersurfaces, bond dist. depend. 2−59882
Ne-He gas purification system for large flash chambers 2−64747
Ne-methane mixture, 300.4K; 1-22 MPa, thermal cond., rel. to kinetic theory 2−81438
Ne-methane mixture filled proportional counter in avalanche multiplication zone for electrons 2−108251
Ne-Tl ion lasers with transverse RF discharge excitation 2−86002
$Ne+{}^1H(^4He)(^7Li)$, K-shell ionisation and capture differential cross sections, scaling props. 2−96706
Ne+CO, vibr. relax. rate coeff., ab initio calcs. 2−59906
$Ne+CO_2$, vibr.-rot. energy transfer, cross sections, rate consts. calcs. 2−96695
$Ne+F^-$, electron detachment cross sections meas. 2−59927
$Ne+F^{8+}$, excited states, electron excitation and capture, X-ray spectra 2−75418
$Ne+F^{q+}$, F K-shell X-ray prod., charge state depend. 2−96708
$Ne+F^{q+}$, inner-shell excitation, quasiresonant charge transfer, K-Auger emission 2−75416
$Ne+H_2(N_2)$, relativistic correction to interaction coeffs. 2−75202
$Ne+H^+$, K shell ionisation, electron capture, cross section meas. 2−54940
Ne+He ions, charge exchange cross sections, oscillations, average equilib. charge 2−85800
$Ne+He^+$, density matrix of the I 3p determ. 2−96712
Ne+K, 4p $^2P_{3/2}$-7s $^2S_{1/2}$ transition, effect of collisions 2−59732
Ne+K, electronic and nuclear spin relax., hyperfine interaction 2−96688
Ne+K, excited states, transition cross sections, fluoresc. obs. 2−75408
Ne+K, II interaction, pot. param. 2−108677
Ne+Li, quenching, excitation transfer processes, radiative coeff., collision rate coeff. 2−108418
$Ne+N_2$, vibr. quenching, SIFT investig. 2−90676
Ne+Na, model potentials and pseudopotentials 2−59880
$Ne+Na_2$, rotationally inelastic scatt., angularly reduced 2−114085
$Ne+Ne_2$ transitions between excited states *(Russian)* 2−59900
$Ne+Ne^{8+}$, Kalpha X-ray lines, electron capture rate coeff. determ. 2−65072
$Ne+Ne^{9+}(Ar^{9+})$, Ne K Auger electron emission study 2−85795
$Ne+Ne(^3P_0)(^3P_2)$, differential elastic scatt. cross-sections meas. 2−90651

neon continued
Ne+Rb, excitation transfer, atomic fluoresc., two-photon absorpt., quenching 2−70389
$Ne^+ + H_2O$, reaction rate consts. and branching ratios, kinetic energy depend. 2−93788
$Ne^+ + O$, close coupling calcs., electron transfer cross sections 2−80805
$Ne^{+2} + Xe$, excited ions lifetime meas. long-lived ions preparation, selective electron capture appl. 2−102616
$Ne^{2+} + Xe$, electron capture excitation from metastable ion at 40 keV 2−96719
$Ne^{2+} + Xe$, initial to final state-selective 1-electron capture cross-sections meas. 2−90690
$Ne^{8+} + He(Ne)(Ar)(methane)(Xe)$, Kalpha X-ray lines, electron capture rate coeff. determ. 2−65072
$Ne^{9+} + Ne$, Ne K Auger electron emission study 2−85795
$Ne^{q+} + He$, one-electron capture cross sections 2−96723
$Ne^{z+} + He(Ne)(Ar)$, excited projectile states prod., photon emission cross sections 2−75413
$Ne^{z+} + Ne$, excited projectile states prod., photon emission cross sections 2−75413
Ne_2 excimer, triplet state, O_2 quenching rate const. 2−80711
Ne_2, ground and excited states, variational cellular calcs. 2−80447
$Ne_{3\Sigma}$ interaction, exchange repulsion nonadditivity 2−96673
$Ne(^3P_0)$ de-excitation kinetics, time resolved absorpt. spectra, temp. studies, quenching kinetics 2−113925
^ANe, A=20, 22, pionic K_α X-ray energies and linewidths 2−108742
^{20}Ne 260 THz emission, absolute frequency meas. 2−108929
^{20}Ne two photon absorpt., Doppler broadening by light shifts, compensation 2−85607
$^{20}Ne/^{22}Ne$ ratio in Earth interior, rel. to rare gas retention by accreting Earth in solar nebula 2−112353
^{22}Ne abundance in low energy cosmic ray sources 2−89094
^{22}Ne excess in cosmic rays, origin from WC stars 2−94568
$Ne\mu^+$ muonic ion, bound and quasi-bound levels calc. *(French)* 2−85841
Si:Ne, Ar, amorphous, ion implanted, localised defect states and impurity distrib., photocond. spectra study 2−61414
YIG:Tm,Ca,Ge,Ne layers, ionimplanted, annealing effects on cryst. and mag. props. 2−77333
YSmLuCaGeIG:Ne, ion implanted bubble garnet film, mag. and cryst. props. 2−82644

neon compounds
Ne-inert gas dimens., photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
NeA, photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
NeAr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeAr, multiphoton vibr. spectra, model calcs. 2−96668
$^{20}NeH^+$ and $^{22}NeH^+$, IR spectra obs. with difference freq. laser 2−102474
NeHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
NeKr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeKr, photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
NeXe, associative ionisation half reactions, photoionisation cross sections 2−72998
NeXe, multiphoton vibr. spectra, model calcs. 2−96668
NeXe, photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
Ne.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514

nephelometry *see turbidimetry*

Neptune
astrometric observations of outer planets and minor planets, (1980 to 1982) 2−106611
comet families, orbits and origin and evolution in planet eruption theory 2−84171
mass determination from Nereid orbit elements 2−112388
Nereid, orbital elements from visible obs. 2−112388
occultation of star by possible third satellite, visible obs. 2−79027
Triton, atmosphere physics, book *(Russian)* 2−84392

neptunium
see also nuclei with .....
itinerant 5f electrons, localisation at high temps. 2−76962
^{243}Am-^{239}Np, α-emitting nuclides as absolute efficiency calibration source for Ge detector 2−59580
^{237}Np dosimeter worn on the body, neutron response 2−64688
^{237}Np, effects of gonads of rats and their progeny *(Russian)* 2−105782
^{237}Np, production in a nuclear reactor 2−113803

neptunium alloys
metallic glasses, based on U, Np or Pu, formation 2−72651
Pb-^{237}Np, ion implanted, 5f electron localisation and relax., TDPAC study 2−56991

neptunium compounds
complexes, UV and visible absorption spectra calcs. 2−96585
$Cs_3[NpCl_4O_2]$, cryst. struct. determ. 2−91896
$NaNp_2F_9$, cryst. struct. anal. 2−91894
$NpAs_2$, single cryst. growth by chem. transport 2−67202
Np_3As_4, single cryst. growth by chem. transport 2−67202
NpF_6 vapour, electronically excited states, fluoresc. obs. 2−59852
$NpO_2Cl_4^{2-}$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
$NpO_2(NO_3)_3^-$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
Np_2S_5, elec. resist. four point direct voltage meas. 2−115755
$NpSe_3$, elec. resist. four point direct voltage meas. 2−115755
Np_2Se_5, crystallographic and mag. studies 2−86638
Np_3Se_5, semimetallic elec. cond., four point direct voltage meas. 2−115755
Np_2WO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086

Nernst effect *see thermomagnetic effects*

Nernst-Ettingshausen effect *see thermomagnetic effects*

network analysers
tissue permittivity in vivo meas. using coaxial line sensor 2−105879

network analysis
see also circuit analysis computing; linear network analysis; nonlinear network analysis
angle transducer circuit, anal. and design *(Chinese)* 2−69157

network analysis continued
diode-resistor network, directed percolation, wetting velocity, crit. conc. 2−74342
diode-resistor network, percolation, crit. probability 2−74341
network equalisers *see equalisers*
network synthesis
angle transducer circuit, anal. and design *(Chinese)* 2−69157
network theory *see circuit theory*
networks *see networks (circuits)*
networks (circuits)
see also specific network and circuit headings e.g. communication networks, pulse circuits, oscillators
ECG contact impedance monitoring circuit 2−78465
Neumann algebra *see algebra*
neural nets
see also brain models
active membranes of nerves, elec. network modelling 2−105688
binocular vision, neural models of brightness perception and retinal rivalry 2−73239
continuous discrete excited element nets, computer simulation *(Russian)* 2−99937
epilepsy, cellular mechanism of neuronal synchronisation 2−99940
impulse, response anal. of neurosynaptic junction, electrical cct. model 2−94021
nervous system functions, general theory *(German)* 2−88493
spatially localised interactive neural populations, stability and dynamics of excitatory sets 2−83556
synaptic long-term memories, neuronal model 2−57799
neuristor networks *see neural nets*
neuron models *see neural nets*
neurophysiology
see also brain; neural nets
aortic nerve stimulation in rabbits under hyperthermia 2−62562
Aplysia photosensitive neuron, simulation by physically-based model 2−83563
arterial baroreceptors, review *(Japanese)* 2−57832
association amacrine cells, rel. to selectivity in pigeon retina 2−105699
associative learning retention in nudibranch mollusk, primary changes of membrane currents 2−78324
asynchronous cortical input and asthenopia 2−111662
auditory nerve of cat, single-neuron labeling 2−100011
auditory neurons, activity on exposue to sound clicks, cross-correl. anal. 2−68021
auditory-nerve fibres, adaptation, revised model 2−111692
aural electrical field of the isolated frog nerve 2−57795
axon, giant, crayfish, ionic current rel. to Na+ channel gating 2−73221
axon, squid, delayed kinetics of K^+ channels, superposition 2−62577
axonal membrane, squid, charged macromolecular site dissoc., appl. to nervous cond. 2−62572
axons, giant, squid, gating currents associated with K^+ channel activation 2−67992
axons, giant, squid, spatially-ordered pacemaker 2−62582
blue sensitive cones signals, ganglion cells mediation, white-yellow borders detect. independent of brightness 2−68004
blue-sensitive cones, sensitivity cross the central retina 2−68015
BVP axon model excitation pattern *(Japanese)* 2−94019
carp retina, nonlinear characts. of receptive field of horizontal fields 2−105703
central nervous system excitability change due to noise induced hearing loss 2−105706
cervical ganglion, superior, long-term synaptic potentiation 2−78326
children, neural development, kinaesthetic reaction times of wrist flexors 2−67986
circadian pacemaker, localisation in the eye of the mollusc, Bulla 2−111666
Clare-Bishop neurons, responses to 3D movement of a light stimulus 2−68001
cochlea, acoustically evoked activity of single efferent neurons in guinea pig 2−111700
cochlea, density of myelinated nerve fibres in chinchilla 2−100007
cochlear hair-cell innervation in cats 2−111708
cockroach giant interneuron system, multivariate statistical anal. of the response to wind puffs 2−73268
colour opponent goldfish ganglion cells, early visual adaptation 2−116910
colour vision, neurobiological and psychophys. aspects, conf., Katata, Japan (Nov. 1980) 2−94886
conduction block in the peripheral nervous system in experimental allergic encephalomyelitis 2−73223
conduction velocity meas. techniques 2−117116
cone cell model, hardware, operational characts. 2−83565
continuous discrete excited element nets, computer simulation *(Russian)* 2−99937
cortical neurons, rhesus monkey, elec. stimulation by capacitor electrodes 2−62857
crayfish tail-flip motor neuron circuitry 2−57797
dendritic length estimation, limits of usefulness of electrophysiological methods 2−105871
electronic synapse, voltage independence 2−99931
epilepsy, cellular mechanism of neuronal synchronisation 2−99940
fibre velocity spectrum estimation by computer 2−57949
force-sensitive interneurons in the spinal cord of the cat 2−116940
foveal pi mechanism early-stage abnormality in protanopic patient with retinitis pigmentosa 2−116918
ganglion cell acuity in hooded rats 2−62610
hair cell-primary auditory fibre complex model 2−73253
hippocampal electrophysiological correlates of an avoidance behaviour in the cat 2−67987
hypothermia, effects on spinal mechanisms, clinical neurology and neurosurgery appls. 2−62581
impulse, response anal. of neurosynaptic junction, electrical cct. model 2−94021
insect central neurons, struct. and functional characterisation 2−111656
interaction between neurons, mediation by extracellular K^+ ions 2−88530
intraocular pressure, neural control 2−88540
ion current kinetics, inward, for perfused neurons, effect of transmembrane osmotic press. gradient 2−105690
ion pairs in aq. soln. study, appl. to binding of cholinergic neuotransmitters to synaptic receptors 2−67928
neurophysiology continued
joint position sense, afferent and efferent components, interpretation of kinaesthetic illusion 2−83579
local brain structures, model of systems of synchronous and asynchronous communication *(Russian)* 2−99938
low frequency biasing effects on auditory nerve activity in gerbils 2−100010
mammalian central neuron, transient outward current, blocking by 4-aminopyridine 2−111654
mammalian thalamic neurons, in vitro electrophysiology 2−83560
mechanoreceptor neurons, single, impulse-coded and analogue signalling 2−83580
mechanoreceptors, nervous system serving, struct. determ. 2−68029
medical diagnostic data transmission via standard telephones 2−68191
membrane, nerve, anal. of potential fluctuation at critical state 2−88532
memory like effects in fly vision, spatio-temporal interactions in wide field neuron 2−99983
mesencephalon, deep, of blinded frogs, light -sensitive units 2−94039
microcomputer network in living organisms *(Hungarian)* 2−94016
microelectrode lowering, single unit discrimination, computer automation 2−62865
microwave effects on nerve vitality, frog expts. 2−105765
mollusc brain single neuron, quasi-electrostatic influence, trace phenomena, rel. to intracellular excitation 2−57794
molluscan neurone, bifurcation of periodic activity, from periodic activity 2−83557
mollusk neurons, pot. depend. of fast K current inactivation, transition state theory use 2−78319
multielectrode fabrication for simultaneous recording of nerve impulses using IC techniques *(Japanese)* 2−62856
myelin sheath, struct. destabilisation by repetitive propagation of action pots. 2−111648
myelinated nerve fibre, anal. of certain errors in voltage-clamp meas. 2−117164
NC-dendrites neuron, theoretical input voltage-current charact. on uniform shift of clamped pot. of soma 2−67983
nerve stimulation using rapid rise-time mag. fields, prototype stimulator 2−83623
nerve stimulators, transcutaneous, for pain relief, elec. output characts. 2−100154
nervous system functions, general theory *(German)* 2−88493
neuro-ophthalmology system based on a PET computer for evoked response, EOG and ERG tests 2−117121
neuroblastoma cell membrane patches, single Ca^{2+}-activated nonselective cation channels 2−62569
neurochemically classified interneurons of goldfish retina, local patterns of spatial organisation 2−68002
neuromuscular junctions, frog, numerical anal. of voltage-clamp technique 2−111647
neuromuscular system, muscle force wavevorm study using population stochastic model of skeletal muscle 2−111650
neuromuscular transmission in rats, long-term hypokinesia effect 2−99933
neuromusculoskeletal control system models, practical activation and retention of locomotion constraints 2−88492
neuron membrane models, brief review 2−105692
neurons, clonal line, ^{3}H-noradrenaline potentiation by low-intensity pulsed mag. fields 2−62675
neurons, molluscan, morphology, visualisation by microscopy 2−62864
neurotransmitter receptors, quantitative densitometry, autoradiographs procedure 2−62862
nonlinear neural field consisting of two layers, props. of equilib. states 2−116904
occulomotor system, human, biotechnical investig. *(Russian)* 2−99958
oculomotor system as a model for the study of neuronal interaction processes 2−57814
olfaction system of mammals, neurone pathways, electronic nose expts. 2−116939
olfactory bulb neurons, self excitation, turtle expts. 2−73270
Onchidium giant neuron, chaotic behaviour under sinusoidal stimulation 2−62590
optoelectronic displacement transducer for the neurophysiological lab. 2−105869
oscillating interneurons of lobster, firing between 2 spike thresholds 2−57798
parafoveal retina short-wavelength-sensitive mechanism field sensitivity in protanopic patient with retinitis pigmentosa 2−116919
perception processes, neurobionic model *(Russian)* 2−62608
photopic visual threshold performance, conceptual model 2−57816
position and motion sense, role of joint receptors and other afferents 2−94082
postural control loop, math. modelling and simulation 2−105632
precision manipulator for neurophysiological investigation of animal brains using microelectrode with step motor drive 2−78517
primate colour vision, neural organisation 2−99956
primate retina, model for temporal organisation of X- and T-type receptive fields 2−99947
pulmonary stretch receptor input, central integration in expiration control 2−116938
pulse propagation model 2−73224
R-G cone difference signal, primates, chromatic adaptation and flicker-freq. effects 2−116916
R-G cone difference signal identification in corneal electroretinogram of primates 2−116917
receptor interactions and visual persistence 2−116914
retina, cat, receptive field props. of X and Y cells, contrast sensitivity meas. 2−111670
retina, dace, spectral props. of 2nd order neurons 2−99953
retina, differences in the kinetics of rod and cone synaptic transmission 2−73235
retina, fish, colour information coding of horizontal cell responses 2−99948
retina, rabbit, linear visual streak, dendritic struct. of A-type horizontal cells 2−99961
retina, ratfish, intracellular recordings and HRP injections 2−94034
retina of monkey, discovery of neuron type contacting photoreceptors 2−105700
retina of the newborn human infant 2−105702
retina with multiple efferent systems, in teleost fish 2−57804
retinal bipolar cells, carp, chromatic props. 2−99952
retinal ganglion cell responses, principal components anal. of variability sources 2−67995

neurophysiology continued
retinal ganglion cells, turtle, spatial organisation, receptive fields to coloured lights 2−99951
retinal horizontal cells, information processing 2−68003
retinal L-type horizontal cells, role in opponent-colour process 2−99949
retinal Muller cells, photo-induced changes in extracellular K^+ conc. rel. to transretinal pot. generation 2−57801
retinal on and off pathways, central connections, rhesus monkey obs. 2−88541
rod and cone channels, interactions above threshold, test of various models 2−111669
rod and cone responses, summation at absolute threshold 2−94038
rod external segments, native, release of Ca^{2+} on partial bleaching of rhodopsin 2−68006
rod out segments, modelling birefringence change correlated with metarhodopsin II formation 2−94036
rod outer segment birefringence bands rel. to daily disc membrane synthesis 2−111668
rod system, saturation and adaptation 2−116915
Rushton, W.A.H., vision and neurophysiology contributions 2−63795
Rushton, William, recollections of and contributions to neurophysiology and vision (1925-52) 2−63796
serve impulse model using 2 first-order differential eqns. 2−62547
severed nerves, long-term neuroelec. signal recording, rabbit expts. 2−78320
short term memory, mathematical model 2−57796
signal processing in the insect eye 2−88543
single motor unit, linear stochastic model 2−111649
single neurons, activity detect. in multiunits, real-time computer method *(Japanese)* 2−83711
skeletal muscle neural prosthetics, recruitment order impact on electrode design 2−62831
somatosensory evoked potentials, short latency, median nerve stimulation 2−94084
somatosensory evoked potentials, short latency, peroneal nerve stimulation 2−94085
somatosensory evoked pots., central conduction time obs. for humans aged 10 to 79 2−111711
spatially localised interactive neural populations, stability and dynamics of excitatory sets 2−83556
spinal cord, residual injury after treatment with X-rays or neutrons 2−105783
spinal neurons, mouse, spontaneous activity, photoetched microelectrode meas. 2−62586
sympathetic-ganglion neurons, mammalian, acetylcholine noise 2−105689
synaptic efficacy, effects of rectification 2−67984
synaptic long-term memories, neuronal model 2−57799
synaptosomes, irrad. by high energy electrons, Ca accumulation and retention 2−68076
synaptosomes, LF AM microwave field irrad., effects on Ca^{2+} efflux rate 2−111731
tectal processing of visual signals from caudalmost part of frog visual field 2−57808
thyroarytenoid motor units, stimulation and recording study 2−62587
tibial nerve, posterior, stimulation, origin of evoked far-field subcortical pots. 2−68031
tonic activity of vagus and depressor nerves, component analysis of electrograms by computer 2−78317
transcutaneous electrical nerve stimulation, review 2−100155
UHF-field, chronic exposure of mice, morphological effects on nervous system *(Russian)* 2−105758
vertebrate retina, origin and signal-shaping mechanism of fast photosignal 2−68007
vertebrate retina response anal. 2−94026
vertebrate sympathetic neurons, intracellular Ca^{2+} activation of fast voltage-sensitive K^+ current 2−73222
vision, moving object and wide-field pattern processing in flies after interneuron removal 2−111680
visual cortex, cat, contrast gain control 2−99957
visual cortex, cat, intracortical microstimulation of neurons 2−67997
visual cortex, cat, neurons tuned to direction of motion, effect of positional disparity 2−99963
visual cortex, macaque, orientation and direction selectivity of cells 2−67999
visual cortex, macaque, spatial freq. selectivity of cells 2−68000
visual cortex development of embryo after removal of one eye 2−57805
visual detection/discrimination in the long-wavelength pathways 2−99980
visual evoked potentials in albinos, efficacy of pattern stimuli in detecting misrouted optic fibres 2−94028
visual hue shifts following differential postreceptor achromatic adaptation, neural interaction 2−57820
visual hyperacuity and interpolation by the visual pathways 2−111675
visual motion blur restoration, neural mechanism 2−68005
visual receptor potential in early dark adaptation, lateral effects on retina 2−68008
visual system, model of early stages, transformations in peripheral field 2−94027
weakly coupled oscillators, n:m phase locking 2−83558
X-ray induced nervous system tumours in rats 2−68061
C fibre microelectrodes for neuroscience research 2−68212
Ca^{2+}, similarity of unitary currents in 3 different species 2−105685
Cl^- neuron conductance activated by hyperpolarization 2−116902
K^+ channels, Ca^{2+}-activated and light-dependent, selectivity for monovalent cations 2−94011

neutral currents
cellulose nitrate track detectors sensitivity depend. on neutron energy 2−70098
electroweak gauge boson effects in superconductors, P violation, neutral currents 2−59079
horizontal $SU(3)_H$ gauge symmetry and flavor changing neutral currents 2−79812
muo-production of neutrino pairs in nuclear Coulomb field and number of generations 2−101882
neutral weak currents, and processes relations *(Ukrainian)* 2−113463
neutrino-induced reactions, Dirac or Majorana neutrinos? 2−74643
nucleon neutral weak form factors from lepton-nucleon elastic and inclusive processes 2−59150
para-Lorentzian dynamics, conserved-vector and nonconserved-axial weak currents 2−95735

neutral currents continued
parity-violating nuclear force, parameters estimation using single Z-boson factorisation relations 2−79954
Salam-Weinberg theory expt. verification 2−69396
SO(10) grand unified model, prospects for second neutral vector boson at low mass 2−95715
SO(10) grand unified theory, intermediate mass scale through subgroup $SU(3)\times SU(2)\times U(1)\times U(1)$ 2−84823
structure, review 2−53436
structure of neutral currents, review, book contrib. 2−54018
$SU(2)_L\times(2)_R\times U(1)_{b-l}$ electroweak model, low-energy phenomenology and neutral-weak-boson masses 2−69391
$SU(2)\otimes U(1)$ model, dynamical symmetry breaking and radiative correction to weak-isospin relation 2−95714
$SU(3)\times SU(2)\times U(1)\times G$ spontaneously broken supersymmetric theories, neutral current conservation laws 2−59060
SU(5) GUT, Higgs boson mass, neutral scalar current suppression with flavour change *(Russian)* 2−113194
superweak CP violation and right-handed horizontal interactions in Weinberg-Salem theory 2−59073
technicolour theories, flavour changing neutral processes suppression 2−113223
toponium decays, weak tbW coupling meas., neutral current coupling 2−79866
weak boson substruct., weak neutral current mixing angle 2−54047
weak current algebra, composite W bosons and weak interactions universality 2−101683
weak interaction theory, comparison with expts., review 2−79811
ed→ed, d pol., neutral current effects, gauge model test 2−101727
ed→epn, parity nonconservation effects *(Russian)* 2−59160
e^+e^- annihilation, role in studying weak neutral currents 2−89957
e^+e^- exclusive hadronic channels, weak neutral current and axial resonance signals 2−59165
$e^+e^-\rightarrow$hadrons, 12-36.7 GeV CM, total cross section meas. 2−95854
eN scattering, polarised electron, gluon corrections *(Russian)* 2−59158
γ-W^0 mixing in composite weak boson models, confinement in quantum haplodynamics 2−64267
$\nu_\mu(\bar\nu_\mu)e\rightarrow\nu_\mu(\bar\nu\mu)eX$, neutral currents, flavour mixing effect 2−74678
νd, d splitting, cross section calc. using currents of second kind 2−101704
$\nu_\mu d\rightarrow\mu^- pp_s$, momentum transfer distrib., axial vector form factors 2−101703
$\nu_\mu N\rightarrow\mu^- N(\mu^-\Delta)$, exclusive neutrino prod. cross section in quark model 2−69443
$\bar\nu_\mu N\rightarrow\mu^+ N(\mu^+\Delta)$, exclusive neutrino prod. cross section in quark model 2−69443
$\nu_\mu n$ neutral current cross-sections from high energy neutrino interactions in D_2 2−54133
$\nu_\mu p$ neutral current cross-sections from high energy neutrino interactions in D_2 2−54133
Z boson mediation, neutral current processes, observables relationships 2−113206
Ar^{17+}, H-like parity violating effects in $2\ ^2S_{1/2}\rightarrow 1\ ^2S_{1/2}$ transition 2−54007
^3H beta-decay, axial vector test 2−79982

neutrino detection and measurement
Batiss experiment on neutrino oscillations and stability 2−101613
big bang relic neutrinos, detection through energy splittings 2−117835
coherent scattering detector, appl. to obs. of solar and cosmic neutrinos 2−78964
detectors for high-energy neutrino interactions 2−70105
DUMAND, technological advances 2−59611
flash chamber-proportional tube calorimeter, neutrino detector operation 2−70106
flash chambers, Ne-He gas purification system 2−64747
laser radiochemical Ga detector of solar neutrinos 2−78957
proportional tube chambers for neutrino calorimeter, resistive charge division appl. 2−70040
reactor, PIK appl. 2−64575
tagged beams, from dissociation of mesons *(Russian)* 2−84888
Pb-solid Ne sandwich detector, EM calorimeter development 2−90393

neutrino-electron interactions
see also neutrino-electron scattering
inelastic scatt., spin-3/2 neutrinos prod. 2−69441
massless neutrinos and the stellar stopping power via the V-A and Weinberg interactions 2−73836
Salam-Weinberg theory expt. verification 2−69396
weak interactions and dispersion relations in localised axiomatic field theory 2−89918
$\nu_\mu(\bar\nu_\mu)e\rightarrow\nu_\mu(\bar\nu\mu)eX$, neutral currents, flavour mixing effect 2−74678
$\nu_\mu e\rightarrow\nu_\mu(\gamma)$, energy and angle cut depend., hard bremsstrahlung effects 2−95846

neutrino-electron scattering
see also neutrino-electron interactions
Michel parameter analog, test for Majorana neutrinos 2−64316
$\nu_\mu e\rightarrow\nu_\mu e(\gamma)$, energy and angle cut depend., hard bremsstrahlung effects 2−95846

neutrino interactions
see also neutrino-electron interactions; neutrino-neutrino interactions; neutrino-nucleon interactions; neutrino scattering
charge flow tests for quark charges in two quark or diquark jet prod. 2−79860
deep inelastic scatt., gluon distribs., nucleon struct. functions, QCD anal. 2−59140
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
gravitational collapse, neutrino interactions effect, Dirac formalism 2−74010
high energy neutrino interactions, expt. advances 2−64312
left-right mixing limits in weak interactions 2−59099
neutral current, neutrino-induced reactions, Dirac or Majorana neutrinos? 2−74643
reactor, PIK appl. 2−64575
right handed, neutrino mass and double beta decay, formalism 2−59295
right handed, neutrino mass and double beta decay, props. 2−59296
$\nu_e\rightarrow\bar\nu_e$ transition limits from high energy interactions 2−69447
$\nu_\mu d\rightarrow\mu^- X$, high-energy, neutrino flux, total charged current cross-section 2−89960
$\nu_\mu d\rightarrow\mu\ pp_s$, momentum transfer distrib., axial vector form factors 2−101703

neutrino-neutrino interactions
see also neutrino-neutrino scattering
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
$\nu\bar{\nu}\to\gamma\gamma$ with massive neutrinos, cosmological implications 2−64315

neutrino-neutrino scattering
see also neutrino-neutrino interactions
No entries

neutrino-nucleon interactions
see also neutrino-nucleon scattering
deep inelastic scatt., weak current phenomenological strict. 2−79858
deep-inelastic scatt., large-x and higher order corrections 2−54167
Gross-Llewellyn Smith sum rule from neutrino/antineutrino expts. 2−64313
high energy neutrino interactions, expt. advances 2−64312
inelastic neutrino interactions, limit on right handed weak coupling parameters 2−69446
Majoron emission in Gelmini-Roncadelli gauge model 2−54048
nucleon structure functions from νN inclusive scatt., QCD anal. 2−54163
physics programme in IHEP U-70 proton synchrotron, status and outlook 2−113787
quark fragmentation functions, contrib. from higher twist effects 2−64314
single particle inclusive leptoproduction in QCD 2−101658
$\gamma N\to J/\psi X$, inelastic neutrinoproduction of J/ψ in QCD-based model 2−101736
$\nu(\bar{\nu})$, charged-current interactions, strange particle prod. 2−69444
$\nu(\bar{\nu})N\to\mu^-(\mu^+)C\bar{C}X\to\mu^-\mu^-(\mu^+\mu^+)X$, diffractive charm-anticharm prod. model 2−89959
$\nu(\bar{\nu})N\to\mu^-(\mu^+)h^\pm X$, 200 GeV narrow band beam, fragmentation functions anal. 2−89958
$\nu(\bar{\nu})N\to\nu^+\mu^-X$, same-sign dimuons phenomenological study 2−69445
$\nu(\bar{\nu})p$, hadronic system charge props. in quark-parton model, jets 2−79859
$\nu_e(\bar{\nu}_e)N$, limits for oscillation parameters, majoron emission and L violating decays 2−79861
$\nu_\mu(\bar{\nu}_\mu)N\to\mu^+(\mu^-)X$, 20-200 GeV, total cross-section 2−54135
νN, deep inelastic scatt. data, perturbative QCD anal. 2−95777
νN, deep inelastic scatt. structure functions, nonperturbative QCD effects 2−84894
νN, deep inelastic structure functions, direct diquark contrib. 2−101701
νN, deep inelastic structure functions, diquark model 2−101719
νN, nucleon structure functions, comparison with QCD predictions 2−113272
νN, struct. functions, strong non-asymptotically-free theories, QCD test, scaling violation 2−84897
νN, structure functions, higher twist phenomena 2−79857
νN deep inelastic scatt., nucleon gluon distrib., QCD, struct. function scaling violation 2−84887
$\bar{\nu}N\to hX$, quark jets, transverse struct. 2−107656
$\nu n\to\mu^-p\pi^0(\mu^-n\pi^+)$, I=1/2 reson. states in charged-current induced weak one-pion prod. 2−64317
$\nu n\to\mu^-p\pi^0(\mu^-n\pi^+)$, single-pion prod. by weak charged currents 2−69442
$\nu N\to\mu X$, tests for heavy weak bosons and cosmic antimatter 2−100688
$\nu N\to\nu NX$, Higgs boson coupling const. *(Russian)* 2−95817
$\nu N\to\nu X$, radiative corrections from Weinberg-Salam and quark-parton models *(Russian)* 2−113280
$\nu n\to pe^-$, ^{37}Cl detector, solar neutrino time variations, rel. to oscillations 2−74679
$\nu N\to X$, charmed baryon weakly inelastic prod., dual model *(Russian)* 2−95816
$\bar{\nu}N$-hX, quark jets, inclusive spectra, multiplicities 2−107655
$\bar{\nu}_\mu N$, 10-200 GeV, inclusive charged current interactions, struct. functions, scaling, quark-parton anal. 2−101700
$\nu_\mu N\to\mu^-N(\mu^-\Delta)$, exclusive neutrino prod. cross section in quark model 2−69443
$\bar{\nu}_\mu N\to\mu^+N(\mu^+\Delta)$, exclusive neutrino prod. cross section in quark model 2−69443
$\nu_\mu n$ neutral current cross-sections from high energy neutrino interactions in D_2 2−54133
$\nu_\mu n(\nu_\mu p)$, 0.4-10 GeV, charged-current interactions, total cross section meas. 2−54136
νp, cluster model for multiplicity distribs., KNO scaling 2−89982
$\bar{\nu}p\to e^+n\phi^0$, possible alternative for neutrino oscillations in interaction data 2−113263
$\nu p\to hX$, multiplicity, two-fireball model 2−74693
$\nu p\to\mu^-p\pi^+$, I=1/2 reson. states in charged-current induced weak one-pion prod. 2−64317
$\nu p\to\mu^-p\pi^+$, single-pion prod. by weak charged currents 2−69442
$\nu p(\bar{\nu}p)$, comparison with pp and diquark fragmentation 2−107712
$\nu p\to\Sigma_c^{++}\mu^-$, quasi-elastic prod. Σ_c^{++}-Λ_c^+ mass difference 2−54134
$\nu p\to X$, struct. functions, QCD quark-parton model test 2−74652
$\bar{\nu}_e p\to e^+n$, limits on oscill. parameters for electron antineutrinos 2−101702
$\bar{\nu}_\mu p$, hadrons multiplicity distrib. 2−54137
$\nu_\mu p$ neutral current cross-sections from high energy neutrino interactions in D_2 2−54133

neutrino-nucleon scattering
see also neutrino-nucleon interactions
cross section measurement method 2−113793
lepton-nucleon scatt. and neutrino puzzle 2−54129
$\nu_\mu(\bar{\nu}_\mu)p$, elastic scatt. cross section meas. 2−95815
$\nu_\mu(\bar{\nu}_\mu)p$ elastic scatt., cross sections, Weinberg-Salam theory, form factors *(Russian)* 2−113264

neutrino-nucleus reactions
for inelastic neutrino-nucleus scattering, see "neutrino-nucleus scattering"
see also neutrino-nucleon interactions
heavy neutral lepton production, $SU_L(2)\times SU_R(2)\times U_{B-L}(1)$ model 2−113170
^{9}Be production by neutrinos generated in gravit. collapse of stars, rel. to Galaxy ^{9}Be abundance *(Russian)* 2−106686
$^{12}C(\nu_e,e^-)$, $(\bar{\nu}_e,e^+)$, total and differential cross sections, pseudotensor form factor effects 2−69646
$^{12}C(\nu_\mu,\mu^-)$, total and differential cross sections, pseudotensor form factor effects 2−69646
$^2H(\nu,X)$, cross section calc. using currents of second kind 2−101704

neutrino-nucleus scattering
see also neutrino-nucleon scattering
neutral weak currents, and processes relations *(Ukrainian)* 2−113463
$^{12}C(\nu,\nu)$, $(\bar{\nu},\bar{\nu})$, total and differential cross sections, pseudotensor form factor effects 2−69646

neutrino production
leptoproduction of neutrino pairs by nuclear Coulomb field, equiv. photon approx. 2−85029
muo-production of neutrino pairs in nuclear Coulomb field and number of generations 2−101882
muon decay, neutrino mass and mixing effects *(Russian)* 2−95836
neutrino pair prod. by muons in nucleus Coulomb field 2−54131
neutron stars, neutrino emission from hot dense plane parallel atmosphere in hydrostatic equilib. 2−106755
photoproduction on electrons in two dimens. QED approx. 2−59090
reactor, PIK appl. 2−64575
tagged beams, from dissociation of mesons *(Russian)* 2−84888
Universe with non-zero baryon number, asymmetric lepton prod. due to stellar evolution processes 2−74129
$ee\to ee\nu\bar{\nu}$, $e\nu_e$ bremsstrahlung, energy loss rate due to neutrino pair prod. 2−95810
$e^+e^-\to\nu\bar{\nu}\gamma$, cross section calc. 2−74676
$\gamma\gamma$-$\nu\bar{\nu}$, in strong external field, loop diagram 2−101784
pN, 400 GeV, prompt neutrinos prod., results from Fermilab E613 2−107696
pN, 400 GeV/c, in Cu beam-dump, prompt neutrino prod., charmed hadrons 2−84929
$\bar{p}p$, $\nu\bar{\nu}$ pair prod. in Drell-Yan model, fermion generation and big-bang 2−59193

neutrino scattering
see also neutrino-electron scattering; neutrino interactions; neutrino-neutrino scattering; neutrino-nucleon scattering
coherent scattering from macroscopic scatterer, appl. to detect. of solar and cosmic neutrinos 2−78964

neutrinos
see also cosmic ray neutrinos
adiabatic theory rel. to galactic halo formation 2−74097
Batiss experiment on neutrino oscillations and stability 2−101613
big bang relic neutrinos, detection through energy splittings 2−117835
black hole, appl. to elementary particles, species limit number 2−94767
condensation into galaxies, model 2−74076
cosmology, massive neutrinos role in galactic halo and globular cluster form. 2−58512
cosmology, struct. dev. in neutrino Universe 2−106988
cosmology and neutrino physics, review 2−84356
CPT invariance in neutrino oscill. 2−69380
cyclotron radiation from superfluid vortex in neutron stars 2−79135
decay and lepton number spontaneous violation in $SU(2)\times U(1)$ gauge theory 2−54154
decay and UV emission, cosmic background radiation scatt. 2−117810
degenerate quark matter, ν emissivities, mean free paths, possible search in neutron stars 2−89932
Dira and Majorama masses limits 2−59077
E(6) unified theory with harmless axion, massive neutrinos 2−79794
Einstein-Cartan-Weyl system solns., neutrino couplings to gravity 2−63877
Einstein-Dirac-Maxwell fields, exact solns., rel. to massive neutrinos 2−74297
exotic bosons, contrib. to B- and L-violation, proton decay, neutron oscills., ν mass 2−107582
flavour-changing lepton decay and neutrino oscill. relationship 2−79877
galaxy halos, clustering of massive neutrinos in adiabatic galaxy form. scenario 2−68906
Godel Universe, scalar and neutrino fields 2−112623
grand unified models, broke charge-conjugation invariance constraint on baryon asymmetry 2−64257
grand unified theories 2−113195
gravitational instability of Universe origin 2−63731
helicity and induced pseudoscalar coupling from $^{12}C(\mu,\nu_\mu)^{12}B$ 2−101847
helicity from $^{12}C(\mu^-,\nu)^{12}B$, average and longitudinal recoil pol. meas. 2−107849
high energy neutrino interactions, expt. advances 2−64312
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
lattice theory, massless fermions, doubling elimination 2−95638
left-right mixing limits in weak interactions 2−59099
lepton-nucleon scatt. and neutrino puzzle 2−54129
Majorana, test using neutrino-electron scatt. 2−64316
Majorana neutrino masses, rel. to lepton number violation and supernovae 2−68800
Majorana neutrinos role, in muon decay, effective weak Hamiltonian, CP violation 2−74687
mass, derivation from ^3H β-decay atomic effects calc. *(Chinese)* 2−90053
mass, rel. to lepton number nonconservation 2−101590
mass, rel. to unified field theories and big bang cosmology 2−101627
mass, right handed interaction, double beta decay, formalism 2−59295
mass, right handed interaction, double beta decay, props. 2−59296
mass and mixing effects in muon decay *(Russian)* 2−95836
mass and right-handed neutrino abundance, effect on Universe closure 2−117819
mass determ. and mol. structure effect estimation on ^3H β-spectrum 2−79983
mass in SO(10) supersymmetric GUT 2−101622
mass lower limit from galaxy clusters dynamics 2−73833
massive, exptl. searches 2−74681
massive, implications for galaxies and galaxy clusters origin 2−117839
massive, role in cosmology 2−117841
massive neutrino model and universal structure 2−79252
massive neutrinos, cosmological, rel. to ang. fluctuations of temp. of microwave background *(Russian)* 2−63718
massive neutrinos, review 2−74680
massive neutrinos in early universe, maximum density in intergalactic 'pancakes' *(Russian)* 2−95891
massive neutrinos in galactic halo/intergalactic medium, emitted photons ionising gas 2−117773
mixing in $SU(3)_H\times SU(2)_I\times U(1)$ horizontal model, oscillator length 2−64254
neutral current, neutrino-induced reactions, Dirac or Majorana neutrinos? 2−74643
neutrinoless double β-decay, pion double charge exchange contrib. 2−54328
neutron star, neutrino oscillations effecton massive star gravit. collapse to neutron star 2−74007
neutron star matter, degenerate neutrinos transport props. 2−63493
neutron stars, neutrino cooling by percolating quarks 2−58376

neutrinos continued
oscills., exptl. searches 2−74681
perturbative behaviour, Hertz pot. formalism, for Kerr and Robertson-Walker space-times 2−63872
post-main sequence stars, neutrino emission, effect of rot. 2−100904
primeval adiabatic perturbations, on Universe 2−101097
primordial nucleosynthesis, neutrino mass effect 2−79261
propagator, EM corrections in Weinberg theory, deflection in external field 2−59070
pseudo-Dirac neutrinos, neutrino oscillations, neutrinoless double β-decay 2−59084
radiative decay, astrophysical tests and fund. physics implications 2−89130
relic neutrino clustering in early Universe 2−117816
rest mass, cosmological impact 2−117815
rest mass and clustering in early Universe 2−101098
review of neutrino oscills. 2−79788
right handed neutrino abundance, neutrino mass, closure of the Universe 2−58514
SO(10) GUT, mass relations and neutrino oscillations, t mass, B lifetime 2−84819
solar flux estimates from different models 2−58315
solar neutrino flux and initial metal rich supersonically turbulent central core 2−106664
solar neutrino problem, efects of electron distrib. distortion 2−68694
spin-$^1/_2$ particles in the presence of a Heavisidian field, rot. black hole and neutrinos 2−69069
stars electronic stopping power for massive neutrinos, cosmological significance 2−64817
stellar, photo-neutrino energy losses in strong mag. fields 2−58330
stellar interiors, postshock neutrino transport and electron capture in core collapse 2−106669
$SU(2)_L \times (2)_R \times U(1)_{b-l}$ electroweak model, low-energy phenomenology and neutral-weak-boson masses 2−69391
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ gauge theory, neutrino masses, intermediate mass scales and cosmology 2−84825
$SU(2) \times U(1)$ gauge models, permutation symmetries, neutrino masses and mixings 2−69392
sum rules for neutrino oscills. *(Russian)* 2−74637
Sun, obs. of neutrino brightness curve using Cl-Ar neutrino detector *(Russian)* 2−89226
Sun, oscillatory mech. in thermal pulsations, rel. to solar neutrino counting rate 2−112419
supernova cores, physics of hot dense matter rel. to neutrino trapping 2−100966
supernovae neutrino pulse shape in scintillation counters 2−58370
time-averaged neutrino oscill. 2−69395
violently relaxed galactic systems, massive neutrinos 2−106522
$e^+e^- \rightarrow \mu^+\mu^-$, cross section, Majorana neutrino test 2−113260
$\mu \rightarrow e\gamma$, lepton-like Cabibbo angles, neutrino mixing angles and mass ratios *(Chinese)* 2−95835
$\mu^+ \rightarrow e^+\nu_e\bar{\nu}_\mu$ 2−113271
$\mu^+ \rightarrow e^+\nu_e\bar{\nu}\gamma$, radiative correction to decays with massive Dirac neutrinos 2−69461
$\mu^- N \rightarrow e^+ N$, in nuclei, exotic lepton violating reaction mediated by Majorana neutrinos 2−59156
$\nu \rightarrow \gamma\gamma$, detection prospects for primordial neutrinos 2−117837
$\nu_2 \rightarrow \nu_1\gamma$, massive neutrinos radiative decays in $SU(2) \times U(1)$ model 2−54153
ν_e mass from $^{128,130}Te \rightarrow ^{128,130}Xe$ double beta decay 2−113415
ν_e mass upper limit from electron capture β-decay of ^{163}Ho 2−85001
$\nu_e(\bar{\nu}_e)N$, limits for oscillation parameters, majoron emission and L violating decays 2−79861
$\bar{\nu}_e$ oscillation parameters study 2−101702
$\bar{\nu}_e$ reactor spectrum from fission fragment β-spectrum, calc. method *(Russian)* 2−113807
ν_e/e mass ratio, empirical formula 2−69438
ν_e-ν_μ mixing in SO(10) grand unified theory 2−54025
$\nu_H \rightarrow \nu_L\gamma$, radiative life-time in Zee model 2−113186
$\nu_\mu(\bar{\nu}_\mu)e \leftrightarrow \nu_\mu(\bar{\nu}\mu)eX$, neutral currents, flavour mixing effect 2−74678
ν_R, mass in SO(10) model, with symm. breaking hierarchy *(Russian)* 2−64263
νe mass meas. from nuclear beta-decay, exptl. results on weak interaction 2−79775
$\bar{\nu}p \rightarrow e^+n\phi^0$, possible alternative for neutrino oscillations in interaction data 2−113263
$\pi^+ \rightarrow \mu^+\nu_\mu$, ν_μ mass upper limit from π decay in flight 2−89961
$^{235}U(n,f)$, thermal, electron and antineutrino spectrum cal., $\bar{\nu}$ oscillations 2−80041

neutron absorption
graphite, poisoned with absorbers, neutron diffusion calc. 2−85118
laser irrad. cryst., reson. neutron absorpt. by nuclei, theoretical anal. *(Russian)* 2−69664
microscopic theory of neutron optical field, review 2−54700
MR research reactor, fuel pin testing using gaseous absorber 2−113683
B containing burnable poisons 2−80101
EuO-Fe cermet, fabrication for reactor control-arm plates 2−107947
Gd_2O_3 burnable absorbers, LWR neutronics effect 2−80097
Mo, neutron total cross-section, at 0.04-2.20 eV 2−85131

neutron activation analysis
see also radioactive chemical analysis
14 MeV neutron activation anal. in geological materials *(Chinese)* 2−63108
aerosols and waters, analysis by neutron activation and X-ray fluorescence methods 2−93848
ancient coins, Cu and Ag absolute determ. using 14 MeV neutrons 2−116741
element abundance in meteorite, lunar and terrestrial samples, appl. 2−57667
fast neutron analysis of geologic materials 2−57668
gamma-ray spectra, analysis program CAELCO, for nuclide identification, conc. calc. 2−57649
hair, human, heavy metal pollution monitoring, by neutron activation anal. 2−57666
human total body C, meas. by counting neutron inelastic scatt. γ-rays 2−83650
in vivo neutron activation−a method of analysing the living human body 2−88653
MLUD-3 linear for accelerating deuterons for activation anal. neutron source 2−96354

neutron activation analysis continued
nuclear materials, nondestructive anal. using neutrons 2−93854
ores and rocks, M-10 microtron appl. 2−62440
organic halides, in environmental samples, assay by NAA 2−57663
quartz crystal growth in NaCl, KCl solns. and pure water, low temp. IR absorption 2−99316
thermalisation of 14 MeV neutrons and cadmium ratios for ^{128}I and ^{108}Ag 2−113842
toxic trace elements in air (Tehran), determ. by neutron activation anal. 2−78162
wear rates measurement using stable tracers and neutron activation 2−83234
Al, oxide film thickness, ^{14}MeV neutron activation and BET method 2−53736
^{241}Am-Be, moderated neutron source for gamma ray chem. anal. 2−116758
Ca in humans, total body anal., calibration and normalisation 2−73347
Ca, total body, neutron activation anal., effect of slow neutron absorpt. 2−73348
$^{115}In(n,\gamma)^{116}In^m$, neutron activation parameters, cross sections and half-lives 2−95969
Si:As, doping during Pd_2Si form. at low temp. 2−86698
SiO_2:As, neutron activation anal. using coprecipitation method 2−98137

neutron angular distribution
see also neutron spectra
neutron-induced reaction, ang. distrib. calc. based on exciton model 2−69665
$(\alpha, 2n\gamma)$ on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
$^{48}Ca(^{16}O,X)$, 142 MeV, deep inelastic collisions, neutron, proton and alpha emission 2−59401
$^{A}Cd(p,n)$, A=110, 114, 116, ground and excited state analogues study 2−54378
$^{16}O(p,n)^{16}F$, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
$^{208}Pb(\gamma,n)$, 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330

neutron beam effects *see neutron effects*

neutron detection and measurement
see also neutron spectrometers
A150 plastic-equivalent gas, appl. to ionisation chambers for ^{60}Co γ-rays and 14.8 MeV neutrons 2−83657
absorbed neutron-radiation dose, maximum error evaluation 2−59657
acrylic scintillator particle counters, performance testing 2−108243
albedo TLDs, computer assisted evaluation technique 2−113754
calibration room, meas. of neutrons reflected from surfaces 2−64822
cellulose nitrate detector, track spark counting 2−59612
cellulose nitrate recoil track detectors, type Kodak-Pathe LR 115, neutron sensitivity *(Hungarian)* 2−102347
cellulose nitrate track detectors, neutron dose distrib. meas. in water filled phantom 2−70014
cellulose nitrate track detectors sensitivity depend. on neutron energy 2−70098
cosmic ray neutron multiplicity frequencies, differential energy spectrum for 10-4000 MeV, 4-1000 GeV 2−117543
counter arrays optimal positioning in delayed neutron emission probability studies 2−113839
counting-Campbelling neutron meas. system and expt. in test reactor 2−69767
CR-39 carbonate plastic track detector for neutron and α-particle dosimetry 2−64696
CR-39 detector film development for spark counting of recoil proton tracks 2−70097
CR-39 detectors electrochemical etching, parameter optimisation for neutron-induced samples processing 2−70070
CR-39 foil treated by sequential chem. and electrochemical etching, neutron response charact. 2−70096
CR-39 plastic, neutron dosimetry based on chem. etching 2−70012
CR-39 plastic, neutron spectrometry using chem. and electrochemical etching 2−70099
CR-39 plastics, neutron dosimetry studies 2−70011
CR-39 polycarbonate detector, UV radiation influence on nucl. track recording props. 2−96391
CR-39 polymer detectors for reactor and dosimetry appl., neutron response charact. 2−70095
CR-39 polymer track detector for Rem-equivalent personnel neutron dosimeters 2−70009
CR-39 with ^{6}LiF radiation, personnel neutron dosimetry study 2−70013
detector resolution effects for radiography, Monte Carlo calcs. 2−108277
dose depth distrib. and depth dose equivalent for neutrons 2−108138
dosimeter using an organic solid state track detector 2−59551
dosimetry using $^{93}Nb^m$, internal conversion ratios and probabilities of 30.75 keV transition 2−95972
dosimetry with spherical ionisation chambers, basic physical data 2−96321
dosimetry with spherical ionisation chambers, dose conversion factors theory 2−90314
dosimetry with spherical ionisation chambers, tissue-equiv. chamber calcs. 2−117094
drift chambers study for nucleon decay detector 2−70037
etch plastics for personnel neutron dosimetry, monoenergetic neutron response 2−59549
fission couple time response in neutron pulse monitoring 2−64751
fission neutron spectrum meas. by time-of-flight technique, scatt. effect 2−102322
flux density meas. and REM counter calibration for the FMRB 24.5 keV filtered beam 2−113841
flux density meas. methods analysis, using D(d, n) ^{3}He reaction 2−80407
FLYSPEC, neutron spectra measured by NE213 and stilbene spectrometers, unfolding method 2−102318
gas-filled luminescent neutron detector 2−108269
Hornyak-button detector optimisation for fast-neutron detection 2−70048
ionisation-chamber equipment meas., meas. standards errors reduction 2−96392
JET, neutron diagnostic device, remote handling aspects 2−80299
JET, time of flight telescope spectrometer for neutron diagnostics 2−80285
laser neutron generator use in detector calibration for pulsed neutron fluxes 2−64732
LWR pressure vessels, neutron fluence determ., data reduction and anal. 2−69794

neutron detection and measurement continued
multisection 4π detector, for multiplicity meas. 2−64843
neutron beam dosimetry using ionisation chambers *(Czech)* 2−59559
neutron threshold detectors, Rh foil activity determ. 2−113814
neutron-gamma discrimination, dynamic range increase by gain switching 2−90412
nuclear emulsion activation and fast neutron dosimetry 2−70010
nuclear reactor flux meas. with glass track detectors 2−69769
oriented latent nuclear tracks, small angle neutron scatt. 2−59662
personnel albedo neutron dosimeter using track etch detectors, design and performance 2−70015
personnel dosimeter and remmeter testing and calibration, analytic expressions 2−108160
photomultiplier, square tube type S83003E, photocathode response uniformity 2−75112
plastic scintillation counter detection efficiency for 10-40 MeV neutrons 2−108245
plastic scintillator-photomultiplier combinations, heavily shielded, response to ns neutron pulses 2−70062
plastic track detectors, neutron detection efficiency, evaluation using light transmission meas. 2−113819
plastic track detectors, neutron detection efficiency, theoretical model 2−80383
plastic track detectors, neutron detection efficiency, theoretical and exptl. results comparison 2−80384
pocket neutron REM meter 2−64692
polycarbonate foils, electrochemical etched track props. study 2−70066
polycarbonate foils elecrochemically etched with methyl alcohol-KOH soln., low neutron fluences meas. 2−64756
polymer solid state nuclear track detectors in neutron dosimetry 2−59548
position sensitive scintillation detector for thermal neutrons 2−90385
powder-crystal diffr. apparatus efficiency, He slow-neutron counter vertical dimens. effect 2−109635
radiation and thermal tests of thermal neutron detectors 2−113686
radiophotoluminescent glasses, use in dosimetry of ^{252}Cf neutrons and γ-rays *(Russian)* 2−88668
reactor neutron dosimetry, status and problems using radioactivation *(Japanese)* 2−96320
recoil proton monitor efficiency calc. for several neutron energies 2−102350
reproduction of neutron flux density unit by neutron-activation method 2−96406
review of neutron detection and monitoring methods and their problems 2−90316
RF phase-drift compensator for neutron time-of-flight meas. 2−96398
scintillation detectors, threshold determ. with thin ^{252}Cf source 2−102333
self powered flux detectors, dynamic response in CANDU's 2−64593
self-powered flux detector, neutron and γ-ray sensitivities expt. meas. 2−64766
self-powered flux detectors, Monte Carlo simulation 2−64765
self-powered neutron detector with a fissile emitter 2−74862
SHEBA, neutron and γ-ray dose meas. 2−96328
shift register coincidence unit 2−102351
soda glass detector, fission fragment tracks, efficiency calibration and etchant temp. effect 2−96390
solid state nuclear track detector appl. in neutron dosimetry 2−70008
solid state nuclear track recorders response to neutrons, expt. results 2−96383
source location and characterization method 2−85444
space-energy-time distrib. of neutrons from pulsed source in Pb, delay time spectrometer resolution 2−108224
spatial effects in reactivity meas. using inverse soln. of kinetic eqns. 2−113592
superheated drop nucleation method for neutron detection 2−54726
TFTR, epithermal neutron diagnostic, mechanical design 2−80284
TFTR microchannel plate detector for high energy neutrons 2−80399
thermal neutron counter working in the corona discharge region *(Chinese)* 2−59606
thermalisation of 14 MeV neutrons and cadmium ratios for ^{128}I and ^{108}Ag 2−113842
thermocouple neutron detector response in normal and intrinsic config. 2−113816
thermonuclear neutron detectors, efficiency study 2−115051
thin-film dosimetry for neutrons and alpha particles 2−64697
time of flight spectrometer, GNEIS, data acquisition system 2−64741
time-of-flight spectrometry, black and white filter method for background determ. 2−102319
tissue equivalent ionisation chamber for fast neutrons, cavity size rel. to sensitivity 2−100128
tissue-equivalent ionisation chamber for area radiation monitoring at IPNS facility 2−75115
traceability for ionising radiation measurements, conf., Gaithersburg, MD, USA (May 1980) 2−84384
TREAT hodoscope spatial resolution enhancement 2−96210
UKAEA criticality dosimeter, slow neutron sensitivity 2−70021
VVER-440, thermal power meas., correlation-dispersion method 2−64577
water-level meas. tests in reactor vessel using ex-core neutron detectors 2−108099
Z for d+T neutron irrad. 2−94211
Ag activation in nucl. emulsion for fast neutron dosimetry 2−113750
Ag colloids, chem. neutron dosimetry appl. 2−80352
Am/Li 5 Ci neutron source, neutron spectrum 2−102303
^{252}Cf, spontaneous fission prompt neutron emission, meas. methods 2−74782
$^{2}H(d,n)^{3}He$ neutron source using gas target, energy and angle straggling effects 2−64727
^{3}He neutron detector, polyethylene moderated, energy depend. of response 2−108238
^{3}He-propane proportional detector for thermal neutrons 2−113822
In foil activation method, Cd correction factors, in H_2O and D_2O 2−69996
$^{115}In(n,\gamma)^{116}In^{m}$, neutron activation parameters, cross sections and half-lives 2−95969
LiF TLDs, neutron sensitivity *(Hungarian)* 2−102346
Mn-activation detector calibration for intense pulsed energetic neutron sources 2−102355
Nb dosimetry, meas. of neutron fluence above 0.1 MeV 2−90313
^{237}Np dosimeter worn on the body, neutron response 2−64688
Pu assay in nuclear waste packages, modular 4π neutron counting system 2−64471
Pu in storage vaults, movement monitoring and detection 2−74803
neutron detection and measurement continued
Pu solutions, neutron coincidence counting 2−80070
Rh self-powered neutron detectors, reactivity approach to reactor core diagnostics 2−64563
U in spent fuels and waste solids, delayed neutron interrogator control system 2−74855

neutron diffraction
see also neutron diffraction crystallography; neutron diffraction examination of materials
mixed valence system, dynamical susceptibility and neutron scatt. cross-section 2−56516
neutron, interference and diffraction, stochastic electrodynamics interpretation 2−107125

neutron diffraction crystallography
see also crystal atomic structure
bond lengths riding model convection for thermal motion effects 2−96768
booster source efficiency 2−108199
computer programs, Cambridge Crystallography Subroutine Library, review 2−65810
inelastic neutron scatt., 1.5 to 15 eV 2−109636
Laue-to-Bragg transition in extremely asymmetric dynamic neutron diffraction 2−91728
low-resolution neutron diffractometry with a position-sensitive multidetector 2−115103
macromolecular structure refinement with X-ray and neutron diffr. data from single crysts. 2−60840
microvolt and millivolt molecular tunnelling spectroscopy by neutron scattering 2−71292
model fitting to same data set 2−65807
multiple Bragg refl. use in bent single crystal from neutron monochromatisation 2−97860
neutron (111, $\bar{1}\bar{1}\bar{1}$/220) three beam case investig. 2−86520
non-crystalline substances, diffr. studies, book 2−58566
noncentrosymmetric crystal, electron distrib. study by diffr. methods, error estimation 2−103557
perfect crystals, odd symmetry neutron spin interactions 2−91725
perfect crystals, X-ray and neutron diffraction integrated intensities in transmission 2−86502
polydisperse systems, X-ray and neutron scatt., small-angle, proportionality of scatt. vector 2−115101
polymer, solid, separation method of neutron incoherent inelastic scatt. in time of flight method 2−91724
polymeric systems, two-phase, small-angle neutron scattering 2−97942
powder diffraction data anal. 2−60841
powder-crystal diff. apparatus efficiency, He slow-neutron counter vertical dimens. effect 2−109635
quasi-two-dimensional crysts., imperfect, diffuse X-ray and thermal neutron scatt. 2−71287
Rietveld analyses and pattern decomposition studies, suggested guidelines for publication 2−81615
Rietveld method in neutron and X-ray powder diffraction 2−97862
Rietveld refinements, profile shape functions 2−97853
rotating crystal neutron time-of-flight spectrometer for condensed matter study 2−65809
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. 2−91830
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. time depend. correlation functions 2−91831
slow neutron scattering by bond nuclei 2−55812
small-angle scatt. at pulsed neutro source, comparison with steady-state reactor 2−97863
solution scattering studies, information content and retrieval, degrees of freedom and data reduction 2−81625
spin precession of neutrons in nonmagnetic single crystals 2−91727
thermal neutron scatt. technique, neutron spectral modulation 2−103563
time-of-flight diffractometer with one-dimensional position sensitive counter 2−65808
time-of-flight neutron powder spectroscopy, Bragg lineshapes 2−103564
Ag natural and A=107, 109, coherent neutron scatt. length, interferometric meas. 2−71293
^{9}Be, low energy neutron interaction, total and inelastic cross sections 2−92048
Co, coherent scatt. length, neutron interferometric meas. 2−115106
^{65}Cu, low energy neutron interaction, total and inelastic cross sections 2−92048
V, pulsed neutron scatt. in thermal energy range 2−115104

neutron diffraction examination of liquids
see also liquid structure
benzene, liq., inelastic neutron scatt., 1.5 to 15 eV 2−109636
cetylpyridinium chloride soln., small-angle neutron scatt. 2−97863
cetylpyridinium salicylate solns. with rodlike micelles, small angle neutron scatt. 2−71320
egg phosphatidylcholine, single-walled liposomes, neutron small angle scatt. 2−116890
ethane, liquid-vapour coexistence curve *(Russian)* 2−103968
heavy water, structure studied by neutron diffr., press. effect 2−71323
homopolymer melts, monomer correlations, neutron scatt. method 2−71329
IBPBAC, mol. motions in three smectic phases, neutron scatt. 2−81664
ionic detergent solns. with rodlike micelles, small angle neutron scatt. 2−71320
macroions in solns., struct. factor determ., neutron scatt. obs. 2−86538
molecular structure and fluid dynamics, exptl. study methods *(German)* 2−55826
nematic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
NH_4Cl conc. aq. solns., NH_4^+ ion coordination 2−71322
polyacrylamide gel, neutron and quasielastic light scatt., screening length rel. to elastic modulus 2−93820
polymer melts, dynamic coherent struct. factor 2−86539
polystyrene melt, dynamics, real time neutron scatt. expt. 2−109656
polystyrene melt, real time neutron scatt. expt. during stress relax., interpretation 2−109657
smectic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
solution scattering studies, information content and retrieval, degrees of freedom and data reduction 2−81625
water, H_2 pair correl. function meas. 2−103594
water, neutron scatt., dynamic corrections, in free mol. approx. 2−109652

neutron diffraction examination of liquids continued
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
Al, static struct. factor rel. to effective pair pot. 2−60868
Ar, small-angle neutron scatt., van der Waals forces 2−60867
Bi, liq., struct. factor, neutron diffr. study 2−71332
Bi, static struct. factor rel. to effective pair pot. 2−60868
Cl_2, liq. struct., neutron diffr. investig. 2−81650
Cu^{2+} coordination in aqueous soln., neutron diffr. study 2−60862
CuCl, molten, partial struct. factors, neutron diffr. determ. 2−97902
H_2O-D_2O mixtures, neutron diffraction obs. at 25°C 2−109653
^4He, superfluid, momentum distribution and condensate fraction, neutron scatt. determ. 2−98367
K-KCl solution, ionic struct. study 2−103589
Li-Pb, liq. alloy, chem. short-range order, neutron and X-ray diffr. study 2−97906
LiCl aq. solns., second zone existence, incoherent neutron scatt. study 2−60865
$MgCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2−60865
N_2, intermol. electron density distrib., diffr. anal. 2−91750
N_2, liq., inelastic neutron scatt., 1.5 to 15 eV 2−109636
N_2 liquid dynamics, neutron inelastic scatt. 2−81659
NaCl, molten, struct., neutron scatt. amplitudes 2−76269
$NaNO_3$, struct. of NO_3^- ions in conc. aqueous solns. 2−76270
Ni-Te, liquid semiconductors, struct. factors 2−97903
$NiCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2−60865
P, liq. and plastic cryst. phase, neutron diffr. study 2−97900
Pb, static struct. factor rel. to effective pair pot. 2−60868
Rb-RbBr solution, ionic struct. study 2−103589
Tl_2Te, liquid semiconductor, total struct. factor 2−97904
$ZnCl_2$ solutions in D_2O, local order and dynamics, small angle neutron scatt. study 2−55828

neutron diffraction examination of materials
see also neutron diffraction crystallography; neutron diffraction examination of liquids
adsorbed systems, neutron scatt. studies 2−110150
adsorption-induced variation of diffraction lines of a substrate with stacking-faults 2−92361
alkaline earth compounds, $A_3BC_{10}O_{20}$ (A=Sr,Ba; B=Ti,Ge,Sn; C=Al,Ga), cryst. struct. and luminesc., neutron diffr. obs. 2−60935
amorphous mag. solids, polarised neutron scatt. studies 2−104579
amorphous materials, phonon spectra 2−56138
anilinium halides, torsional and librational modes, inelastic neutron scatt., IR and Raman spectra 2−109923
anthracene-d_{10}, phonon dispersion branches at 12K, inelastic neutron scatt. study 2−66149
benzene chromium tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene molybdenum tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene tungsten tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzoic acid, crystal structure determ. by X-ray and neutron diffraction 2−60969
bone, human, stresses and struct., neutron diffr. obs. 2−62660
t-butyl cyanide, high temp. disordered phase, struct. determ. by neutron scatt. method 2−109779
carbon tetrabromide, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
carbon tetrachloride, struct. by neutron diffr. 2−55848
chemisorption of H_2 and D_2 on Raney Ni, incoherent neutron inelastic scatt. 2−104142
chemistry, neutron scatt. theory and appls. *(German)* 2−86522
chloramil, phase diagram under press., order parameter variations 2−109977
cubic solid solns., comp. mag. transitions, mag. struct. symmetries, neutron diffr. study *(Russian)* 2−92867
diacetylene, solid state polymerisation autocatalytic region, neutron diffr. study 2−67751
dimethylacetylene, methyl group rotational motion, neutron scatt. studies 2−97948
disordered alloys, coherent and incoherent neutron scatt. theory 2−65811
EBBA, amorphous and cryst. phases, vibr. density of states 2−56141
ferromagnetic domain struct., parameters, neutron depolarisation and correlation functions 2−116026
glasses, random network struct., neutron amorphography 2−91791
glyoxime, cryst. struct. at 9K, neutron diffr. study 2−96431
graphite, adsorbed methane, rot. diffusion, incoherent quasielastic neutron scatt. study 2−56352
graphite, reactor irradiated, diffuse X-ray and thermal neutron scatt. 2−71287
graphite intercalated with Br, phonons, inelastic neutron scatt. study 2−56105
graphite intercalation compound with K, Rb, Cs, phonon branches, neutron spectra study 2−76618
Heisenberg ferromagnet, polarised neutron scatt. cross section calcs. 2−104584
2,4-hexadiyne, cryst. struct., dynamics, model calcs. 2−81774
intermediate valence compounds, dynamical susceptibility, periodic Anderson model calc. 2−56527
itinerant electron systems with local mag. moments, paramag. state, static props. 2−98837
$LiUO_2AsO_4.4D_2O$, cryst. struct., powder neutron diffr. study 2−65936
magnetic structures, one-magnon scattering of polarised neutrons 2−66779
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
membrane, restricted diffusion, neutron incoherent scatt. study 2−83418
metal acetates, methyl group tunnelling, inelastic neutron scatt., NMR study 2−98978
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
metallic glass, binary, diffuse X-ray and neutron scatt., chem. short range order 2−55858
methane, phase III, rot. tunnelling under pressure 2−110448
methane-d_4, incommensurate monolayers on graphite, melting transition, neutron diffr. lineshape anal. 2−66356
methane-d_4, phase III, rot. tunnelling levels, inelastic neutron scatt. and heat capacity meas. 2−104012

neutron diffraction examination of materials continued
methyl group reorientation in solids, thermally activated 2−65888
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
methylammonium aluminium alum, X-ray and neutron diffraction study 2−60959
molecular crystals, single-particle rotations, book 2−58567
naphthalene, external phonon spectrum, neutron scatt. time of flight spectra study 2−71596
nitromethane-d_0(-d_3), tunnel states and splitting meas. 2−60894
one-dimensional conductors, neutron scatt., struct., lattice dynamical, and mag. props. 2−91726
one-dimensional magnetic systems, neutron scatt., review *(Japanese)* 2−82568
organic compounds, group geometry anal., PMR and neutron diffr. data 2−103571
PAA, amorphous and cryst. phases, vibr. density of states 2−56141
perfluorosulfonate ionomer membranes, phase separation 2−86881
plastic crystals, rotational diffusion, correl. function calcs. for neutron scatt. law 2−115156
polyethylene, conform. influence on wide-angle neutron scatt. patterns, folding models 2−91815
polyethylene, polycrystalline, neutron inelastic scatt., polarisation props. of optical phonons 2−61099
polyethylene crystals, randomly reentrant chain folding, neutron scattering anal. 2−97940
polyethylene-deuteropolyethylene mixed cryst. blends, wide-angle neutron scatt. obs. of folding nature 2−91816
polyethylene-polypropylene blends struct. charact. by small-angle neutron scatt. 2−91822
polymer, solid, separation method of neutron incoherent inelastic scatt. in time of flight method 2−91724
polymeric systems, two-phase, small-angle neutron scattering 2−97942
polymers, adsorbed at solid-soln. interface, config. investig. by small angle neutron scatt. and NMR 2−114140
polyoxymethylene single cryst., phonon dispersion curves and elastic props. 2−92136
rare earth intermetallics, form factor anal., evidence for 5d polarisation and higher order exchange terms 2−72147
ribosomal RNA, struct., X-ray neutron scatt. and electron microscopy study 2−67944
semimagnetic semiconductors, mag. props. 2−98898
silicate float glass, ultracold neutrons, specular refl. coeff. *(Russian)* 2−115105
sodium formate, deform. density maps from neutron and X-ray diffr. studies 2−71427
solid solution, inhomogeneous, scatt. of X-rays, thermal neutrons and electrons *(Russian)* 2−91716
solid solutions, substitutional, order-disorder transitions, review 2−98245
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
spin glasses, exptl. techniques, review 2−66842
squaric acid, low dimensional H bonded material, neutron and Raman spectroscopic studies 2−93199
steel, ferritic-austenitic Cr-Ni-Mn steel, aged, struct. stratification, neutron diffr. study *(Russian)* 2−93541
T7 bacteriophage, struct. study by small-angle neutron scatt. 2−105650
TBBA, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
TCNQ salt, trimethylammonium iodide-TCNQ, neutron diffr. study of phase transitions at 150K, 90K 2−76653
2-thiopyridone, cryst. struct., X-ray and neutron diffr. study 2−71429
thiourea, modulated struct., phase diagrams, commensurate-incommensurate transition, neutron diffr. study 2−66180
thiourea-d_4, elec. field induced commensurate phase, elastic neutron scatt. study 2−104820
thiourea-d_4, ferroelec. incommensurate-commensurate phase transition in DC bias elec. field 2−67005
TMMC-d_{12}, soliton regime, neutron scatt. study 2−56844
transition metal intermetallics, short range order above T_c, paramag. neutron scatt. study 2−72139
s-triazine, high pressure elastic phase transition, neutron diffr. study 2−66210
TTF-TCNQ, neutron scatt. study of commensurability effects under high press. 2−86858
TTF-TCNQ, nonlinear model for hysteresis obs. in neutron scatt. 2−56182
voids superlattice, neutron scattering, theory 2−76240
water-in-oil microemulsions, dynamic processes investig. 2−93836
α-AgI, state of order, diffuse X-ray and neutron scatt. study 2−71425
$Ag_2IF.H_2O$, cryst. struct., XPS, X-ray and neutron diffr. study 2−76389
Al alloy bar, stress gradient meas., neutron diffr. method 2−99618
Al, deformed, small-angle cold neutron scatt. study 2−71548
Al, lattice dynamics, coherent neutron scattering from polycrystals 2−56120
Al, vacancies, elastic diffuse neutron scatt., theory 2−98073
^{36}Ar submonolayers on Grafoil, struct. and phase transitions, neutron diffr. study 2−98488
B_2O_3, vitreous, struct. study 2−109679
$Ba(NO_2)_2.H_2O$, pyroelectric cryst., struct., neutron diffr. study 2−86635
$BiFeO_3$, spiral mag. ordering, neutron diffr. study 2−110569
$Bi_2Se_3(Te_3)$, liquid, radial distrib. anal. 2−91751
C, amorphous, short range atomic struct., comparison of diffr. analyses 2−71354
C_8K, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
C_8K, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
$C_8KD_{2/3}$, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
$C_8KD_{2/3}$, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
$C_8KD_{2/3}$, intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
$C_8KH_{2/3}$, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
$C_8KH_{2/3}$, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
$C_8KH_{2/3}$ intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
COS, cryst. struct. at 90K, neutron powder diffr. study 2−65939
CS_2, solid, intermol. modes, neutron and Raman scatt. studies 2−98211
Ca, lattice dynamics, coherent neutron scattering from polycrystals 2−56120
$CaSO_4.2H_2O$, gypsum, cryst. struct., neutron diffr. refinement 2−65931

neutron diffraction examination of materials continued
$CaSc_2S_4$, cryst. struct. refinement by powder neutron diffr. 2−81732
$Cd_{1-x}Mn_xTe$, 'antiferromag. phase', neutron scatt. studies 2−92868
Ce alloys, antiferromagnetic, reduced moment, crit. behaviour 2−66815
$CeAg_{1-x}In_x$, cryst. field excitations 2−61419
$CeAl_x$ (x=2, 3, $^{11}/_3$) mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
CeB_6, mag. ordering, neutron diffr. study 2−72155
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
$CeIn_3$ mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
$CeInAg_2$, mag. struct., neutron diffr. study 2−82565
$CeMg_3$, mag. struct., neutron diffr. study 2−82565
$CePd_3(CeSn_3)(CeBe_{13})$ mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$CeSn_3$, mixed valent props. 2−56506
Co, lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
Co-Mn, mag. moment distrib. study 2−82566
Co-V, mag. moment distrib., neutron scatt. study 2−72172
$Co_{1-x}B_x$ metallic glass, struct., neutron diffr., Mossbauer and EXAFS study 2−103640
$Co_{1-x}Fe_xTiO_3$, competing mag. orderings, Mossbauer and neutron diffr. study 2−66777
$Co_{0.37}Na_{0.14}Pt_3O_4$, non-stoichiometric, anal. of internal struct. distortions, neutron diffr. study 2−103697
$Co_xNi_{1-x}MnGe$, cryst. and mag. struct. 2−104581
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$Co_xNi_{1-x}MnGe$, mag. phase diagram, antiferromag.-ferromagnetic transition, neutron diffr. study 2−72206
Co_3O_4 powder, adsorbed Ar layer, study by surface differential diffr. meas. 2−82124
Cr-Fe, antiferromagnetic, high press. phase diagram, neutron scatt. study 2−116000
Cr-Mn single crystals, first order incommensurate-commensurate transform. 2−92175
$Cr_{1/3}NbS_2$, helical spin struct. due to antisymmetric exchange interaction 2−72162
CrSi, dil. alloys, first order phase transition from paramag. to commensurate SDW state 2−116003
Cr_3Si, lattice dynamics neutron scatt. study 2−92126
$CsCoBr_3$, propagating domain walls, inelastic neutron scatt. study 2−104599
$Cs_3Cr_2Cl_9$, exchange interactions, neutron scatt. study 2−66803
$CsNiF_3$, ferromag., transverse spin fluctuations, neutron inelastic scatt. study 2−56836
$CsNiFeF_6$, spin glass props. 2−87515
$CsTiF_4$, struct. and mag. studies, antiferromagnetism, X-ray and neutron diffr. study 2−65966
$CsVCl_3$, one-dimens. Heisenberg antiferromag., mag. and neutron scatt. study 2−66774
Cu complex, $CuCl_2$.DMSO, one-dimens. Heisenberg ferromag., spin waves, neutron scatt. study 2−92892
Cu, deformed, small-angle cold neutron scatt. study 2−71548
Cu, fatigue-induced grain boundary cavities, small angle neutron scatt. study 2−93581
Cu-Be system, local vibr. levels, effect of long range stress fields, neutron scatt. study 2−71599
Cu-Mn spin glasses, spin struct., neutron polarisation anal. 2−110593
$Cu_3B_7O_{13}$ CC, improper ferroelectric transition 2−72434
D_2O cubic ice, homogeneous nucleation and crystallisation in LiCl.D_2O electrolytic glass 2−81684
DyAl, mag. moments and anisotropy, neutron diffr. and cryst. field calc. 2−115976
$Dy_3Al_5O_{12}$, mag. struct., neutron diffr. study 2−92869
$ErRh_4B_4$, single cryst., ferromag. and supercond., coexistence 2−56834
Eu_3S_4, crystallographic study of phase transition at 185K 2−97978
$Eu_xSr_{1-x}S$, dil. Heisenberg system, with competing interactions, mag. ordering 2−72212
$Eu_xSr_{1-x}S$, nearly ferromag., spin correls., neutron diffr. study 2−77258
$(Fe,Mn)_3(PO_4)_2$ graftonite-type solid solns., cation distrib. 2−115186
Fe, short range order above T_c, paramag. neutron scatt. study 2−72139
Fe system, mag. props. near conc. ferromagnetic antiferromag. transition, neutron diffr. study *(Russian)* 2−82599
Fe-Al alloys, order-disorder phase transition by neutron diffr. 2−115401
Fe-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-based metallic glasses, mag. excitations, neutron diffr. study 2−115992
Fe-Cr alloy, decomposition in unstable state, neutron small angle scatt. study 2−61145
Fe-Ni-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-Pt Invar alloys, disordered, mag. props. suggesting premartensitic transform. 2−87490
Fe-Si (3 wt.%), cryst. defects, neutron diffr. topography study 2−86519
Fe-Si(5 at.%), high temp. phonons, neutron inelastic scatt. meas. 2−56121
Fe-V, mag. moment distrib., diffuse neutron scatt. study 2−72151
Fe_3A, low-energy Stoner excitations 2−66798
$Fe_{1-x}B_x$, amorphous, spin waves, inelastic neutron scatt. study 2−72179
$Fe_{80}B_{20}$ alloy glass, partial radial distrib. functions calc., X-ray and neutron diffr. 2−91814
$Fe_{81}B_{19}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
Fe_3Ga, magnetic struct., neutron diffr. obs. 2−92871
$(Fe_{1-x}Mn_x)_2P$, mag. props. 2−61697
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe(Mn_xPt_{1-x})_3$, antiferromag. structure, neutron diffr. study *(Russian)* 2−87477
$Fe_{65}Ni_{25}Cr_{10}$, spin glass, magnetic viscosity obs. *(Russian)* 2−72230
Fe_3O_4, critical exponents and mag. eqn. of state, polarised neutron scatt. obs. 2−104628
Fe_3O_4, magnetite, cryst. struct. below Verwey transition temp., neutron diffr. study 2−103699
$FePO_4$, anhydrous, mag. phase transition, mag. susceptibility, Mossbauer spectra and neutron diffr. 2−110579
neutron diffraction examination of materials continued
$FeTiH_x$, local H vibrs. in α, β_1, β_2, and γ phases, inelastic neutron scatt. study 2−103927
$Fe_{40}Zr_{60}$:Kr, amorphous, vibr. densities of states, inelastic neutron scatt. study 2−56142
β-Ga, metastable, neutron inelastic scatt. study of phonons at melting temp. 2−56119
GaS, layered compound, elastic consts. and compressibility 2−86773
Gd, spin reorientation transition, neutron study 2−66771
$GdAlO_3$, antiferromagnet, mag. struct., neutron diffr. study 2−72161
GdD_{2+x}, antiferromagnetic ordering study 2−72160
Ge, amorphous, evaporated, struct. study by neutron diffr. 2−86566
Ge, amorphous, random network struct., neutron amorphography 2−91791
$H_2Ta_2O_6$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
$HTaWO_6$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
$HTaWO_6.H_2O$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
$HTiNbO_5$, localisation of H, cryst. struct., neutron powder diffr. obs. 2−60937
^{3}He adsorbed layers, on Grafoil, melting, neutron scatt. study 2−71763
^{3}He, BCC, neutron scatt. in paramag. phase, self-consistent phonon theory 2−76773
^{3}He, BCC, paramag. phase, exchange models, neutron scatt. test 2−71764
^{4}He, nucleation on graphite, thermodynamic and neutron diffr. studies 2−104110
Hg_2Cl_2, ferroelastic transition, soft modes and central peak neutron scatt. study *(French)* 2−66198
HgSe, lattice dynamics, neutron scatt. study 2−98227
HgTe, lattice dynamics, neutron scatt. study 2−98227
HgTe(Se), lattice dynamics, rigid ion model, neutron scatt. study 2−86809
$HoAl_2$, conduction electron polarisation temp. depend., neutron diffr. study 2−72146
HoB_4, mag. struct. and phase diagram, neutron diffr. study 2−72152
$HoCo_5$, magnetisation reorientation, neutron diffr. and Mossbauer study 2−72148
Ho_2Co_{17}, magnetic anisotropy 2−72190
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
Ho_2Fe_{17}, magnetic anisotropy 2−72190
HoIG, mag. umbrella struct., neutron diffr. study 2−77267
$HoMn_2$, cubic and hexagonal, site magnetisation, neutron diffr. study 2−72145
$HoNi_2$, mag. excitations, inelastic neutron scatt. study 2−72154
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
$In_{32}ON_{17}F_{43}$, cryst. struct. *(French)* 2−65934
KBr_xCl_{1-x}, cryst. solid soln., Bragg neutron diffr. studies 2−97864
$(KBr)_{1-x}(KCN)_x$, orientational freezing freq. depend. 2−71382
$KCl_{0.5}Br_{0.5}$, phonon dispersion, inelastic neutron scatt. study 2−115372
$KClO_4$, cryst. struct., deform. density in complex anions, neutron diffr. study 2−103698
K_2CuF_4, two-dimens. planar ferromag., phase transitions, neutron scatt. study 2−98877
K_2CuF_4, two-dimensional planar ferromag. Kosterlitz-Thouless transition 2−66826
KD_2PO_4, ferroelectric fluctuation, diffuse X-ray and neutron scatt. anal. 2−61837
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$K_2Pt(CN)_4Br_{0.3}.3D_2O$, under press., metal-semiconductor transition 2−76929
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
$K_{0.5}Rb_{0.5}Cl$, phonon dispersion, inelastic neutron scatt. study 2−115372
$(La_xA_{1-x})(Mn_x^{3+}Mn_{1-x}^{4+})O_3$, A=Ca, Ba, Sr, indirect exchange interactions, and Jahn-Teller distortions, neutron diffr. study 2−66800
LaAl, lattice dynamics, inelastic neutron scatt. meas. 2−56117
LaH_x, disorder of site occupation 2−91910
LaH_x, H vibr. modes, pulsed neutron spectroscopy study 2−66154
$LaMnO_3$, conductivity, magnetisation and neutron diffr. in mag. transitions range 2−56850
$LaNi_{4.5}Al_{0.5}D_{4.5}$, neutron diffr. struct. study 2−71422
$LaSn_3$, temp. factors, neutron scatt. study 2−103913
$Li_{1.6}Ag_{0.4}SO_4$, solid electrolyte, cryst. struct. at 565°C 2−91934
$LiD_3(SeO_3)_2$, ferroelec., cryst. struct., neutron diffr. study 2−81733
$Li_{0.5}Fe_{2+0.5x}Mn_{1-x}O_4$, ferrites, struct. and mag. parameters 2−71418
α-$LiIO_3$, elec. field related extinction reduction in diffraction expts. 2−97861
LiI.D_2O ionic conductor, struct. props., neutron scatt. study 2−86640
$LiMoO_2$, insertion cpd., cryst. struct., neutron powder diffr. study 2−98024
$Li_{0.64}Pt_3O_4$, non-stoichiometric, anal. of internal struct. distortions, neutron diffr. study 2−103697
$LiReO_3$ and Li_2ReO_3, cryst. structs., neutron diffr. powder profile anal. 2−81754
$LiTaO_3$, nonstoichiometric, defect struct. model fitting to neutron powder diffr. data 2−65807
$9LiTaO_3$:Ta_2O_5, cryst. struct., powder neutron diffr. study 2−65935
$Lu_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
r-Mn-Cu(Fe), single-domain antiferromagnet, mag. struct. study 2−87478
$Mn_{1.11}Al_{0.89}$ metastable alloy, mag. and struct. props., X-ray and neutron diffr. and DSC meas. 2−72163
MnP, spiral phase, neutron polarisation anal. 2−72149
Mn_3Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study 2−110568
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
$Mn_3Sn(Ge)$, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
$Mn_xZn_{1-x}Te$, disordered, mag-correlations, neutron diffr. study 2−66758
NH_4AlF_4, ordered and disordered struct., neutron diffr. study 2−65913
$(NH_4)Al(SO_4)_2.12H_2O$, X-ray and neutron diffraction study 2−60959
$Na_{0.5}Bi_{0.5}TiO_3$, phase transition props. *(Russian)* 2−61841
$Na_{7.6}Ca_{0.4}Si_6Al_6O_{24}.CO_3.2.2H_2O$, cryst. struct., neutron diffr. refinement 2−103728
$NaCaVO_4$, cryst. struct. refinement by powder neutron diffr. at 300K 2−76374

neutron diffraction examination of materials continued
$NaD_3(SeO_3)_2$ ordered ferroelec. state, paraelect. and ferroelect. phase struct., neutron diffr. 2—99065
NaOH (NaOD), cryst. struct. and struct. transitions, X-ray and neutron diffr. and sp. ht. study 2—97972
Na_xWO_3, structural phase transitions, neutron scatt. study 2—92182
Nb, voids superlattice, neutron scattering, theory 2—76240
Nb:H_2, ultra small angle X-ray and neutron scatt. 2—86521
Nb_3Al, A15 type phase, supercond., at. ordering, and stoichiometry 2—61637
$NbH_{0.99}$, lattic vibr. spectrum, inelastic neutron scatt. study 2—71597
$NbSe_2$-2H, normal state phonon prop. anal. 2—103919
$NdMg_3$, mag. struct., neutron diffr. study 2—82565
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2—104583
Ne physisorbed on Grafoil near monolayer completion, neutron diffr. and vapour press. study 2—98462
Ni, atomic motions, Debye-Waller factors, neutron scatt. studies 2—97948
Ni catalyst, dispersed, low-temp. transfer of H from surface to bulk 2—56252
Ni, deformed, small-angle cold neutron scatt. study 2—71548
Ni, density functional calculation of magnetic susceptibilities 2—66782
Ni, fatigue induced cavities, small-angle neutron scattering 2—105274
Ni with chemisorbed H, surface vibr. spectroscopy 2—87033
Ni:B, solid state track autoradiography study of B distrib. 2—92016
$NiBr_2$, helimagnetic state, inelastic neutron scatt. study of mag. excitations 2—98861
$(Ni_{0.6}Fe_{0.4})_{0.89}V_{0.11}$, substruct. develop. during cold working, neutron diffr. and microscopical obs. 2—83133
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2—103644
OsF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2—66805
P, amorphous and cryst., vibr. spectra, inelastic neutron scatt. meas. 2—56139
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2—115429
$Pb_3GeGa_{10}O_{20}$, cryst. struct. and luminesc., neutron diffr. obs. 2—60935
$Pb_5Ge_3O_{11}$, soft mode, neutron and Raman scatt. study 2—93125
$PbHAsO_4$, ferroelectric, neutron diffr. structural study 2—82798
PbO_2 positive battery plate, cryst. struct., neutron diffr. study 2—91926
$Pb_3(PO_4)_2$-$Pb_3(AsO_4)_2$, stepwise ferroelastic transition, Raman X-ray, neutron and stress birefringence study 2—115402
$PbSc_2S_4$, cryst. struct. refinement by powder neutron diffr. 2—81732
Pd-Fe (1.5 at.%), spin waves, inelastic neutron scatt. study 2—72178
$PdD_{0.74}$, optical phonons, short range order effect 2—56125
Pr, hyperfine interactions, mag. impurities and antiferromag. ordering 2—104582
$PrAg_{1-x}Cu_x$, quadrupole interactions and struct. instabilities, neutron diffr. and magnetisation study 2—71943
$PrNi_2$, Laves phase, cryst. field 2—98598
Pt complexes, ethylene-Pt cpds., inelastic neutron scatt. and spectrosc. obs. 2—108682
Pt-Co(Fe), weakly ferromag. alloys, elastic diffuse neutron scatt. 2—98849
Rb_2CoF_4, two-dimensional Ising system, dynamic crit. neutron scatt. study 2—104643
$RbFeCl_3$, triangular XY-like antiferromag., incommensurate mag. phase transition 2—116004
$Rb(H_{0.45}SD_{0.55})_2PO_4$, cryst. struct., bond lengths, neutron diffr. study 2—91908
RuF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2—66805
Sb_2Te_3, liquid, radial distrib. anal. 2—91751
Se, amorphous, struct. factor and collective excitations, neutron scatt. study 2—98232
$Se_{1-x}Te_x$, amorphous and liq., short range order, thermal neutron scatt. study 2—103623
Si:H amorphous film, growth by silane laser photodissociation, X-ray and IR spectra study 2—116375
SiO_2:B, glass, solid state track autoradiography study of B distrib. 2—92016
SiO_2-$Li_2O(Na_2O)(K_2O)(Rb_2O)$ glasses, conc. fluctuations and ionic cond. props. 2—92261
SmD_{2+x}, antiferromagnetic ordering study 2—72160
$Sm_{0.75}Y_{0.25}S$, intermediate valence cpd., lattice dynamics 2—56111
$SrSc_2S_4$, cryst. struct. refinement by powder neutron diffr. 2—81732
$TaSe_2$-2H, normal state phonon prop. anal. 2—103919
$TaWO_{5.5}$, defect pyrochlores, cryst. struct., neutron diffr. study 2—60950
$TbFe_2$, amorphous, struct. ordering, neutron scatt. study 2—97923
$Tb(Fe_xCo_{1-x})_2$, pseudobinary intermetallic compound, mag. struct., neutron diffraction study *(Russian)* 2—98846
$Tb_2Fe_2Si_5$, mag. order, neutron diffr. study 2—82567
Tb_5Ge_3, mag. ordering and struct., incommensurate phase transition, neutron diffr. study 2—115977
TbH_{2+x}, antiferromagnetic ordering 2—72158
Tc, lattice dynamics, neutron diffr. study and dipole fluctuation model 2—81912
Ti, lattice dynamics, neutron diffr. study and dipole fluctuation model 2—81912
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2—77874
TiN, ultradisperse particles, struct. 2—73017
TiO_2, rutile, determ. of O x parameter by neutron powder methods 2—71398
TlSe, inelastic neutron scattering, selection rules *(Russian)* 2—92119
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2—115978
$TmAl_xGa_{2-x}$, cryst. struct. study 2—55889
TmSe, intermediate valence cpd., lattice dynamics 2—56111
TmSe, mixed valence cpd., high press. neutron and X-ray diffr. studies 2—56509
TmSe mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2—56831
TmSe, mixed valent, hybridisation energy gap, inelastic neutron scatt. obs. 2—61352
TmSe mixed-valence cpd., paramag. neutron spectra meas. 2—104577
TmSe single cryst., inelastic neutron scatt. studies 2—55956
TmSe, trivalent and intermediate valent, spin dynamics, inelastic neutron scatt. meas. 2—72156
$Tm_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2—91923
neutron diffraction examination of materials continued
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2—115978
TmZn, polarised neutron study, mag. prop. 2—72157
α-U, atomic displacements incommensurable CDW 2—103691
UN(S)(Te) single crystal, neutron scatt. from spins and phonons 2—56837
UP-USe system, nature of step-like transition 2—103982
US(Te)(As), rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2—72153
USe, critical exponent β, zero-field magnetisation, neutron scatt. study 2—61698
U_2Te_3, cubic, ferromagnetic struct. study 2—104586
$V:H_2$, ultra small angle X-ray and neutron scatt. 2—86521
$V_6(C,N)_{0.77\ to\ 0.83}$ trigonal ordering, neutron diffr. study 2—86849
V_9N_4 and $V_{32}N_{16}$, N ordering, neutron and electron diffr. obs. 2—91879
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2—86736
YAl, lattice dynamics, inelastic neutron scatt. meas. 2—56117
YFe_2, amorphous, struct. ordering, neutron scatt. study 2—97923
$Y_{0.33}Fe_{0.67}$ amorphous spin glass, spin dynamics, inelastic neutron scatt. study 2—98892
YH_x, disorder of site occupation 2—91910
$Y_xR_{1-x}Pd_3$, (R=Pr,Nd,Tb,Dy,Ho,Er,Tm), cryst. field parameters and cryst. field linewidths 2—87204
$YbCu_2Si_2$, mixed-valence cpd., paramag. neutron spectra meas. 2—104577
$Yb_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2—91923
$Zn_{0.85}Co_{0.15}Fe_2O_4$, mag. struct., neutron diffr. and Mossbauer study 2—66775
Zr fibre texture by time-of-flight neutron diffr. 2—57370
$ZrCr_2D_4$, phase transition, X-ray and neutron diffr. studies 2—103686
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2—115989

neutron diffusion
see also neutron flux; neutron transport theory
asymmetric cell lattices, neutron diffusion and drift coeff. 2—96066
bare prismatic solid, neutron diffusion, integral transform calcs. 2—113580
critical plane slab, transport and diffusion calcs., Galerkin-Petrov method 2—85112
fast critical assembly, reactor model, neutron leakage effect in cell calcs. 2—90192
graphite, poisoned with absorbers, neutron diffusion calc. 2—85118
linear equations solution by implicit non-stationary iteration method 2—80051
microscopic theory of neutron optical field, review 2—54700
parallel neutron diffusion in plane lattices with voids 2—96065
rod type lattice, thermal neutron parallel diffusion length, reactor appl. 2—64450
three-dimensional diffusion neutronics, mixed finite difference formulation 2—80048
time-independent reactors, asymptotic equivalence of neutron diffusion and transport 2—85116

neutron economy *see neutron flux*

neutron effects
see also irradiation induced creep
ACDOS2: A code for neutron-induced activities and dose rates 2—85120
alkaline earth fluorides, thermal neutron irradiated, point defects study 2—65985
alloys, complex, high temp. radiation damage 2—109843
annealing of defects produced by neutron irradiation 2—109840
BCC metals, mech. props., effects of low-temp. neutron irrad. 2—103845
biological and microdosimetric intercomparison of 14 MeV d-T neutrons and 6 MeV cyclotron neutrons 2—111724
biological effects of ^{252}Cf neutrons at low dose rates 2—68042
BWR control rods, post-irrad. examination 2—80094
C NbTi superconductor for magnets, fusion neutron damage 2—80184
cancer risk at reduced irradiation levels 2—94102
carbide fuel elements, Na-bonded, irrad. to goal burnup, behaviour 2—80107
cells, human, in vitro radiosensitivity to 50 MeV irrad. 2—105754
Cu Cu, Cu-Al, deform., effect of low-temp. irrad. 2—93564
deoxyribonuclease I, bovine pancreatic, effect of dilution on thermal neutron induced inactivation 2—105753
dielectric volumetric resistance measurement under impulsive gamma-neutron radiation *(Russian)* 2—95395
diffusion, biased, of radiation point defects to interactive sinks 2—110045
diffusion, enhanced, under irrad., thermodynamic anal. 2—110046
E. coli cells, induction of reversions to prototrophy by neutrons and γ-rays *(Russian)* 2—116990
Ehrlich ascites tumour cells, non-additivity of effects of neutron- and γ-irrad. *(Russian)* 2—105777
FACSIM1LE code for void swelling and creep calc. with vacancy loops 2—67468
FBR fuel pins, transient irrad. expts., in Petten HFR 2—69704
FCC metals, neutron irrad., low temp., saturation phenomena 2—103836
ferroelectric ceramic, TBK-3, coupling and piezoelec. coeffs., hysteresis, neutron irrad. effects 2—82804
fibroblasts, Chinese hamster, prod. of chromosome aberrations by γ-rays and neutrons 2—94112
fluorite, colouring by neutron and gamma radiation 2—103816
fssion reactor constructional alloys and steels, radiation swelling and transformations 2—59467
fusion breeding materials, Li compound, irradiation study 2—69858
fusion material, fabrication of large diameter targets for RTNS-II using electroforming 2—85446
fusion material, irrad., miniaturised disc bend test development 2—88316
fusion material, irrad., time-depend. flow props. from indentation tests 2—88315
fusion material, microhardness test techniques for high energy neutron source expts. 2—88313
fusion material, small scale ductility tests, bulge test applicability 2—88314
fusion material, total He generation cross sections for fast neutrons 2—85231
fusion material irradiation facilities, neutron source characterisation 2—85228
fusion material irradiation test facility, neutron environment calc. for d+Li facilities 2—85229

neutron effects continued
fusion materials, nonmetals, radiation damage parameters, neutron and x-ray interactions 2−74898
fusion neutrons, tumour induction in Rhesus monkeys after total body irrad. 2−57844
fusion reactor first wall materials, He bubble migration, creep rupture behaviour 2−69827
fusion reactor materials, pulsed irradiation, effects on microstruct., swelling, creep 2−54641
fusion reactor materials, radiation damage 2−80211
fusion reactor materials, reduced gradient test module, neutronics anal. 2−85305
glass fibre reinforced epoxy, magnetic coil insulating materials, irradiation studies 2−80181
glass-ceramic, 14 MeV neutron irradiation effects 2−85208
GMZ graphite, thermal cond., neutron irrad. induced changes 2−54510
graphite, neutron irradiation, defect prod. and annealing behaviour 2−80189
graphite, nuclear grade, dimensions, thermal expansion coeffs., neutron effects 2−64473
graphite, reactor irradiated, diffuse X-ray and thermal neutron scatt. 2−71287
gustatory tissue response during photon and neutron radiotherapy, quantitative dose-response relationships 2−117014
hearts of beagles, irrad. with fractionated fast neutrons or photons, pathologic changes 2−68074
HTR fuel irrad. facility, programmable logic controller appl. 2−69761
HTR fuel testing, irrad. device for abnormal thermal conditions 2−69706
Intense Pulsed Neutron Irradiation Source-I, neutron irrad. facilities 2−85236
intestine, small, mouse, comparison of damage caused by X-rays and fission neutrons, rel. to age *(Russian)* 2−88601
INTOR, first wall materials problems 2−69824
INTOR, materials testing expt. design 2−80258
laminated structs., neutron channelling, channelling angle *(Russian)* 2−92068
lung, canine, normal, comparison of neutron RBE values rel. to γ-rays 2−68043
LWR fuel rod calcs., fuel characts. requirement 2−85149
Makrofol KG fission track detector sensitivity to damage by radiations 2−96385
mammary carcinogenesis, fission neutron irrad., genetic component, rat expts. 2−88583
mammary cell survival following irrad. with 14.3 MeV neutrons, rat expts. 2−116983
materials studies, neutron source charact. and radiation damage calc. 2−102309
metals, 14 MeV neutron irrad., strengthening and microstruct. alterations, determ. by microhardness 2−103848
metals, damage initiation and energy spectra formation of primary knocked atoms, nucl. reaction effects 2−76526
metals, defect structs. below surface after neutron or ion irrad., monoenergetic positron study 2−92052
metals, fission neutron damage rates and efficiencies 2−103835
metals, ion and neutron bombarded, primary recoil spectra and subcascade effects meas. 2−76529
MFTF-B, neutron effects, Monte Carlo anal. 2−85277
miniature discs, bending, ductility equipment, in fast neutron environment 2−74830
miniature tensile specimen technology for neutron irrad. materials testing 2−88312
miniaturised fatigue crack growth specimen technology and results for irrad. fusion reactor materials 2−88308
moderators and decouplers, heat deposition meas. in ZING-P' pulsed spallation neutron source 2−102028
MOS devices, fast neutron irrad. effects *(Rumanian)* 2−87402
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
optical fibres, thick core all-glass, radiation sensitivity in reactor radiation fields 2−75692
organic insulators for composite supercond. magnet, radiation resist. in magnet location 2−108118
phenacite, fast neutron irrad., surface damage obs. 2−81830
polychinons, ladder and partly-ladder, paramag. characts., irrad. effects 2−104571
polyethylene, effect of neutron irradiation on glass transition temp. 2−76678
polyethylene moderator, power densities in spallation neutron source environments 2−102027
potassium tris (oxaloto) cobalt (III), neutron irrad., oscill. effects in annealing 2−56042
PWR control rod materials, irrad. behaviour 2−80154
quartz, amorphisation by neutron irrad. positron annihilation study 2−103851
quartz, cryst., struct. phase transitions, neutron-induced, IR spectrosc. obs. 2−82868
quartz, defects created by γ-ray, electron, and neutron irrad., thermal phonon transport study 2−56273
quartz, neutron irrad., thermal props. 50 mK to 4K 2−66248
quartz radiation expansion, irradiation temp. effect 2−103852
radiation damage phenomena, cascade diffusion theory as general method for modelling 2−103841
radiobiological and phys. props. of neutrons from a 4 MV Van de Graaff generator, rel. to X-rays 2−88582
refractory oxides, plasma deposited, elec. cond. under reactor irrad. 2−110344
semiconductor counters, radiation damage, review 2−80390
semiconductors, neutron irrad., deep level transient spectroscopy 2−115695
semiconductors, radiation stimulated impurity diffusion 2−64730
simulation of neutron-induced mechanical property changes by light-ion bombardment 2−103864
solid-state lasers, emissive props., neutron beam effects 2−102805
solids, conf., Argonne, USA (Nov. 1981) 2−101119
spent fuel storage racks, neutron shielding materials, irrad. effects 2−80116
spermatogenetic colonies, growth in mouse testis after fission neutron irrad. 2−88581
spinal cord, residual injury after treatment with X-rays or neutrons 2−105783
sputtering, review 2−105008

neutron effects continued
steel, austenitic, Laves phase scaly precipitation of type 0Kh16N15M3B following neutron irrad. 2−54509
steel, austenitic, stainless, annealing twins absence during radiation-induced recrystn. 2−105187
steel, austenitic stainless, 316, cold worked, 20%, tensile props. correl. 2−72714
steel, austenitic stainless, 316, cold worked, Ti modified, tensile props., irrad. in high flux isotope reactor 2−72764
steel, austenitic stainless, 316, degradation of props. during irrad., preirrad. microstruct. development 2−69865
steel, austenitic stainless, creep fracture model after neutron irrad. and He injection 2−88173
steel, austenitic stainless, fatigue crack propagation, influence of neutron irrad. 2−111272
steel, austenitic stainless, fuel pin cladding, neutron irradiated, energy dispersive X-ray spectrometry, STEM anal. 2−69709
steel, austenitic stainless, irradiated in EBR-II and HFIR, swelling and microstruct./microchem. evolution 2−108110
steel, austenitic stainless, Nb-stabilised, neutron irradiated, void-swelling and precipitation 2−105154
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, neutron irrad., microstruct. 2−108112
steel, austenitic stainless, simultaneous ion bombardment, neutron irrad. and stress/temp. cycling 2−108113
steel, austenitic stainless, surface blistering by neutron irrad. 2−54659
steel, austenitic stainless, swelling, effect of solid transmutation products 2−108111
steel, austenitic stainless 316, fatigue crack propag. in vacuum and air 2−72803
steel, austenitic stainless 316, radially solidified, B doped, pre-irrad. spatial distrib. and stability of boride particles 2−85211
steel, austenitic stainless 316, radiation induced evolution, neutron spectra effects 2−109845
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, austenitic stainless 316, yield strength changes during fission or fusion irrad., microstruct. origins 2−71507
steel, commercial, high fluence neutron irrad., swelling behaviour 2−109842
steel, Cr-Mo-Mb-V, used in vapour generators for fast neutron reactors 2−77826
steel, ferritic, irrad., fracture toughness testing using electropot. technique, miniature specimen prep. 2−88310
steel, ferritic and austenitic, LMFBR materials, neutron irrad. effects 2−107950
steel, ferritic stainless, fracture toughness rel. to first wall and blanket appl. in fusion reactor 2−72804
steel, ferritic struct., point defect production and behaviour in fusion reactor 2−69830
steel, irradiation expts. in Petten HFR 2−69703
steel, martensitic, ferritic, Cr-Mo-V-W, low temp. irrad. with (n,α)He prod., effect on tensile props. 2−71508
steel, reactor pressure vessel, neutron irrad. embrittlement 2−102051
steel, reactor pressure vessel, radiation damage, evaluation by elastic-plastic fracture mechanics 2−57486
steel, stainless, austenitic, precip. and cavity form. during irrad. 2−86735
steel, stainless, Cr-Mo-Ni, irrad., time-temp. depend. of long-term strength 2−99633
steel, stainless, martensitic, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
steel, stainless, neutron irrad. at 55°C, effect on mech. props. 2−69866
steel, stainless, Type 316, fusion radiation damage simulation expt., He-to-DPA ratio calcs. 2−85230
steel, stainless, Type 316, in-reactor fatigue expt., dynamic irrad. effect on crack propag. 2−88309
steel, stainless, Type 316 irrad., miniature tensile specimen testing 2−88312
steel, stainless, type-348, neutron irradiated, microstruct. and rel. to creep and hardening 2−105231
steel, stainless type 316, neutron-induced He implantation in fusion the coolant pipes 2−69863
steels, austenitic stainless types 316, 347, high flux reactor irrad., microstruct., TEM study 2−80118
steels, Cr-Mo-V-Nb, with (n,α) He, yield strength, tensile strength, neutron hardening 2−80122
steels, ferritic stainless, fast neutron irrad., microstruct. obs. 2−108108
steels, ferritic stainless, improvements of irradiation embrittlement 2−67506
stress-free, irradiation technology, at Petten HFR 2−69705
superconducting magnet materials, low temp. irradiation effect 2−80182
superconductor, A15 type, for fusion reactor magnets, ion and neutron damage studies 2−110549
SYNROC, accelerated irrad. testing using fast neutrons 2−113621
TCNQ salt, N-n-propylquinolinium$(TCNQ)_2$ powders, pure and irrad., IR spectra 2−93189
TCNQ salt, Qn$(TCNQ)_2$, neutron irrad., ESR linewidth anisotropy 2−72332
thermocouples, effects of fusion neutrons.2−85240
Tokamak, first wall damage in Cat-D and D-T types 2−109605
UC-PuC fuel pins, neutron irrad., swelling, microstruct., fission gas release 2−80108
Zircaloy, irrad., microstruct. and dimens. changes, irrad. growth theory 2−109848
Zircaloy, irrad., rapid stress corrosion crack growth 2−93676
Zircaloy-2, diffusion of T, effect of low irrad. damage, O conc., δ-hydride form. 2−82025
Zircaloy-2, neutron irrad., evidence of basal or near basal slip 2−86675
AgCl(Br), neutron irrad., Frenkel defects, struct., and annealing, NMR study 2−91952
Ag_2O internal friction, neutron irrad. effect 2−81889
Al, fast neutron irrad., interstitial clustering in cascades, diffuse X-ray scatt. 2−103833
Al, fast neutron irrad., positron annihilation 2−87894
Al, fusion-neutron irrad. damage rates 2−103828
Al, neutron irrad., shallow positron traps 2−82295
Al, resistivity damage rate under neutron irrad. at 4.6K, 2−103827
Al-Si low-activation alloys, fusion reactor suitability 2−64649
Al-V low-activation alloys, fusion reactor suitability 2−64649

neutron effects continued
Al_2O_3, ceramic neutron irrad. damage 2−115301
α-Al_2O_3, corundum, neutron irrad. damage, review 2−115300
Al_2O_3-B_4C burnable poison, gas release, swelling, high fluence effects 2−80099
$Al_2SiO_4(F,OH)_2$, topaz, IR obs. of irrad. crysts., hardness changes 2−61040
B_4C, irradiated, crack propag. induced by swelling and thermal gradients 2−77912
BN, cryst. phases containing ^{10}B, radiation damage by (n,α) reactions 2−115306
Be, neutrons moving through matter, phonon analogue of Cherenkov radiation *(Russian)* 2−115322
C materials, restortion of struct. and props. during thermal annealing 2−86733
C, neutron irradiated material, thermal and elec. cond. restoration during annealing *(Russian)* 2−66303
CaF_2-$PrF_3(NdF_3)(SmF_3)$, radiation induced F^- interstitials, TDPAC study 2−98163
CaO:Mg, neutron or electron irrad., circular polarised luminesc. from F- and F_A-centres 2−110915
CdS, thermal neutron irrad., optical anisotropy of red luminesc. centres 2−93268
Co, resistivity damage rate under neutron irrad. at 4.6K, 2−103827
Cu and Cu-Ge, low dose fission neutron irrad. damage 2−103829
Cu, Cu-Mn(Al)(Ni), neutron irrad., 14 MeV, damage development and hardening 2−109841
Cu, fusion-neutron irrad. damage rates 2−103828
Cu, neutron and electron irradiations, initial damage rates study of internal friction 2−92046
Cu, neutron irrad., 0.1-24 MeV, free interstitial prod. cross sections 2−103834
Cu, neutron irrad., long-time, elevated temps., damage-rate meas. 2−103832
Cu, neutron irrad., yielding, surface effect 2−103842
Cu, Ni partial diffusion coeff. after ion irrad., fusion neutron effects simulation 2−86757
Cu, radiation hardness, influence of neutron irrad. on yields stress 2−103846
Cu, reactor-irrad., defects and transmutations 2−102265
Cu stabiliser for composite supercond. magnet, radiation resist. in magnet location 2−108118
Cu stabiliser in supercond. magnet, radiation damage, review 2−80183
Cu, superconducting magnet stabiliser, fusion neutron damage 2−80184
Cu, ultrasonic irrad., effect of neutron irrad. on mechanical props. *(Russian)* 2−76512
CuAu, fast neutron irradiated, defect production, resist. meas. *(French)* 2−76510
Cu_3Au, displacement cascade damage, produced by fusion-neutron irrad. 2−85224
Cu_3Au, fast neutron irradiated, defect production, resist. meas. *(French)* 2−76510
Cu_3Au, fusion neutron disordering 2−85219
Cu_3Au, ordered alloys, fundamentals mechanisms of neutron damage 2−103830
$CuInTe_2$, neutron irrad., elec. props. and defect levels 2−71982
$(Fe,Ni)_3V$ long range ordered alloy, resistance to neutron and ion irrad. 2−85217
Fe, low dose fission neutron irrad. damage 2−103829
Fe, neutron irrad., TEM study 2−103838
α-Fe, neutron irrad. damage, low dose, TEM study 2−102050
Fe, resistivity damage rate under neutron irrad. at 4.6K, 2−103827
Fe-Al (40 at.%), ordered, recovery after 20K neutron or electron irrad. 2−56043
Fe-Cr (0-15 wt.%), mech. props. changes by fast neutron irradiation 2−67504
Fe-Cr-Ni alloys, neutron irradiated, defect recovery 2−66074
Fe-Cr-Ni alloys, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
$Fe_{40}Ni_{40}B_{20}$, amorphous, in-core, reactor irradiated, props. 2−102047
$Fe_{40}Ni_{40}B_{20}$, amorphous, neutron irrad. and annealed density changes 2−109850
$Fe_{47}Ni_{35}B_{18}Si_{10}$ amorphous alloy, ferromag. resonance, neutron effects 2−87597
Ge:As,Ga, heavily doped by neutron doping, fundamental optical absorpt. edge profile 2−93145
Ge:Au, hopping cond. after γ-ray neutron, and electron irrad. 2−115758
n-Ge:Sb, compensated by fast neutron irrad., activated elec. cond. 2−115762
H, liquid, moderator, power densities in spallation neutron source environments 2−102027
^4He, superfluid, neutron-roton scattering *(Russian)* 2−98372
Hf, neutron irrad., dimens. stability, strength, hardness 2−80155
InP, (n, γ)-induced point defects, NMR study 2−98980
InSb, (n, γ)-induced point defects, NMR study 2−98980
InSb, neutron irrad., carrier density and mobility meas., disordered regions scatt. effects 2−61466
Li compounds, cryst. phases containing ^6Li, radiation damage by (n,α) reactions 2−115306
LiF and ^6LiF TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
LiF, neutron irrad., excess sp. ht. and thermal cond. 2−61160
Li_2O, neutron and γ-irrad., defect production, optical absorpt. study 2−86737
Li_2O powder, neutron irrad., T release study 2−76509
$MgAl_2O_4$, ceramic, neutron irrad. damage 2−115301
$MgAl_2O_4$, fission neutron irradiation, structural props. study 2−80187
MgF_2-like crystals, colouring by neutron and gamma radiation 2−103816
MgO, ceramic, neutron irrad. damage 2−115301
MgO, fission neutron irradiation, structural props. study 2−80187
MgO, neutron and γ-ray effects on dissolution and corrosion 2−76688
MgO:Fe(Mn), colour centres induced by neutron irrad. 2−98081
Mo alloy TZM, void swelling after high fluence neutron irrad. 2−85213
Mo dil. alloys, fusion-neutron irrad. damage rates 2−103828
Mo, low dose fission neutron irrad. damage 2−103829
Mo, microcrack behaviour in neutron irrad. single crystals 2−54508
Mo, neutron irrad., anneal hardening, influence of purity, cold work and alloying elements 2−103843
Mo, neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843
Mo, neutron irrad., void coarsening during annealing 2−86734
neutron effects continued
Mo, yield point, neutron irrad. and impurites effects, thermal activation anal. *(Russian)* 2−115333
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Na_2O-CaO-SiO_2 glass, irrad., failure, micromechanical model *(Russian)* 2−77947
Nb and dil. alloys, fusion-neutron irrad. damage rates 2−103828
Nb, hardening stages, irrad. with 14 MeV neutrons and 16 MeV protons 2−93521
Nb, neutron irrad. induced defects, detrapping of N and O atoms during post-irrad. annealing 2−103839
Nb_3Ge superconductor, neutron radiation damage 2−80185
$Nb_3Pt(Al)$, neutron irrad., normal-state resistivity anal. 2−56550
Nb_3Sn, neutron damage, changes in critical props. and damage-energy anal. 2−80186
Ni and Ni-C solid solutions, microhardness, effect of neutron irrad. 2−103847
Ni, resistivity damage rate under neutron irrad. at 4.6K, 2−103827
Ni superalloy, γ'-strengthened, particle misfit effect on void form. under electron and neutron irrad. 2−109838
Ni_2Cr, laser damages, comparison with tensile deform. and neutron irradiation effects 2−66047
Ni_3Mn, ordered alloys, fundamentals mechanisms of neutron damage 2−103830
Pb, irrad., time-depend. flow props. from indentation tests 2−88315
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Pt alloys, dilute, neutron irradiated, influence of impurities and radiation doping on defect production 2−76511
Pt alloys, thermal and fast neutron irradiated, interstitial-impurity reactions during stage I 2−61041
Pt, neutron irrad., stage I recovery, effect of impurity atom size 2−103837
Pt, thermal and fast neutron irrad., Stage II recovery 2−103831
Pt-Cu(Au), thermal and fast neutron irrad., Stage II recovery 2−103831
Si, average neutron displacement kerma factor at 1 MeV 2−86732
Si, dislocation free *(Russian)* 2−92045
Si, epitaxial, neutron irrad., A and E centre study 2−103756
Si, ion and neutron irrad., radiation damage, thermal and laser annealing, electron microscopy study 2−71512
Si, irrad., diffuse X-ray scatt. obs. of defects 2−109849
Si, irrad., EPR obs., review 2−110638
Si, neutron and electron irrad., divacancy charge, IR study 2−76431
Si, neutron bombardment doping, reactor design, theory 2−86697
Si, neutron doping in channel U-graphite reactor 2−86739
Si, neutron irrad., deep defect levels with continuous energy spectrum, electron capture coeffs., isothermal capacitance relax. study 2−61405
Si, neutron irrad., dislocation loops, X-ray diffuse scatt. study 2−71458
Si, neutron irrad., electronic and vibr. spectra of defects 2−115299
n-Si, neutron irrad., photoexcitation props. of IR active defects 2−115694
Si, neutron irrad., radiation defects due to Si transmutation into P, elec. cond. study 2−115308
Si, neutron irrad., vacancies, mag. susceptibility study 2−115309
Si, neutron transmutation doping, book contrib. 2−71484
Si, neutron transmutation doping, conf., Copenhagen, Denmark (Aug. 1980) 2−74166
Si, neutron transmutation doped, floating zone grown in H_2 and Ar, annealing behaviour *(Chinese)* 2−109820
Si, self-interstitials, transform. under electronic and thermal stimulation 2−103752
Si, semiconductor materials and devices, processing by neutron irrad. 2−115305
Si, single crysts., fast neutron irrad., gradual damage 2−115303
Si:Al, neutron irrad., IR absorption by radiation defects 2−116217
Si:C, O, reactor neutron irrad. effect on C impurities 2−109839
Si:Ga, float zone cryst., neutron irrad., X-centre formation, expt. study 2−98162
Si:H_2, neutron irrad., defect states from IR absort. *(Chinese)* 2−110279
Si:Li, neutron transmutation doped, heat treatment effects 2−115304
Si:O, neutron irrad., defect obs. after high temp. treatment 2−76427
Si:P, neutron transmutation doping, radiation defects and annealing, review 2−71513
Si:P, neutron transmutation doping, radiation defects, electrical activity, annealing 2−86738
Si:P, O, electron and neutron irrad., point defects and colour centres, DLTS study 2−103754
SiC ceramics, neutron irrad. and proof tested, flexural strength 2−115307
SiC, polycryst., containing excess Si, neutron irradiated, microstruct. study 2−71514
SiC, sintered and reaction-bonded, radiation response, B isotope effects 2−80191
SiC:B 2−115302
$Si_{1-x}Ge_x$, neutron doped, compensation, composition depend. 2−76477
Si_3N_4, α- and β-phases, struct. changes under fast neutron irrad., neutron diffr. study *(French)* 2−103850
SiO_2, neutron irradiation effects 2−85209
SiO_2-based glass ceramics, neutron irradiation effects 2−85209
TaS_3, irradiation induced defect pinning of CDW, electron diffr. study 2−66064
TaS_2(1T), irradiation induced defect pinning of CDW, electron diffr. study 2−66064
Ti alloys, tensile props. after neutron irrad. 2−72767
Ti, neutron irrad., strength changes 2−71510
Ti, neutron scatt., 6-8 m/s, total cross-section meas. 2−86761
Ti, neutron-irradiated, H absorption and desorption rate constants 2−76817
Ti-Al(Al-V)(Mo-Zr), fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
UC-PuC fuel pins, He-bonded, irrad. performance in EBR-II 2−80103
UC-PuC mixed fuel, He-bonded, irrad. to goal burnup, behaviour in EBR-II 2−80104
U_2C_3, neutron irrad., mag. susceptibility, Neel temp., lattice consts. 2−66073
UN, fission-damaged, phys. and mech. props. 2−113620
UO_2, densification, fission-induced 2−76508
V dil. alloys, fusion-neutron irrad. damage rates 2−103828
V, ion implanted, mech. props. study after neutron irrad. 2−71511
V, neutron irrad., preimplantation of He effect on microstruct. 2−85215
V, neutron irrad., strength changes 2−71510

neutron effects continued
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
V-Cr-Ti (1,0.1 wt.%), neutron irrad., preimplantation of He effect on microstruct. 2−85215
V-Nb(Al), dil. alloys, radiation-induced defects, interaction with O 2−103840
V-Ti, ion implanted, mech. props. study after neutron irrad. 2−71511
V-Ti (20 wt.%), He injected and neutron irrad., tensile props. and microstruct. 2−71509
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
V_3Si, neutron irrad., normal-state resistivity anal. 2−56550
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2−86736
W, fusion-neutron irrad. damage rates 2−103828
W, neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843

neutron flux
BWR, flow pattern identification by noise techniques 2−96140
BWR, local void fraction, RMS neutron noise relation in bubbly flow region 2−96189
BWR, neutronic and process signals, cause and effect anal. 2−96154
BWR, noise anal., characteristics and time history 2−96186
BWR, second transit time, expt. evidence 2−96188
BWR, stability estimation using multivariable autoregressive model 2−96192
BWR, stability monitoring using noise anal. 2−96187
BWR incore power feedback effects by radial coherence meas. 2−96191
BWR noise, systems with feedback, coherence anal. 2−96149
BWR plant diagnosis system, operating experience 2−96190
CANDU, dynamic flux synthesis with discontinuous trial functions 2−64459
correlated selection method of neutron flux estimation 2−101962
Coupled Fast Reactivity Measurement Facility, central flux spectrum, sensitivity and error anal. 2−54541
fast reactor criticality perturbations, group macroconstants derivatives 2−101963
fast reactor temperature noise, RMS anal. in fuel assembly with local blockage 2−96157
FFTF, nuclear emulsion neutron spectrometry 2−102144
FFTF, reaction rates and neutron flux spectra 2−102149
flux density meas. methods analysis, using D(d, n) ^{3}He reaction 2−80407
fusion material irradiation facilities, neutron source characterisation 2−85228
fusion material irradiation test facility, neutron environment calc. for d+Li facilities 2−85229
high order method in flux mapping 2−64463
hybrid reactors, blankets sustained by exogeneous neutrons, flux spectrum extremisation criteria 2−113746
IBR-30 reactor, neutron beam spectrum and radiation dose, meas. means 2−54673
JOYO, reactor noise anal. 2−96171
Karlsruhe subassembly monitoring system, functions and struct. 2−96170
large symmetric cores, buckling method extension, neutron transport eqn., flux 2−113584
LMFBR, fuel element malfunction, temperature noise, pattern recognition 2−96152
LMFBR, Na boiling detection by reactor noise anal. 2−96158
LMFBR, Na vapour bubble collapse, acoustic emission noise, detection and interpretation 2−96159
LMFBR, noise anal. for core surveillance 2−96168
LMFBR, sodium boiling noise detection, IAEA-IWGFR specialists meeting report 2−96167
LMFBR diagnostic techniques, signal processing techniques 2−96169
loose part detection using acoustic emission detectors in NSSS 2−96179
LWR, German, noise surveillance systems 2−96178
LWR, neutron flux density calc., in BR3 reactor 2−107926
LWR pressure vessel mockup, expt. data and calc. anal. 2−102142
monte Carlo position-dependent angular source biasing 2−54639
Monticello cold local critical measurements 2−102155
multivariate signal analysis for process noise source identification 2−96150
neutron noise, conf., Tokyo, Japan (Oct. 1981) 2−94885
neutron noise, propagating disturbances theory 2−96155
neutron noise measurements on Bugey 2 PWR 2−96182
neutron noise theory for fast reactors 2−96172
neutronic response to two phase flow 2−96141
noise data acquisition and source modelling for power reactors 2−96177
noise diagnostic methods developed on research reactors 2−96156
noise effects on error in physics expts. 2−54547
noise sources and space-depend. reactor transfer functions 2−96161
nuclear reactor, optimal poewr factor control 2−113707
nuclear reactor flux meas. with glass track detectors 2−69769
on-line diagnosis algorithm based on noise analysis 2−96153
PHWR, noise anal. appl. including primary coolant flow rate 2−96144
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
PWR, boiling detection and monitoring by incore neutron noise analysis 2−96184
PWR, core internal vibr., neutron noise monitoring 2−96173
PWR, core vibr. surveillance by neutron flux monitoring 2−96175
PWR, gadolinia loaded assemblies, automated diffusion theory parameterisation 2−102150
PWR, heterogeneous flux shapes from nodal calcs. 2−101979
PWR, internal struct. vibr., monitoring and diagnosis by neutron onise 2−96176
PWR, low freq. press. oscillations 2−96183
PWR core monitoring by incore noise analysis 2−96181
PWR diagnosis shock and vibr. anal. metal parts impact 2−96180
PWR noise experiments, anal. and instrumentation 2−96174
PWR primary flow meas. by correlation anal. of ^{16}N fluctuations 2−96143
radiation and thermal tests of thermal neutron detectors 2−113686
random-parametric reactor model with direct feedback and non-white noise 2−96165
RBMK homogeneous lattices, spectral indices meas. 2−54545
reactor noise, differential and whitened correlation−simple new methods for transit time measurements 2−96139
reactor noise, partial and multiple coherence 2−96148

neutron flux continued
reactor noise analysis, models and information contraction 2−96164
reactor noise analysis, safety appl. *(Japanese)* 2−96222
reactor noise analysis by dynamic data system methodology 2−96151
reactor noise comparative anal. 2−96160
reactor noise patterns, reactivity feedback and spatial higher harmonics effects 2−96162
self powered flux detectors, dynamic response in CANDU's 2−64593
simultaneous solution for fluxes at two points in the two-group diffusion equation 2−64465
spallation breeders, blankets sustained by exogeneous neutrons, flux spectrum extremisation criteria 2−113746
spatial effects in reactivity meas. using inverse soln. of kinetic eqns. 2−113592
stochastic reactor kinetic eqn. 2−96163
swimming pool research reactor, neutron noise anal., reactivity and boiling appl. 2−96145
symmetry considerations in reactor calcs. 2−80055
temperature fluctuations during reactor transients, safety aspects 2−96166
temperature noise measurements, survey of methods, results and models 2−96146
thermalisation of 14 MeV neutrons and cadmium ratios for ^{128}I and ^{108}Ag 2−113842
time-dependent behaviour of the neutron field in two interacting cylindrical disks 2−64449
two-phase flow using neutron noise as reactor instrument 2−96142
WWER-440, automated vibration monitoring system 2−96185
yield from high energy protons 2−54706
ZEBRA fuel, neutron outputs, meas. and calc. 2−69746

neutron flux density *see neutron flux*

neutron interactions *see kaon-nucleon interactions; lepton-nucleon interactions; neutron-nucleus reactions; nucleon-nucleon interactions; photon-nucleon interactions; pion-nucleon interactions*

neutron moderation
see also neutron transport theory
CANDU moderator pipe leak repair by exploding wire shock wave 2−90284
fission reactor core with TBC-2M fuel assemblies, neutron distrib. *(Russian)* 2−80149
hollow fuel element, moderator effect, neutron spectrum depend. 2−54467
nonsteady retardation of neutrons in a medium with a large cavity 2−101956
PWR, moderator temp. coeff. reduction using Gd_2O_3-lined rods 2−54489
transport approximation in the theory of neutron retardation 2−113582
D-T neutrons, graphite moderated, spectra 2−108129

neutron-nucleus reactions
for inelastic neutron-nucleus scattering, see "neutron-nucleus scattering"
see also neutron radiative capture; nucleon-nucleon interactions
10 to 200 keV target nucleus spin orientation effects *(Russian)* 2−54460
^{139}La(n,x), laser beam effect *(Russian)* 2−101896
actinide nuclei, fission cross-sections, double humped barrier model anal. 2−64391
angular distribution of gamma quanta in the reaction ^{209}Bi (n,n'γ) 2−69652
data with reactor applications, statistical distrib. approach 2−64464
(n,p) small-angle reactions, 60 MeV, isovector and Gamow-Teller strength 2−64401
neutron cross section for fission nuclei in region of unresolved resonances *(Russian)* 2−85007
(n,2n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(n,α) reactions on resonance neutrons 2−113515
(n,d), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(n,f), actinides, fission energy depend., superfluid model *(Russian)* 2−59325
(n,n'p), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(n,pn), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(n,x) on ^{141}Pr, ^{159}Tb, ^{165}Ho, ^{167}Er, ^{165}Tm, pol. n, neutron cross section, strengthfunction, spin depend. 2−54373
Al, cross-section and kerma value for 20 to 50 keV 2−96008
^{27}Al(n,α), 14.7 MeV, cross sections 2−64398
^{27}Al(n,n'γ), levels means lifetime meas. using DSAM 2−95967
^{27}Al(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{A}Am(n,f), A=241, 242^{m}, delayed neutron yield meas. 2−101953
^{241}Am(n,f), delayed neutron yields 2−54453
Ar, cross-section and kerma value for 20 to 50 keV 2−96008
^{197}Au(n,2n), 14.7 MeV, cross sections 2−64398
^{209}Bi(n,f), 14.7 MeV, fission cross section meas. 2−96058
^{A}Br(n,X), A=79, 81, P violation obs. in total cross section *(Russian)* 2−80020
C, cross-section and kerma value for 20 to 50 keV 2−96008
^{12}C(n,α), <9 MeV, ^{13}C levels, J^{π}, R-matrix anal. 2−69536
^{12}C(n̄,p), 18 MeV, ^{12}B β-decay asymmetry as fast neutron spin analyser 2−90080
Ca, cross-section and kerma value for 20 to 50 keV 2−96008
^{41}Ca(n,X), X=p, γ, α, thermonuclear reaction rates, state. calcs. 2−59437
^{113}Cd(n,e$^-$), ^{114}Cd intruder states, levels and reduced transition props. 2−59217
^{249}Cf (n, f), thermal neutron induced fission product yields 2−59433
^{249}Cf(n,f), delayed neutron yield meas. 2−101953
^{A}Cm(n,f), A=246, 248, cross section meas. 2−101951
^{243}Cm(n,X), total cross sections and resonance parameters in 0.4 to 66 eV region 2−113476
^{245}Cm(n,f), delayed neutron yield meas. 2−101953
^{59}Co(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{A}Cu(n,2n), A=63,65, 14.7 MeV, cross sections 2−64398
^{56}Fe(n,p), 14.7 MeV, cross sections 2−64398
^{155}Gd(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{1}H(n,X), total cross-section, 40-770 MeV, reson. struct. 2−95866
^{1}H(n,ππ)^{2}H, 1.46 GeV/c, deuteron missing mass spectra meas. 2−85050
^{2}H(n,X), 21.5 MeV, break-up quasi-free scatt. sensitivity to NN interaction 2−85041
^{2}H(n,2n), three-body forces and neutron-neutron effective-range parameters 2−64358

neutron-nucleus reactions continued
^H(n,π), A=1-2, pion prod., differential cross section meas. 2−80005
^{3}He(n,p), 0.15-150 keV, cross-section, deviation from v^{-1} law *(Russian)* 2−59360
^{4}He(n,X), R-matrix phase shifts, effective two-body corrections from ^{4}He-p data 2−101890
^{4}He(n̄,d), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{177}Hf(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{6}Li(n,α)^{3}H, occurrence in permeable rocks rel. to groundwater ^{3}H contents 2−100381
^{6}Li(n,d), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^{6}Li(n,t), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^{7}Li(n,X), cross-section evaluation, ^{3}H prod., ENDF/B-V calcs. 2−69887
Mg, cross-section and kerma value for 20 to 50 keV 2−96008
Mo(n,X), total cross-section, at 0.04-2.20 eV 2−85131
N, cross-section and kerma value for 20 to 50 keV 2−96008
^{14}N(n,p), 60 MeV, analogue isovector giant resonance excitation, DWBA anal. 2−107821
^{92}Nb(n,2n), 14.7 MeV, cross sections 2−64398
^{93}Nb(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{60}Ni(n, α)^{57}Fe, α-particle energy and angular distrib. 2−101883
^{237}Np, neutron resonance widths, area anal. *(Chinese)* 2−69622
^{237}Np(n,f), 20 keV-30 MeV cross-section ratio, rel. to ^{235}U 2−54454
^{237}Np(n,f), absolute rate meas. in FFTF 2−102147
^{237}Np(n,f), average number of prompt neutrons meas. 2−54461
^{237}Np(n,f), delayed neutron yields 2−54453
O, cross-section and kerma value for 20 to 50 keV 2−96008
P, cross-section and kerma value for 20 to 50 keV 2−96008
^{207}Pb (n,p), 12-20.3 MeV, cross section energy depend. 2−85056
^{207}Pb(n,x), x=d, pn′, n′p, 12-20.3 MeV, cross section energy depend. 2−85056
^Pu(n,f), A=238,240,241, delayed neutron yields 2−54453
^Pu(n,f), A=239-41, absolute rate meas. in FFTF 2−102147
^Pu(n,f), A=239-41, fission rate meas. in FFTF 2−102146
^{239}Pu/^{235}U, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^{239}Pu(n,f), isomer-yield ratios, primary angular momenta 2−90172
^{239}Pu(n,f), pol.n, 0.01-0.30 eV, polarisation asymm., P violation *(Russian)* 2−101954
^{240}Pu(n,x), fast neutron cross section, statistical model calc. 2−113475
^{241}Pu(n,f), thermal, fission fragments energy and mass distrib. 2−90175
Rb(n,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473
S, cross-section and kerma value for 20 to 50 keV 2−96008
^{32}S(n,p), 14.7 MeV, cross sections 2−64398
^{78}Se(n,α)^{75}Ge, 14 MeV, cross-section meas. 2−113466
^{80}Se(n,α)^{77m}Ge, 14 MeV, cross-section meas. 2−113466
^{82}Se(n,γ), neutron capture resonance energies, implications for meteorite composition 2−113445
^{28}Si(n,p), 59.6 MeV, giant dipole resonance parent analogue 2−107822
Sr(n,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473
^{229}Th(n,f), short-lived products, yield, from γ-ray spectra 2−54455
^{232}Th (n,f), absolute rate meas. in FFTF 2−102147
^{232}Th(n, f), reactor neutron induced fission, charge distrib. meas. 2−90179
^{232}Th(n,f), 14 MeV, fragment yields and charge distrib., liquid drop anal. *(Chinese)* 2−96060
^{232}Th(n,f), delayed neutron yield meas. 2−101953
^{232}Th(n,f), fission rate meas. in FFTF 2−102146
^U/^{237}Np, A=235, 238, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^U(γ,f), A=233, 234, 238, delayed neutron yield meas. 2−101953
^U(n,f), A=232, 233, 235, 238, delayed neutron yield meas. 2−101953
^U(n,f), A=233, 235, 238, fission rate meas. in FFTF 2−102146
^U(n,f), A=233, 235, isomer-yield ratios, primary angular momenta 2−90172
^U(n,f), A=233,235, thermal, internal excitation energy at scission point 2−59432
^{233}U(n,f), delayed neutron yields 2−54453
^{233}U(n,f), thermal, ^{95}Nb and ^{132}I isomeric yield ratios, fission fragment ang. momentum 2−54458
^{235}U (n,f), 0.17 to 8.1 MeV, fission yields 2−101952
^{235}U(n,f), 0.2-1.2 MeV, cross-section, absolute determ. 2−90173
^{235}U(n,f), 20 keV-30 MeV, cross-section ratio rel. to ^{237}Np 2−54454
^{235}U(n,f), charge distrib. dispersion, quantum and statistical fluctuation effects *(Russian)* 2−90157
^{235}U(n,f), fission spectrum averaged cross section for ^{199}Hg(n,n′)^{199}Hg 2−96054
^{235}U(n,f), long-range α emission in p-wave neutron induced fission 2−74784
^{235}U(n,f), nonequilibrium statistical theory of mass distribs., deformation *(Chinese)* 2−80043
^{235}U(n,f), quasi-thermodynamic theory of fission charge distribution *(Chinese)* 2−107841
^{235}U(n,f), residual energy liberation by fission products 2−90183
^{235}U(n,f), thermal, 600 keV, light charged particles polar and equatorial emission 2−85108
^{235}U(n,f), thermal, electron and antineutrino spectrum cal., $\bar{\nu}$ oscillations 2−80041
^{235}U(n,f), thermal, fission products decay, beta-ray spectra calc. 2−85109
^{235}U(n,f), thermal neutrons, ^{129}Sn and ^{129}Sb β-decays 2−107812
^{235}U(n,f), vel. selected fission products, isobaric elemental yields determ. 2−64443
^{238}U/^{235}U, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^{238}U(n,xn), 14 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^W(n,Xn), A=182, 183, 184, 186, 0.1-20.0 MeV, neutron spectra evaluation 2−108130
^{171}Y(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
Y(n,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473
^{66}Zn(n,p)^{66}Cu, 14 MeV, cross-section meas. 2−113466
^{68}Zn(n,p)^{68m}Cu, 14 MeV, cross-section meas. 2−113466
^{90}Zr(n,2n)^{89}Zr, 12.3-19-5 MeV, cross section meas. 2−107855
Zr(n,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473

neutron-nucleus scattering
see also nucleon-nucleon scattering
^{139}La(n,x), laser beam effect *(Russian)* 2−101896
angular distrib. calc. based on exciton model 2−69665
CC^{12}C (n,n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
optical model, VR^{n} ambiguity, quantum-mechanical anal. 2−107817
optical model anal., review 2−107818
resonance scattering, P invariance effects *(Russian)* 2−90118
scattering lengths, data collection 2−79293
thermal neutron scatt. on water mol. including exact collision time 2−80015
transmission coefficients for light projectiles 2−69621
(n̄,n), A=40-208, 14 MeV, anal. powers at forward angles 2−69638
(n,n), folding model, separable pot. approach for spin zero nucleus 2−80017
(n,n), small angle scatt., atomic electron screening effects 2−113469
(n,n′), slow neutron polarisation rot., parity nonconservation *(Russian)* 2−69640
(n̄,n′) on ^{54,56}Fe, ^{58,60}Ni, ^{120}Sn, ^{208}Pb, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
(n,n') near collective excitation threshold, rel. to statistical-optical model calc. *(Russian)* 2−54362
^{209}Bi(n,n) elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
^{12}C(n, n), cross section ang. distrib. and vector pol. 2−101857
^{12}C(n,n), <9 MeV, elastic and inelastic, ^{13}C levels, J^{π}, R-matrix anal. 2−69536
^{12}C(n,n), vector polarisation, angular variation, modified Simon theory 2−54350
^{13}C(n,n), 10-18 MeV, elastic and inelastic scatt. cross-sections 2−54365
^{40}Ca(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
Ca(n,n), 9.9-13.9 MeV, optical parameters, anal. power, differential cross section 2−107843
^{111}Cd(n,n′), 0.4-1.5 MeV, ^{111}Cd^{m} production cross section, levels, transitions from γ-cascade calcs. 2−113325
^{59}Co(n,n′γ), levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
^{52}Cr(n,n), 5-7 Mev, elastic and inelastic scatt. cross section meas. *(Russian)* 2−90115
^Eu(n,n′γ), A=151, 153, low lying states 2−113498
^{151}Eu(n,n′γ), low-lying states study 2−54245
^{128}Gd(n,n′γ), excited states, γ-ray spectra meas. *(Russian)* 2−101811
^{157}Gd(n,nγ), energy levels 2−113502
^{1}H(n, n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
^{1}H(n,n), 14.7 MeV, cross sections 2−64398
^{2}H (n,n) differential elastic cross-section meas. at 2 MeV 2−95862
^{2}H(n,n), 10 MeV, analysing power meas. and comparison to few-nucleon calc. 2−101892
^{2}H(n,n), 14 MeV, elastic scatt. anal. power, Legendre polynomial anal. 2−101873
^{2}H(n̄,n), 50 MeV, analysing power meas. at backward angles 2−85045
^{2}H(n̄,n), 50 MeV, analysing power meas. at forward angles 2−85046
^{2}H(n,n), elastic doublet scatt. near breakup threshold, Efimov effect 2−69656
^{2}H(n,n), off shell sensitivity, wave functions, nucleon overlapping power 2−59174
^{2}H(n,n), scatt. amplitude, three-body problem, integral eqn. numerical soln. 2−90098
^{4}He(n,n), cross section ang. distrib. and vector pol. 2−101857
^{4}He(n,n), differential cross section and polarisation, EM effects 2−113479
^{4}He(n,n), folding model anal., separable pot. approach 2−80018
^{4}He(n,n), parity non-conserving elastic scatt., observables estimate 2−85042
^{199}Hg(n,n′)^{199}Hg^{m}, ^{235}U fission spectrum averaged cross section 2−96054
^{165}Ho(n,n′), rot. band excitation 2−90043
^In(n,n), A=113,115, elastic and inelastic scatt. cross sections 2−113477
^{113}In(n,n′), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
^{6}Li(n,n), single channel resonating group calcs. 2−96009
^{7}Li(n,n), pol. ^{7}Li, pol. n, 2.0-80.0 keV, s-wave scatt., spin depend. *(Russian)* 2−59361
^Li(n,n), A=6,7, 7-14 MeV, clustering effects 2−69650
^Mo(n,n′γ)^Mo, A=98, 100, gamma-ray spectra, energy levels 2−113485
^{15}N(n,n$_{0}$), cross section, autocorrelation anal., channel coupling influence 2−95997
^{93}Nb(n, n′)f, 15 MeV, ang. distrib. calc. based on exciton model 2−69665
^{93}Nb(n,n), phenomenological and microscopic optical model analyses 2−85048
^{142}Nd(n,n′γ), gamma radiation investigation, level energies 2−113495
^{148}Nd(n,n′γ), gamma radiation investigation, level energies 2−113496
^{150}Nd(n,n′γ), gamma radiation investigation, level energies 2−113497
^Ni(n,n), A=58,60,64, 6 and 7 MeV, differential cross-section 2−64412
^{58}Ni (n,n), 0.9-4.5 MeV, elastic and inelastic cross section meas. 2−96013
^O(n,n′γ)A=17, 18, γ-ray prod. yields meas. 2−64399
^{16}O(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
Pb(n,n), radiogenic Pb, elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
^{32}S(n,n), 0.18-2 MeV, ^{33}S resonance parameters, J^{π}, neutron strength distrib., IAS 2−113437
^{32}S(n,n), 0.6-3.6 MeV, differential cross sections and ang. distribs. 2−54363
Si measurement in lung phantom by neutron inelastic scatt. 2−94178
^{28}Si (n,n), 0.6-3.6 MeV, differential cross sections and ang. distribs. 2−54363
^{232}Th(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{238}U(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{89}Y(n,n′)^{89}Y$^{\bullet}$, level scheme 2−113484
^{68}Zn(n,n), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408

neutron polarisation
magnetic fringe-field neutron beam depolarisation 2−102300
T invariance test in neutron optics 2−69377
^{2}H(γ, n)p, neutron polarisation, theory *(Russian)* 2−59164

neutron production
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754

neutron production continued
fusion material irradiation test facility, neutron environment calc. for d+Li facilities 2−85229
neutron emission from a 1 kJ plasma focus device 2−59587
(α, xn), fast neutron prod., thermal moving source model breakdown 2−101902
γp→π⁺n, multipole anal., energy independ. 2−89970
(π⁻,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
π⁻p→π⁰π⁰n, 25 GeV, π⁰π⁰ ang. distrib. meas. 2−113301
(³He, xn), fast neutron prod., thermal moving source model breakdown 2−101902
¹⁶O(γ,n), 60-160 MeV, differential cross section 2−107845
^Zr(γ, πn), A=90, 91, 94, 8-134 MeV, photoneutron cross section meas. 2−95989

neutron-proton interactions
see also neutron-proton scattering
total cross-section, 40-770 MeV, reson. struct. 2−95866
np→d+axion, search for axions at LWR, cross section 2−89976
np→d(ππ)⁰, 1.46 GeV/c, deuteron missing mass spectra meas. 2−85050
np→dγ, field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
np→dγ, short-range effects in meson exchange currents 2−107861
np→dπ⁰, pion prod., differential cross section meas. 2−80005
np total cross section, I=1 dibaryon reson. effect 2−69485
pn, 19 GeV/c, ρ⁰, ω(780), f⁰, g non-strange meson inclusive prod., structure functions 2−107708
pn, diquark fragmentation functions determ. from pion prod. data 2−84920
pn→ppπ⁻, 500-1000 MeV, cross section, search for dibaryon resonances 2−101756

neutron-proton scattering
see also neutron-proton interactions
cross sections, theoretical models, review at high energies 2−113299
S-wave, anal. using new effective range formula 2−107680
DD pn, 24 GeV/c, elastic scatt., polarisation parameter meas. 2−101769
np, 200-500 MeV, cross section meas. 2−59172
pn, 1.3-1.82 GeV/c, elastic scatt., polarisation parameter meas. 2−69484
pn, elastic scatt. at high energies, parity violation 2−95864
pn forward scatt., amplitude anal. 2−59171

neutron radiative capture
A=227-250, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
collective state excitation, IBM anal. 2−107774
collective strength distrib., E1 strength, fast neutron capture probes 2−113349
dipole nature of statistical gamma-ray spectra following neutron capture 2−113407
E1+M2 mixing ratios from (n,γ) and (p,γ) 2−107805
E1 γ-ray strength function parametrisation for (n,γ), (p,γ) cross section calcs. 2−113400
E1 transitions, p-state spectroscopy 2−107867
high-precision spectroscopy, nuclear struct. research 2−107803
mass dependence of the giant resonance model 2−113450
neutron resonance mean total radiative width, E1 transitions between compound states 2−113402
partial E1 radiative strength functions, optical description, effective charge 2−113403
radiative E2 strength in neutron capture 2−113406
resonance averaged γ-ray spectroscopy, historical description and statistical anal. 2−113404
resonant neutron absorpt. by nuclei in laser irrad. crystals, theoretical anal. *(Russian)* 2−69664
s-process, neutron-capture cross section appl. 2−89235
s-process theory of nucleosynthesis in stars, slow neutron capture 2−100914
spectroscopy, conference, Grenoble, France, (Sept. 1981) 2−107014
strong E1 transitions, giant dipole resonances, nonstatistical effects, doorway state 2−113401
valence neutron capture, role, in magic neutron nuclides 2−113510
(n,γ), 30 keV, averaged capture cross sections, target n number, binding energy and levels depend. 2−90095
(n,γ), thermal and resonance capture, direct capture, E2 transitions, strength functions 2−113505
(n,γ), thermal n, A=142-174, neutron separation energies 2−90009
(n,γ), thermal-neutron-capture cross section measurements 2−113508
(n,γα) reactions on resonance neutrons 2−113515
^(n, γ), A=1,2, thermal γ-ray energy calc. using deuteron binding energy meas. results 2−79944
¹⁰⁷Ag(n,γ)¹⁰⁸Ag, energy level scheme 2−113488
¹⁰⁹Ag(n,γ)¹¹⁰Ag, energy level scheme 2−113489
²⁷Al(n,γ), ²⁸Al complete level schemes, γ-ray energies 2−107869
²⁷Al(n,γ), γ-ray energies, ²⁸Al level scheme 2−107804
²⁷Al(n,γ), thermal, ²⁸Al levels, transitions, J^π and neutron binding energy 2−90020
Al(n,γ), direct capture mechanism 2−113514
²⁴¹Am(n,γ)²⁴²Am^g, thermal and fast neutron capture, isomeric ratio determ. 2−96000
^Au(n,γ), A=196, 197, cross section theoretical calc. 2−101878
¹⁹⁶Au(n,γ), cross section theoretical calc. 2−101878
¹⁹⁷Au(n,γ)¹⁹⁸Au 312 keV 5⁺ isomer, gamma transitions 2−113398
¹⁹⁷Au(n,γ)¹⁹⁸Au, thermal, primary γ-rays intensity meas. 2−75129
¹³⁵Ba(n,γ)¹³⁶Ba, energy level scheme 2−113494
^Br(n,γ), A=79, 81, P violation obs. for thermal neutron capture *(Russian)* 2−80020
^C(n, γ), A=12, 13, thermal, γ-ray energy calc. using deuteron binding energy meas. results 2−79944
¹²C(n,α), 5 TeV reactions, accelerator results comparison with cosmic ray data 2−106456
⁴⁰Ca(n,γ), contributions from statistical, valence and direct mechanisms below 2 MeV 2−113512
⁴¹Ca(n,X), X=p, γ, α, thermonuclear reaction rates, state. calcs. 2−59437
⁴⁹Ca(n,γ) rate, rel. to nβ-process and Ca-Ti-Cr anomalies to Allende inclusion 2−112397
¹¹⁰Cd(n,γ), 0.4-1.5 MeV, ¹¹¹Cd^m production cross section, levels, transitions from γ-cascade calcs. 2−113325
¹¹³Cd(n,γ), ¹¹⁴Cd intruder states, levels and reduced transition props. 2−59217
¹¹³Cd(n,γ), γγ angular correl., ¹¹⁴Cd levels 2−95960

neutron radiative capture continued
¹¹³Cd(n,γ)¹¹⁴Cd, energy level scheme 2−113491
¹¹³Cd(n,γ)¹¹⁴Cd, enerlgy level scheme 2−113490
³⁴Cl(n,γ)³⁵Cl, 398 eV resonance, parity 2−113449
³⁵Cl(n,γ), thermal, ³⁶Cl levels, gamma transitions, neutron binding energy 2−113391
³⁵Cl(n,γ),³⁶Cl complete level schemes, γ-ray spectra 2−107869
²⁴⁸Cm(n,γ), thermal, ²⁴⁹Cm energy levels 2−84992
⁵⁹Co(n,γ)⁶⁰Co, energy level scheme 2−113482
¹³³Cs,(n,γ), 14.8 MeV, ^{134,134g,134m+g}Cs, isomeric cross section ratio, γ-cascades, spin cut-off *(Chinese)* 2−95924
¹³³Cs(n,γ), 2.66-600 keV, capture cross section meas. 2−96001
¹³³Cs(n,γ)¹³⁴Cs, energy level scheme 2−113493
¹⁶³Dy(n,γ), 2, 24 keV 2−113343
¹⁶⁴Dy(n,γ)¹⁶⁵Dy, energy level scheme 2−113503
¹⁶⁷Er(n,γ), 2, 24 keV, ¹⁶⁸Er level scheme, γ-transitions for deformed nuclei 2−113344
¹⁶⁷Er(n,γ)¹⁶⁸Er, Axel-Brink predictions test 2−113409
¹⁵³Eu(n,γ)¹⁵⁴Eu, energy level scheme, rotational bands 2−113499
¹⁵³Eu(n,γ)¹⁵⁴Eu, energy level scheme 2−113500
⁵⁴Fe(n,γ), resonant capture, intermediate coupling consequences 2−113509
⁵⁴Fe(n,γ) s-wave capture, resonance interference 2−113511
⁵⁵Fe, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^Gd(n,γ), A=152, 153, energy level scheme 2−113501
¹⁵⁵Gd(n, γ), thermal, levels study in ¹⁵⁶Gd 2−79934
¹⁵⁵Gd(n,γ), ¹⁵⁶Gd, level struct. IBA model comp. 2−69519
¹H(n, γ)²H, natural width of 2.223 MeV capture line from meas. in solar flare 2−68698
¹H(n,γ), field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
¹H(n,γ)²H, short-range effects in meson exchange currents 2−107861
²H(n,γ)³H, thermal, neutron capture cross section meas. 2−85052
³He(n̄,γ)⁴He, 9 MeV, polarised neutron capture, analysing power ang. distrib. meas. 2−69661
¹⁶⁵Ho(n,α), 7-15 MeV, total cross section, γ-spectra, direct-semidirect mechanism 2−101889
¹²⁷I(n,γ)¹²⁸I, energy level scheme 2−113492
¹¹⁵In(n,γ)¹¹⁶In^m1, fast neutron cross sections 2−101895
⁴⁰K(n,γ)⁴¹K, energy level scheme 2−113481
⁴¹K(n,γ)⁴²K, thermal neutron cross-section meas. 2−69651
⁴⁶K(n,γ) rate, rel. to nβ-process and Ca-Ti-Cr anomalies to Allende inclusion 2−112397
⁸⁰Kr(n,γ)⁸¹Kr, ⁸¹Kr prod. cross section meas. *(Russian)* 2−90114
⁸⁶Kr(n,γ), effective capture cross section 2−113371
¹³⁹La(n,γ), low energy level structure 2−113370
¹⁷⁶Lu(n,γ), ¹⁷⁷Lu 150.392 keV isomeric state feeding 2−113395
⁹⁵Mo(n,γ)⁹⁶Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
⁹⁸Mo(n,γ), nonstatistical mechanisms, neutron strength function, capture cross sections 2−113504
¹⁴N (n, γ), thermal, γ-ray energy calc. using deuteron binding energy meas. results 2−79944
¹⁴N(n,γ₀)¹⁵N, 5.6-13 MeV, neutron capture in giant reson. region 2−54383
²³Na(n,γ), n pol., A_2 coeffs., ²⁴Na levels, J assignment 2−107868
²³Na(n,γ)²⁴Na, thermal neutron cross-section meas. 2−69651
⁹³Nb(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
⁹³Nb(n,γ), photon strength functions 2−113405
^Nd(n,γ), A=143, 145, anomalously strong E1 transitions 2−113410
¹⁴³Nd(n,γ), multipolarity of soft γ transitions between compound states 2−113408
⁵⁹Ni, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
²³⁷Np(n,γ), ²³⁸Np levels, bandheads, γ-transitions, conversion electrons 2−113348
^Os(n,γ), A=186-188, 2.5-450 keV, average cross sections, age of galaxy via ¹⁸⁷Re→¹⁸⁷Os decay 2−54389
¹⁸⁷Os(n,γ), thermal, ¹⁸⁸Os E0 transition strengths, 0⁺ states, IBA test 2−113397
²⁰⁸Pb(n,γ), 0.8-7.7 MeV, compound nucleus, direct-semidirect processes, giant resonance search 2−90106
²⁰⁸Pb(n,γ), 7-13 MeV, ²⁰⁹Pb giant dipole resonance, transitions, absolute cross sections 2+101858
¹⁴¹Pr(n,γ), low energy level structure 2−113370
¹⁹⁴Pt(n,γ), 2,24 keV, ¹⁹⁵Pt level scheme, transitions, 13/2⁺ isomer 2−113345
¹⁹⁵Pt(n,γ), ¹⁹⁶Pt ¹⁶⁸Er level excitation rel. to IBM calcs. 2−107866
¹⁹⁵Pt(n,γ), thermal, ¹⁹⁶Pt E0 transition strengths, 0⁺ states, IBA test 2−113397
¹⁹⁸Pt(n,γ), ¹⁹⁷Pt^m decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. 2−69602
²⁴⁰Pu(n,x), fast neutron cross section, statistical model calc. 2−113475
¹⁰³Rh(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^Ru(n,γ), A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
^Ru(n,γ) A=99, 101, energy level scheme 2−113486
³⁴S(n,γ), thermal, direct capture, partial capture cross sections, ³⁵S levels, transitions 2−113506
³⁶S(n,γ)³⁷S, energy level scheme 2−113480
¹²¹Sb(n,γ), γ-ray average intensities in resonances 2−113451
⁴⁵Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
^Se(n,γ)^{A+1}Se, A=74, 76, energy level scheme, low spin levels 2−113483
¹⁵⁴Sm(n,γ), thermal, rotational-vibrational band structure in ¹⁵⁵Sm 2−54231
S(n,γ), thermal neutron absorption cross section 2−113507
^Sn(n,γ), A=120, 124, thermal neutrons, Sn levels excitation, J^π assignment 2−90042
¹¹⁸Sn(n,γ), gamma-ray resonance scatt. *(Russian)* 2−90117
⁸⁸Sr(n,γ), valence effects search in p-wave capture 2−113351
⁸⁸Sr(n,γ)⁸⁹Sr, fast neutron capture γ-ray spectra 2−113350
¹⁸¹Ta(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
¹⁸¹Ta(n,γ), photon strength functions 2−113405
¹⁵⁹Tb(n,γ), photon strength functions 2−113405
²³²Th(n,γ), 1-408 keV, capture cross-section 2−64400
^Ti(n,γ), A=47-49, capture mechanism 2−113513
¹⁶⁹Tm(n,γ), cross section theoretical calc. 2−101878

neutron radiative capture continued
^{235}U(n,γ), thermal, ^{236}U lowest octupole bandhead, spin, conversion electron spectra 2−113346
^{238}U self-shielding factors, rel. to unresolved resonances 2−85124
^{238}U(n,γ), 7-15 MeV, total cross section, γ-spectra, direct-semidirect mechanism 2−101889
^{238}U(n,γ), capture rate determ. using Ge(Li) detector 2−102029
^{238}U(n,γ), structure parity assignments 2−113361
^{183}W(n,γ), ^{184}W bands, de-excitation γ-rays 2−113396
^{183}W(n,γ), 2 keV, ^{184}W 0^+, 1^+ and 2^+ states by average resonance capture 2−113369
^{A}y(n,γ), A=88, 89, cross section theoretical calc. 2−101878
^{89}Y(n,γ), photon strength functions 2−113405
^{171}Yb(n,γ), ^{172}Yb resonances, J^{π}, transitions, levels 2−113447
^{173}Yb(n,α), 0.01-0.86 keV, ^{174}Yb levels, resonances, J, electric dipole transitions 2−69626
^{68}Zn(n,γ), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{96}Zr(n,γ), total radiation widths meas., 2−113352

neutron radiography
see also nondestructive testing
absorption monitors, general design principles and optimisation 2−93735
Californium multiplier, design for neutron radiography 2−78044
Californium multiplier, performance of Mould system 2−78045
crack detection using pulse shape analyzer and 14 MeV neutrons 2−105395
detector resolution effects for radiography, Monte Carlo calcs. 2−108277
fission reactor Hot Fuel Examination Facility, radiography station 2−107969
gelatin appl. in microautoradiography 2−62341
handbook, principles, NDT and nuclear appls. 2−68977
metal shells with variable thickness and local inhomogeneities, multilayer, neutron absorption radiometric inspection 2−67707
target size eval. of electron accelerator for photoneutron inspection 2−62355
thermal insulation materials, cemented joints inspection by neutron radiography 2−93697
thermal neutron radiography, point spread functions due to neutron scatt. 2−99610
Th-U fission radiography for geological materials 2−112154

neutron reflection
converging guide tubes, neutron gain 2−108198
fission reactor with TBC-2M type fuel and different types of neutron reflectors, critical parameters *(Russian)* 2−80052
guide tube gain for remote finite source 2−90335
silicate float glass, ultracold neutrons, specular refl. coeff. *(Russian)* 2−115105

neutron scattering *see kaon-nucleon scattering; lepton-nucleon scattering; neutron-nucleus scattering; nucleon-nucleon scattering; photon-nucleon scattering; pion-nucleon scattering*

neutron scattering (crystallography) *see neutron diffraction; neutron diffraction crystallography; neutron diffraction examination of materials*

neutron sources
booster source efficiency 2−108199
calibration apparatus UKPN-1M with ^{252}Cf source 2−54707
Californium multiplier, design for neutron radiography 2−78044
Californium multiplier, performance of Mould system 2−78045
cyclotron, superconducting, neutron therapy appl., RF cavity struct. 2−96340
dosimeters testing and calibration, NBS/NRC development 2−70025
fusion material irradiation facilities, source characterisation 2−85228
fusion material irradiation test facility, neutron environment calc. for d+Li facilities 2−85229
fusion material neutron irrad. test facility 2−102310
fusion materials irradiation testing facility, neutron shielding design 2−108145
fusion neutron production from low energy exploding deuterated fibres 2−85431
intense pulsed neutron source, neutron irrad. facilities 2−102307
Intense Pulsed Neutron Source distributed processing data acquisition system 2−59585
laser neutron generator use in detector calibration for pulsed neutron fluxes 2−64732
location and characterization method 2−85444
materials studies, neutron source charact. and radiation damage calc. 2−102309
microdosimetric characteristics of monoenergetic neutron sources *(Russian)* 2−105835
MLUD-3 linear for accelerating deuterons for activation anal. neutron source 2−96354
neutron emission from a 1 kJ plasma focus device 2−59587
neutron HG-200U neutron generator 2−64730
plasma diode, fast pulsed neutron source 2−90342
reproduction of neutron flux density unit by neutron-activation method 2−96406
RTNS-II, large diameter neutron source targets, fabrication using electroforming 2−85446
RTNS-II rotating target neutron source for fusion materials research 2−108190
sealed direct-acceleration tube, with laser-plasma anode 2−113800
spallation, proposed site and modernised reactor for low temp. irrad. facility, Germany 2−102308
spallation neutron source environments, power densities in materials 2−102027
ultracold neutron storage in a fluid-walled bottle 2−59588
yield from high energy protons 2−54706
ZING-P' pulsed spallation neutron source, heat deposition meas. in moderators and decouplers 2−102028
Am/Li 5 Ci neutron source, neutron spectrum 2−102303
^{241}Am-Be, moderated neutron source for gamma ray chem. anal. 2−116758
^{241}Am-Be(α,n) source, neutron energy spectrum and resulting mean fluence to dose equiv. conversion factors 2−64728
^{252}Cf neutron source, shielding expts. with acrylic resin for neutrons and γ-rays *(Japanese)* 2−54671
D_2 glow discharge, high-voltage, impurity effects and neutron tube appl., theory 2−113788
^{1}H(^{7}Li,n)^{7}Be, intense MeV neutron prod. and cross sections 2−108200
^{2}H(d,n)^{3}He neutron source using gas target, energy and angle straggling effects 2−64727

neutron sources continued
^{3}H(p,n), 9-14 MeV, tritium break-up contrib. to neutron source reaction 2−90101
^{7}Li(p,n), 2.5 MeV, appl. as neutron source 2−102315
^{238}Pu,Be neutron source, effect of collimator and depth in phantom on neutron spectrum 2−117069
T target fabrication for rotating target neutron source 2−108189

neutron spectra
see also neutron spectrometers
^{A}Cu($\pi^{\pm}$,X), A=63, 66, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
bremsstrahlung, high-energy, in C, N, O and tissue, energy spectra of secondary neutrons 2−62677
Browns Ferry-3 in- and ex-vessel neutron spectral analysis 2−108097
containment vessels, neutron spectra meas., at power stations 2−108150
counter arrays optimal positioning in delayed neutron emission probability studies 2−113839
Coupled Fast Reactivity Measurement Facility, central flux spectrum, sensitivity and error anal. 2−54541
criticality accidents, use of compiled spectra for neutron dose determ. 2−62771
eigenvalue-dependent neutron energy spectra, definitions, anal. and appl. 2−96063
FFTF, nuclear emulsion neutron spectrometry 2−102144
FFTF, proton recoil proportional counter meas. 2−102145
FFTF, reaction rates and neutron flux spectra 2−102149
fission neutron spectrum meas. by time-of-flight technique, scatt. effect 2−102322
FLYSPEC, neutron spectra measured by NE213 and stilbene spectrometers, unfolding method 2−102318
fusion material irradiation facilities, neutron source characterisation 2−85228
fusion radiation damage simulation expt. on stainless steel, spectral modifications 2−85230
fusion reactor, graphite stack, 14.7 MeV neutron bombardment, neutron spectra meas. 2−108128
graphite assembly, neutron spectrum perturbation by miniature plastic spectrometer 2−54540
hybrid reactors, blankets sustained by exogeneous neutrons, flux spectrum extremisation criteria 2−113746
LOTUS facility, neutron anal. for hybrid and fusion blanket configurations 2−113745
phantom, elliptical, irrad. with reactor neutrons, spectrum and dose distrib. *(Hungarian)* 2−111801
prompt fission neutron spectra, average multiplicities, evaporation theory calc. 2−90083
rotational tunnelling system, three-fold, inelastic neutron scatt. spectrum, temp. depend. 2−86596
solid state nuclear track detector appl. in neutron dosimetry 2−70008
spallation breeders, blankets sustained by exogeneous neutrons, flux spectrum extremisation criteria 2−113746
streaming through Fe duct, neutron and gamma-ray spectra, calcs. 2−75062
thermal neutron scatt. technique, neutron spectral modulation 2−103563
time-of-flight neutron powder spectroscopy, Bragg lineshapes 2−103564
time-of-flight spectrometry, black and white filter method for background determ. 2−102319
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
Am/Li 5 Ci neutron source, neutron spectrum 2−102303
^{241}Am-Be(α,n) source, neutron energy spectrum and resulting mean fluence to dose equiv. conversion factors 2−64728
Be, inhomogeneities, density and dimensions, very cold neutron spectrometry 2−92047
^{9}Be, low energy neutron interaction, total and inelastic cross sections 2−92048
^{12}C($\pi^{\pm}$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{40}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{48}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{113}Cd(p,n), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
^{65}Cu, low energy neutron interaction, total and inelastic cross sections 2−92048
D-T neutrons, graphite moderated, spectra 2−108129
^{3}H(p,n), 9-14 MeV, tritium break-up contrib. to neutron source reaction 2−90101
^{165}Ho(π^{-},γX); π capture, neutron spectra coincident with discrete γ-rays 2−101948
^{113}In(n,n'), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
^{A}Mo(p,n), 6-9 MeV, A=95,98, n spectra, cross sections, ^{95,98}Tc level density *(Russian)* 2−107758
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{A}Pb($\pi^{\pm}$,X), A=202, 208, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{238}Pu,Be neutron source, effect of collimator and depth in phantom on neutron spectrum 2−117069
^{A}Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
^{181}Ta(α,xn), 45 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(p,xn), 22 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(π^{-},γX), π^{-} capture, neutron spectra coincident with discrete γ-rays 2−101948
Ta(p,X), 190-268 MeV, neutron prod. spectra, energy deposition 2−54366
TmSe single cryst., inelastic neutron scatt. studies 2−55956
U slab, steady state fast neutron spectra, comparison of diffusion and transport theory 2−59445
^{238}U(n,xn), 14 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{238}U($\pi^{\pm}$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
V, inhomogeneities, density and dimensions, very cold neutron spectrometry 2−92047

neutron spectrometers
inelastically scattered slow neutron spectrometer in Fakel accelerator 2−108220
JET, neutron diagnostic device, remote handling aspects 2−80299
JET, time of flight telescope spectrometer for neutron diagnostics 2−80285
multisection 4π detector, for multiplicity meas. 2−64843
Ohio University beam swinger facility 2−102316
organic scintillator neutron spectrometer suitable for in-phantom studies, dosimetry appl. 2−68228
rotating crystal neutron time-of-flight spectrometer for condensed matter study 2−65809
space-energy-time distrib. of neutrons from pulsed source in Pb, delay time spectrometer resolution 2−108224
stilbene scintillators, light efficiency determ. and appl. to fast neutron in-core spectrometry 2−113815
time-of-flight spectrometry, black and white filter method for background determ. 2−102319

neutron stars
see also pulsars
0921−63, halo X-ray source, line form. near neutron star 2−84266
γ-ray burst source (1979 March 5) binary neutron star accretion mechanism *(Chinese)* 2−79246
2A 1822−371, compact X-ray binary, orbital vel. and mass of compact component 2−112502
2A 1822−371, degenerate star shell emission, component masses and orbital period, visible obs. 2−79145
accreting neutron stars, hard X-ray spectra of polar hot spot 2−84267
accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
accretion disc tearing mode instability in neutral sheet configuration 2−68935
accretion discs, vertical struct. 2−63368
anisotropic fluid sphere model, general relativity solutions 2−112763
V1343 Aquilae (SS 433), accretion disc models involving black hole or neutron star 2−63474
V1343 Aquilae (SS 433), early type star+black hole/neutron star accretion disc 2−63471
V1343 Aquilae (SS 433), relativistic models 2−63475
V1343 Aquilae (SS 433) neutron star with accretion disc+B-type star, model 2−63473
atmospheres, hydrogenic atoms in mag. fields, scaling laws for photoionisation cross section 2−63240
binary systems with common envelopes, evolution and mass loss 2−63537
binary X-ray pulsars, accretion disk orientation 2−74034
blue supergiant+neutron star common envelope binaries, evolution and mass loss rates 2−63538
charged particles relativistic ejection by strong magnetic field 2−106694
collision and r-process nuclei ejection 2−106779
Crab pulsar, mass determ. from equation of state of nuclear matter 2−106766
Crab supernova, neutron star form. by exploding 10 $M_\odot$ star 2−89285
crust, cold dense matter mixed lattice phases 2−63223
Cygnus X-3, star model with pulsar component 2−106781
deformation energy release due to rotation 2−58373
degenerate quark matter, ν emissivities, mean free paths, possible search in neutron stars 2−89932
dense neutron matter metastability, phase transition to pion-condensed states 2−100970
dense plasma physics, enchancement of thermonuclear reaction rates due to strong screening 2−100725
dense relativistic matter, variational approach using functional techniques 2−79134
dipole and spin axes orientation change in X-ray binary 2−79152
envelopes and cooling calcs. 2−100969
evolutionary diagram for galactic magnetized neutron stars 2−106767
evolutionary sequences and thermal props. 2−79133
explosion hypothesis 2−117700
field equations in general relativity, exact soln., neutron star model 2−101261
formation, neutron shell blocking of electron-capture during gravit. collapse 2−58323
formation on degenerate Fe core collapse in supernova model 2−106688
gamma ray burst of 1980 April 19, spectrum time variations and origin 2−58495
gamma ray burst sources, spectra anal. 2−58493
gamma ray bursters rel. to magnetosphere and surface plasma processes 2−58501
gamma ray bursts due to H-He flashes on accreting stars 2−106959
gamma ray sources spectra, role of cyclotron reson. processes 2−58374
gamma-ray burst of 1979 March 5, model involving neutron star accretion *(Chinese)* 2−63708
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861
gamma-ray burst sources, mechanisms review *(Polish)* 2−106966
gamma-ray bursts, physical processes rel. to 1979 March 5 event in LMC 2−112609
gamma-ray due to neutron star vibrs. 2−68931
gamma-ray transients, line formation processes and anal. 2−58498
gravitational radiation, quadrupole formula rel. to fundamental mode damping time 2−106518
H 1909+096, X-ray binary, X-ray pulsations, neutron star pulsation models 2−94774
HD 193077, Wolf Rayet star, neutron star secondary with possible OB third star spectra anal. 2−58351
HD 86161, WR star with neutron star comparison, mass and orbit, visible obs. 2−73983
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
Hercules X-1, vertical struct. of accretion disc rel. to 35-day cycle 2−63368
HZ Herculis, spectral line profiles taking mass transfer from neutron star ring into account 2−94786
hyperon composition from relativistic interacting field theory 2−106768
interior degenerate neutrinos transport props. 2−63493
magnetised neutron stars with non dipolar mag. geometry, pair prod. and pulsar cutoff 2−68804
magnetised stars as gamma ray burst sources 2−74125
magnetosphere, longitudinal waves generation by mag. drift mechanism 2−117699

neutron stars continued
magnetosphere accretion disk interface, Kelvin-Helmholtz instabilities 2−112480
masses, results from equation of state of nuclear matter 2−106766
MBD 1730−335, accretion onto neutron star mag. poles rel. to two modes in type II bursts *(Russian)* 2−112509
modelling of rotating neutron stars using exact solutions of Einstein's equations 2−58375
neutrino cooling by percolating quarks 2−58376
neutrino emission from hot dense plane parallel atmosphere in hydrostatic equilib., numerical soln. 2−106755
neutrino oscillations effect on massive star gravit. collapse to neutron star 2−74007
Origin in Type I and Type II supernovae 2−106762
physical processes and late stages of stellar evolution 2−100960
pion condensation, effect on stellar model calc. *(Russian)* 2−63494
pionic degrees of freedom behaviour in nuclear matter, appl. to neutron star theory *(Russian)* 2−90037
polar caps, low-luminosity accretion 2−89291
PSR 1913+16, binary pulsar, evolution history, mag. field and period constraints 2−68799
PSR 1913+16 (pulsar+compact star) general relativity test and gravit. radiation evidence 2−63498
pulsar timing noise and external disturbances, gravitational wave emission 2−58671
pulsars, mechanisms, life-histories and relationship with supernovae 2−74003
pulsars, rot. energy loss scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
QCD and neutron stars 2−64281
quark matter stability in neutron stars 2−117702
red dwarf-neutron star binaries as gamma-ray burst sources, rel. to IR scans of source regions 2−68932
rheology, crust superfluid vortex line pinning 2−58378
rotating, in mag. field, special relativity calc. 2−112701
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
rotation as a third order approx. in angular vel. of deformation energy *(Russian)* 2−84261
RPA theory, extension to strongly interacting systems 2−84987
2S 1223−624 (GX 301−2), X-ray binary, neutron star accretion model 2−89312
single neutron stars, predominance rel. to physical classification of supernovae *(Russian)* 2−106761
statistical mechanics of quarks and hadrons, conf., Rielefeld, Germany (Aug. 1980) 2−53423
structure, influence of pion condensate in cold dense matter 2−94765
superfluid vortex, neutrino cyclotron radiation rel. to pulsar spin down 2−79135
supranuclear densities in physics and astrophysics 2−84986
test particle distrib., interaction with electron gas, Fokker-Planck coeff. calc. 2−84087
thermonuclear processes on accreting neutron stars, model calcs. 2−84259
4U 1223−62 (Wra 977), neutron star mass from spectroscopic orbit 2−106814
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129, X-ray binary, compact object nature, visible obs. 2−68930
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
4U 2129+47, neutron star accretion disc model scatt. radiation, obs. 2−94771
Vela X-1, X-ray binary, neutron star component interaction with accretion disc 2−63712
Vela X-1 (4U 0900−40), spin down episode detect. from COS-B obs. 2−106787
X-ray binaries, pulse period distrib. gap, accretion effects on neutron stars 2−58388
X-ray binary, neutron star accretion, magnetosphere and evolution within two stream model 2−74014
X-ray binary component, atmosphere and environment 2−63712
X-ray binary stars, effect of mag. field on critical luminosity of neutron stars and degenerate dwarfs 2−112505
X-ray burst sources, accreting neutron star envelope, shell flashes 2−94863
X-ray bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
X-ray bursts, spectra rel. to determ. of neutron stars mass and radius 2−68933
X-ray emission on supercritical accretion 2−84077
X-ray pulsar, Hakucho obs. of neutron star *(Japanese)* 2−112501
X-ray pulsars, reasons for absence from Wolf-Rayet binary systems *(Russian)* 2−106750
X-ray sources, evolution of compact binary star systems 2−68812
X-ray transients, neutron star thermonuclear evolution model and accretion 2−94860
Fe emission lines from magnetised neutron star surface, observational possibility 2−84260
He shell flash on accreting neutron stars, H-rich envelope effects 2−94766

neutron transport theory
see also neutron diffusion; neutron moderation
absorber blackness and extrapolation distance 2−58738
ACDOS2: A code for neutron-induced activities and dose rates 2−85120
angular flux computations 2−96067
anisotropic transport in ρ-z geometry 2−80047
annual current approx. for neutron transport interface current approach 2−96071
approximation methods, review 2−74787
bare homogeneous reactor assembly, collision escape probability, Wigner rational approx. 2−85115
benchmark problem generation using BEAPAC-3T 2−59444
benchmark testing of anisotropic diffusion coefficients for multigroup slab lattice cells 2−90197
Bickley functions, rational Chebyshev approx. 2−54470
Boltzmann equation, solution method for arbitrary irregular geometries 2−90200
Borrensen model computation for neutronic benchmark problems 2−54474

neutron transport theory continued
built in reflection effect in one speed neutron criticality problem 2−80050
BWR, flow pattern identification by noise techniques 2−96140
BWR, local void fraction, RMS neutron noise relation in bubbly flow region 2−96189
BWR, neutronic and process signals, cause and effect anal. 2−96154
BWR, noise anal., characteristics and time history 2−96186
BWR, second transit time, expt. evidence 2−96188
BWR, stability estimation using multivariable autoregressive model 2−96192
BWR, stability monitoring using noise anal. 2−96187
BWR, transient anal., multiregion neutronics model, coarse mesh nodal coupling method 2−74794
BWR incore power feedback effects by radial coherence meas. 2−96191
BWR noise, systems with feedback, coherence anal. 2−96149
BWR plant diagnosis system, operating experience 2−96190
cavity-duct system, neutron and γ-ray streaming, albedo Monte Carlo method calc. 2−90310
chord distribution function, calc. method 2−54471
CLUB−a multigroup integral transport theory code for analysis of cluster lattices 2−96070
cold neutron cross sections in H containing materials, temp. depend. 2−101957
component vibrations, detection, local-global interaction calc. 2−108063
conference, transport theory, Lubbock, TX, USA (Mar. 1981) 2−58526
containment pipe penetrations, laminated shield collars, neutron dose reduction factors 2−108142
core neutronics, iterative calc. acceleration, dominant error vector eigenvalue 2−54477
correlated selection method of neutron flux estimation 2−101962
Cranberg method, for attenuation and multiple scatt. correction, validity test 2−85114
critical plane slab, transport and diffusion calcs., Galerkin-Petrov method 2−85112
diamond difference method, spatial convergence props. 2−74791
diffusion equations, synthesis methods, convergence theory 2−58745
diffusion in asymmetric cell lattices 2−96066
discrete ordinates method, acceleration improvement 2−107924
discrete-ordinates nodal method, two-dimens. exponential expansion 2−107923
doubly heterogeneous lattice, equivalence relation 2−90187
DSN method for neutron transport equation, stability, convergence and error estimation *(Chinese)* 2−107922
eigenvalue-dependent neutron energy spectra, definitions, anal. and appl. 2−96063
energy dependent Milne problem soln. 2−113579
Engineering Test Facility, neutron beam injectors, neutron and γ-ray streaming calcs. 2−54650
fast critical assembly, reactor model, neutron leakage effect in cell calcs. 2−90192
fast reactor, periodically pulsed, neutron kinetics theory 2−69695
fast reactor burn-up calculations 2−69702
fast reactor temperature noise, RMS anal. in fuel assembly with local blockage 2−96157
finite difference effects in the synthetic acceleration method 2−90194
finite element response matrix method for coarse-mesh calculations 2−90195
fission reactor, neutron transfer optimum distrib. problem 2−96076
Fokker-Planck transport, diffusion length, absorber conc. 2−58739
forward-backward approx., transport eqn. exact solns. 2−53707
fuel, pellet diameter reduction, cost, neutronics, safety 2−74829
fusion materials irradiation test facility, shield design, neutron streaming anal. 2−54647
fusion reactor, HIBALL, beam line penetrations, radiation shielding anal. 2−108123
fusion reactor, HIBALL, three-dimens. neutronics and photonics anal. 2−108125
fusion reactor blanket-shield, neutron spectra 2−108133
fusion reactor blanket-shield calcs., multigroup cross-section library validation 2−102269
fusion reactor Engineering Test Facility, vacuum pumping duct, shielding nucleonics 2−54645
fusion-fission hybrids, CODAC, TIMOC, ORIGEN calc. model, breeding, fuel 2−113747
graphite, poisoned with absorbers, neutron diffusion calc. 2−85118
graphite assembly, neutron spectrum perturbation by miniature plastic spectrometer 2−54540
guide tube gain for remote finite source 2−90335
heavy ion beam fusion reactor, HIBALL, time-depend. neutronics anal. 2−54642
hexagonal geometry, few-group diffusion code, HEXAN 2−102014
hollow fuel element, moderator effect, neutron spectrum depend. 2−54467
HTGR, neutron resonance absorpt. in fuel 2−64451
inertial confinement fusion reactor, laser ducts, neutron attenuation 2−108124
inhomogeneous slabs, exit distrib. problems, approx. methods 2−59443
interaction cross sections of certain metals with cold neutrons 2−59446
internuclear cascade in homogeneous medium, Green's function of system of kinetic eqns. 2−85119
internuclear nucleonic cascade in shields, approx. anal. calc. procedure 2−54672
JOYO, reactor noise anal. 2−96171
Karlsruhe subassembly monitoring system, functions and struct. 2−96170
large symmetric cores, buckling method extension, neutron transport eqn., flux 2−113584
linear equations solution by implicit non-stationary iteration method 2−80051
linearized BGK and neutron transport equations in finite domains 2−80049
LMFBR, fuel element malfunction, temperature noise, pattern recognition 2−96152
LMFBR, in-vessel shielding design, Monte Carlo calcs. 2−108143
LMFBR, Na boiling detection by reactor noise anal. 2−96158
LMFBR, Na vapour bubble collapse, acoustic emission noise, detection and interpretation 2−96159
LMFBR, noise anal. for core surveillance 2−96168
LMFBR, nonmultiplying media, neutron noise transmission, wave propag. anal. 2−54539
LMFBR, peak power calcs., generalised perturbation theory, Taylor series expansion 2−107943
neutron transport theory continued
LMFBR, sodium boiling noise detection, IAEA-IWGFR specialists meeting report 2−96167
LMFBR diagnostic techniques, signal processing techniques 2−96169
LMFBR static neutronic benchmark problems, results summary 2−90207
local reactivity in space-dependent dynamics of nuclear reactors 2−96069
loose part detection using acoustic emission detectors in NSSS 2−96179
LWR, German, noise surveillance systems 2−96178
LWR, neutron flux density calc., in BR3 reactor 2−107926
LWR kinetics, computer code 2−107939
microscopic theory of neutron optical field, review 2−54700
monokinetic, A_n method, convergence and appl. 2−74793
Monte Carlo calcs., computational cost of splitting 2−54476
MORSE photon and neutron transport code, revised version 2−107929
multidimensional problems, factorised kernel approach 2−74792
multigroup cross-sections, 0-400 MeV 2−54469
multigroup diffusion calculations in hexagonal geometry using modal interface method 2−90193
multigroup neutron diffusion criticality calculations using variational spline functionals 2−90202
multigroup transfer cross-sections, Legendre coeffs. evaluation 2−74789
multigroup transfer matrices, inner integral evaluation 2−74790
multiple collisions of neutrons in the study of self-shielding of samples 2−54472
multiplying assembly, multigroup multiparticle formalism, Kolmogorov eqns. 2−85113
multivariate signal analysis for process noise source identification 2−96150
neutron noise, propagating disturbances theory 2−96155
neutron noise measurements on Bugey 2 PWR 2−96182
neutron noise theory for fast reactors 2−96172
neutron-optical properties of multilayer systems with absorption 2−96062
neutronic response to two phase flow 2−96141
NIMROD proton accelerator, neutron transmission calc. through access way using MORSE code 2−113581
noise, correlation functions, forward eqn. approach 2−107942
noise calculation, binary operators, Green's functions 2−85117
noise data acquisition and source modelling for power reactors 2−96177
noise diagnostic methods developed on research reactors 2−96156
noise sources and space-depend. reactor transfer functions 2−96161
nonsteady retardation of neutrons in a medium with a large cavity 2−101956
on-line diagnosis algorithm based on noise analysis 2−96153
one-dimensional geometry, radiation transport eqn., delta anisotropic scatt. index *(Russian)* 2−101362
PALLAS-PI,SP-Br code for neutron and gamma ray transport 2−69701
parallel neutron diffusion in plane lattices with voids 2−96065
parametrization in the theory of continuous neutron retardation 2−113583
particle and radiation leakage importance, definition, anal. and interpretation 2−96064
PHWR, noise anal. appl. including primary coolant flow rate 2−96144
point approximation in the theory of coupled reactor systems 2−54480
pulsed source, radiation transport to 1.1 km 2−108144
PWR, boiling detection and monitoring by incore neutron noise analysis 2−96184
PWR, core internal vibr., neutron noise monitoring 2−96173
PWR, core vibr. surveillance by neutron flux monitoring 2−96175
PWR, internal struct. vibr., monitoring and diagnosis by neutron onise 2−96176
PWR, low freq. press. oscillations 2−96183
PWR, thermohydraulic transients prediction computer codes, capabilities and limitations 2−102254
PWR, vibrationally induced neutron fluctuations, cylindrical two-group model 2−107928
PWR baffle/reflector consts., ENDF/B-V based few group calcs. 2−101980
PWR core monitoring by incore noise analysis 2−96181
PWR diagnosis shock and vibr. anal. metal parts impact 2−96180
PWR fuel pins, annular, safety related design, neutronics anal. 2−102075
PWR gross power distrib., calc. by modifed Borresen coarse-mesh scheme 2−101981
PWR noise experiments, anal. and instrumentation 2−96174
PWR primary flow meas. by correlation anal. of ^{16}N fluctuations 2−96143
radiation transport, sensitivity theory using Boltzmann eqn. *(Spanish)* 2−69111
random-parametric reactor model with direct feedback and non-white noise 2−96165
reactor, water level detection, using ex-reactor neutron detectors, response calc. 2−108062
reactor neutron noise, conf., Tokyo, Japan (Oct. 1981) 2−94885
reactor neutron transport problems having analytical solutions 2−90206
reactor noise, differential and whitened correlation−simple new methods for transit time measurements 2−96139
reactor noise, partial and multiple coherence 2−96148
reactor noise analysis, models and information contraction 2−96164
reactor noise analysis by dynamic data system methodology 2−96151
reactor noise comparative anal. 2−96160
reactor noise patterns, reactivity feedback and spatial higher harmonics effects 2−96162
reactor system with temp. feedback 2−59447
rod type lattice, thermal neutron parallel diffusion length, reactor appl. 2−64450
secondary neutrons, penetration in graphite, Fe, H_2O and concrete 2−54668
semiinfinite medium, with specular reflection, time-dependent surface ang. flux 2−54468
shielding calculations, integral transport eqn., direct integration method 2−75061
simultaneous solution for fluxes at two points in the two-group diffusion equation 2−64465
space-time kinetic theory 2−54478
stiff variational problem in linear transport theory 2−58736
stochastic reactor kinetic eqn. 2−96163
streaming, deterministic calc. in (r-z) geometry, transfer matrix method 2−107925
streaming through Fe duct, neutron and gamma-ray spectra, calcs. 2−75062
swimming pool research reactor, neutron noise anal., reactivity and boiling appl. 2−96145

neutron transport theory continued
symmetry considerations in reactor calcs. 2−80055
T invariance test in neutron optics 2−69377
temperature fluctuations during reactor transients, safety aspects 2−96166
temperature noise measurements, survey of methods, results and models 2−96146
tensorial transform technique appl. 2−102262
TFTR, cylindrical ducts, 14 MeV neutron streaming 2−108122
TFTR, diagnostic system, neutronics calc. 2−54649
thermal reactors, key problems 2−101988
three-dimensional, direct integration soln. method 2−74788
three-dimensional diffusion neutronics, mixed finite difference formulation 2−80048
time absorption eigenvalue searches for subcritical systems 2−90199
time-dependent, one-dimensional, multigroup transport theory benchmark problems 2−90203
time-independent reactors, asymptotic equivalence of neutron diffusion and transport 2−85116
Tokamak fusion reactor, neutron streaming, staged Monte Carlo calcs., statistical errors, bias 2−64636
transport approximation in the theory of neutron retardation 2−113582
transport equation solutions in (x,y) geometry, comparison of soln. methods 2−90196
transport theoretic approximation method for the monoenergetic neutron transport equation 2−107272
two-phase flow using neutron noise as reactor instrument 2−96142
ultra cold neutron life times in glow discharge cleaned bottles 2−80046
ultracold neutron storage in a fluid-walled bottle 2−59588
unconditionally stable acceleration method for arbitrary weighted differencing schemes 2−90198
vectorised Monte Carlo algorithms 2−107937
WWER-440, automated vibration monitoring system 2−96185
zero power reactors, stochastic neutron transport theory 2−107927
Zircaloy-IV/D_2O system, thermal neutron spectrum 2−101960
H bound in moderators, thermal neutron scatt. cross sections, data tables 2−101137
NaCl, neutron and γ-ray attenuation props., spent fuel disposal appl. 2−107960
U slab, steady state fast neutron spectra, comparison of diffusion and transport theory 2−59445
^{238}U resonances, Doppler chem. binding effect rel. to activation rate 2−107963
^{A}W, A=182, 183, 184, 186, neutron emission spectra at 0.1-20.0 MeV 2−108130

neutrons
see also cosmic ray neutrons; delayed neutrons
β-decay anal. 2−59293
charge rms radius from chiral quark model 2−59126
elastic EM form factors, parton light-cone approach, quark interchange 2−95837
electric and gravitational dipole moments detection from neutron interference expts. 2−84814
electric dipole moment, review 2−69468
electric dipole moment value in Kobayashi-Maskawa model 2−59152
exotic bosons, contrib. to B- and L-violation, proton decay, neutron oscills., ν mass 2−107582
falling neutron rainbows, wavelength independent fringes 2−100679
free fall universality, neutron gravity refractometry test 2−69081
free neutron charge, expt. limit 2−95685
matter, π^0 and $\pi^{\pm}$ condensation, nucleon superfluidity 2−101830
matter, p-admixture, $\pi^{\pm}$ condensation 2−101829
moment in standard SU(2)×U(1) model, quark elec. dipole moment contrib. 2−101717
n-ñ oscillations, CP violation, rel. to p decay law exponentiality 2−79873
tri-neutron system, dominant resonance pole of S-matrix 2−59303
neutron-antineutron transition amplitude in MIT bag model 2−101673
relativistic form factors for hadrons with quark-model wave functions 2−95839
relativistic quark model in infinite momentum frame and nucleons static characts. 2−79843
SO(10) grand unified theory, neutron-antineutron oscill. 2−95719
spin kinetic energy, intrinsic mass 2−95808
spin rotation, vacuum torsion effect 2−54046
spontaneous neutron-antineutron transitions, mag. field effects 2−95717
SU(6) unification model for nñ oscillation without left-right symmetry 2−64253
ultra cold neutron life times in glow discharge cleaned bottles 2−80046
weak interactions, review 2−69460
β-decay, Goldberger-Treiman relation, chiral symmetry breaking corrections 2−69611
$\Lambda \rightarrow n\gamma$, CP violation induced by penguin diagrams, n electric dipole moment 2−54158
n-ñ oscillation time evaluation 2−101619
n-ñ oscillations period estimation 2−54028
$NN \rightarrow e\chi$, nucleon decay and neutron oscill. inside nucleus, nuclear effects 2−54150

Newtonian fluids *see fluids*

nickel
see also nuclei with .....
3d, L_{23} edge, EELS 2−108636
(100), direct transitions in isochromat spectra 2−87913
(100) surface, adsorbed O electron energy loss spectroscopy 2−87029
absorbed NH_3 decomposition rate, magnetocatalytic effect absence 2−99709
abundance in waters of Baffin Bay and Canadian Arctic Archipelago 2−83850
adsorbed CO on (111) surface, energy loss intensities, role of electrodynamic interactions 2−62029
adsorbed on Cu, surface and interface mag. props. 2−66772
adsorbed pyridene, gas-surface interactions, IR laser stimulated 2−87037
adsorbed S and Se overlayers on (011) and (111) surfaces, photoelectron diffr. study 2−116335
adsorbed species IR specular reflection spectra 2−116291
adsorption of CO, decomposition and oxidation of surface carbide 2−62432
adsorption of CO and O on (100) surface, reactions, XPS/LEED studies 2−83414
adsorption of ethylene and acetylene, chem. modification, SIMS investig. 2−105515
adsorption of N_2, HF cluster model calc. 2−56334
adsorption of N_2, O_2, and CO on (110) surface at 20K, UPS and work function meas. 2−104159
adsorption of N_2 and CO, photoemission study 2−56335
adsorption of O on (111) surface, high energy ion scatt. study 2−62039
adsorption of water on (111) surface, preadsorbed O effect of azimuthal ordering 2−104157
air embrittlement, role of S 2−99541
alpha particle implanted, stopping power and radiation damage distrib., Boltzmann eqn. calc. 2−76548
aluminisation, form. of intermetallic phases and Ni_2Al_3 coating 2−99593
annealing phenomena, in critically work-hardened specimens *(French)* 2−99463
atom, electron impact K shell ionisation cross section, plane wave Born approx. 2−80821
atom, K-shell ionisation by protons, deuterons and alpha particles at low projectile energies 2−102632
atom, matrix isolated, MCD study 2−80537
atom, superposition errors, contracted basis set investigation 2−85537
atomic motions, Debye-Waller factors, neutron scatt. studies 2−97948
atoms, inner-shell ionisation by ultra relativistic electron impact, density effect search 2−70426
Auger electrons, and photoelectrons, accurate determ. of energies 2−82964
catalyst, dispersed, low-temp. transfer of H from surface to bulk 2−56252
catalyst, on SiO_2, high-resolution electron microscopy bright and dark field imaging 2−98299
catalyst for methanation reaction, use of single crysts. 2−83412
cavities depth distrib. induced by 20 keV He ion irrad. 2−86748
chemisorbed H, surface vibr. spectroscopy 2−87033
chemisorbed O at step sites, elastic interaction between atoms 2−98451
chemisorption, of CO, on (100) surface, C(KVV) Auger line shape 2−108643
chemisorption of Cl 2−56346
chemisorption of H on (100) and (111) surfaces, binding props., effective medium theory calc. 2−82137
chemisorption of O_2 under equilib. conditions, 850°C, AES study 2−61289
chemisorption of p(2×2) and c(2×2)O on (100) surface, surface EXAFS study 2−93326
chemisorption of S on (100) surface, surface EXAFS study 2−105003
coated polycrystalline Fe wire, plastic deform. during diffusion homogenisation *(Russian)* 2−67445
cold deformed, local cryst.-amorphous state phase change obs. 2−57374
cold rolled, recovery and recrystallisation in magnetic fields 2−62142
cold worked, X-ray diffr. line broadening, appl. of Voigt function in single-line method 2−81626
composite, porous and filled, internal friction and effective elastic moduli 2−99476
contact coating on Si power device struct., burn-in process control by electroinductive method *(Russian)* 2−83050
core hole satellites in XPS 2−57260
corrosion, in SO_2 at 500-800°C 2−99588
corrosion resistance, effect of plastic deformation *(German)* 2−88290
Debye-Waller factor calcs. 2−103932
decomposition of methanol on (100) surface 2−83413
deformed, small-angle cold neutron scatt. study 2−71548
density functional calculation of magnetic susceptibilities 2−66782
determ. in lateritic ores, using radioisotope X-ray fluoresc. 2−57665
diffusion in Cu, partial diffusion coeff. after ion irrad., fusion neutron effects simulation 2−86757
diffusion in Si, dissociative mechanism, expt. study 2−56259
diffusion of H, grain boundary mechanism, electrochem. and ion microprobe obs. 2−92284
diffusion parameters of W, dynamic computer model *(Russian)* 2−76740
diffusion saturation in Fe and steel, cavity growth *(Russian)* 2−104059
dislocation structures recovery, in elastically deformed single crysts. 2−71451
dispersed on kieselguhr catalyst, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
EELS, 3p threshold, dependence on momentum transfer, expt. study 2−110996
electrical resistivity, temp. depend. in ferro- and paramag. region, behaviour in phase transition region 2−71944
electrode components for Li-Al/FeS cell, corrosion resist. meas. 2−78201
electrodeposited, cryst. struct., positron annihilation, Mossbauer and X-ray study 2−104178
electrodeposited, X-ray diffr. line broadening, appl. of Voigt function in single-line method 2−81626
electrodeposited films, inclusions, direct obs. by TEM 2−92389
electrodeposition, multifaceted helicoidal struct. around [210] axis *(French)* 2−83051
electrodeposits, hydride phase form. and decomp. 2−116616
electrodes, plastic-bonded, microstructure 2−116704
electrodes in Ni/Cd cells, plastic bonded high rate, internal resistance 2−116798
electroless deposits, heat treatment effects on physical props. 2−57384
electrolytic contacts for p$Al_{0.7}Ga_{0.3}$As-pGaAs-n-GaAs concentrator solar cell 2−93893
electron energy absorption spectrometry *(German)* 2−113084
electron irrad., Frenkel defects, elec. cond. *(German)* 2−98080
electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
electron irradiated, low-temp. creep, pt. defect control of activated dislocation glide *(Russian)* 2−67448
electron irradiated, stage III activation energy 2−66069
electroplating on Al using electrolytic brushing combined with cathodic activation 2−99599
energy bands, semiempirical study 2−110234
exchange energy meas. by high freq. sound probe 2−66804
exchange splitting of phonon assisted microwave transmission at 9.5 GHz 2−66885
exoelectron emission, chem. nature of centres on surfaces 2−83012
fatigue induced cavities, small-angle neutron scattering 2−105274
Fermi surface, relative changes due to uniaxial tension 2−92441
ferromagnetic, band struct. calc., optical absorpt., photoemission and magneto-optical data anal. 2−66434
ferromagnetic, EM excitation of acoustic waves, orientational anomalies 2−86801
ferromagnetic, itinerant electron magnets, spin correlations 2−115964
ferromagnetic, mag. transition on cooling course 2−116002

nickel continued
ferromagnetic, optical props., temp. depend. *(Russian)* 2−61923
ferromagnetic (100) substrate, interface magnetisation of Cu films 2−82695
ferromagnetic jellium model, surface characteristics, var. techniques 2−72134
ferromagnetic surfaces, magnetisation, mag. struct., spin polarised LEED study 2−98910
ferromagnetic transition, character 2−56872
fibre materials, sintered, high-porosity, physicomech. props. 2−83192
film, adhesion to X-ray damaged PTFE 2−76872
film, Brillouin scatt. from magnons, Stokes-anti-Stokes asymm. 2−116202
film, CO adsorption, IR luminesc. under ultrahigh vacuum 2−93281
film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2−61019
film, elec. cond., temp. and mag. field depend. meas. 2−66660
film, electrodeposited, defect struct., TEM study 2−56387
film, electrodeposited, sputtering yield 2−77676
film, ion implanted, influence of disorder on resistivity 2−61616
film, single cryst., saturation magnetisation and anisotropy const., ferromag. reson., temp. depend. 2−56896
film, UV absorption spectra, absorption coeff. 2−82939
film, with oblique mag. anisotropy, anomalous magnetisation loop 2−56897
film deposition, planar magnetron characts. at high power input 2−57291
film interaction with Si, bilayer silicide form. 2−86949
film-electrolyte system, transient processes initiation by IR laser pulse 2−82046
films and coatings, porosity and internal stresses, annealing and thermal cycling effects *(Russian)* 2−76870
fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
grain boundary migration in recrystallised Mo foils, in presence of Ni 2−83146
grain boundary segregation of S and Cl, high resolution scanning AES and SIMS obs. 2−93518
hemispherical specimens, thermal diffusivity, sp. heat and thermal cond. determ., pulse method appl. 2−61219
high-porosity strips, capillary infiltration by Pb-Sn 2−115506
high-spin configuration, and oxygen network stabilisation *(French)* 2−61759
interaction cross section with low energy neutrons 2−59446
intercrystallite fracture obs. by high power US *(Russian)* 2−88160
ion beam textured surfaces, quasi-liquid states 2−82984
ion implantation, He bubble and blister formation 2−115314
ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
ion-surface scatt. for Ne^+ ions, computer simulation 2−62037
ionic implantation for SIMS quantification, corrosion study 2−99744
irradiated by He^+ ions, microhardness, microstruct., and blistering 2−98168
irradiation creep, 17 MeV deuterons, stress depend. 2−86749
irradiation creep, pulsed, 15 MeV deuterons 2−86751
K emission band, one electron model, dipole approx. 2−87908
laser irradiated single crystal, epitaxial regrowth and defects 2−61031
lattice dynamics and cohesion, calc. for nonsimple FCC metal 2−76615
liquid, normal spectral emissivity, 645 nm 2−81992
low overvoltage electrocatalysts for hydrogen evolving electrodes 2−73011
magnetic anisotropy consts., interdomain configuration transitions 2−66808
magnetic domain wall video images using real time topography 2−86509
magnetic surface states, angle resolved photoemission studies 2−66604
magnetisation standards 2−63963
magnetism, fluctuating local band theory 2−82558
magnetoelastic coupling and magnetisation 2−116046
magnetostriction in Ni rods under torsion, crit. stress and cryst. anisotropy effect 2−72320
materials with Z_2=23-30, electronic stopping cross section for 30-300 keV protons 2−66086
metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
metallisation of Si surface, electroless deposition 2−62080
microhardness, effect of neutron irrad. 2−103847
microstrain damping loops meas. during stage II deformation 2−57389
migration on C, SiO_2 and Al_2O_3, TEM obs. 2−86983
minority spin bands, inverse photoemission study 2−116293
mirrors, superpolished, deterioration by blue haze 2−102902
NMR on oriented ^{194}Ir 2−98977
nonstationary Ni^+ irradiation regimes effect on void formation 2−56050
nuclear stopping regime, evidence for insulator-metal effect on Z_1 range oscills. 2−103869
optical scales and grids of Ni, Cu, and Cd, physical development on iron oxalate emulsions 2−107440
overlayer on Cu(001), electronic struct. and magnetism 2−104241
oxidation, at high temps., initial stages 2−78001
oxidation, empty electronic states, inverse photoemission and SXAPS studies 2−61354
oxidation, high temp., cavity form. mechanism 2−93682
oxidation kinetics anisotropy, AES study 2−57541
oxidation rate consts., grain boundary diffusion mechanism 2−78020
oxide film, Auger sputtering profiles, quantitative interpretation 2−82962
oxide film growth, vibr. technique obs. 2−83311
paramagnetic susceptibility, temp. depend., small Pd additions influence 2−98842
particles on Spherocarb, mag. props. and particle size 2−92973
passive oxide films, electrochem. and surface analytical techniques 2−88260
phonon dispersion, three-body interactions effects, theory 2−98217
photographic image reversal phenomena in tetravalent Sn layers *(Russian)* 2−58962
photon emission from sputtered atoms as function of phase transition 2−77596
photon stimulated desorption of CO and NO from (100) surface, multielectron excitations 2−104156
plasma wall, passive He pumping, regeneration 2−71190
plasmas, Kalpha and K_β lines, struct. 2−103313
plastic deform. after US hardening *(Russian)* 2−77873
platelets, dynamic mag. response near T_c 2−66781
plating Fe powder, electrolytic Ni influence units distrib. on particle surfaces and powder particle size 2−116409
plating of Si power device struct., nondestructive control *(Russian)* 2−83049
pollution of Denmark coastal waters by heavy metals 2−78698
polycrystalline, chemisorbed gas, desorption by low-energy ions 2−74923
polycrystalline, internal friction, plastic deformation and mag. field effects *(Russian)* 2−116489
polycrystalline film, saturation magnetostriction meas. 2−77337
pore formation and swelling under Ar ion irrad., temp. depend. *(Russian)* 2−115312
porous, laser pulse treatment *(Russian)* 2−67355
porous, laser radiation effects, geometric characts. of craters 2−71501
powder, sintering diagrams, activation energy and mechanisms 2−93473
powder, sintering in mag. field 2−116411
powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
pure, fracture initiation and dynamic recrystn. during hot deform. 2−105317
radial distrib. functions, refl. EELS study 2−105020
range distrib. of deuterons, target crystallinity effects 2−66092
reflected particle charge states for grazing incidence of D^+, D_2^+ and D^0 2−77646
reflective coating, failure by cracking 2−61319
resistivity damage rate under neutron irrad. at 4.6K, 2−103827
secondary ions ejected by D^+, He^+ ion bombardment, energy anal. 2−93355
secondary cells, Ni/Cd, active material for positive electrodes, optimisation 2−116796
segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
self-ion sputtering yields 2−77660
short-range mag. order above Curie temp., photoelectron spectra study 2−87945
single cryst., magnetoelastic dispersion 2−77355
single cryst., plastic deformation, dislocation struct., stress/strain curves 2−109798
single crystal, (1$\bar{1}$0), white synchrotron radiation topography, mag. field effect 2−86623
single crystal, fatigued, plateau behaviour 2−115344
soft X-ray emission spectra, correlation effects calc. 2−99230
solid solution strengthening and softening, effect of H 2−105173
sound excitation and transmission, resonant and nonresonant, 9.37 GHz 2−61076
specific heat and resist. meas. crit. parameters, explanation for rounding 2−92929
spin waves, mag. props. 2−66795
spray-deposited black Ni selective absorber coatings on Al and galvanised Fe substrates for solar thermal conversion 2−78243
sputter deposited on polymer surfaces, XPS study of 'hot' atom interactions 2−93805
sputtering of keV protons, ang. distrib., hybrid Monte Carlo calc. 2−72590
strain fluctuations and elastic constants 2−62155
surface, $^4He^+$ impact, 0.5 to 1.8 MeV, projected range and spread 2−82993
surface, (001), adsorbed O, c-(2×2) binding distance, LEED expt. and theoretical study 2−104152
surface, (100), CO adsorption, ordered structs., LEED, EELS and IR data correlation 2−98456
surface, (100), H_2 and CO coadsorpt., electron spectroscopy study 2−76827
surface, (100), ion bombardment induced faceting, LEED study 2−56310
surface, (110), adsorbed H, vibr. modes, EELS study 2−76797
surface, (110), adsorbed inert gas monolayer, UPS meas. 2−57261
surface, (110), adsorbed O, atomic structure, LEED, AES, EELS and work function study 2−66329
surface, (110), adsorbed O(S)(Se)(Te), angle resolved UPS study 2−77699
surface, (110), chemisorbed N_2, angle resolved UPS and EELS study 2−92359
surface, (110), extensive LEED anal., merits and drawbacks of I(g) approach 2−82102
surface, (110), extensive LEED anal., R-factor anal. 2−82101
surface, (110), extensive LEED anal. 2−82100
surface, (110), N_2^+ implantation, AES, LEED, EELS and secondary electron spectra study 2−92014
surface, (110), surface barrier resonances excitation map, two dimensional nearly free electron approx. 2−77147
surface, (110) and (111), H^+ ion reflection, ionic charge states, expt. study 2−57234
surface, (111), acetylene chemisorpt., extended-Huckel calcs. 2−66358
surface, (111), adsorbed nitrobenzene, surface Raman spectra without surface enhancement obs. 2−77504
surface, (111), chemisorbed CO, photoemission study *(French)* 2−105052
surface, (111), nitrobenzene absorbed layer, surface Raman spectroscopy without enhancement 2−67061
surface, (111) and (211), initial oxidation kinetics, RHEED and X-ray emission study 2−57542
surface, adsorbed ethylene, SIMS and thermal desorpt. study 2−56353
surface, angle resolved flash-desorption of H_2 2−71801
surface, chemisorbed CO(N_2), SCF-Xα SW model cluster calcs. 2−61278
surface, chemisorpt. of benzene, hydrogenation and exchange *(French)* 2−67766
surface, CO chemisorption, cluster formation, SIMS study 2−71800
surface, effects of Fe in reactivity 2−78135
surface, interaction with pyrazine, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 2−102523
surface, low energy He^+ scatt., Auger neutralisation model 2−82992
surface, N_2^+ beam reaction in low kinetic energy region, Auger effect 2−99706
surface, O_2 and H_2 adsorption kinetics, surface struct. effects, Auger, LEED and work function meas. 2−87066
surface, rough, reflectance spectral selectivity meas. 2−67027
surface, stepped, CO adsorpt. and dissociation, FEM study 2−92358
surface (001), adsorbed CO, core level angle resolved XPS, single scatt. theory, mol. vibr. effects 2−111034
surface (001), disordered O and CO adsorbate layers, He scatt. study 2−98445
surface (001), K covered, low energy K^+ scatt., survival probability 2−77669

nickel continued
surface (001), surface barrier resonances, excitation map calc. 2−61538
surface (001), surface barrier resonances at tilted incidence, extinction map 2−77148
surface (001), surface magnetism, magnetisation, spin polarised LEED study 2−98911
surface (100), adsorbed O_2 and CO periodic overlayers, adatom vibr. mode freq. estimation 2−87006
surface (100), adsorbed O(S), ordered struct., EELS spectrum, theoretical anal. 2−67162
surface (100), chemisorption of CO, vibr. freq. and ionisation pot., generalised valence bond methods 2−66370
surface (100) and (111), adsorbed H, O and S, vibr. freq. calcs. 2−98422
surface (110), adsorption of Ar, Kr, Xe, CO, O_2, N_2, electronic binding energies of valence levels, UPS study 2−82437
surface (110), chemisorption of CO, vibr. spectra, EELS study 2−82133
surface (110), clean and O covered, Li^+ and He^+ ion scatt. 2−99263
surface (110), He diffraction, incident energy depend., soft exponential pot. 2−99255
surface (110), He scatt., energy depend. and softness of pot. 2−87931
surface (110), O covered, low energy Li^+ and He^+ ions scatt. 2−77667
surface (110), outer-shell electronic processes in Ne^+ collisions 2−77665
surface (111), adsorbed acetylene, full dynamical LEED anal. 2−115521
surface (111), O predosed, NH_3 interaction 2−110156
surface (311), LEED crystallographic studies, methodology and uncertainties 2−86994
surface (311), LEED structural anal. 2−86993
surface anisotropy irrelevance for mag. crit. behaviour near free surface 2−92923
surface bound portions, theory of desorption 2−87195
surface mag. moment and electronic struct., Hubbard model 2−115980
surface magnetism, polarised electrons 2−66890
surface oxidation, suppression during laser surface treatment 2−83294
surface sp-d charge transfer 2−104458
surface sp-d charge transfer 2−104459
surfaces, chemisorbed S(Se)(Te), electronic struct., mol. cluster model 2−77150
surfaces, dehydrogenation of cyclohexane, cyclohexene and cyclohexadienes to benzene 2−83415
surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
surfaces (001) and (111), O_2 interaction, SIMS investig., residual hydrogenated cpds. intervention 2−73015
surfaces (111) and (100), CO adsorbate struct., SIMS study 2−98448
thermal expansion, up to 600K above melting 2−66260
thermoelectric behaviour of metal powders depending on press. *(German)* 2−77024
thin film, 40 keV Xe^+ implanted, range profile and sputtering efficiency 2−66091
thin film, inelastic mean free paths of Auger electrons 2−93335
thin film on Cu substrate, presence and absence of magnetism 2−104667
Tokamak discharges, transitions in n=2 ground state configurations 2−86479
UV isochromat spectra, k-conservation effect 2−72562
UV spectra, fundamental absorpt. band asymmetry meas. *(Russian)* 2−93215
void swelling, pulsed ion beam effects 2−85214
wires, ultrathin, low temp. resist. rise, interaction effects 2−92566
work function, electrolytic hydrogenation effect *(Russian)* 2−66623
X-ray K emission band meas. 2−99231
Al-Ni-Al layer system anal. by Rutherford backscatt. spectrometry 2−105177
α-Al_2O_3:Ni^{2+}, US self-focusing 2−66134
As_2Se_3:Ni glass films, photoluminesc. meas. 2−116259
CaS:Ce, Ni, phosphors, luminescence emission and decay, quenching 2−77584
CdI_2:Ni^{2+}, phonon side bands in absorpt. spectra 2−99161
CdS:Ni, excited state lifetimes, 4 to 300K, luminesc. study 2−57162
CdS(Se):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
$CdWO_4$:Ni^{II}, electronic ligand-field spectrum meas. 2−72526
Cs_2ZnCl_4:Ni(II), polarised electronic spectra at temps. betwen 300 and 10K 2−77557
Cu (111)(1×1)-Ni, LEED study using reliability (R) factors 2−110116
Cu/Ni bilayer system, interfacial diffusion coeffs. meas. during diffusion induced grain boundary migration 2−71739
Cu/Ni thin films, interdiffusion, Auger study 2−82035
Cu/Ni ultradisperse layer system, cold homogenisation by mutual diffusion *(Russian)* 2−104076
Cu-Ni multilayer films, interdiffusion, Auger electron depth profiling 2−82038
Cu-Ni system, diffusion erosion phenomenon *(Russian)* 2−77988
Cu-Ni-Cr protective coatings, corrosion resistance evaluation by electrochemical porosity test *(German)* 2−105365
Fe-B-Si-Ni-Mo metallic glass, crystn. kinetics, DSC study 2−71364
Fe-Ni grains, discovery in olivine of unequilibrated ordinary chondrites 2−100848
GaP:Ni, charge state of Ni^{2+}, piezoabsorpt. and Zeeman meas. 2−99087
GaSe:Ni, luminescence spectra, absorption edge, struct. defects *(Russian)* 2−93273
Ge:Ni, photoelectromotive force, carrier density 2−87339
Ge/Ni, monolayer metal coverage, interface electronic struct., XPS study 2−82455
He bubble growth in Ni at dislocations, kinetics and phys. mechanisms 2−109826
He diffusion, in Ni 2−104063
$KTaO_3$:Ni, electron trap levels, ESR and TSC meas. 2−82703
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
α-$LiIO_3$:Ni^{2+}, impurity ground state level splitting, EPR study 2−56530
$LiNbO_3$:(Ni), γ- and X-ray irradiated, ESR, optical absorpt. and elec. cond. 2−98951
$LiNbO_3$:Ni^{2+}, impurity ground state level splitting, EPR study 2−56530
$MgWO_4$:Ni^{II}, electronic ligand-field spectrum meas. 2−72526
Mo-base alloys, Ni-activated recrystn., TEM and optical study *(Russian)* 2−116459
N-amorphous Si-Al struct., tunnelling characteristics meas. 2−66657
NH_4Cl:Ni, γ-irrad., off-centre impurity model, EPR investig. 2−82701
NH_4MgPO_4:Ni^{2+}.$6H_2O$, X- and γ-irrad. damage, EPR and absorpt. spectra study 2−57135
NaCl:Ni, plastic deform. around precipitates, dislocation microstruct. 2−103770
nickel continued
NaCl:Ni, precipitates, etch pit study of dislocation microstructure 2−91971
NaCl:Ni_3 precipitation-induced dislocation loops and helices 2−98102
NaCl:Ni^{2+}, microhardness and bulk density meas., precip. and impurity-dislocation interactions 2−115345
Ni (100):K surfaces, metastable de-excitation spectra 2−82197
Ni (110) surfaces, S and N covered, N_2^+ mol. ion dissoc. 2−78069
Ni I, oscillator strengths for optical spectral lines *(Russian)* 2−90478
Ni II, transition probabilities and collision strengths 2−94589
Ni ions, Born-approx. electron ionisation cross section, oscillator strengths, proton stopping power calc. 2−96644
Ni vicinal surfaces, oxidation of C 2−78137
Ni^{2+} impurity ions in fluoride host lattices, optical props. 2−93276
Ni^{2+} in fluoride, phosphate and fluorophosphate glasses, ESR study *(Chinese)* 2−110622
Ni:B, cavitation-erosion resist., effect of B implantation 2−88197
Ni:B, solid state track autoradiography study of B distrib. 2−92016
Ni:$CaY_2Mg_3Ge_3O_{12}$ lasers, liq. N_2 cooled, pulse-pumped operation 2−102800
Ni:Cr^+(Ni^+) oxidation, effect of implantation 2−88254
Ni:D, ion-implanted, permeation and re-emission rate, rel. to irrad. damage 2−74937
Ni:D^+, ion implanted, impurity defect trapping, ion beam anal. studies 2−81812
Ni:H, impurity electronic struct. and hyperfine fields 2−110292
Ni:He, gas re-emission and surface structure due to implantation 2−76469
Ni:He, ion implanted, damage profiles, swelling due to Ni ion irrad. 2−103805
Ni:He, ion implanted, low temp. release of He 2−82118
Ni:He^+, D^+, ion implanted, D trapping, ion beam anal. studies 2−81813
Ni:MgF_2 lasers, liq. N_2 cooled, pulse-pumped operation 2−102800
Ni:P, implanted, channelling study of amorphous phase formation 2−81804
Ni:S, intragranular S segregation, SEM and AES study *(French)* 2−109998
Ni/Cr thin-film structures, sputter depth profiles obtained from emission of Auger electrons and X-rays 2−77682
Ni/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
Ni/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Ni/Zn batteries, vibrating Zn electrodes, mass transfer enhancement 2−88421
Ni-Ag two-layer thin films, magnetoresist. *(Russian)* 2−66664
Ni-Al_2O_3-Al tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-C spectrally selective films produced by reactive sputtering, structural and electrical props. 2−98490
Ni-Cd batteries, hermetically sealed, data, maintenance and use *(Croatian)* 2−88424
Ni-Cd cells, impedance and mass transport kinetics 2−78199
Ni-Cd secondary cells, characts. guide 2−62469
Ni-CdS-C, switching struct., with potential barrier, elec. characts. 2−87407
Ni-Cr/Ni-Al thermocouple response linearization using FET cct. 2−53757
Ni-Cr_3C_2 electroless composite coatings for wear resistant applics., prep. and characts. 2−67666
Ni-Cu misfit boundaries, grown-in dislocation generation during 3D nucleation and growth 2−103772
Ni-Fe and Ni-Zn alkaline battery electrodes, temp. limitations 2−88423
Ni-Fe cell, sintered Fe electrode struct. obs. 2−93886
Ni-GaSe interface, Schottky barrier formation, UPS study 2−110443
Ni-H_2 battery technology development and stations for spacecraft applications 2−83468
Ni-InP interface, Schottky barrier formation, UPS study 2−110443
Ni-NO_2 black foil, optical and thermal props. 2−67139
Ni-O surface, interaction with H_2 and H_2O, SIMS study 2−99708
Ni-Si, atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Ni-Si, interfacial cpd. form. and electronic struct., photoemission and AES study 2−82036
Ni-Si couple, lateral diffusion and Ni_2Si growth, SEM study 2−115471
Ni-Si interface, chem. bonding and density of states, UPS and LCAO calc. 2−110476
Ni-Si interface, ion beam mixing, expt. study 2−66376
Ni-Si interface, laser and electron beam irrad., silicide form. 2−66377
Ni-Si interface, Ni_2Si thermal formation, ion irrad. enhancement 2−56369
Ni-Si interface bonding, XPS study 2−110477
Ni-SiO_2 dispersion hardened alloy made by internal oxidation method, high temp. hardness *(Japanese)* 2−105303
Ni-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Ni-W, ion beam microtextured surface, optical absorption coeff. 2−83277
Ni-WC cermet, electrocodeposition and mech. props. 2−93462
Ni-Zn traction battery, operational characts. during traction applications *(Russian)* 2−116799
Ni-ZnS(Se) Schottky barrier contacts, exptl. study 2−72057
Ni^{2+}-Al^{3+} interaction in aqs. soln., NMR relax. study 2−87614
Ni+ethylene surface reaction, SIMS and thermal desorpt. mass spectra 2−105514
Ni+H^+, K-shell X-ray prod. cross section meas. in energy range 300-2400 keV 2−90492
Ni+Ni ions, delta electrons and continuous X-ray generation 2−96721
Ni^++C, double-differential cross sections for delta-electrons 2−75401
Ni^++O_2(N_2O) andothermic reaction, translational energy depend. of cross sections 2−62389
Ni_2 and Ni_4, ionisation manifolds comparison using symmetry broken SCF wave functions 2−102667
Ni_4 cluster, Xα LCAO and Xα scatt. wave calc. comparison 2−96786
NiO growth, and dissoln. on Ni (100), temp. effects 2−83404
^{63}Ni surface diffusional electrotransport on W and Mo *(Russian)* 2−104083
PbI_2:Ni^{2+}, phonon side bands in absorpt. spectra 2−99161
Raney Ni, chemisorption of H_2 and D_2 incoherent neutron inelastic scatt. 2−104142
Si:Ni, γ-irrad., elec. cond., photocond. and galvomag. props. 2−115761

nickel continued
Si(111)-Ni interfaces and thin films, valence photoemission study 2−105044
SrF_2:Ni, X-ray irrad., luminesc. meas. 2−110921
T 2−113757
TiB_2-Ni ceramics, crack form. and swelling in liquid Al 2−111273
W-Ni point-contact diode, expt. nonlinearity coeffs. 2−56723
α-Y, fast diffusion and electrotransport of Co, Fe and Ni 2−86933
Zn/Ni ratio meas. in cosmic radiation using Lexan polycarbonate track detector 2−68580
ZnO(S):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
ZnS:Ni, excited state lifetimes, 4 to 300K, luminesc. study 2−57162
ZnS_xCdS_{1-x}:Ni, phosphor, visible image formation from IR radiation 2−77563
ZnS(Se):Ni, amphoteric exciton trapping by 3d impurities 2−76937
ZnSe:Ni, near IR photolum. detect. 2−116236
$ZnWO_4$:Ni^{II}, electronic ligand-field spectrum meas. 2−72526

nickel alloys
see also Elinvar; Invar; nickel compounds; Permalloy
Alnico magnets, anisotropic, model for field computation 2−82638
Astroloy, wrought, grain boundary void nucleation during high temp. creep 2−93575
Astroloy, wrought, grain boundary voids nucleation in intergranular fatigue crack vicinity 2−93626
bipolar cell for advanced alkaline water electrolysis 2−99849
constantan film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
corrosion in atmos. containing C and O_2 2−88276
dilute, diffusion of H,D, and T, mag. aftereffect meas. 2−82027
emission spectrochemical analysis, fixed time integration method *(Japanese)* 2−78159
ferromagnetic, low temp. mobility of domain walls 2−87529
granular heat resistant, struct. form. 2−105175
Hastelloy alloy G, roles of ordering and impurity segregation as H-assisted crack propag. 2−57481
Hastelloy C-276, heterogeneous precipitates, electron microscopic anal. 2−99432
Hastelloy C-276 and G, Ni-base stainless alloys, H transport rel. to H embrittlement 2−99539
Hastelloy X, carburization protection with Ti-Si enriched layers 2−116619
heat resistant, high-temp. cyclic creep, effect of cyclic and static stresses 2−67461
heat-resistant, creep resist. determ. by prolonged ball indentation into crater 2−99632
heat-resisting, directional solidification, B influence on fine struct., diffusion and creep 2−67321
heat-resisting, EP-741P, fracture behaviour investig. by thermal microscopy, P/M alloys 2−67545
heat-resisting cast, directed change of comp. and morphology of primary carbide phases 2−67320
IN 100, superalloy, powder consolidated, superplastic response, effect of heat treatment 2−93570
IN 738, cast, sequential effect of creep and fatigue 2−105330
IN 738 LC and IN 939, Ni-base cast superalloys, high cycle fatigue 2−105318
IN 738LC, superalloy, anisotropic, creep transients in deform. 2−83163
Incoloy, corrosion by simulated high level radioactive waste *(Japanese)* 2−59465
Incoloy-800, Ni-base superalloy, fatigue crack growth, elevated temps., sulphidising environments 2−67526
Inconel, corrosion by simulated high level radioactive waste *(Japanese)* 2−59465
Inconel, TFR Tokamak limiter, thermal load during additional heating pulses and major plasma disruptions 2−65771
Inconel 600, 625, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
Inconel 600, Cr depletion at grain boundaries, detection 2−60996
Inconel 600, mechanically polished and sand- and bead-blasted, thermal outgassing props. 2−110161
Inconel 600, Ni-base superalloy, corrosion behaviour in high temp. steam, effect of grain size 2−67615
Inconel 600, SCC in NaOH, composition and heat treatment effects 2−77983
Inconel 600, SCC using const. strain rate test 2−57520
Inconel 600, stress corrosion cracking in high-temp. water 2−83297
Inconel 600, structural material for fusion reactor appl., Ta protective coatings 2−74911
Inconel 600, superalloy, ultra-pure, H embrittlement, effect of C, P, Sn and Sb additions 2−67525
Inconel 600 alloy, stress corrosion cracking 2−83298
Inconel 600 surfaces, H_2 and CO adsorpt. behaviour under laser-induced thermal desorpt. 2−66357
Inconel 625, high-temp. air oxidation 2−80115
Inconel 625, sequentially He^+ implanted, surface exfoliation suppression 2−76522
Inconel 700, creep strength, microstruct. depend. 2−77932
Inconel 718, Ni-base superalloy, low cycle fatigue, stress-strain behaviour 2−116516
Inconel alloy 600, stress corrosion cracking in PWR boilers 2−80124
Inconel X750, age hardenable, stress corrosion cracking in hot water, rel. to prior heat treatment 2−83299
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
Inconel X-750, fatigue and creep crack growth at elevated temps., effect of environment 2−99536
Inconel X-750, limiters in Doublet III, changes in near-surface microstructure 2−74901
metallic glasses, $(A_xB_{1-x})_{75}P_{16}B_6Al_3$, A and B=Fe, Co, Ni, Mn or Cr, mag. phase diagrams 2−92931
metalloid additions effect on high-temp. ductility, intergranular embrittlement 2−72839
Metglas 2826, Ni-Fe-base metallic glass, dynamically compacted, mech. props. 2−99527
microstructural aspects of superplasticity 2−83182
misch metal-Ni-Si alloys, H absorpt.-desorpt. characts. 2−87024
Monel 400, liq. metal and H embrittlement, influence of grain boundary P conc. 2−77930
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899

nickel alloys continued
Ni-Cr thin film resistors 2−87976
Nimonic alloy PE 16, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
Nimonic AP1, superalloy, powder-formed, near-threshold crack growth, effects of grain size and microstruct. 2−93616
Nimonic PE16, anomalous contrast from stacking faults 2−76464
Nimonic PE16, ion bombarded, damage struct. 2−109855
Nimonic PE16, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
oxide dispersion strengthened alloys, crystallographic texture 2−99444
Permalloy, pulse plating system for high-resolution deposits 2−62079
powder atomisation, molten particles impinging on water-cooled Cu plate, cooling rate calc. 2−67252
rare earth alloys, $RNiAl_2$ (R=Y, Gd, Tb, Dy, Ho, Er, Tm, Kb, Lu), mag. susceptibility and cryst. struct. *(Russian)* 2−115968
rare earth-gallium-nickel system, phase comp. and crystallographic characts. *(Ukrainian)* 2−83079
Rene 95, Ni-base superalloy, fatigue crack propag. thresholds for long and short cracks 2−105314
stainless alloys, surface wave studies of H damage incubation time 2−111296
steel, austenitic, Cr-Ni, surface (100), water vapour adsorpt., AES studies 2−66343
steel, low alloy, Ni effect on hydrogen stress cracking resistance, review 2−116598
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
Stellite-6, in fission reactors, ^{60}Co release rates 2−80114
stereological models, for quantitative evaluating exposures 2−83313
strain testing by moire method, high-temp. linear grids appl. 2−93712
superalloy, anisotropic fatigue hardening at elevated temp. 2−72927
superalloy, creep life, effect of room temp. restrain and subsequent heat treatment 2−72833
superalloy, IN-100, an eval. study of Al-n and Cr-Al-N coatings 2−67591
superalloy, intergranular fracture assoc. with heterogeneous deform. modes during low-cycle fatigue 2−72834
superalloy, particle strengthened, resisting stress model of creep, stacking fault energy role 2−88149
superalloy IN 100, hybrid experimental-numerical procedure for determining creep crack growth rates 2−77899
superalloy IN 738, applicability of strain-range partitioning to high temp. low cycle fatigue life prediction 2−88162
superalloys, B-1900 and NASA-TRW VIA, hot corrosion chem. reactions, expt. study 2−78000
superalloys, NIM80A, NIM90, NIM105, IN738, IN939, long-term growth of γ′ particles 2−105153
superalloys, phase identification, by interference film microscopy 2−62322
superalloys, precipitate struct., convergent beam electron diffr. study 2−72709
superalloys thermodynamics, activity coeffs. of Al, Ti, Cr, Fe, Co, Ni, Mo and W 2−99390
thermal fatigue cracking, appl. of low cycle fatigue data 2−88153
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Ag-Ni, sintering, effect of additions of MgO particles 2−88027
$Al-Al_3Ni$, chill-cast, directionally solidified, effect of hot-rolling 2−83141
Al-Ni, metastable alloy form., by electron beam annealing 2−56041
Al-Ni-Co-Cu-Ti, Alnico 8 alloy, $\alpha \rightarrow \gamma$ transformation, α_γ phase precipitation, coercive force study 2−91858
Al-Si-Ni-Mg-Cu, Ni, Mg, and Cu additions effect on tensile strength, hardness, abrasion and thermal expansion *(Korean)* 2−57418
Au-Ni, core hole satellites in XPS 2−57260
Au-Ni alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
AuGeNi ohmic contacts to MBE grown GaAs epitaxial layers, charact. 2−66637
AuGeNi-InP contact, electron microscopy investig. 2−66379
AuNi, FCC struct., phase separation, phase diagram, cluster variation calc. 2−92220
$B_{20}Fe_{40}Ni_{40}$, metallic glass, He ion irrad., sputtering and blistering 2−76521
C/O gas bubble form., thermodynamic requirements 2−105116
$CaNi_5$ alloy, gaseous atmosphere effect on exoelectron emission from H cracked surfaces *(Japanese)* 2−77713
$CaNi_5$, H_2 and D_2 desorpt. isotherms meas., H_2 storage appl. 2−105506
$CaNi_5H_x$, cryst. struct., hydriding, X-ray diffr. study 2−91875
Cd-Ni powders, predetermined comp., electrodeposition 2−72653
$CeCu_{5-x}Ni_x$, NMR and mag. susceptibility 2−66938
$Ce(Mn,Ni)_{11}$, cyclic intergrowth and crystal structures 2−65975
$CeNi_x$, intermediate valence state of Ce, interconfiguration fluctuation model 2−76994
$Ce(Ni_{1-x}Cu_x)_5$, mixed valence, Ce^{3+}-Ce^{4f} electronic transition, X-ray K line shift study 2−56497
$CeNi_2Si_2$, valence state of Ce rel. to thermoelec. power, X-ray absorpt. spectra meas. 2−61448
Co-Cu-Ni, computer calc. of phase diagrams *(Japanese)* 2−105121
Co-Ni, sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-Ni, ternary oxide scale form., diffusional growth, computer simulation 2−62271
Co-Ni (0.45 wt.%), O_2 press. effect on elev. temp. oxidation *(Japanese)* 2−105375
Co-Ni (33wt.%), fatigue crack tip, plane strain distrib. 2−111261
Co-Ni-Al-Ti-Cu, porous, laser pulse treatment *(Russian)* 2−67355
Co-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
β′-CoAl, optical absorpt. spectra meas. 2−82866
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ ribbons, domain pattern annealing effect 2−92978
$Co_xNi_{1-x}MnGe$, cryst. and mag. struct. 2−104581
$Co_xNi_{1-x}MnGe$, hexagonal, mag. props. 2−56835
$Co_{1-x}Ni_xZr_2$, supercond., anisotropy of normal state props. 2−110324
Cr-Ni (45 wt.%) film, amorphous sputtered, crystn. 2−110211

nickel alloys continued
Cr-Ni steel, Kh16N15M3B, reactor irrad. in N_2O_4 medium, effect on strength and plasticity 2−116613
Cr-Ni-Fe, free energy Kohler method rel. to subregular model 2−62103
Cu (110)-Ni surface alloy, adsorption of O_2 and reaction with H_2 and CO 2−104161
Cu/Ni compositionally modulated films, magnetisation and Curie temp. meas. 2−87533
Cu-Al-Ni, β-type alloy, internal friction amplitude dependence meas. *(Russian)* 2−99469
Cu-Al-Ni, shape memory alloys, ageing effects 2−77852
Cu-Al-Ni (14, 3.4 wt.%), shape memory alloy, shape strains assoc. with thermally-induced and stress-induced martensite 2−57350
Cu-Al-Ni β-phase shape memory alloys, intergranular fracture origin 2−72838
Cu-Al-Ni; loaded; internal friction meas. *(Russian)* 2−88116
Cu-Al(Ni), Cu Fermi surface changes due to alloying 2−82209
Cu-Be-Ni (2 wt.%, 0.30 wt.%), ageing charact. *(Chinese)* 2−62147
Cu-Ni, deviation from Matthiessen's rule 2−110327
Cu-Ni, dilute, Matthiessen's rule deviation at high temp. 2−115729
Cu-Ni, electron irrad., rad. induced segregation at internal sinks 2−86731
Cu-Ni, electronic struct. atomic approx. 2−104244
Cu-Ni, failure anal., impurity segregation, Auger spectra study 2−83205
Cu-Ni, Fermi surface, density of electron states, positron annihilation study *(German)* 2−104231
Cu-Ni, high temp. sputtering, ion-enhanced diffusion, grain boundary erosion *(Japanese)* 2−116317
Cu-Ni, sputter-enhanced diffusion at high temps. 2−92279
Cu-Ni, surface (110), CO adsorption 2−56362
Cu-Ni (40 at.%) alloy, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
Cu-Ni (40 at.%) Ar^+ irrad., subsurface composition modification 2−74932
Cu-Ni (40 wt.%), physisorbed ^3He desorpt. kinetics, prefactors and compensation effect 2−98458
Cu-Ni alloy, in seawater, AES study of corrosion mechanism 2−93662
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
Cu-Ni alloy particles, Ni impurity distrib., mag. props. study 2−76485
Cu-Ni alloys, elec. and mag. props. at 4K 2−77018
Cu-Ni alloys, friction and wear 2−88217
Cu-Ni composition modulated foils, thermoelec. props. meas. 2−98629
Cu-Ni compositionally modulated film, Arrott plots, computer anal. 2−72304
Cu-Ni compositionally modulated thin film, mag. behaviour, struct. 2−98920
Cu-Ni substitutional alloy, XVV Auger effect, theory 2−77630
Cu-Ni thin film, static and dynamic mag. studies 2−72303
Cu-Ni Zn system, ternary diffusion paths prediction 2−104082
Cu-Ni/LaB_6 system, wetting and the contact reaction 2−71777
Cu-Ni-Al-Fe, bronze, as-cast, morphology, crystallography and chemistry 2−111140
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ni-Fe, superplasticity and form. of microduplex struct. *(Japanese)* 2−72769
Cu-Ni-Fe disperse ferromag. particles, mag. state transition with charge in interparticle distance *(Russian)* 2−104665
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Mn-Fe (45.19, 0.95, 1.40 wt.%) constantan wire, elec. resist., press. effect *(Japanese)* 2−98623
Cu-Ni-Sn (10, 6 wt.%), spinodal, high cycle fatigue behaviour 2−99532
Cu-Ni-Sn (10.8.wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Cu-Ni-Sn (9, 6 wt.%), combined recrystn. and precip. 2−77840
Cu-Ni-Sn spinodal alloy, tensile props. improvements by two-phase heat treatment 2−116478
Cu-Ni(Cu-Ni-Fe), mictomagnetic aged alloy, mag. susceptibility and elec. resist. meas. *(Russian)* 2−98885
Cu-Ni(Pd) alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
β-CuAlNi, pseudoelastic, thermal effect in β_1-β'_1 transform. 2−111177
Cu_xNi_{1-x}, surface segregation, electronic theory, local density of states 2−61152
Cu_2NiSn, Heusler alloy, elec. and mag. props. 2−110326
Cu_2NiZn, ordering alloy, mech. props. 2−105216
CuPbNi, solid-liquid two-phase system, equilib. microstruct. and interface tensions *(French)* 2−61156
Dy-Ni phase diagrams, X-ray and DTA study *(Chinese)* 2−93488
$DyNi_5$, ^{181}Ta TOPAC meas. of non-axial quadrupole interaction 2−93089
$DyPd_{1-x}Ni_x$, phase relationships and struct., 2−109744
Er-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
$ErNi_5$, ^{181}Ta TOPAC meas. of non-axial quadrupole interaction 2−93089
$(Fe,Ni)_3V$ long range ordered alloy, resistance to neutron and ion irrad. 2−85217
$(Fe,Ni)_3V$, long-range ordered alloys, fusion reactor appl., mech. props. 2−85218
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-Co-Ni activity measurement, implications for solar nebula condensation processes 2−84115
Fe-Co-Ni system, mag. moment, CPA calc. *(Russian)* 2−115981
Fe-Cr-Ni, austenite-ferrite struct., tensile props. and fracture *(Japanese)* 2−105239
Fe-Cr-Ni, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Fe-Cr-Ni, ternary phase diagrams, computer calc. *(Korean)* 2−67289
Fe-Cr-Ni alloys, electron-irrad., swelling and Ni segregation 2−111182
Fe-Cr-Ni alloys, neutron irradiated, defect recovery 2−66074
Fe-Cr-Ni-Al, NiAl precipitation during ageing 2−105156
Fe-Cr-Ni-Al coatings, for resisting fretting wear in temp. range 20-700 °C 2−88291
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-Cr-Ni-based alloys, commercial, electron irrad., void swelling 2−103820
Fe-Cu-Ni (2,2 at.%), ε-Cu precip. on interphase boundaries, orientation relationships, electron microscopy study 2−72707
Fe-Mn-Cr-Ni systems, alloy comp. effects on lattice parameters regarding γ, ε and α phases *(German)* 2−88058
Fe-Mn-Ni alloys, influence of comp. and plastic deform. on paramag. phase content 2−83246
nickel alloys continued
Fe-Ni, atomic ordering effects on mag. props., superlattice form., TEM study 2−92966
Fe-Ni, ferrite-austenite orientational relationships during $\gamma \rightarrow \alpha$ transformation *(Russian)* 2−93505
Fe-Ni, ferromagnetic state, electronic struct., electron-magnon interaction effects 2−82217
Fe-Ni, galvanic, microindentation hardness, deposition parameters influence *(Russian)* 2−67626
Fe-Ni, laser surface alloying, mass transport effects, theory 2−93660
Fe-Ni, liq., normal spectral emissivity, 645 nm, comp. depend 2−81992
Fe-Ni, packet martensite, struct. changes during annealing, electron microscopy study *(Russian)* 2−99425
Fe-Ni, passive film exam. by AES 2−57513
Fe-Ni, secondary ion emission under O_2^+ bombardment, oxidation 2−82980
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni, wetting of TiC 2−67597
Fe-Ni (29.9 wt.%), anomalous diffusion of C, martensitic transform. role 2−71727
Fe-Ni (31.2 wt.%); direct and reverse martensitic transforms., impulse duration influence *(Russian)* 2−67335
Fe-Ni (32 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni alloys, critical, mag. struct., Arrott plots and Mossbauer spectra 2−104615
Fe-Ni based austenitic alloys, electropolishing effect on struct. state 2−78014
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Ni films, periodic domain walls interactions, electron microscopy study *(Russian)* 2−87560
Fe-Ni Invar alloys, magnetocrystalline anisotropy, torque meas. 2−110576
Fe-Ni martensitic alloys, tempering behaviour in cryst. microstruct. *(Korean)* 2−83144
Fe-Ni solid solns., vol. effects in thermodynamics at high temps. 2−61172
Fe-Ni-Al system, phase equilib. and cryst. struct. of ternary phases 2−99399
Fe-Ni-Al-Co-Cu;Ti, thermomag. treatment, struct. form. and mag. props. 2−62152
Fe-Ni-B based amorphous ferromags., aging effects on mag. props. 2−98909
Fe-Ni-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217
Fe-Ni-C, martensite, physical-metallurgy charact. of unstable flow *(Czech)* 2−67437
Fe-Ni-C, nucleation of burst martensite 2−57351
Fe-Ni-C, substruct. of lenticular martensite 2−72697
Fe-Ni-C (24, 0.5 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni-C alloys, precipitation and distrib. of carbides, effects on martensitic transform. and electrochem. behaviour *(French)* 2−99433
Fe-Ni-Co, phase transitions occurring during heating *(Russian)* 2−62119
Fe-Ni-Co (54, 28.5, 17.5 wt.%), struct. transforms. of FCC phases on heating 2−62121
Fe-Ni-Co powders obtained by decomp. of carbonyls, Co content influence on phase comp. 2−67294
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
Fe-Ni-Co-Ti, martensite and austenite, disperse γ' particles elastic deform. and $\gamma' \rightleftharpoons \alpha$ transitions *(Russian)* 2−88078
Fe-Ni-Co-Ti (23, 10, 10, wt.%), martensitic transformation 2−83118
Fe-Ni-Cr, A286 superalloy, electron beam welded, fatigue crack growth 2−111300
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
Fe-Ni-Cr, mass transfer and corrosion in Li, Ni conc. effect 2−72866
Fe-Ni-Cr, sp. ht. and magnetis. near Curie pt., anomalous behaviour *(Russian)* 2−66836
γ-Fe-Ni-Cr, spin glass state charact. near crit. conc. *(Russian)* 2−98886
Fe-Ni-Cr alloys, grain coarsening, influence of second phase particles 2−93511
Fe-Ni-Cr-Al-Y alloys, high-temp. oxidation, adherence of Al_2O_3 scale 2−105367
Fe-Ni-Cr(-Al), corrosion in $H_2/H_2O/H_2S$ mixtures at 1200°C 2−105380
Fe-Ni-Mo, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Fe-Ni-Mo, martensitic γ to α transform., purity depend. *(Russian)* 2−99426
Fe-Ni-Mo-B, metallic glasses, annealed, phase transforms 2−67302
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-Ni-NbC, phase equilib., struct., mag. props. and hardness *(Russian)* 2−67291
Fe-Ni-P-B based metallic glasses, Mossbauer study under press. 2−72385
Fe-Ni-Si (18,3 at.%), martensite aging, precipitated intermetallic phase struct., electron microscopy study *(Russian)* 2−93514
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
Fe-Ni-V, σ phase, range of stability 2−62100
Fe-Ni-V and Fe-Ni-Co-V, maraging kinetics, specific elec resist. obs 2−105204
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle disperion 2−57352
Fe-Ni(Ti)(Ga)(Al)(Co)(Pt), flow stress at low temp., influence substitutional elements 2−105213
Fe-P-Ni(Mo), powder premixes, sintered props., effect of Cu 2−88026
Fe-Sb(-Ni), ultra-high purity, interactive co-segregation of Sb and Ni at grain boundaries 2−93512
Fe-Ti(Cr)(Mn)(Ni)(Rh)(W), in contact with SiC single cryst., adhesion, friction and wear 2−88199
Fe-Tribaloy 700 mixture, sintering temp. effect on microstruct. and mech. and tribological props. 2−77775
$Fe_{60}N_{25}B_{15}$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
FeNi alloys from Fe meteorites, order-disorder transitions, Mossbauer spectra study 2−67328
$(Fe_{0.25}Ni_{0.75})_3B$, high-press. Mossbauer study 2−56994

nickel alloys continued
$(Fe_{1-x}Ni_x)_{75}B_{2S}$, amorphous, magnetisation and crysts. 2−72266
$(Fe_{1-x}Ni_x)_{80}B_{20}$, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$Fe_{40}Ni_{40}B_{20}$, amorphous, in-core, reactor irradiated, props. 2−102047
$Fe_{40}Ni_{40}B_{20}$, amorphous, neutron irrad. and annealed density changes 2−109850
$Fe_{40}Ni_{40}B_{20}$, $Co_7Fe_5B_{15}Si_5$ and $Co_{55}Fe_5Ni_{20}(SiB)_{20}$, amorphous, crystn. in RF mag. field, Mossbauer study 2−103634
$Fe_{40}Ni_{40}B_{20}$, metallic glass, short-range ordering during structural relax. 2−71359
$Fe_{40}Ni_{40}B_{20}$, metallic glass, rel. between struct. relax. and sp. ht. 2−72750
$Fe_{40}Ni_{40}B_{20}$, metallic glass, diffusion rates of Au 2−104057
$Fe_{40}Ni_{40}B_{20}$, metallic glass, Vitrovac 0040, crystallisation, TEM obs. 2−116474
$Fe_{40}Ni_{40}B_{20}$, surface conditions influence in mag. props. 2−82593
$Fe_{60}Ni_{20}B_{20}$ amorphous alloys, influence of heating on mag. props. 2−87535
$(Fe_xNi_{1-x})_{80}B_{20}$, glass, mag. props. and crystn., Mossbauer study 2−104754
$Fe_{10}Ni_{70}B_{16}P_4$, amorphous, mag. phase transition, magnetisation and DC susceptibility meas. 2−56857
$Fe_{13}Ni_{67}B_{19}Si$, amorphous, critical mag. behaviour, mag. order disorder transition 2−66821
$Fe_{16}Ni_{63}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{47}Ni_{25}B_{18}Si_{10}$ amorphous alloy, ferromag. resonance, neutron effects 2−87597
FeNiCo films, secondary nucl. spin echo signals in NMR and FMR overlap region 2−104741
$Fe_{65}Ni_{28}Cr_{10}$, spin glass, magnetic viscosity obs. *(Russian)* 2−72230
γ-$Fe_{82-x}Ni_xCr_{18}$, transport and galvanomag. props. near crit. comp., 4.2 to 300K *(Russian)* 2−61444
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, Metglas, heat treatment effect on internal friction 2−62151
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, thin passive films, comparison of AES and XPS anal. 2−78004
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, metallic glass, mag. hyperfine field distrib., Mossbauer study 2−87640
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, metallic glass ribbons, P conc. meas. using neutron generator *(Russian)* 2−99742
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, amorphous and polycryst., He ion bombardment 2−103856
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$ metallic glass, hydrogen embrittlement 2−116599
$Fe_{32}Ni_{36}Cr_{14}P_{12}P_6$, amorphous, Mossbauer study under press. 2−72385
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{65}(Ni_{0.74}Mn_{0.26})_{35}$, effect of external field on spin glass behaviour 2−61716
$Fe_{40}Ni_{38}Mo_4B_{13}$, metallic glass, crystn., TEM study 2−65867
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, elastic moduli, hardness and density 2−99472
$Fe_{40}Ni_{38}Mo_4B_{18}$, amorphous, ion implantation, He bubble and blister formation 2−115314
$Fe_{40}Ni_{38}Mo_4B_{18}$, metallic glass, struct. evolution during crystallisation 2−109682
$Fe_{40}Ni_{38}Mo_4B_{18}$ metallic glass ribbon, elec. resist. free volume depend. 2−110322
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$Fe_{11}Ni_{69}P_{14}B_6$ amorphous, elec. resist. near ferromag. transition 2−87218
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, ferromag. phase transition, mol. field theory 2−72225
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous activation energy of crystallisation 2−81681
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, press. distrib. under compression to 250 kbar, fluorescence study 2−83171
$Fe_{40}Ni_{40}P_{14}B_6$ amorphous mag. alloys, correlation between power loss and viscosity field 2−87523
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous films, STEM obs. of crystn. 2−109688
$Fe_{40}Ni_{40}P_{14}B_6$, glassy, free vol., positron annihilation study 2−104987
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass, rotational and alternating loss 2−87536
$Fe_{40}Ni_{40}P_{14}B_6$, metallic glass ribbons, P conc. meas. using neutron generator *(Russian)* 2−99742
$Fe_{40}Ni_{40}P_{14}B_6$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{40}Ni_{40}P_{14}B_6$ Metglas 2826, early crystn. behaviour, nucleation mechanisms 2−93500
$Fe_{40}Ni_{40}P_{14}B_6$, Metglas 2826, crystn. kinetics, effect of tensile stress 2−103652
$Fe_{40}Ni_{40}P_{16}B_4$, amorphous, electron state of Fe *(Russian)* 2−76905
$Fe_{80-x}Ni_xP_{20-y}B_y$, amorphous ferromag. alloys, mag. aftereffect spectra 2−56894
$Fe_yNi_{80-y}P_{14}B_6$, amorphous alloy, mag. props. study, phase diagram 2−110580
$Fe_yNi_{80-y}P_{14}B_6$ amorphous alloys, ferromag.-spin glass transition, ferromag. resonance study 2−110648
$Fe_yNi_{80-y}P_{14}B_6$, ESR study in reentrant phase 2−72331
$Fe_{15}Ni_{69}P_{16}B_6Al_3$ amorphous, elec. resist. near ferromag. transition 2−87218
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, mag. props. meas. 2−92880
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
$Fe_{40}Ni_{40}Si_{14}$ $(P_{14})B_6$ metallic glass, positron annihilation, electron irrad. and heat treatment effects 2−104992
$Fe_4Ni_{74}Si_9B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
$Fe_{40}0Ni_{40}P_{14}B_6$ metallic glasses, response to irradiation with 800 MeV protons 2−80188
Gd-Ni, charge transfer and isomer shift, ^{155}Gd Mossbauer spectra 2−104777
$GdMn_2$-$GdNi_2$ intermetallic cpds., struct., mag. and elec. props. 2−92878
$GdNi_5$, spin polarised energy band struct. calcs. 2−92449
Gd_xNi_{1-x}, amorphous hyperfine fields, magnetisation, Mossbauer study 2−104764
$GdNi_{1-x}Pt_x$, phase relationships and struct., 2−109744
$Gd_{1-x}R_xNi$ (R=rare earth), phase relationships and struct., 2−109744
Hf-Ni-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
Ho-Ni, SXAPS meas. 2−110982

nickel alloys continued
Ho-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
$Ho(Co_{1-x}Ni_x)_2$, mol. moments rapid changes, magnetisation and spin-echo NMR study 2−72167
HoNi, magnetisation easy direction, temp. depend., mag. torque study 2−72166
$HoNi_2$, mag. excitations, inelastic neutron scatt. study 2−72154
La-Co-Ni phase diagram, X-ray and metallographic study *(Chinese)* 2−93489
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
LaB_6-Ni system, wetting and contact reactions 2−77780
$LaNi_5$, heat cap., Schottky contribution, nucl. mag. ordering 2−98304
$LaNi_5$, hydriding, kinetic model and rate eqns. 2−57608
$LaNi_5$, Ni microprecipitates produced by cyclic H absorpt. and desorpt., Ni^{61} Mossbauer study 2−66953
$LaNi_5$, spin polarised energy band struct. calcs. 2−92449
$LaNi_{0.74}Sn_2$, cryst. struct., stability criteria *(German)* 2−65925
$LaNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
Mg-Ni-H_2 alloys, press.-composition isotherms, const. vol. method 2−66178
Mn-Ni alloy, FCC, martensitic transform. 2−105144
Mn-Ni layered mag. thin films, magnetisation and struct. 2−72302
$Mn_{1-x}Ni_x$, γ-phase, damping capacity and Young's modulus 2−57394
Mo fibre reinforced Ni-Cr, TiN coating on fibres influence on props. 2−67455
$NdNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
Ni-^{52}Mn, NMR ON study 2−98971
Ni-Ag co-evaporated amorphous thin films, thermal evolution 2−71835
Ni-Al, deform. mechanism at high temp. 2−105230
Ni-Al, ion implanted, annealing kinetics, chem. reaction-rate formalism 2−67365
Ni-Al, thermal expansion of inclusions 2−61180
Ni-Al (13 at.%), precipitation, early stages *(Japanese)* 2−77828
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
Ni-Al (15.4 wt.%), precip. hardening by large vol. fractions of γ' 2−72712
Ni-Al alloys, γ' precipitate doublets formation and their energetic stability 2−99431
Ni-Al bronze cast, detection of selective phase corrosion by AE 2−67631
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-Al system, interdiffusion coeffs. in $Ni_2Al_3(\gamma)$ phase 2−104080
Ni-Al/Ni-Cr, thermocouples, deterioration of EMF in reducing atm. at high temps. 2−67641
Ni-Al-Co(Cr)(Fe)(Mn)(Si) $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-Al-Cr (W)(Ti), Ni_3Al based structural alloy, props. 2−72874
Ni-Al-Cr dendritic monocrystals, solidification, coarsening and microsegregation 2−99413
Ni-Al-In, β' phase, void distrib., X-ray small angle scatt. and TEM 2−105411
Ni-Al-Nb-Ti high-temperature strength alloys, mech. props. prediction, struct. factors influence 2−72771
Ni-Al-O, liq. solubility of oxides, prediction 2−86889
γ-γ'/Ni-Al(-Ti) two phase bicrystal, morphological crystallographic features 2−87076
Ni-Al(Si), irrad. creep enhancement, 21 MeV deuteron bombardment 2−86750
Ni-alloys, cast, grain boundary voids formation after cold-working and annealing 2−57375
Ni-B, amorphous mag. props. 2−92967
Ni-B, phase comp. and cryst. struct. meas. 2−88055
Ni-B alloy glasses, positron annihilation, comparison with Compton scatt. 2−104991
Ni-base, γ-γ'-Cr_3C_2 composite, anisotropic, creep transients in deform. 2−83163
Ni-base Alloy 600, stress corrosion cracking in oxygenerated water at high temp., environemntal effects *(Japanese)* 2−83282
Ni-base eutectic superalloy, γ/γ'-α, interfacial struct. 2−82149
Ni-base pseudobinary eutectics, thermal stability in temp. gradient 2−67284
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-base superalloy, space group of μ-phase, electron diffr. study *(Chinese)* 2−60924
Ni-base superalloys, deterioration of aluminide coating *(Chinese)* 2−62248
Ni-base superalloys, fatigue growth of surface cracks 2−93599
Ni-base superalloys, P/M, fatigue crack initiation, effect of defects 2−67518
Ni-base superalloys, P/M, fatigue crack initiation, effect of defects, surface-subsurface transition 2−67519
Ni-Be, multistage twinning of tetragonal two-phase blocks formed during ageing, γ' particle distrib. *(Russian)* 2−67348
Ni-Be (1at.%), radiation induced homogeneous precip., HVEM obs. 2−83124
Ni-C, semiliquid sintered material and melted-solidified material, modular graphite content *(Japanese)* 2−77817
Ni-C, sintered compacts, nodular graphite form. *(German)* 2−77845
Ni-C solid solutions, microhardness, effect of neutron irrad. 2−103847
Ni-Co, relation between damping capacity and magnetomech. props. 2−57397
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
(Ni)-Co-Cr-Al-Y coatings, on IN-100 and Udimet 520 superalloys, microstruct. stability 2−99462
Ni-Co-Cu, electrodeposition from citrate bath 2−116396
Ni-Co-S melt, associated solution model extension, thermodynamic props. 2−71669
Ni-Co-V(Cr), σ phase, range of stability 2−62100
Ni-Cr, aluminide coatings, form. kinetics and microstruct. 2−116620
Ni-Cr, brazed ring, geom. parameters selection, tolerable stresses 2−99640
Ni-Cr, lattice parameter studies of struct. changes near Ni_2Cr 2−105124
Ni-Cr, oxidation and reduction, scanning Auger and XPS study 2−83278

nickel alloys continued
Ni-Cr, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Ni-Cr, quenched, short range order form. and vacancy annihilation on annealing, elec. cond. study 2−115723
Ni-Cr (25 wt.%), Cr_2O_3 forming alloys, corrosion in H_2-H_2S-H_2O atmosphere 2−77982
Ni-Cr (5 at.%), ferromagnetic, optical props., temp. depend. *(Russian)* 2−61923
Ni-Cr alloys, short-range order, discontinuous creep 2−99496
Ni-Cr alloys MA 6000E, scaled-up thermomech. processing 2−77856
Ni-Cr austenite steel, stable oxide film formation in N_2O_4 coolant 2−113627
Ni-Cr based refractory eutectic alloy, electron microscopy study *(Russian)* 2−98298
Ni-Cr film, amorphous, struct. and crystn. 2−55863
Ni-Cr-Al (16, 4 wt.%), oxide dispersion strengthened, long-term high velocity oxidation and hot corrosion testing 2−88274
Ni-Cr-Al-Ti, ageing and γ' phase precipitation after strong deform., recrystn. processes *(Russian)* 2−99443
Ni-Cr-Al-Y_2O_3, dispersion and precip. hardened superalloy, recrystn., influence of hot working 2−111196
Ni-Cr-Al-Y_2O_3, oxide dispersion and precip. strengthened, creep and rupture 2−111299
Ni-Cr-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Cr-C, phase diagram, 1000-1200°C, thermodynamic study *(Czech)* 2−116425
Ni-Cr-Co, age-hardened, delayed discontinuous plastic flow, mechanism 2−93553
Ni-Cr-Co, Mar M002, cast superalloy, creep and fracture, effect of hot isostatic pressing 2−88184
Ni-Cr-Co, Mar M002, superalloy, fracture processes during creep in conventionally cast and directionally solidified material 2−88185
Ni-Cr-Co, nimonic 90, He^+ ion irrad., microhardness, microstruct., and blistering 2−98168
Ni-Cr-Co-Al-Ta superalloy, air embrittlement, role of S 2−99541
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cr-Cr_2O_3 films, RF sputter-deposited struct. and comp. 2−87983
Ni-Cr-Fe-(Mo), long-life fatigue test results 2−62226
Ni-Cr-La-Y-Al, La, Y and Al addition effects on high temp. oxidation 2−93685
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-Cr-Mo-W, heat-resist., struct. and strength charact. estimation on temp. and time basis 2−111250
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Ni-Cr-Si-B coatings formed in air, props. of glass-metal coatings *(Russian)* 2−77966
Ni-Cr-TiO_2, oxidation, high temp. influence of TiO_2 content 2−111384
Ni-Cu, diffusion coeff., conc. dependence, X-ray study *(Russian)* 2−98329
Ni-Cu, L_{II}, L_{III} X-ray absorpt. spectra and density of states, KKR CPA calc. 2−99223
Ni-Cu, ordered alloys, magnetisation and electronic struct. calc. 2−82576
Ni-Cu electron irrad., rad. induced segregation at internal sinks 2−86731
Ni-Cu liq. alloys, thermodynamic props. and solubility limits of O_2 2−56199
Ni-Cu-Al, FMR and mag. props. 2−77384
Ni-Cu-H solid soln., phase equilibria and magnetisation meas. *(Russian)* 2−98906
Ni-Fe, mag. props., review 2−82652
Ni-Fe, surface (100), oxidation 2−116612
Ni-Fe, ultrahigh vacuum deposition, magnetisation, resistivity and stress 2−82482
Ni-Fe (24 to 35 at.%), Curie temp. meas. by Mossbauer expts. 2−77290
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Ni-Fe (25 at.%), ESCA studies, anodic dissolution, passivation effects 2−83296
Ni-Fe base superalloys, serrated yielding of 700°C 2−57428
Ni-Fe bubble overlay I-bars, magnetisation distrib., saturation 2−82663
Ni-Fe film, magnetization oscillations excitation *(Russian)* 2−92976
Ni-Fe films, domain wall struct., low-angle electron deflection study 2−87562
Ni-Fe patterns for thin film heads, selective microelectrodeposition 2−83046
Ni-Fe-Co magnetic alloys with stepwise hysteresis loop 2−61738
Ni-Fe-Cr, Nichrome, phonon-induced desorption of He, crit. cone 2−92349
Ni-Fe-Cr alloy tubes, prestrained, creep rupture bending test 2−62184
Ni-Fe(Cu), electron irrad., Frenkel defects, elec. cond. *(German)* 2−98080
Ni-Ge, radiation-induced segregation, defect prod. rate effect 2−92055
Ni-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
Ni-Hf, surface oxidation, suppression during laser surface treatment 2−83294
Ni-Mn, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-Mn, spin glass alloy, effective anisotropy field, EPR study 2−72333
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
Ni-Mn (9 at.%), refractive index, UV study, temp. effect 2−67014
Ni-Mn liquid alloy, Mn activity 2−83089
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
Ni-Mo, disordering process investig., domain dissolution *(Russian)* 2−67327
Ni-Mo, irrad.-induced Mo_2C precip. 2−57356
Ni-Mo and Ni-Mo-W, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-Mo-Al, γ/γ'-α eutectic, directionally solidified, struct. and creep rupture 2−105326
Ni-Nb, amorphous, thermoelec. powers and resistivities 2−98611
Ni-Nb, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ni-Ni_3Al system, microdendritic precipitation 2−111179
Ni-Ni_5Si_2 system, microdendritic precipitation 2−111179
Ni-O-Zr(Ti), liq., solubility of oxides 2−98295
Ni-P alloys, amorphous, elec. resist. 2−77014
Ni-P amorphous alloys, resist. meas. rel. to prep. 2−92561
nickel alloys continued
Ni-P based amorphous alloys, local mag. props., NMR and magnetisation meas. 2−104721
Ni-P metallic glasses, polymorphism rel. to processing conditions, Knight shift meas. 2−91811
Ni-P-B coatings, heated in air, struct. and props. *(Russian)* 2−57382
Ni-Pd, dil., paramag. susceptibility, temp. depend., small Pd additions influence 2−98842
Ni-Pd alloys, electronic struct. calc. by self-consistent KKR-CPA method 2−56432
Ni-Pt, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Ni-Pt interaction with Si 2−86953
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
Ni-Pt-P, amorphous, NMR, Knight shift and linewidth 2−93031
Ni-Si, radiation-induced segregation, in situ Rutherford backscattering anal. 2−76679
Ni-Si, radiation-induced segregation, defect prod. rate effect 2−92055
Ni-Si alloy films, RF sputter deposition 2−99334
Ni-Si films, compositional change induced by Ar^+ ion bombardment 2−86753
Ni-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
Ni-Sn system, grain refinement by discontinuous precip. *(German)* 2−99466
Ni-Ta solid solns., short-range order, conc. and temp. depend., X-ray diffr. study 2−115178
Ni-Ti, close to equiatomic, hardening and shape memory effect 2−72737
Ni-Ti, dil. alloy, internal oxidation and oxide particles *(Japanese)* 2−105374
Ni-Ti, electron-phonon interaction contrib. to phonon dispersion curve, pre-martensitic phenomena 2−81915
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
Ni-Ti (102wt.%), liquid quenched modulated struct. alloy, ageing *(Japanese)* 2−105193
Ni-Ti (45 wt.%) plate, shape-memory effect, thermomechanical treatment influence *(Russian)* 2−72761
Ni-Ti alloys, electron beam induced amorphisation, electron microscope study 2−109832
Ni-Ti porous material, shape memory and vol. memory effects *(Ukrainian)* 2−67425
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
Ni-W, directionally crystallised eutectic, crystallographic struct., electron microscopy study *(Russian)* 2−91870
Ni-W, eutectic alloy, directionally solidified, precip. of Ni_4W around W fibres mosaic struct. form. 2−105146
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
Ni-Zn, thermodynamic data 2−111145
Ni-Zr, amorphous, thermoelec. powers and resistivities 2−98611
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
Ni_3(Al, M), (M=Ti, Nb, Hf, Mo, W), heat-resistant, dendritic segregation 2−72698
Ni_3(Al,Nb), single crysts., tension/compression flow stress asymm. 2−67418
NiAl, recrystn. and brittleness threshold temp. 2−99546
β-NiAl, X-ray topographic study of α-Al_2O_3 surface film 2−88275
Ni_2Al_3 coatings, aluminisation of Ni, form. of intermetallic phases 2−99593
Ni_3Al, de Haas-van Alphen effect and band struct. 2−66422
Ni_3Al, elec. resist. and thermo-EMF at high temp. *(Russian)* 2−66531
Ni_3Al, irradiated, defect aggregation 2−103748
Ni_3Al phase, binding energy and thermodynamic stability calc. *(Russian)* 2−91863
Ni_3Al, Stoner model, magnetovolume effects and Gruneisen parameters 2−56817
Ni_3Al, weak itinerant ferromag., magnetocrystalline anisotropy 2−92900
$Ni_{80}B_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
NiC, sintered, nodular graphite content *(Japanese)* 2−77771
NiCr thin film resistance layers, factors affecting props. *(Hungarian)* 2−77754
NiCr thin films, sequential heat treatment effect on resist. and TCR 2−110496
Ni_2Cr, laser damages, comparison with tensile deform. and neutron irradiation effects 2−66047
NiCrAl-Zr alloys, oxidation features, AES study 2−88273
Ni_3(Fe,Ti) alloys, electronic charact., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447
NiFe, 3d electron density charge on atomic ordering, Mossbauer study 2−61804
NiFe thin films with uniaxial anisotropy, head-on domain walls 2−72309
$Ni_{1-x}Fe_x$ (100), spin polarised photoemission probing of magnetism 2−67184
$Ni_{1-x}Fe_x$ (100), spin-dependent density of states, spin-polarised photoemission meas. 2−83004
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
$Ni_xFe_{80-x}B_{20}$ amorphous, electron momentum distrib., positron annihilation 2−103626
$Ni_xFe_{80-x}B_{20}$ metallic glass, surface B composition, $^{10}B(n,^4He)^7Li$ nuclear reaction meas. 2−104121
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
$(Ni_{0.93}Fe_{0.07})_{80}P_{10}B_{10}$, amorphous, magnetization, annealing influence 2−104660
$(Ni_{0.6}Fe_{0.4})_{0.89}V_{0.11}$, substruct. develop. during cold working, neutron diffr. and microscopical obs. 2−83133
NiGa, vacancy conc. and mobility 2−103751
Ni_3Ga, ordered alloy, dislocation struct. *(Russian)* 2−98094
$NiGa_MSi(Sn)_N$ mixtures, phase diagram invest. 2−67303
$NiIn_MSi(Ge)_N$ mixtures, phase diagram invest. 2−67303
Ni_3(Mn,Ti) alloys, electronic charact., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447
$Ni_{0.86}Mn_{0.14}$, optical cond. meas. 1 to 4.9 eV, rel. to electron struct. *(Russian)* 2−99147
Ni_3Mn, optical consts., 0.25 to 17 μm, alloy ordering effects *(Russian)* 2−87728

nickel alloys continued
Ni_3Mn, ordered alloys, fundamentals mechanisms of neutron damage 2−103830
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2−92938
$Ni_2MnAl(Sn)$, Stoner and spin wave excitation spectra, OPW calcs. 2−115990
$Ni_{60}Nb_{40}$ glass-metal matrix composite, fabrication feasibility using vac. hot pressing 2−99372
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
NiP, ion implanted, elec. resistivity and channelling studies 2−104337
$Ni_{1-x}P_x$, amorphous, ion implantation prod., elec. resist., temp. depend. 2−104341
$Ni_{1-x}P_x$ amorphous, struct. inhomogeneities, processing effects, NMR, DTA and positron annihilation study 2−104993
$Ni_{72}P$, metastable phase struct. *(Chinese)* 2−109743
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
$Ni_{82}P_{18}$, amorphous, ion implanted, TDPAC study 2−104771
NiPd, depth resolution in ion bombardment SIMS 2−99284
$Ni_{40.9}Pd_{31.8}P_{18.3}$, H in amorphous alloys 2−81963
NiPt, depth resolution in ion bombardment SIMS 2−99284
NiPt/Si interface, NiSi formation at silicide/Si interface 2−104078
$Ni_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
Ni_5Sb_2-NiSb eutectic system alloys undercooling *(Japanese)* 2−116433
NiSi, AES depth profiling, ion bombardment effects 2−99234
NiSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
$NiSi_2$ band struct., UPS study and APW calc. 2−105042
$Ni_{1-x}Si_x$, sputtering yield, Rutherford backscatt. study 2−57230
Ni_2Si, thermal formation at Si-Ni interface, ion irrad. enhancement 2−56369
Ni_3Si, ion and electron irrad., near-surface segregation, TEM and electron diffr. study 2−86883
Ni_3Si, self-consistent energy bands and bonding 2−66436
$NiSi_2$(NiSi)(Ni_2Si), ion bombardment damage and annealing, sheet resist. study 2−56044
Ni_3Sn_4, X-ray cryst. struct. refinement 2−55886
NiTi shape memory alloy, electron irrad. induced cryst.-amorphous transitions 2−92041
$Ni_{20.3}Ti_{2.7}B_6$ τ-phase crystals, Czochralski growth and cryst. props. 2−111062
$Ni_{66}Y_{33}$, amorphous, EXAFS study, struct. charcts. 2−110978
$Ni_3Zn_6Ga_4$, crystal struct., phase diagram meas. 2−109749
$NiZr_2$ metallic glass, diffusion rates of Pb, Pt and Au, pretreatments effect 2−71726
$Ni_{11}Zr_9$ phase, cryst. struct. and thermal expansion, X-ray study 2−97992
$Ni_{33.3}Zr_{66.7}$, metallic glass, diffusion rates of Au 2−104057
$Ni_{64}Zr_{36}$, metallic glass, diffusion rates of Au 2−104057
Ni_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
Nimonic AP1, crystallographic fatigue crack growth 2−93587
Pd-Ni, anomalous Hall effect, cond. tensor *(Russian)* 2−77021
Pd-Ni, Pd based solid soln., diffusivity of H meas. 2−104058
Pd-Ni thin film, static and dynamic mag. studies 2−72303
$Pd_{0.4}Ni_{0.4}P_{0.2}$, amorphous, US attenuation, 0.3 to 2K, temp. and freq. depend. 2−56098
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
$Pr_xLa_{1-x}Ni_2$, heat capacity meas. 2−92916
$PrNi_2$, heat capacity meas. 2−92916
$PrNi_2$, Laves phase, cryst. field 2−98598
$PrNi_5$, elec. and thermal cond., 0.5 to 20K, cryst. field effects 2−56549
$PrNi_x$, heat cap., Schottky contribution, nucl. mag. ordering 2−98304
$PrNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
Pt-Ni alloys, layer-by-layer calcs. of alloy comps. 2−82087
$Pt_{10}Ni_{90}$, chemisorpt. of benzene, hydrogenation and exchange *(French)* 2−67766
$Pt_{10}Ni_{90}$, surface (111) composition determ. by AES, XPS and ion scatt. spectroscopy 2−98410
Pt_xNi_{1-x}, chemisorbed CO, photoemission study *(French)* 2−105052
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
Sm_xNi_{19} polytypes, cryst. struct., electron diffr. and microscopy study 2−91877
$Sm_{1-x}R_xNi$ (R=rare earth), phase relationships and struct., 2−109744
Sn-Ni, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Th-Fe(Co)(Ni), fast diffusing solutes, thermal friction studies 2−98326
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
Ti-Ni, phase hardening during martensitic transformations *(Russian)* 2−93504
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
Ti-Ni-(X), shape memory alloys, review 2−88142
TiC-Ni, densification during heating under high pressure 2−72662
TiC-Ni containing N, high temp. oxidation *(Japanese)* 2−105372
TiNi, influence of Pd on martensitic transformation 2−83117
TiNi, phys. props. temp. depend., martensitic transform. rel. to phase diagram 2−111176
TiNi, porous sintered, shape memory effect features 2−99505
$Ti_{50}Ni_{40}Cu_{10}$, first-order martensitic transforms., and contrib. to shape memory effect *(Russian)* 2−67336
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., compositional depend. of one-third reflections from matrix 2−111173
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., morphology and crystal struct. 2−111174
UNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
$UNi_{5-x}Cu_x$, band struct., photoemission study 2−104240
$UNi_{5-x}Cu_x$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
W fibre reinforced Ni superalloy, high temp. composite, microstruct. stabilisation with ZrO_2 short fibres *(German)* 2−77781
W wire reinforced Ni-base superalloy, flow and fracture behaviour during isothermal forging 2−93617
W-Ni, solubility of Ni, activated recrystallisation, liq. phase sintering 2−103997
W-Ni-Fe, sintered alloy, fatigue crack growth 2−99521
W-Ni-Fe, sintering, effects of impurities *(German)* 2−105103
W-Ni-Fe system, thermodynamic calc. of phase diagram at 1540°C *(Korean)* 2−83085
WC-Co(Ni), cavitation erosion 2−88205

nickel alloys continued
WC-Ni, densification during heating under high pressure 2−72662
WC-Ni cemented carbides, prep. and props. 2−111119
Y-Ni, amorphous, mag. props. due to 3d magnetism 2−72269
$Y(Co,Ni)_5$, metastable character, decomposition behaviour, precipitation 2−67342
$Y(Co_{1-x}Ni_x)_5$, struct. and mag. props. 2−91874
YNi_2, heat capacity meas. 2−92916
$Y_3(Ni_{0.5}Si_{0.5})_2Si_2$, Ta_3B_4-type cryst. struct., X-ray diffr. study 2−97991
$YbNi_{1-x}Cu_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2−104319
Zr-Ni, amorphous, thermal stability study 2−104029
$Zr_{0.76}Ni_{0.24}$, amorphous supercond., lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526
$ZrNiH_x$, interstitial site occupation of H atoms 2−86664

nickel compounds
see also nickel alloys
borides, $RNi_{12}B_6$, new, with rhombohedral $SrNi_{12}B_6$ type struct. *(Ukrainian)* 2−65946
diglycine dihydrate, antiferromag., mag. susceptibility study, 0.6 to 120K 2−77272
diglycine dihydrate, antiferromag., sp. ht. meas., 0.5 to 10K 2−77294
ferrites, dynamic elasticity moduli, mag. polarisation depend. 2−77348
hexamethylamine nickel iodide, EPR spectrum 4.2 to 300K *(Russian)* 2−66901
hydride, form. and decomp. in Ni electrodeposits 2−116616
oxides with anodic coloration, electrochromic materials and displays review 2−77487
silicides, electronic struct., photoemission study 2−110247
Tutton salts, nuclear and electron spin-lattice relax. times meas. 2−82741
Al/W/NiSi structure, use of thin W barrier to inhibit Al+NiSi reaction 2−98472
$Co_xNi_{1-x}MnGe$, mag. phase diagram, antiferromag.-ferromagnetic transition, neutron diffr. study 2−72206
$Co_xNi_{1-x}S_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
$Co_{1-x}Ni_xSi$, elec. props. and thermal cond. 2−82366
$CsNiFeF_6$, highly frustrated, very low field susceptibility 2−87482
$CsNiFeF_6$, spin glass props. 2−87515
Cu/Ni complex, bis-(diethyl-dithiocarbamate) copper/nickel, ^{13}C and ^{14}N ENDOR study 2−98996
$Cu_{1-x}Ni_xFe_2O_4$, spin struct. and hyperfine fields, Mossbauer study 2−66959
CuO-NiO-MgO system, X-ray powder diffr. study at 1000°C 2−86636
Dy_3NiSi_2, cryst. struct., Gd_3NiSi_2 type, X-ray diffr. study 2−65961
$EuNi_2P_2$, intermediate valence system, mag. susceptibility and NMR meas. 2−72364
$(Fe_xNi_{1-x})_{17}Se_8$, Mossbauer study 2−104774
$Ge_{1-x}Ni_xTe$ solid solutions, thermoelectric props. 2−98680
$HfNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
InSb-NiSb, low-freq. voltage instability *(Russian)* 2−56606
$LaNi_{4.5}Al_{0.5}D_{4.5}$, neutron diffr. struct. study 2−71422
$LaNi_{1-x}Co_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{1-x}Fe_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{0.5}Mn_{0.5}O_3$, magnetic props., review *(Japanese)* 2−66870
La_2O_3-NiO system, phase transitions in air, X-ray anal. 2−109971
$Li_xNi_{1-x}O$, magnetic susceptibility, Neel temp. *(Russian)* 2−104593
$(Mn_{1-x}Ni_x)_3(PO_4)_2$, cryst. struct. and homogeneity ranges, X-ray diffr. study 2−115195
MnO-NiO, anal. phase diagram calculation from expt. activity data 2−99408
Nd_2NiO_4-NiO, elec. props. 2−66548
Ni clusters, inadequacy of symmetry restricted HF theory in determ. s- and d-like ionisation pots. 2−102668
Ni complex, 2-fluoro- and 4-fluoro-2-nitroaniline nickel(II), mag. moments, IR and visible study 2−93203
Ni complex, (tetrabenzoporphyrinato)Ni(II)I, doubly mixed valence mol. cond., struct., mag. and charge transport props. 2−71953
Ni complex, bis(O-phenylenediamido)nickel electronic struct., EHT and MS Xalpha calcs. 2−75189
Ni complex, bis(β-dithioketonato)Ni(II) ground and cationic hole states electronic struct., INDO calcs. 2−96461
Ni complex, bis(oxamide oximato)nickel(II) oxamide oxime, cryst. struct., space and Laue group changes 2−65901
Ni complex, cis-octahedral Ni(II) diamines, single cryst. electronic spectra, at 10K 2−82874
Ni complex, hexakis- 3 crystal field interactions [-]imidazole Ni(II) nitrate, EPR fine struct. 2−72336
Ni complex, $Ni_{0.84}[Pt(C_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
Ni complex, Ni_2 en EDTA.$4H_2O$, cryst. struct. 2−98031
Ni complex, $Ni(CH_2NO)_6^{2-}$, isotope effects, struct., IR obs. 2−75269
Ni complexes, Ni(II)-8-quinolinates, dihydrates and adducts, IR absorpt. spectra 2−110866
Ni d^{10} complexes, ^{61}Ni NMR obs. 2−65012
Ni II complex, Ni(4-cyanopyridine N-oxide)$_2$, $(NCS)_2$, struct., vibr., mag. moments, IR study 2−77518
Ni II mixed ligand chelate complex, single cryst., ^{63}Cu and ^{31}P ENDOR study 2−66952
Ni-C spectrally selective films produced by reactive sputtering, optical props. 2−97132
Ni-NO_2 black foil, optical and thermal props. 2−67139
Ni-P chemically formed coatings struct. and props. *(Russian)* 2−92400
Ni-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
Ni-Te, liquid semiconductors, struct. factors 2−97903
Ni-Te liquid semiconductor, resistivity, thermoelectric power and band struct. 2−98641
Ni-Zn ferrite, extraordinary Hall effect and carrier scatt 2−82383
Ni-Zn ferrite fillers for elastic magnetic materials 2−72658
Ni-Zn ferrite/Pb(Zr,Ti)O_3 ceramic composite, dynamic magnetoelectric effect 2−116049
NiAsS, standard free energy of formation 2−83101
$Ni(BF_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
$Ni_3B_7O_{13}Br_{1-x}Cl_x$, elec. and thermal props. near ferroelectric transition 2−66555

nickel compounds continued
$Ni_3B_7O_{13}I$, piezoelec. meas. by techniques of admittance circle and motional capacitance 2−99051
NiBe, Ni_xBe_{21}, enthalpies of formation, soln. calorimetry 2−83402
NiBr, H-X and I-X systems, thermal emission spectrum 2−75298
$NiBr_2$ aq. soln., X-ray diffr. investig. 2−90742
$NiBr_2$, helimagnetic state, inelastic neutron scatt. study of mag. excitations 2−98861
$NiBr_2$, mag. phase transitions, sp. ht. study 2−61711
$NiBr_2$, subMM mag. reson. meas. using HCN laser 2−98935
NiC, electronic struct., ab initio GUB calcs. 2−85559
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
$Ni(CO)_4$, atomic, bond and mol. polarisabilities, quantum mech. calc. 2−90731
$Ni(CO)_4$, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
$Ni(CO)_3N_2$, synthesis and kinetics in liq. Kr, indication of Ni-N_2 bond energy 2−80834
$NiC_4O_4.2H_2O$ thermal decomposition 2−67746
NiCl, thermal emission spectrum obs., new bond systems 2−54859
NiCl, thermal emission spectra in 4730 to 4390 angstrom region 2−108535
$NiCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2−60865
$NiCl_2$, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
$NiCl_2$, subMM mag. reson. meas. using HCN laser 2−98935
$NiCl_2$-graphite intercalation cpds., mag. phases 2−56863
$Ni(ClO_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
$NiCl_2.4H_2O$, anisotropic antiferromagnet, paramagnetic phase boundary 2−66818
$Ni_xCu_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib . of Mg^{2+} ions, magnetisation meas. 2−60938
$Ni_{1-x}Cu_xS_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
NiF, UV thermal emission spectrum of H→X and I→X systems 2−54864
NiF_2 film, elec. cond. meas., charge transfer between localised states mechanism 2−82503
NiF_2 film, granular, elec. cond. and dielec. polarisation meas. 2−72094
NiF_2 thin films, localised electron states, optical absorption study 2−82268
$NiFe_2O_4$-$CaFe_2O_4$, magnetic props. *(Japanese)* 2−82578
NiH, electron-phonon coupling parameter rel. to occurrence of supercond. 2−66462
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
NiH, emission spectrum, new transitions obs. 2−65000
NiH_2, effective core pot. calcs., pseudopotential method 2−64861
NiH_4^{2-}, rot. barrier, core pot. calcs. 2−64860
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
$Ni_xMg_{1-x}Fe_2O_4$, FMR and magnetisation meas. 2−82723
$Ni_xMg_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib. of Mg^{2+} ions, magnetisation meas. 2−60938
$NiMnCrO_4$ spinel valence struct., X-ray spectroscopic determ. 2−115652
$Ni_xMn_{3-x-y}Fe_yO_4$, hyperfine interactions, Mossbauer study 2−72393
$Ni_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
$NiMn_2O_4$, cation distribution, X-ray diffr. study 2−60958
$NiMn_2O_4$, elec. cond., cation valencies, thermoelectric power and thermal expansion 2−66559
$Ni_xMo_6S_8$, superconductive props. 2−66689
$Ni(NH_4)_2(SO_4)_2.6H_2O$, crystal growth from aq. soln., mag. field effect 2−109711
$Ni(NH_3)$(4-chloropyridine)$Ni(CN)_4$ Hofmann type complexes of pyridine derivatives, IR and Raman spectra 2−85664
$Ni(NH_3)$(4-methylpyridine)$Ni(CN)_4$ Hofmann type complexes of pyridine derivatives, IR and Raman spectra 2−85664
$Ni(NO_3)_2$ aqueous solns., activity and osmotic coeffs. 2−105496
Ni_2NbBO_6, cryst. struct. refinement 2−71406
NiO, 3d, L_{23} edge, EELS 2−108636
NiO, anion-anion interionic pot., covalency influence 2−54782
NiO, basis sets and basis set superposition error investigated using frozen core and frozen orbital techniques 2−96412
NiO, creep and point defects, O diffusion 2−109892
NiO, diffusion of ^{57}Co along grain boundaries 2−76747
NiO, effective core pot. calcs., pseudopotential method 2−64861
NiO, electron energy loss study of K near-edge fine struct. of O 2−104248
NiO, empty electronic states, inverse photoemission and SXAPS studies 2−61354
NiO, excitons, local correl. effects 2−87153
NiO growth, and dissoln. on Ni (100), temp. effects 2−83404
NiO, ion thinned, unusual dislocation struct. origin 2−109804
NiO, ionic implantation for SIMS quantification, corrosion study 2−99744
NiO, lattice dynamics, three-body force shell and deform. dipole model effects 2−56114
NiO mag. and lattice mechanical props. 2−92890
NiO microcrystal, IR spectra obs. at high temp. 2−61902
NiO, narrow band insulators, electronic props. 2−87137
NiO, O self-diffusion, SIMS study 2−110037
NiO, O-O interactions, covalency effects 2−59686
NiO, occluded gases within microscopic cavities, Raman spectra and gas-phase chromatography 2−61013
NiO, relative energies of (011) tilt boundaries 2−55982
NiO, single cryst. deformed at room temp., TEM obs. of dislocations, high work hardening rate origin 2−103767
NiO, small crystal, surface energy and struct., STEM study 2−56327
NiO, spin dependent charge carrier transport, 150 to 400°C 2−87269
NiO, sulphurisation by H_2S, elec. cond. and TEM study 2−110200
NiO, superposition errors, contracted basis set investigation 2−85537
NiO supported on B modified SiO_2, dispersion of Ni determ. by TEM and XPS meas. 2−56202
NiO/Fe, solid-state displacement reaction at 1000°C 2−77805
NiO-Mn_2O_3, CuO doped, NTC thermistor material, CuO impurity influence on elec. props. 2−66545
NiO-Y_2O_3, directionally solidified eutectic, crystallography 2−109762
$Ni_{1-x}O$, sintered, grain growth, influence of O_2 partial press. 2−116476
$Ni_{12}P_5$, cyclic intergrowth and crystal structures 2−65975
$NiPS_3$, electronic states, reflectivity, optical absorpt., XPS 2−57246

nickel compounds continued
$NiPS_3$, layer phases, optical and mag. props., intercalation-induced modifications 2−82875
$NiPS_3$, photoresponse under photoelectrolysis conditions 2−61513
$NiPS_3(Se_3)$, layer cpds., mag interactions 2−61699
NiS, crytallisation from KSCN melts, solubilities 2−111043
NiS_2 epitaxial layers on Si(001) substrate, pulsed ion beam annealing, TEM and Rutherford backscattering study 2−66383
$NiSO_4$, soln. grown single crystals, dislocation trajectories, etching study 2−98100
α-$NiSO_4.6H_2O$, elastic consts., temp. depend., ultrasonic meas. 2−98179
$NiSO_4.7H_2O$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
$NiS_{1.4}Se_{0.6}$, mag. moment distrib., ^{61}Ni NMR study 2−115975
$NiS_{2-x}Se_x$, phase diagram in Ni-rich region, Hubbard model 2−66816
NiSb-PbS eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
NiSb-PbTe eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
$NiSb_2O_4$, struct. evolution, dilatation, vibr., rigidity *(French)* 2−91911
$NiSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
NiSi, Al contact using thin W barrier 2−87393
NiSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
$NiSi_2$ coevaporated film, lattice structure 2−98484
$NiSi_2$ epitaxial films, Ar-ion implanted, elec. and struct. props. 2−87413
$NiSi_2$ epitaxial films Si substrates, characterisation by ion channelling and backscattering techniques 2−56403
$NiSi_2$ film formation, diffusion, Xe marker study 2−104079
$NiSi_2$ layers, ion irradiated epitaxial reordering 2−71830
$NiSi_2$, preferential sputtering 2−77681
$NiSi_2$-Si interface, lattice imaging 2−115609
$NiSiF_6.6D_2O$, single cryst., EPR meas. 2−61758
$NiSiF_6.6H_2O$, Curie temp., anomalous press. depend. *(Russian)* 2−115999
$NiSiF_6.6H_2O$, mag. prop. anomalies *(Russian)* 2−82597
Ni_2SiO_4, olivine-spinel phase transition at Earth mantle conditions 2−106105
$Ni_{1/3}TaS_2$, X-ray core level photoemission, charge transfer effects 2−111023
NiZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
NiZn ferrite, Villari effect depend. on magnetocrystalline props. and magnetostriction 2−87567
NiZn ferrites containing Co, magnetostriction meas. 2−87568
NiZn ferrites physical and technological effects of V_2O_5 or Bi_2O_3 on props. 2−88041
$Ni_{0.3}Zn_{0.7}Fe_2O_4$, dielectric spectrum, radio and optical freq. 2−99019
$Ni_{0.3}Zn_{0.7}Fe_2O_4$:Ti^{4+}, magnetisation and cryst. struct. study 2−77274
$(Ni_{0.4}Zn_{0.6})Fe_2O_4$ ferrite, switching and surface line emission spectrum obs. under pulse voltage 2−115831
$Ni_{0.5}Zn_{0.5}Fe_2O_4$, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2−77320
$Ni_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
Ni(3-methylpyridine)$_2$$Ni(CN)_4$ Hofmann type complexes of pyridine derivatives, IR and Raman spectra 2−85664
Ni(4-methylpyridine)$_2$$Ni(CN)_4$ Hofmann type complexes of pyridine derivatives, IR and Raman spectra 2−85664
PuNiC, ternary compound struct., X-ray diffr. anal. 2−102040
$Sc_3Ni_4Ge_4$, with $Gd_6Cu_8Ge_8$ type struct., cryst. struct. study 2−76371
$ScNi_3H_{3.4}$, Laves phase, thermal stability, H sorption 2−87014
Si-$NiSi_2$ interface, lattice imaging and defects 2−66378
Sm_3NiSi_2, cryst. struct., Gd_3NiSi_2 type, X-ray diffr. study 2−65961
Tb_3NiS_2, cryst. struct., Gd_3NiSi_2 type, X-ray diffr. study 2−65961
V-Ni-P, phase diagram at 1070K, phase anal. 2−83099
Yb_2O_3-Fe_2O_3-NiO, phase diagrams, quenching method X-ray study 2−76639
$(Zn)_x(Ni)_{1-x}Fe_2O_4$, Mossbauer spectra, mag. props. 2−77439
$ZnSb_2O_4$, struct. evolution, dilatation, vibr., rigidity *(French)* 2−91911
$ZrNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575

night sky
see also nightglow; twilight
auroral regions, ground illuminance, nocturnal levels, Skibotn valley 2−83982
Bright Night phenomena due to gravity wave nightglow 2−73745

nightglow
auroral regions, ground illuminance, nocturnal levels, Skibotn valley 2−83982
F-region, nightglow meas. rel. to contrib. of atmospheric movements to maintenance of electron conc. 2−73748
gravity wave as cause of visible airglow near equator 2−73745
gravity wave propagation, study of nightglow variations *(Russian)* 2−73737
intensity variations due to vertical motion of atmos. 2−68545
mesopause, NO and H_2O emissions rel. to noctilucent clouds and radio wave absorpt. 2−112201
plasma He^+ distrib. from EUV nightglow obs. 2−78902
O I 5577 Å line emission, solar flare and sunspot numbers effect 2−58194

Nilsson's model *see nuclear shell model*

niobium
see also nuclei with .....
abundance in solar photosphere from Nb I lifetime meas. 2−112406
BCC single crystal, plastic deform. at very low temps. 2−57431
bicrystals, grain boundary corrosion, correlation with grain boundary energy 2−88278
chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
coated with $MoSi_2$-Pd, protective props., Pd effect 2−116614
core-hole lifetimes, electron spectra determ. 2−57256
cyclotron masses and many-body effects, relativistic APW calc. 2−56426
diffusion, of ^{185}W, via grain boundaries and defects 2−71718
diffusion of H and D, N interstitials effect 2−104067
EELS of electronic excitations, expt. study 2−82969
electromigration of Nb-95 and Ta-182 *(French)* 2−71729
electron stimulated desorption of H^+ from (110) and O-contaminated (100) surfaces 2−110153
electronic sp. ht., electron-phonon interactions effect, expt. study 2−71663

niobium continued
electronic struct. of 3d and 4d impurities 2−110290
embrittlement by H, interaction energy term role in H adsorption at cracks 2−72841
Fermi surface, relative changes due to uniaxial tension 2−92441
film, internal friction in vicinity of superconductive transition 2−66707
film, stress modification by ion bombardment during deposition 2−82180
film, supercond., nonequilib. state instability, quasi-particle tunnel injection 2−87459
films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
foil, He ion irrad., supercond. props., pinning mechanisms *(Russian)* 2−66728
hardening stages, irrad. with 14 MeV neutrons and 16 MeV protons 2−93521
He^+ irrad., surface swelling 2−74931
ideal transport, rigid muffin-tin approx. calcs. 2−87221
ion irradiated by $^{58}Ni^+$ and $^3He^+$, swelling 2−85216
irradiated by He ions, bubble evolution, blistering cut-off mechanism *(French)* 2−76515
Josephson junctions weakly coupled array, phase coherence 2−72124
Josephson point contact, supercond. energy gap, RF noise enhancement study 2−92829
lattice dynamics, local field corrections 2−103911
lattice sp. ht. 10 to 300K *(Russian)* 2−104011
magnetic struct., hydride precipitation pinning centres 2−61700
mechanical properties and structure, influence of long high-temp. holds 2−88114
MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
neutron irradiation induced defects, detrapping of N and O atoms during post-irrad. annealing 2−103839
photoemission studies of clean and oxidised surfaces 2−77695
plastic deformation, low temp., slip, surface orientation and oxide effects 2−86677
positive muon depolarisation, 5 to 365K 2−82766
powders, prep. process 2−111108
precipitation of interstitial solns., initial stages, computer simulation *(Russian)* 2−77824
radiative lifetime meas. using novel atomic beam source 2−75219
Shubnikov phase, domain branching obs. *(Russian)* 2−110604
Snoek effect, rel. to O impurity content, cold work and ageing *(French)* 2−67414
superconducting, mag. props. near T_c *(Russian)* 2−61652
superconducting, peak effect near $H(c_1)$, crit. current meas. 2−77245
superconducting, polycrystalline and single cryst., vortex pinning obs. *(Russian)* 2−115958
superconducting, subsurface layers quality eval., electrophys. methods 2−115959
superconducting films, thermodynamic fluctuations of order parameter, review 2−98809
superconducting point contact, crit. current-normal state resist. product meas. 2−56791
superconducting point contacts, low resist., static and HF props., microwave and Josephson radiation 2−104548
superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
superconducting resonators, characterisation using 10 GHz ultrastable oscillator 2−112923
superconductivity, paramagnon suppression, tunnelling estimates 2−61667
surface, (001), optical consts. in visible region 2−77470
surface (110), adsorption of S, static SIMS, ion dose effects 2−99274
surface (110), coadsorpt. of O and Cs, work function and thermal stability *(Russian)* 2−104166
surface damage during irrad. in plasma accelerator 2−113737
surface erosion under the ion bombardment, mech. loading effects, SEM study 2−78021
thermal diffusion of T, role in T permeation theory through fusion reactor first wall 2−85233
thermal expansion meas., 4 to 10K *(Russian)* 2−92238
thermoelastic effect in acoustic loss at supercond. transition 2−104542
thermotransport of H and D 2−82029
tribolayers, formed by frictional contact in liq. He 2−62234
type II superconductor, oscillating disc, hysteresis losses and mag. phenomena 2−66729
vacancy and interstitial annealing and migration, PAC study 2−86663
voids superlattice, neutron scattering, theory 2−76240
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
BaO TiO_2:Nb system, phase diagrams, influence of foreign atoms on cryst. lattice 2−66179
H in Nb, optical microscopy, SEM and ion microprobe anal. 2−83130
H solubility in metals, deviations from Sievert's law 2−71656
H-charged, self-fracture 2−62207
He bubble behaviour, alloying effects 2−86742
Nb, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Nb IV, UV spectra 2−70174
Nb V, one-electron spectrum, term anal. 2−96489
Nb VI, spectrum, config. level structs. calcs. 2−102422
Nb VIII, transitions $4p^54d$-$5p$, $4f$ anal. 2−113911
Nb XV spectra, 40-95 Å 2−85582
Nb:Ar, O_2 supercond. thin films, ion implantation effects on supercond. props. 2−77226
Nb:Fe(Co)(Cr), electromigration and self diffusion, effective valence, radioactive tracer method *(French)* 2−76756
Nb:H_2, ultra small angle X-ray and neutron scatt. 2−86521
Nb/Al overlayer struct., surface oxidation, grain boundary diffusion, XPS study 2−67601
Nb/Pb thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
Nb/Pb-In thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
Nb-Al_2O_3 cermet film, elec. cond. calc. 2−82475
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
Nb-Cu layered system, conductivity transition 2−110253
Nb-Cu superlattice, supercond. transition temp., proximity theory, density of states 2−66701
Nb-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184

niobium continued
Nb-H, fluctuation induced spinodal decomposition 2−66235
Nb-H system, relax. process caused by interstitial H 2−103930
Nb-Nb oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
Nb-Nb oxide-Pb Josephson tunnelling elements in junction microstructs. 2−98819
Nb-Nb_xO_y-Pb Josephson junction, phase distrib., boundary conditions effect 2−110541
Nb-NbN double-layered electrodes in Josephson tunnel junction 2−77233
Nb-NbO_x-NbN, Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
Nb-NbO_x-Pb Josephson junctions, high current density, fabrication and props. 2−82532
Nb-NbO_x-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455
Nb-SnO_x-Sn, Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
Nb-SnO_x-Sn and Nb-Sn, tunnel- and bridge-type Josephson junctions, submm wave response meas. 2−92831
Nb-Te-Nb Josephson MM-wave mixer, characts. and anal. 2−92830
NbI, atomic beam, radiative lifetime, time-resolved laser induced fluoresc. 2−90473
NbN-Nb double-layered base-electrode Josephson junctions, single flux quantum memory cells fabric 2−82531
NbN-Nb Josephson tunnel junctions, with sputtered amorphous Si barriers 2−66715
^{92}Nb use as solar system chronometer 2−84116
Ni coated, hardening and fracture initiation, H_2 absorption-desorption effects *(Japanese)* 2−57458
Pd coated, hardening and fracture initiation, H_2 absorption-desorption effects *(Japanese)* 2−57458
Pd-Nb system, band occupancies, correlation to chemisorption 2−82424
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800
VO_2:Nb, elec. and Seebeck effect meas. 2−66553

niobium alloys
see also niobium compounds
binary alloy NV7, solid solution reinforced, creep 2−116514
C NbTi superconductor for magnets, fusion neutron damage 2−80184
C V-Nb, binary alloys, fabricability and tensile strength 2−67496
cast, heat treatment effect on struct. and props. 2−72733
dilute, fusion-neutron irrad. damage rates 2−103828
Inconel 600, stress corrosion cracking in high-temp. water 2−83297
Inconel 600 alloy, stress corrosion cracking 2−83298
Inconel 625, high-temp. air oxidation 2−80115
Inconel 625, sequentially He^+ implanted, surface exfoliation suppression 2−76522
Inconel alloy 600, stress corrosion cracking in PWR boilers 2−80124
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, tool, high speed, S 6-5-2 (M2), Nb and C effects on struct. and tool life *(German)* 2−57360
surface Ar^+ ion irrad. damage 2−74929
Be-Nb-Zr amorphous alloy, ^9Be NMR line breadth and Knight shift 2−104720
Co-^{90}Nb, NMR ON study 2−98971
Co-Fe-Nb alloy, magnetisation reversal and Barkhausen effect 2−72277
Co-Fe-Nb semihard mag. alloy, cold working effects on precipitate morphologies rel. to mag. hysteresis 2−92962
Co-Nb (0.96 at.%), solute segregation to stacking faults, atom probe FIM obs. 2−105163
Fe-Cr-Co-Nb-Al, high-coercivity, microstruct. rel. to mag. props. 2−111333
Fe-Nb, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Fe-Ni-NbC, phase equilib., struct., mag. props. and hardness *(Russian)* 2−67291
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), C activity, influence of alloying additions *(German)* 2−93491
Hb-Hf, dynamic strain aging, 20 to 900°C *(French)* 2−57377
Hf-Nb-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
Hf-Nb-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
Nb and alloys, ion irradiated by $^{58}Ni^+$ and $^3He^+$, swelling 2−85216
Nb-Al, heat of formation and high temp. phase diagram, Knudsen effusion study 2−105117
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Nb-Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb-Fe inhomogeneous system, laser irrad., internal field at ^{57}Fe, atom redistrib. and antiferromag. suppression *(Russian)* 2−66929
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
Nb-Ga high T_c supercond. wires, prep. by heating and quenching in liq. He 2−77770
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-Ge film, DC magnetron sputtering and supercond. props. meas. 2−72097
Nb-Ge films, supercond. and struct. props. rel. to sputtering conditions *(Russian)* 2−104522
Nb-Ge sputtered films, supercond. transition temp., nonuniformity within film 2−92800
Nb-H alloys, low freq. internal friction study 2−116479
Nb-H alloys, low freq. internal friction study 2−116480
Nb-H system, hydride phase transition, low temp. 2−57344
Nb-H system, phase diagram and transitions, mag. susceptibility study 2−92155
Nb-Hf-Ti (10, 1 wt.%), hot isostatically pressed powder compact, creep 2−116504
Nb-HfN alloy, high temp. hardness changes *(Russian)* 2−72794
Nb-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Nb-Mo, random alloy, Fermi surface, KKR-CPA calc. 2−61334
Nb-Mo alloy, energy band struct., depend. on alloy pots. 2−115648
Nb-Mo alloys, Compton profile 2−116292
Nb-Mo-Ti-Zr MN-1 alloy, nitriding effect on heat-resisting props. 2−111247

niobium alloys continued
Nb-Mo-Zr, carbide form. and embrittlement in technical Ar at 1100°C 2−72821
Nb-Rh system, thermodynamics and phase equilib. 2−56218
Nb-Si, A15 phase, growth by epitaxy and composition grading 2−71827
Nb-Si, shock synthesis by gun method 2−77769
Nb-Si, supercond., electron beam evaporated, growth morphology, O_2 effects and substrate temp. 2−110207
Nb-Ta ribbon, abnormal transverse field effects, pinning charact. 2−110552
Nb-Ta single cryst. superlattices, MBE growth, HEED study 2−82166
Nb-Ti, anelastic relax. due to Ti-H complexes, internal friction spectra 2−111222
Nb-Ti, phase comp., hydraulic extrusion process parameters influence 2−57330
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
Nb-Ti (38 wt.%), low-temp. heat capacity 2−76697
Nb-Ti (48 wt.%), supercond. thermoelectric power, 5 to 25K 2−66706
Nb-Ti composite superconductor, limiting currents 2−104556
Nb-Ti superconducting materials, review 2−67255
Nb-V, spectrochemical anal. using photon emission from sputtered atoms, surface O contamination effect 2−77677
Nb-V alloys, sputtered clusters 2−93341
Nb-V-O, ternary solid soln., modelling O activities 2−104021
Nb-W, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
Nb-W(Mo)(TA)-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
Nb-Zr, dil. alloy, low temp. sp. ht. meas. *(Russian)* 2−86897
Nb-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Nb-Zr, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
Nb-Zr (1 wt.%), fatigue failure in various struct. states 2−99547
Nb-Zr (1 wt.%), He bubble behaviour, alloying effects 2−86742
Nb-Zr (79.6 wt.%), low-temp. heat capacity 2−76697
Nb-Zr-C, embrittlement during ageing, X-ray, SEM and TEM study *(Russian)* 2−93585
Nb-Zr-N, strengthened by ZrN precip., ageing charact. 2−83132
Nb-Zr-V-C, high-temp. creep in vac., long ageing and V additions influence 2−99504
Nb-ZrN alloy, high temp. hardness changes *(Russian)* 2−72794
Nb-Zr(Ti)(V)(Ta), dil. alloys, diffusion of O, appl. of McNabb-Foster trapping eqns. 2−76744
Nb_3Al, A15 type phase, supercond., at. ordering, and stoichiometry 2−61637
Nb_3Al base ternary alloys, ^{93}Nb NQR study 2−110722
Nb_3Al film, sputter deposited on SiO_x, AES anal. 2−92383
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
Nb_3Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Nb_3Al, supercond., energy gap determ. from heat capacity meas. 2−110532
Nb_3Al, supercond., ultimate crit. current density *(Chinese)* 2−110556
Nb_3Al, supercond. props. study by electron tunnelling 2−110545
Nb_3Al thin films, sputter deposited at high substrate temps., comp. deviation 2−87978
$Nb_3(AlGe)$, supercond., ultimate crit. current density *(Chinese)* 2−110556
$Nb_3Al_{0.8}Ge_{0.2}$, electrical resistivity, temp. depend. 2−61442
$Nb_3(Al_{1-x}Ge_x)$, A15 superconductor, prep. from transformation from liq. quenched BCC phase 2−98777
Nb_3Au, electrical resistivity, temp. depend. 2−61442
Nb_3Ga, electrical resistivity, temp. depend. 2−61442
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
Nb_3Ge, electrical resistivity, temp. depend. 2−61442
Nb_3Ge film, EXAFS study, superconducting props. 2−99225
Nb_3Ge film, supercond., conc. depend. of Tc 2−92809
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
Nb_3Ge films, critical mag. field temp. depend. *(Russian)* 2−61673
Nb_3Ge, for fusion reactor magnets, ion and neutron damage studies 2−110549
Nb_3Ge, heat capacity meas. using adiabatic calorimetry method 2−115430
Nb_3Ge microbridges, fabrication and I-V characteristics meas. 2−61663
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
Nb_3Ge, supercond. props. study by electron tunnelling 2−110545
Nb_3Ge superconductor, neutron radiation damage 2−80185
$Nb_3Ge(Si)$, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
$NbH_{0.89}$, phase transitions, PMR spin-lattice relax. time temp. depend. study 2−110688
NbH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
NbH_x, defect-induced lattice displacements, static Debye Waller factor, Bragg scatt. intensities 2−92138
NbH_x, Jahn-Teller resonance states, electron-phonon interaction, HF calc. 2−82302
NbH_x, sound attenuation, H content effects, elastic domains 2−81898
NbH_x, twin boundary motion, sound attenuation study, microstruct. effects 2−81897
$Nb_{55}Ir_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
$Nb_{1-x}Mo_x$, supercond. alloys, nuclear acoustic reson. study of electron-lattice interaction 2−56950
$NbPd_3$, itinerant ferromagnetism study 2−66750
$Nb_3Pt(Al)$, neutron irrad., normal-state resistivity anal. 2−56550
$Nb_{55}Rh_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
Nb_3Sb, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
Nb_3Si, A15, α-particle irrad. effects on supercond. and struct. props. 2−98167
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Si, film, production, struct. and Tc 2−110527
Nb_3Si, α-particle irrad. effects on supercond. and struct. props. 2−98167
$Nb_{81}Si_{19}$, amorphous, crystn. under high press. and form. of A15 phase 2−86572
Nb_3Sn CVD superconducting tapes, dynamic stability 2−104554
niobium alloys continued
Nb_3Sn conductor, coil performance test for advanced cluster test facility 2−69923
Nb_3Sn, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
Nb_3Sn, electron-phonon interaction, supercond. props. 2−103924
Nb_3Sn, for fusion reactor magnets, displacement cascades, TEM obs. 2−109862
Nb_3Sn, for fusion reactor magnets, ion and neutron damage studies 2−110549
Nb_3Sn forced flow conductor production for Large Coil Program 2−75039
Nb_3Sn, form. kinetics by diffusion method *(Russian)* 2−66301
Nb_3Sn, infiltration process prep., supercond. props., effect of Cu and Ga additions 2−61676
Nb_3Sn large capacity conductor, resistive voltage 2−69926
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Nb_3Sn, multifilamentary supercond., prod. by external diffusion method 2−75035
Nb_3Sn multifilamentary supercond. composites, fabrication and supercond. props. *(Chinese)* 2−110555
Nb_3Sn, neutron damage, changes in critical props. and damage-energy anal. 2−80186
Nb_3Sn, photoemission studies of clean and oxidised surfaces 2−77695
Nb_3Sn, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
Nb_3Sn, supercond., energy gap determ. from heat capacity meas. 2−110532
Nb_3Sn, supercond., low bulk pinning, min. in AC losses 2−92842
Nb_3Sn, supercond. props. study by electron tunnelling 2−110545
Nb_3Sn superconducting composite wires, fabrication by solid-liquid diffusion method 2−67237
Nb_3Sn superconductor for High Field Test Facility, development and manufacture 2−75037
Nb_3Sn, surface impedance, critical temp. 2−98796
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803
Nb_3Sn, tetragonal, electronic struct., nonorthogonal tight binding and APW calcs. 2−76914
Nb_3Sn, ultrafine supercond. powder form. by vapour phase reactions 2−67232
Nb_3Sn-Cu composites for fusion magnets, in-situ development 2−75033
Nb_3Sn-Ti, composite processed, Ti addition effect on supercond. props. 2−104555
$Nb_3Sn(Ga)(Al)(Ir)(Pt)(Au)$, A15 struct. cpds., quadrupole interactions, cluster model interpretation 2−66510
Nb_3SnH_x, heat capacity, supercond. transition temp. electron phonon interaction, H content effects, expt. study 2−56206
NbTi compacted monolithic conductor, fabrication and performance 2−69925
NbTi filamentary Cu superconductor, direct meas. of transverse resistivity 2−74460
NbTi, for fusion reactor magnets, neutron irrad. effects 2−110553
NbTi, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
NbTi supercond. composite, unpainted, exptl. study of quenching dynamic processes *(Chinese)* 2−110531
NbTi superconducting wire for Tokamak toroidal field coil 2−69924
NbTi/Cu composite supercond., dynamic quench in superfluid ^4He, rel. to magnet cooling 2−112906
NbTi-Cu, multifilamentary, supercond. current stability, max. transport current meas. 2−66731
NbTi-Cu composite multifilamentary supercond., losses under adiabatic conditions 2−66730
NbV alloys, secondary ion emission, target morphology effects 2−99279
Ni-Al-Nb-Ti high-temperature strength alloys, mech. props. prediction, struct. factors influence 2−72771
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Ni-Nb, amorphous, thermoelec. powers and resistivities 2−98611
Ni-Nb, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ni-Ti/Cu multifilamentary supercond., proximity effect, diamag. transitions obs. 2−61664
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
$Ni_3(Al, Nb)$, heat-resistant, dendritic segregation 2−72698
$Ni_3(Al,Nb)$, single crysts., tension/compression flow stress asymm. 2−67418
$Ni_{60}Nb_{40}$ glass-metal matrix composite, fabrication feasibility using vac. hot pressing 2−99372
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
Ta-W-Re(Mo)(Hf)(Nb), athermal solid soln. hardening 2−99437
Ti-Al-Nb-Ta, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
Ti_3Al-Nb, as-annealed and creep deformed, superdislocation networks, APB energy role 2−98091
TiC-Nb and TiN-Nb, sintering and props. 2−111109
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
V-Nb-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V-Nb(Al), dil. alloys, radiation-induced defects, interaction with O 2−103840
WC-TiC-TaC-NbC-Co cemented carbide, C content effects 2−77939
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
Zr-Nb, fuel cladding, thermal expansion coeff. anistropy 2−54507
Zr-Nb, soft X-ray absorpt. spectra and density of states calcs. 2−104999
Zr-Nb (2.5 wt%), corrosion in 340°C water, LiOH effects, comparison with Zircalloy-2 2−77981
Zr-Nb (2.5 wt.%), metallographic obs. of hydride morphology at H_2 induced crack tip 2−88174
Zr-Nb (2.5% wt.%), pressure tubes for CANDU-PHW, manufacture, inspection, mech. props. 2−90231

niobium alloys continued
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2−115989

niobium compounds
see also niobium alloys
halides, electron struct. *(Russian)* 2−66441
oxides, stoichiometric and nonstoichiometric, cryst. struct. 2−91918
oxides to Nb_2O_5, homogeneous transformations 2−86860
$BaO-SrO-Na_2O-Nb_2O_5$ system, cryst. growth and electromech. characts. 2−87693
$Ba_x(Sr_y)Nb_2(_{3-x})/_5O_3-PbZrO_3-PbTiO_3$ elec. and optical props. 2−82796
$BaTiO_3:Nb_2O_5$, elec. props., phase composition, valence state of cations 2−110347
$Cr_{1/3}NbS_2$, helical spin struct. due to antisymmetric exchange interaction 2−72162
$FeNb_3Se_{10}$, metal-insulator and CDW transitions correlation, elec. cond. press. depend. study 2−77133
$FeNb_3Se_{10}$, one-dimensional, band struct. calc. 2−82201
$Fe_{1+x}Nb_{3-x}Se_{10}$, electronic struct., tight binding calc. 2−98517
$HNbO_3.xH_2O$, proton conductor, charact. 2−104054
$HfO_2-MgO-Nb_2O_5$, ordered fluorite related phase 2−111159
$KNbO_3$ single cryst., struct. props., growth conditions influence *(Russian)* 2−98034
Li_xNbS_2 organic electrolyte rechargeable cell, electrochemical study 2−99781
$Na_2O-B_2O_3-CeO_2.3Nb_2O_3(-Al_2O_3)$ porous glass ceramic 2−77811
$Na_2O-B_2O_3-SiO_2-Nb_2O_5$, glass props., Nb_2O_5 influence 2−71648
$(Nb,Pb)(Zr,Ti,Zn)O_3$ piezoceramic, influence of static compression on props. 2−72426
Nb-H, low-temp. stable states, interstitial sublattices 2−86618
Nb-Nb oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
Nb-Nb oxide-Pb Josephson tunnelling elements in junction microstructs. 2−98819
$Nb-Nb_2O_5$-Pb Josephson junction, phase distrib., boundary conditions effect 2−110541
Nb-NbN double-layered electrodes in Josephson tunnel junction 2−77233
$Nb-NbO_x$-Pb Josephson junctions, high current density, fabrication and props. 2−82532
$Nb-NbO_x$-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455
Nb-Rh-O system, thermodynamics and phase equilib. 2−56218
Nb-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Nb_3As(A-15), supercond. transition temp. and upper critical field 2−82507
NbB_2, fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
NbB_2, single crysts., high temp. hardness and slip systems 2−86674
$NbBr_5$, ^{93}Nb nuclear quadrupole resonance, coupling const., π bond character 2−87620
Nb(C,N), fracture props., Young's modulus, Hertzian indentation testing 2−62216
NbC coatings, appl. to hard-metal tools 2−72883
NbC, fracture props., Young's modulus, Hertzian indentation testing 2−62216
NbC, single cryst., prep. and supercond. props. *(Japanese)* 2−92808
NbC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
NbC_x (111), (110) and (100) surfaces, electron work function, thermoemission meas. 2−82440
NbC_x, single cryst., prep., struct. and mech. props. 2−98108
NbC_xO_y, elec. resist., conc. and temp. depend., 25-1000°C 2−56579
$NbCl_5$, Cl^{35} NQR spectrum, 4.2 to 480K, coupling constants 2−56968
$NbCl_5$, Nb^{93} NQR spectrum, 4.2 to 480K, coupling constants 2−56969
NbH and NbH_2, electron-phonon coupling parameter rel. to occurrence of supercond. 2−66462
$NbH_{0.99}$, lattic vibr. spectrum, inelastic neutron scatt. study 2−71597
NbH_2, band struct., Fermi surface, and optical absorpt. spectra 2−104246
NbH_2, electronic struct., electron-phonon coupling 2−66444
NbH_x, NMR mag. cept. broadening, susceptibility matching effects 2−69221
Nb_6I_{11}, H bonding, interstitial, calcs. 2−80472
$Nb_{4.95}Ir_{2.7}O_{1.35}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
NbN films, prep. by magnetron sputtering 2−87977
NbN, fracture props., Young's modulus, Hertzian indentation testing 2−62216
NbN granular weak links, current-phase relationship inferred from Josephson interferometer characts. 2−82527
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113
NbN, single cryst., prep. and supercond. props. *(Japanese)* 2−92808
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785
NbN, supercond. thin film., ion beam irrad. during deposition transitio n temp. 2−82180
NbN, thermal and elec. cond. characts. rel. to electron energy spectrum 2−71987
NbN thin film homogeneous supercond., IR transmission, scattering time effects 2−66713
NbN-Nb double-layered base-electrode Josephson junctions, single flux quantum memory cells fabric 2−82531
NbN-Nb Josephson tunnel junctions, with sputtered amorphous Si barriers 2−66715
NbN_x, reactive synthesis by pulse laser annealing, X-ray, AES and supercond. study 2−72642
Nb_4N_5, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
NbO, effect of vacancies on electronic struct. 2−61330
NbO_2, elastic consts., ultrasonic study 2−109883
NbO_2 films, RF sputtered, crystallisation, DTA and elec. cond. 2−104441
NbO_2 optical thin film, refractive index meas. during deposition 2−82944
NbO_2 single crysts., growth by float zone method 2−93416
NbO_2, struct. transition, role of polar phonons Fourier spectroscopy 2−57028
NbO_{2+x}, vaporisation study by mass-spectrometric method 2−77810
NbO_x solid soln., EELS of electronic excitations, expt. study 2−82969

niobium compounds continued
$Nb_{22}O_{54}$, oxidation, interstitial O, TEM 2−97879
$Nb_{22}O_{54}$ oxidised at 200°C, point defects, structural changes, TEM obs. 2−55965
α-Nb_2O_5, defect struct., thermogravimetric obs. and oxygen partial press. depend. 2−65990
Nb_2O_5, high temp. form, room temp. Raman spectrum and vibr. assignments 2−116163
Nb_2O_5, metastable struct. modification, disintegration and reduction products, electron microscope study *(German)* 2−65956
α-Nb_2O_5, nonstoichiometric anal. at elevated temp. 2−87267
Nb_2O_5, photoelectrochem. and solid-state props. 2−72016
Nb_2O_5 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
Nb_2O_5, with rare earth chromites, use as anodes in high-temp. O_2 conc. cell 2−77038
Nb_2O_5:Al(Cr), CC acceptor doped, defect struct., elec. cond. study 2−92613
Nb_2O_5-PbO system, pyrochlore phases, cryst. struct. and solid solubility, X-ray diffr. study *(French)* 2−86642
$Nb_2O_5-WO_3$, O vacancies, reduction and phase transition, TEM 2−97879
$2Nb_2O_5.7WO_3$, reduction studied by 1 MV HRTEM 2−83370
$Nb_{5.04}Pt_{2.97}O_{1.08}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
NbS_2, $NbSe_2$, struct. rel. to lubrication performance 2−109901
NbS_2-2H and intercalated, Raman scatt. spectra 2−87792
NbS_3, cryst. struct., semicond. elec. props. 2−60954
NbS_3, nonlinear conductivity and charge density wave transitions 2−98631
Nb_3S_4, quasi 1-D, elec. cond., magnetoresistance 2−87247
$Nb_3S_4(Se_4)(Te_4)$, Fermi surface, band struct. and elec. cond., LCAO calc. 2−115658
$NbSe_2$ (2H), ^{93}Nb NQR and spin-lattice relax., 7 to 77K *(Russian)* 2−66946
$NbSe_2$ (2H) and 2H-$NbSe_2(TCNQ)_{0.05}$, upper crit. field anisotropy and supercond. crit. field *(Russian)* 2−56801
$NbSe_2$, anomalous flux entry 2−87462
$NbSe_2$, sputtered dichalcogenide layers, friction props. 2−72849
$NbSe_2$-2H, charge density wave-periodic struct. distortion transition 2−103980
$NbSe_2$-2H, normal state phonon prop. anal. 2−103919
$NbSe_3$, AC-induced DC cond. for CDW, tunneling theory 2−82329
$NbSe_3$, CDW cond., field and freq. depend. 2−56559
$NbSe_3$, CDW cond. onset, switching and hysteresis 2−110407
$NbSe_3$, CDW motion, AC-DC coupling 2−56560
$NbSe_3$, CDW motion, differential resist. study 2−66540
$NbSe_3$, CDW motion, dynamic props., expt. study 2−66541
$NbSe_3$, charge density wave dynamics and noise, damped kink model 2−104273
$NbSe_3$, commensurate CDW system, fractional changes and freq. depend. currents 2−82328
$NbSe_3$, cryst. struct., semicond. elec. props., X-ray diffr. study 2−60954
$NbSe_3$, current oscills. and stability of CDW motion 2−104356
$NbSe_3$, dielectric function, low freq. noise meas. 2−92497
$NbSe_3$, fractional charges and freq. depend. currents in CDW systems 2−56557
$NbSe_3$, Frohlich sliding mode mechanism 2−87231
$NbSe_3$, low temp. specific heat 2−76703
$NbSe_3$, microwave harmonic mixing 2−104411
$NbSe_3$, nonlinear cond. and narrow band noise 2−104358
$NbSe_3$, nonlinear dielec. props. below Peierls transition at 145K 2−92496
$NbSe_3$, nonlinear response to pulsed elec. fields 2−104357
$NbSe_3$, one-dimensional, band struct. calc. 2−82201
$NbSe_3$, radiation-induced depinning of CDW 2−66465
$NbSe_3$, singularity of thermoelec. power at struct. phase transition *(French)* 2−66199
$NbSe_3$, transport props. rel. to CDW form. 2−115739
$NbSe_3$ whiskers, quasi-one-dimensional, microwave and MM EM signal detection and conversion 2−116302
$NbSe_2$(2H), reflection of low-energy electrons from basal plane 2−77639
$NbSi_2$ film, phys. and elec. props. 2−104193
$Nb_xTi_{1-x}S_2$, IR thermoreflectance spectra 2−104859
$(Nb_{0.99}Zr_{0.01})_3Sn$, supercond., mag. field penetration depth, surface treatment effects *(Russian)* 2−115947
Ni_2NbBO_6, cryst. struct. refinement 2−71406
$PbMg_{0.33}Nb_{0.66}O_3$, ferroelec., electro-optic and strain-optic effects 2−93159
$Pb_{0.99}Nb_{0.02}(Zr_{0.68}Sn_{0.25}Ti_{0.07})_{0.98}O_3$, ferroelectric, direct heat to electrical energy conversion, pyroelectric meas. 2−67878
$SnO_2-Nb_2O_5$, reactions after annealing, X-ray anal. 2−88065
$UO_2:Nb_2O_5$, elec. cond., effects of doping 2−87262
$ZrO_2-MgO-Nb_2O_5$, ordered fluorite related phase 2−111159

nitrogen
see also nuclei with .....
abundance and chem. evolution in interstellar medium in solar neighbourhood 2−63579
abundance in supernova remnant W50, evidence for form. from Wolf Rayet star progenitor 2−63594
abundances in α Lyrae and α Caris Majoris from spectral obs. 2−68759
adsorbed on W{100}, $(\sqrt{2}\times\sqrt{2})R45°$ surface phase, LEED struct. anal. 2−110142
adsorption, on polycryst. Mo surface, AES obs. 2−67157
adsorption isotherm crossing on $CdCl_2$ 2−56341
adsorption kinetics meas. on Fe (111) 2−56356
adsorption of N_2(N) on K promoted Fe (111) and (100), expt. study 2−56357
adsorption of N_2/O_2 mixture on W at low-temp., FEM study 2−76804
adsorption on Au discontinuous thin films, effects on I-V characts. 2−110499
adsorption on $CdCl_2$, surface homogeneity effect 2−115563
adsorption on chemically modified Aerosils, energy distrib. functions eval. using numerical methods 2−67772
adsorption on Dy, XPS and Auger electron spectra 2−62429
adsorption on Ir (100), work function changes, field emission study 2−87047
adsorption on Ni, HF cluster model calc. 2−56334
adsorption on Ni (100), photoemission study 2−56335
adsorption on Ni (110), electronic binding energies of valence levels, UPS study 2−82437
adsorption on Ni (110) at 20K, UPS and work function meas. 2−104159
adsorption on S (111), effect of lateral interactions 2−56348

nitrogen continued
adsorption on SiO_2, porosity charact. 2−62433
adsorption on TiN(100), surface state, photoemission study 2−77705
upper atmosphere, long-term variations of thermosphere 2−63154
upper atmosphere, self-absorpt. of the N_2 LBH bands in the far UV dayglow 2−63159
atom, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
atom, metastble ^2P state, EPR spectrum 2−64901
atom and ions, valence state correl. energies, third-order quasidegenerate many-body perturbation theory calc. 2−80491
atomic layer on Ag grating, light emission from excited surface plasmon modes 2−82907
chemisorbed on Ni (110) and physisorbed on Pd (111), angle resolved UPS and EELS study 2−92359
chemisorbed on W (100) and Mo (100), phys. sputtering, mass effect 2−82981
chemisorption on densely packed Mo, W, Re and Ir surfaces 2−115559
crystal, libration motion dynamics, SCF and harmonic approx. *(Russian)* 2−56103
DC plasma jet, time resolved meas. of rotational temp. 2−103479
diamond:N_2, structural imperfection annealing, struct. 2−81766
diamond:N, A_1-T_2 splitting, Jahn-Teller distortions, EHT calc. 2−82277
diamond:N, ion implanted, cathodoluminescence of impurity-defect complexes 2−116276
diamond:N, ion implanted, defect form., annealing and interactions, cathodoluminescence study 2−116277
diamond:N, ion implanted, defects, elec. cond., EPR study 2−66027
diamond:N, vacancy-related colour centres, spectroscopic study 2−98082
diamond, N aggregation kinetics 2−81809
diamond, natural and synthetic, ESR spectrum of N impurities 2−87587
diamond, type Ia, N_2 detection at {100} platelets with EELS 2−103786
diatomic molecules thermal dissociation with bound electron excited states 2−93764
dichlorodifluoromethane-N_2(air) mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
dielectric recovery time of small pressurized spark gaps 2−103544
diffusivity in liquid Fe-based ternary system 2−115446
electric breakdown, filamentary stages of point to plane discharges 2−103550
electric breakdown meas., focused laser irrad. induced at 1.064 μm 2−55800
electrical breakdown, electron shock struct. obs. 2−115074
electrical breakdown, in diode, rel. between secondary ionisation coeff. 2−65782
electrical breakdown, time delay distrib. meas. 2−76226
electrical breakdown induced by metastable states, expt. study 2−97813
electron avalanches, fast current meas. 2−65779
electron ranges in low energy region, ionometric determ., charge carrier diffusion influence 2−96403
emission to atmosphere from bushfires in intertropical savannah zones 2−112031
fast ions reson. coherent excitation in Au crystals 2−76537
fixation by lightning in primitive atmosphere 2−63098
fluid, transient hot wire thermal cond. apparatus 2−71060
formative time lag meas. *(German)* 2−76219
free jet, rot. relax. in transition regime 2−114084
free jets, rot. levels population kinetics, electron beam meas. 2−109382
gas, and CO mixtures, diffusion coeffs., viscosity meas. 2−114960
gas, mag. birefr., Cotton-Mouton const. meas. 2−91587
gas, NMR linewidths, rot. and orientational relax. times, J-diffusion theory appl. 2−114015
gas, optical quality of supersonic jets 2−55697
gas, refr. index determ. in vacuum spectral region using third harmonic generation 2−109454
gas, stopping power of protons and alpha particles 2−70386
gas, two-parameter equation of state 2−60699
gas blast arc channel in free recovery, temp. decay mechanism 2−71279
gas lasers, CC N_2, high peak power, compact, design and construction 2−65250
gas mixture, thermal conduct. meas. 2−86372
glow discharge, low press., electron conc. radial distrib. by optical method 2−71283
glow discharge, negative ion signals obs. 2−103539
glow discharge, self-maintained, heating, Joule power distrib. 2−76229
heterocyclic radicals, CIDEP, polarisation theory test 2−75328
impulse ratios of gaps in compressed gases 2−97820
interstellar abundance, enrichment by planetary nebulae 2−112542
ionospheric photoionisation of O and N_2 deduced from photoelectron flux obs. 2−89063
iostopes in Galaxy, evolution from galactic chem. evolution model 2−68888
laser, discharge excited, high power operation 2−114306
laser, transversely excited, beam shape meas. 2−55233
laser cavity, transversely excited, ionising waves of potential gradient 2−90940
laser performance with modified electrode config. and gas flow arrangement 2−60109
lasing and dynamics of nanosecond discharge 2−70548
liquefied, hopping transport mech. of excess electrons, optical studies 2−104447
liquefied, injection into water flow to reproduce two-phase flow 2−97675
liquid, efficient Raman freq. conversion 2−55254
liquid, elec. breakdown at cryogenic temp., press. depend. 2−93111
liquid, energy difference functions in Monte Carlo simulations, free energy calcs. 2−81654
liquid, flowing, elec. breakdown, statistical investigation 2−116119
liquid, inelastic neutron scatt., 1.5 to 15 eV 2−109636
liquid, intermol. electron density distrib., diffr. anal. 2−91750
liquid, Raman scattering, induced, restoration of amplitude and phase of laser signal liquid, Raman scattering 2−87807
liquid, Rayleigh spectra, temp. and density of second moment 2−104898
liquid and plastic cryst. phase, LF Raman spectra 2−116164
liquid dynamics, neutron inelastic scatt. 2−81659
liquid-vapour refrigerator for spectral studies 2−74422
liquids, mol. vibr. dephasing rates, mol. orientations and attraction effects 2−97895
LNG vaporizer and power generation using low temp. LNG 2−57720
metastable state from N recomb., collisional vibr. relax., electronic mutation 2−108684
meteorite C, H and N isotopes: in carbonaceous chondrites 2−68684
meteorites, H_2, C and N_2 concs. and isotopes in carbonaceous chondrites 2−68683
microwave slit pulsed discharge 2−65787
molecular, CARS spectra, rot. diffusion model appl. 2−59808
molecular fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
molecular plasma, nonequilibrium, electronic relax., theory 2−114974
molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
molecular vibration levels population, plasma neutrals temp. meas. in microwave discharge, CARS 2−114006
molecule, $A^2\Pi_u$ ionis., photoelectron ang. distribs., partitioning anal. 2−59864
molecule, $C^3\Pi_u$ state, $v'=1$ level perturbations and radiative props., time resolved study 2−80841
molecule, chemisorption on Fe_2O_3, IR study 2−82130
molecule, differential and total photoionisation cross sections 2−70354
molecule, elastic electron scatt., cross section data compilation 2−54964
molecule, elastic scatt. of intermediate and high energy electrons by two-pot. coherent approach 2−85807
molecule, elec. dipole forbidden inner-shell transitions, electron energy loss obs. 2−75424
molecule, elec. field gradients, semi-empirical SCF MO calcs. 2−108387
molecule, electron (positron) impact, total cross-sections meas. 2−59937
molecule, electron beam diagnostics, secondary processes 2−85826
molecule, electron density difference maps 2−90427
molecule, electron impact dissoc. and ionis. in elec. discharges 2−65096
molecule, electron impact dissociative excitation, prod. of N emission 2−70430
molecule, force consts., pot. energy and derivative calcs. 2−108360
molecule, Franck-Condon factors, appl. to photoelectron spectra 2−108623
molecule, geometry, force consts., test of new SCF method 2−108367
molecule, Herman IR system obs. and formation kinetics study in pulsed-discharge apparatus 2−102472
molecule, HF Slater wave functions calc. 2−96441
molecule, matrix isolated in Ar, N_2, mol. vibr., Raman obs. 2−70250
molecule, microwave-excited, CARS meas. of vibr. temp. at low press. 2−102481
molecule, multiphoton ionisation by Nd-glass laser 2−65056
molecule, optical Stark splitting of rotational Raman transitions 2−59837
molecule, positron elastic scatt. and annihilation 2−80813
molecule, possible source for $N^+(^3S)$ in aurora 2−63160
molecule, pumping effect on vibr. distrib. function 2−75236
molecule, pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
molecule, quadrupole moment calc. 2−102432
molecule, reson. scatt. of slow electron, vibr. excitation cross sections, quasiclassical calc. *(Russian)* 2−54973
molecule, Rydberg states, rot. transitions, optogalvanic study 2−90516
molecule, second order perturbation energy, CASSCF calcs. 2−64887
molecule, second positive system, band intensities, electronic transition moment 2−85632
molecule, second positive system at laser threshold, high resolution studies 2−59776
molecule, vertical ionisation pots. calc. by perturbation corrections to Koopmans' theorem 2−70445
molecule, vibrational excitation, effect of ground state mols. 2−108693
molecule, vibrational smearing of deform. density, Hartree-Fock-Slater SCF calc. 2−80559
molecule chemisorbed on Ni surface, SCF-Xα SW model cluster calcs. 2−61278
multilayer films, intramol. vibr. excitation accompanied by multiphonon transitions studied by electron impact 2−72583
NGC 6752, globular cluster, origin of C and N vars. 2−68839
O-type stars, N anomalies 2−79091
partial discharges across metal-dielectric gap in compressed SF_6/N_2 2−115065
Paschen curves anal. using Townsend breakdown eqn. 2−109450
physisorbed on graphite, quadrupole bilayer orientational phases 2−92350
plasma, absorption coeff. at 2820 Å, determ. 2−97792
plasma, excess emission at temps. 13000 to 15000K 2−60736
plasma, quasi-homogeneous stationary, composition at atmos. press. 2−76179
plasma channel formation by laser resonance saturation, N_2 influence 2−103403
plasma etching systems, plasma optical emission anal. 2−71268
plasma jet, energy parameters anal. *(Russian)* 2−65769
plastic molecular crystals, diffuse X-ray scatt. due to orientational correl. 2−103668
positron-gas cross-section measurements 2−75420
post-arc column, high-voltage breakdown simulation 2−97810
red giant stars, metal deficient, C and N abundances 2−84233
world rivers, C,N, and P transport, review 2−106148
solid, N_2-type crystals, libration motion dynamics, anharmonic and correlation effects *(Russian)* 2−61082
solid, NMR pulse study, solid echoes and orientational ordering 2−110726
solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
solid, valence-band photoemission, partial cross sections and density of states effects 2−93363
solubility ratio in Fe-based ternary solid solns. containing N and substitutional solute 2−98289
steel, 316 plates, effects of C and N on corrosion resist. to liq. Li 2−105370
steel, C, ion implanted with n, Fe,N and carbonitride phases, conversion electron Mossbauer study 2−98120
steel, stainless, N implanted, Rutherford backscatt., channelling and nucl. reaction study 2−98119
supersonic jets, two-dimens., interferometric obs. 2−103197
suppression of metal surface oxidation, during laser surface treatments 2−83294
swarm parameters calc. 2−103273
thermal conductivity at high press. 2−71059
Titan atmosphere, N_2 photochemistry rel. to atmospheric evolution 2−112386
Titan atmosphere, origin rel. to N_2 abundance 2−112385
transition in fourth spectrum 2−96472
47 Tucanae, origin of C and N vars. 2−68839
underexpanded jet, compressible flow density meas. by LIF 2−97581

nitrogen continued
variations in globular cluster 47 Tucanae, implications from stellar struct. theory 2−112515
vibr. excitation, pot. energy surface, quasiclassical trajectory reaction theory 2−99662
Ar:N_2 impurities, mol. dynamics calc. 2−115154
Ar-N_2, collisions with subexcitation electrons, thermalisation, recombination luminesc. 2−73004
Ar-N_2 laser, intense proton beam pumping, kinetic model 2−75561
Ar-N_2 laser pumped by intense proton beam 2−114256
Ar-N_2 mixtures, gaseous, viscosities, capillary flow meas. 2−110026
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
CO+N_2 mixture, Raman scatt., rot. and vibr. relax. *(Russian)* 2−54856
CO_2-N_2 gas-dynamic laser, flowing mixture, gain saturation 2−65197
CO_2-N_2 laser, plasma tube impedance, radiation fluctuations effects, theory 2−90863
CO_2-N_2 mixture, vibr. relax., IR luminesc. kinetics obs. 2−75388
CO_2-N_2 mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
CO_2-N_2-He gas mixt., press. shift in atmospheric press. 2−96641
CO_2-N_2-He laser, vibr.-temp. model for determ. populations of N_2 and CO_2 levels 2−85936
Fe:N, ion implanted, temp. stimulated outgassing 2−111205
Fe-N, thermodynamics, kinetics and props., data collection 2−89474
GaAs:Ge, N superlattice alloy, impurity sheet doped, band struct. 2−110242
GaAs:N, radiation damage and near edge optical props. 2−71523
$GaAs_{0.35}P_{0.65}$:N VPE LEDs, deep centre studies by photocapacitance method 2−56637
$GaAs_{1-x}P_x$:N, temp. depend. of luminescence intensity 2−82930
GaP:N, absorbing medium, linear pulse propag. 2−61860
GaP:N, luminescence spectra undulations 2−104950
GaP:N, photoluminescence time decay temp. depend. 2−93258
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
GaP:N,Te, epitaxial layers, photoluminescence study 2−61968
GaP:N epitaxial films, excitation transfer mechanism to NN_1 complexes 2−77589
GaP:N LED, yellow sideband radiation increases during ageing 2−116261
GaP:N LED degradation, surface corrosion 2−116559
Gap:N, N-N pair exciton spectra, J-J coupling and local field effects 2−82248
He, liquid, liquid He, ESR spectra of trapped N atoms *(Russian)* 2−98934
He-N_2 afterglow, Penning ionisation, charge transfer, kinetic model 2−96716
He-Xe, hollow cathode discharges, VUV study 2−97823
He^++N_2 charge transfer collisions, $N_2^+(B^2\Sigma_u^+)$ state vibr. populati on 2−70411
KCl:C, N, sequentially ion implanted, CN^- radical formation, ionolum. study 2−81802
Mo:N,H, defect-gas impurity interactions, positron annhilation study 2−67142
N I, N II, N III, spin-forbidden lines, oscillator strength calcs. 2−85590
N I in ϵ Persei line of sight, UV obs. 2−117716
N II, III, visible laser oscillations obs. 2−85942
N III 1750 Å transition, collision strength calc. 2−89137
N IV, 2p 3d $^1F^0$ and 2s 4f $^1F^0$ configuration mixing 2−70189
N IV, wavelengths, fine struct. and decay times meas. using beam-foil technique 2−64898
N IV in solar chromosphere-corona transition zone, EUV obs. rel. to electron press. 2−106639
N V resonance doublet in early-type stars, Copernicus UV obs. 2−117681
N^+, $^5S_2$ metastable state, radiative lifetime meas. by monitoring spontaneous emission 2−64923
N^+ dayglow at 214.3 nm and emission mechanisms 2−100616
N^{3+}, electron impact excitation cross sections calc. 2−114112
N^{5+}, energy and transition probabilities correl. wavefunctions calcs. 2−113874
N/Fe abundance ratio in halo dwarf stars 2−112446
N-He(Ar) VUV discharge line source, excitation mechanism effect on linewidth parameters 2−108422
N-O-S, spatial separation of components 2−88392
N+He ions, charge exchange cross sections, oscillations, average equilib. charge 2−85800
N+M^+, excited state charge-exchange cross sections, ODMR 2−102611
N+N, catalysed recomb. on Co and Ni surfaces, N_2 metastable states and vibr. relax. 2−108684
N+NO_2 reaction rate const. determ. using reson. fluoresc. in discharge flow system 2−105452
N^++Au, impact ionisation, L_3-subshell alignment 2−102605
N^++$H_2(N_2)$, atomic ground state, charge transfer cross sections 2−75417
N^{4+}+atom, L-shell vacancy rearrangement probabilities on Kα X-ray satellites, at. number depend. 2−96709
N^{q+}+H* (q=1-5), charge exchange, impact ionisation, cross section, crossed-beam expt. 2−114102
N^{q+}+He, one-electron capture cross sections 2−96723
N_2 ($B^3\pi_g$-$A^3\Sigma_u^+$) system, vibr. transition probabilities for Hulbert-Hirschfelder oscillator model 2−70218
N_2 adsorbed on Ru (001), sticking coeff. coverage depend. 2−76837
N_2 flowing gas spark gaps, statistical breakdown times 2−91711
N_2 gas, rotational relaxation, classical dynamics 2−85790
N_2 gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529
N_2 gas laser, increased power output by BF_3 addition 2−114244
N_2 high power UV preionised TE lasers, ultraminiature and travelling wave 2−96992
N_2 in decaying plasma, dissociation and ionisation 2−81447
N_2, ionisation energy, XαSW method with universal potential 2−75183
N_2 laser design characteristics, holographic and interferometric appls. 2−114315
N_2 molecular laser, high-pressure UV-preionised discharge-pumped 2−55120
N_2 molecular spectra induced by ion impact on Si:N 2−77657
N_2, positron scatt., total cross section, retarding pot. time of flight method 2−108706
N_2 pulsed atmospheric laser, UV nanosec. light pulse generation, Blumlein circuit *(Chinese)* 2−90872

nitrogen continued
N_2, rot. distrib. in Ar free jet, translational temp. anisotropy effect 2−109383
N_2, rot. Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
N_2, slow electron reson. scatt., semiclass. calcs. *(Russian)* 2−54972
N_2, solid, 1-2 keV/amu H ions stopping power 2−66088
N_2 subnanosecond laser construction, use as pulsed fluorometer excitation source 2−75588
N_2 TEA laser, UV preionised, 337 nm operation 2−114250
N_2 TEA laser performance, discharge parameter effects 2−55127
N_2 TEA-TE laser system investigation 2−55130
N_2^+ (N^+) ions, 0.5-1.8 MeV/atom, stopping power meas. in C 2−81854
N_2^+, auroral emission at low latitude due to O precipitation 2−100621
N_2^+ $B^2\Sigma_u^+$, v=0 state effective cross-section meas. 2−70157
N_2^+, band spectrum of first negative system 2−70271
N_2^+, electron impact dissoc. recombination, metastable N yield 2−96752
N_2^+ implantation in Ni (110), AES, LEED, EELS and secondary electron spectra study 2−92014
N_2^+, intramolecular dynamics, PES obs. 2−75353
N_2^+ ion beam trajectories, direct obs. during deceleration 2−102709
N_2^+ ion laser, high-pressure UV-preionised discharge-pumped 2−55120
N_2^+ molecular ion dissoc. at S and N covered Ni (110) surface 2−78069
N_2^+ symmetric charge exchange reactions, laser-induced fluoresc. obs. 2−102617
$^{14}N_2$ and $^{15}N_2$, $B^{13}\Sigma_u^-$-$B^3\Pi_g$ system, Fourier and IR emission spectrum, rot. anal. 2−108503
N_2^{2+} ions, dissoc. into N^+ ions, kinetic energy spectra 2−72965
N_2/Ar profile in upper atm. used to find turbopause height and temp. 2−73734
N_2/CO_2 mixtures, double discharge TEA CO_2 laser uniform excitation 2−60058
N_2/O ratio in lower thermosphere, empirical model anal. 2−73733
N_2-CO_2, turbulent mixing of relaxing gases in a supersonic nozzle 2−60521
N_2-Cu arc discharge near anode, transport coeffs at atmospheric press. 2−103502
N_2-methane mixing, reson. photoacoustic spectroscopy detection 2−53843
N_2-O_2, 4:1 mixture, nonstationary discharge maintained by electron beam, theoretical model 2−71275
N_2-O_2, air-like mixture, three-body attachment coeff., Boltzmann eqn. calc. 2−90693
N_2-O_2, ion implantation source, source gas composition and ion current spectrum, optimisation by gas mixing 2−69296
N_2-O_2 mixture, breakdown by CO_2 laser radiation near a metal surface 2−97700
N_2-$O_2(CO_2)(O_2$-$CO_2)(CCl_2F_2)(O_2$-$CCL_2F_2)$ mixtures, ionisation and attachment obs. 2−103275
N_2-SF_6 mixture, arc discharge, thermal and elec. conductivity coeffs., theory and expt. 2−103501
N_2+Ar inelastic scatt., time depend. perturbation theory 2−102590
N_2+Ar^+, charge transfer, spin-orbit states, threshold electron-secondary ion coincidence study 2−96715
N_2+Ar^+, energy depend., rate consts. meas. 2−88346
N_2+ArH^+, proton transfer reactions, rate coeffs. 2−70409
N_2+Ar(Kr), anisotropic well depth parameters, from total differential cross-sections 2−80777
N_2+atom, hyperthemal collisions, mol. anharmonicity, time correl. function 2−85783
N_2+C^+(N^+)(O^+), atomic ground state, charge transfer cross sections 2−75417
N_2+CH($X\ ^2\Pi$), reaction absolute rate consts. at room temp. 2−99653
N_2+CO, CO V-V transfer, theoretical probabilities 2−102586
N_2+CO_2, intra and inter-mol. energy transfer, semiclassical calc. 2−70394
N_2+CO_2, vibr.-vibr. transitions between asymmetric stretch mode, rate const., semiclassical calcs. 2−90664
N_2+CO(O_2), vibr. transitions, quantum mechanical and semiclassical probabilities 2−54926
N_2+Ca, collisional relax., rate consts. for quenching meas. by modulated laser induced fluoresc. technique 2−96680
N_2+Cd(5^3P_1), quenching of Cd excited state, atomic fluoresc. obs. 2−80798
N_2+F, electron detachment cross sections meas. 2−59927
N_2+H_2^+, H^+ and charge transfer, collision energy and ion vibr. excitation 2−102604
N_2+H^+, N_2 energy loss spectrum 2−80799
N_2+H^+, small angle vibr. excitation 2−85801
N_2+H(He)(Ne)(Kr)(Xe), relativistic correction to interaction coeffs. 2−75202
N_2+He(2^3S), Penning ionis., intermediate Rydberg states obs. 2−65082
N_2+Li^-, electron loss cross-sections 2−54943
N_2+methane, α-irrad., H_2CN^+-N_2 production, Titan atm. appl. 2−100826
N_2+N_2^+, charge transfer, vibr., laser induced fluoresc. study 2−80802
N_2+NO, NO excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
N_2+NO, rot. and spin-orbit transitions, IR-UV double reson. 2−75382
N_2+Na, Na($3p^2P$) quenching at low temps. 2−102597
N_2+Ne(O_2)(N_2)(NO)(CO_2), vibr. quenching, SIFT investig. 2−90676
N_2+O, reaction rate const. meas. in discharge flow reactor 2−111472
N_2+O^+, vibr. excitation, pot. energy surface, quasiclassical trajectory reaction theory 2−99662
N_2+Pb(Xe) 2−105479
N_2+Rb, fine struct. transitions meas. 2−54922
N_2+Rb, quenching, depolarisation, electronic and nuclear spin polarisation 2−90660
N_2^++Al(Cu)(Mo)(Ni) surfaces, nitridation reaction in low kinetic energy region, Auger effect 2−99706
N_2^++Ar, charge transfer, threshold electron-secondary ion coincidence study 2−96717
N_2^++Ar(N_2), charge transfer, vibr., laser induced fluoresc. study 2−80802
N_2^++N_2, charge exchange, energy transfer dynamics 2−111475
N_2^++O→NO^++N, rate coeff. from auroral ion comp. anal. 2−73746
N_2^{+*}+He, electronic and vibronic transitions, translational energy spectroscopy 2−54935
N_3, Jahn-Teller distortion, struct., SCF and CI calcs. 2−108396
N_4, in UV irrad. KN_3, satellite EPR resons. 2−104698
N_2^+(A to X) and N_2^+(B to X) fluoresc. excitation spectra by photon impact 2−96622

nitrogen continued
$N_2(A^3\Sigma_u^+)O_2$ interaction, product channels 2−72955
$N_2(B^3\Pi_g)$, collision induced transition, time-resolved fluoresc. 2−59908
$N_2^+(B^2\Sigma_u^+)$ state vibr. population prod. in $He^+ + N_2$ charge transfer 2−70411
$N_2(B^3\pi_g)$, quenching by ethanol, reaction rate meas. from plasma flow 2−75339
NH_3-N_2 high-power laser tunable in 745 to 930 cm^{-1} range, laser chemistry appls. 2−96997
NH_3-N_2 mid-IR high power tunable laser, development and appl. 2−65257
NO, adsorption-desorption kinetics on Pt (111), mol. beam study 2−104144
$N^+(^5S)$ state possible identification of 2145 Å emission feature in aurora 2−63160
$N_2^+(X^2\Sigma_g)$, final state coupling in photoelectron spectra 2−114044
^{13}N, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
$^{14}N^{15}N$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
^{15}N spectrochemical analysis, microwave cavity improved design 2−78161
$^{15}N/^{14}N$ composition in Solar Systems, mechanism 2−84114
$^{15}N/^{14}N$ ratio in Mars atmosphere, effect of dissipation and exogenous sources 2−106590
$^{15}N_2$, HCP, orientational props., NMR study 2−77396
$^{15}N^+$ beam foil interaction, atomic polarisation 2−69636
N^{**}, metastable state, collision-induced ionisation, time of flight study 2−114095
Na+H^-, polarised proton and N^- source, target optical orientation *(Russian)* 2−102311
SF_6/N_2 gas mixture compositions effects on discharger switching time in nanosecond range *(Russian)* 2−97804
SF_6-N_2 gas mixtures, meas. of impulse positive point predischarge growth 2−103519
SF_6-N_2 mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
SF_6-N_2 mixtures, impulse corona in negative rod-plane gaps 2−103523
SF_6-N_2 mixtures, optimisation of pressure and surface roughness parameters 2−103526
SF_6-N_2 mixtures, positive and negative mean ion mobilities in corona discharges 2−103524
SF_6-N_2 mixtures, prebreakdown phenomena in long nonuniform field gaps 2−103258
Si:H, N, amorphous film, elec. and photocond. variation with N doping 2−110339
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture and elec. resist. and IR absorpt. meas. 2−93444
Si:H,O,N, amorphous, ESR of impurity associated defects 2−82699
Si:Hn, N, amorphous film, ion implanted, photocond. and energy spectrum 2−92698
Si:N, amorphous CVD film, elec. cond., field effect and gap state density meas. 2−87193
Si:N, deep levels meas. 2−92511
Si:N, excited states of sputtered mol. N_2 2−77657
Si:N, ion implanted, oxidation inhibition 2−115271
Si:N, low energy implantation, material composition, oxidation resist. and elec. characts. 2−86694
Si:N, low energy N implantation, room temp. formation of Si-nitride films 2−86693
Si:N, photoluminesc. anal. for characterisation of shallow impurities 2−93242
Si:N surface, high dose N^+ ion implanted layer *(Chinese)* 2−91997
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers 2−86688
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
SiC:Al,N, luminescence, cross relax. optical detection 2−99180
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
n-SiC:N (6H), impurity-vacancy pairs, EPR study 2−61766
Ti:N, depth distrib. determ. using elastic backscatt. 2−77671
Ti+N, heavy ion-atom collision, double to single K vacancy production ratio 2−90678

nitrogen compounds
see also ammonia; ammonium compounds
atmosphere, H_2O and NO_x seasonal conc. variations at stratopause 2−88956
in atmosphere, interregional transport of NO_x and NH_4^+ versus model predictions 2−99860
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
nitrate, solvation by HNO_3, IR spectra 2−73007
nitrate/HNO_3 atm. determ. using diffusion denuder with filter pack 2−93968
nitroxide spin labels, solvent nuclei polarisation at low mag. fields 2−80692
NOx removal technique from coal fired boiler by dry system *(Japanese)* 2−57634
oil-spray flames, burning processes studies, gas turbine low NO_x combustor design appls. 2−62403
Ar-Xe-NF_3 mixtures, electron attachment const. determ. 2−80809
KI:NO_3^-, gap mode, half-width and freq. shift, IR absorpt. study 2−56134
KI(Br)(Cl):NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
KNO_3:NO_2^-, absorpt., excitation and luminesc. spectra 2−72544
N-containing compounds, 2-freq. NQR-NMR double reson. obs. 2−108593
N+NO_2 reaction rate const. determ. using reson. fluoresc. in discharge flow system 2−105452
N_2+CO_2, collisional excitation cross section meas. 2−90670
NCNO, pot. surface for dissoc., ab initio CI calcs. 2−62394
NCO, $A^2\Sigma$-$X^2\Pi$ transition, laser-induced fluoresc. 2−90598
NCO neutral and ion mols., struct. determ. by Coulomb explosion 2−93795
NCO radical, fluoresc., in flame, intracavity laser excitation 2−108604
NCO radical, rot. const., vibr. rot. band, laser mag. reson. obs. 2−75332
$ND_3^+ \rightarrow ND_2^+ + D$, energy disposal in rot. predissoc. 2−93762

nitrogen compounds continued
NF, mol. force consts., bond lengths, pot. energy functions, electronegativity anal. 2−75463
NF^{++}, ground state, VuV photoelectron spectrosc. and ab initio calcs., ionisation 2−114043
NF+O_2, energy transfer from O_2 $^1\Delta_g$ state 2−65032
NF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
NF_3, vibr.-relax., ultrasonic absorpt. meas. 2−65077
NF_4^+, mol. consts. and vibr. 2−85838
NH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
NH, $c^1\Pi$-$a^1\Delta$ system, rot. anal. 2−90504
NH electron density, pseudoatom expansion 2−60931
NH in comets, UV and submillimetre line emission intensities 2−68667
NH, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
NH^-, excited state, Feshbach resonances, QDMBPT 2−85540
NH^+, Franck-Condon factors, rot. depend. 2−59862
NH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
NH-O bonds, neighbouring monovalent metal cation effects 2−80450
NH+propane, insertion and fragmentation products, press. depend. 2−83352
NH_2, (100)$\tilde{X}^2B_1$ state, mol. consts., obs. and estimation of ν_3 vibr. *(French)* 2−54828
NH_2, $\tilde{A}^2A_1$ state, rot. energy transfer, time resolved fluoresc. 2−114033
NH_2 containing compounds, isolated N-H stretching freq. 2−90506
NH_2, excited vibronic states, microwave optical double reson. obs. 2−90588
NH_2, IR-optical double reson., vibr.-rot. transitions, fluoresc. 2−96607
NH_2 in $\tilde{X}\ ^2B_1(000)$, MOD spectra, fine and hyperfine parameters 2−108595
NH_2, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
NH_2 radical, energy transfer, intraresonator laser spectroscopy study 2−93776
NH_2 radical, IR spectra, ν_1 and ν_3 bands obs. by difference freq. laser spectroscopy 2−108498
NH_2, Rydberg excited state, vibr. freq., MRDCI calcs. 2−113892
NH_2^-, nucl. spin-spin coupling tensors calcs. 2−108361
NH_2+O_2, oxidation mechanism, kinetic parameters 2−105450
NH_2^++methylamine (methanol), reaction kinetics, mass spectrosc. investig. 2−93786
NH_3-ND_3 isotopic pairs, dipole moment and polarisability, deuterium isotope effects 2−90735
NH_3+He, energy corrected scaling theory, further development and appl. 2−102585
NH_4 radical, ground state, electronic struct., Rydberg spectra, SCF-Xα-SW calcs. 2−64874
N_2H^+ gaseous mobility meas. in He and Ar at 295K 2−91580
N_2H^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
N_2H_2, generalised localised at. orbitals in closed shell mols. 2−54761
N_2H_2, one-electron bases for electron correl. methods 2−80498
N_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
N_2H_4, mol. struct. studied by gas phase electron diffr. 2−90700
$NH_2BH_2CO_2H$, and dimer, geometry, moments, pot., ab initio calcs. 2−85546
NHD, rot. transitions, far-IR laser mag. reson. study 2−96605
NHDT, vibrational intensities, dichroism, Raman, IR spectra, orbital polarisability model 2−108451
$N_2H_5NO_3$, H^+ motion, T and $T_{1\rho}$ obs. 2−104729
NH_2OH, photoionisation mass spectrometry, heats of formation of HNO^+ and NOH^+ 2−108642
NH_3SO_3, internal modes, normal coordinate anal., Raman study 2−116178
NN-HF, equilib. struct., pot. energy surfaces, H-bonds 2−102656
NO, 4-photon ionisation two-colour double reson., fluoresc. de-enhanced obs. 2−85706
NO adsorbed on Pt(110), surface phase study 2−86985
NO adsorbed on Pt(111), desorption, molecular beam study 2−87038
NO, adsorption on Al_2O_3 supported Rh particles, IETS study 2−56343
NO adsorption on Cu (100) and (111), EELS study 2−77640
NO adsorption on Cu(100) and Cu(110) 2−110128
NO, adsorption on Dy, XPS and Auger electron spectra 2−62429
NO, air pollution level prediction *(Japanese)* 2−62542
NO, and beam scatt. from graphite, angular distrib., rot. state population fluoresc. study 2−105023
NO and NO_2 emission effects on O_3 in metropolitan regions 2−62521
NO atmospheric trace level detect. using sequential two-photon-laser-induced fluoresc. technique 2−78884
NO, β and δ systems, IR band intensities and electronic transition moments calcs. 2−59715
NO, chemisorption on Co, UPS, XPS, and work function meas. 2−62430
NO, chemisorption on Fe_3O_3, IR study 2−82130
NO, chemisorption on Si (111), UPS study 2−87949
NO, concentration in daytime E-region, steady-state model 2−78910
NO control and recovery in fission reactor fuel reprocessing 2−64553
NO cooling of thermosphere, seasonal effect on UV heat budget 2−100614
NO, electron-impact excitation to long-lived Rydberg states 2−90723
NO, electronically excited Rydberg states, quenching mechanism, two photon excited fluoresc. 2−59848
NO, excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960
NO HCl, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
NO IR line parameters for upper atm. 2−73732
NO, IR vibr.-rot. emission spectrum 2−108499
NO, in atmosphere, altitude distrib. meas. during stratospheric warming 2−100455
NO in atmosphere, physical and chemical effects of 1908 Tunguska meteor fall 2−106629
NO in atmospheric flame, resonantly enhanced two photon photoionisation 2−70365
NO, ionisation and photoexcitation, static exchange approx. 2−85752
NO, mol. beam, scatt. from Pt (111), angular and vel. distribs. 2−99250
NO molecular beam interaction with Pt(111) surface 2−57238
NO monitoring system using tunable laser and microcomputer aided signal processing system 2−93971

nitrogen compounds continued
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2−80566
NO, NO_2, SO_2 air pollutants, simultaneous concentration monitoring using dye laser visible and UV freqs. 2−62540
NO, nascent, detect. in methane-air flame by multiphoton ionis. 2−59863
NO near mesopause, concs. determ. from nightglow rel. to noctilucent clouds and radio wave absorpt. 2−112201
NO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
NO, photon stimulated desorption from Ni (100), multi-electron excitations 2−104156
NO, pressure-broadening coeff., computerized tunable diode laser spectrometry 2−108486
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
NO, rot. transitions in $A^2\Sigma^+$ ($v'=0$)-$X^2\Pi(v''=0)$ gamma band, two-photon absorptivity 2−80557
NO, Rydberg-valence interactions, multiphoton UPS 2−85745
NO scattered from Pt (111) surface, vibr. and rot. energy distrib., two-photon ionisation study 2−87932
NO, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629
NO thermal desorpt. from Ru (001), state selected vel. meas. 2−87019
NO, two-photon fluoresc. excitation and resonant four photon ionisation spectrum, double reson. effect 2−54890
NO, upper atmos. auroral zone conc. and IR emission 2−89056
NO, V-T transition probability, photoacoustic study 2−114047
NO, vacuum UV spectra using third harmonic generation in inert gases 2−70275
NO, valence and Rydberg states, SCF and CI calcs. 2−96470
NO, valence states, (e,2e) spectroscopy 2−70340
NO, vibr.-vibr. pumped population distribs. in DC glow discharge 2−70392
NO vibrational temperatures in CO_2 shock driven gasdynamic laser 2−102761
NO, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
NO^+, Franck-Condon factors, rot. depend. 2−59862
NO^+, unimol. dissoc., threshold photoelectron-photoion coincidence obs. 2−90638
NO+AR, rot. excitation, interference effects resolution, laser induced fluoresc. 2−102592
NO+Ag (111) molecule-surface collision, rot. polarisation obs. 2−77687
NO+$C^+(CH^+)(CH_2^+)$, reaction rate coeffs., energy depend. 2−93787
NO+CH(X $^2\Pi$), reaction absolute rate consts. at room temp. 2−99653
NO+CO, long transients in surface reactions at high pressures 2−78131
NO+H^+, small angle vibr. excitation 2−85801
NO+H^+(H)(hydride ion)(H_2), geometries and heat of reaction, MNDO calcs. 2−93778
NO+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
NO+Hg(6^3P), electronic to vibr. energy transfer, isotope effects 2−102593
NO+N_2, vibr. quenching, SIFT investig. 2−90676
NO+NO(N_2)(SF_6)(CO)(Ar)(He), rot. and spin-orbit transitions, IR-UV double reson. 2−75382
NO+O_2(H_2O)(N_2)(CO_2)(Ar), NO excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO+Pt(111) interaction, laser induced fluoresc. study 2−67182
NO_2, thermal lensing colorimetry determ. using single laser system 2−89785
NO_2, A $^2B_2$ state, vibr., reson., fluoresc. intensities 2−102517
NO_2, adsorbed on Cu surface, reaction, UHV ESR obs. 2−67765
NO_2, air pollution in Netherlands up to 2000 AD *(Dutch)* 2−88481
NO_2, air pollution level prediction *(Japanese)* 2−62542
NO_2, anharmonic vibr. problem, soln. by var. method 2−113962
NO_2, atmos. chem. composition obs. in stratosphere 2−83890
NO_2 atmos. conc. near to Soufriere Volcano April 1979 eruption 2−106062
NO_2 control and recovery in fission reactor fuel reprocessing 2−64553
NO_2, diurnal and seasonal variations in stratosphere *(French)* 2−88932
NO_2, excited states, nucl. config. effect on two-step photoionisation 2−114055
NO_2, fluorescence, dispersed and time resolved, decay times 2−90607
NO_2, ground state energy level struct., microwave obs. 2−90522
NO_2, IR laser mag. reson. obs. using CO_2 laser, high K vibr.-rot. transitions 2−108586
NO_2, in atmosphere, meas. during stratospheric warming at 54°N in February (1979) 2−100456
NO_2 in Los Angeles, future levels, source-type contrib. 2−78268
NO_2, mag. field decoupling in optically excited states 2−80695
NO_2, optically excited, IR multiphoton pumping dynamics 2−102546
NO_2, photodissociation, fluoresc. and UV obs. 2−80712
NO_2, photoelectron angular distrib. and PES assignments 2−102531
NO_2 pollutant in atm., conc. determ. from solar radiation transmission spectra 2−93975
NO_2 produced in methane-air flame combustion low conc. detect. by photothermal deflection technique 2−105522
NO_2, RF dressed mol., optical saturation reson. 2−65028
NO_2 radical form. by picosecond UV photolysis of nitromethane, laser induced fluoresc. probing 2−105494
NO_2, radiolysis kinetics in low press. range *(Russian)* 2−54521
NO_2, rot. anal. of 13200 and 13400 cm^{-1} bands by Fourier transform spectroscopy 2−113975
NO_2, spin-rot. consts., transition moments, line-widths and intensities, IR obs. 2−85662
NO_2 summertime ground-level distrib. rel. to motor vehicle NO emissions 2−67902
NO_2^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
NO_2^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
NO_2+Ba, beam chemiluminesc., excitation functions 2−67734
NO_2+Ba, nascent metastable products, chemiluminescence study 2−93796
NO_2+CH(X $^2\Pi$), reaction absolute rate consts. at room temp. 2−99653
NO_2+CO, laser-enhanced reaction mechanism 2−88371
NO_2+Li, chemi-ionisation reactions 2−72968
NO_2+SO, rate coeffs., chemiluminescence study 2−99651
$(NO_2)_n$+Ba, beam chemiluminesc., excitation functions 2−67734
NO_3, radial, line shape, absorpt. cross section, visible obs. 2−64991
nitrogen compounds continued
NO_3^-, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
NO_3^- content of atm. aerosols, FT IR spectrosc. determ. method 2−99870
NO_3^- form. from gaseous ethyl nitrate, reaction mechanism, high press. mass spectrometric meas., 2−72960
NO_3^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
NO_x, air pollution level prediction *(Japanese)* 2−62542
NO_x, effects on DC elec. breakdown of air in positive point plane gap 2−91698
NO_x emission rates, effect on smog formation in California 2−62522
NO_x flue gas removal systems, economic evaluation 2−73054
NO_x in Boston urban plume, removal and reactions 2−78271
NO_x in Pacific troposphere, conc. var, from spectral obs., O_3 implications 2−73622
NO_x mesosphere conc. increase due to particle precipitation 2−88958
NO_x, mesospheric, distrib., variation and chemistry 2−88957
NO_x pollution in atmosphere, CEC harmonisation of meas. methods 2−78275
N_2O, absolute wavenumbers between 1118 and 1343 cm^{-1} by IR Fourier transform spectroscopy 2−113976
N_2O absorpt. lines for calibration of tunable IR lasers 2−74170
N_2O, adsorpt. on W(110) and Ru(001), XPS and UPS mes., horizontal and vertical configurations 2−73009
N_2O, adsorption on Dy, XPS and Auger electron spectra 2−62429
N_2O, adsorption on Ru (001), XPS, UPS, and thermal desorption study 2−61296
N_2O, adsorption on Y_2O_3, O^- form. 2−92339
N_2O, atmos. conc. in southern hemisphere 2−106209
N_2O, dissociation process, ab initio study 2−88355
N_2O, dissociative electroionisation study, NO^+ and N_2^+ dissoc. channels 2−85823
N_2O, in atmosphere, abundance determ. *(Russian)* 2−106220
N_2O in atmosphere, global model of variablity 2−78793
N_2O in synthetic phospholipid bilayers, ordering effects 2−62571
N_2O, ionisation energy, XαSW method with universal potential 2−75183
N_2O laser, optically bistable 2−96918
N_2O line intensity and width meas. at 7.8 μm for determining tunable diode laser spectrometer performance 2−113001
N_2O, line interference in ν_3 rot.-vibr. band 2←64979
N_2O, line shape, evolution in press. broadened IR spectra 2−80603
N_2O pollutant, atmospheric lifetime from two dimens. model calcs. 2−83533
N_2O, simultaneous line strength and collisional width determ. from high-resolution Fourier transform spectra 2−101470
N_2O, thermal expansion, X-ray diffr. study, 100 to 182K *(Russian)* 2−81991
N_2O, valence electron separation energies and momentum distrib. 2−96751
N_2O, vibr. relax., shock tube study 2−90666
N_2O, wavenumbers meas. standards, Fourier transform spectrometer spectral range extension 2−74522
N_2O^+, A state, predissociation, bond-breakage mechanism, UV obs. 2−90637
N_2O^+, photoelectron spectrum, vibronic struct., electron correl., strong non-Condon effects, Green's function calc. 2−96633
N_2O-HF, Ar matrix isolated, librational motion, IR obs. 2−64971
N_2O+Ar^+, energy depend., rate consts. meas. 2−88346
N_2O+Ar(^{4}He)(^{3}He)(D)(HD)(n-H), vibr. relax., shock tube study 2−90666
N_2O+Ba, chemiluminescence of BaO*, vibr. transitions 2−93797
N_2O+Ba, in solid Ar, visible chemiluminescence, thermoluminescence 2−99682
N_2O+Ba, nascent metastable products, chemiluminescence study 2−93796
N_2O+CH(X $^2\Pi$), reaction absolute rate consts. at room temp. 2−99653
N_2O+CaO, collisional population transfer excited states, kinetic models 2−96686
N_2O+Cr+(Mn^+)(Fe^+)(Co^+)(Ni^+) 2−62389
N_2O+HCl, vibr. relax. studied using IR chemiluminesc. method, quenching probabilities 2−72969
N_2O+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
N_2O+Kr^+, charge exchange, electronic state effects 2−90691
N_2O+Kr^+, fine struct. state depend. reactivity 2−105471
N_2O+Mg*, reactions undersingle collision conditions, MgO laser fluoresc. study 2−80714
N_2O+Mg(^{3}P,^{1}P), quenching, cross sections, kinetics, chemiluminescence 2−111496
N_2O+SF_6(CCl_4), vibr. relax. study using overtone bands 2−90675
N_2O_4, cryst. struct., neutron diffr. study, ab initio calcs. 2−76386
N_2O_4, generalised eqn. of transfer for unsteady-state processes *(Russian)* 2−54554
N_2O_4, HeI photoelectron spectra, shake-up satellites 2−108621
N_2O_4, in circular pipes, dissoc., heat transfer in turbulent flow 2−70918
N_2O_4, relax., unsteady quasi-1-dimens. flow 2−86262
N_2O_4, specific heat at const. volume and dissociation effect *(Russian)* 2−55694
N_2O_4, valence bands, solid and gas phase UPS study 2−67190
N_2O_4-NO, vapour-liq. equilibrium *(Russian)* 2−56170
N_2O_5, struct., ab initio restricted HF SCF MO calcs. 2−59685
NOAr, direct photodissociation, fluoresc. spectra 2−59874
NOCl, UV photodissociation, vibr. excited NO form., inert gas quenching 2−83360
NOH^+, prod. from NH_2OH, heat of form. 2−108642
NOHe, direct photodissociation, fluoresc. spectra 2−59874
NONe, direct photodissociation, fluoresc. spectra 2−59874
NO^*_1 vibr. excited, quenching rate consts., fluoresc. study 2−83360
N_2O^{+*}→NO^++N, metastable decay, mass spectrosc. obs. 2−93780
$2NO_2$⇄$2NO+O_2$, friction law, averaged vel. profile in turbulent reactive tube flow *(Russian)* 2−55548
NO(v=1 to 7)+O_2 vibr. relax. 2−59910
NS, mol. consts., isotope effects, microwave obs., relevance to radio astronomy 2−90524
NSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
$^{14}N^{16}O_2$ ν_3 band N_2-broadened lines, width temp. depend. 2−90531
$NaNO_2$:NO_3^-, luminescence spectrum fine struct. 2−87841

nitrogen compounds continued
No+O_3, transition states, mechanisms, angular distrib. chemiluminescence 2−105466
ONOF, vibr. pot. function and struct. by normal coordinate anal. 2−108495
S-N ring systems, 3, 4, 5 and 6 membered, localised MO calcs. 2−59707

NMR *see nuclear magnetic resonance*

NMR line breadth
acetonitrile, nematic liq. cryst. matrix, sample spinning, linewidth, NMR relax. study 2−65004
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
borate glasses, ^{11}B NMR reson., satellites and shoulders 2−110662
bromomethane-iodomethane, ^{81}Br NQR line breadth, concentration depend. 2−93046
ε-caprolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
chloroform-d_0(−d_1), ^{35}Cl NQR line widths and mag. dipole interaction 2−110700
crystal, magnetically diluted, paramag. impurities, NMR line shape, exchange interaction effects 2−66930
crystals near phase transition points, nucl. mag. relax. 2−110677
cyclo-octatetraene, in liq. cryst. solvents, bond shift kinetics, dynamic NMR meas. 2−90572
p-dichlorobenzene-p-dibromobenzene, ^{79}Br NQR line breadth, concentration depend. 2−93046
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
ferroelectric crysts., dipole defect broadening of NQR and NMR lines 2−110705
ferroelectrics, quadrupole-quadrupole interaction, soft phonon modes, NQR line crit. broadening 2−110707
ferromagnetic ferroelectrics, NMR line shape and width *(Russian)* 2−98972
glycerol, glassy, NMR hole burning slow mol. rot. study 2−104722
graphite:F^+, ion implanted, ^{19}F NMR spectroscopy study 2−61773
incommensurate multisoliton lattice, NMR lineshape anal. 2−66928
lipid bilayers, multilamellar and vesicle systems, mol. motion, NMR line breadth 2−78302
magnetic materials, inhomogeneous NMR line narrowing 2−104718
magnetically ordered material, line width depend. on external alternating mag. field *(Russian)* 2−98968
metallic hydrides, absorpt. and dispersion NMR lineshapes 2−66927
multiple quantam spin-echo linewidths density matrix calc. of D relax. in CD_3 groups 2−77417
naphthalene-d_8-TCNE (TCNB), mol. motion, ^2H NMR study 2−98969
nitroxide spin probes, hyperfine coupling consts. in H_2O and CCl_4 2−54874
NQR spectroscopy, line shape anal. 2−77415
nucleotide metal ion complexes, binary and ternary, ^1H-NMR shift studies 2−108581
paripartite uncoupled exchanging A-B system, lineshape parameters 2−80660
phased and absolute value FT NMR spectra, shift distortions and resolution 2−101430
phospholipid multilayers, oriented, ^{31}P NMR obs. 2−94000
polyacetylene:F^+, ion implanted, ^{19}F NMR spectroscopy study 2−61773
polymer swollen crosslinked gels, NMR studies 2−87605
polymers, semi-crystalline, ^{13}C NMR relax. param. 2−87617
polymers, solid, mol. motion by ^2H NMR study 2−87618
polyvinylidene fluoride drawn films, NMR second moments, poling effects on anisotropic temp. changes 2−93019
pyrene-d_{10}, mol. motion, ^2H NMR study 2−98969
pyrene-d_{10}-dinitrochlorobenzene, mol. motion, ^2H NMR study 2−98969
2-pyrrolidone, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
rotating solids, line shape anal., chemical shift dipolar NMR study 2−66936
thermal motion effects in solids, statistical model *(German)* 2−77386
$(TMTSF)_2ClO_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
trifluoromethene, solid phase, spin-lattice relax., NMR study 2−110673
trifluoromethyl halides, ^{19}F shielding tensors, chemical shift and spin-rot. tensors 2−108556
tyrosine side chain in cryst. enkephalin rot. jumps and ^2H NMR line shapes 2−72357
δ-valerolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
$Al(ClO_4)_3$, solns. in methanol (ethanol), ligand exchange rates, PMR obs. 2−104712
β-Al_2O_3-NH_3^+, defect struct., PMR study 2−110649
Au metal, ^{197}Au NMR calcs. 2−110678
Be-Mo-Zr amorphous alloy, ^9Be NMR line breadth and Knight shift 2−104720
Be-Nb-Zr amorphous alloy, ^9Be NMR line breadth and Knight shift 2−104720
$Bi_{12}SiO_{20}$, NQR relax., transverse and longit., temp. depend. 2−110697
CdI_2, single cryst., NQR obs. in rot. reference frame, line narrowing 2−110701
Cs_3NaHoF_6, elpasolite, hyperfine splitting meas. by enhanced Ho^{165} NMR 2−61775
H in water content meas. using NMR content meters, errors with materials containing combined H 2−99736
^{3}He-A, influence of rotation on NMR signal *(Russian)* 2−71758
HfV_2H_x, low temp. phase, H-atom configuration, NMR study 2−72375
InP, (n, γ)-induced point defects, NMR study 2−98980
InSb, (n, γ)-induced point defects, NMR study 2−98980
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
Li_xTiS_2, elec. field gradient, anisotropic shift, tetrahedral site occupation and atomic motion NMR study 2−66943
$LuH_{2.03}$, ^1H NMR studies 2−116082
N_2, NMR linewidths, rot. and orientational relax. times, J-diffusion theory appl. 2−114015
NH_4MnF_3, proton reson. and crit. relax. 2−98988
NH_4ZnF_3, proton reson. and crit. relax. 2−98988

NMR line breadth continued
$^{15}N_2$, HCP, orientational props., NMR study 2−77396
NaCl, dislocation density determ. from NMR quadrupolar linewidth meas. 2−98114
$NaClO_3$, effects of nonresonant RF photon dressing on NQR 2−54879
$NaNO_2$, spin echo, coherent multipulse sequences in NQR study 2−110708
$Na_2PtCl_6.6H_2O$, NQR and NMR signals, effects of cryst. H_2O 2−110656
Nb-Fe inhomogeneous system, laser irrad., internal field at ^{57}Fe, atom redistrib. and antiferromag. suppression *(Russian)* 2−66929
Ni-P based amorphous alloys, local mag. props., NMR and magnetisation meas. 2−104721
Ni-Pt-P, amorphous, NMR, Knight shift and linewidth 2−93031
$Ni_{1-x}P_x$ amorphous, struct. inhomogeneities, processing effects, NMR, DTA and positron annihilation study 2−104993
$PdH_{0.82}$, proton dynamics at low temp., PMR line shape study 2−72370
Pt particles, ^{195}Pt NMR, intraparticle Knight shift broadening 2−66937
Pt-P, NMR, Knight shift and linewidth 2−93031
Rb_2IrCl_6, antiferromagnetism and crit. relax., NMR study 2−56961
Rb_2ZnCl_4, incommensurate, NMR lineshape and phase soliton effects 2−56971
^{99}Ru, NMR in soln. 2−70289
^{101}Ru, NMR in soln. 2−70289
a-Si:F and a-Si:F, H films, motional narrowing effects of NMR spectra 2−77395
Si:H,B, amorphous film, NMR study 2−110686
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
$Si_{1-x}C_x$ amorphous film, NMR and IR spectra study 2−77389
Sn complexes, dithiocarbamates Sn (II), mol. group reorientation, PMR lineshape study 2−93016
Sn superconducting small particles, NMR study 2−66712
$TiBe_2$, nearly ferromag., Ti NMR study 2−87609
$TiH_{1.98}$, polycryst., magic-echo sequence for second-moment meas. 2−107369
UF_6, liq., ^{235}U enrichment effect, ^{19}F NMR 2−116084
V^{5+} complexes, vanadyl esters and esterchlorides, quadrupole coupling consts., NQR and NMR study 2−66933
VC_xO_y, quadrupole effects and chem. bonding 2−110723
ZrH_x, proton site occupancy, PMR line shape study 2−116088

nobelium
No entries

nobelium compounds
No entries

noble gases *see inert gases*

noctilucent clouds *see clouds*

noise
see also acoustic noise; atmospherics; electron device noise; interference; random noise; white noise
aircraft noise, subjective responses of Chinese 2−114545
all-mirror system, Fourier transform props. 2−108809
amplification regime, reversing mirror charact. control 2−81026
bistable system with multiplicative noise, enhancement of critical onsets 2−74331
bistable systems, equilib. strength at deterministic limit of stochastic model 2−89623
bolometers, low-temp., with freq.-charact. correction, noise variance depend. on lag correction 2−89815
cavitation noise spectral line breadth study 2−97606
CDW systems, fractional charges and freq. depend. currents 2−56557
counting-Campbelling neutron meas. system and expt. in test reactor 2−69767
discrete noisy maps, exact results 2−74320
dye laser threshold region, quantum description 2−65212
electrical signal shape measuring system 2−102349
electron microscopy, quantum-noise-limited images, detection of objects 2−113065
EXAFS spectroscopy, noise level and energy resolution effects 2−95575
fibre gyroscope with inertial-navigation short-term sensitivity 2−109062
flow induced vibration in shell and tube heat exchangers 2−53755
fluctuation-dissipation relations for systems with internal multiplicative noise 2−107232
gas chromatography with Fourier transform IR spectroscopy detection, interferometer stability, error sources 2−116753
gas-discharge lasers, noise, influence of the Penning process 2−114242
gyroscopes, ring-laser, quantum noise, spectrum and signal mean beat freq. 2−86011
gyroscopes, ring-laser, quantum noise 2−86010
human visual system at threshold, multiplication noise, probit estimation of parameters 2−99967
image improvement, noise smoothing 2−70511
image reversal in detect. of hidden diffractors by interferometry 2−70496
interferometer, fibre-optic, high-noise-rejection 2−58895
Josephson junction, quantum tunneling and zero-point motion limit of noise fluctuations 2−61666
Josephson junctions, current-driven small-capacitance, thermal voltage fluctuation spectrum 2−98817
Langevin equation with nonlinear periodic noise, exact soln. 2−101314
Laplace transform inversion with noise, singular-value anal. for exponential relax. rates recovery 2−101155
laser velocity meter signal, low-freq. component suppression *(Czech)* 2−95329
long-path laser absorpt. spectrometer, scintillation noise reduction by aperture averaging 2−101464
medical images, noisy, human signal detect. performance 2−111756
metastable state at low noise, lifetime 2−69089
modal mode partition noise in optical fiber systems 2−109050
multi-beam acousto-optical modulator used in laser recorder, light noise due to three-phonon scatt. 2−90805
multiplicative noise, analytical and numerical studies 2−107244
multiplicative noise stabilisation 2−107245
naphthalene-d_8, phosphorescence, double exponential decay and noise levels 2−93248
nematic liquid crystals, elastic constants determ. from noise meas. of scattered laser light 2−76559
neurons, mammalian sympathetic-ganglion, acetylcholine noise 2−105689
non-linear stochastic proceses in presence of multiplicative noise, time behaviour 2−112816
on-line reactor noise anal. using time series anal. 2−64454

noise continued
optical fibre coherent-detect. system with correl. fields, single-freq. laser phase-noise limitation 2−109059
optical guided wave system, modal noise as component interaction problem 2−60239
optical instruments having multiplex coding, pot. noise stability 2−53810
parametric amplification processes, noise amplification in quantum theory 2−70606
passive fibre optic gyroscope, low noise level obs. 2−97196
photoconductor excess carrier transport props., focal plane processing, image degradation anal. 2−92686
photoconductor transport props., effects of sampling length and finite device length 2−92687
photon counting statistics, bunched and antibunched, random deletion and additive noise effects 2−96866
phototachymeter, type SG-3, noise immunity increase 2−70656
positron emission tomography having time-of-flight meas., noise performance 2−88654
quantum noise and quantum nondemolition meas. 2−95102
rhodamine 6G sync-pumped CW dye laser 2−96973
semiconductor external grating loaded lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation characts. 2−85961
single photon emission computed tomography, image noise, resolution and lesion detectability 2−73330
small objects of random luminance, detect. in pulse noise background 2−105705
Space Telescope digicon, proton-induced noise 2−117590
speckle noise, multiplicative 2−70505
spectral analysis blank noise tests 2−53487
stochastic differential eqns. with additive and multiplicative noise, and discrete noisy maps, slaving principle 2−89614
stochastically driven systems, finite size effects, use of Poisson representation 2−101328
transformer coupling between radiation detector and head amplifier 2−64796
two-level system multiphoton excitation by powerful noise field, harmonic generation 2−59770
two-phase noise diagnosis in nuclear power plants 2−69766
visual system, human, multiplication noise, quantum fluctuations, min. detectable energy 2−78334
zero-point fluctations, quantum noise and spontaneous-emission noise, relevance in communication systems 2−90855
AlGaAs external grating loaded lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation characts. 2−85961
Cu-Co(Fe)(Mn) alloys, spin glass state form. investig. *(Russian)* 2−56875
Fe-Si (3 wt.%), grain oriented, Barkhausen noise meas. 2−87537
GaAs, microwave freq. noise, electron heating conditions 2−104446
He-Cd laser, noise characteristic 2−70543
He-Ne lasers, discharge noise investigation *(Chinese)* 2−65201
He-Se^+ cataphoretic lasers, origin of laser-output noise 2−96905
K submonolayer adsorbed on W, field emission flicker noise, cross-correlation coeff. 2−99306
$NbSe_3$, dielectric function, low freq. noise meas. 2−92497
$NbSe_3$, nonlinear cond. and narrow band noise 2−104358
$NbSe_3$, transport props. rel. to CDW form. 2−115739
Si:H amorphous film, H conc. correlation with low freq. noise 2−92795
W_2O_{5-x} film, adsorbed layers, excess current noise, Auger study 2−82496

noise abatement
see also acoustic wave absorption
absorber embedding foamed polystyrene in pyramid gaps, design and expt. 2−97292
acoustic baffles for noise control in industry 2−75771
acoustic enclosures 2−75774
active attenuators−developments and review *(French)* 2−70760
active sound absorber in ducts 2−70763
active sound suppression by monopoles distributed over a single surface 2−60301
aircraft engine noise control in aircraft manufacturing industry 2−60299
airport noise prediction procedures 2−62533
bending waves in parallel plates excited at a point, amplitude differences, impact sound reduction *(German)* 2−102973
community response models to loudness, frequency of occurrence of acoustic events 2−62532
design guidelines for noise reduction in instruments *(German)* 2−97282
diesel generator vibration isolation on floating floors 2−97260
diffraction of sound by a noise barrier in the presence of atmospheric turbulence 2−70748
ducts, broadband active sound attenuators *(French)* 2−75765
dwellings airborne sound isolation, problems in field meas. *(Chinese)* 2−81162
electronic keyboard noise suppressor 2−75769
factories, sound scattering model, appln. to noise control 2−91149
foam lining for acoustic test rooms 2−75772
gas expansion-produced noise, calc. and reduction of acoustic power 2−109113
glass windows, double- and triple-layer, computation of sound transmission loss 2−70762
lightweight compounds as noise barriers 2−75773
low-noise throttling and venting device, theory and operation 2−60298
machine noise at final installation site 2−60303
microelectronics appl. in acoustic meas. techniques, state of art and development trends *(German)* 2−114570
milling-type stone-cutting machine 2−109114
modal filter for sound measurements in rectangular ducts 2−55380
multiaircraft minimum noise impact landing trajectories calc. 2−57754
noise reduction processes in cutting with high speed tools 2−91156
Norwegian national traffic noise abatement programme development 2−60296
panel-generated noise control using decoupling technique 2−97286
radially ventilated induction motors, noise reduction 2−109116
resonant-cavity parallel baffles as duct silencers, wind tunnels appl. 2−60294
reverberation time assessment, sound insulation test 2−75799
silencer for air ducts and exhaust systems 2−91150
slab lined with compliant layers, acoustic reduction 2−114542
sound propag. through vegetation rel. to noise red. 2−65427
sound source detection on the basis of acoustical holography 2−114551
sound transmission through sandwich panel with constrained viscoelastic damping layer 2−91151

noise abatement continued
switchgear noise levels measurement and reduction measures *(German)* 2−65429
transmission loss measurement of composite panels, single reverberation chamber method 2−60305
USA National Transonic Facility wind tunnel fan and jet noise control 2−60297
wideband active sound control, adaptive digital filtering algorithm 2−91153
wideband active sound control system design algorithm 2−91152
Al_2O_3-SiO_2, porous ceramic, sound insulating characts. 2−97252

noise control (acoustic) *see noise abatement*

noise control (interference) *see interference suppression*

noise elimination *see interference suppression*

noise generators
calibration, using RF-switched radiometer with IF attenuation 2−112990
impulsive noise synthesis using loudspeaker *(French)* 2−70790
waveguide cryogenic microwave noise standard 2−74471

noise levels, acoustic *see acoustic noise*

nomenclature and symbols
see also units (measurement)
asteroids, Minor Planet Circulars 6345-6424, eight new names 2−63302
asteroids, Minor Planet Circulars 6481-6572, 11 new names 2−63301
asteroids, Minor Planet Circulars 6573-6652, 31 new names 2−58294
asteroids, Minor Planet Circulars 6751-6838, 42 new names 2−73889
asteroids, Minor Planet Circulars 6899-6988, 21 new names 2−84142
asteroids, Minor Planet Circulars 7055-7166, 18 new names 2−100806
dislocation arrays, nomenclature 2−55971
Quetico Fault, redefinition near Atikokan, Ontario 2−78650

nomograms
see also graphs
acoustic propagation and room acoustics, use of nomographs 2−60273
barotropic fluid, twisted potential streams motion, extremal formulation and nomogram *(Russian)* 2−65594
EPR absorption curve, nomogram for calc. the area underneath 2−92990
night viewing active systems, field performance estimation nomograph 2−95427
organic Rankine cycle heat engines, production costs and potential power outputs 2−67879
sagittal depth determ., comments 2−60208
$KD_{2x}H_{2(1-x)}PO_4$ crystal half-wave voltage determ. nomogram 2−57062

nomographs *see nomograms*

non-Newtonian flow
see also non-Newtonian fluids
acoustic streaming reversal by a finite amplitude sound wave in a non-Newtonian fluid 2−81147
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
Bingham. flow through a cylinder, variational inequalities with blocking property 2−91488
Bingham fluid, pulsatile flow enhancement 2−70997
channel and pipe flows of slightly non-Newtonian liquid, random longit. vibr. influence 2−55671
channel flow, nonisothermal with viscous heating 2−91536
cholesteric liquid crystals, helical flow between hot cylinders 2−60584
constitutive equations for polymer melts predicted by the Doi-Edwards and Curtiss-Bird kinetic theory models 2−97600
creeping flow of a visco-elastic fluid in a conical duct 2−76000
diphenyl polymer, dil. solns., behaviour in turbulent flow conditions, Thoms effect *(Russian)* 2−76001
electrically conducting fluid, natural convection 2−103168
extensional motions, infinitesimal perturbation theory 2−81372
flow calc. using finite element method 2−109373
flow characteristics near re-entrant corner 2−60657
fluctuating flow of viscoelastic fluid past porous plate in rot. medium with applied mag. field 2−114856
free coating of nonNewtonian fluids, slip effect 2−91491
gas absorption into falling laminar non-Newtonian films 2−81369
gas-nonNewtonian liquid, two-phase flow in straight horizontal tube 2−60621
glaciers, wave motion theory 2−100403
glass, non-Newtonian viscous flow obs. 2−92247
immiscible Bingham fluids, 2-phase flow in conduit *(French)* 2−114908
laser speckle photography for point vel. meas. in slow flows 2−76043
laser velocimeters for study of nonNewtonian flow *(French)* 2−91563
low Reynolds number non-Newtonian flow in slowly varying axisymmetrical tubes 2−114854
micropolar flow due to a rotating disc with suction and injection 2−55618
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
nonlinear viscoelasticity theory based on temporarily cross-linked network model 2−75912
oil flow in rough pipes, turbulent pressure loss determ. 2−55617
polycarbonate-PMMA resins, blended melts, temp. influence on flow characts. *(Japanese)* 2−81373
polyesterionomer, melt rheology, ionic content effect 2−91366
polyethylene oxide, critical Weissenberg numbers, solvent effects 2−109371
polyethylene-polystyrene blended melts, temp. influence on anomalous flow behaviour *(Japanese)* 2−81375
polymer fluids, constitutive eqn. based on concept of deform.-depend. tensional mobility 2−97601
polymer melt, blended, flow indices, temp. shift factor *(Japanese)* 2−81374
polymer solution, rodlike, flow through fine pores, pure size influence on rheological behaviour 2−76018
polymer solutions, weak, drag of plate in uniform flow 2−109372
polymer stream, elongational flow during film drawing, rheological dynamics 2−114747
polymeric solns., plastic fluid pulsatile flow, enhancement 2−70997
polymers, nonlinear viscoelastic fluid, inhomogeneous shear flow 2−103193
polypropylene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
polystyrene and poly(α-methylstyrene) solutions, oscillatory flow birefringence props. at infinite-dilution 2−116147
polystyrene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
power-law fluids, axisymmetric stagnation point flow and mass transfer 2−81367

non-Newtonian flow continued
pseudoplastic liq., viscous non-Newtonian, influence of different parameters on freq. bubble form. *(French)* 2−91487
pseudoplastic transient flow, numerical and exptl. simulation methods 2−91492
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC melt, elongational flow behaviour 2−75913
slow plane flow over slot, matched eigenfunction expansions 2−81366
sol-gel transition, flow birefringence 2−57641
spherical bubble dynamics in incompressible liquid, Rayleigh Plesset eqn., non-Newtonian behaviour 2−71019
turbulent flow classification scheme 2−103194
unsteady flow though triangular ducts, with time-depend. press. gradient 2−60583
viscoelastic fluid, in circular pipe, flow under time-varying press. 2−60582
viscoelastic fluid flow past convexly curved boundaries, suspended particle effects 2−81368
viscoelastic-plastic flow in pipes, rheological props. 2−114904
β-FeOOH, rodlike crysts., dil. aqueous dispersions, light scatt. obs. of laminar, vortical and turbulent flow 2−76015

non-Newtonian fluids
see also colloids; polymer melts; polymer solutions; rheology
acoustic streaming reversal by a finite amplitude sound wave in a non-Newtonian fluid 2−81147
bubble dynamics, review and some recent results 2−55641
cellular convection in a viscoelastic fluid 2−60539
channel flow, nonisothermal with viscous heating 2−91536
cohesionless granular materials, rapid Couette-flow between rotating cylinders 2−103173
compressible non-Newtonian fluid, transient 2-D problem of hydrodynamics, numerical soln. 2−60585
deformable shell particles, in conc. suspension, non-Newtonian viscosity 2−86248
dense fluids, shock wave effect, heat conduction, irreversible thermodynamic theory 2−86305
dilatant, laminar boundary layer struct. 2−86310
elastico-viscous fluid rotating unsteady flow past an infinite plate with const. suction or injection 2−81377
elliptical long ducts with press. gradient, unsteady flow 2−109402
flow calc. using finite element method 2−109373
fluid sphere in non-Newtonian fluids, surfactant effect on terminal vel. and mass transfer 2−103190
free coating of nonNewtonian fluids, slip effect 2−91491
hydrodynamics, soln. forms for linearised eqns. *(Ukrainian)* 2−103191
immiscible Bingham fluids, 2-phase flow in conduit *(French)* 2−114908
incompressible fluids, normal stress effects 2−55616
inelastic power-law fluid, unsteady flow in circular tube 2−81371
ligament type disintegration in spinning disk atomisation 2−81370
nonisothermal Couette flow under press. gradient action 2−76002
nonlinear viscoplastic media, rheodynamics 2−81304
polymer fluids, constitutive eqn. based on concept of deform.-depend. tensional mobility 2−97601
polymeric fluids, pulsatile flow 2−97655
power-law fluids, axisymmetric stagnation point flow and mass transfer 2−81367
pseudoplastic liq., viscous non-Newtonian, influence of different parameters on freq. bubble form. *(French)* 2−91487
suspension of rigid rods, bimodal and polydisperse, damped oscillations in viscosity 2−75916
suspension of rigid rods, monomodal, damped oscillations in viscosity 2−75915
Tuesdell viscoelastic fluid, free convection flow in heated channel 2−114855
turbulent boundary layer, mass and heat transfer 2−75828
unsteady heat transfer in laminar non-Newtonian boundary layer over a wedge 2−81334
viscoelastic fluid, creeping flow in conical duct 2−76000
viscoelastic liquid in converging channel, laminar flow development and heat transfer 2−109413
viscometric flow stability *(German)* 2−70914
viscous fluid, between parallel plates, flow induced by vibrating plate 2−81363
viscous liq. layer covered with thin plate, motion under gravity action 2−81364

noncrystalline state structure
see also amorphous state; vitreous state
α-/nylon 12, unit cell determination, X-ray diffr. study 2−97938
alkali borate glasses and melts, microstruct., X-ray scatt. study 2−91794
alkali metal glass, mixed, structural features 2−71370
alloys, amorphous, struct. determ. by TEM 2−115111
amorphous structure, geometrical nature and elementary excitations, theory 2−115139
aromatic heterocyclic polymers, rigidity and tractability rel. to mol. swivels 2−70463
B_2O_3, vitreous, continuous random network model 2−60890
borate glasses, structural modification, EPR and NMR study 2−103642
borate glasses, viscosity, temp. depend. at const. struct. temp. 2−104047
borosilicate glasses, actinide valences 2−55854
borosilicate glasses, composition profile, near surface, SIMS study 2−115144
carbon tetrachloride, struct. by neutron diffr. 2−55848
cellulose nitrates, rel. between distrib. of nitrate ester groups and interchain d(110) spacings, ^{13}C NMR, X-ray spectra 2−110666
chalcogenide glass, induced transitions, one-dimens. model, temp. softening *(Russian)* 2−61143
chalcogenide glass film, photoinduced structural changes *(Russian)* 2−61301
chemical comp. rel. to struct. and phys. props. 2−91803
chloroprene, structure, phase transforms., NQR study 2−93051
diacetylenes, struct.-property rels., colour changes 2−71375
diffraction studies on non-crystalline substances, book 2−58566
drawn, crystal stability and mech. props., statistical-mech. approach 2−86586
E-glass fibres, struct. sensitive meas. rel. to prep. conditions 2−93484
elastomers, strength and useful life, network degree influence *(German)* 2−67532
elastomers, transparent, degree of crystallinity under stretching *(Russian)* 2−67465
epoxy binders, strain-strength props. above glass transition temp. 2−83186

noncrystalline state structure continued
epoxy resin monomers, unreacted DGEBA type, local order investig. by light scatt. 2−93212
$Fe_5Co_{70}Si_{15}B_{10}$ ($Fe_{40}Ni_{40}P_{14}B_6$), glassy, free vol., positron annihilation study 2−104987
ferric fluorides amorphous, ^{57}Fe nucl. quadrupole splittings distrib., struct. implications 2−77003
fibre, amorphous hollow, contrast in electron microscopy 2−71306
germanate glass, viscosity, temp. depend. at const. struct. temp. 2−104047
glass, flat, laminarity, effect of stirring glass melt 2−57325
glass, line defects and tunnelling modes 2−55852
glass, multiphase microstruct., STEM and EELS anal. 2−91798
glass, quasiparticle and defect theory, applicability 2−103660
glass, quest for conceptual model 2−55861
glass, single-component, struct. in glass transition region, temp. depend. 2−103656
glass, spinodal decomp., stochastic theory of scatt., struct. and autocorrel. function 2−92211
glass, structural relaxation calc. when no thermorheological simplicity 2−103663
glass chemical comp. rel. to struct. and phys. props. 2−91803
glass microstructure, electron microscopy studies 2−91797
glass microstructure, surface and bulk, conf., University Park, PA, USA (July 1981) 2−89438
glass microstructure rel. to processing and props., review 2−91802
glass structure, contrib. of W.H. Zachariasen 2−91787
glass structure and diffusion, mol. dynamics calc. 2−91789
glass structure modelling, triangle rafts, extended Zachariasen schematics 2−91788
glasses, commercial, microstruct. and rel. to workability 2−91804
glasses, metaphosphate, retarded elasticity 2−62162
glasses, random network struct., neutron amorphography 2−91791
glasses, sol-gel method and prep. from melt, comparison 2−77791
glassy semiconductors, book 2−68974
glassy state struct. calcs. 2−97935
graphite intercalation compound with $FeCl_2$, electron microscope imaging of various stages 2−71358
highly filled polymeric rubber composites, struct. changes under stretching, acoustic obs. *(Russian)* 2−109703
ice, amorphous, effective charges 2−86568
lignins, amorphous, X-ray diffractograms, temp. depend. 2−76327
metal layers, amorphous phase form. by mol. beam condensation, prep. and struct., review *(Russian)* 2−56381
metal-metalloid amorphous alloys, short range struct., pair distrib. functions, Lennard-Jones pot. 2−103624
metallic glass, binary, diffuse X-ray and neutron scatt., chem. short range order 2−55858
metallic glass tape, ferromag., localized struct. variation detection by acoustic emission 2−71361
metallic glasses, crystalline embryo model 2−97927
metallic glasses, hyperfine field distrib. and struct. 2−103643
metallic glasses, local struct., Mossbauer and X-ray diffr. study 2−103645
metallic glasses, multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
metallic glasses, struct. stability 2−65863
metallic glasses structural studies by positron annihilation, review 2−103646
Mossbauer studies of crystallisation, glass transition and struct. relaxation in nonmetallic glasses 2−104752
N,N′-di-n-hexyladipamide, a model for nylon 6,6 2−76323
natural rubber, molten, radiation effects on struct. 2−71374
NMR studies of struct. of nonmetallic glasses, review 2−104713
nylon 12, soln. crystn., morphology, crystal form and thermal behaviour 2−91818
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
nylon 6/inorganic salt fiber, struct. and dynamic mech. behaviour, drawing effect 2−109695
oligomer-polymer composites, phase struct. and props. during curing *(Russian)* 2−111135
optical glass, internal damage with 3 ns pulse laser 2−60204
organic glass, impurity dephasing by optical modes 2−86822
oxide, metallic and semicond. glasses, local struct. theory and expt. data review 2−103631
PET films, physical ageing in glassy polymer, IR spectra 2−103667
PMMA, microdeformations in glass transition region, electron microscopic studies 2−109887
PMMA, radial distrib. functions, struct. anal. 2−81690
st-PMMA, struct. changes on drawing, absorpt. and desorpt., solvent-induced crystallisation, IR spectra 2−109698
poly(2,5-thiophenediyl):AsF_5, prep., struct. and elec. cond., IR spectra study 2−76325
poly(γ-methyl L-glutamate-co-γ-benzyl L-glutamate) film, irreg. layer lattice 2−86583
poly(aspartic acid), ^{13}C NMR study of struct. 2−104717
poly(butylene terephthalate), struct., tensile strength meas. 2−86589
poly(di-cyclo-octyl itaconate), sub-glass transition events detection using differential scanning calorimetry 2−92200
poly(p-phenylene sulphide):AsF_5, elec. cond., effects of polymer struct., morphology and doping 2−77044
poly(tertiary butyl acrylate), laser-Raman spectrum and normal coord. anal. 2−86582
poly(vinylidene fluoride) film, crystallinity evidence 2−71376
polyacetylene:I, conductivity, struct. variables effect 2−56568
polyacetylene:pristine (I_2), struct., electron diffr. study 2−86588
polyacetylene, cis, trans. and I_2 doped, cryst. struct., electron diffr. study 2−91820
polyacetylene, geometry change on charge transfer, cryst. orbital calcs. 2−109689
trans-polyacetylene oriented film, cryst. struct., X-ray scatt. study 2−91819
polyamide 6, struct. parameters variation resulting from fatigue failure process *(Polish)* 2−83219
polyamides crystalline stoichiometric adducts with phosphoric acid 2−86584
1,2-polybutadienes, hydrogenated struct. characterisation by ^{13}C NMR 2−77394
polybutylene terephthalate, elastic modulus of cryst. regions, conform. relation 2−93550

noncrystalline state structure continued
polychloroprene-nairite p vulcanizates, link disposition, thiourea derivatives effect, NQR study 2−93052
polydiacetylenes, struct.-property rels., colour changes 2−71375
polyester resin, styrene-crosslinked unsaturated, dynamic mech. relax., styrene ring substituents effect 2−109989
polyether-MDI-butanediol based urethanes, structure-property behaviour, composition ratio behaviour 2−91827
polyethylene, chlorinated, as impact modifier for PVC, mech. and dielec. relax. obs. 2−81692
polyethylene, conform. influence on wide-angle neutron scatt. patterns, folding models 2−91815
polyethylene, cryst., relax. effects, stochastic defect diffusion model 2−76326
polyethylene, cryst. order, ^{13}C NMR cross polarisation/magic-angle spinning T_1 obs. 2−116080
polyethylene, crystallites and lattice distortions, temp. depend. *(Russian)* 2−65884
polyethylene, extruded, microstruct. study by electron microscopy 2−91826
polyethylene, high-density, cryst., wear, morphological study 2−83240
polyethylene, high-density, dynamic birefringence, α-relax. mechanism 2−110812
polyethylene, highly drawn linear, gauche defects, accordion-type laser Raman scatt. obs. 2−67041
polyethylene, irrad., struct. orientation in deform., in air and CCl_4 2−67457
polyethylene, linear, absolute integrated small-angle X-ray scatt. obs. during crystn., mass density determ. 2−115150
polyethylene, linear fraction, crystallised at different temps., quantitative electron microscopic obs. 2−65875
polyethylene, low-density, drawn, shrinkage and retractive forces during annealing 2−111194
polyethylene, thermal cond., 3 to 9K, effect of microcryst. struct. 2−56272
polyethylene, ultrahigh-modulus, nitric acid etching and gel permeation chromatography, struct. obs. and influences 2−109693
polyethylene, ultraoriented, birefringence calc. fusing model structures 2−110811
polyethylene, unannealed and annealed soln.-crystallised, straight chain length distrib. by Raman spectroscopy 2−109699
polyethylene film, elec. ageing, radiothermolum. obs., relax. characts. *(Russian)* 2−93288
polyethylene oxide fractions, supermol. struct., mol. wt. and crystn. conditions depend. 2−115151
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polyethylene single cryst., chain folding, mixed-cryst. IR obs., effect of crystn. temp. 2−110850
polyethylene terephthalate, amorphous, conform. changes during vol. recovery, Fourier transform IR spectra obs. 2−61906
polyethylene terephthalate film, crystn. of cyclic oligomers, annealing and solvent exposure effects 2−76328
polyethylene terephthalate film, mechanically deformed, orientation effect, Brillouin scattering effects 2−87803
polyethylene terephthalate films, ethylamine soln. treated, biaxially stretched, fine struct. *(Japanese)* 2−86590
polyethylene-1,3,5-tribomobenzene mixture, eutectic solidification and oriented growth 2−92164
polyethylene-deuteropolyethylene mixed cryst. blends, wide-angle neutron scatt. obs. of folding nature 2−91816
polyethylene-polypropylene blends struct. charact. by small-angle neutron scatt. 2−91822
polyheteroarylene fibre reinforced epoxide binder composites, ^1H NMR study of mol. mobility 2−116073
polymer, degree of cyrstallinity, volumetric meas. 2−71360
polymer, glassy, craze micromech., entanglement network role 2−111346
polymer, glassy, inhomogeneous dissipative structure using variational principle of nonequil. thermodynamics 2−61142
polymer, nonlinear stress in oscillatory shear fields, reptative motions 2−109904
polymer, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polymer amorphous structure, review 2−91821
polymer films, molecular processes during friction, thermally stimulated depolarization current obs. 2−67560
polymer films, plasma etch characts. rel. to struct. comp., electron resist appls. 2−62244
polymers, biaxially oriented, orientation distrib., functions calc. 2−109697
polymers, fractal dimensionality in self-avoiding walks, theoretical and numerical study 2−109696
polymers, impurity dephasing by optical modes 2−86822
polymers, semi-crystalline, ^{13}C NMR relax. param. 2−87617
polymers, stratified structures, determ. by plasma etching gravimetry *(German)* 2−67690
polymers deformation studies by time resolved Fourier transform IR spectroscopy 2−89832
polymethyl-1-pentene, isotactic small angle X-ray scattering 2−86585
polyparaphenylenes, EPR study of mag. props. and struct. defects 2−104701
polyphthalocyanine, polymerised, thin film prep. by thermal vaporis. in vacuum, characteris. *(Russian)* 2−93424
polypropylene, EPDM modified, struct.-property relations under tensile and impact tensile stress *(German)* 2−67533
polypropylene, isotactic, microparacryst. globules study by SAXS and TEM 2−91824
polypyrrole film, neutral and oxidised, prep. and characterisation 2−81693
polystyrene, high-impact, rubber-toughened, internal struct. of rubber particles and craze breakdown 2−105297
polystyrene, isotactic, crystallisation from bulk, low density crystalline form 2−86594
polystyrene, microdeformations in glass transition region, electron microscopic studies 2−109887
polystyrene derivatives, amorphous, X-ray diffractograms, temp. depend. 2−76327
polystyrene ionomers, sulphonated, microphase separation, small- and wide-angle X-ray scatt., cluster form. 2−115152
polyvinyl-polypeptide block copolymers, polypeptide chain folding 2−91825
noncrystalline state structure continued
polyvinylcarbazole film, impurities and struct. effect on photolum. *(Russian)* 2−67092
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
PVC, impact resistant rigid, microstruct. rel. to mech. props., additives influence *(German)* 2−62215
PVC, plasticized, microdomain struct., electron microscope obs. 2−81691
PVC glass, vitrified at elevated press., nonequil. processes, conform. and enthalpic changes 2−86873
pyrophosphates, crystalline and glassy, IR spectrum 2−72486
random octahedral network, topology and radial distrib. function 2−91781
randomly disordered cryst., dynamic X-ray diffr. coherence description 2−97841
rare earth garnets, RFe_5O_{12}, amorphous, struct. props., Mossbauer study 2−103625
rubber, natural and polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
rubber reinforced thermoplastics, structure and mech. props. 2−81689
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687
semiconductors, order and disorder, curved space description 2−76311
stressed polymers microstruct. changes, vibr. Fourier transform IR spectroscopy 2−93201
tetracene films, vapour-deposited, struct., electron diffr. 2−81674
transition metal-metalloid glasses, atomic radii, radial distrib. function 2−65871
vinyl chloride-vinyl acetate copolymer, dielec. relax. and struct. morphology 2−82778
wax, microcryst., degree and type of branching, PMR spectroscopy determ. 2−56949
Ag-Ge, amorphous film, struct., elec. and optical props. 2−82483
Al-Si-Ge, amorphous, superconducting transition *(Chinese)* 2−104520
Al-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
Al_2O_3, amorphous struct., high resolution electron microscopy studies 2−71357
Al_2O_3 amorphous thin film, struct. model, Monte Carlo calc. *(Russian)* 2−103627
Al_2O_3-Na_2O-Si_2O thin films, X-ray emission spectra, Al coordination 2−110985
Al_2O_3-SiO_2-Fe_2O_3, heat treated, Fe valence-coordination state, Mossbauer study 2−103662
alkali metal oxide-CaO-Al_2O_3-SiO_2 glass, liq.-liq. phase separation, struct. interpretation, alkali aluminate complex form. 2−103973
As, amorphous, effective charges 2−86568
As-based chalcogenide glasses, EXAFS study 2−91786
As-S-Ag system glass, phase separation and struct. changes on Ag addition to As_2S_3, fractured surface obs. 2−103649
As-Se, amorphous struct. far IR reflection spectra study 2−67029
As_2S_3 amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
As_xS_{1-x} chalcogenide glasses, struct. models, bond lengths and angles 2−91805
As_2Se_3, glassy, pulse-induced microcosmic geminate excitons, thermal decay 2−61905
As_xTe_{1-x} glasses, intrinsically broken 8-N coord. rule, ^{129}I Mossbauer study 2−81686
$Au_{55}Pb_{22.5}Sb_{22.5}$, metallic glass spheres, prep. and surface characteristics 2−55851
B_2O_3 glasses, isotopically substituted, Raman spectra study 2−87756
B_2O_3 glasses and melts, microstruct., X-ray scatt. study 2−91794
B_2O_3, vitreous, struct. study 2−109679
B_2O_3 vitreous films, mol. orientation, Raman spectra study 2−87757
B_2O_3-Al_2O_3-Fe_2O_3 based glasses, Fe coordination, Mossbauer study 2−103641
B_2O_3-LiF(LiCl)(Li_2O) glasses, ionic cond., ^7Li, ^{11}B, and ^{19}F NMR study 2−93022
B_2O_3-Na_2O-PbO(CdO) glasses, press. induced struct. changes, ESR study 2−110637
Be film, struct., condensation rate effects, supercond. transition temp. *(Russian)* 2−98477
BeF_2-NdF_3 based glasses, absorpt. and emission spectra of Nd^{3+}, at. struct. computer simulation 2−57149
Bi_2Se_3 amorphous film, atomic distrib. study 2−91751
C, amorphous, short range atomic struct., comparison of diffr. analyses 2−71354
C, amorphous thin film, struct., scanning electron diffr. study 2−86567
C atomic arrangement by X-ray diffr., radial distrib. anal. 2−81673
$Ca_{1-x}Al_x$ metallic glass, elec. cond. 2−98612
$Ca(NO_3)_2$-KNO_3 glasses, sp. ht. and glass transition temp. charges upon doping 2−81979
Co-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Co-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
$Co_{1-x}B_x$ metallic glass, struct., neutron diffr., Mossbauer and EXAFS study 2−103640
$Co_{100-x}B_x$ metallic glasses, structural investigation 2−86571
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
Cu_2MnIn(Al)(Sn) films, struct., mag. and transport props. 2−60889
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
$Cu_{50}Zr_{50}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Cu_{50}Zr_{40}$, amorphous, initial quench effect on thermal behaviour 2−91813
$Cu_{50}Zr_{40}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
$Cu_{60}Zr_{40}O_x$ alloy, polyphased microcryst.-amorphous, high resolution imaging 2−71356
$cu_{60}Zr_{40}$, amorphous, EXAFS study, struct. characts. 2−110978
Fe-B alloy, amorphous, heat treatment conditions influence on crystn. and struct. *(Russian)* 2−65868
Fe-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-B metallic glasses, comparison of struct. meas. 2−91807
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Ni-B metallic glass, mag. domains and composition behaviour, neutron scatt. study 2−104651
Fe-Sn metallic glass, struct., forming ability and elec. cond. 2−103653
Fe-Zr 2−55857
$Fe_{1-x}B_x$ metallic glass, atomic struct., Mossbauer study 2−103639

noncrystalline state structure continued
$Fe_{80}B_{20}$, amorphous, electronic props., struct. related effects, EELS study 2−67163
$Fe_{80}B_{20}$, amorphous, irradiated, structural relax. 2−55864
$Fe_{81}B_{19}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
$Fe_{82}B_{18}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
Fe_8B_{15}, amorphous, struct. and crystn. study by Mossbauer spectroscopy *(Russian)* 2−93075
$Fe_{81.5}B_{14.5}Si_4$, metallic glass, struct. relax., effect of quench rate 2−81683
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
$Fe_{81}B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous struct., X-ray diffr. study 2−65866
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{40}Ni_{38}Mo_4B_{18}$, metallic glass, struct., evolution during crystallisation 2−109682
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
Ge, amorphous, effective charges 2−86568
Ge, amorphous, evaporated, struct. study by neutron diffr. 2−86566
Ge, amorphous, laser irradiated, struct. change features 2−76493
Ge, amorphous, random network struct., neutron amorphography 2−91791
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
Ge-S glasses, local order, ESR study 2−65865
Ge-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
$GeSe_2$ amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
$GeSe_2$ glass, reversible quasicrystn., Raman scatt. study 2−81685
$GeSe_{2x}Te_{2-2x}$ chalcogenide glasses, broken chemical order, X-ray and DTA study 2−103638
$(Ge_{0.99}Sn_{0.01})Se_2$ glass, broken chem. order, Mossbauer study 2−81687
K_2O-B_2O_3-Al_2O_3 glass, Al^{3+} with non-bridging O, density, refr. index and microhardness determ. 2−109684
K_2O-B_2O_3-SiO_2 glasses and melts, microstruct., X-ray scatt. study 2−91794
K_2O-B_2O_3-siO_2 glass, phase separation and structon types, DC elec. resist. meas. 2−76729
K_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
K_2SO_4-Na_2SO_4-$ZnSO_4$ glass, struct., X-ray diffr. study 2−97933
$LiNbO_3$ amorphous and polycryst. thin films, RF sputtering, struct., refractive index, X-ray study 2−72624
Li_2O-Al_2O_3-SiO_2 glass ceramics, microstruct., electron microscopy and electron diffr. 2−115140
Li_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
Li_2O-K_2O-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Li_2O-LiCl-B_2O_3 system glasses, struct., glass transition and density meas. 2−91793
Li_2O-P_2O_5 glass fibres, mech. props. and struct. aspects rel. to drawing process 2−93608
MgCa, metallic glass, struct. stability 2−65863
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
MoO_3-Al_2O_3, catalyst, struct. of uncrystallised Mo compounds 2−65862
Na_2O-Al_2O_3-B_2O_3 glass, tetrahedral B, NMR spectra 2−97932
Na_2O-B_2O_3-Al_2O_3-SiO_2-CuCl glass, CuCl microcrystals growth kinetics obs. 2−103661
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Na_2O-Ca_2O-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Na_2O-Fe_2O_3-SiO_2, glass, surface dealkalisation, role of iron oxides 2−73016
Na_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
Na_2O-Li_2O-SiO_2, glass, energetics, from acoustic meas. 2−71590
Na_2O-SiO_2, glass, energetics, from acoustic meas. 2−71590
Na_2O-SiO_2 gels prep. for gel-glass process, action of atmospheric agents 2−76317
$Na_2O.2SiO_2$ glass, Fe^{3+} coordination number 2−97931
$NaPO_3$-NaF(AlF_3)(AlF_3-CaF_2) glasses, Raman spectra, struct. models 2−87758
Ni-Cr alloy film, amorphous, struct. and crystn. 2−55863
Ni-P metallic glasses, polymorphism rel. to processing conditions, Knight shift meas. 2−91811
Ni-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
$Ni_{80}B_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Ni_xFe_{80-x}B_{20}$ amorphous, electron momentum distrib., positron annihilation 2−103626
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
$Ni_{1-x}P_x$, amorphous, struct. inhomogeneities, processing effects, NMR, DTA and positron annihilation study 2−104993
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
$Ni_{82}P_{18}$, amorphous, ion implanted, TDPAC study 2−104771
$Ni_{66}Y_{33}$, amorphous, EXAFS study, struct. charcts. 2−110978
PbO-B_2O_3 glasses, microstruct. charcts. by phys. prop. meas. 2−91800
PbO-SiO_2, glass, structural relaxation calc. when no thermorheological simplicity 2−103663
PbO-SiO_2 (40 wt.%) glass, Narayanaswamy struct. relaxation model, expt. check 2−103659
PbO-SiO_2 system, glass and cryst. phase struct., XPS study 2−87943
PbS-GeS-GeS_2 chalcogenide glass, struct. and photoelectronic props., DTA and SEM study 2−92681
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
Pd_4Si, metallic glass, multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
$Pd_{80}Si_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$(PrRd_{80}Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Sb_2O_3, vitreous, IR and Raman spectra, valence force field calcs. 2−72503
Sb_2S_3, amorphous and glassy, struct. rel. to As_2X_3 glass struct. 2−86573

noncrystalline state structure continued
Sb_2S_3-PbS glass, prep. and props. 2−71367
Se, amorphous, liq. and solid, struct. and phys. props., uniaxial compression effects 2−71352
Se, amorphous, struct. factor and collective excitations, neutron scatt. study 2−98232
Se amorphous film, stress effects on crystallisation 2−86569
Se-As alloy film, amorphous, capacitance changes during struct. relax. 2−91785
Se-Ge-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Sn-As glass, microstruct., fracture surface study by SEM 2−91796
$Se_{1-x}Te_x$, amorphous and liq., short range order, thermal neutron scatt. study 2−103623
Si, amorphous, effective charges 2−86568
a-Si, distortion energy distribs. in random network model 2−109678
Si, impurity defect struct. form. by ion implantation, amorphous and cryst. comparison 2−103790
Si:H, amorphous, order and disorder, curved space description 2−76311
a-Si:H films, growth and characterisation 2−83031
SiO_2, fused silica, nonbridging O defect center, dynamic Jahn-Teller effect study 2−87194
SiO_2 glass, thermodynamic, struct. and dynamical props., mol. dynamics study 2−76321
SiO_2, vitreous, free energy of structural models, bond lengths and energies 2−97924
SiO_2, vitreous, large block, elastic props., nonuniform distrib. 2−103898
SiO_2, vitreous, struct. in bulk and surface layers, gas probe anal. 2−91801
SiO_2-Na_2O-CaO-MgO-R_2O_3 (R=rare earth) glass struct., diffr. methods anal. 2−55859
SiO_2-$NaAlO_2$($CaAl_2O_4$)($MgAl_2O_4$) glasses, three-dimens. network struct. 2−115142
SiO_2-P_2O_5, gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SiO_2-TiO_2 gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SiO_x amorphous films, reactively sputtered, struct. and props., IR spectra study 2−66397
Sn-O amorphous system, bonding struct. and lattice dynamics, Mossbauer study 2−104770
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
$TbFe_2$, amorphous, struct. ordering, neutron scatt. study 2−97923
Tb_xFe_{1-x} amorphous alloy system, simulation of dense random packed models 2−71353
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
V_2O_4-P_2O_5 glasses, struct. characterisation, density and molar volume 2−65872
V_2O_5, amorphous, struct. anal. by large angle X-ray scatt. 2−97925
V_2O_5-B_2O_3-P_2O_5 glasses, electronic cond. and dielec. relax. rel. to struct. 2−61471
YFe_2, amorphous, struct. relax., Mossbauer study 2−72383
YFe_2, amorphous, struct. ordering, neutron scatt. study 2−97923
ZnS:Mn, Cu, Cl DC electrolum. films, field enhanced changes in comp. and struct. 2−116263
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526

nondestructive readout
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325

nondestructive testing
see also crack detection; radiography; ultrasonic materials testing; X-ray fluorescence analysis
acoustic emission signal analysis, deconvolution appls. 2−62325
acoustic emission signal source co-ord. calc., errors 2−83329
acoustic emission testing, principles, review 2−62323
acoustic imaging, recent developments, theory and practice 2−65437
acoustic sensors for measuring linear deformation under radiation conditions 2−102110
acoustoelastic effect of thickness oscillations 2−91363
AE appl. *(Hungarian)* 2−116656
alloy, fireproof, two layer strips, elastic moduli of second kind, determ. using nondestructive method *(Russian)* 2−62307
Barkhausen noise stress meas., acoustic method 2−83318
bonded joint strength determ. by simulating electroacoustic channel of resonant instrument 2−83332
book, Internat. Advances in NDT 2−68983
Californium multiplier, design for neutron radiography 2−78044
Californium multiplier, performance of Mould system 2−78045
CAMAC gamma-ray scanning system, for nuclear safeguards 2−53906
cast Fe, nodular, freq. spectra of acoustic emission 2−62326
coating thickness monitoring, densitometric albedo method with single energy electrons 2−58788
collimated photon scatt., nondestructive examination appl. 2−57549
composite material structural performance evaluation, moire methods appl. 2−105424
composite materials, NDT, review 2−62338
composite materials, NDT quality control, capacitance technique 2−62331
composite materials, ultrasonic evaluation using digital imaging and image processing 2−67719
conducting cylinder surrounded by loop with excitation current of various wave forms, electromagnetic field, NDT appl. 2−65131
damage processes, acoustic emission 2−62290
diaphragm NDT using laser speckle photography 2−57545
double layer scatterers, albedo charact. of bremsstrahlung 2−67708
eddy current, multiple props. determ. with multiple meas., polynomials fitting 2−72938
eddy current limitations 2−99638
eddy current probe circuits for nondestructive testing, optimal design *(German)* 2−79564
eddy current problems, 3D, mixed FEM-BIEM calc. method 2−55033
eddy current testing, algebraic analysis for cylindrical geometries 2−67724
eddy current testing, principles and techniques 2−105436
electromagntic method for fatigue life meas. 2−67693
electron radiography of surface layers using backdiffused β-rays and photon excited electrons 2−88304

nondestructive testing continued
EM aspects, conf., London, England (March 1982) 2—63754
EM aspects, review 2—67720
EM eddy currents, modeling 2—93749
energy technology, nondestructive evaluation, workshop summary 2—67687
failure time calc. from AE signal activity 2—88327
ferrography, condition monitoring 2—88296
ferromagnetic components FITAN-2M instrument for hardness testing 2—57575
ferromagnetic materials, magnetic phase transform. control using Barkhausen effect and hysteresis loop 2—116677
fibre reinforced plastic, resonance charact., Fokker's bond tester method, artificial defect effects *(Japanese)* 2—57556
fission reactor Hot Fuel Examination Facility, radiography station 2—107969
fission reactor materials, safeguards, backscattered γ radiation energy distrib. from two component system 2—93734
fission reactor pressure vessel feedwater nozzle, fatigue cracks, ultrasonic testing 2—59473
flaw detection in mine hoist transportation systems 2—78064
gamma-ray tomographic scanner, for industrial appls. 2—57548
glass, sheet, fracture probability, estimated from strength of small specimens 2—72928
glass fibre reinforced epoxy laminate, AE energy anal. of damage 2—62291
glass fibre reinforced plastic laminates, nondestructive inspection 2—67672
glass shell, cylindrical, carrying capacity prediction from NDT under external press. 2—57573
grain size measurement with X-rays, SOL-X on-line NDT method 2—105394
heat exchanger tubing, field performed eddy current exam., accuracy and repeatability 2—72932
holographic, reassessment of appls. 2—108827
image quality eval., ASTM method 2—111390
induced vibration analysis probe for steam generator tube-to-support clearance meas. 2—64583
industrial radiography, test room shielding calcs. *(German)* 2—85400
internal three dimensional struct. of objects, reconstruction based on real time projections 2—62356
large structure under corrosive environment, AE monitoring 2—111388
laser speckle subjective method, appl. to solid mechanics problems 2—91354
lead frame bond failure mode in film integrated circuits, discriminants anal. of AE data 2—99621
longitudinal eddy current transducer design for inspection of small bearing components 2—83336
magnetic particle methods, comparison of AC and DC fields 2—88295
magnetometer for measuring mag. props. of mag. recording disc 2—107350
Magnox fuel elements manufacture for nuclear power stations, safety assurance 2—59481
metal, coating thickness meas., eddy current and magnetic methods 2—107296
metal balls, continuous inspection of hardening quality on prod. line 2—93698
metal parts, nondestructive composite test unit 2—93699
metal shells with variable thickness and local inhomogeneities, multilayer, neutron absorption radiometric inspection 2—67707
metallic objects, multiparameters inspection by eddy currents, numerical anal. of system of eqn. in nonlinear theory 2—67704
metals, case-hardened layers, hardness and thickness monitoring 2—111415
microwire surface monitoring, electron microscopy obs. 2—93736
minerals, Young's modulus determ. by X-ray method 2—99616
multidimensional signals in electromagnetic multiparameter NDT 2—62358
multifrequency-multiparameter eddy current anal. method for PWR steam generator tubes 2—69795
multilayer struct., thermal methods for NDT, review 2—57574
multiparameter eddy current inspection, algorithms rel. to nonlinear theory 2—62360
multiparameter eddy-current inspection, nonlinear theory fundamentals 2—62359
neutron absorption monitors, general design principles and optimisation 2—93735
neutron radiographic film imaging system, modulation transfer function 2—57562
neutron radiography, handbook 2—68977
non-metallic materials, NDT quality control, capacitance technique 2—62331
noncircular flaws, two-dimens., fracture mechanics, equiv. area approx. 2—109232
nuclear power plant components, nondestructive evaluation, review 2—57587
nuclear power plant primary circuit structural metals, remotely controlled NDT devices, methods and technology 2—90234
nuclear power stations, review 2—67718
nuclear reactor components, sandwich hologram interferometry use for NDT 2—93732
nuclear reactor components testing *(French)* 2—64606
nuclear reactor steam drums, AE obs. 2—111387
numerical modelling in diffusion convection, conference, Sunderland, England (May 1981) 2—89466
optical fibre preforms, nondestructive determ. of stress profiles 2—75702
optical fibre preforms 2—55366
optical microscopes appl. 2—72913
opticoelectronic method of NDT, appl. of complex signals 2—62366
penetrant fluid test, developer struct. effect on indicating power *(German)* 2—72919
photoconducting material defect detection, nondestructive testing methods 2—105402
photodisplacement microscope using modulated semiconductor laser 2—114568
piezoelectric crystal blank, dissymmetry used for Φ, Ξ angle sign determ. by non destructive method 2—88302
polymeric materials, acoustic emission associated with tree growth 2—110762
porous material, albedo electron densitometry, single channel method 2—89694
positron annihilation in testing of materials *(Spanish)* 2—62305
positron lifetimes in metals, meas. apparatus 2—111396
positron measurement appl. *(Japanese)* 2—57571
powder metallurgy materials, density measurement, albedo electron method 2—83327
prefabricated parts, NDT, magnetic meas. 2—67683
Proba type electromagnetic inspection instruments 2—62361
pulse stress measurement of controlled fusion set by single-beam light holography 2—81298
pulsed eddy current test system with computer added registration and eval. of meas. signal *(German)* 2—116659
pulsed magnetic inspection, effect of gap variation between transducer and specimens 2—62363
PWR pressure vessels, role of NDT in integrity assurance 2—88298
radiographer's densitometer 2—57582
radiography, flash X-ray system, home-made, charact. 2—57566
reactor fuel pins, thermal power density distribs., γ-scanning anal. 2—54501
reactor fuels, radial fission product distrib. reconstruction using nondestructive γ scanning 2—85143
reinforcement bead of welded joint, tangential component of magnetic field 2—89756
residual stress, nondestructive meas. using X-ray diffr. 2—72937
residual stress measurement by selected NDT, review 2—57567
self- and mutual inductance of a shielded externally mounted feedthrough primary transducer with a conducting tube 2—53750
semiconductors, local resistivity meas. over small regions, capacitively-coupled time-domain reflectometry 2—53783
shearography, optical method for strain meas. and NDT 2—91355
signal processing circuits for eddy current transducers 2—67705
solid with cold worked surface layer, Love wave propag. 2—62300
source coordinate determination in two and three dimensional spaces 2—62365
spectrometric electron defectoscopy, defective layer detection in two layer product sample 2—116674
spent fuel disposal container, shrinkage void detection, autoradiography appl. 2—105438
spot-welded joints, magnetographic inspection of compensating interference from surface irreg. 2—83333
steel, alloy, type 09G2SF, failure time calc. from AE signal activity 2—88327
steel, electrical, nondestructive testing of mag. props., tensile stresses influence on accuracy 2—58858
steel, high speed R6M3 and R6M5, mag. and elec. props. after heat treatment, NDT appl. 2—67404
steel, high temperature temper treatment, quality control, performance anal. of magnetic probe 2—67703
steel, ingot prod., radioisotope inspection of technological process 2—62353
steel, inspection of products with little variation in coercive force 2—93737
steel, mild, mech. stress meas. by means of mag. field strength rotation 2—62340
steel, mobile spectrometer for mixed grade separation, assessment 2—78039
steel, pearlitic eutectoid, phase interfaces and dislocations positron trapping 2—99619
steel, rolled sheet, mag. inspection method for mech. props. 2—62310
steel, self tempering, selective electromagnetic inspection, physical fundamentals and operating principles 2—83334
steel, self-tempering, selective electromagnetic inspection, equipment design, selection, testing 2—83335
steel, sized, Bauschinger effect in alternating plastic deform., elec. contact method and hardness meas. 2—57427
steel, stainless, fatigue life measurement, electromag. method 2—67693
steel, stainless, welds, radiography mottling theory 2—88294
steel KhGSA, ultimate strength determ., reliability of NDT methods 2—93742
steel reinforced concrete, AE appl. to corrosion damage charact. 2—78026
steel testing, large scale, specimen-grid moire techniques 2—105423
steels, reproducible AE signatures by indentation 2—62324
stereoscopic radiation images, methods of production 2—67706
strained state nondestructive investigation method 2—55524
stress corrosion cracking, diagnosis *(Japanese)* 2—78009
stress problems, NDT related, displacement discontinuity method appl. 2—103121
strip, cold rolled, optical surface inspection system with on-line signal processing *(German)* 2—72939
superconducting film, inhomogeneous, local transition temps. and crit. currents, optical probing technique 2—61635
surface resistivity, nondestructive testing 2—90760
surface topography and flaw detection using elec. discharge imaging 2—72933
thermal insulation materials, cemented joints inspection by neutron radiography 2—93697
thermal neutron radiography, point spread functions due to neutron scatt. 2—99610
thermal wave imaging techniques status and appl. 2—112895
thick section radiography using microfocus X-ray unit, low temp. and film-screen combination advantages 2—111389
thin plates, cracks, eddy current flows, nondestructive testing 2—105434
tyres, NDT using double exposure laser interferometry, vac. and increased press. *(Chinese)* 2—96854
tyres, NDT using holographic interferometry, interferometer and detect. sensitivity *(Chinese)* 2—96853
underwater, EM methods use for offshore structures 2—67722
vibration mode anal. using electronic speckle pattern interferometry, instrument 2—83324
X-ray applications of self-scanned photodiode arrays 2—72935
X-ray inspection system, real-time, high-energy, development *(Japanese)* 2—78051
X-ray residual stress meas. using half-width method, statistical anal. 2—67682
X-ray shadow projection microscopy of microwire 2—64207
Fe, cast, resonance testing 2—62302
MgO single cryst., cathodlum. from cutting damage 2—93286
Ni, segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2—57355
Ni-Al bronze cast, detection of selective phase corrosion by AE 2—67631
PuO_2 fuel tubes, uniformity testing, γ-ray monitor appl. 2—54491
Ti-Al-Mo, 1M1 550 fatigue testing by positron annihilation 2—62339

nondestructive testing continued
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
WC plasma coating on stainless steel plates, thermal wave imaging through radio frequency induction heating 2−99613
WC-Co sintered carbides, quality inspection instrument 2−83337

nonelectric sensing devices
confocal Fabry-Perot sensor, optical displacement sensor for acceleration and vibration meas. 2−58889
development trends survey 2−95357
fibre optic coherent interferometric sensors, optical FM appl. 2−91084
fibre optic interferometric sensor construction, LF laser jitter effect 2−91086
fibre optic interferometric sensors, homodyne, signal fading elimination using passive compensation 2−91085
fibre optic microbend pressure sensor 2−95360
fibre optic pressure sensor, multimode, based on photoelastic effect 2−97212
fibre optic sensors, applications 2−75705
fibre optic sensors, colloquium, London, England (May 1982) 2−89464
fibre optic strain sensors, high sensitivity, for measuring structural distortion 2−74407
fibre optic temperature distribution sensor using time-domain reflectometry 2−91076
fibre-optic magnetic field sensors, thermal phase noise anal. 2−102948
flow sensors, characteristics, effect of direct connection of supply and outlet conduit *(Bulgarian)* 2−81413
integrated optical temperature sensor based on array of waveguide interferometers 2−95373
interferometric and multimode optical fibres, sensor appls. and market prospects *(Norwegian)* 2−70678
optical fibre sensors, review 2−91075
optical fibre transducers 2−97215
optical sensors, simple analogue and digital types 2−91081
optical-acoustic gas analysers, single-beam differential, static charcts. *(Russian)* 2−99735
SAW, fibre-optical sensor 2−97323
supersonic air gap sensor, static charcts. *(Japanese)* 2−91568
surface examination using spectrometer, fibre-optic meas. head for optical information extraction 2−89822
trace gas detection using Fabry-Perot interferometric photothermal technique 2−112881
ZnO RF sputtered films, carrier conc. of function of surface acceptor state density, gas sensor appl. 2−98772

nonleptonic decays
see also baryon hadronic decay; meson hadronic decay
left-right mixing limits in weak interactions 2−59099
$SU(2)\times SU(2)_R$ theory, strong bounds on weak couplings 2−95711
weak decays, two-loop calcs. in QCD and $\Delta I=1/2$ rule 2−113226
Ω^-, nonleptonic decays in weak interaction model 2−59145

nonlinear acoustics
2-D nonlinear acoustic streaming in field of highly attenuated sound beam 2−91120
acoustic cavitation in a highly superheated liquid 2−70742
acoustic cavitation noise spectra 2−55625
acoustic levitation, use in analysis of biological materials comprising micron-size particles in a more compressible host liquid 2−78510
acoustic streaming, Green's function methods 2−114521
acoustic streaming of sphere near unsteady source 2−70738
acoustic streaming reversal by a finite amplitude sound wave in a non-Newtonian fluid 2−81147
asymptotic solution of the equations for the dynamics of a cavitation bubble in a sound field and analysis of the solution 2−91123
cavitation bubble collapse, study of light emission and shock waves produced 2−70740
cavitation bubble dynamics, vortex rings and jet formation 2−55642
cavity flow, vortex-driven acoustic oscills., nonlinear resonant interactions 2−65645
condensed matter, US methods, conf., Zilina, Czechoslovakia (Sept. 1980) 2−63733
CW acoustic plane waves, scattering by sound 2−81146
expanding sphere, generation of pressure and velocity field 2−114591
finite amplitude sound wave nonlinear distortion reduction 2−70737
finite-amplitude noise propagating in tube, changes of zero-crossing slopes 2−81150
four-phonon interaction of bulk waves in crystals 2−114515
gas-liquid mixtures, acoustic nonlinearity of bubbles 2−60612
high intensity acoustic wave/noise interactions, statistical charcts. 2−91119
hydrophone nonlinearity meas., second order sensitivity 2−97340
impulsive local heat release in transonic and supersonic gas flow, 2-D nonlinear acoustic processes 2−60275
induced mass of equilateral triangle cylinder in fluid, meas. 2−91114
isothermal atmosphere weak shock wave damping, determ. from dispersional correction *(Russian)* 2−117400
Lagrangian boundary condition and non-linear propagation as causes of Gaussian noise spectrum deformation 2−97255
levitating apparatus for submillimeter samples 2−86154
light diffraction by two adjacent US beams 2−109104
light/sound interaction, nonlinear effects 2−65426
liquid with gas bubbles, nonlinear props. study 2−71582
liquids, boiling and cryogenic, acoustic cavitation and vapour bubble dynamics 2−55623
liquids, empirical expression for nonlinearity parameter B/A 2−109098
magnetization soliton excitation in antiferromagnetic using magnetoacoustic interaction 2−72329
metals, EM second harmonic US generation 2−65425
moving source, acoustic field, thermal mechanism of sound excitation, arbitrary trajectory 2−55374
N-shapedwaves, continuous sawtooth and single, basic theory on propagation *(Japanese)* 2−97256
noise, nonlinear propagation anal. 2−102976
nonchromatic acoustic radiation vertical propag. in atmosphere, nonlinear effects 2−75749
nonlinear plane wave excitation by thermooptic array moving nonuniformly with transonic velocity 2−114514
nonlinear waves near cut off freq. in acoustic ducts 2−109100
ocean shock formed by strong sound wave energy and amplitude evolution 2−117357
open-ended tube, gas resonant oscills. 2−60274

nonlinear acoustics continued
optical generation of sound: nonlinear effects, review 2−72452
parametric acoustic transmitters *(Japanese)* 2−114512
parametric array, synthesis of arbitrary broadband signals 2−109099
permeable boundary models for computational gas dynamics 2−112712
physical principles and applications, book 2−58570
radial motion wave eqns. for spherical gas-filled bubble in a compressible liquid 2−70739
SAW devices, soliton theory 2−102967
SAWs, coupled amplitude theory 2−114509
second harmonic generation in piezoelect. semiconductors 2−70741
sound pulse of finite amplitude generation, loudspeaker use, new method 2−91116
sound wave-vorticity wave resonant interaction in shear flows 2−70743
spatial acoustic resonances in nonlinearly inhomogeneous media 2−114517
speech, combination tones role in second effect of pitch shift perception 2−102981
superconductor, pure, nonlinear effects on propag. of shortwave transverse sound *(Russian)* 2−56786
thermal hysteresis in acoustic resonators 2−86153
three-frequency parametric interaction in a rectangular piezoelectric resonator 2−114520
turbulence, 1-D, asymptotic props., shock fronts 2−65619
turbulent jets, ultrasonic beam propagation, spatial coherence *(French)* 2−97253
turbulent plane jet, acoustic interaction effects on mean flow 2−109300
unsteady flow interaction with jet pipe, low freq. sound radiation and generation 2−109310
wave excitation by moving, distributed, monochromatic source 2−114513
Al, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
α-Al_2O_3:Ni^{2+}, US self-focusing 2−66134
Bi, nonlinear absorption of shear sound *(Russian)* 2−98203
Cu, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
Ga, nonlinear acoustic wave propag. 2−76602
He, superfluid, acoustic streaming velocity meas. 2−110062
^{4}He, superfluid, first-sound subharmonic generation, bifurcation universality 2−56281
n-InSb, hypersound self-interaction in case of mag. freezeout of carriers 2−103905
Se, amorphous, nonlinear acoustical effects near glass forming temp. 2−66132
Tb, nonlinear acoustic props. meas. near Neel temp. 2−116051

nonlinear differential equations
anharmonic oscillator, undamped, memory function approach 2−79418
annular membrane under axial load 2−91257
beam, planar curved, loaded by co-planar conc. forces, nonlinear elastic analysis 2−60407
Benjamin-Ono eqn., related algebra to N-soliton soln. 2−112714
bi-Hamiltonian structure, recursion formulas for symm. and conserved covariants 2−53483
Boltzmann equation, nonlinear, transition kernels 2−84568
Burgers eqn. as germ for non integrable eqns. with exponential type bisolitons 2−101183
chiral field hierarchy, Lax operator construction 2−59055
complex Lorenz eqns., Hopf bifurcation, limit cycle 2−53485
coupled, second order, predictor-corrector form of Numerov soln. method 2−53555
coupled, second order, predictor-corrector Numerov method program 2−53556
coupled quantum system, separation yielding nonlinear Schrodinger eqn. 2−112723
diffusion eqn., Barrenblatt-Pattle similarity soln., eigenvalues calc. 2−101357
diffusion equation, large time soln. 2−74368
discrete chiral-field hierarchy 2−59002
Ernst eqns., with EM fields, similarity solns. 2−95159
evolution eqns. integrable by Z_2-graded quadratic bundle 2−101179
flow in media with double porosity, comparison theorem calcs. 2−71022
Hamiltonian systems, integrable, canonical coords. 2−74261
isotopic spin chain, nonlinear Schrodinger eqn. linearisation 2−69098
K de V eqn., Lax operators 2−112718
Klein-Gordon equation, ground-state logarithmic perturbation theory appl. 2−64889
Korteweg de Vries eqn. with space dependence, Lie-Backlund transformation and Painleve transcendent calc. 2−101177
Korteweg de Vries system, recurrence, theoretical and expt. study 2−101175
Korteweg-de Vries eqn., cylindrical, scale and Bucklund transformations calc. 2−101178
Korteweg-de Vries eqn., soliton solns., elec. transmission line expt. study 2−74228
Korteweg-de Vries eqn. and cylindrical eqn., reduction to Painleve eqn. 2−74226
lattice solitons, nonlinear LC circuit method, dark solitons, Schrodinger eqn. 2−58721
long wave eqn., inverse scatt. method appl. 2−65601
magnetostatics, anisotropic nonlinear 3D problems, two scalar pot. finite element anal. 2−55009
mass transfer, hyperbolic system of two differential eqns., group props. 2−79499
mechanical system with dry friction, oscillations *(Ukrainian)* 2−55471
multiple-pole solutions of the modified Korteweg-de Vries equation 2−84451
near-integrable systems with damping, adiabatic invariants theory 2−101184
nondispersive evolution eqns. with solitary wave solns. 2−84452
one-dimensional nonlinear evolution eqn., explode-decay mode and soliton soln. 2−95024
oscillator, driven by random, periodic force, spectral anal., linearised theory 2−84469
oscillatory system, uniformly valid asymptotic soln. for $d^2y/dt^2+y=a+\epsilon y^2$ 2−65509
persistent scattering models, nonlinear Boltzmann eqn. 2−84567
plates, clamped skew sandwich, finite deflection analysis 2−114676
rarefied multicomponent ionised gas, collision processes, physico-probabilistic analogue model 2−55705

nonlinear differential equations continued
rod with variable section, elasticity after stability loss, nonlinear differential eqn. *(Ukrainian)* 2−55434
rotation number for almost periodic Schrodinger operator 2−84468
Schrodinger eqn., as Galilean-invariant dynamical system 2−101212
Schrodinger eqn., nonlinear, and anisotropic Heisenberg spin chain, Miura transformation technique 2−61686
Schrodinger eqn., nonlinear classical and quantum lattice models 2−63931
Schrodinger equation, nonlinear, pseudopotentials and Lie symm. 2−63848
Schrodinger equation, nonlinear and potential nonlinear, soliton solns. 2−74231
Schrodinger equation, two-dimens. nonlinear, soliton and ripplon superposition 2−101209
Schrodinger equations, coupled, integrable model of QFT in state space with indefinite matrix 2−69057
Schrodinger-like equations, nonlinear, dissipative, master eqn. derivation 2−79466
screw dislocations, strain due to continuous isotropic dislocation distrib., torsion tensor 2−115244
selfdual Yang-Mills eqns., nonlinear partial differential eqns., Backlund transforms. 2−53938
semiconductor transport equations, linearization methods, decoupled and coupled approaches 2−77035
shell, elastic conical, large axisymmetric deformations *(German)* 2−114665
sine-Gordon soliton kinks, wave mechanics 2−101186
sine-Gordon system, two-dimens., vortex solns., phase transitions and Josephson junction appl. 2−69028
sloping beach, conservation laws for shallow water waves 2−117326
soliton solutions, Backlund transformation vs. the dressing method 2−74230
superposition, rel. to classical linear invariants 2−63800
Van der Pol systems solution, using hodograph transformation 2−89526
Volterra analysis to weakly nonlinear EM field problems, appl. to whistler propag. 2−102685
Volterra equation, extended, soliton solns. 2−74227
vortex filaments, stability, nonlinear Schrodinger eqn. anal. 2−75973
warm plasma stream, nonlinear dispersive waves, modulation 2−65719
wave eqn. invariant in Poincare group, solns. *(Russian)* 2−89549
wave equation 2−79377
wave equations, existence of nontrivial periodic solutions 2−69026

nonlinear equations
see also nonlinear differential equations
arc static voltage gradient as nonlinear one-dimensional Elenbaas-Heller eqn. eigenvalue *(German)* 2−60830
Benjamin-Ono eqn. direct linearisation 2−107108
coupled nonlinear Schrodinger eqns., intgrability 2−53583
coupled quantum system, factorisation, damped nonlinear Schrodinger eqns. 2−53582
diffusion eqns., travelling wave solns. 2−53705
diffusion equations, one-dimens., free boundary-value problem, nonlinear integral eqn. reduction 2−56243
elementary Backlund transformations, nonlinear superposition principle and solutions of the integrable equations 2−53599
fields in plane, infinitude of soliton waves *(French)* 2−69025
four-wave interactions in nonlinear media 2−55727
inverse scattering method for a new integrable nonlinear evolution equation under nonvanishing boundary conditions 2−95139
KdV and nonlinear Schrodinger eqns., exact soliton solns. 2−107119
Korteweg-de Vries nonlinear equations, Galerkin method of approx. soln. 2−107111
Lie symmetries, nonlinear equations of motion and new Ermakov systems 2−107086
nonlinear group representations and applications to nonlinear equations 2−101605
oscillators, chaotic response, review 2−107246
plasma nonlinear wave equation, large-amplitude solutions 2−109487
relativistic string, geometric theory, nonlinear eqn. soln. 2−95589
renormalisation group eqns., Landau and Higgs polynomials extrema and fixed points 2−84582
Schrodinger equation, two-dimensional, nonlinear, multiple explode-decay mode solns. 2−53568
Schrodinger nonlinear equations, Galerkin method of approx. soln. 2−107111
self-diffusion, linearity, computer simulation 2−69113
superposition principles for ordinary differential eqns. 2−53486
thermal conductivity solns., spatial localisation conditions *(Russian)* 2−101370
transformations, iterate sequences, asymptotic props. 2−69001
two-hinged circular arch under external gas pressure, initial postbuckling analysis 2−74217
van der Pol type nonlinear wave eqn., stable self-excitation anal. 2−58656
wave equations, boundary value problems 2−114495

nonlinear field theory
O^4 model, large N limits as classical mechanics 2−79427
$(^{\lambda}/_{N}|\Phi_N|^4)_3$ model, analytic interpolation and Borel summability, finite vol. approx. 2−74586
$\lambda\phi^4$ theory, quartic self-coupling const., curvature effects in closed Einstein Universe 2−89601
$\lambda\phi^4$ theory in curved space, trace anomalies 2−74584
σ model, 1/N expansion, Borel summability 2−107497
σ model, four dimens., static axially symmetric solns. 2−107519
σ model, generalised, classical struct. results 2−54002
σ model, in three space dimens., nontrivial topological charges 2−53912
σ model, linear, Martinelli-Parisi expansion 2−89908
σ model, nonlinear, infinitesimal Backlund transform., generalised symm. 2−79748
σ model as effective Lagrangian 2−95629
σ models, nonlinear, on symm. spaces, large N limit 2−95607
σ models, nonlinear supersymm., quantum nonlocal conserved charges 2−95579
σ models, strong coupling vs. large N 2−53943
σ-model, critical anal. of semiclassical results, instanton contrib. 2−113117
σ-model, two-dimens., correlation functions, computer simulation 2−101337
σ-model construction in two and higher space-dimens., exact soliton solns. 2−74583
nonlinear field theory continued
Φ_d^{2k} critical behaviour from Ising model massive continuum limit 2−53954
ϕ^4 euclidean scalar field theory on four and three dimensional lattice, continuum limit 2−95619
ϕ^4 theory, effective pot. calc. 2−53969
ϕ^4 theory, massive, coupling consts., temp. depend. calc. 2−101554
$(\phi^6)_3$ field theory, fixed point structure at large N 2−53957
ϕ^6 field system, finite temp. behaviour 2−95593
Abelian Higgs model, strong coupling limit, CP^{n-1} model correspondence 2−113125
abnormal nuclear matter and pion condensation in σ-models 2−74739
anisotropic σ-model, multi-instanton solns. 2−53963
Backlund transformation permutability, infinitesimal transformation of sine-Gordon eqn. 2−84784
ball, scalar localised solns., stability 2−79383
bilocal fields, Lorentz invariant, locality 2−69348
Callan-Symanzik γ function in $1/N_f$ expansion 2−79829
charged-soliton excitations in statistical mechanics 2−74618
chiral field hierarchy, Lax operator construction 2−59055
chiral field model solutions, inverse scattering analysis 2−107504
chiral models, implications for gauge theories and large N 2−53992
classical sine-Gordon model, 2-dimens., Kosterlitz-Thouless transition 2−112810
classical SU(2) gauge theory, axially symmetric solns. 2−53956
classical Yang-Mills field under small fluctuations, nonlinear stability study 2−101564
complex sine-Gordon model, N=2 supersymmetric generalisation 2−84797
composite quarks and Cabibbo mixing 2−59128
cosmology, axion models, Z(N) breaking, domain walls role 2−74133
coupling constant depend. in special model with internal symmetry 2−95587
CP_1, model, instanton contribution for spherical and periodic boundary conditions 2−101557
CP_2^{N-1} model with quarks on lattice, lattice fermion, pion mass, PCAC 2−69338
CP^2 models, classical energy spectrum, instantons and excitations 2−113133
CP^{N-1} model, large-N limit, quantum fluctuations round topological singularities 2−69352
CP^{n-1} models, finite action solns. 2−69326
CP^{n-1} theory, in two dimens., dense instanton gas, statistical mech. 2−53990
critical lattice model, correl. functions, renormalisation group study 2−58996
discrete chiral-field hierarchy 2−59002
dual chiral models, SU(2) invariant, in low coupling limit 2−101604
dynamic stochasticity in nonlinear quantum systems 2−101570
dynamical symmetry breaking induced by nonconformal coupling in $R^1 \times S^3$ 2−53939
electrodynamics 2−59000
electron conductivity in random potential, supersymmetry in localisation theory *(Russian)* 2−58758
equivalence transformations for systems of equations of scalar and spinor fields 2−95653
evolution equations, group representations 2−69323
extended supersymm., with central charges, nonlinear realisations 2−69365
extreme Reissner-Nordstrom black holes, spin-3/2 perturbations anal. using O(2) supergravity theory 2−100972
fermionic Lagrangians, composite bilocal boson variable formulation 2−74611
field sector decomposition 2−101576
fields in plane, infinitude of soliton waves *(French)* 2−69025
$g\phi^4$ theory, Green function in instanton field 2−107549
gauge theories renormalisation in nonlinear gauges 2−59042
generalised Villain models, Migdal recursion relations 2−107543
generalized effective potential in nonlinear theories of fourth order 2−101568
Gross-Neveu model, chiral-invariant, Bethe ansatz eqns. anal. 2−101515
Gross-Neveu model, dynamical mass generation, S-matrix extraction 2−113146
Gross-Neveu model, scale-dependent phase structure analysis 2−112748
Harrison-Neugebauer-type transformations for instantons, multicharged monopoles as limits 2−95623
heavy quarks, instanton contrib. to pot. 2−84867
Higgs model with external sources, bifurcations and catastrophes 2−101569
homology theory of lattice fermion doubling 2−113099
instanton gas parameters in the double well model 2−101573
instanton paramagnetic medium at finite temperature 2−53999
instanton-induced baryon and lepton number violating processes in SU(2)×U(1) electroweak theory 2−54027
instantons, 1/N expansion, inverse scatt. method 2−84793
instantons and solitons in field theory, book 2−94936
integrable field theories, conf., Tvarminne, Finland (Mar., 1981) 2−84388
integrable model of QFT in state space with indefinite matrix 2−69057
interaction of point sources with a Higgs field in one-dimensional space 2−89917
Klein-Gordon equation, high-energy asymptotic expansion and Regge trajectories for even power pot. 2−95599
Korteweg-de Vries eqn., Lie-Backlund symm., rel. to sine-Gordon eqn. 2−53936
Kortweg-de Vries eqn., infinite charge set, conservation 2−53534
lattice boson field theory, soliton doubling 2−79769
lattice field theory, equilibrium approach 2−95268
lattice theories of fermions, criterion for chiral symmetry 2−84806
Lie algebras in particle physics, book 2−79298
Lorentz-symmetric solns. of nonlinear eqns. 2−95585
massive fermion field, chirally symmetric Dirac eqn. 2−113175
massive particle states, localisation props. 2−64212
massive sine-Gordon eqn. in first few regions of collapse 2−53925
massive Thirring model, multi-extended objects excitation 2−84807
massive Thirring model thermodynamics for weak sine-Gordon coupling regime 2−74373
massive three-dimensional O(N) theories, explicit expression for effective pot. 2−84809
massless scalar fields with trivial S-matrix 2−113097
minimal surface theory, exactly solvable nonlinear eqns. 2−74588
multidimensional bound solitons in nonlinear field equations 2−95030

nonlinear field theory continued
Newton's constant quantisation in supergravity theories 2−107225
non-abelian gauge symmetry, two-dimensional model 2−84788
non-Fock linear boson systems and their applications in two-dimensional models 2−95649
nonlinear σ-model, conserved currents 2−95595
nonlinear fermion field model, phase transitions 2−69329
nonlocal conserved currents in supersymmetric generalized nonlinear sigma models 2−89913
nonlocal gauge theories 2−101543
nuclear matter, pionic field, soliton-like states *(Russian)* 2−101831
O(3) σ-model in two dimensions, two-point function 2−79766
O(N) σ model, dynamical supersymmetry breaking 2−95618
O(N) Heisenberg spin operator, collective field in Hamiltonian and Lagrangian approach 2−74617
O(N) lattice models, N=2-4, two dimens., Monte Carlo calcs. 2−53997
O(N) model, 1/N expansion, spontaneous symmetry breaking 2−64231
O(N) nonlinear σ-model, lattice action near continuum limit 2−101551
one-loop instanton determinants calc. using particle propagators 2−101513
periodic sine-Gordon eqn., spectral theory 2−95600
perturbative solution non-existence 2−101533
Pohlmeyer transformation for nonlinear systems with exponential interactions 2−59024
pseudocoherent state approx. 2−84787
pseudoscalar mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
QCD, hadron masses, instantons role 2−107615
QCD, nonlinear effects, self-consistent treatment 2−107618
QCD, one-instanton contribution, IR behaviour 2−79825
QCD, quark-gluon plasma, instantons role 2−107616
QCD physical vacuum, instanton liquid role 2−107506
quantization of bag-like solitons 2−107612
quantum gravity in 1+1 dimensions with zero cosmological constant, exact soln. 2−79457
quantum mechanics and nonlinear waves, book 2−58555
quantum radiation of scalar particles by moving mirror 2−84804
quantum solitons, fermion zero modes, supersymm., fractional charges 2−53970
quantum solitons fractional charges and supersymmetry generators 2−95614
quenched Eguchi-Kawai model, Monte Carlo 2−107534
recent progress, conf. Bad Honnef, Germany (Sept. 1980) 2−53432
relativistic string, geometric theory, nonlinear eqn. soln. 2−95589
relativistic theory, internal symmetries from field theories in higher dimensions 2−95701
renormalisation group eqns. and renormalisation scheme specification 2−107537
scalar soliton, charge-conserving perturbations, stability 2−95027
Schrodinger eqn., as Galilean-invariant dynamical system 2−101212
Schrodinger equation, relativistic generalisation 2−101531
self-dual gauge fields, Atiyah-Drinfeld-Hitchin-Manin construction 2−113096
self-dual SU(2) gauge fields on Euclidean space, soliton solns. 2−95597
sine-Gordon, integrable Lorentz invariant model 2−89912
sine-Gordon eqn., four-vector generalisation 2−53931
sine-Gordon equation, complex generalisation, separable solns. 2−69330
sine-Gordon equation, infinite charge set, conservation 2−53534
sine-Gordon equation, Lie-Backlund symm., rel. to Kortweg-de Vries eqn. 2−53936
sine-Gordon model, Bose condensation, solitons, canonical transforms. 2−69325
sine-Gordon model, two dimens., discrete translational invariance and mass renormalisation 2−113095
sine-Gordon theory, effective pot. at finite temp. 2−69331
snoidal kinks in ϕ^4 field system, statistical mechanics, renormalisation effects 2−101566
SO(3) lattice gauge theory, defect melting 2−95617
SO(3) lattice gauge theory, monopoles, vortices, confinement 2−89896
soliton bag model study 2−69417
soliton quantum numbers in fermion-soliton system 2−107542
soliton stability to nonlinear field eqns. in spinor model 2−101537
soliton supermultiplet in 4+1 dimensions 2−53942
solitons, field model with unit topological charge 2−95592
solitons with half integral charge 2−113136
spinor field representation of Stiefel-Whitney class 2−101547
static axially symmetric self-dual gauge field eqns., soln. generation techniques 2−84795
static axially symmetric self-dual gauge field eqns. for arbitrary group, complete integrability 2−53945
static axially symmetric self-dual gauge fields, algebraic construction 2−84796
statistical mechanics of quarks and hadrons, conf., Rielefeld, Germany (Aug. 1980) 2−53423
strongly coupled lattice QCD, baryons in effective lagrangian, SU(3) pot. 2−101644
SU(2)×U(1) Weinberg-Salam model, strongly interacting Higgs sector effects 2−64246
SU(2)-invariant lattice theories, local and global invariance, algebraic struct. 2−69327
SU(N) gauge theory, Wilson line 2−84866
SU(N) Gross-Neveu model, West's proof of confinement 2−84852
SU(N) invariant chiral model, instanton type soln. 2−95693
super chiral fields, hidden symm., Noether currents and algebraic struct. 2−53972
supersymmetric Liouville action renormalisation and 3D Ising model critical exponent 2−79762
supersymmetric theories, renormalisation procedure for effective pot. evaluation 2−101545
symplectic quantisation, anal. in partial differential series 2−69322
Synge model, with EM field, soliton stability 2−69074
temporal gauge formalism, local and global gauge symm., nonlocal operator 2−107486
Thirring model, stability props. of meron-type solns. 2−101552
three-dimensional O(N) theories, vacuum stability 2−84840
transient phenomenon in a $^1/_2\gamma\phi^2-^1/_6g\phi^6$ model 2−95605
two dimensional gases of weight charges and SU(N) fermion theories 2−89884
two-dimensional Lagrangian model with extended supersymmetry 2−74585
nonlinear field theory continued
two-dimensional models, quantum inverse scattering method *(Russian)* 2−74587
U(1) problem, role of instantons 2−84781
U(N) planar field theories 2−79768
unrenormalised Schwinger-Dyson eqns. and dynamical mass generation 2−74591
vacuum medium props. in non-Abelian gauge theory 2−95730
vacuum periodicity in instanton angle, chiral perturbation theory and fractional topological charge 2−101645
vector mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
virial constraints and stable solitons 2−53543
weak, strong and EM interactions, unified model 2−79805
Yang-Mills plane wave vs. plane symmetry 2−74602
zitterbewegung and the Klein paradox for spin-zero particles 2−84417
Su(n) Yang-Mills theory, four-dimens., dense instanton gas, statistical mech. 2−53990

nonlinear network analysis
percolation theory of nonlinear circuit elements 2−107267

nonlinear optical susceptibility
absorbing media, phase conjugation by degenerate four-wave mixing 2−108970
alkali halide crystals and aqueous solns., four-wave mixing 2−102865
atomic lines, degenerate backward four-wave mixing, polarisation and ang.-momentum dependences 2−75634
condensed media, freq. dispersion of nonlinear susceptibilities near single-, multi-quantum resons. 2−114362
crystals, nonlinear phenomena, luminescence, optical susceptibility and radiation quenching 2−86037
degenerate two-wave mixing in the collinear geometry 2−108935
ferroelectrics, vibronic, nonlinear optical props. *(Russian)* 2−81017
four-wave mixing and two-dimensional phase conjugation of surface plasmons 2−86056
glasses, third-order optical susceptibility determ. by third harmonic generation 2−108947
liquid crystals, second-harmonic lasing in orientationally ordered solutions of noncentrosymmetrical molecules 2−108950
multiphoton ionisation spectra, autoionisation resonance narrowing 2−85600
narrow gap semiconductors, nonlinear optics, optical bistability, optical transistor 2−90974
optically induced dipoles, effect on nonlinear refr. index in crysts. 2−116144
quinoid systems, second-order nonlinear optical susceptibilities, expt. and theoretical study 2−55242
refractive index measurement, need to allow for slow nonlinearity 2−97085
resonant backward 4-wave mixing, saturated susceptibilities 2−108979
resonant nonlinear optical mixing using phase conjugate config., spectrosc. obs. 2−90989
third order, meas. technique using surface plasmons 2−114353
urea single crystals for nonlinear freq. conversion of Nd laser radiation, noncollinear interactions 2−114377
CuCl, self-induced polarisation rotation effect of elliptically polarised beam 2−108936
Cu_2O, third order optical nonlinearity near exciton lines *(Chinese)* 2−99083
GaAs, third order nonlinear optical susceptibility, meas. using surface plasmons 2−114353
GaAs, third order optical nonlinearity near exciton lines *(Chinese)* 2−99083
H vapour, large DC-electric-field-induced nonlinear optical susceptibility 2−102848
(Hg,Cd)Te, optical phase conjugation by degenerate and spin-resonant four-wave mixing 2−102879
HgCdTe, CW degenerate four-wave mixing, large optical nonlinearities 2−108938
$Hg_{1-x}Cd_xTe$, third-order optical susceptibility, four-wave mixing study 2−114354
n-InAs, effective g-value determ. by four-wave mixing spectroscopy 2−55260
n-InSb, free-carrier-induced optical nonlinearities, difference-freq. variation 2−65291
$LiIO_3$ crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
Na vapour, efficient tunable optical freq. tripler at autoionisation-like resonance 2−81025
PbTe epitaxial layer, optical four-wave mixing 2−93315
SF_6, self-focusing 2−102885
SF_6, self-focusing and self-defocusing of intense reson. IR radiation 2−65316
Si, third order nonlinear optical susceptibility, meas. using surface plasmons 2−114353
TiO_2, rutile, third-order nonlinear susceptibility tensor component and dispersion determ. by coherent Raman ellipsometry 2−104876

nonlinear optics
see also nonlinear optical susceptibility; optical bistability; optical coherent transients; optical frequency conversion; optical parametric devices; optical phase conjugation; optical saturation; optical self-focusing; quantum optics; self-induced transparency; stimulated scattering; thermal blooming
atomic absorbers, many-level, optical pulses propag., exact solitary-wave soln. 2−108430
atomic and mol. nonlinear radiative processes, UV inert-gas halogen laser study 2−65002
atoms and ions undergoing Brownian motion, nonlinear light absorption calc. *(Russian)* 2−70197
borate glass, dye mol. spectral probe, using photochemical hole burning 2−108974
Cartesian tensors, fourth-rank, irreducible representation 2−69100
chlorin photoisomer, in n-hexane, S_1←S_0 transition, Zeeman effect, photochem. hole-burning obs. 2−80697
coherent and nonlinear optics, conf., Kiev, USSR (Oct. 1980) 2−106996
coherent state propagator, path-integral approach to quantum optics 2−90854
collisional effects in resonance fluorescence 2−59742
collisionally induced coherent signals and collisional redistribution 2−97100
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268

nonlinear optics continued
correlation method using multiphoton ionisation for UV ultrashort pulse meas. 2−81015
cubic medium, four-photon interaction between concurrent waves, spatial reson. 2−97084
cubic nonlinearity medium, efficiency in four-wave interaction, hologram recording 2−86054
CW light propagating through strong absorbing medium, self-focusing and spatial ringing 2−65318
degenerate interaction between waves (oscillations) in systems containing a nonlinearity of the piecewise-broken type 2−114373
degenerate two-wave mixing in the collinear geometry 2−108935
digitiser, picosecond digitiser, based on nonlinear integrated optics 2−81123
direct-gap crystals, three-photon absorpt. 2−97079
direct-gap crystals, three-photon absorption coeffs. 2−65295
direct-gap crystals, two-photon absorption coeffs. from Basov formula 2−65294
directional coupler, tunable 2−91041
DNA, light-induced diffusion, theory and automated expt. *(Russian)* 2−88587
dressed atoms, nonlinear optical reson. induced by collisions 2−60151
dye solutions, nonlinear effects 2−70604
dyes, self-diffr. of light by means of induced dichroism lattices 2−108942
dynamic induced Rayleigh effect, pattern drift influence *(French)* 2−97076
elliptically polarized normal waves in nonlinear optics 2−114356
emulsions, panchromatic and IR, short-pulse 1064 nm exposure fluences, photographic image prod. by nonlinear light absorpt. 2−111504
excitonic molecules, non-linear optical response and optical bistability, polariton dispersion, dielec. function calc. 2−55246
femtosecond interferometry for nonlinear optics 2−81014
femtosecond pulse compression, self-phase modulation in optical fibre 2−81034
fibre bit rate optimisation using optical solitons 2−55348
fibre Sagnac gyroscope, intensity-induced nonreciprocity obs. 2−109063
Gaussian beam reflection at a nonlinear interface 2−86036
glass fibres, optical soliton amplification and reshaping 2−91067
half-space, filled with nonlinear medium, one-dimens. problem of wave self-action, reflectance *(Russian)* 2−55250
high bit rate communication systems using non-linear effects 2−102951
holographic interferometry, real-time, double-exposure, in four-wave mixing with photorefr. $Bi_{12}GeO_{20}$ crysts. 2−114214
III-V semiconductors, third order susceptibility in true continuum near band edge 2−102852
impurity cubic crystal, self-induced optical anisotropy 2−108980
inhomogeneous media with inversion centres, second harmonic generation *(Russian)* 2−55262
instabilities, self-oscillation, and chaos in a simple nonlinear optical interaction 2−81018
integrated and guided-wave optics, conf., Pacific Grove, CA, USA (Jan. 1982) 2−58550
interface between linear and Kerr effect media, optical props. 2−97096
introduction to nonlinear optical phenomena and fluctuations 2−97101
introduction to nonlinear optics, theory and practical appls. 2−97102
IR high power picosecond radiation generation, by ultrafast optical switching 2−86063
lamellar media, nonlinear processes at large conversion coeffs. 2−108944
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
laser pulse space-time structure deform. as result of two-photon absorpt. 2−114347
laser spectroscopy, conf., Jasper, Alberta, Canada (1981) 2−63748
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
laser-switched collision processes, diagrammatical anal. 2−55098
light pulse evolution, effects of propag., transverse mode coupling and diffr. 2−97098
light pulses, ultrashort, generation by electronic self-phase modulation 2−97122
long optical fibres, nonlinear asymm. pulse distortion 2−97214
MBBA, photostimulated molecule transform., giant optical nonlinearity *(Russian)* 2−86043
methanol, aggregates in cryogenic matrices, IR hole burning 2−80860
methyl nitrite aggregates in cryogenic matrices, IR hole burning 2−80860
methyl-2,4-dinitrophenyl-aminopropanoate, mol. crystal, and nonlinear optical props. 2−65302
2-methyl-4-nitroaniline, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, and nonlinear optical props. 2−65302
microtheory of nonlinear polarisabilities of crystals, effects of space dispersion 2−108943
mixed mol. crysts., stimulated emission, nonlinear coherent interaction effects and relax. 2−75547
molecular crystals, nonlinear optical effects and dielec. props. 2−55248
moving turbulent atmosphere with scatt. thermal nonlinearity, optical beam instability 2−55076
multiphoton ionization autocorrelation, appln. to UV laser pulse width meas. 2−60137
nematic liquid crystal, giant optical nonlinearity near nonoptical Frederiks transition threshold 2−91003
nematic liquid crystals with high nonlinearity, strong optical diffr. 2−60185
non-Markovian theory of nonlinear optical phenomena 2−55249
nonlinear cryst. refractive index, temp. depend. 2−61856
organic crystals and polymers, new class of nonlinear optical material 2−81039
pentacene-benzoic acid mixed crystal, antihole prod., hole burning, fluoresc. study 2−108973
photon 2−75549
photon antibunching in nonlinear optical processes *(Czech)* 2−60149
picosecond pulse time struct. conversion into spatial pattern, sum freq. photography 2−114364
polarisation intermodulated excitation (POLINEX) spectroscopy of excited atoms 2−59729
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2−67755
porphin in n-decane host, optical dephasing of S_1-S_0 transition studied by photochemical hole-burning 2−72531
powerful wave beam propag. in Kerr type nonlinear medium, numerical analysis 2−114389
Raman amplifiers, intensity averaging and four-wave mixing 2−55255
reflection and refraction, plane wave by nonlinear interface, theory 2−97095
resonant degenerate four wave mixing, nonlinear optical coherences theory 2−108946
ring fibre interferometer, nonlinear phase nonreciprocity 2−112969
self-diffraction of coherent light due to vibronic transition of mols. *(Russian)* 2−60186
self-interaction process investigation from scatt. field statistical charact 2−114390
semiconductor, nonlinear collisionless absorpt. of ultrashort light pulses 2−75625
semiconductors, coherent light propag. theory 2−97099
semiconductors, coherent light propag. theory 2−98546
semiconductors, light induced transient grating decay obs. 2−57043
semiconductors, photoacoustic meas. of nonlinear absorpt. 2−58920
semiconductors lasers, longitudinal mode self-stabilisation 2−96950
short optical pulse meas. *(Italian)* 2−86024
spatial spectrum of optical radiation transformation in parametric processes 2−90985
spectroscopy, steady-state, third-order, in inhomogeneous media 2−60167
spectroscopy techniques, review 2−97083
stimulated Raman scattering and four-wave mixing, steady-state plane-wave analytic solns. 2−108957
stimulated scatt. by relativistic electron beam, Coulomb interaction effects *(Chinese)* 2−102864
subradiative absorption structure in interaction of two intense waves in nonlinear medium *(Russian)* 2−55251
summer school in quantum optics, Natal Drakensberg, South Africa (Jan. 1981) 2−94881
surface-enhanced nonlinear optical effects and detection of absorbed molecular monolayers 2−65308
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
thermal self-action, fast Fourier transformation 2−60184
three-level atom, resonance fluoresc. spectrum numerical results 2−85587
three-level quantum systems, nonlinear const. of motion 2−70533
three-level systems, resonant four-wave mixing, intensity effects 2−75626
three-wave interaction based phase-matched devices 2−60157
two-photon absorption, effect of spatial and temporal struct. of emission 2−108937
unifying degenerate four-wave mixing and coherent anti-Stokes Raman scattering in rare media 2−65297
urea, mol. crystal, and nonlinear optical props. 2−65302
Volterra-series computation of nonlinear polarisation 2−108945
waveguides, nonlinear beam propagation theory 2−65296
$Al_xGa_{1-x}As$ laser, longitudinal mode self-stabilisation 2−96950
$Bi_{12}GeO_{20}$ photorefractive crystals, four-wave mixing expt., interference between signal and its conjugate 2−90972
$Bi_{12}SiO_{20}$ photorefractive crystals, collinear Bragg diffr. 2−97080
$^{12}C^{17}O$ in solid N_2, IR transient antihole burning, spectral transfer 2−108978
CS_2, liq., nonlinear refractive index, femtosecond interferometry study 2−81014
$CdGaS_2$, nonlinear cryst. refractive index, temp. depend. 2−61856
CdP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
CdS, CdSe, modulation of refr. index during excitation on absorpt. edge 2−116142
CdS, three-photon absorpt. coeffs. 2−65295
CdTe, two-photon absorption coeffs., band structure calcs. 2−65293
$CuGaS_2$ nonlinear cryst. refractive index, temp. depend. 2−61856
GaAs, two-photon absorption coeffs., band structure calcs. 2−65293
p-Ge, energy relax. mechanisms under nonlinear absorpt. of light 2−114357
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
InP, two-photon absorption coeffs., band structure calcs. 2−65293
n-InSb, highly nonlinear interactions with picosecond CO_2 laser, electron-hole plasma generation 2−55244
InSb, nonlinear refractive index calcs. *(Chinese)* 2−104832
KCl, self-induced optical anisotropy, reorienting F_A(Li)-centres 2−108980
KH_2PO_4, KD_2PO_4, for nonlinear devices, temp. dispersion data 2−60148
$LiNbO_3$:Ti waveguide, double degenerate four-wave mixing, TE to TM coupling 2−55332
$NH_4H_2PO_4$, for nonlinear devices, temp. dispersion data 2−60148
Na vapour, freq.-angular diffusion of monochromatic radiation 2−108983
Na+He, collision-induced coherence in four wave light mixing 2−59902
Nd:glass disk amplifier optical distortion of light beams in periodic operation 2−108885
PbO-SiO_2 glasses, nonlinear colouring and destruction under multiphoton absorpt. conditions 2−108933
Si, free-carrier gratings, diffr. efficiency and decay times meas. 2−86087
Si, modulation of refr. index during excitation on absorpt. edge 2−116142
$ZnGeP_2$, nonlinear cryst. refractive index, temp. depend. 2−61856
ZnP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
ZnSe, two-photon absorption coeffs., band structure calcs. 2−65293
ZnSe, wide band semiconductor, two-photon and two-step transitions 2−108934

nonlinear programming
see also quadratic programming
liquid fuel alternatives, nonlinear programming model 2−62454
restricted chemical equilibrium computation 2−99698

nonlinear symmetries
No entries

nonlinear systems
Van der Pol systems solution, using hodograph transformation 2−89526

nonparametric statistics
complex-signal coherent detection, nonparametric tests 2−60309

nonradiative transitions
anthraquinone derivatives, radiationless deactivation and picosec. fluoresc. lifetimes 2−114028
aromatic hydrocarbons, triplet states O_2 quenching, intersystem crossing enhancement 2−96624
benzene, nonradiative transition rates, out-of-plane modes effects 2−80699
biphenyl-tetracyanobenzene complex, triplet excitons, intersystem crossing and spin state superposition 2−80701
competing interaction models 2−110916

nonradiative transitions continued
cyclic alkanes, S_1 state deactivation, fluoresc. lifetime meas. 2−85722
4-4′ dichlorobenzophenone, cryst. heating and triplet exciton non-radiative relax. 2−87852
3,3'-diethyloxadicarbocyanine iodide, photochemical isomerisations, solvent effects 2−57599
diphenyl butadiene, photochemical isomerisation in soln., radiative and nonradiative decay rates 2−73002
disordered system, electronic excited state transport, and trapping 2−57146
DNA, H bond lifetime, nonradiative transition prob. study *(Russian)* 2−62552
donor luminescence in case of negligible correls. with impurity centre surroundings 2−67117
energy transfer in excitation trapping conditions 2−116241
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
haloaromatics, intersystems crossing and predissoc. 2−102553
heterogeneous level broadening with energy transfer, mol. struct. effects 2−54899
III-V semiconductor lasers, rapid and gradual degradation, dangling bonds and antisite defects role, theory 2−114270
III-V semiconductors, role of deep states and defect reaction *(Japanese)* 2−92524
initiation by electronic rearrangement, rate investig. 2−114038
intramolecular heteroexcimers, ultrafast intersystem crossing, photolysis obs. 2−65041
ion impact on surfaces, excited state formation, review 2−67177
lanthanide complexes, f-f radiationless transitions 2−90612
laser field effect on radiationless transitions, theory 2−90597
luminescence quenching of F centers due to nonradiative de-excitation during lattice relaxation 2−104951
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
molecular gas, parametric γ-quanta conversion 2−90618
molecules in polar medium, intramolecular mode effect on non-radiative transitions 2−54891
multiphonon capture of free carriers, adiabatic wave functions, perturbational treatment 2−57170
multiphonon recombination theory, adiabatic approx. applicability 2−61094
multiphonon transition rates, static and adiabatic coupling schemes 2−72539
multiphonon transitions, non-Condon approx. and static approach 2−57169
perturbations studied using time resolved techniques 2−65044
phosphate glass:Nd^{3+}, radiative and nonradiative props. 2−61951
photoacoustic determ. of nonradiative decay rates in ion doped solids, theory 2−103903
pinacyanol iodide, internal-conversion, fluoresc. lifetime temp. depend. meas. 2−108601
positive ions, form. by multiphoton process, nonreactive intramol. relax., radiationless transitions 2−54888
propynal, nonradiative relax., fluoresc. and phosphoresc. 2−104933
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2−59842
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2−108606
rare earth doped oxide, chalcogenide and fluoride glasses as potential laser materials 2−90903
rare-earth ion activator centers in garnet struct. laser cryst., spectroscopic anal. 2−110893
rhodamine 6G-cresyl violet mixed solns., electronic excitation transfer and lasing with spectral broadening 2−70561
ruby, nonequilib. phonon effects on luminescence 2−82886
semiconductor, luminescence quenching by non-radiative tunnelling 2−99179
semiconductor, two bands model for nonradiative multiphonon recomb. at deep level defects 2−116233
semiconductors, Auger recombination, minority carrier lifetime, impurity and phonon scatt. effects 2−87299
semiconductors, nonradiative processes, photoacoustic meas., review *(Japanese)* 2−92116
semiconductors, nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
semiconductors, quantum processes, book 2−68982
silicate glass:Nd^{3+}, radiative and nonradiative props. 2−61951
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
two-level system, nonradiative multiphonon transitions, static versus adiabatic coupling scheme 2−98228
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
Ag^+ bis(2,2′-bipyridine)-bis-cyanoruthenium(II) complex form., redox and photochem. behaviour 2−83392
As_2Se_3:Ni glass films, photoluminesc. meas. 2−116259
$BaGeO_3$-Al_2O_3-CaF_2-MgF_2:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
$Bi_{1-x}La_xWO_6$:Pr(Sm)(Eu)(Tb)(Dy)(Er), luminesc. props. 2−82900
CdSe, ion implantation postrange defects, cathodoluminescence study 2−99196
CrO_2Cl_2-He(x), mode selective nonradiative process, vibr. predissoc., fluoresc. 2−80709
Cu, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
Er^{3+} impurity ions in fluoride host lattices, optical props. 2−93276
Er^{3+}, single-phonon nonradiative transition regularities 2−114035
FI isoelectronic sequence, $2s^m2p^n$-$2s^{m-1}2p^{n+1}$ intersystem transitions 2−80530
GaAs electron capture by multiphonon emission at A and B levels 2−61947
GaAs, gamma-irradiated, near-intrinsic emission intensity, nontrivial annealing induced increase 2−93260
GaAs-AlAs p-n structs., electroluminescence, nonradiative recombination current meas. 2−82450
$Ga_{1-x}In_xAs_{1-y}P_y$ LED, spontaneous emission efficiency and nonradiative recombination meas. at 1.58 μm 2−116220
$Ge_{0.15}Se_{0.85}$:In(Cu)(Fe) glasses, photoluminesc. and excitation spectra 2−93263
H_2^+ + metal atoms, electron capture transitions 2−102603
p-$Hg_{1-x}Cd_xTe$, nonradiative recomb. at deep impurity levels 2−92527
$In_{0.53}Ga_{0.47}As$-InP undoped VPE layers, photoluminesc. meas. 2−99167
KCl, F-centre excitation, reson. Raman scatt. study 2−116232
nonradiative transitions continued
KI, H-centre creation, exciton non-radiative decay *(Russian)* 2−103755
KI:Tl, decay and polarisation of luminesc. pulses in 336 nm emission band 2−77560
Kr, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
Li-like ions, $1s2p^2$ configuration, multiplet splitting and radiationless transition, relativity effects 2−108419
Li_2, laser excitation, collision induced transitions 2−90611
LiF TLD-100 phosphor, sensitisation and supralinearity, Z-centres and nonluminescent centres role, expt. study 2−99197
$Lu_3Al_5O_{12}$:R^{3+} garnet, multiphonon nonradiative transition probability 2−110936
MgI, laser-excitation technique for the measurement of absolute transition probabilities of weak atomic lines 2−70191
MgO:Cr^{3+}, nonradiative transitions and energy levels 2−72548
N heterocyclic radicals, CIDEP, polarisation theory test 2−75328
N_2+Ne(O_2)(N_2)(NO)(CO_2), vibr. quenching, SIFT investig. 2−90676
Na_2O-CaO-SiO_2 glass:Cu,Cr,Er, energy transfer from Cu and Cr to Er 2−99176
Ni^{2+} impurity ions in fluoride host lattices, optical props. 2−93276
O_2, mol., soln., lowest excited singlet state decay and reactions 2−74167
OI, isoelectronic sequence, $2s^m2p^n$-$2s^{m-1}2p^{n+1}$ intersystem transitions 2−80530
$O_2(phen_3)^{2+}$, nonradiative decay rate consts. and emission energies, energy gap 2−114024
PbF_2-GaF_3-ZnF_2(MnF_2):Er^{3+}, fluoride glasses, optical transition probabilities, Judd-Ofelt method 2−61960
Ru(II) complex, tris(2,2′-bipyridine)Ru(II), electron transfer quenching, radical yield 2−80794
Si wafers, thermally-induced defects characterisation by room-temp. photoluminesc. 2−87837
Si:H, amorphous, spin-depend. recombination at dangling bonds 2−77424
Si:O,H,F, amorphous, photoluminescence, localised states, temp. depend. 2−87854
$Sm_2(Pt(CN)_4)_3.18H_2O$, radiationless energy transfer, donor and acceptor state selectivity 2−59849
Xe, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
YAG:R^{3+} garnets, multiphonon nonradiative transition probability 2−110936
ZnSe:Cu,Cl phosphor, activated, recombination centres, photoluminesc. study 2−87850
ZnTe, bound exciton time decay, radiative and nonradiative transition rate study 2−76932

normalising
steel, alloy, roll, heat treatment influence on struct. and props. 2−67393
steel, cast components, fatigue strength increase by residual stresses development 2−116551
steel, Cr-Mo ($2^1/_4$, 1, at.%), heat treatment for breeder reactor boilers 2−54500
steel, low alloy, mech. props., struct. and failure, influence of controlled rolling 2−72831
steel, low-alloy, with different Ti concs., phase comp., microstruct., and mech. props. 2−72827
steel, Mn-Ni, low-C, cast, replacing Ni with Mn for low temp. operation 2−72731
steel, Ni, Mn and Ni-Mn based, maraging, economically alloyed, heat treatment influence on struct. and props. 2−67394
steel, Ni-Mn-Mo, high-strength cast maraging, ageing influence on mech. props. 2−67397
C steel, US attenuation, rel. to thermal treatment 2−72896

notch brittleness
No entries

notch ductility
metal, strain hardening, Orowan mechanism below the root of yielding crack-like notch 2−111267
steel, ferritic stainless, fracture toughness rel. to first wall and blanket appl. in fusion reactor 2−72804

notch sensitivity *see notch strength*

notch strength
see also fracture toughness
bimaterial body, notched, out of plane shear 2−91243
chevron notch three point bend fracture toughness specimen 2−91351
crack-tip fracture stress under general yielding of ligament *(Chinese)* 2−62189
dynamic crack propag. simulation in SEN specimen by SMF2D code 2−91320
graphite fibre reinforced epoxy, centre-notched angle ply composites, tensile fracture 2−57450
graphite fibre reinforced epoxy laminates, notched, compression fatigue 2−116532
high strength, precipitation kinetics during discontinuous cooling *(French)* 2−99467
J integral for various geometries 2−67488
metals, Orowan mechanism for abrupt localized flow and fracture initiation ahead of yielding notch 2−111266
Metglas ribbon reinforced epoxy, impact resist. 2−111270
notch stress anal. and crack fracture mechanics relationships 2−109251
PMMA, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
PMMA cracks, stress intensity factor meas. using method of caustics *(Japanese)* 2−88180
polycarbonate, notched, fracture difference between atmospheric and hydrostatic press. 2−57448
polycarbonate, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
polycarbonate-copolyester miscible blends, mech. props. 2−72775
PVC, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
sheet metal, notched tensile elongation and anisotropic ductility 2−62175
short rod chevron notch specimen for fracture toughness testing of brittle materials, compliance calibration 2−67679
steel, alloy, types HY-130, HY-80 and A517-F, fracture toughness data, correlation of standard and precracked Charpy specimens 2−77925
steel, austenitic, high Mn content plate for fusion reactor construction 2−69835
steel, austenitic stainless, subcrit. crack growth, effect of severity of notch-root radius 2−83206

notch strength continued
steel, low alloy, grain boundary segregation and embrittling effect of P 2−62187
steel, low-pearlite with Nb and V, strengthening phase precip. during hot deform. 2−62133
stress distrib., elasto-plastic finite element anal., geometry effects 2−109240
thermoplastics, relationship between Charpy and dart drop impact *(Japanese)* 2−88181
Al alloy 2024-T3, dimpled loaded hole fatigue strength, mean stress effects 2−67513
Al alloy 2024-T351, notched thin plates, cyclic-inelastic deform. and fatigue resistance 2−116525
Al, notched specimen fatigue damage, isolation of time-depend. strain component 2−67476
Al-Si-Mg, fatigue strength, notch sensitivity obs. 2−116534
Al_2O_3, grain size depend. of fracture energy 2−57457
Cu, wrought, engng. fatigue props. review 2−88161
Fe alloys, grain boundary segregation and embrittling effect of P 2−62187
Fe, cast fatigue strength, notch sensitivity obs. 2−116534
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ti-Al-V (6,4 wt.%), compact specimen, initial notch shape effect on fatigue pre-cracking and fracture toughness testing 2−78028

notch testing
see also fracture toughness testing
aggregate materials, notch sensitivity in fracture testing 2−99611
compact specimen, initial notch shape effect on fatigue pre-cracking and fracture toughness testing 2−78028
impact testing, accelerated blow effect on loading *(German)* 2−72917
metals, critical crack opening, method for determ. in creep 2−116640
sheet materials, method of estimating work of crack propag. 2−116643
short-rod chevron notch specimen compliance calibration for fracture toughness testing of brittle materials 2−93718
steel, 40 Kh, fracture structure and energy content in bending, notch direction effect 2−67546
steel, critical crack opening measurement, fulcrum position determ. 2−116641
steel, ductile crack initiation and notched bend specimens 2−111314
unidirectional fibre reinforced composites, fully and partially loaded, rate sensitive tensile impact props., test system 2−67684
Al_2O_3, notched bend specimens, memory effect of crack resist. during slow crack growth 2−105284
β-Al_2O_3-Na_2O, hot-pressed polycryst., fracture energy at high temp. 2−93630
SiC ceramic heat exchanger tubes, assessment of US method of NDT 2−93729

nova-like variable stars *see cataclysmic binary stars*

novae
see also supernovae
accretion rates onto C/O white dwarf, leading to novae 2−89268
R Aquarii and jet, supercritical accretion and nova outburst 2−100956
Aquilae 1918, shell search, UV spectral obs. 2−68797
Aquilae 1918 (V603 Aquilae), circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
Aquilae 1982, 10 μm emission feature discovery and 2.3 to 20.0 m photometry 2−94750
Aquilae 1982, 10 μm silicate emission feature obs. and photographic magnitudes 2−112461
Aquilae 1982, IR spectral features and visual mag. estimates 2−100950
Aquilae 1982, optical and IR magnitudes (1982 April 14) 2−68790
Aquilae 1982, visual magnitude estimates, (1982 April 8 to May 7) 2−84249
Coronae Austrinae 1981, re-discussion of distance 2−79117
Coronae Austrinae 1981, spectrophotometry (9-10 April 1981) 2−79108
Delphini 1967 (HR Delphini), UV spectral obs. 2−79110
envelopes, supercritical accretion disc winds theory 2−84077
U Geminorum, 1970-1979 observations anal. 2−84251
hot accreting white dwarfs, props. in in quasi-static approximation 2−106691
in M31, spectroscopic obs. of Nova 4 and discovery of (Nova 5) 2−117684
in M31, discoveries, precise positions and spectra of four novae 2−112462
Monocerotis 1939 (BT Monocerotis), eclipsing nova, photometric obs. 2−68776
nucleosynthesis models, sources for Ne-E and ^{26}Al 2−79100
RS Ophiuchi, recurrent nova, new brightening, visual magnitude obs., (1982 June 22 to July 21) 2−94754
RS Ophiuchi, recurrent nova, UV spectral obs. 2−79110
optically thick winds 2−79080
Persei 1901 (GK Persei) UV spectral obs. 2−79110
RR Pictoris, cataclysmic binary, light/colour curves interpretation, visible photometric/polarisation obs. 2−89271
Pictoris 1925 (RR Pictoris) UV spectral obs. 2−79110
posteruptive phase, shell 2200 Å graphite feature, var. in different models 2−63425
Sagittae 1783 (WY Sagittae), eclipsing binary star, orbital period and ephemeris from five eclipse timings 2−89278
Serpentis 1970 (FH Serpentis), spectral obs. during early decline stage 2−94742
speed class and IR development 2−89283
variable IR emission of cosmic dust sources 2−63379
Vulpeculae 1670 (CK Vulpeculae), recovery of oldest nova 2−94733
H shell flashes on accreting white dwarfs, envelope expansion 2−89256
H shell flashes on accreting white dwarfs, recurrence period 2−89257

nozzles
air jet, self-excitation, whistler nozzle driven, laminar and turbulent flows 2−55631
annular supersonic nozzles, transonic flow in throat region 2−114837
automated laser Doppler anemometer, aerodynamic expts. *(Russian)* 2−114937
blown gas jet, supersonic oncoming stream interaction 2−71000
calibration of hot-wire probes including low velocity range 2−89653
clusters, small, scattered electron counting system for nozzle beam studies 2−90405
concentration fluctuations in free turbulent jets 2−91499
convergent-divergent, thermodynamics of similar particle-laden gas flows 2−109385
discharge of cryogenic fluids from nozzles, flow rate determ. using isoentropic equilibrium model 2−97614
disk-jet sound generator with a convergent jet 2−114585
finite sphere, creeping motion along axis of circular orifice 2−71032
fission reactors, two-phase nozzle flow expt., code verification 2−85179
flashing liquids, two-phase channel flow, flow crisis anal. 2−71009
free swirling jets, turbulent mixing, marker nephelometry study 2−103196
freely expanding gas jet, thermal effect on flat plate 2−86314
gas blast circuit breaker DC arc in constant diameter nozzle flow 2−97808
gas-particle mixture, flow through axially symmetric nozzle, limiting particle streamline 2−91509
ideal fluid, steady flow of jets 2−81380
inlet nozzles with different contraction shapes, discharge coeff. meas., boundary layer 2−65633
inviscid transonic flow field analysis 2−81355
jets, freely expanding, interaction with a plate 2−60595
laser Doppler anemometer, two-colour, for nozzle flow meas. 2−65673
lateral discharge through inclined holes in thick wall, discharge coeff. 2−55635
Laval, boiling water discharge calcs. 2−55634
Laval nozzles, shock wave form. 2−114867
Laval nozzles with gas jets blown asymm. 2−60605
molecular beam intensities in sonic nozzle expansions, non-Maxwellian vel. distrib. 2−70446
molecular beam supersonic expansions from slit source nozzle, characterisation 2−70377
nonlinear stability and instability of transonic flows through a nozzle 2−55633
nonstationary spatial viscous gas flow in nozzles, numerical simulation *(Russian)* 2−76010
oil-laden air flow meas. using laser Doppler anemometer *(Russian)* 2−114945
one-dimension critical flow in nozzles, numerical soln. 2−60606
oscillating jet generation from nozzle, Coanda effect 2−60604
perfect vibrationally relaxing gas, radial expansion due to connection with vacuum 2−109381
pulsed molecular beams characts., car fuel injector appl. 2−97613
reattachment flow, inclination effect on reattachment wall 2−91508
separated two-phase flow in a nozzle 2−97622
shock free nozzle for dielectric recovery 2−103480
slit-throat, cluster prod., computer simulation 2−85456
steam jet, high-pressure, impingement, nozzle reaction, press. distrib. 2−65629
supersonic, with corrosion-resistant chamber as cluster source 2−65125
supersonic air ejectors, zero-secondary flow performance 2−75992
supersonic air gap sensor, static characts. *(Japanese)* 2−91568
supersonic external flowfield, Navier-Stokes soln. 2−114866
supersonic jets, convergent nozzles, broadband shock noise, acoustic meas. 2−65617
supersonic mixing nozzles, laser Doppler velocimeter meas. 2−91507
supersonic mixing nozzles, laser induced fluoresc. visualisation 2−109423
supersonic stream at exit section, profiling planar and axisymm. nozzles and channels 2−86320
transonic cascade flow simulation, thermodynamically consistent numerical method 2−70981
turbulent gas flow downstream of micronozzle cascade 2−55547
turbulent plane jet, acoustic interaction effects on mean flow 2−109300
underexpanded free jets, interaction with adjacent surfaces 2−65624
vacuum plume expansions, translational nonequilib. effects 2−97612
water sheet jets issuing from slit nozzles; linear stability theory, appl. to fusion reactors 2−60602
CO_2 free jets, rot. energy distrib. FT IR emission spectrosc. obs. 2−108688
CO_2-N_2, turbulent mixing of relaxing gases in a supersonic nozzle 2−60521
CS_2 gasdynamic laser, mol. vibr. rot. anal. 2−70549
Cl, nonequilib. recomb. in supersonic nozzles, chemiluminesc. investig. 2−59737
O_2-Ar mixture, flow in nozzles, chem. and vibr. disequilib. effects 2−81381
SF_6 cooled in free jet expansion from pulsed supersonic nozzle, multiple-photon absorpt. characts. 2−96555

NTC thermistors *see thermistors*

ν (neutrino) *see neutrinos*

nuclear acoustic resonance *see acoustic nuclear magnetic resonance*

nuclear alignment *see nuclear polarisation*

nuclear binding energy
see also nuclear forces
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
A=3-4 nuclei, binding energy, radii, form factors, Jastrow variational calc. 2−59261
atomic nuclei, continuous medium model 2−74727
boson-fermion interaction in IBA and shell model calc. 2−69588
Coulomb energy calc. for spherical nuclei 2−107723
dense relativistic matter, variational approach using functional techniques 2−79134
density average trends from self-consistent model with generalised Strutinsky-type smoothing 2−101801
finite nuclei, binding energy, leptodermous expansion 2−74726
four-nucleon binding energy, Poincare invariant theory, relativistic corrections *(Russian)* 2−107742
heavy ion energetic reactions, deuteron prod., entropy deduction, effective binding forces 2−80032
hyperspherical harmonic expansion method, higher order effects 2−59270
leptodermous expansions in finite nuclei, density profiles, binding energy 2−84947
light 1P-shell nuclei, binding energies and shell model 2−107739
mass formula, check on individual terms 2−95905
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
nuclear matter, many body Lee model, coupled cluster description, binding energy 2−107788
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
single-particle energies in enlarged shell-model spaces 2−107764
three-particle dynamics in case of finite-range forces 2−59229
A well depth, p-state contrib. 2−107791

nuclear binding energy continued
(n,γ), 30 keV, averaged capture cross sections, target n number, binding energy and levels depend. 2−90095
NN elastic scatt., 0-350 MeV, anomalous isospin violation, phase shifts 2−69545
^{28}Al levels, transitions, J$^{\pi}$ and neutron binding energy from ^{27}Al(n,γ) 2−90020
^{9}Be hypernuclei *(Chinese)* 2−54299
$^{\Lambda}$C, A=20, 22, 26, 34, binding energy, central pot. contrib. *(Russian)* 2−59228
^{12}C hypernuclei, binding energy, SU(3) model *(Chinese)* 2−54299
$^{\Lambda}$Ca, A=60, 90, 132, binding energy, central pot. contrib. *(Russian)* 2−59228
^{36}Cl levels, gamma transitions, neutron binding energy from ^{35}Cl(n,γ) 2−113391
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
$^{\Lambda}$Dy, A=162-165, neutron separation energies from (n,γ) 2−90009
$^{\Lambda}$Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
$^{\Lambda}$Gd, A=156, 158, neutron separation energies from (n,γ) 2−90009
^{2}H binding energy meas. from thermal neutron capture reaction H(n,γ)^{2}H 2−79944
^{2}H, nuclear force and binding energy of quark model, double well cluster model calc. 2−59245
^{2}H(π,π), scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
^{3}H binding energy, asymptotic normalisation constant and zero-range parameters 2−95906
^{3}H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{3}H binding energy correction from 2π exchange, 3 nucleon forces 2−107741
^{3}H, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}H, potential shape and channel connection effects *(Russian)* 2−101818
^{3}H, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}H$_{\Lambda}$, binding energy diff. to ^{3}He$_{\Lambda}$ *(Chinese)* 2−107792
^{3}H$_{\Sigma}$ binding energy, three body problem with finite range forces 2−113389
^{3}HYe-^{3}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
$^{\Lambda}$H$_{\Lambda}$, A=2, 3, binding energy, few-particle eqns. *(Russian)* 2−59427
^{3}He, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}He, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}He$_{\Lambda}$, binding energy, few-particle eqns. *(Russian)* 2−59427
^{3}He$_{\Lambda}$, binding energy diff. to ^{3}H$_{\Lambda}$ *(Chinese)* 2−107792
^{6}He, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{6}He$_{\Lambda\Lambda}$, Λ-Λ interaction energy, one-boson exchange pots. 2−79968
$^{\Lambda}$He, A=10, 16, 18, 22, 30, binding energy, central pot. contrib. *(Russian)* 2−59228
$^{\Lambda}$He, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
$^{\Lambda}$He(π,π), A=3, 4, scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
^{197}Hg mass excess meas. 2−84946
^{166}Ho neutron separation energies from (n,γ) 2−90009
^{6}Li, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
^{6}Li, cluster model description of structure 2−84981
$^{\Lambda}$Nd, A=143, 144, 146, neutron separation energies from (n,γ) 2−90009
$^{\Lambda}$O, A=22, 24, 28, 36, binding energy, central pot. contrib. *(Russian)* 2−59228
$^{\Lambda}$S 36, 44, 56, 86, binding energy, central pot. contrib. *(Russian)* 2−59228
$^{\Lambda}$Si, A=34, 42, 54, 84, binding energy, central pot. contrib. *(Russian)* 2−59228
^{155}Sm, rotational-vibrational band structure 2−54231
$^{\Lambda}$Yb, A=174, 175, neutron separation energies from (n,γ) 2−90009

nuclear bombardment targets
see also nuclear reactions and scattering
accelerator target prep. by painting 2−108184
accelerator targets and isotopic sputter-ion source targets, prep. techniques 2−108191
actinide targets preps. for solid state research 2−108182
beam dump, design 2−85257
booster source efficiency 2−108199
CC^{248}Cm targets prep. for superheavy element synthesis 2−108185
conference, Gatlinburg, TN, USA (Oct. 1980) 2−106997
engineering support of target development 2−108180
gas target system, quantitative anal. of gases 2−102299
graphite, water-cooled pyrolytic targets, design and operation at LAMPF 2−108188
heavy ion-beam imploded targets, fusion power 2−90293
ICF target expts., high energy small emittance accelerator utilisation 2−108171
magnetic booster target low velocity high yield impact fusion 2−54653
multilayer targets with thin ferromagnetic layers for transient field expts. 2−108194
oxide target use in 2 keV average (n,γ) meas. 2−113810
precision high vacuum target barrel for scatt. chamber system 2−90336
preparation by piezoelectric jet devices 2−108193
preparation by vapour deposition, Weizmann Institute activities report 2−108192
size eval. of electron accelerator for photoneutron inspection 2−62355
stable and actinide isotope targets prep. for nucl. meas. 2−108196
supersonic jet gas target for γ-ray spectroscopy meas. 2−102297
^{241}Am-Ce alloys investigation for target appl. 2−108183
B isotope targets prepared by vapour deposition 2−108179
^{135}Ba target prep. on thick backings by heavy-ion sputtering technique 2−108178
Be foils, high purity, prep. by vapour deposition 2−108195
C stripper films prep. and characterisation 2−108173
C stripper foils, laser treated, prep. and tests 2−108174
C stripper foils, procedure for rapid evaluation 2−108175
C, stripper foils, recent development work and meas., review 2−108176

nuclear bombardment targets continued
^{14}C film preparations 2−85466
Ca isotope targets prepared by vapour deposition 2−108179
Cu alloy, large diameter target fabrication for RTNS-II using electroforming 2−85446
DT gas filled spherical targets, heavy-ion fusion, scaling laws 2−74940
Gd targets prep. for superheavy element synthesis 2−108185
H, polarised at. beam target 2−75085
H-Be target setup for vector mesons photoproduction study 2−108202
H_2-^{3}He, low-temp. target for use in electron beams 2−64731
H_2-^{4}He, low-temp. target for use in electron beams 2−64731
K targets prep. from KI by vacuum evaporation 2−108177
Mg isotope targets prepared by vapour deposition 2−108179
^{16}O background-free target for electron scatt. meas. with high beam currents 2−102298
^{76}Se targets, C coated, prep. by evaporation 2−108181
Si detector telescope as active target for charm particles lifetime meas. 2−90337
T target fabrication for rotating target neutron source 2−108189
Th target prep. and thickness meas. from radioactivity 2−108187
^{235}U target prep. on thick backings by heavy-ion sputtering technique 2−108178
Xe thick target prod. using UWIS isotope separator 2−96345

nuclear branching and mixing ratios
A=10-48, isoscalar E2 transition strengths 2−95970
cluster-phonon model calc. program, NUCORE 2−64364
configuration mixing quantitative description in interacting boson model 2−54304
deformed nuclei, interacting boson approx. E2 operator 2−69598
E1+M2 mixing ratios from (n,γ) and (p,γ) 2−107805
^{227}Ac levels and transitions 2−54301
^{1}Al, A=25, 29, beta decay, γ-spectra and branching ratios 2−107810
^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios from ^{25}Mg(p,γ) 2−107797
^{26}Al, mirror γ-ray strength isospin decomposition 2−79977
^{27}Al, resonance states γ-decay and bound levels study 2−54307
^{78}As→^{78}Se, β^{-} decay, γ-rays spectroscopy 2−69597
^{11}B levels, γ-transitions, branching ratios from ^{11}Be β-decay 2−113419
^{107}Cd, penetration effects in internal conversion process 2−95974
^{114}Cd, spins, multipolarities, mixing ratios, from ^{113}Cd(n, γ) ang. correl. 2−95960
^{56}Co, β^{+} decay, Fermi-Gamow-Teller mixing, T invariance test in V-A model 2−90055
^{63}Cu(p,nγ)^{63}Zn, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{19}F levels, γ-branching, γ-energies from ^{19}O β^{-}-decay 2−69608
^{145}Gd, ε/β^{+} decay, branching ratio anomalies and evidence for structures in β-decay strength 2−54327
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{66}Ge band struct., J$^{\pi}$, transitions, branching, collective calcs. from ^{58}Ni(^{10}B,pn) 2−69508
^{3}He(α,γ)^{7}Be, 165-1170 keV CM, cross-section and branching ratio meas. 2−85065
^{157}Ho, levels, J$^{\pi}$, signature depend. transition rates above band crossing freq. from ^{146}Nd(^{15}N,4n) 2−90048
^{26}Mg, mirror γ-ray strength isospin decomposition 2−79977
$^{\Lambda}$Mo, A=96-104, even-even isotopes, configuration mixing 2−54303
^{95}Mo(n,γ)^{96}Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
^{22}Na, branching ratio for isoscalar transition 2^{+}, T=1, 1.95 MeV→0^{+}, T=1, 0.66 MeV 2−84993
^{25}Na, beta decay, γ-spectra and branching ratios 2−107810
^{16}O, partial decay width determ. for 2 8.87 MeV level 2−79970
$^{\Lambda}$Os, A=167, 168, alpha-decay energies, half-lives and branching ratio study 2−64431
^{188}Os γ-rays multipole mixing ratio meas. and comparison with band-mixing calcs. 2−84953
$^{\Lambda}$Pd, A=108, 110, multiphonon vibr. states structure 2−64433
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
$^{\Lambda}$Pt, A=171, 172, alpha-decay energies, half-lives and branching ratio study 2−64431
$^{\Lambda}$Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
^{81}Rb, EM transition strength study 2−54305
^{85}Rb, decay scheme and transition probabilities 2−84994
^{104}Ru levels, spin B(E2), from (^{206}Pb,^{206}Pb′) 2−95899
^{32}S(p, p′), 7.5 MeV, 4.28-2.23 MeV transition, E2/M1 mixing ratio 2−113390
^{119}Sb levels from ^{119m}Te decay, 153 and 270 keV transition characts. 2−107793
^{40}Sc beta-decay to proton and α-particle unbound states in ^{40}Ca 2−85000
^{45}Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
$^{\Lambda}$Se, A-85.88, ground-state decay branchings using gas-phase rapid chem. system 2−74750
^{26}Si, mirror γ-ray strength isospin decomposition 2−79977
$^{\Lambda}$Sm, A=150,152,154, shape triaxiality, from B(E2) and branching ratios, rigid rotor model 2−107745
^{118}Sn, excited 0^{+} states and elec. monopole transitions 2−69605
^{83}Sr ground-state decay, γ branching ratios meas. 2−84991
T$_{>}$ giant resonances, energies, B(Eλ) values, quasiparticle-phonon model *(Russian)* 2−59314
^{177}Ta isomer, levels, J$^{\pi}$, T$_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{176}Ta multiquasiparticle yrast states, isomers, J$^{\pi}$, T$_{1/2}$ from ^{176}Yb(^{7}Li, 4n) 2 79933
^{160}Tb→^{160}Dy, nuclear orientation in Tb metal 2−54320
^{98}Tc, levels, branching ratio, J$^{\pi}$ assignment, from ^{98}Mo(p,n) 2−101837
$^{\Lambda}$Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^{184}W 4^{+} and 6^{+} rot. states, gyromag. ratios from Larmor precession 2−69517
$^{\Lambda}$Yb, A=161, 163, 165, 167, rotationally perturbed wave functions test 2−79959
$^{\Lambda}$Yb, A=165-167, near yrast spectroscopy, levels, J$^{\pi}$, quasineutron states from Sm(^{17,18}O,xn) 2−89997
^{90}Zr, low-energy octupole reson. gamma decay 2−85017

nuclear charge
see also form factors (nuclear)
A=12 system, isovector 0^{+}⇄1^{+} transition, chiral symmetry and axial charge density 2−95961
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291

nuclear charge continued
A=40-208, charge distributions and single particle states, calc. methods 2−69526
attenuated mean fission fragment, nuclear charge and at. mass 2−64819
Coulomb pot. between spherical heavy ions 2−59226
deeply inelastic collisions, Z- and A-distribs., particle evaporation effects 2−101870
density distrib., review 2−59230
electron scatt. from complex nuclei, review 2−54358
heavy ion deep inelastic collisions, charge transfer, zero point oscillation *(Chinese)* 2−54440
heavy ion projectile fragmentation, intermediate energies, Coulomb final state interaction, charge effect 2−90149
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
hyperspherical harmonic expansion method, higher order effects 2−59270
molecular energy hypersurfaces, isoelectronic and isoprotonic, nucl. charge space topology 2−80754
partial E1 radiative strength functions, optical description, effective charge 2−113403
response functions, electron probes of nucleon charge and magnetisation in nuclear matter 2−113384
(e,e), target charge distrib., form factors 2−59338
^{4}He, charge form factor, meson exchange current, three-body forces 2−74729
^{40}Ar(e,e), elastic scatt. cross section and RMS charge radius meas. 2−74757
^{A}Ba, A=134-138, muonic X-rays, nuclear charge distrib. 2−74730
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
^{A}C, A=12-14, nuclear charge radii 2−74728
^{12}C RMS charge radius meas. from muonic X-rays with crystal spectrometer 2−113356
^{12}C RMS radius, charge distribution, from factors, from (e,e) measurements 2−113357
^{40}Ca, charge form factors from hyperspherical function method *(Russian)* 2−107747
Fe, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{3}H, charge form factor and density, three-body force effect 2−54251
^{3}HYe-^{3}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
^{3}H(e,t)e, 77-147 MeV, change form factor and charge radius 2−69522
^{3}He, charge form factor and density, three-body force effect 2−54251
^{4}He, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{A}He, A=3, 4, charge density, model-free determ. 2−54253
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{16}O, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
^{A}Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^{232}Th(n,f), 14 MeV, fragment yields and charge distrib., liquid drop anal. *(Chinese)* 2−96060
^{232}Th(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{238}U(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
Zn, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790

nuclear chemistry
see also chemical effects of nuclear reactions and scattering; radiation chemistry; radiochemistry
solvent extraction chemistry applied to nuclear science 2−57629

nuclear cluster model
A=4n binary cluster systems, interaction kernels 2−90031
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
closed shell plus two particle nuclei model 2−69589
cluster-phonon model calc. program, NUCORE 2−64364
collective nuclear phenomena, quasi-classical approach, excitations, cluster condensation 2−113320
correlated basis functions theory, cluster expansions 2−101827
Coulomb exchange interaction of clusters, approximative treatment 2−95935
deuteron and alpha-particle collisions in intranuclear cascade model 2−85021
heavy-ion reaction reson., schematic-model prediction comparison 2−85086
heavy-ion scattering, reson. structures in cross section, mol. configurations theory 2−85084
light nuclei ground and excited states in the three-body model, variational study 2−79960
Lipkin pseudospin model, method of stationary amplitudes, phase transition 2−95949
many-particle system, Glauber model cluster scatt. theory *(Chinese)* 2−54343
N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
nuclear matter, many body Lee model, coupled cluster description, binding energy 2−107788
particle clustering and Mott transitions at finite temp. in nuclear matter 2−74741
pion absorption probability by α-cluster in nuclei 2−95981
quasifree knockout of nucleons and nucleon clusters 2−107837
quasiparticle cluster-vibration model, particle-number projection rule 2−107778
relativistic heavy-ion collisions, cluster approach to intranuclear cascade 2−101922
self-consistent meson fields with vanishing expectation values 2−84963
structure theory current development, coupled-cluster, IBM, valence-core method 2−107766
(π^{+},^{3}He), pion-induced fission study in model using harmonic oscillator cluster wave functions 2−80038
^{27}Al(^{6}Li,^{6}He), 34 MeV, microscopic DWBA anal. 2−90132
^{8}Be nuclear cluster structure and α-α elastic scatt. unified study 2−95948
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
^{9}Be(d,tα), 2.5 MeV, quasi-free effect search, α-clustering 2−64414

nuclear cluster model continued
^{12}C+^{12}C sub-Coulomb resonances on microscopic ^{12}C+^{12}C, αs+^{20}Ne, ^{8}Be+^{16}O cluster basis 2−113440
^{12}C(^{6}Li,^{6}Li), 156 MeV, differential cross section from double folding cluster model 2−90150
^{12}C(^{6}Li,d), 34 MeV, inclusive d spectra, ZRDWBA anal., d spectator model 2−90131
^{12}C(α,X), eqns. of motion from time depend. cluster model 2−54415
^{12}C(α,α'), 17.0-22.7 MeV, α-cluster states, resonances, J^{π} *(Russian)* 2−107823
^{12}C(p,pα)^{8}Be, 700 MeV, role of processes with cluster rearrangement 2−95995
^{A}Ca(^{7}Li,^{7}Li), 89 MeV, A-40, 48, ang. distribs., adiabatic α-t cluster model anal. 2−107885
^{40}Ca(^{6}Li, ^{6}Li), 26-34 MeV, α+d cluster pot. anal. 2−107893
^{40}Ca(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{40}Ca(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
^{40}Ca(π^{-}, X), energy spectra following pion absorpt., exciton model description 2−113572
C(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
^{70}Ge negative parity states, mean lifetimes, transitions from ^{56}Fe(^{16}O,2p) 2−113412
^{2}H form factor, six-quark structure 2−95913
^{2}H, nuclear force and binding energy of quark model, double well cluster model calc. 2−59245
^{3}H(α, α), specific distortion effects in resonating-group method 2−90123
^{3}He(α,α), specific distortion effects in resonating-group method 2−90123
^{4}He(α,X), eqns. of motion from time depend. cluster model 2−54415
^{4}He(α,X), time dependent cluster theory, collective modes and monopole vibrs. 2−54236
^{6}He$_{\Lambda\Lambda}$, microscopic GCM study, di-α_{Λ} clusters 2−79967
^{A}He, A=3, 4, form factors, multiquark cluster effect 2−84948
(^{6}Li,d), antisymmetrised ^{6}Li wave function and direct interaction, cluster model 2−64387
(^{6}Li,d) on ^{26}Mg, ^{27}Al, ^{29}Si, ^{31}P, 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
^{6}Li, bremsstrahlung photo-cross-section, RMS radius, clusters, resonating group wave function 2−90084
^{6}Li, cluster model description of structure 2−84981
^{6}Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
^{6}Li(^{3}He,^{3}He), single channel resonating group calcs. 2−96009
^{6}Li(^{6}Li, 2d)2α, extended PWBA anal., clusters, double spectator pole 2−80030
^{6}Li(α,α), single channel resonating group calcs. 2−96009
^{6}Li(α,x), x=$\alpha\alpha$, dα, quasifree scatt., theoretical anal. 2−95994
^{6}Li(d,d), single channel resonating group calcs. 2−96009
^{6}Li(d,dd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{6}Li(e,e'), 80-300 MeV, magnetic form factor, cluster model anal., exchange currents 2−69523
^{6}Li(n,n), single channel resonating group calcs. 2−96009
^{6}Li(p,pd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{7}Li charge form factor calc. 2−90123
^{A}Li(n,n), A=6,7, 7-14 MeV, clustering effects 2−69650
^{24}Mg, ^{12}C clusters, coupled channel orthogonality condition model, collective states 2−74737
^{150}Nd, alpha cluster states, rot. bands, J^{π} from ^{154}Sm(d,^{6}Li), 33 MeV 2−107729
^{20}Ne(π,π), folding pot., three body optical model for 2 clusters and a meson 2−59412
^{60}Ni(^{16}O, ^{12}C), 60 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{16}O,J^{π}=3^{-} level prediction in model based on tetrahedral symmetry 2−59221
^{16}O 4p-4h states, effective interactions, deformation clustering, HF calc. 2−69503
^{16}O, natural parity levels 2−59376
O(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
^{A}Po, A=210, 212, 214, 216, absolute α-decay width, configuration mixing role 2−69613
^{32}S, rotational shape isomeric band 2−69513
^{28}Si, α-cluster model state, ang. momentum projection effect 2−54258
^{28}Si negative parity rot. bands, quadrupole moments, cluster model approach 2−69518
^{28}Si(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{28}Si(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
^{66}Zn negative parity states, mean lifetimes, transitions from ^{55}Mn(^{14}N,n2p) 2−113412
^{90}Zr, total weight of six-quark drops 2−79961

nuclear collective model
see also nuclear cranking model; nuclear liquid drop model
A=131-238, low lying energy spectra from effective hamiltonian IBA 2−79972
A=142-168, even-even nuclei, energy spectra in interacting quartet-boson model 2−113382
A=182-196 nuclei, Pt-W legion, O(6)→SU(3) transition, IBA wavefunctions 2−107776
A∼55 odd nuclei, single quasiparticle state fragmentation, rel. Pauli principle 2−84967
A≈100 transitional region interpretation in interacting boson model framework 2−54287
anharmonic Bohr Hamiltonian and its equivalent boson Hamiltonian 2−54281
atomic nuclei, continuous medium model 2−74727
backbending, interacting boson-fermion model *(Chinese)* 2−95902
band structure and nuclear dynamics 2−107738
band structure from energy expansion coeffs. as function of spin values 2−69577
Bohr Mottelson model and IBA, microscopic derivation of nuclear collective variables 2−69551
Bohr-Mottelson model and interacting boson model equivalence 2−84977
Bose-Fermi symmetries in nuclei 2−69587
boson expansion theories unification 2−90028
boson-fermion interaction in IBA and shell model calc. 2−69588
bosons as nucleon pairs in Interacting Boson model 2−69571

nuclear collective model continued
canonical theory with constraints, for pairing-vibr. and intrinsic degrees of freedom 2−79958
cluster-phonon model calc. program, NUCORE 2−64364
collective nuclear phenomena, quasi-classical approach, excitations, cluster condensation 2−113320
collective nuclear variables, inertial parameters from Feynman path integrals, HI collisions, fission 2−113333
configuration mixing quantitative description in interacting boson model 2−54304
deformed nuclei, E2 transitions, rel. to interacting boson approx. 2−107801
deformed nuclei, interacting boson approx., revised formulation 2−84976
deformed nuclei, interacting boson approx. E2 operator 2−69598
deformed nuclei, interacting boson approx. wave functions and transition rates 2−54284
deformed nuclei, Nilsson and IBM descriptions 2−64361
deformed nuclei, vibr. spectra anharmonicities, projection on good particle number, approx. treatment 2−59214
dipole states in interacting boson model 2−79989
Dyson's finite boson expansion and the Interacting Boson Model 2−69574
Dyson representation of the interacting boson model with pairing plus quadrupole pairing plus quadrupole-quadrupole forces *(Chinese)* 2−107772
effective interaction in interacting boson model *(Chinese)* 2−79955
even-even deformed nuclei, M1 transitions, interacting boson model calc. 2−107802
even-even nuclei, octupole states and transitions in SO(6) limit *(Chinese)* 2−79941
even-even nuclei, rot. levels using Lie algebra weight diagrams in IBM 2−59213
even-even nuclei, rotational spectra, semiphenomenological model 2−84933
even-even nuclei rotation, bosons with large angular momentum, SU(15) theory 2−54237
even-mass rotational nuclei, ground band spectrum, one-parameter formula 2−84943
fermion-boson exchange interaction, shell model origin 2−69585
finite nuclei, dynamic effects, rel. to giant resonance calcs. 2−74736
fluid dynamics, giant multipole reson. as elastic vibrs. 2−85019
gamma-ray cascades, rotational levels mean lives and B(E2) values 2−79978
gauge invariant periodic quantisation method, periodicity condition investigation 2−107171
geometric SO(3)×D model 2−101826
giant Gamow-Teller resonance states, energy systematics and Migdal parameter 2−79990
Ginocchio model in the Interacting Boson Approximation 2−69560
ground state energies, phase transitions, Variable Moment of Inertia eqns. 2−69578
Hamiltonian in generator coordinate method, numerical procedure 2−84978
heated rotating nuclei, isovector dipole mode decay, γ-spectrum, shape 2−54238
heavy nuclei, statistical props. in superfluid model *(Russian)* 2−59268
heavy-ion scattering, reson. structures in cross section, mol. configurations theory 2−85084
high-spin states, pairing correls., HFB-BCS approach 2−101787
high-spin states, structure, Coulomb excitation *(Russian)* 2−54230
high-spin states description in interacting boson model 2−101794
interacting boson, model, description of nucl. deform. effects 2−95945
interacting boson and boson-fermion model, conf., Erice, Sicily, Italy (June, 1980) 2−68970
interacting boson approx., light even-even nuclei collective features 2−69554
interacting boson approx.-2 calc. on W isotopes 2−69555
interacting boson approximation, experimental/tests on even+even nuclei, review 2−69552
Interacting Boson Fermion Model and some applications 2−69580
interacting boson mode wave functions calcs. 2−95940
interacting boson model, and other models for collective struct. 2−107773
interacting boson model, book contrib. 2−54289
Interacting Boson Model, boson cutoff and band crossing 2−69564
Interacting Boson Model, classical Hamiltonian limit general formula 2−69570
Interacting Boson Model, contrast to Bohr-Mottelson collective model 2−69569
interacting boson model, deformed nuclei anal. 2−107774
interacting boson model, describing low-lying collective states, near closed shells 2−107737
interacting boson model, expt. tests, rel. to quadrupole phonon model 2−107777
interacting boson model, generalised pseudospin system, SU(4) invariant Hamiltonian, time depend. mean field method 2−75162
Interacting Boson Model, geometrical and dynamical props. 2−69567
interacting boson model, hamiltonian, boson struct., microscopic calcs. 2−101822
interacting boson model, Hamiltonian, g-boson effects, microscopic calc. 2−107770
Interacting Boson Model, microscopic approach, S- and D-fermion pairs 2−101821
interacting boson model, microscopic struct. rel. to Dyson boson mapping 2−107769
interacting boson model, particle pairs, backbending 2−54285
interacting boson model, phenomenological anal. 2−54286
interacting boson model, rel. to bandmixing 2−107734
Interacting Boson Model, shapes and shape phase transitions 2−69568
interacting boson model, U(15) subgroup chains s, d, g bosons interactions *(Chinese)* 2−54288
interacting boson model and Bohr collective Hamiltonian relationship 2−64362
interacting boson model parameters, microscopic determ. 2−84980
interacting Boson-Fermion model, status 2−69579
interacting bosons close to and far from magic nuclei 2−107775
interacting collective bands, collective boson representation 2−84975
interacting two-vector-boson model of collective motions in nuclei 2−113322
intruder states in the Interacting Boson Model 2−69562
isoscalar giant monopole and quadrupole resonances, semiclassical description 2−113436
nuclear collective model continued
isoscalar giant reson. energies and long mean free path nucl. fluid dynamics 2−85018
isovector giant resonances from elastic isovector vibrs., elastic model, boundary conditions 2−90069
large amplitude vibrations, path integral approach adiabaticity, quantised adiabatic TDHF 2−69504
magic nuclei, 2p2h configs., 1p1h phonons, two-phonon channel *(Russian)* 2−101800
many-body interacting systems, quantum theory, semiclassical description 2−84968
mass quadrupole model, rel. to hydrodynamic model 2−107768
microscopic collective states dynamical group 2−74734
microscopic interacting boson model parameters, particle-hole ambiguity 2−84979
microscopic model for nuclear dissipation as collective motion damping in time-dependent RPA 2−74723
microscopic structure of the intrinsic state of a deformed nucleus 2−69561
microscopic theory, for pairing rot., pairing vibrs. and independent particle motion 2−95943
multiphonon states, attenuation factors for B(E2) values, O(4) interacting boson model 2−101839
multipole phonon states, construction and classification 2−95942
N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
N=z nuclei, mag. moments of T=0 states 2−79946
nuclear field theory comparison to shell model 2−69572
nuclear structure inferred from heavy ion Coulomb excitation in Interacting Boson model 2−69576
nuclei with few valence nucleons, interacting boson approx. 2−84973
odd-A nuclei, pairing plus quadrupole Hamiltonian diagonalization in nuclear field theory 2−69586
odd-A nuclei, strongly anharmonic spectra, particle pairing vibr. coupling description 2−54279
optimization of finite expansion bases for nuclear collective-model calculations 2−69550
p-shell nuclei, collective and spin degrees-of-freedom connection, Sp(2,R) calcs. 2−113326
pair aligned model, nuclear field theory anal. 2−69573
pairing correlation, canonical theory, rel. to BCS+RPA approach 2−95944
particle-rotor model, recoil term attenuation 2−107779
particle-vibration coupling, in SU(3) limit of SU(6) quadrupole phonon model 2−107736
particle-vibration coupling mechanism in nuclear field theory 2−69575
particles and holes equivalence for generalised seniority, interacting boson model, shell descript. 2−90029
projected BCS-Tamm-Dancoff approximation with blocking effect 2−74735
proton-neutron interacting boson model (IBM-2), shell model anal. 2−69559
quadrupole and octupole modes, unified collective model 2−84969
quadrupole collectivity, IBM and open shell Tamm-Dancoff approx. interpretations 2−69509
quantised self-consistent collective coordinate method 2−54283
quasiparticle cluster-vibration model, particle-number projection rule 2−107778
quasiparticle-phonon model, neutron resonances, partial transitions, giant dipole resonances 2−113448
rare earth deformed nuclei, rot. invariant core 2−64348
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
renormalization of the IBA by the g boson 2−69563
semiclassical theory of nuclear collective motions, variational derivation 2−84970
single-particle currents in the cranked harmonic oscillator model 2−90027
spherical nuclei collective model, optical pot. imaginary part calc. 2−74721
structure theory current development, coupled-cluster, IBM, valence-core method 2−107766
SU(14) and SU(5) limiting cases of s.d.g. IBM *(Chinese)* 2−107771
SU(6) particle-quadrupole phonon coupling model, SU(3) limit, signature effect 2−107784
SU(6) quadrupole phonon model, approx. supersymmetries, unique parity bands 2−59267
SU(6) quadrupole phonon model for even and odd nuclei and the SU(3) limit 2−59266
symmetric nuclear matter, quenching and hardening in transverse quasi-elastic peak 2−74740
TDHF, collective operators and paths, geometrical derivation 2−59272
time depend. Hartree approx. and harmonic oscillator model 2−54290
transitional nuclei, models, review 2−90030
two body pots. in the Bohr-Mottelson collective model 2−113380
yrast eigenstates, Q_rQ_r interaction strength in strong coupled pseudo SU(3) limit 2−89993
Z=50-82 proton shell, IBA-1 effective Hamiltonian struct. 2−69553
zero-point fluctuations, adiabatic time-dependent Hartree-Fock approach 2−54252
(d,d′), A=16-232, 20 MeV, evidence for different proton and neutron deformations, transitions 2−69521
(p,p′) on ^{90}Zr,^{120}Sn,^{144}Sm,^{208}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
($\pi^+,\pi^{+\prime}$), IBM test on cross sections 2−69566
Ag, odd mass low lying positive parity level, IBFM calcs. 2−69581
^{27}Al, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{A}As, A=69, 71, 73, excited state struct., quasiparticle-core coupling model 2−90018
^{A}Au, A=184, 187, 189, 191, 193, 195, collective states in IBFA 2−69584
^{81}Br(^{6}Li,4nγ), 19-32 MeV, ^{84}Sr high spin states study 2−54428
^{12}C(^{13}C, ^{12}C′), 2^+ excitation, spin alignment predictions of various models 2−90012
^{40}Ca-^{48}Ca, low-lying collective excitation contrib. to nuclear density 2−95893
^{40}Ca(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
Cd isotopes props. study in interacting boson approx. 2−84934
^{A}Cd, A=112, 114, low lying collective states, transitions, IBM mixing parameters 2−90001
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{59}Co(d, ^{3}He)^{58}Fe, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404

nuclear collective model continued
Er, backbending, second backbending, and higher backbendings 2−79932
^{163}Er bands, energy spectrum, Coriolis attenuation problem, particle rotor model 2−64354
^{164}Er, γ-band and rot. alignment, high-spin anomaly, shell model+RPA calc. 2−101793
^{164}Er, γ-vibration, pairing pot., rot. frequency depend., shell model+RPA calc. 2−101792
^{171}Er, highly mixed $13/2^+$ states, structure and decay 2−59219
Eu, odd A, vibrational to rotational spectra change, IBFM study 2−69582
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
Fe, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{55}Fe, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{55}Fe, radiative strength functions for partial γ-transitions from resonances 2−101833
^Gd, A=154-160, even-even isotopes, interacting boson model extension and appl. 2−84971
^{156}Gd, level struct. from ^{155}Gd(n,γ), IBA model comp. 2−69519
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{66}Ge band struct., J^π, transitions, branching, collective calcs. from ^{58}Ni(^{10}B,pn) 2−69508
^{76}Ge(^{12}C,4nγ), 48-60 MeV, ^{84}Sr high spin states study 2−54428
^{3}H, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^He, A=3, 4, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^{119}I, isomeric bandheads, mag. moments rel. to quasiparticle-core coupling 2−95914
^Kr, A=76, 78, 80, 82, low-lying octupole vibr. strength splitting 2−84939
^Kr, A=76, 78, 80, high spin states, J^π, two-quasiparticle plus rotor calcs. 2−89999
^{78}Kr, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{137}La, N=80 nucleus, medium-spin levels and 360 ns $I^\pi=19/2^-$ isomer 2−54232
^Mg, A=24,26, dynamical collectivity in rotation-vibration coupling theory 2−95901
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{25}Mg, spectroscopic quadrupole moments from muonic X-rays 2−59238
^Mo, A=96-104, even-even isotopes, configuration mixing 2−54303
^{104}Mo, energy level scheme from singles and γγ coincidence spectra 2−95976
Nd, even isotopes, shape transitions, in IBA 2−79971
^{20}Ne, rotational bands in the U(3)-boson model, B(E2) values 2−90003
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^Ni, A=59,61, radiative strength functions for partial γ-transitions from resonances 2−101833
^{59}Ni, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{16}O(^{16}O,^{12}C), resonance struct., EFR-DWBA anal., band crossing model enhancement 2−54425
^{18}O(e,e'), inelastic scatt. from low-lying even-parity states 2−64397
^{186}Os γ-rays multipole mixing ratio meas. and comparison with band-mixing calcs. 2−84953
^{188}Os E0 transition strengths, 0^+ states, IBA test from ^{187}Os(n,γ) 2−113397
Os(t,p), IBA model calcs. 2−69565
Pb(Ar, X), 800 MeV/nucleon, macroscopic nucleon-nucleon correl. caused by bounce-off process 2−90143
^Pb(γ, X), A=206, 208, photoabsorption cross sections, quasiparticle phonon model 2−113448
^Pb→^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^{208}Pb, low-lying vibr. states, phonon renormalisation study 2−74720
^{208}Pb single particle states, effects of core polarisation, phonon spectrum 2−54229
^Pd, A=108, 110, multiphonon vibr. states structure 2−64433
^{109}Pd, low spin, anti-aligned parity levels, particle rotor and IBFA calcs. 2−69583
^{110}Pd, E2 matrix elements and shape coexistance, IBM calc. 2−69557
^{210}Po(d, p)^{211}Po, core-particle model interpretation 2−95894
Pt even isotopes, particle transfer reactions in interacting boson approx. 2−69556
Pt region, odd-A nuclei description in interacting boson-fermion model 2−74722
^{191}Pt quasiparticle core coupling using dynamic deformation theory core wave functions 2−64352
^{196}Pt E0 transition strengths, 0^+ states, IBA test from ^{195}Pt(n,γ) 2−113397
^{197}Pt^m decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
Pt(t,p), IBA model calcs. 2−69565
^{226}Ra, octupole vibrs., phenomenological model 2−84940
Rb, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^{79}Rb, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{81}Rb, EM transition strength study 2−54305
^Re, A=186, 188, nuclear beta transitions, role of induced interactions 2−107809
^{104}Ru levels, spin B(E2), from (^{208}Pb,^{208}Pb') 2−95899
^Sb, A=114, 116, high-spin states and multiquasiparticle excitations 2−113339
^{28}Si(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^Sm, A=150,152,154, shape triaxiality, from B(E2) and branching ratios, rigid rotor model 2−107745
^Sm(e,e'), A=148, 152, 150-215 MeV, giant multipole reson. electroexcitation 2−85031
^{118}Sn(p,α), 22 MeV, ^{115}In nuclear structure in hole-vibration coupling model 2−54374

nuclear collective model continued
^{182}Ta band head energies calcs., two particle configuration assignments 2−69510
Tc, odd mass low lying positive parity levels, IBFM calcs. 2−69581
Te isotopes props. study in interacting boson approx. 2−84934
^Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^{192}Tl, isomeric bandheads, mag. moments rel. to quasiparticle-core coupling 2−95914
^{170}Tm, nuclear beta transitions, role of induced interactions 2−107809
^U, A=236, 238, fission isomer spectra in IBM, SU(3) limit 2−107767
Xe, even isotopes, ang. momentum projected yrast states, coherent phonon model 2−90002
^Xe, A=119, 121, level structure and $h_{11/2}$ bands anal. in IBF model 2−95898
^Yb, A=161, 163, 165, 167, rotationally perturbed wave functions test 2−79959
Zn, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^Zr(α,α), 104 MeV, A=90, 92, elastic and inelastic, cross sections, transition rates, collective anal. 2−90127

nuclear collective motion *see nuclear collective model*

nuclear collective states and giant resonances
see also isobaric analogue resonances
A=12-90, giant dipole resonance isobaric analogue from (^{3}He,t), (^{3}He,^{3}He') 2−69624
A=131-138 high spin states, isomeric ratios, excitation mechanisms from (π^-,xnyp) 2−95895
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
A=180-209, (^{6,7}Li, xn), 55-124 MeV, K X-ray multiplicity, collective struct. 2−69595
A=227-250, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=232-248 nuclei, backbending, cranked shell model calc. 2−59212
A=62-86, E2 transition strengths systematics 2−69603
A∼150 nuclei, nuclear shapes ($i_{13/2}$,$h_{9/2}$) config. 2−54239
A∼55 odd nuclei, single quasiparticle state fragmentation, rel. Pauli principle 2−84967
actinide nuclei, rotational props. in cranked Hartree-Fock-Bogoliubov model 2−79928
backbending, cranked HFB field, instability 2−74724
backbending, interacting boson-fermion model *(Chinese)* 2−95902
band structure and nuclear dynamics 2−107738
bandmixing and the IBA [nuclear structure] 2−107734
Bohr collective Hamiltonian, general soln. 2−101825
Bohr-Mottelson model and interacting boson model equivalence 2−84977
classical theory on symplectic manifold 2−107721
coherent rotational states, semiclassical theory including nuclear interactions 2−101786
collective nuclear phenomena, quasi-classical approach, excitations, cluster condensation 2−113320
collective nuclear variables, inertial parameters from Feynman path integrals, HI collisions, fission 2−113333
collective strength distrib., E1 strength, fast neutron capture probes 2−113349
configuration mixing quantitative description in interacting boson model 2−54304
CRAMOLA, cranking model for large amplitudes 2−95946
cranked HFB approx., particle pairs, backbending 2−54285
deep inelastic reactions, total energy and γ-ray multiplicity, statistical fluctuation effect 2−96043
deformations, scaling props. 2−107748
deformed nuclei, interacting boson approx. E2 operator 2−69598
deformed nuclei, rot. State multiple Coulomb excitation, eikonal model 2−79974
deformed nuclei, vibr. spectra anharmonicities, projection on good particle number, approx. treatment 2−59214
dipole giant resonance, energy splitting, in droplet model *(Russian)* 2−90073
dipole states in interacting boson model 2−79989
doubly even nuclei, transition strength B(E2) in yrast bands 2−69601
effective nucleon-nucleon interaction in model space, empirical form 2−54277
elastic and inelastic scatt. of p, d, α on nuclei, review 2−54369
electron scatt. from complex nuclei, review 2−54358
even-even nuclei, high-spin states, four band mixture *(Chinese)* 2−54243
even-even nuclei, octupole states and transitions in SO(6) limit *(Chinese)* 2−79941
even-even nuclei, rot. levels using Lie algebra weight diagrams in IBM 2−59213
even-even nuclei, rotational spectra, semiphenomenological model 2−84933
even-even nuclei rotation, bosons with large angular momentum, SU(15) theory 2−54237
even-mass rotational nuclei, ground band spectrum, one-parameter formula 2−84943
excitation energy-spin relationship, regularities, shell model calcs. 2−107765
fast rotating nuclei, generalised pair field 2−95897
finite fermion systems, sum rules for dipole transitions, giant resonances *(Russian)* 2−79993
finite nuclei, dynamic effects, rel. to giant resonance calcs. 2−74736
fission dynamics and collective phenomena, symposium, Bad Honnef, Germany (Oct. 1981) 2−112657
fluid dynamics, giant multipole reson. as elastic vibrs. 2−85019
gamma-ray cascades, rotational levels mean lives and B(E2) values 2−79978
Gamow-Teller and M1 states including Δ-hole excitation, RPA calc. 2−79979
Gamow-Teller giant resonance, collective state decay 2−79991
Gamow-Teller reson. 2−54318
giant Gamow-Teller resonance states, energy systematics and Migdal parameter 2−79990
hadron-nucleus inelastic interactions, soft particle multiplicity distribs., Monte Carlo simulation 2−107856
heated rotating nuclei, isovector dipole mode decay, γ-spectrum, shape 2−54238
heated spherical nuclei, surface quadrupole oscillations *(Russian)* 2−101799

nuclear collective states and giant resonances continued
heavy ion collisions, relative traslational motion, generator coordinate method, collective motion *(Chinese)* 2−80036
heavy ion deeply inelastic collisions, coherent and stochatic effects, collective dynamics fluctuations 2−59392
heavy ion fusion, review 2−85111
heavy ion reactions, isovector mode inelastic excitation, microscopic form factors, giant dipole resonances 2−59232
heavy ion scattering, deformation factors, diffraction model, adiabatic approx., collective motions *(Russian)* 2−59403
heavy nuclei, single-particle and collective excitation dynamics 2−79935
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
heavy-ion collisions, charge equilibration, preequilibrium light particle emission and projectile splitting 2−113547
heavy-ion collisions, collective transport theory 2−113544
heavy-ion transfer reactions as quantal many-body systems probe 2−54242
high angular momenta nuclei, behaviour, in cranked HFB model 2−79929
high-spin isomerism near A=75 and 100, ns feeding times 2−84941
high-spin states, nuclear states and shapes 2−64349
high-spin states, pairing correls., HFB-BCS approach 2−101787
high-spin states, structure, Coulomb excitation *(Russian)* 2−54230
high-spin states description in interacting boson model 2−101794
high-spin states in nuclei and heavy-ion collisions 2−84944
higher multipole giant resonances, decay width, Fourier-Bessel random phase approx. 2−113441
inclusive processes, model for nuclear response function 2−59231
interacting boson model, deformed nuclei anal. 2−107774
interacting boson model, particle pairs, backbending 2−54285
Interacting Boson Model, shapes and shape phase transitions 2−69568
interacting collective bands, collective boson representation 2−84975
interacting two-vector-boson model of collective motions in nuclei 2−113322
intruder states in the Interacting Boson Model 2−69562
isoscalar giant monopole and quadrupole resonances, semiclassical description 2−113436
isoscalar giant multipole reson., macroscopic description 2−59312
isoscalar giant reson. energies and long mean free path nucl. fluid dynamics 2−85018
isovector dipole mode, sum rule approach 2−107753
isovector giant resonances from elastic isovector vibrs., elastic model, boundary conditions 2−90069
large amplitude vibrations, path integral approach adiabaticity, quantised adiabatic TDHF 2−69504
low-energy collective and single-particle excitations 2−107787
low-lying collective states, near closed shells, theory 2−107737
magic nuclei, 2p2h configs., 1p1h phonons, two-phonon channel *(Russian)* 2−101800
magic nuclei, muonic conversion, microscopic description *(Russian)* 2−90745
many-body interacting systems, quantum theory, semiclassical description 2−84968
mass dependence of the giant resonance model 2−113450
mass formula, check on individual terms 2−95905
microscopic collective states dynamical group 2−74734
microscopic model for nuclear dissipation as collective motion damping in time-dependent RPA 2−74723
model for collective band at high level density 2−84942
multiphonon states, attenuation factors for B(E2) values, O(4) interacting boson model 2−101839
multipole phonon states, construction and classification 2−95942
N=z nuclei, mag. moments of T=0 states 2−79946
neutron capture model, strong E1 transitions, giant dipole resonances, non-statistical effects, doorway state 2−113401
nuclear collective motions, generator coordinate method 2−74719
nuclear structure inferred from heavy ion Coulomb excitation in Interacting Boson model 2−69576
nuclei with few valence nucleons, interacting boson approx. 2−84973
odd-A nuclei, strongly anharmonic spectra, particle pairing vibr. coupling description 2−54279
odd-odd nuclei, p-n and p-phonon-n parabolic rule 2−107735
p-shell nuclei, collective and spin degrees-of-freedom connection, Sp(2,R) calcs. 2−113326
p-wave strength function and 3-p giant resonance calc. 2−101791
particle-vibration coupling, in SU(3) limit of SU(6) quadrupole phonon model 2−107736
particle-vibration coupling mechanism in nuclear field theory 2−69575
photoabsorption cross section, vol. and surface symmetry energy coeffs. 2−79999
potential energy and inertia tensor depend. of collective props. 2−101788
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
proton-light ion scatt. at intermediate energy, review 2−54368
quadrupole collectivity, IBM and open shell Tamm-Dancoff approx. interpretations 2−69509
quantum theory on symplectic manifold 2−107722
quasiparticle-phonon model, neutron resonances, partial transitions, giant dipole resonances 2−113448
rare earth deformed nuclei, rot. invariant core 2−64348
rare earth nuclei, in Fe, transient mag. field, ^{152,164}Sm appl. 2−95915
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
relativistic heavy-ion collisions, isobars and isobaric analogue states 2−59313
relaxation studies in fermion systems: nonlinear and finite size effects 2−85020
rotating actinides, pair correlations and the fission barrier at very high angular momenta 2−90176
rotating nuclei, quadrupole oscills., shape and normal models, distorted Fermi surface model *(Russian)* 2−59225
rotating nuclei, vel. distrib., cranked deformed harmonic oscillator model 2−59211
rotational band and band mixing in cranking model 2−54282
rotational spectra, deformed HF calcs., ang. momentum constraint 2−79930
spherical nuclei, exciton levels, spin distrib., yrast lines, superconductivity model 2−90011
spherical nuclei, yrast states microscopic description 2−84938

nuclear collective states and giant resonances continued
spherical nuclei collective model, optical pot. imaginary part calc. 2−74721
structural similarity of nuclear molecules 2−107907
structure theory, and interacting boson model 2−107773
SU(6) quadrupole phonon model, approx. supersymmetries, unique parity bands 2−59267
SU(6) quadrupole phonon model for even and odd nuclei and the SU(3) limit 2−59266
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
two-body forces, spectra, random to collective behaviour transition 2−101797
yrast eigenstates, $Q_x.Q_x$ interaction strength in strong coupled pseudo SU(3) limit 2−89993
(d,d′), A=16-232, 20 MeV, evidence for different proton and neutron deformations, transitions 2−69521
(e,e′), inelastic scatt. at low energy, mag. transitions and mag. polarisability of nuclei 2−54360
(n,n′) near collective excitation threshold, rel. to statistical-optical model calc. *(Russian)* 2−54362
(p,p′) on ^{90}Zr, ^{120}Sn, ^{144}Sm,^{208}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
(p̄,X), stopped p̄, high spin isomers, use to study multipion-nucleus reactions 2−96003
^{27}Al, spectroscopic quadrupole moments from muonic X-rays 2−59238
^As, A=69, 71, 73, excited state struct., quasiparticle-core coupling model 2−90018
^{205}At, high-spin state props. study 2−59220
^{210}At 10$^-$ isomer, half life, singlet-force splitting effect from ^{209}Bi(α, 3n) 2−113321
^{212}At, low-seniority shell-model structure 2−54233
Au(Cu,X), 400 MeV, γ-multiplicities, ang. momentum transfer, collective modes 2−113392
^Au, A=184, 187, 189, 191, 193, 195, collective states in IBFA 2−69584
^Au(n,γ), A=196, 197, cross section theoretical calc. 2−101878
^{185}Au levels, J^π, nuclear model test from ^{185}Hg^{m+g} decay 2−113417
^{196}Au(n,γ), cross section theoretical calc. 2−101878
^{198}Au 312 keV 5$^+$ isomer, gamma transitions from ^{197}Au(n,γ) 2−113398
^{10}B+^{14}N resonances high spin data 2−101808
Ba, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Ba, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{141}Ba levels, J^π, transitions from ^{141}Cs β-decay 2−113422
^{9}Be (α,α′), 35.5 MeV, elastic and inelastic scatt. anal. by coupled channel method 2−54411
^Be, A=7, 8, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^Bi, A=202, 203, 205, high spin isomers, g-factors from ^{203}Tl(α,xn) 2−90015
^Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^{249}Bk(α,α′), 17.06 MeV, ground state rot. band, Coulomb excitation, transition sites, mag. moments 2−69511
^{72}Br high spin states, J^π, transitions from ^{58}Ni(^{16}O, np) 2−69507
^{76}Br high spin, two-quasiparticle bands, isomer, transitions from (α,pn), (^{3}He,p2n), (d,2n), (p,n) 2−90007
^{78}Br, high-spin states in-beam study 2−54234
^{81}Br(^{6}Li,4nγ), 19-32 MeV, ^{84}Sr high spin states study 2−54428
^{83}Br high spin states, J^π, yrast bands, transitions from ^{82}Se(Li, αxnγ) 2−69506
^{12}C, 0$^+$(GS)→2$^+$(4.44 MeV) transition density 2−107794
^{12}C bound and unbound state transitions, cross sections, possible giant resonance from ^{11}B(p,γ) 2−90110
^{12}C, giant resonance decay props., shell model 2−59310
^{12}C nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{12}C, oblate deformation dynamics in Sp(2,R) nuclear model 2−54250
^{12}C+^{12}C resonances high spin data 2−101808
^{12}C(^{12}C, ^{12}C), E≤20 MeV/u, elastic and inelastic scatt., direct processes 2−113536
^{12}C(^{12}C, ^{12}C), elastic and inelastic, γ-rays from quasimolecular ^{12}C+^{12}C resonances 2−69596
^{12}C(^{12}C,^{12}C), projector operator method for inelastic scatt. cross section calc. 2−59395
^{12}C(^{12}C,X), ^{12}C+^{12}C strongly coupled collective excitations, contrib. to optical pot. 2−69628
^{12}C(α,α′), 17.0-22.7 MeV, α-cluster states, resonances, J^π *(Russian)* 2−107823
^{12}C(π, π′), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
^Ca, A=40, 42, yrast lines and fusion bands 2−79992
^{40}Ca, strong E2 and M1 transitions 2−64372
^{40}Ca-^{48}Ca, low-lying collective excitation contrib. to nuclear density 2−95893
^{40}Ca+α system, bound, quasi-bound and scattering states 2−107825
^{40}Ca(α,X), optical pot. imaginary part, shell model calcs., collective state effects 2−101908
^{40}Ca(α,X), X=αp or 2α, giant reson. structures, forward-backward asymmetry in decay 2−69668
^{40}Ca(e,e′), spin-isospin mode excitation 2−95993
^{40}Ca(p, p) and (p, p′), 800 MeV, cross section and analysing power ang. distribs. 2−90108
^{40}Ca(π, π′), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
^{40}Ca($\pi^\pm$,π^0), giant-resonance excitation, eikonalised strong-absorption model 2−85103
^{48}Ca(α,α′), 70 MeV, 1$^+$ state obs. 2−54396
^{48}Ca(p,p′), 65 MeV, 1$^+$ state obs. 2−54396
Cd isotopes props. study in interacting boson approx. 2−84934
^Cd, A=112, 114, low lying collective states, transitions, IBM mixing parameters 2−90001
^{111}Cd^m production cross section, levels, transitions from γ-cascade calcs. from (n,γ), (n,n′) 2−113325
^{114}Cd intruder states, levels and reduced transition props. from (n,γ), (n,e$^-$) 2−59217
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
^{47}Cr, high spin states, γ decay from ^{46}Ti(^{5}He, 2n) and ^{40}Ca(^{12}C, αn) 2−107731
^{60}Cu, high-spin states, J^π, from ^{58}Ni(α, pnγ) 2−107730

nuclear collective states and giant resonances continued
^Dy, A=151,152 continuum γ-ray linear polarisation, collective rotations from ^{124}Sn(^{32}S,xn) 2−59322
^Dy A=152-161, quasi-continuum γ-ray deexcitation, yrast states, stat. model anal. of (α, xn), (^{12}C, xn) 2−79973
^Dy, A=158, 164, high spin states EM props. 2−95917
^{146}Dy 150 ms 10^{+} isomer, half life and γ-transitions from Zr(^{58}Ni,X) 2−90006
^{153}Dy, high-spin states, collective effects, deformation 2−79938
^{154}Dy, high-spin level struct. and lifetimes, collective to few particle transition, from (^{34}S, 4n) 2−79937
^{160}Dy aligned two quasiparticle bands, superbands from ^{161}Dy(^{3}He,α) 2−64353
^{164}Dy 0^{+} band identification, J$^{\pi}$, ARC spectroscopy from ^{163}Dy(n,γ) 2−113343
Er, backbending, second backbending, and higher backbendings 2−79932
Er, nuclei near N=82, lifetimes of transitions from very high spin states 2−54314
^Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^Er, A=146, 168, yrast line from number projected cranked HFB calcs. 2−113324
^Er, A=156-158, continuum γ-ray linear polarisation, collective rotations from ^{130}Te(^{32}S,xn) 2−59322
^{150}Er, yrast $(\pi h_{11/2})^{n}$ excitations 2−101798
^{153}Er high spin states and yrast isomerism, J$^{\pi}$, T$_{1/2}$ from ^{144}Sm(^{12}C, 3n) 2−89995
^{153}Er, high spin states study 2−69514
^{158}Er backbender, g-factors of high spin states in cranked HFB 2−69533
^{158}Er, high spin nuclei, alignment effects in correl. spectra 2−54308
^{163}Er bands, energy spectrum, Coriolis attenuation problem, particle rotor model 2−64354
^{164}Er, γ-vibration, pairing pot., rot. frequency depend., shell model+RPA calc. 2−101792
^{164}Er, giant dipole resonance, linear response theory, cranked RPA eqns. 2−90071
^{164}Er, γ-band and rot. alignment, high-spin anomaly, shell model+RPA calc. 2−101793
^{164}Er, high-spin states, four band mixture *(Chinese)* 2−54243
^{166}Er(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{168}Er level scheme, γ-transitions for deformed nuclei from ^{167}Er(n,γ) 2−113344
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896
^{171}Er, highly mixed 13/2^{+} states, structure and decay 2−59219
^{145}Eu, high-lying proton strengths from (α,t) and (^{3}He,d) 2−79939
^{151}Eu, low-lying states study via (n,n′γ) reaction 2−54245
^{152}Eu→^{152}Sm (^{152}Gd), radioactive decay, gamma-gamma coincidence studies 2−74747
^{153}Eu, ground and excited bands microscopic calc. 2−79927
^{154}Eu, energy level scheme, rotational bands, from ^{153}Eu(n,γ) 2−113499
^{16}F, T=1 4^{-} state excitation using ^{16}O(p,n), 35 MeV 2−79976
^{18}F low lying level lifetimes from ^{3}He(^{16}O,p) 2−113411
^{18}F, T=0 level, J$^{\pi}$=5^{-}, lifetime limit, γ-decay from ^{6}Li(^{16}O,αγ) 2−107726
Fe, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{56}Fe nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{69}Ga excited states, bands, J$^{\pi}$, mean lives, transitions from ^{64}Ni(^{7}Li,Zn) 2−89998
^Gd, A=144,147,148, yrast isomers quadrupole moments 2−74731
^Gd, A=153, 154, yrast band, ground and excited band microscopic elec. 2−79927
^Gd, A=154-160, even-even isotopes, interacting boson model extension and appl. 2−84971
^{147}Gd 8.6 MeV, 560 ns high spin isomer decay, spin and transitions from (^{12}C,5n), (α,5n) 2−90004
^{147}Gd, two-phonon octupole state, lifetime meas. 2−74743
^{152}Gd(^{40}Ar, ^{40}Ar′γ), 147.2 MeV, interband transitions, state lifetimes 2−113413
^{154}Gd, octupole vibr. band study using Ge(Li) γ-ray polarimeter 2−64797
^{156}Gd 6^{+} state half-life 2−113413
^{156}Gd levels, high spin states, in-beam γ-spectroscopy from ^{154}Sm(^{7}Li,X) 2−64350
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{66}Ge band struct., J$^{\pi}$, transitions, branching, collective calcs. from ^{58}Ni(^{10}B,pn) 2−69508
^{68}Ge, 6^{-} and 7^{-} states, g-factors from ^{58}Ni(^{12}C, 2p) 2−113363
^{70}Ge negative parity states, mean lifetimes, transitions from ^{56}Fe(^{16}O,2p) 2−113412
^{74}Ge(p,p′), 22 MeV, levels, J$^{\pi}$, DWBA and CCBA anals. 2−107724
^{76}Ge(^{12}C,4nγ), 48-60 MeV, ^{84}Sr high spin states study 2−54428
^{4}He, dipole giant reson. in Goldhaber-Teller model 2−84978
^{4}He(α,X), time dependent cluster theory, collective modes and monopole vibrs. 2−54236
^He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hg, A=189-198, weakly coupled bands, cranking model interpretation 2−84935
^{185}Hg high spin isomer from $^{185m+g}$Hg decay 2−113417
^{185}Hg^{m}→^{185}Hg^{g} decays, ICE spectrum 2−113414
^{190}Hg, weakly deformed, band crossings, from ^{181}Ta(^{14}N,5n) at 100 MeV 2−95900
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{156}Ho aligned two quasiparticle bands, superbands from ^{146}Nd(^{14}N,4n) 2−64353
^{157}Ho, levels, J$^{\pi}$, signature depend. transition rates above band crossing freq. from ^{146}Nd(^{15}N,4n) 2−90048
^{159}Ho single proton states, bands, J$^{\pi}$, Coriolis strengths, Nilsson assignments from ^{162}Er(p,α) 2−69516
^{165}Ho, rotational band, level excitation by (n,n′) 2−90043
^{165}Ho(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
nuclear collective states and giant resonances continued
^{166}Ho energy levels, spectroscopic factor observation, rotational states assignments, from ^{167}Er(t,α) 2−113341
^I, A=117, 119, 121, high spin states, bands, J$^{\pi}$, T$_{1/2}$, isomer g-factor from Sn(^{6}Li, 3n) 2−113337
^I, A=123, 125, 127, high spin states, bands, J$^{\pi}$, T$_{1/2}$, transitions from Sn(^{6}Li, 3n) 2−113336
^Kr, A=76, 78, 80, 82, low-lying octupole vibr. strength splitting 2−84939
^Kr, A=76, 78, 80, high spin states, J$^{\pi}$, two-quasiparticle plus rotor calcs. 2−89999
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{76}Kr yrast and band state lifetime meas., feeding times, transition intensity *(Chinese)* 2−79981
^{82}Kr, recoil distance lifetime meas. 2−59290
^{84}Kr, 8^{+} isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{137}La, N=80 nucleus, medium-spin levels and 360 ns I$^{\pi}$=19/2^{-} isomer 2−54232
(^{6}Li, X), 74.8-94.4 MeV, on A=181-208, fusion-fission, hot high spin nuclei decay 2−113334
^{7}Li(π$^{\pm}$,π$^{\pm}$), 143 MeV, elastic and inelastic scatt. study 2−59418
^Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{177}Lu 150.392 keV isomeric state feeding from ^{176}Lu(n,γ) 2−113395
^Mg, A=24,26, dynamical collectivity in rotation-vibration coupling theory 2−95901
^Mg(p,p′), A=24,26, 0.8 GeV, elastic and inelastic scatt. 2−54393
^{24}Mg, ^{12}C clusters, coupled channel orthogonality condition model, collective states 2−74737
^{24}Mg(^{17}O, ^{A}O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{24}Mg(α, X), X=αp or 2α, giant reson. structures, forward-backward asymmetry in decay 2−69668
^{25}Mg, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{25}Mg(^{16}O, ^{A}O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^Mo, A=96-104, even-even isotopes, configuration mixing 2−54303
^{90}Mo high spin states, level structure determination, J$^{\pi}$, T$_{1/2}$ from ^{90}Zr(^{3}He, 3nγ), shell model analysis 2−113327
^{104}Mo, energy level scheme from singles and γγ coincidence spectra 2−95976
^{14}N(n,γ$_{0}$)^{15}N, 5.6-13 MeV, neutron capture in giant reson. region 2−54383
^{14}N(n,p), 60 MeV, analogue isovector giant resonance excitation, DWBA anal. 2−107821
^{15}N(γ,xn), 10.8 to 38 MeV, photoneutron cross-sections, giant dipole resonance decay 2−113461
^{89}Nb, γ-ray spectroscopy 2−95965
^{90}Nb levels, J$^{\pi}$, ang. distribs., DWBA anal. of ^{90}Zr(^{3}He,t) 2−107725
^{146}Nd(^{20}Ne,X), 136 MeV, fusion reaction entry state pop. 2−113575
^{150}Nd, alpha cluster states, rot. bands, J$^{\pi}$ from ^{154}Sm(d,^{6}Li), 33 MeV 2−107729
^{18}Ne collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224
^{20}Ne 4^{+} yrast state g-factor, transient field precession meas. from ^{12}C(^{12}C,α) 2−59239
^{20}Ne, configuration mixing calculations with basis states obtained from constrained variational methods 2−59215
^{20}Ne, rotational bands in the U(3)-boson model, B(E2) values 2−90003
^{20}Ne(^{16}O, X), 15-29 MeV CM, excitation function meas. using γ-ray techniques 2−90141
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{58}Ni(^{12}C, γ)^{70}Se, capture reaction cross section 2−113561
^{58}Ni(^{3}He, ^{3}He), 130 MeV, ang. distrib., giant reson., optical and DWBA calc. 2−101909
^{58}Ni(α,α′), 129 MeV, L=0 strength, monopole resonance at 20 MeV 2−90070
^{58}Ni(p,p′), 27 MeV, levels J$^{\pi}$, collectivity, microscopic DWBA anal. 2−107727
^{60}Ni giant dipole resonance isospin splitting from (γ,γ), (γ,p), (γ,n) 2−64385
^{60}Ni(p,γ), 1570-1850 keV, proton resonance intermediate struct., Gamow-Teller config. 2−85035
^{237}Np(e,f), 10-34 MeV, giant resonances, comments 2−90170
^{237}Np(e,f), 10-34 MeV, giant resonances, reply to comments 2−90171
^{237}Np(γ,f), characteristics in E1 giant resonance region 2−54462
^{238}Np levels, bandheads, γ-transitions, conversion electrons from ^{237}Np(n,γ), ^{242}Am^{m} decay 2−113348
^{16}O,J$^{\pi}$=3^{-} level prediction in model based on tetrahedral symmetry 2−59221
^{16}O 4p-4h states, effective interactions, deformation clustering, HF calc. 2−69503
^{16}O collective level excitation from (p,p′) and (π,π′) *(Russian)* 2−59364
^{16}O, natural parity levels 2−59376
^{16}O(^{16}O, ^{16}O*), 24-41 MeV CM, mutual inelastic scatt., excitation functions meas. 2−90147
^{16}O(e,e′), spin-isospin mode excitation 2−95993
^{16}O(p̄,n)^{16}F, 134 MeV, analysing power and differential cross section meas. 2−64404
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{17}O coulomb excitation, giant-dipole resonance contribution 2−113443
^{18}O collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224
^{18}O positive parity rot. band, from ^{14}C(^{6}Li,d), 34 MeV 2−74725
^{18}O(e,e′), inelastic scatt. from low-lying even-parity states 2−64397
^{18}O(γ,x), x=p,d,t,α, charged photoparticle emission from ^{18}O giant reson. 2−54354
^Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
^{186}Os γ-rays multipole mixing ratio meas. and comparison with band-mixing calcs. 2−84953
^Pb(γ,γ), A=206, 208, 9.5-12 MeV, elastic scatt. cross section meas. 2−59329
^Pb→^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^{203}Pb level density effects on stat. calcs. for high spin fission from ^{197}Au(^{6}Li, X) 2−113335

nuclear collective states and giant resonances continued
^{208}Pb (α,α'), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb, giant Gamow-Teller states, spin-isospin sound 2−113438
^{208}Pb, low-lying vibr. states, phonon renormalisation study 2−74720
^{208}Pb, multipole electric resonances, strength functions *(Russian)* 2−90072
^{208}Pb(^{3}He, ^{3}He), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(α,α'), 84-119 MeV, giant monopole resonance excitation 2−85015
^{208}Pb(d,d), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(e,e'), 40.5, 50.4, 60.3, 75.2 MeV, transverse electric form factors, M1 transition strength levels 2−113358
^{208}Pb(e,e'), inelastic scatt., low-lying natural parity levels excitation 2−85032
^{208}Pb(γ,n), 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330
^{208}Pb(n,γ), 0.8-7.7 MeV, compound nucleus, direct-semidirect processes, giant resonance search 2−90106
^{208}Pb(p, p'), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
^{208}Pb(p,p'), 400 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{209}Pb giant dipole resonance, transitions, absolute cross sections from ^{208}Pb(n,γ) 2−101858
^Pd, A=108, 110, multiphonon vibr. states structure 2−64433
^{95}Pd 21/2$^+$ spin gap isomer, beta delayed proton emission from ^{58}Ni(^{40}Ca,X) 2−90005
^{97}Pd, excited states study 2−69600
^{103}Pd, deep-lying hole states in the optical model 2−90000
^{109}Pd, low spin, anti-aligned parity levels, particle rotor and IBFA calcs. 2−69583
Pm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
^{204}Po, 15$^-$ isomer mag. moment and Po internal mag. field in Ni 2−69534
^{210}Po, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{210}Po(d, p)^{211}Po, core-particle model interpretation 2−95894
Pt region, odd-A nuclei description in interacting boson-fermion model 2−74722
^{191}Pt quasiparticle core coupling using dynamic deformation theory core wave functions 2−64352
^{195}Pt level scheme, transitions, 13/2$^+$ isomer from ^{194}Pt(n,γ) 2−113345
^{226}Ra, octupole vibrs., phenomenological model 2−84940
^{228}Ra, K=0 bands and ^{228}Fr decay scheme 2−101844
^{79}Rb high spin states, J$^\pi$, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
^{81}Rb, EM transition strength study 2−54305
^{95}Rh, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{210}Rn, yrast traps and high-spin states 2−79936
^{94}Ru, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{99}Ru(^{16}O,C)Pd, Q values and Pd mass excess meas. 2−54247
^{101}Ru, high spin collective excitations 2−54235
^{104}Ru levels, high spin states, in-beam γ-spectroscopy from ^{100}Mo(^{7}Li,X) 2−64350
^{104}Ru levels, spin B(E2), from (^{208}Pb,^{208}Pb') 2−95899
^{32}S, rotational shape isomeric band 2−69513
^{32}S(e,e'), spin-isospin mode excitation 2−95993
^Sb, A=114, 116, high-spin states and multiquasiparticle excitations 2−113339
^Sb, A=114, 116 bands, J$^\pi$, transitions and $T_{1/2}$, decoupled neutron from (α,3nγ), (p,2nγ) 2−79931
^{40}Sc beta-decay to proton and α-particle unbound states in ^{40}Ca 2−85000
^{45}Sc(γ, p), 15.6-25 MeV, GDR direct cross-section, isospin, preequilibrium decay 2−107847
^Se(p,n), 19 to 25 MeV, A=76, 80, 82, excitation of analogue states, coupled channel analysis 2−113444
^{83}Se, coexisting intruder bands and role of proton subshell closure 2−54241
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795
^{28}Si negative parity rot. bands, quadrupole moments, cluster model approach 2−69518
^{28}Si+^{28}Si resonance behaviour at high ang. momentum 2−101863
^{28}Si(n,p), 59.6 MeV, giant dipole resonance parent analogue 2−107822
^{30}Si(α,α'), 120 MeV, 2$^+$ states, n and p transition matrix elements, relative signs 2−101796
^{30}Si(t,p)^{32}Si, 15 MeV, excitation energies meas. 2−54407
Si(p,p'), 115 MeV, giant resonances and low lying levels, DWBA anal. 2−69625
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
Sm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
^Sm(e,e'), A=148, 152, 150-215 MeV, giant multipole reson. electroexcitation 2−85031
^Sm(p,t), A=144, 148, 150, 154, 25.5 MeV, ang. distrib., two-step processes effects 2−95998
^{144}Sm(α,α'), 84-119 MeV, giant monopole resonance excitation 2−85015
^{146}Sm levels, transition probabilities, recoil distance lifetime meas., J$^\pi$ from ^{139}La(^{11}B,4n) 2−90049
^{149}Sm and N=87 nuclei, particle-hole and intruder-hole bands, transitions from ^{149}Pm, ^{149}Eu decays 2−113323
^{154}Sm(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{155}Sm, rotational-vibrational band structure 2−54231
^{115}Sn, deep-lying hole states in the optical model 2−90000
^{116}Sn(p,p'), 800 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{116}Sn(α,αn), 109 MeV, giant quadrupole resonance, fast neutron emission 2−85016
^{132}Sn, doubly closed shell nucleus, excited states from $\gamma\gamma$ coincidence 2−95964
^Sr, A=77-80, extreme prolate deformation 2−101802
^Sr, A=80, 81, high spin states, J$^\pi$, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
$T_<$ giant resonances, energies, B(Eλ) values, quasiparticle-phonon model *(Russian)* 2−59314
^{177}Ta isomer, levels, J$^\pi$, $T_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{179}Ta multiquasiparticle yrast states, isomers, J$^\pi$, $T_{1/2}$ from ^{176}Yb(^{7}Li, 4n) 2−79933
nuclear collective states and giant resonances continued
^{181}Ta(^{136}Xe,X), 1150 MeV, X-ray spectra, giant dipole strength function 2−101859
^{181}Ta(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
^{181}Ta(p,t)^{179}Ta, 19 MeV, differential cross section meas., evidence for particle-core coupling 2−85049
^{182}Ta band head energies calcs., two particle configuration assignments 2−69510
Te isotopes props. study in interacting boson approx. 2−84934
^Te, A=116, 118, 120, 122, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^{232}Th(^{208}Pb, ^{208}Pb'γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{232}Th(α,α'), 100, 172 MeV, isoscalar giant resonance excitation, monopole giant resonance splitting 2−90068
^{232}Th(n,n'), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{232}Th(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{46}Ti, yrast lines and fusion bands 2−79992
^{151}Tm, yrast ($\pi h_{11/2}$)^n excitations 2−101798
^{166}Tm, odd-odd nucleus, band structure study 2−69515
^{169}Tm(n,γ), cross section theoretical calc. 2−101878
^U, A=236, 238, fission isomer spectra in IBM, SU(3) limit 2−107767
^U(γ,f), A=235, 238, characteristics in E1 giant resonance region 2−54462
^{232}U, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{234}U(^{208}Pb, ^{208}Pb'γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{236}U lowest octupole bandhead, spin, conversion electron spectra from ^{235}U(n,γ) 2−113346
^{236}U(^{208}Pb, ^{208}Pb'γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{238}U(^{40}Ar,^{40}Ar'), 340 MeV, coupled channels and nuclear deexcitation 2−54429
^{238}U(α,α'), 100, 172 MeV, isoscalar giant resonance excitation, monopole giant resonance splitting 2−90068
^{238}U(e,e'f), 5-11.7 MeV, cross-section, E2 resonance strength 2−90178
^{238}U(γ,γ), 2-10 MeV, Delbruck scatt., nuclear resonance fluor., Coulomb correction effect 2−90085
^{238}U(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
^{238}U(n,n'), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{238}U(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{182}W(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{184}W 0$^+$, 1$^+$ and 2$^+$ states by average resonance capture in ^{183}W(n,γ) 2−113369
^{184}W 4$^+$ and 6$^+$ rot. states, gyromag. ratios from Larmor precession 2−69517
^{184}W bands, de-excitation γ-rays from ^{183}W(n,γ) 2−113396
Xe, even isotopes, ang. momentum projected yrast states, coherent phonon model 2−90002
Xe, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Xe, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^Xe, A=119, 121, $h_{11/2}$ negative parity band structures 2−113342
^Xe, A=119, 121, level structure and $h_{11/2}$ bands anal. in IBF model 2−95898
^{120}Xe, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^y(n,γ), A=88, 89, cross section theoretical calc. 2−101878
^{89}Y(p,p'), 21.1 MeV, elastic and inelastic scatt. 2−54372
^{99}Y, rotational band 2−95904
^Yb, A=161, 163, 165, 167, rotationally perturbed wave functions test 2−79959
^Yb, A=165-167, near yrast spectroscopy, levels, J$^\pi$, quasineutron states from Sm(^{17,18}O,xn) 2−89997
^{160}Yb backbender, g-factors of high spin states in cranked HFB 2−69533
^{166}Yb, high spin region, rotational band energies 2−113330
^{172}Yb nonbackbender, g-factors of high spin states in cranked HFB 2−69533
^{178}Yb, energy levels, J$^\pi$ assignments, angular distribution comparison with DWBA calcs., from ^{176}Yb(t,p) 2−113332
Zn, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{66}Zn negative parity states, mean lifetimes, transitions from ^{55}Mn(^{14}N,n2p) 2−113412
^Zr(γ, πn), A=90, 91, 94, 8-134 MeV, photoneutron cross section meas. 2−95989
^{90}Zr, low-energy octupole reson. gamma decay 2−85017
^{90}Zr(p,p'), 500 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{90}Zr(p,p'), giant M1 states within simple shell model 2−69627

nuclear coupling, molecular *see molecular nuclear coupling*

nuclear cranking model
A=158, 160, 172, g-factors of high spin states in cranked HFB 2−69533
A=232-248 nuclei, backbending, cranked shell model calc. 2−59212
actinide nuclei, rotational props. in cranked Hartree-Fock-Bogoliubov model 2−79928
backbending, cranked HFB field, instability 2−74724
collective props. depend. on potential energy and inertia tensor 2−101788
collective transitions at high level density 2−84942
CRAMOLA, cranking model for large amplitudes 2−95946
cranked HFB approx., particle pairs, backbending 2−54285
electromagnetic moments and transition rates from cranking model wavefunctions 2−64371
Hartree-Fock-Bogoliubov, cranked, wave functions, exact ang. momentum projection calc. 2−101823
high angular momenta nuclei, behaviour, in cranked HFB model 2−79929
kinetic energy, fluidic form, appl. to interacting nucleons 2−59265
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940

nuclear cranking model continued
rotating nuclei, vel. distrib., cranked deformed harmonic oscillator model 2−59211
rotational band and band mixing in cranking model 2−54282
self-consistent cranking model, high-spin RPA, quantisation 2−84983
semiclassical theory of nuclear rotation 2−84974
single-particle currents in the cranked harmonic oscillator model 2−90027
symmetry conserving Hartree-Fock-Bogoliubov theory, variational eqns. soln. 2−95950
^Dy, A=158, 164, high spin states EM props. 2−95917
^Er, A=146, 168, yrast line from number projected cranked HFB calcs. 2−113324
^{164}Er, giant dipole resonance, linear response theory, cranked RPA eqns. 2−90071
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hg, A=189-198, weakly coupled bands, cranking model interpretation 2−84935
^{190}Hg, weakly deformed, band crossings, from ^{181}Ta(^{14}N,5n) at 100 MeV 2−95900
^{82}Kr, recoil distance lifetime meas. 2−59290
^Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795

nuclear decay schemes *see radioactive decay schemes*

nuclear decay theory
see also alpha decay theory; beta decay theory
sequential decay of heavy reaction product, heavy-ion-light-particle angular correlations 2−113527
^{12}C+^{12}C resonance, nucleon decay 2−101934
^{12}C+^{16}O resonance, nucleon decay 2−101934

nuclear deformation *see nuclear shape*

nuclear density
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
atomic nuclei, continuous medium model 2−74727
density isomer search from multiple delayed neutron emission in (α,X), (^{12}C,X) *(Russian)* 2−107746
effective interactions, density depend., comparison between microscopic and empirical estimates 2−84961
geometrical relations for pot. obtained by folding density depend. interactions 2−95932
hadron-nucleus scatt., nuclear density functional form influence 2−64380
heavy ion reactions, density isomer efforts, phase transitions, shock-wave model 2−59385
heavy-ion fusion cross section, frictionless formula, nucl. structure effects 2−107879
heavy-ion relativistic collisions, exotic shape isomer products, density and lifetime 2−107887
homogeneous nuclear matter, density fluctuations 2−95951
leptodermous expansions in finite nuclei, density profiles, binding energy 2−84947
magnetisation, nuclear particles and momentum density distrib., review 2−59230
particle clustering and Mott transitions at finite temp. in nuclear matter 2−74741
pionic degrees of freedom behaviour in nuclear matter, microscopical theory *(Russian)* 2−90037
self-consistent energy density model with generalised Strutinsky-type smoothing 2−101801
short-range correl. on one- and two-body props. of nuclei 2−54266
surface and asymptotic properties, nuclear size parameters 2−113355
(α,α), 140,172 MeV, A=40-208 2−101907
(α,α), 42 MeV, A=40-68, matter density and RMS radius, folding model anal. 2−69524
(p,p), 1 GeV, A=2 to 208, cross sections, densities, neutron and matter distribs. 2−96002
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
^{40}Ca-^{48}Ca, low-lying collective excitation contrib. to nuclear density 2−95893
^{40}Ca(p,p), 1 GeV, cross sections from flucton model 2−69527
^{48}Ca neutron density distribs. by different strong probes, radial sensitivity of $\pi^{\pm}$, p, α 2−69525
Cs β-active superdense nuclei search from Ta(p,X) 2−95909
^He, A=3, 4, charge density, model-free determ. 2−54253
Rb β-active superdense nuclei search from Ta(p,X) 2−95909

nuclear electric moment
see also molecular nuclear coupling
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=62-86, E2 transition strengths systematics 2−69603
CC^{194}Ir, oriented in Fe and Ni, NMR, elec. quadrupole moment and g-factor 2−98977
cluster-phonon model calc. program, NUCORE 2−64364
electromagnetic moments and transition rates from cranking model wavefunctions 2−64371
gamma-ray cascades, rotational levels mean lives and B(E2) values 2−79978
inelastic electron scatt. form for 2^+ states excitation in If$_{7/2}$ nuclei 2−54361
isovector dipole mode, sum rule approach 2−107753
light nuclei ground and excited states in the three-body model, variational study 2−79960
multiphonon states, attenuation factors for B(E2) values, O(4) interacting boson model 2−101839
N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
^{27}Al, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{75}As, level struct., γ-ray correlation study and theoretical model, from ^{75}Se electron capture 2−95920

nuclear electric moment continued
Ba, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
Ca even isotopes, number conserving shell model 2−54280
^{43}Ca, hyperfine structure anal. of 4s4p configuration and nucl. quadrupole moment 2−114124
Cr even isotopes, number conserving shell model 2−54280
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
Fe even isotopes, number conserving shell model 2−54280
^Gd, A=144,147,148, yrast isomers quadrupole moments 2−74731
^{2}H asymptotic D-state, model independ. description, quadrupole moment 2−59257
^{3}H, photoeffect moments calc. using hyperspherical harmonics formalism 2−59240
^{165}Ho, spectroscopic nucl. elec. quadrupole moment 2−113903
^{116}In in InP single crystal, quadrupole moment from spin lattice relaxation 2−107754
^{186}Ir, magnetic dipole and elec. quadrupole moment study 2−84953
La II, HFS in low even configurations, interpretation 2−59955
^{25}Mg, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{26}Mg quadrupole moment and B(E2) as shell model test from ^{208}Pb(^{26}Mg, ^{26}Mg$'$) 2−69531
^Na, A=20-24, 31, radioactive isotopes, elec. quadrupole moments and isotope shifts meas. 2−84954
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795
^{28}Si negative parity rot. bands, quadrupole moments, cluster model approach 2−69518
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
^Sr, A=77-80, extreme prolate deformation 2−101802
Ti even isotopes, number conserving shell model 2−54280
Xe, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782

nuclear electric shielding *see nuclear screening*

nuclear electromagnetic transitions *see nuclear energy level transitions*

nuclear electron capture
see also beta-decay
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
double beta processes, lepton number conservation test 2−59292
K-electron capture shakeoff probabilities calc. using Dirac-Fock-Slater wave functions 2−85003
stellar, weak interaction rates for intermediate mass nuclei, results for A=21 to (A=60) 2−58322
stellar core collapse, neutron shell blocking of electron-capture 2−58323
stellar interiors, postshock neutrino transport and electron capture in core collapse 2−106669
^{75}As, perturbed directional correlations meas. in gaseous H_2 ^{75}Se/He sources 2−74748
^{209}At excited compounds nucleus lifetime by axial blocking, levels from ^{197}Au(^{12}C,f) 2−54317
^{197}Au, Au and Au-Cu Mossbauer isomer shift calc. from electron capture lifetime meas. 2−93076
^{128}Ba→^{128}Cs, cyclotron prod. of ^{128}Cs positron emitter for medical applic. 2−117084
^{131}Cs, K-electron capture decay, double K-hole creation 2−90057
^{64}Cu, nuclear electron density in CuSCN and Cu(SCN)$_2$, electron capture decay study 2−92545
^{145}Dy, neutron deficient isotope, EC and β^+ decay, ^{146}Tb γ-decays 2−69612
^{149}Eu decay, ^{149}Sm and N=87 nuclei, particle-hole and intruder-hole bands, transitions 2−113323
^{152}Eu→^{152}Sm (^{152}Gd), radioactive decay, gamma-gamma coincidence studies 2−74747
^{55}Fe soln., international comparison of activity meas. 2−108317
^{145}Gd, ϵ/β^+ decay, branching ratio anomalies and evidence for structures in β-decay strength 2−54327
1 MeVHe ions, equilib. mean charge calc. 2−96720
^{3}He(α,γ)^{7}Be, 165-1170 keV CM, cross-section and branching ratio meas. 2−85065
^{185}Hg^{m+g} decay, ^{185}Au levels, J$^{\pi}$, nuclear model test 2−113417
^{163}Ho→^{163}Dy, electron capture β-decay, ν_e mass upper limit 2−85001
^{77}Kr, mass difference meas. using beta-endpoints 2−84945
^Pb→^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^Rb, A=75, 77, mass difference meas. using beta-endpoints 2−84945
^{109}Sb β^+-decay, $T_{1/2}$, Q_{EC} value, ^{109}Sn levels and transitions 2−113416
^{75}Se electron capture, ^{75}As level struct. 2−95920
^{136}Sm, neutron deficient isotope, EC and β^+ decay, ^{136}Pm γ-decays 2−69612
^{180}Ta^{g,m}, production cross-section, β-decay, capture, from ^{180}Hf(p,n) 2−107811
^{151}Tb, EC+β^+ decay, ^{151}Gd excited states and transitions 2−90017

nuclear emulsions *see nuclear track emulsions*

nuclear energy *see nuclear power*

nuclear energy level lifetimes
cluster-phonon model calc. program, NUCORE 2−64364
gamma-ray cascades, rotational levels mean lives and B(E2) values 2−79978
heavy-ion relativistic collisions, exotic shape isomer products, density and lifetime 2−107887
^Al, A=31, 32, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios from ^{25}Mg(p,γ) 2−107797
^{26}Al, mirror γ-ray strength isospin decomposition 2−79977
^{27}Al, levels mean lifetime meas. in (n,n$'\gamma$) reaction using DSAM 2−95967
^{27}Al, resonance states γ-decay and bound levels study 2−54307
^{27}Al, short-lifetimes, Doppler shift attenuation meas. from ^{26}Mg(p,γ) 2−107806
^{205}At, high-spin state props. study 2−59220
^{209}At excited compounds nucleus lifetime by axial blocking, levels from ^{197}Au(^{12}C,f) 2−54317
^{210}At 10$^-$ isomer, half life, singlet-force splitting effect from ^{209}Bi(α, 3n) 2−113321
^{212}At, low-seniority shell-model structure 2−54233
^Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{81}Br(^{6}Li,4nγ), 19-32 MeV, ^{84}Sr high spin states study 2−54428

nuclear energy level lifetimes continued
^{114}Cd intruder states, levels and reduced transition props. from (n,γ), (n,e$^-$) 2−59217
^{121}Cd^{g,m}, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{135}Ce, 19/2$^+$ isomer mag. moment 2−54262
^{55}Co, half-life values and relative intensities of γ-rays 2−95966
^Cu, A=60, 61, half-life values and relative intensities of γ-rays 2−95966
^{63}Cu(p,nγ)^{63}Zn, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{146}Dy 150 ms 10$^+$ isomer, half life and γ-transitions from Zr(^{58}Ni,X) 2−90006
^{154}Dy, high-spin level struct. and lifetimes, collective to few particle transition, from (^{48}S, 4n) 2−79937
Er, nuclei near N=82, lifetimes of transitions from very high spin states 2−54314
^Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{153}Er high spin states and yrast isomerism, J^π, T$_{1/2}$ from ^{144}Sm(^{12}C, 3n) 2−89995
^{153}Er, high spin states study 2−69514
^{18}F, 1.701 MeV level lifetime from inverse ^{3}He(^{16}O,p) 2−74732
^{18}F low lying level lifetimes from ^{3}He(^{16}O,p) 2−113411
^{18}F, T=0 level, J^π=5$^-$, lifetime limit, γ-decay from ^{6}Li(^{16}O,αγ) 2−107726
^{218}Fr→^{214}At→^{210}Bi, isomeric states in Fr and At from α-spectroscopic data 2−85004
^{69}Ga excited states, bands, J^π, mean lives, transitions from ^{64}Ni(^{7}Li,Zn) 2−89998
^{147}Gd, two-phonon octupole state, lifetime meas. 2−74743
^{152}Gd(^{40}Ar, ^{40}Ar'γ), 147.2 MeV, interband transitions, state lifetimes 2−113413
^{153}Gd, levels, J^π, log ft, T$_{1/2}$, g-factor, from ^{153}Tb β$^+$ decay 2−95962
^{156}Gd 6$^+$ state half-life 2−113413
^{70}Ge negative parity states, mean lifetimes, transitions from ^{56}Fe(^{16}O,2p) 2−113412
^{76}Ge(^{12}C,4nγ), 48-60 MeV, ^{84}Sr high spin states study 2−54428
^Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^{206}Hg, 2.102 MeV level, nuclear gyromagnetic ratio, spin parity, and lifetime meas. from ^{204}Hg(t,p)^{206}Hg 2−113364
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^I, A=117, 119, 121, high spin states, bands, J^π, T$_{1/2}$, isomer g-factor from Sn(^{6}Li, 3n) 2−113337
^I, A=123, 125, 127, high spin states, bands, J^π, T$_{1/2}$, transitions from Sn(^{6}Li, 3n) 2−113336
^{124}I, odd-odd nucleus, excited states produced in (p,n) reaction, γ-spectra study 2−101814
^{121}In, decay study by γ-ray and conversion electron spectroscopy 2−54306
^Kr, A=76, 82, 84, Coulomb excitation and lifetime meas. of 2$_1^+$ states 2−54309
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{76}Kr yrast and band state lifetime meas., feeding times, transition intensity *(Chinese)* 2−79981
^{82}Kr, recoil distance lifetime meas. 2−59290
^{137}La, N=80 nucleus, medium-spin levels and 360 ns I^π=19/2$^-$ isomer 2−54232
^Mg, A=29, 30, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{26}Mg, mirror γ-ray strength isospin decomposition 2−79977
^{90}Mo high spin states, level structure determination, J^π, T$_{1/2}$ from ^{90}Zr(^{3}He, 3nγ), shell model analysis 2−113327
^{95}Mo(n,γ)^{96}Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
^{99}Mo, level half-life and transition probability from delayed βγ coincidence 2−95971
^Na, A=27, 28, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{22}Na, branching ratio for isoscalar transition 2$^+$, T=1, 1.95 MeV→0$^+$, T=1, 0.66 MeV 2−84993
^{99}Nb, level half-life and transition probability from delayed βγ coincidence 2−95971
^{93m}Nb, radioactive half-life, extended meas. *(French)* 2−54313
^{20}Ne 4$^+$ yrast state g-factor, transient field precession meas. from ^{12}C(^{12}C,α) 2−59239
^{25}Ne, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{57}Ni, half-life values and relative intensities of γ-rays 2−95966
^{18}O, first excited level lifetime from Doppler-broadened lineshape anal. 2−54311
^{22}O, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
^{197}Pt^m decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
^{81}Rb, EM transition strength study 2−54305
^{85}Rb, decay scheme and transition probabilities 2−84994
^{30}S, level lifetimes and E2 transition strength variations 2−101840
^{33}S, spectra, E2 transition probability, spectroscopic factors, from ^{32}S(d,p), semiphenomenological model 2−84955
^Sb, A=114, 116 bands, J^π, transitions and T$_{1/2}$, decoupled neutron from (α,3nγ), (p,2nγ) 2−79931
^{121}Sb, 37.1 keV level half-life from delayed coincidence meas. 2−90050
^{129}Sb, β-decay, from ^{235}U(n,f), T$_{1/2}$, ^{129}Te levels 2−107812
^Se, A=85-88, fission products, on-line system for isolation and study 2−96404
^{71}Se, β-decay daughter of ^{71}Br, decay scheme and half-life study 2−101845
^{26}Si, level lifetime meas. and neutron to proton transition amplitudes ratio 2−79980
^{26}Si, mirror γ-ray strength isospin decomposition 2−79977
^{146}Sm levels, transition probabilities, recoil distance lifetime meas., J^π from ^{139}La(^{11}B,4n) 2−90049
^{129}Sn, β-decay, from ^{235}U(n,f), T$_{1/2}$, ^{129}Sb levels 2−107812
^{133}Sn, doubly closed shell nucleus, excited states from γγ coincidence 2−95964
^Sr, A=77-80, extreme prolate deformation 2−101802
^{177}Ta isomer, levels, J^π, T$_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{179}Ta multiquasiparticle yrast states, isomers, J^π, T$_{1/2}$ from ^{176}Yb(^{7}Li, 4n) 2−79933

nuclear energy level lifetimes continued
^{99}Tc^m decay constant, half-life, nonclassical meas. method *(Chinese)* 2−54312
^{235}U^m, internal conversion, lifetime and spectra, laser irrad. effect 2−74746
^Zn, A=62, 63, half-life values and relative intensities of γ-rays 2−95966
^{64}Zn(^{7}Li,pxnγ), excited states study in ^{68}Ge,^{69}Ge 2−54437
^{66}Zn negative parity states, mean lifetimes, transitions from ^{55}Mn(^{14}N,n2p) 2−113412
^{98}Zr, excited 0$^+$ levels study 2−59288

nuclear energy level transitions
see also internal conversion; Mossbauer effect; nuclear branching and mixing ratios; nuclear energy level lifetimes
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=113, nuclear data sheets, levels, transitions, Jπ 2−58559
A=12 system, isovector 0$^+$⇄1$^+$ transition, chiral symmetry and axial charge density 2−95961
A=131-138 high spin states, isomeric ratios, excitation mechanisms from (π$^-$,xnyp) 2−95895
A=131-238, low lying energy spectra from effective hamiltonian IBA 2−79972
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=180-209, (^{6,7}Li, xn), 55-124 MeV, K X-ray multiplicity, collective struct. 2−69595
A=188, nuclear data sheets, levels, transitions, J^π 2−58558
A=20, 24, 28, 32, 36, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
A=227-250, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=243, nuclear data sheets, levels, transitions, Jπ 2−58560
A=245, nuclear data sheets, levels, transitions, Jπ 2−58561
A=247, nuclear data sheets, levels, transitions, Jπ 2−58562
A=62-86, E2 transition strengths systematics 2−69603
A=78, nuclear data sheets, levels, transitions, J^π 2−58557
A≈100 transitional region interpretation in interacting boson model framework 2−54287
advances in nuclear physics, book 2−58571
angular distribution of gamma quanta in the reaction ^{209}Bi (n,n'γ) 2−69652
axion search in nuclear γ-transitions 2−59086
C ^{231}Th decay, γ-ray emission probabilities meas. 2−54300
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
collective props. depend. on potential energy and inertia tensor 2−101788
collective strength distrib., E1 strength, fast neutron capture probes 2−113349
collective transitions at high level density 2−84942
compound states, E1 transitions, neutron resonance widths *(Russian)* 2−59287
deformed nuclei, E2 transitions, rel. to interacting boson approx. 2−107801
deformed nuclei, interacting boson approx. E2 operator 2−69598
deformed nuclei, interacting boson approx. wave functions and transition rates 2−54284
deformed nuclei, rot. State multiple Coulomb excitation, eikonal model 2−79974
deformed nuclei, spin alignment by Coulomb excitaton, $q_{ef}(\theta)$ approx. 2−90044
dipole nature of statistical gamma-ray spectra following neutron capture 2−113407
doubly even nuclei, transition strength B(E2) in yrast bands 2−69601
ds-shell nuclei, isovector mag. dipole sum rules 2−59289
E1 γ-ray strength function parametrisation for (n,γ), (p,γ) cross section calcs. 2−113400
electromagnetic moments and transition rates from cranking model wave-functions 2−64371
even-even deformed nuclei, M1 transitions, interacting boson model calc. 2−107802
even-even nuclei, octupole states and transitions in SO(6) limit *(Chinese)* 2−79941
excitation energy-spin relationship, regularities, shell model calcs. 2−107765
excitation strength distribution calc. for shell model examples 2−101835
finite fermion systems, sum rules for dipole transitions, giant resonances *(Russian)* 2−79993
fission dynamics and collective phenomena, symposium, Bad Honnef, Germany (Oct. 1981) 2−112657
Gamow-Teller and M1 states including Δ-hole excitation, RPA calc. 2−79979
Gamow-Teller giant resonance, collective state decay 2−79991
heated rotating nuclei, isovector dipole mode decay, γ-spectrum, shape 2−54238
heavy-ion collisions, multiple Coulomb excitation, in classic S-matrix theory 2−96029
high-spin isomerism near A=75 and 100, ns feeding times 2−84941
high-spin states, nuclear states and shapes 2−64349
high-spin states, structure, Coulomb excitation *(Russian)* 2−54230
higher multiple giant resonances, Fourier-Bessel random phase approx. 2−113441
hypernuclear spectroscopy techniques, Λ- and Σ-reactions, review 2−59278
inelastic electron scatt. form for 2$^+$ states excitation in 1f $_{7/2}$ nuclei 2−54361
inelastic hadron scatt., isoscalar transition rates, implicit folding procedure 2−95968
Interacting Boson Model, boson cutoff and band crossing 2−69564
(K$^-$,π$^-$) strangeness exchange, hypernuclear resonance excitation, p-shell struct. effect 2−59279
mass dependence of the giant resonance model 2−113450
multiphonon states, attenuation factors for B(E2) values, O(4) interacting boson model 2−101839
N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
(n,γ), high-precision spectroscopy, nuclear struct. research 2−107803
neutron capture model, strong E1 transitions, giant dipole resonances, non-statistical effects, doorway state 2−113401

nuclear energy level transitions continued
neutron resonance mean total radiative width, E1 transitions between compound states 2−113402
nuclear structure inferred from heavy ion Coulomb excitation in Interacting Boson model 2−69576
parity violation, quark supersymm. scalar partners mass 2−101596
partial E1 radiative strength functions, optical description, effective charge 2−113403
pionic and Δ(1232) degrees of freedom in nuclei, review 2−59339
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
quasiparticle-phonon model, neutron resonances, partial transitions, giant dipole resonances 2−113448
radiative E2 strength in neutron capture 2−113406
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
resonance averaged γ-ray spectroscopy, historical description and statistical anal. 2−113404
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
shape isomers, γ-decay search, rel. to (γ,f) 2−107916
(d,d′), A=16-232, 20 MeV, evidence for different proton and neutron deformations, transitions 2−69521
(e,e′), inelastic scatt. at low energy, mag. transitions and mag. polarisability of nuclei 2−54360
(n,γ), E1 transitions, p-state spectroscopy 2−107867
(n,γ), thermal and resonance capture, direct capture, E2 transitions, strength functions 2−113505
(n,n′) near collective excitation threshold, rel. to statistical-optical model calc. *(Russian)* 2−54362
(p,p′), 200 MeV, A=51-140, M1 resonance excitation, cross sections, DWIA anal. 2−113439
(p,p′) on ^{90}Zr, ^{120}Sn, ^{144}Sm, ^{208}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
^{227}Ac levels and transitions 2−54301
^{108}Ag^{m}, E1 γ-ray transition energy *(French)* 2−79969
^{26}Al bound states excitation energies 2−95959
^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios from ^{25}Mg(p,γ) 2−107797
^{27}Al(^{16}O, Xγ), 100 MeV, deeply inelastic, fragment γ-ray deexcitation, spin alignment 2−69594
^{27}Al(n,γ), ^{28}Al complete level schemes, γ-ray spectra 2−107869
^{28}Al, level scheme, γ-ray energies from ^{27}Al(n,γ) 2−107804
^{28}Al levels, transitions, J^{π} and neutron binding energy from ^{27}Al(n,γ) 2−90020
^{75}As, 3/2^{-}→3/2^{-} transition, electric monopole matrix element calc. 2−90041
^{75}As, level struct., γ-ray correlation study and theoretical model, from ^{95}Se electron capture 2−95920
^{78}As→^{78}Se, β^{-} decay, γ-rays spectroscopy 2−69597
Au, odd isotopes, dynamical supersymmetries and positive parity states 2−69530
Au(Cu,X), 400 MeV, γ-multiplicities, ang. momentum transfer, collective modes 2−113392
^{185}Au levels, J^{π}, nuclear model test from ^{185}Hg^{m+g} decay 2−113417
^{197}Au (α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{197}Au γ-decay, Mossbauer test of T-invariance 2−59285
^{198}Au 312 keV 5^{+} isomer, gamma transitions from ^{297}Au(n,γ) 2−113398
^{11}B levels, γ-transitions, branching ratios from ^{11}Be β-decay 2−113419
Ba moment of inertia from γγ correlations from Sn(^{12}C,X) 2−59216
^{130}Ba levels, J^{π} and transitions from ^{130}La β^{+}-decay 2−90021
^{137}Ba, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{141}Ba levels, J^{π}, transitions from ^{141}Cs β-decay 2−113422
^{145}Ba levels, J^{π}, transitions from ^{145}Cs β-decay 2−90060
^{8}Be nuclear cluster structure and α-α elastic scatt. unified study 2−95948
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^{249}Bk(α,α′), 17.06 MeV, ground state rot. band, Coulomb excitation, transition sites, mag. moments 2−69511
^{73}Br high spin states, J^{π}, transitions from ^{58}Ni(^{16}O, np) 2−69507
^{76}Br high spin, two-quasiparticle bands, isomer, transitions from (α,pn), (^{3}He,p2n), (d,2n), (p,n) 2−90007
^{78}Br, high-spin states in-beam study 2−54234
^{83}Br high spin states, J^{π}, yrast bands, transitions from ^{82}Se(Li, αxnγ) 2−69506
^{12}C 0^{+},3^{-} resonances, $J^{[1]}$ and transitions from ^{11}B(p,γ) 2−69623
^{12}C, 0^{+}(GS)→2^{+}(4.44 MeV) transition density 2−107794
^{12}C, 15.1 MeV level e^{+}e^{-} pair decay 2−59300
^{12}C 2^{+} state spin alignment, γ-decay from (^{12}C,^{12}C), (^{12}C,^{12}C′), (^{12}C,^{13}C) 2−69528
^{12}C bound and unbound state transitions, cross sections, possible giant resonance from ^{11}B(p,γ) 2−90110
^{12}C, M1 transitions, from (p,p′), tensor force effect 2−54302
^{12}C spin flip excitation strength due to isobar-hole excitation process 2−113362
^{12}C+^{12}C, direct γ-transition search 2−107829
^{12}C+^{12}C 14^{+} resonance, γ to particle decay ratio 2−107828
^{12}C(^{12}C, ^{12}C), elastic and inelastic, γ-rays from quasimolecular ^{12}C+^{12}C resonances 2−69596
^{12}C(^{12}C,α)^{20}Ne, 15 MeV, ang. distrib., excitation energy, nonstatistical effects 2−96035
^{12}C(π,π′), Δ-hole descript., natural and unnatural parity state excitation 2−96045
^{13}C(^{13}C,X), $E_{c.m.}$=4-15.8 MeV, fusion cross section meas. 2−54465
Ca even isotopes, number conserving shell model 2−54280
^{A}Ca, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{A}Ca(^{16}O, ^{16}O′), 56 MeV, inelastic scatt. study 2−64438
^{40}Ca lowest T=2 state, decay transitions from ^{36}Ar(α,γ) 2−107798
^{40}Ca, strong E2 and M1 transitions 2−64372
^{40}Ca(e,e′), 31-65 MeV, form factors meas. for 10.32 MeV transition 2−85034
^{41}Ca, negative parity states 2−59235
^{48}Ca spin flip excitation strength due to isobar-hole excitation process 2−113362
^{48}Ca(α,α′), 70 MeV, 1^{+} state obs. 2−54396
^{48}Ca(p,p′), 160 MeV, 1^{+} state excitation, anal. powers, possible mesonic effects 2−90078
nuclear energy level transitions continued
^{49}Ca(p,p′), 44.4 MeV, 10.212 MeV 1^{+} state excitation 2−69658
^{48}Ca(p,p′), 65 MeV, 1^{+} state obs. 2−54396
^{49}Ca resonances and transitions from ^{49}K β-decay 2−59297
Cd isotopes props. study in interacting boson approx. 2−84934
^{A}Cd, A=112, 114, low lying collective states, transitions, IBM mixing parameters 2−90001
^{111}Cd^{m} production cross section, levels, transitions from γ-cascade calcs. from (n,γ), (n,n′) 2−113325
^{114}Cd intruder states, levels and reduced transition props. from (n,γ), (n,e^{-}) 2−59217
^{118}Cd, spins, multipolarities, mixing ratios, from ^{113}Cd(n, γ) ang. correl. 2−95960
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{140}Ce, level spin-parities, γ-ray transition multipolarities, from ^{140}La β-decay 2−59282
^{140}Ce, multipolarity of soft γ transitions between compound states following ^{143}Nd(n,γα) 2−113408
^{35}Cl, 398 eV resonance, parity from ^{34}Cl(n,γ) 2−113449
^{35}Cl(n,γ),^{36}Cl complete level schemes, γ-ray spectra 2−107869
^{36}Cl levels, gamma transitions, neutron binding energy from ^{35}Cl(n,γ) 2−113391
^{38}Cl, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
^{245}Cm energy levels from thermal neutron capture γ-rays 2−84992
^{A}Co, A=56-58, relative intensities of γ-rays 2−95966
^{59}Co(n,n′γ), levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
Cr even isotopes, number conserving shell model 2−54280
^{47}Cr, high spin states, γ decay from ^{46}Ti(^{3}He, 2n) and ^{40}Ca(^{12}C, αn) 2−107731
^{A}Cs, A=134m, 134g, 134m+g, isomeric cross section ratio, γ-cascades, spin cut-off from ^{133}Cs(n,γ) *(Chinese)* 2−95924
^{A}Cu, A=61,63, radiative strength functions and intensity correlations from Ni(p̄,γ) *(Russian)* 2−107800
^{59}Cu, isospin impurity and core polarisation of IAR fragments 2−101856
^{65}Cu, axion search in monochromatic M1 transition 2−113393
^{65}Cu, M3 strength quenching in ground state 2−113465
^{A}Dy, A=151,152 continuum γ-ray linear polarisation, collective rotations from ^{124}Sn(^{32}S,xn) 2−59322
^{A}Dy A=152-161, quasi-continuum γ-ray deexcitation, yrast states, stat. model anal. of (α, xn), (^{12}C, xn) 2−79973
^{A}Dy, A=156-8, γ-ray multiplicities from ^{158}Gd(α, xn) 2−80021
^{A}Dy, A=158, 164, high spin states EM props. 2−95917
^{146}Dy 150 ms 10^{+} isomer, half life and γ-transitions from Zr(^{58}Ni,X) 2−90006
^{164}Dy 0^{+} band identification, J^{π}, ARC spectroscopy from ^{163}Dy(n,γ) 2−113343
^{A}Er, A=156-158, continuum γ-ray linear polarisation, collective rotations from ^{130}Te(^{32}S,xn) 2−59322
^{153}Er high spin states and yrast isomerism, J^{π}, $T_{1/2}$ from ^{144}Sm(^{12}C, 3n) 2−89995
^{158}Er, high spin nuclei, alignment effects in correl. spectra 2−54308
^{163}Er bands, energy spectrum, Coriolis attenuation problem, particle rotor model 2−64354
^{168}Er, average radiation width, Axel-Brink test 2−113409
^{168}Er level scheme, γ-transitions for deformed nuclei from ^{167}Er(n,γ) 2−113344
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896
^{171}Er, highly mixed 13/2^{+} states, structure and decay 2−59219
Eu, odd A, vibrational to rotational spectra change, IBFM study 2−69582
^{A}Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^{145}Eu, high-lying proton strengths from (α,t) and (^{3}He,d) 2−79939
^{151}Eu, low-lying states study via (n,n′γ) reaction 2−54245
^{152}Eu→^{152}Sm (^{152}Gd), radioactive decay, gamma-gamma coincidence studies 2−74747
^{16}F, T=1 4^{-} state excitation using ^{16}O(p,n), 35 MeV 2−79976
^{18}F deexcitation γ-rays, 0^{+}→0^{-} branch ft value from ^{18}Ne β decay 2−90056
^{18}F, T=0 level, J^{π}=5^{-}, lifetime limit, γ-decay from ^{6}Li(^{16}O,αγ) 2−107726
^{19}F, analogue resonances from ^{18}O(p,x′γ)^{19}F γ-ray emission meas. 2−107820
^{19}F levels, γ-branching, γ-energies from ^{19}O β^{-}-decay 2−69608
Fe even isotopes, number conserving shell model 2−54280
^{55}Fe, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{55}Fe, radiative strength functions for partial γ-transitions from resonances 2−101833
^{56}Fe on steel target, 940 MeV/u, anomalous nucl. states, delayed γ decays 2−107888
^{65}Ga, $d_{5/2}$ isobaric analogue resonance decay following ^{64}Zn(p,γ) 2−90066
^{69}Ga excited states, bands, J^{π}, mean lives, transitions from ^{64}Ni(^{7}Li,Zn) 2−89998
^{A}Gd, A=154-160, even-even isotopes, interacting boson model extension and appl. 2−84971
^{128}Gd(n,n′γ), excited states, γ-ray spectra meas. *(Russian)* 2−101811
^{145}Gd, complex beta-decay schemes 2−79984
^{145}Gd, ε/β^{+} decay, branching ratio anomalies and evidence for structures in β-decay strength 2−54327
^{147}Gd 8.6 MeV, 560 ns high spin isomer decay, spin and transitions from (^{12}C,5n), (α,5n) 2−90004
^{147}Gd, two-phonon octupole state, lifetime meas. 2−74743
^{151}Gd excited states and transitions from ^{151}Tb decay 2−90017
^{152}Gd transitions, from ^{152}Eu internal conversion coeffs. 2−90052
^{152}Gd(^{40}Ar, ^{40}Ar′γ), 147.2 MeV, interband transitions, state lifetimes 2−113413
^{153}Gd, γ-transitions, decay energy 2−90045
^{153}Gd, levels, J^{π}, log ft, $T_{1/2}$, g-factor, from ^{153}Tb β^{+} decay 2−95962
^{154}Gd, octupole vibr. band study using Ge(Li) γ-ray polarimeter 2−64797
^{156}Gd levels, high spin states, in-beam γ-spectroscopy from ^{154}Sm(^{7}Li,X) 2−64350
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{66}Ge band struct., J^{π}, transitions, branching, collective calcs. from ^{58}Ni(^{10}B,pn) 2−69508
^{70}Ge negative parity states, mean lifetimes, transitions from ^{56}Fe(^{16}O,2p) 2−113412
^{75}Ge, 5/2^{+} level at 192.5 keV, 52.5 keV transition 2−84956

nuclear energy level transitions continued
^{2}H(γ,X), photoabsorption, meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
^{2}H(γ,γ), meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
^{4}He, excitation energies, from ^{4}He(α,αp) 2−95956
^Hf, A=181,182, levels, J$^{\pi}$, transitions from Lu β-decay 2−69609
^{157}Ho, levels, J$^{\pi}$, signature depend. transition rates above band crossing freq. from ^{146}Nd(^{15}N,4n) 2−90048
^{165}Ho, rotational band, level excitation by (n,n′) 2−90043
^I, A=117, 119, 121, high spin states, bands, J$^{\pi}$, T$_{1/2}$, isomer g-factor from Sn(^{6}Li, 3n) 2−113337
^I, A=123, 125, 127, high spin states, bands, J$^{\pi}$, T$_{1/2}$, transitions from Sn(^{6}Li, 3n) 2−113336
^{124}I, odd-odd nucleus, excited states produced in (p,n) reaction, γ-spectra study 2−101814
^In, A=106, 108, levels, from Sn β^{+}-decay 2−90054
^{113}In, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{115}In(n,γ)^{116}In^{m}, neutron activation parameters, cross sections and half-lives 2−95969
^K, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{40}K, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
Kr, transfer probabilities in pair aligned model, nuclear field theory anal. 2−69573
^{76}Kr yrast and band state lifetime meas., feeding times, transition intensity *(Chinese)* 2−79981
^{78}Kr, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{84}Kr, 8^{+} isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{87}Kr, level density from ^{86}Kr(n,γ) 2−113371
^{135}La levels study by X-ray and conversion-electron spectroscopy *(Russian)* 2−64370
^{140}La, low energy level struct. from ^{139}La(n,γ) 2−113370
^{144}La levels, J$^{\pi}$, transitions from ^{144}Ba β-decay 2−113421
^{6}Li, ^{13}D$_{1}$ state excitation, from ^{7}Li(^{3}He,αd) 2−84990
^{6}Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
^Lu, A=162, 163, level schemes from Hf decay 2−90058
^{171}Lu, γ-ray spectra, internal conversion, eγ coincidence, decay scheme 2−90051
^{177}Lu 150.392 keV isomeric state feeding from ^{176}Lu(n,γ) 2−113395
^{179}Lu levels, J$^{\pi}$, transitions from ^{179}Yb β-decay 2−69609
^{23}Mg l=0 transition, DWBA failure for ^{24}Mg (p̄,d) 2−69634
^{24}Mg excitation spectrum, compound processes from ^{14}N(^{14}N, α), comparison with ^{12}C(^{16}O, α) 2−64429
^{24}Mg(^{16}O,^{12}C)^{28}Si, excitation functions, intermediate struct. 2−96028
^{24}Mg(p,n)^{24}Al, 35 MeV, stretched 6 T=1 state in ^{24}Al 2−54379
^{26}Mg quadrupole moment and B(E2) as shell model test from ^{208}Pb(^{26}Mg, ^{26}Mg′) 2−69531
^Mo(^{6}Li,^{8}B), A=92, 94, 96, 98, 100, 90 MeV, two-proton pick-up reactions 2−54422
^{98}Mo(n,γ), nonstatistical mechanisms, neutron strength function, capture cross sections 2−113504
^{104}Mo, energy level scheme from singles and $\gamma\gamma$ coincidence spectra 2−95976
^{14}N, first-excited state decay, γ-ray energy meas. 2−107796
^{14}N(α, α′), 34.85 MeV, negative parity states, transitions, DWBA anal. 2−84958
^{15}N(γ,xn), 10.8 to 38 MeV, photoneutron cross-sections, giant dipole resonance decay 2−113461
^{23}Na, low energy resonances obs. in ^{A}Ne(p,γ)^{23}Na, A=21, 22 2−101891
^{89}Nb, γ-ray spectroscopy 2−95965
^{90}Nb^{m} decay rate obs. via E3 conversion electrons 2−54315
^{94}Nb, photon strength functions from ^{93}Nb(n,γ) 2−113405
Nd, even isotopes, shape transitions, in IBA 2−79971
^Nd, A=144, 146, anomalously strong E1 transitions following ^{143,145}Nd(n,γ) 2−113410
^{142}Nd(n,n′γ), gamma radiation investigation, level energies 2−113495
^{146}Nd(^{20}Ne,X), 136 MeV, fusion reaction entry state pop. 2−113575
^{147}Nd levels, transitions, spectroscopic factors, DWBA anal. of (d,p), (d,t) 2−90016
^{148}Nd(n,n′γ), gamma radiation investigation, level energies 2−113496
^{150}Nd(n,n′γ), gamma radiation investigation, level energies 2−113497
^{20}Ne, rotational bands in the U(3)-boson model, B(E2) values 2−90003
^{20}Ne(^{12}C, X), 11-33 MeV, A=20-30 reaction product excitation functions, fusion crit. ang. mtum. 2−69672
^Ni, A=59,61, radiative strength functions for partial γ-transitions from resonances 2−101833
^{56}Ni excitation function, intermediate struct. resonances, from ^{28}Si(^{28}Si,^{28}Si) 2−74774
^{59}Ni, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{68}Ni 2$_{1}^{+}$ and 0$_{2}^{+}$ inversion, levels and transitions, magic features from ^{70}Zn(^{14}C,^{16}O) 2−95922
^{238}Np levels, bandheads, γ-transitions, conversion electrons from ^{237}Np(n,γ), ^{242}Am^{m} decay 2−113348
^{16}O collective level excitation from (p,p′) and (π,π′) *(Russian)* 2−59364
^{16}O, energy of 6.13 MeV γ-transition related to ^{198}Au standard 2−95959
^{16}O, partial decay width determ. for 2^{-} 8.87 MeV level 2−79970
^{16}O+^{16}O system, gross struct. study 2−101945
^{18}O(p,n)^{18}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{18}O(e,e′), inelastic scatt. from low-lying even-parity states 2−64397
^Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
^{188}Os E0 transition strengths, 0^{+} states, IBA test from ^{187}Os(n,γ) 2−113397
^{29}P excited states, transitions, ang. distribs., DWBA anal. of ^{27}Al(^{3}He,n) 2−113367
^{29}P, proton stripping, DWBA analysis, ground state transitions for ^{28}Si(^{3}He,d$_{0}$)^{29}P 2−113454
^Pb−−^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^{208}Pb, bound dipole states, parity, from resonance fluoresc. 2−84952
^{208}Pb spin flip excitation strength due to isobar-hole excitation process 2−113362
nuclear energy level transitions continued
(^{208}Pb, X), on ^{26}Mg, ^{27}Al, ^{48}Ca, ^{50}Ti, ^{52}Cr, ^{58}Fe, ^{64}Ni, 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{208}Pb(α,α′), 84-119 MeV, giant monopole resonance excitation 2−85015
^{208}Pb(e,e′), 40.5, 50.4, 60.3, 75.2 MeV, transverse electric form factors, M1 transition strength levels 2−113358
^{208}Pb(n,γ), 0.8-7.7 MeV, compound nucleus, direct-semidirect processes, giant resonance search 2−90106
^{208}Pb(p, p′), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
^{209}Pb giant dipole resonance, transitions, absolute cross sections from ^{208}Pb(n,γ) 2−101858
^Pd, A=108, 110, multiphonon vibr. states structure 2−64433
^{95}Pd 21/2^{+} spin gap isomer, beta delayed proton emission from ^{58}Ni(^{40}Ca,X) 2−90005
^{97}Pd, excited states study 2−69600
^{110}Pd, E2 matrix elements and shape coexistance, IBM calc. 2−69557
^{136}Pm γ-decays from ^{136}Sm decay 2−69612
^{204}Po, 15^{-} isomer mag. moment and Po internal mag. field in Ni 2−69534
^{212}Po 0^{+} α-emitting state half life, transition, levels, spins 2−59298
^{142}Pr, low energy level struct. from ^{141}Pr(n,γ) 2−113370
Pt region, odd-A nuclei description in interacting boson-fermion model 2−74722
^{195}Pt level scheme, transitions, 13/2^{+} isomer from ^{194}Pt(n,γ) 2−113345
^{196}Pt E0 transition strengths, 0^{+} states, IBA test from ^{195}Pt(n,γ) 2−113397
^{197}Pt^{m} decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
^{239}Pu decay, γ transition emission probabilities and energies 2−74744
^{226}Ra, γ-radiation source, anal. *(French)* 2−80366
^{228}Ra, K=0 bands and ^{228}Fr decay scheme 2−101844
^{79}Rb compound nucleus formation and deexcitation, fusion barrier, evaporation anal. of (^{16}O,X), (^{34}S,X) 2−101913
^{79}Rb high spin states, J$^{\pi}$, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
^{79}Rb, lifetime meas., B(E2) values, IBM calcs. 2−69558
^Re, A=186, 188, nuclear beta transitions, role of induced interactions 2−107809
^Rh^{m,g}, A=95, 97, β^{+} and γ transitions 2−84998
^{95}Rh, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{210}Rn, yrast traps and high-spin states 2−79936
^Ru(n,γ), A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
^{94}Ru, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{96}Ru(^{16}O,C)Pd, Q values and Pd mass excess meas. 2−54247
^{104}Ru levels, high spin states, in-beam γ-spectroscopy from ^{100}Mo(^{7}Li,X) 2−64350
^{104}Ru levels, spin B(E2), from (^{208}Pb,^{208}Pb′) 2−95899
^{30}S, level lifetimes and E2 transition strength variations 2−101840
^{30}S levels, J$^{\pi}$ and transitions from ^{28}Si(^{3}He,n) 2−69537
^{31}S excited states, transitions, ang. distribs., DWBA anal. of ^{29}Si(^{3}He,n) 2−113367
^{32}S(p, p′), 7.5 MeV, 4.28-2.23 MeV transition, E2/M1 mixing ratio 2−113390
^{34}S(0^{+}→2$_{2}^{+}$) transition, matrix elements signs, cancellation 2−101836
^{35}S levels, transitions from ^{34}S(n,γ) 2−113506
^{36}S levels, J$^{\pi}$ and transitions from ^{36}P decay 2−90059
^Sb, A=114, 116 bands, J$^{\pi}$, transitions and T$_{1/2}$, decoupled neutron from (α,3nγ), (p,2nγ) 2−79931
^{119}Sb levels from ^{119m}Te decay, 153 and 270 keV transition characts. 2−107793
^{121}Sb(α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{122}Sb, γ-ray average intensities in resonances from ^{121}Sb(n,γ) 2−113451
^{129}Sb, β-decay, from ^{235}U(n,f), T$_{1/2}$, ^{129}Te levels 2−107812
^{41}Sc, negative parity states 2−59235
^{45}Sc resonance decay channels, amplitude correlations from ^{44}Ca(p,p′) 2−90074
^Se(p,n), 19 to 25 MeV, A=76, 80, 82, excitation of analogue states, coupled channel analysis 2−113444
^{83}Se, coexisting intruder bands and role of proton subshell closure 2−54241
^Si, A=26, 28 levels, J$^{\pi}$ and transitions from Mg(^{3}He,n) 2−69537
^{28}Si, energy levels calc. from ^{24}Mg(α,α) and ^{24}Mg(α,γ)^{28}Si reactions meas. 2−101815
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795
^{28}Si levels and γ-transitions from ^{28}P β^{+}-decay 2−69607
^{28}Si, proton stripping, DWBA analysis, ground state transitions for ^{27}Al(^{3}He,d$_{0}$)^{28}Si 2−113454
^{28}Si transition energy from ^{28}Al β-decay 2−90020
^{28}Si(^{12}C,X), fusion cross section energy depend. by evaporation residue meas. 2−59440
Sm, transfer probabilities in pair aligned model, nuclear field theory anal. 2−69573
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^{139}Sm^{g}→^{139}Pm, decay props. study from γ-ray, β^{+} and internal conversion electron spectroscopy 2−54324
^{144}Sm(α,α′), 84-119 MeV, giant monopole resonance excitation 2−85015
^{146}Sm levels, transition probabilities, recoil distance lifetime meas., J$^{\pi}$ from ^{139}La(^{11}B,4n) 2−90049
^{147}Sm nuclear states characts. and diluting transitions props. *(Russian)* 2−64369
^{149}Sm and N=87 nuclei, particle-hole and intruder-hole bands, transitions from ^{149}Pm, ^{149}Eu decays 2−113323
^{152}Sm transitions, from ^{152}Eu internal conversion coeffs. 2−90052
^{155}Sm, rotational-vibrational band structure 2−54231
Sn, struct. study in (p,d) 20 MeV reaction 2−74759
^Sn, A=121, 124, level excitation, J$^{\pi}$ assignment, from (n,γ) 2−90042
^{109}Sn levels and transitions from ^{109}Sb β^{+}-decay 2−113416
^{118}Sn, excited 0^{+} states and elec. monopole transitions 2−69605
^{119}Sn giant quadrupole resonance, de-excitation neutron emission 2−85016
^{119}Sn, M4 transition, chem. variation, inner electron shells role *(Russian)* 2−95973
^{129}Sn, β-decay, from ^{235}U(n,f), T$_{1/2}$, ^{129}Sb levels 2−107812

nuclear energy level transitions continued
^{A}Sr, A=80, 81, high spin states, J^{π}, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
^{89}Sr decay, probability for 909 keV γ emission 2−74745
^{89}Sr, fast neutron capture γ-ray spectra 2−113350
^{89}Sr, valence effects search in p-wave capture 2−113351
^{177}Ta isomer, levels, J^{π}, $T_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{182}Ta, photon strength functions, from ^{181}Ta(n,γ) 2−113405
^{A}Tb, A=144, 145, identification and decay, levels in ^{145}Gd 2−59286
^{146}Tb γ-decays from ^{145}Dy decay 2−69612
^{147}Tb, single-proton states study 2−54240
^{160}Tb, photon strength functions, from ^{159}Tb(n,γ) 2−113405
^{160}Tb→^{160}Dy, nuclear orientation in Tb metal 2−54320
^{98}Tc, levels, branching ratio, J^{π} assignment, from ^{98}Mo(p,n) 2−101837
^{99}Tc^{m}, decay rate, supercond. effect 2−95957
^{99}Tc^{m}, E3 transition conversion electron spectrum in NH_4TcO_4 and metallic Tc, chem. environment effect *(Russian)* 2−54316
Te isotopes props. study in interacting boson approx. 2−84934
^{A}Te, A=116, 118, 120, 122, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^{A}Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^{125}Te^{m}, M4 K-conversion coeff. meas. of 109.3 keV transition 2−69606
^{134}Te transition rates, tensor M1 operator effects, shell model calcs. 2−90047
^{232}Th decay chain, gamma-rays intensities meas. 2−95958
^{232}Th(^{208}Pb, ^{208}Pb′γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{232}Th(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
Ti even isotopes, number conserving shell model 2−54280
^{201}Tl first excited state formation, excitation function struct., mechanism for ^{207}Pb(μ^{-}, νδn) 2−59244
^{203}Tl, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{205}Tl, $J^{\pi}=25^{+}/2$ isomer g factor and proton anomalies orbital magnetism 2−54260
^{162}Tm, γ-ray spectra, conversion electrons, γγ and eγ coincidences, from ^{162}Yb decay 2−95955
^{166}Tm, odd-odd nucleus, band structure study 2−69515
^{170}Tm, nuclear beta transitions, role of induced interactions 2−107809
^{A}U, A=236,238, conversion electrons, lowest β-vibrational phonon 2−69604
^{234}U(^{208}Pb, ^{208}Pb′γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{235}U decay, γ-ray emission probabilities meas. 2−54300
^{236}U lowest octupole bandhead, spin, conversion electron spectra from ^{235}U(n,γ) 2−113346
^{236}U(^{208}Pb, ^{208}Pb′γ), 5.3 MeV, high spin states struct., E2 matrix element 2−113328
^{238}U(e$^{\pm}$,f), 10-35 MeV, absolute cross sections, DWBA virtual photon spectra test 2−59428
^{238}U(γ,γ), 2-10 MeV, Delbruck scatt., nuclear resonance fluor., Coulomb correction effect 2−90085
^{238}U(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{239}U, structure parity assignments from ^{238}U(n,γ) 2−113361
^{184}W 0^{+}, 1^{+} and 2^{+} states by average resonance capture in ^{183}W(n,γ) 2−113369
^{184}W bands, de-excitation γ-rays from ^{183}W(n,γ) 2−113396
Xe moment of inertia from γγ correlations from Sn(^{12}C,X) 2−59216
^{A}Xe, A=119, 121, level structure and $h_{11/2}$ bands anal. in IBF model 2−95898
^{120}Xe, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^{122}Xe→^{122}I→^{122}Te, decay scheme and periods, energies, intensities of transitions 2−64373
^{131}Xe, E2/M1 transition polarisation, test of time reversal invariance 2−69637
^{89}Y(e,e), E5 single particle transition densities 2−79975
^{90}Y, photon strength functions from ^{89}Y(n,γ) 2−113405
^{99}Y, rotational band 2−95904
^{A}Yb, A=165-167, near yrast spectroscopy, levels, J^{π}, quasineutron states from Sm(^{17,18}O,xn) 2−89997
^{165}Yb level scheme from gamma-rays observed in ^{165}Lu→^{165}Yb 2−107795
^{172}Yb resonances, J^{π}, transitions, levels from ^{171}Yb(n,γ) 2−113447
^{173}Yb, eγ and γγ angular correlations and low energy levels, from ^{173}Lu β^{+}-decay *(Russian)* 2−85506
^{174}Yb levels, resonances, J, electric dipole transitions from ^{173}Yb(n,α) 2−69626
^{66}Zn negative parity states, mean lifetimes, transitions from ^{55}Mn(^{14}N,n2p) 2−113412
^{A}Zr, A=90, 92, 94, 96, 98, 0^{+} state pop., excitation. by (^{14}C, ^{16}O) 2−107894
^{A}Zr(^{6}Li,^{8}B), A=90, 92, 94, 90 MeV, two-proton pick-up reactions 2−54422
^{A}Zr(α,α), 104 MeV, A=90, 92, elastic and inelastic, cross sections, transition rates, collective anal. 2−90127
^{90}Zr spin flip excitation strength due to isobar-hole excitation process 2−113362
^{90}Zr(e,e), E5 single particle transition densities 2−79975
^{97}Zr, total radiation widths meas. from ^{96}Zr(n,γ) 2−113352

nuclear energy levels
see also isobaric analogue states; nuclear collective states and giant resonances; nuclear resonances; nuclear spectroscopic factors
^{168}Er levels, from (p,t), (t,p) and (n,γ) 2−107866
^{196}Pt levels, from (p,t), (t,p) and (n,γ) 2−107866
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=113, nuclear data sheets, levels, transitions, Jπ 2−58559
A=142-168, even-even nuclei, energy spectra in interacting quartet-boson model 2−113382
A=188, nuclear data sheets, levels, transitions, J^{π} 2−58558
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=243, nuclear data sheets, levels, transitions, Jπ 2−58560
A=245, nuclear data sheets, levels, transitions, Jπ 2−58561
A=247, nuclear data sheets, levels, transitions, Jπ 2−58562
nuclear energy levels continued
A=40-208, charge distributions and single particle states, calc. methods 2−69526
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
A=78, nuclear data sheets, levels, transitions, J^{π} 2−58557
A≈100 transitional region interpretation in interacting boson model framework 2−54287
advances in nuclear physics, book 2−58571
band structure from energy expansion coeffs. as function of spin values 2−69577
bound proton single particle states, unified pot., nonlocal formalism 2−59251
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
cluster-phonon model calc. program, NUCORE 2−64364
exotic atoms, K-nucleus scatt. and hypernuclei, review 2−59416
fluctuation properties, anal. and expt. comparison 2−69538
formula for nuclear level density 2−95923
fusion, energy level density limitation 2−74785
generator-coordinate method, pseudo-bound wavefunctions 2−95941
ground state energies, phase transitions, Variable Moment of Inertia eqns. 2−69578
Hauser-Feshbach formula in overlapping reson. domain, derivation in statistical theory framework 2−69632
inelastic electron scatt. form for 2^{+} states excitation in $1f_{7/2}$ nuclei 2−54361
intrinsic RPA HF state, approximate ang. momentum projection 2−74738
intruder states in the Interacting Boson Model 2−69562
level density, centre-of-mass correction, harmonic oscillator and Fermi gas models 2−101813
light nuclei ground and excited states in the three-body model, variational study 2−79960
low-energy collective and single-particle excitations 2−107787
macroscopic-microscopic model, at. masses and nucl. ground-state deformations 2−70436
magnetic substrate populations survey 2−64357
microscopic interacting boson model parameters, particle-hole ambiguity 2−84979
N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
neutron and nuclear matter, Fermi sea, Landau parameters, state energies 2−107790
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
nonresonant excitation of nucleus in positron annihilation with at. K-shell electrons *(Russian)* 2−54356
p-wave strength function calc. 2−101791
pionic nuclear excitations, review 2−79956
populated levels obs. by γ-γ coincidences *(French)* 2−95919
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
rotational band and band mixing in cranking model 2−54282
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
single particle and single hole energies in the ^{16}O region *(Chinese)* 2−107732
single-particle energies in enlarged shell-model spaces 2−107764
Skyrme interaction and light nuclei spectra 2−59258
spectral functions and hole nuclear states 2−54244
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
T=1/2 mirror nuclei in 2s-1d shell, ang. momentum, J^{π}, sum rule anal. 2−113368
Z=50-82 proton shell, IBA-1 effective Hamiltonian struct. 2−69553
(γ,n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
^{40}K→^{40}Ca, isobar-hole excitations in quenching of transition 2−69610
(n,2n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(n,γ), 30 keV, averaged capture cross sections, target n number, binding energy and levels depend. 2−90095
(n̄,n′) on ^{54,56}Fe, ^{58,60}Ni, ^{120}Sn, ^{208}Pb, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
(π, π′) on ^{7}Li, ^{12}C, ^{16}O, ^{15}N, ^{20}Ne, ^{24}Mg, elastic and inelastic scatt. and nuclear struct. in Glauber model 2−59417
Ξ hypernuclei, excited states, SU(3) theory *(Chinese)* 2−54299
^{12}(p̄,π^{+})^{13}C, 200-250 MeV, analysing power energy depend. 2−59357
^{227}Ac levels and transitions 2−54301
Ag, odd mass low lying positive parity level, IBFM calcs. 2−69581
^{105}Ag, energy level scheme from ^{107}Ag(n,γ) 2−113488
^{108}Ag, levels, spins and parities from ^{109}Ag(p,d) 2−113487
^{110}Ag, energy level scheme from ^{109}Ag(n,γ) 2−113489
^{26}Al bound states excitation energies 2−95959
^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios from ^{25}Mg(p,γ) 2−107797
^{26}Al, mirror γ-ray strength isospin decomposition 2−79977
^{27}Al, resonance states γ-decay and bound levels study 2−54307
^{28}Al, complete level scheme, from (n,γ) 2−107869
^{28}Al, level scheme, γ-ray energies from ^{27}Al(n,γ) 2−107804
^{28}Al levels, transitions, J^{π} and neutron binding energy from ^{27}Al(n,γ) 2−90020
^{241}Am(n,γ)^{242}Am^{9}, thermal and fast neutron capture, isomeric ratio determ. 2−96000
^{A}Ar(d,α), A=36, 38, 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{A}As, A=69, 71, 73, excited state struct., quasiparticle-core coupling model 2−90018
^{75}As, level struct., γ-ray correlation study and theoretical model, from ^{75}Se electron capture 2−95920
^{75}As, perturbed directional correlations meas. in gaseous H_2 ^{75}Se/He sources 2−74748
^{78}As→^{78}Se, β^{-} decay, γ-rays spectroscopy 2−69597
^{81}As levels, J^{π}, spectroscopic factors, DWBA anal. of ^{82}Se(t,α) 2−69539
^{209}At excited compounds nucleus lifetime by axial blocking, levels from ^{197}Au(^{12}C,f) 2−54317
^{185}Au levels, J^{π}, nuclear model test from ^{185}Hg^{m+g} decay 2−113417
^{197}Au (α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{10}B(t,α)^{9}Be, 2.429 MeV state, ang. distrib., DWBA anal. 2−64413
^{11}B levels, γ-transitions, branching ratios from ^{11}Be β-decay 2−113419
^{11}B(p,γ)^{12}C, 2.9-4.6 MeV, cross section meas. at 60° and 90 ° 2−85054
^{11}B(p,γ)^{12}C, excited nuclear states, direct reaction model c alc. 2−64405

nuclear energy levels continued
^{130}Ba levels, J^{π} and transitions from ^{130}La β^{+}-decay 2−90021
^{136}Ba, energy level scheme from ^{135}Ba(n,γ) 2−113494
^{145}Ba levels, J^{π}, transitions from ^{145}Cs β-decay 2−90060
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
^{9}Be(^{7}Li,^{8}B)^{8}He, excited state of ^{8}He *(Russian)* 2−54441
^Be, A=7, 8, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{209}Bi(d,γ)^{211,211m}Po, 8-11.5 MeV, cross section meas. 2−85060
^Br, A=79, 81, neutron reson. parameters 2−59241
CC ^{207}Pb$(h_{9/2})^{-1}$ hole state, neutron orbital RMS radius, diff. cross section from ^{208}Pb(^{7}Li,^{8}Li) 2−89996
^C, A=17, 18, mass excess and first excited state from ^{48}Ca(^{18}O, ^{17,18}C) 2−107740
^{12}C 2^{+} state spin alignment, γ-decay from (^{12}C,^{12}C), (^{12}C,^{12}C′), (^{12}C,^{13}C) 2−69528
^{12}C bound and unbound state transitions, cross sections, possible giant resonance from ^{11}B(p,γ) 2−90110
^{12}C spin flip excitation strength due to isobar-hole excitation process 2−113362
^{12}C(^{12}C,^{12}C′), cross section calc. using breathing mode doorways 2−59398
^{12}C(γ,n_0)^{11}C transition in direct reaction model 2−64405
^{12}C(γ,p_0)^{11}B transition in direct reaction model 2−64405
^{12}C(p,p′), 800 MeV, low spin state excitation, differential cross section, DWIA anal. 2−90112
^{12}C(π,π′), Δ-hole descript., natural and unnatural parity state excitation 2−96045
^{12}C(t,p)^{14}C, 18 MeV, ground and 6.59 MeV 0^{+} states 2−54406
^{13}C, 9.50 MeV 9/2^{+} state from inelastic proton scatt., DWBA anal. 2−69535
^{13}C levels, J^{π}, R-matrix anal. of (n,n), (n,n′), (n,α) 2−69536
^{13}C levels from ($\pi^{\pm}$,$\pi^{\pm}$′), rel. to DWIA calc. 2−107911
Ca even isotopes, number conserving shell model 2−54280
^{40}Ca lowest T=2 state, decay transitions from ^{36}Ar(α,γ) 2−107798
^{40}Ca(α,α), 31, 100 MeV, second-order imaginary optical pot. microscopic calc. 2−54418
^{40}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{41}Ca, negative parity states 2−59235
^{48}Ca spin flip excitation strength due to isobar-hole excitation process 2−113362
^{48}Ca(α,α′), 70 MeV, 1^{+} state obs. 2−54396
^{48}Ca(p,p′), 44.4 MeV, 10.212 MeV 1^{+} state excitation 2−69658
^{48}Ca(p,p′), 65 MeV, 1^{+} state obs. 2−54396
^{48}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{111}Cd, photoactivation of 396 keV isomeric level 2−69642
^{114}Cd, energy level scheme from ^{113}Cd(n,γ) 2−113490
^{114}Cd, energy level scheme from ^{113}Cd(n,γ) 2−113491
^{135}Ce, 19/2^{-} isomer mag. moment 2−54262
^{34}Cl levels, J^{π}, spect. factors, DWBA anal. of ^{32}S(α,d) 2−113365
^{36}Cl, complete level scheme, from (n,γ) 2−107869
^{36}Cl levels, gamma transitions, neutron binding energy from ^{35}Cl(n,γ) 2−113391
^{59}Co(d, ^{3}He)^{58}Fe, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404
^{59}Co(n,n′γ), levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
^{60}Co, energy level scheme from (n,γ) 2−113482
Cr even isotopes, number conserving shell model 2−54280
^{53}Cr levels parity assignment, two-crystal Compton polarimeter appl. 2−64814
^{134}Cs, energy level scheme from ^{133}Cs(n,γ) 2−113493
^{63}Cu(^{12}C, ^{12}C), 45 MeV, inelastic scatt., core-excited states props. study 2−107890
^{63}Cu(^{13}C, ^{13}C), 45 MeV, inelastic scatt., core-excited states props. study 2−107890
^{63}Cu(p,nγ)^{63}Zn, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{165}Dy, energy level scheme from ^{164}Dy(n,γ) 2−113503
Eu, odd A, vibrational to rotational spectra change, IBFM study 2−69582
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^Eu(n,n′γ), A=151, 153, low lying states 2−113498
^{145}Eu, high-lying proton strengths from (α,t) and (^{3}He,d) 2−79939
^{154}Eu, energy level scheme, rotational bands, from ^{153}Eu(n,γ) 2−113499
^{154}Eu, energy level scheme from ^{153}Eu(n,γ) 2−113500
^{17}F, 6.699 MeV level spin and parity 2−59236
^{18}F, 1.701 MeV level lifetime from inverse ^{3}He(^{16}O,p) 2−74732
^{19}F levels, γ-branching, γ-energies from ^{19}O β^{-}-decay 2−69608
Fe even isotopes, number conserving shell model 2−54280
^{218}Fr→^{214}At→^{210}Bi, isomeric states in Fr and At from α-spectroscopic data 2−85004
^{71}Ga levels, from DWBA anal. of ^{74}Ge(p,α) 2−107864
^Gd, A=153, 154 energy level scheme from ^{152,153}Gd(n,γ) 2−113501
^{128}Gd(n,n′γ), excited states, γ-ray spectra meas. *(Russian)* 2−101811
^{151}Gd excited states and transitions from ^{151}Tb decay 2−90017
^{156}Gd, level struct. from ^{155}Gd(n,γ), IBA model comp. 2−69519
^{157}Gd(n,nγ), energy levels 2−113502
Ge, ground state proton occupation numbers, spectral distrib. methods 2−69512
^Ge, A=70,72,74,76,78, first excited O^{+} states study via Se(d ,^{6}Li) 2−74733
^{74}Ge(p,p′)$_{1}$ 22 MeV, levels, J^{π}, DWBA and CCBA anals. 2−107724
^{75}Ge, 5/2^{+} level at 192.5 keV, 52.5 keV transition 2−84956
Ge(p,t), even isotopes, low lying 0^{+} states, microscopic coupled channel description 2−59350
^{4}He first excited level, from ^{3}He(n,p) *(Russian)* 2−59360
^He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^Hf, A=181,182, levels, J^{π}, transitions from Lu β-decay 2−69609
^{199}Hg(p,t)^{197}Hg, 25 MeV, reaction Q value meas. 2−84946
^{206}Hg, 2.102 MeV level, nuclear gyromagnetic ratio, spin parity, and lifetime meas. from ^{204}Hg(t,p)^{206}Hg 2−113364
^{159}Ho single proton states, bands, J^{π}, Coriolis strengths, Nilsson assignments from ^{163}Er(p,α) 2−69516
^{124}I, odd-odd nucleus, excited states produced in (p,n) reaction, γ-spectra study 2−101814
^{128}I, energy level scheme from ^{127}I(n,γ) 2−113492
^{110}In, level density, spin depend., moment of inertia ratio, from ^{110}Cd(d,2n) 2−90019
^Ir(t,α), A=191, 193, proton separation energy meas. 2−96014
^{41}K, energy level scheme from ^{40}K(n,γ) 2−113481
Kr ground state proton occupation numbers, spectral distrib. methods 2−69512
^{78}Kr, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{79}Kr, low-lying states spins and parities from ^{78}Kr(d,p)^{79}Kr 2−54403
^{84}Kr, 8^{+} isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{87}Kr, level density from ^{86}Kr(n,γ) 2−113371
^{135}La levels study by X-ray and conversion-electron spectroscopy *(Russian)* 2−64370
^{140}La, low energy level struct. from ^{139}La(n,γ) 2−113370
^{144}La levels, J^{π}, transitions from ^{144}Ba β-decay 2−113421
^{6}Li, $^{13}D_1$ state excitation, from ^{7}Li(^{3}He,αd) 2−84990
^{6}Li level parameters from ^{2}H(α,α) 2−59373
^Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^Lu, A=162, 163, level schemes from Hf decay 2−90058
^{179}Lu levels, J^{π}, transitions from ^{179}Yb β-decay 2−69609
^{24}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{24}Mg(p,n)^{24}Al, 35 MeV, stretched 6^{-} T=1 state in ^{24}Al 2−54379
^{26}Mg, mirror γ-ray strength isospin decomposition 2−79977
^{26}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^Mo(^{6}Li,^{8}B), A=92, 94, 96, 98, 100, 90 MeV, two-proton pick-up reactions 2−54422
^Mo(n,n′γ)^Mo, A=98, 100, gamma-ray spectra, energy levels 2−113485
^{92}Mo(^{3}He,α)^{91}Mo, 25 MeV, f-p neutron-hole strength fragmentation in ^{91}Mo 2−54409
^{95}Mo(n,γ)^{96}Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
^{99}Mo, level half-life and transition probability from delayed βγ coincidence 2−95971
^{99}Mo, spin and parity determination of low-lying states from ^{98}Mo(d,p) and ^{100}Mo(d,t) reactions 2−113359
^{100}Mo(^{3}He,p), 25 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{14}N, first-excited state decay, γ-ray energy meas. 2−107796
^{14}N(α, α′), 34.85 MeV, negative parity states, transitions, DWBA anal. 2−84958
^{16}N stretched configuration states, J^{π}, anal. power, DWBA anal. of ^{18}O(d,α) 2−101805
^{23}Na levels, prefusion emission from ^{12}C(^{12}C,p) 2−90151
^{24}Na levels, J assignment, from (n,γ), A_2 coeffs. 2−107868
^{99}Nb, level half-life and transition probability from delayed βγ coincidence 2−95971
^{142}Nd(n,n′γ), gamma radiation investigation, level energies 2−113495
^{147}Nd levels, transitions, spectroscopic factors, DWBA anal. of (d,p), (d,t) 2−90016
^{148}Nd(n,n′γ), gamma radiation investigation, level energies 2−113496
^{150}Nd(n,n′γ), gamma radiation investigation, level energies 2−113497
^{20}Ne, configuration mixing calc. with basis states using HF method 2−54264
^{20}Ne, low-lying state wave functions, realistic Hamiltonian, from (p,p′) 2−84965
^{20}Ne(^{16}O,^{12}C)^{24}Mg, E_{CM}=22.8, 38.6 MeV, reson. structure in excitation functions 2−85073
^{58}Ni(e,e′), 1^{+} and 2^{-} states excitation, inelastic scatt. cross section calc. 2−85030
^{68}Ni 2$_1^{+}$ and 0$_2^{+}$ inversion, levels and transitions, magic features from ^{70}Zn(^{14}C,^{16}O) 2−95922
^O, A=15, 16, 17, single particle/hole energies depend. on nuclear forces *(Chinese)* 2−107733
^{16}O, 2^{+} state and3^{-} resonance, 9.85 MeV excitation, R-matrix anal. of ^{12}C(α,α) 2−90067
^{16}O 3-dimens. calc., Hartree-Fock iteration techniques 2−69590
^{16}O particle-hole states configurations 2−80023
^{16}O+^{16}O system, gross struct. study 2−101945
^{18}O, first excited level lifetime from Doppler-broadened lineshape anal. 2−54311
^{188}Os E0 transition strengths, 0^{+} states, IBA test from ^{187}Os(n,γ) 2−113397
^{192}Os levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(d,^{3}He) 2−113366
^{29}P excited states, transitions, ang. distribs., DWBA anal. of ^{27}Al(^{3}He,n) 2−113367
^{30}P levels, J^{π}, spect. factors, DWBA anal. of (α,d), (d,α) 2−113365
^{31}p3/2^{+} and 5/2^{+} state g-factors from ^{28}Si(α,pγ) 2−79947
^{32}P stretched configuration states, J^{π}, anal. power, DWBA anal. of ^{34}S(d,α) 2−101805
Pb, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
^{207}Pb(p,p′), 95 MeV, levels, DWBA, DWIA, t-matrix and G-matrix anal. 2−107756
^{208}Pb (^{3}He, α)^{207}Pb, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{208}Pb, bound dipole states, parity, from resonance fluoresc. 2−84952
^{208}Pb single particle states, effects of core polarisation, phonon spectrum 2−54229
^{208}Pb spin flip excitation strength due to isobar-hole excitation process 2−113362
^{97}Pd, excited states study 2−69600
^{103}Pd, deep-lying hole states in the optical model 2−90000
^{109}Pd, low spin, anti-aligned parity levels, particle rotor and IBFA calcs. 2−69583
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
^{212}Po 0^{+} α-emitting state half life, transition, levels, spins 2−59298
^{214}Po, level scheme following ^{214}Bi beta decay *(French)* 2−95918
^{142}Pr, low energy level struct. from ^{141}Pr(n,γ) 2−113370
Pt even isotopes, particle transfer reactions in interacting boson approx. 2−69556
^{194}Pt levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(^{3}He,d) 2−113366
^{196}Pt E0 transition strengths, 0^{+} states, IBA test from ^{195}Pt(n,γ) 2−113397
Rb, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
^{79}Rb, lifetime meas., B(E2) values, IBM calcs. 2−69558

nuclear energy levels continued
^Ru, A=100, 102, energy level scheme from (n,γ) 2−113486
^{103}Ru states, J$^{\pi}$, spectroscopic factors, DWBA anal. of (d,p), (p,d) 2−79949
^{104}Ru(d,α), 20 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{30}S levels, J$^{\pi}$ and transitions from ^{28}Si(^{3}He,n) 2−69537
^{31}S excited states, transitions, ang. distribs., DWBA anal. of ^{29}Si(^{3}He,n) 2−113367
^{32}S(d,α), 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{33}S, spectra, E2 transition probability, spectroscopic factors, from ^{32}S(d,p), semiphenomenological model 2−84955
^{35}S levels, transitions from ^{34}S(n,γ) 2−113506
^{36}S levels, J$^{\pi}$ and transitions from ^{36}P decay 2−90059
^{37}S, energy level scheme from ^{36}S(n,γ) 2−113480
^{121}Sb, 37.1 keV level half-life from delayed coincidence meas. 2−90050
^{121}Sb(α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{129}Sb, levels, from ^{129}Sn β-decay 2−107812
^Sc, A=43,45,47, levels, J$^{\pi}$, microscopic form factors, DWBA anal. of Ti(p,α) 2−101812
^{41}Sc, negative parity states 2−59235
^{45}Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
Se, ground state proton occupation numbers, spectral distrib. methods 2−69512
^Se, A=75, 77, energy level scheme, low spin levels, from (n,γ) 2−113483
^{83}Se, coexisting intruder bands and role of proton subshell closure 2−54241
^Si, A=26, 28 levels, J$^{\pi}$ and transitions from Mg(^{3}He,n) 2−69537
^{26}Si, mirror γ-ray strength isospin decomposition 2−79977
^{28}Si, energy levels calc. from ^{24}Mg(α,α) and ^{24}Mg(α,γ)^{28}Si reactions meas. 2−101815
^{28}Si levels and γ-transitions from ^{28}P β^{+}-decay 2−69607
^{30}Si(p,α)^{27}Al, 4.9-6.08 MeV, excitation energies and reson. strengths 2−64406
^{30}Si(t,p)^{32}Si, 15 MeV, excitation energies meas. 2−54407
Si(p,p'), 115 MeV, giant resonances and low lying levels, DWBA anal. 2−69625
^Sm(p,p), 1 GeV, A=144, 150, 152, elastic and inelastic, levels, transition strengths for A=144 2−113471
^{139}Sm$^{g}\rightarrow$^{139}Pm, decay props. study from γ-ray, β^{+} and internal conversion electron spectroscopy 2−54324
^{147}Sm nuclear states characts. and diluting transitions props. *(Russian)* 2−64369
Sn, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
Sn, struct. study in (p,d) 20 MeV reaction 2−74759
^{109}Sn levels and transitions from ^{109}Sb β^{+}-decay 2−113416
^{111}Sn deep hole states, J$^{\pi}$, anal. power, DWBA anal. of ^{112}Sn(d⃗,t) 2−89994
^{115}Sn, deep-lying hole states in the optical model 2−90000
^{116}Sn(^{3}He, α)^{115}Sn, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{118}Sn, excited 0^{+} states and elec. monopole transitions 2−69605
^{120}Sn(p,d)^{119}Sn, 26.3 MeV, d ang. distrib. and ^{119}Sn level structure 2−54377
^{124}Sn(p,t)^{122}Sn, 34.9-65.0 MeV, zero-range normalisation constant, ang. distrib. 2−85053
^{83}Sr ground-state decay, γ branching ratios meas. 2−84991
^{89}Sr, fast neutron capture γ-ray spectra 2−113350
^{89}Sr, valence effects search in p-wave capture 2−113351
^{94}Sr, evidence for excited 0^{+} states 2−69542
T$_{>}$ giant resonances, energies, B(Eλ) values, quasiparticle-phonon model *(Russian)* 2−59314
^{181}Ta(α,xn), 45 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(p,xn), 22 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^Tb, A=144, 145, identification and decay, levels in ^{145}Gd 2−59286
^{147}Tb, proton single-particle states 2−84937
^{147}Tb, single-proton states study 2−54240
Tc, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^Tc, A=95,98, level density from Mo(p,n) *(Russian)* 2−107758
^Te, A=121, 123, 129 neutron strength distribs., L, J$^{\pi}$, spectrosc. factors, from (p,d), (^{3}He, α) 2−84936
^{129}Te levels, from ^{129}Sb β-decay 2−107812
^{130}Te(α,n) reaction, ^{133m}Xe, ^{138}Xe prod. cross-sections and isomeric ratios 2−74768
^{232}Th decay chain, gamma-rays intensities meas. 2−95958
Ti even isotopes, number conserving shell model 2−54280
^{46}Ti level struct., cross sections, spectroscopic strengths, DWBA anal. of ^{45}Sc(^{3}He,d) 2−59242
^{201}Tl first excited state formation, excitation function struct., mechanism for ^{207}Pb(μ^{-}, νδn) 2−59244
^{238}U(n,xn), 14 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{239}U, structure parity assignments from ^{238}U(n,γ) 2−113361
W, energy spectra in interacting boson approx.-2 calc. 2−69555
^Xe, A=119, 121, h$_{11/2}$ negative parity band structures 2−113342
^{89}Y level density, partial width fluctuation method, stat. anal. of ^{88}Sr(p,γ) 2−59243
^{89}Y(e,e), E5 single particle transition densities 2−79975
^{89}Y(n,n')^{89}Y*, level scheme 2−113484
^{171}Yb levels, from ^{171}Lu internal conversion 2−90051
^{172}Yb resonances, J$^{\pi}$, transitions, levels from ^{171}Yb(n,γ) 2−113447
^{173}Yb, eγ and γγ angular correlations and low energy levels, from ^{173}Lu β^{+}-decay *(Russian)* 2−85506
^{174}Yb levels, resonances, J, electric dipole transitions from ^{173}Yb(n,α) 2−69626
Zn, ground state proton occupation numbers, spectral distrib. methods 2−69512
^{64}Zn(^{7}Li,pxnγ), excited states study in ^{68}Ge,^{69}Ge 2−54437
^{68}Zn(n,γ), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{68}Zn(n,n), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^Zr(^{6}Li,^{8}B), A=90, 92, 94, 90 MeV, two-proton pick-up reactions 2−54422

nuclear energy levels continued
^{90}Zr level density, partial width fluctuation method, stat. anal. of ^{89}Y(p,γ) 2−59243
^{90}Zr spin flip excitation strength due to isobar-hole excitation process 2−113362
^{90}Zr(e,e'), inelastic scatt. spectra, level densities, missing mag. quadrupole strength, statistical anal. 2−95992
^{90}Zr(e,e), E5 single particle transition densities 2−79975
^{98}Zr, excited 0^{+} levels study 2−59288

nuclear engineering
see also fission reactors
CANDU moderator pipe leak repair by exploding wire shock wave 2−90284
Ispra, program for 1980-83 2−54692
JAERI reactor engineering division, 1980-1981 annual report 2−70022
reliability management of nuclear power plant 2−69810
Spanish Nuclear Energy Commission role as official laboratory *(Spanish)* 2−59568

nuclear engineering computing
see also computerised control; computerised instrumentation
accident analysis, using simulation language DSNP 2−102253
accident simulation codes, REPA1D, VVER-D, SICHTA, DYN79, test calc. results *(Slovenian)* 2−59449
ACDOS2: A code for neutron-induced activities and dose rates 2−85120
AD 10 digital computer for time-critical simulation 2−102022
Advanced Toroidal Facility, data system design considerations for a pseudo-steady-state device 2−80231
AGR, Windscale, UK, final expts. on transient anal. codes 2−64628
3D-AIRLOCA code anal. of generic research reactor 2−96202
ASDEX fusion exptl. data collection system 2−80229
BIDIPES, conversational computer for reliability anal. 2−102011
BOKR-BIS program for two-dimensional calculation of an RBMK on a series ES computer 2−59450
BWR, condensate feedwater system, dynamic anal. code 2−74863
BWR plant transients, calc. using RAMONA-3B computer code 2−102186
BWR power plant dynamics simulation using hybrid computer system 2−102187
BWR transients, computer model 2−102015
CANDU PHW nuclear power plants, 600 MWe, control and instrumentation systems 2−108078
CANDU [fuel elements, finite element modelling code] 2−74826
CANSWEL-2 code for creep predictions in Zircaloy fuel can following LOCA 2−113616
carbide LMFBR fuel rods, modelling code, URANUS 2−90227
CLUB−a multigroup integral transport theory code for analysis of cluster lattices 2−96070
complex structures, surface crack stress intensity factors, EPAS-J1 appl. 2−69804
computerized fault diagnostics in a nuclear reactor via analytic redundancy 2−96215
continuous system simulation, multiprocessor computers appl. 2−102021
controlled nuclear fusion expts., finite element network method for three-dimensional eddy current calc. *(German)* 2−108104
data measuring control complexes for Angara-5 fusion reactor 2−54658
digital computer programs, verification in safety systems 2−101970
Doublet III, data acquisition and control system for Thomson profile diagnostic 2−80226
Doublet III, distributed computer system, data management 2−80224
Doublet III data archival anal. retrieval system 2−80228
Doublet III Doppler ion diagnostic software system using Northern 1710-31 and LSI-11/2 2−74998
Doublet III neutral beam mode control 2−85372
dynamic performance models, validation methods 2−102188
EBR-II, operational safety, computer code 2−54560
elastoplastic material behaviour, modelling, rel. to nuclear reactor safety 2−62186
emergency response system, microcomputer based for public officials 2−102215
1D equilibrium-diffusion code, evaluation of high temperature plasma 2−91598
faster-than-real-time computer code for loss-of-coolant and feedwater transient prediction 2−102009
FFTF MIDAS computerized operational work control system 2−69793
FREY code analysis of fuel rod transients 2−69797
FREY code for operational transient evaluation 2−64611
fuel pin behaviour during transients, computer codes 2−90220
FUMO-E: an internal fuel motion model for annular fuel 2−102199
fusion experiments, data acquisition and communications computer network 2−80227
fusion materials irrad. test facility, deuteron and neutron activation, calc. programs 2−108121
fusion-fission hybrids, CODAC, TIMOC, ORIGEN calc. model, breeding, fuel 2−113747
GCRIT, critical two phase flow through orifices code 2−102006
graphite, corrosion in HTR, calc. using REACT/THERMIX code *(German)* 2−102012
heated concrete, moisture and heat transfer, finite element program 2−69711
hexagonal geometry, few-group diffusion code, HEXAN 2−102014
HIBOC, beam trajectories calculation code for ion source in neutral beam injector 2−80269
HM precompiled subroutine library for reactor fuel/coolant interactions 2−69700
Hot Fuel Examination facility, subassembly profilometer 2−107966
HTR pebble bed core, 1-dimens. model, reinforcement learning control, heuristic approach 2−85122
input variables, statistical screening 2−90190
jet impingement problem, solution using computer graphics and three dimensional modelling 2−54575
JT-60, data processing system 2−74999
Karlsruhe subassembly monitoring system, functions and struct. 2−96170
LIFE-GCFR, computer code for GCFR fuel performance 2−69710
Limerick BWR-4 simulator 2−102185
LMFBR, pool-type transient anal. program EPRI-CURL-P 2−54572
LMFBR, transient anal. code, FORE-2M, expt. verification 2−85125
LMFBR, transient boiling calculations in rod bundles using the THEBES code 2−102003
LOCA, simulation of containment cooling with outside spray after a core meltdown 2−96231

nuclear engineering computing continued
LWR; small break LOCA, POSEIDON-T model anal. 2−54597
LWR, accident dynamics, economic simulation 2−102249
LWR accident analysis using RELAP5 computer code 2−102255
LWR accident analysis using TRAC computer code, development assessment status 2−102256
LWR fuel isotopic analyses, database 2−102079
LWR fuel pin failure anal. in LWRLAFM code 2−96263
LWR kinetics, computer code 2−107939
MANUAL, computerized approach to develop efficient failure location strategies 2−96253
MARCH code for LWR safety assessment 2−96267
MFTF control systems, tools and implementation methods 2−85367
MFTF neutral beams supervisory control software 2−85371
natural circulation in multiloop PWRs, simulator programming 2−102018
neutron transport, Monte Carlo calcs., computational cost of splitting 2−54476
nuclear facilities, inspection methods for safeguard systems 2−74805
nuclear power plant operational training simulators, upgrading for accident simulation 2−102248
nuclear reactor components, nondestructive testing *(French)* 2−64606
nuclear reactor digital protection system 2−102195
OMOD: prediction of two-phase mass flow through orifices 2−102007
on-line diagnosis algorithm based on noise analysis 2−96153
outage planning and management appl. 2−113700
PALLAS-PI,SP-Br code for neutron and gamma ray transport 2−69701
phased-mission system reliability analysis, PHAMAS computer code 2−59451
physical sputtering code for fusion applications 2−80252
plant operation, computer hardware and software system requirements for NUREG 0696 2−85195
power plant operator training simulator capability improvement in light of TMI-2 accident 2−102184
power plant remote data acquisition and display system 2−85196
power plant simulation, modular modelling system 2−102017
power plant simulator, role expansion to include engineering design aid 2−102016
power plant training simulator improvements in Japan for greater safety 2−102182
power plants, integrated approach to design, procurement and installation of computer system 2−85194
PRESCON-2 simulation of the OECD/CSNI containment analysis standard problem no.2 2−64466
PWR, on-line protection for departure from nucleate boiling ratio 2−102159
PWR dynamics, with partial boiling, computer code, KINE 2−90191
PWR-BWR thermal-hydraulic anal. programmes, comparative study *(Spanish)* 2−69698
radioactive waste management strategy, approach for development 2−107986
radioactive waste storage facility, computer-aided design 2−64507
RAMONA-3B code for BWR transients, B transport calc. in standby liquid control system 2−96247
reactor safety, advances due to improved computing technology 2−102245
reactor safety film, computerised animation 2−54574
reactor simulators, analytical modules 2−102019
reactor systems, interactive safety assessment, computational techniques 2−113710
real-time quasi-three-dimensional BWR core simulator 2−101972
REFUEL computer program, BWR optimum refuelling patterns determ. 2−59452
RELAP-5 computer code for reactor transient behaviour during loss-of-coolant accidents, descriptive evaluation 2−108098
SHAPS program for piping system integrated transient anal. 2−96276
SIMODEX fuel management program, Darlington A reactor fuelling simulation 2−64461
simulation, general purpose software, role 2−102023
simulation of fuelling operations for CANDU-type reactors 2−64462
skewed initial temp. distrib. effect on reflood transient 2−96201
sphere-pac fuel pin loading, stochastic simulation program 2−80111
status analysis system, implementation 2−64455
SYVAC code for assessing nuclear fuel waste disposal concepts 2−74838
Tandem Mirror Hybrid Reactor, design study, computer codes 2−69985
TFTR neutral beam system, cable information retrieval program 2−74997
TMI-2 accident anal., fuel rod behaviour, core damage using TOODEE2-J 2−96227
TMI-2 accident anal., thermal hydraulic behaviour using RELAP4/MOD6/U4/J2 2−96226
TMX, ECRH diagnostic system control and data systems 2−80232
Tokamak bundle divertors, constrained ripple optimisation code 2−91650
TRAC methods for LWR small break LOCA anal. 2−54594
TRAC-PD2 and RELAP5/MOD1 predictions of heated rod bundle experiments 2−102004
TRAC-PD2 prediction of a FLECHT-SEASET bottom forced reflood experiment 2−96245
TRAC-PF1 stratified flow model assessment 2−96246
transient analysis code, RETRAN, appls. 2−54488
transient event database searching, computer program, PLUNGE 2−54573
transient incompressible fluid flow, quadratic finite element program user's manual 2−54487
transient test reactor facility, real time point kinetics simulation on microcomputer 2−64625
transient two-phase flow in nuclear reactors, various models, foundations and limitations 2−102251
transport calculations, vectorised Monte Carlo algorithms 2−107937
uncertainty analysis of system reliability and availability assessment 2−69803
universal pre- and post-processing system, for finite element analysis 2−107932
VISIONS: Versatile, Interactive Simulator Of Nuclear Systems 2−101971
WRAP-EM codes, Water Reactor Analysis Package, Evaluation Model, LOCA calcs. 2−85188
T breeding studies in Li-blankets, on-line method 2−64633
UO_2 fuel, fission gas disposition, granular computer model 2−107957

nuclear explosions
see also weapons
atmosphere, effect on O_3 conc. 2−73623
atmospheric debris deposition following nuclear explosion, quantitative anal. *(Chinese)* 2−59545
'BASEBALL' explosion, anal. of assoc. microearthquake activity using Automated Seismic Processor (ASP) 2−89013
detection by seismic means 2−78584
Enewetak Atoll, β- and γ-comparative dose estimates in nuclear weapons testing 2−73365
enhanced radiation weapon, protection calcs. from ANISN code 2−113749
equations of state, nuclear-explosive-driven experiments 2−76592
general physics course 2−94945
neutron and gamma-ray doses at Hiroshima and Nagasaki 2−100127
offside fallout, calc. of conc. of any radionuclide deposited on ground 2−69993
pattern recognition techniques for earthquake and nuclear detonation discrimination 2−63145
seismic discrimination using Pn and Pg propag. at regional distances 2−88763
seismic shock waves as measure of explosion strength 2−73486
seismic sources identification, earthquake or underground explosion, conference, Oslo, Norway (1980 September 8 to 18) 2−89460
seismograms interpretation using, operator-machine interactive method, computer system development 2−100306
simulation by pulsed source, radiation transport to 1.1 km 2−108144
thermonuclear detonation waves 2−54662
underground explosions, elastic radiation from source in medium with almost freq.-independent Q 2−100314
underground explosions, multidimensional simulations rel. to Rayleigh waves synthetic seismograms 2−88747
underground explosions in western Soviet Union, seismic travel time anomalies 2−88749
^{14}C content in terrestrial food chain 2−117096

nuclear fission *see fission*

nuclear fission of plutonium *see fission of plutonium*

nuclear fission of uranium *see fission of uranium*

nuclear fission piles *see fission reactors*

nuclear fission products *see fission products*

nuclear forces
see also binding energy; meson field theory; nuclear binding energy
A=12 system, isovector $0^+ \rightleftarrows 1^+$ transition, chiral symmetry and axial charge density 2−95961
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=2 nuclei, axial currents, time component, pion exchange 2−95930
A=40-210 magic nuclei, valence nucleons effective interaction *(Russian)* 2−54273
abnormal nuclear matter and pion condensation in σ-models 2−74739
additive quark model for spin-orbit interaction 2−107642
aligned nuclei in paramag. crystal, mag. resonance, nuclear force T violation 2−107760
bag models and nucl. forces, book contrib. 2−113247
baryonic excitation and meson exchange currents in nuclei, review 2−59252
baryonic excitations in nuclei 2−59254
bound proton single particle states, unified pot., nonlocal formalism 2−59251
$CC^{209}Bi(^{184}Kr,X)$, proximity pot., nucleon current, energy dissipation, mass diffusion 2−113549
central potentials, off-shell Jost solns., explicit forms 2−59249
charge asymmetry, $\pi^0\eta$ mixing role 2−107763
coherent rotational states, semiclassical theory including nuclear interactions 2−101786
collective nuclear phenomena, quasi-classical approach, excitations, cluster condensation 2−113320
conference on mesons and light nuclei, Liblice, Czechoslovakia (June 1981) 2−58527
Coulomb exchange interaction of clusters, approximative treatment 2−95935
current conservation and electric multipoles 2−101817
deuteron quark model 2−107632
dipole polarisability and nuclear symmetry energies 2−85022
effective interaction in interacting boson model *(Chinese)* 2−79955
effective interactions, density depend., comparison between microscopic and empirical estimates 2−84961
effective nucleon-nucleon interaction in model space, empirical form 2−54277
effective operators with potentials from meson theory 2−54267
elastic scattering, unified pot., nonlocal formalism 2−59251
energy-independent optical pot. and its physical interpretation 2−85014
excluded pions and confined quarks, many-body theory, chiral bag perturbative study 2−95781
Faddeev eqns. for finite-range forces, additional reduction *(Russian)* 2−54274
fast rotating nuclei, generalised pair field 2−95897
Fermi liquid, tensor forces and spin susceptibility 2−84962
few-body nuclei, exact ground states with and without three-body forces 2−59260
Gamow-Teller and M1 states including Δ-hole excitation, RPA calc. 2−79979
geometrical relations for pot. obtained by folding density depend. interactions 2−95932
gravitational field and field of nuclear forces, point source simultaneous soln. 2−64359
heavy ion energetic reactions, deuteron prod., entropy deduction, effective binding forces 2−80032
heavy ions, spin-orbit potential, single folding method calc. 2−59386
heavy-ion Coulomb excitation and Coulomb fission expts., nuclear forces exclusion 2−59397
Hermitian effective interaction construction Hermitian and non-Hermitian form relations 2−113375
homogeneous nuclear matter, density fluctuations 2−95951
interacting boson, model, description of nucl. deform. effects 2−95945
interionic double folding Yukawa interaction potential 2−113433
ion-ion potential, energy depend. from Negele realistic NN interaction 2−69674
isobaric multiplet widths, EM perturbation 2−107761

nuclear forces continued
leptodermous expansions in finite nuclei, density profiles, binding energy 2−84947
long range strong interactions, strength limits from exotic atom data 2−107762
macroscopic-microscopic model, at. masses and nucl. ground-state deformations 2−70436
meson degrees of freedom in nuclei, review 2−59253
meson exchange currents, contrib. to mag. moment operator, semiclassical interpretation 2−69546
mesonic folded diagram theory of the nucleon-nucleon potential 2−90023
microscopic approach to hadrons and nuclei using quarks 2−95739
multiquark 9q and 12q systems, excited configurations, multiparticle forces, chromo-mag. NN interaction *(Russian)* 2−95934
neutron matter, π^0 and $\pi^\pm$ condensation, nucleon superfluidity 2−101830
neutron matter, π^0-condensate, effective nucleon mass, non-tensor forces 2−74742
neutron matter, p-admixture, $\pi^\pm$ condensation 2−101829
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
neutron rich matter, pion condensation at finite temp., π-field thermal excitations 2−95929
neutron stars, effect of pion condensation on model calc. *(Russian)* 2−63494
NN T=1 collisions, peripheral inelasticities 2−113289
nuclear saturation, effective interactions, relativistic shell model, Landau-Migdal parameters 2−90025
nuclei with N=Z, HFS method parameters calc. in relativistic model *(Russian)* 2−90032
nucleon-antinucleon optical pot. 2−69543
nucleon-meson coupling in QCD perturbation theory for confined quarks *(Chinese)* 2−79828
nucleon-nucleon forces, charge depend. and asymmetry 2−107759
nucleon-nucleon forces from bags, quarks and boson exchange 2−95794
nucleon-nucleon interaction in terms of coloured quarks and gluon, short-distance behaviour 2−101816
nucleon-nucleon interactions, three-nucleon parameter depend. on two-particle pot. shape *(Russian)* 2−101818
nucleus-nucleus pot., various exchange contrib. degree of nonlocality 2−54270
nucleus-nucleus proximity imaginary pot. from 2-body effective interaction 2−59394
one pion exchange nucleon-nucleon potential 2−54265
optical model pot., integrals involving $(WS)^q$ type functions 2−85013
pair current contribs. from Δ(1236) configurations 2−79951
pairing field, path integral approach 2−54276
parity-violating nuclear force, parameters estimation using single Z-boson factorisation relations 2−79954
particle and nucl. scatt. at large momentum transfers 2−113248
Pauli principle and QCD for quarks and nucleons in hadrons and nuclei, book contrib. 2−113220
perturbative QCD, particle and nucl. scatt. at large p_T 2−113234
phase equivalent interactions and dibaryon masses, effective NΔ thresholds 2−79952
pion condensates, line-like defects, disorder field theory 2−84959
pion condensation, precritical phenomena 2−64365
pion condensation, restrictions 2−84960
pion condensation and momentum dependence of the effective particle-hole interaction 2−113372
pion double scatt., recoil and correl. 2−59276
pion in nuclear physics and QCD 2−54065
pion-nucleus annihilation, model for spin, isospin and energy depend. 2−54448
pion-nucleus optical pot., pion absorpt. contrib. 2−74779
pion-nucleus S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
pionic and Δ(1232) degrees of freedom in nuclei, review 2−59339
pionic degrees of freedom behaviour in nuclear matter, microscopical theory *(Russian)* 2−90037
pionic field, soliton-like states *(Russian)* 2−101831
pionic nuclear excitations, review 2−79956
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
proton-light ion scatt. at intermediate energy, review 2−54368
protonium, lifetime, energy shift, nuclear effects 2−59979
QCD at nucl. dimensions, book contrib. 2−113221
QCD influence on nucl. physics, book contrib. 2−113222
quark effects in nuclear physics, review 2−95933
quark model of nuclear-nucleon forces 2−64360
quarks and nucl. forces, book 2−113219
quarks and the nucleus, conf., Erice, Italy, (Apr. 1981) 2−94900
quasinuclear $N\bar{N}$ states with nonzero orbital momentum, annihilation effect *(Russian)* 2−54275
repulsive core, quark model 2−79953
rotating nuclei, equilibrium shapes and fission barriers with macroscopic two-centre model 2−90180
S-wave NN separable pots., energy dependence for $^1S_0$ and $^3S_1$ channels 2−90022
self-consistent meson fields with vanishing expectation values 2−84963
semimicroscopic optical pot. calc., nuclear matter approach, symmetry *(Chinese)* 2−54271
separable potentials and their momentum-energy dependence 2−95926
Skyrme force in asymm. nuclear matter 2−59274
Skyrme interaction and light nuclei spectra 2−59258
spherical nuclei, self-consistent semiclassical calcs. using partial resummation method 2−107785
spherical nuclei collective model, optical pot. imaginary part calc. 2−74721
strong interactions at low energies, quarks and nuclei 2−95741
strong nuclear interactive force, kinetic energy needed to overcome elec. repulsion 2−95925
surface tension model for compressed nuclei 2−113374
symmetric nuclear matter, quenching and hardening in transverse quasi-elastic peak 2−74740
t, book contrib. 2−113388
three-body forces and neutron-neutron effective range parameters 2−95931
three-nucleon force graphical study 2−59256
three-particle dynamics in case of finite-range forces 2−59229
three-particle eqns. and Lee model 2−64305
two-baryon currents, quark shell model 2−84863

nuclear forces continued
Δ resonance amplitudes, in $\pi N \rightarrow \gamma\gamma N$, Lagrangian field theory calc. 2−107684
Δ-nucleus pot. from many body Hamiltonian for π, N, Δ 2−90024
$^4He_\Lambda$ charge form factor, meson exchange current, three-body forces 2−74729
Λ, effective mass in nuclear matter, Λ-N one boson exchange 2−79963
(N,N), energy dependent single separable pot. models 2−59346
NN, pion prod. theory, review 2−79905
NN, spin observables in low energy scatt. 2−64339
NN elastic scatt., 0-350 MeV, anomalous isospin violation, phase shifts 2−69545
NN interaction, intermediate energy, coupled channel interaction 2−101760
$NN \rightarrow N\Delta$, coupled channel separable pot. model 2−54202
$NN \rightarrow N\Delta$, spin and scatt. amplitudes 2−95928
NN(NN), dibaryon reson. existence 2−54200
NN scatt., bar phase shifts and asymptotic behaviour 2−54268
NN scatt., partial wave expansion of modified one-particle-exchange diagrams 2−113376
$pp \rightarrow \Delta N$, single-Δ prod. contrib. to inelasticity parameters 2−74701
$\bar{p}p \rightarrow \bar{n}n$, spin observables in charge exchange interaction 2−64339
$pp \rightarrow pp$, 6, 12 GeV, forces, exchange mechanisms, eikonals 2−79907
$(\pi^-, 3\pi)$, 40 GeV/c, coherent prod., pion absorpt. in nuclear matter 2−90162
π-^{3}He-^{3}H coupling constant determ. 2−59247
π-^{3}He-^{3}H coupling constant, in dispersion relation and impulse approx. 2−79945
πN scatt. in P_{11} channel, parameterisation, resonance effects 2−113571
Σ hypernuclei, potential in relativistic mean field approx. 2−59280
^{27}Al(^{6}Li,^{6}He), 34 MeV, microscopic DWBA anal. 2−90132
$^9Be_{\Lambda c}$ and $^9Be_\Lambda$, charmed nuclei and hypernuclei, comparative study, interaction strengths 2−54298
^{11}Be first forbidden β-decay, β-ν and β-γ correlations, meson exchange effects 2−113420
^{12}C, M1 transitions, from (p,p′), tensor force effect 2−54302
^{12}C(^{6}Li,^{6}Li), 30.6, 90 MeV, folding model appl., with Skyrme interaction *(Russian)* 2−90158
^{12}C(p,p′), 800 MeV, low spin state excitation, differential cross section, DWIA anal. 2−90112
^{40}Ca+0s shell nucleus, RGM nonlocal pots., equivalent local pots. 2−95939
^{1}H(n,γ)^{2}H, short-range effects in meson exchange currents 2−107861
^{1}H(p,p), πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{1}H(p,π)^{2}H, πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{2}H asymptotic D-state, model independ. description, quadrupole moment 2−59257
^{2}H, Coulomb disintegration at low energies, theory *(Russian)* 2−59222
^{2}H, electronuclear sum rules at constant momentum transfer 2−95991
^{2}H form factor, six-quark structure 2−95913
^{2}H, μ^- capture, very small momentum ν_μ, mesonic exchange current corrections 2−113423
^{2}H, neutron-proton system, $^3S_1$-$^3D_1$ state, effective range theory appl. 2−95937
^{2}H, nuclear force and binding energy of quark model, double well cluster model calc. 2−59245
^{2}H phase shifts and bound state from NN interaction from bag-model quark interchange 2−69544
^{2}H(e,e′p), nucleon momentum distrib. in ^{2}H, meson exchange currents, isobars 2−107850
^{2}H(γ,X), photoabsorption, meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
^{2}H(γ,γ), meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
^{2}H(γ,n)p, 20-150 MeV, asymmetry function and relative photoneutron yield calc. 2−64394
^{2}H(γ,p)n, forward prod., D-wavefunction effect 2−107844
^{2}H(n,X), 21.5 MeV, break-up quasi-free scatt. sensitivity to NN interaction 2−85041
^{2}H(n,2n), three-body forces and neutron-neutron effective-range parameters 2−64358
^{2}H(n,n), 10 MeV, analysing power meas. and comparison to few-nucleon calc. 2−101892
^{2}H(p,2p), low energies, N-N forces investig. 2−113373
^{2}H($\bar{p}$,p), 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
^{2}H(π,NN), coupled πNN-NN system, dinucleon resonances 2−59408
^{2}H(π,π), coupled πNN-NN system, dinucleon resonances 2−59408
^{2}H(π,π), πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{2}H(π^-,γ), three-body forces and neutron-neutron effective-range parameters 2−64358
^{3}H binding energy, asymptotic normalisation constant and zero-range parameters 2−95906
^{3}H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{3}H binding energy correction from 2π exchange, 3 nucleon forces 2−107741
^{3}H, charge form factor and density, three-body force effect 2−54251
^{3}H, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}H trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}H, two-pion exchange three nucleon force effects, form factor 2−95927
^{3}HYe-^{2}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
^{3}H(α,α), bound states to 113 MeV, resonating-group study 2−54269
$^4H_\Lambda$ and $^4He_\Lambda$, lambda separation energy difference, tensor force effect 2−101832
^{3}He, charge form factor and density, three-body force effect 2−54251
^{3}He, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}He trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}He, two-pion exchange three nucleon force effects, form factor 2−95927
^{3}He(α,α), bound states to 113 MeV, resonating-group study 2−54269
^{3}He(e,e′p), 643, 806 MeV, nuclear struct., NN interaction *(Russian)* 2−59342
$^4He_\Lambda$ and $^4H_\Lambda$, lambda separation energy difference, tensor force effect 2−101832
^{4}He($\pi^\pm$,$\pi^\pm$X), 90-320 MeV, quasifree scatt., π-N medium corrections 2−80039

nuclear forces continued
$^{5}He_{\Lambda c}$ and $^{5}He_{\Lambda}$, charmed nuclei and hypernuclei, comparative study, interaction strengths 2−54298
$^{6}He_{\Lambda\Lambda}$, Λ-Λ interaction energy, one-boson exchange pots. 2−79968
^{A}He, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
(^{6}Li,d) on ^{26}Mg, ^{27}Al, ^{29}Si, ^{31}P, 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
^{6}Li(e,e′), 80-300 MeV, magnetic form factor, cluster model anal., exchange currents 2−69523
NN interaction, meson exchange contribs., Bona pot. current status 2−59248
^{16}N(0^{-}) beta decay, meson exchange currents effects 2−54323
^{A}O, A=15, 16, 17, single particle/hole energies depend. on nuclear forces *(Chinese)* 2−107733
^{16}O 4p-4h states, effective interactions, deformation clustering, HF calc. 2−69503
^{16}O(^{16}O, X), density matrix approach to the complex heavy ion optical potential 2−113432
^{16}O(^{16}O,X), complex heavy-ion optical pot., double-folding calc. 2−54421
^{17}O magnetic form factor, three-body effects 2−59234
^{240}Pu fission barrier from Skyrme like effective force, SkM parametrisation 2−107918
^{88}Sr(e,e′), 1^{+} state form factor quenching, Δ(1232) isobar influence 2−84950
^{238}U(^{238}U,X), heavy ion potential for ellipsoidally deformed nuclei, double folding model 2−113552
^{90}Zr(p,n), 200 MeV, pionic mode of excitation in continuum, DWBA calc. 2−85043

nuclear fusion
see also nuclear explosions; nuclear reactions involving few nucleon systems
American Vacuum Soc., conf., Anaheim, USA (Nov. 1981) 2−79275
catalytic, using heavy lepton injection 2−89514
characteristic resonances and the limits to fusion in light heavy-ion systems 2−107901
dynamics and collective phenomena, symposium, Bad Honnef, Germany (Oct. 1981) 2−112657
energy level density limitation 2−74785
fusion-fission excitation functions, rot. liquid parameters, statistical corrections 2−107892
heavy ion fusion, review 2−85082
heavy ion fusion, review 2−85111
heavy ion fusion cross-section from modified SOD method 2−107880
heavy ion induced, scission point stretch model 2−74781
heavy ion inertial fusion, initial survey of target gain versus ion-beam parameters 2−59515
heavy ion reactions, compound nucleus form., superheavy element prod. *(Russian)* 2−101927
heavy ion-nucleus reactions, review 2−107878
heavy nuclei fusion cross section energy depend., algebraic theory 2−54464
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
heavy-ion collisions, deep inelastic props. and fusion cross section, dynamical model 2−85090
heavy-ion collisions, fusion cross section 2−113532
heavy-ion collisions, incomplete fusion and fragmentation 2−85089
heavy-ion collisions, incomplete nucl. fusion 2−113546
heavy-ion collisions at medium energies 2−113530
heavy-ion fusion, barrier-penetration model 2−96040
heavy-ion fusion, entrance channel mass asymmetry effect 2−54463
heavy-ion fusion, excitation functions, Swiatecki dynamic model anal. 2−107891
heavy-ion fusion and nuclear structure 2−64447
heavy-ion fusion cross section, frictionless formula, nucl. structure effects 2−107879
heavy-ion reactions, conf., Saclay, France (May 1982) 2−112650
heavy-ion reactions, time-dependent HF calcs. 2−84984
identical nuclei fusion, geometrical model 2−113573
laser beam application, high power 2−113578
mass asymmetry, relaxation for fusion in heavy ion-nuclear reactions 2−113525
mass asymmetry in fusion and fission processes induced in heavy ion reactions *(Rumanian)* 2−90155
muon catalysed fusion 2−59978
muon catalysed fusion 2−108744
non-resonant reaction rates evaluation 2−112317
nuclear fluid dynaics, TDHF approx., heavy ion low-l fusion window 2−69631
phase particle integrations of the nuclear Vlasov equation 2−69629
pionic fusion reactions, coherent pion prod. 2−80044
potential alternative energy resources 2−90295
resonance structure in symmetric light heavy ion fusion cross sections 2−107827
resonances in heavy-ion collisions, expt. status 2−85085
stellar interiors, dense plasmas physics and enchancement of thermonuclear reaction rates due to strong screening 2−100725
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
toroidal axisymmetric devices poloidal field winding design for controlled thermonuclear fusion *(Italian)* 2−74786
very heavy nuclei fusion 2−113533
ddμ muonic mol., nuclear fusion rate calc. 2−107921
^{74}(^{A}Ni,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
^{27}Al(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{197}Au(^{20}Ne, X), 13 MeV/N, correlation between fission fragment and light charged-particles 2−113566
^{197}Au(^{20}Ne,f), 172 MeV, fission after incomplete fusion, correl. between fission fragments 2−113558
^{10}B(^{14}N, X), 86-180 MeV, fusion, direct and total cross sections, Hauser-Feshbach anal. 2−69692
^{10}B(^{17}O, X), 54-124 MeV, fusion cross sections, compound nucleus limitation effect 2−69691
^{12}C(^{10,11}B, X), fusion at sub-barrier energies, S-factor calc. 2−113577
^{12}C(^{11}B,X), 14-54 MeV, total and fusion cross sections, ang. momenta 2−90186
^{12}C(^{12}C,X), 4.2-7 MeV, fusion cross section, resonance 2−101955
nuclear fusion continued
^{12}C(^{15}N, α), 9.51-17.33 MeV, multistep compound processes, importance to fusion 2−69671
^{12}C(^{16}O,X), 12-20 MeV CM, reson. in fusion cross section 2−59439
^{12}C(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{12}C(^{6,7}Li,X), 9-36 MeV, entrance channel limitations to fusion cross sections 2−113576
^{13}C(^{10}B,X), 14-48 MeV, total and fusion cross sections, ang. momenta 2−90186
^{13}C(^{12,13}C,X), 3.1-6.7 MeV, fusion cross sections 2−101955
^{13}C(^{13}C,X), $E_{c.m.}$=4-15.8 MeV, fusion cross section meas. 2−54465
^{13}C(^{6,7}Li,X), 9-36 MeV, entrance channel limitations to fusion cross sections 2−113576
^{A}Ca, A=40, 42, yrast lines and fusion bands 2−79992
^{40}Ca(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{41}Ca(n,X), X=p, γ, α, thermonuclear reaction rates, state. calcs. 2−59437
^{48}Ca(^{40}Ca,X), 330 MeV, fusion cross section, absence of closed shell effect, comparison with ^{48}Ti(^{40}Ar,X) 2−69693
D-T mixture, fusion catalysed by muons 2−80045
^{170}Er(^{30}Si,X), ^{200}Pb fission and evaporation competition, expt. and theory 2−101916
^{3}He(^{3}He,π^{+})^{6}Li, pionic fusion reaction mechanism study 2−80044
^{41}K(p,X), X=γ, n, αγ, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
(^{6}Li, X), 74.8-94.4 MeV, on A=181-208, fusion-fission, hot high spin nuclei decay 2−113334
^{6}Li(^{13}C, t)^{16}O, 9.2-35.1 MeV, fusion reaction, cross section for evaporation residues 2−54424
^{A}Mg(^{12}C, X), 20-60 MeV, A=24, 26, total fusion cross section excitation functions 2−69690
(^{24}Mg, X) on ^{12}C, ^{24}Mg, ^{26}Mg, fusion and compound nuclei decay study 2−64435
^{24}Mg(^{12}C, X), fusion and compound nuclei decay study 2−64435
(^{14}N, X), on A=12, 14, fusion at sub-barrier energies, S-factor calc. 2−113577
^{146}Nd(^{20}Ne,X), 136 MeV, fusion reaction entry state pop. 2−113575
^{20}Ne(^{12}C, X), 11-33 MeV, A=20-30 reaction product excitation functions, fusion crit. ang. mtum. 2−69672
^{20}Ne(^{16}O, X), 15-29 MeV CM, excitation function meas. using γ-ray techniques 2−90141
^{62}Ni(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{62}Ni(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{62}Ni(^{58}Ni,X), 215-275 MeV, fusion excitation function 2−59441
^{64}Ni(^{A}Ni,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
(^{16}O, X), on A=12, 14, 16, fusion at sub-barrier energies, S-factor calc. 2−113577
^{16}O(^{14}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{17}O(^{13}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{18}O(^{12}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
(^{208}Pb, X), on ^{26}Mg, ^{27}Al, ^{48}Ca, ^{50}Ti, ^{52}Cr, ^{58}Fe, ^{64}Ni, 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
(^{208}Pb, X) on ^{64}Ni, ^{48}Ca, fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{141}Pr(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{141}Pr(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{A}Si(^{28}Si, X), A=28-30, fusion and compound nuclei decay study 2−64435
(^{28}Si, X) on ^{12}C, ^{24}Mg, fusion and compound nuclei decay study 2−64435
^{28}Si(^{12}C,X), fusion cross section energy depend. by evaporation residue meas. 2−59440
^{144}Sm(^{32}S,X), 139.5-201 MeV, fusion reaction, Pt and Os isotopes detection and study 2−64431
^{A}Sn(^{28}Si,xn), A=120,124, fusion evaporation reaction, yrast isomers quadrupole moments in ^{144,147,148}Gd 2−74731
^{116}Sn(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{116}Sn(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{124}Sn(^{16}F,X), 104 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{124}Sn(^{16}O,X), 90, 105, 125 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{124}Sn(^{20}Ne,X), 112, 156 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{181}Ta(^{19}F,X), ^{200}Pb fission and evaporation competition, expt. and theory 2−101916
^{46}Ti, yrast lines and fusion bands 2−79992
^{48}Ti(^{13}C,X), 46 MeV, light medium systems formation and decay study 2−85083
^{48}Ti(^{40}Ar,X), 330 MeV, fusion cross section, absence of closed shell effect, comparison with ^{48}Ca(^{40}Ca,X) 2−69693
(^{238}U, X) on ^{64}Ni, ^{48}Ca, fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{238}U(^{40}Ar,X), ^{4}He emission in fusion-like and inelastic reactions, exptl. study 2−101929

nuclear fusion reactors *see fusion reactors*

nuclear giant resonances *see nuclear collective states and giant resonances*

nuclear induction *see nuclear magnetic resonance*

nuclear instrumentation
see also angular correlation techniques; beam handling equipment; counters; counting circuits; nuclear reactor instrumentation; particle accelerators; particle detectors; particle track visualisation
computer control at Technical University of Dresden 2−85512
conference, San Francisco, CA, USA (Oct. 1981) 2−58528
dedicated EPROM-based computer for distributed instrumentation control 2−59671
Doublet III, data acquisition and control system for Thomson profile diagnostic 2−80226

nuclear instrumentation continued
electrical signal shape measuring system 2−102349
electronic registration equipment in CAMAC standard, review 2−64813
fast microprogrammable trigger processor, ESOP, operating experience 2−85509
harmonisation and standardisation in nucl. safeguards, symp., Ispara, Italy (April 1982) 2−112658
high energy physics, dual display system for multidimens. data anal. 2−54735
holography, transverse and longit. resolution, nucl. instrumentation appls. 2−108837
HTR fuel irrad. facility, programmable logic controller appl. 2−69761
integrator, digital, for electron fluence meas. *(Japanese)* 2−80404
measuring stage, for track chamber picture meas., microprocessor control 2−85502
multidimensional expts. on nucl. interactions, measuring and computing complex 2−108326
multimicroprocessor system, high-energy physics expt. appls. 2−85513
multiple input multichannel scaling selector with IC components *(Chinese)* 2−59647
multiprocessor, FAMP, for high-energy physics appl. 2−85510
multiprocessor system hardware based on MC68000 microprocessor 2−64805
National Synchrotron light source, data acquisition and control system 2−59672
Nd:YAG laser for holography 2−108931
optical processor for particle physics, computer generated hologram optimal filter construction 2−108815
particle accelerators, computerised data acquisition and monitoring system 2−108327
physical parameters meas. by means of ionising radiation 2−108323
programmable multi-timer for transuranic waste anal. appl. 2−64798
proton gyromagnetic ratio determ. in weak magnetic field, Soviet research 2−80845
safety measurement and level assessment using multiattribute utility theory 2−96220
secondary electron detector for irradiated nuclear fuel 2−70064
statistics for nuclear electronics *(Italian)* 2−59652
successive approx. A/D conversion system with good differential linearity 2−108303
TEC-He_3-I, charge sensitive preamp. RC shaping amplifier, low level discriminator *(French)* 2−90413
time-of-event counting system, low level radioactivity meas. 2−54728
TMX, ECRH diagnostic system control and data systems 2−80232
^{60}Co irradiation chamber, programmable electronic controller *(Chinese)* 2−59584

nuclear interactions *see nuclear reactions and scattering*

nuclear internal conversion *see internal conversion*

nuclear isobaric analogue resonances *see isobaric analogue resonances*

nuclear isobaric analogue states *see isobaric analogue states*

nuclear isomerism
see also nuclear energy levels
A=131-138 high spin states, isomeric ratios, excitation mechanisms from (π^-,xnyp) 2−95895
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
density isomer search from multiple delayed neutron emission in (α,X), (^{12}C,X) *(Russian)* 2−107746
heavy-ion relativistic collisions, exotic shape isomer products, density and lifetime 2−107887
high-spin isomerism near A=75 and 100, ns feeding times 2−84941
(γ,f), fission isomers 2−107916
(γ,n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(n,2n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
($\bar{p}$,X), stopped $\bar{p}$, high spin isomers, use to study multipion-nucleus reactions 2−96003
^{108}Ag^m, E1 γ-ray transition energy *(French)* 2−79969
^{24}Al, ^{24}Al^m, β^+-decay and weak transitions, analog states 2−59294
^{241}Am(n,γ)^{242}Am^g, thermal and fast neutron capture, isomeric ratio determ. 2−96000
^{205}At, high-spin state props. study 2−59220
^{210}At 10$^-$ isomer, half life, singlet-force splitting effect from ^{209}Bi(α, 3n) 2−113321
^{212}At, low-seniority shell-model structure 2−54233
^{198}Au 312 keV 5$^+$ isomer, gamma transitions from ^{197}Au(n,γ) 2−113398
^Bi, A=202, 203, 205, high spin isomers, g-factors from ^{203}Tl(α,xn) 2−90015
^Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{209}Bi(d,γ)^{211,211m}Po, 8-11.5 MeV, cross section meas. 2−85060
^{76}Br high spin, two-quasiparticle bands, isomer, transitions from (α,pn), (^{3}He,p2n), (d,2n), (p,n) 2−90007
^{78}Br, high-spin states in-beam study 2−54234
^Ca, A=40, 42, yrast lines and fusion bands 2−79992
^{111}Cd, photoactivation of 396 keV isomeric level 2−69642
^{111}Cd^m production cross section, levels, transitions from γ-cascade calcs. from (n,γ), (n,n′) 2−113325
^{121}Cd^{g,m}, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{135}Ce, 19/2$^+$ isomer mag. moment 2−54262
^Cs, A=117-147, direct mass meas., isomeric corrections 2−69520
^Cs, A=134m, 134g, 134m+g, isomeric cross section ratio, γ-cascades, spin cut-off from ^{135}Cs(n,γ) *(Chinese)* 2−95924
^{146}Dy 150 ms 10$^+$ isomer, half life and γ-transitions from Zr(^{58}Ni,X) 2−90006
^Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{153}Er high spin states and yrast isomerism, J$^\pi$, $T_{1/2}$ from ^{144}Sm(^{12}C, 3n) 2−89995
^{153}Er, high spin states study 2−69514
^Fr, A=204-228, direct mass meas., isomeric corrections 2−69520
^{218}Fr→, ^{214}At→, ^{210}Bi, isomeric states in Fr and At from α-spectroscopic data 2−85004
^Gd, A=144,147,148, yrast isomers quadrupole moments 2−74731
^{147}Gd 8.6 MeV, 560 ns high spin isomer decay, spin and transitions from (^{12}C,5n), (α,5n) 2−90004
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^{185}Hg high spin isomer from $^{185m+g}$Hg decay 2−113417

nuclear isomerism continued
^{185}Hg^m→, ^{185}Hg^g decays, ICE spectrum 2−113414
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^I, A=117, 119, 121, high spin states, bands, J$^\pi$, $T_{1/2}$, isomer g-factor from Sn(^{6}Li, 3n) 2−113337
^{119}I, isomeric bandheads, mag. moments rel. to quasiparticle-core coupling 2−95914
^{84}Kr, 8$^+$ isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{137}La, N=80 nucleus, medium-spin levels and 360 ns I$^\pi$=19/2$^-$ isomer 2−54232
^{177}Lu 150.392 keV isomeric state feeding from ^{176}Lu(n,γ) 2−113395
^{104}Mo, energy level scheme from singles and $\gamma\gamma$ coincidence spectra 2−95976
^{90}Nb^m decay rate obs. via E3 conversion electrons 2−54315
^{93}Nb^m, internal conversion ratios and probabilities of 30.75 keV transition 2−95972
^{93m}Nb, radioactive half-life, extended meas. *(French)* 2−54313
^Pb→^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^Pd(p,n)^Ag^{mg}, A=102, 104, 105, isomeric ratios 2−95999
^{95}Pd 21/2$^+$ spin gap isomer, beta delayed proton emission from ^{58}Ni(^{40}Ca,X) 2−90005
^{204}Po, 15$^-$ isomer mag. moment and Po internal mag. field in Ni 2−69534
^{195}Pt level scheme, transitions, 13/2$^+$ isomer from ^{194}Pt(n,γ) 2−113345
^{197}Pt^m decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
^{237}Pu, short lived fission isomer, g-factor 2−64356
^Rb, A=74-99, direct mass meas., isomeric corrections 2−69520
^Rh^{m,g}, A=95, 97, β^+ and γ transitions 2−84998
^{103}Rh^m, production using relativistic electrons 2−113802
^{32}S, rotational shape isomeric band 2−69513
^Sb, A=114, 116 bands, J$^\pi$, transitions and $T_{1/2}$, decoupled neutron from (α,3nγ), (p,2nγ) 2−79931
^{119}Sb levels from ^{119m}Te decay, 153 and 270 keV transition characts. 2−107793
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^{139}Sm^g→, ^{139}Pm, decay props. study from γ-ray, β^+ and internal conversion electron spectroscopy 2−54324
^{119}Sn, M4 transition, chem. variation, inner electron shells role *(Russian)* 2−95973
^{119}Sn^m, production using relativistic electrons 2−113802
^{132}Sn, doubly closed shell nucleus, excited states from $\gamma\gamma$ coincidence 2−95964
^{177}Ta isomer, levels, J$^\pi$, $T_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{179}Ta multiquasiparticle yrast states, isomers, J$^\pi$, $T_{1/2}$ from ^{176}Yb(^{7}Li, 4n) 2−79933
^{147}Tb, single-proton states study 2−54240
^{99}Tc^m, decay rate, supercond. effect 2−95957
^{125}Te^m, M4 K-conversion coeff. meas. of 109.3 keV transition 2−69606
^{130}Te(α,n) reaction, ^{133m}Xe, ^{138}Xe prod. cross-sections and isomeric ratios 2−74768
^{46}Ti, yrast lines and fusion bands 2−79992
^{192}Tl, isomeric bandheads, mag. moments rel. to quasiparticle-core coupling 2−95914
^{205}Tl, J$^\pi$=25$^+$/2 isomer g factor and proton anomalies orbital magnetism 2−54260
^U, A=236, 238, fission isomer spectra in IBM, SU(3) limit 2−107767
^U, A=236,238, conversion electrons, lowest β-vibrational phonon 2−69604
^{233}U(n,f), thermal, ^{95}Nb and ^{132}I isomeric yield ratios, fission fragment ang. momentum 2−54458
^{235}U^m, internal conversion, lifetime and spectra, laser irrad. effect 2−74746

nuclear isospin
analogue state proton and neutron radii, isospin projected HF description 2−107743
baryonic excitations in nuclei 2−59254
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
dense neutron and nuclear matter, hard core interaction, spin and isospin stability 2−90033
fissibility parameter isospin depend. in droplet model 2−54456
heavy ion collisions, spin and isospin fluctuations and depend. on dinuclear complex shape 2−64420
N=z nuclei, mag. moments of T=0 states 2−79946
nuclei, quark spin-isospin rules and Adler-Weisberger relation 2−101806
pion-nucleus annihilation, model for spin, isospin and energy depend. 2−54448
pionic nuclear excitations, review 2−79956
spin-isospin sum rules based on the quark model 2−107750
static spin-isospin partially ordered states in nuclei 2−101804
SU(4) symmetry mixing in s-d shell, shell model and spectral distrib. study 2−101820
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
NN elastic scatt., 0-350 MeV; anomalous isospin violation, phase shifts 2−69545
^{26}Al, mirror γ-ray strength isospin decomposition 2−79977
^{13}C(p,^{3}He)^{11}B, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{13}C(p,t)^{11}C, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{56}Co, β^+ decay, Fermi-Gamow-Teller mixing, T invariance test in V-A model 2−90055
^{59}Cu, isospin impurity and core polarisation of IAR fragments 2−101856
^{3}HYe-^{3}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
^{4}He(p,p), 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
^Mg(α,X), A=24-26, 4.5 MeV, photospallation, isospin depend. *(Russian)* 2−59331
^{26}Mg, mirror γ-ray strength isospin decomposition 2−79977
^{60}Ni giant dipole resonance isospin splitting from (γ,γ), (γ,p), (γ,n) 2−64385
^{16}O(^{16}O,X), complex heavy-ion optical pot., double-folding calc. 2−54421
^{208}Pb, giant Gamow-Teller states, spin-isospin sound 2−113438
^{30}S, T=1 isospin triplet states 2−95921

nuclear isospin continued
^{45}Sc(γ, p), 15.6-25 MeV, GDR direct cross-section, isospin, preequilibrium decay 2−107847
^{26}Si, mirror γ-ray strength isospin decomposition 2−79977

nuclear liquid drop model
alpha decay, fission approach 2−85006
anharmonic Bohr Hamiltonian and its equivalent boson Hamiltonian 2−54281
density average trends from self-consistent model with generalised Strutinsky-type smoothing 2−101801
dipole giant resonance, energy splitting, in droplet model *(Russian)* 2−90073
fissibility parameter isospin depend. in droplet model 2−54456
fusion-fission excitation functions, rot. liquid parameters, statistical corrections 2−107892
Interacting Boson Model, contrast to Bohr-Mottelson collective model 2−69569
mass asymmetric heavy-ion systems, spin-depolarising modes equilibrium treatment 2−74769
projectile like (N,Z) values on dinuclear liquid drop surface, discrete random walk evolution 2−90134
radius calc. in droplet model 2−54249
rotating nuclei, equilibrium shapes and fission barriers with macroscopic two-centre model 2−90180
rotating nuclei, quadrupole oscills., shape and normal models, distorted Fermi surface model *(Russian)* 2−59225
spherical nuclei, self-consistent semiclassical calcs. using partial resummation method 2−107785
^{2}H, six-quark drop model, total weight *(Russian)* 2−101824
^{200}Pb from ^{181}Ta+^{19}F and ^{170}Er+^{30}Si, fission and evaporation competition, expt. and theory 2−101916
^{151}Tb, fission barrier 2−101950
^{232}Th(n,f), 14 MeV, fragment yields and charge distrib., liquid drop anal. *(Chinese)* 2−96060
^{234}U fission, energy dissipation, fragments, evaporation, liquid drop model from ^{233}U(d,pf) *(French)* 2−90177
^{238}U spontaneous fission decay constant meas. from etched fission track density 2−96057

nuclear magnetic acoustic resonance *see acoustic nuclear magnetic resonance*

nuclear magnetic moment
see also gyromagnetic ratio; molecular nuclear coupling; nuclear magnetic resonance
cluster-phonon model calc. program, NUCORE 2−64364
electromagnetic moments and transition rates from cranking model wavefunctions 2−64371
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
light nuclei ground and excited states in the three-body model, variational study 2−79960
M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
meson exchange currents, contrib. to mag. moment operator, semiclassical interpretation 2−69546
N=z nuclei, mag. moments of T=0 states 2−79946
response functions, electron probes of nucleon charge and magnetisation in nuclear matter 2−113384
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
T=1/2 mirror nuclei in 2s-1d shell, ang. momentum, J^{π}, sum rule anal. 2−113368
^{110}Pd(^{32}S, ^{32}S'), 90-120 MeV, mag. moments by tilted-multifoil interaction 2−69532
^{75}As, level struct., γ-ray correlation study and theoretical model, from ^{75}Se electron capture 2−95920
Ba, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{A}Bi, A=202, 203, 205, high spin isomers, g-factors from ^{203}Tl(α,xn) 2−90015
^{249}Bk(α,α'), 17.06 MeV, ground state rot. band, Coulomb excitation, transition sites, mag. moments 2−69511
^{12}C spin flip excitation strength due to isobar-hole excitation process 2−113362
^{A}Ca, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{48}Ca spin flip excitation strength due to isobar-hole excitation process 2−113362
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{135}Ce, 19/2^{+} isomer mag. moment 2−54262
^{65}Cu, M3 strength quenching in ground state 2−113465
^{A}Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^{69}Ge, 6^{-} and 7^{-} states, g-factors from ^{58}Ni(^{12}C, 2p) 2−113363
^{3}H, magnetic moment and structure 2−95916
^{3}He, Z 2−95916
^{186}Ir, magnetic dipole and elec. quadrupole moment study 2−84953
^{A}K, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{40}K, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
^{24}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^{26}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^{20}Ne 4^{+} yrast state g-factor, transient field precession meas. from ^{17}C(^{12}C,α) 2−59239
^{A}Os, A=186,188, mag. moment meas. 2−54261
^{31}p3/2^{+} and 5/2^{+} state g-factors from ^{28}Si(α,pγ) 2−79947
^{208}Pb spin flip excitation strength due to isobar-hole excitation process 2−113362
^{209}Po, 15^{-} isomer mag. moment and Po internal mag. field in Ni 2−69534
^{141}Pr, nucl. mag. moment determ. 2−101810
^{A}Pt, A=194,196, mag. moment meas. 2−54261
^{197}Pt^{m} decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
^{239}Pu, short lived fission isomer, g-factor 2−64356
^{150}Sm(^{32}S, ^{32}S'), 90-120 MeV, mag. moments by tilted-multifoil interaction 2−69532
^{177}Ta isomer, levels, J^{π}, $T_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014

nuclear magnetic moment continued
Xe, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{90}Zr spin flip excitation strength due to isobar-hole excitation process 2−113362
^{90}Zr(e,e'), inelastic scatt. spectra, level densities, missing mag. quadrupole strength, statistical anal. 2−95992

nuclear magnetic resonance
see also acoustic nuclear magnetic resonance; chemical shift; double nuclear magnetic resonance; ENDOR; Knight shift; molecular nuclear coupling; NMR line breadth; nuclear quadrupole resonance; nuclear spin-lattice relaxation; proton magnetic resonance; spin echo (NMR); spin-spin relaxation
Γ_3 doublet system, cubic, mag. resonance, nuclear interactions in mag. field 2−93026
acenes, linear ^{1}H NMR chemical shifts, ring current effects 2−70281
acetonitrile partially oriented by nematic liq. crystals, ^{13}C-^{13}C and ^{13}C-^{15}N coupling const. anisotropies 2−102506
N-acetyloxypyridinium salts, fragmentary exchange, reaction rates and mechanism, IR and NMR obs. 2−83372
acoustic ringing, pulse strategies for suppression 2−107372
acrylamide, single cryst., ^{13}C chem. shielding tensors 2−70285
acyclic alditols, conformations anal., energy calcs. 2−75164
adenine 5'-nucleotides, C(8)-substituted, NMR study of conformation using lanthanide probes and NOE meas. 2−54884
aligned nuclei in paramag. crystal, mag. resonance, nuclear force T violation 2−107760
alkaline earth fluorides, thermal neutron irradiated, point defects study 2−65985
alkyl chain ligands coordinated to Ln(DPM)$_3$ ^{13}C pseudocontact shift and relax., conformational anal. 2−70283
alkynyl mercury (II), chemical shifts, coupling consts., NMR 2−54880
amber, powdered, NMR study of C site chemistry 2−106112
amino acids, aq. solns., study by NMR method using a lanthanide shift reagent 2−111814
amorphous solids, electric field gradients, theory and expt. data review 2−104323
anisole, NMR study, proton-proton coupling consts. *(French)* 2−96594
aqueous shift reagents for high-resolution cationic nuclear magnetic resonance 2−70290
aromatic cpds., NMR using binuclear shift reagents 2−114014
2-aryl-1,2-dihydro (4H) thieno[2,3-c]benzo[e]pyrane-4-ones, IR and NMR spectroscopic props. *(French)* 2−110863
autodyne, low-temp., for NMR mag. field meas. 2−84673
azobenzenes, stereospecificity of ^{15}N-^{13}C coupling consts. and chem. shifts in ^{13}C NMR spectra 2−96600
battery-driven high-power pulsed NMR amplifier using commercial broadband transistor amplifier modules 2−84679
benzene, diamagnetic shielding const. interaction with surface, NMR study 2−102501
benzene, multiple quantum NMR, pulse sequence for four quantum transitions 2−80652
benzene-d_6, solvation sites in mesophases of discotic liquid crystals, D quadrupole splitting meas. 2−97916
benz[a]anthracenes, methyl substituted, ^{1}H and ^{13}C NMR chem. shifts 2−65020
biaxial ordering in N-(4-n-hexyloxybenzylidene)-4-n-hexylaniline smectic G phase 2−98973
binary liquid mixtures, quadrupolar and dipolar elec. field effects 2−66922
binuclear shift reagents for NMR spectroscopy 2−114014
biological tissues, B_0 shimming using tune and match circuit 2−69223
bis(4-dimethylaminophenylimino)sulphur and struct. analogues, donor props., conform. anal., adduct form. with TCNQ 2−61454
bis-methylammonium copper bromochloride, moment direction, NMR study 2−115974
bistability and phase transitions of nuclear spin systems 2−104719
Bloch equation, associated dynamical map, positivity 2−58638
blood, correlating, in vivo NMR using dog 2−68210
borate glasses, ^{11}B NMR reson., satellites and shoulders 2−110662
borate glasses, structural modification, EPR and NMR study 2−103642
broad-band NMR spectrometers, high-temp. attachment for up to 7700°C 2−69216
Bruker WP-200 spectrometer modification for NMR obs. in solids 2−53802
butanol+$SnCl_4$, complex form., vibr., IR absorpt anal. NMR obs. 2−111486
n-butyl bromide, multiple quantum NMR, pulse sequence for four quantum transitions 2−80652
C^{13} NMR spectrum, 2-D, expt. methods and appls. *(Chinese)* 2−69211
caesium sulphonate salts, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
cardiac metabolism, non-invasive assessment method 2−94152
CCV HF, NMR spin-spin coupling, ab initio calc. 2−102495
cellulose nitrates, rel. between distrib. of nitrate ester groups and interchain d(110) spacings, ^{13}C NMR, X-ray spectra 2−110666
chamic acid, configuration and conformation, ^{1}H NMR spectra 2−114130
chemical kinetics, signal averaging, Varytemp NMR investig. 2−85698
chemical shift anisotropies in solids, determ. using magic angle sample spinning technique 2−80658
chemical trees, spectra 2−65005
2-chloro-5-chloromethyl-1,3,2-dioxa-arsolane, three-dimens. struct., NMR study 2−96767
chloroform, ^{1}H Cw off-reson. decoupled ^{13}C NMR, spin dynamics 2−108570
cholesteric phase, self-diffusion, spatial modulation, mag. field distortion 2−103618
coal, anal. ^{13}C NMR with cross polarisation and magic angle spinning, spin dynamics 2−116736
coherence transfer NMR, echoes and antiechoes, double quantum freq. sign determ. 2−79636
collagen-fibrils, characterisation of leucine side-chain reorientation by solid-state ^{2}H NMR 2−88499
conductive samples heat transfer in NMR with RF decoupling 2−55403
conference on phys. and engng. in medical imaging, Pacific Grove, USA (Mar. 82) 2−107017
coronene, soln., NMR spectra, dipolar mag. field effects 2−59819
crystals near phase transition points, nucl. mag. relax. 2−110677

nuclear magnetic resonance continued
CW NMR dispersion spectrometers using cryogenic tunnel diode RF oscillator 2−69217
cyclo-octatetraene, in liq. cryst. solvents, bond shift kinetics, dynamic NMR meas. 2−90572
cyclobutadiene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
cyclobutadienes, neutral coord., C-C and C-H coupling consts. 2−54877
1,3-cyclohexadiene, ^{13}C NMR 2−110671
cyclohexatriene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
cyclooctatetraene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
decalin, CIF and trans, 2-D C^{13} NMR spectrum *(Chinese)* 2−69211
1,4-diacetyl-1,4-dihydro-2,3-diphenylpyrazine cryst. struct. and conform. anal. 2−75310
dibromodifluoroethylene, director dynamics and NMR appl. of nematic liq. crystals spinning at various angles 2−103598
dibutyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
beta-dicarbonyls, H bonding and proton migration, ^{1}H and ^{13}C NMR chem. shift. obs. 2−80680
digital pulse train generator for NMR and NQR spectrometers 2−107357
dihaloethylenes, cis effect, NMR study 2−114018
dimethyl maleic anhydride, single cryst., ^{13}C chem. shielding tensors 2−70285
dimethyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
2,6-dimethyl-3-nitroaniline, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
m-dinitrobenzene-benzene soln., ^{14}N quadrupole coupling tensor, NMR study 2−56966
diol salts, intramol. H bonds, IR continuum and NMR obs. 2−59799
p-dioxane in liq. crystalline solvents, ring inversion, D NMR spectra 2−102502
dipeptide, magic angle NMR, dipolar and scaled chem. shift interactions 2−108554
diphenyl disulphide, NMR study, proton-proton coupling consts. *(French)* 2−96594
diphenyl ether, NMR study, proton-proton coupling consts. *(French)* 2−96594
dipropenyl ether isomers, IR, Raman and ^{13}C NMR spectra, vibr. coupling 2−96569
distortionless enhancement of NMR signals by polarization transfer 2−89777
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
DNA, new struct. and dynamic aspects as revealed by NMR, review 2−116871
domain wall containing nuclear spins, NMR freq. shift and echo 2−104727
electron transfer reactions, nucl. mag. relax. obs. 2−93772
α,β-ethylenic ketones, conformations, substituent effects, NMR, IR study *(French)* 2−90582
exciton-exciton interaction freq. averaging, NMR use in exciton spectroscopy *(Russian)* 2−71884
f-electron system in cryst. field environment of octahedral symm., NMR isoshielding diagrams 2−77391
ferredoxin, ^{13}C NMR subspectra, spin multiplicities, attached proton test appl. 2−108551
ferredoxin, heteronuclear 2-dimens. chem. shift correl. NMR spectrosc. 2−108552
ferrocenyl derivative, bridged, 1st order isomerisation, signal averaging, Varytemp NMR investig. 2−85698
ferroelectric crystals, phase transitions under press., NQR-NMR obs. 2−110692
fluorobenzenes, containing free radicals, NMR relax. 2−54870
fluorobenzenes, monohalosubstituted, orientation in lyotropic mesophase, NMR 2−54881
fluorocarbon spheres, coupling between ^{19}F and ^{3}He nuclei on surface, NMR data anal. 2−110664
forbidden transitions in spin-1 and AX spin systems, selective excitation in NMR spectrosc. 2−101432
free induction decay, oscillatory behaviour, theoretical anal. 2−61774
free radical complexes, interacting mol. orbitals and mag. reson. 2−80681
gentiobiose octaacetate, conformation, NMR obs. and hard-sphere calcs. 2−96602
glasses, nonmetallic, NMR studies of struct., review 2−104713
glycyl-L-alanine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
glycylglycine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
Hadamard NMR spectroscopy saturation and correlation expansion description 2−74475
haemoglobin, tracer diffusion coeff determ. by pulsed field gradient NMR 2−105640
heteronuclear 2-dimens. NMR spectroscopy, coherence transfer echo realignment effects 2−69222
heteronuclear solid-state correlation spectroscopy 2−93018
heteronuclear spin system, NMR, S>1/2 nuclei quadrupole interaction 2−93017
heteronuclear systems, remote nuclei detect. using relayed coherence transfer NMR 2−90571
hexadecyltrimethylammonium fluoride-H_2O, phase equilibria studied by ^{2}H, ^{14}N and ^{19}F NMR 2−81958
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
hexapentoxy-triphenylene, discotic columnar mesophase, mol. ordering, ^{13}C NMR study 2−71336
high resolution, in solids *(Japanese)* 2−93027
high-resolution solid-state NMR spectroscopy 2−79629
imaging, technique and appls. 2−107375
imaging gradient control system 2−112945
imaging in medicine 2−88647
imaging techniques and appls., review 2−117049
immobilised protein systems, ^{2}H NMR of water 2−67951
incommensurate systems, NMR and NQR study 2−110721
inorganic systems, ^{29}Si, ^{27}Al, ^{11}B magic angle spinning NMR technique 2−82728
intact cells and tissues, $^{23}Na^{+}$ resons., NMR obs. using Dy(III) tripolyphosphate paramag. shift reagent 2−94007
nuclear magnetic resonance continued
internuclei magnetic interactions, anisotropy in condensed matter, review 2−110314
interrupted metallic strand model, freq. depend. NMR relax. rate 2−110685
ionic solids, wide-line NMR and relax. processes, review 2−116072
isotopically enriched compounds, ^{13}C resons. assignment by spin echo FT NMR 2−90576
itinerant electron antiferromagnet, nucl. relax. rate T_1^{-1} 2−87610
kinetics, multiple pulse FT NMR investig. method 2−89769
lactams, trimethylsilyl derivatives, ^{15}N NMR 2−65013
linear molecules, nucl. mag. spin-rot. relax. times 2−96604
linear scan generator for magnetic resonance spectra 2−69212
liquid crystal orientational ordering at high press., NMR 2−89779
liquid crystalline polymers, mol. order and motion, ^{2}H NMR spectroscopy 2−86545
liquid struct. NMR spectroscopy at high-press. 2−98990
liquids, magic angle sample spinning 2−107373
liquids, spin-1 double quantum coherence detection 2−87623
long-range H^{+}-^{13}C NMR spin coupling consts., appl. to mol. configs. study 2−85694
low dimensional magnets, NMR, review *(Japanese)* 2−82734
lung water determination by NMR imaging expts. 2−105877
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
magic angle, optical alignment technique 2−79634
magic angle NMR, dipolar and scaled chem. shift interactions 2−108554
magic angle sample spinning technique using rot. synchronised pulses 2−80658
magic-echo sequence for second-moment meas. 2−107369
magnetic field gradient coil for NMR meas. 2−58868
magnetic field stabilizer for nuclear magnetic resonance pulse spectrometers 2−107356
magnetic susceptibility, broadening, susceptibility matching effects 2−69221
magnetic susceptibility meas. using solenoidal magnet NMR spectrometer 2−107366
magnetically ordered materials, nuclear spin system dynamics, NMR freq. shift 2−77398
magnetically ordered solids, NMR spectrometer appls. *(Czech)* 2−58865
magnetization modes in weakly coupled spin systems without magnetic equivalence 2−72367
malonic acid, single crysts., EFGs, quadrupole coupling consts. and σ tensors, D NMR obs. 2−93023
malonic acid in soln., dynamic props. from spin relax. of ^{13}C labeled methylene group 2−54872
MC68000 microprocessor CAMAC system for NMR meas. of polarisation 2−107353
medical applications of NMR, review 2−111769
medical applications of NMR imaging, conf., Winston-Salem, USA (Oct. 1981) 2−74157
medical imaging, new modalities, positron emission tomography and NMR 2−88656
medical imaging, optical instrumentation appl., conf., San Francisco, CA, USA (March 1981) 2−94888
medical imaging 2−83625
medical imaging techniques, developments 2−100094
medical imaging techniques survey 2−78400
medical NMR imaging, possibilities and limitations 2−100086
metal acetates, methyl group tunnelling, inelastic neutron scatt., NMR study 2−98978
methanes and its deuterated analogues partially oriented in nematic liq. crystals, ^{1}H and ^{2}H NMR spectra 2−70280
methanol, $^{1}J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methoxylated isoflavones, ^{1}H NMR spectra, solvent effect 2−70292
methyl methacrylate and styrene polymerisation using azoisobutyronitrile as radical initiator, ^{13}C NMR 2−67750
methyl-10-phenothiazine, phosphonation isomers, ^{13}C and ^{31}P NMR 2−75317
methylamine $^{1}J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
bis-methylammonium copper bromochloride, ^{35}Cl NMR *(Japanese)* 2−93028
methylbenzenes, sterically crowded, methyl proton signals, NMR chem. shift calcs. 2−80656
1-methylgermatrane, 3,7,10-carbonyl containing analogues, X-ray struct. anal. and NMR spectra 2−96766
methylpyropheophorbide, soln., NMR spectra, dipolar mag. field effects 2−59819
4-methyoxy-2-nitroaniline, methoxy-group conformation, NMR anal. 2−96597
micelles, inverted, chemical shift, phosphate buffer effect, relax. time, NMR 2−57644
microgeometric modelling, quantitative methods, appl. to NMR 2−94364
microglobulin, Human β_2, NMR investig. 2−78290
molecular complex, assoc. consts. determ. from NMR data, effect of instrumental error and conc. 2−105472
molecular solids, wide-line NMR and relax. processes, review 2−116072
molecular spectroscopy, conf., Albena, Bulgaria, (Oct. 1980) 2−107020
molecule, ^{13}C NMR spectra interpretation based on atlas of known spectra 2−65018
molecules, computer-assisted enumeration of NMR signals 2−90577
molecules, magnetic susceptibility anisotropies meas. by NMR 2−90733
molecules in nematic-phase solns., 2H- $\{^{1}H\}$ selective spin population transfer 2−54876
mononucleotide solutions, ^{31}P NMR, chem. shift *(French)* 2−75315
mononucleotide solutions ^{31}P NMR, chem. shift *(French)* 2−75316
monosaccharides, ^{17}O NMR, chemical shifts 2−102505
monosaccharidic (-dn) and ^{13}C enriched compounds, ^{1}H and ^{13}C two dimens. spectroscopy *(French)* 2−80679
multinuclear, thermometer 2−69175
multinuclear NMR spectrometer using high mixing frequencies for RF generation and detection 2−79638
multiplicity determ. in ^{13}C NMR 2−89776
multiplicity differentiation, magic angle ^{13}C spin-echo J-modulation study 2−89778
muscle, frog, appl. of pulsed-gradient ^{31}P NMR to meas. of cellular diffusion rates of P compounds 2−73213
nematic lyotropic liq. cryst., magnetically aligned, mol. motion, ^{2}D NMR study 2−81665

nuclear magnetic resonance continued
nitrobenzene, liq., ^{14}N quadrupole coupling tensor, NMR study 2−56966
nitrobenzene, liq., mol. alignment, electric saturation, NMR study 2−56947
nitrosobenzenes, stereospecificity of ^{15}N-^{13}C coupling consts. and chem. shifts in ^{13}C NMR spectra 2−96600
norbornadiene, partially oriented NMR spectrum, nonplanarity of olefinic bonds 2−90574
nuclear spin systems, energy and temp. meas. 2−66926
nucleotides, aq. solns., study by NMR method using a lanthanide shift reagent 2−111814
nucleotides, cellular bioenergetic processes, ^{31}P NMR chemical shift 2−90579
nucleotides in aq. solns., conformation study by NMR lanthanide shift 2−67931
octafluoronaphthalene, coupling consts., ^{19}F NMR study 2−90581
optical discrete-saturation spectrum, NMR saturation effect 2−82746
order and disorder, book 2−63759
organic compounds molecular weight determ. by NMR spectroscopy 2−75470
organic molecules, stereochemistry, NMR appl. 2−108579
organometallic compounds containing ^{103}Rh, ^{183}W and ^{57}Fe, P-irrad. INEPT expt. 2−87604
organoselenium cpds. with C=Se double bonds, ^{77}Se NMR 2−65006
oriented flexible polymers, glass transition *(Russian)* 2−66225
oscillatory free-induction decay and oscillatory spin echoes 2−86062
paripartite uncoupled exchanging A-B system, lineshape parameters 2−80660
4-n-pentyl-4′-cyanobiphenyl-d_{15}, nematic, pretransitional behaviour, NMR investig. 2−82731
peptides, aq. solns., proton connectivities investig. 2−80668
phenol-formaldehyde, 2nd order condensation, signal averaging, Varytemp NMR investig. 2−85698
phenylamines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylarsines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
1-phenylethanol, in MBBA liq. cryst., orientation, D NMR 2−80663
1-phenylgermatrane-3-one, X-ray struct. anal. and NMR spectra 2−96766
phenylphosphines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phosphates, inorganic and organic, natural abundance ^{17}O NMR spectra 2−75319
phospholipids in inverted micelles, small mols. interactions, NMR spectra 2−99913
plastics, engineering, ^{13}C chem. shift meas. 2−79632
podacarpic acid derivatives, mol. motion. rot. barriers, ^{13}C NMR relax. 2−96595
polarization transfer via J coupling by semiselective excitation applied to the high gyromagnetic ratio nucleus 2−84677
poly(acetylene), mol. struct. and elec. cond. 2−98609
poly(aspartic acid), ^{13}C NMR study of struct. 2−104717
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
poly-N-vinyl-3-methyl-2-pyrrolidones, opt. active, synthesis and characteris. 2−61866
polyacetylene, AsF_5 and HF doping, ^{13}C NMR study 2−76473
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
1,2-polybutadienes, hydrogenated, configurational sequences, ^{13}C NMR spectra 2−65882
1,2-polybutadienes, hydrogenated struct. characterisation by ^{13}C NMR 2−77394
polycyclic aromatic cpds., NMR using binuclear shift reagents 2−114014
polydimethylsiloxane gels, swelling and orientational order, NMR obs. 2−62437
polyelectrolyte solutions, counterion binding, FT NMR self-diffusion investig. 2−82729
polyether-polyurethane networks containing Li perchlorate, ionic cond. correlation with ^7Li-NMR 2−86928
polyethylene terephthalate, ^{13}C shielding anisotropies 2−108572
polyethylenes, linear and branched, β-transition anal. by C-13 NMR 2−98986
polyethylenimine backbone polynucleotide models, synthesis and ^1H and ^{13}C NMR characterisation 2−116865
polymer, amorphous, in glassy state, conformational anal. by magic angle spinning ^{13}C-NMR 2−66931
polymer, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polymer solids and composites, ^{13}C NMR 2−87606
polymers, adsorbed at solid-soln. interface, config. investig. by small angle neutron scatt. and NMR 2−114140
polymers, aromatic, benzoid and heterocyclic, characterisation by cross-polarisation, magic-angle ^{13}C NMR 2−110670
polymers, characterisation, conf, Durham, UK, 13-17 July 1981 2−68957
polymers, solid structure, cross-polarisation ^{13}C NMR spectroscopy 2−86592
polymers, transition points, dynamic and thermodynamic, NMR and relax. methods 2−87619
polymers structure and dynamics by solid-state ^{13}C NMR 2−86591
polyoxyethylene soln., pipe flow, mass transfer, NMR study 2−103192
polyprenol homologues struct. charact., ^{13}C NMR spectroscopy 2−90752
polypyrrole film, neutral and oxidised, prep. and characterisation 2−81693
polyvinyl acetate, plasticised, filled by fluoroplast, impulse NMR study *(Russian)* 2−56959
poly[α,ω-alkanedioyl(1′,4′-dioxyphenyl)-oxy-4-benzoate]s, mol. wts., structs., NMR obs. *(French)* 2−70458
population inversion, symmetrical composite pulse sequence 2−89774
probe, high temperature 2−101434
propylene oxide-maleic anhydride oligoesters, struct. isomers and compositional sequences, ^{13}C NMR *(Russian)* 2−75327
proteins, aq. solns., proton connectivities investig. 2−80668
proteins, dipolar NMR relaxation of nonprotonated axomatic C, struct. and dynamical effects 2−99896
PTFE, deformed, ^{19}F NMR chemical shift 2−72365
purines+phenylalanine, collision complexes, ^1H NMR spectra 2−57591
pyridine, 2-D C^{13} NMR spectrum *(Chinese)* 2−69211
pyridine-N-oxide, thermotropic nematic phase, NMR spectrum, chemical shift 2−87608
quadrupolar nuclei, NMR using rapid simple spinning 2−116076
nuclear magnetic resonance continued
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
rare earth compounds, $RMn_2Si_2(Ge_2)$, NMR studies in ferromag. state 2−82730
rare earth orthoferrites, $RFeO_3$, local and exchange field inhomogeneity, NMR study 2−87209
relaxation caused by spin-rotational interaction, stochastic differential eqn. study 2−82742
relaxation meters, impulse programming system *(Rumanian)* 2−64073
relaxation times, CW NMR investig. 2−89505
relayed coherence transfer spectroscopy, structural determ. 2−90580
resonant structures matching with EPR 2−74476
ruby NMR laser, bistability and phase transitions of nuclear spin systems 2−104719
scanning, application to two-phase flow visualisation 2−108070
second order splittings in off-resonance decoupled ^{13}C NMR spectra 2−108580
sedimentary rocks, pure fluid, NMR, proton desorption rate 2−117297
selenenyl sulphides, ^{77}Se NMR chem. shift meas. 2−65011
selenolesters, ^{77}Se chemical shifts *(French)* 2−70293
selenolo[3,2-b]selenophenes, ^1H, ^{13}C and ^{77}Se NMR, substituent-induced shifts 2−75312
selenophenes, condensed phase CNDO/2 calcs., ^{77}Se NMR chemical shifts 2−82736
selenophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
silicate, crystallographically distinct tetrahedral sites, resolution by solid state NMR 2−71424
simple molecules, mag. susceptibility, chemical shift, HFC 2−54984
skyline projections in 2-dimens. NMR spectrosc. 2−107370
small molecules in ion-exchange resins, ^{13}C NMR 2−65015
smectic phases, biaxially ordered, magneto-aligned, NMR spectral patterns 2−104716
sodium polystyrene sulphonate, mixtures, activity coeffs. calcs., ^{23}Na NMR study 2−104023
solid electrolytes, high temp. probe 2−101434
solids, average Hamiltonian theory appl. 2−98975
solids and liqs., appl. of high field and temp. CW-NMR spectrometer *(German)* 2−112943
spectral densities, NMR relax. investig. using tracing method involving freq.-reduced variables 2−89770
spectrometer, switched receiver and transducer for 0.5 to 10 MHz range 2−69213
spectroscopy, 90 degrees single passage 2−107359
spin exchange obs. by 2D Fourier transform ^{13}C cross polarisation magic angle spinning 2−87615
spin imaging equipment for small animal experiments 2−73397
spin systems, I= and 1, heteronuclear multiple quantum NMR, dipole coupling consts. determ. 2−110651
spin systems CH, CH_2 and CH_3, DEPT pulse sequence 2−110650
spin-spin coupling, heteronuclear two-dimens. J spectroscopy 2−89773
spinning NMR samples, pH control and rapid mixing 2−79631
styrene-acrylonitrile copolymer solns., hydrodynamic characts. and light scatt. *(Russian)* 2−108756
styrene-acrylonitrile copolymers, sequence distrib. and intramol. excimer formation 2−77562
superconducting solenoid for NMR at ultra-low temps. 2−58872
superregenerative magnetic-field sensor controlled by nuclear magnetic-resonance signal 2−95410
symmetric molecules, nucl. mag. spin-rotational relax. times 2−96603
symmetrical spin systems, NMR multiple solns. arising from nuclear permutations 2−77392
tellurophenes, 2-substituted, ^{125}Te-^{13}C coupling consts. determ. 2−87603
tellurophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
tetrafluoro-1,4-benzoquinone in liq. cryst. solns., struct., chem. shift anisotropy and J couplings, NMR study 2−72363
three-frequency NMR, chemical shifts, scalar couplings and multiplicities 2−69224
$(TMTSF)_2PF_6$, NMR studies 2−56963
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
tri(halovinyl)antimony, NMR and vibr. spectra *(German)* 2−65019
tri(halovinyl)arsenic, NMR and vibr. spectra *(German)* 2−65019
trimethylimidazole, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
triorganyl borane+BH_3, exchange reactions, ^{11}B NMR obs. 2−108577
s-trioxane, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962
trivinylantimony, NMR and vibr. spectra *(German)* 2−65019
trivinylarsenic NMR and vibr. spectra *(German)* 2−65019
two-step pulse sequence for protonated C signal cancellation 2−79635
variable freq. H^+ off-reson. decoupled ^{13}C NMR, appl. to micellar and microemulsion systems 2−80653
vinyl ethers, β-substituted, cis effect, NMR study 2−114018
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
wideband voltage amp. for NMR pulse spectrometer 2−107355
AgCl(Br), neutron irrad., Frenkel defects, struct., and annealing, NMR study 2−91952
$AgI:Ag_2B_4O_7$, vitreous electrolytes, struct. and ion dynamics 2−61197
Al-Fe, solid solns., secondary quenching defects features 2−62153
Al-Zn, NMR and diamag. susceptibility meas. *(Russian)* 2−93020
$AlCl_3$-n-butylpyridinium chloride melt, ^{27}Al NMR 2−66923
Al(III)-phosphate complexes, aq. solns., ^{27}Al NMR obs. 2−108575
β-Al_2O_3-Li_2O, Li^+ distrib. and motion, NMR and Raman study 2−66284
AsF_5-graphite intercalation cpd., ^{19}F NMR study 2−98976
Au metal, ^{197}Au NMR calcs. 2−110678
B_2O_3-LiF(LiCl)(Li_2O) glasses, ionic cond., ^7Li, ^{11}B, and ^{19}F NMR study 2−93022
BaX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
$Ba_{4-x}Zr_{2+x/2}F_{16}$, diffusion and rotation of F, NMR study *(French)* 2−66925
$BeCl_2$, in acetonitrile, solvation, ^9Be NMR 2−80665
^{13}C triple reson. using simultaneous F and H^+ decoupling 2−80659
CN^-, NMR spin-spin coupling, ab initio calc. 2−102495

nuclear magnetic resonance continued
^{13}C autocorrel. NMR using double-quantum coherence 2−107374
^{13}C NMR spectroscopy, attached H^+ multiplicity test 2−74477
^{13}C spectra in solids, J couplings, high resolution NMR spectra 2−104715
^{13}C-^{13}C couplings, obs. with enhanced sensitivity, INEPT technique 2−65016
$Ca_2NaMg_2V_3O_{12}$, tetrahedral sites and elec. field gradient distrib., ^{51}V NMR study 2−110665
$CaWO_4$:Ho^{3+}, NMR study of EM and sound energy absorpt. *(Russian)* 2−61778
CaX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
Ce-Fe, nuclear orientation and NMR in oriented nuclei 2−61776
$CeCu_{5-x}Ni_x$, NMR and mag. susceptibility 2−66938
$Ce_{1-x}Gd_xRu_2$, self induced vortex state, Meissner effect, NMR study 2−87463
$CeSn_3$, mixed valence cpd., anomalous NMR shifts 2−56958
Co-^{52}Mn, NMR ON study 2−98971
Co-^{90}Nb, NMR ON study 2−98971
CoB amorphous alloys, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
$CoFe_2O_4$ ferrite, valence states, NMR study 2−110667
CoP amorphous alloy, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
$CrBr_3$, domain wall magnetisation temp. depend. *(Russian)* 2−87545
$CsH_3(SeO_3)_2$, ^{77}Se high resolution NMR 2−61779
$CsLiSO_4$, phase transitions by quadrupole perturbed ^7Li NMR 2−110661
$Cs_2NaLnCl_6$, Ln=Pr, Tb, Tm, enhanced NMR spectra 2−82738
Cs_3Sb, solid compound semiconductor, chemical bonding, ^{133}Cs-NMR spectra 2−56957
Cu complex, triphenylphosphine CU(I) complexes, ^{31}p NMR, quadrupole effects 2−72360
Cu, nuclear magnetism at nK temps., mag. susceptibility and NMR study 2−104595
Cu^{2+}, compounds Cl NMR, elec. quadrupole interactions *(Japanese)* 2−70294
Cu-Cr(-Fe), (-Mn), dilute alloys, ionic model, energy level splitting, NMR study 2−66932
Cu-In, NMR study 2−104724
$CuCr_2Se_{4-x}Br_x$ spinel, elec. cond., NMR study 2−56954
$Cu(NO_3)_2.2.5H_2O$, cryst. struct. PMR and DMR study 2−81717
$CuO-B_2O_3K_2O$ glass, ^{11}B NMR and mag. susceptibility 2−104587
$DyAl_2$, paramagnetic, hyperfine interactions 2−98974
Eu reagents with coordination at pyridine N-atom, NMR, chemical shift, pseudocontact model 2−75322
$Eu_{0.99}R_{0.01}Se$ (R=Sr, Sm), hyperfine fields at ^{153}Eu, NMR study 2−66924
Fe complexes, Fe(II, III)-N,N'-di(2-)pyridyl thiourea, Mossbauer and other spectroscopic studies 2−110735
Fe, NMR on oriented ^{194}Ir 2−98977
Fe-^{199}Au, elec. quadrupole interaction, NMR-ON meas. 2−116075
Fe-^{52}Mn, NMR ON study 2−98971
Fe-Sb-Co(Mn)(V)(Ti), dil., impurity pair interactions, resist. and NMR meas. 2−82317
$GdAl_2$, paramagnetic, hyperfine interactions 2−98974
$GdFe_2$, ^{57}Fe local fields, NMR study rare earth ion and interionic dist. effects 2−82744
H_2, HD and D in nematic solvents, ^1H and ^2H NMR meas., environmental effects 2−85699
H_2, orientational glass, distrib. of local quadrupolarisations, NMR spectra 2−110654
H_2, ortho diluted with para, NMR and specific heat calcs. 2−98381
H_2, solid, H atom adsorption temp. depend. 2−82074
HC_2BSiO_5, quadrupole lines dipolar struct., ^{11}B NMR study 2−110658
$H^{13}C^{15}N$, spin-spin coupling consts., magnitude and sign determ. 2−65008
H_3NSO_3, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
$HNbO_3$, cubic perovskite, ion exchange prep. from $LiNbO_3$, characterisation 2−60953
H_2O, mol. motion, activation energy temp. depend., pulse NMR method obs. 2−93024
H_3PO_4, diamag. susceptibility, ^{31}P NMR 2−108576
$HTaO_3$, cubic perovskite, ion exchange prep. from $LiTaO_3$, characterisation 2−60953
^{3}He, Landau-Fermi liquid theory of NMR relax. times 2−98377
^{3}He, solid, mag. props., review 2−115488
^{3}He, solid, nucl. spin ordering 2−110086
^{3}He, superfluid, B-phase, texture in large cylindrical geometry near T_c, NMR study 2−71756
^{3}He, superfluid, Fermi liq. theory, review 2−110078
^{3}He, superfluid, rotating, NMR study *(Russian)* 2−82060
^{3}He, superfluid, rotating, NMR study, vorticity 2−86969
^{3}He, superfluid, violation of T-invariance in NMR *(Russian)* 2−82061
^{3}He, superfluid B-phase, magnetisation nonlinear motion, spin relax. effect in pulsed NMR config. 2−61237
^{3}He, uudd, magnetisation motion in strong mag. field 2−110085
^{3}He-^{4}He solid mixtures, dil., impurity interactions, press. depend. 2−71765
^{4}He-alkali metal plasmas, He and free electron mag. reson. signal separation 2−113915
$HoVO_4$, Van Vleck paramag., ^{51}V NMR line shift, temp. depend. meas. 2−116074
$Ho_{1-x}Y_xCo_2$, Curie temp., magnetisation and NMR, Co local environment effect 2−116071
$InF_3.3H_2O$, solid phase hydrolysis, NMR study 2−72943
K salts, molten, ^{39}K NMR obs. 2−77397
K_2FeF_4, NMR study of susceptibility 2−82575
$K_3LiNb_6O_{17}(Ta_6O_{17})$, Li ion motion, NMR study 2−66939
$KbAl_3$, mixed valence cpd., anomalous NMR shifts 2−56958
KbCuAl, mixed valence cpd., anomalous NMR shifts 2−56958
LaH_x, disorder of site occupation 2−91910
La_2LiFeO_6, high-pressure stabilisation and physical props. of Fe(V) 2−66791
$LaNi_{1-x}Co_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{1-x}Fe_xO_3$, magnetic props., review *(Japanese)* 2−66870
$LaNi_{0.5}Mn_{0.5}O_3$, magnetic props., review *(Japanese)* 2−66870
LiBr(I), molten, nuclear spin relax. 2−104737
LiF, multispin mag. resonance with polarised β-active nuclei taking part *(Russian)* 2−82732

nuclear magnetic resonance continued
$Li_{3+x}(P_{1-x}Si_x)O_4$, Li^+ ion diffusion, NMR spin-lattice relax. study 2−115455
$LiTmF_4$, influence of magnetostriction on NMR spectrum *(Russian)* 2−72361
$Li_{0.5}Y_{0.5}Zr_{0.5}S_2$:$Cr^{3+}$, NMR ionic motion studies 2−110676
$MgO-B_2O_3$ glass, phase relations, NMR and X-ray diffr. study 2−98247
MgX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
N NMR spectroscopy, book 2−58574
$NH_4LiSO_4(-d_4)$, phase transitions by quadrupole perturbed ^7Li NMR 2−110661
NH_4MnF_3, proton reson. and crit. relax. 2−98988
NH_4ZnF_3, proton reson. and crit. relax. 2−98988
Na salts, ^{23}Na FT NMR high resolution spectra 2−87601
Na^+ cation solution by organic nitroxide radical, ^{23}Na NMR and ab initio investig. 2−80677
$NaBrO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387
NaCl, rotating dipolar solid, NMR spectra calc. by canonical transform. technique 2−56952
$NaNO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387
$NaNbO_3$, antiferrodistortive transition, order parameter crit. behaviour, NMR study 2−92183
$Na_2O-Al_2O_3-B_2O_3$ glass, tetrahedral B, NMR spectra 2−97932
$Na_4P_2O_7-SnCl_2$ aq. solns., complex form., ^{31}P NMR obs. 2−70288
$Na_2PtCl_6.6H_2O$, NQR and NMR signals, effects of cryst. H_2O 2−110656
NbH_x, NMR mag. cept. broadening, susceptibility matching effects 2−69221
Ni d^{10} complexes, ^{61}Ni NMR obs. 2−65012
Ni, NMR on oriented ^{194}Ir 2−98977
Ni-^{52}Mn, NMR ON study 2−98971
O_2, liq., CC ^{17}O NMR, hyperfine splitting 2−59821
^{31}P reference samples for aq. samples 2−108576
$(PbO)_mSiO_2$ glass, M=1, 2, 4, struct. and devitrification, ^{29}Si NMR study 2−110655
$Pr_{1-x}Y_xCo_2$, Curie temp. magnetisation and NMR, Co local environment effect 2−116071
Pt complex, (π-allyl)palladium complex ion pair, NMR and X-ray crystallography 2−87600
Pt particles, ^{195}Pt NMR, intraparticle Knight shift broadening 2−66937
Pt-Pb complexes, heteronucl. second-order coupling effects in NMR 2−80666
Pt(II) complex, cis-$(^{15}ND_3)_2Pt(OD)_2Pt(^{15}ND_3)_2^{2+}$, ^{195}Pt chem. shift and Pt-N coupling consts. 2−90575
$Rb_2CuBr_4.2H_2O$, three-dimensional Heisenberg ferromagnet, spin dynamics 2−98903
Rb_2NaHoF_6, struct. phase transition study 2−98273
Rb_2ZnCl_4, commensurate and incommensurate phases, ^{87}Rb NMR satellite transitions 2−77388
Rb_2ZnCl_4, paraelectric-incommensurate transition, fluctuations, NMR study 2−87710
Re surface, nuclear spin relaxation of alkali metal atoms 2−98991
Rh(I) diene complexes, 5-coord., NMR spin-lattice relax. 2−65014
^{99}Ru, NMR in soln. 2−70289
^{101}Ru, NMR in soln. 2−70289
SbF_5-graphite intercalation cpd., ^{19}F NMR study 2−98976
Se-Te liq. mixtures, NMR 2−98970
Si:H,B, amorphous film, NMR study 2−110686
Si:H,F, amorphous film, NMR and ESR study 2−93003
SiO_2, reaction products of propanal, weakly adsorbed molecules study by ^{13}C NMR 2−93810
Sm_2Co_{17}, NMR study of hyperfine interactions 2−56974
SrX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
$TaSe_2$ (2H) structure, CDW, interlayer interactions effects 2−76950
$TiCr_{1.85}H_x(D_x)$, H position and diffusion, NMR studies 2−93025
$TiH_{1.98}$, polycryst., magic-echo sequence for second-moment meas. 2−107369
V, band struct., XPS, NMR and sp. ht. studies 2−104243
VO_2-$CrNbO_4$ ($FeNbO_4$), solid solns., phase transitions, ^{51}V 2−110669
V_3Pt, band struct., XPS, NMR and sp. ht. studies 2−104243
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
^{129}Xe adsorbed on Y zeolites, NMR signal shifts, density depend. 2−82727
^{129}Xe NMR solvent shifts, reaction field model 2−75314
$Y_2(Co_{1-x}Mn_x)_{17}$, Y transferred hyperfine fields, NMR study 2−66951
YFe_2, local mag. fields temp. depend., vol. expansion effects, NMR study 2−56955
$YFeO_3$, NMR intensity in domain walls, spin-echo method, low temp. anomalies 2−87626
YH_x, disorder of site occupation 2−91910

nuclear magnetic shielding *see nuclear screening*

nuclear mass
see also atomic mass
A=104-114 mass excess, α and β/EC decay Q-values from $^{58}Ni(^{58}Ni,X)$ 2−113354
asymmetry relaxation in heavy ion-nucleus reactions 2−113525
attenuated mean fission fragment, nuclear charge and at. mass 2−64819
$CC^{209}Bi(^{184}Kr,X)$, proximity pot., nucleon current, energy dissipation, mass diffusion 2−113549
formula, check on individual terms 2−95905
macroscopic-microscopic model, at. masses and nucl. ground-state deformations 2−70436
mass dependence of the giant resonance model 2−113450
nucleon mass operator, analytical struct. *(Russian)* 2−79943
^{A}Ag, A=116-121, total β-decay energies, mass systematics, atomic mass excess, β-γ coincidences 2−113418
$^{197}Au(\pi^-,X)$, stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{A}C, A=17, 18, mass excess and first excited state from $^{48}Ca(^{18}O, ^{17,18}C)$ 2−107740
$^{12}C(\pi^-,X)$, stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{18}C mass meas. from double charge exchange reaction $^{48}Ca(^{18}O,^{18}C)^{48}Ti$ 2−59399
^{A}Cd, A=119, 121, total β-decay energies, mass systematics, atomic mass excess, β-γ coincidences 2−113418

nuclear mass continued
^{59}Co(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^Cs, A=117-147, direct mass meas., isomeric corrections 2−69520
^Fr, A=204-228, direct mass meas., isomeric corrections 2−69520
^{2}H, six-quark drop model, total weight *(Russian)* 2−101824
^{197}Hg mass excess meas. 2−84946
^{163}Ho-^{163}Dy mass difference meas. 2−85001
^{77}Kr, mass difference meas. using beta-endpoints 2−84945
^{81}Kr ground state mass and solar neutrino problem 2−59227
^Li(π^-,X), stopped π^-, A=6, 7, X=p, d, t, inclusive energy spectra, missing mass spectra 2−113567
^Pd, A=98-100, mass excess meas. 2−54247
^Rb, A=74-99, direct mass meas., isomeric corrections 2−69520
^Rb, A=75, 77, mass difference meas. using beta-endpoints 2−84945
^{28}S mass excess from ^{28}Si(π^+,π^-) 2−90167
Sr, decay characteristics of neutron deficient isotopes, Q_β measurements, mass excess values 2−113424
^{40}Ti mass excess from ^{40}Ca(π^+,π^-) 2−90167
^{235}U(n,f), nonequilibrium statistical theory of mass distribs., deformation *(Chinese)* 2−80043
Y, decay characteristics of neutron deficient isotopes, Q_β measurements, mass excess values 2−113424
Zr, decay characteristics of neutron deficient isotopes, Q_β measurements, mass excess values 2−113424

nuclear matter
abnormal nuclear matter and pion condensation in σ-models 2−74739
advances in nuclear physics, book 2−58571
anisotropic nuclear matter, eqn. of state from field theoretical model 2−85094
anomalous nuclei, nonstatic metastable σ-τ phase 2−96030
asymmetric, semi-microscopic optical pot. using nuclear matter approach *(Chinese)* 2−79966
asymmetric nuclear matter and Skyrme forces 2−59274
baryonic matter, self-consistent eqn. of state 2−59277
boson matter, abnormal occupation 2−54295
Brueckner theory of interacting fermion systems, radial distrib. function 2−90034
CC^{20}Bi(^{184}Kr,X), proximity pot., nucleon current, energy dissipation, mass diffusion 2−113549
cold neutrino degenerate dense matter, nuclei props., Thomas-Fermi model 2−117687
collisional time-depend. HF dynamics, interference effects lifetime 2−107786
compressed nuclear matter, eqn. of state, heavy-ion collision dynamics 2−113386
confinement and deconfinement of quarks in nuclear matter, review 2−95952
cosmological structure produced by phase transition near nuclear density 2−58509
degenerate quark matter, ν emissivities, mean free paths, possible search in neutron stars 2−89932
dense neutron and nuclear matter, hard core interaction, spin and isospin stability 2−90033
dense neutron matter metastability, phase transition to pion-condensed states 2−100970
dense relativistic matter, variational approach using functional techniques 2−79134
dipole polarisability and nuclear symmetry energies 2−85022
effective interactions, density depend., comparison between microscopic and empirical estimates 2−84961
energy gap surface effects 2−69591
equation of state of nuclear matter, rel. to neutron stars masses 2−106766
equation of state study in high-energy heavy-ion collisions 2−84988
exactly central heavy ion collisions by nuclear hydrodynamics, comments 2−90152
explosion-evaporation model for fragment production in medium-energy nuclear collisions 2−96032
Fermi liquid, tensor forces and spin susceptibility 2−84962
fractional charges binding to nuclei 2−54075
heavy ion relativistic collisions for nuclear matter obs. *(German)* 2−107886
heavy-ion collisions, light particle emission 2−85092
HF equations soln. in thermodynamic limit 2−59273
high density, relativistic Hartree-Fock description, phase transition 2−64366
high density matter state, review 2−53436
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
high-energy nuclei collisions, phase transition to quark matter, expt. signatures 2−69593
highly excited nuclear matter, theoretical description 2−59275
homogeneous nuclear matter, density fluctuations 2−95951
hot dense matter, equations of state, reviews, book contrib. 2−54296
hot nuclear matter phase stability, balance eqns., relativistic HI reaction appl. 2−54294
hydrodynamical model eqns. for nuclear matter penetrated by particle *(Russian)* 2−90038
inelastic diffraction, simple two-component model, hadron confinement, nuclear matter 2−59134
low-entropy adiabats for stellar collapse, Thomas-Fermi model 2−100961
many body Lee model, coupled cluster description, binding energy 2−107788
microscopic approach to hadrons and nuclei using quarks 2−95739
mixed lattice phases in cold dense matter, appl. to white dwarfs and neutron stars 2−63223
multipion-nuclear interaction study using nuclear absorpt. of antiprotons 2−90169
neutron and nuclear matter, Fermi sea, Landau parameters, state energies 2−107790
neutron matter, π^0 and $\pi^\pm$ condensation, nucleon superfluidity 2−101830
neutron matter, π^0-condensate, effective nucleon mass, non-tensor forces 2−74742
neutron matter, p-admixture, $\pi^\pm$ condensation 2−101829
neutron rich matter, pion condensation at finite temp., π-field thermal excitations 2−95929
neutron star, neutrino oscillations effecton massive star gravit. collapse to neutron star 2−74007
neutron star matter, degenerate neutrinos transport props. 2−63493

nuclear matter continued
neutron stars, effect of pion condensation on model calc. *(Russian)* 2−63494
neutron stars, neutrino cooling by percolating quarks 2−58376
nuclear flow patterns for E=250 MeV/N from cascade code 2−59317
nuclear saturation, effective interactions, relativistic shell model, Landau-Migdal parameters 2−90025
nucleon optical pot. imaginary part 2−107789
partially degenerate, phase coexistence 2−79962
particle and nucl. scatt. at large momentum transfers 2−113248
particle clustering and Mott transitions at finite temp. 2−74741
pion condensate, crystalline and liquid phases *(Russian)* 2−79965
pion condensate in neutron stars matter, influence on struct. 2−94765
pion condensates, line-like defects, disorder field theory 2−84959
pion condensation, precritical phenomena 2−64365
pion condensation, restrictions 2−84960
pion double scatt., recoil and correl. 2−59276
pionic field, soliton-like states *(Russian)* 2−101831
polarisation operator of pions at finite temp. *(Russian)* 2−90037
QCD influence on nucl. physics, book contrib. 2−113222
quark effects in nuclear physics, review 2−95933
quark matter, possibilities in cooling neutron stars 2−54053
quark matter formation by heavy nuclear primaries, cosmic-ray anomalies explanation 2−63199
quark plasma in superdense matter, instanton effects 2−54085
quark-hadron transition in systems with net baryon number 2−90036
quark-parton picture of the cumulative production 2−95795
quarks and nucl. forces, book 2−113219
quarks and the nucleus, conf., Erice, Italy, (Apr. 1981) 2−94900
quasispin systems irreversible dynamics 2−69592
quenching and hardening in transverse quasi-elastic peak 2−74740
radius calc. in droplet model 2−54249
relativistic nuclear fluid coupled to classical field, hydrodynamical eqns. derivation 2−54293
response functions, electron probes of nucleon charge and magnetisation in nuclear matter 2−113384
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
RPA theory, extension to strongly interacting systems 2−84987
semimicroscopic optical pot. calc., nuclear matter approach, symmetry *(Chinese)* 2−54271
single particle wave functions of σ-τ phases 2−79964
single-particle pot. method for nuclear matter distrib. calc., comparison with expt. 2−84985
Skyrme interaction and light nuclei spectra 2−59258
strange quark matter energies in MIT bag model with centre-of-mass correction 2−84864
string model at high density 2−54297
strong interacting matter, quark-gluon phase 2−90035
strong interactions at low energies, quarks and nuclei 2−95741
superluminal light propag., in hadronic matter, rel. to curved spacetime gauge symm. 2−101530
supranuclear densities in physics and astrophysics 2−84986
surface tension model for compressed nuclei 2−113374
t, book contrib. 2−113388
thermal Hartree-Fock in the thermodynamic limit: statistical approach 2−90039
thermal properties, lattice density waves at finite temp., cluster disappearance 2−113387
two-component structure for hadron, diffraction on nucleon and nuclei 2−74672
(α,α), 140,172 MeV, A=40-208 2−101907
(α,α), 42 MeV, A=40-68, matter density and RMS radius, folding model anal. 2−69524
Δ-nucleus pot. from many body Hamiltonian for π, N, Δ 2−90024
(e,π), enhancement due to pion condensation *(Russian)* 2−59343
K_S^0 regeneration on nuclei, energy depend. 2−54449
Λ, effective mass in nuclear matter, Λ-N one boson exchange 2−79963
Λ well depth, p-state contrib. 2−107791
(p,p), 1 GeV, A=2 to 208, cross sections, densities, neutron and matter distribs. 2−96002
(π^-, 3π), 40 GeV/c, coherent prod., pion absorpt. in nuclear matter 2−90162
^{12}C nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{40}Ca(^{40}Ar, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{40}Ca(^{40}Ca,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
^{40}Ca($\pi^\pm$, $\pi^\pm$), 64.8 MeV, elastic scatt. cross section ang. distrib. 2−90165
Cs β-active superdense nuclei search from Ta(p,X) 2−95909
^{56}Fe nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{56}Fe(e,X), 20 GeV, heavy fragment prod. through electropion excitation 2−69647
^{7}Li($\pi^\pm$,$\pi^\pm$), 143 MeV, elastic and inelastic scatt. study 2−59418
^{16}O(^{16}O,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
Rb β-active superdense nuclei search from Ta(p,X) 2−95909
^{238}U(^{20}Ne, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{90}Zr(p,n), 200 MeV, pionic mode of excitation in continuum, DWBA calc. 2−85043

nuclear medicine *see radioisotope scanning and imaging*

nuclear medicine (treatment) *see radiation therapy*

nuclear models
see also nuclear cluster model; nuclear collective model; nuclear reaction and scattering models; nuclear shell model
additive quark model for spin-orbit interaction 2−107642
advances in nuclear physics, book 2−58571
anisotropic nuclear matter, eqn. of state from field theoretical model 2−85094
fission products, β-decay props. using statistical model 2−54326
Gamow-Teller and M1 states including Δ-hole excitation, RPA calc. 2−79979
heavy nuclei, single-particle and collective excitation dynamics 2−79935
highly excited nuclear matter, theoretical description 2−59275
homogeneous nuclear matter, density fluctuations 2−95951
intrinsic RPA HF state, approximate ang. momentum projection 2−74738

nuclear models continued
irreducible structure of operator matrices in the unitary scheme basis 2−84966
macroscopic-microscopic model, at. masses and nucl. ground-state deformations 2−70436
meson degrees of freedom in nuclei, review 2−59253
nuclear matter, quasispin systems irreversible dynamics 2−69592
nuclei and particles, book 2−53444
nuclei with N=Z, HFS method parameters calc. in relativistic model *(Russian)* 2−90032
nucleus-nucleus pot., various exchange contrib. degree of nonlocality 2−54270
schematic models of resonances: predictions and comparison 2−107836
sigma hypernuclei, microscopic model 2−95953
spectral functions and hole nuclear states 2−54244
^{78}As→^{78}Se, β^- decay, γ-rays spectroscopy 2−69597
Ba, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Ba, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{12}C, 0^+(GS)→2^+(4.44 MeV) transition density 2−107794
^{12}C, oblate deformation dynamics in Sp(2,R) nuclear model 2−54250
^{107}Cd, penetration effects in internal conversion process 2−95974
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896
^{2}H, root mean square radius and asymptotic S-state amplitude 2−95907
^Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
Xe, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Xe, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782

nuclear moment of inertia
A=227-250, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
A=232-248 nuclei, backbending, cranked shell model calc. 2−59212
actinide nuclei, rotational props. in cranked Hartree-Fock-Bogoliubov model 2−79928
backbending, cranked HFB field, instability 2−74724
backbending, interacting boson-fermion model *(Chinese)* 2−95902
collective props. depend. on potential energy and inertia tensor 2−101788
cranked HFB approx., particle pairs, backbending 2−54285
doubly even nuclei, transition strength B(E2) in yrast bands 2−69601
even-mass rotational nuclei, ground band spectrum, one-parameter formula 2−84943
high angular momenta nuclei, behaviour, in cranked HFB model 2−79929
high-spin states, nuclear states and shapes 2−64349
interacting boson model, particle pairs, backbending 2−54285
rare earth nuclei, deformed, irrot. core construction 2−54278
semiclassical theory of nuclear collective motions, variational observation 2−84970
structural similarity of nuclear molecules 2−107907
Ba moment of inertia from γγ correlations from Sn(^{12}C,X) 2−59216
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^{190}Hg, weakly deformed, band crossings, from ^{181}Ta(^{14}N,5n) at 100 MeV 2−95900
^{110}In, level density, spin depend., moment of inertia ratio, from ^{110}Cd(d,2n) 2−90019
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{20}Ne(^{16}O, X), 15-29 MeV CM, excitation function meas. using γ-ray techniques 2−90141
^Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
(^{208}Pb, X), on ^{26}Mg, ^{27}Al, ^{48}Ca, ^{50}Ti, ^{52}Cr, ^{58}Fe, ^{64}Ni, 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
Xe moment of inertia from γγ correlations from Sn(^{12}C,X) 2−59216
^{166}Yb, high spin region, rotational band energies 2−113330

nuclear moments
see also nuclear electric moment; nuclear magnetic moment; nuclear moment of inertia
multipole moments and spectroscopic sum rules for two-nucleon transfer 2−107751
properties studied by atomic physics 2−69529
Fr isotopes, nuclear mag. moments, relativistic many-body perturbation theoretic investigation 2−70152
^{84}Kr, 8^+ isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{232}Th(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{238}U(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387

nuclear muon capture *see muon capture*

nuclear optical model
antisymmetrised two fragment elastic scatt., optical pot. formulation 2−90065
asymmetric nuclear matter, semi-microscopic optical pot. using nuclear matter approach *(Chinese)* 2−79966
composite projectile optical pot., semi-empirical formula for real vol. integrals 2−113435
Coulomb exchange interaction of clusters, approximative treatment 2−95935
Coulomb pot. between spherical heavy ions 2−59226
elastic scattering, unified pot., nonlocal formalism 2−59251
energy-independent optical pot. and its physical interpretation 2−85014
four-particle reactions, coupled channels, renormalised optical pot. method 2−90062
geometrical relations for pot. obtained by folding density depend. interactions 2−95932
heavy ion relativistic peripheral collision, momentum distribs., knocked out nucleon 2−96033
heavy ion scatt., optical theorem and forward glory effects 2−90136
heavy ion scattering, deformation factors, diffraction model, adiabatic approx., collective motions *(Russian)* 2−59403
heavy nuclei, single-particle and collective excitation dynamics 2−79935
heavy-ion scatt., nucleon transfer contrib. to absorptive pot. 2−90140
inelastic hadron scatt., isoscalar transition rates, implicit folding procedure 2−95968
integrals involving (WS)^4 type functions 2−85013

nuclear optical model continued
interionic double folding Yukawa interaction potential 2−113433
internal and barrier wave contrib. for heavy ion elastic scatt. 2−107819
light and heavy-ion elastic scatt., barrier and internal wave contrib., quantum calc. 2−54427
meson-nucleus scatt., covariant single-hole optical pot. model 2−74777
mesonic folded diagram theory of the nucleon-nucleon potential 2−90023
microscopic nucleon optical model potential, low energy calculations 2−113431
neutron cross-section and kerma values for C, N, O, Mg, Al, P, S, Ar and Ca, 20 to 50 meV 2−96008
nonresonant approx. to optical pot. 2−59308
nuclear matter, nucleon optical pot. imaginary part 2−107789
nucleon-antinucleon optical pot. 2−69543
partial E1 radiative strength functions, optical description, effective charge 2−113403
pion double scatt., recoil and correl. 2−59276
pion-nucleus optical pot., pion absorpt. contrib. 2−74779
pion-nucleus S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
pionic atoms, anomalous energy shifts 2−80848
pions absorption and pion-nucleus optical pot. 2−59421
protonium, lifetime, energy shift, nuclear effects 2−59979
semimicroscopic optical pot. calc., nuclear matter approach, symmetry *(Chinese)* 2−54271
spherical nuclei collective model, optical pot. imaginary part calc. 2−74721
spin-3/2 deformed projectile scatt., polarisation, complex folded potentials anal. 2−101875
three-body problem, generalised optical pots., rescattering effects *(Russian)* 2−59309
time-dependent scatt. theory for identical particles 2−53578
transfer processes, diffractional theory, three-particle approach *(Russian)* 2−113434
transmission coefficients for light projectiles 2−69621
VR^n ambiguity, quantum-mechanical anal. 2−107817
(α,α), 140,172 MeV, A=40-208 2−101907
(α,α), 42 MeV, A=40-68, matter density and RMS radius, folding model anal. 2−69524
C(π, 2N), contrib. towards pion-nucleus optical pot., reaction cross section 2−96048
(d,d), double folding model anal. 2−90120
(N,N), ($\bar{N}$,$\bar{N}$), A=12-208, optical pot., cross sections, relativistic mean field approach 2−101894
(n,n), folding model, separable pot. approach for spin zero nucleus 2−80017
(n,n), review of optical model anal. 2−107818
(n,x) on ^{141}Pr, ^{159}Tb, ^{165}Ho, ^{167}Er, ^{169}Tm, pol. n, neutron cross section, strengthfunction, spin depend. 2−54373
($\bar{p}$,X), low-energy, optical pot. 2−59347
(π^-,X), 200 GeV/c, diffractive dissoc. *(Russian)* 2−64345
^{27}Al(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
Al(p,mN′)X, 90 MeV, fast inelastic collision in precompound reactions, cross sections, optical pot. 2−101887
^Au(n,γ), A=196, 197, cross section theoretical calc. 2−101878
^{196}Au(n,γ), cross section theoretical calc. 2−101878
(^{A}B,^{A}B), A=10, 11, elastic and inelastic scatt., expt., optical model and DWBA calc. 2−101915
^{10}B(γ,π^+)^{10}Be, differential and total cross section calc. 2−85023
^{9}Be(p,p) differential cross-section, optical model, two-step processes 2−90099
^{209}Bi(n,n) elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
^{A}C(^{28}Si,^{28}Si), A=12, 13, 55-99 MeV, 180° elastic excitation function meas. 2−59396
^{A}C(^{32}S,^{32}S), A=12, 13, 55-99 MeV, 180° elastic excitation function meas. 2−59396
^{12}C(^{12}C, ^{12}C), elastic ang. distrib., intermediate structure 2−85079
^{12}C(^{12}C,X), ^{12}C+^{12}C strongly coupled collective excitations, contrib. to optical pot. 2−69628
^{12}C(^{3}He,^{3}He), 40.9 MeV, differential cross section ang. distrib., optical model anal. 2−96021
^{12}C(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{12}C(^{6}Li,^{6}Li), 156 MeV, differential cross section from double folding cluster model 2−90150
^{12}C(^{6}Li,Li), Watanabe pot., correction 2−113523
^{12}C($K^\pm$,$K^\pm$), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
^{12}C(e,e′$\pi^\pm$), 200 MeV, π^-/π^+ ratio ang. distribs., PCAC and optical anals. 2−69645
^{12}C(π^+,π^+), 29-56 MeV, backward elastic scatt. cross section, optical pot. 2−96049
^{13}C(^{13}C,X), $E_{c.m}$=4-15.8 MeV, fusion cross section meas. 2−54465
^{13}C(p,p), (p,p′), 135 MeV, differential cross section meas. 2−85038
^{40}Ca(^{16}O,^{16}O), 50 MeV, elastic scatt. cross section, interpretation by Regge formalism 2−113557
^{40}Ca(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{40}Ca(^{6}Li, ^{6}Li), 26-34 MeV, double folded pot. anal. 2−107893
^{40}Ca(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{40}Ca($K^\pm$,$K^\pm$), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
^{40}Ca(α,α), 31, 100 MeV, second-order imaginary optical pot. microscopic calc. 2−54418
^{40}Ca(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
^{40}Ca(p,p), optical pot. energy depend., Dirac eqn. based anal. 2−59353
^{40}Ca($\pi^\pm$, $\pi^\pm$), 64.8 MeV, elastic scatt. cross section ang. distrib. 2−90165
^{48}Ca(^{16}O, ^{16}O), 158.2 MeV, elastic and inelastic cross sections, optical and DWBA anal. 2−113554
Ca(n,n), 9.9-13.9 MeV, optical parameters, anal. power, differential cross section 2−107843
^{52}Cr(n,n), 5-7 Mev, elastic and inelastic scatt. cross section meas. *(Russian)* 2−90115
(HI,HI), Coulomb absorpt., quantal theory 2−59381
^{2}H(π,π), 100-300 MeV elastic scatt. cross section calc. using optical pot. 2−85100

nuclear optical model continued
^{2}H(π,π), scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
^{3}He(p,n), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,p), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(π^{-},π^{0})^{3}H, 285,428,525 MeV; pion single charge exchange scatt. cross section 2−59424
^{3}He(π^{-},π^{0})^{3}H, differential cross-section, optical model calc., mag. radius depend. 2−96046
^{4}He(^{4}He,^{4}He), high energy elastic scatt. differential cross section calc. 2−96020
^{4}He(α,α), antisymmetrisation effects, HI optical pot. real part approxs. 2−90124
^{4}He(α,α), Z 2−96023
^{4}He(n,n), folding model anal., separable pot. approach 2−80018
^{4}He($\pi^{\pm}$,$\pi^{\pm}$), 51 MeV, differential cross section, rel. to optical pot. calcs. *(French)* 2−59414
^{A}He(π,π), A=3, 4, scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
^{41}K(p,X), X=γ, n, $\alpha\gamma$, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
^{78}Kr(d,p)^{79}Kr, 11 MeV, differential cross section and vector analysing power meas. 2−54403
(^{6}Li, ^{6}Li) A=24-208, global optical model pots. 2−113550
^{6}Li optical pot., Watanabe model 2−113430
(^{7}Li, ^{7}Li), A=24-208, global optical model pots. 2−113550
^{A}Li(p,p'), A=67, 24.4 MeV, rel. to folding model with DWA 2−96005
^{24}Mg(α,α), 18.1 MeV, ang. distribs., anomalous large angle scatt., optical anal. *(Chinese)* 2−96022
^{26}Mg(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{14}N(p, p'), 0.8 GeV, elastic and inelastic scatt., ang. distrib. meas. 2−90107
^{93}Nb(n,n), phenomenological and microscopic optical model analyses 2−85048
^{93}Nb(p,n)^{93}Zr, phenomenological and microscopic optical model analyses 2−85048
^{93}Nb(p,p), phenomenological and microscopic optical model analyses 2−85048
^{20}Ne(π,π), folding pot., three body optical model for 2 clusters and a meson 2−59412
^{A}Ni(n,n), A=58,60,64, 6 and 7 MeV, differential cross-section rel. to optical-statistical model 2−64412
^{58}Ni (n,n), 0.9-4.5 MeV, elastic and inelastic cross section meas. 2−96013
^{58}Ni(^{16}O, ^{16}O), phase shifts, closed form and optical model anal. 2−113526
^{58}Ni(^{3}He, ^{3}He), 130 MeV, ang. distrib., giant reson., optical and DWBA calc. 2−101909
^{58}Ni(^{6}Li,^{6}Li), 20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
^{58}Ni(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{58}Ni(^{7}Li,^{7}Li), 20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
^{58}Ni(^{7}Li,^{7}Li), spin-$^{3}/_{2}$ particles, elastic scatt., analysing powers calc. 2−101917
^{58}Ni(^{7}Li,^{7}Li), spin-3/2 deformed projectile scatt., polarisation, complex folded potentials anal. 2−101875
^{60}Ni(^{16}O, ^{12}C), 60 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{16}O collective level excitation from (p,p') and (π,π') *(Russian)* 2−59364
^{16}O(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{16}O(^{16}O, X), density matrix approach to the complex heavy ion optical potential 2−113432
^{16}O(^{16}O, X), quasi-elastic and deep-inelastic rates calc. 2−113543
^{16}O(^{16}O,X), complex heavy-ion optical pot., double-folding calc. 2−54421
^{16}O(^{3}He, ^{3}He), 40.9 MeV, differential cross section ang. distrib., optical model anal. 2−96021
^{16}O(α,α), 3.5-4.9 MeV, ang. distrib., phase shift and optical model anal. 2−59371
^{16}O(α,α), partly Pauli-forbidden states influence on reson. width in optical model 2−96023
^{16}O(e,e'p), quasifree scatt., structure functions, bound state, distorting optical pot. 2−113464
^{16}O(γ,π^{+})^{16}N, differential and total cross section calc. 2−85023
^{16}O(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
^{16}O(π,π), scattering length, 3-body model, nucleon binding, exclusion principle, optical pot. 2−107910
^{16}O(π^{-},X) X=2n or pn, final state effects, optical pots. 2−96050
^{208}Pb(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{208}Pb(γ,n), 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330
Pb(n,n), radiogenic Pb, elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
^{103}Pd, deep-lying hole states in the optical model 2−90000
^{240}Pu(n,x), fast neutron cross section, statistical model calc. 2−113475
^{28}Si(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{28}Si(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{28}Si(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{115}Sn, deep-lying hole states in the optical model 2−90000
^{232}Th(p,f), 4-11 MeV, excitation function meas. 2−96061
^{169}Tm(n,γ), cross section theoretical calc. 2−101878
^{238}U(^{238}U,X), heavy ion potential for ellipsoidally deformed nuclei, double folding model 2−113552
^{A}y(n,γ), A=88, 89, cross section theoretical calc. 2−101878
^{A}Zr(α,α), 104 MeV, A=90, 92, elastic and inelastic, cross sections, transition rates, collective anal. 2−90127
^{90}Zr(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{90}Zr(p,p'), giant M1 states within simple shell model 2−69627

nuclear orientation *see nuclear polarisation*

nuclear Overhauser effect
adenine 5'-nucleotides, C(8)-substituted, NMR study of conformation using lanthanide probes and NOE meas. 2−54884
biopolymer, proton-C distance meas. as mean of simultaneous determ. of donor and acceptor moieties, H-bonds 2−85707

nuclear Overhauser effect continued
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
lithium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
lysozyme in D_2O, dynamics of Overhauser effects 2−85853
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
pancreatic trypsin inhibitor, 2-dimens. NOE and chem. exchange spectrosc. 2−69220
poly(N-hexyl-4-vinylpyridinium)bromide, ^{13}C spin relax. time, Monte Carlo method 2−75477
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
polyethylenes, linear and branched, β-transition anal. by C-13 NMR 2−98986
protein-ligand interactions, conformations, transferred NOE theory and appls. 2−105647
proteins, ^{1}H NOE, time development 2−80691
proteins, two-dimens. NOE, J cross-peak effects 2−90749
recovery-preparation time in pulsed FT NMR 2−89775
sodium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
trypsin inhibitor, bovine pancreas, two dimens. nucl. Overhauser expt. 2−90750
two-dimensional nuclear Overhauser spectroscopy, chem. exchange, coherent transfer effects 2−69220

nuclear particle track visualisation *see particle track visualisation*

nuclear photoeffect *see photon-nucleus reactions*

nuclear physics
see also fission; fission reactors; nuclear bombardment targets; nuclear decay theory; nuclear explosions; nuclear reactions and scattering; nuclear structure; radioactivity
advances in nuclear physics, book 2−58571
nuclei and particles, book 2−53444
physics data handbook 2−58565
review *(Spanish)* 2−59209

nuclear polarisation
see also dynamic nuclear polarisation; magnetic double resonance; nuclear polarisation in liquids and solids
pionic degrees of freedom behaviour in nuclear matter, microscopical theory *(Russian)* 2−90037
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
^{3}He, gaseous, nucl. polarisation by laser optical pumping *(French)* 2−102439
^{17}O, magnetic form factor, higher order effects 2−54255
^{208}Pb single particle states, effects of core polarisation, phonon spectrum 2−54229
^{208}Pb(HI,HI), sub Coulomb elastic scatt., relativistic effects, polarisability, screening 2−64427
Rb, spin exchange with ^{129}Xe, nucl. polarisation study 2−85575
^{160}Tb→^{160}Dy, nuclear orientation in Tb metal 2−54320
^{129}Xe, nuclear spin polarization by spin exchange with Cs atoms 2−90013
^{131}Xe, E2/M1 transition polarisation, test of time reversal invariance 2−69637

nuclear polarisation in liquids and solids
see also dynamic nuclear polarisation
GaAs, nuclear polarisation front appearance during optical spin polarisation *(Russian)* 2−56953
semiconductors, nuclear polarisation front appearance during optical spin polarisation *(Russian)* 2−56953
Ce-Fe, nuclear orientation and NMR in oriented nuclei 2−61776
^{3}He-^{4}He solutions, dil., spin polarised, second sound vel. meas. 2−110083
Ho containing ^{166m}Ho, mag. struct. determ. using low-temp. nucl. orientation 2−56984
InP, (n, γ)-induced point defects, NMR study 2−98980
InSb, (n, γ)-induced point defects, NMR study 2−98980
Rh-Cr dil. alloys, low temp. nucl. orientation meas. 2−92546

nuclear power
applications to energy conversion, oil substitution, energy and H_2 storage 2−105546
CANDU reactor application as steam supply system for bitumen recovery from oil sands 2−88401
CMEA countries, nuclear energy complex system development planning *(Czech)* 2−62464
combined heat and power, energy savings in FDR *(German)* 2−73050
data base management applications 2−105542
developing countries, role of regulatory agency 2−105540
dynamic isotope power systems, features and spacecraft applications 2−80165
engineering staff, education, cost loss increased efficiency 2−53451
environmental considerations *(Hungarian)* 2−67844
European communities possible development and utilisation *(German)* 2−90288
fast reactors, role in nuclear energy schemes *(Czech)* 2−59512
Final Safety Analysis Reports, NRC update program 2−105544
fission electric cells−some elements of the operation theory 2−116851
fuel component cost calc. 2−90249
fuel supply situation and future availability in western World *(German)* 2−105536
fusion development, international collaboration, US strategy 2−93877
fusion development, international cooperation, benefit to USA 2−93876
fusion reactors, difficulties in providing conditions for reactions *(Hungarian)* 2−96299
fusion reactors, implications for world energy problem *(German)* 2−93879
fusion research and development, ref. to international collaboration 2−93875
fusion technology, shift from science to engineering 2−74895
future availability and economics prospects review *(French)* 2−57673
future role in energy states *(French)* 2−99773
international cooperation, organisation, administration, obstacles 2−93878
Korean experiences in nuclear power plant safety regulation 2−105545
licensing and regulation of nuclear power plants in the Republic of China 2−105538
long term strategy, alternatives to solar power satellites 2−107949
Mexico, nuclear option, goals and regulatory aspects 2−105539
multiplant licensing issue review 2−105541
natural and man-made radionuclides in global atmosphere 2−105625

nuclear power continued
nuclear power and production process installations, economics, coefficient of thermodynamic efficiency 2—67845
optimal transition from oil to alternative fuels 2—73047
policy, in structural mechanics, conference, Paris, France (Aug. 1981) 2—94898
projected growth, rel. to gross national product 2—111542
public attitude to atomic energy *(Hungarian)* 2—99772
role today and in future *(Hungarian)* 2—99770
safety requirements for thermal stations near large cities 2—93880
solar electric versus nuclear electric propulsion in geocentric space 2—80166
Susquehanna nuclear station, accelerated licensing 2—105543
Swedish hydroelectric power program development, influence of oil crisis and nuclear power program restraint *(Slovak)* 2—88404
technical risks and constitutional law *(German)* 2—64448
technology alternatives to the LWR and once through U cycle 2—62465
TMI, effect on USA public opinion *(Hungarian)* 2—99771
U reserves exploitation economics 2—105537
United States policies and attitudes, 1982 state and future prospects 2—69694
utilisation optimisation criteria *(Rumanian)* 2—78192
U, natural availability, enrichment prospects and status 2—102073
Y stockpiling, amount, form and economics, European utility view 2—102074

nuclear power stations
see also power station control
440 MW unit commissioning at Paks Nuclear Power Plant *(Hungarian)* 2—94215
1981 world survey of status and developments *(German)* 2—90285
6000 kW floating power plant for drill rigs 2—101961
accident analysis, using simulation language DSNP 2—102253
accidents, public miscommunication: an engineer's perspective 2—102210
application of robot technology as applied to the inspection and repair of active nuclear plants 2—108064
backfits, planning and implementation challenge 2—113699
Beloyarsk Nuclear Power Station, power distrib. regulation 2—102105
Bilibinsk station, operation with automatic power and freq. control 2—102107
boiler radiation levels at Point Beach PWR power station, refuelling shutdown chemistry test results 2—108100
BWR, core and fuel management in the Shimane nuclear power station 2—113679
BWR, media systems, failure modes, effect anal., design review 2—113612
BWR plant control room design, human factors 2—102257
BWR plant transients, calc. using RAMONA-3B computer code 2—102186
BWR plants from Toshiba, status and design features 2—113725
BWR power plant, reduction of corrosion products *(Japanese)* 2—64566
BWR power plant dynamics simulation using hybrid computer system 2—102187
CANDU PHW nuclear power plants, 600 MWe, control and instrumentation systems 2—108078
CANDU PHW nuclear power plants, instrumentation and control systems 2—96297
components, dynamic modelling experiences 2—102020
computer usage in outage planning and management 2—113700
construction, delay, cancellation and lack of orders, financial aspects 2—108163
construction completion and the construction/startup interface 2—113698
construction contract management philosophies 2—113609
containment building modelling, shear flexibility and rotary inertia effects 2—86219
control and instrumentation system reliability *(Japanese)* 2—74857
control room design, lessons of TMI accident 2—96221
controlled thermonuclear reactions, brief progress review 2—96300
core surveillance and operator training, simulation techniques *(Japanese)* 2—74859
cost control program for major power plant construction projects 2—113611
data base management applications 2—105542
defense in depth concept for control, limitation and protection system channels *(German)* 2—113709
developing countries, role of regulatory agency 2—105540
diagnostic system for reactor core and plant control system, process signal noise anal. 2—96296
emergency response facilities utilisation described in NUREG-0696 2—85197
emergency response system, microcomputer based for public officials 2—102215
engineers as shift supervisors in nuclear power plants *(German)* 2—64558
experimental breeder power station KNK II, use for fuel cycle development *(German)* 2—102081
feedback of experience for engineering improvement 2—113615
Fessenheim PWR power station, test of morpholine treatment of water-steam circuit 2—85172
Final Safety Analysis Reports, NRC update program 2—105544
French administrative organisation for reactor construction 2—113608
French nuclear power programme 1954-1980 *(Spanish)* 2—69808
fuel charge and physical starting organization at Loviisa II. Nuclear power plant *(Hungarian)* 2—90221
HTGR operation safety, Fort St. Vrain nuclear generating station, USA 2—64626
IEEE/PES/Nuclear Power Engineering Committee nuclear power standards status report 2—85206
industrial computer systems appl. *(Japanese)* 2—80151
insurance pool engineering, and protection 2—108164
integrated approach to emergency response facility, data system design, process computer replacement 2—85194
jet impingement problem, solution using computer graphics and three dimensional modelling 2—54575
Korean experiences in nuclear power plant safety regulation 2—105545
licensing and regulation of nuclear power plants in the Republic of China 2—105538
licensing aspects of steam generator repair programs 2—102132
LWR accident analysis using RELAP5 computer code 2—102255
LWR fuel burnup extension 2—102054
LWR radiological consequences of recycling Pu 2—102190
maintenance management evaluation criteria 2—113614
man-machine interfaces *(Japanese)* 2—74858

nuclear power stations continued
Mexico, nuclear option, goals and regulatory aspects 2—105539
modification procedure system applicable to the Contract Program 2—113701
modular analogue isolator for signal isolation in nuclear power plants 2—85177
multifrequency-multiparameter eddy current anal. method for PWR steam generator tubes 2—69795
multiplant licensing issue review 2—105541
multistation utility emergency preparedness exercises 2—102212
NDT, nuclear power stations, review 2—67718
New York State emergency response plan evaluation 2—102214
NRC equipment qualification program for nuclear power generating facilities 2—85174
nuclear power plant training simulators, lessons from recent accidents 2—102246
nuclear reactor digital protection system 2—102195
nuclear review boards at Northeast Utilities 2—102226
offsite independent nuclear safety review at TVA: how it's done 2—102224
Oldbury nuclear power station, computerised monitoring and control system 2—108053
Peach Bottom Atomic Power Station Offsite Review Committee 2—102222
plant operation, advanced display-control concepts 2—85173
plant remote data acquisition and display system 2—85196
plant safety systems, verification and validation program 2—85198
polluted atmospheres in vicinity of nuclear power stations, behaviour analysis under low β radiation rates 2—62515
pollution monitoring by wind tunnel expts. 2—116859
post accident conditions, emergency monitoring and assessment systems 2—102213
power cables, loss-of-coolant-accident test proof *(French, German)* 2—54691
power plant operational training simulators, design in light of TMI 2—102247
power plant outage and accidents, electric utility incentives, financial risks 2—85187
power plant simulation, modular modelling system 2—102017
power plant simulator, role expansion to include engineering design aid 2—102016
power plant startup—preparing for and managing problems 2—113696
power plant training simulator improvements in Japan for greater safety 2—102182
primary coolant temperature, optimal control 2—102102
prompt notification system design for nuclear power stations 2—102216
public information system for emergencies 2—102207
public reaction to emergency planning 2—102208
public response to emergency planning: a public official's viewpoint 2—102209
PWR, thermohydraulic transients prediction computer codes, capabilities and limitations 2—102254
PWR feedwater control valves, computerised acoustic monitoring 2—74892
PWR plant, proving commercial reactor safety in the LOFT facility 2—102196
PWR power plant, signal validation methodology 2—96298
PWR stations, damp steam circuits, summary of erosion-corrosion observation 2—85170
PWR stations, steam generator feed pumps, investigations on resistance to erosion corrosion 2—85171
radioactive waste, drying by microwave heating, feasibility study 2—85157
rapid power control capability of the ASEA-ATOM BWR 2—113703
reactor safety, on-going plant probabilistic risk assessment studies 2—85199
reactor shutdown events and their causes 2—85190
reference design, development and utilisation, Italian experience 2—113607
reliability management of nuclear power plant 2—69810
Ringhal's Unit-2, secondary water chemistry 2—64581
robots appls in nucl. power plants *(Japanese)* 2—74860
rules for design and construction—the French approach 2—113613
safety control of atomic energy sources 2—54563
safety systems in USSR, reliability criteria 2—90279
San Onofre nuclear power station, public response to education program 2—102211
Saudi Arabia future energy demand fulfilment with energy resources other than oil 2—67797
scheduling techniques applied at Framatome for the French nuclear program 2—113610
Senior Nuclear Safety Overview Committee functions in the preoperational phase 2—102225
Senior Nuclear Safety Overview Committee operations: a consultant's viewpoint 2—102223
Shimane power station, Japan, core and fuel management *(Japanese)* 2—64568
simulation, best-estimate models, verification 2—102250
simulation as aid to licensing authorities during commissioning 2—102183
simulator capability improvement in light of TMI-2 accident 2—102184
standardised reactor, capital cost, rel. to inflation and escalation 2—108161
startup organization—Vogtle electric generating plant 2—113697
steam generator replacement at Surry Power Station: ALARA aspects 2—102277
steam generator replacement at Surry Power Station 2—85167
steam generator replacement at Surry Power Station 2—102129
steam generator replacement through the side of the containment building 2—102131
supermini, 32-bit microcomputer use for data acquisition 2—85207
Susquehanna nuclear station, accelerated licensing 2—105543
Swedish nuclear power station on-line isotopic stack monitoring system 2—70004
Switzerland strives for greater nuclear plant safety *(German)* 2—64610
Three Mile Island, degraded core accident rel. to nuclear reactor safety research 2—85203
Three Mile Island nuclear power plant accident 2—74887
Three Mile Island Unit 2 safety philosophy and safety systems performance 2—102194
TMI, public response, topological characterisation 2—102217
Turkey Point steam generator repair program 2—102130

nuclear power stations continued
uncertainty analysis of system reliability and availability assessment 2−69803
USA, power reactor operation, July and August 1981 2−59488
VVER-1000 Novovoronezh plant, design features, start-up results 2−54479
VVER-400 reactors, equipment failure anal. in USSR 2−54548
VVER-440, radiation safety in commercial power stations 2−54564
Washington Public Power Supply System WNP-2 equipment qualification program 2−113702
Yankee Atomic Electric Company Offsite Review Committee responsibilities 2−102227
H_2 production by water electrolysis using off-peak nuclear power, economics *(French)* 2−105603
U fuel in nuclear power plants, choice and economical charact. *(Croatian)* 2−69708

nuclear pumped lasers
University of Missouri Research Reactor, design, construction and testing of nuclear-pumping facility 2−96075
He-N_2 laser medium, kinetics model development and testing 2−96880
$O_2(^1\Delta)I_2$ laser appl. to nuclear pumped laser fusion reactor 2−80328
XeF* nuclear pumped laser anal. 2−96929

nuclear quadrupole moments *see nuclear electric moment*

nuclear quadrupole resonance
adiabatic demagnetisation method 2−107360
alkali halogenates, phonon spectra, NQR and vibr. spectra 2−93047
alternating electric field effect, in dielec. dispersion region 2−93054
amides+$POCl_3(PCl_5)$ reactions, ^{35}Cl NQR investig. 2−111482
antifluorite crystals, cubic, distorted, halogen NQR, group theoretical classification 2−82743
$^{137}BaCl_2.2H_2O$, NQR freq. and apparent spin-spin relax. times, coherent mode obs. 2−108558
benzene sulphonyl chloride, ^{35}Cl NQR spectrum 2−98992
2,2-bis-p-chlorophenyl chloroethane derivatives, struct., ^{35}Cl NQR study 2−108560
bromobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
bromomethane-iodomethane, ^{81}Br NQR line breadth, concentration depend. 2−93046
carboxylic acids, ^{17}O NQR using double reson. with coupled multiplets technique 2−56977
chloral hemiacetals, ^{35}Cl NQR 2−70277
chloroethane derivatives, substituent group effects on ^{35}Cl, NQR 2−56967
chloroform-$d_0(-d_1)$, ^{35}Cl NQR line widths and mag. dipole interaction 2−110700
chlorophyll a cations, ^{14}N nuclei, quadrupole coupling parameters determ. by electron spin echo method 2−102494
chloroprene, structure, phase transforms., NQR study 2−93051
cholesteryl chloride, ^{35}Cl NQR spectrum 2−77414
coherent relaxometer, transceiver 2−89764
conference, Moscow, USSR, 21-4 Sept. 1981 2−107006
conference, Moscow and Kolomnar, USSR (Feb. 1981) 2−89433
cooperative Jahn-Teller effect, charge and charge-orbital ordering, NQR spectral effects 2−93058
crystals near phase transition points, nucl. mag. relax. 2−110677
1,4 diazabicyclo [2,2,2] octane-phenol (thiourea), H-bonded complexes, ^{14}N NQR study 2−108561
diazaphosphorines, cyclic, intramol. transmission effects, ^{35}Cl NQR 2−108566
1,3-dichloro-2-bromobenzene, polymorphism and phase transformation 2−87622
1,4-dichlorobenzene, lattice dynamics, rigid mol. approx. calcs., NQR and X-ray diffr. obs. 2−110693
p-dichlorobenzene-p-dibromobenzene, ^{79}Br NQR line breadth, concentration depend. 2−93046
1,2-diformylhydrazine, temp. depend. of ^{14}N NQR 2−104738
digital NQR signal store, short pulse, amplitude-time convertor 2−89767
digital pulse train generator for NMR and NQR spectrometers 2−107357
double NQR spectrometer 2−89763
double NQR-NMR spectrometer, program device 2−89765
double resonance spectrometer for pure NQR detection 2−84678
double resonance with coupled multiplets 2−56976
dynamic line narrowing 2−107364
electric quadrupole splitting, sign and magnitude, differential resonance displacement 2−66947
electrical effects obs. method 2−89761
ferroelectric crystals, phase transitions under press., NQR-NMR obs. 2−110692
ferroelectric crysts., dipole defect broadening of NQR and NMR lines 2−110705
ferroelectrics, quadrupole-quadrupole interaction, soft phonon modes, NQR line crit. broadening 2−110707
Group IIB halide mol. complexes, struct. NQR obs. 2−85696
halides, layered, intercalation with organic cpds., NQR investig. 2−110717
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2−109978
hexachloro-2,4-dimethylcyclodiphosphazane, ^{35}Cl quadrupole relax. and mol. motion 2−110699
hexachlorophene derivatives, cryst., ^{35}Cl NQR spectra, struct., bonding, mol. conformation 2−93053
hexamethylenetetramine, 2-freq. NQR-NMR double reson. obs. 2−108593
hexamethylenetetramine, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
high-power radio frequency irradiation system with automatic tuning for NQR appls. 2−95416
incommensurate multisoliton lattice, NMR lineshape anal. 2−66928
incommensurate systems, NMR and NQR study 2−110721
intramolecular interactions, linear regression models appl., rel. to NQR 2−90569
iodates, simple and complex, ^{127}I NQR investig. 2−110716
iodobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
line shape anal. in NQR spectroscopy 2−77415
line shape broadening by cryst. defects 2−110715
magnetic 4π goniometer for Zeeman-split NQR 2−80657
4-methoxy analine, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
nuclear quadrupole resonance continued
methylammonium ion in liq. cryst., ^{14}N nucl. quadrupole coupling const. 2−80664
molecular crystals, thermodynamic props., NQR method appls. 2−110696
molecules, group IVB element compounds, ^{35}Cl NQR, electronic effects of substituents 2−108564
monochloroacetic acid, spin-spin relax., phase transitions, NQR study 2−110710
nuclear quadrupole echoes, advanced and lagged 2−107361
organic and organometallic mols., geminal interaction of atoms in Y-C-M groups 2−108562
organic compounds, chemical constants, from NQR regression anal. 2−90570
organic cpds., electron distrib., pulsed ^{14}N NQR investig. 2−108592
pentachloroethyl-1-imino-1-chloro-2-trichloroethane, intracrystalline dynamics, ^{35}Cl NQR study 2−98993
perchloroethane, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
perchloroethylene, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
phenazine in fluorene crystal, photoexcited triplet state, NQR, electron spin-echo detection 2−102497
phenyl-S bonds, substituent effects transmission CNDO/C calcs. 2−90459
polychloroprene-nairite p vulcanizates, link disposition, thiourea derivatives effect, NQR study 2−93052
polycrystalline sample, I=3/2 nuclei NQR, gradient tensor asymmetry, echo-signal envelope 2−93056
powders, NQR spectrum line narrowing 2−110719
powders, nuclei with I=3/2, electric field gradient tensor, asymmetry parameter determ. from NQR spun echo 2−110709
proustite, structural phase transitions, NQR investig. 2−110720
pulse spectrometer, sensitivity improvement by mag. cooling 2−89762
pulsed electric field effect, theory 2−110724
pulsed spin locking theory in pure quadrupole resonance 2−110711
pyrargyrite, structural phase transitions, NQR investig. 2−110720
pyridines, substituted, ^{14}N NQR freq., substituent group effects 2−54871
quadrupolar relaxation, multiquantum coherences 2−72374
quanidine cpds. with acids, 2-freq. NQR-NMR double reson. obs. 2−108593
Schiff bases, photochromic and thermochromic, NQR spectra 2−110824
semiconductors, and semimetals nuclear quadrupole relax. in quantising mag. fields 2−98987
spectra database 2−107025
spectrometer, regenerative wideband transistorised transducer 2−89768
spectrometer as a device for meas. T_2* 2−107365
spectrometer signal accumulator 2−89766
spin-spin reservoir relax. 2−110679
structural phase transitions, NQR line splitting study 2−110706
sulphanilamide, NQR and NMR study 2−108568
TCNQ salt, Cs_2TCNQ_3, ^{14}N NQR study 2−87621
TCNQ salt, KTCNQ, phase transition, ^{14}N NQR study 2−93059
tetrachloro-o-benzoquinone, cryst., phase transitions, ^{35}Cl NQR and X-ray investig. temp. depend. 2−110691
thermometer with freq. locking 2−107324
transition metal deuterides, NQR by translational diffusion, mean field theory 2−110690
trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
two-frequency method, relax. theory, superposition of quantum states 2−107362
two-frequency quadrupole spin echo, detuning effects 2−93057
unsaturated compounds, ^{35}Cl NQR and p,π-conjugation 2−108563
Zeeman effect, pulsed spectrometer appl. spin. echo envelope shape 2−93055
$AgClO_3$, ^{35}Cl NQR investig. 2−110702
$AgSbS_{33}$, pyrargyrite, phase transition, NQR elec. field effect meas. 2−110724
Ag_3SbS_3, pyrargyrite, cryst., ferroelec. phase transition, elec. field effects on NQR 2−110695
$AsCl_3$ complexes, with organic donors, coordination state, NQR study 2−75318
$AsCl_3$, single cryst., asymmetry parameters Zeeman NQR study 2−110713
BaB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
$BaClO_3$, ^{35}Cl NQR investig. 2−110702
$BiCl_3$, polycryst., thermodynamic props., NQR method appls. 2−110696
$BiCl_3$-n-(π-) donor complexes, NQR study 2−108567
$Bi_{12}SiO_{20}$, NQR relax., transverse and longit., temp. depend. 2−110697
CaB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
CdI_2, single cryst., NQR obs. in rot. reference frame, line narrowing 2−110701
Cl containing compounds, Cl atom and orbital population from ^{35}Cl NQR freq. and X-ray emission spectra 2−108565
Co, electric quadrupole splittings, elec. field gradient 2−66948
$CsIO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
Cu complex, bis(2,4-pentanedionato)Cu(II) single cryst., ^{63}Cu and ^{65}Cu ENDOR 2−77420
Cu(I) phosphite complexes, tetrahedral, NQR obs. 2−80661
Cu(II) complexes with amino alcohols, NQR study 2−116086
$EuCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
$GaCl_3$-n-(π-)donor complexes, NQR study 2−108567
H_3BNH_3, ^{11}B, ^{10}B and ^{14}N nucl. quadrupole double reson. 2−80669
HIO_3, cryst., phase transition under press., NQR investig. 2−110694
HIO_3 crystal, α-phase, NQR spectra, hydrostatic pressure effect 2−93049
$KClO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
$KClO_3$ NQR thermometer, pulse excitation device 2−89707
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
KIO_3 cryst., phase transition under press., NQR investig. 2−110694
K_2OsCl_6, phase transitions, NQR study 2−110703
K_2PtBr_6, crysts., struct. phase transitions, precursor clusters 2−77410
K_2ReCl_6 crysts., struct. phase transitions, precursor clusters 2−77410
$KReO_4$, nuclear quadrupole echoes, advanced and lagged 2−107361
LiBr(I), molten, nuclear spin relax. 2−104737
$LiIO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
$LiYF_4:Pr^{3+}$ hyperfine struct., NQR studies 2−66949
$Li_{0.5}Y_{0.5}Zr_{0.5}S_2:Cr^{3+}$, NMR ionic motion studies 2−110676
N-containing compounds, 2-freq. NQR-NMR double reson. obs. 2−108593

nuclear quadrupole resonance continued
NH_4IO_4, temp. depend. of ^{127}I, nucl. quadrupole coupling 2−110714
$(NH_4)_2PtBr_6$, phase transitions, NQR study 2−110703
NH_4ReO_4, temp. depend. of ^{127}I, nucl. quadrupole coupling 2−110714
$(NH_4)_2SnCl_6$, level crossing between NQR and tunnel systems 2−77412
$(NH_4)_2ZnBr_4$, ferroelectric phase transition, NQR study 2−104821
$(NH_4)_2ZnCl_4$, ferroelec., phase transition sequence, X-ray diffr. and NQR study 2−76360
$NaClO_3$, ^{35}Cl NQR investig. 2−110702
$NaClO_3$, effects of nonresonant RF photon dressing on NQR 2−54879
$NaClO_3$ single cryst., Zeeman-split NQR using mag. 4π goniometer 2−80657
$NaNO_2$, spin echo, coherent multipulse sequences in NQR study 2−110708
$NaNO_2$, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
$Na_2PtCl_6.6H_2O$, NQR and NMR signals, effects of cryst. H_2O 2−110656
β-$Na_{0.33}V_2O_5$, quasi-1D-conductor, nuclear quadrupole effect and phase transition 2−56970
Nb_3Al base ternary alloys, ^{93}Nb NQR study 2−110722
$NbBr_5$, ^{983}Nb nuclear quadrupole resonance, coupling const., π bond character 2−87620
$NbCl_5$, Cl^{35} NQR spectrum, 4.2 to 480K, coupling constants 2−56968
$NbCl_5$, Nb^{93} NQR spectrum, 4.2 to 480K, coupling constants 2−56969
$NbSe_2$ (2H), ^{93}Nb NQR and spin-lattice relax., 7 to 77K *(Russian)* 2−66946
$Nb_3Sn(Ga)(Al)(Ir)(Pt)(Au)$, A15 struct. cpds., quadrupole interactions, cluster model interpretation 2−66510
PCl_3, single cryst., asymmetry parameters Zeeman NQR study 2−110713
Pt complexes, diaminodihaloplatinites, cis-trans isomerisation, NQR study 2−108559
$SbBr_3$ addition cpds, cryst. struct. and CT from NQR data 2−110718
$SbCl_3$ addition cpds, cryst. struct. and CT from NQR data 2−110718
$SbCl_3$ complexes, with organic donors, coordination state, NQR study 2−75318
$SbCl_3$, polycryst., thermodynamic props., NQR method appls. 2−110696
$SbCl_3$-aramatic hydrocarbon complexes, single crysts., isotope and Zeeman effects, NQR study 2−77413
$SmVO_4$, ratio of nucl. elec. quadrupole moments of ^{50}V and ^{51}V, NMR meas. 2−77411
$SnCl_2.xH_2O$, x=1.5 and 2, ^{35}Cl NQR spectra, Zeeman effect, PMR 2−61787
SrB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
TaS_2-2H, intercalation cpd. with NaOH, supercond. transition temp. and charge transfer 2−92804
β-$ThBr_4$, phase transform., cryst. symmetry, NQR study 2−110704
β-$ThCl_4$, phase transform., cryst. symmetry, NQR study 2−110704
Ti halide compounds, NQR frequency, phase transforms., temp. depend. 2−93048
UCl_4, phase transform., cryst. symmetry, NQR study 2−110704
V^{5+} complexes, vanadyl esters and esterchlorides, quadrupole coupling consts., NQR and NMR study 2−66933
$V_3Sn(Ga)(Al)(Ir)(Pt)(Au)$, A15 struct. cpds., quadrupole interactions, cluster model interpretation 2−66510
$YbCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512

nuclear radius *see nuclear size*

nuclear reaction and scattering models
see also nuclear optical model
additive quark model for high energies 2−74752
central high energy nuclear collisions, pion prod. model 2−74771
Coulomb effects in nuclear collisions, relativistic field theory model 2−54438
deep inelastic reactions, total energy and γ-ray multiplicity, statistical fluctuation effect 2−96043
deformed nuclei, rot. State multiple Coulomb excitation, eikonal model 2−79974
deuteron and alpha-particle collisions in intranuclear cascade model 2−85021
dissipative heavy-ion collision, local equilibration effects 2−107889
dissipative heavy-ion collisions, quantum dynamical semigroup theory 2−113560
energy-independent nuclear optical pot. props. 2−54337
fast neutron prod., thermal moving source model breakdown 2−101902
fission, prompt mass distribs. study using structure-sensitive statistical model 2−69688
forward-angle inelastic scatt., single-step contrib. anal. in independent particle model 2−59318
fusion of very heavy nuclei 2−113533
heavy ion collisions, hydrodynamical model eqns. *(Russian)* 2−90038
heavy ion collisions, neck formation in entrance channel, classical dynamical model 2−101928
heavy ion collisions, spin and isospin fluctuations and depend. on dinuclear complex shape 2−64420
heavy ion fusion, review 2−85082
heavy ion fusion, review 2−85111
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
heavy-ion collisions, 250 MeV to 2 GeV per nucleon, intranuclear cascade model, review 2−113455
heavy-ion collisions, chaotic fragmentation of nuclei 2−113531
heavy-ion collisions, fast fission phenomenon, dynamical model 2−85090
heavy-ion collisions, fast fission phenomenon 2−113532
heavy-ion collisions, incomplete fusion and fragmentation 2−85089
heavy-ion collisions, incomplete nucl. fusion 2−113546
heavy-ion collisions, light particle emission 2−85092
heavy-ion collisions, role of rotational degrees of freedom 2−113548
heavy-ion fusion, barrier-penetration model 2−96040
heavy-ion large angle scatt., dynamical aspects 2−113556
heavy-ion reaction reson., schematic-model prediction comparison 2−85086
heavy-ion reactions, anisotropic three-fluid model 2−85094
heavy-ion reactions, conf., Saclay, France (May 1982) 2−112650
high-energy heavy-ion collision dynamics, nucl. matter eqn. of state 2−113386
inclusive processes, model for nuclear response function 2−59231
independent collisions model for high energy nucleus+nucleus reactions 2−79988
mass asymmetric heavy-ion systems, spin-depolarising modes equilibrium treatment 2−74769

nuclear reaction and scattering models continued
neutron-induced reaction, ang. distrib. calc. based on exciton model 2−69665
nucleus+neucleus interaction, particle generation mean multiplicity, independent collision model 2−69616
pion absorption probability by α-cluster in nuclei 2−95981
pion prod. and absorpt., fundamental interactions and processes 2−79986
pion prod. and absorpt. in nuclei, conf., Bloomington, IN, USA (Oct. 1981) 2−79266
pion prod. models and quark model of physics at short distance 2−79987
pion-emulsion nucleus interactions, model for slow particle prod. 2−90102
pion-nucleus annihilation, model for spin, isospin and energy depend. 2−54448
pion-nucleus interaction theory, review 2−54446
proton and electron induced light fragment prod., snowball model 2−59319
proton and heavy ion induced reactions, proton and pion emission in phenomenological model 2−95983
proton-emulsion nucleus interactions, model for slow particle prod. 2−90102
proton-nucleus scatt., polarisation, nucleon-nucleon amplitudes influence 2−54364
relativistic central nuclear collisions, inclusive proton prod., precritical scatt. effect 2−74772
relativistic heavy ion collisions, thermodynamic model for deuteron prod. 2−54432
relativistic heavy ion reactions, review 2−59388
relativistic heavy-ion collisions, cluster approach to intranuclear cascade 2−101922
relativistic heavy-ion collisions, nucl. disintegration 2−113541
rotating nuclei, equilibrium shapes and fission barriers with macroscopic two-centre model 2−90180
s-process, neutron-capture cross section appl. 2−89235
(α, xn), fast neutron prod., thermal moving source model breakdown 2−101902
(d,np) breakup reactions, coupled discretised continuum channel method based on three-body model 2−101901
(p,d), intermediate energy, stripping and pickup reactions, analytic eikonal model 2−85051
(p,p′) on ^{90}Zr,^{120}Sn,^{144}Sm,^{208}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
($\bar{p}$,π), microscopic calcs. using isobar-doorway approach 2−80010
(p,π), pion prod. in rescattering model 2−80011
(p,π), pion prod. model 2−80014
($\bar{p}$,π^+), relativistic one nucleon model description for reaction mechanism 2−80009
(p,π^+), two-nucleon model, pion prod. study 2−80012
(p,X) on Cu, Ag, Au, Gd, Ta, U, 400 GeV, fragments recoil props. 2−54430
(π^-,η) on C, Al, Cu, 40 GeV/c, differential cross section meas. *(Russian)* 2−54450
(π^+,^{3}He), pion-induced fission study in model using harmonic oscillator cluster wave functions 2−80038
(π^-,π^0) on Li, Be, C, Al, Cu, 40 GeV/c, π^--meson charge exchange cross section meas. *(Russian)* 2−54450
(π^+,π^-), 100-300 MeV, systematics in pion double charge exchange 2−59420
(π, π') on ^7Li, ^{12}C, ^{16}O, ^{15}N, ^{20}Ne, ^{24}Mg, elastic and inelastic scatt. and nuclear struct. in Glauber model 2−59417
(π,πN) and (π,π') on C, Al, Fe, Nb, Bi, NN cross section determ. in nuclei 2−85106
Ag(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Ag($\bar{p}$,X), X=^{3}He or α, 237, 445, 518 MeV, analysing power in inclusive reactions 2−59352
$^{27}Al(^{14}N, \alpha\alpha)$, 115 MeV, final-state interaction and time information study by α-α correl. 2−101924
$^{27}Al(^{16}O, x)$, x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
Al(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Au(C,π^+), 85 A MeV, subthreshold pion prod. cross section 2−59393
$^{197}Au(^{16}O,x)$, x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
$^{197}Au(^{20}Ne,X)$, 170,252 MeV, fragments charge and ang. distribs. 2−54434
$^{197}Au(^{40}Ar, X)$, 343 MeV, heavy fragment pairs, coincidence studies 2−113559
$^{A}B(d,p)$, A=10, 11, 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
$^{11}B(p,\gamma)^{12}C$, excited nuclear states, direct reaction model c alc. 2−64405
$^{9}Be(d,p)$, 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
$^{209}Bi(^{136}Xe,X)$, 940,1130,1422 MeV, dissipative collisions, impact parameter influence onelement distrib. 2−54436
$^{209}Bi(d,\gamma)^{211,211m}Po$, 8-11.5 MeV, cross section meas. 2−85060
$C(^{40}Ar,\pi^{\pm})$, cross section for pion prod. near CM vel. 2−59400
C(C,π^+), 85 A MeV, subthreshold pion prod. cross section 2−59393
(^{12}C,X) on Cu, Ag, Au, Gd, Ta, U, 18.5 GeV, fragments recoil props. 2−54430
(^{12}C,X) on targets from C to Pb, 1.03 GeV, fragmentation, proton and pion emission 2−113537
(^{12}C, X) on medium, heavy targets, 86 MeV/n, α-emitters prod., cross sections and dynamical props. 2−113540
$^{12}C(^{12}C, ^{12}C)$, transition and reorientational pot. props. in folding model 2−107794
$^{12}C(^{12}C,^{12}C')$, cross section calc. using breathing mode doorways 2−59398
$^{12}C(^{12}C,^{12}C)$, microscopic investigation in framework of generator coordinate method 2−74770
$^{12}C(^{13}C, ^{13}C)$, analysing power and cross section, parity depend. pot. model anal. 2−90145
$^{12}C(^{6}Li,^{6}Li)$, 30.6, 90 MeV, folding model appl., with Skyrme interaction *(Russian)* 2−90158
$^{12}C(K^{\pm},K^{\pm\prime})$, 800 MeV/c, inelastic scatt. cross section calc. in DWIA 2−85105
$^{12}C(d,p)$, 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
$^{12}C(\gamma,n_0)^{11}C$ transition in direct reaction model 2−64405
$^{12}C(\gamma,p_0)^{11}B$ transition in direct reaction model 2−64405
$^{12}C(p,p'\gamma)$, 41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
$^{12}C(\pi^+,\pi^+p)^{11}B$, distorted-wave impulse approx. calcs. 2−85098
$^{A}Ca(\pi^+,\pi^-)^{A}Ti$, A=40, 42, 44, 48, double charge exchange, two-amplitude model of cross section 2−69681

nuclear reaction and scattering models continued
^{40}Ca(^{40}Ar, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{40}Ca(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
^{40}Ca(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{40}Ca(α,α), 104 MeV, elastic scatt. and Glauber multiple scatt. model 2−107871
^{40}Ca(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{40}Ca(π^{-}, X), energy spectra following pion absorpt., exciton model description 2−113572
^{40}Ca($\pi^{\pm},\pi^{0}$), giant-resonance excitation, eikonalised strong-absorption model 2−85103
Cu(^{12}C,X), 86 MeV/A, products yields and recoil props. 2−96039
Cu(^{20}Ne,X), 170,252 MeV, fragments charge and ang. distribs . 2−54434
Cu(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
^{56}F relativistic ions-emulsion nuclei interaction at 100 GeV, secondary particle emission *(Russian)* 2−90156
^{56}Fe on steel target, 940 MeV/u, anomalous nucl. states, delayed γ decays 2−107888
^{1}H(^{3}H,2p2n), 2.5 GeV/c, expt. results and comparison with pole model predictions 2−59366
^{3}He(π^{-},π^{0}), T_{π}=200 MeV, differential cross section meas. 2−54447
^{3}He(π^{-},π^{0})^{3}H, 285,428,525 MeV; pion single charge exchange scatt. cross section 2−59424
^{4}He(^{4}He,X), multiplicity distribution model 2−101691
^{4}He(α,α), ISR energies, additive quark model of multiparticle prod. 2−79847
^{4}He(n,n), parity non-conserving elastic scatt., observables estimate 2−85042
^{4}He(p,p), 992 MeV, differential scatt. cross section meas. *(Russian)* 2−54399
^{194}Hg* compound nuclei, anomalous behaviour of evaporative H/He 2−113563
^{165}Ho(^{20}Ne, X), 292 MeV, energy and ang. correl. between neutrons and heavy ions 2−85091
^{165}Ho(^{56}Fe,X), 462 MeV, charge energy and ang. distrib. 2−54431
^{24}Mg(^{17}O, $^{\wedge}$O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{24}Mg(p,p'γ), 14.5-41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
^{25}Mg(^{16}O, $^{\wedge}$O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{92}Mo(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{92}Mo(n,γ)^{96}Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
^{14}N(n,γ_0)^{15}N, 5.6-13 MeV, neutron capture in giant reson. region 2−54383
^{93}Nb(^{14}N, $\alpha\alpha$), 115 MeV, final-state interaction and time information study by α-α correl. 2−101924
^{58}Ni(^{12}C, γ)^{70}Se, capture reaction cross section 2−113561
^{58}Ni(e,e'), 1^{+} and 2^{-} states excitation, inelastic scatt. cross section calc. 2−85030
^{60}Ni(^{12}C, X), light-ion emission, beam energy depend. 2−90146
^{62}Ni(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{62}Ni(^{58}Ni,X), 215-275 MeV, fusion excitation function 2−59441
$^{\wedge}$O(π^{+},π^{-}), 80-292 MeV, interference effects in pion double charge exchange 2−59419
^{16}O(^{15}N, ^{15}N), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{18}O(^{19}F, ^{19}F), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{18}O(^{6}Li,d)^{22}Ne, 72 MeV, ang. distrib., DWBA anal., spectrosc. factors 2−107897
Pb(Ar, X), 800 MeV/nucleon, macroscopic nucleon-nucleon correl. caused by bounce-off process 2−90143
^{207}Pb (n,p), 12-20.3 MeV, cross section energy depend. 2−85056
^{207}Pb(n,x), x=d, pn', n'p, 12-20.3 MeV, cross section energy depend. 2−85056
$^{\wedge}$Pd(^{40}Ar, ^{40}Ar'), A=108, 110, Coulomb excitation, multiphonon vibr. states structure 2−64433
^{141}Pr(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
$^{\wedge}$Pu, A=242, 244, spontaneous fission fragments energy and mass distrib. 2−90175
^{241}Pu(n,f), thermal, fission fragments energy and mass distrib. 2−90175
^{32}S(p,p'γ), 15.5-40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
^{45}Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
^{28}Si(^{12}C, ^{12}C), back-angle scatt., ang. distrib. and excitation function calc. 2−64436
^{28}Si(^{12}C,X), fusion cross section energy depend. by evaporation residue meas. 2−59440
^{28}Si(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{28}Si(p,p'γ), 35.3, 40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
$^{\wedge}$Sm(e,e'), A=148, 152, 150-215 MeV, giant multipole reson. electroexcitation 2−85031
^{116}Sn(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{88}Sr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
Ta(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
^{232}Th(n, f), reactor neutron induced fission, charge distrib. meas. 2−90179
^{48}Ti(^{13}C,X), 46 MeV, light medium systems formation and decay study 2−85083
U(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
$^{\wedge}$U(n,f), A=233,235, thermal, internal excitation energy at scission point 2−59432
^{238}U(^{20}Ne, X), 393 MeV/nucleon, coherent collective flow vs. independent two-nucleon collisions 2−90144
^{238}U(^{20}Ne, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{238}U(^{20}Ne,X), nuclear eqn. of state study 2−84988
^{238}U(p,f), 10-100 MeV, spallation yields and fissionability calc. 2−59430

nuclear reaction and scattering models continued
^{90}Zr(^{16}O,x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{90}Zr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562

nuclear reaction and scattering theory
see also nuclear reaction and scattering models; statistical theory of nuclear reactions and scattering
A=4n binary cluster systems, interaction kernels 2−90031
actinide nuclei, fission cross-sections, double humped barrier model anal. 2−64391
advances in nuclear physics, book 2−58571
antisymmetrized deuteron stripping, three-body model, appl. to ^{24}Mg(p,d) 2−107815
CC^{12}C (n,n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
CC^{209}Bi(^{184}Kr,X), proximity pot., nucleon current, energy dissipation, mass diffusion 2−113549
collective nuclear variables, inertial parameters from Feynman path integrals, HI collisions, fission 2−113333
coordinate space approach to scatt. on energy depend. separable pot. 2−53580
Coulomb-modified nucl. scatt. 2−113427
cross section transformations in reactions with three outgoing fragments 2−107877
cross-section adjustment with Monte sensitivities, appl. to Winfrith Iron Benchmark 2−95979
deeply inelastic collisions, Z- and A-distribs., particle evaporation effects 2−101870
DEPOT−a program for the calculation of double folded potentials 2−64378
dipole polarisability and nuclear symmetry energies 2−85022
distorted and reduced scatt. eqns., discrete and continuous spurious spectrum 2−54339
DWBA calcs. for stripping to unbound or weakly bound states 2−59315
E1 γ-ray strength function parametrisation for (n,γ), (p,γ) cross section calcs. 2−113400
elastic and inelastic scatt. of p, d, α on nuclei, review 2−54369
electron scatt. from complex nuclei, review 2−54358
energy parameters for continuum ang. distribs. 2−90064
evaporation barriers for ^{4}He indicate very extended forms for many emitting nuclei 2−90159
few-body systems, unitary pole approx. and expansions 2−64379
fission dynamics and collective phenomena, symposium, Bad Honnef, Germany (Oct. 1981) 2−112657
four-particle reactions, coupled channels, renormalised optical pot. method 2−90062
fragment emission in relativistic heavy-ion reactions 2−96044
fragmentation collisions by charged particles 2−102583
fragmentation theory, Schrodinger eqn. with time depend. mass parameter 2−54342
(hadron, X), collision number, in additive quark model 2−96006
hadron interferometry, dynamics vs. symmetrisation 2−53661
hadron-nucleus collisions, very high energy, grey particle distrib. from intranuclear cascade 2−107858
hadron-nucleus interaction dynamics, review 2−54367
hadron-nucleus scatt., nuclear density functional form influence 2−64380
half-shell scattering by screened Coulomb potential 2−113429
heavy ion capture cross section in the surface friction model 2−54426
heavy ion collisions, dynamics of 10-100 MeV/nucleon, unidimens. gas-dynamic model 2−90130
heavy ion collisions, fast light particle formation direct mechanism 2−54442
heavy ion collisions, Schrodinger time evolution in truncated subspace, nonlinear approx. 2−90128
heavy ion collisions, strange particle production in the hadrochemical model 2−113529
heavy ion deep inelastic collisions, charge transfer, zero point oscillation *(Chinese)* 2−54440
heavy ion deeply inelastic collisions, coherent and stochatic effects, collective dynamics fluctuations 2−59392
heavy ion dissipative deep inelastic collisions, fragment ang. momentum correlation coeff. *(Chinese)* 2−96038
heavy ion fusion cross-section from modified SOD method 2−107880
heavy ion high energy collisions, light fragment prod., kinetic theory calcs. 2−90148
heavy ion induced fission-fusion, scission point stretch model 2−74781
heavy ion inelastic collisions, ang. distrib. anal. 2−69669
heavy ion projectile fragmentation, intermediate energies, Coulomb final state interaction, charge effect 2−90149
heavy ion reactions, prompt fast nucleon emission, nucleon Fermi motion, TDHF theory 2−90129
heavy ion reactions and nuclear struct., conference, Varena, Italy (July, 1979) 2−84383
heavy ion relativistic peripheral collision, momentum distribs., knocked out nucleon 2−96033
heavy ion scatt., parity dependent ptos. and exchanged trajectories, diffracted trajectories 2−64419
heavy ions, spin-orbit potential, single folding method calc. 2−59386
heavy nuclei fusion cross section energy depend., algebraic theory 2−54464
heavy-ion collisions, multiple Coulomb excitation, in classic S-matrix theory 2−96029
heavy-ion collisions, TDHF anal., computer calc. 2−96025
heavy-ion Coulomb excitation and Coulomb fission expts., nuclear forces exclusion 2−59397
heavy-ion fusion, entrance channel mass asymmetry effect 2−54463
heavy-ion fusion cross section, frictionless formula, nucl. structure effects 2−107879
heavy-ion reactions, time-dependent HF calcs. 2−84984
heavy-ion scatt., backward-angle cross-sections, energy depend. averaging effects 2−85080
heavy-ion scattering, reson. structures in cross section, mol. configurations theory 2−85084
heavy-ion transfer reactions, energy spectra, ang. distrib. and polarisation anal., semiclassical theory 2−54423
high-energy hadrons, photons and leptons interactions with nuclei, quark-parton model 2−95796
highly connected N-body eqns., factorisation 2−54331
identical nuclei fusion, geometrical model 2−113573

nuclear reaction and scattering theory continued
inclusive breakup reactions, formalism and surface approx. validity 2−101868
inelastic scatt., microscopic distorted wave theory, DWIA 2−69618
intermediate energy nuclear reactions by p, d, α on light ions 2−54371
internal and barrier wave contrib. for heavy ion elastic scatt. 2−107819
intra-nuclear cascade, event by event emission pattern anal. 2−54336
ion-ion potential, energy depend. from Negele realistic NN interaction 2−69674
irreducible Cartesian tensors, Cartesian rel. to spherical components 2−69633
knockout reactions induced by EM probes, orthogonality and Pery factor 2−74756
leptoproduction of neutrino pairs by nuclear Coulomb field, equiv. photon approx. 2−85029
Lippmann-Schwinger eqns. for two- and three-body problems 2−74751
local field operators in multiple scattering theory 2−59301
low-energy direct nuclear reactions, resonating group method 2−54345
many-body scatt. theory, subtraction technique appl. 2−85008
many-boson systems, fractional parentage coeffs., calc. 2−79468
many-particle system, Glauber model cluster scatt. theory *(Chinese)* 2−54343
mass asymmetry in fusion and fission processes induced in heavy ion reactions *(Rumanian)* 2−90155
meson production reaction by p, d, α on nuclei 2−54370
minimal coupling schemes in N-body reaction theory 2−107814
multiple scattering and eikonal pole approx. 2−54338
multpole expansions method, exponent range overflow, counteraction 2−64853
N-body approaches 2−59302
N/D eqn., dispersion methods, partial wave amplitudes 2−59415
neutron capture model, strong E1 transitions, giant dipole resonances, non-statistical effects, doorway state 2−113401
neutron cross section for fission nuclei in region of unresolved resonances *(Russian)* 2−85007
neutron resonance parameters, area anal. programs *(Chinese)* 2−69622
nonresonant excitation of nucleus in positron annihilation with at. K-shell electrons *(Russian)* 2−54356
nuclear excitation by inelastic photoelectric effect 2−85024
nuclear medium effects in pion absorption potentials 2−90168
nucleus-nucleus proximity imaginary pot. from 2-body effective interaction 2−59394
off-shell relative momentum definitions in relativistic theory 2−69620
partial coherence in heavy-ion reactions 2−101936
pick-up process, nonlocal separable bound-state Kernels in finite-range DWBA 2−113452
pion prod. and absorpt., microscopic theory 2−79985
pion production and absorpt. in relativistic field theory 2−85012
pionic degrees of freedom behaviour in nuclear matter, microscopical theory *(Russian)* 2−90037
pionic fusion reactions, coherent pion prod. 2−80044
positive energy Weinberg states for scatt. problem soln. 2−85010
proton-light ion scatt. at intermediate energy, review 2−54368
quasi-elastic electron scatt. by nuclei, nuclear scaling function 2−59157
quasi-elastic reactions, non-orthogonality effects, coupled reaction channel calcs. 2−64381
quasifree knockout of nucleons and nucleon clusters 2−107837
rearrangement scattering unified theory 2−54340
relativistic heavy ion collisions, review 2−59387
relativistic heavy-ion collisions, isobars and isobaric analogue states 2−59313
relativistic heavy-ion collisions, projectile fragments, anomalous mean free paths interpretation 2−101921
relativistic nuclear fluid coupled to classical field, hydrodynamical eqns. derivation 2−54293
relativistic polarised deuteron fragmentation, test of deuteron six-quark nature 2−96015
resonance structure in symmetric light heavy ion fusion cross sections 2−107827
resonances in coupled channels in nuclear and particle physics 2−59307
resonating group eqn. structure 2−54332
resonating group method, Schrodinger eqn. soln. 2−101853
scattering theory with realistic two-body interactions 2−101855
schematic models of resonances: predictions and comparison 2−107836
simultaneous and sequential two-nucleon transfer reaction props. 2−101854
simultaneous excitations in nucleus-nucleus interaction potential 2−69677
spurious centre-of-mass problem in dynamically determined basis, comment 2−59306
strange particle production in heavy ion collisions, hadrochemical model anal. 2−64383
surprisal analysis of inclusive reactions 2−69644
thermal neutron scatt. on water mol. including exact collision time 2−80015
three body collisions in model with eikonal Hamiltonian, anal. soln. 2−64382
three-body breakup effects, L^2 discretisation approximation calcs. 2−54335
three-body Coulomb Green function and the reactions with charged particles at low energies 2−59304
three-body scatt. problem in molecular mass limit 2−90063
three-particle eqns. and Lee model 2−64305
three-particle equations with Coulomb interaction, bound-state soln. in momentum space 2−59305
three-particle scatt. theory, limiting relation 2−54330
three-particle scattering, orthogonalised distorted wave formalism 2−54341
time-dependent HF, present status 2−113383
triple fission probability, semiclassical estimate *(Russian)* 2−59324
two body collisions, effect on heavy ion dynamics, TDMF time relaxation method 2−59390
two centre potential scatt., non-eikonal corrections for spinless projectile 2−113428
ultrarelativistic Dirac pot. scatt., partial wave representation 2−85011
viscosity coefficient with the pairing interaction *(Chinese)* 2−107816
weak coupling model approach to heavy ion molecular resonance 2−107832
X-ray production from united-atom K-spectra in nuclear reactions, theory 2−101860
(α,2α), 60-140 MeV, off-shell factor calc. 2−54413
(α, 2α), distorted wave impulse approx. for A=16-66 2−113521

nuclear reaction and scattering theory continued
(α,α), medium energy region, cross sections analysis, oscillation damping effect *(Russian)* 2−59379
(α,α), on A=58,90,208, 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
(α,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(α,X), mechanism interference, distorted wave calc. *(Russian)* 2−90126
α elastic scatt. and α-decay widths, two-body energy eigenvalue theory 2−59377
(d,d), Dirac phenomenology 2−85061
(d,p), effective interactions, DWBA theory appl. 2−96019
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
(d,p) sub-Coulomb meas., asymptotic D to S state ratio of ^{2}H wave function determ. 2−84964
(d,x), antisymmetrised reactions, nonorthogonality overlaps, Pauli principle 2−96017
(e,e) on ^{49}Ti, ^{51}V, ^{59}Co, ^{87}Sr, ^{93}Sb, ^{208}Bi, mag. electron scatt. and valence nucleon radial wave functions 2−85033
(e,e′), quasi-free scatt. in interaction time approx. *(Russian)* 2−90093
(e,e′p), EM knockout process, nuclear momentum distribs. 2−107838
(ẽe), heavy nuclei, parity violating asymmetry, partial wave anal. 2−107749
(γ,p), EM knockout process, nuclear momentum distribs. 2−107838
(γ,π), photoproduction cross section, polarisation effects *(Russian)* 2−90091
(γ,π) on ^{6}Li, ^{12}C, ^{24}Mg, ^{28}Si, ^{40}Ca *(Russian)* 2−90089
(h,X) total cross-sections, rel. to Glauber model 2−59345
(K^-,π^-), hypernucleus prod., continuum shell model 2−59281
(N,N), ($\bar{N}$,$\bar{N}$), A=12-208, optical pot., cross sections, relativistic mean field approach 2−101894
(N,N), energy dependent single separable pot. models 2−59346
(N,N), high momentum transfer reaction mechanism 2−107853
(N,N′), inelastic scattering, distorted wave approach, DWBA and DWIA 2−69619
(ñ,n′) on ^{54,56}Fe, ^{58,60}Ni, ^{120}Sn, ^{208}Pb, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
(n,n′) near collective excitation threshold, rel. to statistical-optical model calc. *(Russian)* 2−54362
NN interaction, intermediate energy, coupled channel interaction 2−101760
NN scatt., partial wave expansion of modified one-particle-exchange diagrams 2−113376
(^{16}O, He), 75, 175, 2000 MeV/A, multiplicity, breakup mechanism, He spectra, event-by-event study 2−96031
(p,α), microscopic form factor for DWBA anal. 2−54374
(p,d) one-nucleon knockout reactions, review 2−79998
(p,p), 800 MeV, polarisation, spin effects and Coulomb interaction 2−64411
(p̄,p̄), A=12, 16, 40, 90, 208 *(Russian)* 2−79994
(p,p′), 200 MeV, A=51-140, M1 resonance excitation, cross sections, DWIA anal. 2−113439
(p,p′), Coulomb multiple scattering of heavy particles 2−74760
(p̄,p′), inelastic scatt. to continuum, orbiting effects 2−85040
(p,π) on nuceli A>3, pion prod., review 2−80000
(p,π^+), A=12, 16, 40, distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
(p,t), direct processes, simultaneous transfer DWBA descript., unhappiness factors 2−79996
(p,t) on Zr, Mo, Ru, Pd isotopes, analysing powers and two-step transfer processes 2−59355
(p,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(p,X), continuum spectra, multistep direct reaction anal. 2−107863
(p̄,X), stopped p̄, high spin isomers, use to study multipion-nucleus reactions 2−96003
(π,d), at rest, final-state interaction, DWBA calc. 2−107913
(π,p) on nuclei A>3, pion absorpt., review 2−80000
(π,π), low energy, unitary description, local field corrections 2−59410
(π^+,π^0), pion charge exchange and transition densities to isobaric analogue states 2−85107
(π^+, π^-), double charge exchange, spin effects and πN off-shell amplitude correction *(Chinese)* 2−96052
(π,X), A>2, reaction mechanisms and models, review 2−59406
(π,X) S-wave interaction, many body effects 2−59411
πN scatt. in P_{11} channel, parameterisation, resonance effects 2−113571
(t,p), direct processes, simultaneous transfer DWBA descript., unhappiness factors 2−79996
2H(p̄,x), x=2p, pn, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
^{74}(ANi,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
^{107}Ag(^{12}C, X), 55-110 MeV/N, high multiplicity reactions in AgBr nuclear emulsion, event by event analysis 2−113565
^{27}Al(^{3}He,d)^{28}Si, 35 MeV, ^{28}Si level structure study 2−54410
^{27}Al(^{6}Li,^{6}He), 34 MeV, microscopic DWBA anal. 2−90132
^{27}Al(e,e), elastic scatt., shell model interpretation 2−95990
^{27}Al(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{A}Ar(d,α), A=36, 38, 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
(^{40}Ar, $\pi^\pm$), 535 MeV, on A=12-39, strong Coulomb effects, doubly differential cross sections 2−69675
^{40}Ar(C, $\pi^\pm$), 533 meV, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
^{81}As levels, J^π, spectroscopic factors, DWBA anal. of ^{82}Se(t,α) 2−69539
^{197}Au(^{20}Ne,f), 172 MeV, fission after incomplete fusion, correl. between fission fragments 2−113558
(^{A}B,^{A}B), A=10, 11, elastic and inelastic scatt., expt., optical model and DWBA calc. 2−101915
^{10}B(^{14}N, X), 86-180 MeV, fusion, direct and total cross sections, Hauser-Feshbach anal. 2−69692
^{10}B(^{17}O, X), 54-124 MeV, fusion cross sections, compound nucleus limitation effect 2−69691
^{10}B(γ,$\pi^\pm$), 17, 29, 42 MeV, charged pion photoproduction cross section meas. 2−85026
^{11}B(p,n), multi-configuration shell model in continuum and reson. states in ^{12}C 2−95996
^{9}Be (α,α'), 35.5 MeV, elastic and inelastic scatt. anal. by coupled channel method 2−54411

nuclear reaction and scattering theory continued
- ^{9}Be(e,X), 105 MeV, electrospallation, α-emission mechanisms 2−90092
- ^{9}Be(p,dα)^{4}He, 30 MeV, quasi-free effects study 2−85037
- ^{209}Bi(p,π), pion prod. by target emission, total cross section calc. 2−80013
- ^{79}Br(^{12}C, X), 55-110 MeV/N, high multiplicity reactions in AgBr nuclear emulsion event by event analysis 2−113565
- CC ^{207}Pb($h_{9/2}$)$^{-1}$ hole state, neutron orbital RMS radius, diff. cross section from ^{208}Pb(^{7}Li,^{8}Li) 2−89996
- ^{12}C+^{13}C resonance, multistep transfer of nucleons and the formation of molecular orbitals 2−107833
- ^{12}C(^{10,11}B, X), fusion at sub-barrier energies, S-factor calc. 2−113577
- ^{12}C(^{12}C,^{12}C), projector operator method for inelastic scatt. cross section calc. 2−59395
- ^{12}C(^{15}N, α), 9.51-17.33 MeV, multistep compound processes, importance to fusion 2−69671
- ^{12}C(^{16}O, ^{16}O), elastic and inelastic scatt., 19.7 MeV reson. structure study 2−80035
- ^{12}C(^{6}Li,d), 34 MeV, inclusive d spectra, ZRDWBA anal., d spectator model 2−90131
- ^{12}C(^{6}Li,d)^{16}O*(O_2^+, 6.05 MeV), cross-section, distorted wave Born approx. 2−80025
- ^{12}C(^{7}Li, ^{7}Li), 63, 79 MeV, elastic and inelastic, single and mutual excitation, coupled channels calcs. 2−113528
- ^{12}C(K^+,K^+), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
- ^{12}C(d,α)^{10}B, isospin-forbidden reaction, coupled-channel calc. 2−54400
- ^{12}C(e,e'$\pi^{\pm}$), 200 MeV, π^-/π^+ ratio ang. distribs., PCAC and optical anals. 2−69645
- ^{12}C(e,e'), quasielastic scatt., response functions, finite nucleus calc. impulse approx. 2−107851
- ^{12}C(γ,pn)^{10}B, 34-150 MeV, differential cross-section, rel. to quasideuteron model *(Russian)* 2−59332
- ^{12}C(γ,π^-p), near resonance, cross-section, energy depend. *(Russian)* 2−59334
- ^{12}C(n,n), vector polarisation, angular variation, modified Simon theory 2−54350
- ^{12}C(p,2p) ^{160}MeV, factorisation corr. for DWIA matrix element 2−69663
- ^{12}C(p,$\mu^+\nu$)^{13}C, weak muon prod. study using impulse approx. 2−59354
- ^{12}C(p,p'), 800 MeV, low spin state excitation, differential cross section, DWIA anal. 2−90112
- ^{12}C(p,p'), proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
- ^{12}C(p,p), bremsstrahlung spectrum and time delay, multidetector coincidence study 2−85044
- ^{12}C(p,p), differential cross sections in coupled channel study 2−59348
- ^{12}C(p,pα)^{8}Be, 700 MeV, role of processes with cluster rearrangement 2−95995
- ^{12}C(p,π), pion prod. by target emission, total cross section calc. 2−80013
- ^{12}C(π, π'), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
- ^{12}C(π,π'), distorted wave impulse approx. differential cross section calc. 2−54334
- ^{12}C(π,π'), Δ-hole descript., natural and unnatural parity state excitation 2−96045
- ^{12}C(π,π), differential cross sections, two-pot. formalisms, Coulomb nuclear interference 2−113570
- ^{12}C(t,p)^{14}C, 18 MeV, ground and 6.59 MeV 0^+ states 2−54406
- ^{12}C(t,t), 15, 17 MeV, polarised triton scatt., parity depend. pot. 2−54405
- ^{13}C levels, J^{π}, R-matrix anal. of (n,n), (n,n'), (n,α) 2−69536
- ^{13}C(e,e')^{13}C*, DWIA anal. using Cohen-Kurath wave function 2−101880
- ^{13}C(γ,π^-), 17-42 MeV, anomalously low diff. cross section, DWIA comparison 2−64393
- ^{13}C(γ,π^+)^{13}B ground state, DWIA anal. using Cohen-Kurath wave function 2−101880
- ^{13}C(p,^{3}He)^{11}B, 65 MeV, differential cross section and analysing powers meas. 2−54384
- ^{13}C(p,t)^{11}C, 65 MeV, differential cross section and analysing powers meas. 2−54384
- ^{13}C($\pi^{\pm},\pi^{\pm}$'), 162 MeV, ^{13}C levels, rel. to DWIA calc. 2−107911
- ^Ca(^{16}O, ^{16}O'), 56 MeV, inelastic scatt. study 2−64438
- ^Ca(^{7}Li,^{7}Li), 89 MeV, A-40, 48, ang. distribs., adiabatic α-t cluster model anal. 2−107885
- ^Ca(α,α), A=40, 42, 44, 48, elastic scatt. microscopic study, within generator coord. method framework 2−54412
- ^{40}Ca(^{18}O, ^{18}O'), 62 MeV, ang. distribs., coupled channels effects, DWBA anal. 2−113555
- ^{40}Ca(^{18}O, X), X=^{17}O, ^{19}F, spectroscopic factors, CC and DWBA anal. 2−113555
- ^{40}Ca(^{40}Ca,Ca)Ca*, 160 MeV, inelastic scatt., nuclear continuum study 2−69679
- ^{40}Ca(^{40}Ca,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
- ^{40}Ca(^{40}Ca,X), total cross section predictions, geometric limit applicability 2−69678
- ^{40}Ca(^{6}Li, ^{6}Li), 26-34 MeV, DWBA anal. 2−107893
- ^{40}Ca(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
- ^{40}Ca(^{6}Li,X), X=p,d,t,^{3}He,α, 156 MeV, inclusive breakup, DWBA, coalescence model 2−101912
- ^{40}Ca(K^+,K^+), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
- ^{40}Ca(N,N), correl. effects in ground state elastic scatt. 2−69617
- ^{40}Ca(p, p) and (p, p'), 800 MeV, cross section and analysing power ang. distribs. 2−90108
- ^{40}Ca(p,p), 500 MeV, polarisation, spin rot. function, nuclear geometry, scatt. amplitudes 2−113360
- ^{40}Ca(π, π'), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
- ^{42}Ca(^{16}O, ^{16}O), 158.2 MeV, elastic and inelastic cross sections, optical and DWBA anal. 2−113554
- ^{42}Ca(^{16}O, X), 158.2 MeV, X=^{15}N, ^{17}O, Li-Al, nonfusion cross sections, DWBA anal. 2−113554
- ^{43}Ca(α,α'), 70 MeV, 1^+ state obs. 2−54396
- ^{48}Ca($\vec{p}$,p'), 160 MeV, 1^+ state excitation, anal. powers, possible mesonic effects 2−90078
- ^{48}Ca(p,p'), 44.4 MeV, 10.212 MeV 1^+ state excitation 2−69658
- ^{48}Ca(p,p'), 65 MeV, 1^+ state obs. 2−54396
- ^{48}Ca(p,t)^{46}Ca, DWBA calc. for two step amplitude 2−54333
- ^{48}Ca(t,p), finite range DWBA anals. with realistic wave functions 2−64410
- ^{48}Ca(t,p)^{50}Ca, sequential and simultaneous transfer of neutron pair 2−107860

nuclear reaction and scattering theory continued
- ^Cd(p,n), A=110, 114, 116, ground and excited state analogues study 2−54378
- ^{111}Cd^{m} production cross section, levels, transitions from γ-cascade calcs. from (n,γ), (n,n') 2−113325
- ^{252}Cf spontaneous fission, thermal fluctuations in classical dynamical model 2−69687
- ^{34}Cl levels, J^{π}, spect. factors, DWBA anal. of ^{32}S(α,d) 2−113365
- ^{59}Co(d, ^{3}He)^{58}Fe, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404
- ^{59}Co(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
- C(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
- ^Cu, A=61,63, radiative strength functions and intensity correlations from Ni($\vec{p}$,γ) *(Russian)* 2−107800
- ^Cu(e,e), A=63, 65, cross sections for elastic mag. scatt. 2−113465
- ^{166}Er(^{84}Kr,f), 12.4 MeV, ternary reaction proximity effects, fission 2−69683
- ^{166}Er(^{86}Kr,X), ang. momentum transfer at 6, 12 MeV/A, time depend. HF study 2−101914
- ^{166}Er(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
- F(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
- ^Fe(p,n), A=54, 56, 28-35 MeV, ang. distrib. for low-lying states, DWBA anal. 2−74764
- ^{54}Fe(d,^{3}He), 80 MeV, finite range effects, DWBA calcs. 2−113517
- ^{56}Fe(e,e'), quasielastic scatt., response functions, finite nucleus calc. impulse approx. 2−107851
- ^{74}Ge(p,α), 36.25 MeV, DWBA anal., ^{71}Ga levels, spectrosc. strengths 2−107864
- ^{74}Ge(p,p'), 22 MeV, levels, J^{π}, DWBA and CCBA anals. 2−107724
- Ge(p,t), even isotopes, low lying 0^+ states, microscopic coupled channel description 2−59350
- (HI, X), 800 MeV/N, epitaxial data kinematic anal. 2−107881
- ^{1}H(K^+,K^+), N/D eqn., dispersion methods, partial wave amplitudes 2−59415
- ^{1}H(e,π^+)e'n, virtual photons in pion electroproduction 2−74758
- ^{1}H(n, n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
- ^{1}H(p,p), 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
- ^{1}H(p,p), πNN dynamics, $^{3}F_3$ diproton anomaly 2−74763
- ^{1}H(p,p) phase shift anals., potentials, optimised polynomial expansions 2−90109
- ^{1}H(p,π)^{2}H, πNN dynamics, $^{3}F_3$ diproton anomaly 2−74763
- ^{1}H(π^-,γ), (π^-,π^0), 27.4, 39.3 MeV, radiative capture and charge exchange scatt. length 2−59407
- ^{2}H(α, αp)n, 140 MeV, breakup, three-body model 2−107874
- ^{2}H(α,α), 6, 14 MeV, differential cross section, multichannel R-matrix anal. 2−59373
- ^{2}H(d,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
- ^{2}H(e,e'), inelastic scatt., cross section and polarisation of recoil electron 2−69648
- ^{2}H(e,e'p), nucleon momentum distrib. in ^{2}H, meson exchange currents, isobars 2−107850
- ^{2}H(γ, p)n, relativistic and mesonic corrections to forward cross section 2−54355
- ^{2}H(n,X), 21.5 MeV, break-up quasi-free scatt. sensitivity to NN interaction 2−85041
- ^{2}H(n,n), 14 MeV, elastic scatt. anal. power, Legendre polynomial anal. 2−101873
- ^{2}H($\vec{n}$,n), 50 MeV, analysing power meas. at backward angles 2−85045
- ^{2}H($\vec{n}$,n), 50 MeV, analysing power meas. at forward angles 2−85046
- ^{2}H(n,n), elastic doublet scatt. near breakup threshold, Efimov effect 2−69656
- ^{2}H(n,n), scatt. amplitude, three-body problem, integral eqn. numerical soln. 2−90098
- ^{2}H(p, p), Landau-Smorodinsky theory for composite particles *(Russian)* 2−59176
- ^{2}H($\vec{p}$,p), 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
- ^{2}H(p,p), 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
- ^{2}H(p,p), low energy elastic scatt., Landau-Smorodinsky theory generalisation 2−64403
- ^{2}H(p,pn), breakup, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
- ^{2}H(π,NN), coupled πNN-NN system, dinucleon resonances 2−59408
- ^{2}H(π,π), 0.4-1 GeV, backward scatt., relativistic model ang. distrib., *(Russian)* 2−107915
- ^{2}H(π,π), 142, 181, 228 MeV, reflection term effects on differential cross section 2−69680
- ^{2}H(π,π), 245-539 MeV, phase shift anal. 2−113294
- ^{2}H(π,π), coupled πNN-NN system, dinucleon resonances 2−59408
- ^{2}H(π,π), general anal. using amplitudes *(Russian)* 2−74780
- ^{2}H(π,π), πNN dynamics, $^{3}F_3$ diproton anomaly 2−74763
- ^{2}H(π,π), relativistic treatment using πN scatt. separable Bethe-Salpeter eqn. kernels 2−84911
- ^{2}H(π,πn)^{1}H, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
- ^{2}H(π^+, pp), 80 to 417 MeV, differential cross section meas. 2−90163
- ^{2}H(π^-,pπ^-)n, three-body calc. in Δ-resonance region 2−74776
- ^{2}H(π^-,π^-), 65 MeV, differential cross section, rel. to 3-body calc. *(French)* 2−59414
- ^{3}H(α, α), specific distortion effects in resonating-group method 2−90123
- ^{3}H(α,X), photoeffect cross section from inversion techniques 2−107846
- ^{3}H(α,α), bound states to 113 MeV, resonating-group study 2−54269
- ^{3}H(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
- ^{6}H$_{\Sigma}$, small angle cross sections, narrow Σ states, energy shifts from ^{6}Li(K^-, π^+) 2−64368
- (^{3}He,α), on A=58,90,208, 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
- (^{3}He, ^{3}He), medium energy region, cross sections analysis, oscillation damping effect *(Russian)* 2−59379
- ^{3}He quasi-free breakup into elastic, inelastic and particle-transfer channels, DWBA formalism 2−85009
- ^{3}He(^{3}He,π^+)^{6}Li, pionic fusion reaction mechanism study 2−80044
- ^{3}He(α,α), bound states to 113 MeV, resonating-group study 2−54269
- ^{3}He(α,α), specific distortion effects in resonating-group method 2−90123

nuclear reaction and scattering theory continued
^{3}He(e,e'π^{+})^{3}H, virtual photons in pion electroproduction 2−74758
^{3}He(ê,e), quark spin correlations from parton model 2−107842
^{3}He(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
^{4}He(^{4}He,X), 60-160 MeV, ^{6}He, ^{6}Li, ^{7}Li, ^{7}Be, prod. cross section meas. 2−54416
^{4}He(n,X), R-matrix phase shifts, effective two-body corrections from ^{4}He-p data 2−101890
^{4}He(p,2p)^{3}H, 250,350,500 MeV, energy sharing spectra, coplanar symmetric and quasifree ang. distrib. 2−54391
^{4}He(p,p), 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
^{4}He(π^{-}, n), 100-290 MeV, differential cross section, multinucleon absorption mech. *(Chinese)* 2−80040
^{4}He($\pi^{\pm}$,π^{+}X), 90-320 MeV, quasifree scatt., π-N medium corrections 2−80039
$^{\Lambda}$He(K^{+},K^{+}), A=3,4, N/D eqn., dispersion methods, partial wave amplitudes 2−59415
^{78}Kr(d,p)^{79}Kr, 11 MeV, differential cross section and vector analysing power meas. 2−54403
(^{6}Li,d), antisymmetrised ^{6}Li wave function and direct interaction, cluster model 2−64387
(^{6}Li,d) on ^{26}Mg, ^{27}Al, ^{29}Si, ^{31}P, 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{6}Li, bremsstrahlung photo-cross-section, RMS radius, clusters, resonating group wave function 2−90084
^{6}Li(^{3}He,^{3}He), single channel resonating group calcs. 2−96009
^{6}Li(^{3}He,π^{-}X), 303 MeV/N, coherent π^{0} prod., cross sections, Weizsacker-Williams calc. 2−64416
^{6}Li(^{6}Li, 2d)2α, extended PWBA anal., clusters, double spectator pole 2−80030
^{6}Li(α,α), single channel resonating group calcs. 2−96009
^{6}Li(α,x), x=$\alpha\alpha$, dα, quasifree scatt., theoretical anal. 2−95994
^{6}Li(d,d), single channel resonating group calcs. 2−96009
^{6}Li(d,dd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{6}Li(n,n), single channel resonating group calcs. 2−96009
^{6}Li(p, pd), 156 MeV, quasifree scatt., eikonal wave function appl., nuclear pot. *(Chinese)* 2−96010
^{6}Li(p,Δ^{++}), 1.04 GeV, cross section, Δ-N interaction, Glauber calc. 2−64402
^{6}Li(p,pd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{7}Li(p,n)^{7}Be, 60-200 MeV, total cross section 1/E depend. 2−59351
$^{\Lambda}$Li(p,dd), 670 MeV, A=6, 7, quasi-free pickup, cross sections, reaction mech. 2−113453
$^{\Lambda}$Li(p,p'), A=67, 24.4 MeV, rel. to folding model with DWA 2−96005
$^{\Lambda}$Mg(^{7}Li,^{7}Li), 88 MeV, A=24, 26, elastic and inelastic, single and mutual excitation, coupled channels calcs. 2−113528
$^{\Lambda}$Mg(p,p'), A=24,26, 0.8 GeV, elastic and inelastic scatt. 2−54393
^{23}Mg l=0 transition, DWBA failure for ^{24}Mg (p̄,d) 2−69634
^{23}Mg(p,d), 100 MeV, effect of d breakup on pick-up cross section 2−59349
(^{24}Mg, X) on ^{12}C, ^{24}Mg, ^{26}Mg, fusion and compound nuclei decay study 2−64435
^{24}Mg(^{12}C, X), fusion and compound nuclei decay study 2−64435
^{24}Mg(p,n)^{24}Al, 35 MeV, stretched 6^{-} T=1 state in ^{24}Al 2−54379
^{24}Mg(π,π), 180 MeV, elastic and inelastic scatt. cross section calc. 2−85099
^{25}Mg(e,e), elastic scatt., shell model interpretation 2−95990
$^{\Lambda}$Mo(^{6}Li,^{8}B), A=92, 94, 96, 98, 100, 90 MeV, two-proton pick-up reactions 2−54422
^{92}Mo(^{3}He,α)^{91}Mo, 25 MeV, f-p neutron-hole strength fragmentation in ^{91}Mo 2−54409
^{94}Mo(p,t), 22 MeV, anomalous $0_{g}^{+}\rightarrow 0_{g}^{+}$ anal. powers and partial cross sections 2−64389
^{98}Mo(n,γ), nonstatistical mechanisms, neutron strength function, capture cross sections 2−113504
^{100}Mo(^{3}He,p), 25 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
(^{14}N,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(^{14}N, X), on A=12, 14, fusion at sub-barrier energies, S-factor calc. 2−113577
^{14}N(α, α'), 34.85 MeV, negative parity states, transitions, DWBA anal. 2−84958
^{14}N(γ,$\pi^{\pm}$)^{14}C, charged pions threshold photoproduction study 2−95988
^{14}N(n,p), 60 MeV, analogue isovector giant resonance excitation, DWBA anal. 2−107821
^{14}N(p,d), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{14}N(p,p'), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{15}N(p,X), S-matrix unitarity, resonance phenomena 2−107826
^{16}N stretched configuration states, J$^{\pi}$, anal. power, DWBA anal. of ^{18}O(d,α) 2−101805
Na(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
^{23}Na(e,e), elastic scatt., shell model interpretation 2−95990
^{90}Nb levels, J$^{\pi}$, ang. distribs., DWBA anal. of ^{90}Zr(^{3}He,t) 2−107725
^{93}Nb(^{14}N, X), 208 MeV, correl. between alpha particles and ejectiles 2−90142
^{93}Nb(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
(^{20}Ne, $\pi^{\pm}$), 280-480 MeV, on A=12-238, strong Coulomb effects, doubly differential cross sections 2−69675
^{20}Ne(C, $\pi^{\pm}$), 280, 482 MeV, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
$^{\Lambda}$Ni(n,n), A=58,60,64, 6 and 7 MeV, differential cross-section, rel. to coupled channel theory 2−64412
^{58}Ni(^{18}O, ^{18}O), phase shifts, closed form and optical model anal. 2−113526
^{58}Ni(^{3}He, ^{3}He), 130 MeV, ang. distrib., giant reson., optical and DWBA calc. 2−101909
^{58}Ni(d,X), 80 MeV, inelastic scattering and inelastic breakup, adiabatic approx. 2−113516
^{58}Ni(p,p'), 27 MeV, levels J$^{\pi}$, collectivity, microscopic DWBA anal. 2−107727
^{60}Ni(^{16}O, ^{12}C), 60 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{60}Ni(^{16}O, ^{16}O), 45 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
nuclear reaction and scattering theory continued
^{60}Ni(^{28}Si, ^{28}Si'), 140 MeV, mutual inelastic excitation, coupled channels anal. 2−101926
^{64}Ni($^{\Lambda}$Ni,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
^{16}O, 2^{+} state and3^{-} resonance, 9.85 MeV excitation, R-matrix anal. of ^{12}C(α,α) 2−90067
(^{16}O, X), on A=12, 14, 16, fusion at sub-barrier energies, S-factor calc. 2−113577
^{16}O(^{16}O, ^{16}O*), 24-41 MeV CM, mutual inelastic scatt., excitation functions meas. 2−90147
^{16}O(^{16}O,^{12}C), resonance struct., EFR-DWBA anal., band crossing model enhancement 2−54425
^{16}O(^{16}O,^{12}C)^{20}Ne, resonant struct., DWBA anal. 2−107906
^{16}O(^{16}O,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
^{16}O(N,N), correl. effects in ground state elastic scatt. 2−69617
^{16}O(p̄,n)^{16}F, 134 MeV, analysing power and differential cross section meas. 2−64404
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{16}O(p̄,p), 6.482 MeV, spin-parity determ. of 6.699 MeV level in ^{17}F 2−59236
^{16}O(π,π'N), quasielatic scatt., Δ-hole and DWIA approaches 2−96051
^{16}O(π^{-},X) X=2n or pn, final state effects, optical pots. 2−96050
^{17}O(^{3}Hē,α)^{16}O, analysing power and cross section meas. 2−80023
^{17}O(e,e), magnetic elastic form factor and $1d_{5/2}$ orbit radius 2−59341
^{18}O(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{18}O(p,t)^{16}O, sequential and simultaneous transfer of neutron pair 2−107860
O(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
^{192}Os levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(d,^{3}He) 2−113366
^{29}P excited states, transitions, ang. distribs., DWBA anal. of ^{27}Al(^{3}He,n) 2−113367
^{29}P, proton stripping, DWBA analysis, ground state transitions for ^{28}Si(^{3}He,d_0)^{29}P 2−113454
^{30}P levels, J$^{\pi}$, spect. factors, DWBA anal. of (α,d), (d,α) 2−113365
^{32}P stretched configuration states, J$^{\pi}$, anal. power, DWBA anal. of ^{34}S(d,α) 2−101805
^{207}Pb(p,p'), 95 MeV, levels, DWBA, DWIA, t-matrix and G-matrix anal. 2−107756
^{208}Pb (^{3}He, α)^{207}Pb, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{208}Pb (α,α), giant dipole reson. Coulomb excitation 2−54344
(^{208}Pb, X) on ^{64}Ni, ^{48}Ca, fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{208}Pb(^{208}Pb,X), total cross section predictions, geometric limit applicability 2−69678
^{208}Pb(^{3}He, ^{3}He), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(^{40}Ca,X), total cross section predictions, geometric limit applicability 2−69678
^{208}Pb(HI,HI), sub Coulomb elastic scatt., relativistic effects, polarisability, screening 2−64427
^{208}Pb(d,d), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(e,e'), inelastic scatt., low-lying natural parity levels excitation 2−85032
^{208}Pb(n,γ), 0.8-7.7 MeV, compound nucleus, direct-semidirect processes, giant resonance search 2−90106
^{208}Pb(p, p'), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
^{208}Pb(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^{+} transition 2−69662
$^{\Lambda}$Pd(p,n)$^{\Lambda}$Ag^{m8}, A=102, 104, 105, isomeric ratios 2−95999
^{194}Pt levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(^{3}He,d) 2−113366
^{103}Ru states, J$^{\pi}$, spectroscopic factors, DWBA anal. of (d,p), (p,d) 2−79949
^{104}Ru(d,α), 20 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{31}S excited states, transitions, ang. distribs., DWBA anal. of ^{29}Si(^{3}He,n) 2−113367
^{32}S(d,α), 16 MeV; vector and tensor pol. d, cross section and analysing power meas. 2−54402
$^{\Lambda}$Sc, A=43,45,47, levels, J$^{\pi}$, microscopic form factors, DWBA anal. of Ti(p,α) 2−101812
$^{\Lambda}$Se(d,^{6}Li)Ge, A=74,76,78,80,82, 45 MeV, first excited 0^{+} states in Ge isotopes 2−74733
$^{\Lambda}$Se(p,n), 19 to 25 MeV, A=76, 80, 82, excitation of analogue states, coupled channel analysis 2−113444
$^{\Lambda}$Si(^{28}Si, X), A=28-30, fusion and compound nuclei decay study 2−64435
(^{28}Si,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
^{28}Si, proton stripping, DWBA analysis, ground state transitions for ^{27}Al(^{3}He,d_0)^{28}Si 2−113454
(^{28}Si, X) on ^{12}C, ^{24}Mg, fusion and compound nuclei decay study 2−64435
^{28}Si(^{16}O,^{16}O), 50 MeV, phase shift anal., stat. fluctuations, backward and staggering effects 2−80033
^{28}Si(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
^{30}Si(t,p)^{32}Si, 15 MeV, excitation energies meas. 2−54407
Si(p,p'), 115 MeV, giant resonances and low lying levels, DWBA anal. 2−69625
$^{\Lambda}$Sm(p,p), 1 GeV, A=144, 150, 152, elastic and inelastic, levels, transition strengths for A=144 2−113471
$^{\Lambda}$Sm(p,t), A=144, 148, 150, 154, 25.5 MeV, ang. distrib., two-step processes effects 2−95998
^{154}Sm(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
$^{\Lambda}$Sn(p,p'), A=116, 124, proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{111}Sn deep hole states, J$^{\pi}$, anal. power, DWBA anal. of ^{112}Sn(d̄,t) 2−89994
^{116}Sn(^{3}He, α)^{115}Sn, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{120}Sn(p,d)^{119}Sn, 26.3 MeV, d ang. distrib. and ^{119}Sn level structure 2−54377

nuclear reaction and scattering theory continued
^{122}Sn(^{129}Xe,f), 12.5 MeV, ternary reaction proximity effects, fission 2−69683
^{124}Sn(p,t)^{122}Sn, 34.9-65.0 MeV, zero-range normalisation constant, ang. distrib. 2−85053
^{88}Sr(e,e′), 1$^+$ state form factor quenching, Δ(1232) isobar influence 2−84950
^{181}Ta(p,t)^{179}Ta, 19 MeV, differential cross section meas., evidence for particle-core coupling 2−85049
Ta(α,X), 15.2 GeV, cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
Ta(d,X), 8 GeV, cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
Ta(p,X), cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
^Tc, A=95,98, level density from Mo(p,n) *(Russian)* 2−107758
^{232}Th(n,f), 14 MeV, fragment yields and charge distrib., liquid drop anal. *(Chinese)* 2−96060
^{232}Th(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{232}Th(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{46}Ti level struct., cross sections, spectroscopic strengths, DWBA anal. of ^{45}Sc(^{3}He,d) 2−59242
^{201}Tl first excited state formation, excitation function struct., mechanism for ^{207}Pb(μ$^-$, ν6n) 2−59244
(^{238}U, X) on ^{64}Ni, ^{48}Ca, fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{238}U(^{208}Pb, Xf), 1.768 GeV, damped reaction, fission fragment spin correlations 2−54457
^{238}U(^{40}Ar,^{40}Ar′), 340 MeV, coupled channels and nuclear deexcitation 2−54429
^{238}U(e$^-$,f), 10-35 MeV, absolute cross sections, DWBA virtual photon spectra test 2−59428
^{238}U(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{238}U(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{182}W(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{89}Y(p̄,p′), 21.1 MeV, elastic and inelastic scatt. 2−54372
^{178}Yb, energy levels, J^π assignments, angular distribution comparison with DWBA calcs., from ^{176}Yb(t,p) 2−113332
^{64}Zn(^{12}C, ^{12}C), 54 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^Zr(^{6}Li,^{8}B), A=90, 92, 94, 90 MeV, two-proton pick-up reactions 2−54422
^{90}Zr(^{84}Kr,f), 12.4 MeV, ternary reaction proximity effects, fission 2−69683
^{90}Zr(α,α′), 99.3 MeV, low-energy octupole reson. gamma decay 2−85017
^{90}Zr(p,n), 200 MeV, pionic mode of excitation in continuum, DWBA calc. 2−85043
^{90}Zr(t,p), finite range DWBA anals. with realistic wave functions 2−64410
^{90}Zr(t,p)^{92}Zr, sequential and simultaneous transfer of neutron pair 2−107860
^{92}Zr(p,t), 22 MeV, anomalous $0_g^+ \rightarrow 0_g^+$ anal. powers and partial cross sections 2−64389

nuclear reactions and scattering
see also alpha particle-nucleus reactions; alpha particle-nucleus scattering; chemical effects of nuclear reactions and scattering; cosmic ray-nucleus reactions; cosmic ray-nucleus scattering; deuteron-nucleus reactions; deuteron-nucleus scattering; direct nuclear reactions and scattering; fission; form factors (nuclear); hadron-nucleus reactions; hadron-nucleus scattering; heavy ion-nucleus reactions; heavy ion-nucleus scattering; helium 3-nucleus reactions; helium 3-nucleus scattering; lepton-nucleus reactions; lepton-nucleus scattering; muon-nucleus scattering; nuclear fusion; nuclear reaction and scattering theory; nuclear reactions involving few nucleon systems; nuclear resonance reactions and scattering; nuclear scattering involving few nucleon systems; nuclear spallation; nuclear spectroscopic factors; nucleosynthesis; photon-nucleus reactions; photon-nucleus scattering; polarisation in nuclear reactions and scattering; triton-nucleus reactions; triton-nucleus scattering
conference on nuclear struct. and spectra, Samarkand, USSR (April 1981) 2−84368
data sheets, references Jan.-April, 1982 2−107728
nuclear data sheets, May to Aug. 1981 references 2−89475

nuclear reactions involving few nucleon systems
for nuclear inelastic scattering involving few nucleon systems see "nuclear scattering involving few nucleon systems"
BOL measurement system for nuclear reaction investig. 2−59666
cc^{4}He(γ,pn)^{2}H reaction, triangular diagram mechanism *(Russian)* 2−90087
fusion of D-T mixtures catalysed by muons 2−80045
Lippmann-Schwinger eqns. for two- and three-body problems 2−74751
transfer processes, diffractional theory, three-particle approach *(Russian)* 2−113434
π-^{3}He-^{3}H coupling constant, in dispersion relation and impulse approx. 2−79945
^{2}H(p̄,x), x=2p, pn, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
^{1}H(^{3}H,2p2n), 2.5 GeV/c, expt. results and comparison with pole model predictions 2−59366
^{1}H(^{3}H,pd)p, 69 MeV, break-up reaction mechanism study 2−101906
^{1}H(P,π$^+$)^{2}H, six-quark bag model study 2−79840
^{1}H(α,X), 44 GeV, inclusive hadron transverse momentum distribs. 2−80022
^{1}H(n,X), total cross-section, 40-770 MeV, reson. struct. 2−95866
^{1}H(n,γ), field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
^{1}H(p,e$^+$ν)^{2}H, reaction rates in stellar interiors 2−68612
^{1}H(p̄,π$^+$)^{2}H, 400, 450 MeV, analysing power meas. 2−69659
^{1}H(p,π)^{2}H, πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{1}H(p̄,π)d, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
^{2}H(^{3}He, π^2), 910 MeV, pion inclusive spectra, nuclear struct. effects 2−101900
^{2}H(α, αp)n, 140 MeV, breakup, three-body model 2−107874
^{2}H(α,αp)n, A=6 continuum system study 2−64418
^{2}H(d, nnp)^{1}H, four body break-up reaction 2−85059
^{2}H(d,n)^{2}He, charge symmetry violation in low energy interaction 2−107921
^{2}H(d,p)t, charge symmetry violation in low energy interaction 2−107921

nuclear reactions involving few nucleon systems continued
^{2}H(p,2p), low energies, N-N forces investig. 2−113373
^{2}H(p,d), pol.p, 10 MeV, polarisation transfer 2−54381
^{2}H(p,pn), breakup, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
^{2}H(p,π^0)^{3}He, cross section ang. distrib. and analysing power meas. 2−80003
^{3}H(d,n̄), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{3}H(p,n), 9-14 MeV, tritium break-up contrib. to neutron source reaction 2−90101
^{3}He(^{3}He,π$^+$)^{6}Li, pionic fusion reaction mechanism study 2−80044
^{3}He(α,α+p)^{2}H, 26.3 MeV, deuteron spectrum *(Russian)* 2−107876
^{3}He(α,γ)^{7}Be, 165-1170 keV CM, cross-section and branching ratio meas. 2−85065
^{3}He(α,γ)^{7}Be, E$_{c.m.}$=107-1266 keV, capture reaction and solar neutrino problem 2−59380
^{3}He(n,p), 0.15-150 keV, cross-section, deviation from v^{-1} law *(Russian)* 2−59360
^{3}He(p,n), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,π$^+$)^{4}He, microscopic calcs. using isobar-doorway approach 2−80010
^{3}He(p,π$^+$)^{4}He, pion prod. in rescattering model, comparison with expt. 2−80011
^{4}He, excitation energies, from ^{4}He(α,αp) 2−95956
^{4}He(^{3}He,π$^+$)^{7}Li, coherent pion prod. study and reaction mechanism test 2−107873
^{4}He(^{4}He,X), 60-160 MeV, ^{6}He, ^{6}Li, ^{7}Li, ^{7}Be, prod. cross section meas. 2−54416
^{4}He(^{4}He,X), multiplicity distribution model 2−101691
^{4}He(α, 2α), off shell behaviour, interaction potentials 2−85067
^{4}He(α,X), 31 GeV, inclusive hadron transverse momentum distribs. 2−80022
^{4}He(α,α), ISR energies, additive quark model of multiparticle prod. 2−79847
^{4}He(d,γ)^{6}Li, reaction rate rel. to primordial synthesis of ^{6}Li 2−112626
^{4}He(d,pn)^{4}He, tensor analyzing powers for deuteron breakup reaction 2−85058
^{4}He(n̄,d), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{4}He(p̄, d), anal. power, reaction mech. and polarisation effects 2−113458
^{4}He(p,2p)^{3}H, 250,350,500 MeV, energy sharing spectra, coplanar symmetric and quasifree ang. distrib. 2−54391
^{4}He(p̄,d), 32-50 MeV, anal. power, time reversal and charge symmetry 2−69639
^{4}He(p,p), 992 MeV, differential scatt. cross section meas. *(Russian)* 2−54399
^He(^{3}He,π$^+$), A=3-4, pion prod. in exclusive kinematical region 2−80004
^He(p,π), A=3-4, pion prod. in exclusive kinematical region 2−80004

nuclear reactor fuel *see fission reactor fuel*

nuclear reactor instrumentation
600 kV Marx module for high-density Z-pinch experiment 2−90415
acoustic emission multichannel monitoring system 2−102109
acoustic sensors for measuring linear deformation under radiation conditions 2−102110
advanced digital metal impact monitor for PWR 2−85176
air monitoring requirements and alarm response procedures in reprocessing plants 2−64597
anomalous condition monitoring apparatus development *(Japanese)* 2−96194
automated status analysis system, implementation at Forsmark-1 2−96252
Brazilian quartz crystal for track recorder appl., selected etching and annealing props. 2−70093
BWR operating experience with gamma-sensitive traversing in-core probes 2−102139
BWR plant diagnosis system, operating experience 2−96190
BWR small-break loss-of-coolant accidents, two simulation tests 2−102244
BWR solid state safety system self-testing 2−85200
CAMAC-based controller for nuclear power plant radiation monitoring 2−64562
CANDU PHW nuclear power plants, 600 MWe, control and instrumentation systems 2−108078
CANDU reactor trip logic using field programmable logic arrays 2−69764
capacitors, pulse discharge energy storage, repetitively operated, database creation programme for design and fabrication for high reliability appls. 2−90416
computerized fault diagnostics in a nuclear reactor via analytic redundancy 2−96215
conference, Canadian Nuclear Soc., Ottawa, Ont., Canada (June, 1981) 2−63743
conference, in-situ testing and inspection of irradiated components, Paris, France (Nov. 1981) 2−68963
conference, San Francisco, CA, USA (Oct. 1981) 2−58528
conflict decision aid for nuclear reactor instrumentation 2−69779
control and instrumentation system reliability *(Japanese)* 2−74857
corrosion product buildup in cooling loop equipment 2−96196
counting-Campbelling neutron meas. system and expt. in test reactor 2−69767
CR-39 polymer detectors for reactor and dosimetry appl., neutron response characacts. 2−70095
diagnostic system for reactor core and plant control system, process signal noise anal. 2−96296
differential pressure meas. instrumentation system for PWR LOCA investig. 2−96193
Doublet III, real time two wavelength interferometer system 2−80278
Doublet III, Thomson scattering profile diagnostic, mechanical engineering 2−80291
Doublet III IR monitoring of TiC coated graphite protecting injection system 2−80281
EBR-II, sodium and water flow meas., pulsed neutron activation method 2−74864
electrical equipment, failure during TMI-2 accident 2−108094
electronic tube development for streak camera system 2−74535
EM flowmeter calibration using voltage fluctuation cross calibration 2−96147
emulsion activation and fast neutron dosimetry 2−70010

nuclear reactor instrumentation continued
FAST facility delayed neutron interrogator control system for U assay 2—74855
fast-neutron hodoscope data, image processing and resolution restoration 2—96216
FBR fuel pins, transient irrad. expts., in Petten HFR 2—69704
FED, plasma diagnostic instruments 2—80321
FED fuel injectors and diagnostic instrumentation 2—80316
FFTF, nuclear emulsion neutron spectrometry 2—102144
FFTF, proton recoil proportional counter meas. 2—102145
FFTF absolute fission rate meas. 2—102147
FFTF sodium and cover gas impurity monitoring 2—102123
FFTF traversable fission chamber expt. results 2—102146
FFTF wide range He mass spectrometer leak detector 2—83319
flow meter, 16-channel thermal correlation type, for RBM-K reactor *(Russian)* 2—102181
flowmeter, EM integrating meter for fast breeder reactor duct flows 2—74861
fusion reactor instrumentation and control, development strategy 2—85373
fusion reactors, instrumentation hardening 2—74982
fusion-product energy-loss measurements from laser-imploded microballoons 2—80276
gas chromatography in nuclear fuel rod fabrication 2—85141
graphite, irradiation-induced creep testing, computer-supervised data logger 2—69762
graphite assembly, neutron spectrum perturbation by miniature plastic spectrometer 2—54540
heat and radiation resistant cable for LMFBR appl. 2—69763
high radiation levels effects on B anal. equipment and pH probes 2—102137
HTR fuel testing, irrad. device for abnormal thermal conditions 2—69706
ICF, fuel density radius diagnostic using SSNTD CR-39 2—80275
improvement possibilities 2—59486
in-reactor thimble system for FTB characterization 2—102143
induced vibration analysis probe for steam generator tube-to-support clearance meas. 2—64583
information and measuring apparatus design for nuclear power stations 2—54543
inspector-instrument interface in portable NDA instrumentation 2—74856
isotope specific noble gas monitoring from reactors using Ge gamma spectrometer 2—64595
JET, neutron diagnostic device, remote handling aspects 2—80299
JET, time of flight telescope spectrometer for neutron diagnostics 2—80285
level monitoring system for assessing inadequate core cooling 2—64561
light element distrib. meas. using Harwell nucl. microprobe 2—99728
liquid film thickness meas. using US technique 2—102163
LMFBR, O_2 metering, electrochem. probes 2—90265
LMFBR fuel pins, in-situ time-integrated imaging 2—85142
LMFBR secondary coolant, H partial press. in Ar over Na 2—80156
LOCA tests, touch-sensitive colour graphic monitoring system 2—64560
loose part detection using acoustic emission detectors in NSSS 2—96179
LWR, German, noise surveillance systems 2—96178
MFTF, neutral beam aiming and calorimetry 2—80282
MFTF, timing system 2—74986
MFTF fibre optic links in instrumentation systems 2—74987
MFTF long pulse neutral beams, instrumentation system 2—74985
MFTF-B plasma diagnostic system, mechanic considerations 2—80287
MFTF-B plasma diagnostic system 2—80286
MFTF-B plasma diagnostics system instrumentation and data acquisition system 2—80288
microfresnel zone plates, batch production method 2—84774
microprocessor based reactor vessel level/containment monitor 2—85175
modular analogue isolator for signal isolation in nuclear power plants 2—85177
multichannel analyser for fusion X-ray spectrometry 2—85500
multifrequency-multiparameter eddy current anal. method for PWR steam generator tubes 2—69795
neutron beam instruments, control and data acquisition 2—59674
Nova capacitor banks, performance and cost analysis using Weibull statistics 2—96400
NRC equipment qualification program for nuclear power generating facilities 2—85174
nuclear power plant operation, advanced display-control concepts 2—85173
on-line leak detection method for OWL-1 loop by ARX modeling using dewpoint signals 2—59489
on-line reactor coolant monitoring 2—102279
plant operation, computer hardware and software system requirements for NUREG 0696 2—85195
post accident sampling, NSAC workshop 2—102278
post-accident sampling at the James A. FitzPatrick Plant 2—102134
post-accident sampling system optimization for an operating plant 2—102135
power field, interaction between basic science and engineering 2—70007
power plant remote data acquisition and display system 2—85196
power reactors, safeguard instrumentation status 2—74854
pressure transducers appl. in thermohydraulic expts., zero drift and linearity problems *(German)* 2—64598
primary coolant system leakage detection using acoustic emission 2—64594
pulse echo ultrasound for steam generator tube to support gap measurement 2—64584
pulsed neutron activation method, appl. to sodium and water flow 2—74865
PWR, fuel charging machine *(German)* 2—54690
PWR, primary coolant system, pressure sensor time const. 2—90264
PWR core monitoring by incore noise analysis 2—96181
PWR feedwater control valves, computerised acoustic monitoring 2—74892
PWR noise experiments, anal. and instrumentation 2—96174
PWR prototypic gamma thermometers, fabrication and elec. calibration 2—64564
radiation and thermal tests of thermal neutron detectors 2—113686
radiological analysis of primary coolant and containment atmosphere 2—102136
reactor flux meas. with glass track detectors 2—69769
reactor noise-metering and its application in monitoring reactor circulation loops for leaks 2—113689
rotating machinery surveillance and diagnostic system for Grand Gulf power station 2—102204
nuclear reactor instrumentation continued
rugged on-line heavy water monitor designed for plant conditions 2—64596
safety parameter display system for the River Bend nuclear station 2—102203
self powered flux detectors, dynamic response in CANDU's 2—64593
self-powered flux detector, neutron and γ-ray sensitivities expt. meas. 2—64766
self-powered flux detectors, Monte Carlo simulation 2—64765
self-powered neutron detector with a fissile emitter 2—74862
semiconductor counter appls. 2—80394
signal validation technique utilizing parity space rep. and analytic redundancy 2—59493
solid state track detectors appl. in nuclear safeguards 2—69768
solid-state nuclear track detectors, conf., Bristol, England, Sept. 1981 2—58532
spent reactor fuel monitoring, safeguard instrument 2—74802
steel, irradiation expts. in Petten HFR 2—69703
stilbene scintillators, light efficiency determ. and appl. to fast neutron in-core spectrometry 2—113815
stress-free, irradiation technology, at Petten HFR 2—69705
surveillance of instruments by noise analysis 2—59487
TFTR, DC coupled auto zeroing low noise high impedance amplifier 2—74990
TFTR, epithermal neutron diagnostic, mechanical design 2—80284
TFTR, multichannel far-IR interferometer, electrical design 2—80279
TFTR, multichannel far-IR interferometer, optical and mechanical arrangement 2—80280
TFTR, Rogowski coil and diamag. loop, design, fabrication and testing 2—80295
TFTR, X-ray imaging system, mechanical design 2—80294
TFTR, X-ray pulse height anal. system 2—80292
TFTR diagnostics, stable support struct., design and anal. 2—80293
TFTR first plasma diagnostics 2—80289
TFTR microchannel plate detector for high energy neutrons 2—80399
TFTR neutral beam calorimeter fabrication and instrumentation 2—85273
TFTR structural instrumentation 2—74991
thermal limitations of detectors in high-level radiation fields 2—108257
thermocouple neutron detector response in normal and intrinsic config. 2—113816
thermoelectric transducers, radiation effect on errors 2—54546
thermonuclear neutron detectors, efficiency study 2—115051
TMI-2 containment building accident water sampling and reactor primary coolant accident source term 2—102280
TMX, microwave interferometer for plasma density meas. 2—74983
TMX-U, machine and plasma diagnostic instrumentation systems 2—80290
Tokamak fusion test reactor diagnostics and instrumentation, nuclear aspects 2—74896
Tokamak-type fusion reactors, control and instrumentation *(Japanese)* 2—74897
TREAT hodoscope spatial resolution enhancement 2—96210
two phase flow instrumentation related with LWR safety research *(Japanese)* 2—64567
two-phase flow meas., γ-ray Compton profile appl. 2—108072
two-phase flow meas., from reactor neutron noise anal. 2—108071
two-phase flow meas., impedance, ultrasound and microwave appls. 2—108069
two-phase flow meas., multiple γ-rays, tracers, activation and optical methods 2—108068
two-phase flow meas., nuclear and optical methods 2—108073
two-phase flow visualisation, computerised tomography and NMR scanning appls. 2—108070
two-phase noise diagnosis in nuclear power plants 2—69766
UKAEA criticality dosimeter, slow neutron sensitivity 2—70021
US sensor for simultaneous meas. of level, temp. and density 2—65435
vacuum channel, high temp., for intrareactor investigs. *(Russian)* 2—80150
vibration characts. meas., w.r.t. safety in earthquakes *(German)* 2—64599
VVER-400 reactors, equipment failure anal. in USSR 2—54548
VVER-440, thermal power meas., correlation-dispersion method 2—64577
Washington Public Power Supply System WNP-2 equipment qualification program 2—113702
water level detection, using ex-reactor neutron detectors, response calc. 2—108062
water-level meas. tests in reactor vessel using ex-core neutron detectors 2—108099
Westinghouse WL-24142 Ion Chamber, gamma ray energy on sensitivity 2—102276
WWER-440, automated vibration monitoring system 2—96185
^{41}Ar monitoring system at University of Missouri research reactor 2—54683
DT reactors, non-perturbing diagnostic for fuel mixture ratio and power density 2—80277
MgO insulated nuclear instrument cable, gamma radiation and temp. effects 2—69765
Rh in-core detector sensitivity study 2—102154
Rh self-powered neutron detectors, reactivity approach to reactor core diagnostics 2—64563
SiO_2 insulated nuclear instrument cable, gamma radiation and temp. effects 2—69765
nuclear reactor materials *see fission reactor materials*
nuclear reactor operation *see fission reactor operation*
nuclear reactor theory and design *see fission reactor theory and design*
nuclear reactors *see fission reactors*
nuclear resonance reactions and scattering
see also nuclear resonances
characteristic resonances and the limits to fusion in light heavy-ion systems 2—107901
compound states, E1 transitions, neutron resonance widths *(Russian)* 2—59287
coupled channels in nuclear and particle physics 2—59307
heavy ion reactions, resonance formation, entrance channel depend. 2—101944
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2—84379
heavy-ion collisions, reson., expt. status 2—85085
heavy-ion large angle scatt., dynamical aspects 2—113556
heavy-ion reaction reson., schematic-model prediction comparison 2—85086

nuclear resonance reactions and scattering continued
heavy-ion scattering, reson. structures in cross section, mol. configurations theory 2−85084
(K^-,π^-) strangeness exchange, hypernuclear resonance excitation, p-shell struct. effect 2−59279
many-body systems, decaying states, variational approach, generator coord. method 2−74238
neutron resonant absorpt. by nuclei in laser irrad. crysts., theoretical anal. *(Russian)* 2−69664
partial coherence in heavy-ion reactions 2−101936
pion-nucleus S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
resonance structure in symmetric light heavy ion fusion cross sections 2−107827
resonances in heavy ion collisions review 2−101931
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
X-ray production from united-atom K-spectra in nuclear reactions, theory 2−101860
α elastic scatt. and α-decay widths, two-body energy eigenvalue theory 2−59377
(n,n), pol. n, resonance scattering, P invariance effects *(Russian)* 2−90118
(n,x) on ^{141}Pr, ^{159}Tb, ^{165}Ho, ^{167}Er, ^{165}Tm, pol. n, neutron cross section, strengthfunction, spin depend. 2−54373
(p,n), Gamow-Teller reson. energetics 2−101893
($\bar{p}$,X), stopped $\bar{p}$, high spin isomers, use to study multipion-nucleus reactions 2−96003
(π,X), statistical theory near Δ(1232) resonance 2−74775
^{26}Al compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
^{197}Au(π^+,π^-n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{10}B+^{14}N resonances high spin data 2−101808
^{11}B(p,n), multi-configuration shell model in continuum and reson. states in ^{12}C 2−95996
^{9}Be(p,γ)^{10}B, 320 keV, isoscalar E2 transition strengths 2−95970
^{12}C+^{12}C resonances high spin data 2−101808
^{12}C+^{14}C, resonance struct. obs. 2−107904
^{12}C+^{16}O quasimolecular resonance, total reaction cross section near Coulomb barrier 2−107903
^{12}C(^{11}B,X), resonance search in Coulomb barrier region 2−101937
^{12}C(^{12}C, ^{12}C), elastic ang. distrib., intermediate structure 2−85079
^{12}C(^{12}C,^{12}C'), cross section calc. using breathing mode doorways 2−59398
^{12}C(^{12}C,^{12}C'), spin alignment meas. in intermediate struct 2−107905
^{12}C(^{12}C,^{12}C), microscopic investigation in framework of generator coordinate method 2−74770
^{12}C(^{12}C,X), resonance search in Coulomb barrier region 2−101937
^{12}C(^{12}C,X) resonance formation and nucleon decay 2−101934
^{12}C(^{12}C,α)^{20}Ne, 15 MeV, ang. distrib., excitation energy, nonstatistical effects 2−96035
^{12}C(^{12}C,α)^{20}Ne, intermediate struct. resonance, spins and spectroscopy 2−101807
^{12}C(^{14}C,^{14}C), intermediate struct. obs. 2−101940
^{12}C(^{16}O, ^{16}O), elastic and inelastic scatt., 19.7 MeV reson. structure study 2−80035
^{12}C(^{16}O,X), 12-20 MeV CM, reson. in fusion cross section 2−59439
^{12}C(^{16}O,α), search for ^{12}C+^{12}C resonant states, correlation meas. 2−101943
^{12}C(^{16}O,α)^{24}Mg, resonant state excitation 2−101938
^{12}C(^{16}O,α)^{24}Mg, resonance state direct obs. 2−101939
^{12}C(^{16}O,γ)^{28}Si, fusion resonance obs. 2−107902
^{12}C(^{9}Be, X), X=p, d, t, α, 5.9-15.4 MeV, cross section energy depend., reson. or fluctuations 2−90137
^{12}C(^{9}Be,X), resonance struct., excitation functions, critical anal. 2−101932
^{12}C(α,α_i), i=0-2, 10.5-20 MeV, absolute cross section and ^{16}O level parameters 2−59376
^{13}C(α,p_0)^{15}N, 10.5-20 MeV, absolute cross section and ^{16}O level parameters 2−59376
^{12}C(γ,π^-p), near resonance, cross-section, energy depend. *(Russian)* 2−59334
^{12}C(n, n), cross section ang. distrib. and vector pol. 2−101857
^{12}C(p,n)^{12}N, 20-30 MeV, resonances, three-quasiparticle intermediate states, shell model 2−90097
^{12}C(p,p), bremsstrahlung spectrum and time delay, multidetector coincidence study 2−85044
^{12}C(p,p), list-mode study of bremsstrahlung spectra near reson. and time delays 2−90100
^{12}C(π^-,π^+n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{14}C+^{14}C, resonance struct. obs. 2−107904
^{14}C+^{14}C resonance, generator coordinate method anal. 2−101861
^{14}C(^{14}C,^{14}C), intermediate struct. obs. 2−101940
^{A}Ca(α,α), A=40, 42, 44, 48, elastic scatt. microscopic study, within generator coord. method framework 2−54412
^{243}Cm(n,X), total cross sections and resonance parameters in 0.4 to 66 eV region 2−113476
^{133}Cs(n,γ), 2.66-600 keV, capture cross section meas. 2−96001
^{19}F(p,$\alpha\gamma$)^{16}O, resonance strengths relative to elastic scatt. cross section 2−90075
^{54}Fe(n,γ), resonant capture, intermediate coupling consequences 2−113509
^{54}Fe(n,γ) s-wave capture, resonance interference 2−113511
^{155}Gd(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{1}H(n,X), total cross-section, 40-770 MeV, reson. struct. 2−95866
^{2}H(π,πn)^{1}H, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
^{2}H($\pi^+,p\pi^+$)n, three-body calc. in Δ-resonance region 2−74776
^{3}He(α,α), cross section ang. distrib. and vector pol. 2−101857
^{4}He(^{4}He,^{4}He) elastic scatt. and ^{8}Be nuclear cluster structure unified study 2−95948
^{4}He(α,α), Z 2−96023
^{4}He(n,n), cross section ang. distrib. and vector pol. 2−101857
^{4}He(p, p), cross section ang. distrib. and vector pol. 2−101857
^{4}He(π,π), partial wave S matrix singularity parameters 2−79774
^{177}Hf(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{24}Mg(^{12}C,X), resonance search in Coulomb barrier region 2−101937
^{24}Mg(^{12}C,α)^{32}S, intermediate struct. search in ^{36}Ar 2−101946
^{24}Mg(^{16}O,^{12}C)^{28}Si, excitation functions, intermediate struct. 2−96028
nuclear resonance reactions and scattering continued
^{24}Mg(α,α) and ^{24}Mg(α,γ)^{28}Si reactions meas., ^{28}Si energy levels calc. 2−101815
^{25}Mg(p,γ)^{26}Al, 317, 390 keV, reson. levels, 6.13 MeV γ-transition energy in ^{16}O 2−95959
^{25}Mg(π^+,π^+p), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{26}Mg(p,γ)^{27}Al, 0.29-2.2 MeV reson. strengths and γ-decay study 2−54307
^{14}N(^{14}N,^{8}Be)^{20}Ne, high resolution excitation functions 2−101941
^{14}N(^{14}N,α)^{24}Mg, high resolution excitation functions 2−101941
^{14}N(α,γ)^{18}F, resonance strengths relative to elastic scatt. cross section 2−90075
^{14}N(p,γ)^{15}O, resonance strengths relative to elastic scatt. cross section 2−90075
^{15}N(n,n_0), cross section, autocorrelation anal., channel coupling influence 2−95997
^{15}N(p,X), S-matrix unitarity, resonance phenomena 2−107826
^{A}Ne(p,γ)^{23}Na, A=21, 22, low energy resonances obs. 2−101891
^{20}Ne(^{16}O, X), 15-29 MeV CM, excitation function meas. using γ-ray techniques 2−90141
^{20}Ne(^{16}O,^{12}C)^{24}Mg, E_{CM}=22.8, 38.6 MeV, reson. structure in excitation functions 2−85073
^{20}Ne(^{8}Be,X), resonance search using deviation functions 2−101933
^{20}Ne(α,γ)^{24}Mg, screening effect on reaction rate 2−59372
^{60}Ni(p,γ), 1570-1850 keV, proton resonance intermediate struct., Gamow-Teller config. 2−85035
^{16}O+^{12}C resonance system, intermediate and fine struct. 2−101942
^{16}O+^{14}C, resonance struct. obs. 2−107904
^{16}O+^{16}O system, gross struct. study 2−101945
^{16}O(^{12}C,X), resonance formation and nucleon decay 2−101934
^{16}O(^{12}C,X), resonance search in Coulomb barrier region 2−101937
^{16}O(^{12}C,α)^{24}Mg*, resonance search using deviation functions 2−101933
^{16}O(^{16}O,^{12}C)^{20}Ne, resonant struct., DWBA anal. 2−107906
^{16}O(^{16}O,α)^{28}Si, 8$^+$ systematic resonance occurrence 2−107835
^{16}O(^{16}O,α)^{28}Si, resonance formation near Coulomb barrier 2−101935
^{16}O(α,α), partly Pauli-forbidden states influence on reson. width in optical model 2−96023
^{16}O($\bar{p}$,p), 6.482 MeV, spin-parity determ. of 6.699 MeV level in ^{17}F 2−59236
^{18}O(p,γ)^{19}F, resonance strengths relative to elastic scatt. cross section 2−90075
^{208}Pb, bound dipole states, parity, from resonance fluoresc. 2−84952
^{A}Ru(n,γ), A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
Si:P, ion implanted, depth profiles, channelling and nuclear resonance studies 2−98142
^{A}Si, A=29,30, compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
^{28}Si+^{28}Si resonance behaviour at high ang. momentum 2−101863
^{28}Si(^{28}Si, ^{28}Si), 50-65 MeV, double resonance mechanism, microscopic study 2−74774
^{28}Si(^{28}Si,^{28}Si), resonant struct. in elastic scatt., generator coordinate method anal. 2−101864
^{28}Si(d,p)^{29}Si, intermediate resonances obs., 1.0 to 2.5 MeV range 2−59365
^{30}Si(p,α)^{27}Al, 4.9-6.08 MeV, excitation energies and reson. strengths 2−64406
^{154}Sm(n,γ), thermal, rotational-vibrational band structure in ^{155}Sm 2−54231
^{118}Sn(n,γ), gamma-ray resonance scatt. *(Russian)* 2−90117
^{171}Y(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{68}Zn(n,γ), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{68}Zn(n,n), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{90}Zr(α,α'), 99.3 MeV, low-energy octupole reson. gamma decay 2−85017

nuclear resonances
see also isobaric analogue resonances; nuclear collective states and giant resonances
conference, Bad Honnef, Germany (Oct., 1981) 2−101127
Lorentz-Lorenz quenching for the Gamow-Teller sum rules 2−113446
molecular resonances, formation and struct. 2−107831
molecular resonant states, theory 2−107830
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
neutron resonance mean total radiative width, E1 transitions between compound states 2−113402
partial coherence in heavy-ion reactions 2−101936
partial E1 radiative strength functions, optical description, effective charge 2−113403
phase shift analysis and heavy ion scattering 2−101866
production in heavy ion reactions, review 2−101931
quasiparticle-phonon model, neutron resonances, partial transitions, giant dipole resonances 2−113448
resonances in s-d shell nuclei 2−101862
schematic models of resonances: predictions and comparison 2−107836
structural similarity of nuclear molecules 2−107907
weak coupling model approach to heavy ion molecular resonance 2−107832
widths and positions, effects of interactions at small distances *(Russian)* 2−107824
($\bar{p},\bar{p}$), A=12, 16, 40, 90, 208 *(Russian)* 2−79994
(p,p'), 200 MeV, A=51-140, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^{26}Al, resonances, entrance channel depend. 2−101944
^{36}Ar, intermediate struct. search via ^{24}Mg(^{12}C,α) 2−101946
^{10}B+^{14}N resonances high spin data 2−101808
^{A}Br, A=79, 81, neutron reson. parameters 2−59241
^{12}C 0$^+$,3$^-$ resonances, J$^{\pi}$ and transitions from ^{11}B(p,γ) 2−69623
^{12}C+^{11}B resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C, direct γ-transition search 2−107829
^{12}C+^{12}C 14$^+$ resonance, γ to particle decay ratio 2−107828
^{12}C+^{12}C Coulomb barrier resonance, classification scheme 2−101865
^{12}C+^{12}C intermediate struct. resonance, spins and spectroscopy 2−101807
^{12}C+^{12}C resonance, nucleon decay 2−101934
^{12}C+^{12}C resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C resonance state direct obs. in ^{12}C(^{16}O,α) 2−101939

nuclear resonances continued
$^{12}C+^{12}C$ resonances high spin data 2−101808
$^{12}C+^{12}C$ resonances studied in the elastic, inelastic, and transfer channels 2−101938
$^{12}C+^{12}C$ resonant states, correlation meas. from $^{12}C(^{16}O,\alpha)$ 2−101943
$^{12}C+^{12}C$ sub-Coulomb resonances on microscopic $^{12}C+^{12}C$, $\alpha s+^{20}Ne$, $^{8}Be+^{16}O$ cluster basis 2−113440
$^{12}C+^{13}C$ resonance, multistep transfer of nucleons and the formation of molecular orbitals 2−107833
$^{12}C+^{14}C$, intermediate struct. in inelastic scatt. 2−101940
$^{12}C+^{14}C$, resonance struct. obs. 2−107904
$^{12}C+^{16}O$ quasimolecular resonance, total reaction cross section near Coulomb barrier 2−107903
$^{12}C+^{16}O$ resonance, nucleon decay 2−101934
$^{12}C+^{24}Mg$, search in Coulomb barrier region 2−101937
$^{12}C(^{12}C,^{12}C')$, spin alignment meas. in intermediate struct 2−107905
$^{12}C(^{12}C,^{12}C')_1$, validity of adiabatic molecular orbital concept 2−107834
$^{12}C(^{12}C,X)$, $^{12}C+^{12}C$ strongly coupled collective excitations, contrib. to optical pot. 2−69628
$^{12}C(^{12}C,X)$, 4.2-7 MeV, fusion cross section, resonance 2−101955
$^{12}C(^{9}Be,X)$, resonance struct., excitation functions, critical anal. 2−101932
$^{12}C(\alpha,\alpha')$, 17.0-22.7 MeV, α-cluster states, resonances, J^{π} *(Russian)* 2−107823
$^{14}C+^{14}C$, intermediate struct. in inelastic scatt. 2−101940
$^{14}C+^{14}C$, resonance struct. obs. 2−107904
$^{14}C+^{14}C$ resonance, generator coordinate method anal. 2−101861
$^{40}Ca+\alpha$ system, bound, quasi-bound and scattering states 2−107825
^{49}Ca resonances and transitions from ^{49}K β-decay 2−59297
^{55}Fe, radiative strength functions for partial γ-transitions from resonances 2−101833
$^{2}H(\pi,NN)$, coupled πNN-NN system, dinucleon resonances 2−59408
$^{2}H(\pi,\pi)$, coupled πNN-NN system, dinucleon resonances 2−59408
^{139}La, spatial parity violation in 0.75 eV neutron resonance *(Russian)* 2−54263
^{24}Mg resonance state direct obs. in $^{12}C(^{16}O,\alpha)$ 2−101939
^{24}Mg resonances high spin data from $^{10}B+^{14}N$ and $^{12}C+^{12}C$ reactions 2−101808
$^{14}N(^{14}N,^{8}Be)^{20}Ne$, high resolution excitation functions 2−101941
$^{14}N(^{14}N,\alpha)^{24}Mg$, high resolution excitation functions 2−101941
$^{20}Ne(^{8}Be,X)$, resonance search using deviation functions 2−101933
^Ni, A=59,61, radiative strength functions for partial γ-transitions from resonances 2−101833
$^{60}Ni+^{60}Ni$ resonance system 2−101865
^{237}Np, neutron resonance widths, area anal. *(Chinese)* 2−69622
^{16}O, 2^+ state and 3^- resonance, 9.85 MeV excitation, R-matrix anal. of $^{12}C(\alpha,\alpha)$ 2−90067
$^{16}O+^{12}C$ resonance, search in Coulomb barrier region 2−101937
$^{16}O+^{12}C$ resonance system, intermediate and fine struct. 2−101942
$^{16}O+^{14}C$, resonance struct. obs. 2−107904
$^{16}O+^{16}O$ resonances, $J^{\pi}=8$ systematic occurrence 2−107835
$^{16}O+^{16}O$ system, gross struct. study 2−101945
$^{16}O(^{12}C,\alpha)^{24}Mg^{*}$, resonance search using deviation functions 2−101933
$^{16}O(^{16}O,^{12}C)$, resonance struct., EFR-DWBA anal., band crossing model enhancement 2−54425
^{33}S resonance parameters, J^{π}, neutron strength distrib., IAS from $^{32}S(n,n)$ 2−113437
^{122}Sb, γ-ray average intensities in resonances from $^{121}Sb(n,\gamma)$ 2−113451
^{45}Sc resonance decay channels, amplitude correlations from $^{44}Ca(p,p')$ 2−90074
^{82}Se, neutron capture resonance energies, implications for meteorite composition 2−113445
^Si, A=29, 30, resonances, entrance channel depend. 2−101944
^{28}Si, resonance, high resolution excitation functions from $^{14}N+^{14}N$ 2−101941
^{28}Si, resonant struct. from $^{16}O(^{16}O,\alpha)$ near Coulomb barrier 2−101935
$^{28}Si+^{28}Si$ resonance behaviour at high ang. momentum 2−101863
$^{28}Si+^{28}Si$ resonant struct. in elastic scatt., generator coordinate method anal. 2−101864
^{172}Yb resonances, J^{π}, transitions, levels from $^{171}Yb(n,\gamma)$ 2−113447
^{174}Yb levels, resonances, J, electric dipole transitions from $^{173}Yb(n,\alpha)$ 2−69626

nuclear scattering *see nuclear reactions and scattering*

nuclear scattering involving few nucleon systems
Lippmann-Schwinger eqns. for two- and three-body problems 2−74751
$^{1}H(n,\gamma)$, parity violation effects 2−59344
$^{1}H(n,n)$, 14.7 MeV, cross sections 2−64398
$^{1}H(p,p)$, 500-600 MeV, relative cross section 2−113291
$^{1}H(p,p)$, 643 MeV, spin correl. parameter and analysing power meas. 2−69660
$^{1}H(p,p)$, 796 MeV, elastic scatt. in Coulomb-nuclear interf. region 2−54390
$^{1}H(p,p)$, 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
$^{1}H(p,p)$, parity violation effects 2−59344
$^{1}H(p,p)$, πNN dynamics, $^{3}F_3$ diproton anomaly 2−74763
$^{1}H(p,p)$ phase shift anals., potentials, optimised polynomial expansions 2−90109
^{2}H (n,n) differential elastic cross-section meas. at 2 MeV 2−95862
$^{2}H(N,N)$, three-particle forces in nucleon scattering 2−113478
$^{2}H(\alpha,\alpha)$, 6, 14 MeV, differential cross section, multichannel R-matrix anal. 2−59373
$^{2}H(\alpha,\alpha)^{2}H$, A=6 continuum system study 2−64418
$^{2}H(d,p)$, intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
$^{2}H(d,pp)2n$, 15.1 MeV, singlet deuteron intermediate state 2−54408
$^{2}H(n,n)$, 14 MeV, elastic scatt. anal. power, Legendre polynomial anal. 2−101873
$^{2}H(n,n)$, elastic doublet scatt. near breakup threshold, Efimov effect 2−69656
$^{2}H(n,n)$, off shell sensitivity, wave functions, nucleon overlapping power 2−59174
$^{2}H(n,n)$, scatt. amplitude, three-body problem, integral eqn. numerical soln. 2−90098
$^{2}H(p,p)$, Landau-Smorodinsky theory for composite particles *(Russian)* 2−59176
$^{2}H(\bar{p},p)$, 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
$^{2}H(p,p)$, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
nuclear scattering involving few nucleon systems continued
$^{2}H(\bar{p},p)$, 65 MeV, anal. powers and differential cross sections 2−101874
$^{2}H(p,p)$, analysing power meas. 2−101892
$^{2}H(p,p)$, low energy elastic scatt., Landau-Smorodinsky theory generalisation 2−64403
$^{2}H(p,p)$, off shell sensitivity, wave functions, nucleon analysing power 2−59174
$^{3}H(\alpha,\alpha)$, specific distortion effects in resonating-group method 2−90123
$^{3}H(\alpha,\alpha)$, bound states to 113 MeV, resonating-group study 2−54269
$^{3}H(p,p)$, intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
$^{3}He(\alpha,\alpha)$, cross section ang. distrib. and vector pol. 2−101857
$^{3}He(\alpha,\alpha)$, bound states to 113 MeV, resonating-group study 2−54269
$^{3}He(\alpha,\alpha)$, specific distortion effects in resonating-group method 2−90123
$^{3}He(p,p)$, 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
$^{3}He(p,p)$, intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
$^{4}He(^{4}He,^{4}He)$, high energy elastic scatt. differential cross section calc. 2−96020
$^{4}He(^{4}He,^{4}He)$ elastic scatt. and ^{8}Be nuclear cluster structure unified study 2−95948
$^{4}He(\alpha,\alpha)$, antisymmetrisation effects, HI optical pot. real part approxs. 2−90124
$^{4}He(\alpha,\alpha)$, Z 2−96023
$^{4}He(n,n)$, cross section ang. distrib. and vector pol. 2−101857
$^{4}He(n,n)$, folding model anal., separable pot. approach 2−80018
$^{4}He(p,p)$, cross section ang. distrib. and vector pol. 2−101857
$^{4}He(p,p)$, 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
$^{4}He(p,p)$, 46 MeV polarised protons, parity nonconservation study 2−59057
$^{4}He(p,p)$, differential cross section and polarisation, EM effects 2−113479
$H(p,p)$, 500-600 MeV, differential cross section for elastic scatt. at 90° CM 2−80016

nuclear screening
acrylamide, single cryst., ^{13}C chem. shielding tensors 2−70285
aromatic molecules, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
astrophysical plasma, physics of dense plasmas and enchancement of thermonuclear reaction rates due to strong screening 2−100725
atoms and ions with valence config. $(nd)^{10}$ where n=3 and 4, multipole polarisability and shielding factors 2−85836
benzene, cryst., intermolecular contrib. to chemical shielding anisotropy 2−93029
benzene, diamagnetic shielding const. interaction with surface, NMR study 2−102501
benzene, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
closed shell atoms and ions of high nuclear charge, electric and mag. susceptibilities, shielding factors 2−96774
conjugated molecules, mag. shielding tensors, ab initio quantum mech. calcs. 2−80506
dimethyl maleic anhydride, single cryst., ^{13}C chem. shielding tensors 2−70285
emission of satellites in L and M X-ray spectra, screening effects 2−85583
ferric compounds, Sternheimer quadrupole factors 2−98603
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
light atoms, electron impact K-shell ionisation, PWBA cross sections 2−114118
molecular ions, nucl. elec. dipole shielding 2−113898
pair production, atomic screening effect study 2−108315
polyethylene terephthalate, ^{13}C shielding anisotropies 2−108572
stellar interiors, dense plasmas physics and enchancement of thermonuclear reaction rates due to strong screening 2−100725
trifluoromethyl halides, ^{19}F shielding tensors, chemical shift and spin-rot. tensors 2−108556
(n,n), small angle scatt., atomic electron screening effects 2−113469
$Ar+He^{+}$, Z^2 scaling and electron screening effect 2−70150
CO, free and chemisorbed, core-hole screening 2−102404
$CuFeO_2$, sternheimer quadrupole factors 2−98603
Eu, screening ratios, pseudo-relativistic Hartree-Fock calcs. 2−75200
F_2, mag. props., electron correl. effects 2−108398
H_2 mag. props., electron correl. effects 2−108398
H_2, magnetic shielding, dipole magnetisability tensor, LCAO-SCF calcs. 2−80464
H_2, molecular, structure and screening at high press. 2−76961
$H_2^{+}+Ar$, Z^2 scaling and electron screening effect 2−70150
HF, mag. props., electron correl. effects 2−108398
$He+He^{2+}$ collisions, quasimolecular states, calc. using diabatic MO basis set 2−70384
LiH, dipole moment, polarisabilities, electric field gradients and nuclear screening, bond length depend. 2−54763
α-$NaFeO_2$, Sternheimer quadrupole factors 2−98603
Pr^{3+}, Sternheimer hexadecapole antishielding factor η_{cc}, angular and self-consistency contrib. 2−90464
RhF, Rh-F coupling const. and Rh shielding in Rh square planar complex 2−75320
Rh(I) diene complexes, 5-coord., NMR spin-lattice relax. 2−65014
ZnFOH cryst., ^{19}F nuclei mag. shielding 2−92549
$ZnF_2.4H_2O$ cryst., ^{19}F nuclei mag. shielding 2−92549

nuclear shape
see also nuclear collective states and giant resonances; nuclear energy levels; nuclear resonances
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=62-86, E2 transition strengths systematics 2−69603
A∼150 nuclei, nuclear shapes $(i_{13/2},h_{9/2})$ config. 2−54239
CC ^{194}Ir, oriented in Fe and Ni, NMR, elec. quadrupole moment and g-factor 2−98977
collective props. depend. on potential energy and inertia tensor 2−101788
Coulomb pot. between spherical heavy ions 2−59226
CRAMOLA, cranking model for large amplitudes 2−95946
deformations, scaling props. 2−107748
deformed nuclei, E2 transitions, rel. to interacting boson approx. 2−107801
deformed nuclei, interacting boson approx., revised formulation 2−84976
deformed nuclei, interacting boson approx. E2 operator 2−69598

nuclear shape continued
deformed nuclei, interacting boson approx. wave functions and transition rates 2−54284
deformed nuclei, interacting boson model 2−107774
deformed nuclei, Nilsson and IBM descriptions 2−64361
deformed nuclei, rot. State multiple Coulomb excitation, eikonal model 2−79974
deformed nuclei, spin alignment by Coulomb excitaton, $q_{ef}(\theta)$ approx. 2−90044
deformed nuclei, vibr. spectra anharmonicities, projection on good particle number, approx. treatment 2−59214
deformed potential orbitals, potential separation expansion appl. 2−69547
density average trends from self-consistent model with generalised Strutinsky-type smoothing 2−101801
dipole giant resonance, energy splitting, in droplet model *(Russian)* 2−90073
electron scatt. from complex nuclei, review 2−54358
evaporation barriers for ^{4}He indicate very extended forms for many emitting nuclei 2−90159
even-even deformed nuclei, M1 transitions, interacting boson model calc. 2−107802
fissibility parameter isospin depend. in droplet model 2−54456
fission, prompt mass distribs. study using structure-sensitive statistical model 2−69688
fission rate, Brownian motion study 2−54451
heated rotating nuclei, isovector dipole mode decay, γ-spectrum, shape 2−54238
heavy ion scattering, deformation factors, diffraction model, adiabatic approx., collective motions *(Russian)* 2−59403
heavy-ion Coulomb excitation and Coulomb fission expts., nuclear forces exclusion 2−59397
heavy-ion relativistic collisions, exotic shape isomer products, density and lifetime 2−107887
high-spin states, nuclear states and shapes 2−64349
high-spin states in nuclei and heavy-ion collisions 2−84944
interacting boson, model, description of nucl. deform. effects 2−95945
Interacting Boson Model, shapes and shape phase transitions 2−69568
intrinsic RPA HF state, approximate ang. momentum projection 2−74738
isomers, γ-decay search, rel. to (γ,f) 2−107916
macroscopic-microscopic model, at. masses and nucl. ground-state deformations 2−70436
microscopic structure of the intrinsic state of a deformed nucleus 2−69561
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
odd-A nuclei, strongly anharmonic spectra, particle pairing vibr. coupling description 2−54279
phase-space distrib. of nucleons in nucleus, semiclassical calc. 2−79957
quadrupole and octupole modes, unified collective model 2−84969
rare earth deformed nuclei, rot. invariant core 2−64348
rare earth nuclei, deformed, irrot. core construction 2−54278
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
rotating actinides, pair correlations and the fission barrier at very high angular momenta 2−90176
rotating nuclei, equilibrium shapes and fission barriers with macroscopic two-centre model 2−90180
rotating nuclei, quadrupole oscills., shape and normal models, distorted Fermi surface model *(Russian)* 2−59225
rotational spectra, deformed HF calcs., ang. momentum constraint 2−79930
spherical nuclei, yrast states microscopic description 2−84938
spherical nuclei collective model, optical pot. imaginary part calc. 2−74721
transitional nuclei, models, review 2−90030
two body pots. in the Bohr-Mottelson collective model 2−113380
zero-point fluctuations, adiabatic time-dependent Hartree-Fock approach 2−54252
(d,d′), A=16-232, 20 MeV, evidence for different proton and neutron deformations, transitions 2−69521
(ñ,n′) on ^{54,56}Fe, ^{58,60}Ni, ^{120}Sn, ^{208}Pb, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
(p,p′) on ^{90}Zr,^{120}Sn,^{144}Sm,^{208}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
(p,π$^+$), A=12, 16, 40, distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
^{A}As, A=69, 71, 73, excited state struct., quasiparticle-core coupling model 2−90018
^{9}Be (α,α′), 35.5 MeV, elastic and inelastic scatt. anal. by coupled channel method 2−54411
^{12}C, oblate deformation dynamics in Sp(2,R) nuclear model 2−54250
^{40}Ca(^{6}Li, ^{6}Li), 26-34 MeV, deformation lengths 2−107893
^{40}Ca(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{A}Cd(p,n), A=110, 114, 116, ground and excited state analogues study 2−54378
^{A}Dy, A=151,152 continuum γ-ray linear polarisation, collective rotations from ^{124}Sn(^{32}S,xn) 2−59322
^{152}Dy, high-spin states, collective effects, deformation 2−79938
^{154}Dy, high-spin level struct. and lifetimes, collective to few particle transition, from (^{34}S, 4n) 2−79937
Er, nuclei near N=82, lifetimes of transitions from very high spin states 2−54314
^{A}Er, A=156-158, continuum γ-ray linear polarisation, collective rotations from ^{130}Te(^{32}S,xn) 2−59322
^{166}Er(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{168}Er level scheme, γ-transitions for deformed nuclei from ^{167}Er(n,γ) 2−113344
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896
^{A}Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^{A}Gd, A=144,147,148, yrast isomers quadrupole moments 2−74731
Ge, even-A nuclei, shape coexistence and shape transitions 2−84949
^{A}Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{137}La, N=80 nucleus, medium-spin levels and 360 ns $I^\pi=19/2^-$ isomer 2−54232

nuclear shape continued
^{7}Li(π$^+$,π$^+$), 143 MeV, elastic and inelastic scatt. study 2−59418
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{24}Mg(^{17}O, ^{A}O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{25}Mg(^{16}O, ^{A}O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{104}Mo, energy level scheme from singles and γγ coincidence spectra 2−95976
Nd, even isotopes, shape transitions, in IBA 2−79971
^{20}Ne, low-lying state wave functions, realistic Hamiltonian, from (p,p′) 2−84965
^{58}Ni(^{7}Li, ^{7}Li), pol. ^{7}Li 14-22 MeV, tensor anal. power, shape effect model test 2−85069
^{16}O 4p-4h states, effective interactions, deformation clustering, HF calc. 2−69503
^{A}Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
^{203}Pb level density effects on stat. calcs. for high spin fission from ^{197}Au(^{6}Li, X) 2−113335
^{110}Pd, E2 matrix elements and shape coexistance, IBM calc. 2−69557
Pm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
^{210}Po, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{191}Pt quasiparticle core coupling using dynamic deformation theory core wave functions 2−64352
^{226}Ra, octupole vibrs., phenomenological model 2−84940
^{228}Ra, K=0 bands and ^{228}Fr decay scheme 2−101844
^{32}S, rotational shape isomeric band 2−69513
^{45}Sc, deformed shell model, with residual interactions 2−95938
^{28}Si, α-cluster model state, ang. momentum projection effect 2−54258
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795
^{28}Si(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
Sm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
^{A}Sm, A=150,152,154, shape triaxiality, from B(E2) and branching ratios, rigid rotor model 2−107745
^{A}Sm(e,e′), A=148, 152, 150-215 MeV, giant multipole reson. electroexcitation 2−85031
^{A}Sm(p,t), A=144, 148, 150, 154, 25.5 MeV, ang. distrib., two-step processes effects 2−95998
^{154}Sm(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{A}Sr, A=77-80, extreme prolate deformation 2−101802
^{232}Th(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{232}U, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{235}U(n,f), nonequilibrium statistical theory of mass distribs., deformation *(Chinese)* 2−80043
^{238}U(^{238}U,X), heavy ion potential for ellipsoidally deformed nuclei, double folding model 2−113552
^{238}U(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{182}W(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{99}Y, rotational band 2−95904

nuclear shell model
A=20, 24, 28, 32, 36, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
alpha decay, fission approach 2−85006
alpha reduced widths, nucl. dynamic effects 2−113426
boson-fermion interaction in IBA and shell model calc. 2−69588
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
coupled cluster theories for closed shell systems 2−69549
deformed nuclei, Nilsson and IBM descriptions 2−64361
density average trends from self-consistent model with generalised Strutinsky-type smoothing 2−101801
ds-shell nuclei, isovector mag. dipole sum rules 2−59289
excitation energy-spin relationship, regularities, shell model calcs. 2−107765
excitation strength distribution calc. for shell model examples 2−101835
fast rotating nuclei, generalised pair field 2−95897
fermion-boson exchange interaction, shell model origin 2−69585
four-particle matrix elements, ^{136}Xe appl. 2−59262
Gamow-Teller reson. 2−54318
half-shell scattering by screened Coulomb potential 2−113429
heavy ion reactions energy dissipation, single particle shell struct. effects, statistical model 2−59391
heavy-ion collisions, mass and charge fragmentation, quantum-mechanical treatment 2−85088
heavy-ion collisions, pot. energy surface calc. 2−85087
heavy-ion collisions, role of rotational degrees of freedom 2−113548
heavy-ion fusion and nuclear structure 2−64447
inelastic electron scatt. form for 2^+ states excitation in $1f_{7/2}$ nuclei 2−54361
interacting boson model parameters, microscopic determ. 2−84980
(K^-,π$^-$) strangeness exchange, hypernuclear resonance excitation, p-shell struct. effect 2−59279
light 1P-shell nuclei, binding energies and shell model 2−107739
M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
many-body shell model eqns., graphical evaluation procedure 2−90026
microscopic interacting boson model parameters, particle-hole ambiguity 2−84979
microscopic structure of the intrinsic state of a deformed nucleus 2−69561
N=83 isotones, weak coupling calc. 2−101819
N=z nuclei, mag. moments of T=0 states 2−79946
neutron shell blocking of electron capture, during stellar gravit. collapse 2−58323
nuclear field theory comparison to shell model 2−69572
nuclear saturation, effective interactions, relativistic shell model, Landau-Migdal parameters 2−90025

nuclear shell model continued
odd-A nuclei, strongly anharmonic spectra, particle pairing vibr. coupling description 2−54279
particles and holes equivalence for generalised seniority, interacting boson model, shell descript. 2−90029
proton-neutron interacting boson model (IBM-2), shell model anal. 2−69559
rare earth deformed nuclei, rot. invariant core 2−64348
rare earth nuclei, deformed, irrot. core construction 2−54278
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
self-consistent meson fields with vanishing expectation values 2−84963
single particle and single hole energies in the ^{16}O region *(Chinese)* 2−107732
single-particle energies in enlarged shell-model spaces 2−107764
spherical nuclei, yrast states microscopic description 2−84938
static spin-isospin partially ordered states in nuclei 2−101804
SU(4) symmetry mixing in s-d shell, spectral distrib. study 2−101820
two body pots. in the Bohr-Mottelson collective model 2−113380
$(\alpha,2\alpha)$, 60-140 MeV, off-shell factor calc. 2−54413
(K^-,π^-), hypernucleus prod., continuum shell model 2−59281
^{40}K—^{40}Ca, isobar-hole excitations in quenching of transition 2−69610
(p,α), microscopic form factor for DWBA anal. 2−54374
(p,f) on nuclei near Pb and lighter nuclei, fast p, shell effects in fission *(Russian)* 2−90185
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
(π,π') on ^{7}Li, ^{12}C, ^{16}O, ^{15}N, ^{20}Ne, ^{24}Mg, elastic and inelastic scatt. and nuclear struct. in Glauber model 2−59417
^{13}(e,e), 80-338 MeV, M1 form factor, rel. to shell model 2−107852
^{227}Ac levels and transitions 2−54301
^{27}Al(e,e), elastic scatt., shell model interpretation 2−95990
^{213}At, low-seniority shell-model structure 2−54233
^{11}B(p,γ)^{12}C, 2.9-4.6 MeV, cross section meas. at 60° and 90 ° 2−85054
^{11}B(p,n), multi-configuration shell model in continuum and reson. states in ^{12}C 2−95996
^Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^{12}C, giant resonance decay props., shell model 2−59310
^{12}C, oblate deformation dynamics in Sp(2,R) nuclear model 2−54250
^{12}C(γ,π^-p), near resonance, cross-section, energy depend. *(Russian)* 2−59334
^{12}C(p,$\mu^+\nu$)^{13}C, weak muon prod. study using impulse approx. 2−59354
^{12}C(p,n)^{12}N, 20-30 MeV, resonances, three-quasiparticle intermediate states, shell model 2−90097
^{12}C(p,pα)^{8}Be, 700 MeV, role of processes with cluster rearrangement 2−95995
Ca even isotopes, number conserving shell model 2−54280
^{40}Ca, polarisation and correlation contribs. to shell model pot. 2−59263
^{40}Ca+0s shell nucleus, RGM nonlocal pots., equivalent local pots. 2−95939
^{40}Ca(α,X), optical pot. imaginary part, shell model calcs., collective state effects 2−101908
^{40}Ca(e,e'), 31-65 MeV, form factors meas. for 10.32 MeV transition 2−85034
^{41}Ca, negative parity states 2−59235
^{46}Ca(α,α'), 70 MeV, 1^+ state obs. 2−54396
^{48}Ca(p,p'), 65 MeV, 1^+ state obs. 2−54396
^{49}Ca resonances and transitions from ^{49}K β-decay 2−59297
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
Cr even isotopes, number conserving shell model 2−54280
^{52}Cr(p,γ), resonance phenomena in cross section 2−95997
^{52}Cr(p,p'), resonance phenomena in cross section 2−95997
^Cu(e,e), A=63, 65, cross sections for elastic mag. scatt. 2−113465
^{60}Cu, high-spin states, J^π, from ^{58}Ni(α, pnγ) 2−107730
^Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{153}Er, high spin states study 2−69514
^{164}Er, γ-band and rot. alignment, high-spin anomaly, shell model+RPA calc. 2−101793
^{164}Er, γ-vibration, pairing pot., rot. frequency depend., shell model+RPA calc. 2−101792
^{151}Eu, low-lying states study via (n,n'γ) reaction 2−54245
Fe even isotopes, number conserving shell model 2−54280
^Gd, A=144,147,148, yrast isomers quadrupole moments 2−74731
^{145}Gd, ϵ/β^+ decay, branching ratio anomalies and evidence for structures in β-decay strength 2−54327
^{3}He(n,γ)^{4}He, 9 MeV, polarised neutron capture, analysing power ang. distrib. meas. 2−69661
^{4}He+ 0s-shell-nucleus, equivalent local potentials from WKB calcs. 2−59264
^Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{159}Ho single proton states, bands, J^π, Coriolis strengths, Nilsson assignments from ^{162}Er(p,α) 2−69516
^{40}K, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
^{82}Kr, recoil distance lifetime meas. 2−59290
^{7}Li($\pi^\pm,\pi^\pm$), 143 MeV, elastic and inelastic scatt. study 2−59418
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{24}Mg(^{17}O, ^O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{25}Mg(^{16}O, ^O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{25}Mg(e,e), elastic scatt., shell model interpretation 2−95990
^{26}Mg quadrupole moment and B(E2) as shell model test from ^{208}Pb(^{26}Mg, ^{26}Mg') 2−69531
^Mo, A=96-104, even-even isotopes, configuration mixing 2−54303
^Mo(p,p'), pol. p, A=92, 94 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{90}Mo high spin states, level structure determination, J^π, $T_{1/2}$ from ^{90}Zr(^{3}He, 3nγ), shell model analysis 2−113327

nuclear shell model continued
^{92}Mo(^{3}He,α)^{91}Mo, 25 MeV, f-p neutron-hole strength fragmentation in ^{91}Mo 2−54409
^{100}Mo(^{3}He,p), 25 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{14}N(γ,π^+)^{14}C, charged pions threshold photoproduction study 2−95988
^{22}Na, branching ratio for isoscalar transition 2^+, T=1, 1.95 MeV→0^+, T=1, 0.66 MeV 2−84993
^{23}Na(e,e), elastic scatt., shell model interpretation 2−95990
^{89}Nb, γ-ray spectroscopy 2−95965
^{16}O, partial decay width determ. for 2^- 8.87 MeV level 2−79970
^{16}O particle-hole states configurations 2−80023
^{16}O(^{16}O, X), quasi-elastic and deep-inelastic rates calc. 2−113543
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{18}O(e,e'), inelastic scatt. from low-lying even-parity states 2−64397
^Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
Pb, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
^Pb—^Tl, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^{208}Pb polarisation and correlation contribs. to shell model pot. 2−59263
^Po, A=210, 212, 214, 216, absolute α-decay width, configuration mixing role 2−69613
^{204}Po, 15^- isomer mag. moment and Po internal mag. field in Ni 2−69534
^Pu, A=242, 244, spontaneous fission fragments energy and mass distrib. 2−90175
^{241}Pu(n,f), thermal, fission fragments energy and mass distrib. 2−90175
^{95}Rh, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{210}Rn, yrast traps and high-spin states 2−79936
^{94}Ru, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{104}Ru(d,α), 20 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{30}S, T=1 isospin triplet states 2−95921
^{40}Sc beta-decay to proton and α-particle unbound states in ^{40}Ca 2−85000
^{41}Sc, negative parity states 2−59235
^{45}Sc, deformed shell model, with residual interactions 2−95938
^{26}Si, level lifetime meas. and neutron to proton transition amplitudes ratio 2−79980
^{30}Si(t,p)^{32}Si, 15 MeV, excitation energies meas. 2−54407
^{155}Sm, rotational-vibrational band structure 2−54231
Sn, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
^{134}Te transition rates, tensor M1 operator effects, shell model calcs. 2−90047
Ti even isotopes, number conserving shell model 2−54280
^{205}Tl, $J^\pi=25^+/2$ isomer g factor and proton anomalies orbital magnetism 2−54260
^Zr(p,p'), pol. p, A=90, 92 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{90}Zr(p,p'), giant M1 states within simple shell model 2−69627

nuclear size
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
A=3-4 nuclei, binding energy, radii, form factors, Jastrow variational calc. 2−59261
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
analogue state proton and neutron radii, isospin projected HF description 2−107743
density analysis, surface and asymptotic properties 2−113355
density average trends from self-consistent model with generalised Strutinsky-type smoothing 2−101801
droplet model calc. 2−54249
geometrical relations for pot. obtained by folding density depend. interactions 2−95932
light nuclei ground and excited states in the three-body model, variational study 2−79960
proton-nucleus scatt., polarisation, nucleon-nucleon amplitudes influence 2−54364
relativistic heavy-ion collisions, projectile fragments, anomalous mean free paths interpretation 2−101921
(α,α), 42 MeV, A=40-68, matter density and RMS radius, folding model anal. 2−69524
Ag(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Al(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
^{40}Ar(e,e), elastic scatt. cross section and RMS charge radius meas. 2−74757
^{8}Be nuclear cluster structure and α-α elastic scatt. unified study 2−95948
CC ^{207}Pb($h_{9/2}$)$^{-1}$ hole state, neutron orbital RMS radius, diff. cross section from ^{208}Pb(^{7}Li,^{8}Li) 2−89996
^C, A=12-14, nuclear charge radii 2−74728
^{12}C RMS charge radius meas. from muonic X-rays with crystal spectrometer 2−113356
^{12}C RMS radius, charge distribution, from factors, from (e,e) measurements 2−113357
Cu(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Fe, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{2}H, root mean square radius and asymptotic S-state amplitude 2−95907
^{3}H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{3}He(π^-,π^0)^{3}H, differential cross-section, optical model calc., mag. radius depend. 2−96046
^He, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{6}Li, bremsstrahlung photo-cross-section, RMS radius, clusters, resonating group wave function 2−90084
^{6}Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
^{6}Li(e,e), bremsstrahlung cross-section, sum rule, nucleon symm. effect 2−64396
^{7}Li($\pi^\pm,\pi^\pm$), 143 MeV, elastic and inelastic scatt. study 2−59418
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{17}O(e,e), magnetic elastic form factor and $1d_{5/2}$ orbit radius 2−59341

nuclear size continued
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
Ta(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Zn, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^{91}Zr±N systems, mean square radii, of nucleon orbits from single particle transfer data 2−59233

nuclear spallation
data with reactor applications, statistical distrib. approach 2−64464
hybrid reactor spallation-fission symbionts, power gain calc. 2−108136
neutron source environments, power densities in materials 2−102027
ZING-P' pulsed spallation neutron source, heat deposition meas. in moderators and decouplers 2−102028
Au(Ne, X), relativistic nuclear collisions, fission and deep spallation characts. 2−90135
Au(p, X), relativistic nuclear collisions, fission and deep spallation characts. 2−90135
^{9}Be(e,X), 105 MeV, electrospallation, α-emission mechanisms 2−90092
Cu(^{12}C,X), 86 MeV/A, products yields and recoil props. 2−96039
Cu(p,h), 225 GeV/c, ang. and energy distrib. meas. of secondary hadron fluxes 2−107854
^Mg(α,X), A=24-26, 4.5 MeV, photospallation, isospin depend. *(Russian)* 2−59331
^{232}Th(p,X), 0.15-24 GeV, Kr and Xe isotopes prod. 2−54394
^{238}U(p,f), 10-100 MeV, spallation yields and fissionability calc. 2−59430
^{89}Y(p,spallation), excitation functions of Kr isotopes, application to lunar cosmogenic Kr 2−113473
^{88}Zr(p, spallation), excitation functions of Kr isotopes, application to lunar cosmogenic Kr 2−113473

nuclear spectroscopic factors
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
quasifree knockout of nucleons and nucleon clusters 2−107837
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
sum rules, spectroscopic, for two-nucleon transfer 2−107751
^{81}As levels, J$^{\pi}$, spectroscopic factors, DWBA anal. of ^{82}Se(t,α) 2−69539
^B(d,p), A=10, 11, 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{9}Be(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{12}C(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{40}Ca(^{18}O, X), X=^{17}O, ^{19}F, spectroscopic factors, CC and DWBA anal. 2−113555
^{40}Ca(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{40}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{48}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{34}Cl levels, J$^{\pi}$, spect. factors, DWBA anal. of ^{32}S(α,d) 2−113365
^{57}Co isobaric analogue resonances, J$^{\pi}$, spectroscopic factors from ^{56}Fe(p,p) 2−59311
^{59}Co(d, ^{3}He)^{58}Fe, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^{3}H, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^{3}He(α,γ)^{7}Be, $E_{c.m.}$=107-1266 keV, capture reaction and solar neutrino problem 2−59380
^He, A=3, 4, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^{166}Ho energy levels, spectroscopic factor observation, rotational states assignments, from ^{167}Er(t,α) 2−113341
^{79}Kr, low-lying states spins and parities from ^{78}Kr(d̄,p)^{79}Kr 2−54403
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
^Li(n,d), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^Li(n,t), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^{92}Mo(^{3}He,α)^{91}Mo, 25 MeV, f-p neutron-hole strength fragmentation in ^{91}Mo 2−54409
^{147}Nd levels, transitions, spectroscopic factors, DWBA anal. of (d,p), (d,t) 2−90016
^{60}Ni(^{16}O, ^{12}C), 60 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{18}O(^{6}Li,d)^{22}Ne, 72 MeV, ang. distrib., DWBA anal., spectrosc. factors 2−107897
^{193}Os levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(d,^{3}He) 2−113366
^{29}P, proton stripping, DWBA analysis, ground state transitions for ^{28}Si(^{3}He,d$_0$)^{29}P 2−113454
^{30}P levels, J$^{\pi}$, spect. factors, DWBA anal. of (α,d), (d,α) 2−113365
^{194}Pt levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(^{3}He,d) 2−113366
^Ru(n,γ), A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
^{107}Ru states, J$^{\pi}$, spectroscopic factors, DWBA anal. of (d,p), (p,d) 2−79949
^{33}S, spectra, E2 transition probability, spectroscopic factors, from ^{32}S(d,p), semiphenomenological model 2−84955
^{28}Si, proton stripping, DWBA analysis, ground state transitions for ^{27}Al(^{3}He,d$_0$)^{28}Si 2−113454
Sn, struct. study in (p,d) 20 MeV reaction 2−74759
^{120}Sn(p,d)^{119}Sn, 26.3 MeV, d ang. distrib. and ^{119}Sn level structure 2−54377
^Te, A=121, 123, 129, neutron strength distribs., L, J$^{\pi}$, spectrosc. factors, from (p,d), (^{3}He,α) 2−84936
^{46}Ti level struct., cross sections, spectroscopic strengths, DWBA anal. of ^{45}Sc(^{3}He,d) 2−59242

nuclear spin and parity
see also nuclear isospin
A=113, nuclear data sheets, levels, transitions, Jπ 2−58559
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
A=188, nuclear data sheets, levels, transitions, J$^{\pi}$ 2−58558
A=243, nuclear data sheets, levels, transitions, Jπ 2−58560
A=245, nuclear data sheets, levels, transitions, Jπ 2−58561
A=247, nuclear data sheets, levels, transitions, Jπ 2−58562
A=78, nuclear data sheets, levels, transitions, J$^{\pi}$ 2−58557

nuclear spin and parity continued
band structure from energy expansion coeffs. as function of spin values 2−69577
baryonic excitations in nuclei 2−59254
Bose-Fermi symmetries in nuclei 2−69587
deep inelastic reactions, total energy and γ-ray multiplicity, statistical fluctuation effect 2−96043
deformed nuclei, spin alignment by Coulomb excitaton, $q_{er}(\theta)$ approx. 2−90044
dense neutron and nuclear matter, hard core interaction, spin and isospin stability 2−90033
electron scatt. from complex nuclei, review 2−54358
excitation energy-spin relationship, regularities, shell model calcs. 2−107765
Fermi liquid, tensor forces and spin susceptibility 2−84962
fluid dynamics, giant multipole reson. as elastic vibrs. 2−85019
heavy ion collisions, spin and isospin fluctuations and depend. on dinuclear complex shape 2−64420
heavy ion reaction mechanisms, from fragment spin pol. 2−80027
heavy ions, spin-orbit potential, single folding method calc. 2−59386
high-spin states, nuclear states and shapes 2−64349
high-spin states in nuclei and heavy-ion collisions 2−84944
isobaric analogue reson., analogue spin purity 2−95980
isoscalar giant reson. energies and long mean free path nucl. fluid dynamics 2−85018
mass asymmetric heavy-ion systems, spin-depolarising modes equilibrium treatment 2−74769
neutron reson. and Coriolis mixing, spin projection nonconservation on nuclear symmetry axis *(Russian)* 2−54272
nuclei, quark spin-isospin rules and Adler-Weisberger relation 2−101806
p-shell nuclei, collective and spin degrees-of-freedom connection, Sp(2,R) calcs. 2−113326
pion-nucleus annihilation, model for spin, isospin and energy depend. 2−54448
pionic and Δ(1232) degrees of freedom in nuclei, review 2−59339
pionic nuclear excitations, review 2−79956
properties studied by atomic physics 2−69529
proton-light ion scatt. at intermediate energy, review 2−54368
relativistic heavy-ion collisions, isobars and isobaric analogue states 2−59313
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
rotating nuclei, quadrupole oscills., shape and normal models, distorted Fermi surface model *(Russian)* 2−59225
rotational spectra, deformed HF calcs., ang. momentum constraint 2−79930
Skyrme interaction and light nuclei spectra 2−59258
spherical nuclei, exciton levels, spin distrib., yrast lines, superconductivity model 2−90011
spin wave function under selective irrad., transform. characts. *(Chinese)* 2−101803
spin-isospin sum rules based on the quark model 2−107750
static spin-isospin partially ordered states in nuclei 2−101804
SU(4) symmetry mixing in s-d shell, shell model and spectral distrib. study 2−101820
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
T=1/2 mirror nuclei in 2s-1d shell, ang. momentum, J$^{\pi}$, sum rule anal. 2−113368
(ēe), heavy nuclei, parity violating asymmetry, partial wave anal. 2−107749
(γ,n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(n,2n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(n,x) on ^{141}Pr, ^{159}Tb, ^{165}Ho, ^{167}Er, ^{169}Tm, pol. n, neutron cross section, strengthfunction, spin depend. 2−54373
(p,p), 800 MeV, polarisation, spin effects and Coulomb interaction 2−64411
($\pi^{\pm}$, $\pi^{\mp}$), double charge exchange, spin effects and πN off-shell amplitude correction *(Chinese)* 2−96052
^{227}Ac levels and transitions 2−54301
Ag, odd mass low lying positive parity level, IBFM calcs. 2−69581
^{108}Ag, levels, spins and parities from ^{109}Ag(p,d) 2−113487
^{27}Al, resonance states γ-decay and bound levels study 2−54307
^{27}Al(^{16}O, Xγ), 100 MeV, deeply inelastic, fragment γ-ray deexcitation, spin alignment 2−69594
^{28}Al levels, transitions, J$^{\pi}$ and neutron binding energy from ^{27}Al(n,γ) 2−90020
^{75}As, level struct., γ-ray correlation study and theoretical model, from ^{75}Se electron capture 2−95920
^{81}As levels, J$^{\pi}$, spectroscopic factors, DWBA anal. of ^{82}Se(t,α) 2−69539
^{205}At, high-spin state props. study 2−59220
^{212}At, low-seniority shell-model structure 2−54233
Au, odd isotopes, dynamical supersymmetries and positive parity states 2−69530
^Au, A=184, 187, 189, 191, 193, 195, collective states in IBFA 2−69584
^{185}Au levels, J$^{\pi}$, nuclear model test from ^{185}Hg^{m+g} decay 2−113417
^{10}B+^{14}N resonances high spin data 2−101808
^{130}Ba levels, J$^{\pi}$ and transitions from ^{130}La β^{+}-decay 2−90021
^{141}Ba levels, J$^{\pi}$, transitions from ^{141}Cs β-decay 2−113422
^{145}Ba levels, J$^{\pi}$, transitions from ^{145}Cs β-decay 2−90060
^{9}Be(^{7}Li,^{8}B)^{8}He, excited state of ^{8}He *(Russian)* 2−54441
^Be, A=7, 8, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{209}Bi(^{40}Ar, X), 255 MeV, fragment spin alignment and misalignment 2−90153
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^Br, A=79, 81, P violation obs. for thermal neutron capture *(Russian)* 2−80020
^{72}Br high spin states, J$^{\pi}$, transitions from ^{58}Ni(^{16}O, np) 2−69507
^{78}Br, high-spin states in-beam study 2−54234
^{81}Br(^{6}Li,4nγ), 19-32 MeV, ^{84}Sr high spin states study 2−54428
^{81}Br high spin states, J$^{\pi}$, yrast bands, transitions from ^{85}Se(Li, αxnγ) 2−69506
^{12}C 0^{+},3^{-} resonances, J$^{\Pi}$ and transitions from ^{11}B(p,γ) 2−69623
^{12}C 2^{+} state spin alignment, γ-decay from (^{12}C,^{12}C), (^{12}C,^{12}C'), (^{12}C,^{13}C) 2−69528
^{12}C nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{12}C spin flip excitation strength due to isobar-hole excitation process 2−113362

nuclear spin and parity continued
$^{12}C+^{12}C$ intermediate struct. resonance, spins and spectroscopy 2−101807
$^{12}C+^{12}C$ resonances high spin data 2−101808
$^{12}C(^{12}C, ^{12}C')$, 2^+ excitation, spin alignment predictions of various models 2−90012
$^{12}C(^{12}C,^{12}C')$, spin alignment meas. in intermediate struct 2−107905
$^{12}C(^{13}C, ^{13}C)$, analysing power and cross section, parity depend. pot. model anal. 2−90145
$^{12}C(\alpha,\alpha')$, 17.0-22.7 MeV, α-cluster states, resonances, J^π *(Russian)* 2−107823
$^{12}C(t,t)$, 15, 17 MeV, polarised triton scatt., parity depend. pot. 2−54405
^{13}C levels, J^π, R-matrix anal. of (n,n), (n,n′), (n,α) 2−69536
$^{40}Ca(e,e')$, spin-isospin mode excitation 2−95993
$^{40}Ca(p,p)$, 500 MeV, polarisation, spin rot. function, nuclear geometry, scatt. amplitudes 2−113360
^{41}Ca, negative parity states 2−59235
^{48}Ca spin flip excitation strength due to isobar-hole excitation process 2−113362
$^{48}Ca(\alpha,\alpha')$, 70 MeV, 1^+ state obs. 2−54396
$^{48}Ca(p,p')$, 65 MeV, 1^+ state obs. 2−54396
^{114}Cd, spins, multipolarities, mixing ratios, from $^{113}Cd(n,\gamma)$ ang. correl. 2−95960
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{140}Ce, level spin-parities, γ-ray transition multipolarities, from ^{140}La β-decay 2−59282
^{34}Cl levels, J^π, spect. factors, DWBA anal. of $^{32}S(\alpha,d)$ 2−113365
^{35}Cl, 398 eV resonance, parity from $^{34}Cl(n,\gamma)$ 2−113449
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
^{57}Co isobaric analogue resonances, J^π, spectroscopic factors from $^{56}Fe(p,p)$ 2−59311
$^{59}Co(d,\ ^3He)^{58}Fe$, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404
$^{59}Co(n,n'\gamma)$, levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
^{53}Cr levels parity assignment, two-crystal Compton polarimeter appl. 2−64814
^{A}Cs, A=134m, 134g, 134m+g, isomeric cross section ratio, γ-cascades, spin cut-off from $^{133}Cs(n,\gamma)$ *(Chinese)* 2−95924
^{59}Cu, isospin impurity and core polarisation of IAR fragments 2−101856
$^{63}Cu(p,n\gamma)^{63}Zn$, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{162}Dy 0^+ band identification, J^π, ARC spectroscopy from $^{163}Dy(n,\gamma)$ 2−113343
^{A}Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{153}Er high spin states and yrast isomerism, J^π, $T_{1/2}$ from $^{144}Sm(^{12}C, 3n)$ 2−89995
^{158}Er, high spin nuclei, alignment effects in correl. spectra 2−54308
^{171}Er, highly mixed $13/2^+$ states, structure and decay 2−59219
$^{A}Eu(n,n'\gamma)$, A=151, 153, low lying states 2−113498
^{151}Eu, low-lying states study via $(n,n'\gamma)$ reaction 2−54245
^{17}F, 6.699 MeV level spin and parity 2−59236
^{18}F, search for J^π, T=(0^+,1) level in $^{14}N(\alpha,\gamma)$ reaction 2−84951
^{18}F, T=0 level, $J^\pi=5^-$, lifetime limit, γ-decay from $^6Li(^{16}O,\alpha\gamma)$ 2−107726
^{19}F, analogue resonances from $^{18}O(p,x'\gamma)^{19}F$ γ-ray emission meas. 2−107820
^{56}Fe nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{69}Ga excited states, bands, J^π, mean lives, transitions from $^{64}Ni(^7Li,Zn)$ 2−89998
^{147}Gd 8.6 MeV, 560 ns high spin isomer decay, spin and transitions from $(^{12}C,5n)$, $(\alpha,5n)$ 2−90004
^{153}Gd, levels, J^π, log ft, $T_{1/2}$, g-factor, from ^{153}Tb β^+ decay 2−95962
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{66}Ge band struct., J^π, transitions, branching, collective calcs. from $^{58}Ni(^{10}B,pn)$ 2−69508
$^{74}Ge(p,p')$, 22 MeV, levels, J^π, DWBA and CCBA anals. 2−107724
^{75}Ge, $5/2^+$ level at 192.5 keV, 52.5 keV transition 2−84956
$^{76}Ge(^{12}C,4n\gamma)$, 48-60 MeV, ^{84}Sr high spin states study 2−54428
$^1H(p,p)$, 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
$^4He(p,p)$, 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
^{A}He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{A}Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^{A}Hf, A=181,182, levels, J^π, transitions from Lu β-decay 2−69609
^{A}Hg, A=189-198, weakly coupled bands, cranking model interpretation 2−84935
^{206}Hg, 2.102 MeV level, nuclear gyromagnetic ratio, spin parity, and life-time meas. from $^{204}Hg(t,p)^{206}Hg$ 2−113364
^{165}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{157}Ho, levels, J^π, signature depend. transition rates above band crossing freq. from $^{146}Nd(^{15}N,4n)$ 2−90048
^{159}Ho single proton states, bands, J^π, Coriolis strengths, Nilsson assignments from $^{162}Er(p,\alpha)$ 2−69516
^{166}Ho energy levels, spectroscopic factor observation, rotational states assignments, from $^{167}Er(t,\alpha)$ 2−113341
^{A}I, A=117, 119, 121, high spin states, bands, J^π, $T_{1/2}$, isomer g-factor from $Sn(^6Li, 3n)$ 2−113337
^{A}I, A=123, 125, 127, high spin states, bands, J^π, $T_{1/2}$, transitions from $Sn(^6Li, 3n)$ 2−113336
^{124}I, odd-odd nucleus, excited states produced in (p,n) reaction, γ-spectra study 2−101814
^{110}In, level density, spin depend., moment of inertia ratio, from $^{110}Cd(d,2n)$ 2−90019
^{A}Kr, A=76, 78, 80, high spin states, J^π, two-quasiparticle plus rotor calcs. 2−89999
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{79}Kr, low-lying states spins and parities from $^{78}Kr(\vec{d},p)^{79}Kr$ 2−54403
^{84}Kr, 8^+ isomeric state, EM props. following $^{82}Se(\alpha, 2n)$ 2−79942
^{137}La, N=80 nucleus, medium-spin levels and 360 ns $I^\pi=19/2^-$ isomer 2−54232
^{139}La, spatial parity violation in 0.75 eV neutron resonance *(Russian)* 2−54263
^{144}La levels, J^π, transitions from ^{144}Ba β-decay 2−113421
$^7Li(n,n)$, pol. ^7Li, pol. n, 2.0-80.0 keV, s-wave scatt., spin depend. *(Russian)* 2−59361
^{A}Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223

nuclear spin and parity continued
^{179}Lu levels, J^π, transitions from ^{179}Yb β-decay 2−69609
^{90}Mo high spin states, level structure determination, J^π, $T_{1/2}$ from $^{90}Zr(^3He, 3n\gamma)$, shell model analysis 2−113327
^{99}Mo, spin and parity determination of low-lying states from $^{98}Mo(\vec{d},p)$ and $^{100}Mo(\vec{d},t)$ reactions 2−113359
$^{100}Mo(^3He,p)$, 25 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{16}N stretched configuration states, J^π, anal. power, DWBA anal. of $^{18}O(\vec{d},\alpha)$ 2−101805
^{23}Na, low energy resonances obs. in $^{A}Ne(p,\gamma)^{23}Na$, A=21, 22 2−101891
^{24}Na levels, J assignment, from (n,γ), A_2 coeffs. 2−107868
^{89}Nb, γ-ray spectroscopy 2−95965
^{90}Nb levels, J^π, ang. distribs., DWBA anal. of $^{90}Zr(^3He,t)$ 2−107725
^{150}Nd, alpha cluster states, rot. bands, J^π from $^{154}Sm(d,^6Li)$, 33 MeV 2−107729
$^{58}Ni(\alpha, pn\gamma)$, 24-40 MeV, ^{60}Cu deduced high-spin levels, J^π 2−107730
$^{58}Ni(p,p')$, 27 MeV, levels J^π, collectivity, microscopic DWBA anal. 2−107727
^{16}O, natural parity levels 2−59376
$^{16}O+^{16}O$ resonances, $J^\pi=8$ systematic occurrence 2−107835
$^{16}O(^{15}N, ^{15}N)$, analysing power and cross section, parity depend. pot. model anal. 2−90145
$^{16}O(^{16}O,X)$, complex heavy-ion optical pot., double-folding calc. 2−54421
$^{16}O(e,e')$, spin-isospin mode excitation 2−95993
$^{16}O(p,n)^{16}F$, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{18}O positive parity rot. band, from $^{14}C(^6Li,d)$, 34 MeV 2−74725
$^{18}O(^{19}F, ^{19}F)$, analysing power and cross section, parity depend. pot. model anal. 2−90145
^{A}Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^{A}Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
^{30}P levels, J^π, spect. factors, DWBA anal. of (α,d), (d,α) 2−113365
^{32}P stretched configuration states, J^π, anal. power, DWBA anal. of $^{34}S(\vec{d},\alpha)$ 2−101805
^{208}Pb, bound dipole states, parity, from resonance fluoresc. 2−84952
^{208}Pb, giant Gamow-Teller states, spin-isospin sound 2−113438
^{208}Pb spin flip excitation strength due to isobar-hole excitation process 2−113362
$^{208}Pb(e,e')$, 40.5, 50.4, 60.3, 75.2 MeV, transverse electric form factors, M1 transition strength levels 2−113358
$^{208}Pb(e,e')$, inelastic scatt., low-lying natural parity levels excitation 2−85032
$^{208}Pb(p,p')$, 400 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{109}Pd, low spin, anti-aligned parity levels, particle rotor and IBFA calcs. 2−69583
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
^{204}Po, 15^- isomer mag. moment and Po internal mag. field in Ni 2−69534
^{212}Po 0^+ α-emitting state half life, transition, levels, spins 2−59298
Pt region, odd-A nuclei description in interacting boson-fermion model 2−74722
Rb, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^{79}Rb high spin states, J^π, γ-rays from $Fe(^{28}Si, xpyn\gamma)$ 2−69505
^{81}Rb, EM transition strength study 2−54305
^{210}Rn, yrast traps and high-spin states 2−79936
^{A}Ru, A=100, 102, energy level scheme from (n,γ) 2−113486
$^{A}Ru(n,\gamma)$, A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
^{107}Ru, high spin collective excitations 2−54235
^{103}Ru states, J^π, spectroscopic factors, DWBA anal. of (d,p), (p,d) 2−79949
$^{104}Ru(d,\alpha)$, 20 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{30}S levels, J^π and transitions from $^{28}Si(^3He,n)$ 2−69537
^{30}S, T=1 isospin triplet states 2−95921
^{32}S, rotational shape isomeric band 2−69513
$^{32}S(e,e')$, spin-isospin mode excitation 2−95993
^{33}S resonance parameters, J^π, neutron strength distrib., IAS from $^{32}S(n,n)$ 2−113437
^{A}Sb, A=114, 116, high-spin states and multiquasiparticle excitations 2−113339
^{A}Sb, A=114, 116 bands, J^π, transitions and $T_{1/2}$, decoupled neutron from $(\alpha,3n\gamma)$, $(p,2n\gamma)$ 2−79931
^{119}Sb levels from ^{119m}Te decay, 153 and 270 keV transition characts. 2−107793
^{A}Sc, A=43,45,47, levels, J^π, microscopic form factors, DWBA anal. of $Ti(p,\alpha)$ 2−101812
^{41}Sc, negative parity states 2−59235
^{A}Se, A=75, 77, energy level scheme, low spin levels, from (n,γ) 2−113483
^{A}Si, A=26, 28 levels, J^π and transitions from $Mg(^3He,n)$ 2−69537
^{28}Si, α-cluster model state, ang. momentum projection effect 2−54258
^{28}Si, energy levels calc. from $^{24}Mg(\alpha,\alpha)$ and $^{24}Mg(\alpha,\gamma)^{28}Si$ reactions meas. 2−101815
$^{30}Si(p,\alpha)^{27}Al$, 4.9-6.08 MeV, excitation energies and reson. strengths 2−64406
$^{30}Si(t,p)^{32}Si$, 15 MeV, excitation energies meas. 2−54407
^{146}Sm levels, transition probabilities, recoil distance lifetime meas., J^π from $^{139}La(^{11}B,4n)$ 2−90049
^{147}Sm nuclear states characts. and diluting transitions props. *(Russian)* 2−64369
^{155}Sm, rotational-vibrational band structure 2−54231
^{A}Sn, A=121, 124, level excitation, J^π assignment, from (n,γ) 2−90042
^{111}Sn deep hole states, J^π, anal. power, DWBA anal. of $^{112}Sn(\vec{d},t)$ 2−89994
$^{116}Sn(p,p')$, 800 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{A}Sr, A=80, 81, high spin states, J^π, γ-rays from $Fe(^{28}Si, xpyn\gamma)$ 2−69505
^{177}Ta isomer, levels, J^π, $T_{1/2}$, mag. moment, transitions from $^{175}Lu(\alpha,Zn)$ 2−90014
^{179}Ta multiquasiparticle yrast states, isomers, J^π, $T_{1/2}$ from $^{176}Yb(^7Li, 4n)$ 2−79933
$^{180}Ta^{g,m}$, production cross-section, β-decay, capture, from $^{180}Hf(p,n)$ 2−107811
$^{160}Tb\rightarrow{}^{160}Dy$, nuclear orientation in Tb metal 2−54320
Tc, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^{98}Tc, levels, branching ratio, J^π assignment, from $^{98}Mo(p,n)$ 2−101837

nuclear spin and parity continued
^Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^Te, A=121, 123, 129, neutron strength distribs., L, J^{π}, spectrosc. factors, from (p,d), (^{3}He,α) 2−84936
^{236}U lowest octupole bandhead, spin, conversion electron spectra from ^{235}U(n,γ) 2−113346
^{239}U, structure parity assignments from ^{238}U(n,γ) 2−113361
^{184}W 0^+, 1^+ and 2^+ states by average resonance capture in ^{183}W(n,γ) 2−113369
^Xe, A=119, 121, $h_{11/2}$ negative parity band structures 2−113342
^Xe, A=119, 121, level structure and $h_{11/2}$ bands anal. in IBF model 2−95898
^Yb, A=165-167, near yrast spectroscopy, levels, J^{π}, quasineutron states from Sm(^{17,18}O,xn) 2−89997
^{165}Yb level scheme from gamma-rays observed in ^{165}Lu→^{165}Yb 2−107795
^{174}Yb levels, resonances, J, electric dipole transitions from ^{173}Yb(n,α) 2−69626
^{178}Yb, energy levels, J^{π} assignments, angular distribution comparison with DWBA calcs., from ^{176}Yb(t,p) 2−113332
^{64}Zn(^{7}Li,pxnγ), excited states study in ^{68}Ge,^{69}Ge 2−54437
^{90}Zr, low-energy octupole reson. gamma decay 2−85017
^{90}Zr spin flip excitation strength due to isobar-hole excitation process 2−113362
^{90}Zr(p,p'), 500 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384

nuclear spin-lattice relaxation
Γ_8 quadruplet, Mossbauer spectra in presence of spin-lattice relax., hyperfine interaction 2−93081
A_3 spin system in anisotropic medium, differential pulse effect, relax. meas. 2−104732
acetonitrile, nematic liq. cryst. matrix, sample spinning, linewidth, NMR relax. study 2−65004
acetylacetonates, M(acac)$_3$ where M=Al, Ga and In, ^{13}C spin lattice relax. times, metal nucleus quadrupole coupling const. 2−102507
2-adamantanone, mol. motions, NMR study 2−56960
antiferromagnet, nuclear spin relax. at ultralow temps. 2−72372
antiferromagnet, spin-lattice relax. mechanisms 2−72373
antiferromagnets, relaxation processes, magnetoelastic waves, sound absorption meas. 2−77408
benzene molecules, reorienting, proton spin-lattice relax. 2−61784
benzil, structural phase transition, proton mag. relax. study 2−116079
biomolecules, soln. conform. and dynamics, with internal motions, ^{1}H NMR anal. of relax. data 2−116863
bis(methylammonium)copper tetrachloride, quasi-two-dimensional ferromag., proton spin-lattice relax. 2−61780
blood, mag. labelled, flow meas. using magnetic tag detect. 2−83589
4-n-butoxybenzylidene-4'-aminopropiophenone, smectic A to B transition, PMR spin-lattice relax. study 2−93037
caesium sulphonate salts, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
o-carborane, H^+ second moments and spin-lattice relax. time 2−77404
chloroform, ^{1}H Cw off-reson. decoupled ^{13}C NMR, spin dynamics 2−108570
crystals near phase transition points, nucl. mag. relax. 2−110677
cubic crystals, nucl. mag. relax. induced by lattice defect dynamics 2−104736
nido-decarborane, in toluene=d_8, mol. tumbling and nucl. spin relax. 2−80676
trans-1,2-dichloroethylene, ordered liq. state, NMR study 2−81652
diffusing ions, NMR relaxation by impurity centres, variational calc. 2−66945
1,2-dipalmitoyl-sn-glycero-3-phosphocholine bilayers, ^{2}H and ^{14}N quadrupolar spin-lattice relax. 2−105505
dipolar solids, nonexponential spin-lattice relax. 2−98983
DNA, backbone motions, spin-lattice relax., NOE, chemical shift, ^{31}P and ^{13}C NMR 2−83543
DNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
dodecyltrimethylammonium chloride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2−82740
double resonance with coupled multiplets 2−56976
electron transfer reactions, nucl. mag. relax. obs. 2−93772
enzyme-substrate interactions, ^{1}H spin-lattice relax. 2−59822
ethyl bromide, liq., mol. rot. diffusion tensor determ., PMR study 2−114020
ferromagnetic metals, nucl. spin-lattice relax., s-d exchange interaction effects, theory *(Russian)* 2−98981
fluorobenzenes, containing free radicals, NMR relax. 2−54870
Fourier transform expts., fast inversion-recovery optimisation 2−54875
halides, layered, intercalation with organic cpds., NQR investig. 2−110717
HCP transition metals, nucl. spin-lattice relax., ab initio ASA-SCF-LMTO linear tetrahedron calc. 2−98985
hexachloro-2,4-dimethylcyclodiphosphazane, ^{35}Cl quadrupole relax. and mol. motion 2−110699
hexadecyltrimethylammonium fluoride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2−82740
hopping particle interactions, effect on T_1 relax. rates 2−56965
ionic solids, wide-line NMR and relax. processes, review 2−116072
itinerant electron antiferromagnet, nucl. relax. rate T_1^{-1} 2−87610
Kondo system, nucl. spin relax. of host metal, field depend. 2−116083
lanthanide shift reagents, nonlabile coordinated chelate proton spin relax. 2−59823
liquid crystals, intra- and interpair dipolar order, proton NMR signals 2−116081
liquid struct. NMR spectroscopy at high-press. 2−98990
liquids, relaxation by interacting pairs of unlike spins 2−87613
lithium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
low magnetogyric ratio nuclei, spin lattice relax. meas. using INEPT signal enhancement 2−89772
metallic system, two-dimens. disordered, nucl. spin relax. rate 2−104735
methane, solid, isotope effect in phase diagram, proton NMR expt. 2−56964
methyl group relaxation, another factor 2 2−61785
methyl group reorientation in solids, thermally activated 2−65888
methyl groups in liquids, ^{13}C spin-lattice relax. times, torsional vibrs. 2−80662
methyl groups in solids, hindered rot., nuclear spin-lattice relax., theory 2−93036

nuclear spin-lattice relaxation continued
methylammonium iodide, solid, pre-melting phases, ^{1}H spin-lattice relax. and DTA study 2−77409
molecular liquid soln., coupling between local struct. and dynamics, theoretical NMR study *(French)* 2−116078
molecular solids, wide-line NMR and relax. processes, review 2−116072
mononucleotide solutions ^{31}P NMR, chem. shift *(French)* 2−75316
nematic lyotropic liq. cryst., magnetically aligned, mol. motion, ^{2}D NMR study 2−81665
NMR meas. of relax. times, CW technique 2−89505
NMR spectrometer, video pulse signal simulator with specified envelope form 2−69214
nonequidistant electron spin spectrum, correlation function, calc. of direct nuclear relax. 2−87578
NQR, alternating electric field effect, in dielec. dispersion region 2−93054
NQR spin-spin reservoir relax. 2−110679
6OCB-8OCB, reentrant nematic phase, ^{1}H spin relax., freq. depend. 2−93033
one-dimensional conductors, NMR relax. in interrupted strand model 2−93040
pentachloroethyl-1-imino-1-chloro-2-trichloroethane, intracrystalline dynamics, ^{35}Cl NQR study 2−98993
perchloroethane, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
perchloroethylene, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
podacarpic acid derivatives, mol. motion. rot. barriers, ^{13}C NMR relax. 2−96595
poly(2,6-dimethyl-1,4-phenylene oxide) solns., spin-lattice relax. in rotating frame 2−97898
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
polyacetylene, pure and doped, ^{1}H NMR spin-lattice relax. rate, freq. and temp. depend. meas. 2−77406
polycrystalline solids, spin-lattice relax. times rel. to mol. motion 2−110682
polyethylene, cryst. order, ^{13}C NMR cross polarisation/magic-angle spinning T_1 obs. 2−116080
polyethylene in soln., PMR relax. and mol. motion, isotopic dilution technique 2−93041
polyethylenes, linear and branched, β-transition anal. by C-13 NMR 2−98986
polymer, solid, C-13 rotating frame relaxation 2−66944
propylene, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
propylene-Kr liquid mixture, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
proteins, solid state dynamics by nucl. mag. relax. 2−73186
pulsed spin locking theory in pure quadrupole resonance 2−110711
quasi 1-D cond., spin density wave effects on nucl. spin lattice relax. 2−93042
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
semiconductors, and semimetals nuclear quadrupole relax. in quantising mag. fields 2−98987
sodium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
spectral densities, NMR relax. investig. using tracing method involving freq.-reduced variables 2−89770
superconductor, magnetically doped, nuclear spin relax., ultrasonic attenuation 2−87450
TCNQ salts, triphenylmethylarsonium (TCNQ)$_2$ and Cs$_2$(TCNQ)$_3$, one-dimensional triplet exciton systems, nucl. relax. 2−66940
tetraethyloxysilane, mol. dynamics below freezing pt., PMR relax. investig. *(German)* 2−110689
tetramethyl p-pherenediamine perchlorate, Wurster's blue, solid, proton spin-lattice relax. time meas. 2−87612
(TMTSF)$_2$ClO$_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
(TMTSF)$_2$PF$_6$, NMR studies 2−56963
(TMTSF)$_2$PF$_6$, proton magnetic resonance study 2−110687
(TMTSF)$_2$PF$_6$, spin density wave fluctuation effects on NMR relax. 2−87616
(TMTSF)$_2$PF$_6$, spin dynamics dimensionality, proton relax. rate meas. 2−110683
(TMTSF)$_2$X family of organic metals, spin density waves, mag. props. review 2−66893
para-toluenesulphonic acid hydrate, solid, H_3O^+ and CH_3 group reorientations, PMR spin-lattice relax. 2−72369
transition probability matrix elements, calcs., simplification 2−65052
trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trifluoromethene, solid phase, spin-lattice relax., NMR study 2−110673
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962
AgCl(Br), neutron irrad., Frenkel defects, struct., and annealing, NMR study 2−91952
AgClO$_3$, ^{35}Cl NQR investig. 2−110702
Al, dislocation dynamics, NMR and TEM study 2−105215
Al-Cu (1 at.%), dislocation dynamics, NMR and TEM study 2−105215
Al(OH)$_3$, anodic oxide layer of Al electrolytic capacitor, proton magnetic relaxation study 2−104733
Au metal, ^{197}Au NMR calcs. 2−110678
BaClO$_3$, ^{35}Cl NQR investig. 2−110702
BaFeSi$_4$O$_{10}$, gillespite, Fe^{2+} Mossbauer spectra, mag. relax. effects 2−61793
Bi$_{12}$SiO$_{20}$, NQR relax., transverse and longit., temp. depend. 2−110697
CeO$_2$-CaO, O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096
Co-^{53}Mn, NMR ON study 2−98971
Co-^{90}Nb, NMR ON study 2−98971
CsFeCl$_3$.2H$_2$O, nucl. relax., effect of diffusive solitons 2−110675
Cs$_3$Sb, solid compound semiconductor, chemical bonding, ^{133}Cs-NMR spectra 2−56957
Cu Tutton salts, nuclear and electron spin-lattice relax. times meas. 2−82741
Cu-Cr, Kondo system, nucl. spin relax. of host metal, field depend. 2−116083

nuclear spin-lattice relaxation continued
Cu(II) complexes with amino alcohols, NQR study 2−116086
Fe-^{52}Mn, NMR ON study 2−98971
Fe-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
GaAs, optical detection of NMR, nuclear relax. near shallow donors 2−82747
$Ga(NO_3)_3$ in heavy water, ^{69}Ga and ^{71}Ga nuclei, mag. relax., quadrupole coupling const. 2−77405
H, spin polarised, nucl. relax. anisotropy, two-dimens. model 2−71767
H, spin polarised, state-dependent recomb. and suppressed nucl. relax. 2−92306
H_3NSO_3, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
H_2O in conc. aq. ZnCl solns., NMR and H^+ spin-lattice relax. 2−110674
^{3}He↑, nucl. relax. in weak inhomogeneous mag. field *(French)* 2−70170
^{3}He, BCC, nucl. relax. time meas. for large molar vols. 2−110084
^{3}He, superfluid B-phase, magnetisation nonlinear motion, spin relax. effect in pulsed NMR config. 2−61237
^{3}He-^{4}He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
$Hg_{3-\delta}AsF_6$, two dimensional metal, nuclear spin relaxation in high mag. field 2−93038
InP, (n, γ)-induced point defects, NMR study 2−98980
InSb, (n, γ)-induced point defects, NMR study 2−98980
^{116}In in InP single crystal, quadrupole moment from spin lattice relaxation 2−107754
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
$K_3LiNb_6O_{17}(Ta_6O_{17})$, Li ion motion, NMR study 2−66939
$K_2Pt(CN)_4Br_{0.3}3.2H_2O$, H_2O mol. motion, PMR spin-lattice relax. study 2−93043
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
$(K_2)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
LaD_3, deuteron spin-relax. time, diffusion and hopping 2−104734
$LiIO_3$ crystal, ^{7}Li spin-lattice relaxation, cross- relaxation effects 2−93032
$LiNH_4SO_4$, tunnelling, reorientation, PMR study 2−93034
$Li_{3+x}(P_{1-x}Si_x)O_4$, Li^+ ion diffusion, NMR spin-lattice relax.. study 2−115455
Li_xTiS_2, elec. field gradient, anisotropic shift, tetrahedral site occupation and atomic motion NMR study 2−66943
$LuH_{2.03}$, ^{1}H NMR studies 2−116082
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
$Mn_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
NH_4^+, ^{14}N Sternheimer antishielding factor meas. 2−70284
NH_4ClO_4, cryst. spin-rot. relax., ^{1}H NMR study 2−77403
NH_4IO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
$N_2H_5NO_3$, H^+ motion, T and $T_{1\rho}$ obs. 2−104729
NH_4ReO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
$(NH_4)_2SnCl_6$, level crossing between NQR and tunnel systems 2−77412
$(NH_4)_2ZnCl_4$, proton mag. relax., commensurate-incommensurate transition 2−77400
NaCl, dislocation slip orientation depend., NMR study 2−109806
NaCl, quadrupolar energy relax., reson. acoustic field excitation 2−110680
NaCl:Ca^{2+}, MFP of dislocations, NMR study 2−109807
$NaClO_3$, ^{35}Cl NQR investig. 2−110702
Nb_3Al base ternary alloys, ^{93}Nb NQR study 2−110722
$NbH_{0.89}$, phase transitions, PMR spin-lattice relax. time temp. depend. study 2−110688
$NbSe_2$ (2H), ^{93}Nb NQR and spin-lattice relax., 7 to 77K *(Russian)* 2−66946
Ni Tutton salts, nuclear and electron spin-lattice relax. times meas. 2−82741
Ni-^{52}Mn, NMR ON study 2−98971
Ni-P based amorphous alloys, local mag. props., NMR and magnetisation meas. 2−104721
Pd, nuclear mag. relax. and Knight shift meas. 2−66941
Pd-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
$PdH_{0.82}$, proton dynamics at low temp., PMR line shape study 2−72370
β-PdH_x, electronic hyperfine coupling, PMR study 2−72371
$PrBe_{13}$, Van Vleck paramag., cryst. field effects, magnetisation, resist. and NMR 2−72140
Pt-Mn, Kondo system, nucl. spin relax. of host metal, field depend. 2−116083
$RbFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
Rb_2IrCl_6, antiferromagnetism and crit. relax., NMR study 2−56961
Rb_2ZnCl_4, paraelectric-incommensurate transition, fluctuations, NMR study 2−87710
Rh(I) diene complexes, 5-coord., NMR spin-lattice relax. 2−65014
$(SN)_x$, proton-spin lattice relax. time from incorporated water 2−61781
a-Si:H films, mol. H_2 presence, proton spin-lattice relax. time meas. 2−61786
Sn superconducting small particles, NMR study 2−66712
$SnO_2.nH_2O$, proton transport, ^{1}H NMR study 2−93044
TGS, nuclear spin-lattice relax. time anisotropy of NH_3 groups, expt. study 2−61782
$TiBe_2$, nearly ferromag., Ti NMR study 2−87609
$TiO_2.nH_2O$, proton transport, ^{1}H NMR study 2−93044
β-$VH_{0.59}$, H superstruct. and diffusion, ^{1}H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
VH_2, ^{51}V and ^{1}H nucl. spin-lattice relax. 2−98984
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
$VT_{0.5}$ and $VT_{0.75}$, triton relax. time obs. of phase transitions 2−110684
$V_2Zr(Hf)$, mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2−61693
ZrO_2-CaO (Y_2O_3) solid solns., O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096

nuclear spin-spin relaxation *see spin-spin relaxation*

nuclear structure
see also form factors (nuclear); nuclear binding energy; nuclear charge; nuclear density; nuclear energy level transitions; nuclear energy levels; nuclear forces; nuclear isomerism; nuclear isospin; nuclear matter; nuclear moments; nuclear polarisation; nuclear shape; nuclear size; nuclear spectroscopic factors; nuclear spin and parity; nuclear structure theory
A=107, nuclear data sheets 2−101142
A=134, nuclear data sheets 2−101139
A=185, nuclear data sheets 2−89477
A=189, nuclear data sheets 2−101140
A=197, nuclear data sheets 2−89479
A=210, nuclear data sheets 2−101143
A=244, nuclear data sheets 2−101141
A=249-263 (A odd), nuclear data sheets 2−89478
A=68, nuclear data sheets 2−89476
A∼90, neutron deficient nuclei, struct. aspects *(Rumanian)* 2−95903
$CC^{12}C(^3He, \pi^{\pm})$, 910 MeV, pion inclusive spectra, nuclear struct. effects 2−101900
conference on nuclear struct. and spectra, Samarkand, USSR (April 1981) 2−84368
Daresbury Nuclear Structure Facility 2−64708
data sheets, references Jan.-April, 1982 2−107728
fundamental interactions and nuclear structure, impressionistic overview 2−59210
hyperfine structure, Pauli's 1924 note 2−79320
microscopic approach to hadrons and nuclei using quarks 2−95739
molecular resonances, formation and struct. 2−107831
nuclear data sheet, 1981 references 2−89480
nuclear data sheets, May to Aug. 1981 references 2−89475
properties studied by atomic physics 2−69529
resonance structure in symmetric light heavy ion fusion cross sections 2−107827
(π,X) reaction mechanisms, light nuclei struct. 2−90160
$^2H(^3He, \pi^{\pm})$, 910 MeV, pion inclusive spectra, nuclear struct. effects 2−101900

nuclear structure theory
see also generator coordinate method; HF calculations; nuclear models; nuclear reaction and scattering theory; RPA calculations
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=3-4 nuclei, binding energy, radii, form factors, Jastrow variational calc. 2−59261
A=40-208, charge distributions and single particle states, calc. methods 2−69526
Bohr collective Hamiltonian, general soln. 2−101825
charge and density, surface and asymptotic properties 2−113355
collective motions, classical theory on symplectic manifold 2−107721
collective motions, quantum theory on symplectic manifold 2−107722
conference, Varena, Italy (July, 1979) 2−84383
correlated basis functions theory, cluster expansions 2−101827
current conservation and electric multipoles 2−101817
deformed nuclei, interacting boson approx., revised formulation 2−84976
deformed potential orbitals, potential separation expansion appl. 2−69547
dense neutron and nuclear matter, hard core interaction, spin and isospin stability 2−90033
effective interactions, density depend., comparison between microscopic and empirical estimates 2−84961
effective nucleon-nucleon interaction in model space, empirical form 2−54277
effective operators with potentials from meson theory 2−54267
Fermi liquid, tensor forces and spin susceptibility 2−84962
few-body nuclei, exact ground states with and without three-body forces 2−59260
finite nuclei, binding energy, leptodermous expansion 2−74726
four-nucleon binding energy, Poincare invariant theory, relativistic corrections *(Russian)* 2−107742
generator-coordinate method, pseudo-bound wavefunctions 2−95941
Hermitian effective interaction construction Hermitian and non-Hermitian form relations 2−113375
HF equations soln. in thermodynamic limit 2−59273
high-spin RPA, quantisation 2−84983
high-spin states in nuclei and heavy-ion collisions 2−84944
hyperspherical harmonic expansion method, higher order effects 2−59270
interacting boson model, review 2−53436
internal conversion coefficient calculations, rel. to nuclear struct. models 2−84995
irreducible structure of operator matrices in the unitary scheme basis 2−84966
isobaric multiplet widths, EM perturbation 2−107761
isoscalar giant multipole reson., macroscopic description 2−59312
leptodermous expansions in finite nuclei, density profiles, binding energy 2−84947
level density, centre-of-mass correction, harmonic oscillator and Fermi gas models 2−101813
level density formula 2−95923
long range strong interactions, strength limits from exotic atom data 2−107762
low-energy collective and single-particle excitations 2−107787
magnetic substrate populations survey 2−64357
meson exchange currents, contrib. to mag. moment operator, semiclassical interpretation 2−69546
molecular resonant states, theory 2−107830
multipole photon states classification, shift operator techniques, P_1^0 eigenstate and eigenvalues determ. 2−95947
multpole expansions method, exponent range overflow, counteraction 2−64853
neutron and nuclear matter, Fermi sea, Landau parameters, state energies 2−107790
neutron rich matter, pion condensation at finite temp., π-field thermal excitations 2−95929
nucleon mass operator, analytical struct. *(Russian)* 2−79943
nucleon-meson coupling in QCD perturbation theory for confined quarks *(Chinese)* 2−79828
nucleus spin wave function under selective irrad., transform. characts. *(Chinese)* 2−101803
p-wave strength function calc. 2−101791

nuclear structure theory continued
pair current contribs. from Δ(1236) configurations 2−79951
pairing field, path integral approach 2−54276
perturbative QCD, particle and nucl. scatt. at large p_T 2−113234
phase equivalent interactions and dibaryon masses, effective NΔ thresholds 2−79952
phase-space distrib. of nucleons in nucleus, semiclassical calc. 2−79957
pion condensation and momentum dependence of the effective particle-hole interaction 2−113372
pionic degrees of freedom behaviour in nuclear matter, microscopical theory *(Russian)* 2−90037
radiative muon capture, light nuclei, nuclear struct. calcs. 2−59291
resonance widths and positions, effects of interactions at small distances *(Russian)* 2−107824
resonating group method, refinement for A=12-28 nuclei 2−59271
short-range correl. on one- and two-body props. of nuclei 2−54266
simplified relativistic mean field approach for nuclei and hypernuclei 2−95954
single particle wave functions of σ-τ phases in nuclear matter 2−79964
SO(5) model, boson mappings 2−107780
spin-isospin sum rules based on the quark model 2−107750
state properties in unitary scheme, canonical SU(3) basis, multidimensional spherical set of coordinates 2−64363
sum rules and collective variables 2−101828
surface tension model for compressed nuclei 2−113374
T=1/2 mirror nuclei in 2s-1d shell, ang. momentum, J^π, sum rule anal. 2−113368
three-nucleon force graphical study 2−59256
three-particle dynamics in case of finite-range forces 2−59229
two parameter pseudospin Hamiltonian, ground state critical props. 2−113378
U(6/4) supersymmetry in complex nuclear spectra *(Chinese)* 2−107783
upper f-p shell nuclei, ground state proton occupation numbers, spectral distrib. methods 2−69512
weak coupling model approach to heavy ion molecular resonance 2−107832
weak interactions and symmetries 2−59098
Δ-nucleus pot. from many body Hamiltonian for π, N, Δ 2−90024
NN→NΔ, spin and scatt. amplitudes 2−95928
NN scatt., bar phase shifts and asymptotic behaviour 2−54268
π-^{3}He-^{3}H coupling constant determ. 2−59247
Ξ hypernuclei, excited states, SU(3) theory *(Chinese)* 2−54299
^{185}Au levels, J^π, nuclear model test from $^{185}Hg^{m+g}$ decay 2−113417
^{9}Be hypernuclei *(Chinese)* 2−54299
^{A}Be, A=7, 8, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{12}C hypernuclei, binding energy, SU(3) model *(Chinese)* 2−54299
^{12}C nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{12}C+^{13}C resonance, multistep transfer of nucleons and the formation of molecular orbitals 2−107833
^{A}Ca, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{40}Ca, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{40}Ca+0s shell nucleus, RGM nonlocal pots., equivalent local pots. 2−95939
^{40}Ca(α,α), 31, 100 MeV, second-order imaginary optical pot. microscopic calc. 2−54418
^{40}Ca(p,p), 1 GeV, cross sections from fluctuon model 2−69527
^{153}Eu, ground and excited bands microscopic calc. 2−79927
^{56}Fe nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{A}Gd, A=153, 154, yrast band, ground and excited band microscopic elec. 2−79927
^{2}H asymptotic D-state, model independ. description, quadrupole moment 2−59257
^{2}H, electronuclear sum rules at constant momentum transfer 2−95991
^{2}H, μ^- capture, very small momentum ν_μ, mesonic exchange current corrections 2−113423
^{2}H, neutron-proton system, $^3S_1$-$^3D_1$ state, effective range theory appl. 2−95937
^{2}H phase shifts and bound state from NN interaction from bag-model quark interchange 2−69544
^{3}H binding energy, asymptotic normalisation constant and zero-range parameters 2−95906
^{3}H binding energy correction from 2π exchange, 3 nucleon forces 2−107741
^{3}H, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}H, magnetic moment and structure 2−95916
^{3}H, photoeffect moments calc. using hyperspherical harmonics formalism 2−59240
^{3}H, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}H trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}H$_\Lambda$ binding energy, three body problem with finite range forces 2−113389
^{3}HYe-^{3}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
^{3}He, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}He, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}He trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}He, Z 2−95916
^{3}He(e,e′p), 643, 806 MeV, nuclear struct., NN interaction *(Russian)* 2−59342
^{4}He, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{4}He, nucleon-trinucleon overlap function parameterisation and meson exchange corrections effect 2−113377
^{4}He(π,π), low energy scatt., few-nucleon structure, review 2−59409
^{6}He, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{A}He, A=3, 4, charge density, model-free determ. 2−54253
^{A}He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223

nuclear structure theory continued
^{A}K, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{6}Li, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{A}Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
NN interaction, meson exchange contribs., Bona pot. current status 2−59248
^{18}Ne collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224
^{20}Ne, low-lying state wave functions, realistic Hamiltonian, from (p,p′) 2−84965
^{16}O, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{16}O pion and positron emission by proton decay *(Russian)* 2−95831
^{17}O, magnetic form factor, higher order effects 2−54255
^{18}O collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
^{30}Si(α,α′), 120 MeV, 2^+ states, n and p transition matrix elements, relative signs 2−101796
Sn, isobaric analogue resonances, proton particle-neutron quasiparticle calcs. 2−113442
^{147}Tb, proton single-particle states 2−84937

nuclear track emulsions
activation and fast neutron dosimetry 2−70010
emulsion telescope technique to 300 GeV negative pion beam in mag. field 2−64834
energetic nuclear collisions induced by 12 MeV α-particle in nuclear emulsion 2−64780
low energy heavy fragment track widths in nuclear emulsion 2−59621
response specification through track theory 2−59620
separating short-range protons and α-particles 2−64768
short-lived particle study appl. 2−64789
solid-state nuclear track detectors, conf., Bristol, England, Sept. 1981 2−58532
eγ cascade shower treatment 2−102354
γ-ray yields in nuclear emulsion 2−65681
Ag activation in nucl. emulsion for fast neutron dosimetry 2−113750
H evolution obs., in metals using nuclear emulsions 2−57572

nucleation
see also crystal growth; crystallisation
adsorbed films, nucleation barrier 2−61282
adsorption, interfacial tension variation with crit. two-dimens. nucleus size, theory 2−87041
alkaline earth compounds, precipitation, of sparingly soluble salts from aq. soln. heterogeneous nucleus numbers meas. 2−66229
alloys, segregation kinetics under irradiation *(Russian)* 2−104003
anorthite, glass form., transient nucleation in non-isothermal crystn. 2−109685
anorthite-gehlenite system, crystn. of glass-forming melts 2−71371
anthracene, slip planes crystal growth and photodimerisation 2−86598
binary mixtures, nucleation obs. 2−109963
boiling, isolated nucleation sites 2−75841
boiling of liquids, nucleation 2−75843
brittle fracture, environmentally induced crack nucleation 2−105277
calcium oxalate, precipitation, nucleation and growth kinetics, temp. effect 2−76336
coating morphology, effect of processing variables 2−87103
composite thin film, granular, metal-insulator transition 2−66452
cracks propagation, by cavitation 2−103087
critical cluster size, Monte Carlo calc. 2−109951
crystal-solute interaction theory 2−76352
crystallization, kinetic theory 2−103954
diffusional transformations, superledge nucleation 2−61128
dislocation pinning by impurity atmospheres, nucleation mechanism, theory *(Russian)* 2−86666
dislocations, dynamic nucleation 2−55972
diving physiology implications on bubble nucleation in aq. media 2−55637
ductile fracture by cavity nucleation between larger voids 2−115348
dust grains in interstellar medium, nucleation and growth 2−89345
epitaxial thin film growth, 2D-3D transition 2−87110
ethanol, condensation, homogeneous nucleation rate meas. 2−103966
ethanol-n-propanol (methanol) mixtures, nucleation obs. 2−109963
films, heterogenous nucleation and growth, review 2−92408
flux crystal growth, control of spontaneous nucleation, expt. study 2−105060
ice, nucleation in MAg_4I_5, (M=Rb, K, NH_4) 2−86829
ice crystals in atmosphere, form. by artificial nucleation rel. to supercooled fog dissipation 2−100484
ice crystals in low temp. electrolyte solns., controlled nucleation and quasi-ordered growth 2−60903
ice single crystal growth and evaporation from vapour phase, interface kinetics, meas. in water vapour environment 2−97960
ion clusters, struct., stability, form. and props., rel. to nucleation, liq. props. and surface states 2−90756
ion nucleation, potential aerosol source in stratosphere 2−106266
kinetic equations derivation in nonisothermal nucleation 2−92154
Lennard-Jones vapour, nucleation, critical cluster size, Monte Carlo calc. 2−109951
Liesegang rings, nucleation and growth in concentration gradients 2−105518
liquid droplets condensation and nucleation from vapour, thermodynamic theory 2−98255
liquid metastability limit, elec. field effects 2−71608
liquid solution-solid powder close system, equilib. and stability conditions *(French)* 2−109948
liquid solution-solid powder closed system, hydration kinetics, appl. to $CaSO_4$ *(French)* 2−109949
martensites, α and ε phase nucleation, role of dislocations and stacking fault energies *(Russian)* 2−62126
metal, void nucleation, stress and temp. driven 2−76429
metal cluster heterogeneous nucleation on cleavage steps, theory 2−86832
metal films, UV laser photodeposition, nucleation mechanism study 2−105067
metallic semicontinuous films, elec. resist., growth and nucleation, computer simulation 2−92784
metals, bubble nucleation and growth, low temp., by He bombardment 2−76536

nucleation continued
metals, electrolytic deposition, pulse plating process 2−77762
methanol-ethanol (n-propanol) mixtures, nucleation obs. 2−109963
microbubbles nucleation and stabilisation in liqs. 2−55639
microstructural features, computational models 2−76694
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
morphological changes in equiaxed grain structures studied by computer simulation *(Japanese)* 2−55875
nuclear fuel, bubble-bubble forces, effect on coalescence 2−102048
o-terphenyl, glass form., transient nucleation in non-isothermal crystn. 2−109685
optical techniques for meas. cavitation nuclei 2−65621
overlayer ordering and epitaxy, thermodynamics 2−110205
phase formation kinetics in diffusion zone under mutual diffusion conditions *(Russian)* 2−92148
phase formation kinetics in diffusion zone under mutual diffusion conditions in elec. field *(Russian)* 2−92149
polyethylene, extended chain single cryst. growth rate and morphology, optical microscopy study 2−91838
porous plastic solid, void nucleation effects on shear localisation 2−99486
rates, measured, comparison with homogeneous nucleation theory 2−103673
scale deposition, effects of Magnus force 2−83455
steam flow, nucleation and bubble growth in heated channel, void fraction 2−91515
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless, He bubble form., influence of temp., stress and time 2−108114
steel, austenitic stainless, high temp. creep, mech. props., influence of C and N 2−105246
steel, austenitic stainless, microstruct., in situ obs. of heavy-ion damage 2−86754
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, low alloy, high strength, cold metals, nature of acicular ferrite 2−67286
steel, Mn(-Nb), intercrit. austenitisation, quantitative study 2−77854
steel, Nb-microalloyed, void growth and final fracture 2−67515
steel, Ni-Cr, low alloy, nucleation threshold stresses for dynamic fracture 2−72787
steel-inclusion boundary, interphase props. and degree of struct. refinement 2−72685
supercooled hard-sphere fluid, nucleation, activation energy 2−61115
surface diffusion and heterogeneous nucleation on solid substrates 2−76813
surface step growth, master eqn. approach 2−98403
thermodynamic relation with nucleus size 2−88375
transition metal compounds, precipitation, of sparingly soluble salts from aq. soln. heterogeneous nucleus numbers meas. 2−66229
two-dimensional, nucleus size dependence of interfacial tension calc. 2−65893
two-dimensional crystal growth problem, rate constants 2−76346
two-dimensional nucleation, free energy of form. calc. 2−76344
two-phase equilibria and nucleation barriers near a critical point 2−103943
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al, pure and commercial, solidifications struct. of ingots, effect of nucleation supercooling 2−99419
Al, quenched, clustering process of vacancies 2−55964
Al solidification, low-frequency vibration influence obs. 2−116432
Al-based alloys, precipitation mechanism of Ge, positron annihilation study 2−57359
Al-Cu (1-6 wt.%), ingots, unidirectionally solidified from bottom, struct. 2−99417
Al-Li-Cu-Zr-Cd system alloys, microstruct.-prop. rels. 2−111210
Al-Mg, dilute, dislocation pinning by impurity atmospheres, nucleation mechanism, theory *(Russian)* 2−86666
Al-Ti-Be, grain refinement, Be-enhanced 2−83086
Al-Zn alloys, cellular decomp. 2−83120
$Al_xGa_{1-x}As$ DH laser, rake lines, influence of cooling rate and melt config. in LPE 2−77760
Au film growth on NaCl, Au cluster mobility meas. to 123K 2−92409
$BaWO_4$, cryst. growth from Na_2WO_4 melt, nucleation mechanism, and kinetics induction period meas. 2−91836
$Ca_2Al_2SiO_7$-Ca_2SiO_4, nucleation and cryst growth from melt. 2−72614
$CaCO_3$, calcite, rhythmic crystn. in agar gel, impurity addition effect 2−55867
CaO-MgO-SiO_2(-TiO_2) diopside glasses, nucleation kinetics, small-angle X-ray scatt. study 2−115141
Co-Sn eutectic alloy solidification, low-frequency vibration influence obs. 2−116432
$CoSi_2$-Si system, epitaxy, effects of nucleation and growth 2−115610
Cu plate, accelerated by reacting and detonating explosives, free surface vel. meas. 2−76591
Cu, surface (001), He beam impact, order, disorder, nucleation and energy changes 2−98399
Cu-Sb, chemiepitaxial layer formation, during reactive diffusion 2−76849
Cu-Zn-Al, thermoelastic martensitic transform., nucleation, localised soft mode model 2−99427
D_2O cubic ice, homogeneous nucleation and crystallisation in LiCl.D_2O electrolytic glass 2−81684
Dy-Cu amorphous films, crystallisation, TEM and electron diffr. study 2−92415
Fe-B metallic glasses, crystn., calc. and calorimetric meas. 2−71369
Fe-C, ferrite, C cluster formation, critical cluster size, computer calc. 2−67340
Fe-Cr-Ni-Al, NiAl precipitation during ageing 2−105156
Fe-Cu-Ni (2,2 at.%), ε-Cu precip. on interphase boundaries, orientation relationships, electron microscopy study 2−72707
Fe-Ni-C, nucleation of burst martensite 2−57351
Fe-Si, electron irrad., defect cluster nucleation at coherent twin boundaries, electron microscopy study 2−66036
Fe-Si (3.25 wt.%), quasibrittle fracture nucleation under strain twinning conditions *(Russian)* 2−62193
Fe-Si (5 wt.%) alloy, supercooled ingots, cryst. struct. features 2−67318
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous activation energy of crystallisation 2−81681
$Fe_{40}Ni_{40}P_{14}B_6$ Metglas 2826, early crystn. behaviour, nucleation mechanisms 2−93500
$Fe_{40}Ni_{40}P_{14}B_6$, Metglas 2826, crystn. kinetics, effect of tensile stress 2−103652
nucleation continued
GaAs, anodic oxidation, island stage 2−111342
GaAs LPE layers, dislocations as growth step sources, rel. to interface struct. 2−115615
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaP polar-on-nonpolar MBE on Si(211), nucleation and growth, sublattice ordering 2−110204
$Ge_{18}Te_{82}$ amorphous film, diffusion of Au, nucl. backscatt. anal. *(French)* 2−104069
H_2O, expanding vapour flows, cluster conc. determ., time of flight mass spectra 2−55002
H_2O, homogeneous nucleation over range of temp. and supersaturation 2−103949
^{3}He, liquid, homogeneous nucleation temp. meas. 2−104095
^{4}He, liquid, homogeneous nucleation temp. meas. 2−104095
^{4}He, liquid, superheating limits, homogeneous nucleation temp. 2−115481
^{4}He, nucleation on graphite, thermodynamic and neutron diffr. studies 2−104110
InP structured {100} substrate, fabrication by preferential etching for LPE growth 2−99571
$K_2Al_2(SO_4)_4$, crystal growth kinetics from soln., metastable zone width 2−91837
$K_2Al_2(SO_4)_4.24H_2O$, batch precipitation by mixing component aq. solns. 2−116351
LiF-MgF_2, Suzuki phase, nucleation characts. 2−86831
Li_2O-Al_2O_3-SiO_2 glass ceramics, microstruct., electron microscopy and electron diffr. 2−115140
$MgSO_4.7H_2O$, contact nucleation at low impact energy levels 2−76334
$NH_4H_2PO_4$ crysts., dislocation-free, dipyramid faces, growth from soln., growth stoppages in presence of impurity obs. 2−65899
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
NaY zeolite, crystallisation, IR spectroscopy 2−71385
Nb-V alloys, sputtered clusters 2−93341
Ni-Cu misfit boundaries, grown-in dislocation generation during 3D nucleation and growth 2−103772
NiO growth, and dissoln. on Ni (100), temp. effects 2−83404
$OsSi_2$, formation, thin film reactions, diffusion 2−104077
Os_2Si_3, formation, thin film reactions, diffusion 2−104077
Pb film, reducing grain size by use of nucleants 2−104188
Pb on graphite, morphological change mechanisms during equilib. shape establishment 2−91839
PbI_2, ice nucleating behaviour in presence of soluble salts 2−71619
PbTe epilayers, LPE growth from supercooled solns., improved morphology 2−110192
PbTe, heterogeneous nucleation, statistical thermal anal. 2−65892
Pt_2Si nucleation from RF sputtered Pt film on Si 2−92385
Ru_2Si_3, formation, thin film reactions, diffusion 2−104077
Sb-Te, chemiepitaxial layer formation, during reactive diffusion 2−76849
Si, amorphous film, laser induced controlled nucleation and growth process 2−56408
Si as-grown Czochralski crystal, nucleation temperature of large oxide precipitates 2−91841
Si, Czochralski grown, thermally induced microdefects, nucleation and growth obs. 2−57379
Si, Czochralski-grown, effect of oxide precipitates as minority-carrier lifetime 2−66568
Si LPE layers, dislocations as growth step sources, rel. to interface struct. 2−115615
Si, laser pulse processing, heterogeneous nucleation of spatially coherent damage struct. 2−56020
Si, microcrystalline, plasma deposited, charact. 2−92405
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si surface (111), epitaxy, high resolution LEED study 2−98487
Si:B, ion implanted, radiation damage production 2−61009
Si-Ti (Ni) interface, laser and electron beam irrad., silicide form. 2−66377
SiO condensation and vapour phase nucleation 2−109947
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
$SmCo_5$ permanent magnet, coercivity 2−72284
Sn solidification, low-frequency vibration influence obs. 2−116432
SnI_4 single cryst., {111} faces, microstruct. 2−66327
Ta, magnetron sputtered, nucleation props., substrate surface effects 2−115624
TiN, TiC layers, CVD, nucleation and kinetics 2−83034
TiO_2, rutile, epitaxial film growth on rutile {100} surface reacted with Ga_2O_3 in air 2−110196
Xe, liq., nucleation near crit. point 2−71624
Xe, liquid, vapour nuclei curvature effect on surface tension 2−115505
Zn, electrodeposited, incoherent nucleation and dislocation struct. 2−109952
ZnS, form of Cu_xS and Zn secondary phases, dislocation and stacking fault decoration 2−115240
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2−103658

nuclei *see nucleus*

nuclei with mass number 1 to 5
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
A=2 nuclei, axial currents, time component, pion exchange 2−95930
A=3 nuclei, three-particle equations with Coulomb interaction, bound-state soln. in momentum space 2−59305
A=3-4 nuclei, binding energy, radii, form factors, Jastrow variational calc. 2−59261
cc^{4}He(γ,pn)^{2}H reaction, triangular diagram mechanism *(Russian)* 2−90087
conference on mesons and light nuclei, Liblico, Czechoslovakia (June 1981) 2−58527
multiquark 9q and 12q systems, excited configurations, multiparticle forces, chromo-mag. NN interaction *(Russian)* 2−95934
scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
^{4}He, charge form factor, meson exchange current, three-body forces 2−74729
π-^{3}He-^{3}H coupling constant determ. 2−59247
2H(p̄,x), x=2p, pn, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
A(n, γ), A=1,2, thermal γ-ray energy calc. using deuteron binding energy meas. results 2−79944
$^9Be_4$ production from (K^-,π^-), continuum shell model calc. 2−59281
^{1}H(^{3}H,2p2n), 2.5 GeV/c, expt. results and comparison with pole model predictions 2−59366

nuclei with mass number 1 to 5 continued
^{1}H(^{3}H,pd)p, 69 MeV, break-up reaction mechanism study 2−101906
^{1}H(^{7}Li,n)^{7}Be, intense MeV neutron prod. and cross sections 2−108200
^{1}H($P_2\pi^+$)^{2}H, six-quark bag model study 2−79840
^{1}H(α,X), 44 GeV, inclusive hadron transverse momentum distribs. 2−80022
^{1}H(d,d'), 2.95 GeV/c, coherent interaction, one-pion prod. 2−74765
^{1}H(e,π$^+$)e'n, virtual photons in pion electroproduction 2−74758
^{1}H(n, γ)^{2}H, natural width of 2.223 MeV capture line from meas. in solar flare 2−68698
^{1}H(n, n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
^{1}H(n,X), total cross-section, 40-770 MeV, reson. struct. 2−95866
^{1}H(n,γ), field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
^{1}H(n,γ), parity violation effects 2−59344
^{1}H(n,γ)^{2}H, short-range effects in meson exchange currents 2−107861
^{1}H(n,n), 14.7 MeV, cross sections 2−64398
^{1}H(n,n), thermal, scatt. on water mol. including exact collision time 2−80015
^{1}H(n,ππ)^{2}H, 1.46 GeV/c, deuteron missing mass spectra meas. 2−85050
^{1}H(p, p), 500-600 MeV, relative cross section 2−113291
^{1}H(p, π)^{2}H, complete set of observables and orthogonal geometry 2−113290
^{1}H(p,X), 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
^{1}H(p,e$^+$ν)^{2}H, reaction rates in stellar interiors 2−68612
^{1}H(p,p), 643 MeV, spin correl. parameter and analysing power meas. 2−69660
^{1}H(p,p), 796 MeV, elastic scatt. in Coulomb-nuclear interf. region 2−54390
^{1}H(p,p), 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
^{1}H(p,p), parity violation effects 2−59344
^{1}H(p,p), πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{1}H(p,p) phase shift anals., potentials, optimised polynomial expansions 2−90109
^{1}H(p̄,π$^+$)^{2}H, 400, 450 MeV, analysing power meas. 2−69659
^{1}H(p,π)^{2}H, πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{1}H(p̄,π)d, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
^{1}H(π$^-$,γ), (π$^-$,π^0), 27.4, 39.3 MeV, radiative capture and charge exchange scatt. length 2−59407
^{2}H (e,e'), baryonic excitation and meson exchange currents in nuclei, review 2−59252
^{2}H (n,n) differential elastic cross-section meas. at 2 MeV 2−95862
^{2}H, (ν,X), cross section calc. using currents of second kind 2−101704
^{2}H asymptotic D-state, model independ. description, quadrupole moment 2−59257
^{2}H binding energy meas. from thermal neutron capture reaction H(n, γ)^{2}H 2−79944
^{2}H, Coulomb disintegration at low energies, theory *(Russian)* 2−59222
^{2}H EM form factor in six-quark models of two nucleon current 2−79987
^{2}H, electronuclear sum rules at constant momentum transfer 2−95991
^{2}H form factor, quark exchange corrections *(Russian)* 2−54256
^{2}H form factor, six-quark structure 2−95913
^{2}H magnetic form factor, quark model of two-baryon currents 2−84863
^{2}H, μ$^-$ capture, very small momentum ν_μ, mesonic exchange current corrections 2−113423
^{2}H, neutron-proton system, $^3S_1$-$^3D_1$ state, effective range theory appl. 2−95937
^{2}H, nuclear force and binding energy of quark model, double well cluster model calc. 2−59245
^{2}H phase shifts and bound state from NN interaction from bag-model quark interchange 2−69544
^{2}H quark model 2−107632
^{2}H, root mean square radius and asymptotic S-state amplitude 2−95907
^{2}H, six-quark drop model, total weight *(Russian)* 2−101824
^{2}H wave function, asymptotic D to S state ratio determ. from sub-Coulomb (d,p) meas. 2−84964
^{2}H(^{3}H,n)^{4}He, fusion of D-T mixtures catalysed by muons 2−80045
^{2}H(^{3}He, π$^\pm$), 910 MeV, pion inclusive spectra, nuclear struct. effects 2−101900
^{2}H(K,π)ΣN, 800 MeV/c, Σ-nucleon system expt. study 2−59423
^{2}H(K$^+$,K$^+$), N/D eqn., dispersion methods, partial wave amplitudes 2−59415
^{2}H(Λ,Λ) elastic scatt., three-particle variational calc. 2−101763
^{2}H(N,N), three-particle forces in nucleon scattering 2−113478
^{2}H(α, αp)n, 140 MeV, breakup, three-body model 2−107874
^{2}H(α,α), 6, 14 MeV, differential cross section, multichannel R-matrix anal. 2−59373
^{2}H(α,α)^{2}H, A=6 continuum system study 2−64418
^{2}H(α,αp), 9.85-13.99 MeV, kinematically complete meas. 2−113519
^{2}H(α,αp)n, A=6 continuum system study 2−64418
^{2}H(d, nnp)^{1}H, four body break-up reaction 2−85059
^{2}H(d,n)^{3}He, charge symmetry violation in low energy interaction 2−107921
^{2}H(d,n)^{3}He neutron source using gas target, energy and angle straggling effects 2−64727
^{2}H(d,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
^{2}H(d,p)t, charge symmetry violation in low energy interaction 2−107921
^{2}H(d,pp)2n, 15.1 MeV, singlet deuteron intermediate state 2−54408
^{2}H(e,X), backward electrodisintegration, quark model of two-baryon currents 2−84863
^{2}H(e,e'), inelastic scatt., cross section and polarisation of recoil electron 2−69648
^{2}H(e,e'p), nucleon momentum distrib. in ^{2}H, meson exchange currents, isobars 2−107850
^{2}H(e,e'p)n, baryonic excitation and meson exchange currents in nuclei, review 2−59252
^{2}H(e,e'p)n, six-quark model of two nucleon current appl. 2−79987
^{2}H(e,e), EM form factor meas. procedure 2−113276
^{2}H(γ, n)p, neutron polarisation, theory *(Russian)* 2−59164
^{2}H(γ, p)n, relativistic and mesonic corrections to forward cross section 2−54355
^{2}H(γ,X), photoabsorption, meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
^{2}H(γ,γ'), baryonic excitation and meson exchange currents in nuclei, review 2−59252
^{2}H(γ,γ), meson and isobar currents, contribs. to electric transitions, π-exchange 2−59326
nuclei with mass number 1 to 5 continued
^{2}H(γ,n)^{1}H, 400 and 500 MeV, proton pol. study *(Russian)* 2−85027
^{2}H(γ̄,n)p, 19.8 MeV, asymmetry function Σ(θ) 2−90077
^{2}H(γ,n)p, 20-150 MeV, asymmetry function and relative photoneutron yield calc. 2−64394
^{2}H(γ,p), pol.γ, 80-600 MeV, cross section asymmetry 2−95984
^{2}H(γ,p)n, baryonic excitation and meson exchange currents in nuclei, review 2−59252
^{2}H(γ,p)n, forward prod., D-wavefunction effect 2−107844
^{2}H(γ,pn), 0.3-0.7 GeV, polarised target asymmetry 2−64388
^{2}H(γ,pn), 180-600 MeV, differential cross section meas. in dibaryon reson. energy range 2−59328
^{2}H(γ,pn), 80-600 MeV, polarised photon, photodisintegration cross section asymmetry meas. *(Russian)* 2−90088
^{2}H(γ,π^0)^{2}H, coherent prod. at intermediate energies 2−69474
^{2}H(n,X), 21.5 MeV, break-up quasi-free scatt. sensitivity to NN interaction 2−85041
^{2}H(n,2n), three-body forces and neutron-neutron effective-range parameters 2−64358
^{2}H(n,γ)^{3}H, thermal, neutron capture cross section meas. 2−85052
^{2}H(n̄,n), 10 MeV, analysing power meas. and comparison to few-nucleon calc. 2−101892
^{2}H(n,n), 14 MeV, elastic scatt. anal. power, Legendre polynomial anal. 2−101873
^{2}H(n̄,n), 50 MeV, analysing power meas. at backward angles 2−85045
^{2}H(n̄,n), 50 MeV, analysing power meas. at forward angles 2−85046
^{2}H(n,n), elastic doublet scatt. near breakup threshold, Efimov effect 2−69656
^{2}H(n,n), off shell sensitivity, wave functions, nucleon overlapping power 2−59174
^{2}H(n,n), scatt. amplitude, three-body problem, integral eqn. numerical soln. 2−90098
^{2}H(p, p), Landau-Smorodinsky theory for composite particles *(Russian)* 2−59176
^{2}H(p,2p), low energies, N-N forces investig. 2−113373
^{2}H(p,d), pol.p, 10 MeV, polarisation transfer 2−54381
^{2}H(p̄,p), 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
^{2}H(p,p), 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
^{2}H(p̄,p), 65 MeV, anal. powers and differential cross sections 2−101874
^{2}H(p,p), analysing power meas. 2−101892
^{2}H(p,p), low energy elastic scatt., Landau-Smorodinsky theory generalisation 2−64403
^{2}H(p,p), off shell sensitivity, wave functions, nucleon analysing power 2−59174
^{2}H(p,pn), breakup, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
^{2}H(p,π^0)^{3}He, cross section ang. distrib. and analysing power meas. 2−80003
^{2}H(p̄,π$^+$), 305-400 MeV, anal. power, cross sections 2−113459
^{2}H(π,NN), coupled πNN-NN system, dinucleon resonances 2−59408
^{2}H(π,2p), 180-320 MeV, vector anal. power iT_{11}, ang. distrib. 2−90081
^{2}H(π,π), 0.4-1 GeV, backward scatt., relativistic model ang. distrib., *(Russian)* 2−107915
^{2}H(π,π), 100-300 MeV elastic scatt. cross section calc. using optical pot. 2−85100
^{2}H(π,π), 142, 181, 228 MeV, reflection term effects on differential cross section 2−69680
^{2}H(π,π), 219-294 MeV, polarised d, iT_{11} meas., dibaryon reson. effects study 2−85097
^{2}H(π,π), 245-539 MeV, phase shift anal. 2−113294
^{2}H(π,π), coupled πNN-NN system, dinucleon resonances 2−59408
^{2}H(π,π), general anal. using amplitudes *(Russian)* 2−74780
^{2}H(π,π), πNN dynamics, $^3F_3$ diproton anomaly 2−74763
^{2}H(π,π), relativistic treatment using πN scatt. separable Bethe-Salpeter eqn. kernels 2−84911
^{2}H(π,π), s-wave six-quark states and channel coupling 2−69481
^{2}H(π,πn)^{1}H, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
^{2}H(π$^-$,γ), three-body forces and neutron-neutron effective-range parameters 2−64358
^{2}H(π$^+$, pp), 80 to 417 MeV, differential cross section meas. 2−90163
^{2}H(π$^+$,p)p in six-quark model of two nucleon current 2−79987
^{2}H(π$^\pm$,pπ$^\pm$)n, three-body calc. in Δ-resonance region 2−74776
^{2}H(π$^\pm$,π$^\pm$), 65 MeV, differential cross section, rel. to 3-body calc. *(French)* 2−59414
^{3}H beta-decay, axial vector test 2−79982
^{3}H binding energy, asymptotic normalisation constant and zero-range parameters 2−95906
^{3}H binding energy, pot. shape and channel connection effects *(Russian)* 2−101818
^{3}H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^{3}H binding energy correction from 2π exchange, 3 nucleon forces 2−107741
^{3}H, β-decay, atomic effects and neutrino mass calc. *(Chinese)* 2−90053
^{3}H, β-decay and muon decay, neutrino mass and mixing effects *(Russian)* 2−95836
^{3}H, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}H, charge form factor and density, three-body force effect 2−54251
^{3}H containing mol., mol. structure effect on chemical shift 2−79983
^{3}H, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^{3}H, magnetic moment and structure 2−95916
^{3}H, photoeffect moments calc. using hyperspherical harmonics formalism 2−59240
^{3}H, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}H trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}H, two-pion exchange three nucleon force effects, form factor 2−95927
$^3H_\Lambda$, binding energy diff. to $^3He_\Lambda$ *(Chinese)* 2−107792
$^3H_\Sigma$, binding energy calc. 2−59229
$^3H_\Sigma$ binding energy, three body problem with finite range forces 2−113389
^{3}HYe-^{3}H binding energy difference, nuclear force isospin violation from Δ, charge asymmetry 2−113353
^{3}H(Λ,Λ) elastic scattering theory with realistic two-body interactions 2−101855

nuclei with mass number 1 to 5 continued
^{3}H(α,α), specific distortion effects in resonating-group method 2−90123
^{3}H(α,X), photoeffect cross section from inversion techniques 2−107846
^{3}H(α,α), bound states to 113 MeV, resonating-group study 2−54269
^{3}H(d,$\tilde{n}$), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{3}H(e,t)e, 77-147 MeV, change form factor and charge radius 2−69522
^{3}H(p,γ), <30 MeV, cross sections, ang. distribs., Legendre polynomial coeffs. 2−69654
^{3}H(p,n), 9-14 MeV, tritium break-up contrib. to neutron source reaction 2−90101
^{3}H(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
$^4H_\Lambda$ and $^4He_\Lambda$, lambda separation energy difference, tensor force effect 2−101832
$^4H_\Lambda \rightarrow {}^3H+p+e^-(\mu^-)+\bar{\nu}$, many-particle leptonic decays, energy and ang. distrib. *(Russian)* 2−90040
$^\Lambda H_\Lambda$, A=2, 3, binding energy, few-particle eqns. *(Russian)* 2−59427
$^\Lambda H(\Lambda,\Lambda)$, A=2, 3, low-energy, few-particle eqns. *(Russian)* 2−59427
$^\Lambda H(N,N)$, A=2,3, low-energy, few-particle eqns. *(Russian)* 2−59427
$^\Lambda H(\gamma,\pi^0)$, A=2, 3, threshold prod., model *(Russian)* 2−59333
$^\Lambda H(n,\pi)$, A=1-2, pion prod., differential cross section meas. 2−80005
H(e,e), EM struct. at large Q^2 2−95912
^{3}He, charge asymmetric binding energy, charge depend. 3-nucleon pot. 2−64355
^{3}He, charge form factor and density, three-body force effect 2−54251
^{3}He magnetic form factor, from realistic wave functions 2−59237
^{3}He quasi-free breakup into elastic, inelastic and particle-transfer channels, DWBA formalism 2−85009
^{3}He, three nucleon bound state with mesonic and internal nucleonic degrees of freedom 2−59246
^{3}He trinucleon asymptotic normalization constants including Coulomb effects 2−69548
^{3}He, two-pion exchange three nucleon force effects, form factor 2−95927
^{3}He, Z 2−95916
$^3He_\lambda$, binding energy, few-particle eqns. *(Russian)* 2−59427
$^3He_\lambda$, binding energy diff. to $^3H_\Lambda$ *(Chinese)* 2−107792
^{3}He(^{16}O,p)^{18}F, study of 1.701 MeV level lifetime 2−74732
^{3}He(^{3}He,π^+)^{6}Li, pionic fusion reaction mechanism study 2−80044
^{3}He(Λ,Λ), low-energy, few-particle eqns. *(Russian)* 2−59427
^{3}He(N,N), low energy, few-particle eqns. *(Russian)* 2−59427
^{3}He(α, α), cross section ang. distrib. and vector pol. 2−101857
^{3}He(α,α+p)^{2}H, 26.3 MeV, deuteron spectrum *(Russian)* 2−107876
^{3}He(α,α), bound states to 113 MeV, resonating-group study 2−54269
^{3}He(α,α), specific distortion effects in resonating-group method 2−90123
^{3}He(α,γ)^{7}Be, 165-1170 keV CM, cross-section and branching ratio meas. 2−85065
^{3}He(α,γ)^{7}Be, $E_{c.m.}$=107-1266 keV, capture reaction and solar neutrino problem 2−59380
^{3}He(e, π^+), electroprod. at low energy 2−113462
^{3}He(e,e'p), 643, 806 MeV, nuclear struct., NN interaction *(Russian)* 2−59342
^{3}He(e,e'π^+)^{3}H, virtual photons in pion electroproduction 2−74758
^{3}He($\vec{e}$,e), quark spin correlations from parton model 2−107842
^{3}He(e,e), sum rules with realistic wave function 2−59335
^{3}He(γ,d)p, two-body photodisintegration, 150 to 350 MeV, rel. to T invariance 2−90086
^{3}He(γ,π), threshold prod., model *(Russian)* 2−59333
^{3}He($\vec{n}$,γ)^{4}He, 9 MeV, polarised neutron capture, analysing power ang. distrib. meas. 2−69661
^{3}He(n,p), 0.15-150 keV, cross-section, deviation from v^{-1} law *(Russian)* 2−59360
^{3}He(p,n), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,p), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
^{3}He(p,π^+)^{4}He, microscopic calcs. using isobar-doorway approach 2−80010
^{3}He(p,π^+)^{4}He, pion prod. in rescattering model, comparison with expt. 2−80011
^{3}He(π^-,X), total and partial K-X-ray yields, pnn-and dn-reaction channels 2−113569
^{3}He(π^-,2n)^{1}H, absorpt., kinematically complete expt. 2−74778
^{3}He(π^-,n)^{2}H, absorpt., kinematically complete expt. 2−74778
^{3}He(π^-,π^0), T_π=200 MeV, differential cross section meas. 2−54447
^{3}He(π^-,π^0)^{3}H, 285,428,525 MeV; pion single charge exchange scatt. cross section 2−59424
^{3}He(π^-,π^0)^{3}H, differential cross-section, optical model calc., mag. radius depend. 2−96046
^{4}He, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{4}He, dipole giant reson. in Goldhaber-Teller model 2−84978
^{4}He, excitation energies, from ^{4}He(α,αp) 2−95956
^{4}He first excited level, from ^{3}He(n,p) *(Russian)* 2−59360
^{4}He, nucleon-trinucleon overlap function parameterisation and meson exchange corrections effect 2−113377
^{4}He, short-range correl. on one- and two-body props. of nuclei 2−54266
$^4He_\lambda$ and $^4H_\Lambda$, lambda separation energy difference, tensor force effect 2−101832
^{4}He(^{3}He,π^+)^{7}Li, coherent pion prod. study and reaction mechanism test 2−107873
^{4}He(^{4}He,^{4}He), high energy elastic scatt. differential cross section calc. 2−96020
^{4}He(^{4}He,^{4}He) elastic scatt. and ^{8}Be nuclear cluster structure unified study 2−95948
^{4}He(^{4}He,X), 60-160 MeV, ^{6}He, ^{6}Li, ^{7}Li, ^{7}Be, prod. cross section meas. 2−54416
^{4}He(^{4}He,X), multiplicity distribution model 2−101691
^{4}He(α, 2α), off shell behaviour, interaction potentials 2−85067
^{4}He(α, α), 15 MeV, generator coordinate amplitude approximations from statistical regulations 2−113381
^{4}He(α,X), 31 GeV, inclusive hadron transverse momentum distribs. 2−80022
^{4}He(α,X), eqns. of motion from time depend. cluster model 2−54415
^{4}He(α,X), time dependent cluster theory, collective modes and monopole vibrs. 2−54236
^{4}He(α,α), antisymmetrisation effects, HI optical pot. real part approxs. 2−90124

nuclei with mass number 1 to 5 continued
^{4}He(α,α), ISR energies, additive quark model of multiparticle prod. 2−79847
^{4}He(α,α), Z 2−96023
^{4}He(α,αp)^{3}H, 119 MeV, ^{4}He excitation energies 2−95956
^{4}He(d,γ)^{6}Li, reaction rate rel. to primordial synthesis of ^{6}Li 2−112626
^{4}He(d,pn)^{4}He, tensor analyzing powers for deuteron breakup reaction 2−85058
^{4}He(e,e'), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{4}He(γ,p)^{3}H, differential cross section in rescattering model, comparison with expt. 2−80011
^{4}He(γ,π^0)^{4}He, 1.5-4.5 GeV, π^0 photoproduction cross section meas. *(Russian)* 2−54357
^{4}He(γ,π^0n), 450 MeV, energy and ang. distribs. *(Russian)* 2−107848
^{4}He(n,X), R-matrix phase shifts, effective two-body corrections from ^{4}He-p data 2−101890
^{4}He($\tilde{n}$,d), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{4}He(n,n), cross section ang. distrib. and vector pol. 2−101857
^{4}He(n,n), differential cross section and polarisation, EM effects 2−113479
^{4}He(n,n), folding model anal., separable pot. approach 2−80018
^{4}He(n,n), parity non-conserving elastic scatt., observables estimate 2−85042
^{4}He($\vec{p}$, d), anal. power, reaction mech. and polarisation effects 2−113458
^{4}He(p, p), cross section ang. distrib. and vector pol. 2−101857
^{4}He($\vec{p}$,2p), 250-500 MeV, anal. powers, quasifree angles, asymmetries 2−90079
^{4}He(p,2p)^{3}H, 250,350,500 MeV, energy sharing spectra, coplanar symmetric and quasifree ang. distrib. 2−54391
^{4}He($\vec{p}$,d), 32-50 MeV, anal. power, time reversal and charge symmetry 2−69639
^{4}He(p,d)^{3}He transfer processes, diffractional theory, three-particle approach *(Russian)* 2−113434
^{4}He(p,p), 145-393 GeV, dσ/dt and σ, inelastic correction 2−54380
^{4}He(p,p), 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
^{4}He(p,p), 46 MeV polarised protons, parity nonconservation study 2−59057
^{4}He(p,p), 992 MeV, differential scatt. cross section meas. *(Russian)* 2−54399
^{4}He(p,p), differential cross section and polarisation, EM effects 2−113479
^{4}He(π,n)^{3}H, differential cross section in rescattering model, comparison with expt. 2−80011
^{4}He(π,π), 40-400 GeV, dσ/dt and σ, inelastic correction 2−54380
^{4}He(π,π), low energy scatt., few-nucleon structure, review 2−59409
^{4}He(π,π), partial wave S matrix singularity parameters 2−79774
^{4}He(π^-, n), 100-290 MeV, differential cross section, multinucleon absorption mech. *(Chinese)* 2−80040
^{4}He(π^-,n)^{3}H, pion absorpt., knockout 2−59413
^{4}He(π^+,p)^{3}He, pion absorpt., knockout 2−59413
^{4}He($\pi^\pm$,$\pi^\mp$X), 90-320 MeV, quasifree scatt., π-N medium corrections 2−80039
^{4}He($\pi^\pm$,$\pi^\pm$), 51 MeV, differential cross section, rel. to optical pot. calcs. *(French)* 2−59414
^{5}He, Σ^0 hypernuclei, microscopic model 2−95953
$^5He_{\Lambda c}$ and $^5He_{\Lambda_1}$, charmed nuclei and hypernuclei, comparative study, interaction strengths 2−54298
$^6He_{\Lambda\Lambda}$, microscopic GCM study, di-α_Λ clusters 2−79967
$^\Lambda$He, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
$^\Lambda$He, A=3, 4, charge density, model-free determ. 2−54253
$^\Lambda$He, A=3, 4, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
$^\Lambda$He, A=3, 4, form factors, multiquark cluster effect 2−84948
$^\Lambda$He, A=3,4, nuclear form factors, analytic parametrisation 2−107744
$^\Lambda$He, A=3,4,6,8, inclusive production in ^{112,124}Sn(α,X) at 15.3 GeV *(Russian)* 2−101910
$^\Lambda$He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
$^\Lambda He_\Lambda \rightarrow {}^{A-1}He+p+e^-(\mu^-)+\bar{\nu}$, A=4,5, many-particle leptonic decays, energy and ang. distrib. *(Russian)* 2−90040
$^\Lambda$He(^{3}He,π^+), A=3-4, pion prod. in exclusive kinematical region 2−80004
$^\Lambda$He(e,e), A=3, 4, EM struct. at large Q^2 2−95912
$^\Lambda$He(p,π), A=3-4, pion prod. in exclusive kinematical region 2−80004
$^\Lambda$He(π,π), A=3, 4, scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
H(μ,$\mu\nu\bar{\nu}$), cross section and scattered-muon distrib. calc. 2−54131
H(p,p), 500-600 MeV, differential cross section for elastic scatt. at 90° CM 2−80016
^{6}Li level parameters from ^{2}H(α,α) 2−59373
$^\Lambda$Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223

nuclei with mass number 6 to 19
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=10-48, isoscalar E2 transition strengths 2−95970
A=12 system, isovector $0^+ \rightleftarrows 1^+$ transition, chiral symmetry and axial charge density 2−95961
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
C ^{16}O(π,π'), 1 GeV, cross-section rel. to molecular model *(Russian)* 2−59364
CC^{12}C(^{3}He, $\pi^\pm$), 910 MeV, pion inclusive spectra, nuclear struct. effects 2−101900
CC^{12}C (n,n), 0.5, 1, 2 MeV, total neutron cross section meas. 2−96004
multiquark 9q and 12q systems, excited configurations, multiparticle forces, chromo-mag. NN interaction *(Russian)* 2−95934
C(π, 2N), contrib. towards pion-nucleus optical pot., reaction cross section 2−96048
$^\Lambda$C(p,$\pi^\pm$), A=12-14, pion prod. cross section and analysing power meas. 2−80002
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
(^{16}O, He), 75, 175, 2000 MeV/A, multiplicity, breakup mechanism, He spectra, event-by-event study 2−96031
^{13}(e,e), 80-338 MeV, M1 form factor, rel. to shell model 2−107852
^{12}($\vec{p}$,π^+)^{13}C, 200-250 MeV, analysing power energy depend. 2−59357
^{15}(p,α), 78-810 keV, stellar energies, cross sections, ang. distribs., astrophysical S-factor 2−90119

nuclei with mass number 6 to 19 continued
^{A}B(d,p), A=10, 11, 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{10}B+^{14}N resonances high spin data 2−101808
^{10}B(^{14}N, X), 86-180 MeV, fusion, direct and total cross sections, Hauser-Feshbach anal. 2−69692
^{10}B(^{17}O, X), 54-124 MeV, fusion cross sections, compound nucleus limitation effect 2−69691
^{10}B(^{3}He,π^{+}), pion prod. in exclusive kinematical region 2−80004
^{10}B(α,p,γ), 2.5-3.1 MeV, proton ang. distrib., from γ-ray line shape 2−90121
^{10}B(d,nγ), 48-170 keV, γ-rays prod., total cross section meas. 2−54401
^{10}B(γ,π^{+})^{10}Be, differential and total cross section calc. 2−85023
^{10}B($\gamma,\pi^{\pm}$), 17, 29, 42 MeV, charged pion photoproduction cross section meas. 2−85026
^{10}B(p,π^{+}), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{10}B(p,π), pion prod. in exclusive kinematical region 2−80004
^{10}B(π^{+},d), cross section for continuum and discrete states 2−59422
^{10}B(t,α)^{9}Be, 2.429 MeV state, ang. distrib., DWBA anal. 2−64413
^{11}B formation from photodisintegration and electrodisintegration of $^{1\ 2}$C 2−64392
^{11}B levels, γ-transitions, branching ratios from ^{11}Be β-decay 2−113419
^{11}B($\vec{p}$,d), 11.34-11.94 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{11}B(p,γ)^{12}C, 2.9-4.6 MeV, cross section meas. at 60° and 90 ° 2−85054
^{11}B($\vec{p}$,γ)^{12}C, 5-14 MeV, cross-section corrections 2−107862
^{11}B(p,γ)^{12}C, excited nuclear states, direct reaction model c alc. 2−64405
^{11}B(p,n), multi-configuration shell model in continuum and reson. states in ^{12}C 2−95996
^{12}B β-decay asymmetry as fast neutron spin analyser from ^{12}C($\vec{n}$,p) 2−90080
Be (π^{-},π^{0}), 40 GeV/c, π^{-}-meson charge exchange cross section meas. *(Russian)* 2−54450
^{6}Be structure in α+2N model, ground and excited states variational study 2−79948
^{7}Be small angle diff. cross sections to isobaric analogue states, energy depend. in ^{7}Li(π^{+},π^{0}) 2−64386
^{8}Be nuclear cluster structure and α-α elastic scatt. unified study 2−95948
^{8}Be(α,α), three-body problem, generalised optical pots., rescattering effects *(Russian)* 2−59309
^{9}Be (α,α'), 35.5 MeV, elastic and inelastic scatt. anal. by coupled channel method 2−54411
^{9}Be hypernuclei *(Chinese)* 2−54299
^{9}Be, negative parity states, ground props. of α-α-n system 2−84957
^{9}Be production by neutrinos generated in gravit. collapse of stars, rel. to Galaxy ^{9}Be abundance *(Russian)* 2−106686
^{9}Be$_{\Lambda c}$ and ^{9}Be$_{\Lambda}$, charmed nuclei and hypernuclei, comparative study, interaction strengths 2−54298
^{9}Be(^{3}He,$\vec{p}$)^{11}B, 13.6 MeV, proton polarisation and implications for time-reversal invariance 2−59378
^{9}Be(^{40}Ar, X), 11.4 GeV, product β-decay lifetimes 2−101846
^{9}Be(^{7}Li,^{8}B)^{8}He, differential cross section meas. *(Russian)* 2−54441
^{9}Be(d,nγ), 48-170 keV, γ-rays prod., total cross section meas. 2−54401
^{9}Be(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{9}Be(d,tα), 2.5 MeV, quasi-free effect search, α-clustering 2−64414
^{9}Be(e,X), 105 MeV, electrospallation, α-emission mechanisms 2−90092
^{9}Be(γ,p), polarised photon, cumulative proton prod. cross section meas. *(Russian)* 2−90090
^{9}Be(p,dα)^{4}He, 30 MeV, quasi-free effects study 2−85037
^{9}Be(p,γ)^{10}B, 320 keV, isoscalar E2 transition strengths 2−95970
^{9}Be(p,p) differential cross-section, optical model, two-step processes 2−90099
^{9}Be($\vec{p}$,π^{-})^{10}C, 200-250 MeV, analysing power energy depend. 2−59356
^{9}Be($\vec{p}$,π^{-})^{10}C*, 200-250 MeV, analysing power energy depend., meas. at TRIUMF 2−80007
^{9}Be($\vec{p}$,π^{+})^{11}Be, 200-250 MeV, analysing power ang. distrib. meas. 2−85047
^{9}Be(p,$\pi^{\pm}$), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{9}Be(π^{+},π^{-}), 100-300 MeV, systematics in pion double charge exchange 2−59420
^{A}Be, A=7, 8, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^{11}Be β-decay, ^{11}B levels, γ-transitions, branching ratios 2−113419
^{11}Be first forbidden β-decay, β-ν and β-γ correlations, meson exchange effects 2−113420
Be(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
Be(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
C (π^{-},η), 40 GeV/c, differential cross section meas. *(Russian)* 2−54450
C (π^{-},π^{0}), 40 GeV/c, π^{-}-meson charge exchange cross section meas. *(Russian)* 2−54450
C, neutron cross-section and kerma value for 20 to 50 keV 2−96008
C(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
C(^{12,13}C, ^{12,13}C), 300-400 keV, beam-foil interaction polarisation, quantum beats 2−69636
C(C,π), nonlinear effects in pion prod. *(Russian)* 2−90116
C(C,π^{+}), 85 A MeV, subthreshold pion prod. cross section 2−59393
C(^{15}N, ^{15}N), 300-400 keV, beam-foil interaction polarisation, quantum beats 2−69636
^{A}C, A=12-14, nuclear charge radii 2−74728
^{A}C, A=17, 18, mass excess and first excited state from ^{48}Ca(^{18}O, ^{17,18}C) 2−107740
^{A}C(^{28}Si,^{28}Si), A=12, 13, 55-99 MeV, 180° elastic excitation function meas. 2−59396
^{A}C(^{32}S,^{32}S), A=12, 13, 55-99 MeV, 180° elastic excitation function meas. 2−59396
^{A}C(n, γ), A=12, 13, thermal, γ-ray energy calc. using deuteron binding energy meas. results 2−79944
^{A}C(p,n), A=13,14, 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
^{A}C(p,π^{-}) A=12-14, pol. p, evidence for two-nucleon processes 2−113472
^{A}C(π^{+},π^{-}), A=12, 13, 100-300 MeV, systematics in pion double charge exchange 2−59420
^{A}C(π^{+},x), A=12, 13, x=p or d, cross section for continuum and discrete states 2−59422
^{11}C absolute production cross section in C(α,X) 2−113520
^{11}C, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
^{12}C 0^{+},3^{-} resonances, J$^{\pi}$ and transitions from ^{11}B(p,γ) 2−69623

nuclei with mass number 6 to 19 continued
^{12}C, 0^{+}(GS)→2^{+}(4.44 MeV) transition density 2−107794
^{12}C, 15.1 MeV level e^{+}e^{-} pair decay 2−59300
^{12}C 2^{+} state spin alignment, γ-decay from (^{12}C,^{12}C), (^{12}C,^{12}C'), (^{12}C,^{13}C) 2−69528
^{12}C bound and unbound state transitions, cross sections, possible giant resonance from ^{11}B(p,γ) 2−90110
^{12}C, elastic and inelastic pion scatt. and nuclear structure in Glauber model 2−59417
^{12}C, giant resonance decay props., shell model 2−59310
^{12}C hypernuclei, binding energy, SU(3) model *(Chinese)* 2−54299
^{12}C, M1 transitions, from (p,p'), tensor force effect 2−54302
^{12}C nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{12}C, oblate deformation dynamics in Sp(2,R) nuclear model 2−54250
^{12}C, photodisintegration and electrodisintegration, astrophy sical appl. 2−64392
^{12}C RMS charge radius meas. from muonic X-rays with crystal spectrometer 2−113356
^{12}C RMS radius, charge distribution, from factors, from (e,e) measurements 2−113357
^{12}C relativistic nuclei interaction with emulsions 2−101911
^{12}C spin flip excitation strength due to isobar-hole excitation process 2−113362
^{12}C$_{\Lambda}$ production from (K$^{-},\pi^{-}$), continuum shell model calc. 2−59281
^{12}C+^{11}B resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C, direct γ-transition search 2−107829
^{12}C+^{12}C 14^{+} resonance, γ to particle decay ratio 2−107828
^{12}C+^{12}C Coulomb barrier resonance, classification scheme 2−101865
^{12}C+^{12}C intermediate struct. resonance, spins and spectroscopy 2−101807
^{12}C+^{12}C resonance, nucleon decay 2−101934
^{12}C+^{12}C resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C resonance state direct obs. in ^{12}C(^{16}O,α) 2−101939
^{12}C+^{12}C resonances high spin data 2−101808
^{12}C+^{12}C resonances studied in the elastic, inelastic, and transfer channels 2−101938
^{12}C+^{12}C resonant states, correlation meas. from ^{12}C(^{16}O, α) 2−101943
^{12}C+^{12}C sub-Coulomb resonances on microscopic ^{12}C+^{12}C, αs+^{20}Ne, ^{8}Be+^{16}O cluster basis 2−113440
^{12}C+^{13}C resonance, multistep transfer of nucleons and the formation of molecular orbitals 2−107833
^{12}C+^{14}C, intermediate struct. in inelastic scatt. 2−101940
^{12}C+^{14}C, resonance struct. obs. 2−107904
^{12}C+^{16}O quasimolecular resonance, total reaction cross section near Coulomb barrier 2−107903
^{12}C+^{16}O resonance, nucleon decay 2−101934
^{12}C+^{16}O(^{14}N)(^{10,11}B), fusion at sub-barrier energies, S-factor calc. 2−113577
^{12}C+^{24}Mg, search in Coulomb barrier region 2−101937
^{12}C(μ^{-}, ν)^{12}B, average and longitudinal recoil pol. meas. 2−107849
^{12}C(^{11}B,X), 14-54 MeV, total and fusion cross sections, ang. momenta 2−90186
^{12}C(^{12}C, ^{12}C'), 2^{+} excitation, spin alignment predictions of various models 2−90012
^{12}C(^{12}C, ^{12}C), adiabatic coupling model, second order transitions 2−59384
^{12}C(^{12}C, ^{12}C), E≤20 MeV/u, elastic and inelastic scatt., direct processes 2−113536
^{12}C(^{12}C, ^{12}C), elastic and inelastic, γ-rays from quasimolecular ^{12}C+^{12}C resonances 2−69596
^{12}C(^{12}C, ^{12}C), elastic ang. distrib., intermediate structure 2−85079
^{12}C(^{12}C, ^{12}C), transition and reorientational pot. props. in folding model 2−107794
^{12}C(^{12}C,^{12}C'), cross section calc. using breathing mode doorways 2−59398
^{12}C(^{12}C,^{12}C'), spin alignment meas. in intermediate struct 2−107905
^{12}C(^{12}C,^{12}C'), validity of adiabatic molecular orbital concept 2−107834
^{12}C(^{12}C,^{12}C), microscopic investigation in framework of generator coordinate method 2−74770
^{12}C(^{12}C,^{12}C), projector operator method for inelastic scatt. cross section calc. 2−59395
^{12}C(^{12}C,^{12}C), resonant structures in cross section, mol. configurations theory 2−85084
^{12}C(^{12}C,X), ^{12}C+^{12}C strongly coupled collective excitations, contrib. to optical pot. 2−69628
^{12}C(^{12}C,X), 4.2-7 MeV, fusion cross section, resonance 2−101955
^{12}C(^{12}C,α)^{20}Ne, 15 MeV, ang. distrib., excitation energy, nonstatistical effects 2−96035
^{12}C(^{12}C,α)^{20}Ne, intermediate struct. resonance, spins and spectroscopy 2−101807
^{12}C(^{12}C,p), 29.5-30.5 MeV, proton ang. distribs., ^{23}Na levels, prefusion emission 2−90151
^{12}C(^{13}C, ^{13}C), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{12}C(^{15}N, α), 9.51-17.33 MeV, multistep compound processes, importance to fusion 2−69671
^{12}C(^{16}O, ^{16}O), elastic and inelastic scatt., 19.7 MeV reson. structure study 2−80035
^{12}C(^{16}O,X), 12-20 MeV CM, reson. in fusion cross section 2−59439
^{12}C(^{16}O,α), gross struct. kinematics 2−101923
^{12}C(^{16}O,α), search for ^{12}C+^{12}C resonant states, correlation meas. 2−101943
^{12}C(^{16}O,α)^{24}Mg, resonance state direct obs. 2−101939
^{12}C(^{16}O,γ)^{28}Si, fusion resonance obs. 2−107902
^{12}C(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{12}C(^{238}U, f), projectile fission study in Makrofol detector 2−64445
^{12}C(^{24}Mg, X), fusion and compound nuclei decay study 2−64435
^{12}C(^{28}Si, X), deep-inelastic back-angle yields and orbiting 2−101925
^{12}C(^{28}Si, X), fusion and compound nuclei decay study 2−64435
^{12}C(^{3}He,^{3}He), 40.9 MeV, differential cross section ang. distrib., optical model anal. 2−96021
^{12}C(^{3}He,t), (^{3}He,^{3}He'), giant dipole resonance isobaric analogue 2−69624
^{12}C(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{12}C(^{6}Li,^{6}Li), 156 MeV, differential cross section from double folding cluster model 2−90150
^{12}C(^{6}Li,^{8}Li), 30.6, 90 MeV, folding model appl., with Skyrme interaction *(Russian)* 2−90158
^{12}C(^{6}Li,^{8}B)^{10}Be, differential cross section meas. *(Russian)* 2−54441
^{12}C(^{6}Li,Li), Watanabe pot., correction 2−113523

nuclei with mass number 6 to 19 continued
^{12}C(^{6}Li,d), 34 MeV, inclusive d spectra, ZRDWBA anal., d spectator model 2−90131
^{12}C(^{6}Li,d)^{16}O*(O_2^+, 6.05 MeV), cross-section, distorted wave Born approx. 2−80025
^{12}C(^{7}Li, ^{7}Li), 63, 79 MeV, elastic and inelastic, single and mutual excitation, coupled channels calcs. 2−113528
^{12}C(^{7}Li,^{8}B)^{11}Be, differential cross section meas. *(Russian)* 2−54441
^{12}C(^{9}Be, X), X=p, d, t, α, 5.9-15.4 MeV, cross section energy depend., reson. or fluctuations 2−90137
^{12}C(^{9}Be,X), resonance struct., excitation functions, critical anal. 2−101932
^{12}C(K^-, X) in emulsion, 12.5 GeV/c, pion emission study 2−64441
^{12}C($K^\pm$,$K^{\pm\prime}$), 800 MeV/c, inelastic scatt. cross section calc. in DWIA 2−85105
^{12}C($K^\pm$,$K^\pm$), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
^{12}C(α,X), eqns. of motion from time depend. cluster model 2−54415
^{12}C(α,α_i), i=0-2, 10.5-20 MeV, absolute cross section and ^{16}O level parameters 2−59376
^{12}C(α,α′), 17.0-22.7 MeV, α-cluster states, resonances, J^π *(Russian)* 2−107823
^{12}C(α,αγ), 19.3-30.7 MeV, ang. correlation function 2−90122
^{12}C(α,p_0)^{15}N, 10.5-20 MeV, absolute cross section and ^{16}O level parameters 2−59376
^{12}C(d,α)^{10}B, isospin-forbidden reaction, coupled-channel calc. 2−54400
^{12}C(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{12}C(e,X), model for nuclear response function 2−59231
^{12}C(e,e′), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{12}C(e,e′$\pi^\pm$), 200 MeV, π^-/π^+ ratio ang. distribs., PCAC and optical anals. 2−69645
^{12}C(e,e′), quasielastic scatt., response functions, finite nucleus calc. impulse approx. 2−107851
^{12}C(γ, $\pi^\pm$X), 200-390 MeV, double differential and total cross sections 2−85028
^{12}C(γ,X), model for nuclear response function 2−59231
^{12}C(γ,n_0)^{11}C transition in direct reaction model 2−64405
^{12}C(γ,p_0)^{11}B transition in direct reaction model 2−64405
^{12}C(γ,pn)^{10}B, 34-150 MeV, differential cross-section, rel. to quasideuteron model *(Russian)* 2−59332
^{12}C(γ,π^-p), near resonance, cross-section, energy depend. *(Russian)* 2−59334
^{12}C(γ,π^+)^{12}B, nuclear form factors in timelike region and pion photoproduction 2−64395
^{12}C(γ,π), charged photopion yield, at nucleus Coulomb field influence *(Russian)* 2−90089
^{12}C(μ,X), model for nuclear response function 2−59231
^{12}C(μ,ν_μ)^{12}B, induced pseudoscalar coupling and neutrino helicity 2−101847
^{12}C(n, n), cross section ang. distrib. and vector pol. 2−101857
^{12}C(n,α), 5 TeV reactions, accelerator results comparison with cosmic ray data 2−106456
^{12}C(n,n), vector polarisation, angular variation, modified Simon theory 2−54350
^{12}C(ν,ν), ($\bar{\nu}$,$\bar{\nu}$), total and differential cross sections, pseudotensor form factor effects 2−69646
^{12}C(ν_e,e^-), ($\bar{\nu}_e$, e^+), total and differential cross sections, pseudotensor form factor effects 2−69646
^{12}C(ν_μ,μ), total and differential cross sections, pseudotensor form factor effects 2−69646
^{12}C(p, γ), 5 TeV reactions, accelerator results comparison with cosmic ray data 2−106456
^{12}C(p,2p) ^{160}MeV, factorisation corr. for DWIA matrix element 2−69663
^{12}C(p,$\mu^+\nu$)^{13}C, weak muon prod. study using impulse approx. 2−59354
^{12}C(p,n)^{12}N, 20-30 MeV, resonances, three-quasiparticle intermediate states, shell model 2−90097
^{12}C(p,p′), 24-44 MeV, M1 transitions, tensor force effect 2−54302
^{12}C(p,p′), 800 MeV, low spin state excitation, differential cross section, DWIA anal. 2−90112
^{12}C(p,p′), proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{12}C(p,p′)^{12}C, 1^+ states excitation at 150 MeV, polarisation and analysing power 2−96007
^{12}C(p,p′γ), 41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
^{12}C(p,p), bremsstrahlung spectrum and time delay, multidetector coincidence study 2−85044
^{12}C(p,p), differential cross sections in coupled channel study 2−59348
^{12}C(p,p), list-mode study of bremsstrahlung spectra near reson. and time delays 2−90100
^{12}C($\vec{p}$,$\vec{p}$), potential resonances and resonance cross section calcs. *(Russian)* 2−79994
^{12}C(p,pα)^{8}Be, 700 MeV, role of processes with cluster rearrangement 2−95995
^{12}C(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{12}C(p,π^+), distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
^{12}C($\vec{p}$,π^+)^{13}C, microscopic calcs. using isobar-doorway approach 2−80010
^{12}C($\vec{p}$,π^+)X, analysing power energy depend., meas. at TRIUMF 2−80007
^{12}C(p,π), pion prod. by target emission, total cross section calc. 2−80013
^{12}C(π, π′), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
^{12}C(π,π′), distorted wave impulse approx. differential cross section calc. 2−54334
^{12}C(π,π′), Δ-hole descript., natural and unnatural parity state excitation 2−96045
^{12}C(π,π), differential cross sections, two-pot. formalisms, Coulomb nuclear interference 2−113570
^{12}C(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{12}C(π^-,nX), X=p,d,t, emission parameters calc. in TRINUC program 2−96053
^{12}C(π^+,π^+), 29-56 MeV, backward elastic scatt. cross section, optical pot. 2−96049
^{12}C(π^+,π^+p)^{11}B, distorted-wave impulse approx. calcs. 2−85098
^{12}C(π^+,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{12}C(π^-,π^+n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102

nuclei with mass number 6 to 19 continued
^{12}C(t,p)^{14}C, 18 MeV, ground and 6.59 MeV 0^+ states 2−54406
^{12}C(t,t), 15, 17 MeV, polarised triton scatt., parity depend. pot. 2−54405
^{13}C, 9.50 MeV $9/2^+$ state from inelastic proton scatt., DWBA anal. 2−69535
^{13}C levels, J^π, R-matrix anal. of (n,n), (n,n′), (n,α) 2−69536
^{13}C levels from (π^+,$\pi^{+\prime}$), rel. to DWIA calc. 2−107911
^{13}C(^{10}B,X), 14-48 MeV, total and fusion cross sections, ang. momenta 2−90186
^{13}C(^{12,13}C,X), 3.1-6.7 MeV, fusion cross sections 2−101955
^{13}C(^{13}C,X), $E_{c.m.}$=4-15.8 MeV, fusion cross section meas. 2−54465
^{13}C(^{6,7}Li,X), 9-36 MeV, entrance channel limitations to fusion cross sections 2−113576
^{13}C(^{6}Li, t)^{16}O, 24-26 MeV, direct and compound nuclear contrib. 2−54424
^{13}C(d,t), time reversal test, use of molecular beams 2−69666
^{13}C(e,e′)^{13}C*, DWIA anal. using Cohen-Kurath wave function 2−101880
^{13}C(γ,π^-), 17-42 MeV, anomalously low diff. cross section, DWIA comparison 2−64393
^{13}C(γ,π^+)^{13}B ground state, DWIA anal. using Cohen-Kurath wave function 2−101880
^{13}C(n,n), 10-18 MeV, elastic and inelastic scatt. cross-sections 2−54365
^{13}C(p,^{3}He)^{11}B, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{13}C($\vec{p}$,d), 13.79-14.39 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{13}C(p,p), (p,p′), differential cross section meas. 2−85038
^{13}C(p,t)^{11}C, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{13}C(π^+, π^0)^{13}N ground state, single charge exchange reaction, isobar excitation mechanism, theoretical study 2−59405
^{13}C($\pi^\pm$,$\pi^{\pm\prime}$), 162 MeV, ^{13}C levels, rel. to DWIA calc. 2−107911
^{14}C+^{14}C, intermediate struct. in inelastic scatt. 2−101940
^{14}C+^{14}C, resonance struct. obs. 2−107904
^{14}C+^{14}C resonance, generator coordinate method anal. 2−101861
^{14}C(^{6}Li,dα)^{14}C, 34 MeV, d-α ang. correlation, ^{18}O positive parity rot. band 2−74725
$^{16}C_\Sigma$ hypernucleus expt. observation from O(K^-,π^+) 2−64367
^{18}C mass meas. from double charge exchange reaction ^{48}Ca(^{18}O,^{18}C)^{48}Ti 2−59399
C(α,X)^{11}C, 1.59, 4.19 GeV, absolute production cross section 2−113520
C(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
C(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
C(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
C(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
C(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
C(π,π′) and (π,πN), NN cross section determ. in nuclei 2−85106
C($\pi^\pm$,$\pi^\pm$p), 245 MeV, inclusive cross section meas. 2−85104
C(π^-,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
F (Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
F(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
^{16}F, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
^{16}F, T=1 4^- state excitation using ^{16}O(p,n), 35 MeV 2−79976
^{17}F, 6.699 MeV level spin and parity 2−59236
^{18}F, 1.701 MeV level lifetime from inverse ^{3}He(^{16}O,p) 2−74732
^{18}F deexcitation γ-rays, $0^+\rightarrow 0^-$ branch ft value from ^{18}Ne β decay 2−90056
^{18}F low lying level lifetimes from ^{3}He(^{16}O,p) 2−113411
^{18}F, low-lying states calc. using modified Skyrme force 2−59258
^{18}F, search for J^π, T=(0^+,1) level in ^{14}N(α,γ) reaction 2−84951
^{18}F, T=0 level, $J^\pi=5^-$, lifetime limit, γ-decay from ^{6}Li(^{16}O,αγ) 2−107726
^{19}F, analogue resonances from ^{18}O(p,x′γ)^{19}F γ-ray emission meas. 2−107820
^{19}F levels, γ-branching, γ-energies from ^{19}O β^--decay 2−69608
^{19}F(p,αγ)^{16}O, resonance strengths relative to elastic scatt. cross section 2−90075
$^{6}H_\Sigma$, small angle cross sections, narrow Σ states, energy shifts from ^{6}Li(K^-,π^+) 2−64368
$^{6}H_\Sigma$ hypernucleus expt. observation from ^{6}Li(K^-, π^+) 2−64367
^{6}He, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{6}He structure in α+2N model, ground and excited states variational study 2−79948
$^{6}He_{\Lambda\Lambda}$, Λ-Λ interaction energy, one-boson exchange pots. 2−79968
^{A}He, A=10, 16, 18, 22, 30, binding energy, central pot. contrib. *(Russian)* 2−59228
^{A}He, A=3,4,6,8, inclusive production in ^{112,124}Sn(α,X) at 15.3 GeV *(Russian)* 2−101910
^{A}He, A=5, 6, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
Li (π^-,π^0), 40 GeV/c, π^--meson charge exchange cross section meas. *(Russian)* 2−54450
Li, deuteron reaction, thick target neutron yields, neutron environment calc. for d+Li facilities 2−85229
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
(^{6}Li,d), antisymmetrised ^{6}Li wave function and direct interaction, cluster model 2−64387
^{6}Li, $^{13}D_1$ state excitation, from ^{7}Li(^{3}He,αd) 2−84990
(^{6}Li, ^{6}Li) A=24-208, global optical model pots. 2−113550
^{6}Li, 3-body binding energies, excluded ground state pot. in $S_{1/2}$ αN interaction 2−90008
^{6}Li, bremsstrahlung photo-cross-section, RMS radius, clusters, resonating group wave function 2−90084
^{6}Li, cluster model description of structure 2−84981
^{6}Li optical pot., Watanabe model 2−113430
^{6}Li primordial synthesis, reaction rate for ^{4}He(d,γ)^{6}Li 2−112626
^{6}Li structure in α+2N model, ground and excited states variational study 2−79948
^{6}Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
^{6}Li(^{13}C, t)^{16}O, 9.2-35.1 MeV, fusion reaction, cross section for evaporation residues 2−54424
^{6}Li(^{3}He,^{3}He), single channel resonating group calcs. 2−96009
^{6}Li(^{3}He,π^-X), 303 MeV/N, coherent π^- prod., cross sections, Weizsacker-Williams calc. 2−64416

nuclei with mass number 6 to 19 continued
^{6}Li(^{3}He,π^{+}), pion prod. in exclusive kinematical region 2−80004
^{6}Li(^{6}Li, 2d)2α, extended PWBA anal., clusters, double spectator pole 2−80030
^{6}Li(^{6}Li,^{8}B)^{4}H, differential cross section meas. *(Russian)* 2−54441
^{6}Li(α,α), single channel resonating group calcs. 2−96009
^{6}Li(α,x), x=$\alpha\alpha$, dα, quasifree scatt., theoretical anal. 2−95994
^{6}Li(d,d), single channel resonating group calcs. 2−96009
^{6}Li(d,dd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{6}Li(d,nγ), 48-170 keV, γ-rays prod., total cross section meas. 2−54401
^{6}Li(d,π^{-})^{8}B, pion prod. in exclusive kinematical region 2−80004
^{6}Li(e,e'), 80-300 MeV, magnetic form factor, cluster model anal., exchange currents 2−69523
^{6}Li(e,e), bremsstrahlung cross-section, sum rule, nucleon symm. effect 2−64396
^{6}Li(γ,π^{0}), threshold prod., model *(Russian)* 2−59333
^{6}Li(γ,π^{+})^{6}He, nuclear form factors in timelike region and pion photoproduction 2−64395
^{6}Li(γ,π), charged photopion yield, at nucleus Coulomb field influence *(Russian)* 2−90089
^{6}Li(n,α)^{3}H, occurrence in permeable rocks rel. to groundwater ^{3}H contents 2−100381
^{6}Li(n,d), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^{6}Li(n,n), single channel resonating group calcs. 2−96009
^{6}Li(n,t), 14.1 MeV, differential cross sections, spectroscopic factors, energy spectra 2−101888
^{6}Li(p, pd), 156 MeV, quasifree scatt., eikonal wave function appl., nuclear pot. *(Chinese)* 2−96010
^{6}Li(p,Δ^{++}), 1.04 GeV, cross section, Δ-N interaction, Glauber calc. 2−64402
^{6}Li(p,pd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{6}Li(p,π^{+}), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{6}Li(p,π), pion prod. in exclusive kinematical region 2−80004
(^{7}Li, ^{7}Li), A=24-208, global optical model pots. 2−113550
^{7}Li charge form factor calc. 2−90123
^{7}Li(^{3}He,$\alpha\alpha$d), 2.5 and 5.0 MeV, ^{6}Li ^{13}D$_{1}$ state excitation 2−84990
^{7}Li(d,p)^{8}Li, 0.78 MeV, cross section meas. 2−85062
^{7}Li(d,p)^{8}Li, absolute cross section and solar neutrino capture rates 2−85063
^{7}Li(n,X), cross-section evaluation, ^{3}H prod., ENDF/B-V calcs. 2−69887
^{7}Li(n,n), pol. ^{7}Li, pol. n, 2.0-80.0 keV, s-wave scatt., spin depend. *(Russian)* 2−59361
^{7}Li(p,n), 2.5 MeV, appl. as neutron source 2−102315
^{7}Li(p,n), 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
^{7}Li(p,n)^{7}Be, 60-200 MeV, total cross section 1/E depend. 2−59351
^{7}Li(π,π'), inelastic scatt. and nuclear struct. in Glauber model 2−59417
^{7}Li(π^{+},d), cross section for continuum and discrete states 2−59422
^{7}Li(π^{+},e^{+}e^{-}), 380 MeV, inverse pion electroprod., diffr. cross section *(Russian)* 2−107914
^{7}Li($\pi^{\pm},\pi^{\pm}$), 143 MeV, elastic and inelastic scatt. study 2−59418
^Li, A=5-7, spin-orbit coupling, Sp(2,R) basis model *(Russian)* 2−59223
^Li, A=6,7,8,9,11, inclusive production in ^{112,124}Sn(α,X), at 15.3 GeV *(Russian)* 2−101910
^Li(n,n), A=6,7, 7-14 MeV, clustering effects 2−69650
^Li(p,dd), 670 MeV, A=6, 7, quasi-free pickup, cross sections, reaction mech. 2−113453
^Li(p,p'), A=67, 24.4 MeV, rel. to folding model with DWA 2−96005
^Li(π^{-},X), stopped π^{-}, A=6, 7, X=p, d, t, inclusive energy spectra, missing mass spectra 2−113567
^Li(π^{+},xx), A=6,7, 38=90 MeV, two-particle coincidence data from pion annihilation 2−80037
N, neutron cross-section and kerma value for 20 to 50 keV 2−96008
^{13}N, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
^{13}N small angle diff. cross sections to isobaric analogue states, energy depend. in ^{13}C(π^{+},π^{0}) 2−64386
(^{14}N,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
^{14}N (n, γ), thermal, γ-ray energy calc. using deuteron binding energy meas. results 2−79944
^{14}N, first-excited state decay, γ-ray energy meas. 2−107796
^{14}N+^{14}N(^{16}O), fusion at sub-barrier energies, S-factor calc. 2−113577
^{14}N(^{14}N,^{8}Be)^{20}Ne, high resolution excitation functions 2−101941
^{14}N(^{14}N,α)^{24}Mg, high resolution excitation functions 2−101941
^{14}N(K^{-}, X) in emulsion, 12.5 GeV/c, pion emission study 2−64441
^{14}N(α, α'), 34.85 MeV, negative parity states, transitions, DWBA anal. 2−84958
^{14}N(α,γ)^{18}F, resonance strengths relative to elastic scatt. cross section 2−90075
^{14}N(α,γ)^{18}F, search for parity nonconservation 2−84951
^{14}N($\gamma,\pi^{\pm}$)^{14}C, charged pions threshold photoproduction study 2−95988
^{14}N(n,γ_{0})^{15}N, 5.6-13 MeV, neutron capture in giant reson. region 2−54383
^{14}N(n,p), 60 MeV, analogue isovector giant resonance excitation, DWBA anal. 2−107821
^{14}N(p, p'), 0.8 GeV, elastic and inelastic scatt., ang. distrib. meas. 2−90107
^{14}N(p,d), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{14}N(p,γ)^{15}O, resonance strengths relative to elastic scatt. cross section 2−90075
^{14}N(p,p'), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{14}N(π^{+},xx), 38-90 MeV, two-particle coincidence data from pion annihilation 2−80037
^{15}N(γ,xn), 10.8 to 38 MeV, photoneutron cross-sections, giant dipole resonance decay 2−113461
^{15}N(n,n$_{0}$), cross section, autocorrelation anal., channel coupling influence 2−95997
^{15}N(p,X), S-matrix unitarity, resonance phenomena 2−107826
^{15}N(π,π'), inelastic scatt. and nuclear struct. in Glauber model 2−59417
^{16}N stretched configuration states, J$^{\pi}$, anal. power, DWBA anal. of ^{15}O(d,α) 2−101805
^{16}N(0^{-}) beta decay, meson exchange currents effects 2−54323
^{18}Ne β^{+} decay, ^{18}F deexcitation γ-rays, 0^{+}→0^{-} branch ft value 2−90056
^{18}Ne collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224

nuclei with mass number 6 to 19 continued
N(π^{-},xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
O, neutron cross-section and kerma value for 20 to 50 keV 2−96008
^O, A=15, 16, 17, single particle and single hole energies in the ^{16}O region *(Chinese)* 2−107732
^O, A=15, 16, 17, single particle/hole energies depend. on nuclear forces *(Chinese)* 2−107733
^O, A=16, 18, low-lying states calc. using modified Skyrme force 2−59258
^O($\alpha,\alpha'\gamma$), A=17, 18, γ-ray prod. yields meas. 2−64399
^O(e,e'), A=16-18, mag. transitions and mag. polarisability of nuclei 2−54360
^O(n,n'γ)A=17, 18, γ-ray prod. yields meas. 2−64399
^O(π^{+},d), A=16, 18, cross section for continuum and discrete states 2−59422
^O(π^{+},π^{-}), 80-292 MeV, interference effects in pion double charge exchange 2−59419
^O(π^{+},π^{-}), A=16, 18, 100-300 MeV, systematics in pion double charge exchange 2−59420
^{14}O 0^{+}→^{14}N 0^{+} superallowed β^{+}-decay, ft value meas. 2−107796
^{15}O, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
^{16}O,J$^{\pi}$=3^{-} level prediction in model based on tetrahedral symmetry 2−59221
^{16}O, 2^{+} state and3^{-} resonance, 9.85 MeV excitation, R-matrix anal. of ^{12}C(α,α) 2−90067
^{16}O 3-dimens. calc., Hartree-Fock iteration techniques 2−69590
^{16}O 4p-4h states, effective interactions, deformation clustering, HF calc. 2−69503
^{16}O, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{16}O collective level excitation from (p,p') and (π,π') *(Russian)* 2−59364
^{16}O, energy of 6.13 MeV γ-transition related to ^{198}Au standard 2−95959
^{16}O, ground state correls., muonuclear sum rule 2−64374
^{16}O, magnetic moments of T=0 struct. 2−79946
^{16}O, natural parity levels 2−59376
^{16}O, partial decay width determ. for 2^{-} 8.87 MeV level 2−79970
^{16}O particle-hole states configurations 2−80023
^{16}O pion and positron emission by proton decay *(Russian)* 2−95831
^{16}O, proton decay, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
^{16}O, Σ^{0} hypernuclei, microscopic model 2−95953
^{16}O$_{\Lambda}$ production from (K$^{-},\pi^{-}$), continuum shell model calc. 2−59281
^{16}O+^{12}C resonance, search in Coulomb barrier region 2−101937
^{16}O+^{12}C resonance system, intermediate and fine struct. 2−101942
^{16}O+^{14}C, resonance struct. obs. 2−107904
^{16}O+^{16}O resonances, J$^{\pi}$=8 systematic occurrence 2−107835
^{16}O+^{16}O system, gross struct. study 2−101945
^{16}O(^{12}C,^{12}C), resonant structures in cross section, mol. configurations theory 2−85084
^{16}O(^{12}C,α)^{24}Mg*, resonance search using deviation functions 2−101933
^{16}O(^{14}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{16}O(^{15}N, ^{15}N), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{16}O(^{16}Li,^{6}Li), Watanabe pot., correction 2−113523
^{16}O(^{16}O, ^{16}O*), 24-41 MeV CM, mutual inelastic scatt., excitation functions meas. 2−90147
^{16}O(^{16}O, X), deep inelastic collisions, spin transfer meas. 2−107883
^{16}O(^{16}O, X), quasi-elastic and deep-inelastic rates calc. 2−113543
^{16}O(^{16}O, X) 2−113577
^{16}O(^{16}O,^{12}C), resonance struct., EFR-DWBA anal., band crossing model enhancement 2−54425
^{16}O(^{16}O,^{12}C)^{20}Ne, resonant struct., DWBA anal. 2−107906
^{16}O(^{16}O,^{16}O), resonant structures in cross section, mol. configurations theory 2−85084
^{16}O(^{16}O,X), complex heavy-ion optical pot., double-folding calc. 2−54421
^{16}O(^{16}O,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
^{16}O(^{16}O,α)^{28}Si, resonance formation near Coulomb barrier 2−101935
^{16}O(^{32}S, X), deep inelastic collisions, spin transfer meas. 2−107883
^{16}O(^{3}He, ^{3}He), 40.9 MeV, differential cross section ang. distrib., optical model anal. 2−96021
^{16}O(^{3}He,t), (^{3}He,^{3}He'), giant dipole resonance isobaric analogue 2−69624
^{16}O(^{93}Nb, X), pre-equilibrium particle emission in TDHF approx., total cross section 2−69673
^{16}O(Γ,xn), 24-133 MeV, photoneutron partial and total cross sections 2−59327
^{16}O(K^{-}, X) in emulsion, 12.5 GeV/c, pion emission study 2−64441
^{16}O(N,N), correl. effects in ground state elastic scatt. 2−69617
^{16}O(α, 2α), distorted wave impulse approx. 2−113521
^{16}O(α,α), 3.5-4.9 MeV, ang. distrib., phase shift and optical model anal. 2−59371
^{16}O(α,α), partly Pauli-forbidden states influence on reson. width in optical model 2−96023
^{16}O(α,α), resonating group eqn. structure 2−54332
^{16}O(e,e'X) reaction, cross-section determ. *(Russian)* 2−69649
^{16}O(e,e'), spin-isospin mode excitation 2−95993
^{16}O(e,e'p), quasifree scatt., structure functions, bound state, distorting optical pot. 2−113464
^{16}O(γ,n), 60-160 MeV, differential cross section 2−107845
^{16}O(γ,n)^{15}O, target system design for prod. of clinically useful quantities of ^{15}O 2−94203
^{16}O(γ,π^{+})^{16}N, differential and total cross section calc. 2−85023
^{16}O($\mu,\nu_{\mu}\gamma$), 40-130 MeV, photon spectra 2−59337
^{16}O(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
^{16}O(p, X), binary fragmentation, cross sections, statistical model calc. 2−113468
^{16}O(p,X), low-energy, optical pot. 2−59347
^{16}O(p,γ)^{17}F, direct capture cross section 2−90075
^{16}O(p,n$_{1}$), 35 MeV, ^{16}F T=1 4^{-} state excitation 2−79976
^{16}O($\vec{p}$,n)^{16}F, 134 MeV, analysing power and differential cross section meas. 2−64404
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{16}O(p,p'), 1 GeV, cross-section rel. to molecular model *(Russian)* 2−59364
^{16}O(p,p), 6 GeV, total cross section, Coulomb effects on parity violation 2−54203
^{16}O($\vec{p}$,p), 6.482 MeV, spin-parity determ. of 6.699 MeV level in ^{17}F 2−59236

nuclei with mass number 6 to 19 continued
^{16}O($\bar{p},\bar{p}$), potential resonances and resonance cross section calcs. *(Russian)* 2−79994
^{16}O(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{16}O(p,π^+), distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
^{16}O(π,π'N), quasielastic scatt., Δ-hole and DWIA approaches 2−96051
^{16}O(π,π), elastic scatt. and nuclear struct. in Glauber model 2−59417
^{16}O(π,π), scattering length, 3-body model, nucleon binding, exclusion principle, optical pot. 2−107910
^{16}O(π^-,X) X=2n or pn, final state effects, optical pots. 2−96050
^{16}O(π^+,p), cross section for continuum and discrete states 2−59422
^{16}O(π^+,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components 2−90167
^{16}O(π^+,xx), 38-90 MeV, two-particle coincidence data from pion annihilation 2−80037
^{17}O coulomb excitation, giant-dipole resonance contribution 2−113443
^{17}O, magnetic form factor, higher order effects 2−54255
^{17}O magnetic form factor, three-body effects 2−59234
^{17}O(^{13}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{17}O(^{3}He,α)^{16}O, analysing power and cross section meas. 2−80023
^{17}O(e,e), magnetic elastic form factor and $1d_{5/2}$ orbit radius 2−59341
^{17}O(e,e), magnetic form factor, three-body effects 2−59234
^{18}O collective excitations, hyperspherical harmonics calc. *(Russian)* 2−59224
^{18}O, first excited level lifetime from Doppler-broadened lineshape anal. 2−54311
^{18}O positive parity rot. band, from ^{14}C(^{6}Li,d), 34 MeV 2−74725
^{18}O(^{12}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{18}O(^{19}F, ^{19}F), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{18}O(^{6}Li,d)^{22}Ne, 72 MeV, ang. distrib., DWBA anal., spectrosc. factors 2−107897
^{18}O(γ,x), x=p,d,t,α, charged photoparticle emission from ^{18}O giant reson. 2−54354
^{18}O(p,γ)^{19}F, resonance strengths relative to elastic scatt. cross section 2−90075
^{18}O(p,p'γ), (p,n'γ) and (p,α'γ) reactions, ^{19}F analogue resonances obs. 2−107820
^{18}O(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{18}O(p,t)^{16}O, sequential and simultaneous transfer of neutron pair 2−107860
^{19}O β$^-$-decay, β-branching, ^{19}F levels, γ-branching, γ-energies 2−69608
O(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
O(π^-,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
^{32}P stretched configuration states, J^π, anal. power, DWBA anal. of ^{34}S(d,α) 2−101805
(π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947

nuclei with mass number 20 to 38
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=10-48, isoscalar E2 transition strengths 2−95970
A=1-24 nuclei, binding energy, levels, exchange force theory 2−59250
A=20-22, band structure, EM props., binding and excitation energies, Preedom-Wildenthal interaction effects 2−95936
CC^{28}Si level structure study by ^{27}Al(^{3}He,d) 2−54410
fast rotating nuclei, generalised pair field 2−95897
stellar weak interaction rates for A=21 to 60 nuclei 2−117663
T=1/2 mirror nuclei in 2s-1d shell, ang. momentum, J^π, sum rule anal. 2−113368
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
Al (π^-,η)$_b$ 40 GeV/c, differential cross section meas. *(Russian)* 2−54450
Al (π^-,π^0), 40 GeV/c, π^--meson charge exchange cross section meas. *(Russian)* 2−54450
Al, neutron cross-section and kerma value for 20 to 50 keV 2−96008
Al(^{3}He,X), 10-40 MeV, excitation function meas. 2−59367
^{1}Al, A=25, 29, beta decay, γ-spectra and branching ratios 2−107810
^Al, A=31, 32, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^Al(d,α), A=36, 38, 16 meV, tensor anal. powers, α-particle D-state effects 2−90082
^{24}Al, ^{24}Al^m, β$^+$-decay and weak transitions, analog states 2−59294
^{26}Al bound states excitation energies 2−95959
^{26}Al compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios from ^{25}Mg(p,γ) 2−107797
^{26}Al, mirror γ-ray strength isospin decomposition 2−79977
^{26}Al production in novae, nucleosynthesis models 2−79100
^{26}Al, resonances, entrance channel depend. 2−101944
^{27}Al, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{27}Al, levels mean lifetime meas. in (n,n'γ) reaction using DSAM 2−95967
^{27}Al, short-lifetimes, Doppler shift attenuation meas. from ^{26}Mg(p,γ) 2−107806
^{27}Al(^{12}C,X), quasielastic and deep inelastic reactions 2−96024
^{27}Al(^{14}N, αα), 115 MeV, final-state interaction and time information study by α-α correl. 2−101924
^{27}Al(^{16}O, x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{27}Al(^{16}O, Xγ), 100 MeV, deeply inelastic, fragment γ-ray deexcitation, spin alignment 2−69594
^{27}Al(^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{27}Al(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{27}Al(^{32}S, X), deep inelastic collisions, spin transfer meas. 2−107883
^{27}Al(^{32}S,X), deep inelastic collisions, low-l waves contrib. meas. 2−101918
^{27}Al(^{3}He, p)^{29}Si, preequilibrium contrib., spectral density method 2−74753
^{27}Al(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{27}Al(^{3}He,d)^{28}Si, 35 MeV, ^{28}Si level structure study 2−54410

nuclei with mass number 20 to 38 continued
^{27}Al(^{3}He,p), coherence energy extraction from fluctuating excitation function 2−54346
^{27}Al(^{3}He,t), (^{3}He,^{3}He'), giant dipole resonance isobaric analogue 2−69624
^{27}Al(^{6}Li, d), 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{27}Al(^{6}Li,^{6}He), 34 MeV, microscopic DWBA anal. 2−90132
^{27}Al(α,p), 18 MeV reaction, pre-equilib. emission, exciton model 2−59370
^{27}Al(e,e), elastic scatt., shell model interpretation 2−95990
^{27}Al(n,α), 14.7 MeV, cross sections 2−64398
^{27}Al(n,γ), ^{28}Al complete level schemes, γ-ray energies 2−107869
^{27}Al(n,γ), γ-ray energies, ^{28}Al level scheme 2−107804
^{27}Al(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{27}Al(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{27}Al(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{28}Al, β-decay, ^{28}Si transition energy 2−90020
^{28}Al, complete level scheme, from (n,γ) 2−107869
^{28}Al, level scheme, γ-ray energies from ^{27}Al(n,γ) 2−107804
^{28}Al levels, transitions, J^π and neutron binding energy from ^{27}Al(n,γ) 2−90020
Al(α,X), 10-35 MeV, excitation function meas. 2−59367
Al(n,γ), direct capture mechanism 2−113514
Al(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Al(p,mN')X, 90 MeV, fast inelastic collision in precompound reactions, cross sections, optical pot. 2−101887
Al(p,x), 16-70 MeV, excitation functions meas. for radioactive isotopes 2−101886
Al(p,x), 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
Al(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
Al(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
Al(π,π') and (π,πN), NN cross section determ. in nuclei 2−85106
Al(π^-,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
^Ar(d,α), A=36, 38, 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{36}Ar, intermediate struct. search via ^{24}Mg(^{12}C,α) 2−101946
^{36}Ar, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
^{10}B+^{14}N resonances high spin data 2−101808
^C, A=20, 22, 26, 34, binding energy, central pot. contrib. *(Russian)* 2−59228
^{12}C+^{11}B resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C, direct γ-transition search 2−107829
^{12}C+^{12}C 14$^+$ resonance, γ to particle decay ratio 2−107828
^{12}C+^{12}C Coulomb barrier resonance, classification scheme 2−101865
^{12}C+^{12}C intermediate struct. resonance, spins and spectroscopy 2−101807
^{12}C+^{12}C resonance, nucleon decay 2−101934
^{12}C+^{12}C resonance, search in Coulomb barrier region 2−101937
^{12}C+^{12}C resonances high spin data 2−101808
^{12}C+^{12}C resonances studied in the elastic, inelastic, and transfer channels 2−101938
^{12}C+^{12}C resonant states, correlation meas. from ^{12}C(^{16}O, α) 2−101943
^{12}C+^{13}C resonance, multistep transfer of nucleons and the formation of molecular orbitals 2−107833
^{12}C+^{14}C, intermediate struct. in inelastic scatt. 2−101940
^{12}C+^{14}C, resonance struct. obs. 2−107904
^{12}C+^{16}O quasimolecular resonance, total reaction cross section near Coulomb barrier 2−107903
^{12}C+^{16}O resonance, deviation functions 2−101933
^{12}C+^{16}O resonance, nucleon decay 2−101934
^{12}C+^{24}Mg, search in Coulomb barrier region 2−101937
^{12}C+^{9}Be resonance, excitation functions, critical anal. 2−101932
^{12}C(^{12}C,^{12}C'), spin alignment meas. in intermediate struct 2−107905
^{14}C+^{14}C, intermediate struct. in inelastic scatt. 2−101940
^{14}C+^{14}C, resonance struct. obs. 2−107904
^{14}C+^{14}C resonance, generator coordinate method anal. 2−101861
Cl(Ar,π), nonlinear effects in pion prod. *(Russian)* 2−90116
^{31}Cl decay, β-delayed protons, half life 2−64376
^{34}Cl levels, J^π, spect. factors, DWBA anal. of ^{32}S(α,d) 2−113365
^{34}Cl radioisotope manufacture and appls. 2−62765
^{35}Cl, 398 eV resonance, parity from ^{34}Cl(n,γ) 2−113449
^{35}Cl(n,γ),^{36}Cl complete level schemes, γ-ray spectra 2−107869
^{36}Cl, complete level scheme, from (n,γ) 2−107869
^{36}Cl levels, gamma transitions, neutron binding energy from ^{35}Cl(n,γ) 2−113391
^{37}Cl(p,n), 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
^{38}Cl, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
(Fe,X) in photoemulsion, multiple particle creation *(Russian)* 2−73812
^He, A=10, 16, 18, 22, 30, binding energy, central pot. contrib. *(Russian)* 2−59228
Mg, neutron cross-section and kerma value for 20 to 50 keV 2−96008
Mg(^{3}He,X), 10-40 MeV, excitation function meas. 2−59367
^Mg, A=24,26, dynamical collectivity in rotation-vibration coupling theory 2−95901
^Mg, A=29, 30, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^Mg(^{12}C, X), 20-60 MeV, A=24, 26, total fusion cross section excitation functions 2−69690
^Mg(^{24}Mg, X), A=24, 26, fusion and compound nuclei decay study 2−64435
^Mg(^{7}Li,^{7}Li), 88 MeV, A=24, 26, elastic and inelastic, single and mutual excitation, coupled channels calcs. 2−113528
^Mg(α,X), A=24-26, 4.5 MeV, photospallation, isospin depend. *(Russian)* 2−59331
^Mg(p,p'), A=24,26, 0.8 GeV, elastic and inelastic scatt. 2−54393
^Mg(π^+,π^-), A=24, 26, 100-300 MeV, systematics in pion double charge exchange 2−59420
^{23}Mg l=0 transition, DWBA failure for ^{24}Mg ($\bar{p}$,d) 2−69634
^{23}Mg(p,d), 100 MeV, effect of d breakup on pick-up cross section 2−59349
^{24}Mg, ^{12}C clusters, coupled channel orthogonality condition model, collective states 2−74737

nuclei with mass number 20 to 38 continued

^{24}Mg, elastic and inelastic pion scatt. and nuclear struct. in Glauber model 2−59417
^{24}Mg excitation spectrum, compound processes from ^{14}N(^{14}N, α), comparison with ^{12}C(^{16}O, α) 2−64429
^{24}Mg, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
^{24}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{24}Mg resonance state direct obs. in ^{12}C(^{16}O,α) 2−101939
^{24}Mg resonances high spin data from ^{10}B+^{14}N and ^{12}C+^{12}C reactions 2−101808
^{24}Mg, yrast line calc., comparison with empirical fusion band 2−85111
^{24}Mg(^{12}C, ^{12}C), 24-34 MeV CM, elastic and inelastic scatt., cross-section fluctuations 2−85078
^{24}Mg(^{12}C, X), fusion and compound nuclei decay study 2−64435
^{24}Mg(^{12}C,α), 24-36 MeV, excitation curves and α mag. distribs. 2−69670
^{24}Mg(^{12}C,α)^{32}S, intermediate struct. search in ^{36}Ar 2−101946
^{24}Mg(^{16}O,^{12}C)^{28}Si, excitation functions, intermediate struct. 2−96028
^{24}Mg(^{16}O,X), fusion cross section, time-dependent HF calcs. 2−84984
^{24}Mg(^{17}O, $^{\wedge}$O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{24}Mg(^{28}Si, X), fusion and compound nuclei decay study 2−64435
^{24}Mg(α, 2α), distorted wave impulse approx. 2−113521
^{24}Mg(α, X), X=αp or 2α, giant reson. structures, forward-backward asymmetry in decay 2−69668
^{24}Mg(α,α), 18.1 MeV, ang. distribs., anomalous large angle scatt., optical anal. *(Chinese)* 2−96022
^{24}Mg(α,α) and ^{24}Mg(α,γ)^{28}Si reactions meas., ^{28}Si energy levels calc. 2−101815
^{24}Mg(e,e′), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{24}Mg(γ,π), charged photopion yield, at nucleus Coulomb field influence *(Russian)* 2−90089
^{24}Mg(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{24}Mg(p,d), 94 MeV, antisymmetrized deuteron stripping, three-body model appl. 2−107815
^{24}Mg(p,n)^{24}Al, 35 MeV, stretched 6$^-$ T=1 state in ^{24}Al 2−54379
^{24}Mg(p,p′γ), 14.5-41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
^{24}Mg(π,π), 180 MeV, elastic and inelastic scatt. cross section calc. 2−85099
^{25}Mg, spectroscopic quadrupole moments from muonic X-rays 2−59238
^{25}Mg(^{16}O, $^{\wedge}$O), A=16, 17, mol. single-particle excitations calc. using deformed pot. 2−64437
^{25}Mg(^{3}He,X), X=p or α, 8.05-20.42 MeV, fluctuations due to statistical multistep compound emission 2−59375
^{25}Mg(e,e), elastic scatt., shell model interpretation 2−95990
^{25}Mg(p,γ)^{26}Al, 317, 390 keV, reson. levels, 6.13 MeV γ-transition energy in ^{16}O 2−95959
$^{\wedge}$Mg(π^+,π^+p), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{26}Mg, mirror γ-ray strength isospin decomposition 2−79977
^{26}Mg, nuclei traversing magnetised iron at low ion velocity, transient K-shell fields 2−54259
^{26}Mg quadrupole moment and B(E2) as shell model test from ^{208}Pb(^{26}Mg, ^{26}Mg′) 2−69531
^{26}Mg(^{205}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{26}Mg(^{6}Li,d), 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{26}Mg(p,γ)^{27}Al, 0.29-2.2 MeV reson. strengths and γ-decay study 2−54307
^{26}Mg(p,γ)^{27}Al, stopping values and ^{27}Al lifetimes, expt. and Monte Carlo simulation 2−107806
^{26}Mg(p,n), 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
^{26}Mg(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
Mg(α,X), 10-35 MeV, excitation function meas. 2−59367
^{24}N(^{14}N,^{8}Be)^{20}Ne, high resolution excitation functions 2−101941
^{24}N(^{14}N,α)^{24}Mg, high resolution excitation functions 2−101941
Na(Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
Na(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
$^{\wedge}$Na, A=20-24, 31, radioactive isotopes, elec. quadrupole moments and isotope shifts meas. 2−84954
$^{\wedge}$Na, A=27, 28, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
^{22}Na, branching ratio for isoscalar transition 2$^+$, T=1, 1.95 MeV—0$^+$, T=1, 0.66 MeV 2−84993
^{22}Na, positron polarisation meas. 2−108325
^{23}Na levels, prefusion emission from ^{12}C(^{12}C,p) 2−90151
^{23}Na, low energy resonances obs. in $^{\wedge}$Ne(p,γ)^{23}Na, A=21, 22 2−101891
^{23}Na(e,e), elastic scatt., shell model interpretation 2−95990
^{23}Na(n,γ), n pol., A_2 coeffs., ^{24}Na levels, J assignment 2−107868
^{23}Na(n,γ)^{24}Na, thermal neutron cross-section meas. 2−69651
^{24}Na levels, J assignment, from (n,γ), A_2 coeffs. 2−107868
^{24}Na radioisotope manufacture and appls. 2−62765
^{25}Na, beta decay, γ-spectra and branching ratios 2−107810
$^{\wedge}$Ne(p,γ)^{23}Na, A=21, 22, low energy resonances obs. 2−101891
^{20}Ne 4$^+$ yrast state g-factor, transient field precession meas. from ^{12}C(^{12}C,α) 2−59239
^{20}Ne, configuration mixing calc. with basis states using HF method 2−54264
^{20}Ne, configuration mixing calculations with basis states obtained from constrained variational methods 2−59215
^{20}Ne, magnetic moments of T=0 states 2−79946
^{20}Ne, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
(^{20}Ne, $\pi^{\pm}$), 280-480 MeV, on A=12-238, strong Coulomb effects, doubly differential cross sections 2−69675
^{20}Ne, rotational bands in the U(3)-boson model, B(E2) values 2−90003
^{20}Ne(^{12}C, X), 11-33 MeV, A=20-30 reaction product excitation functions, fusion crit. ang. mtum. 2−69672
^{20}Ne(^{16}O, ^{12}C)^{24}Mg, excitation functions, statistical anal. 2−96026
^{20}Ne(^{16}O, ^{20}Ne)^{16}O, excitation functions, statistical anal. 2−96026
^{20}Ne(^{16}O, X), 15-29 MeV CM, excitation function meas. using γ-ray techniques 2−90141

nuclei with mass number 20 to 38 continued

^{20}Ne(^{16}O,^{12}C)^{24}Mg, E_{CM}=22.8, 38.6 MeV, reson. structure in excitation functions 2−85073
^{20}Ne(^{8}Be,X), resonance search using deviation functions 2−101933
^{20}Ne(C, $\pi^{\pm}$), 280, 482 MeV, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
^{20}Ne(α,γ)^{24}Mg, screening effect on reaction rate 2−59372
^{20}Ne(π,π'), inelastic scatt. and nuclear struct. in Glauber model 2−59417
^{20}Ne(π,π), folding pot., three body optical model for 2 clusters and a meson 2−59412
^{22}Ne abundance in low energy cosmic ray sources 2−89094
^{25}Ne, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
Ne($\bar{p}$,πX), low energy annihilation, leading particle effect, semiclassical transport theory 2−69655
$^{\wedge}$O, A=22, 24, 28, 36, binding energy, central pot. contrib. *(Russian)* 2−59228
^{16}O+^{12}C resonance, search in Coulomb barrier region 2−101937
^{16}O+^{12}C resonance system, intermediate and fine struct. 2−101942
^{16}O+^{14}C, resonance struct. obs. 2−107904
^{16}O+^{16}O resonances, J$^{\pi}$=8 systematic occurrence 2−107835
^{16}O+^{16}O system, gross struct. study 2−101945
^{18}O(e,e′), inelastic scatt. from low-lying even-parity states 2−64397
^{22}O, beta-decay half lives, from ^{9}Be(^{40}Ar, X) 2−101846
P, neutron cross-section and kerma value for 20 to 50 keV 2−96008
^{28}Pβ^+-decay, ^{28}Si levels and γ-transitions 2−69607
^{29}P excited states, transitions, ang. distribs., DWBA anal. of ^{27}Al(^{3}He,n) 2−113367
^{29}P, proton stripping, DWBA analysis, ground state transitions for ^{28}Si(^{3}He,d_0)^{29}P 2−113454
^{30}P levels, J$^{\pi}$, spect. factors, DWBA anal. of (α,d), (d,α) 2−113365
^{31}p3/2$^+$ and 5/2$^+$ state g-factors from ^{28}Si(α,pγ) 2−79947
^{31}P(^{6}Li,d), 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{36}P decay, half life, ^{36}S levels, J$^{\pi}$ and transitions 2−90059
S, neutron cross-section and kerma value for 20 to 50 keV 2−96008
$^{\wedge}$S 36, 44, 56, 86, binding energy, central pot. contrib. *(Russian)* 2−59228
^{28}S mass excess from ^{28}Si(π^+,π^-) 2−90167
^{30}S, level lifetimes and E2 transition strength variations 2−101840
^{30}S levels, J$^{\pi}$ and transitions from ^{28}Si(^{3}He,n) 2−69537
^{30}S, T=1 isospin triplet states 2−95921
^{31}S excited states, transitions, ang. distribs., DWBA anal. of ^{29}Si(^{3}He,n) 2−113367
^{32}S, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
^{32}S, rotational shape isomeric band 2−69513
^{32}S(d,α), 16 meV, tensor anal. powers, α-particle D-state effects 2−90082
^{32}S(d,α), 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{32}S(d,p), spectroscopic factors, ^{33}S spectra, transition probability, semiphenomenological model 2−84955
^{32}S(e,e′), spin-isospin mode excitation 2−95993
^{32}S(e,e), target charge distrib., form factors 2−59338
^{32}S(μ^-,e$^{\pm}$), muon-electron and muon-positron neutrinoless conversion study 2−59340
^{32}S(n,n), 0.6-3.6 MeV, differential cross sections and ang. distribs. 2−54363
^{32}S(n,p), 14.7 MeV, cross sections 2−64398
^{32}S(p, p′), 7.5 MeV, 4.28-2.23 MeV transition, E2/M1 mixing ratio 2−113390
^{32}S(p,p′γ), 15.5-40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
^{32}S(π^+,π^-), 100-300 MeV, systematics in pion double charge exchange 2−59420
^{33}S resonance parameters, J$^{\pi}$, neutron strength distrib., IAS from ^{32}S(n,n) 2−113437
^{33}S, spectra, E2 transition probability, spectroscopic factors, from ^{32}S(d,p), semiphenomenological model 2−84955
^{34}S(0$^+\rightarrow$2$_2^+$) transition, matrix elements signs, cancellation 2−101836
^{34}S(n,γ), thermal, direct capture, partial capture cross sections, ^{35}S levels, transitions 2−113506
^{35}S levels, transitions from ^{34}S(n,γ) 2−113506
^{36}S levels, J$^{\pi}$ and transitions from ^{36}P decay 2−90059
^{36}S(n,γ)^{37}S, energy level scheme 2−113480
^{37}S, energy level scheme from ^{36}S(n,γ) 2−113480
Si (^{3}He,X), 10-40 MeV, excitation function meas. 2−59367
$^{\wedge}$Si, A=26, 28 levels, J$^{\pi}$ and transitions from Mg(^{3}He,n) 2−69537
$^{\wedge}$Si, A=29, 30, resonances, entrance channel depend. 2−101944
$^{\wedge}$Si, A=29,30, compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
$^{\wedge}$Si, A=34, 42, 54, 84, binding energy, central pot. contrib. *(Russian)* 2−59228
$^{\wedge}$Si(^{28}Si, X), A=28-30, fusion and compound nuclei decay study 2−64435
^{26}Si, level lifetime meas. and neutron to proton transition amplitudes ratio 2−79980
^{26}Si, mirror γ-ray strength isospin decomposition 2−79977
(^{28}Si,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
^{28}Si (n,n), 0.6-3.6 MeV, differential cross sections and ang. distribs. 2−54363
^{28}Si, α-cluster model state, ang. momentum projection effect 2−54258
^{28}Si, energy levels calc. from ^{24}Mg(α,α) and ^{24}Mg(α,γ)^{28}Si reactions meas. 2−101815
^{28}Si, fusion resonance obs. from ^{12}C(^{16}O,γ) 2−107902
^{28}Si, high spin states, shape coexistence, spectrum, moments, cranked model calcs. 2−101795
^{28}Si levels and γ-transitions from ^{28}P β^+-decay 2−69607
^{28}Si, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
^{28}Si negative parity rot. bands, quadrupole moments, cluster model approach 2−69518
^{28}Si, proton stripping, DWBA analysis, ground state transitions for ^{27}Al(^{3}He,d_0)^{28}Si 2−113454
^{28}Si, resonant struct. from ^{16}O(^{16}O,α) near Coulomb barrier 2−101935
^{28}Si, spectral functions and hole nuclear states 2−54244
^{28}Si transition energy from ^{28}Al β-decay 2−90020
^{28}Si+^{28}Si resonance behaviour at high ang. momentum 2−101863
^{28}Si+^{28}Si resonant struct. in elastic scatt., generator coordinate method anal. 2−101864

nuclei with mass number 20 to 38 continued
^{28}Si(^{12}C, ^{12}C), back-angle scatt., ang. distrib. and excitation function calc. 2−64436
^{28}Si(^{12}C,X), fusion cross section energy depend. by evaporation residue meas. 2−59440
^{28}Si(^{16}F,X), spin-orbit potential, single folding method calc. 2−59386
^{28}Si(^{16}O, ^{16}O), backward-angle cross-sections, energy depend., averaging effects 2−85080
^{28}Si(^{16}O,^{16}O), 50 MeV, phase shift anal., stat. fluctuations, backward and staggering effects 2−80033
^{28}Si(^{29}Si, ^{28}Si), 50-65 MeV, double resonance mechanism, microscopic study 2−74774
^{28}Si(^{28}Si,X), 2.1 GeV/nucleon, subthreshold prod. of K^-, $\bar{p}$ 2−80031
^{28}Si(^{3}He, np), 9.5 MeV, T=1 isospin triplet states in ^{30}S 2−95921
^{28}Si(^{3}He,X), 52 MeV, quasi-free breakup, DWBA formalism 2−85009
^{28}Si(^{3}He,t), (^{3}He,^{3}He′), giant dipole resonance isobaric analogue 2−69624
^{28}Si(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{28}Si(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
^{28}Si(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{28}Si(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{28}Si(d,p)^{29}Si, intermediate resonances obs., 1.0 to 2.5 MeV range 2−59365
^{28}Si(e,e′), mag. transitions and mag. polarisability of nuclei 2−54360
^{28}Si(γ,π), charged photopion yield, at nucleus Coulomb field influence *(Russian)* 2−90089
^{28}Si(n,p), 59.6 MeV, giant dipole resonance parent analogue 2−107822
^{28}Si(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{28}Si(p,p′), inelastic scatt. to continuum, orbiting effects 2−85040
^{28}Si(p,p′γ), 35.3, 40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
^{28}Si(π^+,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components, ^{28}S mass excess 2−90167
^{28}Si(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{29}Si(^{6}Li,d), 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{30}Si(α,α'), 120 MeV, 2^+ states, n and p transition matrix elements, relative signs 2−101796
^{30}Si(p,α)^{27}Al, 4.9-6.08 MeV, excitation energies and reson. strengths 2−64406
^{30}Si(t,p)^{32}Si, 15 MeV, excitation energies meas. 2−54407
Si(α,X), 10-35 MeV, excitation function meas. 2−59367
Si(p,p′), 115 MeV, giant resonances and low lying levels, DWBA anal. 2−69625
S(n,γ), thermal neutron absorption cross section 2−113507

nuclei with mass number 39 to 58
A=10-40, systematic energy difference between states of positive and negative parity 2−59284
A=10-48, isoscalar E2 transition strengths 2−95970
A=40-210 magic nuclei, valence nucleons effective interaction *(Russian)* 2−54273
A∼55 odd nuclei, single quasiparticle state fragmentation, rel. Pauli principle 2−84967
stellar weak interaction rates for A=21 to 60 nuclei 2−117663
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
^{40}K→^{40}Ca, isobar-hole excitations in quenching of transition 2−69610
(Ar, X), 245, 275 MeV, on rare earths, deeply inelastic cross sections 2−80029
Ar, neutron cross-section and kerma value for 20 to 50 keV 2−96008
(^{40}Ar,X), 2 GeV/N, secondary particle behaviour, fragment mean free path 2−80034
(^{40}Ar,αX), secondary α-particle interaction mean free path 2−90154
(^{40}Ar, $\pi^\pm$), 535 MeV, on A=12-39, strong Coulomb effects, doubly differential cross sections 2−69675
^{40}Ar(C, $\pi^\pm$), 533 mev, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
^{40}Ar(e,e), elastic scatt. cross section and RMS charge radius meas. 2−74757
Ar(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
Ca, charge distributions and single particle states, calc. methods 2−69526
Ca even isotopes, number conserving shell model 2−54280
Ca, neutron cross-section and kerma value for 20 to 50 keV 2−96008
Ca(Ar,X), 2 GeV/nucleon, high-energy γ-ray spectra, π^0, η, Δ prod. 2−101919
Ca(Ne,X), 2 GeV/nucleon, high-energy γ-ray spectra, π^0, η, Δ prod. 2−101919
^{A}Ca(α,α), 42 MeV, A=40, 42, 44, 48, matter density and RMS radius, folding model anal. 2−69524
^{A}Ca, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{A}Ca, A=40, 42, yrast lines and fusion bands 2−79992
^{A}Ca, A=40,42, low-lying states calc. using modified Skyrme force 2−59258
^{A}Ca, A=42,44,46,48, 2^+ states excitation, inelastic electron scatt. form factors 2−54361
^{A}Ca(^{16}O, ^{16}O′), 56 MeV, inelastic scatt. study 2−64438
^{A}Ca(^{7}Li,^{7}Li), 89 MeV, A-40, 48, ang. distribs., adiabatic α-t cluster model anal. 2−107885
^{A}Ca(α,α), A=40, 42, 44, 48, elastic scatt. microscopic study, within generator coord. method framework 2−54412
^{A}Ca(e,e′), A=40-48, mag. transitions and mag. polarisability of nuclei 2−54360
^{A}Ca(p,γ), A=42, 44, cross section and thermonuclear reaction rates meas. 2−80019
^{A}Ca(p,p′γ), A=42, 44, γ-ray yield meas. 2−80019
^{A}Ca(π^+, π^0), A=41, 42, 44, 46, 48, pion charge exchange and transition densities to isobaric analogue states 2−85107
^{A}Ca(π^+,π^-)^{A}Ti, A=40, 42, 44, 48, double charge exchange, two-amplitude model of cross section 2−69681
^{40}Ca, charge form factors from hyperspherical function method *(Russian)* 2−107747
^{40}Ca, dipole polarisability and nuclear symmetry energies 2−85022
^{40}Ca lowest T=2 state, decay transitions from ^{36}Ar(α,γ) 2−107798
^{40}Ca, $\bar{p}$ annihilation, intranuclear cascade model 2−101871
^{40}Ca, polarisation and correlation contribs. to shell model pot. 2−59263
^{40}Ca, spectral functions and hole nuclear states 2−54244

nuclei with mass number 39 to 58 continued
^{40}Ca, strong E2 and M1 transitions 2−64372
^{40}Ca$_\Lambda$ production from (K^-,π^-), continuum shell model calc. 2−59281
^{40}Ca-^{48}Ca, low-lying collective excitation contrib. to nuclear density 2−95893
^{40}Ca+0s shell nucleus, RGM nonlocal pots., equivalent local pots. 2−95939
^{40}Ca+α system, bound, quasi-bound and scattering states 2−107825
^{40}Ca(^{12}C, $\alpha\pi$), 38 MeV, γ-γ coincidence, ^{47}Cr states γ-decay 2−107731
^{40}Ca(^{16}O,^{16}O), 50 MeV, elastic scatt. cross section, interpretation by Regge formalism 2−113557
^{40}Ca(^{18}O, ^{18}O′), 62 MeV, ang. distribs., coupled channels effects, DWBA anal. 2−113555
^{40}Ca(^{18}O, X), X=^{17}O, ^{19}F, spectroscopic factors, CC and DWBA anal. 2−113555
^{40}Ca(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{40}Ca(^{3}He,t), (^{3}He,^{3}He′), giant dipole resonance isobaric analogue 2−69624
^{40}Ca(^{40}Ar, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{40}Ca(^{40}Ar,$\pi^\pm$), cross section for pion prod. near CM vel. 2−59400
^{40}Ca(^{40}Ca,Ca)Ca*, 160 MeV, inelastic scatt., nuclear continuum study 2−69679
^{40}Ca(^{40}Ca,X), matter, momentum and energy flow, Wigner transformation of TDHF 2−107884
^{40}Ca(^{40}Ca,X), time-dependent HF calcs. 2−84984
^{40}Ca(^{40}Ca,X), total cross section predictions, geometric limit applicability 2−69678
^{40}Ca(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{40}Ca(^{6}Li, ^{6}Li), 26-34 MeV, description using double folded or α+d cluster pots. 2−107893
^{40}Ca(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{40}Ca(^{6}Li,^{6}Li), projectile breakup, microscopic coupled channels and α-d cluster anal. 2−113553
^{40}Ca(^{6}Li,X), X=p,d,t,^{3}He,α, 156 MeV, inclusive breakup, DWBA, coalescence model 2−101912
^{40}Ca(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{40}Ca($K^\pm$,$K^\pm$), 800 MeV/c, elastic, inelastic scatt., comparison with optical model and DWBA calcs. 2−85101
^{40}Ca(N,N), correl. effects in ground state elastic scatt. 2−69617
^{40}Ca(α, 2α), distorted wave impulse approx. 2−113521
^{40}Ca(α,Γ), Q-value 2−59374
^{40}Ca(α,X), optical pot. imaginary part, shell model calcs., collective state effects 2−101908
^{40}Ca(α,X), X=αp or 2α, giant reson. structures, forward-backward asymmetry in decay 2−69668
^{40}Ca(α,α), 104 MeV, elastic scatt. and Glauber multiple scatt. model 2−107871
^{40}Ca(α,α), 140 MeV, differential cross sections, folding model anal., nuclear density 2−101907
^{40}Ca(α,α), 31, 100 MeV, second-order imaginary optical pot. microscopic calc. 2−54418
^{40}Ca(d,p), 12 MeV, vertex constants, spectroscopic factors, DWBA anal. *(Russian)* 2−59369
^{40}Ca(e,e′), 31-65 MeV, form factors meas. for 10.32 MeV transition 2−85034
^{40}Ca(e,e′), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{40}Ca(e,e′), spin-isospin mode excitation 2−95993
^{40}Ca(γ,π), charged photopion yield, at nucleus Coulomb field influence *(Russian)* 2−90089
^{40}Ca($\mu,\nu_\mu\gamma$), 40-130 MeV, photon spectra 2−59337
^{40}Ca($\mu,\nu_\mu\gamma$), effective Hamiltonian, excitation spectrum 2−59336
^{40}Ca(n,γ), contributions from statistical, valence and direct mechanisms below 2 MeV 2−113512
^{40}Ca($\vec{n}$,n), 14 MeV, anal. powers at forward angles 2−69638
^{40}Ca(n,n), optical pot. from scatt. amp. ang. depend. 2−69653
^{40}Ca(p, p) and (p, p′), 800 MeV, cross section and analysing power ang. distribs. 2−90108
^{40}Ca(p,p), 1 GeV, cross sections from fluctuon model 2−69527
^{40}Ca(p,p), 500 MeV, polarisation, spin rot. function, nuclear geometry, scatt. amplitudes 2−113360
^{40}Ca(p,p), optical pot. energy depend., Dirac eqn. based anal. 2−59353
^{40}Ca($\vec{p},\vec{p}$), potential resonances and resonance cross section calcs. *(Russian)* 2−79994
^{40}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{40}Ca(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{40}Ca(p,π^+), distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
^{40}Ca(p,π^+)^{41}Ca, microscopic theory of pion prod. and absorpt. 2−79985
^{40}Ca(π, π'), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
^{40}Ca(π^-, X), energy spectra following pion absorpt., exciton model description 2−113572
^{40}Ca(π^+,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components, ^{40}Ti mass excess 2−90167
^{40}Ca($\pi^\pm$, π^+), 64.8 MeV, elastic scatt. cross section ang. distrib. 2−90165
^{40}Ca($\pi^\pm,\pi^0$), giant-resonance excitation, eikonalised strong-absorption model 2−85103
^{41}Ca, negative parity states 2−59235
^{41}Ca(n,X), X=p, γ, α, thermonuclear reaction rates, state., calcs. 2−59437
^{42}Ca(p,n), 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
^{43}Ca, hyperfine structure anal. of 4s4p configuration and nucl. quadrupole moment 2−114124
^{44}Ca(n,d), (n,n′p), (n,pn), cross sections, Hauser-Feshbach anal. 2−101884
^{44}Ca(p,n)^{44}Sc, cross section and thermonuclear reaction rates meas. 2−80019
^{48}Ca neutron density distribs. by different strong probes, radial sensitivity of $\pi^\pm$, p, α 2−69525
^{48}Ca spin flip excitation strength due to isobar-hole excitation process 2−113362
^{48}Ca(^{16}O, ^{16}O), 158.2 MeV, elastic and inelastic cross sections, optical and DWBA anal. 2−113554

nuclei with mass number 39 to 58 continued
^{48}Ca(^{16}O, X), 158.2 MeV, X=^{15}N, ^{17}O, Li-Al, nonfusion cross sections, DWBA anal. 2−113554
^{48}Ca(^{16}O,X), 142 MeV, deep inelastic collisions, neutron, proton and alpha emission 2−59401
^{48}Ca(^{16}O,^{18}C)^{46}Ti, 100 MeV, double charge exchange reaction, ^{18}C mass meas. 2−59399
^{48}Ca(^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{48}Ca(^{208}Pb, X), fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{48}Ca(^{238}U, X), fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{48}Ca(^{40}Ca,X), 330 MeV, fusion cross section, absence of closed shell effect, comparison with ^{48}Ti(^{40}Ar,X) 2−69693
^{48}Ca(α,α'), 70 MeV, 1^+ state obs. 2−54396
^{48}Ca(p,n), 160 MeV, cross-section, Δ(1232) isobar effect 2−85039
^{48}Ca($\vec{p}$,p'), 160 MeV, 1^+ state excitation, anal. powers, possible mesonic effects 2−90078
^{48}Ca(p,p'), 44.4 MeV, 10.212 MeV 1^+ state excitation 2−69658
^{48}Ca(p,p'), 65 MeV, 1^+ state obs. 2−54396
^{48}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{48}Ca(p,t)^{46}Ca, DWBA calc. for two step amplitude 2−54333
^{48}Ca(t,p), finite range DWBA anals. with realistic wave functions 2−64410
^{48}Ca(t,p)^{50}Ca, sequential and simultaneous transfer of neutron pair 2−107860
^{49}Ca resonances and transitions from ^{49}K β-decay 2−59297
^{49}Ca(n,γ) rate, rel. to nβ-process and Ca-Ti-Cr anomalies to Allende inclusion 2−112397
Ca(n,n), 9.9-13.9 MeV, optical parameters, anal. power, differential cross section 2−107843
Ca(π^-, X), stopped π^-, p,d,t, ^{3}He, α emission energy spectra 2−96047
^{55}Co, half-life values and relative intensities of γ-rays 2−95966
^{56}Co, β^+ decay, Fermi-Gamow-Teller mixing, T invariance test in V-A model 2−90055
^{57}Co isobaric analogue resonances, J^π, spectroscopic factors from ^{56}Fe(p,p) 2−59311
(Cr, X), 332 MeV, on rare earths, deeply inelastic cross sections 2−80029
Cr even isotopes, number conserving shell model 2−54280
^Cr, A=50,52, 2^+ states excitation, inelastic electron scatt. form factors 2−54361
^Cr(α,X), A=52-54, 27.2 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^Cr(d,X), A=52-54, 13.6 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{47}Cr, high spin states, γ decay from ^{46}Ti(^{3}He, 2n) and ^{40}Ca(^{12}C, αn) 2−107731
^{50}Cr (n,d), (n,n'p), (n,pn), cross sections, Hauser-Feshbach anal. 2−101884
^{52}Cr (^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{52}Cr(α,α), 42 MeV, matter density and RMS radius, folding model anal. 2−69524
^{52}Cr(n,n), 5-7 Mev, elastic and inelastic scatt. cross section meas. *(Russian)* 2−90115
^{52}Cr(p,γ), resonance phenomena in cross section 2−95997
^{52}Cr(p,p'), resonance phenomena in cross section 2−95997
^{53}Cr levels parity assignment, two-crystal Compton polarimeter appl. 2−64814
(Fe, X), 365 MeV, on rare earths, deeply inelastic cross sections 2−80029
Fe, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
Fe even isotopes, number conserving shell model 2−54280
Fe(^{12}C,X), 44 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
^Fe(α,α), 42 MeV, A=54, 56, matter density and RMS radius, folding model anal. 2−69524
^Fe(ñ,n'), A=54, 56, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
^Fe(p,n), A=54, 56, 28-35 MeV, ang. distrib. for low-lying states, DWBA anal. 2−74764
^{50}Fe, 2^+ states excitation, inelastic electron scatt. form factors 2−54361
^{54}Fe(g,α'x), 59-160 MeV, exciton coalescence model anal. 2−107875
^{54}Fe(d,^{3}He), 80 MeV, finite range effects, DWBA calcs. 2−113517
^{54}Fe(n,γ), resonant capture, intermediate coupling consequences 2−113509
^{54}Fe(n,γ) s-wave capture, resonance interference 2−113511
^{54}Fe(ñ,n), 14 MeV, anal. powers at forward angles 2−69638
^{55}Fe, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{55}Fe, radiative strength functions for partial γ-transitions from resonances 2−101833
(^{56}Fe,X), 2 GeV/N, secondary particle behaviour, fragment mean free path 2−80034
(^{56}Fe,αX), secondary α-particle interaction mean free path 2−90154
^{56}Fe fragmentation on CH_2, C and H targets, cross sections and charge changing 2−113522
^{56}Fe nuclear matter response in isovector spin channel, sum rule approach 2−113385
^{56}Fe, proton decay, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
^{56}Fe(^{136}Xe,X)^{A}V, A=56, 57, neutron rich isotope production *(Chinese)* 2−107899
^{56}Fe(^{136}Xe,X)^{54}Ti, neutron rich isotope production *(Chinese)* 2−107899
^{56}Fe(^{136}Xe,X)^{58}Cr, neutron rich isotope production *(Chinese)* 2−107899
^{56}Fe(e,X), 20 GeV, heavy fragment prod. through electropion excitation 2−69647
^{56}Fe(e,e'), quasielastic scatt., response functions, finite nucleus calc. impulse approx. 2−107851
^{56}Fe(n,p), 14.7 MeV, cross sections 2−64398
^{58}Fe (^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{58}Fe levels from ^{59}Co(d, ^{3}He)^{58}Fe in particle vibr. coupling model 2−54404
Fe(α,X), 5.04 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
Fe($\mu,\mu\bar{\nu}\bar{\nu}$), cross section and scattered-muon distrib. calc. 2−54131
Fe(p,X), in cosmic rays, partial inelasticity coeff. *(Russian)* 2−117552

nuclei with mass number 39 to 58 continued
Fe(π,X), in cosmic rays, partial inelasticity coeff. *(Russian)* 2−117552
Fe($\pi^\pm,\pi^\pm$P), 245 MeV, inclusive cross section meas. 2−85104
Fe(π,π') and (π,πN), NN cross section determ. in nuclei 2−85106
Fe(π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947
K(Ar,π), nonlinear effects in pion prod. *(Russian)* 2−90116
^K, A=39, 41, l-forbidden M1 transitions and effective g-factors *(Chinese)* 2−95963
^{40}K, M1 transitions and moments, two-body current contribs., shell model anal. 2−107799
^{40}K(n,γ)^{41}K, energy level scheme 2−113481
^{41}K, energy level scheme from ^{40}K(n,γ) 2−113481
^{41}K(n,γ)^{42}K, thermal neutron cross-section meas. 2−69651
^{41}K(p,X), X=γ, n, αγ, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
^{46}K(n,γ) rate, rel. to nβ-process and Ca-Ti-Cr anomalies to Allende inclusion 2−112397
^{49}K β-decay, ^{49}Ca resonances and transitions 2−59297
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
Ni(^{12}C,X), 30-84 MeV/u, linear momentum transfer determ. 2−85071
^Ni(α,α), 140,172 MeV, A=58,60,62,64, differential cross sections, folding model anal., nuclear density 2−101907
^Ni(α,α), 42 MeV, A=58, 60, 62, 64, matter density and RMS radius, folding model anal. 2−69524
^Ni(ñ,n'), A=58, 60, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
^Ni(p,p'), 200 MeV, A=58, 60, 62, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^{56}Ni excitation function, intermediate struct. resonances, from ^{28}Si(^{28}Si,^{28}Si) 2−74774
^{57}Ni, half-life values and relative intensities of γ-rays 2−95966
^{58}Ni (n,n), 0.9-4.5 MeV, elastic and inelastic cross section meas. 2−96013
^{58}Ni, charge distributions and single particle states, calc. methods 2−69526
^{58}Ni, spectral functions and hole nuclear states 2−54244
^{58}Ni(^{12}C, γ)^{70}Se, capture reaction cross section 2−113561
^{58}Ni(^{18}O, ^{18}O), phase shifts, closed form and optical model anal. 2−113526
^{58}Ni(^{3}He, ^{3}He), 130 MeV, ang. distrib., giant reson., optical and DWBA calc. 2−101909
^{58}Ni(^{3}He,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{58}Ni(^{6}Li,^{6}Li), 20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
^{58}Ni(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{58}Ni(^{7}Li, ^{7}Li), pol. ^{7}Li 14-22 MeV, tensor anal. power, shape effect model test 2−85069
^{58}Ni(^{7}Li,^{7}Li), 20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
^{58}Ni(^{7}Li,^{7}Li), spin-$^3/_2$ particles, elastic scatt., analysing powers calc. 2−101917
^{58}Ni(^{7}Li,^{7}Li), spin-3/2 deformed projectile scatt., polarisation, complex folded potentials anal. 2−101875
^{58}Ni(α, pnγ), 24-40 MeV, ^{60}Cu deduced high-spin levels, J^π 2−107730
^{58}Ni(α,α'), 129 MeV, L=0 strength, monopole resonance at 20 MeV 2−90070
^{58}Ni(α,α'p), 140 MeV, localised excitation, proton spectra 2−90125
^{58}Ni(α,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{58}Ni(d,X), 80 MeV, inelastic scattering and inelastic breakup, adiabatic approx. 2−113516
^{58}Ni(d,d), 80 MeV, Dirac phenomenology 2−85061
^{58}Ni(d,np) breakup reactions, coupled discretised continuum channel method based on three-body model 2−101901
^{58}Ni(e,e'), 1^+ and 2^- states excitation, inelastic scatt. cross section calc. 2−85030
^{58}Ni(p,γ), isospin impurity and core polarisation of IAR fragments in ^{59}Cu 2−101856
^{58}Ni(p,p'), 27 MeV, levels J^π, collectivity, microscopic DWBA anal. 2−107727
^{58}Ni(p,p'), inelastic scatt. to continuum, orbiting effects 2−85040
^S 36, 44, 56, 86, binding energy, central pot. contrib. *(Russian)* 2−59228
^Sc, A=43,45,47, levels, J^π, microscopic form factors, DWBA anal. of Ti(p,α) 2−101812
^{40}Sc beta-decay to proton and α-particle unbound states in ^{40}Ca 2−85000
^{41}Sc, negative parity states 2−59235
^{42}Sc, low-lying states calc. using modified Skyrme force 2−59258
^{45}Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
^{45}Sc, deformed shell model, with residual interactions 2−95938
^{45}Sc resonance decay channels, amplitude correlations from ^{44}Ca(p,p') 2−90074
^{45}Sc(α,X), 27.2 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{45}Sc(d,X), 13.6 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{45}Sc(p,n)^{45}Ti, cross section and thermonuclear reaction rates meas. 2−80019
^Si, A=34, 42, 54, 84, binding energy, central pot. contrib. *(Russian)* 2−59228
^{28}Si+^{28}Si resonance behaviour at high ang. momentum 2−101863
^{28}Si+^{28}Si resonant struct. in elastic scatt., generator coordinate method anal. 2−101864
Ti even isotopes, number conserving shell model 2−54280
^Ti, A=46,48,50, 2^+ states excitation, inelastic electron scatt. form factors 2−54361
^Ti(^{13}C,X), 36-56 MeV, A=46-50, absolute residue cross sections, evaporation anal. 2−59389
^Ti(α,α), 42 MeV, A=46, 48, 50, matter density and RMS radius, folding model anal. 2−69524
^Ti(α,α), A=46,48,50, 140 MeV, differential cross sections, folding model anal., nuclear density 2−101907
^Ti(e,e'), A=46-50, mag. transitions and mag. polarisability of nuclei 2−54360
^Ti(n,γ), A=47-49, capture mechanism 2−113513
^{40}Ti mass excess from ^{40}Ca(π^+,π^-) 2−90167
^{46}Ti level struct., cross sections, spectroscopic strengths, DWBA anal. of ^{45}Sc(^{3}He,d) 2−59242
^{46}Ti, yrast lines and fusion bands 2−79992

nuclei with mass number 39 to 58 continued
^{46}Ti(^{3}He, 2n), 22 MeV, γ-γ coincidence, ^{47}Cr states γ-decay 2−107731
^{46}Ti(^{3}He,t), (^{3}He,^{3}He′), giant dipole resonance isobaric analogue 2−69624
^{48}Ti(^{13}C,X), 46 MeV, light medium systems formation and decay study 2−85083
^{48}Ti(^{40}Ar,X), 330 MeV, fusion cross section, absence of closed shell effect, comparison with ^{48}Ca(^{40}Ca,X) 2−69693
^{49}Ti (n,d), (n,n′p), (n,pn), cross sections, Hauser-Feshbach anal. 2−101884
^{49}Ti(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{50}Ti(^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
Ti(α,X), 27.2 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
Ti(d,X), 13.6 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{51}V(^{7}Li,X), Li ions spectroscopic deformation effects, γ-emission study 2−101930
^{51}V(α,X), 27.2 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{51}V(d,X), 13.6 MeV, total cross-section, isotope/isotone effects *(Russian)* 2−59368
^{51}V(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{51}V(p,p′), 200 MeV, M1 resonance excitation, cross sections, DWIA anal. 2−113439

nuclei with mass number 59 to 89
^Cu(π^{+},X), A=63, 66, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
A=40-210 magic nuclei, valence nucleons effective interaction *(Russian)* 2−54273
A=68, nuclear data sheets 2−89476
A=78, nuclear data sheets, levels, transitions, J^{π} 2−58557
A∼90, neutron deficient nuclei, struct. aspects *(Rumanian)* 2−95903
CC^Cu, A=60, 61, half-life values and relative intensities of γ-rays 2−95966
high-spin isomerism near A=75 and 100, ns feeding times 2−84941
stellar weak interaction rates for A=21 to 60 nuclei 2−117663
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^{74}(^Ni,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
^As, A=69, 71, 73, excited state struct., quasiparticle-core coupling model 2−90018
^{75}As, $3/2^{-}\rightarrow 3/2^{-}$ transition, electric monopole matrix element calc. 2−90041
^{77}As, level struct., γ-ray correlation study and theoretical model, from ^{95}Se electron capture 2−95920
^{75}As, perturbed directional correlations meas. in gaseous H_2 ^{75}Se/He sources 2−74748
^{78}As→^{78}Se, β^{-} decay, γ-rays spectroscopy 2−69597
^{81}As levels, J^{π}, spectroscopic factors, DWBA anal. of ^{82}Se(t,α) 2−69539
^Br, A=79, 81, neutron reson. parameters 2−59241
^Br, A=79, 81, P violation obs. for thermal neutron capture *(Russian)* 2−80020
^{71}Br→^{71}Se, mass-separated nuclide decay study 2−101845
^{72}Br high spin states, J^{π}, transitions from ^{58}Ni(^{16}O, np) 2−69507
^{76}Br high spin, two-quasiparticle bands, isomer, transitions from (α,pn), (^{3}He,p2n), (d,2n), (p,n) 2−90007
^{78}Br, high-spin states in-beam study 2−54234
^{79}Br(^{12}C, X), 55-110 MeV/N, high multiplicity reactions in AgBr nuclear emulsion event by event analysis 2−113565
^{81}Br(^{3}He,t)^{81}Kr, ^{81}Kr ground state mass and solar neutrino problem 2−59227
^{81}Br(^{6}Li,4nγ), 19-32 MeV, ^{84}Sr high spin states study 2−54428
^{83}Br high spin states, J^{π}, yrast bands, transitions from ^{82}Se(Li, αxnγ) 2−69506
Br($\pi^{+}\pi^{+}$p), 60 MeV, proton knockout mechanism *(Russian)* 2−59425
^Ca, A=60, 90, 132, binding energy, central pot. contrib. *(Russian)* 2−59228
^{58}Co(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{59}Co(α,p), 18 MeV reaction, pre-equilib. emission, exciton model 2−59370
^{59}Co(d, ^{3}He)^{58}Fe, 33.3 MeV, ang. distrib. anal. ^{58}Fe levels in particle vibr. coupling model 2−54404
^{59}Co(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{59}Co(n,γ)^{60}Co, energy level scheme 2−113482
^{59}Co(n,n′γ), levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
^{59}Co(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{59}Co(π^{-},X), stopped π^{-}, two coincident charged particle spectroscopy, missing mass 2−113568
^{60}Co, energy level scheme from (n,γ) 2−113482
^{60}Co irradiation unit, dose distrib., calc. and meas. comparison 2−78449
(Cu, X), 401 MeV, on rare earths, deeply inelastic cross sections 2−80029
Cu (π^{-},η), 40 GeV/c, differential cross section meas. *(Russian)* 2−54450
Cu (π^{-},π^{0}), 40 GeV/c, π^{-}-meson charge exchange cross section meas. *(Russian)* 2−54450
Cu(^{12}C,X), 18.5, fragments recoil props. 2−54430
Cu(^{12}C,X), 86 MeV/A, products yields and recoil props. 2−96039
Cu(^{20}Ne,X), 170,252 MeV, fragments charge and ang. distribs . 2−54434
^Cu, A=61,63, radiative strength functions and intensity correlations from Ni($\vec{p}$,γ) *(Russian)* 2−107800
^Cu(α,α), 42 MeV, A=63, 65, matter density and RMS radius, folding model anal. 2−69524
^Cu(e,e), A=63, 65, cross sections for elastic mag. scatt. 2−113465
^Cu(n,2n), A=63,65, 14.7 MeV, cross sections 2−64398
^{59}Cu, isospin impurity and core polarisation of IAR fragments 2−101856
^{60}Cu, high-spin states, J^{π}, from ^{58}Ni(α, pnγ) 2−107730
^{63}Cu(^{12}C, ^{12}C), 45 MeV, inelastic scatt., core-excited states props. study 2−107890

nuclei with mass number 59 to 89 continued
^{63}Cu(^{13}C, ^{13}C), 45 MeV, inelastic scatt., core-excited states props. study 2−107890
^{63}Cu(^{19}F, α2n)^{76}Kr, 2_1^{+} states lifetime meas. 2−54309
^{63}Cu(p,nγ)^{63}Zn, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{64}Cu, nuclear electron density in CuSCN and Cu(SCN)$_2$, electron capture decay study 2−92545
^{65}Cu, axion search in monochromatic M1 transition 2−113393
^{65}Cu, M3 strength quenching in ground state 2−113465
^{65}Cu(^{19}F,p2n)^{81}Rb, EM transition strength in ^{81}Rb 2−54305
^{65}Cu(n̄,n), 14 MeV, anal. powers at forward angles 2−69638
Cu(γ,p), 150, 300 MeV, inclusive photoproton cross section meas. 2−85025
Cu(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Cu(p,X), 400 GeV, fragments recoil props. 2−54430
Cu(p,h), 225 GeV/c, ang. and energy distrib. meas. of secondary hadron fluxes 2−107854
Cu(p,x), 16-70 MeV, excitation functions meas. for radioactive isotopes 2−101886
Cu(p,x), 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
Cu(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
Cu(π^{-}, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
Cu(π^{-},xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
^{65}Ga, $d_{5/2}$ isobaric analogue resonance decay following ^{64}Zn(p,γ) 2−90066
^{67}Ga radioisotope manufacture and appls. 2−62765
^{68}Ga, positron polarization meas. 2−108325
^{69}Ga excited states, bands, J^{π}, mean lives, transitions from ^{64}Ni(^{7}Li,Zn) 2−89998
^{71}Ga levels, from DWBA anal. of ^{74}Ge(p,α) 2−107864
Ge, even-A nuclei, shape coexistence and shape transitions 2−84949
Ge, ground state proton occupation numbers, spectral distrib. methods 2−69512
^Ge, A=66-78, E2 transition strengths systematics 2−69603
^Ge, A=70,72,74,76,78, first excited 0^{+} states study via Se(d ,^{6}Li) 2−74733
^{66}Ge band struct., J^{π}, transitions, branching, collective calcs. from ^{58}Ni(^{10}B,pn) 2−69508
^{68}Ge, 6^{-} and 7^{-} states, g-factors from ^{58}Ni(^{12}C, 2p) 2−113363
^{70}Ge negative parity states, mean lifetimes, transitions from ^{56}Fe(^{16}O,2p) 2−113412
^{74}Ge(p,α), 36.25 MeV, DWBA anal., ^{71}Ga levels, spectrosc. strengths 2−107864
^{74}Ge(p,p′), 22 MeV, levels, J^{π}, DWBA and CCBA anals. 2−107724
^{75}Ge, $5/2^{+}$ level at 192.5 keV, 52.5 keV transition 2−84956
^{76}Ge(^{12}C, α2n), ^{82}Kr recoil distance lifetime meas. 2−59290
^{76}Ge(^{12}C,4nγ), 48-60 MeV, ^{84}Sr high spin states study 2−54428
^{76}Ge(^{7}Li,5n), 40-50 MeV, ^{78}Br high-spin states in-beam study 2−54234
Ge(p,t), even isotopes, low lying 0^{+} states, microscopic coupled channel description 2−59350
Ge(p,t), even-A nuclei, shape coexistence and shape transitions 2−84949
Ge(t,p), even-A nuclei, shape coexistence and shape transitions 2−84949
Kr ground state proton occupation numbers, spectral distrib. methods 2−69512
Kr, transfer probabilities in pair aligned model, nuclear field theory anal. 2−69573
^Kr, A=74-86, E2 transition strengths systematics 2−69603
^Kr, A=76, 78, 80, 82, low-lying octupole vibr. strength splitting 2−84939
^Kr, A=76, 78, 80, high spin states, J^{π}, two-quasiparticle plus rotor calcs. 2−89999
^Kr, A=76, 82, 84, Coulomb excitation and lifetime meas. of 2_1^{+} states 2−54309
^Kr, A=78-86, excitation functions from spallation reactions, application to lunar cosmogenic Kr 2−113473
^Kr(p,pxn), A=82-86, 600 MeV, ^{81}Kr prod. cross section meas. *(Russian)* 2−90114
^Kr(p,t), A=78-84, low-lying octupole vibr. strength splitting in ^{76,78,80,82}Kr 2−84939
^{76}Kr, collective band struture to high spin and shape coexistence 2−64351
^{76}Kr yrast and band state lifetime meas., feeding times, transition intensity *(Chinese)* 2−79981
^{77}Kr, mass difference meas. using beta-endpoints 2−84945
^{78}Kr, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{78}Kr(d̄,p)^{79}Kr, 11 MeV, differential cross section and vector analysing power meas. 2−54403
^{79}Kr, low-lying states spins and parities from ^{78}Kr(d̄,p)^{79}Kr 2−54403
^{80}Kr(n,γ)^{81}Kr, ^{81}Kr prod. cross section meas. *(Russian)* 2−90114
^{81}Kr ground state mass and solar neutrino problem 2−59227
^{82}Kr, recoil distance lifetime meas. 2−59290
^{84}Kr, 8^{+} isomeric state, EM props. following ^{82}Se(α, 2n) 2−79942
^{87}Kr, level density from ^{86}Kr(n,γ) 2−113371
^Mo(n,n′γ)^Mo, A=98, 100, gamma-ray spectra; energy levels 2−113485
^{89}Nb, γ-ray spectroscopy 2−95965
^{20}Ne, low-lying state wave functions, realistic Hamiltonian, from (p,p′) 2−84965
^{20}Ne(p,p′), low-lying state wave functions, realistic Hamiltonian 2−84965
Ni (^{12}C, X), 30-84 MeV/u, linear momentum transfer determ. 2−113539
Ni, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
^Ni, A=59,61, radiative strength functions for partial γ-transitions from resonances 2−101833
^Ni(α,α), 140,172 MeV, A=58,60,62,64, differential cross sections, folding model anal., nuclear density 2−101907
^Ni(α,α), 42 MeV, A=58, 60, 62, 64, matter density and RMS radius, folding model anal. 2−69524
^Ni(n̄,n′), A=58, 60, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
^Ni(n,n), A=58,60,64, 6 and 7 MeV, differential cross-section 2−64412
^Ni(p,p′), 200 MeV, A=58, 60, 62, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^{59}Ni, partial radiative E1 and M1 strength functions in quasiparticle-phonon model 2−113399
^{60}Ni giant dipole resonance isospin splitting from (γ,γ), (γ,p), (γ,n) 2−64385
^{60}Ni+^{60}Ni resonance system 2−101865

nuclei with mass number 59 to 89 continued
^{60}Ni(^{12}C, X), light-ion emission, beam energy depend. 2−90146
^{60}Ni(^{16}O, ^{12}C), 60 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{60}Ni(^{16}O, ^{16}O), 45 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{60}Ni(^{28}Si,^{28}Si′), 140 MeV, mutual inelastic excitation, coupled channels anal. 2−101926
^{60}Ni(n, α)^{57}Fe, α-particle energy and angular distrib. 2−101883
^{60}Ni(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{60}Ni(p,γ), 1570-1850 keV, proton resonance intermediate struct., Gamow-Teller config. 2−85035
^{62}Ni(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{62}Ni(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{62}Ni(^{58}Ni,X), 215-275 MeV, fusion excitation function 2−59441
^{64}Ni(^{A}Ni,X), A=58, 64, 171-215 MeV, sub-barrier fusion differential cross section 2−59438
^{64}Ni(^{208}Pb, X), 5.2-8 MeV/nucleon, product analysis, fusion reaction dynamics 2−113574
^{64}Ni(^{208}Pb, X), fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{64}Ni(^{238}U, X), fusion-fission, mol. capture, symmetric fragmentation 3D-TDHF calc. 2−96042
^{68}Ni 2_1^+ and 0_2^+ inversion, levels and transitions, magic features from ^{70}Zn(^{14}C,^{16}O) 2−95922
Rb β-active superdense nuclei search from Ta(p,X) 2−95909
Rb, odd mass low lying positive parity levels, IBFM calcs. 2−69581
^{A}Rb, A=74-99, direct mass meas., isomeric corrections 2−69520
^{A}Rb, A=75, 77, mass difference meas. using beta-endpoints 2−84945
^{79}Rb compound nucleus formation and deexcitation, fusion barrier, evaporation anal. of (^{16}O,X), (^{34}S,X) 2−101913
^{79}Rb high spin states, J^{π}, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
^{79}Rb, lifetime meas., B(E2) values, IBM calcs. 2−69558
^{81}Rb, EM transition strength study 2−54305
^{87}Rb, half-life obs. 2−54329
^{A}S 36, 44, 56, 86, binding energy, central pot. contrib. *(Russian)* 2−59228
Se, ground state proton occupation numbers, spectral distrib. methods 2−69512
^{A}Se, A-85.88, ground-state decay branchings using gas-phase rapid chem. system 2−74750
^{A}Se, A=70-82, E2 transition strengths systematics 2−69603
^{A}Se, A=75, 77, energy level scheme, low spin levels, from (n,γ) 2−113483
^{A}Se, A=85-88, fission products, on-line system for isolation and study 2−96404
^{A}Se(^{3}He,pxn), A=76,77,nat., excitation functions 2−74766
^{A}Se(^{3}He,xn)^{77}Kr, A=76,77,nat., excitation functions 2−74766
^{A}Se(d,^{6}Li)Ge, A=74,76,78,80,82, 45 MeV, first excited 0^+ states in Ge isotopes 2−74733
^{A}Se(n,γ)$^{A+1}$Se, A=74, 76, energy level scheme, low spin levels 2−113483
^{A}Se(p,n), 19 to 25 MeV, A=76, 80, 82, excitation of analogue states, coupled channel analysis 2−113444
^{71}Se, β-decay daughter of ^{71}Br, decay scheme and half-life study 2−101845
^{74}Se(γ,n), isomer ratio study *(Russian)* 2−54397
^{74}Se(n,2n), isomer ratio study *(Russian)* 2−54397
^{75}Se electron capture, ^{75}As level struct. 2−95920
^{77}Se (α,2np), 30-55 MeV, ^{78}Br high-spin states in-beam study 2−54234
^{78}Se(n,α)^{75}Ge, 14 MeV, cross-section meas. 2−113466
^{80}Se(n,α)^{77m}Ge, 14 MeV, cross-section meas. 2−113466
^{82}Se, neutron capture resonance energies, implications for meteorite composition 2−113445
^{84}Se, coexisting intruder bands and role of proton subshell closure 2−54241
^{A}Si, A=34, 42, 54, 84, binding energy, central pot. contrib. *(Russian)* 2−59228
Sr, decay characteristics of neutron deficient isotopes, Q_{β} measurements, mass excess values 2−113424
^{A}Sr, A=77-80, extreme prolate deformation 2−101802
^{A}Sr, A=80, 81, high spin states, J^{π}, γ-rays from Fe(^{28}Si, xpynγ) 2−69505
^{83}Sr ground-state decay, γ branching ratios meas. 2−84991
^{86}Sr(γ,n), isomer ratio study *(Russian)* 2−54397
^{86}Sr(n,2n), isomer ratio study *(Russian)* 2−54397
^{87}Sr(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{88}Sr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{88}Sr(e,e′), 1^+ state form factor quenching, Δ(1232) isobar influence 2−84950
^{89}Sr decay, probability for 909 keV γ emission 2−74745
^{89}Sr, fast neutron capture γ-ray spectra 2−113350
^{89}Sr, valence effects search in p-wave capture 2−113351
Y, decay characteristics of neutron deficient isotopes, Q_{β} measurements, mass excess values 2−113424
^{A}γ(n,γ), A=88, 89, cross section theoretical calc. 2−101878
^{89}Y level density, partial width fluctuation method, stat. anal. of ^{88}Sr(p,γ) 2−59243
^{89}Y(e,e), E5 single particle transition densities 2−79975
^{89}Y(n,n′)^{89}Y*, level scheme 2−113484
^{89}Y(p̄,p′), 21.1 MeV, elastic and inelastic scatt. 2−54372
Zn, collective ground state correlations, quadrupole surface vibrs., microscopic calc. 2−101790
Zn, ground state proton occupation numbers, spectral distrib. methods 2−69512
^{A}Zn (n,d), (n,n′p), (n,pn), cross sections, Hauser-Feshbach anal., A=67,68 2−101884
^{A}Zn, A=62-70, E2 transition strengths systematics 2−69603
^{A}Zn(α,α), 42 MeV, A=64, 66, 68, matter density and RMS radius, folding model anal. 2−69524
^{62}Zn, half-life values and relative intensities of γ-rays 2−95966
^{63}Zn, half-life values and relative intensities of γ-rays 2−95966
^{64}Zn(^{12}C, ^{12}C), 54 MeV, exact finite range DWBA descript., cross section ang. distribs. 2−85081
^{64}Zn(^{7}Li,pxnγ), excited states study in ^{68}Ge,^{69}Ge 2−54437
^{64}Zn(p,γ)^{65}Zn, $d_{5/2}$ isobaric analogue resonance decay 2−90066

nuclei with mass number 59 to 89 continued
^{66}Zn negative parity states, mean lifetimes, transitions from ^{55}Mn(^{14}N,n2p) 2−113412
^{66}Zn(^{13}C,2n), 39 MeV, collective band struture to high spin and shape coexistence in ^{76}Kr 2−64351
^{66}Zn(α, 2α), distorted wave impulse approx. 2−113521
^{68}Zn(n,γ), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{68}Zn(n,n), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{68}Zn(n,p)^{68m}Cu, 14 MeV, cross-section meas. 2−113466
^{68}Zn(p,p′), 200 MeV, M1 resonance excitation, cross sections, DWIA anal. 2−113439
Zr, decay characteristics of neutron deficient isotopes, Q_{β} measurements, mass excess values 2−113424

nuclei with mass number 90 to 149
^{139}La(n,x), laser beam effect *(Russian)* 2−101896
A=107, nuclear data sheets 2−101142
A=113, nuclear data sheets, levels, transitions, Jπ 2−58559
A=134, nuclear data sheets 2−101139
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=40-210 magic nuclei, valence nucleons effective interaction *(Russian)* 2−54273
A∼150 nuclei, nuclear shapes ($i_{13/2}$,$h_{9/2}$) config. 2−54239
A∼90, neutron deficient nuclei, struct. aspects *(Rumanian)* 2−95903
dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
high-spin isomerism near A=75 and 100, ns feeding times 2−84941
rare earth deformed nuclei, rot. invariant core 2−64348
rare earth nuclei, deformed, irrot. core construction 2−54278
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
(d,p) on A=12-120, deuteron transfer reactions, nonorthogonality overlaps 2−96016
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^{110}Pd(^{32}S, ^{32}S′), 90-120 MeV, mag. moments by tilted-multifoil interaction 2−69532
Ag, odd mass low lying positive parity level, IBFM calcs. 2−69581
Ag(^{12}C,X), 18.5 GeV, fragments recoil props. 2−54430
Ag(K,X), 200 GeV, multiplicity meas. 2−113467
^{A}Ag, A=105, 106m, 108m, 110m, 111, yields from (α,Xn), (p,Xn) and (d,Xn) 2−64417
^{A}Ag, A=116-121, total β-decay energies, mass systematics, atomic mass excess, β-γ coincidences 2−113418
^{107}Ag(^{12}C, X), 55-110 MeV/N, high multiplicity reactions in AgBr nuclear emulsion, event by event analysis 2−113565
^{107}Ag(n,γ)^{108}Ag, energy level scheme 2−113488
^{108}Ag, cadmium ratios and thermalisation of 14 MeV neutrons 2−113842
^{108}Ag, energy level scheme from ^{107}Ag(n,γ) 2−113488
^{108}Ag, levels, spins and parities from ^{109}Ag(p,d) 2−113487
^{108}Ag, p̄ annihilation, intranuclear cascade model 2−101871
^{108}Ag^{m}, E1 γ-ray transition energy *(French)* 2−79969
^{109}Ag(n,γ)^{110}Ag, energy level scheme 2−113489
^{109}Ag(p,d)^{128}Ag, nuclear spectroscopy study 2−113487
^{110}Ag, energy level scheme from ^{109}Ag(n,γ) 2−113489
Ag(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Ag(p,X), 200 GeV, multiplicity meas. 2−113467
Ag(p,X), 400 GeV, fragments recoil props. 2−54430
Ag(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
Ag(p̄,X), X=^{3}He or α, 237, 445, 518 MeV, analysing power in inclusive reactions 2−59352
Ag(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
Ag(π,X), 200 GeV, multiplicity meas. 2−113467
Ag(π^+, π^+p), 60 MeV, proton knockout mechanism *(Russian)* 2−59425
Ba high spin states, isomeric ratios, excitation mechanisms from (π^-,xnyp) 2−95895
Ba, low lying energy spectra from effective hamiltonian IBA 2−79972
Ba moment of inertia from γγ correlations from Sn(^{12}C,X) 2−59216
Ba, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Ba, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^{A}Ba, A=126, 128, high-spin states description in interacting boson model 2−101794
^{A}Ba, A=134-138, muonic X-rays, nuclear charge distrib. 2−74730
^{128}Ba−^{128}Cs, cyclotron prod. of ^{128}Cs positron emitter for medical applic. 2−117084
^{130}Ba levels, J^{π} and transitions from ^{130}La β^+-decay 2−90021
^{135}Ba(n,γ)^{136}Ba, energy level scheme 2−113494
^{136}Ba, energy level scheme from ^{135}Ba(n,γ) 2−113494
^{137}Ba, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{138}Ba (p, 2n), 17.1-20.3 MeV, medium-spin levels and 360 ns $I^{\pi}=19/2^-$ isomer in ^{137}La 2−54232
^{141}Ba levels, J^{π}, transitions from ^{141}Cs β-decay 2−113422
^{144}Ba β-decay, $T_{1/2}$, ^{144}La levels, J^{π}, transitions 2−113421
^{144}Ba, energy spectra in interacting quartet-boson model 2−113382
^{145}Ba levels, J^{π}, transitions from ^{145}Cs β-decay 2−90060
^{A}Ca, A=60, 90, 132, binding energy, central pot. contrib. *(Russian)* 2−59228
Cd isotopes props. study in interacting boson approx. 2−84934
^{A}Cd, A=112, 114, low lying collective states, transitions, IBM mixing parameters 2−90001
^{A}Cd, A=119, 121, total β-decay energies, mass systematics, atomic mass excess, β-γ coincidences 2−113418
^{A}Cd(^{12}C, 3nγ), A=110, 112, ^{119,121}Xe level structures and $h_{11/2}$ bands anal. in IBF model 2−95898
^{A}Cd(p,n), A=110, 114, 116, ground and excited state analogues study 2−54378
^{104}Cd, mass excess, α and β/EC decay Q-values 2−113354
^{107}Cd, penetration effects in internal conversion process 2−95974
^{109}Cd, 203 keV transition, K-shell conversion, penetration effects 2−101842

nuclei with mass number 90 to 149 continued
^{110}Cd(d,2n)^{110}In reaction, parameter for spin dependence of denstiy of levels 2−90019
^{111}Cd, photoactivation of 396 keV isomeric level 2−69642
^{113}Cd(d,p)^{114}Cd, energy level scheme 2−113491
^{113}Cd(n,γ), γγ angular correl., ^{114}Cd levels 2−95960
^{113}Cd(n,γ)^{114}Cd, energy level scheme 2−113491
^{113}Cd(n,γ)^{114}Cd, enerlgy level scheme 2−113490
^{113}Cd(p,n), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
^{114}Cd, energy level scheme from ^{113}Cd(n,γ) 2−113490
^{114}Cd, energy level scheme from ^{113}Cd(n,γ) 2−113491
^{114}Cd intruder states, levels and reduced transition props. from (n,γ), (n,e$^-$) 2−59217
^{114}Cd, spins, multipolarities, mixing ratios, from ^{113}Cd(n, γ) ang. correl. 2−95960
^{121}Cd^{g,m}, decay study by γ-ray and conversion electron spectroscopy 2−54306
^Ce, A=130, 132, 134, high-spin states description in interacting boson model 2−101794
^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{135}Ce, 19/2$^+$ isomer mag. moment 2−54262
^{137}Ce high spin states, isomeric ratios, excitation mechanisms from (π^-,xpyn) 2−95895
^{140}Ce, level spin-parities, γ-ray transition multipolarities, from ^{140}La β-decay 2−59282
^{140}Ce, multipolarity of soft γ transitions between compound states following ^{143}Nd(n,γα) 2−113408
^{140}Ce(p,p′), 200 MeV, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^{141}Ce, radiative β-decay 2−54319
^{143}Ce, N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
^{148}Ce, energy spectra in interacting quartet-boson model 2−113382
Cs β-active superdense nuclei search from Ta(p,X) 2−95909
Cs high spin states, isomeric ratios, excitation mechanisms from (π^-,xnyp) 2−95895
Cs(^{16}O, X), 16.5 MeV/N, ion transfer and fragmentation processes, hybrid streamer chamber appl. 2−102330
^Cs, A=117-147, direct mass meas., isomeric corrections 2−69520
^Cs, A=134m, 134g, 134m+g, isomeric cross section ratio, γ-cascades, spin cut-off from ^{135}Cs(n,γ) *(Chinese)* 2−95924
^{114}Cs mass excess, α and β/EC decay Q-values 2−113354
^{131}Cs, K-electron capture decay, double K-hole creation 2−90057
^{133}Cs(n,γ), 2.66-600 keV, capture cross section meas. 2−96001
^{133}Cs(n,γ)^{134}Cs, energy level scheme 2−113493
^{134}Cs, energy level scheme from ^{133}Cs(n,γ) 2−113493
^{136}Cs, internal conversion electron meas. using dE/dn plus E-counter system 2−96370
^{137}Cs, half life calc. on basis of human metabolism 2−101848
^{137}Cs/^{110m}Ag γ-ray peak ratio anal. using Spectran-F and Spectran-III computer program 2−96408
^{141}Cs β-decay, ^{141}Ba levels, J^π, transitions 2−113422
^{145}Cs β-decay, spectra and branching, ^{145}Ba levels, J^π, transitions 2−90060
^Dy, A=145, 146, proton rich nuclei with N≈82, beta decay studies 2−95977
^{145}Dy, neutron deficient isotope, EC and β$^+$ decay, ^{146}Tb γ-decays 2−69612
^{146}Dy 150 ms 10$^+$ isomer, half life and γ-transitions from Zr(^{58}Ni,X) 2−90006
^Er, A=148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^Er, A-148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
Eu, odd A, vibrational to rotational spectra change, IBFM study 2−69582
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^{145}Eu, high-lying proton strengths from (α,t) and (^{3}He,d) 2−79939
^Gd, A=144,147,148, γrast isomers quadrupole moments 2−74731
^{145}Gd, complex beta-decay schemes 2−79984
^{145}Gd, ε/β$^+$ decay, branching ratio anomalies and evidence for structures in β-decay strength 2−54327
^{145}Gd levels study from ^{144,145}Tb decay 2−59286
^{147}Gd 8.6 MeV, 560 ns high spin isomer decay, spin and transitions from (^{12}C,5n), (α,5n) 2−90004
^{147}Gd, two-phonon octupole state, lifetime meas. 2−74743
^{149}Gd, N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
^Ho, A=147, 148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
I(^{16}O, X), 16.5 MeV/N, ion transfer and fragmentation processes, hybrid streamer chamber appl. 2−102330
^I, A=110, 113, mass excess, α and β/EC decay Q-values 2−113354
^I, A=117, 119, 121, high spin states, bands, J^π, T$_{1/2}$, isomer g-factor from Sn(^{6}Li, 3n) 2−113337
^I, A=123, 125, 127, high spin states, bands, J^π, T$_{1/2}$, transitions from Sn(^{6}Li, 3n) 2−113336
^I, A=123, 125, conversion electron spectra, from ^{123,125}Xe β$^+$ decay 2−84997
^{119}I, isomeric bandheads, mag. moments rel. to quasiparticle-core coupling 2−95914
^{124}I, odd-odd nucleus, excited states produced in (p,n) reaction, γ-spectra study 2−101814
^{127}I(n,γ)^{128}I, energy level scheme 2−113492
^{128}I, cadmium ratios and thermalisation of 14 MeV neutrons 2−113842
^{128}I, energy level scheme from ^{127}I(n,γ) 2−113492
^{131}I radioisotope manufacture and appls. 2−62765
^{134}I independent isomeric yield ratio from ^{235,238}U(γ, f) 2−69686
^In, A=106, 108, levels, from Sn β$^+$-decay 2−90054
^In(n,n), A=113,115, elastic and inelastic scatt. cross sections 2−113477
^{104}In, mass excess, α and β/EC decay Q-values 2−113354
^{110}In, level density, spin depend., moment of inertia ratio, from ^{110}Cd(d,2n) 2−90019
^{113}In, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{113}In(n,n′), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
nuclei with mass number 90 to 149 continued
^{115}In, nonresonant excitation in positron annihilation with at. K-shell electrons *(Russian)* 2−54356
^{115}In(n,γ)^{116}In^m, neutron activation parameters, cross sections and half-lives 2−95969
^{115}In(n,γ)^{116}In^m, fast neutron cross sections 2−101895
^{116}In in InP single crystal, quadrupole moment from spin lattice relaxation 2−107754
^{121}In, decay study by γ-ray and conversion electron spectroscopy 2−54306
In(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
^{84}Kr(p,γ),^{85}Rb decay scheme and transition probabilities 2−84994
^{130}La β$^+$-decay, ^{130}Ba levels, J^π and transitions 2−90021
^{132}La high spin states, isomeric ratios, excitation mechanisms from (π^-,xpyn) 2−95895
^{135}La levels study by X-ray and conversion-electron spectroscopy *(Russian)* 2−64370
^{137}La, N=80 nucleus, medium-spin levels and 360 ns I^π=19/2$^-$ isomer 2−54232
^{139}La, spatial parity violation in 0.75 eV neutron resonance *(Russian)* 2−54263
^{139}La(^{86}Kr,X), time-dependent HF calcs. 2−84984
^{140}La beta-decay, ^{140}Ce levels 2−59282
^{140}La, low energy level struct. from ^{139}La(n,γ) 2−113370
^{144}La levels, J^π, transitions from ^{144}Ba β-decay 2−113421
La(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
^Mo (n,d), (n,n′p), (n,pn), cross sections, Hauser-Feshbach anal., A=97,98 2−101884
^Mo, A=96-104, even-even isotopes, configuration mixing 2−54303
^Mo(^{6}Li,^{8}B), A=92, 94, 96, 98, 100, 90 MeV, two-proton pick-up reactions 2−54422
^Mo(n,n′γ)^Mo, A=98, 100, gamma-ray spectra, energy levels 2−113485
^Mo(p,n), 6-9 MeV, A=95,98, n spectra, cross sections, ^{95,98}Tc level density *(Russian)* 2−107758
^Mo(p,p′), 200 MeV, A=90-100, even, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^Mo(p,p′), pol. p, A=92, 94 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{14}Mo(^{14}C, ^{16}O), A=92, 94, 96, 98, 100, 71 MeV, Zr 0$^+$ state population 2−107894
^{90}Mo high spin states, level structure determination, J^π, T$_{1/2}$ from ^{90}Zr(^{3}He, 3nγ), shell model analysis 2−113327
^{90}Mo(^{86}Kr,X), mass and charge fragmentation, quantum-mechanical treatment 2−85088
^{92}Mo(^{3}He, ^{2}He)^{93}Mo, DWBA calcs. 2−59315
^{92}Mo(^{3}He,α)^{91}Mo, 25 MeV, f-p neutron-hole strength fragmentation in ^{91}Mo 2−54409
^{92}Mo(^{3}He,d)^{93}Tc, DWBA calcs. 2−59315
^{92}Mo(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{92}Mo(γ,n), isomer ratio study *(Russian)* 2−54397
^{92}Mo(n,2n), isomer ratio study *(Russian)* 2−54397
^{94}Mo(p,t), 22 MeV, anomalous 0$_g^+$→0$_g^+$ anal. powers and partial cross sections 2−64389
^{95}Mo(n,γ)^{96}Mo, nuclear recoil energies calcs. from prompt γ decays 2−85036
^{98}Mo(n,γ), nonstatistical mechanisms, neutron strength function, capture cross sections 2−113504
^{98}Mo(p,n), 2.4-4.0 MeV, ^{98}Tc excited states 2−101837
^{99}Mo, level half-life and transition probability from delayed βγ coincidence 2−95971
^{99}Mo, spin and parity determination of low-lying states from ^{98}Mo(d,p) and ^{100}Mo(d,t) reactions 2−113359
^{100}Mo, configuration mixing quantitative description in interacting boson model 2−54304
^{100}Mo(^{3}He, 2n), 10-18 MeV, high spin collective excitation in ^{101}Ru 2−54235
^{100}Mo(^{3}He,p), 25 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{100}Mo(α, 3n), 34-46 MeV, high spin collective excitation in ^{101}Ru 2−54235
Mo(n,X), total cross-section, at 0.04-2.20 eV 2−85131
Mo(p,t), 22 MeV, analysing powers and two-step transfer processes 2−59355
^{90}Nb levels, J^π, ang. distribs., DWBA anal. of ^{90}Zr(^{3}He,t) 2−107725
^{90}Nb^m decay rate obs. via E3 conversion electrons 2−54315
^{93}Nb^m, internal conversion ratios and probabilities of 30.75 keV transition 2−95972
^{93}Nb(^{14}N, αα), 115 MeV, final-state interaction and time information study by α-α correl. 2−101924
^{93}Nb(^{14}N, X), 208 MeV, correl. between alpha particles and ejectiles 2−90142
^{93}Nb(^{14}N,p), 95Mev, spin polarisation of preequilibrium proton emission 2−113460
^{93}Nb(n, n′)f, 15 MeV, ang. distrib. calc. based on exciton model 2−69665
^{93}Nb(n,2n), 14.7 MeV, cross sections 2−64398
^{93}Nb(n,γ), 10-70 keV, cross-sections, γ-ray spectra, refs. to Hauser-Feshbach anal. 2−74761
^{93}Nb(n,n), phenomenological and microscopic optical model analyses 2−85048
^{93}Nb(n,t), 16-20 MeV, excitation functions, cross section energy depend. 2−54388
^{93}Nb(p,n)^{93}Zr, phenomenological and microscopic optical model analyses 2−85048
^{93}Nb(p,p), phenomenological and microscopic optical model analyses 2−85048
^{94}Nb, photon strength functions from ^{93}Nb(n,γ) 2−113405
^{99}Nb, level half-life and transition probability from delayed βγ coincidence 2−95971
^{104}Nb→^{104}Mo, beta-decay half life meas. 2−95976
^{93m}Nb, radioactive half-life, extended meas. *(French)* 2−54313
Nb(π,π′) and (π,πN), NN cross section determ. in nuclei 2−85106
Nd, even isotopes, shape transitions, in IBA 2−79971
^Nd, A=143, 144, 146, neutron separation energies from (n,γ) 2−90009
^Nd, A=144, 146, anomalously strong E1 transitions following ^{143,145}Nd(n,γ) 2−113410
^{142}Nd(n,n′γ), gamma radiation investigation, level energies 2−113495
^{144}Nd→^{140}Ce, following ^{143}Nd(n,γ) 2−113408
^{145}Nd, N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541

nuclei with mass number 90 to 149 continued

^{146}Nd, dipole states in interacting boson model 2−79989
^{146}Nd(^{20}Ne,X), 136 MeV, fusion reaction entry state pop. 2−113575
^{147}Nd levels, transitions, spectroscopic factors, DWBA anal. of (d,p), (d,t) 2−90016
^{148}Nd(n,n′γ), gamma radiation investigation, level energies 2−113496
^{60}Ni+^{60}Ni resonance system 2−101865
^Pd, A=108, 110, multiphonon vibr. states structure 2−64433
^Pd, A=110-114, transitional region interpretation in interacting boson model framework 2−54287
^Pd, A=98-100, mass excess meas. 2−54247
^Pd(^{40}Ar, ^{40}Ar′), A=108, 110, Coulomb excitation, multiphonon vibr. states structure 2−64433
^Pd(d,Xn), A=104, 105, 106, 110, Ag isotopic yields 2−64417
^Pd(p,Xn), A=105,106,108,110, Ag isotopic yields 2−64417
^Pd(p,n)^Ag^{mg}, A=102, 104, 105, isomeric ratios 2−95999
^{95}Pd 21/2$^+$ spin gap isomer, beta delayed proton emission from ^{58}Ni(^{40}Ca,X) 2−90005
^{97}Pd, excited states study 2−69600
^{103}Pd, deep-lying hole states in the optical model 2−90000
^{109}Pd, low spin, anti-aligned parity levels, particle rotor and IBFA calcs. 2−69583
^{110}Pd, E2 matrix elements and shape coexistance, IBM calc. 2−69557
Pd(p,t), 22 MeV, analysing powers and two-step transfer processes 2−59355
Pm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
^{136}Pm γ-decays from ^{136}Sm decay 2−69612
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
^{138}Pr high spin states, isomeric ratios, excitation mechanisms from (π$^-$,xpyn) 2−95895
^{141}Pr, nucl. mag. moment determ. 2−101810
^{141}Pr(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{141}Pr(n,x), 0.001-100 keV, pol. n, neutron cross section and strength functions, spin depend. 2−54373
^{142}Pr, low energy level struct. from ^{141}Pr(n,γ) 2−113370
^Rb, A=74-99, direct mass meas., isomeric corrections 2−69520
^Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
^{85}Rb, decay scheme and transition probabilities 2−84994
^{85}Rb(α,α), Coulomb excitation, ^{85}Rb decay scheme and transition probabilities 2−84994
^{92}Rb, beta-delayed neutron meas., excited 0$^+$ states in ^{94}Sr 2−69542
^Rh^{m,g}, A=95, 97, β$^+$ and γ transitions 2−84998
^Rh(α,Xn), A=103, 105, 12-44 MeV 2−64417
^{95}Rh, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{103}Rh^m production using relativistic electrons 2−113802
^{103}Rh(^{12}C, 3n), 50 MeV, ^{112}Sb 8$^-$ isomer, quadrupole moment 2−107755
^{103}Rh(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^Ru, A=100, 102, energy level scheme from (n,γ) 2−113486
^Ru, A=98-110, transitional region interpretation in interacting boson model framework 2−54287
^Ru(n,γ), A=100, 102, reson. capture meas., nuclear spectroscopy and spin calc. 2−107752
^Ru(n,γ) A=99, 101, energy level scheme 2−113486
^{94}Ru, high spin states, comparison of shell model calcs. and experimental results 2−113340
^{96}Ru(^{16}O,C)Pd, Q values and Pd mass excess meas. 2−54247
^{96}Ru(^{3}He, 2n), ^{97}Pd excited states study 2−69600
^{101}Ru, high spin collective excitations 2−54235
^{103}Ru states, J^π, spectroscopic factors, DWBA anal. of (d,p), (p,d) 2−79949
^{104}Ru levels, high spin states, in-beam γ-spectroscopy from ^{100}Mo(^{7}Li,X) 2−64350
^{104}Ru levels, spin B(E2), from (^{208}Pb,^{208}Pb′) 2−95899
^{104}Ru(^{208}Pb,^{208}Pb′), 4.6 MeV/u, levels, spin, J, B(E2) 2−95899
^{104}Ru(d,α), 20 MeV, cc ^{102}Tc excited states, proton-neutron interaction study 2−54417
^{106}Ru migration in NTS aquifer 2−83525
Ru(p,t), 22 MeV, analysing powers and two-step transfer processes 2−59355
^Sb, A=106, 109, mass excess, α and β/EC decay Q-values 2−113354
^Sb, A=114, 116, high-spin states and multiquasiparticle excitations 2−113339
^Sb, A=114, 116 bands, J^π, transitions and $T_{1/2}$, decoupled neutron from (α,3nγ), (p,2nγ) 2−79931
^{93}Sb(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{109}Sb β$^+$-decay, $T_{1/2}$, Q_{EC} value, ^{109}Sn levels and transitions 2−113416
^{119}Sb levels from ^{119m}Te decay, 153 and 270 keV transition characts. 2−107793
^{121}Sb, 37.1 keV level half-life from delayed coincidence meas. 2−90050
^{121}Sb(α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{122}Sb, γ-ray average intensities in resonances from ^{121}Sb(n,γ) 2−113451
^{129}Sb, β-decay, from ^{235}U(n,f), $T_{1/2}$, ^{129}Te levels 2−107812
^{129}Sb, levels, from ^{129}Sn β-decay 2−107812
Sm, (^{40}Ar,X), fusion and nuclear structure 2−64447
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
Sm, very light isotopes, abrupt transition to well deformed isotopes, rot. props. 2−54254
Sm(^{16}O,X), fusion and nuclear structure 2−64447
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^Sm(e,e′), A=148, 152, 150-215 MeV, giant multipole reson. electroexcitation 2−85031
^Sm(p,p), 1 GeV, A=144, 150, 152, elastic and inelastic, levels, transition strengths for A=144 2−113471
^Sm(p,t), A=144, 148, 150, 154, 25.5 MeV, ang. distrib., two-step processes effects 2−95998
^{136}Sm, neutron deficient isotope, EC and β$^+$ decay, ^{136}Pm γ-decays 2−69612
^{144}Sm (^{12}C, 3n), ^{153}Er high spin states study 2−69514
^{144}Sm(^{32}S,X), 139.5-201 MeV, fusion reaction, Pt and Os isotopes detection and study 2−64431
^{144}Sm(^{3}He,d), 240 MeV, transitions to high-lying p-states 2−79939
^{144}Sm(α,α′), 84-119 MeV, giant monopole resonance excitation 2−85015

nuclei with mass number 90 to 149 continued

^{144}Sm(α,t), 80 MeV, transitions to high-lying p-states 2−79939
^{144}Sm(p,p′), 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
^{146}Sm levels, transition probabilities, recoil distance lifetime meas., J^π from ^{139}La(^{11}B,4n) 2−90049
^{147}Sm, N=85 nuclei structure wihtin cluster-phonon coupling model 2−69541
^{147}Sm nuclear states characts. and diluting transitions props. *(Russian)* 2−64369
^{149}Sm and N=87 nuclei, particle-hole and intruder-hole bands, transitions from ^{149}Pm, ^{149}Eu decays 2−113323
Sm(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
Sn, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
Sn, isobaric analogue resonances, proton particle-neutron quasiparticle calcs. 2−113442
Sn, struct. study in (p,d) 20 MeV reaction 2−74759
Sn(^{12}C,X), 44 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
^Sn, A=105, 106, 108, mass excess, α and β/EC decay Q-values 2−113354
^Sn, A=106, 108, β$^+$-decay, In levels 2−90054
^Sn, A=121, 124, level excitation, J^π assignment, from (n,γ) 2−90042
^Sn(^{28}Si,xn), A=120,124, fusion evaporation reaction, yrast isomers quadrupole moments in ^{144,147,148}Gd 2−74731
^Sn(α, 2nγ), A=116, 118, band structure in ^{118,120}Te 2−89992
^Sn(α,X), A=112, 124, 15.3 GeV, ^{3,4,6,8}He and ^{6,7,8,9,11}Li inclusive prod. *(Russian)* 2−101910
^Sn(n,γ), A=120, 124, thermal neutrons, Sn levels excitation, J^π assignment 2−90042
^Sn(p,p′), 200 MeV, A=120, 124, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^Sn(p,p′), A=116, 124, proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{109}Sn levels and transitions from ^{109}Sb β$^+$-decay 2−113416
^{111}Sn deep hole states, J^π, anal. power, DWBA anal. of ^{112}Sn(d⃗,t) 2−89994
^{112}Sn(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{115}Sn, deep-lying hole states in the optical model 2−90000
^{116}Sn(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{116}Sn(^{35}Cl,X), 155-300 MeV, dynamic nucleus-nucleus interaction model, parameter scaling test 2−54439
^{116}Sn(^{3}He, α)^{115}Sn, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{116}Sn(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{116}Sn(p,p′), 800 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{117}Sn(n,n), resonance scattering, P invariance effects *(Russian)* 2−90118
^{118}Sn, excited 0$^+$ states and elec. monopole transitions 2−69605
^{118}Sn(n,γ), gamma-ray resonance scatt. *(Russian)* 2−90117
^{118}Sn(p,α), 22 MeV, ^{115}In nuclear structure in hole-vibration coupling model 2−54374
^{119}Sn giant quadrupole resonance, de-excitation neutron emission 2−85016
^{119}Sn, M4 transition, chem. variation, inner electron shells role *(Russian)* 2−95973
^{119}Sn^m, production using relativistic electrons 2−113802
^{119}Sn(α,αn), 109 MeV, giant quadrupole resonance, fast neutron emission 2−85016
^{119}Sn(e,e′), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{120}Sn, dipole polarisability and nuclear symmetry energies 2−85022
^{120}Sn(^{132}Xe,X), mass and charge fragmentation, quantum-mechanical treatment 2−85088
^{120}Sn(n̄,n′), 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
^{120}Sn(n̄,n), 14 MeV, anal. powers at forward angles 2−69638
^{120}Sn(p,d)^{119}Sn, 26.3 MeV, d ang. distrib. and ^{119}Sn level structure 2−54377
^{120}Sn(p,n) 45 MeV, multistep direct emission, statistical theory 2−79997
^{120}Sn(p,p′), 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
^{122}Sn (129Xe,f), 12.5 MeV, nonequilib. effects in sequential fission 2−69682
^{122}Sn(^{129}Xe,f), 12.5 MeV, ternary reaction proximity effects, fission 2−69683
^{122}Sn(^{16}O,4n), ^{134}Ce spectroscopy and mag. moments at backbending 2−101809
^{124}Sn(^{18}F,X), 104 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{124}Sn(^{16}O,X), 90, 105, 125 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{124}Sn(^{20}Ne,X), 112, 156 MeV, direct α-particle emission cross section and ang. distrib. meas. 2−96041
^{124}Sn(^{34}S, 4n) 145-165 MeV, ^{154}Dy high-spin levels, collective to aligned particle transistor 2−79937
^{124}Sn(p,t)^{122}Sn, 34.9-65.0 MeV, zero-range normalisation constant, ang. distrib. 2−85053
^{129}Sn, β-decay, from ^{235}U(n,f), $T_{1/2}$, ^{129}Sb levels 2−107812
^{132}Sn, doubly closed shell nucleus, excited states from γγ coincidence 2−95964
Sn(α,X), 5.04 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
Sn(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
^{90}Sr, half life calc. on basis of human metabolism 2−101848
^{94}Sr, evidence for excited 0$^+$ states 2−69542
^{181}Ta(^{14}N, 5n), 100 MeV, weakly deformed ^{190}Hg band crossings 2−95900
^Tb, A=144, 145, identification and decay, levels in ^{145}Gd 2−59286
^Tb, A=144-146, proton rich nuclei with N≈82, beta decay studies 2−95977
^{146}Tb γ-decays from ^{145}Dy decay 2−69612
^{147}Tb, proton single-particle states 2−84937
^{147}Tb, single-proton states study 2−54240
Tc, odd mass low lying positive parity levels, IBFM calcs. 2−69581

nuclei with mass number 90 to 149 continued
^Tc, A=95,98, level density from Mo(p,n) *(Russian)* 2−107758
^Tc, A=97, 97, prod. by solar neutrinos 2−89227
^{98}Tc, levels, branching ratio, J^{π} assignment, from ^{98}Mo(p,n) 2−101837
^{99}Tc^{m}, decay rate, supercond. effect 2−95957
^{99}Tc^{m}, E3 transition conversion electron spectrum in NH_4TcO_4 and metallic Tc, chem. environment effect *(Russian)* 2−54316
^{99}Tc^{m} decay constant, half-life, nonclassical meas. method *(Chinese)* 2−54312
Te isotopes props. study in interacting boson approx. 2−84934
^Te, A=109, 110, 112, mass excess, α and β/EC decay Q-values 2−113354
^Te, A=116, 118, 120, 122, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^Te, A=121, 123, 129 neutron strength distribs., L, J^{π}, spectrosc. factors, from (p,d), (^{3}He, α) 2−84936
^Te, A=128, 130, double β-decay, lepton number conservation 2−74749
^Te(^{3}He,α), A=124, 130, 70 MeV, Te neutron-hole strength distribs. 2−84936
^Te(p,d), A=122, 124, 130, 42 MeV, Te neutron strength distribs. 2−84936
^Te→^Xe, A=128, 130, double beta decay, ν_e mass meas. 2−113415
^{124}Te(p,n)^{124}I, ^{124}I odd-odd nucleus excited states, γ-spectra study 2−101814
^{125}Te, internal conversion of 35 keV M1+E2 transition, nucl. struct. and chem. effects 2−101843
^{125}Te^{m}, M4 K-conversion coeff. meas. of 109.3 keV transition 2−69606
^{129}Te levels, from ^{129}Sb β-decay 2−107812
^{130}Te(α,n) reaction, ^{133m}Xe, ^{138}Xe prod. cross-sections and isomeric ratios 2−74768
^{134}Te transition rates, tensor M1 operator effects, shell model calcs. 2−90047
^Tm, A=148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^{147}Tm direct and beta-delayed proton decay from ^{92}Mo(^{58}Ni,X) 2−69615
Xe, even isotopes, ang. momentum projected yrast states, coherent phonon model 2−90002
Xe, low lying energy spectra from effective hamiltonian IBA 2−79972
Xe moment of inertia from $\gamma\gamma$ correlations from Sn(^{12}C,X) 2−59216
Xe, odd-man nuclei, parity states, multilevel calcs., interacting boson-fermion model 2−107781
Xe, odd-mass nuclei, positive parity states, multilevel calc., interacting boson-fermion model 2−107782
^Xe, A=119, 121, $h_{11/2}$ negative parity band structures 2−113342
^Xe, A=119, 121, level structure and $h_{11/2}$ bands anal. in IBF model 2−95898
^Xe β^+ decay, A=123, 125, ^{123,125}I internal conversion electron spectra 2−84997
^{113}Xe mass excess, α and β/EC decay Q-values 2−113354
^{120}Xe, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^{122}Xe→^{122}I→^{122}Te, decay scheme and periods, energies, intensities of transitions 2−64373
^{129}Xe, nuclear spin polarization by spin exchange with Cs atoms 2−90013
^{131}Xe, E2/M1 transition polarisation, test of time reversal invariance 2−69637
^{133}Xe, lung clearance parameter estimate variability 2−117054
^{136}Xe, shell model four-particle matrix elements 2−59262
^{142}Xe, energy spectra in interacting quartet-boson model 2−113382
^{90}Y, photon strength functions from ^{89}Y(n,γ) 2−113405
^{99}Y, rotational band 2−95904
Zr, charge distributions and single particle states, calc. methods 2−69526
Zr, decay characteristics of neutron deficient isotopes, Q_β measurements, mass excess values 2−113424
^Zr, A=90, 92, 94, 96, 98, 0^+ state pop., excitation. by (^{14}C, ^{16}O) 2−107894
^Zr(^{6}Li,^{8}B), A=90, 92, 94, 90 MeV, two-proton pick-up reactions 2−54422
^Zr(α,α), 104 MeV, A=90, 92, elastic and inelastic, cross sections, transition rates, collective anal. 2−90127
^Zr(γ, πn), A=90, 91, 94, 8-134 MeV, photoneutron cross section meas. 2−95989
^Zr(p,p′), 200 MeV, A=90-6 even, M1 resonance excitation, cross sections, DWIA anal. 2−113439
^Zr(p,p′), pol. p, A=90, 92 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{90}Zr level density, partial width fluctuation method, stat. anal. of ^{89}Y(p,γ) 2−59243
^{90}Zr, low-energy octupole reson. gamma decay 2−85017
^{90}Zr magic nuclei, muonic conversion, microscopic description *(Russian)* 2−90745
^{90}Zr spin flip excitation strength due to isobar-hole excitation process 2−113362
^{90}Zr, total weight of six-quark drops 2−79961
^{90}Zr(^{3}He,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{90}Zr(^{3}He,t), (^{3}He,^{3}He′), giant dipole resonance isobaric analogue 2−69624
^{90}Zr(^{6}Li, ^{8}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{90}Zr(^{84}Kr,f), 12.4 MeV, ternary reaction proximity effects, fission 2−69683
^{90}Zr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{90}Zr(α,α'), 99.3 MeV, low-energy octupole reson. gamma decay 2−85017
^{90}Zr(α,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{90}Zr(α,α), 140 MeV, differential cross sections, folding model anal., nuclear density 2−101907
^{90}Zr(e,e′), inelastic scatt. spectra, level densities, missing mag. quadrupole strength, statistical anal. 2−95992
^{90}Zr(e,e), E5 single particle transition densities 2−79975
^{90}Zr(γ,n), isomer ratio study *(Russian)* 2−54397
^{90}Zr(n,2n), isomer ratio study *(Russian)* 2−54397
^{90}Zr(n,2n)^{89}Zr, 12.3-19-5 MeV, cross section meas. 2−107855
^{90}Zr(p,n), 200 MeV, pionic mode of excitation in continuum, DWBA calc. 2−85043
^{90}Zr(p,p′), 500 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384

nuclei with mass number 90 to 149 continued
^{90}Zr(p,p′), 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
^{90}Zr(p,p′), giant M1 states within simple shell model 2−69627
^{90}Zr(p,p), potential resonances and resonance cross section calcs. *(Russian)* 2−79994
^{90}Zr(π^+,π^0), pion charge exchange and transition densities to isobaric analogue states 2−85107
^{90}Zr(t,p), finite range DWBA anals. with realistic wave functions 2−64410
^{90}Zr(t,p)^{92}Zr, sequential and simultaneous transfer of neutron pair 2−107860
^{91}Zr±N systems, mean square radii, of nucleon orbits from single particle transfer data 2−59233
^{92}Zr (n,d), (n,n′p), (n,pn), cross sections, Hauser-Feshbach anal. 2−101884
^{92}Zr(p,t), 22 MeV, anomalous $0_g^+ \rightarrow 0_g^+$ anal. powers and partial cross sections 2−64389
^{97}Zr, total radiation widths meas. from ^{96}Zr(n,γ) 2−113352
^{98}Zr, excited 0^+ levels study 2−59288
Zr(p,t), 22 MeV, analysing powers and two-step transfer processes 2−59355

nuclei with mass number 150 to 189
^{168}Er levels, from (p,t), (t,p) and (n,γ) 2−107866
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=164-201, Os-Ir-Pt nuclei, levels, from (p,t), (t,p) and (n,γ) 2−107866
A=182-196 nuclei, Pt-W legion, O(6)→SU(3) transition, IBA wavefunctions 2−107776
A=185, nuclear data sheets 2−89477
A=188, nuclear data sheets, levels, transitions, J^{π} 2−58558
A=189, nuclear data sheets 2−101140
A∼150 nuclei, nuclear shapes ($i_{13/2}$,$h_{9/2}$) config. 2−54239
rare earth deformed nuclei, rot. invariant core 2−64348
rare earth nuclei, deformed, irrot. core construction 2−54278
rare earths, superdeformed and single particle states, cranked Nilsson and Woods-Saxon pots. 2−79940
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^Au, A=184, 187, 189, 191, 193, 195, collective states in IBFA 2−69584
^{185}Au levels, J^{π}, nuclear model test from ^{185}Hg^{m+g} decay 2−113417
^{196}Au(n,γ), cross section theoretical calc. 2−101878
^Dy, A=151,152 continuum γ-ray linear polarisation, collective rotations from ^{124}Sn(^{32}S,xn) 2−59322
^Dy A=152-161, quasi-continuum γ-ray deexcitation, yrast states, stat. model anal. of (α, xn), (^{12}C, xn) 2−79973
^Dy, A=156-8, γ-ray multiplicities from ^{158}Gd(α, xn) 2−80021
^Dy, A=158, 164, high spin states EM props. 2−95917
^Dy, A=162-165, neutron separation energies from (n,γ) 2−90009
^{152}Dy, high-spin states, collective effects, deformation 2−79938
^{154}Dy, high-spin level struct. and lifetimes, collective to few particle transition, from (^{34}S, 4n) 2−79937
^{156}Dy, interacting collective bands, collective boson representation appl. 2−84975
^{160}Dy aligned two quasiparticle bands, superbands from ^{161}Dy(^{3}He,α) 2−64353
^{164}Dy 0^+ band identification, J^{π}, ARC spectroscopy from ^{163}Dy(n,γ) 2−113343
^{164}Dy, energy spectra in interacting quartet-boson model 2−113382
^{164}Dy(n,γ)^{165}Dy, energy level scheme 2−113503
^{165}Dy, energy level scheme from ^{164}Dy(n,γ) 2−113503
^{168}Dy, radioactive half-life and γ-emission probs. meas. 2−101841
Er, backbending, second backbending, and higher backbendings 2−79932
Er, nuclei near N=82, lifetimes of transitions from very high spin states 2−54314
^Er, A=146, 168, yrast line from number projected cranked HFB calcs. 2−113324
^Er, A=148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^Er, A=156-158, continuum γ-ray linear polarisation, collective rotations from ^{130}Te(^{32}S,xn) 2−59322
^Er(^{16}O,4n), A=164,166,168,80-105 MeV, high-spin yrast- and non-yrast bands in ^{176,178,180}Os 2−101789
^{150}Er, yrast $(\pi h_{11/2})^n$ excitations 2−101798
^{153}Er high spin states and yrast isomerism, J^{π}, $T_{1/2}$ from ^{144}Sm(^{12}C, 3n) 2−89995
^{153}Er, high spin states study 2−69514
^{158}Er backbender, g-factors of high spin states in cranked HFB 2−69533
^{158}Er, high spin nuclei, alignment effects in correl. spectra 2−54308
^{163}Er bands, energy spectrum, Coriolis attenuation problem, particle rotor model 2−64354
^{164}Er, giant dipole resonance, linear response theory, cranked RPA eqns. 2−90071
^{164}Er, γ-band and rot. alignment, high-spin anomaly, shell model+RPA calc. 2−101793
^{164}Er, γ-vibration, pairing pot., rot. frequency depend., shell model+RPA calc. 2−101792
^{164}Er, high-spin states, four band mixture *(Chinese)* 2−54243
^{166}Er(^{84}Kr,f), 12.4 MeV, ternary reaction proximity effects, fission 2−69683
^{166}Er(^{86}Kr,X), ang. momentum transfer at 6, 12 MeV/A, time depend. HF study 2−101914
^{166}Er(^{86}Kr,X), mass and charge fragmentation, quantum-mechanical treatment 2−85088
^{166}Er(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{166}Er(t,p), ^{168}Er level excitation, rel. to IBM calcs. 2−107866
^{167}Er(n,x), 0.001-100 keV, pol. n, neutron cross section and strength functions, spin depend. 2−54373
^{168}Er, average radiation width, Axel-Brink test 2−113409
^{168}Er, energy spectra in interacting quartet-boson model 2−113382
^{168}Er, excitation energy-spin relationship, regularities, shell model calcs. 2−107765
^{168}Er level scheme, γ-transitions for deformed nuclei from ^{167}Er(n,γ) 2−113344
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896

nuclei with mass number 150 to 189 continued
^{170}Er(^{16}O,^{15}O), 120 MeV, highly mixed 13/2$^+$ states in ^{171}Er, structure and decay 2−59219
^{170}Er(^{30}Si,X), ^{200}Pb fission and evaporation competition, expt. and theory 2−101916
^{170}Er(p,t), ^{168}Er level excitation, rel. to IBM calcs. 2−107866
^{171}Er, highly mixed 13/2$^+$ states, structure and decay 2−59219
Eu, odd A, vibrational to rotational spectra change, IBFM study 2−69582
^Eu, A=147-155, odd-mass nuclei, interacting boson-fermion model description 2−84972
^Eu(n,n′γ), A=151, 153, low lying states 2−113498
^{151}Eu, low-lying states study via (n,n′γ) reaction 2−54245
^{151}Eu(n,n′γ), low-lying states study 2−54245
^{152}Eu internal conversion coeffs., ^{152}Sm, ^{152}Gd transitions 2−90052
^{152}Eu, internal conversion electron meas. using dE/dn plus E-counter systems 2−96370
^{152}Eu→^{152}Sm (^{152}Gd), radioactive decay, gamma-gamma coincidence studies 2−74747
^{153}Eu, ground and excited bands microscopic calc. 2−79927
^{153}Eu(d,p)^{154}Eu, rotational bands 2−113499
^{153}Eu(n,γ)^{154}Eu, energy level scheme, rotational bands 2−113499
^{153}Eu(n,γ)^{154}Eu, energy level scheme 2−113500
^{154}Eu, energy level scheme, rotational bands, from ^{153}Eu(n,γ) 2−113499
^{154}Eu, energy level scheme from ^{153}Eu(n,γ) 2−113500
^{154}Eu:^{155}Eu ratio, radioactivity and burnup in nucl. reactor fuel samples 2−74834
^{150}G, high-spin states, pairing correls., HFB-BCS approach 2−101787
Gd, low lying energy spectra from effective hamiltonian IBA 2−79972
Gd(^{12}C,X), 18.5 GeV, fragments recoil props. 2−54430
^Gd, A=153, 154, yrast band, ground and excited band microscopic elec. 2−79927
^Gd, A=153, 154 energy level scheme from ^{152,153}Gd(n,γ) 2−113501
^Gd, A=154-160, even-even isotopes, interacting boson model extension and appl. 2−84971
^Gd, A=156, 158, neutron separation energies from (n,γ) 2−90009
^Gd(n,γ), A=152, 153, energy level scheme 2−113501
^{128}Gd(n,n′γ), excited states, γ-ray spectra meas. *(Russian)* 2−101811
^{151}Gd excited states and transitions from ^{151}Tb decay 2−90017
^{152}Gd transitions, from ^{152}Eu internal conversion coeffs. 2−90052
^{152}Gd(^{40}Ar, ^{40}Ar′γ), 147.2 MeV, interband transitions, state lifetimes 2−113413
^{153}Gd, γ-transitions, decay energy 2−90045
^{153}Gd, levels, J^π, log ft, T$_{1/2}$, g-factor, from ^{153}Tb β$^+$ decay 2−95962
^{154}Gd, octupole vibr. band study using Ge(Li) γ-ray polarimeter 2−64797
^{155}Gd, α-decay from ^{155}Gd(n,x), strength functions, statistical approach *(Russian)* 2−59363
^{155}Gd(n, γ), thermal, levels study in ^{156}Gd 2−79934
^{155}Gd(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{156}Gd 6$^+$ state half-life 2−113413
^{156}Gd, level struct. from ^{155}Gd(n,γ), IBA model comp. 2−69519
^{156}Gd levels, high spin states, in-beam γ-spectroscopy from ^{154}Sm(^{7}Li,X) 2−64350
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{157}Gd(n,nγ), energy levels 2−113502
^{158}Gd(α, xnγ), 70 MeV, equilibrium and preequilibrium, energy and ang. momentum transfers 2−80021
^{160}Gd, energy spectra in interacting quartet-boson model 2−113382
Gd(p,X), 400 GeV, fragments recoil props. 2−54430
^Hf, A=162, 163, β$^+$-decay, ^{162,163}Lu level schemes 2−90058
^Hf, A=176, 178, K-allowed E1 transition probabilities between multi-quasiparticle high-spin states 2−54310
^Hf, A=181,182, levels, J^π, transitions from Lu β-decay 2−69609
^Hf(^{136}Xe, ^{136}Xe), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^Hf(^{86}Kr,^{86}Kr), A=178, 180, isomeric trapping following Coulomb excitation of high spin states 2−85074
^{177}Hf(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{178}Hf, α-decay, from ^{177}Hf(n,x), strength function, statistical approach *(Russian)* 2−59363
^{180}Hf(^{6,7}Li, xn), 55-124 MeV, K X-ray multiplicity, collective struct. 2−69595
^{180}Hf(p,n), 6.5-9.0 MeV, ^{180}Ta^{g,m} prod. cross-sections 2−107811
^Hg, A=184, 186, 188, configuration mixing quantitative description in interacting boson model 2−54304
^Hg, A=189-198, weakly coupled bands, cranking model interpretation 2−84935
^{185}Hg high spin isomer from $^{185m+g}$Hg decay 2−113417
^{185}Hg^{m+g} decay, ^{185}Au levels, J^π, nuclear model test 2−113417
^{185}Hg^m→^{185}Hg^g decays, ICE spectrum 2−113414
^{190}Hg, weakly deformed, band crossings, from ^{181}Ta(^{14}N,5n) at 100 MeV 2−95900
^Ho, A=147, 148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^{146}Ho aligned two quasiparticle bands, superbands from ^{146}Nd(^{14}N,4n) 2−64353
^{147}Ho, levels, J^π, signature depend. transition rates above band crossing freq. from ^{146}Nd(^{15}N,4n) 2−90048
^{149}Ho single proton states, bands, J^π, Coriolis strengths, Nilsson assignments from ^{162}Er(p,α) 2−69516
^{151}Ho (α, 3n), ^{166}Tm odd-odd nucleus band structure study 2−69515
^{165}Ho, rotational band, level excitation by (n,n′) 2−90043
^{165}Ho, spectroscopic nucl. elec. quadrupole moment 2−113903
^{165}Ho(^{20}Ne, X), 292 MeV, energy and ang. correl. between neutrons and heavy ions 2−85091
^{165}Ho(^{58}Fe, X), 464 MeV, stochastic transfer and isobaric and isotopic distribs. 2−96036
^{165}Ho(^{58}Fe,^{56}Fe), 462 MeV, strong-absorption radius, cross section and grazing ang. momentum study 2−54431
^{165}Ho(^{58}Fe,X), 462 MeV, charge energy and ang. distrib. 2−54431
^{165}Ho(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
^{165}Ho(n,α), 7-15 MeV, total cross section, γ-spectra, direct-semidirect mechanism 2−101889
^{165}Ho(n,n′), rot. band excitation 2−90043
^{165}Ho(n,x), 0.001-100 keV, pol. n, neutron cross section and strength functions, spin depend. 2−54373
^{165}Ho(π$^-$,γX), π$^-$ capture, neutron spectra coincident with discrete γ-rays 2−101948

nuclei with mass number 150 to 189 continued
^{166}Ho energy levels, spectroscopic factor observation, rotational states assignments, from ^{167}Er(t,α) 2−113341
^{166}Ho neutron separation energies from (n,γ) 2−90009
^{186}Ir, magnetic dipole and elec. quadrupole moment study 2−84953
(^{6}Li, X), 74.8-94.4 MeV, on A=181-208, fusion-fission, hot high spin nuclei decay 2−113334
^Lu, A=162, 163, level schemes from Hf decay 2−90058
^Lu, A=162-172, β$^+$ decay strength functions 2−84999
^Lu, A=181,182, β-decay, T$_{1/2}$, ^{181,182}Hf levels, J^π, transitions 2−69609
^{151}Lu direct proton decay, half life, prod. cross section from ^{96}Ru(^{58}Ni,X) 2−69614
^{165}Lu→^{165}Yb, decay scheme from gamma-rays 2−107795
^{171}Lu, γ-ray spectra, internal conversion, eγ coincidence, decay scheme 2−90051
^{175}Lu(^{19}F, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{176}Lu, half-life, γ-γ coincidence meas. 2−64375
^{177}Lu 150.392 keV isomeric state feeding from ^{176}Lu(n,γ) 2−113395
^{179}Lu levels, J^π, transitions from ^{179}Yb β-decay 2−69609
Lu(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
^{150}Nd, alpha cluster states, rot. bands, J^π from ^{154}Sm(d,^{6}Li), 33 MeV 2−107729
^{150}Nd(n,n′γ), gamma radiation investigation, level energies 2−113497
^{152}Nd, energy spectra in interacting quartet-boson model 2−113382
^Os, A=167, 168, alpha-decay energies, half-lives and branching ratio study 2−64431
^Os, A=172, 174, contrasting high-spin yrast bands and LF anomaly in ^{172}Os 2−113329
^Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
^Os, A=186,188, mag. moment meas. 2−54261
^Os(^{32}S,^{32}S′), A=186,188, 80 MeV, mag. moment meas. 2−54261
^Os(n,γ), A=186-188, 2.5-450 keV, average cross sections, age of galaxy via ^{187}Re−^{187}Os decay 2−54389
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
^{186}Os γ-rays multipole mixing ratio meas. and comparison with band-mixing calcs. 2−84953
^{188}Os E0 transition strengths, 0$^+$ states, IBA test from ^{187}Os(n,γ) 2−113397
^{200}Pb from ^{181}Ta+^{19}F and ^{170}Er+^{30}Si, fission and evaporation competition, expt. and theory 2−101916
^{208}Pb spin flip excitation strength due to isobar-hole excitation process 2−113362
^Pt, A=171, 172, alpha-decay energies, half-lives and branching ratio study 2−64431
^Re, A=186, 188, nuclear beta transitions, role of induced interactions 2−107809
^Re(^{6,7}Li, xn), 55-124 MeV, A=185, 187, K X-ray multiplicity, collective struct. 2−69595
Sm, (^{40}Ar,X), fusion and nuclear structure 2−64447
Sm, low lying energy spectra from effective hamiltonian IBA 2−79972
Sm, transfer probabilities in pair aligned model, nuclear field theory anal. 2−69573
Sm, transition rates, quadrupole moments, states, schematic monopole-quadrupole pairing model 2−101834
Sm(^{16}O,X), fusion and nuclear structure 2−64447
^Sm, A=144-154 even isotopes, charge and transition densities in interacting boson model 2−95911
^Sm, A=150,152,154, shape triaxiality, from B(E2) and branching ratios, rigid rotor model 2−107745
^Sm, A=152, 154, high-spin states, g-factor, transient mag. field calibration appl. 2−95915
^Sm(p,p), 1 GeV, A=144, 150, 152, elastic and inelastic, levels, transition strengths for A=144 2−113471
^{150}Sm(^{32}S, ^{32}S′), 90-120 MeV, mag. moments by tilted-multifoil interaction 2−69532
^{152}Sm transitions, from ^{152}Eu internal conversion coeffs. 2−90052
^{154}Sm(^{40}Ar, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{154}Sm(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{154}Sm(d,γ)^{156}Gd, cross-section and excitation function meas. 2−101905
^{154}Sm(n,γ), thermal, rotational-vibrational band structure in ^{155}Sm 2−54231
^{154}Sm(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{155}Sm, rotational-vibrational band structure 2−54231
^{156}Sm, energy spectra in interacting quartet-boson model 2−113382
Sm(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
Ta+d(α)(^{12}C), 4.2 GeV/c, pion prod. characts. 2−85064
Ta(^{12}C,X), 18.5 GeV, fragments recoil props. 2−54430
Ta(^{12}C,X), 4.2 GeV/N, π$^-$ prod., angular and momentum characts. *(Russian)* 2−113518
^{179}Ta isomer, levels, J^π, T$_{1/2}$, mag. moment, transitions from ^{175}Lu(α,Zn) 2−90014
^{179}Ta multiquasiparticle yrast states, isomers, J^π, T$_{1/2}$ from ^{176}Yb(^{7}Li, 4n) 2−79933
^{180}Ta^{g,m}, production cross-section, β-decay, capture, from ^{180}Hf(p,n) 2−107811
^{181}Ta(^{136}Xe,X), 1150 MeV, X-ray spectra, giant dipole strength function 2−101859
^{181}Ta(^{15}N,X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{181}Ta(^{165}Ho,X), 1354 MeV, deep inelastic reactions, α-emission 2−64430
^{181}Ta(^{19}F,X), ^{200}Pb fission and evaporation competition, expt. and theory 2−101916
^{181}Ta(^{35}Cl, X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{181}Ta(^{6,7}Li, xn), 55-124 MeV 2−69595
^{181}Ta(α,xn), 45 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
^{181}Ta(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^{181}Ta(p,t)^{179}Ta, 19 MeV, differential cross section meas., evidence for particle-core coupling 2−85049

nuclei with mass number 150 to 189 continued
^{181}Ta(p,xn), 22 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(π^-,γX), π^- capture, neutron spectra coincident with discrete γ-rays 2−101948
^{182}Ta band head energies calcs., two particle configuration assignments 2−69510
^{182}Ta, photon strength functions, from ^{181}Ta(n,γ) 2−113405
Ta(α,X), 15.2 GeV, cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
Ta(α,X), 4.2 GeV/N, π^- prod., angular and momentum characts. *(Russian)* 2−113518
Ta(d,X), 4.2 GeV/N, π^- prod., angular and momentum characts. *(Russian)* 2−113518
Ta(d,X), 8 GeV, cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
Ta(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Ta(p,X), 190-268 MeV, neutron prod. spectra, energy deposition 2−54366
Ta(p,X), 400 GeV, fragments recoil props. 2−54430
Ta(p,X), cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
Ta(p,x), 5 GeV, neutron deficient nuclides alpha spectroscopy 2−59299
Ta(π^-,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
^{151}Tb, EC+β^+ decay, ^{151}Gd excited states and transitions 2−90017
^{153}Tb, β^+ decay, ^{153}Gd levels and γ-ray transitions 2−95962
^{153}Tb, fission barrier 2−101950
^{159}Tb(n,x), 0.001-100 keV, pol. n, neutron cross section and strength functions, spin depend. 2−54373
^{160}Tb, photon strength functions, from ^{159}Tb(n,γ) 2−113405
^{160}Tb→^{160}Dy, nuclear orientation in Tb metal 2−54320
^{A}Tm, A=148, 150, proton rich nuclei with N≈82, beta decay studies 2−95977
^{151}Tm, yrast ($\pi h_{11/2}$)^n excitations 2−101798
^{162}Tm, γ-ray spectra, conversion electrons, $\gamma\gamma$ and eγ coincidences, from ^{162}Yb decay 2−95955
^{165}Tm(n,x), 0.001-100 keV, pol. n, neutron cross section and strength functions, spin depend. 2−54373
^{166}Tm, odd-odd nucleus, band structure study 2−69515
^{169}Tm(n,γ), cross section theoretical calc. 2−101878
^{170}Tm, nuclear beta transitions, role of induced interactions 2−107809
W, energy spectra in interacting boson approx.-2 calc. 2−69555
W(^{22}Ne,f), fission product ang. distrib. long-lived component *(Russian)* 2−59434
^{A}W(n,Xn), A=182, 183, 184, 186, 0.1-20.0 MeV, neutron spectra evaluation 2−108130
^{182}W(^{12}C, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{182}W(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{184}W 0$^+$, 1$^+$ and 2$^+$ states by average resonance capture in ^{183}W(n,γ) 2−113369
^{184}W 4$^+$ and 6$^+$ rot. states, gyromag. ratios from Larmor precession 2−69517
^{184}W bands, de-excitation γ-rays from ^{183}W(n,γ) 2−113396
^{186}W(^{6,7}Li, xn), 55-124 MeV, K X-ray multiplicity, collective struct. 2−69595
W(p,x), 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
W(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
^{171}Y(n,α), strength functions, rel. to black nucleus model *(Russian)* 2−59363
^{A}Yb, A=161, 163, 165, 167, rotationally perturbed wave functions test 2−79959
^{A}Yb, A=165-167, near yrast spectroscopy, levels, J$^\pi$, quasineutron states from Sm(^{17,18}O,xn) 2−89997
^{A}Yb, A=174, 175, neutron separation energies from (n,γ) 2−90009
^{A}Yb(α,2n), A=174, 176, 27 MeV, high-spin states in ^{176,178}Hf, E1 transition probabilities 2−54310
^{160}Yb backbender, g-factors of high spin states in cranked HFB 2−69533
^{162}Yb, β^+ decay, ^{162}Tm levels excitation 2−95955
^{165}Yb level scheme from gamma-rays observed in ^{165}Lu→,^{165}Yb 2−107795
^{166}Yb, high spin region, rotational band energies 2−113330
^{171}Yb levels, from ^{171}Lu internal conversion 2−90051
^{172}Yb, α-decay from ^{171}Y(n,x), strength function, statistical approach *(Russian)* 2−59363
^{172}Yb nonbackbender, g-factors of high spin states in cranked HFB 2−69533
^{172}Yb resonances, J$^\pi$, transitions, levels from ^{171}Yb(n,γ) 2−113447
^{173}Yb, eγ and $\gamma\gamma$ angular correlations and low energy levels, from ^{173}Lu β^+-decay *(Russian)* 2−85506
^{174}Yb levels, resonances, J, electric dipole transitions from ^{173}Yb(n,α) 2−69626
^{174}Yb(^{20}Ne, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{178}Yb, energy levels, J$^\pi$ assignments, angular distribution comparison with DWBA calcs., from ^{176}Yb(t,p) 2−113332
^{179}Yb β-decay, T$_{1/2}$, ^{179}Lu levels, J$^\pi$, transitions 2−69609

nuclei with mass number 190 to 219
A=146-192, equilibrium deformations, B(E2) values, Q+P model 2−90010
A=164-201, Os-Ir-Pt nuclei, levels, from (p,t), (t,p) and (n,γ) 2−107866
A=182-196 nuclei, Pt-W legion, O(6)→SU(3) transition, IBA wavefunctions 2−107776
A=197, nuclear data sheets 2−89479
A=210, nuclear data sheets 2−101143
A=40-210 magic nuclei, valence nucleons effective interaction *(Russian)* 2−54273
angular distribution of gamma quanta in the reaction ^{209}Bi (n,n'γ) 2−69652
CC^{194}Ir, oriented in Fe and Ni, NMR, elec. quadrupole moment and g-factor 2−98977
CC^{209}Bi(^{184}Kr,X), proximity pot., nucleon current, energy dissipation, mass diffusion 2−113549
transtead region, α-width, Fermi-liquid model 2−107813
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^{205}At, high-spin state props. study 2−59220
^{209}At excited compounds nucleus lifetime by axial blocking, levels from ^{197}Au(^{12}C,f) 2−54317

nuclei with mass number 190 to 219 continued
^{210}At 10$^-$ isomer, half life, singlet-force splitting effect from ^{209}Bi(α, 3n) 2−113321
^{212}At, low-seniority shell-model structure 2−54233
^{213}At asymmetric fission in ^{209}Bi(α,f) *(Russian)* 2−80042
Au, odd isotopes, dynamical supersymmetries and positive parity states 2−69530
Au, odd-A nuclei description in interacting boson-fermion model 2−74722
Au(^{12}C,X), 18.5 GeV, fragments recoil props. 2−54430
(Au^{12}C,X), 30-84 MeV/u, linear momentum transfer determ. 2−85071
Au(^{12}C, X), 30-84 MeV/u, linear momentum transfer determ. 2−113539
Au(C,π^+), 85 A MeV, subthreshold pion prod. cross section 2−59393
Au(Cu,X), 400 MeV, γ-multiplicities, ang. momentum transfer, collective modes 2−113392
Au(K,X), 200 GeV, multiplicity meas. 2−113467
Au(Ne, X), relativistic nuclear collisions, fission and deep spallation characts. 2−90135
Au(U,f), fission study *(French)* 2−96055
^{A}Au, A=184, 187, 189, 191, 193, 195, collective states in IBFA 2−69584
^{A}Au(n,γ), A=196, 197, cross section theoretical calc. 2−101878
^{197}Au (α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{197}Au γ-decay, Mossbauer test of T-invariance 2−59285
^{197}Au(^{12}C, X), 3.0, 12.0 GeV, target fragment ang. distrib., 2-step vector model, intranuclear cascade 2−107895
^{197}Au(^{12}C,4n), 77 MeV, high-spin states in ^{205}At 2−59220
^{197}Au(^{16}O,x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{197}Au(^{20}Ne, X), 13 MeV/N, correlation between fission fragment and light charged-particles 2−113566
^{197}Au(^{20}Ne,X), 170,252 MeV, fragments charge and ang. distribs. 2−54434
^{197}Au(^{20}Ne,f), 172 MeV, fission after incomplete fusion, correl. between fission fragments 2−113558
^{197}Au(^{20}Ne,f), 252 MeV, ang. momentum, stat. equilib., sequential fission, very asymmetric systems 2−69689
^{197}Au(^{35}Cl,f), fast fission, expt. study 2−107917
^{197}Au(^{40}Ar, X), 343 MeV, heavy fragment pairs, coincidence studies 2−113559
^{197}Au(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{197}Au(^{6,7}Li, xn), 55-124 MeV, K X-ray multiplicity, collective struct. 2−69595
^{197}Au(n,2n), 14.7 MeV, cross sections 2−64398
^{197}Au(n,γ)^{198}Au, thermal, primary γ-rays intensity meas. 2−75129
^{197}Au(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{197}Au($\pi^\pm$,$\pi^\pm$n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{198}Au 312 keV 5$^+$ isomer, gamma transitions from ^{297}Au(n,γ) 2−113398
^{198}Au radioisotope manufacture and appls. 2−62765
Au(α,X), 12.7 GeV, light fragments identification from binary events using track detectors 2−64415
Au(p,X), 200 GeV, multiplicity meas. 2−113467
Au(p,X), 400 GeV, fragments recoil props. 2−54430
Au(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
Au(p, X), relativistic nuclear collisions, fission and deep spallation characts. 2−90135
Au(p,x), 5 GeV, neutron deficient nuclides alpha spectroscopy 2−59299
Au(π,X), 200 GeV, multiplicity meas. 2−113467
^{A}Bi, A=202, 203, 205, high spin isomers, g-factors from ^{203}Tl(α,xn) 2−90015
^{A}Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{206}Bi radioisotope manufacture and appls. 2−62765
^{207}Bi, internal conversion electron meas. using dE/dn plus E-counter system 2−96370
^{208}Bi, isobaric analogue reson., analogue spin purity 2−95980
^{208}Bi(e,e), mag. electron scatt. and valence nucleon radial wave functions 2−85033
^{209}Bi(^{136}Xe,X), 940,1130,1422 MeV, dissipative collisions, impact parameter influence onelement distrib. 2−54436
^{209}Bi(^{40}Ar, X), 255 MeV, fragment spin alignment and misalignment 2−90153
^{209}Bi(^{6,7}Li, xn), K X-ray multiplicity, collective struct. 2−69595
^{209}Bi(α, n), ^{18}-20.8 MeV, ^{212}At low-seniority shell-model structure 2−54233
^{209}Bi(α,f) asymmetric fission of ^{213}At *(Russian)* 2−80042
^{209}Bi(d,γ)^{211,211m}Po, 8-11.5 MeV, cross section meas. 2−85060
^{209}Bi(n,f), 14.7 MeV, fission cross section meas. 2−96058
^{209}Bi(n,n) elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^{209}Bi(p,p'), inelastic scatt. to continuum, orbiting effects 2−85040
^{209}Bi(p,π^-xn), near 200 MeV, intranuclear cascade model 2−107865
^{209}Bi(p,π), pion prod. by target emission, total cross section calc. 2−80013
^{209}Bi(π^+,π^-), 100-300 MeV, systematics in pion double charge exchange 2−59420
^{214}Bi→,^{214}Po, level scheme anal. *(French)* 2−95918
^{214}Bi→,^{214}Po, populated levels obs. by γ-γ coincidences in ^{214}Po *(French)* 2−95919
Bi($\pi^\pm$,$\pi^\pm$), 245 MeV, inclusive cross section meas. 2−85104
Bi(π,π') and (π,πN), NN cross section determ. in nuclei 2−85106
Bi(π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947
CC ^{207}Pb$(h_{9/2})^{-1}$ hole state, neutron orbital RMS radius, diff. cross section from ^{208}Pb(^{7}Li,^{8}Li) 2−89996
^{A}Fr, A=204-228, direct mass meas., isomeric corrections 2−69520
^{218}Fr→,^{214}At→,^{210}Bi, isomeric states in Fr and At from α-spectroscopic data 2−85004
^{A}Hg, A=189-198, weakly coupled bands, cranking model interpretation 2−84935
^{194}Hg* compound nuclei, anomalous behaviour of evaporative H/He 2−113563
^{197}Hg mass excess meas. 2−84946
^{199}Hg(n,n')^{199}Hg^m, ^{235}U fission spectrum averaged cross section 2−96054
^{199}Hg(p,t)^{197}Hg, 25 MeV, reaction Q value meas. 2−84946
^{206}Hg, 2.102 MeV level, nuclear gyromagnetic ratio, spin parity, and lifetime meas. from ^{204}Hg(t,p)^{206}Hg 2−113364
^{206}Hg spin gyromagnetic ratio of 3s proton 2−113364

nuclei with mass number 190 to 219 continued
Ir, odd-A nuclei description in interacting boson-fermion model 2−74722
^{A}Ir(p,f), A=191, 193, 68, 85, 100 MeV, Rb isotopic distrib. and neutron emission 2−90181
^{A}Ir(t,α), A-191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
^{A}Ir(t,α), A=191, 193, proton separation energy meas. 2−96014
^{A}Ir(t,p), A=191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
^{197}Ir decay, use of clinical accelerator in spectroscopic studies 2−85407
(^{6}Li, X), 74.8-94.4 MeV, on A=181-208, fusion-fission, hot high spin nuclei decay 2−113334
^{192}Os levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(d,^{3}He) 2−113366
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
Os(t,p), IBA model calcs. 2−69565
Pb, even isotopes, ground state energies and wave functions, graphical multistep shell model 2−69540
Pb(Ar,X), 2 GeV/nucleon, high-energy γ-ray spectra, π^{0}, η, Δ prod. 2−101919
Pb(Ar, X), 800 MeV/nucleon, macroscopic nucleon-nucleon correl. caused by bounce-off process 2−90143
Pb(^{12}C,X), 44 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
Pb(Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
Pb(Ne,X), 2 GeV/nucleon, high-energy γ-ray spectra, π^{0}, η, Δ prod. 2−101919
Pb(U,f), fission study *(French)* 2−96055
^{A}Pb(γ, X), A=206, 208, photoabsorption cross sections, quasiparticle phonon model 2−113448
^{A}Pb(γ,γ), A=206, 208, 9.5-12 MeV, elastic scatt. cross section meas. 2−59329
^{A}Pb($\pi^{\pm}$,X), A=202, 208, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{203}Pb level density effects on stat. calcs. for high spin fission from ^{197}Au(^{6}Li, X) 2−113335
^{207}Pb (n,p), 12-20.3 MeV, cross section energy depend. 2−85056
^{207}Pb, proton decay, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
^{207}Pb(n,x), x=d, pn′, n′p, 12-20.3 MeV, cross section energy depend. 2−85056
^{207}Pb(p,p′), 95 MeV, levels, DWBA, DWIA, t-matrix and G-matrix anal. 2−107756
^{208}Pb (^{3}He, α)^{207}Pb, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{208}Pb (α,α), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb, bound dipole states, parity, from resonance fluoresc. 2−84952
^{208}Pb, charge distributions and single particle states, calc. methods 2−69526
^{208}Pb, dipole polarisability and nuclear symmetry energies 2−85022
^{208}Pb, giant Gamow-Teller states, spin-isospin sound 2−113438
^{208}Pb, low-lying vibr. states, phonon renormalisation study 2−74720
^{208}Pb magic nuclei, muonic conversion, microscopic description *(Russian)* 2−90745
^{208}Pb, multipole electric resonances, strength functions *(Russian)* 2−90072
^{208}Pb polarisation and correlation contribs. to shell model pot. 2−59263
^{208}Pb single particle states, effects of core polarisation, phonon spectrum 2−54229
^{208}Pb(^{12}C, X), 84 MeV/u, cross-sections and forward-backward ratios study using CR-39 detector 2−64421
^{208}Pb(^{12}C,X), 187 MeV, ^{12}C ions break-up into 3α channel 2−54420
^{208}Pb(^{208}Pb,X), total cross section predictions, geometric limit applicability 2−69678
^{208}Pb(^{3}He, ^{3}He), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(^{3}He,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{208}Pb(^{40}Ca,X), total cross section predictions, geometric limit applicability 2−69678
^{208}Pb(^{6,7}Li, xn), K X-ray multiplicity, collective struct. 2−69595
^{208}Pb(^{6}Li, ^{6}Li), 156 MeV, differential cross sections, optical model calcs. 2−113551
^{208}Pb(HI,HI), sub Coulomb elastic scatt., relativistic effects, polarisability, screening 2−64427
^{208}Pb(α,α'), 84-119 MeV, giant monopole resonance excitation 2−85015
^{208}Pb(α,α), 100-283 MeV, microscopic α-nucleus pot. cross sections 2−107872
^{208}Pb(α,α), 140 MeV, differential cross sections, folding model anal., nuclear density 2−101907
^{208}Pb(d,d), giant dipole reson. Coulomb excitation 2−54344
^{208}Pb(e,e′), 40.5, 50.4, 60.3, 75.2 MeV, transverse electric form factors, M1 transition strength levels 2−113358
^{208}Pb(e,e′), inelastic scatt., low-lying natural parity levels excitation 2−85032
^{208}Pb(e,e′), quasi-free scatt. in interaction time approx., comparison with expt. *(Russian)* 2−90093
^{208}Pb(γ,γ), reson. fluoresc. study using bremsstrahlung monochromator 2−64726
^{208}Pb(γ,n), 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330
^{208}Pb(n,γ), 0.8-7.7 MeV, compound nucleus, direct-semidirect processes, giant resonance search 2−90106
^{208}Pb(n̄,n′), 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
^{208}Pb(n̄,n), 14 MeV, anal. powers at forward angles 2−69638
^{208}Pb(p, p′), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
^{208}Pb(p,p′), 400 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{208}Pb(p,p′), 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
^{208}Pb(p̄,p̄), potential resonances and resonance cross section calcs. *(Russian)* 2−79994
^{208}Pb(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^{+} transition 2−69662
^{208}Pb(π^{+},π^{0}), pion charge exchange and transition densities to isobaric analogue states 2−85107
^{209}Pb giant dipole resonance, transitions, absolute cross sections from ^{208}Pb(n,γ) 2−101858

nuclei with mass number 190 to 219 continued
Pb(α,X), 5.04 GeV, density isomer search from multiple delayed neutron emission *(Russian)* 2−107746
Pb(α,xn), 21-55 MeV, cross sections and thick target yields 2−74767
Pb(n,n), radiogenic Pb, elastic scatt., 1.5 to 4 eV, expt. and optical model calc. 2−107859
Pb(π^{-}, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
Pb(π^{-},xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
^{A}Po, A=210, 212, 214, 216, absolute α-decay width, configuration mixing role 2−69613
^{204}Po, 15^{-} isomer mag. moment and Po internal mag. field in Ni 2−69534
^{210}Po(d, p)^{211}Po, core-particle model interpretation 2−95894
^{212}Po 0^{+} α-emitting state half life, transition, levels, spins 2−59298
^{214}Po, level scheme following ^{214}Bi beta decay *(French)* 2−95918
^{214}Po, populated levels obs. by γ-γ coincidences following ^{214}Bi beta decay *(French)* 2−95919
^{218}Po half-life meas. 2−85005
Pt even isotopes, particle transfer reactions in interacting boson approx. 2−69556
Pt, odd-A nuclei description in interaction boson-fermon model 2−74722
^{A}Pt, A=190, 192, interacting collective bands, collective boson representation appl. 2−84975
^{A}Pt, A=194,196, mag. moment meas. 2−54261
^{A}Pt(^{32}S,^{32}S′), A=194,196, 80 MeV, mag. moment meas. 2−54261
^{A}Pt(^{6,7}Li, xn), 55-124 MeV, A=194, 198, K X-ray multiplicity, collective struct. 2−69595
^{191}Pt quasiparticle core coupling using dynamic deformation theory core wave functions 2−64352
^{194}Pt levels, spectroscopic factors, DWBA anal., supersymmetric coupling test from ^{193}Ir(^{3}He,d) 2−113366
^{194}Pt(t,p), ^{196}Pt level excitation, rel. to IBM calcs. 2−107866
^{195}Pt level scheme, transitions, 13/2^{+} isomer from ^{194}Pt(n,γ) 2−113345
^{195}Pt(n,γ), ^{196}Pt ^{168}Er level excitation rel. to IBM calcs. 2−107866
^{196}Pt E0 transition strengths, 0^{+} states, IBA test from ^{195}Pt(n,γ) 2−113397
^{196}Pt levels, from (p,t), (t,p) and (n,γ) 2−107866
^{197}Pt^{m} decay, levels, lifetimes and g-factors quasiparticle phonon coupling model anal. from ^{196}Pt (n,γ) 2−69602
^{198}Pt(p,t), ^{196}Pt level excitation, rel. to IBM calcs. 2−107866
Pt(t,p), IBA model calcs. 2−69565
^{210}Rn, yrast traps and high-spin states 2−79936
^{A}Tl(^{6,7}Li, xn), 55-124 MeV, A=203, 205, K X-ray multiplicity, collective struct. 2−69595
^{201}Tl first excited state formation, excitation function struct., mechanism for ^{207}Pb(μ^{-}, ν6n) 2−59244
^{201}Tl radioisotope manufacture and appls. 2−62765
^{203}Tl, relativistic and Coulomb effects in internal Compton effects *(Russian)* 2−107808
^{205}Tl, J$^{\pi}$=25^{+}/2 isomer g factor and proton anomalies orbital magnetism 2−54260

nuclei with mass number 220 or higher
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
A=229 to 241, odd nuclei spectroscopic props., rotor plus quasiparticle approx. 2−54292
A=243, nuclear data sheets, levels, transitions, Jπ 2−58560
A=244, nuclear data sheets 2−101141
A=245, nuclear data sheets, levels, transitions, Jπ 2−58561
A=247, nuclear data sheets, levels, transitions, Jπ 2−58562
A=249-263 (A odd), nuclear data sheets 2−89478
actinide nuclei, fission cross-sections, double humped barrier model anal. 2−64391
actinide nuclei, rotational props. in cranked Hartree-Fock-Bogoliubov model 2−79928
actinides, fission energy depend., superfluid model *(Russian)* 2−59325
C ^{231}Th decay, γ-ray emission probabilities meas. 2−54300
rotating actinides, pair correlations and the fission barrier at very high angular momenta 2−90176
Z=109, existence in nature, invest. *(Chinese)* 2−59442
Z=110, existence in nature, invest. *(Chinese)* 2−59442
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^{227}Ac levels and transitions 2−54301
^{A}Am(n,f), A=241, 242^{m}, delayed neutron yield meas. 2−101953
^{241}Am α-decay, pair prod. mechanism 2−90061
^{241}Am(n,f), delayed neutron yields 2−54453
^{241}Am(n,γ)^{242}Am^{9}, thermal and fast neutron capture, isomeric ratio determ. 2−96000
^{243}Am(e,f), 100-1000 MeV, electrofission cross sections, electron/photon yield ratio 2−96059
^{249}Bk(α,α'), 17.06 MeV, ground state rot. band, Coulomb excitation, transition sites, mag. moments 2−69511
^{250}Bk, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
^{249}Cf (n, f), thermal neutron induced fission product yields 2−59433
^{249}Cf(α,f), 28, 36 MeV, fission fragments mass distrib. study *(Russian)* 2−90184
^{249}Cf(n,f), delayed neutron yield meas. 2−101953
^{252}Cf, high energy γ-ray obs. following spontaneous fission 2−84989
^{252}Cf, high energy γ-ray search in spontaneous fission *(Chinese)* 2−107919
^{252}Cf mean fission fragments, nuclear charge and at. mass 2−64819
^{252}Cf spontaneous fission, fission fragments deexcitation, Monte Carlo calc. 2−54459
^{252}Cf spontaneous fission, thermal fluctuations in classical dynamical model 2−69687
^{252}Cf, spontaneous fission neutron spectrum meas. by time-of-flight technique, scatt. effect 2−102322
^{252}Cf, spontaneous fission prompt neutron emission, meas. methods 2−74782
^{252}Cf spontaneous fusion, ^{168}Dy isotope production and characterisation 2−101841
Cm(C,xn)No reaction, nuclear temp. estimation 2−113524
^{A}Cm, A=244, 246, 248, backbending, cranked shell model calc. 2−59212
^{A}Cm(n,f), A=246, 248, cross section meas. 2−101951
^{243}Cm(n,X), total cross sections and resonance parameters in 0.4 to 66 eV region 2−113476
^{245}Cm(n,f), delayed neutron yield meas. 2−101953

nuclei with mass number 220 or higher continued
^{248}Cm+^{238}U collisions, actinide prod. cross-sections 2−64425
^{248}Cm(^{A}O,X), A=16,18, 97 and 98 MeV, heavy actinides prod. cross section 2−54433
^{248}Cm(n,γ), thermal, ^{249}Cm energy levels 2−84992
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
^{A}Fm, A=244, 246, spontaneous fission products average total kinetic energy meas. 2−85110
^{A}Fr, A=204-228, direct mass meas., isomeric corrections 2−69520
^{228}Fr decay scheme and K=0 bands in ^{228}Ra 2−101844
^{237}Np, neutron resonance widths, area anal. *(Chinese)* 2−69622
^{237}Np(α,f), 28, 36 MeV, fission fragments mass distrib. study *(Russian)* 2−90184
^{237}Np(e,f), 10-34 MeV, giant resonances, comments 2−90170
^{237}Np(e,f), 10-34 MeV, giant resonances, reply to comments 2−90171
^{237}Np(e,f), 100-1000 MeV, electrofission cross sections, electron/photon yield ratio 2−96059
^{237}Np(γ,f), characteristics in E1 giant resonance region 2−54462
^{237}Np(n,f), 20 keV-30 MeV cross-section ratio, rel. to ^{235}U 2−54454
^{237}Np(n,f), absolute rate meas. in FFTF 2−102147
^{237}Np(n,f), average number of prompt neutrons meas. 2−54461
^{237}Np(n,f), delayed neutron yields 2−54453
^{238}Np levels, bandheads, γ-transitions, conversion electrons from ^{237}Np(n,γ), ^{242}Am^{m} decay 2−113348
Np(γ,f), delayed neutron yield meas. 2−101953
^{210}Po, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
Pu, muonic, prompt fission, muon distrib. among fragments *(Russian)* 2−107920
Pu odd isotopes, isomeric photofission cross-sections 2−107916
^{A}Pu, A=240, 242, backbending, cranked shell model calc. 2−59212
^{A}Pu, A=242, 244, spontaneous fission fragments energy and mass distrib. 2−90175
^{A}Pu(n,f), A=238,240,241, delayed neutron yields 2−54453
^{A}Pu(n,f), A=238-42, delayed neutron yield meas. 2−101953
^{A}Pu(n,f), A=239-41, absolute rate meas. in FFTF 2−102147
^{A}Pu(n,f), A=239-41, fission rate meas. in FFTF 2−102146
^{237}Pu, short lived fission isomer, g-factor 2−64356
^{239}Pu (n,f), double-energy fission fragment meas., mass resolution correction 2−108318
^{239}Pu decay, γ transition emission probabilities and energies 2−74744
^{239}Pu/^{235}U, fission cross-section ratios meas. using nuclear track detectors 2−64444
^{239}Pu/^{235}U, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^{239}Pu(e,f), 100-1000 MeV, electrofission cross sections, electron/photon yield ratio 2−96059
^{239}Pu(n,f), isomer-yield ratios, primary angular momenta 2−90172
^{240}Pu fission barrier from Skyrme like effective force, SkM parametrisation 2−107918
^{240}Pu(n,x), fast neutron cross section, statistical model calc. 2−113475
^{241}Pu(n,f), thermal, fission fragments energy and mass distrib. 2−90175
Ra-Th region, quadrupole and octupole modes, unified collective model 2−84969
^{226}Ra, γ-radiation source, anal. *(French)* 2−80366
^{226}Ra, octupole vibrs., phenomenological model 2−84940
^{227}Ra level, bands, moment of inertia from neutron capture gamma spectra 2−113347
^{228}Ra, K=0 bands and ^{228}Fr decay scheme 2−101844
Th(^{12}C, X), 30-84 MeV/u, linear momentum transfer determ. 2−113539
^{A}Th, A=231, 233, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
^{229}Th(n,f), short-lived products, yield, from γ-ray spectra 2−54455
^{232}Th (γ,f), delayed neutron yield meas. 2−101953
^{232}Th (n,f), absolute rate meas. in FFTF 2−102147
^{232}Th, backbending, cranked shell model calc. 2−59212
^{232}Th decay chain, gamma-rays intensities meas. 2−95958
^{232}Th, high spin states struct., E2 matrix element, from ^{232}Th(208Pb, ^{208}Pb′γ) 2−113328
^{232}Th(^{15}N, X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{232}Th(^{16}O,X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{232}Th(^{184}W,X), mass and charge fragmentation, quantum-mechanical treatment 2−85088
^{232}Th(α, α′f), total kinetic energies and mass distrib. of fission fragments 2−90174
^{232}Th(α,α′), 100, 172 MeV, isoscalar giant resonance excitation, monopole giant resonance splitting 2−90068
^{232}Th(α,f), 70-1000 MeV, fission fragment ang. correlations, momentum transfer 2−59429
^{232}Th(d,f), 70-1000 MeV, fission fragment ang. correlations, momentum transfer 2−59429
^{232}Th(e,f), 5.5-7 MeV, ang. distribs., E2 strength concentration near fission barrier 2−64446
^{232}Th(γ,f), 5.7-6.3 MeV, photofission cross section meas. using bremsstrahlung monochromator 2−64726
^{232}Th(n, f), reactor neutron induced fission, charge distrib. meas. 2−90179
^{232}Th(n,f), 14 MeV, fragment yields and charge distrib., liquid drop anal. *(Chinese)* 2−96060
^{232}Th(n,f), delayed neutron yield meas. 2−101953
^{232}Th(n,f), fission rate meas. in FFTF 2−102146
^{232}Th(n,γ), 1-408 keV, capture cross-section 2−64400
^{232}Th(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{232}Th(p,X), 0.15-24 GeV, Kr and Xe isotopes prod. 2−54394
^{232}Th(p,X), X=p or p′, 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{232}Th(p,f), 15 MeV, correl. between ang. anisotropy and fragment mass 2−59431
^{232}Th(p,f), 4-11 MeV, excitation function meas. 2−96061
^{232}Th(p,f), 70-1000 MeV, fission fragment ang. correlations, momentum transfer 2−59429
^{232}Th(p,f), 8-22 MeV, fission fragment yields and excitation functions, statistical anal. 2−90182
^{238}Th, interacting collective bands, collective boson representation appl. 2−84975
Th(p,x), 5 GeV, neutron deficient nuclides alpha spectroscopy 2−59299
U, low lying energy spectra from effective hamiltonian IBA 2−79972
U(^{40}Ar,π^{-}), cross section for pion prod. near CM vel. 2−59400
nuclei with mass number 220 or higher continued
U(C,X), 10 MeV/n obs. with U ions on SSNTD 2−101949
U(^{12}C,X), 18.5 GeV, fragments recoil props. 2−54430
U(^{12}C,X), 30-84 MeV/u, linear momentum transfer determ. 2−85071
U(^{12}C, X), 30-84 MeV/u, linear momentum transfer determ. 2−113539
U(O,X), 10 MeV/n obs with U ions on SSNTD 2−101949
U(U,X), relativistic collisions, charact. time for strange quarks chem. equilibration in QCD 2−85075
U(U,f), fission study *(French)* 2−96055
^{A}U, A=234, 236, 238, backbending, cranked shell model calc. 2−59212
^{A}U, A=235, 237, 239, level, bands, moment of inertia from neutron capture gamma spectra 2−113347
^{A}U, A=236, 238, fission isomer spectra in IBM, SU(3) limit 2−107767
^{A}U, A=236,238, conversion electrons, lowest β-vibrational phonon 2−69604
^{A}U/^{237}Np, A=235, 238, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^{A}U(γ, f), 12-30 MeV, A=235, 238, ^{134}I independent isomeric yield ratio 2−69686
^{A}U(γ,f), A=233, 234, 238, delayed neutron yield meas. 2−101953
^{A}U(γ,f), A=235, 238, characteristics in E1 giant resonance region 2−54462
^{A}U(n,f), A=232, 233, 235, 238, delayed neutron yield meas. 2−101953
^{A}U(n,f), A=233, 235, 238, fission rate meas. in FFTF 2−102146
^{A}U(n,f), A=233, 235, isomer-yield ratios, primary angular momenta 2−90172
^{A}U(n,f), A=233,235, thermal, internal excitation energy at scission point 2−59432
^{232}U, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{233}U(n,f), delayed neutron yields 2−54453
^{233}U(n,f), thermal, ^{95}Nb and ^{132}I isomeric yield ratios, fission fragment ang. momentum 2−54458
^{234}U fission, energy dissipation, fragments, evaporation, liquid drop model from ^{233}U(d,pf) *(French)* 2−90177
^{234}U, high spin states struct., E2 matrix element, from ^{234}U(^{208}Pb, ^{208}Pb′γ) 2−113328
^{235}U (n,f), 0.17 to 8.1 MeV, fission yields 2−101952
^{235}U decay, γ-ray emission probabilities meas. 2−54300
^{235}U mean fission fragments, nuclear charge and at. mass 2−64819
^{235}U/^{237}Np, fission cross-section ratio meas. using nuclear track detectors 2−64444
^{235}U^{m}, internal conversion, lifetime and spectra, laser irrad. effect 2−74746
^{235}U(d,pf), 11.7 MeV, neutron prod. thresholds *(Russian)* 2−59436
^{235}U(n,f), 0.2-1.2 MeV, cross-section, absolute determ. 2−90173
^{235}U(n,f), 10 to 200 keV target nucleus spin orientation effects *(Russian)* 2−54460
^{235}U(n,f), 20 keV-30 MeV, cross-section ratio rel. to ^{237}Np 2−54454
^{235}U(n,f), charge distrib. dispersion, quantum and statistical fluctuation effects *(Russian)* 2−90157
^{235}U(n,f), fission spectrum averaged cross section for ^{199}Hg(n,n′)^{199}Hg 2−96054
^{235}U(n,f), long-range α emission in p-wave neutron induced fission 2−74784
^{235}U(n,f), nonequilibrium statistical theory of mass distribs., deformation *(Chinese)* 2−80043
^{235}U(n,f), quasi-thermodynamic theory of fission charge distribution *(Chinese)* 2−107841
^{235}U(n,f), residual energy liberation by fission products 2−90183
^{235}U(n,f), thermal, 600 keV, light charged particles polar and equatorial emission 2−85108
^{235}U(n,f), thermal, electron and antineutrino spectrum cal., $\bar{\nu}$ oscillations 2−80041
^{235}U(n,f), thermal, fission products decay, beta-ray spectra calc. 2−85109
^{235}U(n,f), thermal neutrons, ^{129}Sn and ^{129}Sb β-decays 2−107812
^{235}U(n,f), vel. selected fission products, isobaric elemental yields determ. 2−64443
^{236}U, fission, Brownian motion model 2−59323
^{236}U, fission process, viscosity coefficient with the pairing interaction *(Chinese)* 2−107816
^{236}U lowest octupole bandhead, spin, conversion electron spectra from ^{235}U(n,γ) 2−113346
^{238}U projectiles fission induced by ^{12}C target in Makrofol detector 2−64445
^{238}U self-shielding factors, rel. to unresolved resonances 2−85124
^{238}U spontaneous fission decay constant meas. from etched fission track density 2−96057
^{238}U/^{235}U, fission cross section ratios meas. using nuclear track detectors 2−64444
^{238}U/^{235}U, fission cross section ratio meas. with 13.5-14.8 MeV neutrons 2−96056
^{238}U/^{237}Np, fission cross-section ratio meas. using nuclear track detectors 2−64444
^{238}U+^{248}Cm collisions, actinide prod. cross-sections 2−64425
^{238}U(^{12}C, X), 3.0, 12.0 GeV, target fragment ang. distrib., 2-step vector model, intranuclear cascade 2−107895
^{238}U(^{12}C,f), fission product ang. distrib., long-lived time component *(Russian)* 2−59434
^{238}U(^{208}Pb, Xf), 1.768 GeV, damped reaction, fission fragment spin correlations 2−54457
^{238}U(^{20}Ne, X), 393 MeV/nucleon, coherent collective flow vs. independent two-nucleon collisions 2−90144
^{238}U(^{20}Ne, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{238}U(^{20}Ne,X), nuclear eqn. of state study 2−84988
^{238}U(^{20}Ne,X), relativistic heavy-ion collisions, cluster approach to intranuclear cascade 2−101922
^{238}U(^{20}Ne,f), 252 MeV, ang. momentum, stat. equilib., sequential fission, very asymmetric systems 2−69689
^{238}U(^{238}U,X), heavy ion potential for ellipsoidally deformed nuclei, double folding model 2−113552
^{238}U(^{40}Ar,^{40}Ar′), 340 MeV, coupled channels and nuclear deexcitation 2−54429
^{238}U(^{40}Ar,X), ^{4}He emission in fusion-like and inelastic reactions, exptl. study 2−101929
^{238}U(^{84}Kr, X), 12.5 MeV/u, four-pronged events obs. using mica SSNTD 2−64422
^{238}U(α,α′), 100, 172 MeV, isoscalar giant resonance excitation, monopole giant resonance splitting 2−90068

nuclei with mass number 220 or higher continued
^{238}U(α,f), 28, 36 MeV, fission fragments mass distrib. study *(Russian)* 2−90184
^{238}U(d,γ) cross-section and excitation function meas. 2−101905
^{238}U(e,e'f), 5-11.7 MeV, cross-section, E2 resonance strength 2−90178
^{238}U(e,f), 100-1000 MeV, electrofission cross sections, electron/photon yield ratio 2−96059
^{238}U(e^{+},f), 10-35 MeV, absolute cross sections, DWBA virtual photon spectra test 2−59428
^{238}U(γ,γ), 2-10 MeV, Delbruck scatt., nuclear resonance fluor., Coulomb correction effect 2−90085
^{238}U(γ,γ), resonant scatt., E1 strength distrib. below particle threshold 2−101879
^{238}U(μ,f), probability in muonic atom, fission barrier enhancement 2−74783
^{238}U(n,f), fission fragments ang. distribution study using SSNTD 2−59636
^{238}U(n,γ), 7-15 MeV, total cross section, γ-spectra, direct-semidirect mechanism 2−101889
^{238}U(n,γ), capture rate determ. using Ge(Li) detector 2−102029
^{238}U(n,n'), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{238}U(n,xn), 14 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{238}U(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{238}U(p,f), 10-100 MeV, spallation yields and fissionability calc. 2−59430
^{238}U(π^{+},X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{239}U, structure parity assignments from ^{238}U(n,γ) 2−113361
U(p,X), 400 GeV, fragments recoil props. 2−54430
U(p,x), 5 GeV, neutron deficient nuclides alpha spectroscopy 2−59299

nucleic acids *see macromolecules*

nucleon interactions *see hyperon-nucleon interactions; kaon-nucleon interactions; lepton-nucleon interactions; muon-nucleon interactions; neutrino-nucleon interactions; nucleon-nucleon interactions; nucleon-nucleus reactions; photon-nucleon interactions; pion-nucleon interactions*

nucleon-nucleon interactions
see also nucleon-nucleon scattering; proton-proton interactions
5 TeV particles interactions with light materials 2−106456
hadron transverse momentum distribs. in αα and αp at 31,44,- GeV 2−80022
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
intermediate energy, coupled channel interaction 2−101760
ISR energies, additive quark model of multiparticle prod. 2−79847
multiquark 9q and 12q systems, excited configurations, multiparticle forces, chromo-mag. NN interaction *(Russian)* 2−95934
NN→l^{+}l^{+}NN, scaling violations 2−59186
nuclear forces, charge asymmetry, π^{0}η' mixing role 2−107763
particle prod. at large transverse momentum 2−69498
pion prod. and absorpt., fundamental interactions and processes 2−79986
quark matter formation by heavy nuclear primaries, cosmic-ray anomalies explanation 2−63199
quasinuclear $N\bar{N}$ states with nonzero orbital momentum, annihilation effect *(Russian)* 2−54275
relativistic collision in emulsions 2−101911
repulsive core, quark model 2−79953
separable potentials and their momentum-energy dependence 2−95926
αα, 88, 125 GeV, elastic and inelastic interactions in CERN ISR 2−59180
αp, 88, 125 GeV, elastic and inelastic interactions in CERN ISR 2−59180
$N\bar{N}$, 2^{+} glueball effect in QCD 2−64336
$N\bar{N}$, baryonium, NN and dibaryons, expts. review 2−54219
NN, dd Δ isobar prod. at high energies, EM mechanism *(Russian)* 2−101773
NN, in 63 GeV-GeV αα interactions, very high central multiplicity 2−69495
$N\bar{N}$, optical pot. 2−69543
$N\bar{N}$, pion prod. theory, review 2−79905
$N\bar{N}$ annihilation, 2^{+} glueball effects 2−113237
NN elastic scatt., 0-350 MeV, anomalous isospin violation, phase shifts 2−69545
NN in d, α, and ^{12}C collisions at 4.2 GeV/c, pion prod. characts. 2−85064
nN→Λ$_c^{+}$X, 40 GeV, charmed baryon prod. cross section *(Russian)* 2−89986
NN→NΔ, spin and scatt. amplitudes 2−95928
NN($\bar{N}\bar{N}$), dibaryon reson. existence 2−54200
NN($\bar{N}\bar{N}$) low and medium energy, review 2−54199
NN→π^{0}X, 5 TeV, on C in emulsion 2−69493
NN→π^{0}(η)(Δ), 2 GeV, obs. in relativistic nucleus collisions 2−101919
NN→πd(NNπ), below 1500 MeV, single pion prod. cross section 2−64340
NN→πd(NNπ), pion prod., expt. results review 2−79904
NN→ψX, quark model anal. 2−101665
NN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
p̄(p)N, 200 GeV/c, in H, Ar, Xe, multiplicities, rapidity distribs., correlations 2−113304
p(p̄)N, double-collision, diquarks in baryons 2−101768
pN, 100 GeV, inclusive Λ(1520) prod. in p-Be interactions 2−95884
pN, 13 GeV, in Be, electron pair prod., mass distrib. *(Japanese)* 2−107707
pN, 200 and 400 GeV, in nuclear emulsion, rapidity gap correlation 2−59189
pN, 350 GeV, charm particle pairs forward prod. study 2−84922
pN, 350 GeV, limits on D^{0}-$\bar{D}^{0}$ mixing and bottom particle prod. cross section 2−84923
pN, 400 GeV, prompt neutrinos prod., results from Fermilab E613 2−107696
pN, 400 GeV/c, charm prod., Λ$_c^{+}$ decay and prod. cross section 2−101779
pN, 400 GeV/c, in Cu beam-dump, prompt neutrino prod., charmed hadrons 2−84929
pN, 70 GeV, hadron prod. in high-p$_\perp$ processes *(Russian)* 2−89989
pN, 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
pN, 70 GeV/c, φ inclusive prod., differential cross section, transition coupling constants 2−69494

nucleon-nucleon interactions continued
pN, high energy, massive μμ prod., transverse momentum distrib. *(Chinese)* 2−79913
pN, multiparticle rapidity clustering at 70 GeV/c 2−89983
pN, shower particle pseudorapidity fluctuations phenomenological investigation 2−59191
pN (NN), inclusive γ-ray and charged-meson prod. study at greater than 10 TeV 2−73811
pn→e^{+}ν̄, baryon and lepton number violation by electroweak instantons 2−54027
pN in nuclei, nuclear response to high energy interactions, knock-out p 2−85057
pn→ppπ^{-}, 500-1000 MeV, total cross-section, dibaryon resonance existence *(Russian)* 2−101761
pN→φX, 70 GeV/c, inclusive prod. cross-section, rel. to quark-parton model *(Russian)* 2−59199
pN→X, cumulative rapidity gap-distrib., cluster characteristics in emulsion 2−89990
pN→X, shower prong distributions, semi-inclusive KND scaling in emulsion 2−113470
^{2}H, two-nucleon interaction model 2−107632

nucleon-nucleon scattering
see also neutron-proton scattering; nucleon-nucleon interactions; proton-proton scattering
^{3}F$_3$ partial wave scatt. amplitude, resonance parameters 2−79906
elastic scatt. at large transverse momentum 2−54212
energy dependent single separable pot. models 2−59346
hadron-nucleus interaction dynamics, review 2−54367
NN T=1 collisions, peripheral inelasticities 2−113289
nuclear forces, charge depend. and asymmetry 2−107759
quasi-two-body phase-space factors in isobar model 2−69483
S-wave NN separable pots., energy dependence for ^{1}S$_0$ and ^{3}S$_1$ channels 2−90022
αα, 88, 125 GeV, elastic and inelastic interactions in CERN ISR 2−59180
αp, 88, 125 GeV, elastic and inelastic interactions in CERN ISR 2−59180
$N\bar{N}$, spin observables in low energy scatt. 2−64339
NN in αα and αp, 89, 126 GeV, elastic scatt., differential cross section 2−95871
NN interaction from bag-model quark interchange, ^{2}H phase shifts and bound state 2−69544
NN→NΔ, coupled channel separable pot. model 2−54202
NN scatt., bar phase shifts and asymptotic behaviour 2−54268
NN scatt., partial wave expansion of modified one-particle-exchange diagrams 2−113376
NN scattering, phenomenological anal., data tables 2−101136
NN scattering matrix parametrisation above inelastic threshold 2−69486
nN threshold scatt. in nuclei, parity violation 2−59052
pα scattering, 46 MeV polarised protons, parity nonconservation study 2−59057
np(pp), 142-800 MeV, phase shift anal. 2−59173

nucleon-nucleus reactions
for inelastic nucleon-nucleus scattering, see "nucleon-nucleus scattering"
see also neutron-nucleus reactions; nucleon-nucleon interactions; proton-nucleus reactions
microscopic nucleon optical model potential, low energy calculations 2−113431
p-parity isolation results 2−95694
particle prod. at large transverse momentum 2−69498
pion absorption probability by α-cluster in nuclei 2−95981
(N,X), light fragment formation, coalescence approach, snowball model 2−90113
^{12}C relativistic nuclei interaction with emulsions 2−101911

nucleon-nucleus scattering
see also neutron-nucleus scattering; nucleon-nucleon scattering; proton-nucleus scattering
energy dependent single separable pot. models 2−59346
high momentum transfer reaction mechanism 2−107853
optical pot., nonresonant approx. 2−59308
(N,N), (N,$\bar{N}$), A=12-208, optical pot., cross sections, relativistic mean field approach 2−101894
(N,N'), inelastic scattering, distorted wave approach, DWBA and DWIA 2−69619
^{40}Ca(N,N), correl. effects in ground state elastic scatt. 2−69617
^{2}H(N,N), three-particle forces in nucleon scattering 2−113478
^{A}H(N,N), A=2,3, low-energy, few-particle eqns. *(Russian)* 2−59427
^{3}He(N,N), low energy, few-particle eqns. *(Russian)* 2−59427
^{16}O(N,N), correl. effects in ground state elastic scatt. 2−69617

nucleon scattering *see hyperon-nucleon scattering; kaon-nucleon scattering; lepton-nucleon scattering; muon-nucleon scattering; neutrino-nucleon scattering; nucleon-nucleon scattering; nucleon-nucleus scattering; photon-nucleon scattering; pion-nucleon scattering*

nucleons
see also neutrons; protons
B-L and nucleon decays in the subquark model 2−64301
baryon number violating nucleon decay, chiral lagrangian 2−59144
constituent quarks, momentum spectrum, additive quark model *(Russian)* 2−95797
D waves, colour magnetism test 2−74651
diquark model of nucleons 2−101719
gluon distrib. from scaling violations of structure function 2−79882
intrinsic charm, ψ, Higgs and technicolour pseudo prod. 2−79842
naive nonrelativistic quark model hybrid, pion effects, baryon mass, mag. moment 2−101676
neutral weak form factors from lepton-nucleon elastic and inclusive processes 2−59150
neutrino deep inelastic scatt., gluon distribs., nucleon struct. functions, QCD anal. 2−59140
nucleons, small-bag model, rel. to MIT bag 2−107617
pionic corrections to props. in cloudy bag model 2−54104
quark core, electromagnetic properties in confining potential 2−113245
quark matter, thermodynamical information from nucleon valence quark distrib. 2−95783
structure function meas. from νN, μN interactions, review 2−79857
structure functions, deep inelastic, scaling violations 2−59186
structure functions from νN inclusive scatt., QCD anal. 2−54163
unique spin and isospin determ., from $SU(3)_{flavour}\times SU(2)_{spin}\times SU(3)_{colour}$ assignments 2−74628
valence structure functions, QCD and DTU parton model 2−84898

nucleons continued
eN deep inelastic scatt., nucleon small bag model, R ratio 2−59124
μN, deep inelastic scatt., nucleon small bag model, R ratio 2−59124
μN, nucleon structure function meas. 2−64329
μ^{-}N, 250 GeV, nucleon intrinsic charm component, expt. limit 2−54171
νN, nucleon structure functions, comparison with QCD predictions 2−113272
νN deep inelastic scatt., nucleon gluon distrib., QCD, struct. function scaling violation 2−84887
πNΔ system, props. in chiral bag model 2−59118

nucleosynthesis
asymptotic giant branch star, core C-burning model 2−58337
asymptotic giant branch stars, evolution, mass loss, nucleosynthesis and convection 2−106708
big bang, massive neutrinos effect 2−101627
Big Bang nucleosynthesis, open and closed model anisotropies 2−117826
Crab supernova, exploding 10 $M_{\odot}$ star model rel. to ejecta heavy elements enrichment 2−89285
galactic disc, chemical evolution and age-metallicity relation, model 2−68888
giant stars, nucleosynthesis rel. to comps. of planetary nebulae 2−68878
heavy element formation in galaxy/star formation scenario 2−117774
intermediate mass stars, mass loss effects on contribution to interstellar medium 2−68772
irregular galaxies, chemical evolution 2−89363
lepton generations number limitation by nucleosynthesis 2−117839
massive stars, nucleosynthesis bulk yields 2−112475
neutron capture nucleosynthesis, heavy element yields in stars 2−58243
non-resonant reaction rates evaluation 2−112317
novae nucleosynthesis models, sources for Ne-E and ^{26}Al 2−79100
parity violation, cosmological evolution effects 2−73835
pregalactic Population III stars, prod. of primordial He and heavy elements and microwave background 2−106818
primordial nucleosynthesis, implications for cosmology and neutrino physics, review 2−84356
primordial nucleosynthesis, neutrino mass effect 2−79261
primordial nucleosynthesis and gravitational constant variability 2−58507
primordial nucleosynthesis and scale covariant gravitation 2−89416
primordial nucleosynthesis in Bianchi type-I cosmology 2−84361
r-process nuclei ejection from neutron star collision 2−106779
s-process, neutron-capture cross section appl. 2−89235
s-process elements and galactic evolution 2−112437
single/binary stars, nucleosynthesis, mass loss and nucleosynthesis 2−89248
solar flares, synthesis of elements as source of flare gamma-ray emission 2−68719
stars, explosive nucleosynthesis, significance of (p,γ) and (p,n) reactions 2−80019
stars, nucleosynthesis theory, slow neutron capture process 2−100914
stellar nucleosynthesis, rel. to origin and relative abundances of chemical elements *(German)* 2−94877
subgiant CH stars, evidence for internal mixing and s-process nucleosynthesis 2−112451
supernova models 2−117689
supernovae, abundance distrib. of heavy nuclides up to subnuclear density 2−106758
supernovae, nucleosynthesis and cosmic ray production 2−89288
white dwarf, accreting, C-burning model 2−58337
nβ-process, implications for Ca-Ti-Cr isotopic anomalies in Alende meteorite inclusion 2−112397
^{11}B formation from photodisintegration and electrodisintegration of ^{12}C 2−64392
^{9}Be production by neutrinos generated in gravit. collapse of stars, rel. to Galaxy ^{9}Be abundance *(Russian)* 2−106686
H shell flashes on accreting white dwarfs, envelope expansion 2−89256
H shell flashes on accreting white dwarfs, recurrence period 2−89257
He production in intermediate mass stars, rel. to $\Delta Y/\Delta Z$ ratio and galaxies chemical evolution 2−74107
Li production mechanisms in low luminosity giant star 2−79088
^{6}Li primordial synthesis, reaction rate for ^{4}He(d,γ)^{6}Li 2−112626
^{A}Os(n,γ), A=186-188, 2.5-450 keV, average cross sections, age of galaxy via ^{187}Re→^{187}Os decay 2−54389

nucleus
see also hypernuclei; nuclei with mass number 150 to 189; nuclei with mass number 190 to 219; nuclei with mass number 1 to 5; nuclei with mass number 20 to 38; nuclei with mass number 220 or higher; nuclei with mass number 39 to 58; nuclei with mass number 59 to 89; nuclei with mass number 6 to 19; nuclei with mass number 90 to 149
No entries

number theory
space lattices and their lattice planes, coincidence coeffs. 2−103679

numerical analysis
see also approximation theory; curve fitting; difference equations; error analysis; finite element analysis; function approximation; functional analysis; functional equations; interpolation; iterative methods; molecular dynamics method; Monte Carlo methods
alloys, single-phase, numerical calcs. of diffusion 2−66276
annular plate vibration and stability under conservative and other loads 2−91299
beams, rigid-plastic, stepped, simply supported, under dynamic press. loading, optimal design 2−60395
boundary element methods, for plasticity and creep, including visco-plastic approach 2−81239
boundary integral equation, formulations effectiveness for axisymmetric elastostatic problems 2−81240
Bridgman-Stockbarger technique, freezing rate deviation from very low translation rates 2−97951
Bridgman-Stockbarger technique, freezing rate deviation from moderate translation rates 2−97952
catastrophe, cuspoid integral evaluation, Pearcey's integral appl. 2−63802
cavity growth, by coupled surface and grain-boundary diffusion, numerical anal. 2−110048
celestial mechanics, numerical integration for Saturn ninth-satellite (Phoebe) *(French)* 2−79021
composite material shell structure, rational parameter values calc. and selection 2−60409
composite periodically laminated medium harmonic wave propag. 2−60447
concrete fracture toughness parameters theoretical and experimental anal. *(Italian)* 2−67482

numerical analysis continued
conducting rods electromagnetic fields calc. using variation method *(Hungarian)* 2−55024
conductors, rectangular, surrounded by ferromag. material, current displacement anal., integral eqn. method *(Polish)* 2−75491
conf. Cocoyoc, Mexico (Jan. 1981) 2−89453
cryostats, heat exchange study and long-life cryostat dev. *(Ukrainian)* 2−112907
crystallography, model fitting to same data set 2−65807
degenerate two-wave mixing in the collinear geometry 2−108935
dielectric dispersion due to space-charge polarisation, hopping method 2−116109
differential equation solution for fourth-order statistical moment of plane wave field propag. in random medium 2−59996
diffraction pattern numerical evaluation, undersampling and aliasing error distinction 2−108776
discs, orthotropic, stress distrib., axisymm. computation 2−63808
disperse two-phase flow, multispeed model, numerical 2−81385
Doppler US, principal component factor anal. in carotid artery disease detect. 2−68086
dynamic material toughness, depend. on vel. and loading parameters 2−97447
Echinodome analysis, improved numerical approach 2−55425
eddy current NDT, algebraic analysis for cylindrical geometries 2−67724
edge crack problem boundary element soln. 2−70870
elastic contact problems, singular integro-differential eqns., approx. soln. 2−70877
elastic ferromagnetic strip containing two coplanar Griffith cracks, linear magnetoelastic problem 2−103045
elastic-plastic strain hardening material, ductile tearing instability anal., piecewise power law hardening 2−60468
2-D elastostatics, symmetric direct boundary integral equation method 2−81241
electron focusing and dual-channel deflection systems with combined mag. and electrostatic fields, optical props. 2−65146
EM wave, inhomogeneous slab scattering, integral eqn. approach, fast algorithm 2−114155
EM wave scattering coeffs. of cylindrical or spherical body 2−55050
fast Fourier transform algorithm, Winograds, OTF calc. appl. 2−114196
fibre reinforced composite discs, rotating, stress state, refined calc. 2−81236
flow, two-phase and two-dimensional problems, DUVAL computer code for numerical solutions 2−103204
flow near wind turbine rotor 2−91406
free circular plate under nonconservative edge loading, vibration and stability 2−91300
free electron laser amplifier, elliptically polarised, electron motion 2−60090
galactic shock waves and corrugation waves, numerical simulation 2−101071
galaxy clusters, mass segregation, relaxation and Coulomb logarithm in N-body systems 2−58475
gas dynamics on galactic scales, numerical simulation 2−100729
Gaussian multimode optical beam thermal self-interaction in a turbulent medium 2−97054
general relativity, numerical anal. and appl. to astrophysical problems 2−100727
geothermal power state-of-the-art of recovery process models 2−83453
graded-index layer of arbitrary refr. index profile, reflectance computation, inverse problem approx. soln. 2−114185
gravity sounding, soln. of direct problem of gravimetry for special classes of mass distrib. 2−117184
Green Bay, Lake Michigan, numerical models and obs. of water motion 2−106160
heat conduction problems, numerical soln. by parabolic time-space elements 2−60345
Hermitian cubic boundary elements, for plane problems of fracture mechanics 2−81285
hypersonic inviscid flow calc., over series of indented nosetips 2−97586
impurity-band density of states, numerical results 2−71913
incompressible liquid, turbulent flow around disk, boundary conditions, numerical calcs. 2−91410
injection lasers, spontaneous emission factor meas. 2−102793
insulators, numerical anal. of electronic conduction using hopping model 2−110340
ionic transient space-charge distribution, numerical anal. by hopping model 2−110027
Kuroshio-Oyashio confluence zone latitude, numerical study 2−117309
laminated plates, dynamic contact problems, numerical simulation 2−114739
laser pulse modelling, Cutler bootstrap eqn. solns. 2−114229
laser speckle produced by moving diffuse object under Gaussian beam illum., dynamic statistical props. 2−75526
magnetic fields, numerical computation, conf., Chicago, USA (Sept. 1981) 2−53411
metal cooling in moulds, numerical solutions of one dimensional problem 2−97364
meteorology, expt. in numerical forecasting of subsynoptic system *(Chinese)* 2−88947
multilayer shells of revolution, geometrically nonlinear anisotropic, statics, numerical soln. 2−91246
multiparabolic approx. technique for graded-index opt. fibres 2−96842
multiplicative noise, analytical and numerical studies 2−107244
nonlinear interface, Gaussian beam refl. 2−86036
normally distributed populations of same variance, mean values comparison using sampling results *(German)* 2−84435
nuclear power system simulation, general purpose software, role 2−102023
oblique hypervelocity impact, numerical modelling using two-dimens. phase strain models 2−70875
OMEGA Hawaii 13.6 kHz signals, cycle slippings as received at Kagoshima 2−84014
optical bistable devices on the same etalon, optical crosstalk 2−108940
optical fibres, single-mode, bandwidth control using tailored dispersion spectra 2−60250
optical waveguide, thin-film, multilayered with a buffer layer, propag. characts. 2−109038
organic molecular crystals, static lattice potential energy minimisations for defects, computational approaches 2−76426
Pade approximants appl., book 2−79289

numerical analysis continued
plane elasticity crack problems, Bueckner singular integral eqn., numerical soln. methods 2−109229
planetary system formation, new method of numerical simulation of evolution of complex discrete systems *(Russian)* 2−100773
plasma electrode drift sheath struct., numerical model 2−115017
plastic materials, rate type, with combined work-hardening, simple shear deform. 2−65490
plate, circular, geometrically nonlinear, axisymm. deforms., deform. map investigation 2−97375
plate-bending triangular element, stiffness matrix formulation 2−103061
plates, circular, variable thickness, clamped, large deflections 2−103064
plates, infinite, elastic plate vibrs. by boundary integral eqns. 2−81271
plates, laminated, composite, bifurcation and post-buckling anal. via reduced basis technique 2−55463
plates, orthotropic, elliptical, vibr., large amplitude transverse shear and rotatory inertia effects 2−70861
plates, thick, numerical anal. by segmentation method based on refined higher order theory 2−103059
plates, thin, elasto-viscoplastic and elasto-plastic large deform. anal. 2−70851
polyethylene film, numerical anal. of SCL cond. with consideration of diffusion and elec. field at electrode 2−110358
position annihilation curve deconvolution rel. to instrumental resolution function 2−57206
powerful wave beam propag. in Kerr type nonlinear medium, numerical analysis 2−114389
rectangular Mindlin plates, buckling 2−114694
rectangular plates clamped at opposite edges, natural frequencies 2−91302
ring-laser opposing-wave frequencies, diffr. splitting, active element extent and transverse inhomogeneity effect 2−81009
rise of buoyant plumes in stratified environment, flow development 2−97615
rods, hollow, curvilinear, of finite length plastic flow 2−97401
shell, circular cylindrical, multilayered, transversely isotropic, elasticity soln. 2−103046
shell of revolution, piezoelectric, ceramic, numerical anal. 2−60459
shells, circular cylindrical, reinforced, static anal. using geodesic beam finite elements 2−60398
shells, cylindrical, oscill. propag. numerical anal. *(Ukrainian)* 2−103074
shells, thin, elasto-viscoplastic and elasto-plastic large deform. anal. 2−70851
simulation methods for nuclear power systems, conf., Arizona, USA, 1981, Jan. 2−101129
site-specific clear-day solar irradiance model from long-term irradiance data 2−94467
solar cell charge transfer one-dimensional boundary value problem numerical solution 2−116805
solar granulation, basic eqns. and methods for numerical simulations 2−68695
solar power station optical system operation simulation using numerical model 2−99761
solar type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
solar wind, numerical algorithm for unsteady thermally conductive coronal flow 2−112399
stellar evolution, stable numerical computation methods 2−100912
stellar radiation, numerical tables of broadband linear polarisation from magnetised stellar atmospheres 2−112431
stimulated Raman scatt. in ultrashort light pulse field 2−97114
stratosphere sudden warming, sensitivity studies of numerical models 2−100477
surface hardening by CO_2 CW laser irrad., numerical anal. 2−116610
symmetric groups, S(n), number of representations and maximum dimens., calc. program 2−107554
thermoelasticity, infinite body with spherical cavity, numerical soln. 2−81238
third harmonic generation under coherent two-photon interaction with matter, optical pulse self-focusing 2−65307
tornado-type wind energy system flow anal. within the tower using numerical model 2−75945
unsteady incompressible boundary-layer flow over a rotating sphere 2−103143
vertebral artery, numerical anal. of blood flow 2−105749
viscous flow in oscillatory spherical annuli, numerical study 2−55663
volume holograms, Raman-Nath diffr. corrections 2−102749
weather prediction, normal mode initialisation rel. to gravity waves generation by quasi-geostrophic forcing 2−100473
weather prediction, scheme for retaining Hadley circulation during nonlinear normal mode initialisation 2−112009
$Cd_3P_2(As_2)$, far IR reflectivity meas. 2−93210
He-N_2 nuclear-pumped laser medium, kinetics model development and testing 2−96880
Na^+ plasma laser, 15.5 nm, CO_2 laser pumped, active medium form., numerical anal. 2−65205
$Si/LiNbO_3$ substrate, SAW parametric oscill. 2−65440

numerical methods
see also convergence of numerical methods; predictor-corrector methods
1-D scattering data inversion using Prony's method 2−55048
acoustic and EM oscills. theory, integral eqn. methods for boundary-value problems *(German)* 2−101189
acoustic arrays, numerical solution of a 'noncorrect' problem in the synthesis of an axisymmetrical annular discrete array in a cylindrical baffle 2−114500
alloys, multicomponent, diffusional reactions, numerical treatment 2−61188
Boltzmann eqn. for moving ions in solid targets, numerical soln. 2−76548
Boltzmann-Fokker-Planck eqn., numerical soln. 2−84566
chemically reactive flow, atmospheric diffusion eqn., numerical soln. 2−55674
collective Hamiltonian in generator coordinate method, numerical procedure 2−84978
composite shells under impulsive loads, elastic-plastic deform. 2−65493
convection in stratified flow, ADI on staggered mesh anal. 2−109316
cylinder, semiinfinite circular, and stress calcs., Galerkin method 2−103054
determination of the troposkien shape and stresses in a tapered blade for a vertical axis wind turbine 2−67810
diffusion-convection equation, oscillation phenomenon 2−112846

numerical methods continued
dislocation loops, X-ray diffuse scatt. study, numerical anal. 2−66000
eddy currents in parallel conducting bars with a.c. 2−85861
elastic parallelepiped, equilib. problems, efficient numerical method of soln. 2−53523
EM field equations solution by two parameter iteration method, electric machines design appl. 2−90769
EM wave scattering by arbitrarily shaped objects, numerical procedure using electric field integral eqn. 2−90776
expanding sphere, generation of pressure and velocity field 2−114591
free bounding problems solution, Stefan problem 2−70820
gratings, EM wave diffr., numerical anal. by mode-matching method with smoothing procedure 2−90780
heat diffusion equation soln. in cylindrical coordinates, splitting scheme 2−102996
heat radiation, form factors for transfer between surfaces, numerical evaluation *(French)* 2−103007
incompressible laminar flow anal. using nodal coarse mesh method 2−102160
incompressible viscous flow in cascade, numerical method *(French)* 2−76027
integration of gravity-perturbed trajectories 2−112308
integration using model partitioning, nuclear power system simulation appl. 2−102024
ionised gas flow through grid, ionic transparency, numerical soln. *(French)* 2−114987
laminar developed duct flow, surface integral numerical soln. 2−91552
layered aquifer-aquiclude system, dispersion model, simple numerical treatment 2−83862
magnetic fields created by current dipoles embedded in conducting space, boundary integral formulation 2−90770
magnetostatics, 3D problem, Fredholm integral eqn., numerical integration 2−55012
modal approximation methods, linear system of eqns. row-by-row elimination method 2−69697
neutron transport eqns. 2−74788
nonlinear parabolic PDE, solution of Stefan problem 2−60362
nonstationary potential flow of liq. with moving boundaries, numerical soln. *(Russian)* 2−75926
numerical solution of mixed problem for two-dimensional wave equation *(Russian)* 2−95118
Numerov method, predictor-corrector program, coupled nonlinear differential eqn. soln. 2−53556
Numerov method for soln. of coupled second order differential eqns. 2−53555
ocean waves, numerical modelling of long waves 2−83849
plate theories, refined, numerical methods 2−114669
plates, anisotropic, rectangular, in flexure, deflection and stress anal. 2−97406
positron annihilation, two-dimens. correlation curves, numerical calc. method 2−93318
pseudospectral scheme for the numerical calculation of shocks 2−109366
quantum chemistry computation, CRAY-1 application 2−96439
quantum theory, time-dependent problems, numerical soln., method and appl. 2−79410
rigid perfectly plastic bodies, slipline field solns., continued deform. calc. technique 2−91263
Schrodinger eqn., two-step methods for numerical soln. 2−95043
shell, elastic cylindrical, effect of nonstationary internal wave 2−81283
shells, shallow, arbitrarily shaped, static anal. 2−103023
soft X-ray absorpt. spectra by pot. scanning, numerical inversion 2−93323
solidification, unidirectional, axial temp. characteristics, numerical calc. 2−66181
superconducting crit. temp., series formula coeffs., numerical soln. *(Chinese)* 2−92797
suspension, pipe flow, unsteady, numerical study 2−55648
temperature distribution in human torso 2−99902
three-dimensional viscous flowfield computations in a streamline coordinate system 2−86300
time-stepping methods for miscible displacement in porous media 2−60643
transient effects on the initial rate of oxygenation of red blood cells 2−83554
transonic cascade flow simulation, thermodynamically consistent numerical method 2−70981
turbulence, convective, discrete Lorenz model, phase space and birfurcation struct. 2−112840
wind driven circulation in rectangular cavity, ADI anal. 2−109328
O_2 uptake by red blood cell, factors defining rate 2−83555
Si, diffusion of Au, kick-out mechanism, numerical soln. 2−66288

numerical methods, convergence *see convergence of numerical methods*

nutation, Earth *see Earth rotation*

Nyquist criterion
heat conduction problem, multivariable meas. and control strategies appl. 2−60355
plasma, Nyquist theorem, validity at large collision freq. 2−71139

Nyquist noise *see thermal noise*

occultations
AGK3+17° 1309, by 146 Lucina, 1982 April 18, obs. from Barcelona and Meudon 2−84139
105 Artemis, HD 197999 occultation, min. diameter determ. 2−112371
asteroids, occultations of stars during 1982, predictions *(Japanese)* 2−73823
Cloudcroft occultation summary (December 1978 to March 1980) 2−112305
Crab Nebula occultation by Sun's supercorona, effect on nebula polarised radio emission 2−94815
65 Cybele, diameter from AGK3+19°0599 occultation 2−63298
Galilean satellites, 1979 mutual eclipses and occultations, visible obs. *(French)* 2−100807
ζ Geminonorum, Cepheid, angular diameter from lunar occultation obs. 2−73949
Jupiter, simultaneous disappearance of four major satellites in occultation, transit or eclipse 2−106603
late-type stars, ang. dias. by lunar occultation technique 2−79078
α Leonis, angular diameter from lunar occultation obs. 2−73949
146 Lucina, occultation of AGK3 +17°1309 on 1982 April 18, obs. 2−68651
lunar occultations, astrometric obs. rel. to determ. of FK5 equinox and equator 2−68598

occultations continued
M-type giant stars, ang. dias. by lunar occultation technique 2−79078
Moon, timing of stars used to determine FK4 reference frame rot. 2−58229
Neptune, occultation of star by possible third satellite, visible obs. 2−79027
Pluto appulse to star, 1982 April 15, probably no occultation 2−63312
Saturn, ring system reson. features and mass 2−84149
Saturn rings, radio occultation theory 2−100819
star occultations by Moon (1623-1942) catalogue 2−100771
stars, diameter determ. by photometric obs. during lunar occultation *(Japanese)* 2−68627
stars, two-colour lunar occultation obs. rel. to ang. diameter meas. 2−79079
α Tauri, ang. diameter and limb darkening from occultation obs. 2−100918
119 Tauri, M-type supergiant, atm./shell occultation obs. in Hα and continuum light 2−68760
Uranus and ring system, stellar occultation obs., (1982 April 22) 2−68665
Uranus occultation of 9.9 mag star on 1982 May 1, prediction *(Japanese)* 2−73823
Uranus ring system, radial widths, optical depth and eccentricities from occultation obs. anal. 2−63310
C stars, ang. dias. by lunar occultation technique 2−79078

ocean thermal energy conversion
closed cycle stations on land sites, appl. 2−88469
CNEXO, France, research and development work 2−88468
direct cycle TES stations offshore, hydraulic problems 2−88470
folded-tube Al condenser for OTEC heat exchange, test results 2−88472
LNG vaporizer and power generation using low temp. LNG 2−57720
marine technologies for the 1990s 2−67881
power source, using tropical sea thermal surface differences *(German)* 2−105586
prospects of energy transformation between fusion reactor and OTEC plant 2−78193
solar technologies for the year 2000 and beyond 2−73088
technical and economic prospects for Ocean Thermal Energy Conversion (OTEC) 2−73138

ocean water *see seawater*

ocean waves
altimetry and microwave meas. of sea from ERS-1 and aircraft 2−68382
Andaman and Nicobar Islands area, winter wave characts. 2−62975
N.Atlantic Ocean, wavenumber spectrum of small-scale vertical shear struct. 2−88879
atmosphere surface layer disturbed by sea waves *(Russian)* 2−117427
Baltic Sea, surface roughness in nearshore zone rel. to atmosphere internal boundary layers 2−68410
W Bay of Bengal, sea surface and atmos. conditions during MONEX 2−78763
Bay of Bengal surges, effect of wind stress forcings of 1977 Andhra cyclone 2−68373
beach swash oscillations 2−58033
bed roughness of oscill. flow over movable sediments 2−58068
breaking wind waves in deep water, bubble clouds, role in air-sea gas transfer 2−58083
bubbles production by breaking waves, obs. by side-scan sonar 2−68375
capillary wave generation by steep gravity waves 2−58075
centimetric wind waves in currents 2−73580
Columbia-Peru tsunamis observed along Japan coast (1960 to 1979) *(Japanese)* 2−83757
continental shelf wave detect., appl. to Oregon shelf 2−111946
currents induced by waves *(Russian)* 2−58062
data acquisition from wave recorders, one-bit microprocessor-controlled system 2−83978
diffraction from cylindrical bottom feature for oblique incidence 2−62964
directional wave information for practical use 2−68381
Ekman currents and mixing due to surface waves 2−68371
EM fields of ocean waves, effect on magnetotelluric sounding for three-layer geoelectric section 2−111847
estuary mouth and scatt. of incident long waves 2−62978
finite depth wind-wave spectra 2−111942
formation of unsteady waves due to atmos. press. disturbances *(Russian)* 2−117331
gravity-capillary waves dynamic equations 2−70970
growth of wave spectrum with fetch 2−78684
Haifa Bay, E.Mediterranean Sea, obs. and theory of seiches 2−117307
height and direction indication based on commercial radar 2−68380
height and direction meas., conference, London, England, 24 March 1982 2−63755
height and period prediction rel. to wind speed, JONSWAP result anal. 2−68376
height determination by satellite microwave radiometry method 2−100599
HF radar meas. system for ocean wave height and direction 2−68379
hurricane Iva (13 Aug. 1978 over NE Pacific), wind and wave obs. 2−88954
imagery by synthetic aperture radar 2−106331
W India coast, SW monsoon waves and swell 2−78677
Indian Ocean, wave characts. on Ceylon to Nicobar transect 2−62975
interaction between wind and waves, role of viscous stresses *(Russian)* 2−117334
internal three-dimensional waves in ocean currents, amplitude characts. *(Ukrainian)* 2−68340
internal wave field influence on surface wave spectra *(Russian)* 2−62982
internal waves (random) of deep ocean, theory 2−58080
internal waves in shallow water, sound fluctuations 2−106125
internal waves rel. to atmospheric perturbations *(Russian)* 2−100392
laser techniques for wave height meas. 2−68385
light reflection, iterative radiative transfer code for ocean-atmosphere systems 2−100554
long wavelength diffraction by trench, theory 2−58081
long-wave dispersion, stretched-grid model 2−117323
low frequency coastal trapped waves, bottom friction effect 2−94372
measurement of sea waves by radar amplitude method 2−117496
E Mediterranean tsunami waves, coastal amplification 2−94297
microwave sea state measurements 2−68384
Nankaido tsunamis (1707 and 1854) along SW Shikoku coast *(Japanese)* 2−83758
narrow band Gaussian model of sea wave parameters 2−117324
non-Gaussian water-wave fields 2−111930
ocean waves continued
weakly nonlinear interaction of deep water waves *(Russian)* 2−94369
nonlinear wave interactions on fixed and floating bodies 2−97573
numerical modelling of long waves 2−83849
numerical study of long-wavelength wave propagation *(Russian)* 2−62970
obliquely incident on uniform beach, refraction 2−58079
offshore platforms, evolution of the 'design wave' 2−68378
optical and infrared multispectral scanners and the study of sea-surface states 2−68542
quasilinear approx. for spectra of wind generated waves 2−73578
radar imaging, model and expt. verification 2−68514
radar meas. of wave height with SEASAT SAR using speckle diversity 2−68515
reflection of wave energy by undulations on seabed, linear perturbation theory 2−106130
remote measurement of ocean wave dynamics 2−58133
remote sensing of wave height by satellite SAR imagery 2−94514
roughness of surface, measurement by image of luminous object *(Russian)* 2−78874
sand bar reflecting incident surface water waves 2−62946
sea state dynamicostochastic model *(Russian)* 2−117339
seabed wave boundary layer in 18 metres of water 2−117318
SEASAT radar altimetry for waveheight and wind speed 2−89033
SEASAT radar altimetry system for ocean and atmos. meas. 2−89024
short-wave modulation by long gravity waves, optical determ. 2−106352
sloping beach, conservation laws for shallow water waves 2−117326
space-time spectra calculational technique *(Russian)* 2−117341
spaceborne synthetic aperture radar, conf. at Baltimore, USA, (March 1980) 2−68958
Strait of Juan de Fuca, seabed wave boundary layer 2−117318
surf zone wave propagation, theory 2−58069
surface wave slope statistics derived from optical radiance meas. below the sea surface 2−63102
surface waves, horizontal diffusion of tracers 2−111960
swell energy conversion to electric energy process technicalities *(French)* 2−73061
swell instability theory 2−117317
synthetic aperture radar, appls. to meas. of ocean waves 2−68383
synthetic aperture radar imagery, capillary wave random motion effect, oceanographic appls. 2−68528
tabular icebergs, interaction with ocean waves 2−88906
tsunami, generation off Pacific coast in Nankaido district *(Japanese)* 2−94287
tsunami directional generation in offshore region *(Russian)* 2−88786
tsunami generation by Oct. 1963 Kurile earthquake 2−100264
tsunami generation from instantaneous modulated line source 2−57999
tsunami generation mechanism in New Zealand coastal waters 2−88811
tsunami impact on coasts of Tokai District, Kii Peninsula and Shikoku Island (1703) 2−68301
tsunami propagation at depth discontinuity in ocean 2−73487
tsunami propagation theory 2−117250
tsunami recorded in open Pacific Ocean 1000 km from source area 2−78578
tsunami recorders at Enoshima and Izu-Oshima tsunami observatories *(Japanese)* 2−83957
tsunami regionalisation for Pacific region 2−117247
tsunami run up on beach, linear theory *(Russian)* 2−73472
tsunami sources in Sanriku region, NE Japan, seismic gap 2−94284
tsunamis, energy rel. to earthquake fault model parameters *(Japanese)* 2−83755
tsunamis in E. Mediterranean, catalogue from antiquity to present 2−100252
tsunamis of Italian coasts 2−57994
tsunamis of Japan (Honshu) Pacific coast, numerical calcs. *(Japanese)* 2−57984
turbulence generated by breaking of open ocean waves 2−68345
turbulent flow, surface wave propag., asymptotic soln., appl. to oce an waves *(Russian)* 2−73593
velocity field spectral characts., exptl. study *(Russian)* 2−62972
Visakhapatnam coast, wave refr. and nearshore circulation 2−111935
vorticity waves in shallow basin 2−100389
wave crest heights, statistical study, for coastal structure design and planning 2−88908
wave generation by wind, Miles' theory 2−68423
WAVES: a FORTRAN IV program on the stochastic simulation of waves in the coastal environment 2−117310
S Weddell Sea low frequency currents and continental shelf waves 2−111953
whitecaps, bursting bubbles rel. to generation of aerosols in marine boundary layer 2−117389
wind stress-wave slope relationship 2−68348

oceanic crust
African-Sicilian Rise, geothermal conditions 2−73498
Arabian Sea shales near India, geochem. and thermoluminesc. studies 2−73504
Archaeozoic oceanic crust thickness 2−106075
Arctic Ocean, aeromagnetic anomalies and tectonic evolution 2−62890
Arctic Ocean basin and continental margins (book) 2−53440
Artic mid-ocean ridge area, seismic sounding obs. 2−73501
SW Atlantic, bottom topography and mag. anomalies *(Russian)* 2−62945
N Atlantic mid-ocean ridge, He isotope variations and mantle heterogeneity 2−62914
central Atlantic Ocean, magnetic model of Earth crust 2−73438
N Atlantic ocean basin and continental margin, geology, geophysics, geochemistry and resources 2−58035
Australia region, seismic study of crust thickness and isostasy 2−106080
Australia-Antarctica area, sea-floor spreading anomalies 2−68241
Azores-Biscay Rise, struct. and origin of crust 2−88855
Barbados, Lesser Antilles accretionary prism and tectonic evolution 2−94320
Barbados Ridge complex, bathymetric and seismic survey rel. to interpretation of accretionary wedge 2−94355
basalts, Sr and Nd isotope geochemistry 2−73551
basalts from seafloor, evidence for mantle major element heterogeneity 2−62915
bending model for subducting oceanic crust 2−117281
Bonin Islands (W.Pacific), palaeomag. and tectonic rotation 2−57967
Comoro Basin, crust struct. from seismic travel-time data *(French)* 2−73491
conf., July 1980, Paris, France 2−58533

oceanic crust continued
conference, April 1982, Cardiff, Wales 2−63736
Costa Rica Rift, Sr and O isotopes of Pacific basalts 2−106016
Costa Rica Rift, US borehole televiewer appl., layer 2A studies 2−58020
Costa Rica Rift, water circulation and heat transfer in oceanic crust 2−88866
deep-sea basalts containing large titanomagnetite grains, low temp. mag. hysteresis 2−78642
diapir formation model based on plate tectonics 2−106083
East China Sea basin struct. and evolution 2−58031
East Pacific Rise, mag. props. of tholeiitic basalts from Gulf of California, Mexico 2−106098
East Pacific Rise, seismic refl. obs. of lava flow layer 2−78602
EM lateral wave propag. at lithosphere-ocean interface, model expts. 2−90778
Falkland tough (S Atlantic) crust struct. and tectonic origin 2−94322
fault dislocations, general charact. 2−78615
fracture zones, Lewis Hills Massif seismic vel. structure 2−58014
Galapagos Rift, volcanism, structure and hydrothermal activity 2−58026
Gilliss Seamount (NW Atlantic), seafloor photographs 2−100368
global free air gravity anomalies rel. to continents and ocean floor struct. 2−57956
Gorringe Bank, oceanic crust+mantle, active in situ disaggregation, analogy with ophiolitic massifs 2−88831
gravity anomalies and bathymetry, freq. response function study 2−100196
Great Barrier Reef, seismology showing old erosional surfaces 2−58043
Guinea coastal marginal plateau, geology and bathymetry *(Russian)* 2−88829
Gulf of Aden, axial magnetic anomaly and Curie temp. isotherm 2−94276
guyots of Ogasawara Rise (W.Pacific) gravity anomalies study 2−88722
heat flow through shallow sea sediments, meas. system 2−89053
Hellenic arc and Sea of Crete, synthesis of tectonic development 2−94352
Hellenic arc and trench, international symposium, Athens, Greece, (1981 April 8 to 10) 2−89443
Hellenic trench tectonics, synthesis of Sea-Beam and submersible obs. 2−94350
hydrothermal activity, magma crystallization evidence 2−94363
hydrothermal circulation 2−63010
hydrothermal circulation in mid-ocean ridge fault zone 2−117288
NW Indian Ocean, rock magnetic nature of geomag. anomaly zones 2−117298
Indian Ocean mag. anomaly mapping using MAGSAT 2−100231
Ionian Sea (W. Greece), crust struct. and tectonics 2−78618
island chain formation, mantle hot-spot model 2−100356
Japan Trench-Honshu area, crust and upper mantle struct. 2−83782
Josephine ophiolite, California, evidence for struct. of oceanic crust 2−73512
Kamchatka Trench area, crust struct. of continental margin 2−78611
Kane fracture zone (N. Atlantic), crust struct. and isostatic compensation 2−68315
Kula plate (N.Pacific), Late Cretaceous tectonics and mag. lineations 2−68326
lithosphere thinning, effect of asthenosphere heat flow, appl. to Hawaiian Emperor chain evolution 2−68321
magnetic anomaly mapping accuracy of MAGSAT satellite 2−100231
Mariana basin, high-freq. P- and S-wave propagation 2−83764
Mariana Trough, seismic vel. struct. 2−100330
W Mediterranean Basin, evidence for early history from Oligo-Miocene rift of Sardinia 2−106079
E Mediterranean ridge, strain distrib. synthesis incorporating new Sea-Beam data 2−100369
E Mediterranean Sea, geological evidence concerning compressional tectonics 2−94354
Mendocino Fracture Zone, geoid height/crust age relation 2−100359
meteorite impact as cuse of oceanic plateaus 2−117306
mid-ocean ridge magma chamber geochemical model 2−106020
mid-oceanic ridges in tropical zone of Atlantic, Indian and Pacific Oceans, crustal struct. 2−117263
Middle America Trench as example of subduction zone, study of bathymetry and tectonics 2−94351
midocean ridge sulphide hydrothermal activity *(French)* 2−73540
MORB composition and origin, laboratory rock melt study 2−117267
Nansen Ridge (Arctic Ocean), seismicity and crustal struct. 2−73513
New Hebrides island arc, basalt geochem. and origin 2−117258
Newfoundland, seismic vel. struct. of Bay of Islands ophiolite 2−68314
Ninetyeast Ridge, spectral interpretation of gravity anomalies due to horizontal slab like bodies with lateral density var. 2−111841
North Scotia ridge (S Atlantic) crust struct. and tectonic origin 2−94322
North Sea basin development tectonics 2−106069
North Sea Viking Graben, discovery of granite batholith 2−68316
Okhotsk Sea, temporal props. of Rayleigh waves in horizontally inhomogeneous lithosphere 2−73475
ophiolites, oceanic crust on-land fragments 2−117284
ophiolitic complexes thrusting, assoc. tectonic structs. in White Hills Peridotite, Newfoundland 2−94365
ophiolitic volcanogenic sulphide deposits, Pb isotopic comp. in Troodos Complex, Cyprus 2−62925
origin and struct. of oceanic crust *(Russian)* 2−73510
NE Pacific, geoid anomalies and isostasy of fracture zones 2−68329
NW Pacific, geothermal heat flow distrib. 2−88840
N Pacific, guyot subsidence rate 2−83797
NW Pacific, P-wave vel. anisotropy 2−78583
W.Pacific gravity anomalies, tectonics and crust struct. 2−88723
SW Pacific marginal basins, geomag. anomalies and tectonics 2−100244
NW Pacific Ocean, airgun-OBS seismic refraction profiling expt. off Sanriku coast 2−117225
SW Pacific region, conf., Dec. 1979, Sydney, Australia 2−94903
E Pacific Rise, chemistry of hot springs 2−78712
E Pacific Rise, heat flux effect on mid-depth waters 2−100329
Pacific volcano, seamount and volcanic island occurrence 2−117270
East Pacifiic Rise (21°N), crust struct. and sea-floor topography 2−62926
West Philippine Basin, tectonic evolution 2−73532
plate bending at trenches, focal depths of assoc. earthquakes 2−100320
plateaus, characteristics and tectonic origin 2−94338
propagating rift theory, illustration using computer graphics 2−62941
Red Sea, geothermal heat flow anomalies at 18°N 2−78608
Red Sea crust and continental margins at 20°N 2−94328
oceanic crust continued
Red Sea submersible research expedition for sea floor spreading/crustal processes anal. 2−78599
Reykjanes Ridge, sonar study of midocean ridge struct. 2−62943
Rockall Trough, Eocene volcanic ash deposits 2−117291
Sea of Crete and Hellenic arc, synthesis of tectonic development 2−94352
seawater chemical composition (U, K, Rb, Cs) alteration due to hydrothermal circulation 2−68386
Svalbard (Spitsbergen), seismicity zones and intraplate tectonics 2−73490
thermal evolution of the oceanic lithosphere *(Dutch)* 2−78607
thermal isostasy, moving crust response to distrib. heat source 2−58015
thermal structure of oceanic plates, comparison of discrete and continuous intrusion models 2−106023
thickening over long time periods, evidence from Pacific seismic data 2−73496
thickness correlation with spreading rate, seismic refr. data anal. 2−58019
thrusting and subduction from basal ophiolite sections, kinematics 2−73530
Tonga-Kermadec trench, calc. of geoid height anomalies 2−73418
trench depth as function of subduction rate and crust age 2−73533
Walvis Ridge basalts, isotope geochemistry rel. to mantle source 2−106015
Wilkes fracture zone, bathymetry and geomag. leading to struct. and tectonic implications 2−58018
Winona Basin, off Vancouver Island, struct. and tectonics 2−94361

oceanographic equipment
see also oceanographic techniques; water pollution detection and control
air-sea interaction, instruments and methods, book 2−94917
bottom hydrophone recorder for seismic refr. expts. 2−58165
C-CD camera system, for remote meas. of ocean waves dynamics 2−58133
current measurement by acoustic profiling from ship 2−106338
current measurement by free-fall acoustic dropsonde 2−83959
current meters for near surface dynamics, intercomparison expts. 2−58139
current velocity meas. with metal-clad hot wire sensors 2−58158
current vertical profile meas. with acoustically tracked profiler 2−58138
data acquisition, one-bit microprocessor-controlled system 2−83978
expendable bathythermograph expt. and analytic errors 2−112174
fishing trawl, instrumentation system to meas. temp., cond. and depth 2−94543
flux-gate direction meter for use with current meters 2−78883
free-fall ocean bottom seismograph in-situ deep water observation 2−78880
laser, short-pulse high-repetition-rate CuBr, suitable for bathymetry 2−90917
mercury adsorption rate onto particulates, meas. system 2−106361
mobile platform for studying sea-surface films, description of apparatus 2−89019
multispectral optical radiometer for sea-surface temp. and chlorophyll content mapping *(French)* 2−94523
Neil Brown conductivity cell, dynamic response calibration 2−112175
noise injection Dicke Microwave Radiometer, digital signal processing, flight test 2−117507
optical and infrared multispectral scanners and the study of sea-surface states 2−68542
profiling system for current and acoustic vel. meas. 2−83971
prospecting, modelling of EM systems, local inhomogeneities detection at sea *(Russian)* 2−100594
satellite remote sensing technology development Japanese Marine Observation Satellite program 2−73820
sea depth measurement with great precision, quartz resonator pressure sensor *(German)* 2−78864
side-scan sonar, obs. of wave-produced bubbles 2−68375
sonar design for deep-tow side-scan operation 2−73727
spaceborne scatterometer, performance evaluation 2−106351
temperature meas. of upper layer using towed system 2−78882
temperature microstruct. meas. with new conductivity probe 2−117490
towed sea-bed spectrometer for marine radionuclide distribs. 2−116860
triaxial coil receiver system for the study of subsurface electromagnetic propagation 2−68511
tsunami recorders at Enoshima and Izu-Oshima tsunami observatories *(Japanese)* 2−83957
turbulence meas., with metal-clad hot wire sensors 2−58158
wave measuring buoys, calibration techniques 2−68520
CO_2 computer-based meas. system, atmospheric and oceanic partial pressure determ. 2−58146
Si piezoresistive strain gauge, sediment erosion meas. appl. 2−68539

oceanographic techniques
see also bathymetry; oceanographic equipment; water pollution detection and control
acoustic backscatter properties of sea surface 2−117489
acoustic remote sensing of atmosphere and oceans, international symposium, Calgary, Alberta, Canada, (1981 June 22 to 25) 2−94912
acoustic sounding of ocean density field struct. 2−112168
acoustic tomography, demonstration off Bermuda 2−106359
air-sea interaction, instruments and methods, book 2−94917
chemical anal. of seawater by nucl. physics methods 2−100600
chlorinated waters distribution patterns in coastal areas, appl. of halocarbons as tracer substances 2−111604
CTD measurement data processing method 2−117497
current meas., underwater US propag. obs. by two period M-sequence model 2−78876
current measurement by acoustic profiling from ship 2−106338
current velocity meas. with metal-clad hot wire sensors 2−58158
expendable bathythermograph expt. and analytic errors 2−112174
fishing trawl, instrumentation system to meas. temp., cond. and depth 2−94543
flux-gate direction meter for use with current meters 2−78883
forecasting method for N Atlantic surface temps. 2−100399
gravity wave modulation determ., optical technique 2−106352
heat storage in upper ocean, estimation method using remote sensing data 2−73589
heat transport, mechanisms and direct estimation methods 2−78863
height and direction indication based on commercial radar 2−68380
HF radar meas. system for ocean wave height and direction 2−68379
horizontal turbulent diffusivity determ. method 2−68504
hydrodynamics, vertical vel. profile determ. from induced EM field profile 2−112133
ice pressure sensor embedded type, elastostatic anal. 2−63142

oceanographic techniques continued
laser hydrography, review 2−68521
lidar remote sensing, underwater light scatt. effects 2−111929
marine EM sounding, EM wave field for three-layer geoelectric section 2−111847
mercury adsorption rate onto particulates, meas. system 2−106361
microwave multichannel microwave remote sensing, data inversion method 2−58167
microwave sea state measurements 2−68384
multibeam bathymetric swath survey systems 2−106366
multisensor surveillance data fusion system architecture 2−63148
ocean wave height and direction meas., conference, London, England, 24 March 1982 2−63755
ocean wave height meas. using laser techniques 2−68385
photography, underwater techniques 2−68532
radar backscatter properties of rough sea surface 2−117489
radar imaging of ocean surface waves, model and expt. verification 2−68514
radar meas. of wave height with SEASAT SAR using speckle diversity 2−68515
radar obs. of sea surface, discrepancy between ground-based and airborne obs. 2−58156
remote sensing by microwave multichannel radiometry 2−58166
roughness of surface, measurement by image of luminous object *(Russian)* 2−78874
salinity calc. from seawater temp., sound vel. and pressure data *(Russian)* 2−117343
salinity of estuaries, remote sensing multispectral method 2−89051
satellite remote sensing, iterative radiative transfer code for ocean-atmosphere systems 2−100554
sea ice pressure meas. with embedded sensor, theory 2−63141
sea ice wind stress measurement methods and obs. *(Japanese)* 2−94392
sea surface films study, appl. of mobile platform 2−89019
sea surface stress determ. by Seasat-SASS, case study with JASIN DATA 2−83827
sea surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
sea-state forecasting with numerical models 2−106133
seamount detection using satellite altimetry 2−100583
SEASAT, ocean and atmos. remote sensing system 2−89023
Seasat altimeter and scatterometer 2−68541
SEASAT orbit ephemerides for radar altimeter experiment 2−89034
SEASAT radar altimeter correction for tropospheric propagation 2−89028
SEASAT radar altimeter obs. off Bermuda for height calibration 2−89026
SEASAT radar altimeter sea-state related altitude errors 2−89030
SEASAT radar altimeter time tag bias 2−89032
SEASAT radar altimeter timing bias estimation 2−89031
SEASAT radar altimetry, height correction for sea state 2−89029
SEASAT radar altimetry ionosphere corrections 2−89027
SEASAT radar altimetry system for ocean and atmos. meas. 2−89024
Seasat radar scatterometer, calibration by obs. of Amazon rain forest 2−58148
SEASAT radioaltimeter height calibration 2−89025
SEASAT synthetic aperture radar studies, review 2−89042
sediment age determination method based on Th^{230} content 2−117494
sediment suspended in bottom layer, acoustic profiling expt. 2−83806
seismic refl. sounding of marine sediments by isochrone method 2−117249
seismic reflection records processing, compensation for source heave by use of a Kalman filter [underwater sound] 2−68513
sonar design for deep-tow side-scan operation 2−73727
sonar for scattering inhomogeneity meas. 2−83969
spectral properties of euphotic zone, for remote sensing application 2−73588
surface current, remote meas. via sonar obs. of wave-produced bubbles 2−68375
surveillance, attribute problem, combined probabilistic and fuzzy set technique 2−63147
synoptic surface current meas., remote sensing, use of gravity waves 2−94527
synoptic variability remote sensing method *(Russian)* 2−73567
synthetic aperture radar, appls. to meas. of ocean waves 2−68383
synthetic aperture radar for ocean wave imagery 2−106331
synthetic aperture radar imagery, capillary wave random motion effect 2−68528
temperature data collection method for FGGE surface waters 2−117466
temperature meas. of upper layer using towed system 2−78882
temperature microstruct. meas. with new conductivity probe 2−117490
temperature of sea surface meas. by SEASAT microwave instruments 2−89041
temperature of sea-surface, satellite IR remote sensing methods 2−112173
temperature vertical profile construction using analytic model *(Russian)* 2−88902
thermohaline struct. remote sensing by passive microwave meas. 2−112172
tomographic approach to multiarray ocean surveillance 2−68512
tomographic ocean surveillance 2−63146
tracer dye patch monitoring by airborne lidar method 2−106337
turbulence intensity determ. from US scattering spectra 2−83968
turbulence meas., with metal-clad hot wire sensors 2−58158
underwater signal processing, high-speed programmable digital systems 2−63143
water exchange time between coastal basin and adjacent sea, determ. method, appl. to Rijeka Sea 2−106339
water mass tracing, appl. of rare earth elements abundances in seawater 2−63003
wave dynamics remote measurement, appl. of CCD camera system 2−58133
wave height, meas. by SEASAT radioaltimetry method 2−89033
wave height determination by satellite microwave radiometry method 2−100599
wave height determination by satellite SAR imagery 2−94514
wave measurement by radar amplitude method 2−117496
wave measuring buoys, calibration techniques 2−68520
wave processes, space-time spectra calculational technique *(Russian)* 2−117341
wave slope statistics derived from optical radiance meas. below the sea surface 2−63102
West Coast Expt. (March 1977) 2−100585

oceanographic techniques continued
wind meas. by SEASAT microwave scatterometry, atm. attenuation corrections 2−89037
U fission track determ. in water 2−67922

oceanography
see also bathymetry; ocean waves; sea ice; seawater; sediments; tides
abrasional shore development during a gradual rise in sea level 2−83838
abyssal circulation of numerical model gyres, deep mean flow generation 2−100387
acoustic backscatter from sea surface layer (underwater sound) 2−117489
acoustic deep-scattering layers, review of obs. 2−78703
acoustic reflection from ocean bottom inhomogeneities 2−117248
N Adriatic Sea, physical oceanography 2−106140
advection and mixing effects in upper ocean, theory 2−68362
Aegean Sea, Holocene shorelines rel. to crustal block movements in Crete and Antikythira 2−94349
NW African upwelling region, tidal currents anal. 2−78664
ageostrophic instability of ocean currents 2−73577
Agfardlikavsa Fjord, W Greenland, seasonal water mixing 2−88892
Agulhas Current system, asymptotic analysis 2−94388
air-sea interaction, instruments and methods, book 2−94917
Alaskan Stream near Kodiak Island, current meter obs. 2−78688
Little Andaman Island, surface water flow and thermohaline struct. 2−62976
Andaman Islands region, thermohaline struct. and circulation 2−62974
Andaman Sea, biological productivity of plankton 2−63002
Andaman Sea, Ca, Mg and fluoride concs. of seawater 2−63000
Andaman Sea, chemistry and thermohaline circulation 2−62999
Andaman Sea, heat storage in upper 20 m and evaporation 2−88904
Andaman Sea, trace metal content of seawater 2−63001
annual baroclinic wave source in eastern subtropical N. Pacific 2−78680
Antarctic Ocean, circulation and climate during last 120 years 2−117325
Aquitaine continental shelf, thermohaline struct. and circulation *(French)* 2−73539
Arabian Sea, vertical stabilities in upper 300 m, comparison with Bay of Bengal 2−88905
Arabian Sea current struct. during SW monsoon 2−78675
Arabian Sea fluoride bromide and iodide comp. 2−111967
Arctic, central, bioluminescence under ice in spring 2−78696
Arctic Ocean, freshwater residence time from radioactive pollution obs. 2−68354
Arctic Ocean, salinity of upper layer and sea ice 2−68368
Arctic Ocean, sea ice and water circulation model 2−100397
Arctic Ocean, Zn, Cd, Cu, Al vertical profile obs. 2−62997
Argos system for data collection and location by satellite 2−112153
asymmetric eddy formation in stratified ocean *(Russian)* 2−117329
N Atlantic, 3-D circulation model 2−58064
tropical Atlantic, ^{137}Cs, ^{222}Rn, ^{234}Th obs. *(Russian)* 2−88913
S Atlantic, Brazil and Falkland currents, remote sensing (1975 to 1978) 2−78666
Atlantic, current and acoustic vel. meas., profiling system appl. 2−83971
Atlantic, equatorial heat transport in E-W direction *(Russian)* 2−62992
Atlantic, equatorial mesoscale current variability and internal waves *(Russian)* 2−62991
North Atlantic, forecasting of seasonal surface temps. 2−100399
N Atlantic, general circulation models 2−78692
tropical Atlantic, heating of ocean and atmos. by solar IR radiation *(Russian)* 2−88964
NW Atlantic, horizontal temp. inhomogeneities 2−83834
N Atlantic, mean temp.-salinity, salinity-depth and temp.-depth curves 2−100395
N. Atlantic, monthly mean sea surface temp. anomaly classification 2−73647
tropical Atlantic, optical props. of water masses *(Russian)* 2−88899
NW Atlantic, P input from atmos. 2−83874
eastern North Atlantic, response to annual wind variations 2−106127
North Atlantic, sea surface temp. rise, 1970 to 1980 AD *(German)* 2−63078
tropical Atlantic, seasonal current and density charts *(Russian)* 2−88901
tropical Atlantic, surface microlayer chem. and phys. characts. *(Russian)* 2−88912
tropical Atlantic, temp. and dynamics affected by intertropical convergence *(Russian)* 2−88897
South Atlantic, tides and low-freq. sea level changes 2−73583
tropical Atlantic, turbulent diffusion and surface film thickness *(Russian)* 2−88913
Atlantic, vertical shear over continental slope off NW Africa 2−83843
equatorial Atlantic, zonal press. gradient dynamics 2−106135
tropical Atlantic (8°N, 23°W), thermohaline struct. and circulation *(Russian)* 2−88898
tropical N Atlantic at 23°W, current and heat balance obs. *(Russian)* 2−88896
middle Atlantic Bight, surface temp. from isotopic and shell growth records 2−73581
North Atlantic Current, drift buoy trajectory study 2−73582
Atlantic inertia-gravity waves observed during GARP 2−78681
tropical Atlantic near Guinea, O_2 and P distrib. and water dynamics *(Russian)* 2−88914
NE Atlantic near Guinea coast, optical struct. *(Russian)* 2−88894
N Atlantic near N.W. Africa, existence of isolated middepth layers 2−88878
Atlantic Ocean, distrib. of anthropogenic CO_2 2−88910
Atlantic Ocean, equatorial region, remote forcing evidence from surface temp. and wind obs. 2−111949
tropical Atlantic Ocean, natural EM fields in deep ocean *(Russian)* 2−88895
Atlantic Ocean, transparency vertical distrib. obs. 2−117356
NW Atlantic Ocean, Western Boundary Undercurrent rel. to shear strength of sediments off NE Newfoundland 2−78639
Atlantic Ocean bottom deep water circulation 700000 yrs BP from benthonic foraminiferal evidence 2−78848
Atlantic Ocean heat transport, mechanisms and direct estimation methods 2−78863
Atlantic Ocean Holocene sediment map 2−117292
Atlantic Ocean near Barbados, deep ocean currents rel. to wind 2−94374
Atlantic Ocean surface temp. effect on NE Brazil drought occurrence 2−78708
equatorial Atlantic upwelling during FGGE *(French)* 2−106138
atmosphere above ocean, sensible and latent heat fluxes 2−111950

oceanography continued
atmosphere boundary layer, aerosol composition in marine and coastal boundary layer 2−117390
atmosphere boundary layer, satellite meas. of aerosols optical thickness 2−117454
atmosphere boundary layers, parameterisation 2−68411
atmosphere-ocean interaction, bulk transfer coeffs. of atmospheric turbulent fluxes over ocean 2−117384
Australia subantarctic, water mass formation 2−68367
E Australian continental shelf, response to atmos. press. front 2−78671
East Australian Current, coalescence of warm-core eddies 2−73590
Baltic Sea, Gulf of Gdansk sea level, atm. pressure effect 2−83821
S Baltic Sea, salinity and O_2 variations due to North Sea influx 2−100398
Baltic Sea, surface roughness in nearshore zone rel. to atmosphere internal boundary layers 2−68410
Baltic Sea near-shore currents, theory *(German)* 2−100390
baroclinic instability of source-sink driven flow, theory for two-layer rotating fluid 2−103145
Bass Strait (Australia), wind-driven circulation 2−58070
Bay of Bengal, cloud cover rel. to surface long wave radiation, from temp. anal. 2−88903
Bay of Bengal, storm surges 2−83844
Bay of Bengal, vertical stabilities in upper 300 m, comparison with Arabian Sea 2−88905
Bay of Biscay, sedimentation on Aquitaine continental shelf *(French)* 2−73539
beach swash oscillations 2−58033
beach topography (complex), sedimental transport models 2−58032
Bear Island, model of atmospheric ship waves in lee of isolated island 2−100474
Beaufort Sea shelf drainage flows, effect on Arctic Ocean pycnocline 2−106129
benthic boundary layer modelling, second order turbulence closure model 2−111947
Bering Sea, oxidised sediment layer due to Holocene ice cover 2−111921
biological production of H_2, CO and methane in coastal inlet 2−68388
Black Sea, Cd and Ag concs. in upper water layers 2−117362
Black Sea, CO_2 exchange rate through sea surface 2−117360
Black Sea, macroturbulence of coastal zone 2−117348
Black Sea, suspended material distrib. 2−73564
Bombay harbour tidal current fluctuations 2−111936
bottom boundary layer absorpt. of internal waves 2−94386
bottom boundary layer flow and form drag 2−117316
bottom boundary layer turbulence 2−94385
bottom interacting ocean acoustics, conf., La Spezia, Italy (June 1980) 2−53433
boundary currents driven by density differences 2−78668
Brazil Current system, asymptotic analysis 2−94388
Bristol Channel, residual currents 2−73585
British Columbia coast, Late Quaternary sea levels and crustal movement 2−88854
British Isles, satellite obs. of sea surface temp. 2−100385
British Isles coastal waters, meteorological induced circulation 2−106136
California Current, stable baroclinic Rossby shear mode 2−111940
California undercurrent destabilisation near Vancouver I., theory 2−94383
Cape Cod Canal, tidal current connection with fog, temp. anal. 2−94429
E Caribbean Sea, circulation and current patterns 2−117321
Caribbean Sea, mesoscale variability of temp. and currents *(Russian)* 2−117336
Caribbean Sea, Ra distrib. in surface layers 2−106145
Caspian Sea and Kara-Boguz Gulf, water and salt balances and level 2−100396
cell turbulent diffusion in thermocline, model *(Russian)* 2−62988
chemical composition (U, K, Rb, Cs) alteration due to hydrothermal circulation 2−68386
Chesapeake Bay, eastern USA, thermohaline struct. and circulation 2−112172
Chesapeake Bay, estuary-subestuary interaction rel. to York River destratification events 2−106143
chlorophyll fluorescence from the ocean exact 1-D soln. 2−106124
Churchill River estuary on Hudson bay, freezing record (1680-1977) from tree ring anal. 2−106302
Cilician Basin, low frequency motion 2−94373
circulation, β-induced movement of isolated baroclinic eddies 2−83831
climatic crises, oceanographic factors *(French)* 2−63083
coastal seawater pile-up causing gravity field changes 2−117187
coastal upwelling and associated circulation, numerical model 2−94382
coastal waters, buoyant surface plume hydrodynamics, model 2−94399
coastal waters, current vel. and water temp. *(Russian)* 2−117314
Cochin backwaters, India, temp. and salinity distrib. and seasonal var. 2−111937
colour index and Secchi disc visibility obs. 2−117349
conference, April 1982, Cardiff, Wales 2−63736
contential shelf circulation due to alongshore wind 2−68360
continental margin sedimentary rock layer accumulation process 2−117268
continental shelf diurnal period waves generation by tidal currents 2−111954
continental shelf edge waves, theory 2−62966
convection oscill. produced by modulated heat input *(Russian)* 2−63032
coupling with ice sheets, role in climate dynamics 2−58115
mid-Cretaceous circulation and temp. distrib. 2−106076
Crozet-Kerguelen region frontal zones 2−106137
current meters for near surface dynamics, intercomparison expts. 2−58139
cyclonic eddy formation at upwelling fronts 2−78669
deep mean flow generation and abyssal circulation of numerical model gyres 2−100387
delayed action of ocean-atmosphere system 2−100542
Denmark coastal waters, pollution by heavy metals 2−78698
diffusion of dye spots, comparison of theory and expts. 2−117355
dispersion relation for 'modons', analytic approx. 2−62962
dissipative quasigeostrophic dynamics, theory 2−62967
double diffusive interleaving of waters of different thermohaline props. 2−58071
Drake Passage, generation and evolution of cyclonic ring in 1979, motion 2−111961
Drake Passage seawater, $^{143}Nd/^{144}Nd$ composition 2−106146
early hydrosphere origin 2−106319
Earth rotation, excitation of annual wobble 2−88719
earth sciences computer appls. conf. Syracuse, NJ, USA (Oct. 1979) 2−58192
East China Sea, winter temp. patterns, fronts and surface currents, satellite imagery anal. 2−106141
East Pacific Rise, sediment chemistry and sedimentation 2−83805
eastward-propagating modon forming mesoscale eddy 2−94378
Ekman currents and mixing due to surface waves 2−68371
El Nino and the atmos. Southern Oscillation 2−100497
El Nino and tropical Pacific temp., AD 1957 to 1976 period 2−88888
El Nino event forecasting using linear prediction techniques 2−73645
EM fields of ocean waves, effect on magnetotelluric sounding for three-layer geoelectric section 2−111847
EM fields variations induced by synoptic scale oceanic movements 2−112133
EM lateral wave propag. at lithosphere-ocean interface, model expts. 2−90778
embedded mixed layer circulation model 2−62961
equatorial beta-plane low wavenumber instability 2−112032
equatorial circulation of quasihomogeneous layer, 3-D model *(Russian)* 2−117335
estuary, contaminant dispersion in turbulent shear channel flow 2−81396
estuary colloidal material composition, seasonal variation 2−62998
estuary salinity intrusions, theory 2−68359
evaporation rate near Padua 2−68445
extreme current probability as combination of tides and storm surges 2−106134
fjord circulation, simple model of interaction with coastal circulation 2−83828
fjord seasonal mixing processes (W Greenland study) 2−88892
Flores Sea, rotating flow front model appl. 2−100388
W Florida coastal waters, high concs. of ^{226}Ra and ^{222}Rn rel. to Rn degassing 2−78704
W.Florida Shelf, M_2 tide, currents and sea level 2−58059
Florida Straits, mean sea level and dynamical implications 2−73586
foam-covered sea, empirical microwave emissivity model 2−100393
fossil shorelines dislocation by differential crustal movements 2−78629
Fraser River plume extension into Juan de Fuca Strait 2−83823
friction with seabed, tidal coupling with Moon, effect on Earth-Moon evolution 2−84121
frontogenesis, effects of advection and mixing 2−68362
frontogenesis nonlinear numerical model *(Russian)* 2−62973
geomagnetic field distortion determination, method for effects due to oceans and continents 2−73700
Georges Bank, NW Atlantic, mean circulation obs. 2−111943
Gilliss Seamount (NW Atlantic), seafloor photographs 2−100368
global circulation and heat balance model 2−94384
global mean sea level as indicator of climatic change, causes 2−78693
global meltwater spike from deglaciation, assessment 2−94395
global sea level trend over past century 2−83845
global sea surface level determined by SEASAT radioaltimetry 2−88885
global surface current flow 2−111941
Goa coast of India, sediment types and distrib. 2−94362
Goa coastal waters, India, light propagation 2−111934
gravity currents in the laboratory, atmosphere, and ocean 2−97617
Great Barrier Reef, seismology showing old erosional surfaces 2−58043
Gulf of Alaska, boundary layer response to storms 2−89009
Gulf of Aqaba, phosphate pollution of sediments studied by U concs. 2−68390
Gulf of Cadiz water obs. in thermocline of N.W. Atlantic 2−68344
Gulf of Elat, Ca distrib. in seawater 2−73594
Gulf of Guinea, spectral properties of euphotic zone 2−73588
Gulf of Mexico, β-induced motion of baroclinic eddies shed by Loop Current 2−83831
W Gulf of Mexico, circulation and thermohaline struct. 2−117320
W Gulf of Mexico, sea-surface temp. obs. 2−68377
Gulf of Mexico surface waters, palaeoceanography in Late Quaternary 2−78849
Gulf of St. Lawrence, sea level variability and meteorological forcing 2−68349
Gulf of Venice, Italy, surface sediments heavy metal pollution 2−63099
Gulf Stream, dynamic topography from SEASAT radioaltimetry obs. 2−88883
Gulf Stream, vertical current profiles 2−106338
Gulf Stream eddies, physical and biological props. 2−73591
Gulf Stream front, comparison of theory and SEASAT altimetry obs. 2−58073
Gulf Stream ring thermohaline struct. and mixing 2−117347
Gulf Stream rings, motion 2−83832
Haifa Bay, E.Mediterranean Sea, obs. and theory of seiches 2−117307
Hatteras Abyssal Plain, turbulence of bottom layer 2−94385
heat budget during hurricane passage 2−83833
heat flux through surface of ocean with ice cover 2−68356
heat storage in upper ocean, estimation method using remote sensing data 2−73589
Honolulu, sea level fluctuations correl. with N.Pacific currents 2−68364
horizontal mixing by shear dispersion mechanism 2−111939
horizontally stratified oceans, appls. of WKBJ Green's function to acoustic propagation 2−86158
Hudson Canyon, internal waves and sediment transport 2−83824
Hurricane David and response of Florida Atlantic shelf waters 2−68352
E India coast, sea level and tides and Paradip 2−78678
Indian Ocean, CO_2 gas exchange through surface 2−117361
W equatorial Indian Ocean, diurnal heating 2−83841
N Indian Ocean, evaporative water loss 2−94370
Indian Ocean, intertropical currents during NE monsoon 2−78676
Indian Ocean, semi-annual period equatorial currents 2−111945
W Indian Ocean, variability of 20°C isotherm topography 2−68350
Indian Ocean interaction with atm., monsoon control, sea surface temp. anal. 2−68372
internal edge waves partially trapped by continental shelf 2−83826
internal tides on continental margin, model 2−68363
internal wave dissipative propagation through vertical density struct. *(Russian)* 2−117328
internal wave formation rel. to current velocity and diffusion *(Russian)* 2−117333
internal wave generation within localised bottom elevation area *(Russian)* 2−62980
internal wave propagation in presence of large scale motion *(Russian)* 2−73569

oceanography continued
internal wave propagation over submarine ridge *(Russian)* 2−117330
internal wave reflection from sloping bottom 2−58072
internal wave spectral energetics 2−68369
internal wave trapping by const. slope internal interface 2−94387
internal waves (random) of deep ocean, theory 2−58080
internal waves in equatorial waveguide, effects of friction 2−78687
internal waves in rot. stratified fluid, theory 2−78672
internal waves in submarine canyon, model 2−58076
internal waves in thermocline, theory for arbitrary stability conditions *(Russian)* 2−62983
internal waves propagating along slope thermocline *(Russian)* 2−88881
Irish Sea, flow patterns and residence times from obs. of ^{137}Cs pollutant 2−105608
Iroise Sea, tidal currents *(French)* 2−83842
island shelf circulation model, appl. to circular island and Peru shelf circulation 2−111952
isotherm movements rel. to wind direction *(Russian)* 2−100392
isotopic palaeo-oceanography of Caribbean and E Pacific Ocean, role of Late Neogene Panama uplift 2−111968
Jan Mayen Land, model of atmospheric ship waves in lee of isolated island 2−100474
Japanese archipelago, organic and total Hg content 2−62510
Kuroshio Current, processes governing oceanic mixed layer temp. and thickness 2−117308
Kuroshio current broadening over Izu ridge 2−88876
Kuroshio current near Japan, bimodality 2−83825
Kuroshio Current near Japan, SEASAT radioaltimeter obs. 2−88884
Kuroshio Extension Current, meridional eddy heat flux 2−94375
Kuroshio Extension Current, momentum horizontal eddy fluxes and kinetic energy 2−94376
Kuroshio flow and sea level fluctuations 2−111957
Kuroshio south of Japan, paths identification 2−111958
Kuroshio-Oyashio confluence zone latitude, numerical study 2−117309
La Jolla submarine canyon (E. Pacific), internal gravity waves 2−58076
lateral boundary, continuously deforming, in problems involving shallow water eqns. 2−83822
lidar remote sensing, underwater light scatt. effects 2−111929
lidar system computed laser backscatt. from turbid liqs., Monte Carlo radiative transfer model 2−94504
light field below surface, three-parameter model 2−68358
light field fluctuations under rough sea surface *(Russian)* 2−117312
light reflection, iterative radiative transfer code for ocean-atmosphere systems 2−100554
light scattering, Monte Carlo description of time and space resolved multiple forward scatter 2−58056
light scattering, quantum mechanical approach for coherent light *(Russian)* 2−62989
Ligurian Sea (N.W. Mediterranean), obs. of large amplitude baroclinic waves 2−58078
Long Island (New York), inner shelf sediment transport 2−117289
Long Island (New York) near shore currents over ridge-and-swale topography 2−117319
long wave trapping by oceanic ridges 2−68361
long-period thermodynamic oscillations of ocean-atm. system 2−78689
longshore dispersion of pollutants over flat beach 2−117358
Lubiatowo region coastal zone, aperiodic sea level fluctuations effect on groundwater levels *(Polish)* 2−83860
magnetic fields in atmos. induced by ocean currents 2−111852
magnetic induction due to internal waves, model 2−58066
Makasar Strait (Indonesia), model of cross-equatorial flow 2−62963
marine hydrothermal vent sulphide deposits, radioactive dating obs. *(French)* 2−100366
marine science related activities, lists of annotated acronyms and abbreviations (book) 2−74178
W Mediterranean, frontal system due to inflowing Atlantic water 2−58077
E Mediterranean, termination II, assoc. palaeo-oceanography 2−83947
Mediterranean Sea, atmospheric moisture transport and water balance 2−78695
meridional energy transfer in ocean and atmos. *(Russian)* 2−73566
mesoscale circulation by numerical model 2−117344
mesoscale eddies detachment from meanders in eastward-flowing jet, two-layer quasi-geostrophic model 2−83830
mesoscale eddy nonfrictional decay, numerical model 2−94380
mesoscale flow horiz. interaction with internal wave field 2−78682
mesoscale pulsating horizontal velocity fields *(Russian)* 2−62990
Messina Strait, tidal vertical circulation model 2−88907
Mid-Atlantic Bight, circulation and sea level forcing 2−68351
Middle Atlantic Bight, subtidal current fluctuations 2−68365
midocean ridge sulphide hydrothermal activity *(French)* 2−73540
Mixed Layer Experiment (MILE), variability of temp. and vel. fields 2−58057
mixed layer response to storm winds in coastal areas 2−68346
mixed layer response to wind forcing 2−58058
mixed layer temperature and thickness, governing terms and estimates for sea area south of Japan 2−117308
mixed-layer disturbed by hurricane in Gulf of Mexico, model 2−58065
N.Atlantic Ocean, obs. of small-scale shear and density struct. 2−88879
nepheloid layer of Atlantic, sediment particle chem. composition and origin 2−68332
nonlinear planetary eddies larger than deformation radius, evolution 2−111948
North Sea, artificial radioactivity 2−58085
southern North Sea, Cu, Zn and Cd concs. 2−78699
North Sea, meteorological induced circulation 2−106136
Norwegian-Greenland Sea history from sediment foraminifera record 2−111964
Nova Scotia continental shelf, surface mixed layer dissipation 2−94377
Nova Scotia continental shelf topographic Rossby waves 2−88890
off-axis radiance underwater meas., comparison with radiative transfer eqn., analytical 2−88882
oil pollution from Ixtoc I blowout (Gulf of Mexico) 2−100400
oil slick dispersal by evaporation, theory 2−106147
oil slick-open water temp. contrast *(Russian)* 2−117359
One Tree Reef, southern Great Barrier Reef, suspended sediment transport and water movement 2−117286
optical image distortion of underwater objects viewed from above sea surface *(Russian)* 2−88880
optical properties of turbid water, influence of dissolved organic cpds. 2−58067
oceanography continued
origin of ocean, degassing model based on geochem. evidence 2−100562
NE Pacific, coastal fresh water discharge 2−68353
N Pacific, effect of synoptic disturbances 2−83835
N Pacific, mean temp.-salinity, salinity-depth and temp.-depth curves 2−100395
NW Pacific, model of synoptic currents *(Russian)* 2−117338
tropical Pacific, sea surface temp. rel. to cloudiness *(Chinese)* 2−88909
S Pacific, seamounts search in Cook-Austral region 2−100367
tropical Pacific, thermal changes rel. to wind stress 2−106128
NW Pacific, tides over Kuril-Kamchatka and Japan trenches 2−83836
W Pacific, uncharted seamount detection using satellite altimetry 2−100583
N Pacific, water column ^{9}Be profile, use for radioactive dating 2−78701
North Pacific current, travelling mesoscale perturbations 2−94379
Pacific North Equatorial Current, eddies identification 2−111963
NE Pacific Ocean, Co origin and distrib. 2−78700
Pacific Ocean, eastern equatorial region, pore fluids advection through sediments 2−106097
E Pacific Ocean, equatorial, effect of thermal state on freq. of typhoons in W Pacific *(Chinese)* 2−88941
Pacific Ocean, equatorial, upper layer thermal stratification effect on turbulence devel. *(Russian)* 2−73571
N Pacific Ocean, low-freq. eddy kinetic energy spectrum in deep western North Pacific 2−106142
NW Pacific ocean, statistical anal. of typhoon positioning errors *(Chinese)* 2−88948
N Pacific Ocean, surface temp. anomalies, large-scale long-period variability 2−111959
Pacific Ocean, tropical, sea surface temp. and IR emission 2−106249
Pacific Ocean, vars. in tropical sea surface temp. and surface wind fields assoc. with El Nino 2−111931
Pacific Ocean 4-6 day period sea level fluctuation, atm. press. forced 2−111955
Pacific Ocean winter 700 mb heights rel. to sea surface temp. 2−106182
E Pacific Rise, chemistry of hot springs 2−78712
East Pacific Rise sediments, chem. variation due to hydrothermal activity 2−62947
tropical Pacific wind field and Southern Oscillation 2−112021
Palaeogene ocean circulation and climate, review 2−62993
Panama Basin, deep advective transport of lithogenic particles 2−94396
Pangaea breakup influences on ocean sediments and chemistry 2−62951
penetrative convection due to surface cooling 2−68343
Peru shelf zone thermohaline and current variability 2−117353
Philippine Sea, satellite altimetric geoid 2−105893
phosphorite sedimentation in Cretaceous and Cainozoic oceans 2−62948
planetary gyres, homogenisation of pot. vorticity 2−117327
planetary vortices, nonlinear hydrodynamic stability 2−100563
plankton extinctions and radiations in Late Proterozoic and Early Cambrian 2−78702
pollutant particulate dry deposition from atmosphere, model 2−106171
POLYMODE, 4-D anal. of density and current obs. *(Russian)* 2−62984
Portugal coastal upwelling variability, meteorological factors 2−73587
Potomac estuary (USA), wind driven circulation 2−73584
Early Precambrian oceans, sulphate reduction determ. from S isotope anal. 2−63097
Puget Sound sediment azaarene content 2−111966
quasi two-dimensional turbulence in tidal currents 2−68370
quasigeostrophic fields stability induced by pot. vorticity 2−65569
quasistationary geostrophic motion of weakly stratified fluid in the ocean with arbitrary bottom relief *(Russian)* 2−106131
radiative emission from sea surface, polarisation characts. *(Russian)* 2−58122
radioactive contamination of Atlantic, N.Sea, Mediterranean, Black Sea 2−117363
radioactive pollution of sea, study of dispersal processes *(German)* 2−100401
rainfall affecting thermohaline struct. of surface layer 2−78690
random ocean front, mean multipath intensity relation for sound propag. 2−109101
Ravenglass estuary, surface sediments, γ-emitting fission products 2−83528
Red Sea, ^{226}Ra, ^{210}Pb, ^{210}Po profiles and residence times 2−68387
reflectance meas., radiometric calibration of coastal zone colour scanner on Nimbus 7 2−68494
local Richardson numbers, shear instability and turbulence 2−117351
ridge-and-swale topography influence on near-shore currents 2−117319
Rockall Trough, Eocene volcanic ash deposits 2−117291
Rossby soliton stability in rotating shallow liquid *(Russian)* 2−109347
rotating flow front model, Flores Sea appl. 2−100388
rotational normal modes calc. with general orthogonal coords. 2−53528
roughness of seabed to oscill. flow for movable bed load case 2−58068
roughness of surface, measurement by image of luminous object *(Russian)* 2−78874
Saguenay Fjord, Quebec, transport mechanism for ^{210}Pb, ^{137}Cs and Pu fallout radionuclides through fluvial-marine system 2−99856
salinity calc. from seawater temp., sound vel. and pressure data *(Russian)* 2−117343
San Francisco, sea level fluctuations correl. with N.Pacific currents 2−68364
S San Francisco Bay, United States, sea level and currents low freq. var. 2−111956
San Francisco Bay Delta, salinity remote sensing method 2−89051
sand bar reflecting incident surface water waves 2−62946
Sardinia and Sicily Straits, eddy circulation model 2−88877
Sargasso Sea, dynamic topography from SEASAT radioaltimetry obs. 2−88883
Sargasso Sea, lenses of isothermal water embedded in thermocline 2−58063
Sargasso Sea, O_2 exchange rate through ocean surface 2−117364
SW Sargasso Sea, thermocline with lens of Gulf of Cadiz water 2−68344
satellite altimetry rel. to precise definition and implementation of geoid 2−68239
science, politics and international atmospheric and oceanic programmes, review 2−112136
Scotian Shelf low-freq. circulation 2−88889
scour, fluid mechanics review 2−83840
sea foam IR reflectivity and influence on aerosol remote sensing 2−106346
sea ice solar radiation transmission obs. *(Japanese)* 2−94394

oceanography continued
sea level global changes and crust flexure and tectonic subsidence 2−88861
sea level global changes during Mesozoic, rel,. to sedimentary cycles in Surat Basin, Australia 2−117301
sea level variation due to gravity anomalies assoc. with mantle phase transition density jump regions 2−111899
sea shelf, acoustic wave vertical refraction and quasi modes, hydroacoustic study 2−73579
sea surface films study, appl. of mobile platform 2−89019
sea surface stress determ. by Seasat-SASS, case study with JASIN DATA 2−83827
sea surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
sea-level changes at Mauritius in past 7000 years *(French)* 2−100384
sea-level changes rel. to Antarctic Ice Sheet future changes 2−88917
sea-state forecasting with numerical models 2−106133
SEASAT radar altimeter obs. off Bermuda for height calibration 2−89026
secondary flow induced by wave motion in rot. fluid 2−78670
sediment bedforms parallel to direction of continental rise current 2−73538
sediment layer acoustic refl. resonances 2−111884
sediment suspended in bottom layer, acoutic profiling expt. 2−83806
sediments, acoustic impedance, vel. and attenuation 2−58034
seismic waves at seafloor inducing EM fields 2−100313
sequential analysis of hydrophysical measurements *(Russian)* 2−117340
Severn Estuary, suspended sediment front 2−58082
shallow basin, vorticity waves 2−100389
shock formed by strong sound wave energy and amplitude evolution 2−117357
Skagerrak, meteorological induced circulation 2−106136
Southern Ocean, distrib. of anthropogenic CO_2 2−88910
Southern Ocean, interaction between tabular icebergs and ocean waves 2−88906
Southern Ocean, map of baroclinic volume transport 2−88886
Southern Ocean and N.Atlantic deep circulation since 500000 BP 2−100394
Southern Ocean frontal zones ner Crozet and Kerguelen 2−106137
spaceborne synthetic aperture radar, conf. at Baltimore, USA, (March 1980) 2−68958
Spitsbergen and Arctic Quaternary glacio-isostatic events 2−100363
stability of spatial flow in stratified ocean *(Russian)* 2−117332
standing equatorial basin wave mode 2−78686
storm-generated bottom stresses on continental shelf 2−68347
storm-time boundary layer, STREX program 2−89009
Strait of Juan de Fuca, seabed wave boundary layer 2−117318
strait tidal circulation, numerical model 2−88907
strait tidal mixing model 2−111938
subtropical North Atlantic Ocean, eddy convergence of heat, salt, density and vorticity 2−68341
surface current, synthetic aperture radar obs. 2−111933
surface heat budget, effect of marine stratocumulus cloud 2−106231
surface temp. from isotopic and shell growth records 2−73581
surface temperature from scanning multichannel microwave radiometric meas. 2−73558
surface temperature inhomogeneities during calm weather 2−117350
surface temperature on diurnal time scales, model calc. with GATE III Gridded Global Data Set 2−111951
surface temperature rise as response to atm. CO_2 increase 2−73674
surface wind speed and direction, spaceborne scatterometer meas. 2−106351
synoptic eddies, theory of scalar admixture propagation *(Russian)* 2−78673
synoptic eddy thermohaline struct. and mixing 2−117347
synoptic isolated barotropic eddy behaviour *(Russian)* 2−62979
synoptic scale wave motion spectral charact., from POLYMODE data *(Russian)* 2−62986
synoptic variability and energetics by numerical model *(Russian)* 2−117337
synoptic variability of currents, spectral anal. of real data *(Russian)* 2−58061
synoptic variability remote sensing method *(Russian)* 2−73567
synoptic vortices, numerical simulation *(Russian)* 2−100391
Tamar Estuary, SW England, sediment transport and chemistry 2−106139
Tay Estuary, Scotland, Landsat multispectral scanning imagery 2−100386
temperature changes due to Earth rot. variations (Guinea Gulf) *(Russian)* 2−88900
temperature microstruct. meas. with new conductivity probe 2−117490
temperature of surface during ice ages 2−100538
temperature vertical profile construction using analytic model *(Russian)* 2−88902
thermal circulation deduced from knowledge of surface heat flux 2−83846
thermocline microstructure turbulence patches 2−94389
thermocline of shelf seas with intensive intrnal waves *(Russian)* 2−62971
thermocline thickness theory 2−117346
thin surface layer in weak wind, vertical struct. *(Russian)* 2−106132
tidal currents on smooth continental shelves, theory 2−88887
tidal dissipation, effect of Earth rot. axis changes 2−68342
tidal model for shallow gulf, 3-D 2−83848
tidal period internal waves of Atlantic thermocline 2−117354
tidal stress interactions with earthquakes, modelling and appl. to after-shock sequence in Pyrenees 2−88752
topographic cyclogenesis in homogeneous rotating fluid *(Russian)* 2−58060
topographic waves due to Gulf Stream eddies near Nova Scotia 2−88891
tracer dye patch monitoring by airborne lidar method 2−106337
trench wave in presence of bottom friction, theory 2−78683
tropical cyclones causing cyclonic eddy in ocean 2−117345
tropical North Atlantic, annual heat gain 2−68366
tsunami directional generation in offshore region *(Russian)* 2−88786
turbidity currents off S Australia, rel. to submarine valleys on Ceduna Terrace 2−117287
turbulence, hierarchic model *(Russian)* 2−60513
turbulence, laws for small-scale turbulence, review *(Russian)* 2−62969
turbulence, two dimens., spectra 2−62977
turbulence dissipation rate 2−94381
turbulence generated by breaking of open ocean waves 2−68345
turbulence of near-bottom ocean layer *(Russian)* 2−117342
oceanography continued
turbulence onset rel. to local Richardson numbers 2−117351
turbulence vertical intermittence in upper ocean 2−117352
turbulence vertical structure in stratified ocean *(Russian)* 2−73568
turbulent fields, dynamic and thermal, fine struct. 2−78734
Tyrrhenian Sea, sea level variation obs. at Naples 2−117322
SE United States, ocean currents along nearshore frontal zone on continental shelf 2−83829
upper quasi-uniform layer thickness, numerical model *(Russian)* 2−62985
transient upwelling events near coasts, theory 2−88893
upwelling near coast, role of wind-generated mixing 2−78685
variability on climatic time scales, conf., Nov. 1979, Miami, USA 2−79278
velocity fluctuations of intermediate scales, coeffs. of asymmetry and excess, variability 2−73565
vertical fine struct. of oceanic fields *(Russian)* 2−62987
vertical mixing in tropical ocean, numerical model 2−78679
warm saline bottom water in ancient ocean, convection model 2−68374
waste dumpsite in N Atlantic deep water area, pollutant dispersal obs. 2−106144
water mass tracing, appl. of rare earth elements abundances in seawater 2−63003
wave-produced bubbles, obs. by side-scan sonar 2−68375
waves induced flow *(Russian)* 2−58062
S Weddell Sea low frequency currents and continental shelf waves 2−111953
West Florida Shelf, wind forced sea level variability, and press. 2−111944
Western Boundary Undercurrent at US continental rise base, high vel. core 2−78694
whitecaps, bursting bubbles rel. to generation of aerosols in marine boundary layer 2−117389
wind driven ocean circulation, note on overall vorticity balance 2−62965
wind stress and drag coeff. at surface layer 2−78691
wind stress driven entraining flow, influence of heat fluxes 2−68357
Yangtze delta apical area, Holocene transgression and sea level changes *(Chinese)* 2−73563
Yellow Sea, winter temp. patterns, fronts and surface currents, satellite imagery anal. 2−106141
zonal equivalent-barotropic jet flow, effect of sea-floor topography 2−88876
^{10}Be deposition rate in oceans, evidence for constancy from Mn crusts 2−111920
C cycle seasonal evolution, numerical model *(Russian)* 2−88911
C, N and P input from world rivers, review 2−106148
CO_2 buildup in N.Pacific due to fossil fuel combustion 2−78697
CO_2 climatic problem, ocean-atmosphere interaction role 2−112109
CO_2 exchange through surface of the Black Sea 2−117360
CO_2 exchange through surface of Indian Ocean 2−117361
CO_2 from fossil fuel combustion, sinks in oceans and biosphere 2−112104
CO_2 in Atlantic tropical waters near Guinea coast *(Russian)* 2−88915
CO_2 reservoir in oceans 2−111965
Ca distribution in World Ocean 2−73594
$CaCO_3.6H_2O$ in organic sediment of Antarctic shelf 2−106096
^{137}Cs, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
^{90}Sr, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
Th isotopes in deep-sea (dissolved and in particulates) 2−68389
OCR *see optical character recognition*
octet theory *see SU_3 theory*
ODMR *see microwave-optical double resonance*
oecology *see ecology*
OH^--centers *see OH^--centres*
OH^--centres
alkali halides, OH^- defect tunnelling centres decay rates, phonon coupling effects, instanton theory 2−81778
KCl:OH^-, elec. dipoles, mol. field distrib. function calc. 2−93132
KCl(Br):OH^-, diffusion of H 2−61206
Th, cathodoluminesc. in presence of O_2, CO, and gas mixtures 2−110953
ohmic contacts
graded crystalline or amorphous heterojunctions, models for ohmic contacts 2−98742
insulating thin films, conduction mechanisms *(Spanish)* 2−72091
interdiffusion of metal films on GaAs and InP 2−61215
specific contact resistance determ. from transmission line model meas. 2−92750
Al-Si/Si ohmic contacts to shallow junctions 2−98741
AlGaAs-GaAs laser, use of plated heat sink 2−55192
AuGe/GaAs, ohmic contacts, interface struct., SIMS study 2−82150
AuGeNi ohmic contacts to MBE grown GaAs epitaxial layers, charact. 2−66637
$CdCr_2Se_4$ single crystals, production of ohmic contacts 2−77179
p-CdTe, ohmic contacts with Au or Cd_3P_2 layers by pulsed laser heating 2−115890
CdTe-Au(Cd_3P_2), ohmic contact form. by pulsed laser heating 2−104483
GaAs IC, pulse annealing techniques optimisation 2−56693
GaAs, metallised, volatile component loss and contact resistance during annealing 2−92753
GaAs ohmic contact, laser alloying 2−61024
GaP, laser annealed, for high temp. devices 2−56692
GaP, metallised, volatile component loss and contact resistance during annealing 2−92753
p-GaP-Au, ion beam contacting by Be implantation 2−115889
p-GaSb for ohmic contacts to p-type semiconductors 2−87387
p-InP, low resistance ohmic contacts using Au-Zn-Cr-Au metallisation 2−104482
$LiNbO_3$-CdSe multilayer struct. with periodic-array contacts, freq. doubling 2−92705
Mo/Ge/GaAs 2−87386
Ni/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
PtSi/Al contact to Si 2−110472
Ta/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
TiW/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
$TlSbSe_2$ layer cryst., electrophys. parameters, growth conditions depend. 2−104375
ZnO-metal contacts props. 2−61588
ZnTe, production of ohmic contacts 2−77180

ohmmeters
see also electric resistance measurement
AC differential ohmmeter 2−64066
circuit elements having low Q-factor inductance, capacitance and resistance meas., impedance meter *(Rumanian)* 2−89738

oil technology
CANDU reactor application as steam supply system for bitumen recovery from oil sands 2−88401
electronic flow sensor for energy monitoring with external sensing elements 2−81419
enhanced oil recovery, solar technology appl. 2−57680
offshore structures, EM methods for underwater NDT 2−67722
shale oil, production, technology, effects on power industry 2−67800
tar sands oil recovery, HTGR application 2−64632
USA schists and tar sands resources and exploitation economics *(French)* 2−73053

oiling (lubrication) *see lubrication*

oils, insulating *see insulating oils*

omega mesons
pn, 19 GeV/c, ρ^0, $\omega(780)$, f^0, g non-strange meson inclusive prod., structure functions 2−107708

omegatrons *see cyclotrons*

one-dimensional conductivity
acetylene-methylacetylene copolymer film, conductive, synthesis 2−57327
anisotropic conductors, influence of defects on transport 2−66519
anisotropic three-dimensional medium, cond. of 1D electrons 2−92574
anthra[9,1-cd:10,5-c'd']bis[1,2]dithiol (diselenol) and their polyiodides, prep. 2−93465
1,1′-bicobaltocene salt of tetrabromoquinone, and tetrabromodiphenoquinone, synthesis 2−93774
4,4′-biselenopyranylidene based charge transfer complexes and radical ion salts with TCNQ and DDQ 2−92577
cadmium platino-oxalate, compaction cond. study 2−87246
CDW, domain struct. and $1/f^2$ noise *(French)* 2−115675
CDW and SDW systems, solitons 2−87162
CDW electron-phonon system above Peierls temp., RPA calcs. 2−110251
charge transfer conductor, donor-acceptor inter-chain Coulomb scatt. 2−92595
charge-density waves, sliding cond. 2−98630
commensurate one-dimensional conductor, interchain electron hopping influence 2−66539
correlation functions of particles hopping on a chain 2−82330
DBTTF, electron donor, cryst. struct. 2−98065
dibenzotetrathiofulvane-Is complex, regular antiferromag. chain with indirect exchange interaction *(Russian)* 2−104359
1,4- dibromonaphthalene, electron and hole mobility tensors meas. 2−71973
disordered system, Anderson localisation length and residual resist. 2−110302
disordered systems, absence of statistical fluctuations 2−61432
disordered systems, one-dimensional, electron localisation and hopping cond., review 2−98594
disordered systems, one-dimensional, with Peierls transition, elec. cond. *(Russian)* 2−61451
DMTMTTF based ionic radical salts, electrolytic cryst. growth, cond. and struct. data 2−93403
electron-libron modes, theory 2−103915
Fermi gas, quasi-one-dimensional phase transitions, renormalisation group study 2−56760
fluoranthenyl cation radical salts, cryst. struct., phase transitions and electrochem. crystallisation 2−71430
fluoroanthenyl radical cation salts−a new family of organic metals 2−92579
frequency-dependent conductivity of quasi-one-dimensional electronic conductors 2−87235
Goldstone symmetry violation in incommensurate systems 2−69122
HMTSF(TCNQ)$_x$(TCNQF$_4$)$_{1-x}$ solid soln., Mott transition 2−92471
hopping conduction in one-dimensional random chains 2−87236
interatomic correls. of valence electrons, Hubbard model 2−110274
interchain electron-electron scattering, in 1D charge-transfer conductor 2−71957
irradiation effects and the role of disorder in low dimensional conductors, review 2−87233
lead phthalocyanine, thin film, one-dimensional elec. cond. and dynamic switching obs. 2−72086
lead platino-oxalate, compaction cond. study 2−87246
linear chain, DC cond. depend. on phonon freq. 2−110333
linear-chain conductors, electronic props. *(Czech)* 2−61450
localised and extended electron states in case of bond distortion 2−92502
macromolecular metals and semiconductors: a comparative study 2−56567
metallocene polyoximes, group IV B elec. props. 2−56565
metallomacrocycle cofacial assembly, elec. conductive polymer 2−56569
metalloplastics−high conductivity materials 2−56563
metals, thermopower calc. 2−71951
N-methyl-2, 4-dimethylpyridine(TCNQ)$_2$, single crysts., temp. anomaly in microwave cond. 2−66538
microgel polymer thin films, cationic and anionic charged, elec. and phys. props. 2−56729
Mn complex, $Mn_{0.81}[Pt(Co_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
molecular crystals, soliton dynamics calc. 2−92598
neutron scatt., struct., lattice dynamical, and mag. props. 2−91726
NMR relax. in interrupted strand model 2−93040
one dimensional CDW distorted solid, charge density fluctuations, dielec. function calc. 2−71893
organic conductors, charge density waves, soliton collisions 2−92492
organic conductors, design, synthesis and characterization of mol. components 2−92575
organic conductors, librons, review 2−86802
organic conductors, review *(German)* 2−92597
organic conductors, X-ray irrad. induced defects, damage prod. mechanisms 2−92032
organic conductors and superconductors, review 2−115734
organic metal, low-dimensional, theory *(Russian)* 2−61452
organic metal, stabilisation of metallic state at low temp. *(Russian)* 2−61453
organic-inorganic intercalation cpds., low dimensional, photopolymerization 2−92584
Peierls system, phonon dynamics calc. 2−104266

one-dimensional conductivity continued
Peierls transition and CDW in one-dimensional conductors *(Japanese)* 2−82257
Peierls transition and electron localisation by random pot. 2−56554
Peierls transition and electron localisation in random pot. 2−110336
(perylene)$_2$(AsF$_6$)$_{0.75}$(PF$_6$)$_{0.35}$.(dichloroethylene)$_{0.85}$ conductivity, EPR and reflectance 2−92578
(perylene)$_2$(AsF$_6$)$_{1.1}$×0.7 dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
(perylene)$_2$(PF$_6$)$_{1.1}$×0.8 dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
phase diagram, band filling effect 2−98545
phonon drag effects on cond., SCF model, soft mode role *(Russian)* 2−56561
poly(p-phenylene), band struct., density of states, valence effective Hamiltonian study 2−98515
poly(p-phenylene), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly(p-phenylene sulphide), band struct., density of states, valence effective Hamiltonian study 2−98515
poly(p-phenylene sulphide), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly-p-phenylene, highly conducting, prep. by solid-state polymerization 2−57614
poly-p-phenylene sulphide, doped, processible polymer, conducting complexes 2−56566
poly-p-phenylene vinylene, doped, conductive, synthesis and elec. props. 2−57327
trans-polyacetylene: I_2 film, elect. cond. and IR absorpt. 2−71969
polyacetylene:FeCl$_3$(AlCl$_3$)(ZrCl$_4$), metallic elec. cond. and EPR spectrum meas. 2−77027
polyacetylene:I, conductivity, struct. variables effect 2−56568
polyacetylene:Li, n-type doping, isomerisation, EPR and Raman spectra 2−65878
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2−93185
polyacetylene, Br doped, XPS and elec. cond. study 2−93368
polyacetylene, cathode-active material for rechargeable batteries 2−57694
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, cis-trans isomerisation on doping and heat treatment, MINDO/3 calc. 2−93791
polyacetylene, collective fields, functional integral formalism 2−92588
polyacetylene, conductive, mol. wt. 2−57327
trans-polyacetylene, doped, elec. cond. freq. depend., two-band tight-binding model 2−77026
polyacetylene, doped, elec. cond. mechanism, IR absorption and reflection spectra study 2−77520
polyacetylene, doped, low dimensional conductor, review *(Japanese)* 2−82333
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene, I_2 doped, elec. cond. and mag. susceptibility props., review 2−71955
polyacetylene, ion implantation, ESR, NMR, IR and XPS study 2−92008
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
polyacetylene, semicond. and metallic, electronic props. 2−82327
polyacetylene, solitons, optical conductivity 2−56573
polyacetylene, thermal cond. anisotropy meas. 2−92587
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
polyacetylene MIS struct., field effect props. meas. 2−92772
polyacetylene-AsF_5, association reaction, thermodynamics and kinetics meas. 2−93775
polymer, conductive, fibre filled, elec. and phys. props. 2−56562
polymeric conductors, electronic struct. and lattice architecture 2−92439
polymers, conductive, cond., Las Vegas, NV, USA (Aug. 1980) 2−53430
polymers, elec. cond., bond gaps, valence effective Hamiltonian study 2−76890
p-polyphenylene association reaction, thermodynamics and kinetics meas. 2−93775
polypyrrole film, conductive, electrosynthesis and behaviour 2−57615
quasi one-dimensional organic systems, high press. and low temp. elec. resistivity studies 2−87242
radiation effects on cond., review 2−71496
radical cation salts, CESR and spin-lattice relaxation time 2−93007
random one-dimensional hopping systems, quasi-localisation effects 2−87234
randomly interrupted strand, carrier mobility 2−77029
rubidium platino-oxalate, compaction cond. study 2−87246
semiconductors, electron mobility, hot electron effects, and polarons 2−92611
sine-Gordon system, bion, AC conductivity 2−53704
solitons, CDW, SDW, and ion displacement fields 2−115677
spin density wave effects on nucl. spin lattice relax. 2−93042
superconducting and insulating phases 2−115738
TCNQ charge transfer complexes, tetramethyl benzidene-TCNQ and tetramethyl p-phenylene diamine TCNQ, elec. cond. under high press. 2−71970
TCNQ complex salts, with methyl derivatives of pyridinium, electronic transport props. 2−66537
TCNQ salt, 1,1′-bicobaltocene[Co(III)Co(III)]TCNQ, synthesis and struct. 2−93774
TCNQ salt, 2,2′-DIPSϕ_4-TCNQ-I_2, charge transfer complex 2−92576
TCNQ salt, (Me1-NEt-Bz)$^+$(TCNQ)$_2^-$, elec. anomalies at 3.3×10^{10} Hz 2−61449
TCNQ salt, (Me$_2\phi_2$P)(TCNQ)$_2$, cryst. struct. and lattice distortion 2−109780
TCNQ salt, (MTPP)$_{1-x}$(MTPA)$_x$(TCNQ)$_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
TCNQ salt, (n-propyl)$_{1-x}$(n-ethyl)$_x$ quinolinium (TCNQ)$_2$, charge-transfer organic alloy, metal-insulator transition 2−87239
TCNQ salt, (NMP)$_x$(Phen)$_{1-x}$(TCNQ), X-ray obs. of crossover of $2k_F$ to $4k_F$ scatt. 2−86859
TCNQ salt, Cs_2(TCNQ)$_3$ cryst., polarised IR reflection spectra meas. 2−93171

one-dimensional conductivity continued
TCNQ salt, DBTTF-2,5-TCNQF$_2$, charge transfer salt, cryst. struct. 2−98065
TCNQ salt, DBTTF-TCNQ, charge transfer salt, cryst. struct. 2−98065
TCNQ salt, DBTTF-TCNQF4 charge transfer salt, struct. high temp. phase transition obs. 2−109778
TCNQ salt, KTCNQ, phase transition, ^{14}N NQR study 2−93059
TCNQ salt, Me ϕ_3As(TCNQ)$_2$, quasi-one-dimens. semicond., dielec. const., field and freq. depend. 2−61816
TCNQ salt, N-n-propylquinolinium(TCNQ)$_2$ powders, pure and irrad., IR spectra 2−93189
TCNQ salt, NMP-TCNQ, X-ray scatt. of $q_2=a^*/3$ diffuse lines 2−86511
TCNQ salt, polyvinylcarbazole-TCNQ charge transfer complex, AC cond. meas. 2−115737
TCNQ salt, quinolinium(TCNQ)$_2$, conductivity, freq. and temp. depend. 2−92593
TCNQ salt, TEA(TCNQ)$_2$, phonon heat pulse diffusivity meas. 2−110057
TCNQ salt, TMTSF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TCNQ salt, TMTTF-TCNQ, charge transfer, Raman shift, XPS and elec. cond. meas. 2−87237
TCNQ salt, trimethylammonium iodide-TCNQ, neutron diffr. study of phase transitions at 150K, 90K 2−76653
TCNQ salt, trimethylammonium-iodide (TCNQ), structural transitions study by high voltage electron diffr. 2−71632
TCNQ salt, TSeF-TCNQ, phase transitions and acceptor-stack doping 2−77134
TCNQ salt, TSF-TCNQ, pinning of fluctuating cond. by 2D coupling 2−77028
TCNQ salts, Ag-TCNQF$_4$ and Cu-TCNQF$_4$, current-controlled electrically switched memory state 2−66599
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
TCNQ salts, Cs$_2$(TCNQ)$_3$, TTT(TCNQ)$_2$ and TEA(TCNQ)$_2$, specular refl. spectra, 4.2 to 300K 2−99128
TCNQ salts, disordered, spin dynamics 2−87501
TCNQ salts, highly correlated 1:2, fractional charge solitons 2−82254
TCNQ salts, Qn(TCNQ)$_2$, quasi one-dimens. conductors, dielec. const. 2−104798
TCNQ salts, radical anion salts with S-alkylthiouronium, organic metal, elec. cond. 2−98634
TCNQ salts, thermopower and conductivity anisotropies 2−92580
TCNQ salts isostructural with [1,2-bis(1-ethyl-4-pyridinium)ethylene]$_{0.88}$(TCNQ)$_4$(H$_2$O)$_x$, elec. and struct. props. 2−92582
TCNQ salts of bis(4-dimethylaminophenylimino)sulphur and struct. analogues, elec. cond. 2−61454
TCNQ salts of Cu chelates, highly conducting 2−92581
TCNQ stack, numerical approach to band structure 2−98537
tetraazaannulene macrocyclic complexes, metalloorganic conducting materials, synthesis and characterization 2−56564
tetrakis (deuteriomethyl) tetraselenafulvalene, preparation 2−93464
tetraphenyldithiapyranylidene polyiodides, Raman study, low temp. 2−93183
tetraselenafulvalenes, substituted, synthesis from dimethylphosgene iminium chloride 2−93463
tetraselenafulvalinium based one-dimensional solids, prep. and props. 2−92583
tetraselenotetracene, polymorphism 2−91943
tetratellurotetracene, cryst. struct. 2−91943
(TMTSeF)$_2$PF$_6$ superconductor, thermal conductivity 2−92822
TMTSF$_2$AsF$_6$ antiferromagnetic resonance obs. 2−93015
(TMTSF)$_2$(2,5-TCNQBr$_2$), struct. and phys. props. 2−55961
(TMTSF)$_2$AsF$_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
(TMTSF)$_2$AsF$_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
(TMTSF)$_2$BrO$_4$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
(TMTSF)$_2$ClO$_4$, itinerant electron antiferromag. precursor to supercond. 2−116068
(TMTSF)$_2$ClO$_4$, magnetotransport under press. 2−56556
(TMTSF)$_2$ClO$_4$, one-dimens. fluctuating supercond., energy gap, far IR magnetoabsorpt. study 2−98808
(TMTSF)$_2$ClO$_4$, Shubnikov-de Haas oscills. 2−115731
(TMTSF)$_2$FSO$_3$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
(TMTSF)$_2$FSO$_3$, dipolar anion effect on mag. and conduct. props. 2−87232
(TMTSF)$_2$PF$_6$, cond. increase due to nonequilibrium conditions 2−110332
(TMTSF)$_2$PF$_6$, dynamical response of SDW mode 2−61456
TMTSF)$_2$PF$_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
(TMTSF)$_2$PF$_6$, low temp. cond., Hall effect and magnetoresist., effect of radiation damage 2−87240
(TMTSF)$_2$PF$_6$, magnetotransport under press. 2−56556
(TMTSF)$_2$PF$_6$, metallic, IR and visible reflectance meas. 2−57092
(TMTSF)$_2$PF$_6$, NMR studies 2−56963
(TMTSF)$_2$PF$_6$, pure and radiation damaged, magnetotransport and nonlinear effects 2−56555
(TMTSF)$_2$PF$_6$, radiation damage effect on cond. 2−87243
(TMTSF)$_2$PF$_6$, spin dynamics dimensionality, proton relax. rate meas. 2−110683
(TMTSF)$_2$PF$_6$ superconductor, X-ray irradiation induced defects 2−92031
(TMTSF)$_2$ReO$_4$, press. depend. of metal-insulator transition and supercond. transition 2−56753
(TMTSF)$_2$X, charge density waves, spin density waves 2−92491
(TMTSF)$_2$X, organic metal and supercond., chemistry and electrocrystallisation 2−55871
(TMTSF)$_2$X, superconducting and insulating phases 2−115738
(TMTSF)$_2$X (X=ClO$_4$, PF$_6$, AsF$_6$), nonlinear threshold phenomena due to SDW transitions 2−92885
(TMTSF)$_2$X (X=PF$_6$, ClO$_4$), IR props. 2−93186
(TMTSF)$_2$X compounds, competition between SDW and supercond. 2−56755
(TMTSF)$_2$X family of organic conductors, magnetism 2−61750
(TMTSF)$_2$X salts, prep. struct. and anion effects 2−55957
(TMTSF)$_2$X series, band struct. and props. 2−92438
one-dimensional conductivity continued
(TMTSF)$_2$X series, phase transitions 2−92589
(TMTSF)$_2$Z, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
TMTSF salt, (TMTSF)$_2$PF$_6$, sound vel. meas. 2−61075
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF salts, supercond. props., review 2−110522
TMTSF-DMTCNQ, pure and irradiated, EPR expts. 2−93004
TMTSF-DMTCNQ superconductor, X-ray irradiation induced defects 2−92031
TMTSF-PMTCNQ, weakly disordered, low temp. metallic phase, Hall effect 2−92591
TMTSF-salts, Raman scatt. meas. 2−57093
(TMTST)$_2$X (X=PF$_6$, AsF$_6$, ClO$_4$, etc.), semimetallic SDW state, Hubbard model 2−115736
(TMTTF)$_2$X, (X=BF$_4^-$, ClO$_4^-$, PF$_6^-$), phase transition, IR study 2−99113
(TMTTF)$_2$X, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
(TMTTF)$_2$X series, phys. props., role of counterion ordering 2−92469
TMTTF-bromanil complex, phase transition, IR study 2−99113
transition metal dichalcogenides, layered, low dimensional conductors, phys. props., review *(Japanese)* 2−82335
transition metal dichalcogenides and their intercalation cpds., supercond., review *(Japanese)* 2−82517
transition metal trichalcogenides supercond., CDW's and related phenomena, review *(Japanese)* 2−82256
transition-metal cation-TCNQ-cyclam complexes, synthesis and elec. resist. 2−93466
(TSeT)$_2$Br, 1-D organic metal, low-temp. specific heat *(Russian)* 2−104020
TSF-TCNQ, fluctuating and single particles cond. channels 2−87248
TTF based one-dimensional solids, prep. and props. 2−92583
TTF-chloranil, neutral-ionic phase transition, IR and Raman studies 2−93188
TTF-chloranil, neutral-ionic phase transition, review 2−92592
TTF-TCNQ, electron irrad. effects 2−103821
TTF-TCNQ, ESR line broadening and interstack spin-orbit coupling 2−92992
TTF-TCNQ, interchain electron-electron scattering 2−71957
TTF-TCNQ, low temp. IR studies, rel. to DC cond. 2−87783
TTF-TCNQ, low temperature phases, CDW-CDW Coulomb interaction 2−92590
TTF-TCNQ, one-dimensional cond., phys. props., review *(Japanese)* 2−82331
TTF-TCNQ, quasi 1-D system, correlation functions and Peierls instability 2−110334
TTF-TCNQ, thermoelec. power, press. depend., 4 to 300K 2−92573
TTF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TTF-TCNQ films, struct. and props., substrate temp. effect 2−104205
TTF-TCNQ thin film, one-dimensional elec. cond. and dynamic switching obs. 2−72086
TTFX$_n$ (X=halide, NO$_3$) highly conductive thia adducts, electrocrystn. 2−93402
TTT$_2$I$_3$, reflection spectra *(Russian)* 2−57047
TTT$_2$I$_3$, X-ray irrad., damage prod. mechanism 2−61033
Cr$_2$Nb$_2$Se$_{10}$, low dimensional conductors, cryst. struct., X-ray diffr. study 2−115197
FeNb$_3$Se$_{10}$, one-dimensional, band struct. calc. 2−82201
FeVNb$_2$Se$_{10}$, low dimensional conductors, cryst. struct., X-ray diffr. study 2−115197
H-bonded chain, proton transport, solitonic mechanism 2−110028
HfTe$_5$, low-dimensional metallic, giant resist. and X-ray diffr. anomalies 2−87244
HfTe$_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571
HfTe$_5$:Ar, low-dimensional cond., Hall effect and transverse magnetoresist. 2−92663
Hg$_{3-\delta}$AsF$_6$, quasi-one-dimensional incommensurate, Fermi surface 2−110229
Hg$_{3-\delta}$AsF$_6$, resistivity at high temp. and sp. ht. at low temp. 2−92585
Hg$_{3-\delta}$AsF$_6$ resistivity, temp. depend. 2−115735
Hg$_{8-\delta}$AsF$_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
Hg$_{3-\delta}$SbF$_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
Ir complex, iridium (I) dicarbonyl complex of 4,7-bis(dicyanomethylidene)-4,7-dihydro-1,10-phenanthroline, synthesis and solid state props. 2−92596
K$_2$P$_t$(CN)$_4$Br$_{0.3}$.3.2H$_2$O, quasi-one-dimensional cond., phys. props., review *(Japanese)* 2−82332
K$_2$Pt(CN)$_4$Br$_{0.3}$(Cl$_{0.3}$)-3.2H$_2$O, solitary waves and low-temp. cond. 2−87245
K$_2$Pt(CN)$_4$Br$_{0.3}$.3D$_2$O, under press., metal-semiconductor transition 2−76929
K$_2$Pt(CN)$_4$Br$_{0.3}$.3H$_2$O, mixed valence state and metal-nonmetal transition 2−56494
β-Li$_x$V$_2$O$_5$, quasi-one-dimens. cond., EPR 2−92997
Na$_x$(Ti,Mg)$_2$(O,F)$_4$, cryst. struct., cond. channels 2−86652
β-Na$_x$V$_2$O$_5$, quasi-one-dimens. cond., EPR 2−92997
NbS$_3$, nonlinear conductivity and charge density wave transitions 2−98631
Nb$_3$S$_4$, quasi 1-D, elec. cond., magnetoresistance 2−87247
NbSe$_3$, AC-induced DC cond. for CDW, tunneling theory 2−82329
NbSe$_3$, CDW cond., field and freq. depend. 2−56559
NbSe$_3$, CDW cond. onset, switching and hysteresis 2−110407
NbSe$_3$, CDW motion, differential resist. study 2−66540
NbSe$_3$, CDW motion, dynamic props., expt. study 2−66541
NbSe$_3$, commensurate CDW system, fractional changes and freq. depend. currents 2−82328
NbSe$_3$, current oscills. and stability of CDW motion 2−104356
NbSe$_3$, dielectric function, low freq. noise meas. 2−92497
NbSe$_3$, Frohlich sliding mode mechanism 2−87231
NbSe$_3$, nonlinear cond. and narrow band noise 2−104358
NbSe$_3$, nonlinear dielec. props. below Peierls transition at 145K 2−92496
NbSe$_3$, nonlinear response to pulsed elec. fields 2−104357
NbSe$_3$, one-dimensional, band struct. calc. 2−82201
NbSe$_3$, radiation-induced depinning of CDW 2−66465
NbSe$_3$, singularity of thermoelec. power at struct. phase transition *(French)* 2−66199
NbSe$_3$, transport props. rel. to CDW form. 2−115739

one-dimensional conductivity continued
$NbSe_3$ whiskers, quasi-one-dimensional, microwave and MM EM signal detection and conversion 2−116302
Ni complex, (tetrabenzoporphyrinato)Ni(II)I, doubly mixed valence mol. cond., struct., mag. and charge transport props. 2−71953
Ni complex, $Ni_{0.84}[Pt(C_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
polyimide:Pd filled polymer film, conductive, synthesis and characterization 2−57328
$Pt(NH_3)_4PtCl_4(HSO_4)_x$, synthesis, optical props., and cond. 2−93190
$Rb_3(H_3O)_{0.2}[Pt(CN)_4](O_3SO.H.OSO_3)_{0.5}.0.8H_2O$, cryst. struct., elec. cond. 2−91929
$(SN)_x$:Na(Br) and $(SN)_x$, elec. cond. and magnetoresist. meas., 0.2 to 4.2K 2−92586
$(SNBr_{0.1})_x$, electronic struct. and props. *(Japanese)* 2−66417
$(Sn)_x$, electronic struct. and props. *(Japanese)* 2−66417
TCNQ complexes, substituted morpholinium, cryst. struct. and elec. cond. 2−86657
TCNQ salts, based on azkapyrido-cyanides, highly conducting, synthesis and phys. props. 2−98633
$(TTT)_2I_3$, nonlinear props. at very high freq. *(Russian)* 2−61455
TaS_2 (1T), electron irrad., Mott to Anderson localisation, electronic transport 2−92594
TaS_3, CDW dynamics, freq. depend. cond. meas. 2−71956
TaS_3, irradiation induced defect pinning of CDW, electron diffr. study 2−66064
TaS_3, monoclinic, press. depend. on CDW transitions 2−87241
$ZrTe_5$, low-dimensional metallic, giant resist. and X-ray diffr. anomalies 2−87244
$ZrTe_5$, negative evidences for CDWs and SDWs 2−56553
$ZrTe_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571
one-dimensional conductors *see one-dimensional conductivity*
online literature searching *see information retrieval*
online operation
used for systems software in online and real-time systems but for hardware aspects see real-time systems
see also interactive systems; real-time systems
air pollution measurement appl. *(Italian)* 2−67905
sound source detection on the basis of acoustical holography for noise abatement 2−114551
Onsager relations *see thermodynamics*
Onsager theory of dielectrics *see dielectric properties of substances*
opacimeters *see turbidimetry*
opalescence
see also critical opalescence
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
OPDAR *see optical radar*
operating amplifiers *see operational amplifiers*
operational amplifiers
10 kHz flux-controlled magnetic core loss tester 2−74473
alpha wave detector, using 741 op amps for monitoring brain activity *(Spanish)* 2−100142
CA 3140, nanoammeter cct. for ionisation pressure measurement appl. *(Spanish)* 2−84669
instrumentation, potential locking unit for cell membrane *(Russian)* 2−83703
phase shift effect on gain stability of amplifier for nuclear spectrometry 2−64812
physiological monitoring, comparator circuit for alarm using single op-amp 2−78461
physiological research appl., universal instrumentation amplifier with DC compensation path *(German)* 2−100164
triangular waveform generator, electronic switching, appl. to cyclic voltammetry 2−93846
Pt 100 resistance sensors, linearisation through positive feedback at transmitter *(German)* 2−89712
operations analysis *see operations research*
operations research
see also scheduling
safety measurement and level assessment using multiattribute utility theory 2−96220
operator training *see training*
optic mode of crystals *see lattice dynamics*
optical aberrations *see aberrations*
optical activity *see optical rotation*
optical auroras *see aurora*
optical bistability
absorptive and dispersive optical bistability expts., mean field theories 2−102858
absorptive optical bistability, fluctuations and transitions 2−97091
absorptive optical bistability, short- and long-time transient evolution 2−97092
absorptive optical bistability, switching times 2−102850
absorptive optical bistability at microwave frequencies 2−114355
absorptive optical bistability self-pulsing analytical treatment 2−97086
acousto-optic nonlinear device, bistable optical switching based on Bragg diffraction 2−60229
atomic correlation in small volume, optical bistability model 2−97094
bidirectional ring cavity use for optical bistable devices 2−55243
bifurcations to chaos in time-depend. output from hybrid optical bistable device 2−86041
cavity, optical bistability transients, self-focusing, diffractive coupling 2−81031
cholesteric liquid crystals, optical bistability with distributed feedback *(Russian)* 2−60150
conference, Asheville, NC, USA (June 1980) 2−101130
cooperation in optical bistability system 2−97093
cooperative systems, single atom fluctuations spectrum 2−102757
device physics and operating characts., review 2−97077
dispersive optical bistability, Stark effect 2−75624
dispersive optical bistability theory, freq. switching 2−97089
dispersive optical bistability with fluctuations, Fokker Planck eqn. 2−97090
dispersive two-photon optical multistability 2−97078
dressed mode description, semiclassical and quantum statistical 2−102855
driven Dicke model and its macroscopic extension, bistability or bifurcation 2−96869
dye ring laser, optical bistability effects 2−102826
optical bistability continued
electrooptic crystals with diffusive nonlinearity, optical bistability in optical phase conjugation, theory 2−86057
excitonic molecules, non-linear optical response and optical bistability, polariton dispersion, dielec. function calc. 2−55246
Fabry-Perot, absorptive and dispersive bistability for Doppler-broadened medium, steady-state theory 2−97087
Fabry-Perot hybrid nonlinear bistable optical device *(Chinese)* 2−97075
Fabry-Perot resonator, active two-beam optical bistability 2−102863
Fabry-Perot scanning interferometric bistable optical device 2−102847
Faraday rotator, laser intensity stabilisation appl. 2−70666
ferroelectrics, optical bistability, hysteresis, four-wave inversion of wavefront 2−81030
Ikeda attractor, noisy, optical turbulence 2−97082
injection laser, interaction with external optical cavity 2−55210
instabilities in optical bistability solns., transform from CW to pulsed 2−102856
instability leading to periodic and chaotic self-pulsations in a bistable optical cavity 2−55245
interactive Kerr effect, role in two-photon optical multistability 2−55282
interface between linear and Kerr effect media, optical props. 2−97096
interferometer, nonlinear, bistable, transverse field struct., switching waves, steady-state profiles 2−112967
interferometer, nonlinear, bistable, transverse field struct., time-depend. regimes 2−112968
interferometer, role of phases in transient dynamics, absorptive and dispersive bistability 2−97088
intracavity nonlinear optical systems exhibiting bistability, review 2−102857
intrinsic bistable ring cavity bifurcations, transverse beam var. effect 2−81016
intrinsic optical bistability, conditions and limitations 2−102854
laser polarisation, bistable behaviour obs. 2−97050
light pulse evolution, effects of propag., transverse mode coupling and diffr. 2−97098
magnetooptic bistable switch for multimode optical fibre 2−81082
multiphoton laser, two-level model, bistability 2−96885
multiphoton optical bistability, reduction of fluctuations 2−86038
narrow gap semiconductors, nonlinear optics, optical bistability, optical transistor 2−90974
natural modes for the anal. of optical bistability and laser instability 2−108939
nematic liquid cryst. twisted cell, opto-electronic bistable devices in real-time optical information processing 2−86073
nonlinear absorption and refraction effects, theory 2−86042
nonlinear Fabry-Perot resonators, self-oscillation and chaos 2−102851
nonlinear optical interaction, instabilities, selfoscillation and chaos 2−81018
open systems, laser dynamics and optical bistability, quantum statistical treatment 2−96871
parallel operation of optical bistable devices on the same etalon, optical cross talk 2−108940
parametric oscillators, squeezing and bistable absorpt. 2−55259
phenomenon and relevance to logic and memory applications 2−55247
population pulsations in single-mode laser instabilities 2−55108
quantum optics first order phase transition analogies, complex order parameters 2−96870
quantum theories, generalised coherent state P-representation 2−97097
reflection and refraction, plane wave by nonlinear interface, theory 2−97095
resonant media, wavefront reversal, diffr. bleaching and bistability 2−60178
review of theory and device appls. 2−108941
ring cavity, instabilities in coherently driven two-photon absorpt. 2−86040
ring cavity, multimode optical bistability with trilinear interaction, quantum statistics 2−108932
ring cavity, multiphoton optical bistability, analytic description 2−102862
ring cavity model, relation between Bonifacio-Lugiato and Ikeda instabilities 2−86039
self-pulsing, dressed mode description 2−90971
semiconductor, direct-gap, highly excited, optical dielec. function in moment-conserving approx. 2−57044
semiconductor laser bistable operation with an adjustable trigger 2−90894
semiconductors, optical bistability, review *(Japanese)* 2−90973
single-mode laser model with saturable absorber, bistable limit cycles 2−85934
smectic C liq. cryst., ferroelec., fast electro-optic switching, stroboscopic microscopy obs. 2−93154
stabiliser using a Fabry-Perot resonator bistable optical device with PMN electrostrictor 2−102846
three-photon resonant medium, optical bistability and reversed switching effect 2−102849
transient switching mode in bistable optical devices 2−102861
transverse effect calculation using fast Fourier transform techniques 2−75623
two-level atoms in standing-wave cavity, optical bistability obs. 2−97081
two-photon optical bistability and two-photon laser, nonclassical effects 2−75551
waveguide resonators with distributed Bragg reflectors 2−86101
AlGaAs-GaAs injection laser with external dispersive cavity, bistable operation and spectral tuning 2−70566
Ar ion laser radiation, HF modulation due to stable two-mode oscill. 2−97023
$Bi_{12}SiO_{20}$ single-crystal film, LPE growth, optically activated planar optical switch appls. 2−116391
CdS, cryst., bistability and hysteresis, phase conjugation by six-photon mixing 2−60176
GaAlAs-GaAs-GaAlAs passive etalon, optical bistability obs. 2−102859
GaAs bistable buried heterostructure laser, static and dynamic characts. 2−65231
GaAs CW lasers with inhomogeneous current injection, bistability and pulsations 2−108879
GaAs, optical bistability with guided waves, theory 2−97073
GaAs-AlGaAs diode laser coupled to external resonator of narrow spectral bandwidth, bistable operation 2−108881
GaAs-$Ga_{1-x}Al_xAs$ superlattice etalon, room temp. excitonic optical bistability obs. 2−97074
$GeSe_2$ amorphous film, optical bistability obs. 2−102853
InGaAsP-InP DH lasers with inhomogeneous excitation, optical bistable-switching operation 2−102796

optical bistability continued
InGaAsP-InP stripe geometry DH laser, bistability and differential gain characts. 2−80948
InSb, Landau level nonlinear refr. 2−65292
InSb, optical bistability with guided waves, theory 2−97073
InSb thin parallel crystals, optical bistability and multi-stability 2−102860
$LiNbO_3$, electro-optic modulator, optical bistability of hybrid dispersive optical system 2−60228
N_2O laser, optically bistable 2−96918
Te cavity, optical modulation and bistability in IR region, optical tuning 2−55322
^{136}Xe laser, $5d[3/2]_1^0$-$6p[3/2]_1$ transition in weak mag. field, polarisation bistability obs. 2−90870
optical character recognition
digital image pattern recognition, mapping, charting and geodesy appl. 2−94518
optical coherent transients
see also photon echo
cavity, optical bistability transients, self-focusing, diffractive coupling 2−81031
four-wave mixing, transient, and coherent transient optical phenomena 2−86061
frequency mixing for obs. of optical nutations and self-induced transparency 2−114385
new phenomena in coherent optical transients 2−60182
oscillatory free-induction decay and oscillatory spin echoes 2−86062
three-level systems, dressed-atom and bare-atom pictures, saturation spectroscopy 2−70628
three-level systems, resonant four-wave mixing, intensity effects 2−75626
transmission transients induced by optical phase switching 2−86059
CO_2 amplifier with saturating absorber, pulse shaping based on free induction decay 2−114325
NH_3, coherent Stark switching, nanosecond optical modulation at 10 μm appl. 2−114415
Na coherence effects in resonant four-wave mixing spectroscopy 2−59745
optical collimators
angular measurement by autocollimation theodolite 2−58785
autocollimation instrument, deviations from rectilinear surfaces meas. 2−63975
autocollimator, triaxial, error anal. 2−97155
gyrotheodolites test rig 2−95425
monochromators, props. using concave holographic diffr. grating, collimated illumination 2−60222
target collimator system design and performance at Lockheed Sensor Test Facility (LSTF) 2−109010
tetrahedral reflector with plane reflecting faces for autocollimation 2−109013
Al mirror design for large aperture precision collimator, long wavelength IR sensor test facility 2−102958
$CaCO_3$ plate optic axis determ. equipment *(French)* 2−58874
optical communication
see also optical links
broadband signal transmission using pulse position modulation *(German)* 2−81092
coherence in optical fibre systems, conf., London, England (May 1982) 2−79286
fibre technology, history and future 2−97227
fibre technology, research in the 1980s 2−97187
fibre technology to appls. *(Italian)* 2−70680
fibre-optic data transmission system testing under simulated field conditions 2−109095
fibres attenuation measurement principles and anal. and measuring apparatus *(French)* 2−70677
graded-index rod, long, imaging capabilities 2−75671
high bit rate communication systems using non-linear effects 2−102951
history, atmospheric transmissions, photophone to optical fibres 2−89516
line-of-sight optical link at 8.5 km range, atm.-induced beam extinction and scintillation influence 2−94489
multiplex communication via electro-optic phase modulation of white light 2−86128
OFC '82, conf., Phoenix, Arizona, USA (April 1982) 2−74159
state-of-the-art survey *(French, German)* 2−70699
transmission optics, book 2−112672
zero-point fluctations, quantum noise and spontaneous-emission noise 2−90855
InGaAsP sources and detectors for the 1.0-1.7 μm wavelength range 2−95467
optical communication equipment
see also optical waveguides
2×2 waveguide matrix switch, non-blocking, using dielectric chip motion 2−75682
10×10 optical matrix switch 2−55354
active duplex optical fiber connector requiring no tools for installation 2−97233
bistable injection laser, interaction with external optical cavity 2−55210
book, fibre optics 2−89490
British Telecom research, transmission using fibres longer than 100 km 2−70681
CdTe light pipe modulator, for broadband space communications at 10 μm 2−81069
coherent optical receiver operation 2−81122
couplers for fibre distribution systems, series vs. configuration *(French)* 2−70704
CSP lasers, directly current-modulated, spectral behaviour 2−80970
demultiplexer, focusing wavelength, coupled-beam anal. 2−60261
digital fibre optic communication systems, coherence and intersymbol interf. 2−81119
diplexer, high efficiency, using interferometric optical circuits 2−70697
electrooptic 4×4 matrix switch for multimode fibre-optic systems 2−70698
fibre communications fundamentals, book 2−106991
fibre component performance and price forecast to year 2000 2−65368
fibre connectors, multichannel, hermaphroditic, test methods and performance 2−86124
fibre coupling devices, used for light sources and detector *(Japanese)* 2−70702
fibre loss meas. using time domain reflectometer 2−101449
fibre optic army systems, survivability 2−114444
fibre optic cable design 2−81109
optical communication equipment continued
fibre optic connector design 2−114459
fibre optic data bus topology based on symm. biconical-taper transmissive star couplers 2−114447
fibre optics manufacturing technology, used for optical communication systems 2−55364
fibre technology, connectors and splices 2−97188
fibre-optic cable characterization of attenuation and baseband response, location of breaks *(Spanish)* 2−65403
fibre-optic cables and splicing *(French)* 2−70703
fibre-optic communication line, expt., with spectral multiplexing of LED radiation by diffr. grating 2−114464
fibre-optic high bandwidth multichannel link utilising wavelength multiplexing 2−97186
fibre-optic rotary joints for signal transfer across rotating interface, performance 2−70700
fibre-optic transmitter/receiver modules, mounting and bonding of optical components 2−97234
fibreoptic industry 1982, progress report and future outlook 2−81104
fibres, fabrication techniques and props. 2−81108
fibres, for communication appls. *(Italian)* 2−109048
fibres, mechanical and thermal props. 2−81110
fibres, single-mode, parameter design consideration 2−86121
filters, polarisation interf., narrow band and wide field-of-view 2−97160
guided-wave electrooptic modulator, design and fabrication 2−109031
heterodyne and coherent optical fibre communications 2−109078
heterodyne communication systems−an electronic automatic frequency control system 2−81115
injection lasers, relation between transverse mode control and longitudinal mode behaviour 2−55153
integrated and guided-wave optics, conf., Pacific Grove, CA, USA (Jan. 1982) 2−58550
integrated-optic wavelength multi-and demultiplexers using chirped grating and ion-exchanged waveguide 2−91091
IR fibres, 0.8-12 μm, conf., Los Angeles, CA, USA (Feb. 1981) 2−94887
jointing techniques for optical fibre connections 2−81111
laser beam combiner, appls. to space-borne laser communications 2−109077
laser transmission system, mode partition noise analysis 2−75719
laser-beam heterodyne receiver, four-prism interferometric diplexer 2−60256
mechanical optical switches, high-speed *(Japanese)* 2−75718
micro-optic grating demultiplexer, 20-channel, 1.1 to 1.6 μm, using graded index rod lens 2−65402
mid-IR range, integration and compaction of optical systems 2−81121
modal mode partition noise in optical fiber systems 2−109050
modulator, light-pipe, electrooptic, gigahertz, for CO_2 laser wavelength 2−81066
monomode fibre long-wavelength transmission, components and systems review 2−55340
multimode fibres, structure and properties in communications *(Norwegian)* 2−86120
multimode graded index fibre optical waveguide, 70% beam optics 2−109049
multimode optical fibre bandwidth meas. in frequency domain 2−84682
optical fibre cables installed on aerial line, temperature characts. 2−86122
optical transmission techniques, emitters and detectors *(German)* 2−97231
p-i-n photodiode receivers for optoelectronic systems, noise sources, dynamic props. *(Czech)* 2−70705
passive guided-wave optical components, review 2−75679
planar optical waveguide parameter meas. using refractometer 2−102922
plastic interconnection device, used for fibre optic data transmission 2−102949
polarisation characteristics of fibres for coherent detection systems 2−81113
preform manufacture 2−97238
reflectors and immersion lenses for diffuse radiation detectors 2−60210
repeater spacing of 280 Mbit/s fibre optic transmission system using 1.55 μm laser diode source 2−55353
SAW filter, SH-type 1.6 GHz, for optical fibre transmission systems 2−81177
SAWD and optical fibres appls. *(French)* 2−86200
semiconductor devices for optical communication, book 2−101147
semiconductor heterojunction laser driver for optical communications, bipolar IC 2−70706
semiconductor laser module for single-mode fibre transmission system using confocal lenses 2−86129
semiconductor laser multiple longit. mode control, feedback system using diffr. grating 2−60105
semiconductor laser noise and distortion characts. in optical fibre communication systems 2−65226
semiconductor lasers, injection locked, appls. in 0.8 μm to 1.6 μm range 2−97232
semiconductor lasers, longitudinal mode control by rectangular conical diffractor system, wavelength-division-multiplexing transmission 2−55190
semiconductor lasers, optical phase noise reduction 2−65225
semiconductor lasers for optical communication *(Danish)* 2−70564
semiconductor light sources, comparison of uses of lasers and LEDs 2−97228
semiconductor light sources for multimode fibre transmission lines, characterization method 2−55342
single-mode fibre and square law medium, coupling characts. 2−97205
source spectra and modal noise in a fibre optic system 2−81114
special appls. of technology 2−97189
spectral demultiplexer with a plate waveguide 2−114472
splicing, jointing and measurements of optical fibres. I 2−86118
stable single-mode laser diode for fiber-optic communication 2−86126
stigmatic coupling device for extraction and regeneration of signals in optical fibre transmission networks *(French)* 2−97230
switch, 2×2 transverse-type, appls. as wavelength meter and demultiplexer 2−55351
switch, polarisation independ., using a Gaussian taper function 2−75681
switch, used for signals in optical fibres, appls. *(Japanese)* 2−70701
telecommunication, state-of-the-art survey *(French, German)* 2−70699
time multiplexing, 20 Gbit/s, with GaAlAs transverse junction stripe lasers 2−81118
undersea optical-fibre cable system, high-capacity 2−97226
waveguide electrooptic modulators, review 2−109032
waveguide Luneburg lenses, alternate technology proposal 2−55296

optical communication equipment continued
wavelength demultiplexer, high-capacity, with large-diameter GRIN rod lens 2−60254
wavelength-division-multiplexed system using LEDs and photodetectors 2−81120
Y-couplers aid data transmission, bi-directional working 2−75720
AgCl(Br), optical fibre, middle IR, heterodyne detection and radiometry appl. 2−65381
AlGaAs CHD-LOC laser diodes for optical fibre data transmission 2−55355
AlGaAs narrow stripe proton isolated DH lasers for optical communication, HF intensity noise behaviour during accel. life testing 2−65223
$Al_xGa_{1-x}As$ multielectrode rib waveguides, electrooptic polarisation modulation 2−65345
$Al_xGa_{1-x}As$-GaAs picosecond photodetectors, bias-free selectively doped 2−95466
AlGaAsSb-GaSb, multilayer avalanche photodiode low noise detector for 1.3 μm fibre optic systems 2−53833
AlGaAsSb-GaSb long-wavelength detectors, 1.3 to 1.55 μm, for fibre optics 2−53840
$CaCO_3$, calcite 2×2 optical bypass switch controlled by liq.-cryst. cells 2−60257
GaAlAs-GaAs, channeled substrate narrow stripe laser, expt. characterisation 2−96982
Ge avalanche photodiode, detectors for digital optical fibre systems in 1.2 to 1.55 μm range 2−55352
Ge avalanche photodiodes for long wavelength optical fibre systems, review 2−81117
He-Ne 6328 Å laser based expt. communication system 2−86127
IR optical fibres, pot. and appl., 0.8-12 μm range 2−97184
InGaAlAs-InGaAs, multilayer avalanche photodiode low noise detector for 1.3 μm fibre optic systems 2−53833
InGaAs-InP avalanche photodiodes for long wavelength optical fibre systems, review 2−81117
InGaAsP low threshold channelled substrate buried crescent DH lasers for 1.55 μm communication 2−102822
InGaAsP, semicond. laser for optical transmission appl. *(German)* 2−55151
InGaAsP/InP DH laser diodes for 1.3 and 1.55 micron operation 2−55205
InGaAsP/InP high radiance IREDs with emission wavelength 1.3 micron and transmission rate 140 Mbit/s 2−109079
InGaAsP-InP 4 Gbit/s multiplexer and laser, 1.3 micron, direct modulation 2−114274
InGaAsP-InP BH distributed feedback laser, 280 Mbits/s single mode fibre transmission 2−60255
InGaAsP-InP long-wavelength detectors, 1.3 to 1.55 μm, for fibre optics 2−53840
$LiNbO_3$ optical channel waveguide TIR switches, GHz bandwidth, 4×4 switching networks 2−75680
$LiNbO_3$ optical waveguides, temp. compensated prism coupler 2−109035
$LiNbO_3$:Ti thin-film Bragg electrooptic modulator 2−65344
T 2−109080

optical constants
see also light absorption; reflectivity; refractive index
absorbing films, optical constants, photometric meas. techniques, accuracy anal. 2−95435
absorbing materials, refractive index and absorpt. coeff., reflectance meas. method 2−89793
absorbing thin film, optical const. and thickness determ., reflectance and transmittance meas. uncertainties *(German)* 2−99203
absorption coeff., laser calorimetry determ., polarisation sensitive technique 2−65290
absorption measurements of laser optical materials by interferometric calorimetry 2−97044
alkali halide crystal optical losses in middle IR band, influence of microinclusions 2−87800
antireflection coatings, broad band for IR window materials, optimal design 2−81063
attenuation factor meas. of optical glasses, using photometer and spectrophotometer attachment 2−101441
benzenes, nitro-substituted, IR attenuated total reflection spectra 2−104866
carbon tetrachloride, liq., optical and dielec. parameters meas. in 3 mm to 50 μm range 2−99084
cermets, optical props. from theory of electrostatic resonances 2−67013
composites, two-component, bounds on elastic and transport props. 2−99473
direct-gap crystals, three-photon absorption coeffs. 2−65295
direct-gap crystals, two-photon absorption coeffs. from Basov formula 2−65294
disordered semiconductors with Coulomb-type random field, interband absorpt., multiphonon transitions effects 2−104840
Gaussian sum rules for optical functions 2−99086
granular surfaces, extension of Maxwell-Garnett theory 2−57199
IR window material absorpt. coeff., photo-acoustic meas. at CO_2 laser wavelength freq. *(Chinese)* 2−91033
isotropic material optical property meas. in VUV spectral region 2−89791
Kramers-Kronig relations for material optical consts. calc., review 2−93146
liquids, fluoresc. highly absorbing, laser meas. of spectral extinction coeffs. 2−74504
metal, optical characteristics rel. to damping length for surface EM wave 2−87724
metal optical surfaces, intrinsic and roughness-induced absorpt. of EM radiation 2−70632
metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
metals, optical props., data collection 2−93138
molecular crystals, nonlinear optical effects and dielec. props. 2−55248
oxide films, interference-coloured, formed by heat treatment of high-Fe glass 2−116290
paramagnetic crystals, cubic, radiation polarisation change 2−116139
polar semiconductors, complex dielec. const. of free carriers, quantum theory 2−110799
poly-N-epoxypropylcarbazole, films and solns., absorption and emission spectra meas. 2−67119
polymer, glassy, dye laser calorimetry, linear absorpt. coeff., 605-675 nm 2−93221

optical constants continued
quartz, X-ray specular refl. and anomalous scatt. near Si K absorpt. edge 2−82953
sea-water, attenuation coeffs., in 414-662 nm range, dual beam pulse laser method *(French)* 2−64126
semiconductor, sphalerite type, SHG const., equivalence of LCHO model and Phillips' theory 2−108959
semiconductor thin films with thin film optical waveguides, optical consts. 2−82947
semiconductors, exciton bound state form. in cryst. microinclusions, reflection spectra *(Russian)* 2−92484
semiconductors, freq. modulated EM wave absorption coeff., linear field approx. 2−110804
solids, opticoacoustic method of small absorpt. coeffs. meas. 2−87725
stainless steel-C films prepared by reactive magnetron sputtering, optical constants and microstructure 2−99838
surface layers and surface layer contaminants, multiple angle ellipsometric analysis 2−53818
thin crystals with surface heterolayers, exciton optical props. 2−104831
thin film optical constant determ., spectrophotometric (interference) method accuracy 2−112951
thin films, optical consts., ellipsometric determ. precision 2−107384
transparent solids, absorpt. coeffs., calorimetric meas. anal. 2−84630
water, distilled, attenuation coeffs., in 414-662 nm range, dual beam pulse laser method *(French)* 2−64126
Ag, intraband optical cond. relax. time, phonon contrib. 2−93143
Al-Al_2O_3-Au(Cu)(Ag) tunnel junctions, electron energy loss function image in light emission 2−116267
Al_2O_3, optical consts. of amorphous, polycryst., α,γ phases, EELS study 2−57224
As-Se, amorphous struct. far IR reflection spectra study 2−67029
$(As_2S_3)_x(Sb_2S_3)_{1-x}$, chalcogenide glass, optical gap 2−110802
Au, intraband optical cond. relax. time, phonon contrib. 2−93143
Au, optical constants meas. in soft X-ray range using transmission gratings 2−87726
Au-Ag composite granular films, optical transmittance 2−72570
Au-Al_2O_3(MgO) granular films, optical props., topological considerations 2−62002
Bi-SiO_2 cermet films, elec. and optical props., H addition effects 2−82505
$Bi_{12}SiO_{20}$ single-crystal film, LPE growth; optically activated planar optical switch appls. 2−116391
$Bi_2(Te_{1-x}S_x)_3$, uniaxial crystal, reflectance meas. of optical consts. 2−57041
$Bi_{12}TiO_{20}$, piezoelec., temp. modulated spectroscopy near absorption edge 2−99100
$CdBr_2$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
$CdCO_3$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
$CdGa_2S_4$, uniaxially deformed, long wave absorption edge 2−104836
$Cd_xHg_{1-x}Te$, narrow gap, absorption coeff. and optical band gap 2−116146
$CdIn_2Se_4$, α- and β-polytypes, optical props. in region of fundamental absorption edge 2−93223
CdS, three-photon absorpt. coeffs. 2−65295
CdTe, minority carrier diffusion length, absorpt. coeff. meas. 2−115776
CdTe modulator crystals, absorpt. coeff. meas. at 10.6 μm 2−116140
CdTe, two-photon absorption coeffs., band structure calcs. 2−65293
$CePd_3$, f-states, optical refl. study 2−77550
Cr-Cr_2O_3, black, selective solar film, DC resist. and optical consts. meas., percolation obs. 2−116845
Cr_2O_3, in solar absorbers, optical consts. 2−93142
CsBr, surface phonon polariton, far IR dielec. const. determ. in reststrahlenband, laser spectroscopy 2−99085
Cu halides, optical deform. potentials, absolute Raman scatt. efficiency 2−104835
Cu, intraband optical cond. relax. time, phonon contrib. 2−93143
Cu-As-Se glassy films, photoconductivity and optical absorpt. *(Russian)* 2−104516
CuBr, optical constants and exciton spectrum *(Russian)* 2−67131
CuO, in solar absorbers, optical consts. 2−93142
Cu_2O, in solar absorbers, optical consts. 2−93142
Cu_xS thin films prep. by Activated Reactive Evaporation, elec. and optical props. 2−99354
Fe-Co films, IR absorpt. props. meas., order-disorder phase transition effect *(Russian)* 2−93297
Fe_2O_3, in solar absorbers, optical consts. 2−93142
GaAs, ion implanted, excitation size determ. 2−87156
GaAs NIPI superlattice, tunable optical absorpt. coeff. 2−77477
GaAs, two-photon absorption coeffs., band structure calcs. 2−65293
GaAs(P), optical props., ellipsometry meas. 2−57200
Gd, magneto-optical props. in interband absorpt. region *(Russian)* 2−61877
$Gd_2(MoO_4)_2$, permitt. dispersion, infrared refl. and spontaneous parametric scatt. by polaritons 2−104837
Ge, amorphous solar selective absorber, medium temp. 2−93945
Ge, electron-phonon scatt. matrix and absorption coeff. 2−103923
p-Ge, energy relax. mechanisms under nonlinear absorpt. of light 2−114357
Ge, interband Faraday and Kerr effects 2−72463
Ge, optical absorpt., photoacoustic spectra study, window material appl. 2−61855
Ge, optical surface and bulk absorption at 10.6 μm 2−70631
Ge:As,Ga, heavily doped by neutron doping, fundamental optical absorpt. edge profile 2−93145
Ge-chalcogenide films, optical consts. and photo-optical changes, absorption edge 2−93301
Ge-Si:H, amorphous sputtered alloys, elec., optical and struct. props. 2−98644
$Ge_{1-x}S_x$, chalcogenide glass, optical gap 2−110802
$Ge_{40-x}Sb_xS_{60}$, chalcogenide glass, optical gap 2−110802
$GeSe_2$ films, amorphous, laser induced optical anisotropy 2−93313
InAs, far-IR dielec. response at room temp., dispersive Fourier transform spectroscopy, phonon freqs. 2−116165
$In_{1-x}Ga_xP_{1-x}As_y$, optical props., ellipsometry meas. 2−57200
InP, optical props., ellipsometry meas. 2−57200
InP, two-photon absorption coeffs., band structure calcs. 2−65293
InSb(As), subband reson., nonparabolicity parallel excitation mechanism and doublet peak problem 2−61863

optical constants continued
KI, far IR optical consts. determ. by dispersive Fourier transform spectrometry 2−99112
$K_{0.13}MoO_3$, optical refl. spectra, optical consts. 2−87814
β''-$K_2O.Mg0.5Al_2O_3$, ionic cond. and IR absorption spectra 2−92260
$LiNbO_3$, ion implant. amorphisation optical and EPR studies 2−103789
metals, optical relax. time, freq. depend. calc. 2−66534
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
Na_2SO_4 aqueous solution IR optical constant 2−93179
Nb(001), optical consts. in visible region 2−77470
Ni_3Mn, optical consts., 0.25 to 17 μm, alloy ordering effects *(Russian)* 2−87728
PbF_2:Eu^{3+} superionic conductor, optical absorption line broadening due to F^- ion motion 2−115456
$Pb_{1-x}Sn_xTe$:Cd(Bi), narrow band gap semicond., galvanomag. and optical props., Cd solubility and diffusion *(Russian)* 2−92666
$PbZrO_3$, Urbach edge behaviour at ferroelec. phase transitions 2−104838
PtBi, band struct. and optical props. 2−76916
SbSi, ferroelec. semicond., optical transitions, temp. depend. meas. near phase transitions 2−57109
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si film, amorphous, annealing behaviour of spin density and optical gap, effect of O contamination 2−87735
Si film, glow discharge deposited, optical and elec. props. 2−93307
Si, ion implant. amorphisation optical and EPR studies 2−103789
Si, optical absorpt. coeff., 1.6 to 4.7 eV, meas. at high temp. 2−99146
Si, optical absorpt. const. meas. at 1.152 μm at high temp. 2−116141
Si:As(B), ion implantation damage, optical constants anal., ellipsometry expt. and refractive index model study 2−77469
Si:H, amorphous film, optical props. *(Korean)* 2−57201
Si:H, amorphous film, tetrode RF sputtering and optical and elec. props. meas. 2−111072
a-Si:H, glow discharge, oxidation investig., optical consts. determ. by ellipsometry meas. 2−116578
SiO_2 films, study using IR absorption techniques 2−93298
SiO_2, fused, far IR absorpt. coeff. meas. of different types 2−60188
SiO_2 thin layers, thickness and effective optical index, ellipsometry study 2−110968
SiO_x formed by Si ion implantation into fused SiO_2; optical props. 2−93144
Sio_2, fused and cryst., ion implant. amorphisation optical and EPR studies 2−103789
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
TTF-TCNQ, anomalous IR dielec. const. explained 2−87732
Te, optical absorption, permittivity, Hartree-Fock-Slater calc. 2−87733
Th/Ba fluoride multicomponent glass, extended IR absorpt 2−61854
$ThPd_3$, f-states, optical refl. study 2−77550
TiN films from N_2^+-implantation of Ti coated Si, elec. and optical props. 2−116286
TiN:C film, reactivity sputtered, optical consts. and spectral selectivity, IR reflectivity study 2−72445
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
TiNx, thin film, produced by reactive evaporation and ion-beam sputtering 2−104981
UPd_3, f-states, optical refl. study 2−77550
V, thermal oxidation, optical consts., ellipsometric study 2−83291
VO_2 based two-phase films, optical constants determ., use for data recording *(Russian)* 2−61996
Xe, solid, optical absorpt. at high press. 2−93225
Zn_3P_2, band structure model of absorpt. coeff. and photovoltaic props. 2−82222
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS, hexagonal, photoacoustic study of two-photon absorption 2−57040
ZnSe crystals, vol. defect influence on absorpt. at 10.6 μm wavelength 2−55284
ZnSe, two-photon absorption coeffs., band structure calcs. 2−65293
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304
ZrO_2, cubic, stabilised with Y_2O_3, refr. index and optical transmission meas. 2−107388

optical couplers
active duplex optical fiber connector requiring no tools for installation 2−97233
book, fibre optics 2−89490
butt coupling, high power, of diode lasers to $LiNbO_3$ waveguides, coupling efficiencies >65% 2−65359
coaxial optical fibre directional coupler fabrication 2−97198
codirectional couplers, polarisation evolution 2−109037
conically tapered fibre optical power divider, 25-fibre fused, for uses with LEDs 2−75699
connector parameters meas., losses determ. 2−109046
contradirectional couplers, polarisation evolution 2−109037
DH laser and fibre, highly efficient coupling *(Chinese)* 2−65220
directional couplers with random parameters, statistical theory 2−55329
double-bulb optical fiber connector, insertion losses meas. 2−102927
evanescent-field fibre coupler for microwave signal generation using an optical self-heterodyne technique 2−75611
fiber-optic connector 2−70672
fibre, connectors for single fibres, low cost 2−114458
fibre, single-mode and multimode, elastic tube splice performance 2−75694
fibre communications fundamentals, book 2−106991
fibre connections in single-mode and multimode fibres, interf. effects 2−70675
fibre connectors, development and application 2−60240
fibre connectors, multichannel, hermaphroditic, test methods and performance 2−86124
fibre connectors, single and multimode, interferometric technique for small gap meas. 2−102926
fibre couplers, using outer reflection mirror, buried lapped fibre *(Japanese)* 2−70684
fibre coupling devices, used for light sources and detector *(Japanese)* 2−70702
fibre interferometer, passive stabilisation scheme using (3×3) fibre directional couplers 2−112962
fibre optic army systems, survivability 2−114444
fibre optic connector design 2−114459

optical couplers continued
fibre optic connector suitable for use in rugged environments 2−91060
fibre optic data bus topology based on symm. biconical-taper transmissive star couplers 2−114447
fibre technology, connectors and splices 2−97188
fibre-optic cables and splicing *(French)* 2−70703
fibre-optic coupler packages with surface emitting LEDs 2−97223
fibre-optic couplers, directional and otherwise 2−60246
fibre-optic high bandwidth multichannel link utilising wavelength multiplexing 2−97186
fibre-optic rotary joints for signal transfer across rotating interface, performance 2−70700
fibre-optic signal processor, matrix-vector multiplication and lattice filtering appls. 2−109065
field installable fibre connector 2−109053
GRIN planar waveguides, sinusoidally modulated, mode coupling, beam propag. method 2−102917
integrated and guided-wave optics, conf., Pacific Grove, CA, USA (Jan. 1982) 2−58550
integrated optics modulators, optimal electrode design 2−55319
integrated-optic tapers and Y-junctions, radiation loss and mode conversion calc. 2−86131
IR prism coupling characterisation and optimisation via near-field m-line scanning 2−81070
laser diode to single mode fibre coupler, ball lens aberration effect anal. 2−102936
laser-to-fibre coupling technique characterisation by optical feedback 2−81072
LED to fibre, launching efficiency improvement into fibres with hybrid or integrated spherical lenses 2−109067
linearly tapered grating couplers, intensity profile analysis of outgoing beams 2−55328
microlenses, conical, chemically etched, for coupling single mode lasers into single mode fibres 2−65401
modal mode partition noise in optical fiber systems 2−109050
multimode fibre connectors, SOCAPEX technique *(French)* 2−70693
non-encapsulated semiconductors in planar optical couplers *(German)* 2−91042
nonlinear directional coupler, tunable 2−91041
passive couplers for optical fibre distribution systems, series vs. star configuration *(French)* 2−70704
passive guided-wave optical components, review 2−75679
periodic structures and coupled waveguides, synchronous freq. conversion, synchronism of coupled modes 2−108951
photomask fabrication, integrated optics, step-and-repeat process 2−65420
photoresist grating couplers for planar dielec. waveguides, leakage parameter calc. 2−81074
planar dielectric waveguides, four-layer Si clad, mode coupling 2−70670
plastic interconnection device, used for fibre optic data transmission 2−102949
prism coupler jig for coupling gap obs. using interf. fringes 2−65416
prism coupler utilising anisotropic inhomogeneous planar waveguide, theory 2−55330
reflective coupling, rectangular, tapered, intensity transform. 2−81071
semiconductor devices for optical communication, book 2−101147
semiconductor laser module for single-mode fibre transmission system using confocal lenses 2−86129
single element fiber-optic to fiber-optic coupler 2−109052
single fibre coupler *(German)* 2−55327
single mode fibre high-precision moulded connector fabrication 2−102937
single-mode fibre and square law medium, coupling characts. 2−97205
single-mode fibre components, coupling efficiency of optics 2−102928
single-mode fibre directional couplers 2−86112
spring-retentive V-groove splice connector for joining groups of optical fibres 2−102929
star coupler, 1XN, single mode integrated optical 2−65414
star coupler, integrated optical, 1×N single-mode 2−60258
star coupler, polymer waveguide 2−81073
stigmatic coupling device for extraction and regeneration of signals in optical fibre transmission networks *(French)* 2−97230
tapered monomode waveguide, near field radiation pattern 2−60233
thin film optical frequency doubler using a grating coupler 2−97106
tunable single mode optical fibre coupler 2−81102
waveguide diffraction gratings, specially shaped, optical props. 2−65343
Y-couplers aid data transmission, bi-directional working 2−75720
As_2S_3 optical fibre investigation for devices used to match planar and cylindrical waveguides 2−97216
GaP prism coupler investigation *(Chinese)* 2−97169
InP electro-optic directional coupler switch, homojunction struct. 2−65405
InP electro-optic directional coupler switch 2−75683
$LiNbO_3$ integrated optical 2−114429
$LiNbO_3$ optical waveguides, temp. compensated prism coupler 2−109035
$LiNbO_3$ waveguide, butt coupling to single-mode diode lasers 2−55326
$LiNbO_3$:Ti waveguide to single-mode fibre coupling at 1.32 μm 2−65360
$LiNbO_3$:Ti waveguide to single mode fibre coupling efficiencies 2−65361
SiO_2 plastic clad fibre termination 2−86123
$SrTiO_3$, refractive index temp. depend. and prism coupling to $LiNbO_3$ waveguide meas. 2−91010

optical design techniques
see also optical instruments
aberration-balancing technique for radially symm. amplitude distribs., Marechal approach generalisation 2−96843
achromatic reflector, designs for mixed two-component deposition, constrained optimisation method 2−70653
Acme catadioptric telescope design 2−95422
all-spherical catadioptric telescope with small corrector lenses 2−108989
amplitude spatial-frequency filter design for coherent optical processor *(Russian)* 2−86074
antireflection coating multilayer broad band, automatic computer design, refractive index optimisation 2−81048
antireflection coatings, designs for mixed two-component deposition, constrained optimisation method 2−70653
aplanatism, higher order 2−75535
applied optics, conf., Rochester, NY, USA (May 1982) 2−112647
aspheric corrector design for high aperture objective operating in photon limited conditions 2−55294
astronomical 5 m telescope, optical system config. 2−112330
asymmetric second-stage concentrator design 2−57679
beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396

optical design techniques continued
beam optical systems, spherical aberration, analytical expressions 2−80903
Brewster angle window, aberration correction in converging light 2−102915
Cassegrain solar furnace concentration 2−99764
centred optical systems, axial point aberrations, polychromatic correction 2−55298
coherent approach to optical engineering 2−108993
coherent optical processor, freq.-multiplexed, intensity moment computation, design 2−114198
compensator, two-lens afocal, for spherical aberration and coma correction *(Russian)* 2−70645
complex optical system parameters, computer use for tolerances calc. 2−114404
Cooke triplet design, utility of low-index high-dispersion glasses 2−65331
deformable mirror requirements 2−102900
endoscopes, rigid, image quality assessment model 2−111771
equivalent layers in oblique incidence, partial reflector unsplit admittances and depolarisation 2−85884
European Southern Observatory telescope projects, image quality considerations 2−94602
extrapolated least-squares optimisation in optical design 2−75650
Fabry-Perot multi-pass interferometer 2−74494
fibre optic connector design 2−114459
fibres, single-mode, profile-independ. characteristic and design 2−91063
focusing cam design for McPherson-type normal incidence VUV scanning monochromators 2−102911
Fresnel lens approximation, simple computer program in BASIC 2−75654
Gaussian brackets and Gaussian consts. 2−102714
Gaussian to flat-top intensity distributing lens 2−97146
glass, decorative, optical design 2−60197
glass selection automation in optical system calc. 2−108986
gradient index optics, conf., Honolulu, HI, USA (May 1981) 2−58521
grazing incidence toroidal grating monochromator, optical design 2−86079
holographic solar concentrator design 2−111538
instrument quality improvement by error compensation 2−53809
interference filters with multiple peaks 2−86076
interference layers calc. using TI-59 calculator *(Czech)* 2−114411
IR zoom lens system design for target detect., 8 to 13 μm 2−102903
laser beam reflectors, mirror figure-of-merit and material index-of-goodness 2−97140
laser beam scanner driven by multireflection method 2−114352
laser beam transforming optical system thermal distortion correction 2−75656
laser laboratory, geometrical optical concepts 2−108895
lasers, short wavelength, figures of merit 2−108902
lens automatic design, selection of damping factor 2−55293
lenses, camera, initial optical schematics calc. using fund. aberration coeffs. 2−70650
lenses, modular optical design, book 2−89470
lenslet array processors 2−65329
microlens, distributed-index, planar 2−75721
mid-IR filters using conducting elements 2−109014
mirror, deformable, primary, design, space telescope appls. 2−102895
mirror, sectional, phased image quality anal. 2−75657
mirror and reflective prism optical system, computer calc. of vector triad 2−109001
monochromator, double-beam 2−75667
monomode fibre design and fabrication, loss and dispersion optimisation 2−65376
MTF calculation with HP-85, HP-9845 computers 2−114200
multilayer all-dielectric bandpass filter design using microwave filter principles 2−109015
multilayer coating system numerical design, refr. index as variable 2−70657
multilayer stacks, spectral transmittance, refining method for design 2−81055
multilayer system performance analysis using HP 41CV calculator 2−109005
multiply-reflected light flux optical devices, design method 2−60217
non-imaging transformers, ideal, new class 2−108996
objective lens, rapid wide angle, design principles *(Russian)* 2−97143
ophthalmic lenses, oblique astigmatic error, power error and distortion minimisation using aspherical surfaces 2−111812
Pechan prism designed to transmit a conical ray bundle, construction calc. 2−70655
photographic objective, graded-index, design 2−74524
photoresist grating couplers for planar dielec. waveguides, leakage parameter calc. 2−81074
planar optical waveguide lens design 2−86069
plane grating and elliptical mirro config. for soft X-ray region monochromators 2−58989
rectangular transmission grating optimisation for monochromator design appl. 2−86085
reflectors, broad band semitransparent dielec., use of transient assemblies 2−109004
reflectors and immersion lenses for diffuse radiation detectors 2−60210
right-angle prism with 180° axial beam deviation, dimensional design minimisation *(Czech)* 2−55300
right-angle prism with 180° axial beam deviation, dimensional design minimisation *(Czech)* 2−60218
Schmidt corrector plates, computer program for curve calc. 2−75653
sky input horn for a far-infrared interferometer 2−75655
spherical primary mirror with aspheric corrector plates located near focus, optimum soln. 2−65332
swivel, two-mirror, operating in parallel rays, kinematic calc. using vector-matrix method 2−75668
symmetrical systems, derivatives of aberration functions with respect to axial distances 2−80904
system MTF prediction criteria 2−108803
target collimator system design and performance at Lockheed Sensor Test Facility (LSTF) 2−109010
Temos 4, mosaic telescope problem soln. *(French)* 2−94600
tetrahedral reflector with plane reflecting faces for autocollimation 2−109013
theodolites, mining, T-30M and T-30MK types, specifications 2−109002
thermal imaging lenses, optical evaluation 2−114401
thick meniscus field correctors of field curvature and astigmatism 2−108988
optical design techniques continued
thin-lens cemented doublets, rapid design method 2−91018
time-integrating acousto-optical processor for Fourier transform. 2−108818
toroidal grating monochromator design for SURF II 2−86077
toroidal grazing incidence monochromator for ACO storage ring beam line 2−86081
triplet standard lens, intercomparison of calc. and meas. OTF 2−114202
two-lens finite-thickness cemented doublet aberration coeff. calc. 2−91022
two-mirror aberration free systems, second mirror figure determ. 2−81044
unstable optical resonators, design considerations 2−97007
unstable resonator with aspherical mirrors 2−108995
UV spectrograph lens 2−97139
zoom lens with built-in range extender, paraxial anal., modular construction 2−89840
zoom lenses, four-component, mech. compensated, paraxial anal. 2−89834
CO_2 advanced laser fusion systems, glancing incidence optics appls. 2−97029
optical detection of ENDOR *see ENDOR; optical double resonance*
optical detection of magnetic resonance (EPR) *see microwave-optical double resonance*
optical detection of magnetic resonance (radiofrequency) *see magnetic double resonance; optical double resonance*
optical discs *see video and audio discs*
optical dispersion
see also optical constants
amines, primary, soln., dielectric loss, microwave spectra *(German)* 2−66985
birefringent filter theory, very narrow band pass width 2−109020
bistability, dispersive, freq. switching 2−97089
bistability, dispersive, with fluctuations, Fokker Planck eqn. 2−97090
bounded nonlocal medium, transient optical reflectivity 2−77478
chromatic dispersion of the ocular media 2−99944
coalescence of several photons into photon pair at impurity centres 2−61922
condensed media, freq. dispersion of nonlinear susceptibilities near single-, multi-quantum resons. 2−114362
Cooke triplet design, utility of low-index high-dispersion glasses 2−65331
cubic crystals, optical anisotropy induced by spatial dispersion 2−77485
doubly clad single-mode fibres, propag. props. and universal curves 2−65378
elliptical-core single-mode fibre, polarisation mode dispersion due to thermal-stress-induced birefringence 2−86111
Fabry-Perot, absorptive and dispersive bistability for Doppler-broadened medium, steady-state theory 2−97087
fibre attenuation coeff. meas. using backscattering method *(French)* 2−70691
fibre bit rate optimisation using optical solitons 2−55348
fibre filters, dispersion cancellation 2−91069
fibre lightguides, multimode and single-mode, pulse distortion, dispersive props. 2−75691
fibre material dispersion slope calc. 2−75701
fibre transmission charact. diagnostic meas., in single-mode fibres 2−109071
fibre transmission systems for 0.8-1.6 μm multimode vs. single mode 2−97185
fibre waveguide system, series-connected, with step refr. index profile, transfer function 2−114463
fibreguide link, mathematical separation of multimode, material dispersion 2−65370
fibres, graded-index, multispliced, bandwidth estimation 2−81084
fibres, high-freq. broadband signal transmission, signal enhancement by spectral equalisation 2−109051
fibres, material dispersion meas. using LED sources 2−60243
fibres, single-mode, bandwidth control using tailored dispersion spectra 2−60250
fibres, single-mode, profile-independ. characteristic and design 2−91063
fibres, single-mode waveguide dispersion using equivalent step index approach 2−75693
fibres, slowly varying, pulse dispersion and induced power loss 2−55339
filters, magnetooptic, dispersive 2−86075
filters, polarisation interf., narrow band and wide field-of-view 2−97160
glass composition coefficient phys. meaning, determined by Hartmann's dispersion formula 2−80892
glass dispersion approximation using universal optical functions 2−93147
glass with abnormal partial dispersion, potentials and limitations *(German)* 2−114392
glasses, Hoya AOT-5, AOT-44B and FR-5, magneto-optical dispersion meas. 2−70642
graded index fibres, numerical apertures and profiles, wavelength resolved meas. 2−60247
graded-index multimode fibre splicing for intermodal dispersion compensation 2−86113
graded-index multimode fibres, measured and predicted bandwidth comparison 2−75706
gradient optical fibres, optimum doping profile exponents, dispersion calc. *(German)* 2−97207
high bit rate communication systems using non-linear effects 2−102951
IR dispersion filters, spectral charact., effect of recording conditions 2−114412
Kramers-Kronig relations, generalised, finite freq. interval dispersion relations, spectrum-restoring filter 2−85903
laser resonator reflecting grating freq.-selective losses 2−65342
linearly single polarisation fibres with zero polarisation mode dispersion, optimum waveguide struct. 2−65374
measurement of long wavelength monomode fibres by time domain reflectometry 2−107391
mid-IR waveguide materials 2−97129
monomode fibre design and fabrication, loss and dispersion optimisation 2−65376
monomode fibre with ultra-low loss and min. dispersion at 1.55 micron 2−114456
multimode graded-index fibres with index imperfections, minimum pulse broadening 2−75707
multimode optical fibre links, analysis of intermodal dispersion 2−65398
natural optical activity, dispersion relations and sum rules 2−75510
nonlinear crystals, quasi-phase-matched stacks, optical freq. conversion 2−81022
nonlinear polarisabilities of crystals, microtheory, effects of space dispersion 2−108943

optical dispersion continued
optical fibre, low mode, four-photon mixing and Stokes-antiStokes pairs *(Russian)* 2−97220
optical glass, optical properties 2−60198
optical media dispersion parameter constraints 2−70636
parametric frequency up-conversion, nonlinearly dispersive spreading and quasi-solitons 2−114361
quartz gyrotropic bounded medium, surface wave dispersion 2−96827
scattering amplitudes, sum rules 2−75514
single mode fibre, modal dispersion approx. deduced from mode spot size spectral behaviour 2−97195
single mode silica fibre min. dispersion spectrum meas. with 0.1 ps resolution by crosscorrelation method 2−97203
single-mode 27 km long fibre, ps dispersionless transmission at min. chromatic dispersion wavelength 2−114457
single-mode fibres, pulse delay meas. using sum freq. mixing as picosecond shutter 2−55338
single-mode long-span fibre, dispersion meas. method 2−55341
single-mode optical fibre, min. dispersion spectra of short lengths, interferometric meas. 2−86138
spliced graded-index optical fibres; exact analysis of intermodal dispersion compensation 2−75708
step-index fluoride glass fibres, influence of wavelength dispersion 2−97197
transmission optics, book 2−112672
twin waveguides, coupled mode zero dispersion, refl. characts. at prism-twin-waveguide-coupling boundaries 2−86100
W-type fibre, anal. approx. for propag. and dispersion parameters 2−86109
waveguide, thin-film, multilayered, with a buffer layer, propag. characts. 2−109038
waveguide theory, introduction, book 2−58573
waveguides with radial inhomogeneities, theory, field equations 2−86098
$CdGa_2S_4$ crystals, spatial dispersion effects 2−72446
CdS, dispersive birefringent filter theory 2−109020
Ge, dispersive and refr. index meas. using diode lasers 2−112958
InSb, Landau level nonlinear refr. 2−65292
$NaClO_3$ gyrotropic bounded medium, surface wave dispersion 2−96827
SF_6, self-focusing and self-defocusing of intense reson. IR radiation 2−65316
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
SiO_2: $GeO_2(P_2O_5)(B_2O_3)$ glass optical fibres, refr. index dispersion 2−81107
XeF laser gain-dependent dispersion 2−97049
ZnSe, light-induced refr. index dispersion in impurity absorpt. region 2−77480

optical double resonance
see also microwave-optical double resonance
chloropentafluorobenzene vapour, vibr. deactivation 2−59913
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
fluoromethane-d_3+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
formaldehyde-d, (d_2) energy transfer, IR-UV double reson. study 2−65025
formaldoxime, infrared-infrared double resonance using an acousto-optic modulator 2−80690
hexafluorobenzene vapour, vibr. deactivation 2−59913
laser spectroscopy, conf., Jasper, Alberta, Canada (1981) 2−63748
methane, microwave spectra, rel. to radioastronomy 2−75280
methane-d_4+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
methyl fluoride-$d_0(-d_3)$, optical-optical double reson., isotope effects 2−65024
methyleneimine, laser Stark and interferometric studies 2−75333
molecular system, Zeeman degenerate, saturated double reson. line shapes 2−108594
molecules, unstable, laser mag. double resonance spectra at 5 and 10 μm 2−59833
molecules in small particles, fluoresc. and Raman scatt., double reson. 2−104878
optically thin gas-filled cell, double RF-optical reson. eqns. 2−102421
pentafluorobenzene, picosecond IR double reson. 2−59830
pentafluorobenzene vapour, vibr. deactivation 2−59913
stored ions, laser cooling and double reson. spectroscopy 2−69298
thioformaldehyde, laser Stark and interferometric studies 2−75333
BCl_3, vibrational excited state relaxations, IR double resonance absorpt. investig. *(Chinese)* 2−75254
$^{135}Ba^+$, hyperfine struct. determ. rel. to microwave freq. standard possibilities 2−65105
$^{137}Ba^+$, hyperfine struct. determ. rel. to microwave freq. standard possibilities 2−65105
CaCl, $X^2\Sigma^+$ ground state, hyperfine struct. studied by mol. beam and laser RF double reson. 2−70306
$CaF_2:Tm^{2+}$, optical detect. in transmission band of ENDOR 2−116090
^{43}Ca metastable 3d4s $^1D_2$ state, laser RF double reson. HFS meas. 2−96756
Cs_2, double reson. polarisation spectroscopy 2−65027
Cs_2, rot. lines meas. by Doppler free polarisation spectroscopy and ODR, fluoresc., mol. const., pot. energy curves 2−80689
LiHe, van der Waals mol., rovibration struct., optical double reson. 2−70308
$^7Li_2$, pulsed optical-optical double reson. spectroscopy 2−65026
NH_2, IR-optical double reson., vibr.-rot. transitions, fluoresc. 2−96607
NH_3 beam, collision-induced transitions, double reson. studies 2−59903
NO, 4-photon ionisation two-colour double reson., fluoresc. de-enhanced obs. 2−85706
NO, two-photon fluoresc. excitation and resonant four photon ionisation spectrum, double reson. effect 2−54890
NO+NO(N_2)(SF_6)(CO)(Ar)(He), rot. and spin-orbit transitions, IR-UV double reson. 2−75382
Na_2, autoionising Rydberg states, optical-optical double reson. obs. 2−59829
Na_2, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619
O_2^+, excited state, optical double resonance study 2−70307

optical elements
see also diffraction gratings; fibre optics; mirrors; monochromators; optical collimators; optical fibres; optical films; optical filters; optical isolators; optical modulation; optical prisms; optical waveguides; optical zone plates
alkali halide laser windows, photoacoustic spectroscopy of adsorbed surface impurities 2−60192
anamorphic beam expanders, in-line, formulas for prism positions 2−109007
astronomical telescope, Canada-France-Hawaii, 3.6 m, prime focus wide-field imagery 2−73839
beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
beam splitter for coupled optical cavities with common partial reflector, very high freq. intensity oscills. 2−108991
beam splitters providing feedback in optical correlator, for geometric shape detect. *(Czech)* 2−60030
Brewster angle window, aberration correction in converging light 2−102915
Brewster angle window aberration of CO_2 waveguide laser modes 2−60131
Cassegrain and other beam expander comparison for high-power pulsed dye lasers 2−102838
computer-controlled grinding of optical surfaces 2−55363
conference, Los Alamos, NM, USA (Apr. 1981) 2−94889
conical optical elements, polarisation effects in interferograms 2−53823
diamond as an optical material for space optics 2−70635
diaphragm aperture, focusing of light beams with Gaussian intensity distrib. 2−97163
diffusers, random phase, correl. props. for multiplex holography 2−65338
dye lasers, single-mode wedge, continuous-scanning system 2−75617
electrostatic dust protection for optical elements in Earth-mounted and satellite orbital systems 2−55289
focusing properties, optical profilometer method for high sensitivity and wide dynamic range 2−107295
gamma ruticons, spatial-freq. response 2−91088
glass plate, circular loaded, effect on parallel beam struct. 2−75662
grinding, fine diamond, of optical components, tool employing organic binder 2−109093
holographic optical elements, computer-originated, aspheric wavefront recorded 2−60044
holographic optical elements in partially coherent light, behaviour and appls. 2−85913
integrated optical beam splitters formed in glass channel waveguides, variable weighting from mask dimens. 2−86134
interference beamsplitter coatings for visible and IR spectral regions 2−75661
IR polariser selection for ellipsometric instrumentation 2−101442
IR window material absorpt. coeff., photo-acoustic meas. at CO_2 laser wavelength freq. *(Chinese)* 2−91033
IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
Kerr shutter, subpicosecond optoelectronics developments 2−114414
laser beam expander, two-element 2−81053
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
laser damage thresholds at 532 nm for production-run optical components 2−65284
laser system optical components, CW and pulse-periodic, stability parameters 2−81011
laser window materials, IR wavelength modulation spectroscopy 2−60191
laser window materials, optical distortion and far field meas. 2−97041
laser window materials for use at 1.3 μm, survey 2−60195
laser windows, material property requirements 2−60196
laser windows, pulsed aerodynamic shock tube generated, optical quality 2−102831
limiting apertures in geometrically outcoupled laser systems 2−90953
line-of-sight steering and stabilization 2−60216
Lyot depolariser, white light depolarisation by birefr. cryst. 2−75660
metal-coated optical plate, thermally induced laser interf. and birefr. 2−108928
mirror shaping from liq. films under normal and reduced gravity 2−102904
MTF prediction criteria 2−108803
multiply-reflected light flux optical devices, design method 2−60217
noncontact alignment and spacing of optics 2−102897
Pockels cell shutters used for pulse slicing 2−55312
polariser, appl. of Hg_2Cl_2 and Hg_2Br_2 2−109009
polymer optical components, cleaning 2−70716
precision machining of optical components, design and specification 2−109088
quarter wave plates for subMM wavelengths 2−97154
radiation dividers for the IR 2−97156
real-time phase conjugate window for one-way optical field imaging through a distortion 2−97119
retrodirective arrays for phase conjugation approx. 2−70647
small glass elements that distribute light linearly, fabrication method 2−91095
switches, using organic materials 2−70637
swivel, two-mirror, operating in parallel rays, kinematic calc. using vector-matrix method 2−75668
taps, stacked planar optics for optical communications 2−65415
telescope dirty protective glass influence on resolution 2−95429
TV optical view-finder Soyuz, cinematography appl. *(Russian)* 2−69291
visualising diaphragms on light-valve projectors *(Russian)* 2−86084
wavefront compensation with pseudoconjugation, precision corner, lens and K-mirror arrays 2−70646
waxicon, polarisation-correction scheme 2−109008
C, diamond-like, ion-beam deposited, improved optical elements for high powered lasers 2−65323
$CaCO_3$ calcite plate fabrication, monitoring of linear displacement between ordinary, extraordinary rays 2−114481
CaF_2, window material for HF/DF chemical lasers 2−81040
Ge laser windows, thermal runaway 2−81004
Ge window, interference effect elimination for CO_2 laser output stabilisation *(Chinese)* 2−70581
KD_2PO_4 crystal optical component chem. resist. increase using thin-film polymer coatings 2−55301
LiF crysts., with colour centres, passive shutter appls., residual losses 2−81061
ZnSe, window material for HF/DF chemical lasers 2−81040

optical fibres
10×10 optical matrix switch 2−55354
1979 and 1980 *(Japanese)* 2−94245
absorption, transient, electron beam radiation induced 2−114436
acrylate-coated, environmental effects, static fatigue testing 2−81134
acrylate-coated fibres, UV-cured, environmental testing 2−114443
active duplex optical fiber connector requiring no tools for installation 2−97233
adverse environment effects, conf., San Diego, CA, USA (Aug. 1981) 2−112641
analytical bending loss formula of optical fibers with field deformation 2−65389
anisotropic single-mode optical fibres, degree of polarisation, theory 2−65373
army fibre optics systems, survivability 2−114444
ATE, attenuation and pulse broadening, core/cladding diam., numerical aperture 2−81135
attenuation coeff. meas. using backscattering method *(French)* 2−70691
attenuation measurement, measurement principles and anal. and measuring apparatus *(French)* 2−70677
attenuation measurements, reduction of spatial and wavelength variations of launch spot 2−65365
attenuator calibration, pyroelectric substitution method using PVF_2 detector 2−86108
backscatter method for evaluation of fibre optic cables *(German)* 2−91055
backscatter signature simulations, computer-generated 2−95447
backscattered mode power distribution in optical fibres 2−81086
baseband freq. characts. of multimode fibre whose axis suffers from random bends 2−65394
benzil crystal cored monomode optical fibres, optical phase matched SHG 2−55272
birefringence, acoustically induced 2−109058
birefringence properties twin-core fibres, finite-difference analysis 2−86105
birefringent fibres, wavelength depend. of birefr. 2−91070
bit rate optimisation using optical solitons 2−55348
book, fibre optics 2−89490
British Telecom research, transmission using fibres longer than 100 km 2−70681
butt joint alignment sleeve 2−75710
cable characterization of attenuation and baseband response, location of breaks *(Spanish)* 2−65403
cable structures and splicing techniques *(French)* 2−70703
cable under lateral force, optical loss stability, coated fibre struct. optimum design 2−65363
cable vulnerability to thermal pulses 2−114441
cables, high performance, using V-grooved cylindrical units, limiting of micro-bending losses 2−102945
cables installed on aerial line, temperature characts. 2−86122
cabling processes, optimisation procedure 2−102924
calibration reticle for optical fiber near-field core diameter measurements 2−107302
coated, optimum design for reducing excess loss at low temps. 2−114467
coated with UV-cured polyurethane acrylate, microbending loss, correl. with sub-T_g annealing of coating 2−60251
coating concentricity, high speed meas. and control 2−86104
coating speed prediction from flow props. of coating materials 2−102941
coaxial optical fibre directional coupler fabrication 2−97198
coherence in optical fibre systems, conf., London, England (May 1982) 2−79286
coherent optical receiver operation 2−81122
coherent radiation propagation nonlinearities 2−97221
communication appls., practical techniques *(German)* 2−70679
communication line, expt., with spectral multiplexing of LED radiation by diffr. grating 2−114464
communication system meas. instrumentation 2−97243
communications, from research to appls. *(Italian)* 2−70680
component performance and price forecast to year 2000 2−65368
concatenated multimode optical fibres characts. meas. by time domain meas. technique 2−109073
conically tapered fibre optical power divider, 25-fibre fused, for uses with LEDs 2−75699
connections in single-mode and multimode fibres, interf. effects 2−70675
connector, field installable 2−109053
connector 2−70672
connector design rel. to optical performance, mech. stresses, environmental effects and handling 2−114459
connector suitable for use in rugged environments 2−91060
connectors, development and application 2−60240
connectors, single and multimode, interferometric technique for small gap meas. 2−102926
connectors for single fibres, low cost 2−114458
coupler *(German)* 2−55327
coupler packages with surface emitting LEDs 2−97223
couplers, directional and otherwise 2−60246
couplers, using outer reflection mirror, buried lapped fibre *(Japanese)* 2−70684
coupling devices, used for light sources and detector *(Japanese)* 2−70702
coupling LEDs, review *(French)* 2−97225
CSP lasers, directly current-modulated, spectral behaviour 2−80970
CVD modified process and performance, fibre design and material choices, overview 2−65421
data transmission system testing under simulated field conditions 2−109095
defects detect. by Raman spectroscopy 2−86117
delay line with microbend taps for GHz signal processing 2−97176
depressed inner cladding fibres, fundamental-mode cutoff calc. 2−97194
design of fiber-optic cables 2−81109
devices for advanced fibre systems 2−97229
DH laser and fibre, highly efficient coupling *(Chinese)* 2−65220
diagnostic measurement of single-mode fiber transmission characteristics 2−109071
differential mode delay measurement techniques, comparison 2−97178
digital fibre optic communication systems, coherence and intersymbol interf. 2−81119
diode laser feedback effects due to Rayleigh backscattering from optical fibre 2−75570
dispersion of fibreguide link, math. separation of multimode, material dispersion 2−65370
dispersion-free single-mode doubly clad fibres with small pure bend losses 2−114451

optical fibres continued
double-bulb optical fiber connector, insertion losses meas. 2−102927
doubly clad single-mode fibres, propag. props. and universal curves 2−65378
dralon fibre of dog-bone cross-sectional shape, birefringence, interferometric meas. 2−91049
durability increase through use of compressive cladding 2−75713
dye laser emission, evanescent wave-coupled, in optical fibres 2−102786
electric field sensitive optical fibre using piezoelec. polymer coating 2−75696
electrooptic 4×4 matrix switch for multimode fibre-optic systems 2−70698
elliptical, Gaussian light beam propag. 2−65387
elliptical, mode cutoff frequencies 2−109061
elliptical optical fibre or preform, stress profile meas. 2−97201
elliptical-core single-mode fibre, polarisation mode dispersion due to thermal-stress-induced birefringence 2−86111
fabrication, of long high-strength fibres with low loss 2−91096
fabrication, recent progress *(Japanese)* 2−91071
fabrication by spark discharge welding for optical data transmission *(Czech)* 2−55365
fabrication method based on sol-gel process 2−81127
fabrication techniques and props. 2−81108
fatigue, coated with UV-curable polyurethane acrylate, temp. depend. 2−75709
fatigue test instrument for four-point bending conditions 2−91098
fault location by optical time domain reflectometer 2−84685
fault location using modified reflectometry techniques 2−64097
femtosecond pulse compression, self-phase modulation in optical fibre 2−81034
fibreoptic industry 1982, progress report and future outlook 2−81104
field distribution in elliptical optical fibre, theoretical analysis 2−65393
field trials, meas., testing and maintenance of installed optical cables and systems 2−81087
fine glass particles and high-rate production of fibre preforms in VAD process, deposition mechanism 2−116373
fluoride glass fibre, low loss, build-in casting prep. 2−60266
fluoride glass preforms prepared by a rotational casting process 2−97240
fracture parameters and testing *(French)* 2−70694
fundamentals of optical fibre communications, book 2−106991
glass, multilayer cylindrical struct. for fibres, optical fibres and cables, thermoelastic stress 2−65396
glass fibres, optical soliton amplification and reshaping 2−91067
glass fibres, optical soliton amplification and reshaping 2−97210
glass fibres, thermal stress and surface corrosion crack mechanisms, theory 2−109069
glossary of optical waveguide communications 2−89487
graded index fibres, numerical apertures and profiles, wavelength resolved meas. 2−60247
graded index fibres with various fibre coating schemes, mode conversion coeffs. meas. 2−55334
graded index low-loss high-numerical-aperture fibres fabrication by pressurised modified CVD method 2−102939
graded index multimode fibres, guided propag. characts. *(French)* 2−70686
graded index transmission bandwidth meas., step-graded-step-index spliced fibres exciter 2−102952
graded-index, circularly polarised modal skew rays 2−109057
graded-index, general clad, evanescent-wave anal. 2−86115
graded-index, in loose-sheath cable, cold-induced losses 2−114442
graded-index, multispliced, bandwidth estimation 2−81084
graded-index, parameter determ. using immersion liqs. 2−70695
graded-index, power-law and wavelength depend. group refr. index determ. *(German)* 2−75711
graded-index, wave eq. solution using multiparabolic approximation 2−96842
graded-index compound-glass fibres, scatt. sphere and total loss meas. 2−102943
graded-index fibre refr. index profile optimisation 2−75685
graded-index fibres, mode coupling at arc-fusion splices 2−55337
graded-index fibres, vectorial wave analysis 2−65391
graded-index high numerical aperture fibres, fabrication by MCBD method 2−91073
graded-index multimode fibre splicing for intermodal dispersion compensation 2−86113
graded-index multimode fibres, measured and predicted bandwidth comparison 2−75706
graded-index multimode optical fibre waveguides, differential modal delay meas. 2−65399
graded-index preforms fabricated by high-rate vapour-phase axial deposition 2−75729
gradient index optics, conf., Honolulu, HI, USA (May 1981) 2−58521
gradient optical fibres, optimum doping profile exponents, dispersion calc. *(German)* 2−97207
GRIN fibre lens arrays, optical imaging and radiometric props., fibre length depend. 2−102935
grinding workpiece temp. meas. with infrared radiation pyrometer using optical fibres *(Japanese)* 2−101404
helical ray generalised ray representation 2−70495
heterodyne and coherent optical fibre communications 2−109078
heterodyne communication systems−an electronic automatic frequency control system 2−81115
high bandwidth single mode fibre spectral meas. using tunable InGaAsP laser 2−65248
high bit rate communication systems using non-linear effects 2−102951
high speed coating with thermally curable silicone resin using pressurised die 2−97241
high strength, fabrication of long fibres, success probability 2−75736
high surface compression fibres, termination method 2−86139
high temperature transmission characts. 2−55347
high-strength, In protective coatings, microbending losses and static-fatigue life 2−81112
homogeneous, parameter determ. using immersion liqs. 2−70695
index matching single mode fibre alignment system 2−60252
inline single mode fibre birefringent networks 2−97222
integrated and guided-wave optics, conf., Pacific Grove, CA, USA (Jan. 1982) 2−58550
interferometer, passive stabilisation scheme using (3×3) fibre directional couplers 2−112962
interferometer, phase oscillation due to light impulse, bolometer appl. 2−89806

optical fibres continued
IR, applications, review 2−65381
IR crystalline fibres 2−97182
IR fibre crystal materials 2−97130
IR fibre optics, prospective vitreous materials 2−60201
IR fibre optics, prospective vitreous materials 2−97183
IR fibres, 0.8-12 μm, conf., Los Angeles, CA, USA (Feb. 1981) 2−94887
IR fibres losses, overview 2−97181
IR waveguide materials, vitreous materials exam. for suitability 2−91050
irradiated, light induced annealing characts. 2−75703
isolator characterised by elliptically deformed fibre core, anal. 2−55345
jointing techniques for optical fibre connections 2−81111
large numerical aperture, mode cutoff frequencies 2−109061
laser-to-fibre coupling technique characterisation by optical feedback 2−81072
LED launching efficiency improvement into fibres with hybrid or integrated spherical lenses 2−109067
length meas. by reflectometry *(German)* 2−74484
light distribution analysis of lightguides with different shaped end faces, computer method 2−65386
linearly single polarisation fibres with zero polarisation mode dispersion, optimum waveguide struct. 2−65374
liquid core fibres, geom. characts., thermally induced mode cutoffs and interf. meas. 2−102932
liquid scintillators for optical fibre appl. 2−64753
liquid-crystal optical attenuator, polarisation-independ., fibre-optics appls. 2−65346
long length, failure prediction based on proof testing 2−97242
long optical fibres, nonlinear asymm. pulse distortion 2−97214
loss meas., OF 150 opt. fibre time-domain reflectometer 2−79650
loss measurement using time domain reflectometer 2−101449
loss measurements, selection of mandrel wrap mode filters 2−102944
loss model, total-loss data separation into absorpt. and scatt. components 2−102934
loss spectra meas. equipment 2−53807
losses caused in manufacture and in use *(Croatian)* 2−86107
low mode, four-photon mixing and Stokes-antiStokes pairs *(Russian)* 2−97220
low strength break causes, fractographic analysis 2−75688
low- and high-birefringence optical fibre development, polarisation props. 2−65372
LP_{0n} mode analytical continuation beyond cut-off 2−65388
magneto-optic current sensing with optical fibres *(Japanese)* 2−89755
magnetooptic bistable switch for multimode optical fibre 2−81082
manufacture by MCVD technique *(French)* 2−70692
manufacturing process control by laser beam 2−91099
manufacturing technology trends 2−55364
material dispersion meas. using LED sources 2−60243
material dispersion slope calc. 2−75701
materials, optical props. 2−60190
mechanical and thermal props. 2−81110
micro-optic grating demultiplexer, 20-channel, 1.1 to 1.6 μm, using graded index rod lens 2−65402
microlenses, conical, chemically etched, for coupling single mode lasers into single mode fibres 2−65401
modal mode partition noise in optical fiber systems 2−109050
modal noise, component interaction problem in guided wave systems 2−60239
mode power dist. with fluctuations phys. parameters, backscattering appl. 2−97180
monomode, charact. parameters 2−81081
monomode, coiled, Faraday rot., isolator, filter and mag. sensor appls. 2−75712
monomode, microbending loss meas. and their interpretation 2−91064
monomode, power spectrum of microbends, model 2−75700
monomode fibre, stimulated Brillouin scatt. suppression during high power narrowband laser light transmission 2−97192
monomode fibre design and fabrication, loss and dispersion optimisation 2−65376
monomode fibre long-wavelength transmission, components and systems review 2−55340
monomode fibre with ultra-low loss and min. dispersion at 1.55 micron 2−114456
multichannel hermaphroditic fibre connector, test methods and performance 2−86124
multichannel high bandwidth fibre-optic link utilising wavelength multiplexing 2−97186
multimodal, partially coherent radiators, theory 2−114186
multimodal gradient, ray theory of dispersion 2−114461
multimode, arc-fusion splice using pre-fusion method 2−75715
multimode, backscatt. process theory 2−81080
multimode, graded-index, mode division multiplexing 2−81083
multimode, halogen lamp source for insertion loss measurement 2−97179
multimode, Helmholtz scalar equation solution using Bessel to cosine function transformation *(German)* 2−91056
multimode, manufacture by MCVD technique *(French)* 2−70687
multimode, modal power distrib. meas. based on near-field intensity meas. 2−60242
multimode, mode conversion effects on backscattering meas. 2−97191
multimode, nonlinear propag., coupled-mode theory, envelope solitons and self-confinement 2−109055
multimode, optical radiation transmission of sharp bends 2−114462
multimode, precise characterisation tubular mode time of flight meas. 2−65366
multimode, scatt. theory 2−91062
multimode, step-index and graded, coherence of propagating laser beam 2−86116
multimode, structure and properties in communication *(Norwegian)* 2−86120
multimode, transmission parameters, review *(Spanish)* 2−70683
multimode, transmitted light, photon counting statistics meas. 2−65364
multimode and single-mode lightguides, pulse distortion, dispersive props. 2−75691
multimode fibre connectors, SOCAPEX technique *(French)* 2−70693
multimode fibre waveguide for laser resonator, mode selection and freq. tuning 2−90945
multimode fibres, baseband transfer function estimation 2−102942
multimode fibres characterisation, using selective excitation *(French)* 2−70690
multimode graded index fibre optical waveguide, 70% beam optics 2−109049
optical fibres continued
multimode graded-index fibres with index imperfections, minimum pulse broadening 2−75707
multimode gradient index optical fibre, optical time domain reflectometry at 1.5 μm using stimulated Raman scatt. 2−65379
multimode optical fibre bandwidth meas. in frequency domain 2−84682
multimode optical fibre links, analysis of intermodal dispersion 2−65398
multimode optical fibres frequency characts. meas. *(French)* 2−70689
multimode versus single mode optical fiber transmission systems for 0.8-1.6 μm 2−97185
near IR absorption, OH group vibr. bands 2−99125
noncircular monomode fibres 2−60244
nondestructive testing of optical-fibre preforms 2−55366
numerical aperture, definition and effect of skew rays 2−97204
OFC '82, conf., Phoenix, Arizona, USA (April 1982) 2−74159
optical broadband signal transmission using pulse position modulation *(German)* 2−81092
output divergence adjustment device 2−65380
parametric amplification and freq. conversion 2−86044
passive couplers for optical fibre distribution systems, series vs. star configuration *(French)* 2−70704
perturbed, Green's-function anal. 2−109054
planar waveguide-optical fibre system for holographic memory devices 2−65192
plasma diagnostics, high-frequency fibre optic system improvements 2−115044
plastic interconnection device, used for fibre optic data transmission 2−102949
polarisation characteristics of fibres for coherent detection systems 2−81113
polarisation optical time domain reflectometry meas. of fibre polarisation modifying props. 2−91080
polarisation-holding in a high-birefringence fibre 2−75695
polarisation-maintaining single-mode fibres, stress-induced birefr. and elliptical core types 2−75689
polarising components using stressed optical fibres 2−97175
polarization characteristics of single mode fibers *(Japanese)* 2−91057
polarization characts. calc., use of circularly polarized waves 2−114468
polypropylene fibre, multiple skin, refractive index and birefringence variations, interferometric meas. 2−91048
power output precision meas. 2−102953
preform, modified CVD, central dip reduction by F etching during collapse 2−65384
preform, relations between moments of index profile and moments of deflection function 2−114454
preform manufacture 2−97238
preform practical three-dimens. profiling, spatial filtering technique 2−65377
preform quality evaluation, direct display of deflection function 2−55362
preform refractive index profile meas., focusing method, computer simulation, errors 2−91052
preforms, nondestructive determ. of stress profiles 2−75702
propagation characts. of optical fibres, two-dimensional finite-element method calculation 2−65395
pulse broadening, GaAs polariton induced compensation obs. 2−91047
pulse compression by enhanced freq. chirping, numerical simulation 2−91046
quartz fibre-optic waveguides, induced absorpt. temp. and optical power level influence 2−55344
radiation resistant optical fibres, recent progress 2−114434
Raman mixing in an optical fibre 2−97177
refractive index profiles meas., on multimode fibres and preforms, transmission props. optimisation *(French)* 2−70688
refractive-index profile formation mechanism in VAD optical fibres 2−91074
remote sensing with white light 2−89781
repeater spacing of 280 Mbit/s fibre optic transmission system using 1.55 μm laser diode source 2−55353
resonator, all-single-mode fibre 2−91068
review of optics developments 2−55059
rotary joints for signal transfer across rotating interface, performance 2−70700
SAWD and optical fibres appls. *(French)* 2−86200
semiconductor laser module for single-mode fibre transmission system using confocal lenses 2−86129
semiconductor laser noise and distortion characts. in optical fibre communication systems 2−65226
semiconductor light sources, comparison of uses of lasers and LEDs 2−97228
semiconductor light sources for multimode fibre transmission lines, characterization method 2−55342
series-connected fibre waveguide system with step refr. index profile, transfer function 2−114463
short-range fracture fault location using acoustic time-domain reflectometer 2−91100
side-tunnel fibre, polarisation-maintaining optical waveguide scheme 2−114453
single element fiber-optic to fiber-optic coupler 2−109052
single mode, Faraday effect obs. using polarisation-optical time domain reflectometry 2−65371
single mode, fundamental mode spot size meas. 2−97199
single mode, high-precision moulded connector fabrication 2−102937
single mode, practical arc-fusion splicing machine 2−81126
single mode 62.4 km optical fibre link, low-loss splicing 2−97200
single mode azimuthally inhomogeneous fibre, finite element anal. of stress-induced birefringence 2−75698
single mode dispersion shifted triangular profile fibres, design parameters and propag. props. 2−102940
single mode elliptical core fibres, orientation and polarisation dependent cutoff wavelengths 2−97193
single mode elliptically cladded fibres, normalised stress characts. 2−102938
single mode fibre low loss splicing, core alignment method using UV-excited fluorescence of Ge doped silica core 2−97202
single mode fibre to laser diode coupler, ball lens aberration effect anal. 2−102936
single mode silica fibre min. dispersion spectrum meas. with 0.1 ps resolution by crosscorrelation method 2−97203
single mode to $LiNbO_3$:Ti waveguide high coupling efficiencies 2−65361
single mode twisted, circular birefr., scatt. light meas. 2−60248

optical fibres continued
single model, modal dispersion approx. deduced from mode spot size spectral behaviour 2−97195
single-mode, arc-fusion splicing, optimum splice conditions 2−65417
single-mode, bandwidth control using tailored dispersion spectra 2−60250
single-mode, birefringent, stimulated four-photon mixing, stress-induced freq. tuning 2−114358
single-mode, birefringent, transmission bandwidth, polarisation-mode coupling influence 2−109056
single-mode, Collett-Wolf equivalence theorem and pulse propag. 2−97211
single-mode, determ. of structural parameter variations by time-domain reflectometry 2−81089
single-mode, effective cut-off wavelength meas., fibre length effect determ. 2−109072
single-mode, fundamental mode spot size meas. 2−86110
single-mode, guided wave propag., relativistic electrodynamics of rotating linear media *(French)* 2−70480
single-mode, non-monitored splicing 2−97249
single-mode, nonlinear propag., coupled-mode theory, envelope solitons and self-confinement 2−109055
single-mode, parameter design consideration 2−86121
single-mode, profile-independ. characterisation and design 2−91063
single-mode, single-loop polarisation stabilisation 2−97209
single-mode, step-index coherence of propagating laser beam 2−86116
single-mode, thermally induced optical phase fluctuations 2−55336
single-mode, utilising Ni coatings, acoustic desensitisation 2−109064
single-mode, wholly synthesised by vapour-phase axial deposition 2−75728
single-mode 27 km long fibre, ps dispersionless transmission at min. chromatic dispersion wavelength 2−114457
single-mode and multimode, elastic tube splice performance 2−75694
single-mode coherent-detect. systems with correl. fields, single-freq. laser phase-noise limitation 2−109059
single-mode condition of optical fibres with axially symmetric refractive index distribution 2−65392
single-mode fibre, exact splice loss prediction 2−81103
single-mode fibre, microbending loss in pure-bend loss regime 2−109047
single-mode fibre, stimulated four-photon mixing by bending-induced birefringence, freq. tuning 2−114433
single-mode fibre and square law medium, coupling characts. 2−97205
single-mode fibre components, coupling efficiency of optics 2−102928
single-mode fibre design, materials, fabrication and performance developments 2−65375
single-mode fibre directional couplers 2−86112
single-mode fibre filters, dispersion cancellation 2−91069
single-mode fibre-$LiNbO_3$ channel waveguide end-to-end joint contact investigation 2−97217
single-mode fibre-optic waveguides, with weak birefr., polarisation props. rel. to device appl. 2−70696
single-mode fibres, equivalent-step-index profile determ. 2−97190
single-mode fibres, fabrication by modified CVD process 2−114449
single-mode fibres, pulse delay meas. using sum freq. mixing as picosecond shutter 2−55338
single-mode fibres, theory of profile-moments description 2−97172
single-mode fibres, zero total dispersion over extended spectral range 2−65390
single-mode fibres uniform bending losses 2−114466
single-mode graded-index fibres, splice-loss evaluation 2−102933
single-mode long fibres, transient stimulated Brillouin scattering 2−81091
single-mode long-span fibre, dispersion meas. method 2−55341
single-mode optical fibre, min. dispersion spectra of short lengths, interferometric meas. 2−86138
single-mode optical fibre, polarised light wave stability anal. 2−109068
single-mode silica fibre, observation of stimulated Brillouin scattering at 1.3 μm 2−81090
single-mode to $LiNbO_3$:Ti waveguide coupling at 1.32 μm 2−65360
single-mode waveguide dispersion using equivalent step index approach 2−75693
slowly varying fibres, pulse dispersion and induced power loss 2−55339
solar energy carriers appl. *(French)* 2−83457
soliton propagation and communications applic. 2−97206
sonar system concept with acoustooptic sensing, fibre optic transmission and opt. signal processing 2−70752
source spectra and modal noise in a fibre optic system 2−81114
sources and detectors for potential super-long (2-6 μm) wavelength fibre optics appls. 2−95468
sources and photodiodes for 1.3 micron optical telecommunication *(French)* 2−97224
space application of fibre optics systems 2−114445
spatial coherence complex degree meas. at optical fibre end face 2−91059
splice loss and fibre loss meas. by backscatter method 2−55346
spliced, reinforcement by nylon moulding method, tensile strength 2−109070
spliced graded-index optical fibres; exact analysis of intermodal dispersion compensation 2−75708
splicing, jointing and measurements of optical fibres. I 2−86118
splicing method 2−97237
spring-retentive V-groove splice connector for joining groups of optical fibres 2−102929
stable single-mode laser diode for fiber-optic communication 2−86126
standard launching fibre for optical loss meas., design and characts. 2−75714
star coupler, polymer waveguide 2−81073
step index dispersion-free multicomponent fibre, sensitivity to geometrical parameters 2−75704
step-index, power-law and wavelength depend. group refr. index determ. *(German)* 2−75711
step-index fluoride glass fibres, influence of wavelength dispersion 2−97197
step-index multimode fibre for delayed elec. feedback in laser diode, freq. response 2−85964
stigmatic coupling device for extraction and regeneration of signals in optical fibre transmission networks *(French)* 2−97230
stimulated Raman scatt., Stokes wave mode struct. 2−91072
strain relief measurement in exptl. optical fibre cable 2−65367
strength/fatigue experiments 2−99622
substrate-tube lithography for optical fibres 2−114477
sum-frequency light generation, two-wave phase-matched, in optical fibres 2−81019
survey of communication transmission meas. method *(German)* 2−114460
switch, used for signals in optical fibres, appls. *(Japanese)* 2−70701
optical fibres continued
switch using bistable detent mechanism 2−70682
tap array using distributed-index planar microlens 2−75723
technology, history and future 2−97227
technology, research in the 1980s 2−97187
telecommunication appls. *(Italian)* 2−109048
telecommunication cables appl. *(Norwegian)* 2−86119
telecommunications network, optical switching developments 2−91092
testing fibre preforms *(German)* 2−91097
testing of long wavelength monomode fibres, by time domain reflectometry 2−107391
testing using optical time-domain reflectometers 2−102959
thermal diffusivity, photoacoustic meas. technique 2−114432
thick core all-glass fibres, radiation sensitivity in reactor radiation fields 2−75692
time domain reflectometer for backscattered light 2−101448
transit time calculation method for any refr. index profile, matrix method *(German)* 2−102950
transmission, reduction of EM interference *(Japanese)* 2−65397
transmission by glass fibres, survey *(German)* 2−75717
transmission optics, book 2−112672
transmission response measurements optical loss, frequency characts. *(Japanese)* 2−70685
transmitter/receiver modules, mounting and bonding of optical components 2−97234
tunable fibre Raman oscillator in the 1.32-1.41 μm spectal region using a low-loss, low OH^- single-mode fibre 2−97105
tunable single mode optical fibre coupler 2−81102
twisted fibres, polarisation states 2−91065
two-mode fibre link, modal equalisation using step index fibre 2−75697
two-mode fibres, splice loss prediction, analytical model 2−91058
ultralong multimode optical fibre fault location using Raman optical time domain reflectometry 2−97239
undersea multiple single-mode high-capacity cable system 2−97226
UV cured-acrylate coatings, environmental testing of coated optical fibers 2−97219
vibrational loads,influence on attenuation factor of optical cables 2−60461
W-type fibre, anal. approx. for propag. and dispersion parameters 2−86109
Walsh transforming device, two-dimens., using integrated optical circuit 2−86135
wave theoretical analysis of spot excitation near-field scanning method for optical fiber index profiling: effect of finite spot size 2−55343
waveguide fibres, product qualification procedure 2−109087
waveguide theory, introduction, book 2−58573
waveguides, nonlinear beam propagation theory 2−65296
wavelength demultiplexer, high-capacity, with large-diameter GRIN rod lens 2−60254
wavelength-division-multiplexed system using LEDs and photodetectors 2−81120
wind tunnel models, position and deform. meas. using optical sensor *(French)* 2−107300
Y-couplers aid data transmission, bi-directional working 2−75720
AgBr single crystal IR fibres 2−99318
AgCl(Br), optical fibre, middle IR, heterodyne detection and radiometry appl. 2−65381
AlGaAs CHD-LOC laser diodes for optical fibre data transmission 2−55355
Al_2O_3-doped silica-based optical fibres, VAD fabrication 2−114476
As_2S_3 optical fibre investigation for devices used to match planar and cylindrical waveguides 2−97216
As_2Se_3-As_2S_3 glass IR fibre waveguides 2−114465
CO_2 laser-target interaction diagnostics, optical fibre appls. 2−115043
CsBr single cryst. optical fibres, CO_2 laser power transmission 2−81085
CsBr single-crystal IR fibres, cryst. growth, mech. and optical props. 2−102947
Ge-As-Se glass, optical fibres, plastic clad 2−65385
GeO_2 in fibre light-guide bundles, photometric radial distrib. control 2−91053
GeO_2:Sb glass fibre prep. by vapour-phase axial deposition 2−81088
GeO_2-B_2O_3-SiO_2 fibre composition and radiation hardness 2−114438
GeO_2-B_2O_3-SiO_2:Ce fibre composition and radiation hardness 2−114438
GeO_2-P_2O_5-SiO_2 fibre composition and radiation hardness 2−114438
GeO_2-P_2O_5-SiO_2:Ce fibre composition and radiation hardness 2−114438
GeO_2-ZnO-K_2O glass cladding for 940 cm^{-1} CO_2 laser transmitting hollow-core fibre waveguide 2−102946
Ge_2O_5-P_2O_5-doped silica graded-index optical fibres fabrication by profile-control technique 2−55865
IR optical fibres, pot. and appl., 0.8-12 μm range 2−97184
InGaAsP, semicond. laser for optical transmission appl. *(German)* 2−55151
InGaAsP sources and detectors for the 1.0-1.7 μm wavelength range 2−95467
InGaAsP-InP BH distributed feedback laser, 280 Mbits/s single mode fibre transmission 2−60255
Nd:glass fibre lasers, generation kinetics 2−96959
P_2O_5-doped graded-index multimode fibre, microbending losses 2−114448
SiO_2 fibres, glass-clad, effects of ionising radiation 2−114440
SiO_2 fibres, plastic clad, γ-irrad., low temp. response 2−114439
SiO_2 fibres, polymer clad, X-ray-induced transient attenuation at low temps. 2−114437
SiO_2 fibres, strength/fatigue expts. 2−116523
SiO_2, fused, silicone-coated, light scatt. model for fibre location determ. 2−65362
SiO_2, fused silica optical fibres, modal analysis of Raman spectrum 2−55333
SiO_2 glass core optical fibre, broadband triboluminesc. obs. 2−116282
SiO_2 optical fibres, static fatigue failure probability rel. to localised bending 2−81133
SiO_2 plastic clad fibre termination 2−86123
SiO_2, silica fibres, LF and low temp. Raman scatt. 2−67047
SiO_2 silica optical fibre waveguides, radiation damage at long wavelengths 2−55335
SiO_2 step-index optical fibre production by axial lateral plasma deposition, low loss fibre process 2−81136
SiO_2:F, vitreous silica optical fibre preform, Raman spectra anal. 2−65382
SiO_2:Ge fibres, graded index and polymer clad, γ-ray effects on strength 2−86114
SiO_2:GeO_2(P_2O_5)(B_2O_3) glass, refr. index dispersion 2−81107
SiO_2/GeO_2-core step-index multimode fibres, OH-absorption 2−114455

optical fibres continued
SiO_2-GeO_2 glass fibre optical waveguide, stimulated Raman scatt. charcts. 2−70607
SiO_2-GeO_2 optical fibre, drawing depend. transmission loss meas. 2−65383
SiO_2-GeO_2-P_2O_5 fibres, radiation damage, thermoluminesc. anal. 2−114435

optical films
see also antireflection coatings
absorbing thin film, optical const. and thickness determ., reflectance and transmittance meas. uncertainties *(German)* 2−99203
American Vacuum Soc., conf., Anaheim, USA (Nov. 1981) 2−79275
astronomical modern optical coating problems 2−73838
beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
bichromatic coatings for pulsed laser fusion appls. at 0.53, 1.06 μm, damage thresholds 2−65283
coating deposition condition optimisation 2−77742
composition and properties as function of evaporator construction 2−57303
diamond-like, quasi-amorphous hard film deposition and characteris., review 2−57307
diffused waveguide with a dielectric film, acoustooptic interaction 2−114425
energy related optical coatings, vacuum deposition, device appl. review 2−81037
equivalent layers in oblique incidence, partial reflector unsplit admittances and depolarisation 2−85884
gelatin, dichromated film, optical characts. during holographic recording, latent image stage *(Russian)* 2−102754
glass, planar waveguide fabrication by ion-assisted techniques 2−55331
graded-index layer of arbitrary refr. index profile, reflectance computation, inverse problem approx. soln. 2−114185
interference beamsplitter coatings for visible and IR spectral regions 2−75661
interference layers calc. using TI-59 calculator *(Czech)* 2−114411
IR interferometric analysis of thin films and optical surfaces 2−70711
laser damage thresholds at 532 nm for production-run optical components 2−65284
laser deposited thin polycomponent films, stoichiometry and opt. props. 2−105090
laser single-pulse damage thresholds at short wavelengths 2−75612
layer, vapour deposited, photolithography and optical characts. control for photography 2−89846
loss factors, surface scatt., volume scatt. and absorptance *(Chinese)* 2−55061
low-reflection coatings, synthesis, layer refr.-index optimisation method 2−65335
Martin Black, BRDF values meas. at 10.6 μm 2−108788
metal coated cube corner prisms, polarisation props. 2−102905
metal coating, reflective, failure by cracking 2−61319
metal-C films, graded index, solar absorbing, prod. by dual cathode sputtering 2−99335
metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
metallic films as solar-transmitting heat-reflecting coatings 2−105565
microhardness and scratch testing 2−81131
multicoated gratings, differential formalism applicable in entire optical region 2−90779
multilayer coating system numerical design, refr. index as variable 2−70657
multilayer coatings producing phase shifts of azimuthally polarised laser modes 2−97016
multilayer interference filters, layer-by-layer computation of Fresnel coeffs. *(Ukrainian)* 2−102909
multilayer stacks, spectral transmittance, refining method for design 2−81055
multilayer system performance analysis using HP 41CV calculator 2−109005
multilayer thickness nonuniformities required for wave front error tolerances in laser mirrors 2−65337
oil film optics, appl. to rough surface anal. 2−112859
organic thin films, laser marking obs., optical storage appl. 2−86064
oxide coating deposition from polymerised solns., props. 2−111096
performance-limiting factors in optical coatings 2−109006
photometric methods for determ. of optical consts. of absorbing films, accuracy anal. 2−95435
photothermal solar energy conversion, thin films appl., review 2−105595
polymer hydrophobic coatings for increasing chem. resist. of KD_2PO_4 cryst. optical components 2−55301
radiation strength of optical coatings, depend. on chem. binding energy of struct. defects 2−90966
reactive sputtering using microprocessor-controlled magnetron system 2−57289
reflection and antireflection coatings for laser optics, reactive sputtering fabrication *(Czech)* 2−70634
reflectors, coated, laser damage testing at excimer laser wavelenths 2−97028
refractive index meas. during film deposition 2−82944
refractive index meas. over wide spectral range during deposition 2−95446
resonant frustrated-total-reflection technique for thin film characterisation 2−89792
single and double coating systems on metallic substrate, reflection, graphical representation 2−75521
single-layer-coated laser biconical reflectors, polarisation preserving 2−97150
small absorptions characterisation in optical coatings 2−65165
surface figure and roughness, ion beam milling, to IR optics 2−81130
thick optical films for conduction of optical and IR radiation, solar cell appls. 2−99763
thin film optical constant determ., spectrophotometric (interference) method accuracy 2−112951
thin film optical frequency doubler using a grating coupler 2−97106
thin films, optical consts., ellipsometric determ. precision 2−107384
transparent cond. film, planar magnetron sputtering 2−105074
UV reflector films, multiple-shot laser damage thresholds at 248, 308 nm 2−65281
V-coatings, high-quality, production, layer thicknesses correction 2−109083

optical films continued
vacuum deposition, process control and automation 2−75741
waxicon, polarisation-correction scheme using single-layer coatings 2−109008
YIG film, magneto-optical 3 layer unidirectional TE-TM mode converter, film thickness and waveguide length effects calc. 2−55358
Ag, optical films, mechanical props. 2−82191
Ag, thin films, homogeneous, emissivity calc. 2−71677
Al films, laser machined holes, TEM, SEM and numerical study 2−86725
Al highly reflective coatings for the UV 2−97148
Al, optical films, mechanical props. 2−82191
Al/Al_2O_3 coated mirrors, reflectance (170-1000 nm) rel. to Al_2O_3 film thickness 2−81047
Au-MgO cermet thin films, cosputtered, reflectivity meas., percolation threshold and grain size effects 2−82942
C, diamond-like, ion-beam deposited, improved optical elements for high powered lasers 2−65323
C:H amorphous thin films, hard, optical props. 2−99207
C-metal sputtered film for solar selective absorbing surfaces, prep. and props. 2−111585
CO_2 thin cryofilm, IR optical props. 2−87883
CdSe thin film, electrooptical modulation parameters *(Russian)* 2−61874
$CdSnO_4$ films, dip coatings, prep. technique 2−105096
$Cd_{1-x}Zn_xS$ films, electron bombardment evaporation, visible absorpt. spectra meas. 2−72572
Cr black, selective solar absorber, optical response, high temp. substrate oxidation 2−99840
Cr films, laser machined holes, TEM, SEM and numerical study 2−86725
Cr, optical films, mechanical props. 2−82191
Cr-Cr_2O_3, black, selective solar film, DC resist. and optical consts. meas., percolation obs. 2−116845
Cr-Cr_2O_3 solar black chrome film, microstruct., comp., plating process variables, thermal ageing effects, performance 2−93943
Cu_2O, chemically oxidised solar plate absorbers, optical props, and long-term stability 2−105597
Ge-As-Se glass, ion beam deposited, use as optical coating 1 to 16 μm laser damage 2−65324
H_2O thin cryofilm, IR optical props. 2−87883
HfO_2 interference coating, form. in vacuum, refr. index drift 2−114482
In_2O_{3-x} films, reactive evaporation prep. and elec. resist. meas. 2−105088
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2−105068
IrO_x, sputtered film, optical writing with laser beam 2−91008
La_2O_2S films, RF sputtered, luminescent, high purity deposition 2−93423
MgF_2 coatings, damage threshold, light wave interf. and film microstruct. influence 2−71500
$MgF_2(CaF_2)(BaF_2)$, optical films, mechanical props. 2−82191
NH_3 thin cryofilm, IR optical props. 2−87883
Ni-C spectrally selective films produced by reactive sputtering, optical props. 2−97132
PbS-CdS composite films, solution-grown, spectral selectivity meas., solar absorber appl. 2−105596
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
$Se_{0.75}Ge_{0.25}$ films, obliquely deposited, ion-induced physical and optical densification 2−61042
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325
Si evaporated and sputtered films, multithreshold HF/DF pulsed laser damage meas. 2−65286
Si/Rh bilayers, optical storage by laser writing 2−81036
Si_3N_4 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
SiO_2 film characterisation using a reson. frustrated-total-refl. technique 2−89792
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285
SiO_2 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
SnO_2 films as solar-transmitting heat-reflecting coatings 2−105565
SnO_2, reactive high rate sputtering deposition, opt. characteris. 2−57288
SnO_2, reactive sputtering using microprocessor-controlled magnetron system 2−57289
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F transparent cond. films., prep. and props., review 2−105068
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
Ta_2O_5, reactive high rate sputtering deposition, opt. characteris. 2−57288
Te films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
ThF_4 film, absorption coeff. caused by impurities 2−65165
ThF_4/ZnS coated Si and SiO_2 substrates, small-scale laser induced damage obs. and morphology 2−81819
TiN:C film, reactivity sputtered, optical consts. and spectral selectivity, IR reflectivity study 2−72445
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
TiO_2 coatings, damage threshold, light wave interf. and film microstruct. influence 2−71500
TiO_2 dielectric coatings, optical strength, water adsorption process influence 2−70638
TiO_2 film, laser CVD deposition and characts. 2−82162
TiO_2, reactive high rate sputtering deposition, opt. characteris. 2−57288
TiO_2 sputtered optical thin film, extinction meas. 2−110967
TiO_2:SiO_2 multilayer dielectric coatings, damage thresholds in CW lasing 2−86019
VO_2 based two-phase films, optical constants determ., use for data recording *(Russian)* 2−61996
V_2O_5, evaporated thin film, electrochromism *(Japanese)* 2−62000
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3 anodic film, electrochromic props., ellipsometric study 2−93158
WO_3 film, RF reactively sputtered, electrochemichromism meas. 2−93157
WO_3, reactive high rate sputtering deposition, opt. characteris. 2−57288
Y_2O_2S film, RF sputtered, luminescent, high purity deposition 2−93423

optical films continued
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS, ZnS/ThF_4 films, impurity initiated short pulse laser damage 2−65282
ZnS/MgF_2 multilayer optical filter for light sources 2−114394
ZnS-MgF_2 quarterwave layers forming dielec. laser mirrors, temp. depend. of phase anisotropy 2−97145
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304
ZrO_2, films, impurity initiated short pulse laser damage 2−65282
ZrO_2 interference coating, form. in vacuum, refr. index drift 2−114482

optical filters
see also light absorption; optical films; optical isolators; spatial filters
acousto-optic tunable filter IR analyser, automated 2−109018
acousto-optic tunable filters for high resolution spectral analysis 2−109019
acousto-optical tunable filters, review 2−55307
atmospheric aerosols, light absorpt. meas. using integrating plate method, filter internal refl. coeff. effects 2−112119
birefringent chain light-filter, basic theoretical formulae *(Russian)* 2−60221
birefringent tunable filters, review 2−55306
bladders, urinary, collapsed, mouse, screening by optical matched filtering 2−57933
character addition and subtraction by sinusoidal and Ronchi gratings *(Chinese)* 2−65174
coherent optics filter operations, three- and four-dimens. 2−90826
Common Module imaging spectral radiometer, spectrometer spectral filter 2−109074
composition and properties as function of evaporator construction 2−57303
computer-generated filters, signal-to-noise ratio improvement *(Chinese)* 2−97158
dielectric multilayer tuning filter, appln. in CC N_2 laser pumped dye laser 2−60115
diffuse dispersion filters for temp. stabilisation of photodetector sensitivity 2−91031
dispersive birefringent filter theory, very narrow band pass width 2−109020
double-cavity electrooptic Fabry-Perot tunable filter 2−109016
electro-optic tunable filter 2−55308
electro-optic waveguide TE(-)TM converter/wavelength filter, tunable 2−75722
Fabry-Perot tunable filters, review 2−55305
far IR and subMM wavelength filters, book 2−112668
fibre birefringent networks, inline single mode 2−97222
fibre filters, dispersion cancellation 2−91069
fibre optic lamps illumination setting, use of circular neutral wedge filter *(German)* 2−81093
fibres, high-freq. broadband signal transmission, signal enhancement by spectral equalisation 2−109051
fibres, monomode, coiled, Faraday rot., isolator, filter and mag. sensor appls. 2−75712
generalised matched filters for computerised 2-D pattern recognition 2−80902
Hasselblad System, 2000FC and 2000FC/M, filters, alternative lenses, multi-prisms and meter prism finder 2−64137
holographic image restoration using an unconstrained single deblurring filter 2−108828
holographic image-deblurring filter 2−65340
imaging spectrometer with acoustically tunable optical filter, correction of aberrations 2−58911
imaging spectroscopy, conf., Los Angeles, CA, USA (Feb. 1981) 2−106998
in-line holography with interference filters as Fourier processors 2−85915
induced-transmisson interference-filter array for multiwavelength pyrometry 2−65341
interference filters for Fourier filtering and freq. coding 2−65339
interference filters with multiple peaks 2−86076
interference layers calc. using TI-59 calculator *(Czech)* 2−114411
interference polarisation filter, element orientation accuracy influence on transmission spectrum 2−91030
interference polarisation filter in a lamp-pumped rhodamine 6G dye laser 2−96943
interference reflection filters for fluorometry 2−70662
IR dispersion filters, spectral characts., effect of recording conditions 2−114412
IR high-pass filter with high contrast 2−97159
iso-index filter materials, figure of merit 2−81057
laser protective eyewear, developments 2−100132
laser tuning using birefringent filters *(Chinese)* 2−97026
linear system, optical pulse propag., pulse area 2−70501
liquid crystal tunable Fabry-Perot spectral filter, visible and IR operation 2−109023
logarithmic filtering, parallel, real-time 2−108819
low pass and band pass filter realisation by pupil function replication, OTF synthesis 2−96848
magnetooptic dispersive filters 2−86075
mandrel wrap mode filter selection for optical fibre loss meas. 2−102944
mid-IR filters using conducting elements 2−109014
motion picture/TV visuals production, filters for special effects 2−107426
multidielectric stacked layer equiv. thickness determ., multi-half-wave interf. filter appl. *(French)* 2−70659
multilayer all-dielectric bandpass filter design using microwave filter principles 2−109015
multilayer coating system numerical design, refr. index as variable 2−70657
multilayer interference filter systems for obliquely incident light 2−60220
multilayer interference filters, layer-by-layer computation of Fresnel coeffs. *(Ukrainian)* 2−102909
multilayer stacks, spectral transmittance, refining method for design 2−81055
multilayer system performance analysis using HP 41CV calculator 2−109005
noninteger order differentiation and its optical implementation 2−114197
Nuclepore, metal coated, aerosols meas. appl. 2−67926
optimum circular symmetrical filters, optical pattern recognition appls. 2−70658

optical filters continued
orthogonal-states-grating moire, multi-colour and polarisation type sets of filters 2−70660
pattern recognition, space-invariant, hybrid optical-digital image processing 2−108811
performance-limiting factors in optical coatings 2−109006
Poincare sphere representation 2−108795
polarisation interference filters, narrow band and wide field-of-view 2−97160
quartz tubes for filter envelopes and pulsed Xe flash lamps for laser use *(Chinese)* 2−55177
reflecting interference-polarization light filter 2−75664
resonance medium, EM noise charact. filtering under collision, radiation trapping conditions 2−90851
spectral filters, electro-optically tuned, review 2−55309
spectrally agile IR filter based on dual tunable Fabry-Perot concept 2−109022
spectrophotometry, components and quality control 2−58914
spectrum-restoring filter, dispersion relations for finite freq. intervals, generalised Kramers-Kronig relations 2−85903
teflon, glass-filled, Fluorogold, polarisation props. in far IR 2−81056
tunable electrooptic filters for IR wavelengths 2−102910
tunable filter using selective modulation interferometric spectrometer 2−109017
tunable filters in spectrally agile staring sensor system, design studies 2−112161
tunable narrow band birefringent filters for visible spectrum, wavelength stability and control 2−109021
two dimensional velocity vector, noncontact meas. using optical spatial filter detector *(Japanese)* 2−114410
volume holograms, optical information filtering 2−102744
CO_2 amplifier with saturating absorber, pulse shaping using optical breakdown and spectral filter 2−114325
CdS, dispersive birefringent filter theory 2−109020
CdS, polarisation interference filters, narrow band and wide field-of-view 2−97160
$Ga_{1-x}Al_xAs$ variable-gap optical filter with a controlled pass band 2−75665
Ge-ZnS multilayer narrow-band interf. filters 2−70663
In_4Se_3 crystal growth and IR transmission, optical filter appl. *(Russian)* 2−114413
TeO_2 acousto-optic filters for 1.0-1.6 μm region 2−109024
TeO_2 acousto-optic tunable filter, appl. in coherent forward scatt. spectrometry 2−88391
ZnS/MgF_2 multilayer optical filter for light sources 2−114394
ZnS-Ag-ZnS heat reflecting filter, optimal design 2−81058
ZnS-Ge multilayer narow-band interf. filters 2−70663
ZnS-MgF_2 dielectric narrow-band interf. filter stabilisation 2−70661
ZnS-Na_3AlF_6, multi-layer interference filter, temp.-effect on peak transmission wavelength *(Korean)* 2−55304

optical free induction decay *see optical coherent transients*

optical frequency conversion
see also optical harmonic generation; optical parametric devices
alkali halide crystals and aqueous solns., four-wave mixing 2−102865
broadband tunable source based on lasing at sum, difference freqs., Nd^{3+}:YAG and dye laser mixing 2−75627
coherent radiation generation by parametric excitation of mol. vibrs. 2−55271
coherent Raman mixing, five-wave model 2−102870
coherent Raman mixing in a vibrator 2−114366
coherent resonance effects and optical freq. mixing 2−114385
elastic light-by-light scatt. detection at SLAC 2−113315
fibre, single-mode, birefringent, stimulated four-photon mixing, stress-induced freq. tuning 2−114358
inert gas halide lasers, freq. mixing in extreme UV 2−108956
IR image to visible upconversion systems, designs and optimisation 2−102874
IR signal four-photon reson. up-conversion in nonmonochromatic pump field 2−81027
lamellar media, nonlinear processes at large conversion coeffs. 2−108944
laser synchronizer for parametric frequency conversion systems 2−80997
liquid crystals, freq. doubling, sample optical thickness 2−86049
metal-nonlinear crystal interface, far IR radiation generation by surface wave difference freq. mixing 2−55252
methane gas scalable visible 630 Raman laser source, Nd:YAG pumped 2−102778
methyl-2,4-dinitrophenyl-aminopropanoate, mol. crystal, and nonlinear optical props. 2−65302
2-methyl-4-nitroaniline, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, and nonlinear optical props. 2−65302
mixed mol. crysts., stimulated emission, nonlinear coherent interaction effects and relax. 2−75547
multimode laser field, sum-freq. generation 2−55265
multiphoton Raman scattering of light, active spectroscopy 2−108954
near UV CW coherent generation using SHG and sum freq. mixing, overview 2−60158
nonlinear crystals, quasi-phase-matched stacks, optical freq. conversion 2−81022
optical fibres, parametric amplification and freq. conversion 2−86044
parametric frequency up-conversion, nonlinearly dispersive spreading and quasi-solitons 2−114361
parametric up conversion, coherent interaction, statistical and coherence effects 2−108961
parametric up conversion, incoherent interaction, statistical and coherence effects 2−108962
periodic structures and coupled waveguides, synchronous freq. conversion, synchronism of coupled modes 2−108951
picosecond pulse time struct. conversion into spatial pattern, sum freq. photography 2−114364
plasma, doubly degenerate four-wave mixing, IR image conversion appl. 2−65728
plasma, frequency conversion of radiation, holographic interferometry 2−65768
proustite, up-conversion using short CO_2-laser pulse detection method 2−90978
quasi-optical mixer for efficient sum and difference freq. sideband generation at 1 THz 2−97107
Raman conversion, phase front reproduction 2−102869

optical frequency conversion continued
randomly inhomogeneous media, parametric interaction of wave beams 2−86052
second-order frequency mixing, effects of higher order nonlinearities 2−86046
single-mode fibre, stimulated four-photon mixing by bending-induced birefringence, freq. tuning 2−114433
single-mode fibres, pulse delay meas. using sum freq. mixing as picosecond shutter 2−55338
six-photon resonance parametric up-conversion in nonmonochromatic pump field 2−81028
sum-frequency light generation, two-wave phase-matched, in optical fibres 2−81019
three-wave interaction based phase-matched devices 2−60157
total frequency nonsteady generation with phase-modulated supershort laser pulse 2−108960
tunable difference frequency oscillator in 3.8-6.0 μm range with high pulse repetition freq. 2−114374
two-photon field of visible radiation generation, parametric conversion, photodetector calibration 2−55266
urea, mol. crystal, and nonlinear optical props. 2−65302
urea single crystals for nonlinear freq. conversion of Nd laser radiation, noncollinear interactions 2−114377
UV continuously tunable laser, 2800-4100 Å range *(Chinese)* 2−90882
Ag_3AsS_3 proustite dye laser system, IR image to visible upconversion systems 2−102874
Al-GaAs interface, far IR radiation generation by surface wave difference freq. mixing 2−55252
CO, tunable coherent VUV generation in 1150 Å range by sum freq. mixing 2−90980
$CdGeAs_2$, efficient multikilowatt mid IR difference freq. generation 2−102868
CsD_2AsO_4 crystals, Nd:YAG laser radiation freq. doubling *(Chinese)* 2−65299
GaAs, semi-insulating, anti-Stokes luminesc. and deep centre EL2, expt. study 2−87830
GaP:Zn,O, IR upconversion obs., IR quantum counter appl. 2−70605
H, freq. conversion involving Raman-like processes above ionisation threshold 2−86045
H_2 gas, higher-Stokes-order Raman conversion of XeCl laser 2−60161
H_2 gas, Raman freq. down-conversion of XeCl laser 2−97117
H_2, Raman shifting of long pulse length XeF* laser radiation 2−97115
Hg vapour, continuously tunable narrow-band radiation generation from 1220 to 1174 Å 2−97110
Hg vapour, freq. up-conversion to VUV 2−81021
n-InAs, effective g-value determ. by four-wave mixing spectroscopy 2−55260
$KB_5O_8.4H_2O$, UV tunable picosecond pulse generation down to 197 nm 2−86047
KH_2PO_4, UV tunable picosecond pulse generation down to 197 nm 2−86047
Kr, narrowband tunable VUV radiation generated by nonresonant sum- and difference-freq. mixing 2−60152
KrF* transverse-discharge excimer laser based ultrashort pulse amplification at 248 nm 2−108864
$LiIO_3$ crystal, difference freq. generation by mixing Cu vapour laser and rhodamine 6G dye laser radiation 2−114374
$LiIO_3(LiNbO_3)$, thermal radiation upconversion, thermal noise effects, theory 2−81023
$LiNbO_3$ optical waveguides, 3-D, nonlinear optical phenomena 2−55264
N_2, liquid, efficient Raman freq. conversion 2−55254
$NH_4H_2PO_4$, UV CW radiation generation by sum-freq. mixing in an external cavity 2−90982
Pb vapour, high-efficiency joule-level Raman generation 2−60160
Xe, four-wave difference freq. mixing, tunable and coherent radiation in VUV 2−108955
Xe, narrowband tunable VUV radiation generated by nonresonant sum- and difference-freq. mixing 2−60152
Xe, VUV coherent radiation generation through four-wave mixing enhanced by two-photon resons. 2−90983
XeCl laser radiation, long pulse, Raman conversion via second Stokes shift in H_2 2−60154

optical glass
abnormal partial dispersion, potentials and limitations *(German)* 2−114392
Acme catadioptric telescope design 2−95422
antireflection polished, strengthened by ion exchange 2−97134
attenuation factor meas. of optical glasses, using photometer and spectrophotometer attachment 2−101441
automation of glass selection in optical system calc. 2−108986
borosilicate glass, antireflective surfaces for high-energy laser optics formed by neutral soln. processing 2−70641
borosilicate glass with antireflective surface, strength and fatigue 2−83209
chalcogenide glasses, optical properties 2−61851
chemically unstable optical glass components, polished surface preservation 2−55368
coloured and optical glass resist. to 3-nsec. Nd:YAG laser pulses 2−115280
Cooke triplet design, utility of low-index high-dispersion glasses 2−65331
cutting, meas. gauges fabrication *(German)* 2−114478
decorative, optical design 2−60197
dispersion approximation using universal optical functions 2−93147
dispersion parameter constraints of optical media 2−70636
fibres, thermal stress and surface corrosion crack mechanisms, theory 2−109069
fine-diamond grinding of optical glass, friction and dispersal 2−97244
fluoride glass fibre, low loss, build-in casting prep. 2−60266
fluoride glass preforms prepared by a rotational casting process 2−97240
fluoride multicomponent glasses, prospective vitreous materials for IR fibre optics 2−60201
fluorohafnate glass, UV absorpt. edge obs. 2−57117
fluorophosphate glass, bulk laser damage obs. by photographic technique 2−60141
fluorozirconate glass, UV absorpt. edge obs. 2−57117
founding in ceramic containers, industrial high-speed stirring method development 2−75738
gallate-aluminate glass, chem. unstable TSM206, aq. Polirit suspension for polishing 2−109091

optical glass continued
geodesic lenses printed in glass with ion-exchanged film waveguides 2−65406
graded-index compound-glass fibres, scatt. sphere and total loss meas. 2−102943
gradient index optics, conf., Honolulu, HI, USA (May 1981) 2−58521
halide high refractive index low Abbe number glasses 2−91013
integral antireflective surfaces, historical development 2−60202
integrated optics, organic and amorphous materials, fabrication techniques, review 2−65408
integrated optics, waveguide fabrication, glass and $LiNbO_3(TaO_3)$, ion exchange and diffusion processes 2−65411
IR fibre optics, prospective vitreous materials 2−97183
IR waveguide materials, vitreous materials exam. for suitability 2−91050
Kerr effect, phase and elec. field induced absorpt. meas. in FeD 1821 optical glass 2−57056
laser, fluorescence in small and large signal gain regimes 2−60200
laser beam transforming glass optical system, microinclusions influence 2−55238
laser glass, status and prospect for development *(Japanese)* 2−85977
laser internal damage with 3 ns pulse laser 2−60204
laser window materials for use at 1.3 μm, survey 2−60195
magneto-optical dispersion meas. of Hoya glasses AOT-5, AOT-44B and FR-5 2−70642
microscopically inhomogeneous optical media subjected to numerous light pulses, damage statistics 2−76497
mirror, deformable glass, thickness profile determ. for variable focus device 2−70648
nonlinear optical susceptibility, third order, determ. by third harmonic generation 2−108947
ophthalmic and photochromic 2−60199
optical const., effects of external fields 2−72440
optical properties, conf., Florence, Italy (April 1982) 2−58531
optical properties 2−60198
organic glasses and polymers, multiple photochem. hole burning for optical storage 2−75641
oxide, chalcogenide and fluoride glasses, rare earth doped, as potential laser materials 2−90903
oxide films, interference-coloured, formed by heat treatment of high-Fe glass 2−116290
phosphate pulsed lasers, active and active-passive mode-locked *(Chinese)* 2−90921
photochromic, apparatus for spectral sensitivity determ. *(German)* 2−102892
photochromic, deviation from law of mutual substitution 2−104827
photochromic glass, flash photolysis, colour centre formation 2−103664
photochromic glass planar waveguides, optically controlled 2−86102
planar waveguide fabrication by ion-assisted techniques 2−55331
plate, circular loaded, effect on parallel beam struct. 2−75662
polished surface, autocorrelation function determ. by light scatt. *(German)* 2−109081
quartz fibre-optic waveguides, induced absorpt. temp. and optical power level influence 2−55344
quenching by air-jet method, stress distrib. nonuniformity 2−67274
refractive index coefficient phys. meaning, determined by Hartmann's dispersi on formula 2−80892
refractive index electrostrictive and thermal change kinetics on exposure to laser radiation 2−56018
RF sputtered glass thin film optical waveguides, fluctuation and scattering props. 2−81078
shape generation process of optical glass and polisher in pitch-polishing 2−60265
silicate glass, bulk laser damage obs. by photographic technique 2−60141
small glass elements that distribute light linearly, fabrication method 2−91095
sol-gel process prep. 2−77792
sputtered glass film waveguides for integrated optics, scatt. pattern meas. 2−70671
STK3(7,8) glass optical items with multilayer antirefl. and protective coatings 2−97149
surface interaction with ions of F-containing gases 2−72593
surfaces used in precision optics, roughness and crack layers *(French)* 2−108985
thin film form. by leaching in acidic soln., Auger study 2−82177
thin film substrates, detergent effect after polishing 2−81129
waveguide, fabrication by ion exchange, two-dimens. integrated optics appl. 2−65348
waveguide laser annealing and integrated waveguide detect. for scatt. effects reduction 2−70710
Ag halide photochromic glasses, darkening kinetics calc. formula 2−75642
AgCl, photochromic glass, flash photolysis, colour centre formation 2−103664
As_2S_3-As_2Se_3 glass IR fibre waveguides 2−114465
$CdCl_2$-CuCl photochromic glass, colloidal darkening mechanism 2−97135
$CsNdP_4O_{12}$, cryst. and glass, room temp. fluoresc., laser material use 2−93240
Er, Yb:glass, Er^{3+} $^4I_{13/2}$ level population inversion characts. 2−55171
Ge-As-Se glass, ion beam deposited, use as optical coating 1 to 16 μm laser damage 2−65324
Ge-As-Se glass, optical fibres, plastic clad 2−65385
GeO_2, glassy, minimum optical losses 2−110891
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
GeO_2-ZnO-K_2O glass cladding for 940 cm^{-1} CO_2 laser transmitting hollow-core fibre waveguide 2−102946
HfF_4 based highly transparent glasses, IR absorpt. meas. 2−60203
HfF_4 based IR transparent glasses 2−97133
La_2O_3-BaO-B_2O_3 and La_2O_3-BaO-PbO-B_2O_3 systems, very pure, absorpt. curve and colour 2−93227
Li-Nd-La phosphate glass, high conc., use in Q-switched lasers 2−55167
Li-Nd-La phosphate glass laser, high conc., efficiency at low pump energies, free lasing 2−55168
Na_2O-B_2O_3-SiO_2 glass, multiple scatt. in medium where single scatt. has a cooperative character 2−65169
Na_2O-CaO glass, ion substitution at low temp. by elec. field 2−67277
PbO-SiO_2 glasses, nonlinear colouring and destruction under multiphoton absorpt. conditions 2−108933
SiO_2 glass, low absorpt. loss, temp. depend., laser calorimetry study 2−114391
SiO_2 glass core optical fibre, broadband triboluminesc. obs. 2−116282

optical glass continued
SiO_2 surfaces, fused, CO_2 laser polishing for increased laser-damage resist. at 1064 nm 2−114342
SiO_2:F, vitreous silica optical fibre preform, Raman spectra anal. 2−65382
SiO_2:Nd glass, plasma torch CVD and fluorescence props. meas. 2−93436
SiO_2-GeO_2 glass fibre optical waveguide, stimulated Raman scatt. characts. 2−70607
SiO_2-GeO_2 optical fibre, drawing depend. transmission loss meas. 2−65383
Th/Ba fluoride multicomponent glass, extended IR absorpt 2−61854
TiF_6 Schott glass, high index gradient, ion exchange technique 2−75726
Tl^+ ion exchange diffusion for fabrication of planar optical waveguides 2−109042
ZrF_4-BaF_2-YbF_3 (GdF_3), fluoride glass, prep., optical and physical props. 2−102891

optical harmonic generation
see also lasers
adsorbed centrosymmetric mols., optical SHG 2−108964
asymmetrical dielectric waveguides, second harmonic lasing 2−108953
benzil crystal cored monomode optical fibres, optical phase matched SHG 2−55272
chiral liq. cryst., optical second harmonic generation, theory and expt. *(Russian)* 2−60168
cholesteric liq. cryst. optical harmonic generation, theory *(Russian)* 2−70610
cornea, rabbit, light SHG conversion efficiency 2−73228
m-dinitrobenzene, SHG anal. 2−108965
electrooptic material application in laser research 2−60227
ethylene, third harmonic reson. generation of CO_2 laser, conversion efficiency 2−55270
ferroelectrics, vibronic, nonlinear optical props. *(Russian)* 2−81017
flexible molecules, DC elec. field induced SHG 2−110816
gaseous system, third harmonic generation, quantum theory 2−55253
gases, refr. index determ. in vacuum spectral region using third harmonic generation 2−109454
glasses, third-order optical susceptibility determ. by third harmonic generation 2−108947
p-n-hexloxy-p′-n-amyl-a-cyanostilbene, second optical harmonic generation *(Russian)* 2−55263
inert gas halide lasers, freq. mixing in extreme UV 2−108956
inert gases, third-harmonic generation and multiphoton ionisation 2−70205
inhomogeneous media with inversion centres, second harmonic generation *(Russian)* 2−55262
interference effects between different optical harmonics 2−102875
intracavity SHG at 0.66 μ wavelength using Q-switched pulsed Nd^{3+}:YAG laser 2−86051
introduction to nonlinear optics, theory and practical appls. 2−97102
lamellar media, nonlinear processes at large conversion coeffs. 2−108944
laser plasma, harmonic generation dynamics *(Russian)* 2−103312
laser plasma, homogeneous and inhomogeneous, stimulated scatt. and harmonic radiation *(Chinese)* 2−76086
laser produced plasma, resonant absorpt. and second harmonic generation at rippled critical surface 2−76087
laser pulse, ultrashort, real time pulsewidth meas. technique 2−108925
light scattering polarisation into second harmonics by free electrons 2−60156
liquid crystals, second-harmonic lasing in orientationally ordered solutions of noncentrosymmetrical molecules 2−108950
MBBA, second optical harmonic generation *(Russian)* 2−55263
metal surface, second harmonic generation with surface plasmon excitation 2−60163
metallic grating, surface enhanced second harmonic generation 2−108963
3-methyl-4-nitropyridine-1-oxide, mol. crystal, nonlinear-optical props. obs. 2−65304
minerals, space group ambiguity resolution, optical SHG study 2−115187
molecular crystals, SHG anal. 2−108965
near UV CW coherent generation using SHG and sum freq. mixing, overview 2−60158
nonlinear cryst., SHG and laser radiation diffr. by acoustic waves 2−65305
nonlinear optical interferometer 2−53824
Nova frequency conversion system 2−75020
organic noncentrosymmetric compounds, powders, Nd laser SHG 2−114375
p-n-pentyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
periodic structures and coupled waveguides, second harmonic lasing for wave refl. 2−108951
phenanthrene, variable wave vector second harmonic generation, Davydov components 2−75628
photon antibunching and squeezing in harmonic generation 2−102873
plasma, laser generated, second harmonic emission, spectra and polarisation 2−91638
plasma, reson. light absorpt., second harmonic generation calc. 2−55744
plasma UV harmonic radiation emission due to intense CO_2 laser light 2−91602
polymers DC elec. field induced SHG 2−110816
quartz, mechanical properties, effect of α-β transition, nonlinear optical effects 2−99046
quinoid systems, second-order nonlinear optical susceptibilities, expt. and theoretical study 2−55242
rhodamine dyes, submonolayer coverages on SiO_2, reson. second harmonic generation, UV study 2−55261
second harmonic generation, spectral method soln. convergence *(Russian)* 2−75631
semiconductor, sphalerite type, SHG const., equivalence of LCHO model and Phillips' theory 2−108959
SHG autocorrelation pulse width, evaluation using mode-locking theory 2−90977
SHG efficiency by two types of laser radiation parameter interaction and optimisation 2−97112
slab geometry config., third harmonic generation multiphoton ionisation, cooperative effects 2−90493
spiropyrans, aliphatic solns., quasi-cryst. struct. characterisation by optical frequency doubling 2−62435
sucrose, phase-matched SHG 2−55256

optical harmonic generation continued
surface-enhanced nonlinear optical effects and detection of absorbed molecular monolayers 2−65308
thin film optical frequency doubler using a grating coupler 2−97106
thiourea, phase transition under high press., SHG, pyroelec., and Raman scatt. meas. 2−66202
third harmonic generation under coherent two-photon interaction with matter, optical pulse self-focusing 2−65307
three-wave interaction based phase-matched devices 2−60157
m-toluenediamine, SHG anal. 2−108965
two-level system, third harmonic generation 2−102867
two-level system multiphoton excitation by powerful noise field, harmonic generation 2−59770
uniaxial and biaxial nonlinear crystals, single ultrashort pulse duration meas. by second harmonic method 2−55267
vacuum UV spectra using third harmonic generation in inert gases 2−70275
variable permittivity medium, SHG 2−60166
$Ba_2NaNb_5O_{15}$ crysts., ferroelec. domains and laser freq. doubling 2−114367
$BaTiO_3$, optical props. in vibronic model 2−110815
CO gas, resonantly enhanced vacuum UV generation and multiphoton ionisation 2−65298
CO laser, fundamental and second harmonic freq. emission 2−102781
GaAs nonlinear material, second-harmonic lasing in asymmetrical dielectric waveguides 2−108953
K feldspars, non-centrosymm., SHG test 2−115192
KD_2PO_4, SHG expts. using double pulse Q-switched TEM_{00} ruby laser 2−114337
KH_2PO_4 crystals, SHG conversion efficiency, optical quality influence 2−55269
KH_2PO_4 isomorphs, tuning rate for SHG and refr. index var. with temp. 2−90979
KH_2PO_4, second and third harmonic generation from multistage Nd laser 2−114360
$La_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$LiIO_3$ crystal growth by reagent method, SHG of Nd:YAG laser 2−114371
$LiNbO_3$ optical waveguides, 3-D, nonlinear optical phenomena 2−55264
$LiNbO_3$:Ti channel optical waveguide, SHG, conversion efficiency depend. on waveguide parameters 2−55273
$LiNbO_3$:Ti coupled channel waveguides, second harmonic generation obs. 2−86103
$LiNbO_3$:Ti indiffused waveguide, integrated optics picosecond transient digitizer 2−60262
$LiNbO_3$-sapphire waveguide, phase-matched freq. doubling obs. 2−65303
$NH_4H_2PO_4$ crystal, coumarin dye laser radiation SHG 2−114372
NO, vacuum UV spectra using third harmonic generation in inert gases 2−70275
Na vapour, efficient tunable optical freq. tripler at autoionisation-like resonance 2−81025
Na vapour, optical second harmonic generation by a single laser beam 2−65309
Nd:YAG laser third harmonic generation at 3547 Å *(Chinese)* 2−97103
p-n-octyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
$Pb_{1-x}(La_{0.5}Li_{0.5})_x(Zr_{0.7}Ti_{0.3})O_3$ transparent ceramic, SHG excited by Q-switched Nd^{3+} glass laser 2−81024
$Pr_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$Sb_4Ge_3O_{12}$, synthesis, struct. and props. 2−111047
$Tb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
Xe, resonantly enhanced multiphoton ionisation, third harmonic generation 2−85609
Xe, third harmonic generation multiphoton ionisation, cooperative effects 2−90493
XeCl laser, third and fifth harmonic conversion expts. 2−108956
$Yb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
Zn vapour, resonantly enhanced SHG, 1601 and 1792.5 Å 2−60159
ZnSe crystal with macroscopic inhomogeneities, SHG 2−114370

optical images
see also aberrations
all-mirror system, Fourier transform props. 2−108809
aplanatism, higher order 2−75535
apodisation problem in coherent imagery of edge ringing phenomenon reduction 2−75530
assessment methods for images, introductory survey 2−114199
assessment of imaging systems, visible and IR, symposium, Reading, Berks., England (April 1981) 2−112639
astigmatic rainbow holography, diffr.-limited recording scheme 2−75543
astro speckle interferometry, phase problem, simple resolving modification 2−94622
astronomical 5 m telescope, optical system config. 2−112330
astronomical object image correction procedure for distortions due to atm. turbulence 2−100756
astronomical telescope, Leoncito, 2.2 m, coude conversion 2−73841
atmosphere propagation, effect of gravity waves on image of low Sun 2−100560
classification by Fukunaga-Koontz transform optical implementation 2−75532
coded aperture imaging, tomographical possibilities, optical simulations 2−55084
coherent approach to optical engineering 2−108993
coherent optical processor, freq.-multiplexed, intensity moment computation, design 2−114198
colour-image processing, visual-error criterion 2−116922
complete electro-optical system, end-to-end computer simulation, image quality extension 2−55349
DIF-FC parameter influence on image symmetry of optical systems 2−75652
diffraction-limited imaging, resolution, singular value anal., coherent illum. case 2−90825
diffractors, hidden, detect. by interferometry, image reversal significance 2−70496
DIFPD parameters influence on image symmetry of optical systems 2−75651
dipole-sheet transform 2−75531

optical images continued
directional treatment of images utilising astigmatism in incoherent light *(French)* 2−85906
discrete Fourier spectrum restoration using linear programming 2−114206
disperse-system layer OTF, receiver distance effect 2−65179
distorted boundary imaging, astigmatism influence *(Czech)* 2−96844
double-slit imaging by acoustically coherence-controllable illum. 2−90801
Dove prisms, props., problems, image rot. appls. 2−81052
dust, high-velocity, holographic image subtraction using a Pockel's cell 2−96863
edge raggedness and blur anal. 2−65175
endoscopes, rigid, image quality assessment model 2−111771
European Southern Observatory telescope projects, image quality considerations 2−94602
finite extent object image restoration by singular value decomp. technique 2−75529
finite-size image isochronism 2−102738
Fourier phase problems, unique solvability in more than one dimens., underlying theory 2−75534
Fourier spectra, statistical signatures of scale and amplitude vars. 2−102735
free-radical photographic system 2−74540
Fresnel image properties of a square wave binary amplitude grating 2−70494
gamma ruticons, spatial-freq. response 2−91088
geometrical distortion compensation by a deformable mirror 2−102734
glass plate, circular loaded, effect on parallel beam struct. 2−75662
gradient singlet, ideal imaging of point at infinity 2−108998
grating, image self-reproduction in coherent light 2−81064
GRIN fibre lens arrays, optical imaging and radiometric props., fibre length depend. 2−102935
hologram, focused-image, recorded through scatt. layer in partially coherent light, contrast enhancement 2−114218
holograms, image plane, with scatt. props., reconstruction, Fourier filtering 2−102748
holographic image deformation in space 2−60038
holographic image formation of objects inside a chamber 2−90840
holographic image restoration using an unconstrained single deblurring filter 2−108828
holographic image-deblurring filter 2−65340
holographic imaging with quadratic detect., filtering props. 2−65188
holographic interferometry, perspective corrections for deform. meas. 2−96859
holographic matched-filter correlator, real-time, screen-aided; multiple-image storage appls. 2−114215
holographic microscope, image plane holography appls. *(Chinese)* 2−90837
holography, depolarisation influence on brightness of reconstructed image *(Russian)* 2−70528
holography, white-light reconstruction, improvement with astigmatism *(Chinese)* 2−65184
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
image spectrogram interpretation in some metrological appls. 2−79685
incoherent bandlimited images, digital restoration 2−90820
interference correlator with determination of the foreshortening of the image 2−89801
irradiance moments, propag. and use for unique phase retrieval 2−108778
laser beams, apodised, spatial filtering 2−81010
laser light recording on positive paper for student laboratory expts. 2−53470
least-squares linear mapping technique for image classification, optical implementation 2−85902
lens, graded-index, performance, axial perturbation effect 2−75645
lens array, graded-index fibre, non-Gaussian imaging props. 2−75686
lens centering on an axis of rot. by speckle photography *(French)* 2−102901
lightness scale from image intensity distributions 2−105694
logarithmic filtering, parallel, real-time 2−108819
luminescence microscope, imaging system for surface studies 2−72554
mirror, sectional, phased image quality anal. 2−75657
mirror and reflective prism optical system, computer calc. of vector triad 2−109001
mirror surface ripple effects on image quality, astron., telescope performance appls. 2−108994
moire patterns in scanned halftone pictures 2−108805
MTF measurement system, new development in image quality meas. 2−107379
multichannel frequency-domain image processor 2−90830
multiple images in plane mirrors 2−53472
multiplex hologram image blur 2−85917
multiplexing method through internal modulation of speckle patterns 2−65177
noise smoothing in image improvement 2−70511
non-periodic extended object imaging in coherent illumination 2−55083
objects subject to nonnegative spatial or spectral constraints, band-limited image restoration 2−114207
paraxial ray calc. for image glare coeff. determ. 2−90811
partially coherent imagery in space and freq. domains, digital simulation and modal expansion 2−102726
partially coherent optical processing, coherence requirements 2−102723
particle clouds, image diagnostics by light scatt. at definite angles *(Japanese)* 2−90834
particles, semitransparent, spherical, illum. with coherent light, holographic imaging 2−102739
pattern recognition, space-invariant, hybrid optical-digital image processing 2−108811
pattern vision dynamics 2−111663
periodic object imaging by acoustically coherence-controllable illum. 2−90802
phase conjugation in compensated active imaging appls. 2−70617
phase imagery, impulse and edge responses 2−108804
photographic image intensification and reduction, a unified optical approach 2−95508
photorefractive crystals, optical image form. using Pockels effect 2−104853
Pickering Racine prisms use 2−63257
picture reconstruction using discrete coincidence 2−90827
polygon image formation by refr. optics, EM diffr. theory 2−55082
pseudocoloring method using two different spatial modulations, image storage appls. 2−90819
quadrant detector, image-position error 2−84592
optical images continued
real-time phase conjugate window for one-way optical field imaging through a distortion 2−97119
reconstruction for unknown smooth defocusing, theory 2−108822
restoration, subtractive, comparison with multiplicative deconvolution 2−96845
retinal images, stabilised fading 2−78335
retrodirective arrays for phase conjugation approx. 2−70647
sampled 2-dimensional imagery, information density and efficiency 2−108801
self-imaging, high-magnification 2−55078
shadow photography, image resolution 2−53868
Shannon numbers of diffraction images 2−102736
speckle interferometric optical synthesis telescope, imaging 2−58253
speckle shearing interferometry, a new method 2−107393
stacker for echelle spectrograph on MMT 2−106537
structure in coherent light 2−65180
subjective image quality, effects of sampling, OTF shape and OTF anisotropy 2−111682
subjective image quality, sampling, OTF shape and anisotropy effects 2−55086
subtraction, real-time, in four-wave mixing with photorefr. $Bi_{12}GeO_{20}$ crysts. 2−102752
subtractive image restoration 2−90824
TEM images, electronics visualisation by sequential pixel acquisition 2−84746
three-dimensional image formation by time signal transform. into spatial structs. 2−102732
transfer functions, radially symm., upper and lower bounds 2−108810
two-dimensional imaging by acoustically coherence-controllable illum. 2−90803
unstable ring resonator with self-imaging aperture, modes 2−97157
waveguide diffraction gratings, specially shaped, optical props. 2−65343
waveguides, homogeneous planar, modally allotted image transmission 2−75673
zoom objective, linearly compensated, Gaussian parameter determ. by gradient method 2−95510
As_2S_3-Ag, diffusion controlled sensitivity to illumination, image formation characts. 2−101484
$Bi_{12}SiO_{20}$ crystals, optical data anisotropic recording processes 2−85908

optical information processing
see also spatial filters
acousto-optical time-integrating signal processor for discrete Fourier transformations 2−96839
acoustooptic matched filter correlator performance 2−91028
adaptive filtering for image enhancement 2−60032
airborne reconnaissance, conf., San Diego, CA, USA (Aug. 1981) 2−74146
amplitude spatial-frequency filter design for coherent optical processor *(Russian)* 2−86074
aplanatism, higher order 2−75535
astronomical object image correction procedure for distortions due to atm. turbulence 2−100756
Bragg cell diffraction, patterns, appl. to optical processing 2−65154
character addition and subtraction by sinusoidal and Ronchi gratings *(Chinese)* 2−65174
coded aperture imaging, tomographical possibilities, optical simulations 2−55084
coherent optical processor, freq.-multiplexed, intensity moment computation, design 2−114198
colour coded phase variation visualisation with incoherent optical processing technique 2−108806
colour image processing, simplified system using dichromated gelatin hololens 2−108796
colour image retrieval from coherent speckles by white-light processing 2−90821
colour image retrieval from incoherent speckles with white light processing 2−102737
colour photographic image deblurring using white-light processing technique 2−108808
colour-coded character-recognition expt. with wavelength-triplexed refl.-type holographic filters 2−75536
colour-image processing, visual-error criterion 2−116922
complex amplitude addition and subtraction by holographic Fourier transform., coherence and misalignment influence 2−65190
computer-generated filters, signal-to-noise ratio improvement *(Chinese)* 2−97158
correlator, two-sample, imaging optics appls. *(Czech)* 2−95424
correlator comparison, joint-transform and freq.-plane types, from coherence theory viewpoint 2−108812
correlator with feedback, for geometric shape detect. *(Czech)* 2−60030
cylindrical Bragg holograms, optical information processing and storage appls. 2−102747
degenerate four wave mixing, intensities, durations, wave front reconstruction 2−60175
diffraction-limited imaging, resolution, singular value anal., coherent illum. case 2−90825
digital fibre-optic system error rate evaluation using a normalising transform 2−109060
digital image pattern recognition, mapping, charting and geodesy appl. 2−94518
digital imagery and display fundamentals, resolution and MTF problems 2−114209
dipole-sheet transform 2−75531
disc readout, coherent scanning model 2−85899
discrete Fourier spectrum restoration using linear programming 2−114206
double correlation technique for pattern recognition and counting 2−108816
double-slit imaging by acoustically coherence-controllable illum. 2−90801
dust, high-velocity, holographic image subtraction using a Pockel's cell 2−96863
dye solutions, phase conjugation by degenerate four-wave mixing, reconstructed images 2−55275
electro-optical image quality summary measure improvement 2−108802
fibre delay line with microbend taps for GHz signal processing 2−97176
fibre-optic signal processor, matrix-vector multiplication and lattice filtering appls. 2−109065
filter operations by coherent optics, three- and four-dimens. 2−90826
finite extent object image restoration by singular value decomp. technique 2−75529

optical information processing continued
flow velocity field meas. using optical processor with coherent optical negative feedback *(Russian)* 2−114933
Fourier holograms, volumetric phase, transparency image regeneration and spatial filtering *(Russian)* 2−70518
Fourier phase recovery restricted to one-dimens. images 2−102731
Fourier transformer, achromatic, spatially coherent 2−96847
Gabor's signal expansion and signal degrees of freedom 2−108813
geometrical distortion compensation by a deformable mirror 2−102734
graded-index rod, long, imaging capabilities 2−75671
gradient index optics, conf., Honolulu, HI, USA (May 1981) 2−58521
grating generation with an encoded extended incoherent source 2−91037
holograms, long wavelength, optical reconstruction using optimal reference wave 2−70521
holographic processor for associative information retrieval 2−70524
holographic recognition system modelling 2−70527
homomorphic image processing system, all-optical, using halftone technique 2−96850
image classification by Fukunaga-Koontz transform optical implementation 2−75532
image edge raggedness and blur anal. 2−65175
image formation, three-dimens., by time signal transform. into spatial structs. 2−102732
image improvement, noise smoothing 2−70511
image multiplexing method through internal modulation of speckle patterns 2−65177
image processing techniques, conf., Athens, Paris and The Hague (June 1982) 2−112660
image processing techniques, fundamentals and applics. 2−114210
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
image recognition random background noise, energetic metric for optical signal discovery *(Russian)* 2−85898
image reconstruction, eikonal eqn. 2−75517
image sampling, reconstruction, and the effect of sample-scene phasing 2−108797
image scanning photometric device in Skan-2 system *(Russian)* 2−79641
image subtraction, real-time, in four-wave mixing with photorefr. $Bi_{12}GeO_{20}$ crysts. 2−102752
images, incoherent, bandlimited, digital restoration 2−90820
impulse response of optical systems with feedback 2−60211
industrial drawing optical processing for an archive 2−70512
interference correlator with determination of the foreshortening of the image 2−89801
interference filters for Fourier filtering and freq. coding 2−65339
inverse filters, holographically realised, for image processing 2−65181
iterative optical vector-matrix processors, use of acoustooptic transducers 2−80905
iterative procedures for signal reconstruction from Fourier transform phase 2−60033
laser interference length measurement, data processing, dial and interpolation combination *(Chinese)* 2−97066
laser mode detect. using half-tone method *(Chinese)* 2−90956
least-squares linear mapping technique for image classification, optical implementation 2−85902
lens array, graded-index fibre, non-Gaussian imaging props. 2−75686
lenslet array processors 2−65329
liquid crystal matrix for optical processing *(French)* 2−109033
LMFBR fuel pins, in-situ time-integrated imaging 2−85142
local surface orientation inference from motion fields 2−94051
logarithmic filtering, parallel, real-time 2−108819
matching spatial filtering using a reflection-type volume hologram 2−102906
matrix-matrix multiplier based on outer product decomposition 2−91024
microcomputer-based hybrid processor using two optical processors 2−91026
moire and speckle pattern fringe smoothing by computer processing 2−114183
multichannel frequency-domain image processor 2−90830
multiplex communication via electro-optic phase modulation of white light 2−86128
narrow gap semiconductors, nonlinear optics, optical bistability, optical transistor 2−90974
nematic liquid cryst. twisted cell, opto-electronic bistable devices in real-time optical information processing 2−86073
noisy image optimal restoration for human observer 2−68020
noninteger order differentiation and its optical implementation 2−114197
nuclear fuel characterisation, image anal. appl. 2−85135
object complex field amplitude reconstruction through an optically inhomogeneous random medium 2−85907
object reconstruction uniqueness from intensity data, interferometric method 2−84692
object reconstruction with missing high freq. components, least-squares estimation 2−55081
object support reconstruction from the support of its autocorrel. 2−75533
objects subject to nonnegative spatial or spectral constraints, band-limited image restoration 2−114207
one-dimensional signal optical processing 2−90829
Optacon-optical to tactile convertor, to help blind people read printed text *(French)* 2−78408
optimum nonlinear contrast statistical image convertor, efficiency evaluation 2−108820
parameter extraction by holographic filtering 2−90818
partially coherent optical information processor, apparent transfer function 2−96841
partially coherent optical processing, coherence requirements 2−102723
particle physics, optical processor appl., computer generated hologram optimal filter construction 2−108815
pattern recognition, 2-D, computerised, using generalised matched filters 2−80902
pattern recognition, correlation function, effect of transparency characts. 2−108821
pattern recognition, space-invariant, hybrid optical-digital image processing 2−108811
pattern recognition method, multi-characteristic *(Chinese)* 2−96840
periodic object imaging by acoustically coherence-controllable illum. 2−90802
PET-microcomputer-based Fourier transform and data acquisition system using a Michelson interferometer for far-infra-red spectroscopy 2−95491
phase conjugation in compensated active imaging appls. 2−70617
phase imagery, impulse and edge responses 2−108804
phase problem in two and three dimensions 2−96846
optical information processing continued
phase retrieval from intensity data, algorithms comparison 2−102725
phase retrieval problem of spatial correlation function in optical systems *(Chinese)* 2−108799
phase retrieval using logarithmic Hilbert transform, algorithm for distortion reduction 2−60031
photographic image intensification and reduction, a unified optical approach 2−95508
picture reconstruction using discrete coincidence 2−90827
Poincare sphere representation 2−108795
PRIZ image converter and its use in optical data processing systems 2−60230
pseudocoloring method using two different spatial modulations, image storage appls. 2−90819
quasi-homogeneous partially coherent imagery, inearity 2−102728
quasi-interferometry with coded correlation filtering 2−107392
quasi-monochromatic partially polarised source coherence matrix expansions, object reconstruction problem appl. 2−108814
raster-scanned signals, power spectrum 2−85904
real time optical processing, photorefractive materials phase conjugation appl. 2−65312
real-time image subtraction using complementary photographic diffusers 2−102724
real-time white light pseudocolour density encoder for gray level information 2−108817
sampled 2-dimensional imagery, information density and efficiency 2−108801
sea-background IR imaging, cruciform spatial filter design and appl. 2−60034
self-imaging, high-magnification 2−55078
signal processing in Radon space 2−90831
sinusoidal object differentiation using holographic filter 2−108807
sonar system concept with acoustooptic sensing, fibre optic transmission and opt. signal processing 2−70752
space frequency filter encoding for coherent optical processors *(Russian)* 2−114205
space-variant optical systems, multiplex hologram representation using ground-glass encoded reference beams 2−65182
spatial filtering, real-time, utilising the piezoelectric-elasto-optic effect 2−86090
spatial filtering for clutter rejection in (moving) point-target detection 2−108800
spatial information processing and distortion correction via degenerate four-wave mixing 2−70616
spatial light modulator, linear, total internal refl., optical information processing appls. 2−75669
spatially limited objects, least-squares reconstruction using smoothness and non-negativity constraints 2−65172
speckle photography data processing, diffr. halo intensity variation in Young's fringes 2−95463
statistical pattern recognition correlators, principal-component imagery 2−55087
status review, effects of basic research finding cuts 2−60029
subtractive, image restoration, comparison with multiplicative deconvolution 2−96845
subtractive image restoration 2−90824
switches, using organic materials 2−70637
TEM images, electronics visualisation by sequential pixel acquisition 2−84746
thin-film travelling-wave light modulator, optical processing appls. 2−91039
time-domain signal transform. using compact acoustooptical signal processor 2−114195
time-integrating correlator using guided-wave anisotropic acoustooptic Bragg diffraction and hybrid integration 2−60263
tomography, posedness of band-limited image-extension problem 2−96851
turbulence modulation noise in optical heterodyne receiver, approx. anal. 2−63095
two-dimensional imaging by acoustically coherence-controllable illum. 2−90803
two-dimensional optical filtering of 1-D signals 2−108798
waveguide diffraction gratings, specially shaped, optical props. 2−65343
waveguides, homogeneous planar, modally allotted image transmission 2−75673
white light multiplexed meas. of incoherent Fourier spectrum 2−70513
Wigner distribution function display of complex 1D signals 2−102733
$Bi_{12}SiO_{20}$ crystals, optical data anisotropic recording processes 2−85908
GaAlAs transverse junction stripe lasers for 20 Gbit/s optical time multiplexing 2−81118

optical instrument testing
see also aberrations
astronomical television equipment adjustment using KYuP-1/2 instrums. 2−91103
elements of moving systems, rotation uniformity monitoring 2−91101
telescope, double Gaussian, satellite Earth observation for land appls. *(French)* 2−94521

optical instruments
see also colorimeters; coronagraphs; ellipsometers; holographic instruments; light interferometers; optical microscopes; optical prisms; photometers; polarimeters; refractometers
correlator, two-sample, imaging optics appls. *(Czech)* 2−95424
distortion measurement on high-performance objectives *(German)* 2−69130
finger movement monitor 2−117148
forward-scattering, noise suppression using apertures and stops 2−60213
gyrotheodolites test rig 2−95425
Indian Standards Institution, standardisation in field of optical and mathematical instruments 2−89783
IR optometer, for accommodation objective continuous meas. in human eye *(German)* 2−100083
KYuP-1/2 test and adjustment instrums. for astron. television equipment adjustment appls. 2−91103
multiplex coding optical instrums., pot. noise stability 2−53810
night viewing active systems, field performance estimation nomograph 2−95427
noncontact optical straight edge 2−74481
online optical particle and sizing for crystalliser operation control 2−64209
optical probe for monitoring dust explosions 2−53808

optical instruments continued
OTF measuring instrument for lens system based on edge image analysis 2−55295
phototachymeter, type SG-3, noise immunity increase 2−70656
quality improvement by error compensation 2−53809
rectilinearity testing instrument, optical straightedge standardisation 2−53811
small vibration meas., novel optical technique 2−64082
thickness monitoring device 2−58782
wavefront detector based on the Talbot effect 2−58896
$CaCO_3$ plate optic axis determ. equipment *(French)* 2−58874

optical interferometers *see light interferometers*

optical isolators
acoustooptic modulator, isolation and freq. conversion props. 2−91038
fibre-type isolator characterised by elliptically deformed fibre core, anal. 2−55345
fibres, monomode, coiled, Faraday rot., isolator, filter and mag. sensor appls. 2−75712
glasses, Hoya AOT-5, AOT-44B and FR-5, magneto-optical dispersion meas. 2−70642
laser fusion system parasitic isolator optimisation 2−97060
monolithic optical integration prospects 2−86132
nonreciprocal three-layer waveguides, anal. of leaky modes, appl. to isolators 2−109036
optically pumped far IR rooftop resonator, output stability and polarisation meas. 2−86006
passive guided-wave optical components, review 2−75679
quasi-monochromatic wave, time coherence effect 2−97151
LiF spatial filter aperture for laser initiated vacuum plasma shutters 2−97162
YIG:Bi thin films, waveguide type optical isolator appls., magneto-optical props. *(Japanese)* 2−81076

optical Kerr effect
absorbing media, phase conjugation by degenerate four-wave mixing 2−108970
artificial Kerr media, laser beam CW self-focusing and self-trapping 2−91004
dielectric sphere liquid suspension, use as artificial Kerr medium 2−97123
fibre-optic gyroscopes, optical Kerr effect compensation 2−91066
interactive Kerr effect, role in two-photon optical multistability 2−55282
interface between linear and Kerr effect media, optical props. 2−97096
liquids, comparison of schemes for four-photon spectroscopy with high spectra resolution 2−114363
phase conjugators, Kerr-like, transient response, review 2−70613
picosecond optical gate *(Chinese)* 2−91001
polarisation sensitive CARS and Raman-induced Kerr effect as probe of Raman optical activity 2−58907
powerful wave beam propag. in Kerr type nonlinear medium, numerical analysis 2−114389
ruby Q-switched laser cavity, self-induced ellipse rot. and self-focusing effects 2−102798
CS_2 mixed with UV transmitting solvents, UV phase conjugation via degenerate four-wave mixing 2−90995
CS_2 mixtures, UV phase conjugation, practical appls. 2−102878
CS_2, picosec. laser pulse shortening appls. *(French)* 2−65317
O_2, liq., optical Kerr effect induced by Raman resonance 2−97124

optical links
see also optical communication equipment
book, fibre optics 2−89490
communication system using He-Ne 6328 Å laser 2−86127
data transmission by optical fibres *(Norwegian)* 2−86119
experimental package development for Shuttle long-duration exposure facility 2−114446
fault location using modified reflectometry techniques 2−64097
fibre, survey of communication transmission meas. method *(German)* 2−114460
fibre filters, dispersion cancellation 2−91069
fibre optic army systems, survivability 2−114444
fibre transmission response measurements optical loss, frequency characts. *(Japanese)* 2−70685
fibre-optic communication line, expt., with spectral multiplexing of LED radiation by diffr. grating 2−114464
fibre-optic communication system meas. instrumentation 2−97243
fibreguide link, mathematical separation of multimode, material dispersion 2−65370
field trials, meas., testing and maintenance of installed optical cables and systems 2−81087
graded-index fibres, mode coupling at arc-fusion splices 2−55337
halogen, insertion loss meas. in multimode opt. fibres appl. 2−97179
line-of-sight optical link at 8.5 km range, atm.-induced beam extinction and scintillation influence 2−94489
monomode fibre long-wavelength transmission, components and systems review 2−55340
multimode optical fibre links, analysis of intermodal dispersion 2−65398
Nova, control system, data acquisition, architecture and system design 2−75023
OF 150 opt. fibre time-domain reflectometer, loss and distance meas. multimode fibres 2−79650
PCM clock regenerator with integrated optical directional coupler 2−86125
single mode 62.4 km optical fibre link, low-loss splicing 2−97200
soliton propagation in fibres, communications applic. 2−97206
sonar system concept with acoustooptic sensing, fibre optic transmission and opt. signal processing 2−70752
sources and photodiodes for 1.3 micron optical telecommunication *(French)* 2−97224
space-borne laser communications, appls. of laser beam combiner 2−109077
state-of-the-art survey *(French, German)* 2−70699
telecommunications network, optical switching developments 2−91092
transmission by glass fibres, survey *(German)* 2−75717
two-mode fibre link, modal equalisation using step index fibre 2−75697
two-mode fibres, splice loss prediction, analytical model 2−91058
vibrational loads,influence on attenuation factor of optical cables 2−60461
$CaCO_3$, calcite 2×2 optical bypass switch controlled by liq.-cryst. cells 2−60257

optical masers *see lasers*

optical materials
see also glass; optical films; optical glass
Al_2O_3 films on Al solar absorptance and thermal emittance computation 2−70639
alkali halide laser windows, photoacoustic spectroscopy of adsorbed surface impurities 2−60192
beam propagation through finite thickness material separating two semi-infinite media, reflectance, transmittance *(French)* 2−70498
black chrome selective solar coatings, industrial utilisation *(Portuguese)* 2−99830
black chrome selective surfaces degradation at elevated temps. 2−97131
black Ni selective absorber coatings on Al and galvanised Fe substrates for solar thermal conversion 2−78243
ceramic obtained from synthetic SiO_2 2−99377
ceramic ultrafine finishing by float polishing 2−60267
ceramics, strength rel. to hardness 2−111269
chalcogenide glasses, selection criteria for acousto-optic devices 2−87740
chrome, black, electroplated, selective absorber coatings for solar radiation 2−83512
crystal materials for IR fibres 2−97130
crystalline and amorphous, light strength approximate evaluation 2−102889
crystals, grinding, damaged layer study 2−97245
diamond as an optical material for space optics 2−70635
α-diketone dissolved in poly-α-cyanoacrylate host for two-photon holographic recording with CW lasers 2−60045
far IR performance of suitable materials 2−60187
fibre optic materials, optical props. 2−60190
finishing process investigation w.r.t. material hardness anisotropy *(German)* 2−70713
free-radical photographic system 2−74540
gelatin gratings absorpt. and refr. index modulations 2−70520
image forming systems development and manufacture, requirements on optical media *(German)* 2−86072
integrated optics, organic and amorphous materials, fabrication techniques, review 2−65408
integrated optics, single crystal materials, fabrication techniques, review 2−65409
IR crystalline fibres 2−97182
IR fibre losses, overview 2−97181
IR fibres, 0.8-12 μm, conf., Los Angeles, CA, USA (Feb. 1981) 2−94887
IR precision optics, instruments for testing 2−114475
IR window material absorpt. coeff. meas. using laser photo-acoustic technique *(Chinese)* 2−91033
IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
iso-index filter materials, figure of merit 2−81057
laser beam reflectors, mirror figure-of-merit and material index-of-goodness 2−97140
laser bulk damage obs. by photographic technique 2−60141
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
laser induced damage in optical materials, symposium, Boulder, CO, USA (Sept.-Oct. 1980) 2−58546
laser window materials, IR wavelength modulation spectroscopy 2−60191
laser window materials, optical distortion and far field meas. 2−97041
laser window materials for use at 1.3 μm, survey 2−60195
laser windows, material property requirements 2−60196
lasers, high-power, optical material advances 2−81006
liquid crystal optical waveguide, transmission characteristics meas., 0.7 to 1.7 μm 2−75674
metal optical surfaces, intrinsic and roughness-induced absorpt. of EM radiation 2−70632
metal refl. at visible, IR wavelengths, rel. to laser mirror appls. 2−67083
metal ultrafine finishing by float polishing 2−60267
methyl-2,4-dinitrophenyl-aminopropanoate, mol. crystal, and nonlinear optical props. 2−65302
2-methyl-4-nitroaniline, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, nonlinear-optical props. obs. 2−65304
mid-IR waveguide materials 2−97129
mirror shaping from liq. films under normal and reduced gravity 2−102904
moth eye antireflection surfaces, optical props. 2−91012
optical properties, conf., Florence, Italy (April 1982) 2−58531
organic crystals and polymers, new class of nonlinear optical material 2−81039
organic materials for optical switch 2−70637
photochromic crystals, dynamic recording of optical information *(Russian)* 2−60206
photoregistration material, frequency contrast characteristics, light polarisation effect 2−65328
photosensitive semiconductor materials, solar photovoltaic conversion and xerography appl., review 2−65326
PMMA, and copolymers, dye, appl. to laser passive shutters, decouplers 2−97128
polymer, glassy, dye laser calorimetry, linear absorpt. coeff., 605-675 nm 2−93221
polymer optical components, cleaning 2−70716
polystyrene, and copolymers, dye, appl. to laser passive shutters, decouplers 2−97128
potassium and phthalate single cryst., elasto-optic behaviour 2−93151
Pt-Al_2O_3 selective cermet coatings for high temperature photothermal conversion 2−105598
quartz, crystalline, optical S-waveguides fabricated by ion bombardment 2−109044
selective coatings on passive solar energy storage walls, performance prediction 2−99833
semiconductor with fluctuating gap width, optical breakdown 2−116303
stainless steel-C films prepared by reactive magnetron sputtering, optical constants and microstructure 2−99838
stainless steel/C graded index solar selective films reflectance prediction and enhancement by annealing 2−105593
textured surface, optical storage medium, reflectance changes 2−81038
transparent materials, absorbing defect role in laser damage 2−65287

optical materials continued
transparent materials, laser damage, microdefect characts. determ. from statistical relations 2−70601
triphenylformazon, organic semiconductor, photochromic switching, surface photovoltage study 2−77463
tubular collectors, evacuated, solar-selective absorber foils bonding 2−111588
urea, mol. crystal, and nonlinear optical props. 2−65302
video disc characterisation 2−91006
zinc thizonate 2−77463
Ag mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
Au mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
$Bi_{12}SiO_{20}$, photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
$BaTiO_3$, ferroelec., photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
$Bi_{12}GeO_{20}$, photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
CO_2 laser high-power optics, absorption's dominant role 2−97043
CaF_2, IR laser-induced desorption of H_2O and hydrocarbons from optical surface 2−115530
CaF_2, surface-to-bulk optical absorpt., 1.3 μm laser rate calorimetry and photoacoustic meas. 2−58921
CaF_2 UV laser window material, low-level losses 2−97161
CaF_2, window material for HF/DF chemical lasers 2−81040
Co, black, electroplated, selective absorber coatings for solar radiation 2−83512
Co black selective surface growth by spray pyrolysis for optimum photothermal conversion 2−57727
Cr-Cr_2O_3, black chrome selective surfaces, deposit growth mechanisms and optical props. 2−72639
CsBr single-crystal IR fibres, cryst. growth, mech. and optical props. 2−102947
$CsNdP_4O_{12}$, cryst. and glass, room temp. fluoresc., laser material use 2−93240
Cu mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
Cu mirrors used in CO_2-ICF laser systems, optical damage limitations 2−60145
Cu-C reactively sputtered selective surface for evacuated collectors 2−102890
GaAS recombination-type laser window material prep. for high power CO_2 laser appls. *(Chinese)* 2−99317
GaAs, optical bistability with guided waves, theory 2−97073
GaAs, third order nonlinear optical susceptibility, meas. using surface plasmons 2−114353
GaAs-$Ga_{1-x}Al_xAs$ superlattice etalon, room temp. excitonic optical bistability obs. 2−97074
Ge, absorpt. calorimetry and laser induced damage threshold meas. 2−60146
Ge laser windows, thermal runaway 2−81004
Ge, optical surface and bulk absorption at 10.6 μm 2−70631
Ge single crystals, optical erosion caused by CO_2 laser pulses 2−87303
Ge, textured optical storage medium, microstructure, reflective spots 2−65321
Ge, window material, optical absorpt., photoacoustic spectra study 2−61855
InSb, optical bistability with guided waves, theory 2−97073
In_xSe_3 crystal growth and IR transmission, optical filter appl. *(Russian)* 2−114413
KBr(Cl), intensity depend. absorpt. at 10.6 μm, laser damage process 2−60193
KCl:Rb, pulsed CO_2 laser damage threshold meas. 2−60140
$KCl_{0.9}Br_{0.1}$ crystals, Hurter-Driffield characts. and optical storage 2−81041
$K(D_xH_{1-x})_2PO_4$ CC crystals, solution growth, for electrooptic devices 2−111041
KH_2PO_4, bulk laser damage obs. by photographic technique 2−60141
KH_2PO_4 crystals, SHG conversion efficiency, optical quality influence 2−55269
KH_2PO_4, KD_2PO_4, large single crystal growth from soln. for laser technology 2−116354
KH_2PO_4, laser damage threshold, baking and pulsed laser irrad. effects 2−91007
LiF crystals, γ-irrad., bulk laser damage threshold meas. 2−86028
LiF, forging processes development for large scale deform. without optical props. degradation 2−60194
α-$LiIO_3$, crystallisation from solution characteristics meas. 2−86599
$LiNbO_3$ crystals, laser-induced damage in antireflection coatings 2−65285
$LiNbO_3$, ferroelec., photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
$LiNbO_3$, high-index waveguides, fabrication by proton exchange 2−114419
$LiNbO_3$, optical waveguide for integrated optics, fabrication by ion exchange and diffusion processes 2−65411
$LiNbO_3$, single crystal, optical uniformity, expt. study 2−86065
$LiNbO_3$ single crysts., optical inhomogeneity, high temp. diffusion annealing effect 2−65322
$LiTaO_3$, optical waveguide for integrated optics, fabrication by ion exchange and diffusion processes 2−65411
MgF_2 UV laser window material, low-level losses 2−97161
MgO-Al_2O_3, transparent ceramic, coprecipitation followed by calcination 2−99379
Mo-MoO_3 black solar selective films, XPS, optical and structural props. 2−72640
$NH_4H_2PO_4$, large single crystal growth from soln. for laser technology 2−116354
NaCl, intensity depend. absorpt. at 10.6 μm, laser damage process 2−60193
NaCl, pulsed CO_2 laser damage threshold meas. 2−60140
PLZT ferroelec. ceramic, laser beam amplification by dynamic holography 2−108835
Pt/Al_2O_3 cermet, selective absorber coatings for solar radiation 2−83512
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325
Si, third order nonlinear optical susceptibility, meas. using surface plasmons 2−114353
SiC, chemical vapour deposited, mirror material evaluation for synchrotron radiation 2−86071

optical materials continued
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiO:H, porous antireflection coating for solar cells 2−75659
SiO_2, fused, CO_2 laser polished, 1.06 μm laser-induced breakdown 2−60142
SiO_2, fused, far IR absorpt. coeff. meas. of different types 2−60188
SiON material for graded-index optics 2−75640
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
$SrTiO_3$, refractive index temp. depend. and prism coupling to $LiNbO_3$ waveguide meas. 2−91010
TiO_2 powder spectral reflectance and integrated absorptance under simulated solar radiation 2−99082
TiO_2, thermal-gradient induced electro-optical deflection obs. 2−99089
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2−66492
ZnSe, absorpt. calorimetry and laser induced damage threshold meas. 2−60146
ZnSe crystals, vol. defect influence on absorpt. at 10.6 μm wavelength 2−55284
ZnSe, optical ceramic, synthesis and props. 2−111123
ZnSe, window material for HF/DF chemical lasers 2−81040

optical microscopes
see also optical microscopy
beam condenser-microscope system for high press. studies and general microsampling in Fourier transform IR spectroscopy 2−113006
booklet microscope theory, application and instruments 2−94928
CARS microscope using picosecond dye lasers, biological appl. 2−112971
controlled-temperature microscope state, for extended obs. of living materials *(French)* 2−57944
dry objective lens, 100X magnification from Nikon 2−107398
funduscopic systems, comparison of magnification 2−111765
hologram interferometry microscope for IC checking 2−114219
holographic microscope, image plane holography appls. *(Chinese)* 2−90837
interference microscope, thickness conversion const. calibration using white light *(Chinese)* 2−58900
interference microscopy in field of crystal growth 2−69243
laser Doppler microscope for blood flow vel. meas. 2−94261
laser projection microscope system for fast stop-motion photography of biol. objects 2−105860
laser scanner microscope, ultrafast, performance tests 2−111831
light scattering by polyethylene spherulites with aid of polarizing microscope 2−72515
long-range, with up to 65× magnification 2−79666
materials analysis appl. 2−72913
photoelectric, output signal linearisation *(German)* 2−84698
polarising microscope, optical transfer functions, off-axis aberration effect 2−53831
polarising microscope with crossed polarisers, polychromatic OTF 2−84699
scanning CARS microscope construction 2−97111
scanning laser microscope, simple, imaging results *(German)* 2−101457
spot measurement phase modulation microscope, microbiology appl. 2−69250
television IR microscope 2−74499

optical microscopy
see also optical microscopes
animal cell adhesion to glass, study by disturbed total internal reflection 2−57935
bibliography of equipment, methods, appls. and related topics 2−84406
bibliography of microscopic equipment, methods, appls. and related topics 2−107034
booklet microscope theory, application and instruments 2−94928
borosilicate glasses, actinide valences 2−55854
calcite cleavages, dynamic etching 2−66004
CBOOA, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
CBOOA-80CB mixtures, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
cellular specimens, pattern recognition *(Japanese)* 2−62715
cervical cells, differently stained, detectability and diagnostic output for quality assessment of classification 2−73313
channels in crysts., optical microscopy, X-ray topography, and contrast calcs. *(French)* 2−98071
cholesteric blue phases, in mixtures and in an elec. field 2−76285
cholesteric blue phases I and II, crystallography 2−86559
COC, smectic A-cholesteric transition, press. induced tricritical behaviour, polarised microscopy study 2−115409
corneal endothelium, prep. method for accurate in vitro assessment 2−88699
CR-39 plastic track detector response to 2 MeV microbeams of H, He and Ne 2−101502
4-cyano-4′-octyloxy biphenyl, solid cryst. polymorphism 2−103738
degraded edge objects, diffrac. images formed by polarising microscope 2−58897
detection by microscope of technically important types of asbestos 2−69248
differential interference contrast microscopy bright point image, computer simulation 2−58899
failure obs. appl. *(German, English)* 2−57569
fibre fracture parameters and testing *(French)* 2−70694
fibres, carbide coating produced by liquid metal transfer agent method 2−88245
four-component systems, with polymeric surfactants, form. and struct. investig. 2−93827
glass, flat, laminarity, effect of stirring glass melt 2−57325
glassy polymer thin films, competition between shear deform. and crazing 2−99528
graphite, Cr_xC_y diffusion layer form. 2−83289
heterojunction, defect form. 2−92374
p-n-hexyloxybenzylidene-p′-toluidine, phase relation, DTA and microscopic studies 2−91770
interference microscopy, quantitative, microscope aperture effect 2−89802
interference-microscopic film thickness meas. *(German)* 2−112864
laser probe laboratory setup 2−75621
laser scanning microscopy, basic principles and advantages, review 2−89803
liquid crystal defects, review 2−76300

optical microscopy continued
low and high magnification simultaneous presentation of microscopic specimens, mesenterial capillary obs. 2−57946
luminescence microscope, imaging system for surface studies 2−72554
metal whiskers, yield strength size dependence, optical and electron microscopy study 2−115633
motion photomicrography device with TV finder system, educational films in biology appl. *(Russian)* 2−58948
multiplexed time-lapse photomicrography of cultured cells 2−73404
nearly confocal microscopy, resolution improvement using offset detector pinhole 2−53830
4-nonyloxylphenyl-4-nitrobenzoyloxybenzoate, reentrant nematic and smectic phases *(French)* 2−92195
objective cemented component centering accuracy 2−75740
4-n-octyloxy-4′-cyanobiphenyl, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
poly(1,3-dioxolane), crystallisation, morphology and growth rate, temp. and mol. wt. effects 2−76355
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polyethylene, extended chain single cryst. growth rate and morphology, optical microscopy study 2−91838
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polymer sphere Poisson ratio meas. using Newton's rings 2−114742
polystyrene film, atactic, glassy, craze healing kinetics 2−62247
powders and compact materials, particle shape microscopic anal. methods, review 2−72906
publications concerning microscopic equipment, methods, applications, and related topics 2−53449
reflection conformal optical microscope for materials' optical signatures meas. 2−112970
sand-cement motar, acoustic emission and longevity under steady load 2−93619
Snell's law of refraction, appl. to light microscopy 2−58898
steel, alloy, weld metal similar to X20 CrMoV121, heat treatment effect on phase transform. and mech. props. 2−62144
steel, C, cementite spherodization 2−111212
steel, C, Cr_7C_3 diffusion layer form. 2−83289
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, Cr-Mn, high-N, precip. and intercryst. corrosion after isothermal annealing 2−72729
steel, Cr-Mo-V martensitic stainless, weldments, transform. and tempering 2−88107
steel, Cr-Ni-Mu (1.9, 0.85, 0.76 wt.%) original struct. and heating rate influence on props. after hardening from intercrit. range 2−72736
steel, martensite crystals, true thickness distrib. determ. 2−72907
steel, Ni-Co-Mo, martensite crystals, true thickness distrib. determ. 2−72907
steel, stainless, creep microstrains nonuniformity 2−111254
steel, stainless, ferrite struct., rolling, plastic deform., metallography study 2−57422
stereological ratio estimation based on counts from integral test systems 2−69249
sulphides, optical const. meas. rel. to metallography *(German, English)* 2−111422
surface measurement, three-dimens., using confocal scanning microscope 2−74383
surface profile meas. using confocal scanning optical microscope 2−101456
tetracontane, high press. intermediate phase, optical microscopy and Raman study 2−86838
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
time-lapse phase contrast cinemicroscopy of cells in vitro, improved temporal and spatial resolution 2−73405
VELOMER interphako interference microscope, for non-contact meas. of surface tension 2−71774
video/microscope densitometric system for cellular and nuclear props. study 2−111829
AgCl whisker-like crystals grown from vapour phase, light and electron microscopic obs. 2−98507
Al, commercial purity, microstruct. development during rolling 2−83136
Al, fractographic inspection in air and vacuum *(Japanese)* 2−62319
Al-Mg, microstruct. development during rolling 2−83136
Al_2O_3 fibre, prep. and changes of microstruct. by heat treatment *(Japanese)* 2−116417
B fibre reinforced Al, acoustic emission and longevity under steady load 2−93619
B fibre reinforced Al and Al-Cu-Mg-Mn, hot pressing, reaction between fibres and matrix 2−83068
C fibre reinforced Al, chopped fibres, prod. by powder metallurgy, dry wear *(Japanese)* 2−105344
C mesophase, in situ obs., 400-500°C *(French)* 2−76304
CaF_2 crystals, etch traces and dislocation motion 2−66003
Cu crystals, rapidly cooled, formation of etch beaks on (111) surface 2−71456
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Sn (10.8.wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Fe, cast, nodular, statistical study of graphite and pearlite *(German, English)* 2−111423
Fe, cast, white and grey, Cr_7C_3 diffusion layer form. 2−83289
Fe-Cu binary alloy, selective oxidation, optical, X-ray and SEM obs. 2−99605
Fe-Ni martensitic alloys, tempering behaviour in cryst. microstruct. *(Korean)* 2−83144
Fe-P alloys, fracture mode and toughness, C effects 2−57484
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499
$Fe_{40}Ni_{40}B_{20}$, metallic glass, Vitrovac 0040, crystallisation, TEM obs. 2−116474
InP, inclusions 2−71433
KBr, thermal breakdown, ionic cond., optical microscopy study of breakdown channels 2−82017
KCl, thermal breakdown, ionic cond., optical microscopy study of breakdown channels 2−82017
KH_2PO_4, KD_2PO_4, growth features of prismatic faces, refl. microscopy obs. 2−115160
$LiNbO_3$:Fe electrooptic crystal refractive-index grating, investig. by optical microscopy 2−102916
optical microscopy continued
$LiTaO_3$:Fe electrooptic crystal refractive-index grating, investig. by optical microscopy 2−102916
Mg, polycrystalline, grain boundary during high temp. deform. *(Japanese)* 2−55983
Mg-Li-Al-Cd, superplastic deform., effect on struct. and props. 2−62180
MgO, periclase, shock-loaded, struct. deform. 2−76586
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
Mo alloys, mechanical properties and nature of fracture, in ductile-brittle transition temp. range 2−72820
Mo single crystals, fatigue failure features 2−77944
Mo-base alloys, Ni-activated recrystn., TEM and optical study *(Russian)* 2−116459
MoS_2 films, lubrication and failure mechanisms, substrate surface finish influence 2−110216
n-$MoSe_2$ single crystals photocatalytic behaviour in contact with I^-, I_2 redox couple in solar photoelectrochemical cells 2−105575
$NH_4H_2PO_4$, growth features of prismatic faces, refl. microscopy obs. 2−115160
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-based superalloys, phase identification, by interference film microscopy 2−62322
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-P-B coatings, heated in air, struct. and props. *(Russian)* 2−57382
$(Ni_{0.6}Fe_{0.4})_{0.89}V_{0.11}$, substruct. develop. during cold working, neutron diffr. and microscopical obs. 2−83133
Pb-Cd-Zn ternary system, microstructures of eutectic and near-eutectic specimens 2−111162
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Sb_2S_3-PbS glass, prep. and props. 2−71367
Si, crystn., picosecond laser pulse irradiation 2−66043
Si films, microscopy during laser melting 2−66403
Si, ion implanted, CW laser annealing, dislocation nucleation, growth and suppression 2−56021
Si wafers, HCl etched {111}, deep etch pits and facet form. obs. 2−76447
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
TiO_2, rutile, epitaxial film growth on rutile {100} surface reacted with Ga_2O_3 in air 2−110196
ZnO varistor, influence of SiO_2 inclusions 2−66241

optical model (nuclear) *see nuclear optical model*

optical modulation
A/D, convertor, electrooptic guided wave design, 4-bit 828 megasample/sec. 2−60260
A/D convertor, 4-bit 275-MS/s 2−60231
acousto-optic modulators with anisotropic diffr. 2−86089
acousto-optic nonlinear device, bistable optical switching based on Bragg diffraction 2−60229
acousto-optical modulators, appl. to high-resolution saturation spectroscopy 2−74518
acoustooptic modulator, isolation and freq. conversion props. 2−91038
acoustooptic modulator frequency characts. 2−97167
amplification of 70-fs optical pulses to gigawatt powers 2−97165
anisotropic heterostructure waveguides coupled multimode analysis 2−65356
atmospheric turbulence modulation noise in optical heterodyne receiver, approx. anal. 2−63095
attenuated total reflection modulator using prism at variable-width gap from metal 2−55320
biomeasuring system, photo-coupled with liq. cryst. optical modulator *(Japanese)* 2−117045
CdTe light pipe modulator, for broadband space communications at 10 μm 2−81069
common plane-wave model verification by band-limiting the far field of localised source 2−102695
CSP lasers, directly current-modulated, spectral behaviour 2−80970
CW laser, mode selection and synchronisation, spatial hole-burning effect 2−55229
differential heterodyne fibre interferometers, phase tracking schemes 2−79665
diode lasers, current-induced freq. modulation meas. technique 2−65265
electooptic integrated optics spectrum analyzer, weighted discrete Fourier transform 2−55356
electro-optic cryst. modulator, laser mode-locking appls. *(Chinese)* 2−91040
electron-beam space-time modulator of light with equilib.-type recording 2−81068
electrooptic A/D convertor, 4-bit 275-MS/s, using $LiNbO_3$:Ti interferometric modulator array 2−60231
electrooptic material application in laser research 2−60227
electrooptical light modulators, electrostatic field calc. 2−86091
ellipsometry, retardation, modulation, high-speed, using electrooptic modulator 2−112955
extracavity laser band-shape and bandwidth modification 2−97021
far IR lasers, frequency control and modulation by Stark effect 2−60130
fast dispersive beam deflectors and modulators, electrooptic tuning 2−86083
femtosecond pulse compression, self-phase modulation in optical fibre 2−81034
fibre optic Sagnac interferometer, freq. modulated heterodyne, for rot. rate detect. 2−81100
fibre optic sensor types rel. to light modulation method, review 2−91075
fibre optics, pulse broadening, GaAs polariton induced compensation obs. 2−91047
Franz-Keldysh optical amplitude modulators fabricated on heteroepitaxial structures 2−81067
frequency shifter for use in coherent detection systems 2−97236
gelatinous layer optical modulators, theory *(Russian)* 2−55324
gratings, dichromated gelatin, absorpt. and refr. index modulations 2−70520
GRIN planar waveguides, sinusoidally modulated, mode coupling, beam propag. method 2−102917
guided-wave electrooptic modulator, design and fabrication 2−109031
guided-wave interferometer, high-speed, appl. 2−102957
high-precision optical switching modulator 2−114418
injection laser, pulsed, self-modulated light output with optical feedback 2−75610

optical modulation continued
integrated optics modulators, optimal electrode design 2−55319
integrated-optical single-sideband modulator and phase shifter 2−70707
intensity modulation system, modal noise as component interaction problem 2−60239
IR high power picosecond radiation generation, by ultrafast optical switching 2−86063
laser beam, subnanosecond high-contrast pulse production using stimulated Mandelstam-Brillouin scatt. *(Russian)* 2−70609
laser beam amplification by dynamic holography in PLZT ferroelec. ceramic 2−108835
laser beam intensity stabilisation using high-efficient Faraday rotator 2−70666
laser beam point splitting, coherent optical method *(Ukrainian)* 2−102837
laser diode, directly modulated, quantum intensity noise 2−75578
laser pulse, phase modulated, total freq. nonsteady generation 2−108960
laser switching wave control device 2−86017
laser sytem, highly stable, with pulse length controllable from 100 psec. to 10 nsec. 2−75605
light pulses, ultrashort, generation by electronic self-phase modulation 2−97122
light-pipe electrooptic gigahertz modulator for CO_2 laser wavelength 2−81066
liquid crystal matrix for optical processing *(French)* 2−109033
liquid crystal modulators with piezoceramic transducers for hybrid fibre optic sensors 2−102930
Mach-Zehnder waveguide interferometer, picosecond sampling 2−60238
magneto-optical polarisation modulator for pulsed laser light 2−114332
methanol magneto-optically modulated laser, for Faraday rot. meas. in Tokamaks 2−97788
micropower pulse frequency modulator for use in an optically isolated catheter system for sensor voltage meas. 2−88645
microwave signal generation using an optical self-heterodyne technique 2−75611
multi-beam acousto-optical modulator used in laser recorder, light noise due to three-phonon scatt. 2−90805
multiplex communication via electro-optic phase modulation of white light 2−86128
passive guided-wave optical components, review 2−75679
phased array semiconductor laser, lateral beam collimation 2−114307
phosphate glass active and active-passive mode-locked pulsed lasers *(Chinese)* 2−90921
polychromatic radiation, periodic pulse train, reson. transformation by mols., secondary radiation 2−114060
PRIZ image converter and its use in optical data processing systems 2−60230
pseudocoloring method using two different spatial modulations, image storage appls. 2−90819
pulse compression by enhanced freq. chirping, numerical simulation 2−91046
ruby laser, refractive index meas. by dynamic optical distortions 2−114335
ruby laser radiation intensity, two-freq. acoustic modulation 2−97022
semiconductor external grating loaded lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation charact. 2−85961
semiconductor heterojunction laser driver for optical communications, bipolar IC 2−70706
semiconductor laser, picosecond high power pulse generation by direct modulation 2−114323
semiconductor laser, picosecond pulse generation by combined DC and microwave current injection 2−108878
semiconductor laser amplifiers, injection locked and resonant type, optical FM signal amplification 2−80959
semiconductor laser devices, modulation charact. 2−60081
semiconductor lasers, effect of superluminesc. on modulation response 2−65214
serrodyne optical frequency translator performance, phase modulator driven by sawtooth waveform 2−60232
solid-state laser radiation intensity two-freq. acoustic modulation 2−97022
spatial filtering, real-time, utilising the piezoelectric-elasto-optic effect 2−86090
spatial light modulator, linear, total internal refl., optical information processing appls. 2−75669
telescope, ground, phase detector wave-front sensing and correction, different wavelength effects 2−78837
thin film semiconductor waveguides, electrooptic modulation by stationary phase gratings 2−109045
thin-film travelling-wave light modulator using light diffr. by acoustic wave 2−91039
two-level laser amplifier, ultrashort optical pulse propag. *(Russian)* 2−96884
two-mirror laser, high-freq. automodulation of radiation using nonlinear delayed action unit 2−108916
two-path electrooptical modulator with a total-internal-refl. prism 2−114417
waveguide electrooptic modulators, review 2−109032
white light multiplexed meas. of incoherent Fourier spectrum 2−70513
Ag halide photographic material, wavefront phase modulation in bleached holographic emulsion 2−85918
AlGaAs CSP, BH and TJS lasers, direct FM characts. 2−80960
AlGaAs external grating loaded lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation charact. 2−85961
AlGaAs injection lasers, acoustooptic modulation resonances 2−55226
$Al_xGa_{1-x}As$ multielectrode rib waveguides, electrooptic polarisation modulation 2−65345
$Al_xGa_{1-x}As$ multielectrode rib waveguides, electrooptic polarisation modulation 2−81065
Ar ion laser radiation, HF modulation due to stable two-mode oscill. 2−97023
Ar^+ laser, self-modulation by resonator loss control 2−65266
CO_2 amplifier with saturating absorber, pulse shaping 2−114325
CO_2 flyable laser beacon development, modulation rate capability 2−102820
CO_2 frequency-switchable laser with intracavity CdTe modulator, design and performance 2−60093
CO_2 laser, etalon-coupled, cavity dumping and coupling modulation techniques 2−114334
CO_2 laser, high power, output pulse shaping with externally sustained discharge 2−114339
CO_2 laser, Stark-effect modulation with NH_2D *(Chinese)* 2−60128

optical modulation continued
CO_2 laser, wavelength selection and intracavity modulation using elec. controlled echelette grating 2−65268
CO_2 laser tunable sideband spectrometer for 9-11 μm region 2−101472
CO_2 lasers, freq. synchronisation and phase locking 2−114324
CO_2 nanosecond laser pulses, temporal shaping in multiphoton saturable absorbers 2−102828
CO_2 stabilised laser parasitic amplitude modulation due to cavity periodic misalignment 2−55231
CO_2 TEA laser, variable short pulses 2−80996
CO_2-laser modulator, microwave behaviour *(German)* 2−86015
CdS, CdSe, modulation of refr. index during excitation on absorpt. edge 2−116142
CdS crystals, optical transmission modulation mechanisms caused by acoustic domains 2−82824
CdSe thin film, electrooptical modulation parameters *(Russian)* 2−61874
GaAs CCD 2−114416
GaAs double heterostructure laser diodes modulation *(German)* 2−80954
GaAs-GaAlAs DH injection laser, 200 Mb/s modulation expt. *(Chinese)* 2−55223
He-Ne laser, intensity stabilisation by mag. field induced light polarisation 2−65264
InGaAsP DH RF-modulated diode laser, picosecond optical pulse generation 2−114277
InGaAsP/InP DH laser diodes for 1.3 and 1.55 micron operation 2−55205
InGaAsP-InP 4 Gbit/s multiplexer and laser, 1.3 micron, direct modulation 2−114274
$K(D_xH_{1-x})_2PO_4$ electro-optic Q-switch and four-cryst. modulator 2−111041
KH_2PO_4 longitudinal electrooptic modulation, intensity spectrum of modulated light 2−86092
KrF laser pulse compression in plasma theory 2−90950
$LiNbO_3$ crossed channel wavegiude TIR switches, GHz bandwidth, 4×4 switching networks 2−75680
$LiNbO_3$, electro-optic modulator, optical bistability of hybrid dispersive optical system 2−60228
$LiNbO_3$, interference modulator based on multimode channel waveguide 2−70667
$LiNbO_3$ oblique-cut microchannel spatial light modulator 2−97166
$LiNbO_3$ waveguide modulator, out-diffused, prism-coupled, fabrication and performance for long-term use at 632.8 nm 2−75670
$LiNbO_3$ waveguide modulators, space-charge effects 2−75684
$LiNbO_3$:Ti coupled channel waveguide electro-optic modulator 2−86093
$LiNbO_3$:Ti diffused waveguide integrated optic electrooptic modulator electrode anal. 2−55318
$LiNbO_3$:Ti thin-film Bragg electrooptic modulator 2−65344
$LiNbO_3$:Ti variable-period thin-film Bragg modulator 2−97168
NH_3, coherent Stark switching, nanosecond optical modulation at 10 μm appl. 2−114415
$NH_4H_2PO_4$, X-cut electrooptic modulator, low operating voltage *(Korean)* 2−55321
Nd laser, multistage, digital supply system for stable apparatus operation *(Bulgarian)* 2−80989
Nd:glass laser radiation intensity two-freq. acoustic modulation 2−97022
Nd:YAG continuously excited laser resonator acousto-optic switch *(Polish)* 2−97006
Nd:YAG laser radiation intensity, two-freq. acoustic modulation 2−97022
Nd^{3+}:YAG CW laser radiation, polarisation switching using electrooptic phase modulator 2−114338
PLZT electrooptic ceramic one-dimens. controlled transparency utilizing transverse effect, crosstalk 2−55323
Si, modulation of refr. index during excitation on absorpt. edge 2−116142
Te cavity, optical modulation and bistability in IR region, optical tuning 2−55322
XeCl laser, elec. excitation using mag. pulse compression cct. with thyratron 2−60094
ZnSe, light-induced refr. index dispersion in impurity absorpt. region 2−77480

optical modulators *see modulators; optical modulation*

optical noise measurement
semiconductor lasers, optical phase noise reduction 2−65225

optical nutation *see optical coherent transients*

optical parametric amplifiers
acousto-optical parametric amplification processes, noise amplification in quantum theory 2−70606
dispersing medium, parametric light amplification under multimode pumping 2−97109
four-level system, amplification due to four-wave parametric interactions, semiclassical theory 2−90976
3-methyl-4-nitropyridine-1-oxide, mol. crystal, nonlinear-optical props. obs. 2−65304
optical fibres, parametric amplification and freq. conversion 2−86044
periodically heterogeneous medium, EM wave parametric amplific ation, theory *(Russian)* 2−75630
relative phase angle evolution in parametric amplification 2−60155
KH_2PO_4 crystal, parametric amplification and oscill., freq. depend. in picosecond pulse regime 2−55268

optical parametric devices
see also optical parametric amplifiers; optical parametric oscillators
intracavity Fabry-Perot interferometer, parameter optimisation calcs. 2−70585
laser synchronizer for parametric frequency conversion systems 2−80997
spatial spectrum of optical radiation transformation in parametric processes 2−90985
two-photon field of visible radiation generation, parametric conversion, photodetector calibration 2−55266

optical parametric oscillators
see also lasers
internal optical parametric oscillation with 0.53 μm radiation pumping 2−114368
randomly inhomogeneous media, parametric interaction of wave beams 2−86052
singly and doubly resonant parametric oscillators, threshold pump intensity, focusing effects 2−81020
squeezing and bistable absorpt. in parametric oscillators 2−55259
three-wave interaction based phase-matched devices 2−60157
$BaTiO_3$, photorefractive cryst., coherent oscillation by self-induced gratings 2−65310

optical parametric oscillators continued
H_2, gaseous, Dicke narrowing determ. by direct meas. of dephasing time 2−58919
KH_2PO_4 crystal, parametric amplification and oscill., freq. depend. in picosecond pulse regime 2−55268
$KNbO_3$, high-efficiency high-power parametric oscill. 2−65301
$LiNbO_3$, Nd^{3+}:YAG laser excited, dynamics, power reconversion influence 2−86050
$LiNbO_3$, UV tunable picosecond pulse generation down to 197 nm using KH_2PO_4 or $KB_5O_8.4H_2O$ crysts. 2−86047

optical phase conjugation
absorbing media, phase conjugation by degenerate four-wave mixing 2−108970
absorbing media, resonantly enhanced four-wave mixing, theory 2−55274
adaptive correction algorithms, comparative charact. 2−65313
adaptive optics approaches at 1.3 μm 2−90997
amplification regime, reversing mirror charact. control 2−81026
amplifiers with wavefront reversal, max. output parameter estimate 2−55109
atomic lines, degenerate backward four-wave mixing, polarisation and ang.-momentum dependences 2−75634
backscattering effect in phase conjugation with weak scatterers 2−90990
backward scatterings in picosecond range, generation and geometrical conditions for wavefront reconstruction 2−55277
benzene, wavefront reversal of weak Brillouin-shifted signals 2−70611
carbon tetrachloride, wavefront reversal of weak Brillouin-shifted signals 2−70611
compensated active imaging appls. 2−70617
corner cube array coherent optical adaptive system as phase conjugator 2−81029
cubic nonlinearity medium, efficiency in four-wave interaction, hologram recording 2−86054
degenerate four wave mixing, intensities, durations, wave front reconstruction 2−60175
degenerate four-wave mixing, optical pulse chirp reversal, theory 2−86053
degenerate four-wave mixing, phase conjugate optics principles and potential appls. *(Chinese)* 2−60170
degenerate four-wave mixing, resonantly enhanced, high refl. phase conjugate wave generation 2−70614
degenerate four-wave mixing for Doppler-free laser spectroscopy 2−75636
distortion correction by phase conjugation 2−60173
Doppler dynamic hologram, optical phase conjugation, theory 2−85922
dye solutions, phase conjugation by degenerate four-wave mixing, reconstructed images 2−55275
dynamic holography methods for wavefront inversion 2−114380
electrooptic crystals with diffusive nonlinearity, optical bistability in optical phase conjugation, theory 2−86057
ferroelectrics, optical bistability, hysteresis, four-wave inversion of wavefront 2−81030
forced Rayleigh scattering for phase conjugate wavefront generation 2−102877
four-wave combination interaction in field of counter-running light waves, theoretical and expt. study *(Russian)* 2−70625
four-wave mixing, transient, and coherent transient optical phenomena 2−86061
four-wave mixing and two-dimensional phase conjugation of surface plasmons 2−86056
four-wave wavefront reversal, influence of linear absorpt. and refl. 2−55278
high-sensitivity systems for wavefront reversal of reflected radiation 2−108968
holographic four-wave mixing and phase conjugation, nonlinear model exact soln. 2−97120
holographic phase conjugation and Strehl ratio, deformable mirror adaptive optic systems 2−108824
image projection with nonlinear optics, photolithography appl. 2−75633
image subtraction, real-time, in four-wave mixing with photorefr. $Bi_{12}GeO_{20}$ crysts. 2−102752
intraresonator phase conjugating mirror for beam distortion reduction 2−102824
Kerr-like phase conjugators, transient response, review 2−70613
KrF laser amplifier with phase-conjugate Brillouin retroreflectors 2−108865
laser, intracavity phase distortion correction using passive phase conjugate reflector 2−97004
laser amplifier train compensation with nonlinear conjugation techniques 2−70619
laser resonators, phase conjugate, mode-locked laser developments and appls. 2−114331
laser wavefront reversal, appl. *(Czech)* 2−86055
lasers, high brightness, using stimulated Mandelstam-Brillouin scatt. phase conjugation 2−97118
mirror, wavefront reversal, compensation for optical beam small-scale nonlinear distortions 2−70624
mirror optical resonators, orthogonality props. 2−65262
mirror resonators, intracavity amplitude perturbations, numerical anal. 2−65261
nematic liquid crystal 2−55276
optical fibre, low mode, four-photon mixing and Stokes-antiStokes pairs *(Russian)* 2−97220
phase conjugation by degenerate four-wave mixing, general two dimens. theory 2−102880
phase-conjugated waves, theory 2−60172
photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
pseudo-conjugation/compensation of high-power optical trains, precision corner, lens and K-mirror arrays 2−102899
Raman amplifiers, intensity averaging and four-wave mixing 2−55255
real-time phase conjugate window for one-way optical field imaging through a distortion 2−97119
rectangular waveguide resonators with conventional and phase-conjugate mirrors, mode discrimination, coupling losses 2−90941
resonance media, wavefront inversion efficiency during four-photon scatt., angular depend. 2−114382
resonant backward 4-wave mixing, saturated susceptibilities 2−108979
resonant media, wavefront reversal, diffr. bleaching and bistability 2−60178
resonant nonlinear optical mixing using phase conjugate config., spectrosc. obs. 2−90989
resonator with phase conjugate mirror 2−70623

optical phase conjugation continued
resonators with hard-edged apertures, higher-order modes 2−90987
review, historical perspective, nonlinear interactions and appls. 2−70612
ruby, optical phase conjugation generation using CW mode-locked lasers 2−60177
semiconductors, degenerate four-wave mixing, phase conjugation and transient carrier dynamics expts. 2−70615
signal processing, time-domain, via four-wave mixing in nonlinear delay lines 2−70618
spatial information processing and distortion correction via degenerate four-wave mixing 2−70616
spherical resonator equivalence to arbitrary phase-conjugate resonators 2−75635
stimulated backscattering for optical beam phase conjugation, review 2−70621
stimulated Brillouin scattering, conjugate wave phase instability 2−86058
stimulated scattering, phase conjunction and image reconstruction, holographic model 2−90991
stimulated temperature scatt. of light, intracavity, wavefront reversal 2−108969
two-photon resonant systems, biharmonically pumped, phase conjugation 2−102881
very short conjugate pulse prod. in four wave mixing 2−90996
wave front reversal system performance, effect of inhomogeneity drift along a beam propag. line 2−102882
wavefront distortions in power optics, conf., San Diego, CA, USA (Aug. 1981) 2−94890
wavefront reversal by four-wave mixing in a medium exhibiting Raman nonlinearity 2−114384
wavefront reversal by stimulated Brillouin scatt., laser correction and pulse compression appls. 2−70620
waveguide, phase conjugation by four-wave mixing 2−70622
waveguide resonators, with phase-conjugate mirror 2−60126
weak scatterers, phase conjugation theory 2−60171
$BaTiO_3$, phase-conjugating mirror with CW gain 2−90993
$BaTiO_3$, photorefractive cryst., coherent oscillation by self-induced gratings 2−65310
$BaTiO_3$ photorefractive crystal based CW phase-conjugate resonator, spatial and temporal props. 2−108971
$Bi_{12}GeO_{20}$, four-wave mixing, phase conjugate wavefront generation, refl. hologram 2−60174
$Bi_{12}GeO_{20}$ photorefractive crystals, four-wave mixing expt., interference between signal and its conjugate 2−90972
$Bi_{12}GeO_{20}$ photorefractive crystals, phase-conjugate wavefront reflectivity, spatial-freq. depend. 2−90992
CCl_4, conjugate wave phase instability at stimulated Brillouin scatt. 2−86058
CO_2 electroionisational laser, resonator, wavefront inversion efficiency, theory 2−114381
CS_2, backward stimulated Brillouin scatt. waves, phase conjugation charcts. *(Chinese)* 2−90988
CS_2 mixed with UV transmitting solvents, UV phase conjugation via degenerate four-wave mixing 2−90995
CS_2 mixtures, UV phase conjugation, practical appls. 2−102878
CdS, cryst., bistability and hysteresis, phase conjugation by six-photon mixing 2−60176
CdS, wavefront conjugation by degenerate four- and six-photon mixing 2−90994
CdS, wavefront reversal during degenerate six-photon interaction 2−108966
Cu vapour laser, active medium, wavefront reversal 2−60068
(Hg,Cd)Te, optical phase conjugation by degenerate and spin-resonant four-wave mixing 2−102879
Hg vapour, saturation spectroscopy and reson. degenerate four-wave mixing at 546.1 nm 2−64993
HgCdTe, CW degenerate four-wave mixing, large optical nonlinearities 2−108938
I laser optical inhomogeneities, dynamic correction 2−70555
$KNbO_3:Fe^{2+}$, vol. phase hologram form., coherent light amplification, optical phase conjugation 2−65311
KrF with phase-conjugate Brillouin mirror 2−60136
$LiNbO_3$ crystals, conjugate wavefront picosecond generation at 530 nm 2−114383
$LiTaO_3$ crystals with linear electrooptical effect, intensified refl. of reversed wavefront waves 2−108967
N_2, liquid, efficient Raman freq. conversion 2−55254
Nd: glass laser radiation ang. charcts. after wavefront reversal by three-wave parametric interaction 2−114350
Nd^{3+}:glass, degenerate four-wave mixing 2−55274
PbTe epitaxial layer, optical four-wave mixing 2−93315
SF_6, wavefront reversal of weak Brillouin-shifted signals 2−70611
SiC, wavefront conjugation by degenerate four- and six-photon mixing 2−90994
SiC, wavefront reversal during degenerate four-photon interaction 2−108966
$Sr_{1-x}Ba_xNb_2O_6$, use in amplifying CW phase conjugate mirror 2−75632
ZnSe, wavefront conjugation by degenerate four- and six-photon mixing 2−90994
ZnSe, wavefront reversal during degenerate six-photon interaction 2−108966

optical prisms
anamorphic beam expanders, in-line, formulas for prism positions 2−109007
angular error examination 2−70654
antiresonant ring mode-locking device, compact device 2−97014
attenuated total reflection modulator using prism at variable-width gap from metal 2−55320
beam switching for 10×10 optical matrix switch 2−55354
compound total internal reflection prism for use in laser resonator 2−90947
coupler utilising anisotropic inhomogeneous planar waveguide, theory 2−55330
Dove prisms, props., problems, image rot. appls. 2−81052
dye lasers, Cu laser pumped, prism-expander and grazing-incidence grating cavities 2−102823
fabrication, computer-assisted part-list-orientated generation of technological production documentations *(German)* 2−81128
fast dispersive beam deflectors and modulators, electrooptic tuning 2−86083

optical prisms continued
Hasselblad System, 2000FC and 2000FC/M, filters, alternative lenses, multi-prisms and meter prism finder 2−64137
Hasselblad System, 2000FC and 2000FC/M, VFC-6 metering prism and close-up accessories 2−64138
in-diffused passive elements of integrated optics in ion-exchanged waveguides 2−86136
IR prism coupling characterisation and optimisation via near-field m-line scanning 2−81070
Kosters prism fabrication, effect of errors on null-indication accuracy 2−108999
laser probe laboratory setup 2−75621
laser-beam heterodyne receiver, four-prism interferometric diplexer 2−60256
light guide, efficient, for interior illumination 2−102919
line-of-sight steering and stabilization 2−60216
metal coated cube corner prisms, polarisation props. 2−102905
mirror and reflective prism optical system, computer calc. of vector triad 2−109001
modulator electrooptical, two-path, with a total-internal-refl. prism 2−114417
monochromators, prism and diffraction, designed for 200 to 750 nm region, radiation scatt. 2−102913
Pechan prism designed to transmit a conical ray bundle, construction calc. 2−70655
Pickering Racine prisms use in astronomy 2−63257
plexiglass, acrylic, optical wedge fabrication 2−114407
polygon, rotating, field curvature as consequence of light beam deflection 2−55313
Porro II prism system, fixture arrangement for cementing 2−109003
prism coupler jig for coupling gap obs. using interf. fringes 2−65416
resonators with mirrors formed by sets of retroreflecting elements 2−70651
right-angle prism with 180° axial beam deviation, dimensional design minimisation *(Czech)* 2−55300
right-angle prism with 180° axial beam deviation, dimensional design minimisation *(Czech)* 2−60218
Rochon and Senarmont prisms, modified, elimination of optical activity depolarising action 2−109011
spectrophotometry, components and quality control 2−58914
storage device used in integrated optics, space-time processes 2−81054
wedge, torsion angle meas. appl. 2−89691
Wollaston prisms and $LiNbO_3$ crystal for 2×2 transverse-type optical switch 2−55351
CO_2 laser radar using detector arrays, beam profile shaping 2−96964
GaP prism coupler investigation *(Chinese)* 2−97169
$LiNbO_3$ optical waveguides, temp. compensated prism coupler 2−109035
Nd:glasas multipass amplifier using prism optics 2−60089
$SrTiO_3$, refractive index temp. depend. and prism coupling to $LiNbO_3$ waveguide meas. 2−91010

optical projectors
afocal close-up lenses, for optical projector systems in professional cinematography *(Czech)* 2−55291
cinematographic, quality control *(Russian)* 2−58950
cinematographic staff questionnaire *(Russian)* 2−58947
computer-generated image visual systems for marine simulator training 2−79334
Cooke triplet design, utility of low-index high-dispersion glasses 2−65331
image projection with nonlinear optics, photolithography appl. 2−75633
metal halide lamps for use in film projectors, service tests 2−113017
microprocessor-based random-access slide projection 2−69226
motion picture photography, front projection techniques 2−107425
photographic printing, resolution calc. of projection enlarging system 2−101485
photographic sound reproduction principles, system components and implementation 2−109135
visualising diaphragms on light-valve projectors *(Russian)* 2−86084

optical properties of substances
see also acousto-optical effects; birefringence; brightness; cathodochromism; colour; dichroism; dielectric function; electro-optical effects; electrochromism; magneto-optical effects; optical constants; optical Kerr effect; optical rotation; optical saturation; optical susceptibility; photochromism; piezo-optical effects; pleochroism; reflectivity; thermo-optical effects
atomic distributions determ. by anomalous methods, increased efficiency 2−114967
4,4′-biselenopyranylidene based charge transfer complexes and radical ion salts with TCNQ and DDQ 2−92577
cermets, optical props. from theory of electrostatic resonances 2−67013
chalcogenide glasses, optical properties 2−61851
composite materials, local field intensities 2−82810
dielectric surface levels, optical props. 2−61548
ferroelectric materials and appls., conference, Kyoto, Japan (May 1981) 2−79273
fibre optic materials, optical props. 2−60190
glass, flat, coated, optical props. 2−61850
IV-VI semiconductors, phase transitions and optical props. 2−91861
many-particle physics in solid state theory, book 2−68981
melanin, optical props., role of water 2−105653
metal surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
metals, anomalous skin effect and optical props., phenomenological model 2−99079
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
narrow gap semiconductors, conference, Linz, Austria (Sept. 1981) 2−89445
oxides, physical and chemical props. handbook 2−94927
polyacetylene, solitons, optical conductivity 2−56573
semiconductor crystal properties, measuring apparatus *(Russian)* 2−98693
small metallic particles, quantum size effect in optical props. 2−87721
solar energy absorbing chromophoric materials in heat transfer fluids, thermal and photochemical studies 2−99839
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
$(TMTSF)_2X$ series, band struct. and props. 2−92438
As-Te, homogeneous film, elec. props., optical forbidden band-width 2−110504
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
p-CdTe-Te film, mol. beam deposited, props. 2−104192

optical properties of substances continued
GaAs-insulating film interface, MESFET struct., elec. and optical props. 2−110486
Ge, diffraction grating, high-density laser-induced transient plasma, picosecond dynamics 2−77628
InSe-Au Schottky barrier diode, elec. and optical props. 2−77157
$InSi_{1.75}$, semiconductor thin film, optical and Hall effect meas. 2−77209
$Pb_{0.8}Sn_{0.2}Te$, amorphous-cryst. films, optical and elec. props. 2−104373
TiN films deposited on Si, characterisation 2−110212
Zr vapour, density meas. by laser resonant absorption 2−91588

optical pumping
see also lasers; multiphoton spectra
acetic acid-d_1 optically pumped submm. laser, 363-756μ range 2−55134
acetonitrile, optical pumping, rot.-vibr. anal., far-IR obs. 2−54842
acetylene-d_2 optically pumped rotationally relaxed grating tuned laser oscillations obs. 2−96900
alkali metal+inert gas system, optically pumped, evolution of spin orientation, numerical simulation 2−96516
alkali metal atoms, spin polarisation, hyperfine coupling collisional breaking effects 2−90486
atom, double velocity selective optical pumping *(French)* 2−64930
atom excitation by nonmonochromatic EM field 2−59760
atomic frequency standards, use of optical pumping by lasers 2−89683
atomic physics appl. *(Chinese)* 2−59761
atomic vapours excited by nearly resonant laser beams, conical emission angle 2−70177
atoms, optically pumped, spin relax. at surfaces, mech. torque generation 2−62021
atoms, oriented, optical-pumping eqn. soln. describing space-time distrib. 2−113945
atoms, velocity selective optical pumping, light shift effect, expt. study *(French)* 2−113942
atoms and molecules, internal degree of freedom cooling using reson. radiation 2−54808
bromotrifluoromethane, optically pumped CW far IR laser, emission lines and tentative assignments 2−96911
carbon tetrafluoride 16 μm optically pumped laser, tuning characts. 2−102782
carbon tetrafluoride optically pumped molecular laser, 16 μm range emission 2−114252
carbontetrafluoride laser, optically pumped, tunable pump laser stabilisation 2−102777
carbonyl fluoride, strong far IR laser action obs. 2−102775
CARS saturation effect 2−65306
coaxial flashlamps, laser pumping charact., review 2−65239
conjugated mols. in strong EM field, props., Huckel approx. calcs. *(Russian)* 2−54901
coumarin 1-acriflavine-uranine ternary dye mixture 2−96945
coumarin 6 dye vapour lasing, 527 nm, wide-band optical pumping 2−70560
CW dye laser, freq. shift, reson. bleaching 2−75566
32 Cygni, excitation through radiative pumping of Fe UV multiplet 191 during eclipse 2−68815
Dewar design for optically pumped semiconductor lasers 2−65240
4-4′ dichlorobenzophenone, cryst. heating and triplet exciton non-radiative relax. 2−87852
7diethylamino-4-methylcoumarin dye laser, N_2 laser pumping, nearly transform-limited pulse generation 2−60113
cis 1,2-difluoroethene laser, optically pumped far-IR emission 2−55125
difluoromethane, far IR lasing mols., pump offset freqs., Doppler-free optoacoustic spectroscopy meas. 2−108857
difluoromethane-d_2, efficient far IR lasing gas, wavelengths and freqs. meas. 2−96913
dressed atoms, nonlinear optical reson. induced by collisions 2−60151
dye CW laser, operation at 200 W pump power 2−102812
dye laser, flashlamp pumped, passive mode-locking using saturable absorber 2−108917
dye laser, flashlamp-pumped, high-efficiency high-energy 2−102810
dye laser, flashlamp-pumped, narrow linewidth operation 2−108899
dye laser, longitudinal pumping for image intensification *(Russian)* 2−85953
dye laser, N_2 laser pumped, with optical amplifier, near IR dye lasing props. 2−85955
dye laser, powerful, pumped by YAG laser second harmonic *(German)* 2−80986
dye laser, synchronously pumped mode locked, active mode stabilisation 2−70591
dye laser, YAG pumped, tunable, characts. and appls., review 2−96940
dye laser amplifier chain, pumped by freq. doubled Nd:YAG oscillator 2−114308
dye laser excimer pumping, low power, high pulse rate 2−85984
dye laser excitation with intense pulse preionisation, flashlamp pumping performance improvement *(Chinese)* 2−55176
dye laser picosecond amplifier chain, Nd:YAG pumped, gain saturation 2−55197
dye lasers, coaxial, flashlamp pumped, using caffeine as a liq. filter 2−96983
dye lasers, Cu laser pumped, prism-expander and grazing-incidence grating cavities 2−102823
dye lasers, liq. and solid, linearly and circularly polarised pumping, expt. study *(Russian)* 2−114267
dye lasers, mode-locked CW, travelling-wave and standing-wave operations comparison 2−114328
dye ring laser, synchronously mode-locked travelling-wave, subpicosecond pulse prod. 2−114327
ethyl chloride, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
excimer laser, microwave excitation technique 2−96915
excited state, chemically pumped, superfluorescence 2−65064
far IR lasers phase-locked by Stark effect, optical frequency meas. appl. 2−102845
far IR molecular laser, saturation param. and power enhancements, nonlinear Hanle effect 2−60183
far IR rooftop resonator, output stability and polarisation meas. 2−86006
fermic acid, excited state, optically pumped, microwave obs. 2−75245
flash lamps, pumping, type INP-16, parametric standard series 2−97137
fluorocarbon 12, CW optically pumped CF_2Cl_2, subMM laser action 2−96906
fluoromethane optically pumped laser, collisional narrowing 2−85940

optical pumping continued
fluoromethane submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formaldehyde-d_2 submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formic acid submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formic acid submm. laser, optically pumped, tuning possibility 2−114246
four level atomic system, Autler-Townes effect study 2−85929
gamma-ray laser, coherent and incoherent pumping with intense optical radiation 2−96878
gas heating or cooling using tunable laser radiation 2−54900
gases, cooling or heating through energy transfer using lasers 2−102440
imitrine class dye solns. and vapours, laser action in 500 nm band 2−55142
isotropic relaxation of electronic and electronic-nuclear polarisation moments *(Russian)* 2−54812
laser pumping cavities radiation transfer efficiency TI-59 program 2−97008
methanol, CH_3OD, CW laser pumped, lasing transitions at 57, 82 and 103 μm, direct gain meas. 2−96910
methanol large offset far IR laser lines, CO_2 waveguide laser pumped, obs. and assignment 2−80935
methanol laser, optically pumped, CO stretch states and vibr. states, far IR laser lines 2−55122
methanol optically pumped laser, collisional narrowing 2−85940
methanol optically pumped submm. laser, emission lines, 150-970 μ range 2−55135
methanol-d_4, optically pumped, new far IR laser lines and freq. meas. 2−96912
methanol-d_4 CW far-IR waveguide laser, optically pumped, relax. oscills. 2−75558
methyl alcohol, CO_2 laser pumped, wavelengths for new laser lines 2−96907
methyl alcohol, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
methyl fluoride, isotopic $^{13}CH_3F$, optically pumped pulsed far IR laser, cavity operation 2−97009
methylamine optically pumped submm. laser, emission lines 2−55135
mode locking by synchronous pumping steady-state pulse profile generation computational technique 2−96962
molecular beam optical-RF double resonance, laser induced coherence effects 2−65029
molecular vibration parametric excitation, laser-chem. reactions, quantum approach 2−108638
molecules, tetrahedral, IR-MW double reson. spectroscopy using a tunable diode laser 2−59834
multi-pass amplifier, high-power, energy gain 2−60084
multimode pumping, in dispersive medium, stimulated Raman scatt. 2−97108
multiple flash lamp system, demountable design 2−90912
multiple modulation for optical pump-probe spectroscopy 2−79689
multiply ionised ions, hydrogenic states, X-ray laser pumping with ionising radiation 2−55132
nitromethane optically pumped submm. laser, 311-1070 μ range 2−55134
O III, EUV line photoexcitation by solar He II Lyman α 2−89213
optical fibre, low mode, four-photon mixing and Stokes-antiStokes pairs *(Russian)* 2−97220
optical fibre, stimulated Raman scatt., Stokes wave mode struct. 2−91072
optical resonances with subnatural linewidths, prod. mechanism 2−64931
optically dense medium, optimal freq. range for atomic excitation 2−113944
parametric resonance in zero field under two-freq. action 2−113943
polyatomic molecular system, multiple-photon excitation, coherent propag. effects 2−85761
polyatomic symmetrical mols., XY_6, excitation by IR laser field, vibr.-rot. interaction role 2−108640
POPOP vapour excitation efficiency by wide-band flashlamp radiation 2−65047
POPOP vapour laser, ether mixture use for efficiency higher than 22% 2−55141
quantum magnetometer with optical pumping for measuring strong, rapidly varying fields 2−112938
quantum statistics, populated upper state effect 2−60050
Raman amplifiers, pump spatial variations transfer to Stokes phase 2−108958
Rb, spin polarisation by laser driven two photon and excimer transitions 2−64946
rhodamine 6G CW dye laser pumped by sinusoidally modulated radiation, pulse operation and appls. 2−96946
rhodamine 6G dual frequency laser system, high power, tunable, DIAL appls. 2−102819
rhodamine 6G dye jet laser pumped by ultrashort pulse trains from continuously pumped Nd^{3+}:YAG laser 2−60075
rhodamine 6G dye laser, single-mode tunable, high-efficiency 2−96941
rhodamine 6G tunable dye laser pumped by pulsed Xe ion laser *(Chinese)* 2−90922
rhodamine-6G solutions, stimulated emission, light quenching of fluoresc. effect 2−60073
ruby, electronic Raman transition and phosphorescence, zero phonon lines, pure dephasing 2−93251
selective multiphoton processes, external and internal detunings, quantum model 2−114059
self-focusing, theoretical study 2−65315
semiconductors, momentum distrib. anisotropy of photoholes, hot luminescence polarisation role 2−67116
spin echo excitation in optically oriented medium by means of intensity modulated pumping light 2−59730
stored ions, laser cooling and double reson. spectroscopy 2−69298
submillimetre laser with off-axis pump beam injection for heterodyne radiometry/spectroscopy 2−90928
three level gas, optically pumped, time-depend. pulse amplification 2−85941
three-level atomic system, two-mode laser operation, quantum theory 2−85935
three-level atoms, laser field interactions, precision study 2−59763
three-level gas excited by two unidirectional waves, amplification 2−70552
triphenylene, excited triplet state IR spectroscopy 2−80596
tunable dye laser, charact. of optically pumped organic cpds. 2−108872
optical pumping continued
tuned optical radiation oscillator, intracavity vibr. stimulated Raman scatt. *(Russian)* 2−86012
two-level atom with variable transition freq., dynamics in reson. light wave field 2−108841
two-level atoms resonant interaction with two light waves 2−113947
ultra-fast discharge fine line flash light sources, for dye lasers pumping 2−86067
UV continuously tunable laser, 2800-4100 Å range *(Chinese)* 2−90882
vinyl fluoride, strong far IR laser action obs. 2−102775
^{109}Ag HFS optical pumping, ground state 2−70198
Al XII plasma laser, resonantly photopumped, theory 2−90873
Bi_2, CW laser, optically pumped, hyperfine struct. 2−96914
Bi_2 laser, optically pumped by Cu vapour laser, large gain 2−85946
Br_2-CO_2-He solar-pumped electronic-to-vibrational energy transfer lasers 2−80933
CO Ar, laser-induced fluorescence, vibr. nonequilib. effects 2−59838
CO_2 gasdynamic laser with optical feedback vibr. energy transfer 2−96889
CO_2 tunable single-longit.-mode oscillator for efficient optical pumping 2−85992
CO_2 waveguide laser pump source for far-IR laser plasma diagnostic appls. *(Japanese)* 2−90925
CdS, CdSSe, CdSe, optically pumped semiconductor platelet lasers, tunable CW laser action 2−114290
CdS, optically pumped semiconductor platelet lasers 2−65236
CdS platelet laser, optically pumped 2−55191
Cs beam atomic clock with laser optical pumping as potential freq. standard 2−95307
Cs beam frequency standard, optically-pumped 2−53720
^{133}Cs, transverse optical pumping, parametric resonance in zero field under two-freq. action 2−113943
D_2O laser emission investigation at 50, 66, 83, 111 and 116 μm 2−102779
D_2O, optically pumped laser, wave interaction, for IR emission study 2−55128
Er:YLF lasers, pump technique comparison 2−96958
Er^{3+}:glass lasers and appls. 2−108887
Er^{3+}:$LiYF_4$, high-efficiency deep-red laser (850 nm), pumped by doubled Nd:YAG laser 2−60087
Eu^{3+} in germanate glass, energy transfer from Bi^{3+}, pumping range increase 2−90906
GaAs bulk laser, tunable picosecond pulse generation, two-photon absorpt. excitation 2−55164
GaAs bulk laser, two-photon pumped synchronously mode-locked 2−114291
H, metastable atomic beam source by optical pumping 2−90743
H^- polarised ion prod. using optical pumping 2−75083
He-like ions, optical pumping rel. to gain at X-ray wavelengths 2−70536
^3He, gaseous, nucl. polarisation by laser optical pumping *(French)* 2−102439
He(2^3S) atoms, meas. of spin polarization of an optically pumped ensemble 2−113946
Hg, metastable states, wall losses, kinetic theory 2−113906
Hg, optical pumping, reson. radiation transport 2−113905
Hg-K pumping lamps, expt. study *(Chinese)* 2−91014
HgBr, optical excitation of neutral channel upper laser levels, fluoresc. efficiency 2−85952
Hg(6^3P), optical pumping, quenching, visible triplet radiation transport 2−113948
Ho:YLF lasers, pump technique comparison 2−96958
Ho^{3+}:$LiYF_4$, high-efficiency deep-red laser (750 nm), pumped by doubled Nd:YAG laser 2−60087
I_2 laser, optically pumped, CW laser lines 540 to 650 nm range 2−60064
I_2, optically pumped dimer laser development, 540 to 650 nm laser lines 2−80939
InGaAsP laser, optically pumped, tunable CW mode-locked action 2−65233
InGaAsP, optically pumped semiconductor platelet lasers, tunable CW laser action 2−114290
InGaAsP tunable thin-film laser, Nd:YAG laser pumped, for high bandwidth fibre spectral meas. 2−65248
InSb, nonlinear magneto-optics, CW CO laser pumped, interband magneto-absorption 2−93164
K vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
K-Rb pumping lamps, expt. study *(Chinese)* 2−91014
K+He(Ne), electronic and nuclear spin relax., hyperfine interaction 2−96688
KI$(F_2^+)_A$ centre laser, continuous timing between 2 and 4 μm 2−90900
$^{43,44}K$, ground state HFS, atomic beam mag. reson. coupled with laser pumping 2−54790
Li vapour, laser optical pumping with vel. changing collisions 2−59762
Li-Nd-La phosphate glass laser, high conc., efficiency at low pump energies, free lasing 2−55168
Li_2 pulsed laser, optically pumped 2−114255
$^6Li_2$ molecule, optically pumped ring laser operation 2−75556
$^7Li_2$, pulsed optical-optical double reson. spectroscopy 2−65026
N_2, pumping effect on vibr. distrib. function 2−75236
NH_3 12 μm Raman laser, pumped by low-power CO_2 laser pulses 2−55121
NH_3 FIR optically pumped lasers, two-photon light shift 2−60069
NH_3 laser, 12 μm, CW optically pumped, Raman processes 2−65203
NH_3 laser emission, 20.9 to 148.7 μm, optically pumped by TE-CO_2 laser 2−85938
NH_3 pulsed optically pumped laser, energy characts., numerical model 2−70553
$^{15}NH_3$ CW far-IR waveguide laser, optically pumped, relax. oscills. 2−75558
NO_2, optically excited, IR multiphoton pumping dynamics 2−102546
$^{14}NH_3$ laser, optically pumped, Stark tuning at 10.78 μm 2−80934
Na, atomic beam, optical pumping, alignment and orientation of hyperfine levels 2−54813
Na vapour, laser optical pumping with vel. changing collisions 2−59762
Na vapour targets, optical pumping by single-freq. CW ring dye laser, polarisation 2−114054
Na^+ plasma laser, 15.5 nm, CO_2 laser pumped, active medium form., numerical anal. 2−65205
Na+Na, microwave-assisted reson. collisional energy transfer, Rydberg states 2−90657
Na_2 excimer laser, controlled operation, expt. study 2−65251

optical pumping continued
Na_2, optically pumped dimer laser development, 520 to 560 nm laser lines 2−80939
$Na^* + Na^+$, molecular states preparation in ion-atom crossed beam expt. laser excitation 2−65080
Nd highly concentrated media, lasing characts. of microlasers for pulsed pumping 2−75579
Nd^{3+} in germanate glass, energy transfer from Bi^{3+}, pumping range increase 2−90906
Nd:glass active-mirror laser amplifier, flashlamp-induced thermal distortion 2−102799
Nd:glass fibre lasers, generation kinetics 2−96959
Nd:YAG CW laser, simultaneous mode locking and Q-switching, use as picosecond pump source 2−114330
Nd:YAG laser, Q-switching with continuous pumping by nonlinearly absorbing LiF cryst. with F_2^- colour centres 2−102804
Nd:YAG laser cavity, ray tracing program, flashlamp pumping uniformity rel. to component damage 2−55215
Nd:YAG laser using radiation from high-freq. electrodeless discharge, pumping system investigation and development 2−114319
Nd:YAG lasers pumped by LEDs, lasing characts. at 1.06, 1.32 μm 2−70572
Nd^{3+}:YAG laser simultaneous pumping by CW and pulsed light *(Chinese)* 2−90957
Ne IX plasma laser, resonantly photopumped, theory 2−90873
Ne, metastable, double velocity selective optical pumping *(French)* 2−64930
PbTe, stimulated radiation polarisation characts. *(Russian)* 2−61929
Rb atomic frequency standard, optically pumped 2−89684
Rb, induced three-photon light scatt. upon excitation near resonant transitions 2−75229
Rb vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
RbCl:Li colour centre laser pumped with a DCM dye laser 2−102803
SF_6, excitation and dissociation in IR laser field, spectral characts. 2−108639
Se_2 optically pumped multiline laser, continuous oscill. in 387 to 709 nm range 2−85944
$SrYb_2F_8$, disordered, luminescence, nonlinear excitation delocalisation *(Russian)* 2−72545
$^{130}Te_2$, ground electronic state, Lande factor meas. 2−108641
Tm vapour laser, optically pumped 2−55124
XeCl, optical excitation of neutral channel upper laser levels, fluoresc. efficiency 2−85952
XeF_2 photolysis, 108-220 nm range, XeF(B,C,D) excimer absolute quantum yield spectral dependences 2−62421
YAG CW laser engineering 2−60108
Yb vapour, laser optical pumping with vel. changing collisions 2−59762
$^{171}Yb^+$, electrodynamically confined, optical pumping double reson. microwave obs. 2−80521
ZnSe, stimulated photoluminescence, lasing mechanism 2−99183

optical quantum generators *see lasers*

optical radar
see also remote sensing by laser beam
airborne depth sounding using Nd:YAG laser, resonators comparison 2−70603
atmospheric dimethylhydrazine, unsymmetrical (UDMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
atmospheric hydrazine, laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
atmospheric measurements, haze aerosol effect on light transmission 2−117459
atmospheric monomethylhydrazine (MMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
bistatic lidar, inverse problem of atmospheric particulate props. determ. 2−106350
bistatic lidar, remote sensing of atmospheric particulates 2−106349
cloud top remote sensing appls. of airborne lidar 2−94502
coherent laser radar target statistics, turbulence effects 2−100546
differential absorption lidar for remote meas. of atm. Hg 2−78274
fog droplet distribution functions for lidar 2−73610
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
laser radar equation in the small-angle approximation 2−90969
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
lidar clear atmosphere multiple scattering dependence on receiver range 2−106306
lidar measurements with photon-count regime reception, energy-freq. balance *(Russian)* 2−102841
lidar simulations, orbiting, aerosol and cloud meas. by independ.-wavelength technique 2−94500
lidar simulations, orbiting, density, temp., aerosol and cloud meas. by wavelength-combining technique 2−94501
meteorological LIDAR, alexandrite tunable narrowband laser appls. 2−114311
meteorological lidar developments, review 2−106335
Mie laser radar obs. of convective cell structs., image data processing 2−112149
ocean remote sensing by lidar, underwater light scatt. effects 2−111929
oceanographic lidar system computed laser backscatt. from turbid liqs., Monte Carlo radiative transfer model 2−94504
rhodamine 6G high power tunable dual freq. laser system for DIAL appls. 2−102819
shuttle lidar resonance fluorescence, Na and K meas. 2−100606
solar-blind Raman lidar, remote atm. water-vapour conc. and temp. meas. 2−68495
stratospheric O_3 and OH conc. meas. by balloon-borne lidar 2−94505
trajectory elongation on paths with localised refr. index inhomogeneities of air 2−106277
tropospheric gaseous pollutants, lidar meas. 2−63132
tropospheric trace species remote meas. 2−94506
tunable laser radar system, flashlamp-pumped, for atmospheric Na layer obs. 2−94511
velocity measurement of objects moving beyond turbulent layer, accuracy estimate 2−112876
wind speed, correlational LIDAR meas., atmosphere transparency fluctuations effects 2−106308
CO_2 advanced laser rangefinders 2−109012
CO_2 CW high power atm. laser radar power amplifier 2−96991
CO_2 laser appl. 2−97067
CO_2 laser radar using detector arrays, beam profile shaping 2−96964

optical radar continued
CO_2 lasers used in Doppler lidars, freq. stabilisation *(Chinese)* 2−65273
Nd:YAG laser based radar system for monitoring air pollution *(Japanese)* 2−93974

optical resolving power
see also optical instrument testing
holographic gratings, aberration corrected, for flat field imaging spectroscopy 2−109026
holography, far-field, object shape, fringe visibility and resolution 2−75541
IR zoom lens system design for target detect., 8 to 13 μm 2−102903
mechanical scanning effect evaluation for optical system resolution 2−91020
nearly confocal microscopy, resolution improvement using offset detector pinhole 2−53830
projection enlarging system for photographic printing, resolution calc. 2−101485
shadow photography, image resolution 2−53868
uncertainty principle, rel. to optical resolving power 2−89784

optical rotation
see also Faraday effect; Kerr magneto-optical effect; rotational isomerism
adamantanethione-d_2, $^1\pi\pi^*$ excited state inversion barrier and optical activity 2−96610
adamantanone-d_2 $^1\pi\pi^*$ excited state inversion barrier and optical activity 2−96610
allylbenzene-(R)-3,7-dimethyl-7-octene copolymers, opt. active, chiroptical props., main chain-side group distance depend. 2−61867
attraction between two solids, structural chirality influence 2−104842
benzenes isotopically labelled, two-photon hot band spectra, Duschinsky effect 2−85680
birefringent optically active crystal, coupled-mode analysis of light propag., linearly polarised eigenmodes 2−55062
(R)−(+)bromochlorofluoromethane, Raman optical activity, bond polarisability theory 2−96580
COC, optical rot., Kerr effect, and dynamic light scatt. in isotropic and homeotropic states 2−61135
convalent semiconductors, nonequilibrium carriers cascade capture effects on Faraday rotation 2−99093
crystal lattice with isomers, optical activity 2−82817
cyclopentanone, $^1n\pi^*$ excited state, racemization 2−80704
dienes, photopolymerising chiral cryst. with topochem. products, optical activity amplification 2−110807
Dove prisms, props., problems, image rot. appls. 2−81052
ellipsometry, optical activity of crystal compensator effects, theoretical anal. *(Russian)* 2−58886
Faraday rotator for high-power glass laser systems 2−113578
ferrocytochrome C, mag. resonance-Raman optical activity 2−85674
ferroelectric crystals, electrooptic activity of crysts. with H bonds, macroscopic theory *(Russian)* 2−61876
fibres, monomode, coiled, Faraday rot., isolator, filter and mag. sensor appls. 2−75712
filters, magnetooptic, dispersive 2−86075
Gaussian sum rules for optical functions 2−99086
impurity cubic crystal, self-induced optical anisotropy 2−108980
isotropic medium with optical activity, EM wave existence and excitation study 2−65133
MIS system, ellipticity and Faraday rotation due to 2-D electron gas 2−110822
molecular crystal, optical activity caused by exciton dispersion 2−87738
molecules, oriented optically active, circular dichroism in continuous absorpt. region 2−59836
natural optical activity, dispersion relations and sum rules 2−75510
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
optically active molecule, Coulomb ionisation, spin polarisation *(Russian)* 2−59901
organometallic radicals, spin trapping by quinones, optically active complex form. 2−110645
plasma, EM wave precessional rotation, intensity induced, calc. 2−55745
polarisation sensitive CARS and Raman-induced Kerr effect as probe of Raman optical activity 2−58907
poly-N-vinyl-3-methyl-2-pyrrolidones, opt. active, synthesis and characteris. 2−61866
prisms, modified Rochon and Senarmont, elimination of optical activity depolarising action 2−109011
quartz gyrotropic bounded medium, surface wave dispersion 2−96827
randomly oriented mols., optical activity 2−108637
symmetry restrictions for natural and induced circular dichroism and optical activity for all point groups 2−110809
testosteronepropionate in soln., circular dichroism and optical rotatory dispersion, Kramers-Kronig transforms 2−70314
toroidal reversed-field Z-pinch poloidal mag. field meas. using far-IR Faraday rot. 2−103442
uniaxial crystals, optically active, appl. in anisotropic acoustooptical deflector 2−81157
$Bi_{3-2x}Ca_{2x}Fe_{2-y}In_yFe_{3-x}V_xO_{12}$, magneto-optical Kerr rotation *(Chinese)* 2−110819
$Bi_{12}SiO_{20}$, elliptical birefringence obs. and interpretation 2−67018
BiYIG, film, bubbles, mag. props. 2−72315
CuCl, self-induced polarisation rotation effect of elliptically polarised beam 2−108936
$(Er_{2.2}Y_{0.8})Fe_5O_{12}$, Faraday rotation anisotropy 2−72460
$IrBr_6^{2-}$, Zeeman levels, mag. optical activity-reson. Raman spectra 2−85668
KCl, self-induced optical anisotropy, reorienting F_A(Li)-centres 2−108980
$NaClO_3$ gyrotropic bounded medium, surface wave dispersion 2−96827
Te, optical activity, current-induced, temp. depend. 2−77483
$(Y,Nd)Al_3(BO_3)_4$, optical rotation saturation and circular dichroism 2−104843
$YAl_3(BO_3)_4$, optical rotation saturation and circular dichroism 2−104843
YIG:Bi single cryst., polar Kerr rotation spectra *(Chinese)* 2−77482

optical saturable absorption
absorbing media, phase conjugation by degenerate four-wave mixing 2−108970
atomic radiative interactions *(Russian)* 2−108437
bistability experiments, absorptive and dispersive, based on saturation 2−102858
bleachable dye Q switch with improved control 2−81002
bromomethane, rovibrational transition, saturation spectra 2−70229

optical saturable absorption continued
Chinese dyes D_1 and D_2, absorption and relax. time *(Chinese)* 2−102883
cryptocyanine solutions, photobleaching and short-wavelength lasing 2−90883
dye CW laser, passively mode-locked, transient absorber gratings for pulse shortening 2−108918
dye laser, flashlamp pumped, passive mode-locking using saturable absorber 2−108917
dye lasers, mode-locked CW, travelling-wave and standing-wave operations comparison 2−114328
dye saturable absorbers, real time holography through triplet state absorpt. 2−86060
ethanol, bleachable radiation absorber for Er^{3+}:YAG laser *(Russian)* 2−108919
ethylene, saturated absorpt. meas. using CO_2 waveguide laser 2−108471
Fabry-Perot, absorptive and dispersive bistability for Doppler-broadened medium, steady-state theory 2−97087
fibres, radiation resistant, recent progress 2−114434
formaldehyde, vibr.-rotation transition, Stark spectroscopy by saturated absorption 2−90591
heptamethine cyanine IR dyes, lifetime, photostability and chem. struct. 2−102884
holographic recording, colour centre conversion intensity depend. 2−90842
I switch parameter optimisation, at. absorpt. line width determ. 2−60181
injection lasers, coating effect obs. using intracavity spectroscopy 2−108880
interactive Kerr effect, role in two-photon optical multistability 2−55282
laser frequency stabilisation by saturated absorpt., metrological results 2−60133
laser fusion system parasitic isolator optimisation 2−97060
laser with saturable absorber and two-component Benard convection, model problem 2−55105
lasers with nonlinearly absorbing cells, absorption saturation method, ultimate precision 2−55279
liquid crystal, electrochemically induced coloration 2−71334
methyl alcohol, laser Stark saturation spectroscopy, IR transition assignments 2−90592
organic solid solutions, burning out of metastable dips in absorpt. spectra, theory 2−91000
polydisperse, aqueous, bleaching by 10.6 μm laser radiation 2−117465
quantum optics first order phase transition analogies, complex order parameters 2−96870
quartz fibre-optic waveguides, induced absorpt. temp. and optical power level influence 2−55344
Ramsey fringes obs. in Ca at. beam, frequency standard appl. 2−102409
rhodamine 6G jet dye laser, mode-locked saturable absorber optimal operating regime 2−96944
Rhodopseudomonas sphaeroides, subpicosec. spectroscopy of primary processes in reaction centres 2−78306
ring laser with saturating absorber, stiff mode locking laser theory 2−75607
ruby, optical hole-burning and ground state energy transfer 2−65314
semiconductor, strong EM wave absorption, intraband carrier motion, density matrix approach 2−61853
single-mode laser model with saturable absorber, bistable limit cycles 2−85934
spiropyran, ultrafast form. of transients in photochromism 2−108534
two-level atoms resonant interaction with two light waves 2−113947
ultrashort pulses generation with strong overlapping of saturation stage of active medium and bleachable filter 2−65234
water, bleachable radiation absorber for Er^{3+}:YAG laser *(Russian)* 2−108919
As-S glassy chalcogenide semiconductor films, reversible optical bleaching 2−67138
CO_2 amplifier with saturating absorber, pulse shaping 2−114325
CO_2, hot, saturation of short laser pulse transmission at 10.6 μm 2−97121
CO_2 laser, pulse propag. simulation using saturable absorbers, laser fusion appl. 2−80992
CO_2 laser high-power optics, absorption's dominant role 2−97043
CO_2 nanosecond laser pulses, temporal shaping in multiphoton saturable absorbers 2−102828
CdSe, optical absorpt. saturation near fundamental edge 2−114387
CsBr(Cl):Ag^+, far UV spectra, fluorescence and optical bleaching studies 2−110901
HCN, saturated absorpt., Doppler-free IR-acoustic spectroscopy using colour centre lasers 2−58916
He-Ne laser, 633 nm, $^{127}I_2$ stabilised, power shifts for various mirror curvatures, report 2−97056
He-Ne laser, 633-nm, $^{127}I_2$ stabilised, freq. depend. on modulation amplitude and wall temp., report 2−75618
I_2 saturated absorption freq. stabilisation for He-Ne lasers *(Polish)* 2−96978
$^{127}I_2$, stabilised He-Ne laser at 633 nm, freq. shifts at low I_2 press. 2−96897
$^{127}I_2$ hyperfine components (520 THz), absolute frequency meas. 2−108929
InGaAsP-InP 1.3 μm laser diodes, loss mechanism characterisation by acoustic and optical meas. 2−80947
InGaAsP-InP BH laser, 1.3 μm., hole-burning at high energy tails in spontaneous emission spectra 2−75569
InSb, nonlinear magneto-optics, CW CO laser pumped, interband magneto-absorption 2−93164
KCl:Eu^{2+}, impurity-vacancy complexes, conversion under γ-irrad. and F-band bleaching, ESR study 2−76499
LiF crystals containing F_2^- centres, Nd laser induced bleaching 2−60180
N_2O laser, optically bistable 2−96918
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
Ne atoms, He-Ne 0.633 μm laser freq. stabilisation *(Chinese)* 2−65202
Si_xC_{1-x}:H amorphous films, reactively sputtered in propane, photoinduced optical changes obs. 2−60179
WO_3 anodic film, electrochromic, coloring-bleaching cycles, ellipsometric study 2−93158
ZnTe, single cryst., nonlinear interaction of laser pulses 2−108977

optical saturation
see also optical saturable absorption
acousto-optical modulators, appl. to high-resolution saturation spectroscopy 2−74518

optical saturation continued
bistability experiments, absorptive and dispersive, based on saturation 2−102858
CARS saturation effect 2−65306
CW laser, mode selection and synchronisation, spatial hole-burning effect 2−55229
dye laser picosecond amplifier chain, Nd:YAG pumped, gain saturation 2−55197
far IR molecular laser, saturation param. and power enhancements, nonlinear Hanle effect 2−60183
four-wave mixing, transient, and coherent transient optical phenomena 2−86061
free electron lasers, multiphoton transitions and saturation 2−114293
IR real time imaging using n-GaAs photoelectrochem. cell 2−58902
molecular gases, coherent anti-Stokes Raman spectroscopy, saturation and secondary Stokeseffects 2−60153
resonant backward 4-wave mixing, saturated susceptibilities 2−108979
scintillation saturation by strong turbulence, plane-wave variance, covariance and spherical-wave covariance 2−55069
semiconductor laser gain saturation, theory and expt. 2−85965
three-level systems, dressed-atom and bare-atom pictures, saturation spectroscopy 2−70628
three-level Λ systems, laser-excited fluoresc., saturation parameters 2−114966
two-level system in gases, Doppler-recoil shift corrections 2−70196
two-level systems, laser-excited fluoresc., saturation parameters 2−114966
CO_2 pulsed elec. discharge lasers, phase grating effects 2−102765
CO_2-N_2 gas-dynamic laser, flowing mixture, gain saturation 2−65197
I laser amplifier chain performance, pulse compression, extraction efficiencies 2−80940
InSb, Landau level nonlinear refr. 2−65292
NO_2, RF dressed mol., optical saturation reson. 2−65028
Nd:doped laser materials, gain saturation obs. 2−85974
XeCl minilaser, high repetition rate, gain and saturation intensity parameters 2−96923

optical self-focusing
see also electrostriction; Kerr electro-optical effect; optical Kerr effect; self-trapping
cavity, optical bistability transients, self-focusing, diffractive coupling 2−81031
CW light propagating through strong absorbing medium, self-focusing and spatial ringing 2−65318
doughnut shaped, laser mode, thermal focusing 2−55283
glass, optical and coloured, resist. to 3-nsec. Nd:YAG laser pulses 2−115280
Kerr media, artificial, laser beam CW self-focusing and self-trapping 2−91004
laser beam, suppression of small-scale self-focusing effects 2−81035
laser beams, apodised, spatial filtering 2−81010
laser spark, scatt. and pulse narrowing 2−97057
liquid crystal nonlinear optical expts., suppression of unwanted self-focusing effects 2−102887
liquid solutions, conc. mechanism for self-action *(Russian)* 2−70630
liquids, laser-induced breakdown, self-focusing and spot-size depend. 2−65320
MBBA nematic liquid crystal, planar-oriented sample, giant nonlinearity 2−114388
multilevel systems, refr. index, nonperturbative quantum calc. 2−60053
nematic liq. cryst. film, optically induced birefringence, laser beam self focusing 2−55281
nematic liquid crystal, giant optical nonlinearity near nonoptical Frederiks transition threshold 2−91003
nematic liquid crystals, optically induced mol. reorientation, wave mixing and light self-focusing 2−65319
optical glass, internal damage with 3 ns pulse laser 2−60204
optical glass, optical const., effects of external fields 2−72440
optical pumping self-focusing, theoretical study 2−65315
passive and active media, self-focusing regimes for single- and two-photon resonances 2−108982
piecewise-continuous high-power laser medium, small-scale self-focusing, nonlinear loss reduction 2−97126
polyatomic molecular system, multiple-photon excitation, coherent propag. effects 2−85761
random light beams in absorbing media, correlation radius decrease obs. 2−91005
resonant self-focusing of laser light in plasma 2−65731
ruby Q-switched laser cavity, self-induced ellipse rot. and self-focusing effects 2−102798
second-order frequency mixing, effects of higher order nonlinearities 2−86046
solid state laser system nonlinear cubic medium self-focusing suppression using circularly polarised optical beams 2−97125
spatial filter for high power Nd:glass laser system 2−70629
stimulated Raman scattering, self-focusing, registration and restoration of light wavefront 2−108981
thermal self-action, fast Fourier transformation 2−60184
third harmonic generation under coherent two-photon interaction with matter, optical pulse self-focusing 2−65307
two-state atomic vapour, self-focusing 2−102888
waveguides, nonlinear beam propagation theory 2−65296
$BaTiO_3$ photorefractive crystal based CW phase-conjugate resonator, spatial and temporal props. 2−108971
CS_2, picosec. laser pulse shortening appls. *(French)* 2−65317
He-Ne laser radiation nonlinearity orientation mechanism and self-focusing in nematic liquid cryst. mesophase 2−97127
I laser amplifier chain performance, pulse compression, extraction efficiencies 2−80940
SF_6, self-focusing 2−102885
SF_6, self-focusing and self-defocusing of intense reson. IR radiation 2−65316

optical storage
see also holographic storage
antireflection trilayer structures, optical recording mechanisms, expt. study 2−90823
digital optical information storage by spatial lifetime hole burning 2−60189
FM spectroscopy and frequency domain optical memories 2−64123
liquid crystal memory light valve using smectic-cholesteric liq. cryst. mixture 2−72468

optical storage continued
magnetic three-layer film, crit. parameters for optical data storage appl. *(Russian)* 2−85900
magneto-optical memory materials and applications *(Japanese)* 2−70510
metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
metrology with $Bi_{12}SiO_{20}$ crystals, real-time 2−85914
organic glasses and polymers, multiple photochem. hole burning for optical storage 2−75641
organic thin films, laser marking obs., optical storage appl. 2−86064
phase-relief recording, optical characts. for Newtonian and viscoelastic layers 2−114208
pseudocoloring method using two different spatial modulations, image storage appls. 2−90819
recording media for laser beam memory 2−55285
Te layers for optical data storage, hole formation process 2−70640
textured surface, optical storage medium, reflectance changes 2−81038
video disc characterisation 2−91006
Weigert effect, use for optical data processing *(Dutch)* 2−58924
Al films, laser machined holes, TEM, SEM and numerical study 2−86725
$Bi_{12}SiO_{20}$ crystals, optical data anisotropic recording processes 2−85908
Cr films, laser machined holes, TEM, SEM and numerical study 2−86725
Ge, textured optical storage medium, microstructure, reflective spots 2−65321
IrO_x, sputtered film, optical writing with laser beam 2−91008
$KCl_{0.9}Br_{0.1}$ crystals, Hurter-Driffield characts. and optical storage 2−81041
NaF photochemical hole burning polycrystalline thin film material, vapour deposition 2−111083
Se-Te bilayers, struct. changes by laser writing, TEM study 2−91009
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325
Si/Rh bilayers, optical storage by laser writing 2−81036
Si-metal bilayer, laser writing for optical storage, TEM and electron diffr. study 2−91011
Te corrosion-resistant film deposition for ablative optical recording media 2−62243
Te films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
VO_2 based two-phase films, optical constants determ., use for data recording *(Russian)* 2−61996

optical storage devices *see optical storage*

optical stores *see optical storage*

optical susceptibility
see also nonlinear optical susceptibility
coupled external and internal strains, elastic response and consts. 2−92076
degenerate band charge carrier gas, nonlinear optical props. in mag. field 2−76947
III-V semiconductors, third order susceptibility in true continuum near band edge 2−102852
Jahn-Teller nonferroelastic crystals, elastic and dielec. props. 2−115331
lithium formate, parametric light scatt. obs. of lattice vibr. 2−99145
metal clusters, IR absorption spectrum, dielec. and mag. susceptibility, Maxwell's eqns. 2−82863
polar fluid, electrostriction, dielectric saturation, statistical mech. study 2−99060
poly-γ-benzyl-L-glutamate, solid and solns., dielectric susceptibility meas. 2−61826
random impurity electric dipole system, low temp. collective props., Ising model *(Russian)* 2−116136
smectic B phase, local dipolar order induced by steric effects, dielec. correl. factor 2−91768
tanane, ferroelec. and ferroelastic phase transition, soft acoustic mode 2−93122
two-sublattice model, piezoelec. and elastic props. 2−87675
Al-Al_2O_3-Au struct., dielec. props. meas. at low freq. *(French)* 2−72075
$BaMnF_4$, magnetoelectric phenomena, freq. depend. 2−66888
$CdGa_2S_4$, band struct., linear optical characts., effective carrier masses, pseudopotential calc. 2−61355
$CrSe_2$-1T, lattice instability and electron-lattice interaction, Jahn-Teller mechanism 2−98210
α-$LiIO_3$ single crystal, thermal study, 195-265K 2−104014
NH_4HSO_4, ferroelec., dielec. susceptibility dispersion, high freq., dipole ordering 2−87666
$NaNO_2$, incommensurate phase transition near Lifshitz point, thermodynamic theory 2−87712
$RbH(D)SO_4$, ferroelec., dielec. susceptibility dispersion, high freq., dipole ordering 2−87666
$TaSe_2$(2H), electronic susceptibility, CDW and lattice vibr., Raman scatt. study 2−77530
TiS_2-1T, lattice instability and electron-lattice interaction, Jahn-Teller mechanism 2−98210
VSe_2-1T, lattice instability and electron-lattice interaction, Jahn-Teller mechanism 2−98210
W (001) surface electronic struct., APW and warped muffin-tin calc. 2−61343

optical systems
see also adaptive optics
acousto-optical spectrograph for H I line obs., design features and anal. 2−94606
all-mirror system, Fourier transform props. 2−108809
apodisation problem in coherent imagery of edge ringing phenomenon reduction 2−75530
background optical suppression system MTF, preliminary laboratory meas. 2−107400
background optical suppression system sensor, predicted performance over spatially structured terrain 2−109075
barochromatic aberration of optical systems 2−70514
beam optical systems, spherical aberration, analytical expressions 2−80903
bistable optical device physics and operating characts., review 2−97077
centred optical systems, axial point aberrations, polychromatic correction 2−55298
characteristic function determination, order doubling 2−102713
coherent approach to optical engineering 2−108993
coherent optical adaptive technique system computer modelling algorithm 2−81050
coherent optical processor, freq.-multiplexed, intensity moment computation, design 2−114198
complete electro-optical system, end-to-end computer simulation, image quality extension 2−55349
complex optical system parameters, computer use for tolerances calc. 2−114404
conference, Los Alamos, NM, USA (Apr. 1981) 2−94889
Del'fin 1 laser fusion facility, optical system, preliminary expts. 2−115029
development and manufacture, requirements on optical media *(German)* 2−86072
emission-line coronagraph, primary and secondary optical systems design and performance 2−106528
encircled energy for systems with centrally obscured circular pupils 2−81049
flow optical probe for high-temp. local void fraction determ., 2D ray tracing simulation 2−55676
flying spot scanning optics, high efficiency, symm. 2−91025
Fourier transformer, achromatic, spatially coherent 2−96847
free falling objects, constant magnification viewing by optical carriage mechanism 2−60214
glass optical system transforming laser beams, microinclusion influence 2−55238
glass selection automation in optical system calc. 2−108986
holographic plane diffraction grating production, optical schematics 2−70526
image quality and correction, DIF-FC parameter influence on image symmetry 2−75652
image quality and corretion, DIFPD parameters influence on image symmetry 2−75651
imaging interferometer sounder for remote sensing, design considerations for programmable signal processor 2−112160
impulse response of optical systems with feedback 2−60211
incoherent system, low freq. de-emphasis of MTF, one dimens. case 2−85905
integrated optical system with arbitrary oriented light-guiding elements 2−70708
interferometer imaging sounder for remote sensing, optical system design 2−112159
laser beam transforming optical system thermal distortion correction 2−75656
laser Doppler anemometer with Gaussian beams optical system metrological characts. *(Russian)* 2−114932
laser projection microscope system for fast stop-motion photography of biol. objects 2−105860
light rangefinder *(Russian)* 2−97152
line scanning gradient-index lens array, system, luminous intensity 2−75646
line-of-sight steering and stabilization 2−60216
matrix-matrix multiplier based on outer product decomposition 2−91024
mirror and reflective prism optical system, computer calc. of vector triad 2−109001
MTF prediction criteria 2−108803
non-imaging transformers, axially symm., variable angle 2−108997
non-imaging transformers, ideal, new class 2−108996
nonconventional optical systems and the brightness theorem 2−90799
phase imagery, impulse and edge responses 2−108804
photocopying, light source brightness determination *(Russian)* 2−97136
planar sources that generate the same radiant intensity at general optical system output 2−86068
printing by laser, optical system design for HP 2680 system 2−102842
quadrant detector, image-position error 2−84592
resolution, mechanical scanning effect evaluation 2−91020
scanner using fibre optic directional source array for ball bearing inspection 2−62342
segmented aperture averager, optical anal. 2−97141
self-calibrating meas. systems *(German)* 2−53726
space-variant optical systems, multiplex hologram representation using ground-glass encoded reference beams 2−65182
symmetrical systems, derivatives of aberration functions with respect to axial distances 2−80904
synthesis of optical systems 2−90817
toric surface coaxial optical system, ray array calc. *(Spanish)* 2−85887
transfer functions, radially symm., upper and lower bounds 2−108810
turbulence-meter signals, statistical characts., linear approxs. 2−114193
two-mirror aberration free systems, second mirror figure determ. 2−81044
vario-objective optical system for colour television *(German)* 2−60209
CO_2 advanced laser fusion systems, glancing incidence optics appls. 2−97029

optical telescopes *see telescopes*

optical television recording *see video recording*

optical testing
Used for testing of optical components. For testing by optical means see materials testing or nondestructive testing
see also optical instrument testing; optical workshop techniques
aberrations, sixth-order, interferograms and point spread functions 2−114201
acrylate-coated fibres, UV-cured, environmental testing 2−114443
applied optics, conf., Rochester, NY, USA (May 1982) 2−112647
aspheric surface testing using computer-generated holograms *(Chinese)* 2−91017
aspherical surface, optical testing by computer-generated holography *(Chinese)* 2−70712
aspherical surface monitoring with laser interferometer *(Russian)* 2−84689
aspherical surface shape testing using a laser interferometer 2−97247
coated optical surface residual refl. evaluation using microspectrophotometry 2−75739
coating microhardness and scratch testing 2−81131
component surface testing, interferogram processing precision analysis 2−60212
concatenated multimode optical fibres characts. meas. by time domain meas. technique 2−109073
conical optical elements, polarisation effects in interferograms 2−53823
direct-coupled optical pulse generator hybrid IC for fibre-optic testing 2−97250
fibre attenuation coeff. meas. using backscattering method *(French)* 2−70691
fibre loss measurements, selection of mandrel wrap mode filters 2−102944

optical testing continued
fibre optic attenuation meas. with aid of microprocessor 2−114483
fibre preform quality evaluation, direct display of deflection function 2−55362
fibre preform testing *(German)* 2−91097
fibre waveguides, defects detect. by Raman spectroscopy 2−86117
fibre-optic communication system meas. instrumentation 2−97243
fibre-optic data transmission system testing under simulated field conditions 2−109095
fibre-optic short-range fracture fault location using acoustic time-domain reflectometer 2−91100
fibre-optic testing using optical time-domain reflectometers 2−102959
fibre/cable ATE, attenuation and pulse broadening, core/cladding diam., numerical aperture 2−81135
fibres, acrylate coatings, environmental effects, static fatigue testing 2−81134
fibres, plastic transparent monocryst., fatigue test instrument for four-point bending conditions 2−91098
fibres fracture parameters and testing *(French)* 2−70694
field trials, meas., testing and maintenance of installed optical cables and systems 2−81087
fog chamber charact., used for electrooptical device performance meas. 2−96834
fungicidal coatings to protect optical surfaces, comparative evaluation of Hg, Sn microelements 2−109092
glass surface, polished, autocorrelation function determ. by light scatt. *(German)* 2−109081
graded-index compound-glass fibres, scatt. sphere and total loss meas. 2−102943
holographic lenses, on-axis, higher diffr. orders 2−114395
holographic systems for testing aspherical surfaces, tolerance and optimisation calc. 2−70525
image transfer device MTF, instrument for meas. 2−114474
imaging system assessment, visible and IR, symposium, Reading, Berks., England (April 1981) 2−112639
IR interferometric analysis of thin films and optical surfaces 2−70711
IR precision optics, instruments for testing 2−114475
IR sensor, long wavelength, test facility, Al mirror design for large aperture precision collimator 2−102958
large astronomical mirrors, thermal gradient effects in optical testing 2−91016
laser mirros for far VUV spectral region 2−81046
laser-resonator alignment testing, comprehensive control using software system 2−108908
lens centering on an axis of rot. by speckle photography *(French)* 2−102901
lens optical power, automatic meas. method 2−108990
lens quality assessment, microprocessor controlled instrument for line spread function meas. 2−114400
lenses, distributed-index, aberration evaluation and reduction, review 2−75648
lenses, distributed-index, index profiling by shearing interference method 2−74483
lenses, gradient-index rod, wave-front aberration meas. 2−75649
lenses, Pentax-M series, test reports 2−74527
Michelson stellar interferometer optical surface and rot. axis alignment using Twyman-Green interferometer 2−112337
microscope optics centering accuracy 2−75740
mirror surface ripple effects on image quality, astron., telescope performance appls. 2−108994
mirror surface testing, fringe contrast improvement in Fizeau interferoscope 2−55297
multimode fibres characterisation, using selective excitation *(French)* 2−70690
multimode optical fibres frequency charact. meas. *(French)* 2−70689
noncontact alignment and spacing of optics 2−102897
nondestructive testing of optical-fibre preforms 2−55366
nonrectilinearity measurement using noncontact optical straight edge 2−74481
optic window testing using radial schlieren system 2−81051
optical fibres, long length, failure prediction based on proof testing 2−97242
OTF measurement techniques in China 2−114203
OTF of lenses, illumination noncoherence in equipment for meas. 2−90833
parabolic mirror, f/6, 200 mm, testing using holographic Twyman-Green interferometer 2−102742
photographic high-speed production lens testing by MTF meas. 2−114399
prisms, angular error examination 2−70654
quality control at 10.6 microns wavelength, using diffraction point method 2−114402
quasi-interferometry with coded correlation filtering 2−107392
real-time thin film refractive index and thickness monitor 2−114479
reflectors, coated, laser damage testing at excimer laser wavelenths 2−97028
refractive index profiles meas., on multimode fibres and preforms, transmission props. and optimisation *(French)* 2−70688
rough surface statistical charact. determ. using waveguide scatt. of light 2−70714
single-mode fibre, effective cut-off wavelength meas. 2−109072
solar collector concentration using reverse illum., optical characterisation method 2−108992
specular metal surfaces, dent and scratch detect. using optical-digital technique 2−109085
surface nonaxisymmetrical errors, interpretation of rotational-shearing interferograms 2−108832
target collimator system design and performance at Lockheed Sensor Test Facility (LSTF) 2−109010
thermal imaging lenses, optical evaluation 2−114401
triplet standard lens, intercomparison of calc. and meas. OTF 2−114202
ultralong multimode optical fibre fault location using Raman optical time domain reflectometry 2−97239
waveguide fibres, product qualification procedure 2−109087
Al mirror specular reflectance standards, prep. and calibration 2−114405
$CaCO_3$ calcite plate fabrication, monitoring of linear displacement between ordinary, extraordinary rays 2−114481
SiO_2:F, vitreous silica optical fibre preform, Raman spectra anal. 2−65382

optical transfer function
aberrations, sixth-order, interferograms and point spread functions 2−114201
aerosol spatial-frequency and wavelength-depend. effects on atm. MTF 2−106314
aerosol-scattered background light, spatial-freq. depend., atm. modulation transfer function 2−78836
atmosphere, modulation transfer functions rel. to limiting resolution of electro-optical devices 2−117457
background optical suppression system MTF, preliminary laboratory meas. 2−107400
background optical suppression system sensor, predicted performance over spatially structured terrain 2−109075
Czerny-Turner type plane grating spectrometer transfer function meas. method 2−90828
diffractograms, of electron micrographs, computer-aided reconstruction of image contrast 2−55816
digital imagery and display fundamentals, resolution and MTF problems 2−114209
disperse systems, OTF 2−65178
disperse-system layer OTF, receiver distance effect 2−65179
dispersion relations for finite freq. intervals, generalised Kramers-Kronig relations, spectrum-restoring filter 2−85903
electron microscopy, high resolution, misalignment effects 2−71305
electron-optical convertor system in pulsed mode of operation, OTF 2−109076
fast Fourier transform algorithm, Winograds, OTF calc. appl. 2−114196
fibre waveguide system, series-connected, with step refr. index profile, transfer function 2−114463
Gaussian apodisation filter systems, incoherent transfer functions 2−55079
geometrical and diffraction MTF calculation with HP-85, HP-9845 computers 2−114200
GRIN fibre lens arrays, optical imaging and radiometric props., fibre length depend. 2−102935
holographic imaging systems two- and three-element, chromatic connection 2−70519
image assessment methods, introductory survey 2−114199
image improvement, noise smoothing 2−70511
image intensifier tubes, MTF definitions 2−114469
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
image recognition, optical transformation for feature extraction *(Russian)* 2−85897
image transfer device MTF, instrument for meas. 2−114474
imaging system assessment, visible and IR, symposium, Reading, Berks., England (April 1981) 2−112639
incoherent system, low freq. de-emphasis of MTF, one dimens. case 2−85905
IR precision optics, instruments for testing 2−114475
lens quality assessment, microprocessor controlled instrument for line spread function meas. 2−114400
lens system, OTF meas. instrument based on edge image analysis 2−55295
lenses, illumination noncoherence in equipment for OTF meas. 2−90833
low pass and band pass filter realisation by pupil function replication, OTF synthesis 2−96848
measurement techniques in China 2−114203
microdensitometer positioning errors, random, transfer-function approach 2−84684
microfilm detail rendition depend. on exposure, MTF determ. *(German)* 2−64142
mirror, sectional, phased image quality anal. 2−75657
MTF measurement system, new development in image quality meas. 2−107379
multimode fibres, baseband transfer function estimation 2−102942
partially coherent optical information processor, apparent transfer function 2−96841
particle layer luminescence, two-const. models, layer luminesc. 2−65156
particle layer luminescence, two-const. models, p-layer model 2−65155
photographic high-speed production lens testing by MTF meas. 2−114399
polarising microscope, optical transfer functions, off-axis aberration effect 2−53831
polarising microscope with crossed polarisers, polychromatic OTF 2−84699
quasi-homogeneous partially coherent imagery, inearity 2−102728
radially symmetric optical transfer functions, upper and lower bounds 2−108810
sampled 2-dimensional imagery, information density and efficiency 2−108801
space frequency filter encoding for coherent optical processors *(Russian)* 2−114205
subjective image quality, effects of sampling, OTF shape and OTF anisotropy 2−111682
subjective image quality, sampling, OTF shape and anisotropy effects 2−55086
synthesis of optical systems 2−90817
system MTF prediction criteria 2−108803
telescope system astigmatism and field curvature correction, psychophysical meas. 2−105873
triplet standard lens, intercomparison of calc. and meas. OTF 2−114202
Ge, surface damage effect on spatial resolution, MTF meas., 8-12 μm spectral region 2−105347
Si IR detector arrays, line spread function, crosstalk, and modulation transfer function 2−89809

optical variables control
film, microprocessor-controlled magnetron reactive sputtering system 2−57289
X-ray diagnositc set with image intensifier, electronic brightness stabiliser 2−78411

optical variables measurement
see also colorimetry; densitometry; light velocity measurement; optical noise measurement; photometry; polarimetry; Q-factor measurement; refractive index measurement; streak photography; turbidimetry
absorbing materials, refractive index and absorpt. coeff., reflectance meas. method 2−89793
absorption measurements of laser optical materials by interferometric calorimetry 2−97044
aerosol light absorpt., diffuse reflectance and diffuse transmission meas. 2−53821

optical variables measurement continued
aerosol optical absorption, imaginary refr. index, mass conc. and size meas., integrating plate method 2−53806
aerosol particle generation, transport and characterisation, comparison of light absorpt. instruments 2−57639
aerosol particle light absorpt. meas., photometric and calorimetric techniques 2−53812
aerosol particle light absorption meas., workshop, Fort Collins, CO, USA (July-Aug. 1980) 2−53407
amplitude-freq. characts. meas. using optical heterodyning in fast freq. scanning mode 2−58805
aspherical surface, optical testing by computer-generated holography *(Chinese)* 2−70712
attenuation factor meas. of optical glasses, using photometer and spectrophotometer attachment 2−101441
coherent light pulses, ultra-short, pulse width meas. technique 2−75613
concatenated multimode optical fibres characts. meas. by time domain meas. technique 2−109073
connector parameters meas., losses determ. 2−109046
cylindrical glass tubes solar collector cover, optical transmittance measurements 2−57725
dielectric, optical property determ. method 2−107376
differential lock-in amp. for optical meas. 2−112946
dralon fibre of dog-bone cross-sectional shape, birefringence, interferometric meas. 2−91049
far IR lasers phase-locked by Stark effect, optical frequency meas. appl. 2−102845
femtosecond laser pulse duration meas. system 2−95428
fibre attenuation coeff. meas. using backscattering method *(French)* 2−70691
fibre attenuator calibration, pyroelectric substitution method using PVF_2 detector 2−86108
fibre loss spectra meas. equipment 2−53807
fibre measurement methods *(German)* 2−114460
fibre optic attenuation meas. with aid of microprocessor 2−114483
fibre parameter determ. using immersion liqs. 2−70695
fibre splice loss and fibre loss meas. by backscatter method 2−55346
fibre transmission characts. diagnostic meas., in single-mode fibres 2−109071
fibre-optic communication system meas. instrumentation 2−97243
fibres, time domain reflectometer for backscattered light 2−101448
fibres testing by time domain reflectometry test set for long wavelength monomode fibres 2−107391
graded-index multimode optical fibre waveguides, differential modal delay meas. 2−65399
high bandwidth single mode fibre spectral meas. using tunable InGaAsP laser 2−65248
high-pressure cell for meas. of optical absorption coeffs. at liquid N_2 temps. 2−69197
high-pressure cells, stress distrib. in cylindrical windows 2−101435
imaging system assessment, visible and IR, symposium, Reading, Berks., England (April 1981) 2−112639
insertion loss in multimode optical fibres, halogen lamps appl. 2−97179
laser beam diagnostics of multi-wavelength fusion laser 2−55234
laser beam power in dual-beam laser scanner 2−95423
laser freq. meas. of NPL 2−64003
laser frequency meas. and metre redefinition 2−53718
laser IR radiation beam divergence meas., by two section method 2−65277
laser mirror using acousto-optical device meas. and control system, displacement 2−97051
laser pulse, ultrashort, real time pulsewidth meas. technique 2−108925
laser radiation displacement influence on units transmission of relative distribution of power density 2−86023
laser single ultrashort pulse duration meas. by second harmonic method in nonlinear crysts. 2−55267
laser-to-fibre coupling technique characterisation by optical feedback 2−81072
luster measurement with a FOU photometer 2−69235
modulation depth measurement in wavelength modulation spectrometer using laser light 2−53846
MTF of image transfer device, instrument for meas. 2−114474
multimode optical fibre bandwidth meas. in frequency domain 2−84682
multimode optical fibres frequency characts. meas. *(French)* 2−70689
nonlinear correlation method using multiphoton ionisation for UV ultrashort pulse meas. 2−81015
optical fibre differential mode delay measurement, comparison of techniques 2−97178
optical fibres attenuation measurement principles and anal. and measuring apparatus *(French)* 2−70677
optical radiation magnitudes, progress in measurements calibration and standards *(Rumanian)* 2−74480
OTF measurement techniques in China 2−114203
OTF measuring instrument for lens system based on edge image analysis 2−55295
OTF of lenses, illumination noncoherence in equipment for meas. 2−90833
paint coatings, portable gloss tester 2−58873
polypropylene fibre, multiple skin, refractive index and birefringence variations, interferometric meas. 2−91048
pulse energy of optical radiation meas., photometer design appl. 2−64089
pulse laser energy meas. using optical meter based on optoacoustic phenomenon 2−55235
pulsed Gaussian-beam spot size meas. using optically induced phase transform on Si single crysts. 2−75616
pulsed image-converter tube attachment for brightness meas. in IR range 2−95432
pulsed laser wavelength calibration, use of optogalvanic effect and U atlas 2−71270
pulsed optical source fluctuation microprocessor controlled meas. system 2−64083
rhodamine 6G CW dye laser, cavity length detuning effects, simultaneous autocorrel. and synchroscan streak camera meas. 2−97045
short optical pulse meas. *(Italian)* 2−86024
sigmameter, instrument for meas. wave nos. of pulsed and CW lasers 2−95464
single mode silica fibre min. dispersion spectrum meas. with 0.1 ps resolution by crosscorrelation method 2−97203
single-mode fibre, effective cut-off wavelength meas. 2−109072
single-mode long-span fibre, dispersion meas. method 2−55341
spatial coherence complex degree meas. at optical fibre end face 2−91059

optical variables measurement continued
surface examination using spectrometer, fibre-optic meas. head for optical information extraction 2−89822
turbidity multichannel instrument using scanning He-Ne laser system, bacteria numbers estimation appl. 2−117178
ultrashort pulsewidth measurement, pulse variations effects 2−86034
wave optical quality criteria, approximate representation *(German)* 2−84681
wide-range integrated-circuit digital laser-power meter 2−114296
CO_2 high-power laser beam, temporal and spatial power distrib. meas. 2−97048
CO_2 laser polarised performance determ. method *(Chinese)* 2−65272
HCN CW laser, submillimeter wavelength meas. 2−102811
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285

optical waveguide components
see also optical couplers; optical isolators
2×2 matrix switch using dielectric chip motion 2−86094
2×2 waveguide matrix switch, non-blocking, using dielectric chip motion 2−75682
Bragg reflectors, coupled-beam anal. 2−60261
electro-optic modulators, high-speed, review 2−109032
electro-optic waveguide TE(-)TM converter/wavelength filter, tunable 2−75722
fibre attenuator calibration, pyroelectric substitution method using PVF_2 detector 2−86108
geodesic components for guided wave optics 2−86137
graded-index sphere lens with hemispherical rod cladding 2−102954
lens array, gradient-index, luminous intensity 2−75646
lenses, distributed-index, aberration evaluation and reduction, review 2−75648
lenses, distributed-index, index profiling by shearing interference method 2−74483
lenses, gradient-index rod, wave-front aberration meas. 2−75649
liquid-crystal optical attenuator, polarisation-independ., fibre-optics appls. 2−65346
magneto-optical 3 layer unidirectional TE-TM mode converter, film thickness and waveguide length effects calc. 2−55358
microlens, gradient-index rod, selfoc, with spherical surface 2−75647
monolithic optical integration prospects 2−86132
passive guided-wave optical components, review 2−75679
polarisation independent switch using a Gaussian taper function 2−75681
$CaCO_3$, calcite 2×2 optical bypass switch controlled by liq.-cryst. cells 2−60257
$LiNbO_3$ crossed channel waveguide TIR switches, GHz bandwidth, 4×4 switching networks 2−75680
$LiNbO_3$ waveguide modulators, space-charge effects 2−75684
$LiNbO_3$:Ti waveguides, geodesic lens fabrication techniques 2−75733

optical waveguide theory
see also guided light propagation
analytical bending loss formula of optical fibers with field deformation 2−65389
anisotropic heterostructure waveguides coupled multimode analysis 2−65356
anisotropic inhomogeneous optical waveguide, exact method for light propag. analysis 2−109040
anisotropic media, beam propag. method extension 2−102955
anisotropic open waveguide, effect of discontinuities on modes 2−60235
asymptotic vector modes of inhomogeneous circular waveguides 2−65349
baseband freq. characts. of multimode fibre whose axis suffers from random bends 2−65394
book 2−58573
Bragg reflectors, coupled-beam anal. 2−60261
curved waveguide, index of refraction variation over cross section 2−81077
cylindrical dielectric waveguides with arbitrary refractive index profile, propag. const. 2−114420
depressed inner cladding fibres, fundamental-mode cutoff calc. 2−97194
dielectric thin-film waveguides for optical integrated ccts., equivalent network analysis 2−65355
diffused channel waveguide, numerical soln. 2−60234
diffused waveguide, numerical method for refr. index profile reconstruction 2−97174
directional couplers with random parameters, statistical theory 2−55329
doubly clad single-mode fibres, propag. props. and universal curves 2−65378
embedded optical waveguide, numerical analysis 2−65354
fibre, losses caused in manufacture and in use *(Croatian)* 2−86107
fibre, monomode, power spectrum of microbends, model 2−75700
fibre lightguides, multimode and single-mode, pulse distortion, dispersive props. 2−75691
fibre loss model, total-loss data separation into absorpt. and scatt. components 2−102934
fibre numerical aperture, definition and effect of skew rays 2−97204
fibre polarization characts. calc., use of circularly polarized waves 2−114468
fibre transit time calculation method for any refr. index profile, matrix method *(German)* 2−102950
fibreguide link, mathematical separation of multimode, material dispersion 2−65370
fibres, multimodal gradient, ray theory of dispersion 2−114461
fibres, slowly varying, pulse dispersion and induced power loss 2−55339
field distribution in elliptical optical fibre, theoretical analysis 2−65393
film waveguide sandwiched by electrooptic and magneto-optic media, non-reciprocal phenomena 2−55359
graded index fibres transmission bandwidth meas., step-graded-step-index spliced fibres exciter 2−102952
graded index multimode fibres, guided propag. characts. *(French)* 2−70686
graded-index fibre refr. index profile optimisation 2−75685
graded-index fibres, vectorial wave analysis 2−65391
graded-index multimode fibre splicing for intermodal dispersion compensation 2−86113
graded-index multimode fibres, measured and predicted bandwidth comparison 2−75706
GRIN planar waveguides, sinusoidally modulated, mode coupling, beam propag. method 2−102917
guided-wave electronics *(Japanese)* 2−97235
injection lasers, stripe geometry, optical scatt. at lateral waveguide boundaries 2−85969

optical waveguide theory continued
linearly tapered grating couplers, intensity profile analysis of outgoing beams 2−55328
mode selecting characteristics of four-layer dielectric slab waveguide 2−65357
multimodal fibres, partially coherent radiators 2−114186
multimode graded-index fibres with index imperfections, minimum pulse broadening 2−75707
multimode rectangular IR waveguides, loss increases due to helical deformations 2−86097
nonlinear beam propagation theory 2−65296
optical transmission in thin plane-parallel films *(Spanish)* 2−86095
partial coherence properties and spectral transfer functions of optical waves in dispersive waveguides 2−65351
planar arbitrarily anisotropic diffused optical waveguide anal., finite element method 2−86096
polarization-selective lateral waveguiding in layered dielectric structures 2−86099
propagation characts. of optical fibres, two-dimensional finite-element method calculation 2−65395
radial inhomogeneities, theory, field equations 2−86098
rectangular cross section optical waveguide, variational analysis 2−55325
reflection and transmission problems in open waveguide system, analysis 2−65350
semiconductor laser waveguiding analysis, effective index method 2−85966
single mode azimuthally inhomogeneous fibre, finite element anal. of stress-induced birefringence 2−75698
single mode fibre, modal dispersion approx. deduced from mode spot size spectral behaviour 2−97195
single-mode condition of optical fibres with axially symmetric refractive index distribution 2−65392
single-mode fibres, theory of profile-moments description 2−97172
single-mode fibres, zero total dispersion over extended spectral range 2−65390
single-mode fibres uniform bending losses 2−114466
single-mode graded-index fibres, splice-loss evaluation 2−102933
single-mode waveguide dispersion using equivalent step index approach 2−75693
slab dielectric waveguides, numerical analysis of discontinuities 2−65352
slab waveguide, scattering and mode conversion 2−81079
spliced graded-index optical fibres; exact analysis of intermodal dispersion compensation 2−75708
step index dispersion-free multicomponent fibre, sensitivity to geometrical parameters 2−75704
step-index circularly symmetric optical waveguide, strong anisotropy, wave propag. 2−75675
stressed optical fibers and their use as polarizing components 2−97175
symmetric dielectric slab waveguide, absorpt. (gain) consts. for orthogonal guided modes 2−109041
tapered monomode waveguide, near field radiation pattern 2−60233
twin waveguides, coupled mode zero dispersion, refl. characts. at prism-twin-waveguide-coupling boundaries 2−86100
two dimensional waveguide equation soln. using finite element method 2−102918
two-mode fibres, splice loss prediction, analytical model 2−91058
W-type fibre, anal. approx. for propag. and dispersion parameters 2−86109
wave theoretical analysis of spot excitation near-field scanning method for optical fiber index profiling: effect of finite spot size 2−55343
$LiNbO_3$ optical waveguides, 3-D, nonlinear optical phenomena 2−55264
$LiNbO_3$:Ti diffused waveguide integrated optic electrooptic modulator electrode anal. 2−55318

optical waveguides
see also optical fibres; optical waveguide components; optical waveguide theory
A/D, convertor, electrooptic guided wave design, 4-bit 828 megasample/sec. 2−60260
acoustic hologram reconstruction of point source in an inhomogeneous waveguide, optical method 2−60313
anisotropic heterostructure waveguides coupled multimode analysis 2−65356
anisotropic optical waveguides, approximate scalar finite-element anal. 2−81075
asymmetrical dielectric waveguides, second harmonic lasing 2−108953
Bragg diffraction switches, electrooptic, in low cross-talk integrated-optics switching matrix 2−91093
cavity waveguides coupled with square cross section waveguides, coupling losses 2−114423
conference, integrated and guided-wave optics, Pacific Grove, CA, USA (Jan. 1982) 2−58550
corrugated grating structures in diffused waveguides, noncollinear Bragg diffr. 2−60237
dielectric, with arbitrarily shaped cut-ends, guided mode refl., transmission and radiation 2−114428
dielectric thin film waveguide, edge guidance verification 2−109034
dielectric thin-film waveguides for optical integrated ccts., equivalent network analysis 2−65355
dielectric-slab waveguide, scatt. from immersed cylindrical inhomogeneities 2−75678
diffused waveguide with a dielectric film, acoustooptic interaction 2−114425
diode laser, oxide isolated stripe geometry waveguided, emission profile meas. 2−55147
diode laser, stripe geometry, modal propag. const. and field intensity calc. 2−55148
embedded optical waveguide, numerical analysis 2−65354
fabrication in amorphous film by laser annealing 2−97171
fibre fabrication, recent progress waveguide appl. *(Japanese)* 2−91071
fibre-optical hydrophone using multimode waveguide, based on Mach-Zehnder interferometer 2−81189
film waveguides obtained by RF sputtering, cathode-ray vaporisation, loss mechanisms, ion polishing improvement 2−75672
frequency characteristics of light pipes 2−60236
geodesic lenses printed in glass with ion-exchanged film waveguides 2−65406
glass, planar waveguide fabrication by ion-assisted techniques 2−55331
glass channel waveguides, variable-weight integrated beam splitters 2−86134

optical waveguides continued
glass optical waveguide, fabrication by ion exchange, two-dimens. integrated optics appl. 2−65348
glass planar optical waveguides, fabrication by Tl^+ ion exchange diffusion 2−109042
glass plane waveguide fabrication, immersion in molten $AgNO_3$, ion exchange *(Chinese)* 2−65419
glass sputtered film waveguides for integrated optics, scatt. pattern meas. 2−70671
glass thin film optical waveguide, RF sputtered, fluctuation and scatt. props. 2−81078
glass waveguides, out-of-plane scatt. 2−75520
glass waveguides for integrated optics, buried single-mode type, fabrication 2−75734
glossary of optical waveguide communications 2−89487
graded-index planar optical waveguides, critical ray-like propag. modes 2−91044
graded-index polymer rods, polarisation props. 2−114426
graded-index rod, long, imaging capabilities 2−75671
guided-wave interferometer, high-speed, appl. 2−102957
image transmission, modally allotted through homogeneous planar waveguides 2−75673
in-diffused passive elements of integrated optics in ion-exchanged waveguides 2−86136
inhomogeneous slab and cylindrical dielec. waveguides with discontinuous permittivities, propag. modes 2−70482
integrated optics, organic and amorphous materials, fabrication techniques, review 2−65408
integrated optics, single crystal materials, fabrication techniques, review 2−65409
integrated optics, waveguide fabrication, glass and $LiNbO_3(TaO_3)$, ion exchange and diffusion processes 2−65411
integrated optics modulators, optimal electrode design 2−55319
integrated optics topography problems *(German)* 2−75724
integrated-optic wavelength multi- and demultiplexers using chirped grating and ion-exchanged waveguide 2−91091
interferometer using a planar optical micro-waveguide 2−79661
IR high-pass filter with high contrast 2−97159
Langmuir-Blodgett monolayers, and thin polymer films, molecular orientation meas. using integrated optics and Raman scatt. 2−74508
laser annealing of waveguides and integrated waveguide detect. for scatt. effects reduction 2−70710
liquid crystal, transmission characteristics meas., 0.7 to 1.7 μm 2−75674
low-loss multimode, $AgNO_3/NaNO_3$ glass appl. 2−86106
Luneburg waveguide lenses, alternate technology proposal 2−55296
Mach-Zehnder waveguide interferometer, picosecond sampling 2−60238
methanol-d_4 CW far-IR waveguide laser, optically pumped, relax. oscills. 2−75558
mid-IR waveguide materials 2−97129
modal noise, component interaction problem in guided wave systems 2−60239
mode diffraction at open end of two-dimens. metallic waveguide, indeterminate Pade approx. 2−90809
monomode, BASIC program for simple field calcs. 2−97170
nonreciprocal three-layer waveguides, anal. of leaky modes, appl. to isolators 2−109036
optically pumped far IR rooftop resonator, output stability and polarisation meas. 2−86006
organic dye optical guided wave laser and directional coupling amplifier 2−85997
partial coherence properties and spectral transfer functions of optical waves in dispersive waveguides 2−65351
phase conjugation by four-wave mixing in waveguide 2−70622
phase-matched dielectric waveguide using artificial anisotropic struct. 2−114430
photochromic glass planar waveguides, optically controlled 2−86102
planar dielectric waveguides, four-layer Si clad, mode coupling 2−70670
planar dielectric waveguides, photoresist grating coupler leakage parameter calc. 2−81074
planar optical waveguide lens design 2−86069
planar optical waveguide parameter meas. using refractometer 2−102922
planar optical waveguides, chirped grating lens design 2−114431
planar periodic dielectric graded-index waveguide, optical modes, WKB approx. 2−102923
plane waveguides at Fresnel-zone distances, diffr. transmission of radiation 2−114424
polymer thin-film optical waveguides, ageing process, visible-UV study 2−109039
prism coupler jig for coupling gap obs. using interf. fringes 2−65416
prism coupler utilising anisotropic inhomogeneous planar waveguide, theory 2−55330
prism light guide, efficient, for interior illumination 2−102919
quartz, crystalline, optical S-waveguides fabricated by ion bombardment 2−109044
rectangular waveguide resonators with conventional and phase-conjugate mirrors, mode discrimination, coupling losses 2−90941
reflection and transmission problems in open waveguide system, analysis 2−65350
refractive index profiles meas., on multimode fibres and preforms, transmission props. optimisation *(French)* 2−70688
resonators with distributed Bragg reflectors 2−86101
resonators with phase-conjugate mirror 2−60126
rough surface statistical charact. determ. using waveguide scatt. of light 2−70714
semiconductor internal reflection interference laser 2−60096
semiconductor thin films with thin film optical waveguides, optical consts. 2−82947
single-mode, charact. determ. by changing refractive index of adjacent medium 2−65358
single-mode thin film waveguide parameters, two polarisation meas. 2−102920
single-mode two- and three-layer W-type waveguides, losses due to bending, microbending 2−70674
spectral demultiplexer with a plate waveguide 2−114472
thin film semiconductor waveguides, electrooptic modulation by stationary phase gratings 2−109045
thin-film, multilayered with a buffer layer, propag. characts. 2−109038
thin-film optical waveguide, interf. of scattered modes 2−97173
transmission optics, book 2−112672
tunable optical separators, using multilayered thin film optical waveguides controlled by SAWS, characts. 2−81125

optical waveguides continued
variable permittivity medium, SHG 2−60166
whispering-mode waveguide properties 2−102921
(AlGa)As buried convex waveguide struct. laser with truncated convex active region 2−65258
$Al_xGa_{1-x}As$ multielectrode rib waveguides, electrooptic polarisation modulation 2−65345
$Al_xGa_{1-x}As$ multielectrode rib waveguides, electrooptic polarisation modulation 2−81065
As_2S_3 optical fibre investigation for devices used to match planar and cylindrical waveguides 2−97216
CO water-cooled waveguide laser 2−55204
CO_2 frequency-switching waveguide laser for atm. pollution monitoring 2−96893
CO_2 transversely excited waveguide laser *(Chinese)* 2−55185
CO_2 waveguide laser, gain optimisation 2−108851
CO_2 waveguide laser mode aberration by Brewster angle windows 2−60131
CO_2 waveguide laser pump source for far-IR laser plasma diagnostic appls. *(Japanese)* 2−90925
GaAlAs visible laser, V-channeled substrate inner stripe, stabilised mode operation 2−55183
GaAlAs-GaAs, channeled substrate narrow stripe laser, LPE growth, computer model 2−96982
GaAs, optical bistability with guided waves, theory 2−97073
GaAs, thermally oxidised, Lloyd's mirror interference method for determ. of photoelastic index variation 2−64096
GaAs-AlGaAs injection laser with double strip contact, waveguide props. of active region 2−85972
GaAs-GaAlAs curved rib waveguides, bending loss minimisation, ion beam milling fabrication 2−75676
GaInAsP-InP 1.5 μm DBR lasers with built-in optical waveguide, room temp. operation 2−75593
GaInAsP-InP 1.55 μm distributed Bragg reflector integrated laser directly coupled to external waveguide 2−60117
GaInAsP-InP DH laser with monolithically integrated passive waveguide, LPE regrowth 2−60118
GeO_2-Bi_2O_3-Tl_2O ultralow-loss waveguide construction, 3-3.5 μm region 2−77847
InGaAsP low-loss waveguides coupled to InGaAsP lasers, monolithic integration 2−55188
InGaAsP-InP single-mode buried waveguide structures grown on channelled {111}B InP substrates 2−114421
InP optical Y-junctions and S-bends formed by single-mode rib waveguides 2−114422
InSb, optical bistability with guided waves, theory 2−97073
$LiNbO_3$ channel waveguide-single mode fibre end-to-end joint contact investigation 2−97217
$LiNbO_3$, high-index waveguides, fabrication by proton exchange 2−114419
$LiNbO_3$, interference modulator based on multimode channel waveguide 2−70667
$LiNbO_3$ optical waveguides, temp. compensated prism coupler 2−109035
$LiNbO_3$ Ti indiffused proton exchanged waveguides, fabrication and characterisation 2−91043
$LiNbO_3$ waveguide butt coupling to diode lasers, coupling efficiencies >65% 2−65359
$LiNbO_3$ waveguide modulator, out-diffused, prism-coupled, fabrication and performance for long-term use at 632.8 nm 2−75670
$LiNbO_3$, x-cut, efficient waveguide Bragg deflection grating 2−102956
$LiNbO_3$:Ti, strip waveguides fabricated by combined metal diffusion and ion implantation 2−75731
$LiNbO_3$:Ti channel optical waveguide, SHG, conversion efficiency depend. on waveguide parameters 2−55273
$LiNbO_3$:Ti channel waveguides, photoinduced polarisation conversion obs. 2−109043
$LiNbO_3$:Ti coupled channel waveguide electro-optic modulator 2−86093
$LiNbO_3$:Ti coupled channel waveguides, second harmonic generation obs. 2−86103
$LiNbO_3$:Ti indiffused waveguide, integrated optics picosecond transient digitizer 2−60262
$LiNbO_3$:Ti intersecting waveguides, crosstalk characts., TE/TM mode splitter appl. 2−70668
$LiNbO_3$:Ti optical waveguide fabrication, Ti diffusion process, expt. study 2−65347
$LiNbO_3$:Ti optical waveguide, acoustooptic interaction, wide-band, with mode conversion 2−91045
$LiNbO_3$:Ti thin-film Bragg electrooptic modulator 2−65344
$LiNbO_3$:Ti waveguide, double degenerate four-wave mixing, TE to TM coupling 2−55332
$LiNbO_3$:Ti waveguide to single mode fibre coupling efficiencies 2−65361
$LiNbO_3$-sapphire waveguide, phase-matched freq. doubling obs. 2−65303
$^{15}NH_3$ CW far-IR waveguide laser, optically pumped, relax. oscills. 2−75558
Na_2O-CaO glass, ion substitution at low temp. by elec. field 2−67277
Nb_2O_5 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
Si_3N_4 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
SiO_2 multimode deposited waveguide, fabrication procedure, appl. to optical branching circuit 2−70669
TaO_5 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
Ti-diffused optical waveguide, codirectional TE-TM mode conversion through acoustooptic interactions 2−65404
YIG:Bi thin films, waveguide type optical isolator appls., magneto-optical props. *(Japanese)* 2−81076

optical workshop techniques
abrasive cutting of hard and brittle materials, optical glass gauges fabrication *(German)* 2−114478
Antares laser system, optical tooling and surveying techniques 2−102813
arc-fusion splice using pre-fusion method for multimode fibres 2−75715
arc-fusion splicing of single-mode fibres, optimum splice conditions 2−65417
aspherical mirrors for IR Fourier spectrometers, galvanoplastic manufacturing *(German)* 2−70644
beljar vacuum system fixture for use in vacuum coating system 2−93427
borosilicate glass, antireflective surfaces for high-energy laser optics formed by neutral soln. processing 2−70641

optical workshop techniques continued
butt coupling of diode lasers to $LiNbO_3$ waveguides, coupling efficiencies >65% 2−65359
ceramic obtained from synthetic SiO_2 2−99377
ceramic ultrafine finishing by float polishing 2−60267
cleaning optical components made from polymer materials 2−70716
cleaving tool for semiconductor lasers, for facet mirror form 2−65418
coating vacuum deposition, process control and automation 2−75741
computer-controlled grinding of optical surfaces 2−55363
contact lens production using computer controlled lathe system 2−109082
cylindrical optics grinding and polishing, ZShP-350M machine modification 2−114480
diamond drilling of optical blanks from brittle materials 2−91102
diamond turning fabrication for laser design appls., review 2−81132
diamond-turned metal optics, surface characterisation 2−109089
diffraction grating, small-period, high-efficiency, fabrication method 2−86088
fibre, modified CVD preform, central dip reduction by F etching during collapse 2−65384
fibre, single-mode, design, materials, fabrication and performance developments 2−65375
fibre arc-fusion splicing machine 2−81126
fibre cabling processes, optimisation procedure 2−102924
fibre coating speed prediction from flow props. of coating materials 2−102941
fibre coupler, tunable single mode, coupling between mated polished fibre faces 2−81102
fibre design and material choices, modified CVD process and performance, overview 2−65421
fibre durability increase through use of compressive cladding 2−75713
fibre fabrication method based on sol-gel process 2−81127
fibre graded-index preforms fabricated by high-rate vapour-phase axial deposition 2−75729
fibre high speed coating with thermally curable silicone resin using pressurised die 2−97241
fibre manufacturing process control by laser beam 2−91099
fibre optics manufacturing technology, used for optical communication systems 2−55364
fibre preform testing *(German)* 2−91097
fibre spark discharge welding for optical data transmission *(Czech)* 2−55365
fibre splicing, non-monitored 2−97249
fibre splicing method 2−97237
fibres, graded-index high numerical aperture, fabrication by MCVD method 2−91073
fibres, long high-strength with low loss, modified CVD fabrication 2−91096
fibres, single-mode, wholly synthesised by vapour-phase axial deposition 2−75728
fibres, VAD fabrication, refractive-index profile formation mechanism 2−91074
film reactive sputtering using microprocessor-controlled magnetron system 2−57289
film waveguides obtained by RF sputtering, cathode-ray vaporisation, loss mechanisms, ion polishing improvement 2−75672
fine glass particles and high-rate production of fibre preforms in VAD process, deposition mechanism 2−116373
fine grinding of optical components with a diamond tool 2−70718
finishing process investigation w.r.t. material hardness anisotropy *(German)* 2−70713
fluoride glass optical fibre, low loss, build-in casting prep. 2−60266
fluoride glass preforms prepared by a rotational casting process 2−97240
free-lapping machining method, shaping kinematics 2−70715
free-lapping method fine-diamond grinding of optical glass, friction and dispersal 2−97244
gallate-aluminate glass, chem. unstable TSM206, aq. Polirit suspension for polishing 2−109091
geodesic lens fabrication techniques in $LiNbO_3$:Ti waveguides 2−75733
geodesic lenses printed in glass with ion-exchanged film waveguides 2−65406
glass, industrial high-speed stirring method development for founding in ceramic containers 2−75738
glass integral antireflective surfaces, historical development 2−60202
glass optical waveguide, fabrication by ion exchange, two-dimens. integrated optics appl. 2−65348
glass planar optical waveguides, fabrication by Tl^+ ion exchange diffusion 2−109042
glass plane optical waveguide fabrication, immersion in molten $AgNO_3$, ion exchange *(Chinese)* 2−65419
glass waveguides for integrated optics, buried single-mode type, fabrication 2−75734
graded index low-loss high-numerical-aperture fibres fabrication by pressurised modified CVD method 2−102939
gradient-index rod lens, fabrication by ion exchange 2−65333
grating generation with an encoded extended incoherent source 2−91037
gratings, dichromated gelatin, absorpt. and refr. index modulations 2−70520
grinding, fine diamond, of optical components, tool employing organic binder 2−109093
grinding and polishing production line equipment, review 2−97248
grinding kinematics analysis on machines having free and positive upper member rot. 2−55367
holographic grating formation, blazed 2−96855
instrument sight glass mounting using VITEF-1 sealant 2−70717
integrated optical beam splitters formed in glass channel waveguides, preferential etching fabrication 2−86134
integrated optical ccts., masks, fabrication by Ar laser beam writing 2 75732
integrated optics, organic and amorphous materials, fabrication techniques, review 2−65408
integrated optics, single crystal materials, fabrication techniques, review 2−65409
integrated optics, waveguide fabrication, glass and $LiNbO_3(TaO_3)$, ion exchange and diffusion processes 2−65411
ion beam milling, appl. for precision IR optics 2−81130
laser optical components, ultrasonic cleaning and solvent drying 2−75730
laser rod holder during grinding and polishing 2−91094
lenses, fibre, gradient-index, of methyl methacrylate-vinyl phenylacetate fabricated by photocopolymerisation 2−75687
light-diffusing AK-5192 varnishes for translucent silicate-glass screens 2−77969

optical workshop techniques continued
metal ultrafine finishing by float polishing 2−60267
metal-cutting machines in the optical industry 2−109094
microlenses, conical, chemically etched, for coupling single mode lasers into single mode fibres 2−65401
mirror, large rectangular, replication 2−109086
monomode fibre design and fabrication, loss and dispersion optimisation 2−65376
nondestructive testing of optical-fibre preforms 2−55366
open target and stencil fabrication by metal plating 2−75737
optical fibres, high strength, fabrication of long fibres, success probability 2−75736
optical glass components, chemically unstable, polished surface preservation 2−55368
optical glass thin film substrates, detergent effect after polishing 2−81129
optomechanical device film-transport roller fabrication accuracy 2−55369
photomask fabrication, integrated optics, step-and-repeat process 2−65420
photoresist gratings, fabrication on reflecting surfaces 2−65407
plexiglass, acrylic, optical wedge fabrication 2−114407
polisher powder technological property determ. 2−91104
polishing with the lapping method, kinematic features 2−97246
polymer cement, KR-3, for optical component fabrication, technological props. 2−102960
Porro II prism system, fixture arrangement for cementing 2−109003
precision machining of optical components, design and specification 2−109088
preform manufacture 2−97238
prism coupler jig for coupling gap obs. using interf. fringes 2−65416
prismatic components fabrication, computer-assisted part-list-orientated generation of technological production documentations *(German)* 2−81128
quartz, crystalline, optical S-waveguides fabricated by ion bombardment 2−109044
reflection and antireflection coatings for laser optics, reactive sputtering fabrication *(Czech)* 2−70634
reflectometer for process control in optical fabrication and coating 2−79648
scales and grids of Ni, Cu, and Cd, physical development on iron oxalate emulsions 2−107440
Schmidt plate realisation by ion exchange in glass 2−75727
segmented mirror polishing experiment 2−55361
shape generation process of optical glass and polisher in pitch-polishing 2−60265
single mode 62.4 km optical fibre link, low-loss splicing 2−97200
single mode fibre low loss splicing, core alignment method using UV-excited fluorescence of Ge doped silica core 2−97202
single-mode fibres, fabrication by modified CVD process 2−114449
small glass elements that distribute light linearly, fabrication method 2−91095
spatial-period division, deep-UV, using an excimer laser 2−109090
splicing of single-mode fibre, exact splice loss prediction 2−81103
steel, stainless, chopper wheel, polishing of both sides 2−109084
substrate-tube lithography for optical fibres 2−114477
termination method for high surface compression fibres 2−86139
textured surface, optical storage medium, reflectance changes 2−81038
V-coatings, high-quality, production, layer thicknesses correction 2−109083
vitreous materials for IR fibre optics, fibre fabrication techniques 2−60201
waveguide laser annealing and integrated waveguide detect. for scatt. effects reduction 2−70710
X-ray diffraction gratings for synchrotron radiation spectroscopy, fabrication method 2−101506
AlGaAs lasers with micro-cleaved mirrors suitable for monolithic integration 2−65259
Al_2O_3-doped silica-based optical fibres, VAD fabrication 2−114476
CO_2 laser polishing of fused SiO_2 surfaces for increased laser-damage resist. at 1064 nm 2−114342
$CaCO_3$ calcite plate fabrication, monitoring of linear displacement between ordinary, extraordinary rays 2−114481
GaAs, submicron grating fabrication by holographic exposure 2−91036
GaAs-GaAlAs curved rib waveguides, bending loss minimisation, ion beam milling fabrication 2−75676
GaInAsP-InP integrated optical devices, etched mirrors, grooves and surfaces using stop-etch crystal planes 2−60264
Ge, optical surface and bulk absorption at 10.6 μm rel. to polishing processes 2−70631
HfO_2 interference coating, form. in vacuum, refr. index drift 2−114482
KCl crystals, grinding, damaged layer study 2−97245
$LiNbO_3$, high-index waveguides, fabrication by proton exchange 2−114419
$LiNbO_3$ Ti indiffused proton exchanged waveguides, fabrication and characterisation 2−91043
$LiNbO_3$:Ti, strip waveguides fabricated by combined metal diffusion and ion implantation 2−75731
$LiNbO_3$:Ti optical waveguide fabrication, Ti diffusion process, expt. study 2−65347
Mo optical components, polishing procedures for surface texture reduction 2−102898
NaCl crystals, grinding, damaged layer study 2−97245
SiO_2, fused, CO_2 laser polished, 1.06 μm laser-induced breakdown 2−60142
SiO_2 multimode deposited waveguide, fabrication procedure, appl. to optical branching circuit 2−70669
SiO_2 step-index optical fibre production by axial lateral plasma deposition, low loss fibre process 2−81136
TiF_6 Schott glass, high index gradient, ion exchange technique 2−75726
ZrO_2 interference coating, form. in vacuum, refr. index drift 2−114482

optical zone plates
Fourier transformer, achromatic, spatially coherent 2−96847
Fresnel lenses, freq. characts. 2−75663
holographic cascade lens, diffr. efficiency, bandpass and spurious beam rejection anal. 2−108831
holographic wave-front convertor efficiency 2−85909
hyperbolic, elliptical, circular and linear, production technique using cylindrical wavefronts, recording and reconstruction 2−91029
off-axis fresnel zone plate for holographic Twyman-Green interferometer 2−102742
parameter determination based on ellipsometric meas. 2−102907
spatial-period division, deep-UV, using an excimer laser 2−109090

optics
see also aberrations; adaptive optics; atmospheric optics; fibre optics; Fourier transform optics; geometrical optics; holography; integrated optics; nonlinear optics; optical elements; physical optics
atmospheric turbidity coefficients of semi-rural site, influence of climatic parameters 2−73688
diffraction, asymptotics and catastrophes 2−90798
inverse problems theory, ill-posedness, regularisation and no. of degrees of freedom 2−75509
physics data handbook 2−58565
twelfth congress of International Commission for Optics, Graz, Austria (Sept. 1981) 2−68956

optimal control
see also dynamic programming; game theory; maximum principle
fusion devices, sequential control optimisation 2−74970
heat conduction problem, multivariable meas. and control strategies appl. 2−60355
integral controller for large Tokamak 2−115033
Ito type stochastic differential equation control problem 2−84542
lasers, pulsed, with time depend. output mirror reflectivity, energy output optimisation calc. 2−65263
nuclear power plant primary coolant temperature control 2−102102
nuclear reactor, power factor control 2−113707
plasma confinement, appl. 2−97766
solar powered central receiver, quadratic optimal control 2−57687
sound source position calc. using passive sensor systems 2−114577
stochastic optimal control and quantum mechanics 2−95239
TFTR plasma discharge, position and current control, optimal control theory anal. 2−86459
urban waste water transportation system, modelling and simulation 2−73180

optimisation
see also mathematical programming; minimisation
achromatic reflector, designs for mixed two-component deposition, constrained optimisation method 2−70653
antenna structure, large, homologous optimisation design *(Chinese)* 2−103020
antireflection coatings, designs for mixed two-component deposition, constrained optimisation method 2−70653
bars and plates, optimal design problems 2−95011
Bayard-Alpert gauge, wide range, 10^{-10} to 10^{-1} Torr 2−84653
beam with tip mass optimal cross-sectional area determ. 2−75891
beams, rigid-plastic, stepped, simply supported, under dynamic press. loading, optimal design 2−60395
biomechanical closed loop problems, optimisation approach 2−105720
cells, conditions for modified irrad. *(Russian)* 2−105768
combined heat pump-boiler system performance optimisation *(Italian)* 2−78241
composite plate, multipurpose optimisation 2−60426
composite shell, cylindrical, glued with stiffeners, optimum design w.r.t. dynamic restrictions 2−60453
composites, granular, effective characts. optimisation 2−81235
computerised tomography, fan beam, optimisation of short scan convolution reconstruction 2−117079
disc, circular, residual stresses creation by heating, optimum control 2−91275
eddy current probe circuits for nondestructive testing, optimal design *(German)* 2−79564
electron beam lithographic system performance, computerised optimisation using damped least squares method 2−75506
fibre reinforced composite plates, circular, reinforcement optimisation 2−81249
gas flow, in axial gaps of turbines 2−71035
graded-index fibre refr. index profile 2−75685
heat pumps, air-to-water, house heating performance simulation using computer model 2−78239
high-resolution electron energy loss spectrometers, high-stability low-noise power supply design and construction 2−89868
hole shape, in infinite orthotropic plates, under inplane loading, conformal transform. appl. 2−114651
holographic systems for testing aspherical surfaces, tolerance and optimisation calc. 2−70525
human movements, computer optimisation 2−57768
hydroturbine blade shape optimisation 2−79373
instrumentation calibration, optimum organisation for calibration and repair 2−95312
internal combustion engine, optimisation of model engine 2−67880
ion accelerator with anode layer, working conditions optimisation 2−59569
laminated cylindrical shell, thin-walled, functioning for stability optimisation 2−91287
laminated polymer structures, heat protective, optimum design 2−91221
lasers, pulsed, with time depend. output mirror reflectivity, energy output optimisation calc. 2−65263
magnetic lens, optimisation with pole piece of finite inside diameter 2−85880
measuring instruments, optimal disposition and integration for known nominal trajectory *(Russian)* 2−84587
measuring instruments calibration intervals 2−95310
MIS structures gate-voltage optimisation for generation processes evaluation using C-t method *(Slovak)* 2−72061
multiaircraft minimum noise impact landing trajectories calc. 2−57754
nonidentical sensors, optimal struct. of sensor systems, contradictory failures 2−101394
optical fibre cabling processes, optimisation procedure 2−102924
plates and shells, optimum design with allowance for temp. effect 2−114640
proton magnetometer precession signal processing, channel optimisation 2−112165
rod-plane gap, accurate field soln. using optimised charge simulation 2−109449
seismology, optimal estimation of scalar seismic moment 2−105958
short digital linear filters optimisation for increased accuracy; appl. to Earth resist. 2−105912
solar collectors, air heating, plate-type, flow passage geometry optimisation 2−78253
sound source position calc. using passive sensor systems 2−114577
spacecraft direct flight trajectories to periodic comets, optimisation 2−68588

optimisation continued
stationary Stokes problem, finite element subspaces with optimal rates of convergence 2−75924
superconducting thin solenoids, design optimisation, energy storage appl. 2−88480
utilisation optimisation criteria *(Rumanian)* 2−78192
velocity vector, optimisation of parameters of instrument for meas. tangential components 2−60047
water heating system multivariate optimisation using Simplex method 2−111586
X-ray diffraction anal., quantitative, optimisation improvement 2−97854
Al-Zn composite material, prep. and treatment optimum conditions *(Russian)* 2−67257
Li-Al/FeS cells optimisation for electric vehicle propulsion applications 2−93887

optimum control *see optimal control*

opto-isolators
moisture optoelectronic transducer, LEDs based on heterojunctions 2−79594

optoacoustic effect *see photoacoustic effect*

optoacoustic spectroscopy *see photoacoustic spectroscopy*

optoelectronic devices
see also opto-isolators; photoelectric devices
coherent-light system for opto-electronic processing of seismic information 2−117469
displacement transducer for the neurophysiological lab. 2−105869
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
III-V antimonides, phase diagrams 2−116427
III-V semicond. epitaxial growth, appl. to compound semiconductor device technology 2−77741
III-V semiconductor optoelectronic devices, physics and technology, conf., Neue Muhle, Germany (April 1981) 2−112635
integrated optics, optoelectronic integration, semicond. materials, review 2−65410
integrated optoelectronic devices for faster and more reliable data transmission 2−81124
meniscographic transducer for wetting kinetics meas. 2−64210
monkey-and-hunter demonstration, optoelectronic version 2−79324
nanosecond range processes study 2−64140
ultrafast optoelectronic switch based on picosec. photoconductivity 2−87343
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs DH laser, ultra-short light pulse generation by Nd:YAG laser controlled opto-electronic switch *(Chinese)* 2−90959

optrons *see opto-isolators*

OPW calculations
Heusler alloys, X_2MnY (X=Ni, Cu, Pd; Y=Al, Sn), Stoner and spin wave excitation spectra, OPW calcs. 2−115990
negative ions, anal. radial orbitals, Groups II, III and IV 2−64868
transition metals, model pseudopotentials, OPW calcs. *(Russian)* 2−56433
Cu-Au, X-ray diffuse scatt. and ordering energy *(Russian)* 2−77618
Kr, crystal, band struct., Gaussian OPW calc. 2−61349
Ne, crystalline, cond. bands, OPW calc. *(Russian)* 2−115654
$TiSe_2$ (S_2) (1T), p-d gaps, relativistic corrections 2−110240
Xe, crystal, band struct., Gaussian OPW calc. 2−61349
$ZrS_2(Se_2)$, conduction band struct. 2−71864
$ZrSe_2$ (S_2), p-d gaps, relativistic corrections 2−110240

OR *see operations research*

orbital calculation methods
see also APW calculations; atomic orbitals calculations; EHT calculations; GO calculations; GTO calculations; HMO calculations; KKR calculations; LCAO calculations; molecular orbitals calculations; NDO calculations; OPW calculations; PNO calculations; PPP calculations; STO calculations
Hartree-Fock crystal orbital calcs., error anal. 2−92433
orbital forms of gap equations and instability conditions 2−108346

orbitals, atomic *see atomic structure*

orbitals, molecular *see molecular energy levels*

order, long-range *see long-range order*

order, short-range *see short-range order*

order-disorder changes *see order-disorder transformations*

order-disorder transformations
see also polymorphic transformations
adsorbed layers, order-disorder transitions, phase diagrams, adsorption isotherms 2−98275
alloys, antiphase order-disorder transitions *(French)* 2−86865
alloys, binary, cubic, tracer diffusion via vacancies, Monte Carlo calc. 2−86938
alloys, Ising lattice, order-disorder transformations, BBGKY eqns. 2−56153
alloys, ordering transitions, thermodynamic theory *(Russian)* 2−92150
BCC metals, impurity interstitials strain ordering and associated anelasticity, theory 2−98242
BCC metals, random interstitials strain ordering and associated anelasticity, theory 2−98243
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
bis-propylammonium tetrachloro-zincate, second order ferro-paraelastic phase transition, birefringence 2−61124
brass, creep rheological study in single and two phase alloys near stoichiometric composition 2−62174
t-butyl cyanide, high temp. disordered phase, struct. determ. by neutron scatt. method 2−109779
o-carborane, low temp. phase transitions 2−61887
centrosymmetric fluid, polar-vector ordering, Landau theory 2−71613
cubic superstructure ordering from BCC struct., theory *(Russian)* 2−92147
defective solid, tracer diffusivity and Haven ratio, temp. depend., Monte Carlo calc. 2−86937
dimethyl 3,4 phosphacymantrene, phase transition, calorimetric and LF Raman study *(French)* 2−110846
dipalmitoyllecithin, lipid bilayer, fractional order phase transform. 2−116877
double-Gaussian model, crit. and crossover behaviour 2−112836
ferrocene, struct., lattice energy and order-disorder transition, X-ray study 2−115206
ferroelectric imperfect crystal, order parameter and refractive index, photoinduced changes 2−110798
furan, phase transition, IR study 2−77509
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2−109978
p-n-hexyloxybenzylideneamino-p′-fluorobenzene, heat capacity and thermodynamic props. 2−98303
KCNS, λ-type order-disorder phase transition, Raman study 2−103984
Landau free energy expansion for O(4) symm. 2−66169
magnetic order-disorder first order transitions, high press. effects *(Russian)* 2−87492
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
metals, void ordering during irrad., bifurcation and phase transition 2−61020
methane, solid, isotope effect is phase diagram, corresponding state anal. 2−56184
nonconservative order parameter, phase transition kinetics 2−92146
order-disorder displacive crossover in a structural phase transition model 2−66166
organic materials, two particle exciton phonon excitations, structural disorder effects 2−109918
path-probability method extension, triangle approx. 2−76638
n-perfluorohexane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
n-perfluorooctane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
perovskites of type $A^{2+}{}_3B^{2+}M^{5+}{}_2O_9$, order-disorder phenomena *(German)* 2−91857
plane quadratic lattice gas, multiphase behaviour 2−101342
poly(tetrafluoroethylene), cryst. transformation and mol. disorder, X-ray diffr. study 2−92178
polyacrylonitrile, I swelling, creep yield and conformational transition 2−76275
rare earth oxides, complex, high-resolution electron microscopy 2−97880
solid solutions, substitutional, review 2−98245
squaric acid, protonic ordering, strain effect 2−76664
superionic crystal, phase transition in high-cond. state, macroscopic description 2−61111
surface, orientational order-disorder transition 2−103942
surfaces, order-disorder transitions, classification, review 2−92323
surfaces, order-disorder transitions 2−115549
tanane, ferroelec. and ferroelastic phase transition, soft acoustic mode 2−93122
tanane, ferroelec. and ferroelastic transition, intermol. forces and statistical mech. 2−93123
TDGL model, phase transition under periodic temp., critical point, sound wave effects 2−81931
$TMTSF_2ReO_4$, metal-insulator transition 2−71867
$(TMTSF)_2X$ salts, prep. struct. and anion effects 2−55957
$(TMTSF)_2X$ salts, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
$(TMTTF)_2X$ salts, X-ray diffuse scatt. study of struct. transitions 2−56181
$(TMTTF)_2X$ series, phys. props., role of counterion ordering 2−92469
two-dimensional, ordering props., theory 2−110131
Ag-Zn(-Au), disordering temp. changes under action of γ-irrad. *(Russian)* 2−61123
Ag_3SI, anomalies of acoustic attenuation and vel. at β-γ phase transition 2−109910
$AgSbS_{33}$, pyrargyrite, phase transition, NQR elec. field effect meas. 2−110724
Ag_xTaS_2, superlattices, electron diffr. study 2−91931
$Ag_{48}Zn_{50}Au_2(Cu_2)$, order-disorder transform., metallographic, resistivity, microanal. and X-ray obs. 2−111171
Al_2O_3, γ-δ-α order-disorder phase transitions, IR spectra 2−86856
$BaTiO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
Bi thin film, avalanche crystallisation *(Russian)* 2−61131
$C_{24}K$, graphite intercalation cpd., mass- and charge-density modulation, X-ray diffr. study 2−81951
CaF_2, entropy change in fast-ion transitions 2−71640
$CdGa_2Te_4$, amorphous film, structural ordering, effect of group I metal impurities 2−87114
$CsNO_3$, single cryst., Raman scatt. study 2−77511
Cu, surface (001), He beam impact, order, disorder, nucleation and energy changes 2−98399
α-Cu-Al, DSC eval., energetics 2−83111
Cu-Au, X-ray diffuse scatt. and ordering energy *(Russian)* 2−77618
Cu-Au system, Ll_2 struct., covalent contrib. to bond energy, order-disorder transitions 2−76359
Cu-Pd, ordering process during continuous process *(Japanese)* 2−77820
β-Cu-Zn, quenched, elec. resist. and hardness recovery on annealing 2−92568
Cu_3Au, Fermi surface, de Haas-van Alphen meas. 2−104229
Cu_3Au, fusion neutron disordering 2−85219
CuPt(48.1 wt.%), press. induced variation of order-disorder transition *(Russian)* 2−56187
N,N′-diebenzyl-N,N′-dihydrophenazinium iodide, chain cpds., diffuse X-ray scatt. and order-disorder effects 2−98057
N,N′-diethyl-N,N′-dihydrophenazinium iodide, chain cpds., diffuse X-ray scatt. and order-disorder effects 2−98057
Fe (110), chemisorbed H_2 layer, phase transitions, phase diagram, LEED study 2−98276
Fe-Al (12 wt.%), high permeability mechanism, soft mag. props. 2−82654
Fe-Al (45 at.%) film, electronic struct., X-ray emission spectra study 2−61338
Fe-Al alloys, order-disorder phase transition by neutron diffr. 2−115401
Fe-Co, order-disorder transition, band theory 2−98268
Fe-Co films, IR absorpt. props. meas., order-disorder phase transition effect *(Russian)* 2−93297
Fe-Si-Al, Sendust, order-disorder transform. and dislocation configuration, TEM study 2−83108
FeCo, energy band struct. and optical props. due to order-disorder transition 2−82220
FeNi alloys from Fe meteorites, order-disorder transitions, Mossbauer spectra study 2−67328
γ-Fe_2O_3, phase transition, influence of fine crystalline struct. 2−86852
β-Ga_2O_3, single cryst., valence force field, Raman study 2−77514

order-disorder transformations continued
Ga_2Se_3, ordered and disordered phases, struct., electron diffr. and microscopy obs. 2−60957
Ge surface, high index, struct., order-disorder transitions, LEED study 2−71786
IrO_x film, amorphous nonmetal-crystalline metal transition 2−109980
$KCN_xBr_{1-x}(Cl_{1-x})$, acoustic soft modes, US vel. meas. 2−81926
KH_2PO_4 type structure, Monte Carlo simulation of order-disorder transition 2−104818
$La_2(SO_4)_3.9(H,D)_2O$ single cryst., polarized Raman spectra, external vibr. modes, temp. effect *(French)* 2−72491
Li ferrites, ordering mechanisms 2−57345
β-$LiAlSiO_4$, Ising triangular lattice, modulated struct., domain boundaries, free energy 2−98831
$LiTaO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$LiTaO_3$, ferroelectric phase transition, Raman spectra *(Chinese)* 2−77456
β-$Li_{0.36}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
Mo, ion implantation effect on microstruct., TEM obs. 2−71522
N_2-type crystals, libration motion dynamics, anharmonic and correlation effects *(Russian)* 2−61082
NH_4AlF_4, ordered and disordered struct., neutron diffr. study 2−65913
$NH_4Br(Cl)$, light scatt. near order-disorder transition 2−99140
NH_4Cl, single cryst., tricritical point, Raman study 2−82845
$(NH_4)_2SO_4$, paraelec.-ferroelec. phase transition, low temp., thermal anal. 2−104822
$(NH_4)_2SbF_5$ type crysts., superior phase transition *(Russian)* 2−103987
$NaNO_2$, lattice mode anharmonicity, order-disorder transition, IR spectra study 2−76614
β-$Na_{0.33}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
Nb-H system, hydride phase transition, low temp. 2−57344
Ni-Mo alloy, disordering process investig., domain dissolution *(Russian)* 2−67327
NiFe, 3d electron density charge on atomic ordering, Mossbauer study 2−61804
$O_2^+AsF_6^-$, phase transitions and ionic motions, Raman obs. 2−104868
PbO-Bi_2O_3, prep. and electrophysical props. of compounds 2−72619
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
Pd-Mn-H soln., dil., thermodynamic props. 2−56195
Pt(110), CO chemisorption, surface phase transitions, LEED, UPS and thermal desorption study 2−98452
$RbAg_4I_5$ crystal, superionic conductor, cubic-trigonal phase transition, order-disorder theory 2−55876
$RbNO_3$, single cryst., Raman scatt. study 2−77511
Si:P^+, ion implanted, damaged layer study 2−71480
$SrCl_2$, entropy change in fast-ion transitions 2−71640
TiC_{1-x}, order-disorder transition, high-temp. neutron diffr. 2−103682
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
UAs, order-incommensurate disorder mag. transitions *(Russian)* 2−56859
$V_6(C,N)_{0.77\ to\ 0.83}$ trigonal ordering, neutron diffr. study 2−86849
β-$VH_{0.77}$, H diffusion, superstructure, ^1H NMR study 2−104731
Yb thin film, avalanche crystallisation *(Russian)* 2−61131
$ZrCr_2D_4$, phase transition, X-ray and neutron diffr. studies 2−103686

ores *see minerals*

organic acids *see organic compounds*

organic compounds
see also DNA; free radicals; macromolecules; organic semiconductors; organometallic compounds; plastics; polymers; proteins; Rochelle salt; waxes
2(1H)pyrimidinone, and substituted derivatives, electron impact fragmentation, mass spectra 2−108725
AAHBO, nematic liq. cryst., ESR line shape 2−98937
abietic acid, supercooled, dielec. relax., viscosity and DC cond. meas. 2−57016
acenaphthene, low lying singlet states, two-photon spectra 2−70363
acenaphthenequinone, in 1,4-dibromonaphthalene matrix, phosphoresc. study 2−67107
acenes, electronic struct., ab initio interpretation of XPS data 2−90444
acenes, linear ^1H NMR chemical shifts, ring current effects 2−70281
acenes, photoelectron spectra, CNDO/S assignment calcs. 2−80479
acetaldehyde, CH stretching freq., bond strengths, methyl group geometry 2−96565
acetaldehyde, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
acetaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetaldehyde+F reactions, vibr. spectra of free radicals prod. in solid Ar 2−105453
acetaldehyde+$LiBH_4$, carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
acetaldehyde+$O(^3P)$, prod. distrib., mol. beam-laser induced fluoresc. study 2−116689
acetaldehyde free radicals in solid Ar, IR vibr. spectra prod. from F atom reaction 2−105453
acetaldehyde in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
acetaldehyde in nematic liq. cryst., high-order multiple quantum transition intensities search procedure 2−77393
acetaldehyde-$d_0(d_1)(d_3)(d_4)$, force field determ., vibr., CNDO calcs. 2−64875
acetamide, solvent effect on amidic bond, PMR study 2−70291
acetamide-$d_0(d_1)(d_2)(d_3)(d_4)(d_5)$, isotope effects, force consts., CNDO calcs. 2−96457
acetanilide and π electrons of arenes, N-H ... π type H-bond form., strengths 2−113986
acetate ion, interaction with N^+-containing mols., appl. to neurotransmitter binding 2−67928
acetates, protonated, struct. and fragmentations, MINDO/3 calcs., heats of form. 2−113889
acetic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
acetic acid, microwave spectrum, internal rot. 2−108477
acetic acid-d_1 optically pumped submm. laser, 363-756μ range 2−55134
acetone, adsorbed on transition metal surface, AES study 2−110136
acetone, adsorpt. in Al_2O_3-MgO surface, IR obs., rel. to acid-base props. 2−96574
acetone, CH stretching freq., bond strengths, methyl group geometry 2−96565
acetone, diffusion through porous quark 2−66294

organic compounds continued
acetone, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
acetone, liq., isotropic line shapes and freq., press. effects, Raman spectra 2−72474
acetone, liq., refr. index press. and temp. derivatives meas. 2−116143
acetone, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
acetone, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetone, polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2−93193
acetone, triplet state, isomerism, geometry, STO calcs. 2−85525
acetone, zero field splitting, ODMR and phosphoresc. study 2−114022
acetone+$TiCl_4$, complex form., mol. vibr., IR obs. 2−67747
acetone cations, dissoc. dynamics, surprisal anal. 2−105457
acetone in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
acetone ions, dissoc., intramol. energy redistrib. 2−54924
acetone related mols., torsional pot. and dipole moment, conformational depend., ab initio calcs. 2−102663
acetone sorption into nitrocellulose/nitroglycerine films 2−71798
acetone-$d_0(d_1)(d_6)$, force field determ., vibr., CNDO calcs. 2−64875
acetonitrile, crysts., vibr., phase transitions, Raman and Raman study 2−77513
acetonitrile, index-matching fluids, high intensity transmission props. 2−102866
acetonitrile, liq., dynamics and interactions, microwave and far-IR study 2−82869
acetonitrile, nematic liq. cryst. matrix, sample spinning, linewidth, NMR relax. study 2−65004
acetonitrile, optical pumping, rot.-vibr. anal., far-IR obs. 2−54842
acetonitrile, polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2−93193
acetonitrile partially oriented by nematic liq. crystals, ^{13}C-^{13}C and ^{13}C-^{15}N coupling const. anisotropies 2−102506
acetonitrile-benzene liq. mixtures, quadrupolar and dipolar elec. field effects 2−66922
acetonitrile-d_3 in nematic soln., multiple quantum spin-echo spectra of D relax. 2−77416
acetonitrile-ethanol-paraffin, liq.-liq. equilibr. study 2−103971
acetonitrile-HCl complex, H-bonds, underdamped anharmonic stochastic oscill., IR obs. 2−85646
acetonitrile-methanol-paraffin, liq.-liq. equilibr. study 2−103971
acetophenone, complex form., mol. vibr., IR obs. 2−67747
acetophenone, struct., rot. barriers, STO-3G MO calcs. 2−108350
acetophenones, p-substituted, ionisation pot., PES, correl. with reactivity *(French)* 2−96629
acetoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
acetyl chloride, CH stretching freq., bond strengths, methyl group geometry 2−96565
acetyl cyanide, struct., rot. barriers, STO-3G MO calcs. 2−108350
acetyl fluoride, CH stretching freq., bond strengths, methyl group geometry 2−96565
acetyl fluoride, struct., rot. barriers, STO-3G MO calcs. 2−108350
2-acetylanthracene solution in n-propanol, electronic spectrum, vibr. struct. dynamics 2−80719
acetylcholine noise in mammalian sympathetic-ganglion neurons 2−105689
11-O-acetylcyatha-triol, isotopically enriched, ^{13}C resons. assignment by spin echo FT NMR 2−90576
acetylene, $\tilde{A}$-$\tilde{X}$ transition in 220 nm wavelength region, fluoresc. excitation spectrum 2−59851
acetylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
acetylene, adsorbed on Rh (111), LEED study 2−76825
acetylene, adsorption on Ni, chem. modification, SIMS investig. 2−105515
acetylene, angle-resolved photoelectron spectra using synchrotron radiation 2−108625
acetylene, autoionising Rydberg series, photoionisation study 2−70351
acetylene, chemisorption and physisorption on W (100) at 80K 2−56344
acetylene, cryst., lattice dynamics and struct. phase transition 2−92123
acetylene, crysts., vibr., phase transitions, Raman and Raman study 2−77513
acetylene, high resolution Q-branches spectrum 2−108501
acetylene, ionisation energy, XαSW method with universal potential 2−75183
acetylene, IR intensities, ab initio study, dipole moment derivatives 2−96553
acetylene, isotopically labelled, fragmentation, visible-UV emission study 2−85756
acetylene, liq. and solid, getter for T_2 gas 2−84638
acetylene, localised atomic orbitals for atoms in molecules 2−54760
acetylene, nonFranck-Condon behaviour in photoionisation, triple differential photoelectron studies 2−80731
acetylene, photoexcitation and ionisation 2−54903
acetylene, polymerisation using dibenzenetitanium catalyst 2−67045
acetylene, pulsed mol. beam, rot. temp., CARS 2−96582
acetylene, thermal desorption from W (100), Auger spectra study 2−87067
acetylene, UV laser photochem. at 193 nm 2−78114
acetylene+$He^+(Ar^+)$, excitational dissoc. optical emission from excited fragments 2−105470
acetylene(-d_2), local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
acetylene adsorbed on Ni(111), full dynamical LEED anal. 2−115521
acetylene chemisorpt. on Ni, Rh and Pt (111) surfaces, extended-Huckel calcs. 2−66358
acetylene condensation reactions in a microwave induced plasma 2−57613
acetylene dimer ion, unimolecular decomposition 2−111479
acetylene form. from CH fragments, intermol. forces calc., ab initio valence bond theory 2−80753
acetylene ion+acetylene, internal energy effects and energetics studied by photoionisation 2−111479
acetylene IR bands identification, appl. to IRC+10216 2−112458
acetylene isotopic molecules, absorpt. spectrum, vibr. and rot. anal., ionisation pot. 2−64999
acetylene photoexcitation, photofragment emission, fluoresc. obs. 2−65040
acetylene producing using solar furnace 2−99760
acetylene-d_2, elec. field gradients, semi-empirical SCF MO calcs. 2−108387

organic compounds continued
acetylene-d_2, ideal gas thermodynamic props., data tables 2−94922
acetylene-d_2 optically pumped rotationally relaxed grating tuned laser oscillations obs. 2−96900
acetylene-derived radical, lowest-lying doublet states, MCSCF CI wavefunctions calcs. 2−96465
acetylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
acetylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
acetylene-HF complex, microwave spectrum and mol. struct. 2−59789
acetylene-methane-Ar liq. mixtures, excess vol. and compressibility, dielec. const. meas. 2−92071
acetylene-O_2 flame, two-photon excitation of O 2−96526
acetylene-O_2 mixture, transition from burning to detonation 2−83387
acetylenene+B_2H_4, reaction paths, MNDO calcs. 2−93777
acetylenes, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
N-acetyloxypyridinium salts, fragmentary exchange, reaction rates and mechanism, IR and NMR obs. 2−83372
acids, laser desorpt. mass spectroscopy 2−69295
acridine, fine-struct. luminesc. 2−80718
acridine, heteroatom n-electrons effects on optical props. 2−113907
acridizinium, pi-systems, environmental effects, deltalike function basis calcs. *(German)* 2−108671
acriflavine-uranine-coumarin 1 ternary dye mixture energy transfer laser operation 2−96945
acrolein, ionisation, hole-mixing effects 2−59857
s-cis-acrolein, microwave spectrum, rot. consts. and dipole moment 2−75242
acrolein supersonic molecular beam at 193 nm, laser photofragmentation dynamics 2−96656
acrolein toxic industrial compound CO_2 laser absorpt. spectra 2−83536
trans-acryl halides, thermodynamic properties calcs., 100-1500K 2−109446
acrylamide, chemical reactivity under shock loading 2−78102
acrylamide, gamma irrad., EPR spectra obs. 2−56938
acrylamide, single cryst., ^{13}C chem. shielding tensors 2−70285
acrylonitrile mol. beam, VUV laser photofragmentation, one-, two- and three-photon processes 2−96657
trans-acrylyl chloride force fields and vibr., normal coord. treatment 2−80565
actinomycin, vibr. struct., Raman obs. 2−57781
actinomycin and DNA binding sequence d(GpC), struct. of pseudo intercalated complex 2−73191
actinomycin-DNA, vibr. struct., Raman obs. 2−57781
acyclic alditols, conformations anal., energy calcs. 2−75164
acyl halides, thermodynamic properties calcs., 100-1500K 2−109446
adamantane, chemical reactivity under shock loading 2−78102
adamantane, cryst. perfection, slip and hardness, micro-indentation study 2−86781
adamantane-d, in dilute n-alkane solns., rot. relax., mol. quasi-hydrodynamic free space descriptions 2−76268
adamantanethione-d_2, ^{1}npi* excited state inversion barrier and optical activity 2−96610
2-adamantanone, mol. motions, NMR study 2−56960
adamantanone-d_2 ^{1}npi* excited state inversion barrier and optical activity 2−96610
2-adamantyl radical, EPR spectrum, alpha-proton hyperfine splitting const. 2−80726
adenine 5′-nucleotides, C(8)-substituted, NMR study of conformation using lanthanide probes and NOE meas. 2−54884
adenine cation cryst., luminesc., excitation wavelength depend. 2−104941
adenine-5-fluorouracil, pairing arrangement, mutagenic effect, iterative EHT calcs. 2−64883
adenine-thymine base pair, double H-bonding, CNDO/S calcs., molecular orbital correls. and orbital energy shifts 2−96452
adenine-thymine base pair, triplet excited electronic states, intermol. H-bonds, charge transfer, CNDO calcs. 2−102602
adenines, selectively labeled, electron ionisation spectra and mass spectrometry 2−108737
adenosine, vertical ionisation pot., UV PES 2−75354
adrenocorticotropic hormone oligopeptides, crystallisation expts. 2−78283
adriamycin, absorpt., fluoresc. and Raman obs. 2−57780
adrimycin-DNA, absorpt., fluoresc. and Raman obs. 2−57780
adsorbed on KCl and Ni, gas-surface interactions, IR laser stimulated 2−87037
alamethicin, dipole moment rel. to voltage-dependent conductance of lipid bilayers 2−73203
alamethicin in octanol/dioxane, voltage-dependent pore former, struct. and dipolar props. 2−111616
alanine, secondary ion emission, time of flight mass spectra 2−99241
alanine (-d_n), CH stretching vibr. circular dichroism, localised MO calcs. 2−108448
alanine (-d_n), CH stretching vibr. circular dichroism and fixed partial charge calcs. 2−108447
alanine (-d_n), IR vibr. circular dichroism, vibr. anal. and Raman spectra 2−108446
L-alanine crystal, Raman spectroscopic temp. study of NH_3^+ torsional motion rel. to H-bonding 2−87779
alcohol-alkane systems, prediction of vapour-liq. equilibria, group-contrib. methods 2−115397
alcohol-alkane systems, solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
alcohol-water mixtures, H-bonding, ab initio MO calcs. 2−80469
n-alcohols, dielec. relax., time-domain spectrosc. obs. *(French)* 2−99027
alcohols, Fourier transform far-IR matrix isolation spectra, vibr. freqs. of H bonded system 2−113978
alcohols, liquids, EPR study of rot. dynamics of peroxylamindisulphonate radical 2−77374
alcohols, low temperature dielectric relaxation spectroscopy 2−82777
alcohols solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
aldoximes, electronic props., struct., ab initio SCF calcs. 2−85531
aliphatic acetoxy radicals, long-range acetyl-proton coupling, EPR obs. 2−70301
n-aliphatic alcohols, dipole relax., spectrosc. obs. 2−61823
aliphatic and alicyclic hydrocarbon films, electron transmission spectra and their second energy derivatives 2−72584
aliphatic hydrocarbons, ground state mol. polarisability calc. 2−59964
aliphatic molecules, rot. isomerism, PCILO calcs. 2−54983

organic compounds continued
alkane diammonium copper halides, layered, superexchange interaction 2−98869
n-alkane liquids, complex permittivity, far IR absorpt. spectra study 2−93098
n-alkane mixtures, excess heat capacities meas. 2−81972
n-alkane mixtures, excess thermodynamic functions, corresponding states principle calcs. 2−81987
n-alkane mixtures, viscosity coeff. meas. at saturation pressures, 283-378K 2−71689
alkane permeants diffusion in glassy polymers 2−66292
alkane radical cation, spectroscopic identification 2−80735
alkanes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
alkanes, connectivity indices, rel. to phys. props., molecular theory 2−81980
alkanes, electronic excitation calcs. using semi-empirical method RCNDO/S 2−102390
alkanes, liq., ^{129}Xe NMR solvent shifts, reaction field model 2−75314
n-alkanes, liq., ^{133}Xe solubility, temp. depend. and thermodynamic functions 2−109996
n-alkanes, liq., permittivity, relax. times, microwave dielectric losses 2−61827
n-alkanes, low freq. Raman spectra, struct. of chain mols. 2−72475
n-alkanes, mass spectrometric fragmentation, statistical theory test 2−102669
alkanes, methyl C-H stretching vibr. bands, motional collapse 2−102485
n-alkanes, soln. and gas phase, intramolecular interactions, polarisabilities, light scatt. 2−55698
n-alkanes, transition above melting point, sp. ht. meas. 2−66245
n-alkanes in phase II, IR spectra, interchain vibr. coupling 2−110842
n-alkanes rel. to aerosol particle size over Atlantic 2−94470
alkanes with picosecond relax. time, depolarised Rayleigh spectroscopy 2−80628
1-alkanols-n-octane binary mixt., isentropic compressibilities at 303.15K 2−109878
alkene-halogen complexes studied by matrix isolation vibrational spectroscopy 2−70260
n-alkene-n-alkyne mixtures, intermol. interactions, thermodynamic and optical props. *(German)* 2−85764
alkenes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
alkenes, free radical addition, charge transfer and spin transfer during chemical bond form., MO anal. 2−99646
alkoxy radical+O_2, reaction, thermal source of HO_2 radicals 2−62384
alkoxy radical radiation products, g-tensor and H^+ coupling tensors 2−85695
p-alkoxyazoxybenzene, expt. obs. of growth of mesophase in elec. field 2−55846
4-alkoxybenzoyl esteramides, thermotropic liq. cryst. behaviour 2−60875
4(4′-n-alkoxybenzoyloxy)-3-methoxy benzaldehyde, mesomorphism, lateral substitution effect 2−61134
4(4′-n-alkoxybenzoyloxy)-3-methoxy-benzylidene-4″-toluidines (4″-anisidines), mesomorphism, lateral substitution effect 2−61134
alkoxybiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
alkoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
N-(alkoxycarbonyl-n-pentyl)-3β-cholesteryl urethanes, synthesis, polymorphic and mesomorphic props. 2−81957
4-n-alkoxyphenyl 4-nitrobenzoates, liq. cryst. props. 2−103602
trans-4-alkyl(4-cyanophenyl)-cylohexanes, nematogenic homologous series, orientational order 2−109665
n,n alkyl aliphatic amides as extracting agents for actinide separation 2−107996
alkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2−76294
alkyl chain conformations in a micellar system from the nuclear spin relaxation enhanced by paramagnetic ions 2−75311
alkyl chain ligands coordinated to Ln(DPM)$_3$ ^{13}C pseudocontact shift and relax., conformational anal. 2−70283
alkyl radicals, muon-electron hyperfine coupling consts. 2−80846
N-alkyl-phenazinium $TCNQF_4$ salts, solid-state props. 2−87574
4-(trans-4′-n-alkylcyclohexyl) benzoic acids, synthesis and liq. cryst. props. 2−103600
4-n-alkyloxybenzylidene-4′-n-hexylanilines, smectic phase, reorientation of long mol. axis, dielec. dispersion study 2−65848
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2−76282
2-[4-n-alkylphenyl]-5-[4-n-alkyloxyphenyl]-pyrimidines, calorimetric investig. 2−56172
alkynes, interpretation and prediction of IR intensities using model based on electrooptical parameters 2−80613
alkythene 11, materials suitable for use in far IR 2−60187
allene, E(A_1)(B_2) species, pseudo-exact force const. evaluation using fourth-order secular determinant 2−102456
allene, integrated IR intensities, bond polar parameters 2−108496
allene+O^-, product energy and ang. distrib., crossed-beam studies, reaction mechanism 2−72951
allyl alcohol, centrifugal distortion effects in microwave spectrum 2−54836
allyl gas phase negative ions, IR multiphoton photodetachment 2−85750
alternant conjugated hydrocarbons, physical and chemical props., use of concept of quasispin 2−80408
aluminium acetylacetonate, thermal decomp., growth of Al_2O_3 film 2−87994
aluminium compounds, ^{13}C spin lattice relax. times, metal nucleus quadrupole coupling const. 2−102507
aluminium tris-2,4-pentanedionate, intramol. tunnelling in coord. units 2−80504
cis-amide uracil, and derivaties, sensitivity of amide V band to H bonding 2−90632
amides, out-of-plane hydrogen bonded N-H group, temp. depend. band width 2−80736
amides+$POCl_3$(PCl_5) reactions, ^{35}Cl NQR investig. 2−111482
amines, bases for H_2O_2+Cl_2 singlet O_2 generation reaction 2−78080
amines, in polyethylene matrix, dielectric relax. by inversion and internal relax. 2−57014
amines, long-chains, Langmuir-Blodgett film formation 2−98441
amines, low temperature dielectric relaxation spectroscopy 2−82777
amines, mol. relax. study by spectral density width *(French)* 2−85747

organic compounds continued
amines, primary, dielec. permittivity and relax. meas. at microwave freqs. 2−116116
amines, primary, soln., dielectric loss, microwave spectra *(German)* 2−66985
amines, primary long-chain systems, Raman spectroscopic study of mol. interaction 2−114003
amines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
amines in aq. soln., limiting excess vol., temp. effect 2−66100
amino acid overlayers, UHV deposited on clean metal surfaces, secondary ion emission 2−105032
amino acids, aq. solns., study by NMR method using a lanthanide shift reagent 2−111814
amino acids, H^+ transfer energies and electrostatic lattice energies, CNDO/2 and ab initio SCF calcs. 2−78079
amino acids, optically active, effect of longitudinally polarised protons 2−62691
amino acids, photo-CIDNP spectra, cross-relax. effects 2−108573
amino acids in carbonaceous chrondrite meteorite Murchison, enantiomeric comp. 2−73919
amino coumarins, in supersonic Ar jet, $\pi\pi^*$ absorpt., UV and fluoresc. study 2−114011
7-amino coumarins, substituted, types C311, C47, C102, C152, C481, spectral and lasing behaviour *(Chinese)* 2−65211
2-amino-4, 6-dichloropyrimidine, bond and mol. polarisability, struct. 2−59965
2-amino-7-nitrofluorene solutions, stimulated emission characts., statistical intermol. process effect 2−60074
3- amino-N-methylphthalimide solutions, stimulated emission characts., statistical intermol. process effect 2−60074
9-aminoacridine, fine-struct. luminesc. 2−80718
aminoalkyl radicals, ionisation pots., stabilisation energies, MO-SCF calcs. 2−96437
aminoanthraquinone dyes, spectra, solvent effects 2−75302
2-aminoanthraquinone-PVA covalent bonding, linear dichroism spectra obs. 2−54886
cis-3-aminocyclohexane, OH stretching and H bonds, CNDO/2 calcs. 2−70147
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
9-aminofluorene, anomalous fluoresc., solvent effects 2−90603
aminomethylene-biphosphonic acid, inhibitor, effect on growth role of $BaSO_4$ in suspension 2−116352
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
p-aminophenoxyl radical, time resolved resonance Raman scatt. 2−70253
aminophthalimide, solvent effects on absorption and fluoresc. *(German)* 2−54894
aminopyrazine, electronic and vibr. spectra, vibr. anal. 2−108491
N-aminotriazolones, form. by hydrazine+hydrazonate derivatives, struct., IR obs. *(French)* 2−54846
ammonium acetate, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
ammonium hydrogen oxalate hemihydrate, transition to ferroelastic monoclinic phase, struct. study 2−92191
ammonium oxalate: Cu^{2+}, EPR study 2−110627
ammonium salts, quaternary organic single chain, exhibiting thermotropic mesomorphism and organisation in water 2−103611
5′-AMP, transverse relax., proton decoupling effects 2−80670
amphiphilic bipolar mols. monolayer on aq. substrates, phase transition models 2−92340
amyl acetate solns., microwave absorpt. 2−87914
amylose, mol., simplified helical model, partition function 2−81984
anilide gas phase negative ions, IR multiphoton photodetachment 2−85750
anilide thiosemicarbazone hemihydrate, pyroracemic, cryst. and mol. struct. 2−103743
aniline, heteroatom n-electrons effects on optical props. 2−113907
aniline, intercalation of PbI_2, effect on charge transfer and luminesc. *(Russian)* 2−61975
aniline, o-, m- and p-halogen derivatives, thermodynamic studies of melting 2−103948
^1B, aniline+He, collision induced vibr. relax. 2−70399
aniline black, amorphous organic semicond., elec. cond., thermoelec. and Gunn effects 2−71974
aniline precursors of sulphanilamides, electron distrib., pulsed ^{14}N NQR investig. 2−108592
aniline-cyclohexane critical mixture, acoustic anomaly at low and ultrasonic freq. 2−86798
aniline-cyclohexane near crit. binary liq. mixture, short-ranged roughness on the near-critical liquid interface 2−56171
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
anilines, substituted, Penning ionisation, methyl group steric shielding effect 2−85805
anilinium halides, torsional and librational modes, inelastic neutron scatt., IR and Raman spectra 2−109923
anions in adiponitrile soln., HeI photoelectron spectra, ionisation energies 2−70336
anisole, NMR study, proton-proton coupling consts. *(French)* 2−96594
annulenes, with/without bond alternating aromaticity, HMO approx. 2−85558
anorthite, glass form., transient nucleation in non-isothermal crystn. 2−109685
anthracene, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
anthracene, and anion, soln., DMF, transfer diffusion theory, verification by elec. cond. meas. 2−115445
anthracene, assoc. effect on spectral distortion 2−65053
anthracene, cryst., nondipolar Coulomb exciton transfer interactions 2−110255
anthracene, delayed fluoresc., external heavy atom and mag. field effects 2−110926
anthracene, exciton luminescence, polariton effects, review *(Russian)* 2−93272
anthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
anthracene, monoclinic mol. cryst., diffusion tensor of singlet excitons calc. 2−87158
anthracene, photoluminesc., vibronic peaks, effect of grinding 2−104940
anthracene, pi-systems, environmental effects, deltalike function basis calcs. *(German)* 2−108671
organic compounds continued
anthracene, slip planes crystal growth and photodimerisation 2−86598
anthracene, solns., absorbing and non-absorbing excited transients investig. 2−84717
anthracene, triplet exciton-exciton annihilation, mag. field depend. 2−115669
anthracene, triplet-triplet annihilation, spin-statistical factor 2−64890
anthracene, vibronic excitons, thermorefl. spectra study 2−82832
(anthracene), (picric acid), polarisability and absorpt. tensor orientation 2−87810
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2−108616
anthracene cleavage planes, etching in H_2SO_4-formic acid soln. 2−109781
anthracene crystals, fluorescence simulation and its rel. to exciton distrib. 2−87838
anthracene doped polyethylene γ-irradiated, trap depth, TSC obs. 2−61479
anthracene scintillator evaluation for beta-gated gamma coincidence counting 2−75116
anthracene vacuum deposited films, elec. cond. and blue electrolum. 2−116270
anthracene-d_{10}, low freq. phonon dispersion, butterfly and twisting motions 2−76613
anthracene-d_{10}, phonon dispersion branches at 12K, inelastic neutron scatt. study 2−66149
anthracene-GaSe intercalation cpd., ESR, photocond., and optical meas. 2−77367
anthracene-tetracyanobenzene, triplet-exciton transport between differently oriented sites, EPR 2−116054
anthracene/tetracyanobenzene, charge transfer cryst., ODMR and EPR spectra calc., triplet exciton coherent motion effects 2−56445
anthracenes, $^1B_{3u}^+$ state delayed fluorescence, hetero-triplet-triplet annihilation 2−70321
anthracenes, electron deficient, fluoresc. singlet state quenching 2−65037
anthranilic acid, soln. amplified spontaneous emission 2−96590
9,10-anthraquinone, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
anthraquinone derivatives, radiationless deactivation and picosec. fluoresc. lifetimes 2−114028
1,4-anthraquinone single cryst., polarised IR absorpt. and Raman spectra, oriented-gas model 2−93192
anthraquinone-2.6-diamides, nematic liq. cryst., phase transitions 2−86552
anthraquinone-2.6-diesters, nematic liq. cryst., phase transitions 2−86552
anthrasemiquinone radical anions, aq. soln., stability, EPR obs. 2−90585
anthra[9,1-cd:10,5-c′d′]bis[1,2]dithiol (diselenol) and their polyiodides, prep. 2−93465
4-(9-anthryl)-N,N-dimethylaniline, intramol. charge transfer, INDO/S CI and PCILO calcs. 2−90688
aromatic amines, kinetics of photochemical conversion in a stabilised water-soluble photopolymerised layer *(Russian)* 2−74556
aromatic compounds, condensed, cryst. and mol. diamag. susceptibility and anisotropy calc. *(French)* 2−96770
aromatic compounds, PMR study 2−102496
aromatic compounds, simple, struct. luminesc. in matrices, environmental anal. appls. *(German)* 2−80720
aromatic cpds., induced moments, polarisabilities and second hyperpolarisabilities, CNDO calcs. 2−108403
aromatic cpds., NMR using binuclear shift reagents 2−114014
aromatic cpds. in cyclohexane soln., triplet state form., picosec. pulse radiolysis 2−108532
aromatic halides, comparitive study by PMR 2−56948
aromatic heterocyclic compounds, S-containing, proton, ^{13}C and ^{15}N chemical shifts, MO LCAO SCF method 2−75321
aromatic hydrocarbon water suspensions, const. mag. moment existence, magnetooptical methods 2−82829
aromatic hydrocarbons, condensed, mol. vibr. 2−75368
aromatic hydrocarbons, ground state mol. polarisability calc. 2−59964
aromatic hydrocarbons, image interpretation by computer simulation 2−76260
aromatic hydrocarbons, lattice and internal modes, temp. factors 2−81908
aromatic hydrocarbons, triplet states O_2 quenching, intersystem crossing enhancement 2−96624
aromatic mixture and coal liq. anal. using computer program AMCLA 2−57650
aromatic molecules, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
aromatic mols. adsorbed on Ag (110) surface, enhanced photofragmentation, Raman study 2−116725
aromatic mols. in presence of heavy atom perturbers, phosphoresc. and triplet state decay functions 2−102520
aromatic silanes, polymerisation in RF plasmas 2−62399
aromatic sulphinylamines electronic struct., PES and CNDO/S LCAO MO calcs. 2−85742
aromatic systems, collective levels, Green's functions method 2−108333
N-aryl carbazoles, twisted intramol. charge transfer states, fluoresc. obs. 2−59924
aryl ethylenes, and related cpds., assoc., photochem. reactions, spectrosc. obs. 2−54867
2-aryl-1,2-dihydro (4H) thieno[2,3-c]benzo[e]pyrane-4-ones, IR and NMR spectroscopic props. *(French)* 2−110863
2-arylalkanoates, geometric and electronic struct., topographical similarity to cyclopropane carboxylates 2−75137
2-arylamino-1,2-diarylethanephosphoric acid esters, stereochemistry, PMR study 2−114019
arylethylenes, UV photoelectron and absorpt. spectra 2−85687
4,5-arylimidazole, IR absorption bands 2−108506
mono- and di-arylphosphine oxides, conformations, dipole moments, molar Kerr const. and refraction 2−75151
ascorbic acid free radicals, kinetics obs. continuous flow method, ESR imaging appls. 2−108587
azaarene conc. in Puget Sound sediments 2−111966
azabenzenes, electronic relax., rot. state depend. 2−80507
7-azaindole, electronic excitation, mol. struct. and reactivity changes 2−108620
azaphenanthrenes, excited states, nonradiative deactivation by acids in aprotic solvents 2−108618
azides, equilib. struct. and force const., MNDO calcs. 2−113883
aziridines, N inversion barriers, hyperconjugation effects calcs. 2−96440
aziridinyl cyclophosphazines and rel. compounds, electronic struct., CNDO/2 calcs. 2−96454
azo dyes, aggregation effect on visible spectra 2−64992

organic compounds continued
azo dyes for guest-host. liq. cryst. cell. dichroic ratio meas. 2−61868
trans-azobenzene, Raman excitation profiles, 361 to 494 nm 2−113999
azobenzene monomers, struct. features of liq. cryst. state *(Russian)* 2−60885
azobenzenes, stereospecificity of ^{15}N-^{13}C coupling consts. and chem. shifts in ^{13}C NMR spectra 2−96600
cis-o,o′-azodioxytoluene, cryst. struct., X-ray diffr. study 2−65978
azomethane, rotation round double bond, multiconfig. SCF-INDO study 2−70141
azomethane-$d_0(d_6)$, ideal gas thermodynamic props., data tables 2−94922
p-azoxyanisole, new crystn. form, spectral and calorimetric characts. 2−55843
azoxybenzene, switching transients 2−110785
azulene, gas phase, time depend. thermal lensing studies 2−90669
azulene, pi-systems, environmental effects, deltalike function basis calcs. *(German)* 2−108671
azulene in soln., vacuum UV absorpt. spectra 2−85688
azulene isomer, multiphoton ionisation fragmentation patterns, maximal entropy theory 2−75360
bacteriochlorophyllic pigments, triplet-triplet energy transfer 2−108668
barnase (a ribonuclease), molecular structure 2−83549
barrelene, struct., gas phase electron diffr. obs. and force field calcs. 2−85806
benzal-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
benzaldazine, thermal isomerisation, coupled N-N rot./N inversion mechanism 2−99645
benzaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
benzaldehyde, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
benzaldehyde, excited states, nucl. config. effect on two-step photoionisation 2−114055
benzaldehyde, struct., rot. barriers, STO-3G MO calcs. 2−108350
benzaldehyde thiosemicarbazone, lattice parameters, space group, X-ray diffr. 2−109776
benzaldehyde-phenols in carbon tetrachloride, association complexes, dipole moment studies 2−57605
1,2-benzanthracene, secondary luminesc. during higher electronic states excitation 2−116246
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
benzene, adsorption on Pt{001}, angle-resolved photoemission meas. 2−56340
benzene, aqueous solutions, UV-laser induced photo-oxidation, phenol form. 2−75358
benzene, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
benzene, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
benzene, cracking, effect on Pt aggregates on Y-type zeolites 2−65123
benzene, cryogenic soln., mol. aggregates, IR study 2−67031
benzene, cryst., intermolecular contrib. to chemical shielding anisotropy 2−93029
benzene, diamagnetic shielding const. interaction with surface, NMR study 2−102501
benzene, diffuse X-ray scatt. due to orientational correl. 2−103668
benzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
benzene, freq. distrib. function calcs. 2−103916
benzene, ground vibr. state, rot. consts., IR obs. 2−85663
benzene, hydrogenation, isotope exchange and chemisorption *(French)* 2−67766
benzene, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
benzene, index-matching fluids, high intensity transmission props. 2−102866
benzene, integrated IR intensities, bond polar parameters 2−108496
benzene, inverse Raman scatt. spectra regularities 2−70608
benzene, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
benzene, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2−63769
benzene, linear transitions to highly excited stretching vibrs. 2−113964
benzene, liq., ν_1 band, Raman amplification spectra study 2−74511
benzene, liq., inelastic neutron scatt., 1.5 to 15 eV 2−109636
benzene, liq., laser-induced breakdown, self-focusing and spot-size depend. 2−65320
benzene, liq., refr. index press. and temp. derivatives meas. 2−116143
benzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2−115426
benzene, liq., three-photon ionisation spectrum 2−80749
benzene, localised atomic orbitals for atoms in molecules 2−54760
benzene, melting and mol. motions, X-ray diffr. study 2−109959
benzene, mol. cryst., electron-exciton complex mode reson. coupling 2−110256
benzene, molecular polarisability, ab initio HF calcs. 2−90449
benzene, multiphoton ionisation, translational energies of fragment ions 2−96646
benzene, multiphoton ionisation and fragmentation, UV-laser induced 2−96651
benzene, multiphoton ionisation mass spectroscopy 2−64158
benzene, multiple quantum NMR, pulse sequence for four quantum transitions 2−80652
benzene, nonradiative transition rates, out-of-plane modes effects 2−80699
benzene, out of plane vibrs., valence force field calcs. 2−70219
benzene, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
benzene, pi-systems, environmental effects, deltalike function basis calcs. *(German)* 2−108671
benzene, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
benzene, Raman scatt. tensor invariants, active Raman scatt., spectroscopy meas. 2−113994
benzene, ring current model, CHF approx. 2−108368
benzene, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2−97691
benzene, shock wave heating, band-shape, UV obs. 2−59816
benzene, tube boiling, heat transfer coeffs., critical heat flux 2−91419
benzene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492

organic compounds continued
benzene, vapour pressure, reference values 2−58771
benzene, wavefront reversal of weak Brillouin-shifted signals 2−70611
$(benzene)_2$ cluster, IR vibr. predissoc. spectroscopy 2−59989
$(benzene)_3$ cluster, IR vibr. predissoc. spectroscopy 2−59989
benzene 2−80631
benzene adsorbed on Ag(111), electron energy loss studies 2−87032
benzene adsorpt. on Re (0001) studied by thermal desorpt., Auger spectra and LED at 100K to 300K *(French)* 2−110141
benzene and its isotopes, $^1B_{2u}$ from $^1A_{1g}$ two photon spectra by supersonic beam multiphoton ionisation spectroscopy 2−102559
benzene clusters, mass-selective two-colour photoionisation 2−75486
benzene clusters, UV spectr a 2−75487
benzene excitation in shock tube investig. 2−57616
benzene in soln., vacuum UV absorpt. spectra 2−85688
benzene lattice, optically induced dipoles, effect on nonlinear refr. index 2−116144
benzene liq., shocked, temp. meas. by time-resolved IR radiometry 2−69227
benzene molecules, reorienting, proton spin-lattice relax. 2−61784
benzene radical anion, vibrational spectra and freq. shifts, IR and Raman 2−108455
benzene sulphonyl chloride, ^{35}Cl NQR spectrum 2−98992
N-benzene sulphonyl DL-α-alanine, cryst. and mol. struct., X-ray study 2−99882
benzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
benzene-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
benzene-Br atom complex, matrix isolation IR and UV spectra 2−108494
benzene-carbon tetrachloride, thermal diffusion columns, Soret coeff. determ. 2−104040
benzene-cyclohexylamine, binary mixtures, compressibilities, US study 2−61049
benzene-d_0(-d_6), local mode vibrs., spectra, model 2−59772
benzene-$d_0(d_1$-$d_6)$ vibronic Jahn-Teller state splitting, UV obs. 2−108543
benzene-$d_0(d_2)(d_3)(d_4)$, planar vibr., force field, IR obs. 2−85661
benzene-d_6, solvation sites in mesophases of discotic liquid crystals, D quadrupole splitting meas. 2−97916
benzene-hexa-alkanoate, discotic mol., two-dimens. film at air-water interface 2−115507
benzene-hexa-n-octanoate, heat capacity and IR spectra, 13 to 393K 2−76696
benzene-n-dodecane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
benzene-n-hexane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
benzene-naphthalene solid solns., symm. forbidden transitions, intensity enhancement 2−110888
benzene-$SbCl_3$ activity coeffs., heats of mixing, excess functions 2−92202
benzene.$Cl_2(Br_2)$, cryst. struct., space and Laue group changes 2−65901
benzenes; halogenated, in decalin, dielectric and far IR study, γ-process charact. 2−61892
benzenes, monosubstituted, ^{129}Xe NMR solvent shifts, reaction field model 2−75314
benzenes, monosubstituted and disubstituted, struct., ab initio STO-3G level calcs. 2−96434
benzenes, nitro-substituted, IR attenuated total reflection spectra 2−104866
benzenes, substituted, absolute extinction coeff., oscillator strength, valence-shell electronic transitions 2−108537
benzenes isotopically labelled, two-photon hot band spectra, Duschinsky effect 2−85680
benzenethiol, adsorbed on Cu(111) at 300K, angular resolved UPS and XPS spectra 2−78134
benzenethiol, photoelectron spectroscopic assignment of p-states 2−59858
benzil, annealed and unannealed, critical behaviour, simultaneous Brillouin correl. light scatt. 2−110878
benzil, cryst. phase transition, acoustic phonon mode, Brillouin scatt. study 2−56175
benzil, structural phase transition, proton mag. relax. study 2−116079
benzil crystal cored monomode optical fibres, optical phase matched SHG 2−55272
benzil in benzophenone-d_{10}, ENDOR and electron nuclear-nuclear triple reson. study, ^{17}O hyperfine coupling 2−98995
benzo(a)phenazine, electronic excitation, mol. struct. and reactivity changes 2−108620
benzo(a)pyrene and its 9- and 3-hydroxy derivatives, fluoresc. excitation and emission spectra, solvent effects 2−70330
1,2-benzoanthracene electronic-vibr. Raman spectra, Shpol'skii effect 2−70264
benzocyclenones, isopropyl substituted, UV spectra, steric interaction, ^1H NMR chemical shift 2−70274
1,3-benzodioxole radical cations, hyperfine splitting const., ESR, MO calcs., correl. with reactivity *(German)* 2−102511
benzoic acid, crystal structure determ. by X-ray and neutron diffraction 2−60969
benzoic acid, enthalpy of sublimation and dimerisation in vapour phase 2−109966
benzoid hydrocarbons, individual Kekule valence structs., graph-theoretical approach 2−80486
benzoid systems, individual Kekule valence structs., graph-theoretical approach to pseudodegenerate states 2−80487
benzolthiosulphonic acid salts as antifogging substances in photographic emulsions *(Russian)* 2−58955
benzonitrile, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
benzonitrile, index-matching fluids, high intensity transmission props. 2−102866
benzonitrile liq., motional param. from spectral profiles 2−71317
benzonitriles, alkyl-substituted, struct. elucidation using lanthanide-induced shifts 2−80685
benzophenone, complex form., mol. vibr., IR obs. 2−67747
benzophenone, dipole moments and electronic charge distrib., INDO calc. 2−75185
X-benzophenone, doped, excitation transfer, temp. depend. 2−77572
benzophenone, doped, excitonic phosphorescence 2−110935
benzophenone, in PMMA soln., photochemical reaction, holography study 2−83399
benzophenone, $n\pi^*$ triplet state in glassy matrices, time-resolved ESR detect. 2−59826

organic compounds continued
benzophenone, photodestruct., mean quantum yield, radiation intensity effects 2−57624
^{17}O-benzophenone, photoexcited, ODMR and ENDOR, orbital rot. in lowest triplet state 2−59831
benzophenone, photoluminesc., vibronic peaks, effect of grinding 2−104940
benzophenone, vapour, delayed luminesc., temp. effects 2−109455
benzophenone+biacetyl energy transfer, phosphoresc. and fluoresc. decay study 2−75386
benzophenone amino derivatives, electronic absorpt. and emission spectra 2−75306
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
benzophenone derivatives in micelles, photochem. processes under high mag. fields, laser photolysis study 2−72992
benzophenone-polyiodine complexes, electronic and ionic cond. 2−104440
benzophenones, substituted, CO stretching bands, substituent effects 2−75289
benzoquinoline derivatives struct., mol. weight determ., IR and visible spectra 2−114125
p-benzoquinone complexes, H bonding, thermal electron transfer investig. 2−77072
p-benzosemiquinone free-radical anions, reson. Raman spectra 2−80619
para-benzosemiquinone radical anion, halogen derivatives, radiolytically prepared, reson. Raman spectra 2−59807
benzotriazole, corrosion inhibitor on Cu, surface enhanced Raman scatt. study 2−111367
benzotriazoles, interaction of stabilisers and antifoggants with AgBr rel. to sensitising effects 2−88369
benzotrifluoride, acoustic relaxation meas. 2−109914
benzoxazoles, excited, intramol. proton transfer, tautomeric fluoresc., isotope effect 2−105447
benzoyl cyanide, struct., rot. barriers, STO-3G MO calcs. 2−108350
benzoyl fluoride, struct., rot. barriers, STO-3G MO calcs. 2−108350
benzoylacetonate-$[EuO_8]^-$, chelate complex, electronic struct., Wolfsberg-Helmholtz calc. 2−87191
3-benzoylaminopropionic acid esters, H-bond form., steric effects, IR spectra, geometries and energies calc. 2−96552
benzo[a]pyrene, trans-9,10-dihydrodiol metabolite, config. assignment 2−108729
1,12-benzperylene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
benzyl chloride parent ions struct., biomol. isomerisation process 2−78078
benzyl gas phase negative ions, IR multiphoton photodetachment 2−85750
benzyl radicals in gas phase, laser-induced fluoresc., excitation spectrum 2−80702
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
4,4′-benzylidene bis(N,N-diethyl-m-toluidine), carrier transport layer, carrier photoinjection from Se binder layer 2−87334
3-benzylidene-2,4-pentanediones, substituted, IR spectra, conformation 2−64983
benz[a]anthracenes, methyl substituted, ^{1}H and ^{13}C NMR chem. shifts 2−65020
bi(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformational anal., CNDO/2, MNDO and PPP calcs. 2−96459
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2−75276
biacetyl($-d_6$), ^1A_u from $^1A_g(\pi^*$ from n) transition, laser excitation spectroscopy; 2−70223
biaxial ordering in N-(4-n-hexyloxybenzylidene)-4-n-hexylaniline smectic G phase 2−98973
bicarbenes, quintet-state, in diacetylene single crysts., ENDOR study 2−104743
1,1′-bicobaltocene salt of tetrabromoquinone, and tetrabromodiphenoquinone, synthesis 2−93774
bifluorophoric laser dyes, intramol. TT-energy transfer 2−80943
binaphthyl spiro cyclophosphazene derivatives, isomeric 1,1′ and 2,2′ forms, UV obs. 2−108549
binary mixtures, excess thermodynamic props., temp. depend. 2−71667
biomolecule desorption yields for high and low energy primary ions 2−98430
bioorganic solids, ion induced desorpt. of mols., conf., Uppsala, Sweden (June 1981) 2−94884
biphenyl, Ar matrix isolated, two-colour resonance photoionisation 2−85751
biphenyl, ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
biphenyl, melting induced by condensation of steam on surface 2−91439
biphenyl crystals, torsionally induced bands in Raman spectrum 2−87777
biphenyl dianion, vibrational spectra and freq. shifts, IR and Raman 2−108455
biphenyl molecules, constant relating total mol. energy to sum of valence eigenvalues, CNDO and INDO methods 2−75188
biphenyl-d_0(d_{10}), matrix photoionisation, isotope shift, UV-visible obs. 2−70350
biphenyl-naphthalene(pyrene), mixed cryst., triplet exciton fusion, luminesc. study 2−110913
biphenyl-tetracyanobenzene complex, triplet excitons, intersystem crossing and spin state superposition 2−80701
biphenyls, molecular structures, calculation methods, review 2−65108
p,p′-biphenylsemiquinone free-radical anions, reson. Raman spectra 2−80619
2,2′-bipyridine, fluoresc. spectrum, role of associate form. and rot. isomerism, ab initio SCF calcs. 2−90604
2,2′-bipyridine, lowest electronic states, two-photon excitation spectra 2−70237
2,2′-bipyridyl-I$2, complex, form. thermodynamics, visible and far IR obs. 2−108517
bis(3,3,3-triphenyl propanoyl)peroxide, cryst., neophyl rearrangements, X-ray and EPR obs. 2−67742
bis(3,3,3-triphenylpropanoyl)peroxide, cryst., neophyl rearrangements, EPR obs. 2−67741
bis(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), mol. struct. studied by gas phase electron diffr. 2−96733
bis(4-dimethylaminophenylimino)sulphur, donor props., conform. anal., adduct form. with TCNQ 2−61454
bis((dimethylbenzyl)silyl) peroxide, X-ray struct. study, conformational calcs. 2−76417
organic compounds continued
9,9-bis(acridizium-yl)-perchlorate, fluoresc., singlet excitation states geometry, solvent and temp. effect *(German)* 2−90621
bis(benzylammonium)tetrachlorochromate(II), 2D ionic ferromagnet, cryst. growth 2−111049
bis(dimethyl-p-chlorophenyl)silyl, X-ray struct. study, conformational calcs. 2−76417
4,4′-bis(dimethylamino)azobenzene, donor props., conform. anal., adduct form. with TCNQ 2−61454
bis(ethylenedithiolo)-TTF, metal-semiconductor transition suppression, two dimensionality 2−87150
bis(methylammonium) manganese tetrachloride, heat capacity, 10 to 300K 2−61159
bis(methylammonium)copper tetrachloride, quasi-two-dimensional ferromag., proton spin-lattice relax. 2−61780
bis(propylammonium) tetrachloromanganate(II), weak ferromag. props., differential susceptibility meas. and mag. phase diagrams 2−56840
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
bis(trifluoromethyl)disulphide mol. struct. by gas electron diffr. 2−70416
bis(trifluoromethyl)pyruvic acid cyclohexylamide crystal and mol. struct., X-ray anal. 2−78087
bis(trifluoromethyl)sulphone, electron diffr., CH_3/CF_3 substitution effect 2−90704
bis(trimethylammonium)hexachlorotellurate(IV), cryst. struct. 2−76415
bis (4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), crystal and mol. struct., bond lengths and angles 2−98058
bis-methylammonium copper bromochloride, moment direction, NMR study 2−115974
bis-methylammonium copper tetrachloride, spin wave instability, subthreshold parallel pumping 2−110574
bis-methylammonium iron tetrachloride, struct. transition study 2−103981
2,2-bis-p-chlorophenyl chloroethane derivatives, struct., ^{35}Cl NQR study 2−108560
bis-propylammonium tetrachloro-zincate, second order ferro-paraelastic phase transition, birefringence 2−61124
9,9′-trans-bis-telluraxanthenyl, cryst. and mol. struct. 2−98060
bis-tetramethylammonium iron tetrachloride, phase transition X-ray study in modulation wavenumber 2−81945
1,2-bis-[4-n-alkyloxybenzoyl]-hydrazines, thermotropic cubic mesophases, expt. study 2−65849
4,4′-biselenopyranylidene based charge transfer complexes and radical ion salts with TCNQ and DDQ 2−92577
bisphenol-A polycarbonate, track etching photo-oxidative enhancement, chem. basis 2−59617
bistoluene sulphonate diacetylene monomer and polymer, pyroelectric props. 2−104816
bitumen, Maxwell-Norton rheological model *(French)* 2−60494
borepin, geometry optimisation, ab initio MO calcs. 2−108356
boron tris-2,4-pentanedionate, intramol. tunnelling in coord. units 2−80504
BPHB, nematic liq. cryst., ESR line shape 2−98937
brombenzene solution in dimethyl formamide, elec. cond. and vol. charge *(Russian)* 2−61534
brominated methanes and ethanes, photochemistry in stratosphere/troposphere from UV absorpt. spectra 2−111600
9-bromo-10-methylanthracane, diffuse X-ray scatt. anal. 2−109773
ω-bromo-2-acetonaphthalene, cryst. struct. study 2−81768
3-bromo-3-methylpentane, steady state shear viscosities 2−61185
ω-bromo-4-chloroacetophenone, cryst. struct. 2−103736
6-bromo-quinoldine, crystallographic data 2−98051
bromobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
bromobenzene, in cis-decalin, glassy phase, dielec. relax., mol. shape effect 2−82775
bromobenzene, liq., laser-induced breakdown, self-focusing and spot-size depend. 2−65320
bromobenzene, soln. dielec. props. and viscoelasticity 2−110758
bromobenzene cations, matrix isolated, formed by radiolysis, EPR spectra 2−96630
bromobenzene-cyclohexylamine, binary mixtures, compressibilities, US study 2−61049
bromobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
(R)−(+)bromochlorofluoromethane, Raman optical activity, bond polarisability theory 2−96580
bromocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
bromomethane, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
bromomethane, rovibrational transition, saturation spectra 2−70229
bromomethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
3-methylpentane, steady state shear viscosities 2−61185
bromopentanes, steady state shear viscosities 2−61185
1-bromopropane-BCl_3, dissociation under CO_2 laser irrad. *(Chinese)* 2−59866
3-bromopropene, mol. struct., conformers, gas-phase electron diffr. 2−75431
3-bromothiophene, liq. and solid, vibr., Raman and IR study 2−93204
3-bromothiophene, rot. consts., nucl. quadrupole coupling, hyperfine struct., microwave obs. 2−75246
bromotrifluoromethane; ground and excited states, rot., microwave obs. 2−59791
bromotrifluoromethane, IR multiphoton dissoc. at high temps. 2−116717
bromotrifluoromethane, IR vibr. and rot. anal. of parallel overtones and combination bands 2−75465
bromotrifluoromethane, optically pumped CW far IR laser, emission lines and tentative assignments 2−96911
bromotrifluoromethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
bromotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
bromotris[tetracarbonyl(triphenylphosphine)manganio] tin (IV), cryst. struct. 2−76413
bullvalene, ab initio SCF MO calcs. 2−75181
α-bungarotoxin structure by averaging electron density of noncrystallographically related mols. 2−60964
butadiene, ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386

organic compounds continued
butadiene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butadiene, polar twisted minima in ionic singlet excited surfaces 2−108362
butadiene, valence excited states, electron impact spectra 2−85734
butadiene cations, laser photogragmentation study at 5145 Å, vibr. predissoc. 2−96659
butadiene cyclobutene isomerisation paths, nonadiabatic coupling paths 2−111465
butadiynyl, interstellar, detect. of N=1→0 transition in (Taurus MC-1) 2−68867
butadiynyl detection in Taurus Molecular Cloud 1, obs. 2−84297
n-butane, adsorpt., effect on Pt aggregates on Y-type zeolites 2−65123
butane, gas phase thermal diffusivities by a thermal lens technique 2−91576
butane, rapid evaporation at the superheat limit 2−109173
butane, stopping cross-sections for α-particles in the energy region 0.3 to 5.5 MeV 2−60715
butane adsorpt. and bonding on Pt(111) cryst. surface, O treatment and D preadsorpt. effects 2−71793
butane droplet, evaporative instability at the superheat limit 2−56167
n-butane in soln., light scatt., mol. theory, solute-solvent interactions 2−82870
butanoic acid, ionised, single and double H-rearrangements involving β-bond cleavage studied using field ionisation 2−105456
butanol+$SnCl_4$, complex form., vibr., IR absorpt anal. NMR obs. 2−111486
butanol solution in n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
n-butanol-chloroform-pyridine mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
n-butanol-cyclohexane mixture, US wave vel. and free vol. 2−71573
butatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butene, adsorpt. on MoS_2, binding energies 2−105500
2-butene adsorption on Pt (111), surface structs., LEED study 2−71804
3-butenenitrile, molecular struct. 2−59959
4-n-butoxybenzylidene-4′-aminopropiophenone, smectic A to B transition, PMR spin-lattice relax. study 2−93037
4-butozy-4′-hexyltolane, nematic order parameter fluctuations and mol. anisometry 2−103619
butyl alcohol-butyraldehyde, dynamic viscosity meas. 2−104044
t-butyl benzene, derivative IR spectra meas. 2−64131
n-butyl bromide, multiple quantum NMR, pulse sequence for four quantum transitions 2−80652
t-butyl bromide, vibr. dephasing, Raman obs. 2−102486
sec-butyl chloride, γ-irrad., long-range hole transfer, Franck-Condon factors 2−82272
n-butyl chloride, in cis-decalin, glassy phase, dielec. relax., mol. shape effect 2−82775
t-butyl chloride, mol. cryst. high press. struct. phase transform., DSC study 2−71633
t-butyl chloride, vibr. dephasing, Raman obs. 2−102486
t-butyl cyanide, high temp. disordered phase, struct. determ. by neutron scatt. method 2−109779
4-n-butyl-4′-n-dodecyloxyazobenzene, liq. cryst. phase transitions, dielec. relax. 2−116114
n-butylalcohol-pyridine, molecular complexes, det. of equilibrium const. using US meas. 2−93806
butylbenzene, liq., equation of state, elastic and thermal props., density, US vel. study *(Russian)* 2−92144
n-butylbenzene, photoexcited, average internal energy, source temp. effect 2−116710
t-butylhydroperoxide, state-to-state unimol. reaction, kinetics investig. 2−62392
di-tert-butylnitroxide, EPR, inhomogeneous line broadening correction 2−104685
butyloxybenzylidene octylaniline, shear mech. impedance near crystalline-B-smectic-A phase transition, US study 2−56190
4′-butylphenyl 4-hexyloxylbenzoate, electro-optical props., relax. near phase transition 2−99092
2-butyne, partially oriented, PMR spectra, a_α struct. determ. 2−96599
n-butyraldehyde, dynamic viscosity at various temp. and pressures 2−61186
butyronitrile, quadrupole coupling, hyperfine struct., microwave Fourier transform spectra 2−64965
n-buytl chloride, pulse irrad. liq. charge transfer from solvent radical to solutes 2−90682
cadmium acetate dihydrate:Cu^{2+}, single cryst., EPR study of low symm. site 2−56918
cadmium oxalate trihydrate, dislocation etching and dissolution mechanism 2−109797
cadmium platino-oxalate, compaction cond. study 2−87246
cadmium thiocyanate isothiocyanate dibenzoylhydrazine, cryst. and mol. struct. 2−115213
caesium sulphonate salts, solid, mol. reorientation, NMR spin-lattice relax. 2−72368
calcium homophthalate dihydrate, cryst. struct. 2−98052
calcium malonate, Ca(II) ion binding, ab initio calcs. 2−64857
calcium oxalate, precipitation, nucleation and growth kinetics, temp. effect 2−76336
calcium oxalate monohydrate, dissolution kinetics, const. comp. study 2−76681
calcium oxalate trihydrate, growth morphology rel. to urinary stone research 2−76335
d-camphor, carbonyl stretching mode, Raman and IR spectra, high press. and temp. effects 2−67057
ε-caprolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
ε-caprolactam, activated anionic polymerisation, superimposed processes, exothermal effects 2−78095
carbenes, highly polar, elec. dipole moments, semiempirical and ab initio calcs. 2−80449
carbenes, singlet, equilib. struct. and force const. calc. using MNDO approx., electronegativity 2−59702
carbenic enamine, struct. calc. using MNDO method 2−113885
carbodimide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
carbon tetrabromide, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
organic compounds continued
carbon tetrachloride, adsorbed on graphite (0001), appl. of Landau theory to 2D struct. phase transition 2−76802
carbon tetrachloride, Cl L-edge absorpt. spectra, HF calcs. 2−102464
carbon tetrachloride, diffuse X-ray scatt. due to orientational correl. 2−103668
carbon tetrachloride, influence on struct. orientation of irrad. polyethylene in deform. 2−67457
carbon tetrachloride, liq., central Lorentzian in depolarised Rayleigh spectra 2−80629
carbon tetrachloride, liq., electron pulse irrad., transient absorpt. 2−80647
carbon tetrachloride, liq., far IR absorpt. spectra, octupole induced dipole moment correl. functions 2−72472
carbon tetrachloride, liq., optical and dielec. parameters meas. in 3 mm to 50 μm range 2−99084
carbon tetrachloride, liq., refr. index press. and temp. derivatives meas. 2−116143
carbon tetrachloride, liq. and plastic cryst., mol. dynamics calcs. 2−65839
carbon tetrachloride, liquid, hyper Raman light scatt. *(Russian)* 2−82856
carbon tetrachloride, nonpolar symmetric molecules, electrostriction and Kerr effect 2−57020
carbon tetrachloride, Raman scatt. tensor invariants, active Raman scatt., spectroscopy meas. 2−113994
carbon tetrachloride, struct. by neutron diffr. 2−55848
carbon tetrachloride, vibr. relax., spontaneous Brillouin scatt. 2−59784
carbon tetrachloride, wavefront reversal of weak Brillouin-shifted signals 2−70611
carbon tetrachloride+$Ca(^1P_1)$, reactivity, atomic reagent approach geometry effect, chemiluminescence 2−111476
carbon tetrachloride solution absorpt. meas. using thermooptic-based interferometric technique 2−79652
carbon tetrachloride-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
carbon tetrachloride-Ar vapour gas mixture, thermal cond. *(Russian)* 2−55693
carbon tetrachloride-phenol (cresol), mol. interactions, US study 2−61067
carbon tetrachloride/O_2 mixture gas, etchant for Mo 2−62273
carbon tetrafluoride 16 μm optically pumped laser, tuning charcts. 2−102782
carbon tetrafluoride laser modelling 2−102776
carbon tetrafluoride optically pumped molecular laser, 16 μm range emission 2−114252
carbonic acid-Co substituted, ^{1}HNMR spectra of coordination sphere 2−72359
carbontetrachloride+tetracene charge transfer interaction 2−78092
carbontetrachloride−arenes mixtures, N-H ... π type H-bond form., strengths 2−113986
carbontetrafluoride laser, optically pumped, tunable pump laser stabilisation 2−102777
carbonyl compounds, conjugated monosubstituted, stretching force const., geometry, ab initio calcs. 2−85538
carbonyl compounds, tetraatomic, lowest triplet state pot. surfaces, ab initio SCF MO calcs. 2−64872
carbonyl cyanide, struct., rot. barriers, STO-3G MO calcs. 2−108350
carbonyl fluoride, strong far IR laser action obs. 2−102775
carbonyl fluoride continuous submm.-wave laser source 2−96919
carbonylcyanide, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
carbonyls, excited states, electronic struct., $INDO/2V_{N-1}$ pot. model appl. 2−59701
o-carborane, H^+ second moments and spin-lattice relax. time 2−77404
o-carborane, low temp. phase transitions 2−61887
o-carboranyl-substituted allyl anion, CNDO/2 calc. 2−90457
4-carboxybenzophenone, photoreduction, quenching, radical form. and disproportionation 2−67756
carboxylates, zinc, cadmium and lead, IR study 2−99121
carboxylates adsorbed on Pt(111), struct. and reactivity 2−87035
carboxylferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
carboxylic acid Langmuir-Blodgett films, frictional force, shear strength 2−61318
carboxylic acids, ^{17}O NQR using double reson. with coupled multiplets technique 2−56977
Cargille 5610, index-matching fluids, high intensity transmission props. 2−102866
β-carotene:I_2, IR spectra, vibronic charge oscills. 2−116171
β-carotene anions, electronic absorpt. and ESR spectra 2−108539
carotenoids, autoxidation kinetics, X-ray diffr. study 2−99667
carotenoids, excited states, time-resolved reson. Raman spectrosc. 2−59805
carotenoids in photosynthetic membranes, electrochromatic response 2−99912
carotenoids series, triplet-triplet energy transfer 2−108668
carvone photocyclisation to carvone camphor using rare gas halide lasers 2−72993
castor oil, thermodynamics props. as a function of temp. and press., using sound vel. and density data 2−61166
catylpyridinium chloride soln., small-angle neutron scatt. 2−97863
CBOOA, elastic light scattering by smectic A focal conic defects 2−91767
CBOOA, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
CBOOA-80CB mixtures, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
CBr_4/ferrocene photosensitive layers, effect of non-interchangeability in charge transfer complexes *(Russian)* 2−74553
cellulose and some model compounds, struct. rel. to mol. movements dynamics 2−57773
cellulose derivatives, thermotropic mesomorphic tendencies and rheological characteristics 2−91774
cellulose in trees, climatic significance of H isotope ratios 2−89000
cellulose nitrates, rel. between distrib. of nitrate ester groups and interchain d(110) spacings, ^{13}C NMR, X-ray spectra 2−110666
cetyl alcohol, solid form, dielec. behaviour and mol. rot. 2−66980
cetylpyridinium salicylate solns. with rodlike micelles, small angle neutron scatt. 2−71320
CH_5^++methane=d_4 isotope exchange reactions 2−78076
chamic acid, configuration and conformation, ^{1}H NMR spectra 2−114130
chemical constants, from NQR regression anal. 2−90570
chemical shifts ^{13}C, EHT and GIAO calcs. 2−85557

organic compounds continued
chemically rel. mols. RCF, RCH and ROH, charge charge flux overlap model, IR intensities interpretation 2−80607
chiral molecules, vibr. circular dichroism, mid-IR FT study 2−96609
chiral molecules consisting of two polyacene chromophores, circular dichroism spectra, vibronic anal. 2−70310
chloral hemiacetals, ^{35}Cl NQR 2−70277
chloramil, phase diagram under press., order parameter variations 2−109977
chloranil, crystalline, low temp. phase, phonon dynamics 2−98214
chloranil, phase transition, soft mode behaviour, press. depend. Raman scatt. study 2−66205
chloranil-[2.2]paracyclophane, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
chlorin photoisomer, in n-hexane, S_1—S_0 transition, Zeeman effect, photochem. hole-burning obs. 2−80697
chlorinated hydrocarbon content of atmos. of N Atlantic 2−99867
chlorine-e_b and complexes, luminesc. spectral-polarisation study 2−70328
8-chloro-1,4-dioxaspiro[4.5]decane, point-dipole interaction, mol. mechanics calcs. 2−85613
3-chloro-1-(4-halophenyl)-1-propanone, IR spectra 2−99105
1-chloro-1-fluoroethylene IR laser photolysis, press. and power depend., expt. and modelling calcs. 2−102550
9-chloro-2,3-dihydro[1,3]thiazino[3,2-a]benzimidazole-4(3H)-one, preliminary crystallographic study 2−81770
-chloro-2,4-dimethyl-1,2-dihydro-1,5,2,3-phosphaoxadiazole, gas phase electron diffr. 2−90703
3-chloro-2-methylpropene, vibr. spectra, normal coordinate anal. and conformational equilib. 2−114001
4-chloro-2-nitrotoluene, laser Raman and IR spectra, vibr. anal. 2−102482
1-chloro-4,4-difluorocylohexane, point-dipole interaction, mol. mechanics calcs. 2−85613
2-chloro-5-chloromethyl-1,3,2-dioxa-arsolane, three-dimens. struct., NMR study 2−96767
p-chloroacetophenone, IR spectrum and normal coord. anal. 2−108512
chloroacetylene-d, hyperfine struct., beam maser meas., quadrupole coupling strengths, rot. consts. 2−108734
1-chloroadamantane, plastic phase, cryst. struct., X-ray diffr. study 2−65980
chlorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)\leftarrow\tilde{X}^1A'$ absorpt. spectra 2−54862
chlorobenzene, adsorption on Pt{001}, angle-resolved photoemission meas. 2−56340
chlorobenzene, collision induced dissoc. studied by triple quadrupole mass spectrometry 2−72981
chlorobenzene, in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
chlorobenzene, liq., laser-induced breakdown, self-focusing and spot-size depend. 2−65320
chlorobenzene, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2−97691
chlorobenzene vapour, second virial coeff. and viscosity coeff. evaluation with regard to intermol. pot. *(German)* 2−91575
chlorobenzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
chlorobenzene-cyclohexylamine, binary mixtures, compressibilities, US study 2−61049
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
chlorobenzoquinone complexes, H bonding, thermal electron transfer investig. 2−77072
p-chlorobenzyl cyanide, Raman and IR spectra, vibr. assignment 2−90533
chlorocarbene metastable states, high-resolution laser spectroscopy 2−75335
chlorocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
chlorocyclopentane, struct. and pseudorot. pot. function determ. by gas phase electron diffr. 2−90698
chlorodiacetylene cation, spectroscopic studies 2−75343
chlorodifluoroethane, CW IR laser induced reaction kinetics 2−105493
chlorodifluoromethane, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chlorodifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chlorodifluoromethane in liq. Ar, IR and Raman spectra, vibr. anal., overtone and combination bands 2−90546
chlorodifluoromethane IR multiphoton dissoc., time scale and product energy at steady state 2−111501
chloroethane, IR multiphoton decomposition and energy depend. absorpt. cross section 2−93770
chloroethane derivatives, substituent group effects on ^{35}Cl, NQR 2−56967
chloroethane-2-d_1, IR and Raman spectra, vibr. anal. 2−75285
2-chloroethanethiol, rot. isomerism and consts., microwave obs. 2−75248
chloroethene molecular beam, pulsed, optical study 2−80562
chlorofluorocarbon pollution of atm. causing O_3 perturbation 2−100503
chlorofluoromethane, atmos. conc. in southern hemisphere 2−106209
chlorofluoromethane, force consts., vibr. rot., IR obs. 2−85658
chlorofluoromethane (CFC 11 and 12) residence times in stratosphere 2−106208
chloroform, ^1H Cw off-reson. decoupled ^{13}C NMR, spin dynamics 2−108570
chloroform, ang. vel. correl. functions obtained from far IR absorpt. and Raman band shape 2−110829
chloroform, RF etching of Si surface in MOS *(Russian)* 2−61592
chloroform liquid mixtures, association const. det. using US vel. data 2−71575
chloroform-acetone binary liq. mixtures, viscosities 2−71687
chloroform-d_0(−d_1), ^{35}Cl NQR line widths and mag. dipole interaction 2−110700
chloroform-d, in aq. solns., Raman linewidth study of rotational motion 2−85673
chloroform-pyridine-methanol (n-butanol) mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
chloromethane, $\nu_3+\nu_5$ band study, Coriolis reson. *(French)* 2−80573
chloromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
chloromethane, IR absorpt. line intensity of ν_4 and $3\nu_6$ perturbed bands *(French)* 2−114046
chloromethane, point charge model 2−81646
chloromethane, valence orbitals, momentum distribs. and separation energies 2−108371
chloromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
organic compounds continued
chloromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
chloromethanes, electron spectra, electron correl. and mol. effects 2−108700
chloromethanes, photoelectron spectra by SCF Xα scatt. wave calcs. 2−64873
chloromethylphenols, vibr., laser Raman obs. 2−108523
chloropentafluorobenzene vapour, vibr. deactivation 2−59913
chloropentafluoroethane, multiple-photon excited, quasicontinuum struct. 2−59783
chloropentafluoroethane, supersonic mol. beam, multiphoton absorpt. and dissoc. 2−96671
chloropentamethylbenzene, single cryst., vibr., IR study 2−57105
p-chlorophenyl isocyanate, vibr. and electronic spectra, assignments 2−90534
chlorophyll, fluoresc. and EPR signal kinetics in whole leaves of higher plants 2−116880
chlorophyll, in soln., lipid vesicles and liposomes, conc. quenching, fluoresc. study 2−67955
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll a, intermol. interactions in vivo, reson. Raman spectroscopy obs. 2−105638
chlorophyll a, loop currents 2−111612
chlorophyll a, n-octane soln., triplet state, fluoresc., ODMR 2−85708
chlorophyll a and its analogues, photophys. of complexes with π-acceptors 2−67947
chlorophyll a cations, ^{14}N nuclei, quadrupole coupling parameters determ. by electron spin echo method 2−102494
chlorophyll a layers, mobility of photogenerated holes 2−67948
chlorophyll b in 2-methyltetrahydrofuran, site energies distrib. determ., fluoresc. spectra 2−116862
chlorophyll fluorescence from the ocean exact 1-D soln. 2−106124
chlorophyll in barley leaves with blocked carotenoid biosynthesis, luminesc. analysis of triplet states 2−78307
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
chlorophyll-a and its derivatives in solid solns., sharp line fluoresc. and vibronic spectra 2−87836
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
chlorophyll-protein complexes, electrochem. regulation of excitation energy transfer 2−111620
6-chloropurine, IR absorpt. spectra obs. 2−54840
3-chlorothiophene, liq. and solid, vibr., Raman and IR study 2−93204
5-chlorotoluene, UV absorpt. spectra, Π-Π^* transition, solvent effect 2−54860
chlorotrifluoroethylene, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chlorotrifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
chlorotrifluoromethane, IR multiphoton dissoc. at high temps. 2−116717
chlorotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chlorotrifluoromethane gas/liq. crit. points, holographic interferometry 2−98251
cholesteric mesophase induced by chiral probe, ESR obs. 2−76279
cholesterol, anhydrous, crystal habit, solvent and crystn. effects 2−55868
cholesteryl 2,2,3,3-tetrafluoropropionate, crystalline, phase transition, dielec. const. and permittivity study 2−72399
cholesteryl arylbenzoates, mesomorphic props., effect of ang. linkage 2−103604
cholesteryl benzoate, refr. indices, densities, polarisabilities, and mol. order 2−60876
cholesteryl chloride, ^{35}Cl NQR spectrum 2−77414
cholesteryl chloride-cholesteryl myristate mixture, negative-positive monopole transitions *(Russian)* 2−81961
cholesteryl chloride-laurate compensated mixture, guest-host interaction 2−86543
cholesteryl laurate, refr. indices, densities, polarisabilities, and mol. order 2−60876
cholesteryl linoleate, dielec. props. in smectic, cholesteric and isotropic phases 2−99031
cholesteryl n-alkanoates, cholesteric helix pitch behaviour at cholesteric-smectic A phase transition 2−103988
cholesteryl nonanoate-cholesteryl chloride, blue phase stability, pitch depend. 2−92194
cholesteryl oxycarboxylate derivatives, liq. cryst. props. 2−103603
chromatin fibrils, models of organisation 2−67934
chromium diformate, ground and ionic states, correl. effects calcs. 2−80465
chromium phosphate, polymeric, ESR and spin dynamics 2−82710
chrysene, vibrs., IR and Raman obs. 2−64984
chrysene crystal, purification and decay time of delayed fluorescence 2−76483
citrate ions adsorbed on Au sol particles, surface enhanced Raman scatt. 2−116195
citric acid production waste water, radionuclide X-ray fluoresc. anal. 2−78164
coating on multiple glass fibre strands dynamic mechanical testing 2−78023
cobalt naphthenate, photo-electrect study 2−61818
cobalt naphthenate, thermo-electret form., surface charge 2−61819
COC, optical anisotropy in smectic and cholesteric phases 2−77472
COC, optical rot., Kerr effect, and dynamic light scatt. in isotropic and homeotropic states 2−61135
COC optically determ. transitions at high pressure 2−76669
complex molecules, assoc. effect on spectral distortion 2−65053
complex organic compounds, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041
compounds containing NH_2 group, isolated N-H stretching freq. 2−90506
compounds with intramol H-bonds with large proton polarisability, ^1H NMR spectra, solvent effect 2−102503
conductors, design, synthesis and characterization of mol. components 2−92575
conductors, X-ray irrad. induced defects, damage prod. mechanisms 2−92032
conjugated molecules, electronic states, partial distance meas. 2−108409
conjugated molecules, mag. shielding tensors, ab initio quantum mech. calcs. 2−80506

organic compounds continued
copper (II) complex, with N,N-dimethylpyruvamide 4-phenylthiosemicarbazone, cryst. and mol. struct. 2−81776
copper acetate, Cu negative ion emission by mol. sputtering 2−57229
copper calcium acetate hexahydrate, linear chain complex, EPR spectra, temp. depend. 2−61756
copper phthalocyanine, chlorinated, molecular crystal, quantitative characterisation, radia tion damage imposed limits 2−66071
copper phthalocyanine chlorinated, appl. of nonlinear high resolution image processing of conventional TEM 2−113074
copper phthalocyanine crystals, lattice imaging 2−65819
copper phthalocyanine thin layers, electron irrad., transient currents 2−110508
β-copperphthalocyanine, O_2 thermal desorption, exciton dissociation, XPS study 2−92342
coronene, soln., NMR spectra, dipolar mag. field effects 2−59819
coronene, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
coronene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
corrosion inhibition efficiency quantum chemical parameters 2−77987
coumarin 152 laser pumped by the 3547 Å third harmonic of Nd:YAG laser *(Chinese)* 2−97103
coumarin 153 green dye laser, passively mode-locked, picosecond pulse generation 2−108917
coumarin 1-acriflavine-uranine ternary dye mixture 2−96945
coumarin 6 dye vapour lasing, 527 nm, wide-band optical pumping 2−70560
coumarin dye laser, SHG in $NH_4H_2PO_4$ cryst. 2−114372
coumarin dyes, substituted, laser gain charcts. 2−108869
coumarin-153 vapour phase dye lasers in visible range 2−75565
coumarin-30 vapour phase dye lasers in visible range 2−75565
coumarin-6 vapour phase dye lasers in visible range 2−75565
coumarin-7 vapour phase dye lasers in visible range 2−75565
coumarin-polyiodine complexes, electronic and ionic cond. 2−104440
cresacine, cryst. and mol. struct. 2−115208
cresol in n-heptane-paraffin oil soln., relaxation behaviour 2−82780
p-cresol-aniline, molecular complexes, det. of equilibrium const. using US meas. 2−93806
cresol-carbon tetrachloride, mol. interactions, US study 2−61067
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
18-crown-6, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
18-crown-6-alkali complexes, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
18-crown-6-$K_2C_2O_4$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$K_2Cr_2O_7$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$KMnO_4$, IR and Raman vibr. spectroscopy 2−75282
cryoprotection, electron microscopy with cold stages 2−113080
cryptocyanine solutions, photobleaching and short-wavelength lasing 2−90883
crystal violet, adsorbed on Ag electrodes, surface enhanced Raman scatt. 2−99104
crystals, dynamic compaction under shock 2−72648
crystals, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
crystals, level anticrossing phenomena in phosphoresc. and optical nuclear polarisation 2−104746
cubane, nucl. spin statistics, vibr. spectra 2−90573
cumilphenol azo dye derivative, interaction in compensated cholesteric mixture 2−86543
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
α-cyano carbanions, isomerisation, struct., stability, ab initio STO calcs. 2−102370
4-cyano-2,6,N,N-tetramethylaniline, twisted internal charge transfer state fluoresc. 2−108615
4-cyano-4′-alkylbiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
4-cyano-4′-n-pentylbiphenyl nematic film, diffusion coeffs. meas. by dynamic approach 2−103596
4-cyano-4′-octyloxy biphenyl, solid cryst. polymorphism 2−103738
4-cyano-4-n-octyl-diphenyl, smectic A liq. cryst., light diffr. on linear disclination 2−103622
p,p′-cyano-n-pentylbiphenyl/p-p′-dialkylazoxybenzenes, intermol. forces, dielec. meas. 2−76290
cyanoacetylene, interstellar, obs. in Taurus Molecular Cloud 1 rel. to cloud model 2−63560
cyanoacetylene, obs. of new circumstellar sources 2−68736
cyanoacetylene, polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2−93193
cyanoacetylene, vibr. excited, rot. transitions detect. in Orion Molecular Cloud 2−117718
1-cyanoadamantane, compact cryst. and powder, dielec. spectra, vol. fraction dependence, expt. and theoretical study 2−99022
1-cyanoadamantane, plastic phase, internal modes, Raman study 2−99124
9-cyanoanthracene, excited mol. cryst., dynamic instabilities, packing calcs. 2−60915
9-cyanoanthracene-1,3-dienes, photocycloaddition and adduct photodecomp., spectrosc. 2−83391
N-(α-cyanobenzylidene)alkylamines, dipole moments, IR and PMR study 2−113983
N-(α-cyanobenzylidene)anilines, dipole moments, IR and PMR study 2−113983
4-cyanobenzylidene-4′-(4″-alkoxybenzoyloxy) aniline, homologues, reentrant nematic phase with pentamorphism 2−61138
p-cyanobiphenyl, optically active derivative, pure reentrant cholesteric phase 2−60878
cyanobiphenyls, nematic, smectic, and reentrant nematic phases 2−66217
cyanobutanone, IR multiphoton absorpt. 2−64969
cyanodiacetylene, discharge chemistry and mm spectrum up to 210 GHz 2−85637
cyanogen, IR spectrum in region of bending fundamental ν_5, rot. const. 2−85651
cyanogen-HF(HCl), H-bonded complex, dissoc. energies, ab initio SCF MO calcs. 2−64859
cyanohexatriyne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
cyanomethane, highly polar liquid, far IR absorpt. spectra, internal field correction 2−61899
organic compounds continued
cyanomethanone, CH stretching freq., bond strengths, methyl group geometry 2−96565
cyanooctatetryne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
cyanopentadiyne, molecular spectroscopy using diode and combined diode-CO_2 lasers 2−63271
cyanophenyl cyclohexenes, mesomorphic props. 2−76675
4-cyanophenyl-3-methyl-4-(4-n-alkoxycinnamoyloxy)benzoates, re-entrant nematic phases obs. 2−60882
4-cyanophenyl-4-(4-n-alkoxy-α-methyl cinnamoyloxy)benzoates, re-entrant nematic phases obs. 2−60882
4′cyanophenyl-4-n-pentylbenzoate, cryst. and mol. struct. 2−103737
4′-cyanophenyl-4-n-pentylcyclohexanoate, nematogenic compound, crystal and mol. struct. meas. 2−91939
cyanophenyl-thiobenzoate, dielec. const. 2−72401
cyanopolyacetylenes, elec. dipole moments, semiempirical and ab initio calcs. 2−80449
β-cyanopropionic aldehyde, sp. heat and sound vel. determ. 2−61158
cyanopropyne, molecular spectroscopy using diode and combined diode-CO_2 lasers 2−63271
cyanopropynyl detection in Taurus Molecular Cloud 1, obs. 2−84297
α-cyanostilbene, UV photoelectron and absorpt. spectra 2−85687
α-cyanostyrylthiophene, UV photoelectron and absorpt. spectra 2−85687
cyclic alkanes, S_1 state deactivation, fluoresc. lifetime meas. 2−85722
cyclic ethers, cationic polymerisation mechanism from electrostatic mol. potential contour maps 2−83383
cyclo(tetrakis)(5-t-butyl-2-acetoxy-1,3-phenylene) methylene-acetic acid (1:1) clathrate, crystal and mol. struct. 2−90423
cyclo-octatetraene, in liq. cryst. solvents, bond shift kinetics, dynamic NMR meas. 2−90572
cis-syn mesocyclobutadi-2′-deoxyuridine, 2-dimens. PMR 2−80671
cyclobutadiene, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
cyclobutadiene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
cyclobutadiene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
cyclobutadiene, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
cyclobutadienes, neutral coord., C-C and C-H coupling consts. 2−54877
cyclobutane-d_0(d_8), vibrs. geometry, force consts., ab initio HF calcs. 2−108349
cyclobutene, single collision gas-surface vibr. energy transfer, ini tial energy distrib. variation 2−62378
2,2′-cyclocytidine hydrochloride, cyclonucleoside cryst. and mol. struct., X-ray study 2−99883
1,3-cycloheptadiene, struct. and conformations, ab initio gradient calcs. 2−75163
cycloheptadienyl gas phase negative ions, IR multiphoton photodetachment 2−85750
cycloheptatriene, conformation effects, valence isomerisation to norcaradiene, MINDO/3 calcs. 2−111461
cycloheptatriene, geometry optimisation, ab initio MO calcs. 2−108356
1,3,5-cycloheptatriene, struct. and conformations, ab initio gradient calcs. 2−75163
1,3-cyclohexadiene, ^{13}C NMR 2−110671
1,3-cyclohexadiene, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
1,3-cyclohexadiene, valence excited states, electron impact spectra 2−85734
cyclohexadienes, dehydrogenation on Ni and Pt surfaces 2−83415
cyclohexane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
cyclohexane, dehydrogenation on Ni and Pt surfaces 2−83415
cyclohexane, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
cyclohexane, liq., degenerate vibrs., rot.-vibr. relax. 2−93173
cyclohexane, liq., light scattering and far-IR absorpt. spectra 2−77515
cyclohexane, liq., Raman-active vibr. modes, coherent excitation, spectrosc. technique 2−79681
cyclohexane, liq., shocked, temp. meas. by time-resolved IR radiometry 2−69227
cyclohexane, liq., vibr. relax time, temp. depend., US props., Brillouin scatt. 2−103902
cyclohexane, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
cyclohexane, superposed Raman lines, coherent ellipsometric obs. 2−102489
cyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
cyclohexane adsorption on SiO_2 2−62434
cyclohexane in aqs. soln., rot. motion, isotropic and anisotropic Raman bands 2−80630
cis-cyclohexane-1, 3-diol, OH stretching and H bonds, CNDO/2 calcs. 2−70147
cyclohexane-aniline near crit. binary liq. mixture, short-ranged roughness on the near-critical liquid interface 2−56171
cyclohexane-n-butanol mixture, US wave vel. and free vol. 2−71573
cyclohexaneammonium copper trichloride and tribromide, mag. behaviour 2−82614
1,4-cyclohexanedione, oscill. oxidation by BrO_3^- in H_2SO_4 or HNO_3 soln. 2−83349
cyclohexanol, glassy cryst. and cryst. phases, sp. ht. and thermal cond., 1.5 to 20K 2−56205
cyclohexanol, solid, IR spectra study, 93 to 304K 2−61896
cyclohexanol mixtures, molecular interactions, ultrasonic studies 2−86796
cyclohexanols, axial tertiary, OH-rotamer distrib., struct. information from IR spectra 2−108514
cyclohexanols, saturated, OH rotamers, γ-alkyl substituent effects 2−90513
cyclohexanone in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
cyclohexatriene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
cyclohexene, dehydrogenation on Ni and Pt surfaces 2−83415
2-cyclohexene-1-one, 3 substituted, ionisation pot., PES, correl. with reactivity *(French)* 2−96629
cyclohexyl isonitrile+bis(trifluoromethyl)ketene, crystal and mol. struct., X-ray anal. 2−78087
cyclohexylamine-benzene(toluene)(chlorobenzene), (bromobenzene), (nitrobenzene), compressibilities, US study 2−61049

organic compounds continued
cyclohexylammonium trichlorocuprate(II), weak ferromag. props., differential susceptibility meas. and mag. phase diagrams 2−56840
cyclooctatetraene, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2−96601
cyclooctatetraenes containing annealed cyclobutene and cyclobutadiene rings, MINDO/3 study 2−113882
1,3-cyclopentadiene, one-electron props., ab initio calcs. 2−64866
cyclopentadienyl radical, two-body correl. struct. characterisation in mol. many electron wave function 2−80492
cyclopentadienylindium, electronic struct., CNDO calcs., dipole moment and orbital energies 2−90453
cyclopentanol-d_0(-d_1), solid and liq., IR spectra 2−99135
cyclopentanone, $^1n\pi^*$ excited state, racemization 2−80704
cyclopentanone, ultrasonic dispersion determ. by vel. meas. 2−86191
cyclopentyl cation, non-empirical LCAO MO SCF investig. of ground and core-hole states 2−96445
cyclopropane, adsorption on Ir(110), thermal desorpt. mass spectrometry study 2−87062
cyclopropane, Raman intensities, CNDO calcs. 2−85549
cyclopropane, struct. and vibr. anal., ab initio HF calcs. 2−59688
cyclopropane, vibr. relax., IR laser-induced fluoresc. investig. 2−108683
cyclopropane adsorbed on Ru (001), orientation and symmetry, EELS and photoelectron spectroscopy 2−78130
cyclopropane energy transfer rate const. from pulsed laser generated thermal lens spectrometer signal 2−80790
cyclopropane-1t_1,-2,2d_2, competitive collisional activation in vibr. energy transfer 2−70395
cyclopropane-HF(HCl), H bonding, ab initio SCF-MO calcs. 2−96432
cyclopropenium, gas phase ion struct. anal. by chemical methods 2−54736
cyclopropyl radical, struct. and vibr. anal., ab initio HF calcs. 2−59688
cyclotrimethylenetrinitramine, NO_2 radicals prod. by UV photolysis, EPR spectra 2−87596
cytidine, vertical ionisation pot., UV PES 2−75354
cytidine 2′-phosphate, chem. shift and ^1H-^1H decoupling detect., effect of RNase 2−59825
cytochrome P-450, spin labelled, complex ST-EPR and EPR spectra, selective removal of spectral components 2−88504
cytosine, electron diffr. data, cryst. bending effect 2−60965
$DBTTF_8(MCl_6)_3$, (M=Sn, Pt, Re, Te), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
DBTTF, electron donor, cryst. struct. 2−98065
DCM, two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
DDT in atmos. of N Atlantic 2−99867
1,1,1,1,2,2,2,3,3,3-decacarbonyl-2,3;2,3-di-μ-chloro-triangulo-triosmium cryst. struct. 2−76409
decahydronaphthalene, index-matching fluids, high intensity transmission props. 2−102866
decalin, cir and trans, 2-D C^{13} NMR spectrum *(Chinese)* 2−69211
decane, cool-flame combustion, mechanism 2−99679
decane/methane, computer simulation of nonconformal mixture 2−60850
decanoate bilayer, lipid membrane model, mol. dynamics simulation 2−67974
nido-decarborane, in toluene=d_8, mol. tumbling and nucl. spin relax. 2−80676
4-n-decylphenyl-3′-methyl-4′-(4″-nitrobenzoyloxy)benzoate, liq. cryst. props. 2−76293
1-decyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
2′-deoxy-2′-fluorocytidine, crystal struct. determ. from 3-D X-ray data 2−91940
deoxycytidine-5′-phosphate monohydrate, X-irrad., low-temp. thermoluminescent behaviour 2−61987
desorption, IR laser-induced, from CaF_2 optical surface 2−115530
detection limit lowering in spectrographic determ. 2−111529
deuteromethane, intermediate phase struct., X-ray studies *(Russian)* 2−98050
deuteromethane, solid, incommensurate structures 2−86595
9, 10-Dewar-isomer, valence isomerisation to 9-t-butylanthracene *(German)* 2−83380
4-4′-di(p-nitrobenzal)-phenylenediamine, XPS, EHT calcs., electronic struct. 2−54895
1,6-di(p-tolyl)-perfluorohexa-1,3,5-triene, smectic liq. cryst., struct., X-ray diffr. study 2−86554
7-(p-N,N-di-(n-propyl)aminophenyl)-7,8,8-tricyanoquinodimethane, crystal and mol. struct. 2−75457
di-alkoxyazoxybenzenes, homologous series, nematic phase, high-press. thermodynamic meas. 2−71342
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
di-ethyl-p-azoxybenzoate, liq. cryst. phase transitions, high press. effects 2−76672
1,12-di-iododicarba-closo-dodecaborane(12), mol. struct., electron diffr. obs. 2−90694
p,p′-di-n-heptylazoxybenzene, diamag. susceptibility, ^1H NMR, chem. shift 2−98979
di-potassium tartrate hemi-hydrate cryst., laser Raman and IR spectra 2−116181
di-triazolo-benzoate derivatives/dye mixtures 2−62416
1,4-diacetyl-1,4-dihydro-2,3-diphenylpyrazine cryst. struct. and conform. anal. 2−75310
diacetylene, polymerised Langmuir film, electroabsorption spectra, effective masses 2−77491
diacetylene, solid state polymerisation autocatalytic region, neutron diffr. study 2−67751
diacetylene, solid-state photopolymerisation, photoacoustic study 2−93790
diacetylene, vibr. freq., pot. energy functions, IR intensities, SCF calcs. 2−113872
diacetylene in solid Ar, near UV spectra at 9K, vibr. struct. 2−108545
diacetylene mol. in solid Ar at 8K, photolysis, vacuum UV spectra, vibr. struct. 2−80648
diacetylene-bis(toluenesulphonate), reaction induced secondary photopolymerisation 2−99673
diacetylenes, struct.-property rels., colour changes 2−71375
diacridines, antitumour activity, CNDO/2 calcs. 2−80484
dialkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2−76294
N,N′dialkylcarbocyanines, influence of protected colour components on characts. *(Russian)* 2−58959
dialkylphthalates of silicone oil and liq. paraffin, thermal cond. between 30 and 190°C 2−98351
diamantane, 35K struct. phase transition light scatt. study 2−61918
organic compounds continued
3,5diamino-1,2,4-dithiazolium salts, struct., vibr., IR obs. 2−108516
4,5-diaminopyrimidine, IR vibr. spectra 2−54841
dianisylnitroxy bis(p-methoxyphenyl)-aminyl oxide, interacting mol. orbitals and mag. reson. 2−80681
1,4 diazabicyclo [2,2,2] octane-phenol (thiourea), H-bonded complexes, ^{14}N NQR study 2−108561
diazaphosphorines, cyclic, intramol. transmission effects, ^{35}Cl NQR 2−108566
diazoacetophenones, IR spectrosc., substituent effects 2−64982
diazomethane, dissociation process, ab initio study 2−88355
dibensylketone in micelles, photochem. processes under high mag. fields, laser photolysis study 2−72992
dibenzo-18-crown-6, solvent effects on PMR spectra 2−108578
dibenzo-18-crown-6 yttrium isothiocyanate complex, cryst. struct. determ. *(Chinese)* 2−109774
dibenzotetrathiofulvane-Is complex, regular antiferromag. chain with indirect exchange interaction *(Russian)* 2−104359
dibenzoyl peroxide, photoinduced reactions, EPR and spin trapping obs. 2−90586
dibenzyl, cryst. struct. and elastic props. at 293K and 110K 2−60967
α,ω-dibromoalkanes, nonlinear dielectric effect 2−61812
p-dibromobenzene, in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
2,2- dibromobutane, liq., IR absorpt. spectra 2−75286
dibromodifluoroethylene, director dynamics and NMR appl. of nematic liq. crystals spinning at various angles 2−103598
dibromomethane, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
1,4- dibromonaphthalene, electron and hole mobility tensors meas. 2−71973
1,4-dibromonaphthalene, triplet exciton trapping, delayed fluoresc. obs. 2−98547
2,5-dibromotoluenes, UV absorpt. spectra, Π-Π* transition, solvent effect 2−54860
dibutyl phthalate, liq., glass transition, diffusion, EPR study 2−104704
dibutyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
dicalcium barium acrylate, ferroelastic phase transition, lattice const. and birefringence 2−92187
dicalcium barium propionate, ferroelectric transitions, ESR study 2−66999
dicalcium barium propionate, short-range order, optical transform study 2−98044
dicalcium lead propanate, two-sublattice model, piezoelec. and elastic props. 2−87675
dicalcium lead propionate, ferroelectric transitions, ESR study 2−66999
dicalcium strontium acrylate, ferroelastic phase transition, lattice const. and birefringence 2−92187
dicalcium strontium propanoate, two-sublattice model, piezoelec. and elastic props. 2−87675
dicalcium strontium propionate, ferroelectric transitions, ESR study 2−66999
dicalcium strontium propionate, structure and polarisation of ferroelectric phase 2−71431
dicalcium strontium propionate, switching transients 2−110785
1,6-dicarba-closo-hexaborane electronic struct., CNDO approx. 2−90456
beta-dicarbonyls, H bonding and proton migration, ^1H and ^{13}C NMR chem. shift. obs. 2−80680
dichloro(phthalocyaninato)niobium (IV), cryst. struct. determ. 2−76412
2,2-dichloro-1,1,1-trifluoroethane, D separation by multiphotodissoc. in two-freq. CO_2 laser field *(Chinese)* 2−96753
1,3-dichloro-2-bromobenzene, polymorphism and phase transformation 2−87622
1,1′-dichloro-ferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
2,4-dichloroacetanilide, vibr., IR obs. 2−108490
dichloroacetylene cation, spectroscopic studies 2−75343
2,5-dichloroanisole, small coupling consts., signs, ^1H NMR investig. 2−70287
9,10-dichloroanthracene, cryst., excimer form., low-temp. fluoresc. 2−104929
p-dichlorobenzene, in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
1,4-dichlorobenzene, lattice dynamics, rigid mol. approx. calcs., NQR and X-ray diffr. obs. 2−110693
o-dichlorobenzene-cyclohexane(carbon tetrachloride), molar and available vol., free length, isentropic compressibility meas. 2−86770
p-dichlorobenzene-p-dibromobenzene, ^{79}Br NQR line breadth, concentration depend. 2−93046
4-4′ dichlorobenzophenone, cryst. heating and triplet exciton non-radiative relax. 2−87852
4,4′-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
dichlorobenzoylchlorides, Fermi resonance, Raman and IR obs. 2−54849
1,1-dichlorocyclopropane, rot. consts., mol. struct., HF calcs., electron diffr. obs. 2−108364
dichlorodicyano-p-quinone-[2.2]paracyclophane, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
dichlorodifluoromethane, and mixture with N_2, gaseous, thermal cond. and mutual diffusion coeffs. 2−114962
dichlorodifluoromethane, atmospheric burden 2−111596
dichlorodifluoromethane, Cl L-edge absorpt. spectra, HF calcs. 2−102464
dichlorodifluoromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
dichlorodifluoromethane, temporary anions, electrons transmission spectroscopy, σ^* orbitals obs. 2−108702
dichlorodifluoromethane fragmentation, multiphoton ionisation photoelectron obs. 2−70333
dichlorodifluoromethane in Earth's atmosphere sources rel. to observed concs. 2−100453
dichlorodifluoromethane molecular beam, pulsed, optical study 2−80562
dichlorodifluoromethane-N_2, mixtures, ionisation and attachment obs. 2−103275
dichlorodifluoromethane-N_2(air) mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
dichlorodifluoromethane-N_2-O_2 mixtures, ionisation and attachment obs. 2−103275
1,2-dichloroethane-alkanol mixtures, isentropic compressibilities and sound vels. meas. 2−81893
1,1-dichloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471

organic compounds continued
trans-1,2-dichloroethylene, ordered liq. state, NMR study 2−81652
cis-1,2-dichloroethylene, prep. of low temp. pyrolytic C 2−78075
dichlorofluoromethane, multiple photodissoc. for H isotope separation 2−75447
dichlorofluoromethane, temporary anions, electrons transmission spectroscopy, σ^* orbitals obs. 2−108702
dichloromethane, correl. times, computer simulation 2−97894
dichloromethane, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
dichloromethane, liq., far-IR absorpt. determ. by spot freq. meas. 2−77534
dichloromethane, liq., light scattering and far-IR absorpt. spectra 2−77515
dichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2−86536
dichloromethane liq., mol. dynamics simulation with 3×3 and 5×5 site-site interactions 2−76261
1,2-dichloropropane, thermal, unsensitized IR laser and laser SiF_4 sensitised decomposition 2−93769
2,6-dichloropyrazine, IR and Raman vibr. spectra 2−96558
2,5-dichloropyridine, IR spectra, vibr. assignment 2−54839
2,6-dichloropyridine, solid, vibr., Raman and IR study 2−61888
2,3-dichloropyridine, UV electronic absorpt. spectrum 2−75308
2,5-dichloropyrine, UV electronic absorpt. spectrum 2−54861
dicyanoacetylene cation, laser-induced fluoresc. and photoelectron-photoion coincidence obs. 2−85729
dicyanodiazomethane, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2−90461
4-dicyanomethylene-2-methyl-6-p-dimethylaminostyryl-4H-pyran laser dye, tunable props. *(Chinese)* 2−65210
dicyclobutylidene, mol. struct., gas phase electron diffr. 2−90695
dicyclohexylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
dienes, photopolymerising chiral cryst. with topochem. products, optical activity amplification 2−110807
diethyl ether, complex form., mol. vibr., IR obs. 2−67747
3,3-diethyl pentane, depolarised Rayleigh spectroscopy 2−80628
diethyl phosphate phospholipid head group stretching vibr., Raman bands, conformation depend. 2−70261
3,3′-diethyl thiacarbocyanine iodide, picosecond time-resolved spectroscopic studies 2−96557
7-diethylamino-4-methyl coumarin dye laser, spectral and gain charact., solvent effects 2−108870
7diethylamino-4-methylcoumarin dye laser, N_2 laser pumping, nearly transform-limited pulse generation 2−60113
3,3'-diethyloxadicarbocyanine iodide, photochemical isomerisations, solvent effects 2−57599
N,Ndiethylpyruvamide thiosemicarbazone monohydrate, cryst. and mol. struct. 2−98068
diethylsuccinate in dioxane-H_2O mixtures, kinetics of acid-catalysed hydrolysis 2−83382
difebarbamate, H bonds, IR and Raman study 2−54850
diffusion in polyolefins, collection of kinetic data 2−107026
p-difluorobenzene, selective vibr. excitation by stimulated emission pumping 2−85618
o-difluorobenzene in nematic liq. crysts., struct., orientation, ^1H and ^{19}F NMR spectra 2−108571
p-difluorobenzene vibr. relax. in ground state, stimulated emission pumping preparation 2−96698
difluorocarbene emission spectra from fluorocarbon plasmas, rel. to fluorocarbon polymer form. 2−55787
cis 1,2-difluoroethene laser, optically pumped far-IR emission 2−55125
1,2-difluoroethylene, cis-trans energy difference, electron correl. and polarisation functions 2−113867
1,2-difluoroethylene, rotation round double bond, multiconfig. SCF-INDO study 2−70141
difluoromethanal, vibr. spectra, triple resonances 2−108463
difluoromethane, far IR lasing mols., pump offset freqs., Doppler-free optoacoustic spectroscopy meas. 2−108857
difluoromethane, vertical ionisation pot. calc. by perturbation corrections to Koopmans' theorem 2−54987
difluoromethane-d_2, efficient far IR lasing gas, wavelengths and freqs. meas. 2−96913
1,2-difluorotetrachloroethane, Brillouin scatt. in glass transition region 2−61915
1,2-diformylhydrazine, temp. depend. of ^{14}N NQR 2−104738
digital optical information storage by spatial lifetime hole burning 2−60189
diglycine nitrate crystals, piezooptical coeffs., temp. depend. meas. *(Russian)* 2−116152
diglycine sulphate, anhydrous, dislocation etch pits, morphology 2−86667
dihaloethylenes, cis effect, NMR study 2−114018
dihalogenotoluenes, UV absorpt. spectra, Π-Π^* transition, solvent effect 2−54860
1,4-dihalonapththalene, crystals and solid solns., singlet-triplet transition dynamics, exciton-phonon coupling 2−81904
4,4′-dihexyloxyazoxybenzene-organic liq. mixtures, phase diagrams 2−109986
dihydro-10,11(quinuclidinyl 3)-5-5H-dibenzo[b,f]azepine (quinupramine), crystallographic data *(French)* 2−81772
5,10-dihydrophenazine, free radical cation, reson. Raman spectra 2−114004
2,3-dihydropyran, gas phase, multiphoton IR absorpt. 2−64970
2,5-dihydrothiophene, one-electron props., ab initio calcs. 2−64866
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
1,3-dihydroxy- and 1-amino-3-hydroxypropane, chemisorpt. on Al oxide, tunnelling spectra 2−78140
1,4-dihydroxyanthraquinone, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
1,4-dihydroxyanthraquinone-$d_0(d_4)$, electronic states, vibr. Raman and IR study 2−57070
6,7-dihydroxycoumarin, aq. soln., pH effect, fluoresc. and UV-visible study 2−65049
1,4-dihyroxynapthoquinone, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
diiodoethylarsine mols. conformations by vibr. spectroscopy 2−90727
diiodomethane, local mode vibrs., overtone bands, factorisation calcs. 2−64950
organic compounds continued
diiodomethane, photolysis, yield of $I(^2P_{1/2})$ 2−99689
diiodomethane, UV laser multiphoton excitation, photofragment fluoresc. 2−114058
1,2-diisocyanoethane, conformation, vibr., INDO calcs., Raman and IR obs. 2−75274
α-diketone dissolved in poly-α-cyanoacrylate host for two-photon holographic recording with CW lasers 2−60045
2,6-dimethoxybenzoic acid, cryst. struct. determ. 2−76406
2,3-dimethoxybenzoic acid, cryst. struct. redetermination 2−76405
1,4-dimethoxybutane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,5-dimethoxypentane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,3-dimethoxypropane, Raman and IR spectra, model cpds. of polyethers 2−70258
dimethyl ammonium in tetrachloride, layered cpd., elastic and thermal props. 2−81873
dimethyl diselenide, torsional barrier heights, MO calcs. 2−102375
dimethyl disulphide cleavage, ^1H NMR and ^{199}Hg FTNMR equilib. consts. 2−72358
dimethyl ether-BF_3, electron donor acceptor complex, He I photoelectron spectra 2−90625
dimethyl ether-HI, mol. interactions in N_2 matrices, IR and Raman spectra 2−96567
dimethyl ether-trichloromethane vapour, enthalpy of mixing, assoc. model 2−86888
dimethyl formamides, Raman and IR spectra, vibr. freq. calc. using force field base ab initio calcs. 2−85650
dimethyl maleic anhydride, single cryst., ^{13}C chem. shielding tensors 2−70285
dimethyl mercury, laser photodissoc., methyl radical prod., vibr. and rot. excitation, IR emission studies 2−96653
2,4-dimethyl pentane, depolarised Rayleigh spectroscopy 2−80628
dimethyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
dimethyl sulphide, config., IR and Raman spectra anal. 2−113990
dimethyl sulphoxide in complex compounds, coordination centres identification from IR bands 2−75279
2,3-dimethyl-1,3-butadiene, valence excited states, electron impact spectra 2−85734
4,4dimethyl-1-methylene-2,5-cyclohexadiene, mol. struct. studied by gas phase electron diffr. 2−96733
2,6-dimethyl-3-nitroaniline, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
N,N′-dimethyl-4, 4′-bipyridylium chloride+electron donor, charge transfer spectra 2−57772
3-dimethyl-amino-1-phenyl-2-propene-1-one, struct., H-bonds, dipole moments 2−114131
dimethyl-diacetylene, laser induced fluoresc. obs. 2−75346
2-(3′,5′-dimethyl-l′-pyrazolyl)benzothiazole, preliminary crystallographic study 2−81770
N,N′-dimethyl-p-methylaniline, dielectric relax. data reliability from Higasi and Higasi et al. methods 2−110756
N,N′-dimethyl-p-nitrosoaniline, dielectric relax. data reliability from Higasi and Higasi et al. methods 2−110756
dimethylacetylene, methyl group rotational motion, neutron scatt. studies 2−97948
p-(dimethylamino)benzonitrile in propanol soln., ps. dynamics of twisted internal CT phenomena 2−75347
3-dimethylamino-2-propenal, XPS 2−90623
4-dimethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2−114034
2-(4-N,N-dimethylaminobenzyl)-2-(1-pyrenylmethyl)propane-1, 3-diol, polyester synthesis and emission props. 2−88356
β-dimethylaminopropiophenone, struct., H-bonds, dipole moments 2−114131
dimethylammonium manganese chloride, pseudo one-dimensional antiferromag., mag. props. 2−116007
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
9,10-dimethylanthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
9,10-dimethylanthracene in ethanol, dye laser excited photoacoustic spectrum 2−107421
dimethylbenzaldehydes, in durene single crysts., phosphoresc. lifetimes 2−67094
1,4-dimethylbenzene ion, fragmentation, mass spectra *(Russian)* 2−84736
N,N-dimethylcyclohexylamine, dielec. relax. time and distrib. parameters 2−99029
3,4-dimethylene-cyclobutene, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
dimethylhydrazine, unsymmetrical (UDMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
dimethylmalonic acid and its salts, Raman and IR spectra *(French)* 2−113997
dimethylphenazine $PF_6(M_3PPF_6)$, X-ray struct. determ. 2−91944
10,10-dimethylphenothiosiline, cryst. struct. 2−98064
2,6-dimethylpyrazine, IR and Raman vibr. spectra 2−96558
2, 5-dimethylpyrazine, UV absorpt. spectrum obs. and anal. 2−90563
N,N′(trans)-dimethylquinacridone cryst., X-ray struct. study 2−91942
dimethylsulphite, conformational anal. IR obs. 2−75270
dimethylsulphoxide, solution, dielectric study of mol. interactions 2−99016
dimyristoyl phosophatidylcholine water dispersions, press. induced phase transitions, Raman spectra 2−82839
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
m-dinitrobenzene, SHG anal. 2−108965
m-dinitrobenzene-benzene soln., ^{14}N quadrupole coupling tensor, NMR study 2−56966
x-(2′,4′-dinitrobenzyl)pyridine (x=2,4), resonance Raman spectra of short-lived species 2−72489
diol salts, intramol. H bonds, IR continuum and NMR obs. 2−59799
dioxa-bicyclo(5.1.0)octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2−59958
dioxan-lactic acid mixtures, calc. of free volume and internal pressure from US vel. and viscosity data 2−71579
p-dioxane in liq. crystalline solvents, ring inversion, D NMR spectra 2−102502
dioxirane, symmetric ring opening, nonadiabatic interactions, ab initio CI calcs. 2−67736

organic compounds continued
dioxodiazacycloalkanes, singlet-triplet transition, CNDO/S-CI SCF MO calcs. 2—64879
dipalmitoyl phosphatidyl ethanolamine, Langmuir-Blodgett film, elec. props. meas. 2—116891
dipalmitoyl phosphatidylcholine monolayer stability, temp. lung surfactant appl. 2—78297
dipalmitoyl-lecithin monomolecular layers, insoluble, dynamical props. under press. *(French)* 2—62646
1,2-dipalmitoyl-sn-glycero-3-phosphocholine bilayers, ^{2}H and ^{14}N quadrupolar spin-lattice relax. 2—105505
dipalmitoyllecithin, lipid bilayer, fractional order phase transform. 2—116877
dipalmitoylphosphatidylcholine vesicles, small, unilamellar, photon correl. spectroscopy study of stability 2—111632
dipeptide, magic angle NMR, dipolar and scaled chem. shift interactions 2—108554
dipeptides, polycryst., γ-irrad. ESR and chromatographic separation of radicals 2—110643
diphenanthrylpropanes, intramol. singlet and triplet excimers, fluoresc. 2—90600
diphenyl butadiene, photochemical isomerisation in soln., radiative and nonradiative decay rates 2—73002
diphenyl butadiene, rot. diffusion, UV picosec. pump-probe spectrosc. 2—80643
diphenyl disulphide, NMR study, proton-proton coupling consts. *(French)* 2—96594
diphenyl disulphide derivatives, intramol. H bonding effects on conformation 2—75309
diphenyl ether, NMR study, proton-proton coupling consts. *(French)* 2—96594
diphenyl ketyl radical, fluoresc. quenching by methyl methacrylate and p-chlorobenzenediazonium tetrafluoroborate 2—90602
diphenyl sulphide derivatives, intramol. H bonding effects on conformation 2—75309
diphenyl sulphone, solid and liq., IR spectra obs. 2—57071
1,8-diphenyl-1,3,5,7-octatetraene, fluoresc. and absorpt. spectra, transition moments, intensity distrib. 2—90608
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2—110566
threo- and erythro-1,2-diphenyl-1-propanol, EHT MO anal. 2—96462
1,6-diphenyl-2,4-hexadiyne, chemical reactivity under shock loading 2—78102
3,3-diphenyl-2-butyrolactone, X-ray crystals struct. 2—98059
diphenylacetylene-TCNB charge transfer complexes, single crysts., excited triplet states, EPR investig. 2—92989
diphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2—66986
diphenylamine and its ortho- and para-nitro derivatives, conformation calc. by atom-atom pot. method 2—75144
9,10-diphenylanthracene, hole mobility, trap controlled 2—71976
9,10-diphenylanthracene liquid dye solution electroluminesc. in waveguide cell 2—82924
diphenylarsenous acid, cryst. and mol. struct. 2—103740
trans-transdiphenylbutadiene, fluoresc. yield and decay time 2—80700
1,1diphenylethanes, S_0, S_1- and T_1-state, geometrical and electronic struct., bond lengths and angles *(German)* 2—90429
1,1-diphenylethylene adsorbed layer, reaction intermediates, resonance Raman spectra 2—73014
diphenylhexatriene, on Ag surface, spectra, intense quadrupole transitions 2—108524
diphenylmethane type system, intramol. interfragment interaction 2—114066
diphenylmethylene, mixed crystals, in benzophenone, Zeeman spectra, triplet-triplet absorpt., mag. field effects 2—87743
diphenyloctatetraene, on Ag surface, spectra, intense quadrupole transitions 2—108524
2,5-diphenyloxazole solution in n-hexane, excitation in VUV, luminesc. studies using windowless cell system 2—101468
diphenylpicrahydrazyl, interacting mol. orbitals and mag. reson. 2—80681
diphenylpolyenes, singlet-singlet absorption spectra, laser flash photolysis obs. 2—59815
N,N-diphenylthiourea, NMR and IR studies of solvent effect 2—75325
dipicrylamine salts with organic and inorganic cations, prep. and mol. configurations 2—113987
1,3dipolar cycloadditions, LCAO-SCF-MO ab initio calcs. 2—111462
dipolar solutes in decalin, mol. dynamics rel. to dielec. relax. 2—66983
dipolar solutes in decalin soln., mean square torques, far-IR study 2—93178
dipole moments, atomic electron populations, ab initio MO theory 2—108329
dipropenyl ether isomers, IR, Raman and ^{13}C NMR spectra, vibr. coupling 2—96569
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2—70252
ditetramethylammonium uranyl tetrabromide, vibr., luminescence, IR and Raman study 2—61895
1,5dithiacyclooctane, EPR studies of isomeric monomeric cation radicals and dimers formed on oxidation 2—75331
dithioglyoxal, lone-pair interactions, internal rot., pot. energy curves 2—64894
dl-/lactide, thermodynamic props. and thermodynamics of polymerisation *(Russian)* 2—111510
DMF/water mixture at 25°C, US absorption 2—76596
DMSO, bond lengths, S d orbital, geometry optimisation, ab initio calcs. 2—96444
DMTMTTF based ionic radical salts, electrolytic cryst. growth, cond. and struct. data 2—93403
DNA intercalating mols., comparison between quinacrine and chloroquine ring-ring interaction with adenine and thymine 2—85679
L-DOBACPC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2—77455
DOBAMBC, ferroelectric, dielectric relax. study 2—87662
D-DOBAMBC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2—77455
DODCI, solutions, anti-Stokes Raman scatt. 2—61894
DODCI, two-photon absorpt. cross-section meas. at 1.06 μm 2—54908
dodecyltrimethylammonium chloride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2—82740
double zeta pseudopotentials, pseudo-FSGO calcs. 2—102371

organic compounds continued
DQOCI-rhodamine 6G synchronously-pumped CW laser, pulse generation shorter than 70 fs 2—55139
duroquinone in alcohol soln., electron transfer reaction, time-resolved flash photolysis, EPR 2—85703
dye, adsorbed, photoemission yield spectroscopy 2—87953
dye absorbed molecule surface interaction, polarised absorpt. and fluoresc. spectroscopy 2—71795
dye cresyl violet perchlorate, fluoresc. lifetime and orientational relax. times, laser phase fluorimetry *(German)* 2—80707
dye desensitised CdS, photoconductive process 2—87332
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2—70320
dye monolayer assemblies on Ag films, exciton surface plasmon interactions 2—71879
dye rigid solutions for transient optical recording, photochromic props. 2—80916
dye saturable absorbers, real time holography through triplet state absorpt. 2—86060
dye sensitisation of PVK-ZnO photoreceptor for electrophotography 2—84729
dye solutions, nonlinear effects 2—70604
dye solutions, phase conjugation by degenerate four-wave mixing, reconstructed images 2—55275
dye solutions, wave-front inversion by dynamic-holography methods 2—114380
dyes, adsorbed, quantum yield and luminesc. spectra 2—116243
dyes, Brilliant Green and Echtblau Saltz, permittivity and polarisability calc. 2—93105
dyes, self-diffr. of light by means of induced dichroism lattices 2—108942
dyes, tunable laser, charact. of optically pumped organic cpds. 2—108872
dyes in PMMA, thermal lens meas. of quantum yield for luminesc. solar concentrators 2—57678
dysprosium ethylsulphate, crossover to mean-field behavior at marginal dimensionality 2—77316
dysprosium ethylsulphate, Landau eqn. of state near T_c 2—66839
E_g, dielec. props. in liq. cryst. 2—104794
EBBA, amorphous and cryst. phases, vibr. density of states 2—56141
EBBA, melting and crystn. processes, thermal anal. 2—92198
EBBA-organic liq. mixtures, phase diagrams 2—109986
eethanol-n-heptane, vapour-liquid equilbria, ebulliometric technique 2—98252
electron distrib., pulsed ^{14}N NQR investig. 2—108592
electron donors and acceptors, ionisation potentials, electron affinity *(Russian)* 2—59969
electron microscope irrad. at 4K, props. 2—115120
electron microscopy, high voltage, radiation damage 2—115115
electronic excitation calcs. using semi-empirical method RCNDO/S 2—102390
electrophotographic layers, effect of barrier layer of polyvinyl butyral on photographic properties *(Russian)* 2—53878
enamine, struct. calc. using MNDO method 2—113885
enniatin B,Na,Ni complex, cryst. struct. determ. 2—86659
epoxide+B, chemiluminesc. obs., vibr. distrib. 2—57619
epoxide+B, reaction rate const. meas. 2—57596
epoxide adhesives, inelastic electron tunnelling spectroscopy appl. 2—56370
1,2-epoxypropane, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2—93759
poly-N-epoxypropylcarbazole, sensitized with 2,4,7-trinitrofluorenone, electrophotographic layer, device discharge 2—87338
erbium formate, piezoelec., linear and circular bulk photovoltaic effect 2—104417
erbium formate dihydrate, cryst. struct. determ. 2—86660
ergosterol, desorption, fast heavy ion induced 2—98429
ergosterol, desorption yield as function of fast heavy ion beam angle of incidence 2—87058
ESD and flash desorpt. study 2—110163
ester-ethers, liq. cryst., mol. dimensions. rel. to pitch and elastic coeff. 2—115137
ethane, adsorption and reaction on Ir(110), mass spectroscopy study 2—67764
ethane, coadsorption with H_2 on Pt thin film, surface pot. meas. 2—92353
ethane, collision induced adsorpt. in microwave and IR region 2—54838
ethane, dissociation process, ab initio study 2—88355
ethane, electron density difference maps 2—90427
ethane, external force field, mol. dynamics simulation 2—81656
ethane, gas, O-positronium annihilation rates, density fluctuations effect s 2—54992
ethane, gas phase thermal diffusivities by a thermal lens technique 2—91576
ethane, internal rot., barrier height CNDOC *(German)* 2—85554
ethane, IR intensity anal. following zero and first order approx. 2—80625
ethane, liq., fluids, thermodynamic props., mol. dynamics simulations 2—81648
ethane, liq., struct. functions, X-ray diffr. study and Monte Carlo simulation 2—103592
ethane, liquid-vapour coexistence curve *(Russian)* 2—103968
ethane, localised atomic orbitals for atoms in molecules 2—54760
ethane, rot. barrier calc. using perturbative configuration interaction method 2—102399
ethane, second order perturbation energy, CASSCF calcs. 2—64887
ethane, stopping cross-sections for α-particles in the energy region 0.3 to 5.5 MeV 2—60715
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2—108469
ethane($-d_3$), Fermi reson. effect in ν_7 CH stretching fundamentals 2—90497
ethane($-d_4$), IR intensities, electrooptical parameters 2—59795
ethane and ethane-Ne mixtures, positronium form. 2—75475
ethane dinitrite, elec. field gradients, semi-empirical SCF MO calcs. 2—108387
ethane in atmos., photochem. model at atmos. conc. 2—78797
ethane-d_0(d_6), ideal gas thermodynamic props., data tables 2—94922
ethane-d_3, ν_5 vibr. band Raman anal. 2—85675
ethane-d_4, ideal gas thermodynamic props., data tables 2—94922
ethane-d_6, $\nu_9+\nu_{10}$ parallel band, computer deconvoluted spectra 2—80569
ethane-d_6, IR intensity anal. following zero and first order approx. 2—80625
ethane-d, ν_7 c-type band, Coriolis interactions, IR obs. 2—90542

organic compounds continued
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
ethanol, bleachable radiation absorber for Er^{3+}:YAG laser *(Russian)* 2−108919
ethanol, condensation, homogeneous nucleation rate meas. 2−103966
ethanol, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
ethanol, dilute aq. soln., Monte Carlo calcs. 2−60859
ethanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
ethanol, liquid, optical breakdown threshold, temperature depend. 2−98156
ethanol, quenching of $N_2(B^3\Pi_g)$, plasma flowing afterglow 2−75339
ethanol, saturated liq. film, forced convection boiling heat transfer from cylinder 2−75952
ethanol, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
ethanol dissoc. characts. in strong IR CO_2 laser field *(Chinese)* 2−96652
ethanol glass, dye mol. spectral probe, using photochemical hole burning 2−108974
ethanol ionic dissociation studied by photoelectron-photoion coincidence spectroscopy 2−75468
ethanol-acetronitrile-paraffin, liq.-liq. equilibr. study 2−103971
ethanol-Ar vapour-gas mixture, thermal cond. *(Russian)* 2−55693
ethanol-H_2O liq. droplets interaction 2−81384
ethanol-n-nonane, vapour-liquid equilbria, ebulliometric technique 2−98252
ethanol-n-propanol (methanol) mixtures, nucleation obs. 2−109963
ethanol-water, solvated electrons, ESR and optical absorpt. study 2−66892
ethanol-water, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
ethanol-water mixtures, cluster formation 2−55001
ethanol-water-ethylene glycol mixture, viscous behaviour 2−71688
ethanols trapped in low temp. matrices, far-IR studies 2−75273
ethene-HF, configs., interaction energy, ab initio SCF calcs. 2−113863
ethene-HF, H-bonded pi complex, matrix isolated, vibr., IR obs. 2−90536
ethoxy radial, $\tilde{A}\rightarrow\tilde{X}$ fluoresc. spectra, collision-free lifetimes 2−96618
p-(p-ethoxyphenylazo)phenyl alkanoates homologous series, far-IR absorpt. spectra 2−104865
ethyl acetate, cation radical, equilib. struct., SCF MO LCAO CNDO calcs. 2−96456
ethyl acetate, multiphoton dissoc., master eqn. description 2−96654
ethyl acrylate toxic industrial compound CO_2 laser absorpt. spectra 2−83536
ethyl alcohol, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2−60503
ethyl bromide, liq., mol. rot. diffusion tensor determ., PMR study 2−114020
ethyl bromide, Raman intensities for torsional vibr. calc. 2−70255
ethyl bromide, vibr. dephasing, Raman obs. 2−102486
ethyl carponate, dielectric relax. data reliability from Higasi and Higasi et al. methods 2−110756
ethyl cation, ion mobility in methane gas 2−81440
ethyl chloride, ν_9 band, vibr.-rot. anal., diode laser spectroscopy, multiphoton dissoc. studies 2−85656
ethyl chloride, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
ethyl chloride, Raman intensities for torsional vibr. calc. 2−70255
ethyl chloride cation, laser photofragment at 5145 Å 2−83398
ethyl cyanide, CH stretching freq., bond strengths, methyl group geometry 2−96565
ethyl dibromide, Raman intensities for torsional vibr. calc. 2−70255
ethyl dichloride, Raman intensities for torsional vibr. calc. 2−70255
ethyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
ethyl fluoroacetate, chloroacetate, rot. isomerism obs. using cryostat for low temp. IR spectroscopy *(Spanish)* 2−84720
ethyl formate, dielec. relax. time and distrib. parameters 2−99029
ethyl halides, Raman intensities for torsional vibr. calc. 2−70255
ethyl haloacetates, IR carbonyl band and rot. isomerism 2−80610
ethyl iodide, Raman intensities for torsional vibr. calc. 2−70255
ethyl nitrate gaseous, mechanism of NO_3^- form., high press. mass spectrometric meas. 2−72960
(+)-o-ethyl o-phenyl phosphorothioic acid, cryst. struct. and absolute mol. configuration *(Chinese)* 2−98048
ethyl phenylpropiolates, p-substituent effect, IR and ^{13}C chem. shift study 2−75283
1-ethyl pyridinium bromide, magnetoelec. effects in solns. and molten state 2−110615
ethyl radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
ethyl radical, conformational preference, ab initio UHF fragment interaction anal. 2−113876
ethyl radical, IR spectrum assignment 2−70239
ethyl selenobenzoate, ^{77}Se NMR 2−65006
ethyl trans-cinnamates, p-substituent effect, IR and ^{13}C chem. shift study 2−75283
N-ethyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
ethylamine solution treated polyethylene terephthalate film, biaxially stretched, fine struct. *(Japanese)* 2−86590
ethylbenzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
bisethylbenzene Cr, pyrolysis, comp. and nature of impurities in Cr thin films 2−82157
ethylene, ($^{12}C^{13}CH_4$), rovibrational parameters, IR obs. 2−90543
ethylene, adsorbed layer on Ni, overtones and multiphonon processes in EELS, vibration spectra 2−99238
ethylene, adsorbed on Ag film, mol. charge transfer excitation, EELS obs. 2−62027
ethylene, adsorbed on Ir, decomposition, surface struct. effects, comparison with Pt 2−98460
ethylene, adsorbed on Ni, SIMS and thermal desorpt. study 2−56353
ethylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
ethylene, adsorbed on Rh (111), LEED study 2−76825
ethylene, adsorpt., effect on Pt aggregates on Y-type zeolites 2−65123
ethylene, adsorpt. and decomp. on Ni (100) surface 2−83407
ethylene, adsorpt. on Cu, chemisorbed O effects, XPS obs. 2−67188
ethylene, adsorption and surface reactions on Pt (111) *(German)* 2−98469
ethylene, adsorption on Ni, chem. modification, SIMS investig. 2−105515
organic compounds continued
ethylene, adsorption on SiO_2 supported Pd catalyst, IR study 2−82129
ethylene, adsorption on zeolite surface, IR study 2−82132
ethylene, angle resolved PES as a function of photon energy using synchrotron radiation 2−85740
ethylene, chemisorbed on O precovered Ag(110), EELS cross-section, energy depend. 2−56364
ethylene, correlations in multipole refinements of cryst. struct. 2−103735
ethylene, differential absorpt. meas. using CO_2 laser with power-balanced two-wavelength oscill. 2−90964
ethylene, double zeta pseudopotentials, pseudo-FSGO calcs. 2−102371
ethylene, elec. field effects, mol. geometry model 2−59723
ethylene, fluid, thermodynamic prop. formulation 2−65680
ethylene, force consts. developed from Green's function techniques 2−85619
ethylene, gas and liq. solns., rot. anal. IR obs. 2−96573
ethylene, integrated IR intensities, bond polar parameters 2−108496
ethylene, localised atomic orbitals for atoms in molecules 2−54760
ethylene, multireference CI, perturbative var. approach 2−59711
ethylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
ethylene, photoacoustic spectroscopy 2−69267
ethylene, polymerisation using dibenzenetitanium catalyst 2−67045
ethylene, press.-density-temp. meas. 2−71055
ethylene, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
ethylene, pulsed mol. beam, rot. temp., CARS 2−96582
ethylene, Q-switched spin-flip Raman laser rovibrational lines in 2000 cm^{-1} region 2−102487
ethylene, saturated absorpt. meas. using CO_2 waveguide laser 2−108471
ethylene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
ethylene, supercritical, solubility of solid hydrocarbon mixtures 2−98285
ethylene, third harmonic reson. generation of CO_2 laser, conversion efficiency 2−55270
ethylene, unrestricted HF instabilities in nuclear spin spin coupling calcs., MNDO calcs. 2−85553
ethylene, V-N bands. system, ab initio nonadiabatic vibronic calcs. 2−75194
ethylene+Ni surface reaction, SIMS and thermal desorpt. mass spectra 2−105514
ethylene+O, surface reactions on Pt (111) 2−105511
ethylene+O, translational energy threshold functions 2−72953
ethylene cation, mol. spectrosc. and unimol. decay, nonadiabatic effects and conical intersections 2−108468
ethylene chloride radical molecular SCF calcs. *(French)* 2−85534
ethylene glycol:Cr^{v}, dynamic proton polarisation 2−116065
ethylene glycol-water glasses, electron transfer, 10-160K, pulse radiolysis obs. 2−111499
ethylene in atmos., photochem. model at atmos. conc. 2−78797
ethylene in stars, IR heterodyne spectroscopy 2−68635
ethylene on Fe(110), adsorbed layers, characterisation by Auger electron spectra, decomposition 2−73029
ethylene oxide+F reactions, vibr. spectra of free radicals prod. in solid Ar 2−105453
ethylene ozonides, secondary, photolysis, pyrolysis and matrix IR spectra 2−113979
ethylene submonolayers on Ag, Raman scatt. spectra line intensities *(Russian)* 2−110857
ethylene-Ar clusters, in supersonic mol. beam, CARS 2−80861
ethylene-d_2, CH and CD stretching fundamentals, IR anal. 2−80618
ethylene-d_4, inactive torsion vibr. rot.-vibr. anal., IR obs. 2−80621
ethylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
ethylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
ethylene-HF and ethylene-DF complex, microwave spectrum, vibr. and rot., mol. struct. 2−70230
ethylenediaminetetraacetate, influence on space charge characts. of AgBr and B-AgI emulsion grains 2−93110
ethylenes, 1,2-disubstituted, ab initio STO-3G calcs. with geometry optimisation 2−96435
α,β-ethylenic ketones, conformations, substituent effects, NMR, IR study *(French)* 2−90582
ethylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
ethynethionyl radical, 4114 Å absorpt. spectra and rot. const. 2−75300
ethynyl radical, interstellar, detect. of N=3−2 transition in Orion rel. to mol. rot. consts. determ. 2−63556
ethynyl radical+$H_2\rightarrow C_2H_2$+H reaction rate const., ab initio determ. 2−83358
europium thenoyltrifluoroacetonate, fluorescence emission, appl. to surface temp. profiling 2−79579
extended molecules, crystal chem. and morphology 2−65907
fast atom and ion bombardment of organic samples using mercury 2−105524
fatty acid monolayers at air-water interface, Ba^{2+} and Pb^{2+} effect 2−104145
fatty acids, spin labelled, covalently attached to boundary of intrinsic membrane protein, EPR, chemical exchange 2−105655
febarbamate, H bonds, IR and Raman study 2−54850
fermic acid, excited state, optically pumped, microwave obs. 2−75245
ferrocenyl derivative, bridged, 1st order isomerisation, signal averaging, Varytemp NMR investig. 2−85698
ferrocytochrome C, mag. resonance-Raman optical activity 2−85674
ferrous formate dihydrate, paramagnetic susceptibility 2−72138
flavins, reduction, ionisation pot. MINDO/3 calcs. 2−113887
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2−62553
fluoranthene, in dielectric liqs., photoionisation, fluoresc. obs. 2−85749
fluoranthene in soln., vacuum UV absorpt. spectra 2−85688
fluoranthenyl cation radical salts, cryst. struct., phase transitions and electrochem. crystallisation 2−71430
fluoranthenyl radical cation salts, ESR linewidths, longitudinal and transverse relax., temp. depend. 2−98961
fluorene:?acridine, photochemical H abstraction from fluorene, kinetic 2−57627
fluorene: phenanthrene, guest mol. triplet state interaction, H^+ spins, dynamic nucl. polarisation study 2−87628
fluorene, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041

organic compounds continued
fluorene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
fluorene energetics, electronic-vibr. spectroscopy and laser induced fluorescence 2−70322
fluorene-Ar_n van der Waals complex, energetics, solvent shifts and decay lifetimes 2−70322
fluorene-Ar(Ar_1)(Kr_1), Van der Waals mols., electronic spectroscopy by resonant two-photon ionisation 2−54907
fluoresc., in CTAB and CTAC micelles, fluoresc. study 2−85718
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
2-fluoro-6-chloro-toluene, UV absorpt. spectra, Π-Π* transition, solvent effect 2−54860
3-fluoro-6-chlorotoluene, UV absorpt. spectra, Π-Π* transition, solvent effect 2−54860
fluoroacetones gas-phase basicities, additivity of F substituent effects 2−78082
fluoroacetylene-d_1, elec. field gradients, semi-empirical SCF MO calcs. 2−108387
1-fluoroadamantane, $C_{10}H_{15}F$, plastic phase, cryst. struct., X-ray diffr. study 2−98045
fluoroalcohol-base complexes, IR studies in gas phase, CCl_4 soln. and Ar matrix 2−80597
fluoroalkanes, electron impact, total dissoc. cross-sections 2−59950
m-fluoroanisole, anti rotamer, microwave spectrum and methoxy torsional freq., rot. consts. 2−96547
fluoroanthenyl radical cation salts−a new family of organic metals 2−92579
fluorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)$←$\tilde{X}^1A'$ absorpt. spectra 2−54862
fluorobenzene, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
fluorobenzene, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2−97691
fluorobenzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
fluorobenzenes, containing free radicals, NMR relax. 2−54870
fluorobenzenes, lowest virtual MO orbitals, electronic props., ab initio STO-3G calcs. 2−113856
fluorobenzenes, monohalosubstituted, orientation in lyotropic mesophase, NMR 2−54881
fluorocarbon 12, CW optically pumped CF_2Cl_2, subMM laser action 2−96906
fluorocarbon ion bombardment of Si, chem. sputtering yields meas. 2−87928
fluorocarbons-hydrocarbons nonideal mixtures, surface tension against water 2−71773
fluoroethanols trapped in low temp. matrices, far-IR studies 2−75273
fluoroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
fluoroethylene, ionisation, binary (e,2e) energy spectra, Green's function study, chemical bond 2−80730
fluoroethylene anions, $^2\Pi$, dissoc., dissociative electron attachment spectrosc. obs. 2−59932
fluoroethylenes, solvent effect on spin coupling consts., FPT-INDO-solvation calcs. 2−113888
fluoroform, near IR spectrum 2−80612
fluoroform-d_0(-d), liq., vapor press., isotope effects meas. 2−76646
fluoroformyliminosulphur difluoride, struct., microwave spectrum 2−85640
fluorohydrocarbons, C-H chromophore IR integrated, band strengths, group additivity rule 2−113984
fluoromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
fluoromethane, adsorbed on NaCl, IR laser induced desorption by multiquantum vibr. excitation 2−104136
fluoromethane, anharmonic force fields, ab initio calcs. 2−75174
fluoromethane, dipole polarisabilities, mol. moments, HF approx. 2−108351
fluoromethane, localised atomic orbitals for atoms in molecules 2−54760
fluoromethane, matrix isolated, rot.-librational motion, IR obs. 2−90537
fluoromethane, matrix isolated, vibr. relax., fluoresc. study 2−90613
fluoromethane, Stark-split components, reorientation and press. broadening of IR and microwave lines 2−70227
fluoromethane, vibr. states, Coriolis interactions 2−90514
fluoromethane beam, collision-induced transitions, double reson. studies 2−59903
fluoromethane optically pumped laser, collisional narrowing 2−85940
fluoromethane submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
fluoromethane subMM laser using new resonator type 2−81000
fluoromethane vibr. spectra, triple resonances 2−108463
fluoromethane-d_0(-d_1), third order vibr. problems, Redington's method calcs. *(German)* 2−108467
fluoromethane-d_3, ν_2 and ν_5 bands, IR spectra 2−80623
fluoromethane-d_3+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
fluoromethane-DCl(DBr) complexes in liq. Ar and Kr solns., spectral and energy parameters 900-4000 cm^{-1} 2−59802
fluoromethane-HCl(HBr) complexes in liq. Ar and Kr solns., spectral and energy parameters 900-4000 cm^{-1} 2−59802
fluoromethanol, chemical laser system, dynamic behaviour of intrinsic reaction coordinate, HF laser emissions 2−93798
trans-3-fluorophenol, deuterated, microwave spectrum, rot. and quartic centrifugal distortion consts. 2−90526
fluorophores, excited state lifetimes, optoelectronic cross-correl. determ. 2−90477
fluorophores, interacting, dynamic depolarisation effect of internal rot. and energy transfer 2−108439
fluorotetraallylic tin radical, non-RRKM decomposition 2−88340
2-fluorotoluenes, UV absorpt. spectra, Π-Π* transition, solvent effect 2−54860
5-fluorouracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
5-fluorouracil-adenine (guanine), pairing arrangement, mutagenic effect, iterative EHT calcs. 2−64883
formaldehyde, π*-n phosphoresc., spin-orbit interaction 2−80713
formaldehyde, adsorbed on Ag(110), oxidation, EELS study 2−116728
formaldehyde, adsorption on polycryst. Ag surfaces, SIMS investig. 2−105516
organic compounds continued
formaldehyde, dipole moments and electronic charge distrib., INDO calc. 2−75185
formaldehyde, dipole polarisabilities, mol. moments, HF approx. 2−108351
formaldehyde, electronic ground, excited triplet and ionised doublet state, ionisation pot. and geometry depend. 2−114134
formaldehyde, high resolution study of $^rR(K''=3)$ struct. of 3390 Å band 2−85686
formaldehyde, hydration, force fields representation 2−83354
formaldehyde, hydration, intermolecular interactions, SCF MO calcs. 2−85526
formaldehyde, interstellar, 4830 MHz obs. of selected galactic mol. clouds 2−112532
formaldehyde, interstellar, isotope ratios from 6 cm obs. 2−68850
formaldehyde, interstellar, obs. of line emission from DR21(OH) 2−68863
formaldehyde, mol. beam., nonradiative decay, photopredissociation study 2−75362
formaldehyde, molecular polarisability, ab initio HF calcs. 2−90449
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
formaldehyde, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
formaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
formaldehyde, photodissociation, rot. excited CO, fluoresc. obs. 2−108645
formaldehyde, tropospheric distrib. 2−73668
formaldehyde, vibr.-rotation transition, Stark spectroscopy by saturated absorption 2−90591
formaldehyde, $\tilde{X}^1A_1$ system, selective vibr. excitation by stimulated emission pumping 2−96586
formaldehyde+H, rate const., pot. energy surface, transition state theory, ab initio CI calcs. 2−72980
formaldehyde+$LiBH_4$, carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
formaldehyde determ. in clean air 2−63114
formaldehyde distribution in H II region M17 from 4.9 GHz obs. 2−106875
formaldehyde in $\tilde{A}^1A_2$ and $\tilde{a}^3A_2$ electronic states, geometry and inversion pot. function 2−108666
formaldehyde in aqueous soln., experimental determination at various temps. of US velocity 2−56093
formaldehyde search in Seyfert galaxy and 250 spectra, intervening galaxy constraints 2−74100
formaldehyde-^{12}C, ^{13}C, towards galactic centre, $^{12}C/^{13}C$ var. with distance 2−89334
formaldehyde-d_0-d_2, $^1A_2$←$^1A_1$ absorpt. spectrum, absolute spectrum, absolute vibronic intensities 2−85685
formaldehyde-$d_0(d_1)(d_2)$, force field determ., vibr., CNDO calcs. 2−64875
formaldehyde-$d_0(d_2)$, dipole moment, polymerisation effect, IR obs. 2−70241
formaldehyde-d_2 submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formaldehyde-d, (d_2) energy transfer, IR-UV double reson. study 2−65025
formaldehyde-NH_3 (acetonitrile), struct., vibr., IR obs. 2−75277
formaldehyde/formaldehyde-^{13}C ratio in galactic centre mol. clouds, SHF obs. 2−63591
formaldoxime, electronic spectrum, ab initio CI study 2−54758
formaldoxime, infrared-infrared double resonance using an acousto-optic modulator 2−80690
formamide, internal rot., solvent effect, ab initio study using polarisable continuum model 2−80835
formamide, liq., photoemission and electron mean free paths in vacuum UV, reflectance meas. 2−82997
formamide-$d_0(d_1)(d_2)(d_3)$, isotope effects, force consts., CNDO calcs. 2−96457
formamide-KI-I_2 nonaq. electrolyte for photoelectrochem. solar cell appl. 2−93927
formate, Ca(II) ion binding, ab initio calcs. 2−64857
formic acid, ν_2 vibr.-rot. band, Stark spectroscopy and laser microwave ODR, vibr.-rot. band 2−102516
formic acid, adsorption on clean and O_2 covered Pt(111), EELS study 2−115531
formic acid, cis-trans isomerism, HF and MCSCF calcs. 2−96436
formic acid, dipole polarisabilities, mol. moments, HF approx. 2−108351
formic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2−85715
formic acid, IR transitions, offset-locked CO_2 waveguide laser study 2−85652
formic acid adsorption on GaAS (110), EELS study 2−98454
formic acid ion, electronic ground, excited triplet and ionised doublet state, ionisation pot. and geometry depend. 2−114134
formic acid submillimetre laser, optically pumped, diffusion and vibr. bottleneck 2−96909
formic acid submm. laser, optically pumped, tuning possibility 2−114246
formyl cyanide rotational spectra from ab initio calcs. 2−59682
formyl fluoride, ν_7 fundamental band, high resolution laser Stark and Fourier transform spectroscopy 2−108598
2-formyl furan thiosemicarbazone, lattice parameters, space group, X-ray diffr. 2−109776
formyl ion (HCO^+) J=4-3 transition in galactic sources 2−89341
α-(N)-formyl isoquinoline thiosemicarbazones antitumour activity, electronic struct., CNDOC 2−108379
formyl radical, lower excited states, ab initio CI calcs. 2−59706
formyl-d_1 ion emission regions in interstellar clouds, models from ENF obs. 2−68860
formylferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
fossil fuel thermodynamic props., meas., at Bartlesville Energy Technology Center 2−53764
free base porphin, isolated, ultracold, laser spectrosc. 2−80698
free radical-aromatic ligand π complexes, spin density transfer mechanism, struct. effect 2−111491
Freon, film and transient boiling, effect of porous coatings on heat exchange 2−60535
freon, liq., gaseous cavitation prediction, two-phase flow analogy 2−60590
Freon 113, flow boiling system, dryout heat flux and entrained drop size 2−91512

organic compounds continued
freon 113, impinging jets, forced convection boiling, burnout heat flux 2—70935
Freon-113-tri-t-butyl phenoxy radical system, ^{19}F DNP investig. 2—108591
Freon-11 in gas mixtures, multiphoton dissoc., electronically excited C_2 radical form 2—85757
Freon-22, free convection heat transfer at supercritical press. 2—75957
fulminic acid, rare gas matrix isolated, isomerisation, photolysis, IR and UV obs. 2—75264
fulvene, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2—113871
fumaronitrile, triplet energy meas. using laser flash photolysis 2—75203
furan, one-electron props., ab initio calcs. 2—64866
furan, phase transition, IR study 2—77509
furanose ring conformers in nucleic acids, pseudorot. interconversion, PCILO computations 2—102385
gadolinium tris(oxydiacetate), electronic absorpt. and circ. dichroism spectra 2—80581
α-D-galactopyranose, H-bond system, theoretical determ. 2—98049
gallium compounds, ^{13}C spin lattice relax. times, metal nucleus quadrupole coupling const. 2—102507
gallium tri-iodide ammine, formation of GaN by pyrolysis, influence of vel. front on electrophys. props. 2—72630
gallium tris-2,4-pentanedionate, intramol. tunnelling in coord. units 2—80504
galvinoxyl radical, anomalous phase transition, EPR spectra, zero-field splitting 2—104703
gelatin, dichromated film, optical characts. during holographic recording, latent image stage *(Russian)* 2—102754
geminal interaction of atoms in Y-C-M groups 2—108562
gentiobiose octaacetate, conformation, NMR obs. and hard-sphere calcs. 2—96602
germylazide, microwave spectra and struct., rot. consts. 2—70233
germylisocyanate, microwave spectra and struct., rot. consts. 2—70233
glasses, impurity dephasing by optical modes 2—86822
glucose, aq. solns., permittivity, transmission dielectric time domain spectra 2—110742
glutaraldehyde fixative osmolarities effect on smooth muscle cell vol. 2—73209
glycerine, liq. fracture strength, temp. depend. 2—61051
glycerine, liquid, optical breakdown threshold, temperature depend. 2—98156
glycerine-n-hexane, spreading kinetics over glass during selective wetting 2—66323
glycerine-water, immersion of plane plate, natural convection 2—55566
glycerine-water, spreading kinetics over glass during selective wetting 2—66323
glycerol, fast dynamic Kerr effect and dielec. relax. 2—104845
glycerol, glassy, NMR hole burning slow mol. rot. study 2—104722
glycerol, photophoretic force size depend. 2—105517
glycerol, shaped charge jet penetration, compressibility related effects 2—86794
glycine, zwitterionic, charge separation, UPS 2—93364
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2—96546
glycolic acid, struct., microwave spectrosc. investig. 2—96545
glycolic acid, vibr., isotope shifts, transferable valence force field 2—75235
glycyl-L-alanine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2—102504
glycylglycine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2—102504
glycylglycine, desorption, fast heavy ion induced 2—98429
glycylglycine, desorption yield as function of fast heavy ion beam angle of incidence 2—87058
glyoxal, lone-pair interactions, internal rot., pot. energy curves 2—64894
glyoxal, torsional mode, Franck-Condon factors, single vibronic level emission 2—108634
glyoxal complexes, vibr. predissoc. decay channels 2—59867
glyoxime, cryst. struct. at 9K, neutron diffr. study 2—96431
glyoxime, mol. struct., ab initio HF STO-3G calc. 2—96431
glyoxylate ion, geometry and energies, ab initio calcs. 2—59683
glyoxylic acid, geometry and energies, ab initio calcs. 2—59683
gramicidin A transmembrane channel orientation, vesicle IR dichroism study 2—93997
griseofulvin, isotropically enriched, ^{13}C resons. assignment by spin echo FT NMR 2—90576
ground state reactions, HF MO theory 2—116687
Group IIIA metal β-diketonates, intramol. tunnelling in coord. units 2—80504
guanidinium V(III) sulphate hexahydrate, mag. props. 2—92873
guanine-5-fluorouracil, pairing arrangement, mutagenic effect, iterative EHT calcs. 2—64883
haematoporphyrin, laser excitation, energy transfer, appl. to photochemotherapy 2—62681
haematoporphyrin derivative, fluoresc. and absorpt. props. 2—62558
haemoprotein complexes, photolysis, vibronic effects 2—99691
halides, in environmental samples, assay by NAA 2—57663
haloalkanes, vibr. dephasing, Raman obs. 2—102486
haloaromatics, intersystems crossing and predissoc. 2—102553
halocarbon oxidation by OH in atmos., global, hemispheric models 2—68406
halocarbons, adsorption on solid surfaces, particularly Fe, review 2—82120
halocarbons, appl. as tracer substances for distrib. patterns of chlorinated waters in coastal areas 2—111604
halogenated hydrocarbons, laser UV photofragmentation, selective bond dissoc. and wavelength specific quantum yields for I and Br 2—70360
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2—109978
(4-halogenobenzoyloxymethyl)trifluorosilanes, crystal and mol. struct., X-ray diffr. 2—75146
harmine, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2—96627
harmol, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2—96627
hemiporphrazine complexes, organic semicond., dark cond., o-chloranile doping effects 2—71977
n-heptadecane, heat source, melting, solidification, heat transfer, interface motion 2—55404
heptafluoroiodopropane, collisional enhancement of $I(5^2P_{1/2})$ emission at 1.3 μm 2—59739
organic compounds continued
heptamethine cyanine IR dyes, lifetime, photostability and chem. struct. 2—102884
heptane-Ar vapour gas mixture, thermal cond. *(Russian)* 2—55693
heptane-water-tetraoxyethylene glycol dodecyl ether, low water content, dielec. obs. 2—93830
N-(4-n-heptoxylbenzylidene)-4-n-hexylaniline, smectic-F to H transition, AC sp. heat and X-ray meas. 2—86868
heptyloxybenzylidene-heptylaniline, smectic B phases, synchrotron X-ray study 2—103617
4-n-heptyloxyphenyl-4′-n-decycloxybenzoate, liq. cryst. phase transitions, high press. effects 2—76672
heptylphenyl cyanobenzoyloxy benzoate, smectic A phases, bilayer and partial bilayer *(French)* 2—55841
2,3,7,8,12,13-hexaalkanoyloxybenzo-trisbenzofurons, columnar mesophase, prep. and phase sequence *(French)* 2—109987
hexaaziridinylcyclotri(phosphazene)tris(carbon tetrachloride), cryst. struct., space and Laue group changes 2—65901
cata-hexabenzocoronene triplet state, symm. distortions and pseudo-Jahn-Teller effect, MODOR obs. 2—75196
hexacene, soln., electronic spectra of ground and triplet state, dication and dianion 2—59817
hexachloro-2,4-dimethylcyclodiphosphazane, ^{35}Cl quadrupole relax. and mol. motion 2—110699
hexachlorophene derivatives, cryst., ^{35}Cl NQR spectra, struct., bonding, mol. conformation 2—93053
n-hexadecane, liq. and soln., conformational order, Raman study 2—67033
hexadecane, oxidation reaction, gas chromatography-IR study 2—78085
n-hexadecane-n-hexane viscosity coeff. meas. 2—71690
hexadecyltrimethylammonium fluoride-H_2O, phase equilibria studied by ^2H, ^{14}N and ^{19}F NMR 2—81958
hexadecyltrimethylammonium fluoride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2—82740
2,4-hexadienyl gas phase negative ions, IR multiphoton photodetachment 2—85750
2,4-hexadiyne, cryst. struct., dynamics, model calcs. 2—81774
2,4-hexadiyne, methyl group rotation, classical and quantum dynamics 2—80751
hexafluoroazomethane, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2—113981
hexafluorobenzene, gas phase, multiphoton IR absorpt. 2—64970
hexafluorobenzene, IR multiphoton absorpt. 2—64969
hexafluorobenzene, laser induced fluoresc. obs. 2—75346
hexafluorobenzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2—115426
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2—80651
hexafluorobenzene, vapour pressure, reference values 2—58771
hexafluorobenzene vapour, vibr. deactivation 2—59913
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2—87780
hexafluorobut-2-ene-$d_0(d_2)$, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2—113981
hexafluoroethane, IR intensity anal. following zero and first order approx. 2—80625
hexahelicene, lamellar twinning explaining nearly racemic composition 2—55984
hexakis(2,6-di-tert-butyl-4-biphenyl)ethane, central bond length calcs. 2—59703
hexamethylamine nickel iodide, EPR spectrum 4.2 to 300K *(Russian)* 2—66901
hexamethylbenzene, high temp. phase transition, birefringence and optical path difference study 2—71634
hexamethylbenzene, phase transition, thermal anomaly, heat capacity 2—86899
hexamethyldisiloxane, surface tension meas. at low temp. 2—82083
hexamethyldisiloxane coatings, plasma polymerised, on Si electrodes, for photoelectrochemical device appl. 2—83502
hexamethylenetetramine, 2-freq. NQR-NMR double reson. obs. 2—108593
hexamethylenetetramine, chemical reactivity under shock loading 2—78102
hexamethylenetetramine, spin-spin relax. time using a super-regenerative NQR spectrometer 2—108569
hexamethylenetetramine-$Hg(NCS)_2$, tetradentate behaviour, struct., IR obs. 2—75278
hexane, infinite-dilution partition coeff. between gas and liq. phases in aq. system 2—98284
n-hexane, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2—60503
hexane, saturated liq. film, forced convection boiling heat transfer from cylinder 2—75952
hexane-Ar vapour-gas mixture, thermal cond. *(Russian)* 2—55693
n-hexane-n-hexadecene, viscosity coeff. meas. 2—71690
hexanoic acid, ionised, single and double H-rearrangements involving β-bond cleavage studied using field ionisation 2—105456
hexapentoxy-triphenylene, discotic columnar mesophase, mol. ordering, ^{13}C NMR study 2—71336
hexaphenylethane, central bond length calcs. 2—59703
hexaphenylisomelamine and hexaphenylmelamine, cryst. and mol. struct. 2—103742
hexatriacontane, angular- and light-polarisation dependent valence UV photoelectron spectra, electronic struct. 2—99294
hexatriacontane, elastic props. and phase transitions 2—92078
hexatriene, excited states and pairing relations 2—54770
hexatriene, nuclear spin-spin coupling calcs., π-electron contributions 2—80654
hexatriene, polar twisted minima in ionic singlet excited surfaces 2—108362
hexaziridinocyclotriphosphazene, solid state and aq. soln., Raman and IR studies 2—87772
p-n-hexloxy-p′-n-amyl-a-cyanostilbene, second optical harmonic generation *(Russian)* 2—55263
5-hexyl-2-(4-bromophenyl)-1,3-dioxane, smectogenic, cryst. and mol. struct. 2—65847
hexyl-3 radicals, intramol. vibr. relax. 2—54829
hexylbenzene, liq., equation of state, elastic and thermal props., density, US vel. study *(Russian)* 2—92144
4′-n-hexyloxy-4-cyanobiphenyl-4′-n-octyloxy-4-cyanobiphenyl mixture, nematic-isotropic transition, mol. ordering effect 2—76673

organic compounds continued
N-(4-n-hexyloxybenzylidene)-4-n-hexylanaline, smectic G phase, biaxial ordering 2−98973
L-n-hexyloxybenzylidene-n′-amino-2-chloropropylcinnamate, spontaneous polarisation *(Russian)* 2−82773
p-n-hexyloxybenzylidene-p′-toluidine, phase relation, DTA and microscopic studies 2−91770
N-p-hexyloxybenzylidene-p-toluidine, dielec. props. in liq. cryst. 2−104794
N-p-hexyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
p-n-hexyloxybenzylideneamino-p′-chlorobenzene, heat capacity and thermodynamic props. 2−98302
p-n-hexyloxybenzylideneamino-p′-fluorobenzene, heat capacity and thermodynamic props. 2−98303
4′hexyloxyphenyl 4-butylbenzoate, electro-optical props., relax. near phase transition 2−99092
4-n-hexyloxyphenyl-4-(2″-methylbutyl)biphenyl 4′-carboxylate, ang. depend. of selective reflection from chiral smectic C phase 2−77464
1-hexyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
1-hexyne in soln., IR and isotropic Raman spectra, vibr. and rot. relax. 2−80615
L-histidine, radiation damage, thermoluminescence study 2−61032
histidyl residues of normal human adult haemoglobin, proton longitudinal relax. study 2−111623
HMTSF(TCNQ)$_x$(TCNQF$_4$)$_{1-x}$ solid soln., Mott transition 2−92471
HTAB adsorbed on Ag and Ni, IR specular reflection spectra 2−116291
HxBPA, temp. depend. of lattice parameters in S_G^1 and S_G^2 phases 2−86556
hydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
hydrazine, laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
hydrazine, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
hydrazine intercalated $TiSe_2$, transport props. 2−98626
hydrazine-based rocket fuel toxic industrial compound CO_2 laser absorpt. spectra 2−83536
hydrocarbazoles, di- and hexa-, sigmatropic H^+ shift, tunnel effect 2−78072
hydrocarbon, adsorption of water/high-energy solid interface, thermodynamics of displacement wetting 2−76780
hydrocarbon, infinite-dilution partition coeff. between gas and liq. phases in aq. system 2−98284
hydrocarbon, solid, mixtures, solubility in supercritical CO_2 and ethylene 2−98285
hydrocarbon complex, I_2 saturated, contact charge transfer interaction, UV absorpt. spectra 2−108547
hydrocarbon contramination, binding energy of C_{1S} electrons, energy ref. in electron spectroscopy 2−92328
hydrocarbon molecules, neutral and ionic, heat of form., MINDO/3 calcs. *(German)* 2−93809
hydrocarbons, adsorpt. and decomp., effect on Pt aggregates on Y-type zeolites 2−65123
hydrocarbons, adsorpt. on SiO_2-supported water surfaces, meas. using gas chromatographic technique 2−57636
hydrocarbons, atoms and bonds props. 2−80415
hydrocarbons, C_1-C_4, intramol. vibr. relax., IR fluoresc. obs. 2−59839
hydrocarbons, conjugated, ionisation pots., EHT calc. 2−108391
hydrocarbons, critical temp., density and pressure parameters 2−103967
hydrocarbons, energy and electron distrib. variations, exchange and Coulomb integrals *(French)* 2−75173
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
hydrocarbons, IR intensities, C-H bond characterisation 2−80614
hydrocarbons, liquid, elec. breakdown dynamics 2−87668
hydrocarbons, liquid, elec. cond. meas. in low elec. field 2−92243
hydrocarbons, mol. struct. and stability, STO calcs. 2−80453
hydrocarbons, polycyclic aromatic, films, struct. and props., substrate temp. effect 2−104205
hydrocarbons, pure, ionisation sampling resolution and relativistic rise, dE/dx meas. 2−108312
hydrocarbons, radical ion pair reactions, nucl. spin polaris. effects 2−65007
hydrocarbons, saturated, bond polarizabilities, transferability to diamond 2−70443
hydrocarbons, saturated, liq. and solid, charge carrier form. by radiation *(Russian)* 2−61480
hydrocarbons, unsaturated, photoionisation, visible absorpt. spectra 2−114008
hydrocarbons+H^+, electron capture, cross-section additivity failure 2−102612
hydrocarbons adsorbed on zeolites, IR spectra 2−111520
hydrocarbons and heteromolecules, heat of form. calc. by variation of overlap integral in IOC-ω technique 2−62425
hydrocarbons in discharges from natural gas drilling operation in Lake Erie, survey 2−111595
hydrocarbons in Saturn atmosphere, photochemical models rel. to eddy mixing coeff. 2−112387
hydrocarbons in snow and ice at North Pole 2−105628
hydrocarbons in Titan's atmosphere, implications for atmosphere origin 2−112385
hydrocarbons in Titan atmosphere, photochemistry rel. to atmospheric evolution 2−112386
11-hydroexythylidene-1, 1-bisphosphonic acid, inhibitor, effect on growth role of $BaSO_4$ in suspension 2−116352
hydrophobic, Henry's law consts. 2−76683
hydroxipyrenetrisulphonate, $HClO_4$ soln., dissoc., protonation, rot. diffusion, phasefluorimetric study 2−78119
5-hydroxy-2(3H)benzofuranone, struct., stereochemistry 2−96765
N-hydroxy-2-naphthylamine with guanine and adenine, stacking interactions 2−105639
2-(2′-hydroxy-5′-methylphenyl)-benzotriazole, solns., excited state relax., fluoresc. lifetimes 2−85727
4-hydroxy-5-phosphinyl-2-imidazolidinones, substituted, ^{1}H NMR 2−96593
hydroxy-ellipticine (-olivacines) (-methyl-z-ellipticine), oxidation pathways, CNDO calcs. *(French)* 2−96453
2-hydroxycyclohexane, aq. soln.-and solid vibr., IR and Raman study 2−116177
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
organic compounds continued
hydroxyl-carbonyl binary liquid mixtures, molecular interaction study using US meas. 2−71576
hydroxymethylene radical, unimol. reactions, energy barriers calcs. 2−62383
hydroxypropyl cellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
hydroxypropylmethylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
8-hydroxyquinoline, heteroatom n-electrons effects on optical props. 2−113907
IBPBAC, mol. motions in three smectic phases, neutron scatt. 2−81664
imidazo (3,4-d)-(1,2,4)-triazene-3 (4H)-thione, cryst. and mol. struct., X-ray study 2−98054
imidazole, cryst., electric field gradient calcs. from X-ray diffr. data 2−98602
imidazole, cryst., lattice vibr., isotope shifts, Raman study 2−67032
imidazoles, MCD modelling using π-electron approx. 2−90590
imitrin-3 vapour phase dye lasers in visible range 2−75565
imitrin-9 vapour phase dye lasers in visible range 2−75565
imitrine class dye solns. and vapours, laser action in 500 nm band 2−55142
1-indanone single cryst., Stark effect of lowest triplet states 2−104321
indene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
indene, high-resolution ^{1}H NMR, anal. 2−65010
indium compounds, ^{13}C spin lattice relax. times, metal nucleus quadrupole coupling const. 2−102507
indole-pyridine(quinoline) NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
indoles, substituted, UV and IR spectra 2−108548
indophenoxyl, interacting mol. orbitals and mag. reson. 2−80681
inosylyl (3′→5′) inosine, dinucleoside monophosphate, D exchange rates 2−72983
intercalation compounds of semiconductor/dielectric/organic mol., struct. *(Russian)* 2−60966
intramolecular heteroexcimers, ultrafast intersystem crossing, photolysis obs. 2−65041
2-iodo-2-trifluoromethylhexafluoropropane, electron predissociation of vibr. over-excited molecules *(Russian)* 2−54906
iodobenzene, soln. dielec. props. and viscoelasticity 2−110758
iodobenzene cations, two-photon visible dissoc. 2−70364
iodobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
iodoform, crystn., 2-photon induced photoconductivity 2−66585
iodoform, DC photoconductivity space-charge limited currents 2−72020
iodomethane(-d_3) metastable cation, unimol., collision-induced and photoinduced dissoc. 2−75467
3-iodothiophene, liq. and solid, vibr., Raman and IR study 2−93204
ionic detergent solns. with rodlike micelles, small angle neutron scatt. 2−71320
iosoform cryst., hole mobility, transient photocond. study 2−71972
IR study, struct. *(French)* 2−90529
IR-matrix spectroscopy of molecules with 7-12 atoms 2−80594
iron oxalate emulsions, Ag free, optical charact. of Ni, Cu and Cd scales and grids 2−107440
iron pentacarbonyl, oxidative pyrolysis, FeO, film formation, struct. and chem. comp., expt. study 2−56399
iso-propyl nitrate sorption into nitrocellulose/nitroglycerine films 2−71798
isoamyl alcohol, dielec. props., meas. method and temp. depend. *(Russian)* 2−66979
isobacteriochlorin, synthetic, in glassy matrix, fluoresc. spectrum and energy selection 2−70319
isobutane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
isobutanol solution in n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
isobutene+Na^+ interaction, semiempirical ab initio calcs. 2−114064
isobutylene, microwave rot. spectra, centrifugal distortion effects 2−54837
isobutyraldehyde, dynamic viscosity at various temp. and pressures 2−61186
isobutyric acid-H_2O binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
isobutyric acid-H_2O-D_2O, phase behaviour near critical point, phase diagram, scatt., ang. depend. 2−61119
isobutyric acid-water mixtures with upper crit. point, dielec. relax. meas. 2−72413
4-isocyanate-trans-stilbene, donor substituted, excited state, dipole moments, PPP calcs. *(German)* 2−64882
isocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
isocyanic acid, photodissoc. at 193 nm, CO formation dynamics 2−62411
isocyanic acid, rotational spectra from ab initio calcs. 2−59682
isooctane, tube boiling, heat transfer coeffs., critical heat flux 2−91419
isopropanol, high press. solidification, meas. by manganin press. gauge 2−89735
isopropanol-d_6-HX complex, effect of H bonds on mol. vibr. *(French)* 2−85612
isopropyl bromide, vibr. dephasing, Raman obs. 2−102486
isopropyl chloride, vibr. dephasing, Raman obs. 2−102486
isopropyl o-toluate mass spectra 2−90740
isopropyl phenol, dielectric relax. data reliability from Higasi and Higasi et al. methods 2−110756
isopropylammonium copper trichloride (tetrachloride), dielec. const. and pyroelec. current meas. 2−57004
isothiocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
isothiocyanates, phenyl and methyl, molecular association, nonlinear dielectric study 2−88342
isoxazolyl pencillins, conformational energy calcs. 2−116872
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2−102526
ketene, molecular beam photodissoc., methylene singlet-triplet energy splitting 2−70358
ketene, photodissoc. at 193 nm, CO formation dynamics 2−62411
ketene imine, electronic struct., ab initio SCF and CI calcs. 2−75180
ketenimine, struct., electronic props., force consts., inversion barrier, non-empirical calcs. 2−64858
ketone liquids, dielec. relax. times and thermodynamic props., UHF study 2−87663
koumine hydrobromide, cryst. struct. and absolute mol. configuration *(Chinese)* 2−98047
lactams, trimethylsilyl derivatives, ^{15}N NMR 2−65013

organic compounds continued
lanthanum ethyl sulphate:Gd^{3+}, spin lattice relax., Gd^{3+} splitting under press., ESR study 2−82713
large molecule layers, surface struct. determ. by LEED, combined space method 2−55814
laser dyes, electron distrib., pulsed ^{14}N NQR investig. 2−108592
laser dyes, fluoresc. quantum yield determ. by computer evaluation 2−65048
laser pulsed heating, optimum energy and duration 2−71499
latent heat storage materials, effect of impurities on melting temp. heat of fusion and sp. ht. 2−62503
lead phthalocyanine, triclinic form, cryst. struct. 2−71428
lead phthalocyanine film solar cells, spectral sensitivity and photocurrent, barrier height 2−88453
lead platino-oxalate, compaction cond. study 2−87246
lecithin bilayers, ripple phase, mol. interaction, statistical mech. model 2−99914
lecithin-water lamellar system, rheological props. *(French)* 2−68033
leukocytes:mn^{2+} suspensions, H^+ NMR relax. 2−116895
levcin films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
Lewis base intercalates of FeOCl, Fourier transform IR obs. of struct. 2−116166
librons in organic conductors, review 2−86802
linearly disordered crystal, electron density distrib. describing Bragg scatt. 2−109625
lipophilic fluorescein derivatives, prep., spectral props., appl. to plasma LDL 2−67953
liquid crystal dye laser in region of thermodynamic phase transition *(Russian)* 2−80944
liquid hydrocarbons stored in underground reservoirs, convective heat transfer investig. 2−60356
liquids, densities, viscosities and flow behaviour models 2−82003
liquids, flow behaviour, modified Hildebrand eqn. appl. 2−81637
liquids, thermal cond., prediction method, reduced temp. range 0.3 to 0.8 2−61216
liquids, weakly assoc., orientational correl., depolarised Rayleigh scatt. 2−99138
liquids and liq. crysts., hindered mol. rot., IR spectra study 2−110875
liquids and mixtures, study of acoustic parameters using US vel. and density data 2−71578
liquids exposed to moderate-intensity optical radiation, free C form. mechanism 2−116714
lithium alkyls, γ-irrad., ESR obs., rel. to methylene anion radical 2−108588
lithium ammonium tartrate, intrinsic ferroelastic transition from a piezoelectric paraelastic phase 2−86848
lithium ammonium thallium tartrate monohydrate mixed cryst., dielec. and elastic props., antiferroelec. obs. 2−116134
lithium formate, parametric light scatt. obs. of lattice vibr. 2−99145
lithium formate, single ultrashort pulse duration meas. by second harmonic method 2−55267
lithium formate crystal, light scatt. by polaritons in uncoupled two-particle states 2−82251
lithium formate crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
lithium formate monodeuterate, lattice energy, electrostatic term, determ. from electron density 2−115173
lithium formate monodeuterate, molecular interaction energy, electron distrib. 2−86619
lithium formate solutions, refr. index, density and elec. cond. meas. near saturation temp. 2−76719
lithium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
liumogen, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
LIX 65N extracting agent, 3-dimens mol. struct. calcs. 2−90645
long lived electronically excited states 2−54779
long-chain molecule coating on glass, chemical bond nature, Mossbauer spectra 2−99009
low-dimensional organic metal, theory *(Russian)* 2−61452
lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
2,6-lutidine-water mixtures, wetting transition, capillary parameters meas. 2−71775
lutidines, dielectric relax. times, viscosity effect 2−57015
lycopene, reson. Raman excitation profile, inhomogeneous broadening effects 2−102484
mag. fluid, elec. cond. meas. 2−104363
magnesium acetate tetrahydrate:Co^{2+}, EPR spectra 2−61757
magnesium formate, monoclinic and orthorhombic forms, struct. and thermal stability, X-ray diffr. and IR spectra obs. *(French)* 2−60939
magnesium phthalocyanine/CdS heterojunction solar cells, photoelec. props. 2−83490
malachite green, fluoresc. polarisation anisotropy and kinetics as a function of solvent viscosity 2−70323
malachite green heucocyanide, intramol. electron transfer, psec. resolved fluoresc. and transient absorpt. 2−114026
maleic acid anhydride dimer, geometry, PCILO calcs. *(German)* 2−85556
maleic acid copolymer with styrene in aq. salt soln., conformational transition studied by derivative spectroscopy 2−65119
maleonitrile, triplet energy meas. using laser flash photolysis 2−75203
malonic acid, single crysts., EFGs, quadrupole coupling consts. and σ tensors, D NMR obs. 2−93023
malonic acid in soln., dynamic props. from spin relax. of ^{13}C labeled methylene group 2−54872
malononitrile, millimetre rot. spectrum meas. *(French)* 2−113970
manganese formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
manganese phthalocyanine, complexing ability, IR study 2−57612
manganese stearate, quasi-two-dimensional, antiferromagnetism 2−56864
mass transfer charact. by mass spectrometric anal. 2−60359
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
MBBA, disorder-cryst. transition in frozen liq. cryst. state, X-ray diffr. obs. 2−60891
MBBA, homeotropic, mag. field-stimulated anisotropy of DSM2-front propagation 2−97910
MBBA, liq. cryst., nematic-isotropic transition, Landau-de Gennes model, Gaussian approx. 2−66163
MBBA, local molecular rot. induced by elec. field *(Russian)* 2−60886
organic compounds continued
MBBA, nematic liq. cryst., flexoelectrically controlled twist of texture 2−81662
MBBA, nematic liq. cryst., squint in electrohydrodynamic flow 2−97919
MBBA, optical props. of Williams domain 2−86542
MBBA, order parameter and hydrodynamic viscosity temp. depend. 2−71337
MBBA, oriented nematic liq. cryst., effect of light-wave fild and thermal-lens effect 2−91776
MBBA, photostimulated molecule transform., giant optical nonlinearity *(Russian)* 2−86043
MBBA, second optical harmonic generation *(Russian)* 2−55263
MBBA nematic liquid crystal, flowing US absorption anisotropy 2−61070
MBBA nematic liquid crystal, light self-focusing 2−114388
MBBA-EBBA binary mixtures, acoustical props. in pulsating mag. fields 2−115357
melanin, optical props., role of water 2−105653
melting point of organic solids rel. to reactivity 2−103951
mercaptans, low temperature dielectric relaxation spectroscopy 2−82777
mercaptoacetaldehyde, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercaptoacetone, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercaptotetrazoles as antifogging substanes in photographic emulsions *(Russian)* 2−58955
mercaptotriazoles as antifogging substances in photographic emulsions *(Russian)* 2−58955
mercuric derivatives of amide thiols, vibr. spectra and struct. *(French)* 2−96542
merocyanine dye Langmuir films, high-field photoconduction 2−72029
merocyanine dye-ZnO photovoltaic cells, prep. and spectral response, electron diffr. study 2−83478
mesopheophytin a and complexes, luminesc. spectral-polarisation study 2−70328
metal acetates, methyl group tunnelling, inelastic neutron scatt., NMR study 2−98978
metal alcoholates, prep. of $BaTiO_3$ by hydrolytic decomp. of solns. 2−72635
metal complexes, metal-formylhydrazide, synthesis and characterisation 2−110848
metal phthalocyanines-formic acid, complexing ability, VB and MO calcs., IR obs. 2−90551
metaldehyde, cloud seeding, of stratiform and cumuliform cloud *(Chinese)* 2−78742
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrin complexes, photolysis, vibronic effects 2−99691
metalloporphyrin-pyridine anion complexes, degenerate electronic states, hole burning method obs. 2−113900
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrins, triplet state quenching by O_2 2−114036
methane, 1100 to 1800 cm^{-1}, intensity measures and quantum assignments 2−102469
methane, 2.3 μm region line parameters 2−96550
methane, ν_4 band strength determ. from diode laser line strength meas. 2−108632
methane, absorpt. band interpretation in 5500-6300 cm^{-1} 2−108507
methane, adsorbed film, orientational transitions 2−98443
methane, adsorbed on graphite, rot. diffusion, incoherent quasielastic neutron scatt. study 2−56352
methane, adsorpion on exfoliated graphite, compressed and uncompressed 2−87059
methane, adsorption on S (111), effect of lateral interactions 2−56348
methane, adsorption on zeolite, Freundlich parameters 2−76839
methane, approx. HF wave functions, reduced local energy criterion 2−80452
methane, atmospheric conc. determ. by spectral method *(Russian)* 2−73703
methane, Auger transition rates calcs., nonspherical pot. effect 2−90633
methane, $C+H^+$ collisions, K shell ionisation, electron capture, cross section meas. 2−54940
methane, CH bond dissoc., ab initio pot. energy curve 2−93758
methane, coadsorption with H_2 on Pt thin film, surface pot. meas. 2−92353
methane, collision induced decomposition, mass spectrometry study 2−79706
methane, collision induced light scatt., three body correl. spectrum 2−80636
methane, dipole and transition moment, vibr. intensities 2−85625
methane, dipole polarisabilities, mol. moments, HF approx. 2−108351
methane, double ionisation threshold, ion lifetime, MCSCF and CI calcs. 2−64888
methane, elec. field effects, mol. geometry model 2−59723
methane, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
methane, electron stimulated desorption from W 2−98467
methane, electronic energy and bond-stretching force const. calc. using single-centre min. basis set 2−70148
methane, gas phase thermal diffusivities by a thermal lens technique 2−91576
methane, higher excited vibr. states 2−90502
methane, in atmosphere, abundance determ. *(Russian)* 2−106220
methane, in atmosphere, global increase in concentrations between 1978 and (1980) 2−100452
methane, interacting upper states of ν_1, ν_3, $2\nu_2$, $\nu_2+\nu_4$ bands, mol. consts. 2−85621
methane, intermediate phase struct., X-ray studies *(Russian)* 2−98050
methane, inverse spectral problem, normal F_2 oscill. modes *(Russian)* 2−85636
methane, ionis., free radical form. and combination, reaction with ethane 2−99656
methane, IR absorpt. spectrum of $2\nu_2$ band 2−85655
methane, IR absorption bands monitoring in atmosphere, Indian (Trombay) experience 2−111525
methane, isotopically labelled, exotic tracers for atmospheric studies 2−94507

organic compounds continued
methane, liq., far IR absorpt. spectra, octupole induced dipole moment correl. functions 2−72472
methane, liq., Monte Carlo simulations, thermodynamic and struct. props. 2−91748
methane, liquid, equation of state, appl. to models of major planets 2−73878
methane, localised atomic orbitals for atoms in molecules 2−54760
methane, microwave spectra, rel. to radioastronomy 2−75280
methane, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
methane, ocean chem. composition in coastal inlet 2−68388
methane, optical freq. standards using supernarrow resonances on E-line of P(7) transition of ν_3 band 2−58772
methane, pentad energy levels, rovibr. anal. 2−90503
methane, phase III, rot. tunnelling under pressure 2−110448
methane, photodissociative channels at 1216 Å 2−111498
methane, positron-gas cross-section measurements 2−75420
methane, pulsed and CW mol. beam CARS spectroscopy 2−59812
methane, red bands spectra for different column densities, appl. to giant planets 2−90560
methane, second dielec. virial coeffs. 2−104801
methane, solid, incommensurate structures 2−86595
methane, solid, isotope effect in phase diagram, proton NMR expt. 2−56964
methane, solid, isotope effect is phase diagram, corresponding state anal. 2−56184
methane, solid, Raman spectra under high press., Gruneisen parameters 2−77502
methane, solid, spin-species conversion rate 2−104632
methane, stopping cross-sections for α-particles in the energy region 0.3 to 5.5 MeV 2−60715
methane, stopping power of protons and alpha particles 2−70386
methane, vibr., ^{12}C and ^{13}C, IR obs. 2−90539
methane, vibr. states, IR spectral line assignments and strengths 2−90540
methane, vibr.-rot. bands matrix element anal. 2−70213
methane+Ar, vibr. transitions, vibr.-rot. energy exchange mechanism 2−114086
methane+ArH^+, proton transfer reactions, rate coeffs. 2−70409
methane+C_2, reactions, temp. depend. 2−93765
methane+Ca, collisional relax., rate consts. for quenching meas. by modulated laser induced fluoresc. technique 2−96680
methane+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
methane+N_2, α-irrad., H_2CN^+-N_2 production, Titan atm. appl. 2−100826
methane+Ne^{8+}, Kalpha X-ray lines, electron capture rate coeff. determ. 2−65072
methane(-d_4), IR intensities, electrooptical parameters 2−59795
methane (-d_4), IR and Raman spectra, vibr. freq. and intensities, CNDO calc. 2−80632
methane (propane)-ice-NH_3 mixture 3.4 μm feature, comparison with interstellar feature 2−84304
methane adsorbed on graphite, microvolt and millivolt molecular tunnelling spectroscopy by neutron scattering 2−71292
methane cations, collision-induced dissoc., mol. dynamics obs. 2−93779
methane dication, struct., stability, pot.-curve, HF calcs. 2−85535
methane diffusion flame, comparison between CARS and corrected thermocouple temp. meas. 2−107322
methane dissolved in liquid freon, Raman spectrum, isotropic scatt. band profile, intermol. interactions effect 2−59809
methane flowing into cold plasma, chemical behaviour, H-production *(French)* 2−91555
methane formation in hydrogen-implanted graphite and carbides, on fusion reactor 2−80216
methane frequency stabilised He-Ne laser oscill. period for optical time scale 2−101379
methane gas scalable visible 630 Raman laser source, Nd:YAG pumped 2−102778
methane hydrate, acoustic vel. from Brillouin spectra obs. 2−109909
methane in freshly fallen snow, implications for past atmos. 2−83885
methane in Saturn atmosphere, longitudinal variability, IR obs. 2−73901
methane in underexpanded supersonic jet, high-resolution CW CARS 2−108530
methane ion protonated, ion mobility in methane gas 2−81440
methane Raman amplifiers, intensity averaging and four-wave mixing 2−55255
methane Raman laser, Nd:YAG based, eyesafe, cloud height ranging appls. 2−97058
methane stabilised He-Ne laser at 3.39 μm, international comparisons results 2−102772
methane with solid CO_2, cryogenic phase behaviour and saturated phase enthalpy relationship 2−74417
methane-acetylene-Ar liq. mixtures, excess vol. and compressibility, dielec. const. meas. 2−92071
methane-air flame, nascent NO detect. by multiphoton ionis. 2−59863
methane-air flame, OH number density meas. using laser induced fluoresc., vibr. level relax. effects 2−116695
methane-CO_2, thermal diffusion meas., interaction parameters 2−102565
methane-d_0-d_4,(-^{13}C), stretching overtone bonds, local mode model 2−80574
methane-d_0(-d_4) rotationally-resolved ultrahigh resolution stimulated Raman spectra 2−108522
methane-d_0(-d_4) single crysts., elastic and photoelastic consts., Brillouin scatt. obs. 2−66103
methane-d_0 (-d_4), electron impact dissoc., product ion laser induced fluoresc. 2−96619
methane-d_1(d_3), electron impact, dissociative excitation, balmer emission, isotope effect 2−54975
methane-d_1 in Jupiter atmosphere, abundance from Voyager IRIS spectra 2−100810
methane-d_4, ideal gas thermodynamic props., data tables 2−94922
methane-d_4, incommensurate monolayers on graphite, melting transition, neutron diffr. lineshape anal. 2−66356
methane-d_4, phase III, rot. tunnelling levels, inelastic neutron scatt. and heat capacity meas. 2−104012
methane-d_4+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
methane-ethane crit. mixt., liq.-gas crit. line prediction and interaction param. evaluation 2−71623
methane-He, thermal diffusion meas., interaction parameters 2−102565

organic compounds continued
methane-methane-d_4, phase II struct., stability 2−76648
methane-N_2 mixing, reson. photoacoustic spectroscopy detection 2−53843
methane-O_2, vibr.-rot. energy transfer, relax. times calcs. 2−85785
methane-Xe mixture in imaging proportional counter 2−108235
methane/air atmospheric flame, laser-induced OH fluoresc. spatially resolved with diode array detector 2−65031
methane/air flame, in plane OH combustion species visualisation, quantitative 2−116696
methane/air sooting diffusion flames, laser induced visible fluorescence 2−116699
methane/decane, computer simulation of nonconformal mixture 2−60850
methane/O_2 sooting diffusion flames, laser induced visible fluorescence 2−116699
methanes, halogen substituted liq. state, Raman band widths of totally symmetric vibr. bands 2−113998
methanes and its deuterated analogues partially oriented in nematic liq. crystals, ^1H and ^2H NMR spectra 2−70280
methanesulphonanilides, m- and p-substituted, conformers, substituent effects, IR obs. 2−90550
methanimino cation, rot. spectra and dipole moment from ab initio calcs. 2−85524
methanol, $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methanol, adsorbed on transition metal surface, AES study 2−110136
methanol, adsorption, oxidation and decomposition on Ag (111), UPS and XPS study 2−76826
methanol, adsorption on polycryst. Ag surfaces, SIMS investig. 2−105516
methanol, aggregates in cryogenic matrices, IR hole burning 2−80860
methanol, CH_3OD, CW laser pumped, lasing transitions at 57, 82 and 103 μm, direct gain meas. 2−96910
methanol, chemisorpt. and condensation on Pd (100), spectrosc. obs. 2−93812
methanol, co-production, in gasification combined cycle power plant 2−67801
methanol, decomposition on Ni (100) 2−83413
methanol, dil. aqs. soln., hydration struct., Monte Carlo calc. 2−72950
methanol, far IR lasing mols., pump offset freqs., Doppler-free optoacoustic spectroscopy meas. 2−108857
methanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
methanol, interstellar detection of torsionally excited state in Orion A 2−63551
methanol, liq., struct., thermodynamic props. and H-bonds, pressure effect, intermolecular interactions 2−71326
methanol, liq. and solns., Fermi reson. solvent and temp. depend., Raman study 2−75296
methanol, localised atomic orbitals for atoms in molecules 2−54760
methanol, photon stimulated desorption on Ti (001), UPS 2−104143
methanol, shaped charge jet penetration, compressibility related effects 2−86794
methanol, thermal desorpt. and decomp., on Pd(100), spectrosc. obs. 2−92344
methanol+NH_2^+, reaction kinetics, mass spectrosc. investig. 2−93786
methanol (d_1 or d_4)-ammonia (d_3), IR spectra, H-bond, Fermi resonance 2−72502
methanol adsorption on SiO_2, porosity charact. 2−62433
methanol large offset far IR laser lines, CO_2 waveguide laser pumped, obs. and assignment 2−80935
methanol laser, optically pumped, CO stretch states and vibr. states, far IR laser lines 2−55122
methanol magneto-optically modulated laser, for Faraday rot. meas. in Tokamaks 2−97788
methanol monolayers, H^+ in electron stimulated desorpt. 2−87020
methanol optically pumped laser, collisional narrowing 2−85940
methanol optically pumped submm. laser, emission lines, 150-970 μ range 2−55135
methanol-acetonitrile-paraffin, liq.-liq. equilibr. study 2−103971
methanol-chloroform-pyridine mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
methanol-d_0(d_1)(d_4), adsorption on zeolite surface, IR study 2−82132
methanol-d_3, torsion levels, Fermi reson., internal rot., Doppler limited IR obs. 2−85660
methanol-d_4, optically pumped, new far IR laser lines and freq. meas. 2−96912
methanol-d_4 CW far-IR waveguide laser, optically pumped, relax. oscills. 2−75558
methanol-d, dipole moments, Q-branch transitions 2−90595
methanol-ethanol (n-propanol) mixtures, nucleation obs. 2−109963
methanol-LiBr($ZnBr_2$)(LiBr-$ZnBr_2$), solvation, heat of mixing determ. 2−66238
methanol-n-heptane crit. mixture, low freq. dielec. consts. meas. 2−82767
methanol-organic solvent mixtures, Raman spectra, H-bonds 2−96579
methanol-PMMA system, desorption and resorption of methanol, kinetic curves *(Russian)* 2−76800
methanol-triethylamine, IR spectra, H-bond, Fermi resonance 2−72502
methanol-water mixtures, cluster formation 2−55001
methinophosphide-d_0(-d_1), ν_3 vibr.-rot. band and equilib. struct. 2−64957
methotrexate, reson. Raman spectra obs. of peteridine moiety 2−114005
4-methoxy analine, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
4-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
p-methoxy benzyl alcohol, Raman and IR spectra, vibr. assignment 2−90533
methoxy radial, $\tilde{A}\rightarrow\tilde{X}$ fluoresc. spectra, collision-free lifetimes 2−96618
methoxy radical, ^2E state, spin-orbit coupling const. meas. 2−59692
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
methoxy radical, unimol. reactions, energy barriers calcs. 2−62383
4-methoxy-4′-hexyltolane, nematic order parameter fluctuations and mol. anisometry 2−103619
4-methoxybenzylidene-4′-perfluorobutylaniline, smectic liq. cryst., Urbach rule 2−65854
11-(methoxycarbonyl)-cyclohept[a]azulenylium tetrafluoroborate, MCD and IR absorpt. spectra 2−75337
N-2-methoxycarbonyl hydrazonates, form. by hydrazine+hydrazonate derivatives, struct., IR obs. *(French)* 2−54846
methoxyflurane, internal rot., vibr., microwave, IR and Raman obs. 2−75252
methoxylated isoflavones, ^1H NMR spectra, solvent effect 2−70292
methyl, geometries and HFS consts., ab initio calcs. 2−70136

organic compounds continued
N-methyl 2H,3,4-dihydro 1,3-benzoxazines, retro Diels-Alder reaction, mass spectra 2−57611
methyl acetate, adsorbed on transition metal surface, AES study 2−110136
methyl acetate, CH stretching freq., bond strengths, methyl group geometry 2−96565
methyl acetate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl acrylate, band contour assignment of IR spectrum, force field for vibrs. *(Spanish)* 2−85665
methyl acrylate, IR spectra and struct. 2−96568
methyl alcohol, CO_2 laser pumped, wavelengths for new laser lines 2−96907
methyl alcohol, laser Stark saturation spectroscopy, IR transition assignments 2−90592
methyl alcohol, multiquantum excitation in intense IR field, intermode intramol. interaction role 2−114053
methyl benzoate, struct., rot. barriers, STO-3G MO calcs. 2−108350
methyl bromide, laser spectroscopy in ν_6 band at 930 cm^{-1} 2−54843
2-methyl butane, depolarised Rayleigh spectroscopy 2−80628
methyl carbene triplet radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
methyl cation, triplet state, struct., inversion barrier, ab initio MO theory 2−108354
methyl chloride, IR band study of $2\nu_2$, $\nu_2+\nu_5$, $2\nu_5{}^0$, $2\nu_5{}^{\pm 2}$, $2\nu_3+\nu_5$ and $4\nu_3$ reson. *(French)* 2−90532
methyl chloroform+Cl, reaction kinetics, time resolved reson. fluoresc. 2−105448
methyl cyanide, laser Stark and microwave spectra, vibr.-rot. bands 2−85714
methyl cyanide, rot. line press. broadening, acoustic detect. in MM wave spectroscopy 2−96544
methyl cyanide, rot. transitions, pressure shift 2−64963
methyl cyanide, VUV absorpt. spectra 2−96592
methyl cyanide oxidation over Ag surface, AgCn and AgOCN surface compounds formation 2−78126
methyl cyanide spectra used to determine Orion Molecular Cloud-1 temp. 2−117719
methyl cyanide...HF dimer, ^2H and ^{14}N quadrupolar coupling consts., SCF MO calcs. 2−96449
methyl dication, struct., stability, pot.-curve, HF calcs. 2−85535
methyl dimethylsilyl sulphide and its deuterated analogues, Raman spectra, conformational anal. 2−90557
methyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
methyl ethyl ketone, complex form., mol. vibr., IR obs. 2−67747
methyl fluoride, $^{12}CH_3F$, ν_2 and ν_5 fundamental vibr.-rot. bands, high resolution spectrum 2−96559
methyl fluoride, IR sidebands meas. using tunable sideband laser 2−64978
methyl fluoride, isotopic $^{13}CH_3F$, optically pumped pulsed far IR laser, cavity operation 2−97009
methyl fluoride, liquid, case representative of joint expt. and theoretical progress 2−76272
methyl fluoride, microwave transitions studied in intracavity absorbers using off-resonant response of IR lasers 2−108484
methyl fluoride-d_0(−d_3), optical-optical double reson., isotope effects 2−65024
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl formate, dielec. relax. time and distrib. parameters 2−99029
methyl formate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl germyl sulphide, config., IR and Raman spectra anal. 2−113990
methyl glycolate, barrier to internal rot. 2−96769
methyl glycolate, vibr., isotope shifts, transferable valence force field 2−75235
methyl group in hexadiyne, microvolt and millivolt molecular tunnelling spectroscopy by neutron scattering 2−71292
methyl group relaxation, another factor 2 2−61785
methyl group reorientation in solids, thermally activated 2−65888
methyl groups in liquids, ^{13}C spin-lattice relax. times, torsional vibrs. 2−80662
methyl groups in solids, hindered rot., nuclear spin-lattice relax., theory 2−93036
methyl iodide, absorpt. spectrum in extreme VUV region 2−75304
methyl iodide, atmos. global distribution 2−78795
methyl iodide, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
methyl iodide, photodissoc., exact time-dependent wave packet propagation technique appl., Raman scatt. 2−70356
methyl iodide, photofragmentation dynamics, IR spectra, vibr. distrib. of methyl(ν_2) umbrella mode 2−73003
methyl iodide(-d_3), multiphoton ionisation spectrum with intermediate reson. in A-band region 2−70269
methyl iodide collisionless multiphoton ionisation 2−59865
methyl iodide in carbon disulphide soln., mol. dynamics and interactions, far IR and microwave spectra 2−80617
methyl iodide in seeded supersonic beam, focusing, rot. state selection and orientation 2−85616
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
methyl ion+H_2(HD)(D_2), isotope exchanges and collisional assoc. 2−105462
methyl ion+methane, gas phase reaction, mechanistic study, ab initio MO calcs. 2−99647
methyl isocyanide, properties and application of the reduced isotopic product rule for molecular vibration frequencies 2−108458
methyl isothiocyanate, microwave spectrum, bond angle, rovibr. energy levels 2−85642
methyl methacrylate and styrene polymerisation using azoisobutyronitrile as radical initiator, ^{13}C NMR 2−67750
methyl methacrylate-vinyl phenylacetate gradient index fibre lens 2−75687
trans-methyl nitrite, force field parameters, vibr.-internal rot. interaction model 2−102660
methyl nitrite aggregates in cryogenic matrices, IR hole burning 2−80860
methyl nitrite-d_0(d_3), vibr., force consts., IR obs. 2−85659
methyl phenyl sulphide derivatives, intramol. H bonding effects on conformation 2−75309
5-methyl pyrimidine, IR and Raman vibr. spectra 2−108511
organic compounds continued
methyl radical, electronic states, resonance enhanced multiphoton ionisation obs. 2−65062
methyl radical, geometry, restricted and unrestricted Hartree-Fock calcs. 2−85541
methyl radical, umbrella mode, photofragment IR emission spectroscopy, vibr. progression and pot. parameters 2−72997
methyl radicals, IR absorpt. detection, recombination rate, reaction with O_2 study 2−85647
methyl radicals, selective stepwise ionisation 2−59865
methyl radicals displacement in X-irrad. lithium acetate dihydrate 2−70300
methyl salicylate, freq. dispersed and picosecond time resolved fluoresc. characteristics of blue-emitting form 2−102525
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methyl silane, internal rot. studied by avoided-crossing mol. beam spectroscopy 2−108732
methyl symmetric stretching vibr. in simple mols., IR spectra, MO calcs. 2−96566
methyl thiocyanide, produced by glow discharges, thermal props. *(German)* 2−56227
methyl vinyl ether, triplet state, isomerism, geometry, STO calcs. 2−85525
methyl vinyl sulphone, mol. struct., electron diffr. study 2−75433
10-methyl-10-chloromethylphenothiosiline, cryst. struct. 2−98064
5-methyl-10-hydrophenazine free radical cation, reson. Raman spectra 2−114004
methyl-10-phenothiazine, phosphonation isomers, ^{13}C and ^{31}P NMR 2−75317
2-methyl-1-oxojulolidine cryst., X-ray struct. study 2−91941
methyl-2,4-dinitrophenyl-aminopropanoate, mol. crystal, and nonlinear optical props. 2−65302
4-methyl-2,6-ditertiarybutylphenol, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
N-methyl-2, 4-dimethylpyridine(TCNQ)$_2$, single crysts., temp. anomaly in microwave cond. 2−66538
1-methyl-2-carbagermatrane, cryst. and mol. struct. 2−98063
(S)-3-methyl-2-p-fluorophenylbutyric acid, geometric and electronic struct. 2−75137
2-methyl-3-butenenitrile, molecular struct. 2−59959
2-methyl-4-nitroaniline, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, and nonlinear optical props. 2−65302
3-methyl-4-nitropyridine-1-oxide, mol. crystal, nonlinear-optical props. obs. 2−65304
4-methyl-7-oxycoumarine, H bonded complexes, luminesc. and laser radiation 2−108871
N-methyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
methyl-d_0(d_3), ideal gas thermodynamic props., data tables 2−94922
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
methyl-difluoro phosphine, force field calcs., IR obs. 2−64856
p-methyl-N-(p-methylbenzylidine) aniline trimorphic, cryst. energetics incl. disorder 2−115171
4-methyl-pentene-1, materials suitable for use in far IR 2−60187
methyl-phosphine, force field calcs., IR obs. 2−64856
methyl-phosphine oxide, force field calcs., IR obs. 2−64856
methyl-phosphonic difluoride, force field calcs., IR obs. 2−64856
N-methylacetamide, deuteration kinetics by stopped-flow multidetector Raman spectrophotometry 2−72490
N-methylacetamide, solvent effect on amidic bond, PMR study 2−70291
N-methylacetanide-lactams, H bonding, IR obs. 2−83544
methylacetylene, adsorbed on Rh (111), LEED study 2−76825
methylacetylene adsorption on Pt (111), surface structs., LEED study 2−71804
methylalcohol liq., H-bands, X-ray diffr. study 2−103591
methylamine, internal rot., far-IR spectrum 2−85653
methylamine, liq., solvated electron optical absorpt. spectra 2−80639
methylamine, localised atomic orbitals for atoms in molecules 2−54760
methylamine+$NH_2{}^+$, reaction kinetics, mass spectrosc. investig. 2−93786
methylamine $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methylamine optically pumped submm. laser, emission lines 2−55135
methylamine-d_2, 0-0 band rot. struct., in UV absorpt. spectrum 2−90562
methylammonium aluminium alum, X-ray and neutron diffraction study 2−60959
bis-methylammonium copper bromochloride, ^{35}Cl NMR *(Japanese)* 2−93028
methylammonium iodide, solid, pre-melting phases, ^1H spin-lattice relax. and DTA study 2−77409
methylammonium ion in liq. cryst., ^{14}N nucl. quadrupole coupling const. 2−80664
methylammonium ion in low temp. methylammonium chloride and its dervatives, empirical force field calcs. 2−114132
9-methylanthracene, excited mol. cryst., dynamic instabilities, packing calcs. 2−60915
methylbenzenes, sterically crowded, methyl proton signals, NMR chem. shift calcs. 2−80656
4-(2′-methylbutyl)phenyl 4′-n-nonyloxybiphenyl-4-carboxylate, tilted smectic phases, press.-temp. phase diagram 2−71645
2-methylbutyl p-(p-n-alkoxybenzylideneamino) cinnamates, ferroelec. smectic C* liq. cryst., helical pitches and wall anchoring, optical study 2−55839
methylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
methylchloroform, cyclic global emissions 2−62525
methylcyanoacetylene, ground state, rot. and centrifugal distortion consts., microwave obs. 2−75250
methylcyclopentane hydrogenolysis catalysed by Pt oriented ultrathin film on Al_2O_3 2−88381
methylcyclopropane, torsional vibrs., Raman intensity calcs. 2−96577
N-methyldiphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
methylene, 2^1A_1 state, Newton-Raphson eqns., MCSCF calcs. 2−108345
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2−96469
methylene ($^3B_1$, $^1A_1$), electronic states, multiconfigurational coupled-cluster theory 2−80416

organic compounds continued
methylene (-d_2), Renner-Teller effect, laser induced fluoresc., radiative lifetimes, vibronic levels 2−80717
methylene anion radical, exptl. investig. using ESR of γ-irrad. lithium alkyls 2−108588
methylene blue+Fe complexes, quenching rates and efficiencies of forward and reverse electron transfer, temp. depend. 2−83369
methylene blue in water and acetonitrile, photoinduced electron ejection 2−75348
methylene blue particles collected on filters, photoacoustic meas. of absorptivity, substrate refl. effect 2−53851
methylene chloride, in decalin, dielectric and far IR study, γ-process charact. 2−61892
methylene chloride, liq., IR spectra, rot. diffusion, temp. depend., mol. dynamics simulation 2−57068
methylene cyclopropenium, gas phase ion struct. anal. by chemical methods 2−54736
methylene dichloride, liq., mol. dynamics simulation 2−76271
methylene groups ordering in thermotropic liq. cryst. 2−81669
methylene ion, dissoc. detection by low pressure gas detectors 2−57595
methylene oxalate, cryst. struct. space and Laue group changes 2−65901
methylene singlet-triplet energy splitting by molecular beam photodissoc. of ketene 2−70358
methylene trithiocarbonate, matrix isolated, photolysis, IR spectra of products 2−96556
(methylene-d_2)$_n$ microspherical target, six-beam laser irrad. 2−97760
methylene-dication, struct., stability, pot.-curve, HF calcs. 2−85535
3,4-methylenedioxy-cinnamoyl piperidide, cryst. struct. determ. *(Chinese)* 2−98046
methyleneimine, laser Stark and interferometric studies 2−75333
methyleneimine, vibr.-rot., Coriolis interaction, IR obs. 2−75260
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylethynyl mercury(II)-d_0, -d_1, d_3, -d_4, vibr. anal. and pot. energy const. 2−80563
methylfluoride+NH_3, inelastic scatt., beam maser investigation, cross sections for inversion transitions 2−70379
2-methylfuran radical, hyperfine splitting consts., ESR study 2−90587
1-methylgermatrane, 3,7,10-carbonyl containing analogues, X-ray struct. anal. and NMR spectra 2−96766
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
1-methylhydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
methylidyne ion formation in interstellar shocks, effect of cooling by OH IR line emission 2−106874
methyline and methyline ions absorpt. 2−89323
methyllithium clusters, binding energies, geometry, ab initio SCF STO calcs. 2−96787
methylmercury/Hg ratios in Canada and Japan rivers 2−93955
methyloxicrane, ground and triplet state, isomerism, geometry, STO calcs. 2−85525
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
5-methyloxyuracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
methylpentachlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
3-methylpentane-nitroethane critical binary mixture, critical divergence of US absorpt. 2−76598
methylphenols, electronic and mol. struct., protonation, MINDO/3 study 2−102391
2-methylpyrazine, IR and Raman vibr. spectra 2−96558
N-methylpyridinium ion, on Ag electrode, IR and Raman surface enhanced spectrum 2−85667
methylpyropheophorbide, soln., NMR spectra, dipolar mag. field effects 2−59819
methylsilane, vertical excitation energies for singlet and triplet states, ab initio calcs., photochemistry 2−72996
methylsulphuryl radical, electronic struct. ab initio SCF-MO calcs. 2−85533
3-methylsydnone(-d_4), vibr. spectra, force field and electronic struct. 2−75230
2-methylthiophene, radical, hyperfine splitting consts., ESR study 2−90587
N-methylthiourea, NMR and IR studies of solvent effect 2−75325
methylviologen, adsorbed on colloidal CdS, photochem. 2−83394
4-methyoxy-2-nitroaniline, methoxy-group conformation, NMR anal. 2−96597
molecular crystal, quantitative characterisation, radiation damage impose d limits 2−66071
molecular crystals, mobilities 2−92622
molecular crystals, Raman scatt. by intermolecular vibrs., effective field method 2−110854
molecular crystals, SHG anal. 2−108965
molecular crystals, static lattice potential energy minimisations for defects, computational approaches 2−76426
molecular polarisabilities, calcs. assuming additivity of atomic static polarizabilities and dispersion coefficients 2−85837
molecular weight determ. by NMR spectroscopy 2−75470
molecules, 30.4 nm He(II) PES 2−102534
molecules, double differential ionisation cross section under heavy charged particle bombardment 2−65681
molecules, matrix isolated, inhomogeneous broadening of spectra 2−75357
molecules, stereochemistry, NMR appl. 2−108579
molybdenum deformate, ground and ionic states, correl. effects calcs. 2−80465
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
monobromobenzene in nematic liq. cryst., r_{ij} struct., ^{13}C satellites in PMR spectrum 2−54873
monochloroacetic acid, spin-spin relax., phase transitions, NQR study 2−110710
monolayer assemblies on Ag gratings, plasmon surface polariton field enhanced Raman spectra 2−110838
monomethyl fumarate and its Na salts, IR and Raman spectra, vibr. anal., struct., conjugative effects 2−90547
3-monomethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2−114034
organic compounds continued
monomethylhydrazine (MMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
mononucleosomes, polyion diffusion, doppler shift spectrosc. investig. 2−66263
mononucleotide solutions, ^{31}P NMR, chem. shift *(French)* 2−75315
mononucleotide solutions ^{31}P NMR, chem. shift *(French)* 2−75316
monosaccharides, ^{17}O NMR, chemical shifts 2−102505
monosaccharidic (-dn) and ^{13}C enriched compounds, ^1H and ^{13}C two dimens. spectroscopy *(French)* 2−80679
myelin sheath, struct. destabilisation by repetitive propagation of action pots. 2−111648
n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
naphthacene, diamagnetic anisotropies, crystalline and molecular *(French)* 2−61690
naphthalene: 2(1,4-diiodotetrafluorobenzene), exciton-phonon coupling, triplet energy transfer, Raman spectrosc. obs. 2−104869
naphthalene:anthracene crysts., delayed fluorescence, triplet exciton traps effect *(French)* 2−77576
naphthalene, Ar matrix isolated, two-colour resonance photoionisation 2−85751
naphthalene, chemical reactivity under shock loading 2−78102
naphthalene, cryst., isotopically mixed, subst. disordered, triplet exciton transfer and fusion 2−92474
naphthalene, cryst., nondipolar Coulomb exciton transfer interactions 2−110255
naphthalene, cryst., temp. depend. of thermal motion 2−103734
naphthalene, cryst., vibr. dephasing, temp. depend., picosec. CARS obs. 2−110827
naphthalene, external phonon spectrum, neutron scatt. time of flight spectra study 2−71596
naphthalene, in-plane vibrs., CNDO force field calcs. 2−108381
naphthalene, low lying singlet states, two-photon spectra 2−70363
naphthalene, magnetoelectret, dielec. behaviour 2−104789
naphthalene, melting induced by condensation of steam on surface 2−91439
naphthalene, pi-systems, environmental effects, deltalike function basis calcs. *(German)* 2−108671
naphthalene, surface photooxidation, Penning ionisation electron spectroscopy and UPS study 2−67595
naphthalene, two-photon spectrum of b_{2u} modes, vibronic activity 2−80750
naphthalene (-dn) doped mixed crysts., time resolved donor and acceptor fluoresc., energy transport kinetics 2−72532
naphthalene clusters, triplet states, phosphoresc. lineshape anal. using spin-spin and spin-orbit interactions 2−96615
naphthalene d_8, compressibility temp. depend. 2−92085
naphthalene in Ar, Kr and Xe matrix, phosphorescence spectra, electronic transitions 2−61957
naphthalene in dihalobenzenes, coherence in phosphoresc. triplet state, pulse ODMR study 2−104748
naphthalene in perdeuteronaphthalene, temp. depend. photon echo meas., optical dephasing 2−90998
naphthalene in soln., vacuum UV absorpt. spectra 2−85688
naphthalene isomer, multiphoton ionisation fragmentation patterns, maximal entropy theory 2−75360
naphthalene molecules, adsorbed on Pt(111), mol. orientation determ. by packing energy calcs. 2−87055
naphthalene-biphenyl, mixed cryst., triplet exciton fusion, luminesc. study 2−110913
naphthalene-Cu interface, viscosity and thickness of quasi-liquid layer during melting *(Russian)* 2−115396
naphthalene-d_0 (-d_8), vitreous solns., tunnel electron transfer, inverse isotope effect 2−98726
naphthalene-d_8, phosphorescence, double exponential decay and noise levels 2−93248
naphthalene-d_8-TCNE (TCNB), mol. motion, ^2H NMR study 2−98969
1,8 naphthalenephenylphosphite, cryst. and mol. struct., X-ray diffr. study 2−55963
1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-dianhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
naphthalic anhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
naphthene group hydrocarbons, thermal cond. determ. 2−104085
α-naphthoate ion, adsorpt. at Hg-soln. interface, investig. 2−110159
α-naphthoic acid, adsorpt. at Hg-soln. interface, investig. 2−110159
α-naphthol, IR vibr. spectrum and hydrogen bonding 2−110865
naphthothia-diazines and naphthoselina-diazines, electronic struct., STO-3G calc. and XPS meas. 2−90445
naphthyl polyenes, electrical cond. process compensation effect 2−61469
2-naphthylamine metabolite with guanine and adenine, stacking interactions 2−105639
1- and 2-naphthylnitrenium ion with guanine and adenine, stacking interactions 2−105639
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
2,6-naphthyridine electronic spectrum, n,π* states 2−75307
neodymium(III) p-aminobenzoate, crystal and mol. struct., X-ray diffr. 2−76420
neodymium ethylsulphate nonahydrate, ligand field theory 2−92541
neodymium porphyrin complexes 2−110929
neopentane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
neopentane, adsorption on S (111), effect of lateral interactions 2−56348
neopentane, liq., Monte Carlo simulation 2−81655
neopentane, liq., positronium yield correl. with excess electron mobility 2−99210
neopentane, localised Auger final states 2−82266
neopentane, plastic, rot. motion studied by Raman spectroscopy 2−110841
neopentane, plastic cryst., macroscopic anisotropy, Raman light scatt. 2−93177
neopentane, vapour, collision induced light scatt. 2−103279
neutral red, soln. anti-Stokes fluoresc., shift investig. 2−96620
nickel diglycine dihydrate, antiferromag., mag. susceptibility study, 0.6 to 120K 2−77272
nickel diglycine dihydrate, antiferromag., sp. ht. meas., 0.5 to 10K 2−77294
nickel malonate in water-glycerine solns., kinetics of complexation 2−105444
nitritomethane, rotational isomers, ab initio mol. orbital calc. 2−75177

organic compounds continued
nitro-aromatic amines, polar, shake-up satellites in nitro N 1s spectra 2—96638
nitroalkanes in dil. solns., permittivity and dielectric relax. times 2—72411
m-nitroaniline, electro-optic cryst., anharmonicity of vibrs. 2—67044
p-nitroaniline, protonation consts., spectrophotometric determ. 2—111489
p-nitroaniline, solns. and cryst., Fermi resonance, IR study 2—57103
m-nitroaniline crystal, polarised IR and Raman spectroscopic study, lattice vibrs. 2—87775
nitrobenzalaniline, XPS, EHT calcs., electronic struct. 2—54895
nitrobenzene, adsorbed on Ni (111), surface Raman spectra without surface enhancement obs. 2—77504
nitrobenzene, liq., ^{14}N quadrupole coupling tensor, NMR study 2—56966
nitrobenzene, liq., depolarised Rayleigh light scatt., translational to rot. coupling parameters 2—72513
nitrobenzene, liq., mol. alignment, electric saturation, NMR study 2—56947
nitrobenzene, photoelectron angular distrib. and PES assignments 2—102531
nitrobenzene, photoexcited, average internal energy, source temp. effect 2—116710
nitrobenzene on Ni(111), surface Raman spectroscopy without enhancement 2—67061
nitrobenzene-acetonitrile liq. mixtures, quadrupolar and dipolar elec. field effects 2—66922
nitrobenzene-cyclohexylamine, binary mixtures, compressibilities, US study 2—61049
nitrobenzene-ethylene carbonate liq. mixtures, quadrupolar and dipolar elec. field effects 2—66922
nitrobenzene-isooctane mixtures, dielectric const. anomaly near consolute point 2—87649
4-nitrobenzoic acid-phenolate, H-bonded complex, ^1H transfer, PMR and IR obs. 2—80602
nitrobenzoyloxybenzoate of octylphenyl, thermotropic smectic phase made of ribbons 2—76280
ortho-nitrobenzylarenes, relaxation processes and photochemical form. 2—57621
nitrocellulose-nitroglycerin solid fuel based gasdynamic laser 2—96963
nitroethane+3-methylpentane mixt., thermally excited capillary waves, light scatt. spectroscopy 2—75982
5-nitrofuran derivatives, radical anion electronic struct., EPR, electronic absorpt., and INDO calc. 2—96606
nitrogenzene, liq., laser-induced breakdown, self-focusing and spot-size depend. 2—65320
nitroimidazoles, halogenated, aq. soln., formation of halide ion on one-electron reduction, radiolytic study 2—83395
2-nitromalonaldehyde-d_0(-d_1), H^+ tunnelling and nitro group torsion 2—96548
nitromethane, CH stretching IR and Raman spectra, internal rot. 2—80616
nitromethane, gas phase, picosecond UV photolysis and laser induced fluoresc. probing 2—105494
nitromethane, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2—110874
nitromethane, photoelectron angular distrib. and PES assignments 2—102531
nitromethane, polar molecules in solid inert gas matrices, mol. motion, far IR Fourier spectroscopy 2—93193
nitromethane optically pumped submm. laser, 311-1070 μ range 2—55134
nitromethane-d_0(-d_3), tunnel states and splitting meas. 2—60894
nitromethane/CS_2 binary mixture, crit. anomaly induced by selectively adsorbing wall 2—61120
p-nitrophenol-donor systems, proton transfer and H-bonds, spectroscopic studies 2—70370
4-nitrophenyl-4′-octyloxybenzoate, liq. cryst. phase transitions, high press. effects 2—76672
4-nitrophenyl-4′-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2—61136
nitrosoacetylene, struct. calc. by ab initio SCF and GVB calcs., consts. rel to IR, microwave and visible spectra 2—59698
nitrosobenzene and cholesterol reaction, EPR obs. 2—111464
nitrosobenzenes, stereospecificity of ^{15}N-^{13}C coupling consts. and chem. shifts in ^{13}C NMR spectra 2—96600
nitrosomethane, HeI photoelectron spectra, shake-up satellites 2—108621
nitrosylhalides, halogens effect on bond props. 2—102659
o-nitrotoluene-n-paraffin mixtures, critical conc. and points 2—81943
nitroxide radical, collisional spin exchange, EPR line broadening 2—114021
nitroxide radicals, diastereomeric, prod. by spin trapping, ESR and ENDOR obs. 2—108584
nitroxide spin probes, hyperfine coupling consts. in H_2O and CCl_4 2—54874
nitroxides, visible spectra, solvent effects and N hyperfine splitting consts. 2—114012
nitroxyl radicals, hyperfine splitting consts., g-factors pH effect on EPR spectra 2—108585
non-rigid molecules, symmetry, isotopic substitution effects *(Russian)* 2—85833
nonacarbonyl-μ_3-chloromethylidyne-tri-μ-hydrid.-triangulo-trimitherium, cryst. struct. 2—76411
nonafluorobutyl radical generation by IR multiphoton dissoc. of nonafluorobutylbromide 2—116716
nonafluorobutylbromide IR multiphoton dissoc., nonafluorobutyl radical generation 2—116716
nonalternate hydrocarbons, individual Kekule valence structs., graph theoretical approach 2—80488
n-nonane, thermal cond. meas., density depend. 2—92294
4-nonanoate 4′-cyanobiphenyl, bilayer S_A phase, tilted monolayer cybotactic groups evidence 2—55842
4-nonanoate-4′-cyanobiphenyl, dielec. relax. meas. in liq. cryst. phases 2—104810
nonanoic acid, liq., ultrasonic relax., temp. effects 2—103910
nonbenzoid hydrocarbons, individual Kekule valence structs., graph theoretical approach 2—80488
nonbiological molecules in Jupiter, Saturn and Titan atmospheres 2—100812
noncentrosymmetric compounds, powders, Nd laser SHG 2—114375
nonilamine, intercalation of PbI_2, effect on charge transfer and luminesc. *(Russian)* 2—61975
nonionic surfactants, struct. and solubilisation props. 2—93829

organic compounds continued
p-n-nonlyhydroxybenzoic acid, smectic C-phase, elec. cond. and electro-optical effects 2—56234
nonpolar liquids, permittivity, elec. field effects 2—82768
4-nonyloxylphenyl-4-nitrobenzoyloxybenzoate, reentrant nematic and smectic phases *(French)* 2—92195
norbornadiene, partially oriented NMR spectrum, nonplanarity of olefinic bonds 2—90574
norcaradiene, valence isomerisation of cycloheptatriene, conformation effects, MINDO/3 calcs. 2—111461
norsesquilerpenoid lactone, cryst. struct. determ. *(Chinese)* 2—109775
nucleic acid bases adsorbed on Ag electrode, surface enhanced Raman spectra 2—72485
nucleic acid components, excited-state props. 2—99899
nucleic acid constituents, photochemistry, ESR and spin-trapping investig. 2—111624
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2—78288
nucleotide metal ion complexes, binary and ternary, ^1H-NMR shift studies 2—108581
nucleotides, aq. solns., study by NMR method using a lanthanide shift reagent 2—111814
nucleotides, cellular bioenergetic processes, ^{31}P NMR chemical shift 2—90579
o-terphenyl, glass form., transient nucleation in non-isothermal crystn. 2—109685
6OCB-8OCB, reentrant nematic phase, ^1H spin relax., freq. depend. 2—93033
4-n-octadecylphenol Langmuir films on Cu, surface EM wave versus IR refl.-absorpt. spectroscopy 2—110964
octafluoronaphthalene, coupling consts., ^{19}F NMR study 2—90581
n-octane, collision with SiO_2 surface, vibr. energy transfer, mass spectrosc. obs. 2—114082
n-octane ion produced by low energy electron impact ionisation, mass spectra meas. 2—96748
octatetraene, nuclear spin-spin coupling calcs., π-electron contributions 2—80654
octyl-cyano-byphenyl liq. cryst., light spot finite size influence on laser induced reorientation 2—76283
4-n-octyloxy-4′-cyanobiphenyl, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2—60881
4′-n-octyloxy-4-cyanobiphenyl, piezothermal studies in vicinity of smectic A-nematic transition 2—61133
N-p-octyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2—103601
octyloxycyanobiphenyl, nematic, surface smectic A order, synchrotron X-ray diffr. study 2—71341
oil colour fluorescence, laser induced, oil painting pigment identification 2—99165
olefin-HCl complex, H-bonds, underdamped anharmonic stochastic oscill., IR obs. 2—85646
olefinic alcohols radicals, EPR study 2—77376
olefins, catalytic hydrogenation by Pd complex, MO calcs. 2—83378
one-dimensional conductors and superconductors, review 2—115734
organic compounds, bond order, charge densities from ab initio mol. wavefunctions 2—64844
organic-inorganic intercalation cpds., low dimensional, photopolymerization 2—92584
organogermanium compounds diamag. susceptibilities, semiempirical calc. 2—82561
organoselenium compound reactions, appl. to isolation and obs. of short-lived Se fission products 2—75449
organoselenium cpds. with C=Se double bonds, ^{77}Se NMR 2—65006
organosilicone films, plasma polymerised optical props. 2—87880
organosiloxanes, intermolecular distances and mol. environment in cryst. state 2—97987
overlayers on reflective substrates, surface emission Fourier transform IR spectra obs. 2—116225
1,3,4- oxadiazoline-2-imine, 3,5-distributed, UV, visible and fluoresc. spectra *(German)* 2—90566
oxalic acid, constant relating total mol. energy to sum of valence eigenvalues, CNDO and INDO methods 2—75188
oxalyl chlorofluoride, cryst. and fluid states, vibr., conformation, Raman and IR study 2—75275
oxamide, Raman active internal and external modes, vibr. 2—82847
oxazine 725, two-photon absorpt. cross-section meas. at 1.06 μm 2—54908
oxazine 750 CW dye laser, broadly tunable near IR, using propylene carbonate solv ent 2—55140
oxazine-17, electronic energy transfer from excited rhodamine mol., lasing efficiency 2—114263
3-oxetanone equilibr. geometry, ab initio SCF calcs. 2—85527
oxo-2-pyrimidinium chloride, cryst. and aq. soln., IR and Raman spectra *(French)* 2—77533
oxo-compounds, unsaturated, ionisation, hole-mixing effects 2—59857
oxo-hexa-acetato-tetraberyllium (II)-d_0 (d_{18}), vibr., Raman and IR obs. 2—54845
oxo-hexa-acetato-tetrazinc (II), vibr., Raman and IR obs. 2—54845
oxo-hexa-formato-tetraberyllium (II), vibr., Raman and IR obs. 2—54845
oxo-hexa-propionato-tetrazinc (II), vibr., Raman and IR obs. 2—54845
2-oxo-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2—96775
20-oxopregnase hormones, configs., PCILO calcs. 2—102387
2-oxopyrrolidin-1-ylacetamide, ab initio molecular energies and dipole moment anal. 2—70135
PAA, amorphous and cryst. phases, vibr. density of states 2—56141
parachloroaniline, Fermi reson. in ND_2 stretching vibr. region 2—85666
parachlorophenoxy acetic acid, wide-time NMR studies 2—110653
[2.2]paracyclophanes-electron acceptor, charge-transfer complex, solvent and struct. effects on stability and form. 2—108550
n-paraffin, aliphatic hydrocarbon, and its adducts, crystn. and lattice resoln. 2—65820
paraffin wax solidification fouling from kerosene soln. 2—92163
paraffin-acetonitrile-ethanol (methanol), liq.-liq. equilibr. study 2—103971
paraffins, electron irradiated, radiation induced phase transition 2—115290
paraffins, iodised, acoustic props. *(Russian)* 2—92111
paraffins, melting, two dimens. dislocation theory 2—103959
n-paraffins-CO_2, Peng-Robinson equation of state, interaction parame ters determ. 2—66160
paraphenylenes, electronic struct., ab initio interpretation of XPS data 2—90444

organic compounds continued
paraquat dimer mols., electrochem. behaviour, bielectronic mediation appls. 2−85802
PCBs in tidal sediments of Hudson River 2−62509
PCH-1132, dielec. props. in liq. cryst. 2−104794
pentacene, isolated, out of plane vibrations 2−75240
pentacene, two particle exciton phonon excitations, structural disorder effects 2−109918
pentacene films, elec. field modulated spectra 2−67078
pentacene in benzoic acid, optical dephasing, optical absorpt. and picosecond photon echo expt. 2−70626
pentacene in naphthalene mixed crysts. reson. Raman scatt. study of vibr. dephasing 2−77500
pentacene molecules in crystals, photon echo expts., optical dephasing due to virtual transfer of excitation energy 2−108976
pentacene-benzoic acid mixed crystal, antihole prod., hole burning, fluoresc. study 2−108973
pentachloroethyl-1-imino-1-chloro-2-trichloroethane, intracrystalline dynamics, ^{35}Cl NQR study 2−98993
pentachloronitrobenzene monocrystal 10 GHz dielectric absorption and anisotropic permittivity obs. *(Japanese)* 2−72420
pentachlorophenolamine complexes, dipole moments, IR and UV spectra, solvent and temp. effects 2−80589
pentacosan, elastic props. and phase transitions 2−92078
cis-1,3-pentadiene, valence excited states, electron impact spectra 2−85734
pentaerythritol tetranitrate cryst., γ-irradiated, plane shock initiation 2−78108
pentafluoroaniline, Fermi reson. in ND_2 stretching vibr. region 2−85666
pentafluorobenz, centrifugal distortion constants from pure rotational spectrum 2−80583
pentafluorobenzene, laser induced fluoresc. obs. 2−75346
pentafluorobenzene, picosecond IR double reson. 2−59830
pentafluorobenzene vapour, vibr. deactivation 2−59913
pentafluoroethane-T, isotope separation of tritium by CO_2-laser multiphoton dissoc. 2−96754
pentafluoroiodoethane, collisional enhancement of $I(5^2P_{1/2})$ emission at 1.3 μm 2−59739
pentamethylchlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
pentane adsorpt. and bonding on Pt(111) cryst. surface, O treatment and D preadsorpt. effects 2−71793
pentane to nonane, depolarised Rayleigh spectroscopy 2−80628
pentane-isopentane (1:1), high press. solidification, meas. by manganin press. gauge 2−89735
1,5- and 2,4-pentanediol, viscoelastic liqs., struct. relax., Brillouin light scatt. 2−72514
pentanoic acid, ionised, single and double H-rearrangements involving β-bond cleavage studied using field ionisation 2−105456
pentasodium trans-tetracyanodisulphitocobaltate (III) tridecahydrate, cryst. struct. 2−76410
pentatriacontane, adsorpt. on 100 face of alkali halides, SCF Mo simulation *(French)* 2−76809
pentaziridinocyclodiphosphathiazene $(NPAz_2)_2NSOAz$, $(Az=NC_2H_4)$, Raman and IR studies 2−114002
1-pentene, photo-induced isomerisation, Fourier transform IR spectroscopy obs. 2−116708
n-pentyl 4-[4′-n-dodecyloxybenzylideneamino] cinnamate, smectic phase classification, smectic I phases 2−61137
4-pentyl-4′-cyanobiphenyl nematic liq. crysts., boundary layer phase transition 2−109988
4-n-pentyl-d_{11}-4′-cyanobiphenyl liq. cryst., orientational ordering at high press. NMR 2−89779
p-n-pentyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
n-pentylbenzene, photoexcited, average internal energy, source temp. effect 2−116710
4′-N-p-pentyloxycarbonyloxy-benzylidene amino velerophenone, order parameters and distrib. function in smectic A phase, X-ray diffr. study 2−103606
4-n-pentyloxyphenyl-4′-n-decycloxybenzoate, liq. cryst. phase transitions, high press. effects 2−76672
peptide-ion model complexes, charge transfer, induced polarisation 2−73183
peptides, aq. solns., proton connectivities investig. 2−80668
peptides, functional group spectroscopy using Fourier transform IR absorbance subtraction 2−116882
peptides, H^+ transfer energies and electrostatic lattice energies, CNDO/2 and ab initio SCF calcs. 2−78079
peptides, molecular size and confirmation 2−99880
perchloroethane, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
perchloroethylene, cryst., mol. reorientation and ^{35}Cl NQR 2−110698
perfluoro methylene imine, microwave spectrum, rot. consts. 2−70232
perfluoro-n-alkanes, low freq. Raman spectra, struct. of chain mols. 2−72475
perfluoroalkane, FC104, index-matching fluids, high intensity transmission props. 2−102866
perfluorocarbon, use in O_2 and CO_2 transport, STO-3G calcs. 2−88527
perfluorocarbon gas dielectrics fragmentation under low energy electron impact 2−103272
perfluorocarbons, exotic tracers for atmospheric studies 2−94507
n-perfluorohexane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
perfluoromethylamines, mol. struct., electron diffr. and microwave spectra, normal coordinate anal. 2−90701
n-perfluorooctane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
perfluoropyridine cation, in Ne matrix, optical absorpt. spectrum 2−108541
perinaphtho-thioindigoid dyes, photoisomerisation, flash photolysis study 2−99649
peroxylamindisulphonate radical, rot. dynamics in alcohol solvents, EPR study 2−77374
perylene, adsorbed on silver hydrozole, giant Raman scatt. *(Russian)* 2−57099
α-perylene, luminescence and exciton lattice interaction 2−87840
β-perylene, luminescence study of exciton self-trapping 2−93246
α,β-perylene, optical absorpt., exciton-lattice interaction 2−87809
$(perylene)_2(AsF_6)_{0.75}(PF_6)_{0.35}$.(dichloroethylene)$_{0.85}$ conductivity, EPR and reflectance 2−92578
organic compounds continued
$(perylene)_2(AsF_6)_{1.1}\times0.7$ dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
$(perylene)_2(PF_6)_{1.1}$0.8 CH_2Cl_2 and AsF_6 analogue, X-ray struct. determ. 2−91944
$(perylene)_2(PF_6)_{1.1}\times0.8$ dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
$(perylene)_2AsF_6$, PF_6, polarisability and absorpt. tensor orientation 2−87810
$(perylene)_3TCNQ$, single cryst. Raman spectra, temp. depend., isotope effects 2−72470
perylene dye vapors, cataphoresis and dissociation in DC glow discharge positive column 2−91692
perylene films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
perylene molecules in cadmium arachidate Langmuir film, amorphous, phonon-induced fluoresc. changes 2−54893
perylene red mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
perylene red vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
perylene-chloranil complex, dielec. props., hopping cond. 2−72417
3,4,9,10-perylenetetracarboxylic dianhydride, Elovich photovoltage decay kinetics 2−98696
3,4,9,10-perylenetetracarboxylic dianhydride-Si contact barrier devices, elec. characts. 2−92758
petroleum hydrocarbons in the Arctic ocean surface water 2−93952
pharmaceuticals, trace anal. by combined liq. chromatography/desorpt. mass spectrometry 2−99731
phenacite, fast neutron irrad., surface damage obs. 2−81830
phenanthrene, photoluminesc., vibronic peaks, effect of grinding 2−104940
phenanthrene, variable wave vector second harmonic generation, Davydov components 2−75628
phenazine in fluorene crystal, photoexcited triplet state, NQR, electron spin-echo detection 2−102497
α-phenazine single crysts., pulsed dye laser induced photocond. 2−104422
phenobarbital, H bonds, IR and Raman study 2−54850
phenol, electronic and mol. struct., protonation, MINDO/3 study 2−102391
phenol, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2−97691
phenol, struct., rot. barriers, STO-3G MO calcs. 2−108350
phenol in aqueous soln., experimental determination at various temps. of US velocity 2−56093
phenol in n-heptane-paraffin oil soln., relaxation behaviour 2−82780
phenol vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
phenol-carbon tetrachloride, mol. interactions, US study 2−61067
phenol-$d_0(d_1)$, isotope effects, H bonds, line shifts, vibr. spectra 2−64952
phenol-formaldehyde, 2nd order condensation, signal averaging, Varytemp NMR investig. 2−85698
phenolic H^+ chemical shift, high dilution meas., correl. with electronic charge calc. by CNDO/2 method 2−75326
phenolic wastewater, purification by parametric pumping, nonequilib. dead volume model 2−83526
phenols, H bonded, dispersed fluoresc. spectra in supersonic free jet 2−108610
phenols, low temperature dielectric relaxation spectroscopy 2−82777
phenoxazone 9, ultrafast dichroism meas. using ultrafast polarisation spectroscopy 2−102515
phenoxy, radical, resonance Raman spectra 2−70263
phenoxy monosubstituted radicals, resonance Raman spectra 2−70263
2-phenoxy-γ-butyrolactone, struct., stereochemistry 2−96764
phenoxy-$d_0(d_5)$, aq. radicals, solvent effects, resonance Raman obs. 2−70254
phenoxyl radical, Raman spectrum in stopped-flow expts. 2−80627
phenyl alkyne cations, Ar matrix isolated vibr., visible UV obs. 2−108544
phenyl benzoate, specific acoustic resist., reflection method meas. 2−109908
phenyl cation, gas phase ion struct. anal. by chemical methods 2−54736
phenyl nitrenes, spectral and photochem. props. 2−70318
phenyl penicillins, conformational energy calcs. 2−116872
phenyl salicylate, specific acoustic resist., reflection method meas. 2−109908
1-phenyl-1-propyne, Ar matrix isolated, two-colour resonance photoionisation 2−85751
phenyl-S bonds, substituent effects transmission CNDO/C calcs. 2−90459
phenylacetyl iodide, cryst. struct. study *(French)* 2−76407
phenylacetylene, charge transfer states, two-photon obs., INDO/S calcs. 2−70366
phenylacetylene, half-hydrogenation with Pd supported on vitreous materials, chem. comp. effects 2−78138
phenylamines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylarsines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylbenzoates, substituted, conform. anal., NDDO calc. 2−59961
p-phenylene di-p-substituted benzoates, esteramide analogues, thermotropic liq. cryst. behaviour 2−60875
1-phenylethanol, in MBBA liq. cryst., orientation, D NMR 2−80663
1-phenylgermatrane-3-one, X-ray struct. anal. and NMR spectra 2−96766
1-phenylphosphaethyne, microwave spectra, bond length determ. 2−85641
phenylphosphines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylthioacetic acids, substituted, ^1H NMR spectra, substituent effects 2−65009
pheophytin a anion radical, liq. soln., hyperfine coupling, ENDOR and TRIPLE resons. obs. 2−108589
phosphamide congeners of nitrogen mustards, electron distrib., pulsed ^{14}N NQR investig. 2−108592
phosphates, inorganic and organic, natural abundance ^{17}O NMR spectra 2−75319
phosphoalkynes detection using microwave spectroscopy 2−70231
phospholipid bilayer membranes, hydration, free energy, enthalpy and entropy determ. 2−116685
phospholipid multilayers, oriented, ^{31}P NMR obs. 2−94000
phospholipids, synthetic Langmuir films, elec. props. meas. 2−72092
phosphoranyl radical anion, EPR-spectra 2−61769
photochemical reactions carried out to study organic compounds transformations under N_2-laser irrad. 2−57622

organic compounds continued
photoconductors, carrier generation and elec. field induced fluorescence quenching 2−67108
phthalic acid, photoluminesc., vibronic peaks, effect of grinding 2−104940
phthalic anhydride cryst., mixing of states and two-particle excitations *(Russian)* 2−104892
phthalimide, substituted, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041
phthalocyanine, β-metal free single cryst., TSC 2−77085
phthalocyanine, free base, in normal alkane matrices, laser fluoresc. and excitation spectra 2−96614
phthalocyanine, metal-free, films, Raman spectra study 2−99119
phthalocyanine, x-metal free, electric field induced fluoresc. quenching and photocarrier generation 2−61946
phthalocyanine cathodes for secondary Li cells, charge and discharge characts. 2−57690
phthalocyanine complexes, organic semicond., dark cond., o-chloranile doping effects 2−71977
phthalocyanine films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
phthalocyanine films, on Ag, enhanced Raman scattering 2−87778
phthalocyanine films, visible and near UV absorpt. spectra, metal atom effect 2−99201
phthalocyanine molecules, vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
phthalocyanine molecules coated on In films, luminesc. and transmittance meas. 2−85731
phthalocyanine mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
phthalocyanine polycrystalline film, photoelectrochem. solar energy conversion 2−99815
phthalocyanine thin films, cryst. defect orientations and growth mechanism 2−82151
phthalocyanine thin films, metal-free, dispersive electron and hole transports 2−66677
phthalocyanine thin films, metal-free, photocond. and photovoltaic effects 2−72023
phthalocyanines, EPR study of paramagnetism 2−82697
phthalocyanins, micellar solns., photoelectrochem. hydrogen prod. 2−73128
2-phthalonyl-4H-3, 1-benzoxazin-4-one, IR spectra, solvent effects, mol. struct. 2−54844
phycobilins in red algae, low-temp. delayed fluoresc. 2−111640
phycobilisomes, reversible changes in fluoresc. and absorpt. on exposure to light 2−57791
pinacyanol iodide, internal-conversion, fluoresc. lifetime temp. depend. meas. 2−108601
pinenes, matrix-isolated, vibr. circular dichroism 2−80696
piperazinium bis(n-alkanoates), synthesis and cryst. data *(French)* 2−81771
piperdine, intercalation of PbI_2, effect on charge transfer and luminesc. *(Russian)* 2−61975
pivalonitride, solns., dielec. polarisation and nonlinear dielectric effect 2−110747
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2−54855
pleochroic dyes, solubility in nematic phases 2−104000
PMR, wide-line second moment, group geometry anal. 2−103571
podacarpic acid derivatives, mol. motion. rot. barriers, ^{13}C NMR relax. 2−96595
polar dye solns., nanosec. time-resolved fluoresc. spectra, kinetics 2−75350
polar molecules in inert gas matrices, far-IR Fourier transform spectroscopy obs. of mol. motion 2−113977
pollutants in Northern Hemisphere stratosphere, 1974-9 trends 2−111598
poly(α-L-glutamic acid) in N,N-dimethylformamide, electrooptical props. and conformation, electric birefringence study 2−80856
poly-DL-alanine, adsorpt. at Hg-soln. interface 2−71790
polyacenes, linear, electronic struct. calc. using SCF-RPA method 2−108375
polyacenes, linear mols., ionisation pot., topological resonance energy 2−64870
polyacetylene:pristine, struct., electron diffr. study 2−86588
polyacetylene, isomerisation and disorder induced by doping 2−99670
polyamide liquid crystals, thermotropic, and analogous small mol. diamides 2−103609
polyamines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
polycrystalline p-hydroxybenzaldehyde, dielectric absorption in low-ultralow frequency region, protons dynamical behaviour along chain of H bond *(Japanese)* 2−116108
polycyclic aromatic cpds., NMR using binuclear shift reagents 2−114014
polycyclic transannular diene systems, lifetimes of π-perturbation investigated using time depend. perturbation theory 2−75138
polydiacetylene model systems, excited states correl. effects 2−80493
polydimethylsiloxane-diethyl carbonate, liq. mixture, phase separation, light scatt. study 2−98260
polydimethylsiloxane-diethyl carbonate crit. mixt., phase separation 2−81967
polydimethylsiloxanes, performance as damping fluids 2−115323
polyene systems, intermediate states, two-photon spectra 2−90639
polyenes, finite, correl. states, exact PPP results 2−75190
polyenes, induced moments, polarisabilities and second hyperpolarisabilities calcs. 2−108402
polyenes, infinite, RHF singlet ground state instabilities, PPP calcs. 2−102392
polyenes, infinite, RHF triplet ground state instabilities, PPP calcs. 2−102393
polyenes, linear electron correl., electron SPA 2−96443
polyenes, solute electron correlation energy, environment effects, UV spectral shifts calc. 2−90460
polyethylene, thermally stimulated depolarisation spectrum 2−79561
polyethylene glycol, mechanism of retarding action on super-additive development *(Russian)* 2−74549
polyimides with complex dianhydride fragments, conformational struct. and relative packing 2−75145
polylactide, thermodynamic props. *(Russian)* 2−111510
polymerised Fe^{3+} acetylacetonate, mag. props. 2−104572
polymethine dyes, fast photoisomerisation process, double valley pot. model 2−99654
polymethine dyes, vibronic fluoresc. spectra fine struct. 2−114037
organic compounds continued
polymethylmethacrylate, thermally stimulated depolarisation spectrum 2−79561
polymorphic modifications, H-bonds 2−97988
polypeptide liquid crystal, cholesteric, microscopic model 2−55838
polypeptide solutions, lyotropic cholesteric phase, statistical theory 2−81661
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
polyquinocycloalkanes, MCD spectra and electronic spectra 2−80582
POPOP dye vapors, cataphoresis and dissociation in DC glow discharge positive column 2−91692
POPOP liquid dye solution electroluminesc. in waveguide cell 2−82924
POPOP vapour excitation efficiency by wide-band flashlamp radiation 2−65047
POPOP vapour laser, ether mixture use for efficiency higher than 22% 2−55141
POPOP vapour phase dye lasers in visible range 2−75565
POPOP-PPO mixture, scintillator for autoradiography of plant cells 2−57945
porous oxalate, behaviour in high vac. of XPS spectrometer 2−99739
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2−67755
porphin in n-decane host, optical dephasing of S_1-S_0 transition studied by photochemical hole-burning 2−72531
porphine, free base, isomer ground and excited state calcs. 2−113890
porphines, free base, H^+ migration dynamics, tautomerisation 2−88351
porphyrin, biogenous, solid solns., luminesc. study 2−67952
porphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
porphyrin complexes, with group IV transition metals, picosecond spectroscopy 2−99154
porphyrins, energy states, spectroscopy study, mol. biology 2−62560
porphyrins, etio-, corpo- and meso-, fine-struct. luminesc. on selective laser excitation 2−111619
porphyrins, triplet state population, fluoresc. obs. 2−75349
porphyrins, triplet state quenching by O_2 2−114036
Possibility of controlling the process of transformation of chloranil *(Russian)* 2−58963
potassium and phthalate single cryst., elasto-optic behaviour 2−93151
potassium biphthalate certification by coulometric tritation with current monitor 2−62446
potassium deuterium furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2−67056
potassium hydrogen furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2−67056
potassium hydrogen glutarate, γ-irradiated, single cryst., ENDOR study of allyl type free radical 2−56975
potassium hydrogen maleate:Cu^{2+}, EPR and optical absorpt. spectra, spin Hamiltonian parameters 2−98948
potassium tris (oxaloto) cobalt (III), neutron irrad., oscill. effects in annealing 2−56042
PPO-POPOP scintillator multicomponent soln., tuning range enlargement *(Chinese)* 2−60072
praseodymium ethylsulphate, crystal field splittings by polarisable ligands 2−92539
progesterone, single cryst., γ-irrad., stable free radical, EPR 2−70303
prolate mols., rot. motion in soln., luminesc. study 2−104966
prolyl residues, struct. charcts., review 2−73189
propane, adsorption and reaction on Ir(110), mass spectroscopy study 2−67764
propane, adsorption on quartz, influence of adsorbed water *(Japanese)* 2−61281
propane, coadsorption with H_2 on Pt thin film, surface pot. meas. 2−92353
propane, collision induced dissoc., metastable ions, mass spectra 2−96749
propane, gas phase thermal diffusivities by a thermal lens technique 2−91576
propane, stopping cross-sections for α-particles in the energy region 0.3 to 5.5 MeV 2−60715
propane+NH, insertion and fragmentation products, press. depend. 2−83352
propane highly sooting atmospheric flame, laser-induced OH fluoresc. spatially resolved with diode array detector 2−65031
propane ion, C skeletal rearrangement, obtained by photoelectron-coincident photoion mass spectrometry 2−72972
propane-d_6, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
propane-like molecules, external force field, mol. dynamics simulation 2−81656
1,3-propanediol, gas phase electron diffr., mol. struct., H-bonds 2−96734
propaneoate, unstable radical, struct. and environment, ENDOR spectra 2−70305
propaneoate radical, environment in X-irrad. L-alanine crystal, ENDOR spectra 2−70304
2-propanol, protonated dimer, multiphoton dissoc., mass anal. 2−80742
propanol, triplet state, isomerism, geometry, STO calcs. 2−85525
2-propanol mixtures, cluster formation 2−55001
propanol-Ar vapour-gas mixture, thermal cond. *(Russian)* 2−55693
propanol-decanol mixtures, dielec. relax., time-domain spectrosc. obs. *(French)* 2−99028
1-propanol-water mixtures, cluster formation 2−55001
propargyl cation, gas phase ion struct. anal. by chemical methods 2−54736
2-propenal, and derivatives, XPS 2−90623
2-propenamide, XPS 2−90623
propene, gas phase thermal diffusivities by a thermal lens technique 2−91576
propene, ground and triplet state, isomerism, geometry, STO calcs. 2−85525
propenol, triplet state, isomerism, geometry, STO calcs. 2−85525
propenyl cation, ion mobility in methane gas 2−81440
propiolic acid, ionisation, hole-mixing effects 2−59857
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propiolyl halides, thermodynamic properties calcs., 100-1500K 2−109446
propionamide, gamma irrad., EPR spectra obs. 2−56938
propionic acid dimer, intermol. interactions, PCILO and INDO calcs. 2−75186
propionic acid/tri-n-butylamine system, permittivity and viscosity meas. 2−72409

organic compounds continued
propionitrile, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
propyl cation, ion mobility in methane gas 2−81440
n-propylbenzene, photoexcited, average internal energy, source temp. effect 2−116710
propylene, adsorbed on Rh (111), LEED study 2−76825
propylene, nonadiabatic coupling between low lying singlet states, geometrical relax., ab initio CI calcs. 2−96466
propylene, potential-energy and dipole moment surfaces 2−102410
propylene, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
propylene adsorption on Pt (111), surface structs., LEED study 2−71804
propylene carbonate, high field conduction, electrostatic generator appl. 2−98320
1,2-propylene glycol:Cr^{3}, dynamic proton polarisation 2−116065
propylene oxide, primary decomposition to singlet methylene, laser-induced fluoresc. obs. 2−108647
propylene oxide, torsional vibrs., Raman intensity calcs. 2−96577
propylene oxide-maleic anhydride oligoesters, struct. isomers and compositional sequences, ^{13}C NMR *(Russian)* 2−75327
propylene-Kr liquid mixture, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
propylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
propynal, ionisation, hole-mixing effects 2−59857
propynal, near reson. vibr.-vibr. energy transfer under single collision conditions 2−85762
propynal, nonradiative relax., fluoresc. and phosphoresc. 2−104933
propynal and its deuterated compounds, deactivation of $S_1(nT^*)$ state, fluoresc. lifetimes 2−70317
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
propyne, chemisorpt. on Fe(110) and Fe(100) surfaces, decomposition, UPS 2−62427
propyne-acetone, vibr. relax., Raman band shapes 2−90555
propyne-d_1(-d_3), beam maser spectrosc. 2−90521
propynol, ionisation, hole-mixing effects 2−59857
protein constituents, photochemistry, ESR and spin-trapping investig. 2−111624
protochlorophyllid pigment complex, energy migration 2−111621
pseudoisocyanine chloride, photobleaching, ultrafast transient processes of monomers, dimers and aggregates 2−83393
pseudoisocyanine iodide photoisomers form., picosecond time resolved kinetic studies, quantum yield 2−72991
pseudoisocyanine monomers and J-aggregates in aqs. soln., picosecond kinetics and transient spectra 2−70272
pteridines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2−108378
pTS, monomer diacetylene, incommensurate-commensurate phase transition, Raman study 2−71631
pumping fluids, technology and appls. 2−79597
purine 2′-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
purines+phenylalanine, collision complexes, ^1H NMR spectra 2−57591
purity determ. using cryoscopic instrument, chromatography and spectrometry appl. 2−57659
PVC:lead stearate, dielec. relax., thermally stimulated depolarisation current anal. 2−72414
pyranthrone/dodecane (HMPA) interface, elec. field assisted photostimulated charge transfer 2−104420
pyrazine, $^1B_{3u}(n\pi^*)$ state, intermediate level struct., quantum beats, electronic relax. 2−59785
pyrazine, cryogenic soln., mol. aggregates, IR study 2−67031
pyrazine, jet-coded, quantum beats, fluoresc. obs. 2−59846
pyrazine, jet-cooled, picosecond excitation, fluoresc. decay and quantum beats, mag. field effects 2−90601
pyrazine, r_0 struct., ab initio gradient method 2−85529
pyrazine adsorbed on Ag(111), electron energy loss studies 2−87032
pyrazine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
pyrazine on Ag (111) and Ni surface, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 Å 2−102523
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2−59842
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2−108606
pyrene, excited monomer and excimer fluoresc. meas., simultaneous energy transfer 2−108617
pyrene, excited singlet and excimer states, absorpt. bands 2−102462
pyrene, fluoresc. quenching by tertiary alkylamine in cholesteric solvent 2−65036
pyrene, intersystem crossing, temp. depend. 2−102545
pyrene doped polystyrene film, thermally stimulated discharge current spectra meas. 2−72408
pyrene in polar solvents, IR intensity enhancement induced by solute-solvent interaction 2−75287
pyrene in soln., vacuum UV absorpt. spectra 2−85688
pyrene-biphenyl, mixed cryst., triplet exciton fusion, luminesc. study 2−110913
pyrene-d_{10}, mol. motion, ^2H NMR study 2−98969
pyrene-d_{10}-dinitrochlorobenzene, mol. motion, ^2H NMR study 2−98969
pyrene-d-10 in fluorene single cryst., EPR lines and spin-lattice relax. 2−77357
pyrene-dimethylaniline, donor to radical pair electron transfer, triplet form., delayed fluoresc. obs. 2−85720
pyridene molecules adsorbed on Ag surface, giant Raman effect 2−67062
pyridine, 2-D C^{13} NMR spectrum *(Chinese)* 2−69211
pyridine, absorbed on Ag, surface enhanced Raman scatt., role of direct surface interaction 2−77537
pyridine, adsorbed mols. on Ag-Cu electrode, surface enhanced Raman scatt. 2−99131
pyridine, adsorbed on Ag, surface enhanced Raman scatt. 2−82859
pyridine, adsorbed on Ag film, mol. charge transfer excitation, EELS obs. 2−62027
pyridine, adsorbed on Ag particles, vibr., enhanced Raman effect study 2−80631
pyridine, adsorbed on Ag-Au, surface enhanced Raman effect, role of electron scatt. 2−61907
pyridine, adsorbed on Pt, surface enhanced Raman scatt. induced by Ag adatoms 2−110871
pyridine, appearance pots., breakdown curves and metastable peak shapes, time depend. mass spectra 2−90515
organic compounds continued
pyridine, heteroatom n-electrons effects on optical props. 2−113907
pyridine, highly polar liquid, far IR absorpt. spectra, internal field correction 2−61899
pyridine, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
pyridine, IR laser stimulated desorpt. from KCl surfaces 2−76807
pyridine, on surface of laminar silicates, interaction, optical electronic spectrosc. 2−54868
pyridine, r_0 struct., ab initio gradient method 2−85529
pyridine, resonantly stimulated desorption from Ag surfaces, by polarised IR laser radiation 2−104149
pyridine, soln. dielec. props. and viscoelasticity 2−110758
pyridine, triplet state, dynamical spectroscopy 2−102524
pyridine+Ag_x, matrix reactions, vibr., IR spectra relationship to SERS 2−111470
pyridine(-d_5), vibr. struct. in valence electron spectra 2−96535
pyridine adsorbed on Ag, effect of CO coadsorption on surface enhanced Raman spectra 2−87031
pyridine adsorbed on Ag(111), electron energy loss studies 2−87032
pyridine adsorbed on Ag surface, surface enhanced Raman scatt. 2−82838
pyridine and bis(p-hydroxybenzoato)tris(pyridine)CdII mol. complex, crystal struct. 2−76419
pyridine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
pyridine-benzene soln., highly polar liquid, far IR absorpt. spectra, internal field correction 2−61899
pyridine-chloroform-methanol (n-butanol) mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
pyridine-N-oxide, thermotropic nematic phase, NMR spectrum, chemical shift 2−87608
pyridines, substituted, ^{14}N NQR freq., substituent group effects 2−54871
pyridinium N-oxide perchlorates, acetonitrile soln., H bonds, UV obs. 2−80645
pyridinium salts, solns., IR spectra, Fermi reson. and ν_{NH} band struct. 2−64981
pyridinium salts, solns., IR spectra, isotope shifts 2−64980
4-(2-pyridylazo)-resorcinol, protonation consts., spectrophotometric determ. 2−111489
pyrimidine, jet-coded, quantum beats, fluoresc. obs. 2−59846
pyrimidine, r_0 struct., ab initio gradient method 2−85529
pyrimidine 2′-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
pyrimidine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
2-pyrimidone, cryst. and aq. soln., IR and Raman spectra *(French)* 2−77533
pyrochlorophyllide a-apomyoglobin complex, triplet state, zero-field fluoresc. ODMR 2−85709
pyrole, one-electron props., ab initio calcs. 2−64866
pyrolene 1460, unipolar ion injection and Poiseuille flow *(French)* 2−86342
pyromellitic N,N-dimethyldiimid-anthracene cryst. triplet exciton annihilation rate, fluorescence 2−71880
pyrrole pyridine(quinoline), NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
pyrrolidine, normal vibr. modes, valence force field calcs. 2−85628
2-pyrrolidone, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
pyruvic acid, rot. transitions in first excited state, methyl group internal rot. 2−108456
quanidine cpds. with acids, 2-freq. NQR-NMR double reson. obs. 2−108593
quasi one-dimensional organic systems, high press. and low temp. elec. resistivity studies 2−87242
quasi-one-dimensional organic metal, stabilisation of metallic state *(Russian)* 2−61453
quaterrylene, thin film growth, grain boundary struct., electron microscopy 2−81775
quencher molecules+HCl, vibr. relax. rate const. meas., dipole and dispersion interactions 2−70397
quinazolines, substituted, CNDO calcs., enzyme inhibition potencies 2−85545
4(3H)-quinazolinones, IR spectra, solvent effects, mol. struct. 2−54844
quinine bisulphate in aq. H_2So_4 soln., complex fluoresc. decay 2−75340
quinoid systems, second-order nonlinear optical susceptibilities, expt. and theoretical study 2−55242
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
quinoline, heteroatom n-electrons effects on optical props. 2−113907
quinoline, intercalation of PbI_2, effect on charge transfer and luminesc. *(Russian)* 2−61975
quinoline, soln. dielec. props. and viscoelasticity 2−110758
quinone-depleted photosynthetic reaction centers, triplet quantum yield mag. field depend. spin-spin effect 2−72994
radical cation salts, CESR and spin-lattice relaxation time 2−93007
rare earth ethylsulphates, high press. phase transition mechanism 2−76666
trans-retinal, laser photochem. evolution, Raman and visible spectrosc. obs. 2−62410
retinol, all-trans, photodissoc. processes, biphotonic origin 2−116718
trans-N-retinylidene n-butylamine, laser photochem. evolution, Raman and visible spectrosc. obs. 2−62410
rhamnose single cryst., X-irrad. at 4K, absorpt. spectrum of trapped electrons 2−87824
rhodamine, electronic energy transfer to oxazine 17, increased lasing efficiency 2−114263
rhodamine 110 and disodium fluorescein active dyes, hybridly mode locked laser, tunable subpicosecond pulse generation 2−85954
rhodamine 560(590, 610, 640), two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
rhodamine 590 dye lasers, Cu laser pumped, prism-expander and grazing-incidence grating cavities 2−102823
rhodamine 6G, ethanol soln., assoc., impurities effects. 2−105477
rhodamine 6G, ethanol solns., associate struct., spectrosc. obs. 2−105478
rhodamine 6G, interaction in compensated cholesteric mixture 2−86543
rhodamine 6G, mols. in soln., absorption spectra, environmental effects 2−96481
rhodamine 6G, soln., fluorescence saturation, effects of exciting laser pulse shape 2−93252

organic compounds continued
rhodamine 6G, ultrafast dichroism meas. using ultrafast polarisation spectroscopy 2−102515
rhodamine 6G alcohol soln., phase conjugation by degenerate four-wave mixing, reconstructed images 2−55275
rhodamine 6G CW dye laser, cavity length detuning effects, simultaneous autocorrel. and synchroscan streak camera meas. 2−97045
rhodamine 6G CW dye laser design for intracavity spectroscopy 2−114316
rhodamine 6G CW dye laser pumped by sinusoidally modulated radiation, pulse operation and appls. 2−96946
rhodamine 6G double-mode-locked dye laser, highly synchronous mode-locked picosec. pulses 2−75615
rhodamine 6G dual frequency laser system, high power, tunable, DIAL appls. 2−102819
rhodamine 6G dye jet laser pumped by ultrashort pulse trains from continuously pumped Nd^{3+}:YAG laser 2−60075
rhodamine 6G dye laser, double mode-locked, subpicosec., widely tunable 2−96984
rhodamine 6G dye laser, single-mode tunable, high-efficiency 2−96941
rhodamine 6G dye laser excitation with intense pulse preionisation, flash-lamp pumping performance improvement 2−102787
rhodamine 6G dye laser pumped by hypocycloidal pinch discharge 2−86005
rhodamine 6G dye laser spectrum, gain determ. using the interf. struct. 2−114264
rhodamine 6G in aqs. soln., aggregate form. const. and absorpt. spectrum, association forces 2−111485
rhodamine 6G infinitesimal thin-film ring laser 2−108913
rhodamine 6G jet dye laser, mode-locked saturable absorber optimal operating regime 2−96944
rhodamine 6G jet stream CW laser, operation at 200 W pump power 2−102812
rhodamine 6G laser, lamp-pumped, using an interf. polarisation filter 2−96943
rhodamine 6G picosecond gain spectroscopy during mode-locked laser action 2−89827
rhodamine 6G pulsed dye laser polarisation 2−97064
rhodamine 6G pumped frequency-doubled continuously tunable UV laser *(Chinese)* 2−90882
rhodamine 6G ring laser, powerful single-freq., spanning visible spectrum 2−90916
rhodamine 6G soln., laser based on amplification by reflection from inverted medium 2−70562
rhodamine 6G solution laser for demonstrations 2−94967
rhodamine 6G sync-pumped CW laser, subpicosec. pulse generation, stabilisation and amplification 2−96973
rhodamine 6G tunable dye laser pumped by pulsed Xe ion laser *(Chinese)* 2−90922
rhodamine 6G-cresyl violet mixed solns., electronic excitation transfer and lasing with spectral broadening 2−70561
rhodamine 6G-DQOCI synchronously-pumped CW laser, pulse generation shorter than 70 fs 2−55139
rhodamine 6G-malachite green, soln., fluoresc. decay time meas. 2−67120
rhodamine B dimeric states, visible absorpt. spectra 2−72954
rhodamine B monomer and dimer, population and rot. kinetics using picosecond transient spectrometry 2−102521
rhodamine dyes, struct., PMR spectra 2−75323
rhodamine dyes, submonolayer coverages on SiO_2, reson. second harmonic generation, UV study 2−55261
Rhodamine-6G, aq. soln. triplet state deactivation, visible-UV obs. 2−108540
rhodamine-6G solutions, stimulated emission, light quenching of fluoresc. effect 2−60073
ring π systems, covalent states, UHF wave functions 2−102362
RNA polymerase of Escherichia coli, quaternary struct., TEM obs. and model 2−78285
Rochelle salt, piezoelec. lines 2−99053
rot. temps. of cyanodiacetylene 2−63559
rubidium platino-oxalate, compaction cond. study 2−87246
rubrene, surface photooxidation, Penning ionisation electronic spectroscopy and UPS study 2−67595
rubrene, triplet lifetime, temp. depend., sensitized delayed fluoresc. obs. 2−59841
salicylidene-2-aminopyridines, photochromism and thermochromism, NQR spectra 2−110824
salicylidene-3-aminopyridines, photochromism and thermochromism, NQR spectra 2−110824
salicylideneanilines, liq. cryst., mol. dimensions. rel. to pitch and elastic coeff. 2−115137
salicylideneanilines, photochromism and thermochromism, NQR spectra 2−110824
salycilic acid, protonation consts., spectrophotometric determ. 2−111489
Schiff bases forming room temp. ferroelec. liq. cryst., MORA series, synthesis 2−76296
secondary ion mass spectroscopy 2−113030
selenenyl sulphides, ^{77}Se NMR chem. shift meas. 2−65011
selenoamides, ^{77}Se NMR 2−65006
selenoketones, ^{77}Se NMR 2−65006
selenolesters, ^{77}Se chemical shifts *(French)* 2−70293
selenolo[3,2-b]selenophenes, ^{1}H, ^{13}C and ^{77}Se NMR, substituent-induced shifts 2−75312
selenophenes, condensed phase CNDO/2 calcs., ^{77}Se NMR chemical shifts 2−82736
selenophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
shock wave chemistry 2−78100
shock-induced chemistry 2−78101
n-Si/acetonitrile interface, Fermi level pinning and surface states investig. 2−61584
silabenzene, electronic states, INDO/S-CI calcs. 2−108382
trans-silbene, out-of-plane IR active vibrs. 2−77535
silicon alkoxides, hydrolysis kinetics rel. to glass form. 2−76316
silicon tetraethoxide, sol-gel transition in hydrolysis rel. to form of glass fibre and films 2−77793
silicone diffusion pump fluids, quality using gas chromatography 2−74438
siloxanes, geometry, energetics, pot. energy functions 2−114069
silver acetate, Ag negative ion emission by mol. sputtering 2−57229
silver hydrozole, adsorbed perylene, giant Raman scatt. *(Russian)* 2−57099
organic compounds continued
silver oxalate, thermal decomposition, mech. pretreatment effects, mass-spectrometric thermoanalysis 2−62397
silyl acetylene, ground vibr. state, Stark effect, microwave obs. 2−102466
SIMS, comparison with other ionization methods 2−99278
SIMS, fast evaporation model 2−105033
sirohydrochlorin, isomer ground and excited state calcs. 2−113890
sodium acetate methanol soln., positronium form., temp. effects 2−102671
sodium carboxymethyl cellulose, aq. solns., permittivity, transmission dielectric time domain spectra 2−110742
sodium dideuterophosphate, transition struct. at phase transition *(Russian)* 2−61842
sodium dodecyl sulphate aq. soln., positronium lifetime, micellar effects 2−104990
sodium dodecylsulphate-protein complex, binding, light scatt. study 2−70459
sodium formate, deform. density maps from neutron and X-ray diffr. studies 2−71427
sodium hydrogen oxalate monohydrate, prep. and morphology, X-ray diffr. 2−115159
sodium magnesium chromium(III) oxalate, single cryst. mag. props. 2−82589
sodium malononitrile, its derivatives and isotopomers, IR spectra, vibr. coupling 2−64968
sodium methoxide, methanolic soln., nonexponential ^{13}C spin-lattice relax. *(French)* 2−77402
sodium octylbenzene sulphonate-pentanol-decane-water, microemulsion struct., mag. and elec. birefr. meas. 2−73018
sodium phthalate, cryst. struct. 2−103741
sodium urate crystals, growth morphologies 2−76348
solar thermoelectric generator, tert-butyl alcohol as heat sink substance 2−57729
solid, gas, liq., cyclobutane-d_0(d_1), vibr., Raman and IR obs. 2−108487
solid, ion impact, mol. ion form. mechanism 2−99247
solid solutions, burning out of metastable dips in absorpt. spectra, theory 2−91000
solids, electron interactions, phys. mechanisms 2−115296
solids, thermal desorpt. prod. of gas phase ions, mass spectrometry appl. 2−115535
Solithane 113 elastomer, shear wave propagation and compression 2−71565
solvents chlorinated, compressibility, ultrasound propag. study 2−115356
sorbate and nitrite reaction, in presence of spin trap, ESR obs. 2−108583
spin systems CH, CH_2 and CH_3, DEPT pulse sequence 2−110650
spirogram, photochromic, cryst. and mol. struct. 2−115210
spiropyran, ultrafast form. of transients in photochromism 2−108534
spiropyrans, aliphatic solns., quasi-cryst. struct. characterisation by optical frequency doubling 2−62435
4-spirotetrahydrofuryl-2′-2-spirocyclohexyl-1,2,3,4-tetrahydroquinoline and nitroxyl radical formed in oxidation, cryst. and mol. struct. 2−98062
squaric acid, antiferroelec. phase transition, realisation of Baxter model 2−82790
squaric acid, antiferroelectric, phase transition fronts 2−93124
squaric acid, layered antiferroelec., interacting one dimensional Ising spin chain model 2−77457
squaric acid, low dimensional H bonded material, neutron and Raman spectroscopic studies 2−93199
squaric acid, protonic ordering, strain effect 2−76664
stearic acid, melting induced by condensation of steam on surface 2−91439
stearic acid cryst., polymorphic transformation, soln. mediated 2−66195
stearic acid Langmuir film adsorbed on Ag and Ni, IR specular reflection spectra 2−116291
stilbene, cis- and trans-, ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
stilbene, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041
stilbene, monoclinic mol. cryst., diffusion tensor of singlet excitons calc. 2−87158
stilbene, picosecond excitation and trans-cis isomerisation in supersonic jet 2−83347
trans-stilbene, soln., fluoresc. lifetime, temp. depend. 2−70315
cis-stilbene radical cation, electron transfer reaction, CIDNP formation, electron exchange effect 2−70279
stilbene scintillators, light efficiency determ. and appl. to fast neutron in-core spectrometry 2−113815
trans-stilbenes-donor-acceptor substituted, in nonpolar and low visions solvents, viscosity depend. of fluoresc. quantum yields *(German)* 2−82921
strontium tartrate tetrahydrate, Co^{2+} centres, optical absorpt. studies 2−115220
strontium tartrate tetrahydrate, X-irradiated, ESR 2−82718
styrene, depolarisation ratios and low temp. Raman spectra 2−108747
styrene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
styrene, ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
styrene toxic industrial compound CO_2 laser absorpt. spectra 2−83536
styrene-β-D_2 vapour, single vibronic level fluoresc. and Raman spectra, torsional pot. function determ. 2−108613
styryl-11 laser dye, CW operation, 770 to 850 nm 2−96942
styryl-9 laser dye, CW operation, 780 to 900 nm 2−96942
styrylpyridines, conformational equilib., absorpt. and fluoresc. spectra in soln. 2−108614
styrylthiophene, UV photoelectron and absorpt. spectra 2−85687
succinic acid radical, noncrossing of proton spin levels, ENDOR spectra 2−102512
succinimide cryst., mol. reorientation and H bonding, PMR study 2−82726
sucrose, cationization in laser desorption mass spectrometry 2−98433
sucrose, laser desorpt. mass spectrometry, thermal aspects 2−75469
sucrose, phase-matched SHG 2−55256
sucrose solutions, ref.-index meas. by moire deflectometry 2−112959
sulphanilamide, NQR and NMR study 2−108568
sulphanimides, electron distrib., pulsed ^{14}N NQR investig. 2−108592
sulphide cpds., d orbital participation in bonding, positron lifetime meas. 2−85834
sulphonaphthalene macronetwork polyelectrolytes, synthesis and props. *(Russian)* 2−78093
sulphones, ab initio MO calcs., geometries 2−90438
sulphonic cpds., d orbital participation in bonding, positron lifetime meas. 2−85834

organic compounds continued
sulphur heterocycles adsorbed onto Cu(110) surface, photoelectron spectra 2−62428
superconductors, review 2−92806
surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
surface ionisation on Pt needle shaped emitters 2−105054
surfactant phthalocyanine, electrodeposited, photovoltaic cells, charact. and behaviour 2−93906
sydnones, photochromic, chemical struct. discussed using X-ray struct. data 2−90454
symmetric-top gases, use in collision broadening of inversion spectrum lines of ammonia 2−80738
tanane, ferroelec. and ferroelastic phase transition, soft acoustic mode 2−93122
tanane, ferroelec. and ferroelastic transition, intermol. forces and statistical mech. 2−93123
tartaric acid powder, compact strength, rel. to shear-normal stress curve obtained from uniaxial compression 2−116400
TBBA, conformational study *(French)* 2−96761
TBBA, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
TBBA molecule, theoretical conformational study 2−102657
TCNCl salt, TTF-TCNCl, one-dimens. cond., phonon drag effects, SCF calc., soft mode role *(Russian)* 2−56561
TCNE-[2.2]paracyclophane, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
$(TCNQ)_2$ complex, mag. props. singlet triplet activation energy, ESR obs. 2−56914
TCNQ complex salts, with methyl derivatives of pyridinium, electronic transport props. 2−66537
TCNQ doped MIM junctions, comparison of optical spectra with tunnelling spectra 2−72072
TCNQ salt, 1,1'-bicobaltocene[Co(III)Co(III)]TCNQ, synthesis and struct. 2−93774
TCNQ salt, 2,2'-DIPSϕ_4-TCNQ-I_2, charge transfer complex 2−92576
TCNQ salt, (DEPE)$(TCNQ)_{4.5}(H_2O)_x$ subtle struct. changes, explanation of elec. cond. variations 2−55962
TCNQ salt, (Me1-NEt-Bz)$^+(TCNQ)_2^-$, elec. anomalies at 3.3×10^{10} Hz 2−61449
TCNQ salt, $(Me_2\phi_2P)(TCNQ)_2$, cryst. struct. and lattice distortion 2−109780
TCNQ salt, (MTPA) $(TCNQ)_2$, polarisability and absorpt. tensor orientation 2−87810
TCNQ salt, $(MTPP)_{1-x}(MTPA)_x(TCNQ)_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
TCNQ salt, $(n\text{-propyl})_{1-x}(n\text{-ethyl})_x$ quinolinium $(TCNQ)_2$, charge-transfer organic alloy, metal-insulator transition 2−87239
TCNQ salt, $(NMP)_x(Phen)_{1-x}(TCNQ)$, X-ray obs. of crossover of $2k_F$ to $4k_F$ scatt. 2−86859
TCNQ salt, (TMTSF)$_2$ (2,5-TCNQBr$_2$), struct. and phys. props. 2−55961
TCNQ salt, $Cs_2(TCNQ)_3$ cryst., polarised IR reflection spectra meas. 2−93171
TCNQ salt, Cs_2TCNQ_3, ^{14}N NQR study 2−87621
TCNQ salt, Cu TCNQ, Raman study of electrical switching 2−87791
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
TCNQ salt, DBTTF-2,5-$TCNQF_2$, charge transfer salt, cryst. struct. 2−98065
TCNQ salt, DBTTF-TCNQ, charge transfer salt, cryst. struct. 2−98065
TCNQ salt, DBTTF-TCNQ, pure and $TCNQF_4$ doped, ESR studies 2−87576
TCNQ salt, DBTTF-TCNQF4 charge transfer salt, struct. high temp. phase transition obs. 2−109778
TCNQ salt, DBTTF-$TCNQF_4$, ESR studies 2−87575
TCNQ salt, DEDMTSF-TCNQ, phys. props., review 2−86656
TCNQ salt, DEM$(TCNQ)_2$, ESR studies 2−77362
TCNQ salt, DEM$(TCNQ)_2$, specific heat meas. 2−86903
TCNQ salt, DMM$(TCNQ)_2$, spin-Peierls transition 2−104255
TCNQ salt, HMTSF-TCNQ, mag. susceptibility anisotropy, 1.7 to 300K, torsion method 2−92859
TCNQ salt, HMTTF-$TCNQF_4$, separate donor and acceptor phase transitions, mag. susceptibility meas. 2−110565
TCNQ salt, KTCNQ, phase transition, ^{14}N NQR study 2−93059
TCNQ salt, KTCNQ, single cryst., Raman spectra 2−110826
TCNQ salt, KTCNQ, single cryst. Raman spectra of phase transition 2−87785
TCNQ salt, Me $\phi_3As(TCNQ)_2$, quasi-one-dimens. semicond., dielec. const., field and freq. depend. 2−61816
TCNQ salt, MTPP$(TCNQ)_2$, IR reflectivity 2−67051
TCNQ salt, N-n-propylquinolinium$(TCNQ)_2$ powders, pure and irrad., IR spectra 2−93189
TCNQ salt, NMP-TCNQ, mag. Mott insulator-metal transition, Hubbard model, mag. props. 2−76926
TCNQ salt, NMP-TCNQ, X-ray scatt. of $q_2=a^*/3$ diffuse lines 2−86511
TCNQ salt, polyvinylcarbazole-TCNQ charge transfer complex, AC cond. meas. 2−115737
TCNQ salt, Qn$(TCNQ)_2$, neutron irrad., ESR linewidth anisotropy 2−72332
TCNQ salt, quinolinium$(TCNQ)_2$, conductivity, freq. and temp. depend. 2−92593
TCNQ salt, TEA$(TCNQ)_2$, phonon heat pulse diffusivity meas. 2−110057
TCNQ salt, TMTSeF-DMTSNQ, pure and irradiated, mag. props. 2−98958
TCNQ salt, TMTSF-DMTCNQ, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
TCNQ salt, TMTSF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TCNQ salt, TMTTF-TCNQ, charge transfer, Raman shift, XPS and elec. cond. meas. 2−87237
TCNQ salt, trimethylammonium iodide-TCNQ, neutron diffr. study of phase transitions at 150K, 90K 2−76653
TCNQ salt, trimethylammonium iodide-TCNQ, struct. transitions, HV electron diffraction *(French)* 2−92173
TCNQ salt, trimethylammonium-iodide (TCNQ), structural transitions study by high voltage electron diffr. 2−71632
TCNQ salt, TSeF-TCNQ, phase transitions and acceptor-stack doping 2−77134
organic compounds continued
TCNQ salt, TSF-TCNQ, pinning of fluctuating cond. by 2D coupling 2−77028
TCNQ salt, TTF-TCNQ, conductivity and dielec. const., phonon drag theory 2−87282
TCNQ salts, Ag-$TCNQF_4$ and Cu-$TCNQF_4$, current-controlled electrically switched memory state 2−66599
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
TCNQ salts, alkali-TCNQ, possible origin of S=1/2 ESR lines 2−77359
TCNQ salts, $Cs_2(TCNQ)_3$, $TTT(TCNQ)_2$ and $TEA(TCNQ)_2$, specular refl. spectra, 4.2 to 300K 2−99128
TCNQ salts, disordered, spin dynamics 2−87501
TCNQ salts, highly correlated 1:2, fractional charge solitons 2−82254
TCNQ salts, IR spectra 2−99103
TCNQ salts, N-alkyl-phenazinium TCNQ, solid-state props. 2−87574
TCNQ salts, one-dimensional Heisenberg antiferromagnets, with random exchange 2−66858
TCNQ salts, $Qn(TCNQ)_2$, quasi one-dimens. conductors, dielec. const. 2−104798
TCNQ salts, radical anion salts with S-alkylthiouronium, organic metal, elec. cond. 2−98634
TCNQ salts, thermopower and conductivity anisotropies 2−92580
TCNQ salts isostructural with [1,2-bis(1-ethyl-4-pyridinium)ethylene]$_{0.88}(TCNQ)_4(H_2O)_x$, elec. and struct. props. 2−92582
TCNQ salts of bis(4-dimethylaminophenylimino)sulphur and struct. analogues, elec. cond. 2−61454
TCNQ salts of Cu chelates, highly conducting 2−92581
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
TCNQ scatt., HMTTF-TCNQ, thermal expansion, microwave cavity meas. 2−71675
TCNQ stack, electronic struct. depend. on-electronic charge, Hubbard model 2−71863
TCNQ stack, numerical approach to band structure 2−98537
TCNQ-TTF complex, intermol. interactions, closed-shell MINDO/3 calcs. *(German)* 2−108389
telluraxanthene, cryst. and mol. struct. 2−98060
tellurophenes, 2-substituted, ^{125}Te-^{13}C coupling consts. determ. 2−87603
tellurophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
terephthal-bis-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
terephthalaldehyde, Raman and IR spectra 2−80624
terephthalic acid cryst., phase transition, Raman spectrosc. obs. 2−57079
terephthalylidene-bis-[4-n-alkylanilines], liq. cryst., temp. and enthalpy of phase transition, calorimetric studies 2−92193
terminal polar two-ring organic cpds., re-entrant nematic phase, phase diagrams 2−115132
p-terpenyl/TCNE MIM structs., elec. cond., Poole-Frenkel coeff. 2−72073
o-terphenyl, supercooled, positron annihilation 2−76504
p-terphenyl-pentacene, delocalised dimer states, temp. depend. dephasing, photon echo expts. 2−104905
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
testosteronepropionate in soln., circular dichroism and optical rotatory dispersion, Kramers-Kronig transforms 2−70314
tetra(methylamino) lithium, expanded compounds, low temp. mag. susceptibility 2−77275
tetraazaindenes, interaction of stabilisers and antifoggants with AgBr rel. to sensitising effects 2−88369
tetrabamate, H bonds, IR and Raman study 2−54850
tetrabenzo(a,cd,j,lm)perylene film, impurity controlled, crystn. rate, absorpt. and fluorescence spectra study 2−56395
tetrabutylammonium bromide, intrinsic absorpt. and exciton luminesc. obs. 2−110933
tetrabutyldiphosphine disulphide, $^{31}P^{31}P$ indirect nucl. coupling anisotropy 2−108574
tetracene, isolated, out of plane vibrations 2−75240
tetracene, photoconductivity, mag. field effects, triplet exciton lifetime 2−72021
tetracene, photoemission data, carrier photoproduction autoionization mechanism 2−67196
tetracene, polycrystn., photovoltaic currents 2−66586
tetracene, stretched polyethylene film isolated, site-selection polarisation fluoresc. obs. 2−85723
tetracene, two particle exciton phonon excitations, structural disorder effects 2−109918
tetracene films, elec. field modulated spectra 2−67078
tetracene films, vapour-deposited, struct., electron diffr. 2−81674
tetrachloro-o-benzoquinone, cryst., phase transitions, ^{35}Cl NQR and X-ray investig. temp. depend. 2−110691
tetrachlorobenzene, exciton phonon scatt. at low temp., triplet exciton dynamics 2−109917
tetrachlorobenzene, exciton wave packet width, electron spin echo spectrosc. obs. 2−110619
1,2,4,5-tetrachlorobenzene, triplet exciton system, impurity assisted scatt. study 2−82241
tetrachloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
tetrachloroethylene, index-matching fluids, high intensity transmission props. 2−102866
tetrachloroethylene, liq., light scattering and far-IR absorpt. spectra 2−77515
tetrachloromethane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
tetrachloromethane, dissociative electron attachment, electron affinities, mass anal. 2−85822
tetrachloromethane, liq., collision effects, mol. dynamics study 2−81651
tetrachloromethane, liq., light scattering and far-IR absorpt. spectra 2−77515
tetrachloromethane+N_2O, vibr. relax. study using overtone bands 2−90675
tetrachloromethane high-press. solid, lattice dynamics 2−71593
tetrachloromethane-trichloromethane, liq. mixtures, vibr.-energy transfer, Brillouin scatt. study 2−57114
exo-exo-3,4,5,6-tetrachlorotricycloundeca-3,5-diene-9,10-dicarboxylic acid, mol. and crystal struct. 2−75147
tetracine films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
tetracontane, high press. intermediate phase, optical microscopy and Raman study 2−86838

organic compounds continued
tetracyanobenzene/anthracene, charge transfer cryst., ODMR and EPR spectra calc., triplet exciton coherent motion effects 2—56445
tetracyanoethylene, Brillouin scatt. study of elastic and photoelastic consts. 2—99141
tetracyanoquinodimethanides, mag. susceptibility, spin and electron exchange kinetics 2—72175
tetracyclohexylcyclotetraphosphine, solid, γ-irrad., ESR study 2—77377
tetradeuterophenanthrenes, vapour phase fluoresc. lifetimes, position depend. deuterium effects 2—85725
tetraethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2—57102
tetraethyloxysilane, mol. dynamics below freezing pt., PMR relax. investig. *(German)* 2—110689
tetrafluoro-1,4-benzoquinone in liq. cryst. solns., struct., chem. shift anisotropy and J couplings, NMR study 2—72363
tetrafluoro-methane and methane, temperature dependence of some acoustical and thermodynamical properties 2—98201
1,1,2,2-tetrafluorocyclobutane, competitive processes in multiphoton activation, RRKM behaviour 2—75363
1,1,1,2-tetrafluoroethane (refrigerant) pollution and rel. surface temp. rise 2—83875
tetrafluoroethylene+O, CF_2 triplet prod., vibr. distrib. and relax. 2—70393
tetrafluoroethylene-^{13}C efficient production in IR laser photolysis of chlorodifluoromethane 2—83390
tetrafluoromethane, almost resonant vibr.-vibr. relax. 2—90672
tetrafluoromethane, anharmonic shrinkage effect on mol. vibr. on electron diffr. 2—114105
tetrafluoromethane, arc discharge, enhanced photoemission from F atoms 2—103487
tetrafluoromethane, collision induced light scatt., three body correl. spectrum 2—80636
tetrafluoromethane, elec. hyperfine interaction at F site, TDPAD study 2—82303
tetrafluoromethane, ionisation, electron coincidence spectra, Green's function study 2—108622
tetrafluoromethane, IR intensity anal. following zero and first order approx. 2—80625
tetrafluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2—65077
tetrafluoromethane high-repetition-rate laser, 16 μm 2—75598
tetrafluoromethane hot mol., anharmonic shrinkage effects, electron diffr. study 2—102625
tetrafluoromethane hot mol., thermal expansion, electron diffr. study 2—102624
tetrahalomethanes and decomposition products, CNDO/2 calcs. *(German)* 2—64877
tetrahydrofuran, complex form., mol. vibr., IR obs. 2—67747
1,4,5,8-tetrahydroxyanthraquinone, π-l and π*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2—70215
tetraiodoethylene, He(I) photoelectron spectra, relativistic effects calcs. 2—96632
tetraiodomethane, He(I) photoelectron spectrum, relativistic effects 2—96631
tetrakis(N,N-dimethylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2—85691
tetrakis(N,N-dimethylformamide)beryllium(II), ligand exchange, rate consts., PMR study 2—85691
tetrakis(N-methylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2—85691
tetrakis (deuteriomethyl) tetraselenafulvalene, preparation 2—93464
tetrakis (dimethylamino) ethylene gas scintillation proportional counter props. 2—90359
tetrakis-dimethyl-amino-ethylene photoionisation, quantum efficiency 2—75113
1,1,2,2-tetramethoxydimethyldisilane, dipole moments, struct., refractometry study *(German)* 2—114135
di-[tetramethyl ammonium] copper tetrachloride, modulated structs., lattice excitations, Brillouin spectroscopy 2—92121
tetramethyl p-pherenediamine perchlorate, Wurster's blue, solid, proton spin-lattice relax. time meas. 2—87612
2,2,4,4-tetramethyl pentane, depolarised Rayleigh spectroscopy 2—80628
2,2,6,6-tetramethyl piperidino oxy crystal, intrinsic ferroelastic transition from a piezoelectric paraelastic phase 2—86848
1,1,7,7-tetramethyl-3,5,9,11-tetraphenyltricyclohexasiloxane, struct., X-ray diffr. 2—76418
tetramethyl-3-thio-1,3-cyclobutanedione-$h_{12}(d_{12})$ cryst., ππ* transitions, visible spectra study 2—77546
N,N,N′,N′-tetramethyl-benzidine, donor props., conform. anal., adduct form. with TCNQ 2—61454
N,N,N′,N′-tetramethyl-p-phenylene diamine, donor props., conform. anal., adduct form. with TCNQ 2—61454
N,N,N′,N′-tetramethyl-p-phenylenediamine, in soln., vacuum UV absorpt. spectra 2—85688
N,N,N′,N′-tetramethyl-p-phenylenediamine, recombination fluoresc., electric field quenching, two-photon ionisation 2—102518
tetramethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2—57102
tetramethylammonium chloride, addition to $AlCl_3$ based molten salt mixtures, for Al stating Fe and steel 2—62285
tetramethylammonium cobalt chloride, phase transitions, ESR study 2—98267
tetramethylammonium cobalt tetrachloride-d_{12}, dielec. props. and phase transitions 2—109974
tetramethylammonium copper tetrachloride-d_{12}, dielec. props. and phase transitions 2—109974
tetramethylammonium tetrabromocuprate, cryst. struct. and incommensurate-commensurate phase transition 2—65977
tetramethylammonium tetrachloro dimethylantimonates(V), low freq. IR and Raman spectra 2—72500
tetramethylammonium tetrachlorocobaltate, low temp. phase struct., X-ray diffr. study 2—98055
tetramethylammonium tetrachlorocobaltate, phase transitions, deuteration effects, dielec. study 2—98265
tetramethylammonium tetrachlorozincate, incommensurate phase, optical birefringence study 2—82819
tetramethylammonium tetrachlorozincate-d_{12}, press. induced ferroelec. 2—67004
tetramethylammonium tetrafluoro-dimethylantimonates, low freq. IR and Raman spectra 2—72500
organic compounds continued
tetramethylammonium trichlorocuprate trichloromanganate, X-ray struct. study *(French)* 2—98056
tetramethylammonium trichloromanganate(II), orientational disorder of diatomic or polyatomic ions 2—81723
tetramethylammonium zinc tetrachloride-d_{12}, dielec. props. and phase transitions 2—109974
tetramethylanion copper bromide, ferroelec., phase transitions, high press. effects, permittivity study 2—99069
3,6-tetramethyldiaminophthalinide, moments method in vibronic spectra theory 2—108473
2,2,6,6-tetramethylpiperidyl oxide radical, solvation of Na^+ 2—80677
tetramethylsilane, mag. susceptibility, ^1H and ^{13}C chem. shifts, temp. depend. 2—80672
tetraphenyl antimony chloride, cryst. struct. study 2—115211
tetraphenyl germanium, triplet state, interphenyl interactions, phosphoresc. obs. 2—90614
tetraphenyl lead, triplet state, interphenyl interactions, phosphoresc. obs. 2—90614
tetraphenyl silicon, triplet state, interphenyl interactions, phosphoresc. obs. 2—90614
tetraphenyl tin, triplet state, interphenyl interactions, phosphoresc. obs. 2—90614
tetraphenyldithiapyranylidene, and cpds., XPS 2—80725
tetraphenyldithiapyranylidene polyiodides, Raman study, low temp. 2—93183
tetraphenylitin, Raman and far IR spectra, vibr. bands assignment 2—72480
tetraphenylmethane, Raman and far IR spectra, vibr. bands assignment 2—72480
tetraphenylmethane, triplet state, interphenyl interactions, phosphoresc. obs. 2—90614
tetraphenylphosphonium complexes, ESCA chem. shift and low binding energy satellites 2—75352
tetraphenylphosphonium thiocyanato complexes 2—83434
M-tetraphenylporphine complexes, organic semicond., dark cond., o-chloranile doping effects 2—71977
tetrasaccharide stachyose, ion bombardment ionisation, SIMS 2—102599
tetraselenafulvalenes, substituted, synthesis from dimethylphosgene iminium chloride 2—93463
tetraselenafulvalinium based one-dimensional solids, prep. and props. 2—92583
tetraselenotetracene, polymorphism 2—91943
tetraselenotetracene, prep., purification and polymorphism 2—76423
tetraselenotetracene charge transfer salts, TSeT(PF_6), TSeT(AsF_6), struct. and semicond. elec. cond. 2—65981
tetratellurotetracene, cryst. struct. 2—91943
2,4,6,9-tetrathiaadamantane and its methyl derivatives, synthesis, mass and ^1H-NMR spectra 2—114016
tetrathiafulvalene, electronic structure calc. using ab initio HF Slater procedure, photoemission spectra 2—64863
1,2,4-tetrazine, form. by hydrazine+imidate derivatives, struct., IR obs. *(French)* 2—54846
s-tetrazine, vibronic coupling of electronic states by b_{3u} vibrs. 2—59777
s-tetrazine vapour, fluoresc. meas., S_1 vibronic level assignments, polarisation and lifetime meas. 2—108611
tetrazole, annular tautomerism, electric dipole moment study, ab initio MO calcs. 2—96773
tetrolyl halides, thermodynamic properties calcs., 100-1500K 2—109446
TGS:alanine pyroelect. cryst., domain struct. meas. by laser probe techniques 2—61847
TGS:Cu^{2+} crysts., ^{14}N quadrupole interactions, ENDOR obs. 2—110730
TGS, electrostriction calcs., ferroelectric transition 2—99061
TGS, ferroelec., submillimetre dielec. spectra 2—87651
TGS, ferroelec. domain boundaries, X-ray topographic image contrast 2—77462
TGS, ferroelec. transition, depolarisation field, Brillouin spectra line breadth study 2—67068
TGS, ferroelec. transition, polarisation relax. time, high press. Brillouin scatt. study 2—87802
TGS, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2—57024
TGS, ferroelectric, low freq. dielec. losses meas. near phase transition of second kind 2—57017
TGS, ferroelectric coercive force, temp. depend. near transition point 2—82791
TGS, gamma-irrad., Mande'shtam-Briouin ight scatt. 2—110879
TGS, influence of const. elec. field on heat cond. 2—66306
TGS, nonequilib. ferroelec. cryst., relax. currents 2—110341
TGS, secondary electron emission 2—72582
TGS, single crystal, growth from soln. and morphological studies 2—65895
TGS and TGSe, Curie temp. determ. 2—67006
TGS crystal, ferroelec. domains, SEM obs. 2—116133
TGS powder, phonon echo attenuation coeff., freq. depend., 10 to 60 MHz 2—66142
TGS pyroelectric detector, electrically balanced 2—58903
TGS pyroelectric detector for remote sensing of temp., radiant power meas. 2—53771
TGS single cryst., permittivity meas. as a function of geometry 2—61815
TGS type II detector based pyro-spectroscopic technique for high resolution IR absorpt. data using FIR laser 2—112977
TGSe, crystalline, X-ray topography and laser tomography 2—71290
TGSe-deuterated TGSe system, tetracritical point 2—57026
TH 50/50, explosion initiation by short duration shocks 2—114847
thiabendazole homologues, fluoresc., solvent effects 2—59840
2-thiapyridone, isotope effects, H-bond IR obs. 2—108488
thiazylhalides, halogens effect on bond props. 2—102659
thienyl-ethylenes, UV photoelectron and absorpt. spectra 2—85687
thin foils, stopping power meas., angle dependent energy loss of 7 MeV protons 2—71529
2-thio-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2—96775
thioacrolein, mol. struct., electronic props., ab initio SCF calcs. 2—64869
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2—64964
thiofluorenone, phosphorescence spectra, optically resolved zero field splittings 2—87835
thioformaldehyde, gas phase phosphoresc., collisional vibr. relax. 2—108603
thioformaldehyde, laser Stark and interferometric studies 2—75333

organic compounds continued
thioformaldehyde, mag. rot. spectrum of singlet-triplet perturbations in $\tilde{A}^1A_2$ state 2−114007
thioformaldehyde, substituent effect on ionisation pot. 2−90739
thioformaldehyde, UV $\tilde{B}^1A_2$←$\tilde{X}^1A_1$ absorpt. spectrum 2−70273
thioformaldehyde-$d_0(d_1)(d_2)$, ground and triplet states, vibr., SCF MO calcs. 2−85539
thioformaldehyde-$d_0(d_2)$, average struct., dipole moments, quadrupole coupling, microwave obs. 2−85645
thioformaldehyde-$d_0(d_2)$, matrix isolated form., vibr., IR obs. 2−96556
thioformaldehyde-$d_0(d_2)$, vibr., rot., UV obs. 2−75305
thioglyoxal, mol. struct., electronic props., ab initio SCF calcs. 2−64869
thioindigo, exciplex form. and fluoresc. quenching by electron donors 2−85724
thioindigo, fluoresc. spectrum, intensity distrib. and emission-absorpt. mirror symmetry 2−114039
thiomorpholine, microwave spectrum, centrifugal distortion effects 2−96549
thiophene, adsorpt. on MoS_2, binding energies 2−105500
thiophene, one-electron props., ab initio calcs. 2−64866
thiophene reactive adlayer on Ag foil, molecular SIMS 2−87056
thiophenes, electrophilic bromination, charge density-activation energy correlation, Huckel LCAO calc. 2−54771
thiophosphate O,O,O-triester of methyl β-D ribopyranoside, X-irrad., EPR spectra 2−61769
2-thiopyridone, cryst. struct., X-ray and neutron diffr. study 2−71429
thiosemicarbazone, cryst. and mol. struct. 2−115212
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
thiourea, adsorbed on Ag electrode, surface enhanced Raman scatt. 2−99200
thiourea, ferroelec. normal and deuterated, III phase, low bias elec. field effect meas. 2−67003
thiourea, IETS spectra, comparison of expt. and theoretical intensities 2−92778
thiourea, modulated struct., phase diagrams, commensurate-incommensurate transition, neutron diffr. study 2−66180
thiourea, phase transition under high press., SHG, pyroelec., and Raman scatt. meas. 2−66202
thiourea, phases I to V, US props. 2−109911
thiourea, submillimeter dielec. spectra, 85 to 300K 2−110744
thiourea, superstructure selection rules 2−103739
thiourea complexes, chemisorbed on Cu and Ag electrodes, surface enhanced Raman spectroscopy 2−93811
thiourea-d_4, elec. field induced commensurate phase, elastic neutron scatt. study 2−104820
thiourea-d_4, ferroelec. incommensurate-commensurate phase transition in DC bias elec. field 2−67005
thiourea-ferrocene channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
thioureas, di- and tri-substituted, IR and Raman spectra, conformational anal. 2−90545
thioxanthione, phosphorescence spectra, optically resolved zero field splittings 2−87835
tholins production in planetary atm. on elec. discharge, mol. anal. 2−57603
thymidine:5-thymyl radical, long-range spin interactions, ENDOR obs. 2−110731
thymidine, coupled electron-proton spin system, response to external perturbs., ENDOR study 2−77419
thymidine, vertical ionisation pot., UV PES 2−75354
thymine, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
thymine base damage induced by ^{137}Cs γ-rays in replicating chromatin DNA 2−105801
thymine dimers, photoreactivity and excision repair in UV-irrad. cultured fish cells 2−105796
TMMC:Cu, heavily doped, ESR study 2−72334
TMMC:Cu, high temp. dynamics, effect of impurities, EPR study 2−98944
TMMC, EPR study, dynamic correlation breakdown 2−98949
TMMC, mag. props. study 2−66786
TMMC, mag. solitons contrib. to sp. ht. in external mag. field 2−66824
TMMC, one-dimens., spin dynamics, ESR study 2−72338
TMMC, one-magnon and two-magnon spectra in mag. field 2−98863
TMMC, sp. ht. contrib. from mag. solitons 2−72234
TMMC-d_{12}, soliton regime, neutron scatt. study 2−56844
$TMTSeF_2ClO_4$, thermal expansion, microwave cavity meas. 2−71675
$(TMTSeF)_2PF_6$ superconductor, thermal conductivity 2−92822
$TMTSF_2AsF_6$ antiferromagnetic resonance obs. 2−93015
$TMTSF_2ReO_4$, metal-insulator transition 2−71867
$(TMTSF)_2(2,5\text{-}TCNQBr_2)$, struct. and phys. props. 2−55961
$(TMTSF)_2AsF_6$, antiferromagnetic reson. below metal-nonmetal transition 2−116067
$(TMTSF)_2AsF_6$, antiferromagnetism 2−66787
$(TMTSF)_2AsF_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2AsF_6$, supercond., struct., spin-charge separation 2−65976
$(TMTSF)_2AsF_6$, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
$(TMTSF)_2BrO_4$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
$(TMTSF)_2ClO_4$, cryst. struct. determ. 2−91945
$(TMTSF)_2ClO_4$, deuterated, organic supercond. Meissner anisotropy 2−56776
$(TMTSF)_2ClO_4$, itinerant electron antiferromag. precursor to supercond. 2−116068
$(TMTSF)_2ClO_4$, magnetotransport under press. 2−56556
$(TMTSF)_2ClO_4$, nonlinear effects near superconducting T_c 2−92802
$(TMTSF)_2ClO_4$, nonlinear resistivity above supercond. crit. current obs. 2−66732
$(TMTSF)_2ClO_4$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2ClO_4$, one-dimens. fluctuating supercond., energy gap, far IR magnetoabsorpt. study 2−98808
$(TMTSF)_2ClO_4$, organic Π donors, electrochemically grown salts, supercond., synthesis and study 2−56750
$(TMTSF)_2ClO_4$, organic supercond., mag. field depend. thermal cond. 2−92821
organic compounds continued
$(TMTSF)_2ClO_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
$(TMTSF)_2ClO_4$, organic supercond., resistive and mag. susceptibility transitions 2−56754
$(TMTSF)_2ClO_4$, organic supercond., sp. ht. meas. 2−56778
$(TMTSF)_2ClO_4$, reflectance spectrum, 30 to 290K, band parameters 2−87815
$(TMTSF)_2ClO_4$, Shubnikov-de Haas oscills. 2−115731
$(TMTSF)_2ClO_4$, supercond. at zero press. obs. 2−56757
$(TMTSF)_2ClO_4$, supercond. transition in mag. fields 2−56758
$(TMTSF)_2ClO_4$, X-ray diffuse scatt. study of struct. transitions rel. to supercond. 2−56181
$(TMTSF)_2FSO_3$, change in Se network dimensionality from mol. and cryst. struct. 2−55960
$(TMTSF)_2FSO_3$, dipolar anion effect on mag. and conduct. props. 2−87232
$(TMTSF)_2NO_3$, X-ray diffuse scatt. study of struct. transitions 2−56181
$(TMTSF)_2PF_6$, anisotropic, SDW and supercond. coexistence, energy gap struct. and tunnelling props. calc. 2−87443
$(TMTSF)_2PF_6$, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
$(TMTSF)_2PF_6$, compressibilities, X-ray diffr. study 2−115338
$(TMTSF)_2PF_6$, cond. increase due to nonequilibrium conditions 2−110332
$(TMTSF)_2PF_6$, cryst. struct. determ. 2−91945
$(TMTSF)_2PF_6$, dynamical response of SDW mode 2−61456
$(TMTSF)_2PF_6$, high elec. field transport at low temps. 2−56616
$TMTSF)_2PF_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
$(TMTSF)_2PF_6$, low temp. cond., Hall effect and magnetoresist., effect of radiation damage 2−87240
$(TMTSF)_2PF_6$, mag. susceptibility anisotropy, 1.7 to 300K, torsion method 2−92859
$(TMTSF)_2PF_6$, magnetoresist. and Hall effect in semicond. phase 2−56620
$(TMTSF)_2PF_6$, magnetotransport under press. 2−56556
$(TMTSF)_2PF_6$, metallic, IR and visible reflectance meas. 2−57092
$(TMTSF)_2PF_6$, NMR studies 2−56963
$(TMTSF)_2PF_6$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2PF_6$, organic supercond., possibility of coexistence of SDW and supercond. 2−56759
$(TMTSF)_2PF_6$, proton magnetic resonance study 2−110687
$(TMTSF)_2PF_6$, pure and radiation damaged, magnetotransport and non-linear effects 2−56555
$(TMTSF)_2PF_6$, quasi 1-D cond., spin density wave effects on nucl. spin lattice relax. 2−93042
$(TMTSF)_2PF_6$, quasi-one-dimensional superconductors, interchain coupling, homogeneous coupling and cross linking 2−56752
$(TMTSF)_2PF_6$, radiation damage effect on cond. 2−87243
$(TMTSF)_2PF_6$, spin density wave fluctuation effects on NMR relax. 2−87616
$(TMTSF)_2PF_6$, spin dynamics dimensionality, proton relax. rate meas. 2−110683
$(TMTSF)_2PF_6(AsF_6)$, mag. susceptibility 2−92881
$(TMTSF)_2PF_6$ superconductor, X-ray irradiation induced defects 2−92031
$(TMTSF)_2ReO_4$, cryst. struct. determ. 2−91945
$(TMTSF)_2ReO_4$, press. depend. of metal-insulator transition and supercond. transition 2−56753
$(TMTSF)_2ReO_4$, X-ray diffuse scatt. study of struct. transitions 2−56181
$(TMTSF)_2X$, (X=PF_6, AsF_6) band struct. and Fermi surface, tight binding calc. 2−115660
$(TMTSF)_2X$, charge density waves, spin density waves 2−92491
$(TMTSF)_2X$, organic metal and supercond., chemistry and electrocrystallisation 2−55871
$(TMTSF)_2X$, superconducting and insulating phases 2−115738
$(TMTSF)_2X$, superconductors, survey of low dimensional phenomena 2−56751
$(TMTSF)_2X$, X=ReO_4^-,PF_6^-, IR study of charge density waves 2−76951
$(TMTSF)_2X$ (X=ClO_4, PF_6, AsF_6), nonlinear threshold phenomena due to SDW transitions 2−92885
$(TMTSF)_2X$ (X=PF_6, ClO_4), IR props. 2−93186
$(TMTSF)_2X$ compounds, competition between SDW and supercond. 2−56755
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
$(TMTSF)_2X$ salts, prep. struct. and anion effects 2−55957
$(TMTSF)_2X$ series, band struct. and props. 2−92438
$(TMTSF)_2X$ series, organic conductors and superconductors, review 2−115734
$(TMTSF)_2X$ series, phase transitions 2−92589
$(TMTSF)_2X$ superconductors, props. 2−56802
$(TMTSF)_2Z$, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
TMTSF complexes, XPS study 2−77703
TMTSF salt, $(TMTSF)_2PF_6$, sound vel. meas. 2−61075
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF salts, struct. and props., exptl. evidence for importance of interchain couplings 2−55959
TMTSF salts, supercond. props., review 2−110522
TMTSF-DMTCNQ, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
TMTSF-DMTCNQ, pure and irradiated, EPR expts. 2−93004
TMTSF-DMTCNQ, X-ray irrad., elec. props. of stable metallic phase 2−87145
TMTSF-DMTCNQ superconductor, X-ray irradiation induced defects 2−92031
TMTSF-PMTCNQ, weakly disordered, low temp. metallic phase, Hall effect 2−92591
TMTSF-salts, Raman scatt. meas. 2−57093
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
$TMTTF_2$-I, thermal expansion, microwave cavity meas. 2−71675
$TMTTF_x(MCl_6)_y$, (M=Pt, Hg, Cu), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975

organic compounds continued
- $(TMTTF)_2PF_6$, struct. and props., exptl. evidence for importance of interchain couplings 2—55959
- $(TMTTF)_2X$, (X=BF_4^-, ClO_4^-, PF_6^-), phase transition, IR study 2—99113
- $(TMTTF)_2X$, IR study of electron-mol. vibr. interactions and phase transitions 2—93187
- $(TMTTF)_2X$ family of organic charge transfer salts, supercond. obs. 2—56756
- $(TMTTF)_2X$ series, phys. props., role of counterion ordering 2—92469
- TMTTF salt, TMTTF.$HgCl_3$, cryst. struct. determ. 2—86658
- TMTTF salts, struct. and props., exptl. evidence for importance of interchain couplings 2—55959
- TMTTF-bromanil complex, phase transition, IR study 2—99113
- TNT, explosion initiation by short duration shocks 2—114847
- TNT, high explosive detonation products in varying O_2 atmospheres 2—78105
- toluene, β-phase, cryst. struct., X-ray diffr. study 2—76416
- toluene, CH stretching IR and Raman spectra, effect of internat. rot. of CHD_2 group 2—85654
- toluene, CH stretching IR and Raman spectra, internal rot. 2—80616
- toluene, equation of state, elastic and thermal props. *(Russian)* 2—86827
- toluene, liq., laser-induced breakdown, self-focusing and spot-size depend. 2—65320
- toluene, liq., refr. index press. and temp. derivatives meas. 2—116143
- toluene, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2—97691
- toluene, shock wave heating, band-shape, UV obs. 2—59816
- toluene ($-d_3$) ($-d_7$) in solid crystalline phases, IR and Raman spectra, effect of internal rot. of CHD_2 group 2—80587
- toluene in polyethylene glycol soln., excess thermodynamic quantities determ. by Rayleigh scatt. 2—81989
- toluene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2—109445
- toluene-acetone binary liq. mixtures, viscosities 2—71687
- toluene-chlorobenzene-bromobenzene, heats of transport, diffusion thermoeffect meas. 2—104039
- toluene-cyclohexylamine, binary mixtures, compressibilities, US study 2—61049
- m-toluenediamine, SHG anal. 2—108965
- para-toluenesulphonic acid hydrate, solid, H_3O^+ and CH_3 group reorientations, PMR spin-lattice relax. 2—72369
- toulene($-d_3$), IR and Raman spectra, asymmetric stretching vibr. of $CH_3(D_3)$, torsional struct. anal. 2—70242
- trans-cyclohexyl trans-cyclohexylmethyl ethers, aliphatic liq. crystals, mesomorphic props. 2—71340
- transition-metal cation-TCNQ-cyclam complexes, synthesis and elec. resist. 2—93466
- trehalose, X-ray irrad., alkoxy and hydroxyalkyl radical form., ESR study 2—110646
- tri(halovinyl)antimony, NMR and vibr. spectra *(German)* 2—65019
- tri(halovinyl)arsenic, NMR and vibr. spectra *(German)* 2—65019
- tri-n-butylphosphine oxide hydrate, cryst. struct. frameworks 2—98026
- tri-n-octylammonium halides, benzene solns., viscosity, partial molar vols. and expansibilities 2—110025
- triarylimidazole, quinolinyl derivatives, IR absorption bands 2—108506
- s-triazine, π- and n-cations, Jahn-Teller distortion, ab initio MO calcs. 2—96473
- s-triazine, ferroelastic transition, quasiharmonic theory 2—66204
- sym-triazine, ferroelectric phase transition, Brillouin and Rayleigh scatt. 2—61917
- s-triazine, high pressure elastic phase transition, neutron diffr. study 2—66210
- s-triazine, r_0 struct., ab initio gradient method 2—85529
- s-triazine, struct. phase change, quasiharmonic approx. 2—61126
- s-triazine, structural phase transition, quasi-harmonic treatment 2—66203
- triazines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2—108378
- tribromomethane, crysts., vibr., phase transitions, Raman and Raman study 2—77513
- tribromomethane liquid, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2—75809
- tribromotris(4-methylpyridine)molybdenum (III), cryst. struct. 2—76414
- 1,1,2-trichloro-3,3-difluoro-1-propene, vapour, liq. and cryst., vibr., IR and Raman study 2—108518
- trichloroacetamide, IR and Raman vibr. spectra and normal vibr. 2—80564
- 1,3,5-trichlorobenzene, laser induced fluoresc. obs. 2—75346
- 1,2,4-trichlorobenzene-n-decane-n-tetradecane mixtures, melting, density, viscosity and thermodynamic props. 2—71666
- trichloroethane, cyclohexane solns., refr. index, far-IR study 2—57072
- trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2—110681
- trichloroethylbenzene, ionis. pots. and intramol. charge transfer, photoelectron spectra, electronic struct. 2—90626
- trichloroethylene, effect on Si-SiO_2 interface states, C-V meas. tech. 2—72065
- trichloroethylene toxic industrial compound CO_2 laser absorpt. spectra 2—83536
- trichlorofluoromethane, and mixture with N_2, gaseous, thermal cond. and mutual diffusion coeffs. 2—114962
- trichlorofluoromethane, atmospheric lifetime from two dimens. model calcs. 2—83533
- trichlorofluoromethane, attachment rates for thermal electrons 2—102574
- trichlorofluoromethane, dissociative electron attachment, electron affinities, mass anal. 2—85822
- trichlorofluoromethane, fragmentation, multiphoton ionisation photoelectron obs. 2—70333
- trichloromethane, IR and Raman vibr. spectra in low temp. matrices 2—80599
- trichloromethane, liq., light scattering and far-IR absorpt. spectra 2—77515
- trichloromethane, liq., mol. rot., translational kinetic energy, computer simulation 2—86536
- trichloromethane-tetrachloromethane, liq. mixtures, vibr.-energy transfer, Brillouin scatt. study 2—57114
- trichloromethyl cation, long lived electronically excited states 2—54779
- sym-trichlorotrifluorobenzyl cation $\tilde{X}^2E''$ state, Jahn-Teller distortion from fluoresc. studies 2—75197
- trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2—110681

organic compounds continued
- tricyclo[4.4.0.0^{3,8}]decane, electronic distrib. chemical effects, atomisation energy calcs. *(French)* 2—108730
- triethanolamine, interfacial resistance to evaporation, under vacuum 2—61256
- triethylamine radical cation, electron transfer reaction, CIDNP formation, electron exchange effect 2—70279
- triethylamine-I_2 charge transfer complexes and ion pairs, stoichiometry, permittivity effects 2—114063
- triethylammonium halides, mol. and intramol. motion, pot. barriers, PMR study 2—77390
- trifluoroacetate ions, adsorpt. on platinised Pt, soln. cond. meas. 2—110158
- trifluoroacetonitrile, rovibronic excitation, IR multiple photon dissoc. 2—96660
- trifluoroacetylfluoride, mol. struct., torsional barrier, gas phase electron diffr. 2—75432
- 1,3,5-trifluorobenzene, laser induced fluoresc. obs. 2—75346
- trifluorobromomethane-Ar, compressibility factors calc. from refractive index meas. 2—76058
- trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2—90523
- trifluoroiodomethane, collisional enhancement of I($5^2P_{1/2}$) emission at 1.3 μm 2—59739
- trifluoroiodomethane, fundamental and overtone IR spectra 2—108508
- trifluoroiodomethane, IR microwave double reson. investig. 2—80693
- trifluoroiodomethane, multiphoton excited, flash spectroscopy, UV and IR spectra, vibr. struct. 2—90538
- trifluoroiodomethane, quadrupole hyperfine struct. investigated by Lamb-Dip spectroscopy in 10 μm region 2—108502
- trifluoroiodomethane, sensitised dissoc. with isotopic selectivity using SF_6 2—80832
- trifluoroiodomethane cation, electronic states multiphoton dissoc., photon-photoelectron coincidence study 2—65058
- trifluoromethane, ionisation, electron coincidence spectra, Green's function study 2—108622
- trifluoromethane, IR and Raman vibr. spectra in low temp. matrices 2—80599
- trifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2—65077
- trifluoromethane+NH_3, inelastic scatt., beam maser investigation, cross sections for inversion transitions 2—70379
- trifluoromethane-d_1, IR-RF two photon investig. 2—80694
- trifluoromethanesulphonate ions, adsorpt. on platinised Pt, soln. cond. meas. 2—110158
- trifluoromethene, solid phase, spin-lattice relax., NMR study 2—110673
- trifluoromethyl(bromo)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2—70334
- trifluoromethyl(chloro)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2—70334
- trifluoromethyl anilines, CF_3 substitution effect on vibrs., far IR obs. 2—108519
- trifluoromethyl cation, long lived electronically excited states 2—54779
- trifluoromethyl derivatives, geometry, intramolecular interactions, NDDO calcs. 2—64878
- trifluoromethyl halides, ^{19}F shielding tensors, chemical shift and spin-rot. tensors 2—108556
- trifluoromethyl ion, struct., inversion barrier, CI, ab initio SCF calcs. 2—64885
- trifluoromethylgermanes, UV and X-ray photoelectron spectra, binding energies, CNDO/2 and EESOP charge calcs. 2—70335
- trifluoromethylgermanes($-d_n$), IR and Raman spectra, force consts., normal coordinate anal., bonds 2—70266
- trifluoronitrosomethane, state-selective photodissociation dynamics, visible obs. 2—65060
- trifluoropropyne, high resolution IR spectrum, sequence struct. 2—108489
- 2,4,6-trifluoropyrimidine, bond and mol. polarisability, struct. 2—59965
- triglycine selenate, AC calorimetry at high hydrostatic pressures 2—66128
- triglycine selenate, cryst., phase transitions under press., NQR-NMR obs. 2—110692
- triglycine sulphate, pyroelectric IR detector appl. *(German)* 2—107401
- triglycine sulphate type crystals, with imperfections, piezoelec. props. 2—99052
- trihalogenmethanes, harmonic force fields and mol. consts. 2—80837
- trimethyl(trimethylsilylmethyl)ammonium iodide, cryst. and mol. struct. 2—115209
- trimethylamine, molecular beam photodissoc. isotropic ang. distrib. 2—96658
- trimethylammonium aluminium trichloride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2—85544
- trimethylammonium aluminium trihydride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2—85544
- trimethylammonium cobalt(II) chloride dihydrate, weak ferromag. props., differential susceptibility meas. and mag. phase diagrams 2—56840
- trimethylammonium cobalt manganese trichloride, impurity spin resonance 2—98953
- trimethylammonium germanium trichloride, cryst. struct., X-ray diffr. study 2—65979
- 2,4,5-trimethylbenzaldehyde, triplet state Stark spectrosc. above phosphoresc. origin 2—90593
- 1,2,3-trimethylbenzene, derivative IR spectra meas. 2—64131
- n-trimethylene oxide, ring puckering vibr., high-resolution CARS 2—64986
- trimethylenemethane derivatives, excitation energies calcs. 2—108410
- trimethylimidazole, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2—102504
- trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2—77516
- trimethylsilane+Br, kinetics and equilib. in very low press. reactor 2—93757
- 2,4,7-trinitro-9-fluorenone, carrier transport layer, carrier photoinjection from Se binder layer 2—87334
- 2,4,6-trinitrotoluene, mol. struct., X-ray investig., direct calcs. 2—85552
- triorganyl borane+BH_3, exchange reactions, ^{11}B NMR obs. 2—108577
- 6,9,12-trioxa-2-thioxo-1,3-diazacylcotetradecane, cryst. and mol. struct. 2—98066
- trioxa-bicyclo(5.1.0) octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2—59958
- trioxalatoferrate ions in aqueous soln., radiolysis, effect of initial conc. of solute and dose rate 2—57625
- s-trioxane, liq. cryst. soln., isomerisation reaction NMR spectra calc. 2—96601

organic compounds continued
trioxane, piezoelectric cryst., lattice modes, Raman and IR study 2−72478
triphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
(triphenylarsenicdifluoride)$^-$, X-ray irrad., EPR spectra 2−82716
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962
triphenylene, excited triplet state IR spectroscopy 2−80596
triphenylene hexa-n-dodecanoate, one-dimensional nematics with orientation jumps, freely suspended strands of tilted columnar phases 2−86557
triphenylformazan, semicond. films, photochromic switching 2−61998
triphenylmethane dye rigid solution for transient optical recording, photochromic props. 2−80916
1-triphenylphosphazo-1-dimethyl-amino-2,2-dicyanoethylene, cryst. struct. and spectral study 2−98061
tris(sarcosine) calcium bromide:Cu^{2+} hyperfine spectra, ESR study 2−61754
tris(thiosemicarbazide)cobalt(III)chlorides, geometric isomer cryst. struct. 2−98067
tris(trimethylsiyl)methane, struct., gas phase electron diffr. study 2−114106
tris-sarcosine calcium chloride$_{1-x}$ bromide$_x$, ferroelectric transition 2−87711
tris-sarcosine calcium chloride, brominated, dielec. props., press. and temp. depend. 2−61820
tris-sarcosine calcium chloride, ferroelastic phase transition, US study 2−66194
tris-sarcosine-calcium chloride: Mn^{2+}, ^1H ENDOR spectra 2−93062
tris-tetrabutylammonium yttrium hexathiocyanate:Eu^{3+}, fluorescence spectra 2−61958
trissarcosine calcium chloride, deuterated, dielec. props., temp. and press. depend. meas. 2−99071
trissarcosine calcium chloride, ferroelec., dielec. loss tangent, hydrostatic press. effects meas. 2−116115
trivinylantimony, NMR and vibr. spectra *(German)* 2−65019
trivinylarsenic NMR and vibr. spectra *(German)* 2−65019
tropylium cation, bridged, charge transfer transitions, MCD, UV obs., CNDO/S calcs. 2−85717
trypsin inhibitor, bovine pancreas, two dimens. nucl. Overhauser expt. 2−90750
tryptophan-DNA complex, effect of UV and γ-radiation *(Russian)* 2−57862
$TSeT_2$-I, thermal expansion, microwave cavity meas. 2−71675
$(TSeT)_2Br$, 1-D organic metal, low-temp. specific heat *(Russian)* 2−104020
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TSF-TCNQ, fluctuating and single particles cond. channels 2−87248
$(TTF)(SCN)_{0.57}$, specific heat meas. 2−86902
(TTF)-$AuS_4C_4(CF_3)_4$, susceptibility and magnetisation 2−66785
$(TTF)Br_{0.72}$, specific heat meas. 2−86902
$(TTF)Cl_{0.67}$, specific heat meas. 2−86902
TTF based one-dimensional solids, prep. and props. 2−92583
TTF salts, highly conductive, temp. depend. of reflectance spectra 2−87786
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts stabilisation and cohesive energy calcs. for partially ionic lattices 2−86615
TTF-$AuS_4C_4(CF_3)_4$, spin-Peierls phase diagram, susceptibility and magnetisation study 2−82569
TTF-chloranil, neutral-ionic phase transition, IR and Raman studies 2−93188
TTF-chloranil, neutral-ionic phase transition, review 2−92592
TTF-chloranil, vibronic effects in Raman and IR spectra 2−110862
TTF-CuBDT, Heisenberg spin-Peierls system in mag. field, commensurate and incommensurate states 2−92952
TTF-p-chloranil, neutral-to-ionic transition, optical refl. spectra study 2−110889
(3.3)TTF-Phan-TCNQ, electronic props., cond. and ESR meas. 2−92621
TTF-TCNQ, γ-irradiated, mag. susceptibility meas. 2−87475
TTF-TCNQ, conductivity of 1D electrons in anisotrpic 3D medium 2−92574
TTF-TCNQ, electron irrad. effects 2−103821
TTF-TCNQ, ESR line broadening and interstack spin-orbit coupling 2−92992
TTF-TCNQ, far IR transmission spectra 2−116193
TTF-TCNQ, interchain electron-electron scattering 2−71957
TTF-TCNQ, interstack spin-orbit coupling and ESR line broadening 2−116056
TTF-TCNQ, lattice energy, struct., and stability of models with segregated and mixed states 2−115172
TTF-TCNQ, low temp. IR studies 2−87783
TTF-TCNQ, low temperature phases, CDW-CDW Coulomb interaction 2−92590
TTF-TCNQ, neutron scatt. study of commensurability effects under high press. 2−86858
TTF-TCNQ, nonlinear model for hysteresis obs. in neutron scatt. 2−56182
TTF-TCNQ, nonlinearity and hysteresis, Landau theory for transverse sliding 2−86857
TTF-TCNQ, one-dimensional cond., phys. props., review *(Japanese)* 2−82331
TTF-TCNQ, organic conductors and superconductors, review 2−115734
TTF-TCNQ, polarisability and absorpt. tensor orientation 2−87810
TTF-TCNQ, quasi 1-D system, correlation functions and Peierls instability 2−110334
TTF-TCNQ, stabilisation and cohesive energy calcs. for partially ionic lattices 2−86615
TTF-TCNQ, temp. depend. of low energy IR modes 2−87784
TTF-TCNQ, thermal expansion, microwave cavity meas. 2−71675
TTF-TCNQ, thermoelec. power, press. depend., 4 to 300K 2−92573
TTF-TCNQ, vol. of electron irradiation defect 2−67758
TTF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TTF-TCNQ films, struct. and props., substrate temp. effect 2−104205
TTF/chloranil, neutral-ionic phase-transition, micro AC calorimetry study 2−86900
$TTFX_n$ (X=halide, NO_3) highly conductive thia adducts, electrocrystn. 2−93402
TTT_2-I_3, thermal expansion, microwave cavity meas. 2−71675
organic compounds continued
TTT_2I_3, reflection spectra *(Russian)* 2−57047
TTT_2I_3, X-ray irrad., damage prod. mechanism 2−61033
TTT complex, TTT_2I_3, metal-dielectric phase transition temp., dopant effects 2−76927
two particle exciton phonon excitations, structural disorder effects 2−109918
tyrosine and related cpds., Fermi reson., Raman doublet anal. 2−114000
tyrosine side chain in cryst. enkephalin rot. jumps and ^2H NMR line shapes 2−72357
n-undecane, thermal cond. meas., density depend. 2−92294
unsaturated heterocompounds, architectural laws of electronic struct. 2−108339
uracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
uracil films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
uracil tautomerism, mol. relax. effect 2−102661
uranine-coumarin 1-acriflavine ternary dye mixture energy transfer laser operation 2−96945
urazole, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
urea, mol. crystal, and nonlinear optical props. 2−65302
$(urea)_3CuO.3H_2O$, cryst. struct. and IR spectrum 2−81773
urea derivatives containing halophenyl group, intramol. NH-Cl H-bond 2−90422
urea oxalic acid, radical transformation, ESR and proton ENDOR studies 2−82715
urea single crystals for nonlinear optical freq. conversion of Nd laser radiation, noncollinear interactions 2−114377
urea-alcohol aq. solns., interactions, excess enthalpies at 25°C 2−103587
urea-$d_0(d_4)$, isotope effects, force consts., CNDO calcs. 2−96457
ureas, trisubstituted, containing chlorophenyl groups, IR spectra, conformational anal. 2−90544
uridine, methylated, vertical ionisation pot., UV PES 2−75354
δ-valerolactam, ^{14}N and ^{17}O NMR, quadrupolar relax., dynamical obs. 2−80675
valeronitrile 2−110874
valine, energetic ^{16}O ion bombardment, desorbed secondary ion yield as function of ionic charge state 2−99242
valine film, secondary ion emission as function of primary ion velocity 2−99245
vanadyl phthalocyanine electronic transitions in soln. and solid state 2−61938
verdazyl radicals, single cryst. and polycryst., EPR 2−93011
vinyl bromide toxic industrial compound CO_2 laser absorpt. spectra 2−83536
vinyl cyanide, IR multiphoton dissoc., fragment internal energy, pulse intensity distrib. effect 2−108648
vinyl cyanide IR multiphoton dissoc., fragments internal state distrib. effect 2−59872
vinyl ethers, β-substituted, cis effect, NMR study 2−114018
vinyl fluoride, chemically energised, decomposition, energy partitioning meas. using IR chemiluminesc. technique 2−88343
vinyl fluoride, strong far IR laser action obs. 2−102775
vinyl formate radical, γ-CH formyl-H^+ coupling, INDO-MO-SCF calcs. 2−90455
vinyl monomers, radical polymerisation, mol. mass and branching centre distribs. *(Russian)* 2−111494
vinyl radical, (1,2) H migrations, ab initio POL-CI calcs. 2−59708
vinylamine, struct., ab initio MO calc. with complete geometry optimisation using three different basis sets 2−113855
vinylcyclopropane, rot. isomerism, pot. energy curves, ab initio SCF calcs. 2−108352
vinylguanidinium ion, ab initio MF-SCF-MO calcs. 2−113865
vinylidene chloride toxic industrial compound CO_2 laser absorpt. spectra 2−83536
vinylidene-fluoride-d_0(-d_1)(-d_2), IR intensity meas., polar tensors and effective charges 2−102476
viscous organic liquids, US absorption above dispersion region 2−61069
vitamin D-metabolites from human plasma and mass spectrometric analysis by fast heavy ion induced desorption 2−100171
wax, microcryst., degree and type of branching, PMR spectroscopy determ. 2−56949
xanthene dye rigid solution for transient optical recording, photochromic props. 2−80916
xanthene-aromatic hydrocarbon system mixed triplet-triplet annihilation, mag. field effect 2−93256
xanthione, phosphorescence spectra, optically resolved zero field splittings 2−87835
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
xanthone, in n-hexane matrix, phosphoresc., optical detect. of sublevel splitting 2−80705
xanthone, X-ray crystallographic study 2−81769
xanthone triplet state in-pentane, multiple emission from single site 2−75341
xenon clathrate hydrate, struct. I, far-IR spectrum and X-ray diffr. 2−110843
m-xylene, derivative IR spectra meas. 2−64131
xylene, index-matching fluids, high intensity transmission props. 2−102866
p-xylene, multiphoton ionisation mass spectroscopy at 193 and 248 nm 2−70348
p-xylene, second virial coeff. calc. using Lennard Jones pot. expressions *(German)* 2−97691
xylene, tube boiling, heat transfer coeffs., critical heat flux 2−91419
p-xylene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
xylylenes, valence bond description 2−108393
ytterbium phytate radiopharmaceutical for liver scintigraphy 2−117085
ytterbium porphyrin complexes, luminesc. and visible absorpt. study 2−110929
zinc acetate, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
zinc etioporphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
zinc formate dihydrate, librational modes of water, IR and Raman spectrosc. obs. 2−99101
β-zinc phthalocyanine, bulk trapping states, ohmic and SCL currents meas. 2−98662

organic compounds continued
zinc phthalocyanine films, photocurrent generation, electric field and temp. depend. 2−61512
zinc phthalocyanine highly conc. in polymer films, photosynthesis modelling 2−105679
zinc porphin in n-alkane host crystals, phosphorescent ^3E_u state, EPR and spin-lattice relax. 2−85705
zinc porphyrin, in micellar soln., fluoresc. intensity oscills. 2−65038
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
zinc stearate, solid lubricant, effect of pressing behaviour of atomised Fe powder 2−67245
zinc tetrabenzoporphyrin, highly excited states, polarisation-modulation fluoresc. study 2−114040
Π^4- capture probabilities, mesomolecular model 2−85845
$AlCl_3$-n-butylpyridinium chloride melt, ^{27}Al NMR 2−66923
Al(III)complex, sulphonated phthalocyanine, excited singlet and triplet state electron transfer reactions 2−78089
Ar-ethane mixture filled proportional counter in avalanche multiplication zone for electrons 2−108251
Ar-ethane-ethyl alcohol mixture drift tubes, self-quenching streamers obs. 2−70038
Ar-methane mixture, 300.4K; 1-22 MPa, thermal cond., rel. to kinetic theory 2−81438
Ar-methane proportional counter, deposited energy losses for 40 MeV/n ^3He ions 2−90417
$AsCl_3$ complexes, with organic donors, coordination state, NQR study 2−75318
BCl_3.methanethiol, IR multiphoton dissoc. 2−70359
1,2-benzpyrene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
$BiCl_3$-n-(π-) donor complexes, NQR study 2−108567
N-tert-butylacrylamide, gamma irrad., EPR spectra obs. 2−56938
CBr^+, long lived electronically excited states 2−54779
CCN radical, Doppler limited dye laser excitation spectroscopy, spin-orbit and spin-rot. coupling const. 2−108538
CCl^+, long lived electronically excited states 2−54779
CD^+, laser induced fluoresc. study 2−59853
CD^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2−96619
CF radical, far-IR rot. spectrum 2−75255
CF^+, long lived electronically excited states 2−54779
CF_2, mm and sub millimeter spectrum, prod. in DC glow discharge, rot. transition freq. 2−108481
CF_2 triplet state, initial vibr. distrib. and relax. following prod. from reaction 2−70393
C_3F_6 dielectric strength, ionisation and attachment cross sections meas. 2−103269
CF_3SF_5 dielectric strength, ionisation and attachment cross sections meas. 2−103269
CH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
CH, excited state lifetimes 2−96645
CH, mol. struct. calcs. using ab initio effective spin-orbit operators 2−75168
CH, spin-orbit coupling consts., ab initio calc. using universal even tempered basis set of exponential functions 2−96415
CH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
CH excited state, Feshbach resonances, QDMBPT 2−85540
CH^+, $A^1\Pi$ state, Λ-doubling of energy levels, rot. adiabatic treatment 2−59689
CH^+, $A^1\Pi$-$X^1\Sigma^+$ system, emission bands, mol. consts. 2−64959
CH^+, IR spectra near dissoc. limit 2−64974
CH^+, interstellar, role of production by vibrationally excited H_2 in circumstellar clouds 2−84296
CH^+, laser induced fluoresc. study 2−59853
CH^+, laser-induced fluoresc. following prod. by electron impact dissoc. 2−96619
CH^{2+}, struct., stability, pot.-curve, HF calcs. 2−85535
$CH+NO(N_2O)(NO_2)(N_2)$, reaction absolute rate consts. at room temp. 2−99653
$CH^++O_2(NO)$, reaction rate coeffs., energy depend. 2−93787
CH_2, Renner-Teller effect, rot. and vibr. levels, Fermi reson. effects 2−113958
$CH_2^++O_2(NO)$, reaction rate coeffs., energy depend. 2−93787
CH_3^+, ion mobility in Ar, drift tube meas. 2−91585
CH_n^+ (n=0,1,2,3), ion mobility in He, drift tube meas. 2−91585
C_2H, radical, rot. consts., excited states, IR obs. 2−64972
C_2H+H, reactive scatt. classical dynamics 2−72982
$C_3H_4^++C_3H_4$ reaction in propyne and allene, long lived collision complex form., exothermicity effect 2−111473
$CH^+(CD^+)$, $A^1\Pi\leftrightarrow X^1\Sigma^+$ system, laser-induced fluoresc. 2−75344
CH_3F^+, ^2E state, spin-orbit coupling const. meas. 2−59692
CH_3O, adsorbed layer on Cu (100), electron scatt. from surface vibr. modes 2−98424
C_3H_8O-Ar vapour-gas mixture, thermal cond. *(Russian)* 2−55693
CN^- molecules adsorbed on Ag surface, giant Raman effect 2−67062
CO_2-CH_4 reforming-methanation chemical cycle for solar energy conversion and transportation 2−111577
CO_2+azulene, level to level vibr. energy transfer, energy depend. and prod. species obs. 2−102584
COF_2, IR fluoresc. from intermediate mode ν_4, vibr. energy transfer 2−90616
COH^+, rot. spectra and dipole moment from ab initio calcs. 2−85524
$CSCl_2$, mol. struct. determ. by gas phase electron diffr. 2−96763
Cu complex, N,N′-bis-solicyloyl-hydrazine, steric struct. determ. using supercond. electron microscope 2−115214
CuI1/ZnI1 bis-(diethyl-dithiocarbamate), ^{13}C ENDOR study 2−77418
4-cyano-4′-n-pentylbiphenyl-organic liq. mixtures, phase diagrams 2−109986
2′-deoxy-2′-fluorouridine, crystal struct. determ. from 3-D X-ray data 2−91940
dicalcium lead acrylate, ferroelastic phase transition, lattice const. and birefringence 2−92187
N,N′-diebenzyl-N,N′-dihydrophenazinium iodide, chain cpds., diffuse X-ray scatt. and order-disorder effects 2−98057
N,N′-diethyl-N,N′-dihydrophenazinium iodide, chain cpds., diffuse X-ray scatt. and order-disorder effects 2−98057
7-diethylamino-3(2′-benzoxazplyl)-coumarin vapour phase dye lasers in visible range 2−75565
F^-, methanol solvate, IR multiphoton dissoc. 2−85755

organic compounds continued
Fe complex, $NH_4[Fe(3,5\text{-dichlorosalicylalthiosemicarbazonate})_2]$, cryst. struct. 2−103744
$GaCl_3$-n-(π-)donor complexes, NQR study 2−108567
H^+ donor-acceptor system association, solvent effects on intermol. interaction *(French)* 2−111488
H_2CH^+-N_2 production, appl. to Titan atmosphere *(French)* 2−100816
H_2CN^+-N_2 production from α-irrad. N_2+CH_4 mixture, Titan atm. appl. 2−100826
HCO_2^+, abundance in interstellar clouds, calcs. 2−94810
$HCOS^+$, abundance in interstellar clouds, calcs. 2−94810
HCS_2^+, abundance in interstellar clouds, calcs. 2−94810
H_2O-trichloromethane vapour, enthalpy of mixing, assoc. model 2−86887
$HOCO^+$, rotational spectra from ab initio calcs. 2−59682
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
^3He-propane proportional detector for thermal neutrons 2−113822
$Hg\{Co(CO)_3L\}_2$ with L an organophosphorus ligand, stretching freq. and intensities 2−90505
InSe-anthracene intercalate, elec. props. *(Russian)* 2−77067
Ir complex, iridium (I) dicarbonyl complex of 4,7-bis(dicyanomethylidene)-4,7-dihydro-1,10-phenanthroline, synthesis and solid state props. 2−92596
LiBr-methanol, vapour press. eqn. and meas. *(German)* 2−98257
$LiClO_4$-dioxolane-water electrolytes in WO_3 electrochromic cells 2−93305
Mn^{2+}-citric acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mn^{2+}-malic acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
N mustards, anti-tumour, electron distrib., pulsed ^{14}N NQR investig. 2−108592
N-heterocyclic compounds in Murchison meteorite 2−79048
$(NH_4)_2SO_4$-H_2O-ethanol-benzene tricrit. mixt., thermodynamic model 2−56158
$2H\text{-}NbSe_3(TCNQ)_{0.05}$, upper crit. field anisotropy and supercond. crit. field *(Russian)* 2−56801
Ne-methane mixture, 300.4K; 1-22 MPa, thermal cond., rel. to kinetic theory 2−81438
Ne-methane mixture filled proportional counter in avalanche multiplication zone for electrons 2−108251
p-n-octyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
1,4,7,10,13-pentaoxycyclopentadecane (15-crown) nitrate praseodymium, cryst. struct., X-ray study *(Chinese)* 2−91938
Pt, adsorption of ethylene and acetylene, field emission study 2−82119
$SbCl_3$ complexes, with organic donors, coordination state, NQR study 2−75318
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
TCNQ complexes, substituted morpholinium, cryst. struct. and elec. cond. 2−86657
TCNQ salts, based on azkapyrido-cyanides, highly conducting, synthesis and phys. props. 2−98633
TGS, nuclear spin-lattice relax. time anisotropy of NH_3 groups, expt. study 2−61782
$(TMTSF)_X$ family of organic charge transfer salts, supercond. obs. 2−56756
$(TMTSF)_2PF_6$, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
$(TMTSF)_2PF_6$, high press. metallic phase, low temp. ESR, evidence for singlet paired supercond. 2−56913
TTF-TCNQ, anomalous IR dielec. const. explained 2−87732
$(TTT)_2I_3$, nonlinear props. at very high freq. *(Russian)* 2−61455
1,1,1-trichloroethane, IR enhanced multiphoton ionis. mass spectrum 2−80748
V^{3+}:guanidinium aluminium sulphate hexahydrate, mag. props. 2−92873

organic insulating materials
see also insulating oils; paper; plastics; rubber; silicones; varnish; waxes
diffusion-pump oil, Dow Corning type 704, vacuum flashover 2−91706
epoxy insulators for composite supercond. magnet, radiation resist. in magnet location 2−108118
fusion insulating materials, review 2−80179
hydrocarbons, liquid, elec. cond. meas. in low elec. field 2−92243
hydrocarbons, saturated, liq. and solid, charge carrier form. by radiation *(Russian)* 2−61480
isotactic polypropylene, impurity effect of dielectric props. 2−110757
nylon-6, current following voltage reversal 2−86922
plastic insulator flashover, mag. inhibition, expt. study 2−91695
PMMA, immersed in transformer oil, anomalous breakdown charact. under direct and impulse stresses 2−110766
PMMA, space-charged, elec. discharge propag. 2−93112
PMMA electrets, TSC meas. with needle-plate electrode geometry 2−57010
PMMA in vacuum, effect of surface deterioration 2−91707
polydimethylsiloxane pre- and post-breakdown events obs., viscosity and rate of voltage effects 2−99035
polyethersulfone film, dielectric breakdown under DC voltage conds. 2−110764
polyethylene, elec. cond. and space charge phenomena at high elec. fields *(German)* 2−87292
polyethylene, high density, carrier mobility meas. 2−71971
polyethylene, low density films, prestressed, impulse breakdown strength 2−87670
polyethylene, numerical anal. of electronic conduction using hopping model 2−110340
polyethylene, TSC following AC stressing 2−87655
polyethylene film, numerical anal. of SCL cond. with consideration of diffusion and elec. field at electrode 2−110358
polyethylene in vacuum, effect of surface deterioration 2−91707
polyethylene subjected to switching surges superimposed upon AC voltage, tree mechanisms obs. 2−99041
polyimide, glass-fabric-filled, mech. strength as function of γ-ray irradiation 2−80180
polyimide insulators for composite supercond. magnet, radiation resist in magnet location 2−108118
polymer cable insulation, aging, for equipment qualification 2−107961
polymeric insulating material degraded under specified conditions, radiation induced conductivity 2−110397
polymeric materials, acoustic emission associated with tree growth 2−110762

organic insulating materials continued
polymers, quantitative method for determ. of resistance to surface discharges 2−109616
polypropylene evaporated films between Cu electrodes, I-V characts. and breakdown strength 2−110512
polypropylene film, electric breakdown under electron irradiation 2−110763
propylene carbonate, high field conduction, electrostatic generator appl. 2−98320
PTFE in vacuum, effect of surface deterioration 2−91707
PVC electrical characts. deterioration when irradiated by Co^{60} γ-rays *(Japanese)* 2−56031
styrene-isoprene block copolymers, effect of temp. depend. of permitt. on TSC 2−87654
superconducting magnet materials, low temp. irradiation effect 2−80182
unistructure elastomer insulator for fusion plasma shutter 2−90304
XLPE, steam cured, voltage and freq. dependence of bow-tie trees 2−110765

organic molecule configurations
see also isomerism
acetates, protonated, struct. and fragmentations, MINDO/3 calcs., heats of form. 2−113889
acetic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
acetylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
acetylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
acetylene-HF complex, microwave spectrum and mol. struct. 2−59789
actinomycin and DNA binding sequence d(GpC), struct. of pseudo intercalated complex 2−73191
acyclic alditols, conformations anal., energy calcs. 2−75164
adenine 5′-nucleotides, C(8)-substituted, NMR study of conformation using lanthanide probes and NOE meas. 2−54884
alamethicin in octanol/dioxane, voltage-dependent pore former, struct. and dipolar props. 2−111616
aldoximes, electronic props., struct., ab initio SCF calcs. 2−85531
aliphatic acetoxy radicals, long-range acetyl-proton coupling, EPR obs. 2−70301
alkanes, connectivity indices, rel. to phys. props., molecular theory 2−81980
alkyl chain conformations in a micellar system from the nuclear spin relaxation enhanced by paramagnetic ions 2−75311
alkyl chain ligands coordinated to $Ln(DPM)_3$ ^{13}C pseudocontact shift and relax., conformational anal. 2−70283
2-amino-4, 6-dichloropyrimidine, bond and mol. polarisability, struct. 2−59965
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
N-aminotriazolones, form. by hydrazine+hydrazonate derivatives, struct., IR obs. *(French)* 2−54846
amylose, mol., simplified helical model, partition function 2−81984
anilide thiosemicarbazone hemihydrate, pyroracemic, cryst. and mol. struct. 2−103743
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
anilines, substituted, Penning ionisation, methyl group steric shielding effect 2−85805
anisole, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
aromatic molecules in soln., vacuum UV absorpt. spectra 2−85688
2-arylalkanoates, geometric and electronic struct., topographical similarity to cyclopropane carboxylates 2−75137
2-arylamino-1,2-diarylethanephosphoric acid esters, stereochemistry, PMR study 2−114019
mono- and di-arylphosphine oxides, conformations, dipole moments, molar Kerr const. and refraction 2−75151
7-azaindole, electronic excitation, mol. struct. and reactivity changes 2−108620
azides, equilib. struct. and force const., MNDO calcs. 2−113883
barrelene, struct., gas phase electron diffr. obs. and force field calcs. 2−85806
benzal-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
N-benzene sulphonyl DL-α-alanine, cryst. and mol. struct., X-ray study 2−99882
benzene-Br atom complex, matrix isolation IR and UV spectra 2−108494
benzenes, monosubstituted and disubstituted, struct., ab initio STO-3G level calcs. 2−96434
benzo(a)phenazine, electronic excitation, mol. struct. and reactivity changes 2−108620
benzoic acid, cryst. and mol. struct., determ. by X-ray and neutron diffraction 2−60969
benzoid hydrocarbons, individual Kekule valence structs., graph-theoretical approach 2−80486
benzoid systems, individual Kekule valence structs., graph-theoretical approach to pseudodegenerate states 2−80487
benzonitriles, alkyl-substituted, struct. elucidation using lanthanide-induced shifts 2−80685
benzoquinoline derivatives struct., mol. weight determ., IR and visible spectra 2−114125
p-benzosemiquinone free-radical anions, reson. Raman spectra 2−80619
3-benzoylaminopropionic acid esters, H-bond form., steric effects, IR spectra, geometries and energies calc. 2−96552
benzo[a]pyrene, trans-9,10-dihydrodiol metabolite, config. assignment 2−108729
benzyl chloride parent ions struct., biomol. isomerisation process 2−78078
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
3-benzylidene-2,4-pentanediones, substituted, IR spectra, conformation 2−64983
bi(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformational anal., CNDO/2, MNDO and PPP calcs. 2−96459
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2−75276
biological macromolecules, struct. determ. by small angle scatt. 2−88509
biphenyl-tetracyanobenzene complex, triplet excitons, intersystem crossing and spin state superposition 2−80701
biphenyls, molecular structures, calculation methods, review 2−65108
p,p′-biphenylsemiquinone free-radical anions, reson. Raman spectra 2−80619

organic molecule configurations continued
bis(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), mol. struct. studied by gas phase electron diffr. 2−96733
bis(4-dimethylaminophenylimino)sulphur and struct. analogues, donor props., conform. anal., adduct form. with TCNQ 2−61454
bis((dimethylbenzyl)silyl) peroxide, X-ray struct. study, conformational calcs. 2−76417
bis(dimethyl-p-chlorophenyl)silyl, X-ray struct. study, conformational calcs. 2−76417
bis(trifluoromethyl)disulphide mol. struct. by gas electron diffr. 2−70416
bis(trifluoromethyl)pyruvic acid cyclohexylamide crystal and mol. struct., X-ray anal. 2−78087
bis (4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), crystal and mol. struct., bond lengths and angles 2−98058
2,2-bis-p-chlorophenyl chloroethane derivatives, struct., ^{35}Cl NQR study 2−108560
9,9′-trans-bis-telluraxanthenyl, cryst. and mol. struct. 2−98060
borepin, geometry optimisation, ab initio MO calcs. 2−108356
bromobenzene, in cis-decalin, glassy phase, dielec. relax., mol. shape effect 2−82775
3-bromopropene, mol. struct., conformers, gas-phase electron diffr. 2−75431
bullvalene, ab initio SCF MO calcs. 2−75181
butadiene, polar twisted minima in ionic singlet excited surfaces 2−108362
3-butenenitrile, molecular struct. 2−59959
t-butyl chloride, in cis-decalin, glassy phase, dielec. relax., mol. shape effect 2−82775
2-butyne, partially oriented, PMR spectra, a_s, struct. determ. 2−96599
cadmium thiocyanate isothiocyanate dibenzoylhydrazine, cryst. and mol. struct. 2−115213
carbenic enamine, struct. calc. using MNDO method 2−113885
carbodimide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
carbonyl compounds, conjugated monosubstituted, stretching force const., geometry, ab initio calcs. 2−85538
carbonylcyanide, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
carbonyls, excited states, electronic struct., INDO/$2V_{N-1}$ pot. model appl. 2−59701
chamic acid, configuration and conformation, ^1H NMR spectra 2−114130
chemical constitution, distance-based topological index appls. 2−96762
8-chloro-1,4-dioxaspiro[4.5]decane, point-dipole interaction, mol. mechanics calcs. 2−85613
-chloro-2,4-dimethyl-1,2-dihydro-1,5,2,3-phosphaoxadiazole, gas phase electron diffr. 2−90703
1-chloro-4,4-difluorocylohexane, point-dipole interaction, mol. mechanics calcs. 2−85613
2-chloro-5-chloromethyl-1,3,2-dioxa-arsolane, three-dimens. struct., NMR study 2−96767
chlorocyclopentane, struct. and pseudorot. pot. function determ. by gas phase electron diffr. 2−90698
2-chloroethanethiol, rot. isomerism and consts., microwave obs. 2−75248
conjugated nonrigid mols., ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
copper (II) complex, with N,N-dimethylpyruvamide 4-phenylthiosemicarbazone, cryst. and mol. struct. 2−81776
cresacine, cryst. and mol. struct. 2−115208
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
α-cyano carbanions, isomerisation, struct., stability, ab initio STO calcs. 2−102370
N-(α-cyanobenzylidene)alkylamines, dipole moments, IR and PMR study 2−113983
N-(α-cyanobenzylidene)anilines, dipole moments, IR and PMR study 2−113983
cyanogen-HF(HCl), H-bonded complex, dissoc. energies, ab initio SCF MO calcs. 2−64859
4′cyanophenyl-4-n-pentylbenzoate, cryst. and mol. struct. 2−103737
4′-cyanophenyl-4-n-pentylcyclohexanoate, nematogenic compound, crystal and mol. struct. meas. 2−91939
cyclo(tetrakis)(5-t-butyl-2-acetoxy-1,3-phenylene) methylene-acetic acid (1:1) clathrate, crystal and mol. struct. 2−90423
cis-syn mesocyclobutadi-2′-deoxyuridine, 2-dimens. PMR 2−80671
cyclobutane-$d_0(d_8)$, vibrs. geometry, force consts., ab initio HF calcs. 2−108349
2,2′-cyclocytidine hydrochloride, cyclonucleoside cryst. and mol. struct., X-ray study 2−99883
1,3-cycloheptadiene, struct. and conformations, ab initio gradient calcs. 2−75163
cycloheptatriene, conformation effects, valence isomerisation to norcaradiene, MINDO/3 calcs. 2−111461
cycloheptatriene, geometry optimisation, ab initio MO calcs. 2−108356
1,3,5-cycloheptatriene, struct. and conformations, ab initio gradient calcs. 2−75163
cyclohexanol, solid, IR spectra study, 93 to 304K 2−61896
cyclohexanols, axial tertiary, OH-rotamer distrib., struct. information from IR spectra 2−108514
cycloocta-1,5-dienyl acetylacetonato platinum tetrafluoborate, cryst. and mol. struct., X-ray study 2−98053
cyclooctatetraenes containing annealed cyclobutene and cyclobutadiene rings, MINDO/3 study 2−113882
cyclopentanol-$d_0(-d_1)$, solid and liq., IR spectra 2−99135
cyclopropane, struct. and vibr. anal., ab initio HF calcs. 2−59688
cyclopropenium, gas phase ion struct. anal. by chemical methods 2−54736
cyclopropyl radical, struct. and vibr. anal., ab initio HF calcs. 2−59688
cyclopropyldimethylborane, vibrational spectra and conformation 2−70257
4-4′-di(p-nitrobenzal)-phenylenediamine, XPS, EHT calcs., electronic struct. 2−54895
7-(p-N,N-di-(n-propyl)aminophenyl)-7,8,8-tricyanoquinodimethane, crystal and mol. struct. 2−75457
1,12-di-iododicarba-closo-dodecaborane(12), mol. struct., electron diffr. obs. 2−90694
1,4-diacetyl-1,4-dihydro-2,3-diphenylpyrazine cryst. struct. and conform. anal. 2−75310
3,5diamino-1,2,4-dithiazolium salts, struct., vibr., IR obs. 2−108516
dibenzo-18-crown-6, solvent effects on PMR spectra 2−108578

organic molecule configurations continued
dibutyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
beta-dicarbonyls, H bonding and proton migration, ^{1}H and ^{13}C NMR chem. shift. obs. 2−80680
1,1-dichlorocyclopropane, rot. consts., mol. struct., HF calcs., electron diffr. obs. 2−108364
dicyanodiazomethane, geometries calc. using ab initio gradient program, bond lengths, electronic struct., force consts. 2−113858
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2−90461
dicyclobutylidene, mol. struct., gas phase electron diffr. 2−90695
diethyl phosphate phospholipid head group stretching vibr., Raman bands, conformation depend. 2−70261
N,Ndiethylpyruvamide thiosemicarbazone monohydrate, cryst. and mol. struct. 2−98068
1,2-difluoroethylene, cis-trans energy difference, electron correl. and polarisation functions 2−113867
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
diiodoethylarsine mols. conformations by vibr. spectroscopy 2−90727
1,2-diisocyanoethane, conformation, vibr., INDO calcs., Raman and IR obs. 2−75274
1,4-dimethoxybutane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,5-dimethoxypentane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,3-dimethoxypropane, Raman and IR spectra, model cpds. of polyethers 2−70258
dimethyl phthalate, molecular motion and struct., ^{13}C NMR spectra 2−75324
dimethyl sulphide, config., IR and Raman spectra anal. 2−113990
4,4dimethyl-1-methylene-2,5-cyclohexadiene, mol. struct. studied by gas phase electron diffr. 2−96733
3-dimethyl-amino-1-phenyl-2-propene-1-one, struct., H-bonds, dipole moments 2−114131
β-dimethylaminopropiophenone, struct., H-bonds, dipole moments 2−114131
dimethylsulphite, conformational anal. IR obs. 2−75270
dioxa-bicyclo(5.1.0)octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2−59958
diphenyl disulphide derivatives, intramol. H bonding effects on conformation 2−75309
diphenyl sulphide derivatives, intramol. H bonding effects on conformation 2−75309
threo- and erythro-1,2-diphenyl-1-propanol, EHT MO anal. 2−96462
diphenylamine and its ortho-and para-nitro derivatives, conformation calc. by atom-atom pot. method 2−75144
diphenylarsenous acid, cryst. and mol. struct. 2−103740
1,1diphenylethanes, S_o, S_1- and T_1-state, geometrical and electronic struct., bond lengths and angles *(German)* 2−90429
dipicrylamine salts with organic and inorganic cations, prep. and mol. configurations 2−113987
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
DNA intercalating mols., comparison between quinacrine and chloroquine ring-ring interaction with adenine and thymine 2−85679
electronic and mol. struct., protonation, MINDO/3 study 2−102391
enamine, struct. calc. using MNDO method 2−113885
ethane, internal rot., barrier height CNDOC *(German)* 2−85554
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
ethene-HF, configs., interaction energy, ab initio SCF calcs. 2−113863
ethyl acetate, cation radical, equilib. struct., SCF MO LCAO CNDO calcs. 2−96456
(+)-o-ethyl o-phenyl phosphorothioic acid, cryst. struct. and absolute mol. configuration *(Chinese)* 2−98048
ethyl radical, conformational preference, ab initio UHF fragment interaction anal. 2−113876
N-ethyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
ethylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
ethylene-HF (HCl), H-bonded complex, geometry and energy, ab. initio MO calcs. 2−113861
ethylene-HF and ethylene-DF complex, microwave spectrum, vibr. and rot., mol. struct. 2−70230
ethylenes, 1,2-disubstituted, ab initio STO-3G calcs. with geometry optimisation 2−96435
α,β-ethylenic ketones, conformations, substituent effects, NMR, IR study *(French)* 2−90582
ethylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
ferrocene, cryst. struct. determ. 2−91937
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2−62553
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
fluoroformyliminosulphur difluoride, struct., microwave spectrum 2−85640
formaldehyde, high resolution study of $^{r}R(K''=3)$ struct. of 3390 Å band 2−85686
formaldehyde in $\tilde{A}^1A_2$ and $\tilde{a}^3A_2$ electronic states, geometry and inversion pot. function 2−108666
formaldehyde-NH_3 (acetonitrile), struct., vibr., IR obs. 2−75277
formic acid, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
free radical-aromatic ligand π complexes, spin density transfer mechanism, struct. effect 2−111491
gentiobiose octaacetate, conformation, NMR obs. and hard-sphere calcs. 2−96602
germylazide, microwave spectra and struct., rot. consts. 2−70233
germylisocyanate, microwave spectra and struct., rot. consts. 2−70233
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2−96546
glycolic acid, struct., microwave spectrosc. investig. 2−96545
glyoxime, mol. struct., ab initio HF STO-3G calc. 2−96431
glyoxylate ion, geometry and energies, ab initio calcs. 2−59683
glyoxylic acid, geometry and energies, ab initio calcs. 2−59683
Group IIIA metal β-diketonates, intramol. tunnelling in coord. units 2−80504
organic molecule configurations continued
(4-halogenobenzoyloxymethyl)trifluorosilanes, crystal and mol. struct., X-ray diffr. 2−75146
heptamethine cyanine IR dyes, lifetime, photostability and chem. struct. 2−102884
hexachlorophene derivatives, cryst., ^{35}Cl NQR spectra, struct., bonding, mol. conformation 2−93053
n-hexadecane, liq. and soln., conformational order, Raman study 2−67033
hexafluoroazomethane, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexafluorobenzene, partially oriented in liq. cryst. solns., struct. and mag. anisotropies 2−80651
hexafluorobut-2-ene-$d_0(d_2)$, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexamethylenetetramine-Hg$(NCS)_2$, tetradentate behaviour, struct., IR obs. 2−75278
hexaphenylisomelamine and hexaphenylmelamine, cryst. and mol. struct. 2−103742
hexatriene, polar twisted minima in ionic singlet excited surfaces 2−108362
5-hexyl-2-(4-bromophenyl)-1,3-dioxane, smectogenic, cryst. and mol. struct. 2−65847
hydrocarbons, Kekule structs., sextet polynomial, graph theoretical identity 2−90430
hydrocarbons, mol. struct. and stability, STO calcs. 2−80453
5-hydroxy-2(3H)benzofuranone, struct., stereochemistry 2−96765
imidazo (3,4-d)-(1,2,4)-triazene-3 (4H)-thione, cryst. and mol. struct., X-ray study 2−98054
iodomethylgermatrane, X-ray diffr., crystal and mol. struct. 2−76422
isocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
isothiocyanates, equilib. struct. and force const., MNDO calcs. 2−113883
isoxazolyl pencillins, conformational energy calcs. 2−116872
ketene imine, electronic struct., ab initio SCF and CI calcs. 2−75180
ketenimine, struct., electronic props., force consts., inversion barrier, non-empirical calcs. 2−64858
koumine hydrobromide, cryst. struct. and absolute mol. configuration *(Chinese)* 2−98047
lactams, trimethylsilyl derivatives, ^{15}N NMR 2−65013
lipid bilayers, order parameters in hydrocarbon chains 2−62555
LIX 65N extracting agent, 3-dimens mol. struct. calcs. 2−90645
maleic acid anhydride dimer, geometry, PCILO calcs. *(German)* 2−85556
mercaptoacetaldehyde, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercaptoacetone, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercuric derivatives of amide thiols, vibr. spectra and struct. *(French)* 2−96542
methane dication, struct., stability, pot.-curve, HF calcs. 2−85535
methanesulphonanilides, m- and p-substituted, conformers, substituent effects, IR obs. 2−90550
methanol, dil. aqs. soln., hydration struct., Monte Carlo calc. 2−72950
methinophosphide-$d_0(d_1)$, ν_3 vibr.-rot. band and equilib. struct. 2−64957
N-2-methoxycarbonyl hydrazonates, form. by hydrazine+hydrazonate derivatives, struct., IR obs. *(French)* 2−54846
methoxyflurane, internal rot., vibr., microwave, IR and Raman obs. 2−75252
methyl, geometries and HFS consts., ab initio calcs. 2−70136
methyl acetate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl acrylate, IR spectra and struct. 2−96568
methyl cation, triplet state, struct., inversion barrier, ab initio MO theory 2−108354
methyl dication, struct., stability, pot.-curve, HF calcs. 2−85535
methyl dimethylsilyl sulphide and its deuterated analogues, Raman spectra, conformational anal. 2−90557
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl formate, electronic and geometric structs., SCF MO LCAO and CNDO/2 calcs. 2−75187
methyl germyl sulphide, config., IR and Raman spectra anal. 2−113990
methyl magnesium chloride, Grignard reagent, struct., vibr. freqs., ab initio calcs. 2−108449
methyl phenyl sulphide derivatives, intramol. H bonding effects on conformation 2−75309
methyl radical, geometry, restricted and unrestricted Hartree-Fock calcs. 2−85541
methyl vinyl sulphone, mol. struct., electron diffr. study 2−75433
1-methyl-2-carbagermatrane, cryst. and mol. struct. 2−98063
(S)-3-methyl-2-p-fluorophenylbutyric acid, geometric and electronic struct. 2−75137
2-methyl-3-butenenitrile, molecular struct. 2−59959
N-methyl-acetamide, ab initio studies on peptide unit nonplanarity 2−113886
methyl-phosphine (-difluoro phosphine), force field calcs., IR obs. 2−64856
methyl-phosphonic difluoride (-phosphine oxide), force field calcs., IR obs. 2−64856
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2−96469
methylene cyclopropenium, gas phase ion struct. anal. by chemical methods 2−54736
methylene-dication, struct., stability, pot.-curve, HF calcs. 2−85535
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
1-methylgermatrane, 3,7,10-carbonyl containing analogues, X-ray struct. anal. and NMR spectra 2−96766
methyllithium clusters, binding energies, geometry, ab initio SCF STO calcs. 2−96787
methylphenols, electronic and mol. struct., protonation, MINDO/3 study 2−102391
methylsulphuryl radical, electronic struct. ab initio SCF-MO calcs. 2−85533
4-methyoxy-2-nitroaniline, methoxy-group conformation, NMR anal. 2−96597
molecular ions, molecular struct., and interaction with matter, conference, Haifa, Israel (Jan. 1981) 2−53410
molecular spectroscopy, conf., Albena, Bulgaria, (Oct. 1980) 2−107020
monobromobenzene in nematic liq. cryst., r_α struct., ^{13}C satellites in PMR spectrum 2−54873

organic molecule configurations continued
monomethyl fumarate and its Na salts, IR and Raman spectra, vibr. anal., struct., conjugative effects 2−90547
1,8 naphthalenephenylphosphite, cryst. and mol. struct., X-ray diffr. study 2−55963
neodymium(III) p-aminobenzoate, crystal and mol. struct., X-ray diffr. 2−76420
pnitrobenzalanine, XPS, EHT calcs., electronic struct. 2−54895
nitrosoacetylene, struct. calc. by ab initio SCF and GVB calcs., consts. rel to IR, microwave and visible spectra 2−59698
non-rigid molecules, symmetry, isotopic substitution effects *(Russian)* 2−85833
nonalternate hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nonbenzoid hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
organic compounds, struct., rot. barriers, STO-3G MO calcs. 2−108350
oxalyl chlorofluoride, cryst. and fluid states, vibr., conformation, Raman and IR study 2−75275
3-oxetanone equilibr. geometry, ab initio SCF calcs. 2−85527
2-oxo-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
20-oxopregnase hormones, configs., PCILO calcs. 2−102387
[2.2]paracyclophanes-electron acceptor, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
pentaziridinocyclodiphosphathiazene $(NPAz_2)_2NSOAz$, $(Az=NC_2H_4)$, Raman and IR studies 2−114002
perfluoromethylamines, mol. struct., electron diffr. and microwave spectra, normal coordinate anal. 2−90701
2-phenoxy-γ-butyrolactone, struct., stereochemistry 2−96764
phenyl cation, gas phase ion struct. anal. by chemical methods 2−54736
phenyl penicillins, conformational energy calcs. 2−116872
phenylbenzoates, substituted, conform. anal., NDDO calc. 2−59961
1-phenylgermatrane-3-one, X-ray struct. anal. and NMR spectra 2−96766
2-phthalonyl-4H-3, 1-benzoxazin-4-one, IR spectra, solvent effects, mol. struct. 2−54844
polyacenes, linear, electronic struct. calc. using SCF-RPA method 2−108375
polycyclic transannular diene systems, lifetimes of π-perturbation investigated using time depend. perturbation theory 2−75138
polyethylene crystals, randomly reentrant chain folding, neutron scattering anal. 2−97940
polyimides with complex dianhydride fragments, conformational struct. and relative packing 2−75145
porphines, free base, H^+ migration dynamics, tautomerisation 2−88351
progesterone, single cryst., γ-irrad., stable free radical, EPR 2−70303
prolyl residues, struct. characts., review 2−73189
1,3-propanediol, gas phase electron diffr., mol. struct., H-bonds 2−96734
propargyl cation, gas phase ion struct. anal. by chemical methods 2−54736
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propylene, potential-energy and dipole moment surfaces 2−102410
propylene oxide-maleic anhydride oligoesters, struct. isomers and compositional sequences, ^{13}C NMR *(Russian)* 2−75327
propylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
pteridines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2−108378
pyrazine, r_0 struct., ab initio gradient method 2−85529
pyridine, r_0 struct., ab initio gradient method 2−85529
pyridine and bis(p-hydroxybenzoato)tris(pyridine)CdII mol. complex, crystal struct. 2−76419
pyrimidine, r_0 struct., ab initio gradient method 2−85529
4(3H)-quinazolinones, IR spectra, solvent effects, mol. struct. 2−54844
rhodamine 6G in aqs. soln., aggregate form. const. and absorpt. spectrum, association forces 2−111485
rhodamine dyes, struct., PMR spectra 2−75323
siloxanes, geometry, energetics, pot. energy functions 2−114069
spirogram, photochromic, cryst. and mol. struct. 2−115210
4-spirotetrahydrofuryl-2′-2-spirocyclohexyl-1,2,3,4-tetrahydroquinoline and nitroxyl radical formed in oxidation, cryst. and mol. struct. 2−98062
styrylpyridines, conformational equilib., absorpt. and fluoresc. spectra in soln. 2−108614
sulphones, ab initio MO calcs., geometries 2−90438
sydnones, photochromic, chemical struct. discussed using X-ray struct. data 2−90454
TBBA, conformational study *(French)* 2−96761
TBBA, theoretical conformational study 2−102657
telluraxanthene, cryst. and mol. struct. 2−98060
terephthal-bis-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
exo-exo-3,4,5,6-tetrachlorotricycloundeca-3,5-diene-9,10-dicarboxylic acid, mol. and crystal struct. 2−75147
tetrafluoro-1,4-benzoquinone in liq. cryst. solns., struct., chem. shift anisotropy and J couplings, NMR study 2−72363
1,1,2,2-tetramethoxydimethyldisilane, dipole moments, struct., refractometry study *(German)* 2−114135
1,1,7,7-tetramethyl-3,5,9,11-tetraphenyltricyclohexasiloxane, struct., X-ray diffr. 2−76418
2,4,6,9-tetrathiaadamantane and its methyl derivatives, synthesis, mass and ^1H-NMR spectra 2−114016
1,2,4-tetrazine, form. by hydrazine+imidate derivatives, struct., IR obs. *(French)* 2−54846
2-thio-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
thioacrolein, mol. struct., electronic props., ab initio SCF calcs. 2−64869
thioformaldehyde-$d_0(d_2)$, average struct., dipole moments, quadrupole coupling, microwave obs. 2−85645
thioformaldehyde-$d_0(d_2)$, vibr., rot., UV obs. 2−75305
thioglyoxal, mol. struct., electronic props., ab initio SCF calcs. 2−64869
thiosemicarbazone, cryst. and mol. struct. 2−115212
thioureas, di- and tri-substituted, IR and Raman spectra, conformational anal. 2−90545
tri(halovinyl)antimony, NMR and vibr. spectra *(German)* 2−65019
s-triazine, r_0 struct., ab initio gradient method 2−85529
triazines, substituted, enzyme inhibitory potency, CNDO/2 calcs. 2−108378
trifluoroacetylfluoride, mol. struct., torsional barrier, gas phase electron diffr. 2−75432
organic molecule configurations continued
trifluoromethyl derivatives, geometry, intramolecular interactions, NDDO calcs. 2−64878
trifluoromethyl ion, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
2,4,6-trifluoropyrimidine, bond and mol. polarisability, struct. 2−59965
trimethyl(trimethylsilylmethyl)ammonium iodide, cryst. and mol. struct. 2−115209
2,4,6-trinitrotoluene, mol. struct., X-ray investig., direct calcs. 2−85552
6,9,12-trioxa-2-thioxo-1,3-diazacylcotetradecane, cryst. and mol. struct. 2−98066
trioxa-bicyclo(5.1.0) octanes, conformational props. and interconversion paths calc. using molecular mechanics method 2−59958
tris(trimethylsiyl)methane, struct., gas phase electron diffr. study 2−114106
trivinylantimony, NMR and vibr. spectra *(German)* 2−65019
trivinylarsenic NMR and vibr. spectra *(German)* 2−65019
unsaturated heterocompounds, architectural laws of electronic struct. 2−108339
ureas, trisubstituted, containing chlorophenyl groups, IR spectra, conformational anal. 2−90544
vinyl formate radical, γ-CH formyl-H^+ coupling, INDO-MO-SCF calcs. 2−90455
vinylamine, struct., ab initio MO calc. with complete geometry optimisation using three different basis sets 2−113855
vinylcyclopropane, rot. isomerism, pot. energy curves, ab initio SCF calcs. 2−108352
vinylguanidinium ion, ab initio MF-SCF-MO calcs. 2−113865
xanthone, X-ray crystallographic study 2−81769
BCl_3, and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_2Cl_4, and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
B_4Cl_4, and their cations, struct. and energies, MNDO calcs., mass spectra 2−113884
CH^{2+}, struct., stability, pot.-curve, HF calcs. 2−85535
C_3H_6O species, triplet state, isomerism, geometry, STO calcs. 2−85525
Sn IV halide complexes, with organophosphorus ligands, struct., elec. field gradient, investig. 2−90589

organic molecule electronic structure *see molecular electronic states*

organic semiconductor materials *see organic semiconductors*

organic semiconductors
aniline black, amorphous organic semicond., elec. cond., thermoelec. and Gunn effects 2−71974
anthracene, charge carrier escape from Coulombic pot. well, time-resolved meas. 2−82372
anthracene, cryst., optical charge carrier generation, time depend. 2−87316
anthracene, electrolum. spatial distribution, elec. contacts influence 2−72556
anthracene, luminescence obs. at 0.4K 2−61966
anthracene crystal, charge transfer energies, Fourier transform calc. 2−71934
anthracene vacuum deposited films, elec. cond. and blue electrolum. 2−116270
4,4′-benzylidene bis(N,N-diethyl-m-toluidine), carrier transport layer, carrier photoinjection from Se binder layer 2−87334
bis(p-toluene sulphonate) ester of 2,4-hexadiyne-1,6-diol, electron mobility, hot electron effects, and polarons 2−92611
bromanil, epitaxial growth mechanism on KCl 2−92391
bromanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
carrier separation, Coulomb attraction and external elec. field effects, expt. study 2−72003
conductor-insulator-semiconductor organic solar cells, development, features and characts. 2−83499
copper phthalocyanine thin layers, electron irrad., transient currents 2−110508
diacetylene, polymerised Langmuir film, electroabsorption spectra, effective masses 2−77491
hemiporphrazine complexes, organic semicond., dark cond., o-chloranile doping effects 2−71977
iodanil, epitaxial growth mechanism on KCl 2−92391
layers, photoelectric pulse current *(Russian)* 2−61625
lead phthalocyanine, thin film, one-dimensional elec. cond. and dynamic switching obs. 2−72086
macromolecular metals and semiconductors: a comparative study 2−56567
naphthyl polyenes, electrical cond. process compensation effect 2−61469
organic energy conversion, ionised impurity induced photocarrier generation 2−99797
organic photoconductors, carrier generation and elec. field induced fluorescence quenching 2−67108
pentacene, layer, photoelectric pulse current *(Russian)* 2−61625
pentacene, polycrystalline layer, dispersive transport of charge carriers *(Russian)* 2−61626
3,4,9,10-perylenetetracarboxylic dianhydride, Elovich photovoltage decay kinetics 2−98696
photosemiconductor, model systems for primary photoprocess in photobiology *(Russian)* 2−62574
phthalocyanine, β-metal free single cryst., TSC 2−77085
phthalocyanine, metal-semicond.-metal struct., current-voltage characteristics with injecting and blocking contacts 2−72077
phthalocyanine complexes, organic semicond., dark cond., o-chloranile doping effects 2−71977
phthalocyanine polycrystalline film, photoelectrochem. solar energy conversion 2−99815
phthalocyanine thin films, metal-free, dispersive electron and hole transports 2−66677
phthalocyanines, carrier mobility, band model 2−98640
poly(p-phenylene), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly(p-phenylene sulphide), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly-N-vinylcarbazole, carrier transport layer, carrier photoinjection from Se binder layer 2−87334
polyacetaylene, oriented, dimensions change under isomerisation and I doping 2−57361
trans-polyacetylene: I_2 film, elect. cond. and IR absorpt. 2−71969
polyacetylene:Br, amorphous film, elec. and optical props. 2−110511

organic semiconductors continued
polyacetylene:I_2, stability and stabilisation, phys. and elec. props. 2−56593
polyacetylene:I_2 elec. cond., three-dimens. disordered semicond. islands model 2−56589
polyacetylene:I, non-ohmic metallic conductivity, tunnelling 2−110335
polyacetylene, $(CH)_x$, cathode and anode active materials, appl. to light-weight rechargable batteries 2−78203
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
polyacetylene, appl. in Schottky barrier solar cells, characts. 2−57707
polyacetylene, AsF_5 and HF doping, ^{13}C NMR study 2−76473
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2−93185
polyacetylene, Br doped, XPS and elec. cond. study 2−93368
polyacetylene, Br substituted, synthesis and EPR, dynamic nucl. polarisation and Raman study 2−76474
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, cis-trans isomerisation on doping and heat treatment, MINDO/3 calc. 2−93791
trans-polyacetylene, doped, elec. cond. freq. depend., two-band tight-binding model 2−77026
polyacetylene, doped, elec. cond. mechanism, IR absorption and reflection spectra study 2−77520
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
trans-polyacetylene, electrochem. voltage spectroscopy 2−110227
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene, I doped, three-dimens. variable range hopping obs. 2−92620
polyacetylene, ion implantation, ESR, NMR, IR and XPS study 2−92008
polyacetylene, lightly doped, electron hopping in soliton band 2−82361
polyacetylene, lightly doped, optical absorpt. spectrum, nonsoliton theory 2−110887
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
trans-polyacetylene, optically excited states, UPS study 2−111030
polyacetylene, p-doped, IR photoacoustic spectroscopy 2−72477
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
polyacetylene, semicond. and metallic, electronic props. 2−82327
polyacetylene, solitons, optical conductivity 2−56573
polyacetylene derivatives, thermoelec. power studies 2−98681
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
polyacetylene films, doping inhomogeneity, Castaing microprobe anal. 2−81810
polyacetylene MIS struct., field effect props. meas. 2−92772
polyacetylene photovoltaic devices 2−57708
polyacetylene-AsF_5, association reaction, thermodynamics and kinetics meas. 2−93775
polydiacetylene, cryst., space, charge limited currents, electron mobility 2−104390
polydiacetylene toluene sulphonate, quasi-one-dimensional single cryst. polymer, charge carrier mobility 2−61514
polymers, elec. cond., bond gaps, valence effective Hamiltonian study 2−76890
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2−77212
polyphenylacetylene:I_2, stability and stabilisation, phys. and elec. props. 2−56593
p-polyphenylene association reaction, thermodynamics and kinetics meas. 2−93775
polythiazyl-metal junction, form. of semiconductive metal sulphide, elec. study 2−110470
polyvinyl ketones reacted with $POCl_3$, elec. cond. 2−56596
PVC:I_2, photoconductivity, doping effect 2−61629
pyropolymer, semiconducting, heterogeneous system, elec. cond. 2−115745
rubrene, photocond. obs., carrier generation determ. 2−72017
Schottky emission meas., excitonic effects 2−72048
stability and stabilisation, phys. and elec. props. 2−56593
TCNQ charge transfer complexes, tetramethyl benzidene-TCNQ and tetramethyl p-phenylene diamine TCNQ, elec. cond. under high press. 2−71970
TCNQ salt, 1-methyl-3′-ethyl-2,2′-quinoselenacyanine-$(TCNQ)_2$, mag. susceptibility, spin dynamics, elec. cond. and EPR study 2−66759
TCNQ salt, (DEPE)$(TCNQ)_{4.5}(H_2O)_x$ subtle struct. changes, explanation of elec. cond. variations 2−55962
TCNQ salt, $(MTPP)_{1-x}(MTPA)_x(TCNQ)_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
TCNQ salt, $Cs_2(TCNQ)_3$, organic semicond., electron-mol. vibr. coupling 2−96536
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
TCNQ salt, KTCNQ, single cryst., Raman spectra 2−110826
TCNQ salt, Me $\phi_3As(TCNQ)_2$, quasi-one-dimens. semicond., dielec. const., field and freq. depend. 2−61816
TCNQ salt, TEA$(TCNQ)_2$, phonon heat pulse diffusivity meas. 2−110057
TCNQ salt, TTF-TCNQ, conductivity and dielec. const., phonon drag theory 2−87282
TCNQ salts, Ag-$TCNQF_4$ and Cu-$TCNQF_4$, current-controlled electrically switched memory state 2−66599
TCNQ salts, triphenylmethylarsonium $(TCNQ)_2$ and $Cs_2(TCNQ)_3$, one-dimensional triplet exciton systems, nucl. relax. 2−66940
TCNQ salts of bis(4-dimethylaminophenylimino)sulphur and struct. analogues, elec. cond. 2−61454
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
Teflon based conducting polymer, elec. cond. meas. 2−87255
M-tetraphenylporphine complexes, organic semicond., dark cond., o-chloranile doping effects 2−71977
tetraselenotetracene charge transfer salts, TSeT(PF_6), TSeT(AsF_6), struct. and semicond. elec. cond. 2−65981
thianthrene, cryst., charge carrier generation, photocond. study, multiphoton processes 2−77110
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2ClO_4$, nonlinear resistivity above supercond. crit. current obs. 2−66732
$(TMTSF)_2PF_6$, dynamical response of SDW mode 2−61456
$(TMTSF)_2PF_6$, magnetoresist. and Hall effect in semicond. phase 2−56620
organic semiconductors continued
transition-metal cation-TCNQ-cyclam complexes, synthesis and elec. resist. 2−93466
2,4,7-trinitro-9-fluorenone, carrier transport layer, carrier photoinjection from Se binder layer 2−87334
triphenylformazon, organic semiconductor, photochromic switching, surface photovoltage study 2−77463
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
(3.3)TTF-Phan-TCNQ, electronic props., cond. and ESR meas, 2−92621
TTF-TCNQ, partial ionicity, cohesion, charge correls. 2−109733
TTF-TCNQ thin film, one-dimensional elec. cond. and dynamic switching obs. 2−72086
zinc dithizonate, thin film, photochromic switching, optical absorpt. and photovoltaic study 2−87882
β-zinc phthalocyanine, bulk trapping states, ohmic and SCL currents meas. 2−98662
zinc thizonate 2−77463
Al-phthalocyanine interface, surface photovoltage, XPS and I-V characterisation 2−56691
organometallic compounds
alkynyl mercury (II), chemical shifts, coupling consts., NMR 2−54880
benzene chromium tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene molybdenum tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene tungsten tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
bis(π-pentadienyl)dinickel, Koopmans' defects calcs. 2−75351
bis (π-polyeryl)nickel clusters, electron correl. and HF instability, INDO MO calcs. 2−96460
carboxyl-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
compounds containing ^{103}Rh, ^{183}W and ^{57}Fe, P-irrad. INEPT expt. 2−87604
cycloocta-1,5-dienyl acetylacetonato platinum tetrafluoborate, cryst. and mol. struct., X-ray study 2−98053
dibenzenetitanium, struct., spectra, chem. props. 2−67045
1,1′-dichloro-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
diethylthiophosphinatocadmium complex, thermal decomposition for growth of CdS films 2−67224
dimethyl 3,4 phosphacymantrene, phase transition, calorimetric and LF Raman study *(French)* 2−110846
ferricenium cations, Jahn-Teller interaction 2−66501
ferrocene, cryst. struct. determ. 2−91937
ferrocene, struct., lattice energy and order-disorder transition, X-ray study 2−115206
ferrocene cryst., static disorder, mol. configuration, X-ray and lattice energy study 2−115207
ferrocene-thiourea channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
formyl-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
geminal interaction of atoms in Y-C-M groups 2−108562
iodomethylgermatrane, X-ray diffr., crystal and mol. struct. 2−76422
metal carbonyl compound $LFe(CO)_4$ where L is organophosphorous compounds, IR spectra, force const., mol. moment 2−80609
metallocene polyoximes, group IV B elec. props. 2−56565
methyl magnesium chloride, Grignard reagent, struct., vibr. freqs., ab initio calcs. 2−108449
methylmercury complexes of adenine, Raman and IR spectra 2−72504
methylmercury halides+$Xe(^3P_2)$($Xe(^3P_1)$), dissoc. excitation rate consts. meas. 2−116693
1-methylmercury-2-ethoxymethyl-o-carborane, crystal struct., X-ray diffr., study 2−76421
organobimetallic compounds, $(SCN)_2Ni(NCSHgR)_2$, synthesis, elemental anal., IR and electronic spectra, mag. susceptibility 2−96571
organocopper thin-film structures exhibiting threshold switching with short term memory 2−56725
organolead amines, vibr., isotope effects IR and Raman obs. *(German)* 2−54847
organoleadamines, primary, second and tertiary, normal coord. anal. 2−75237
organotin benzilates, synthesis, elemental anal., struct., IR obs. 2−110868
organotin compounds, diamag. susceptibilities semiempirical calcs. 2−56819
organotin cpds. and complexes, IR spectrosc. investig. 2−108505
organotitanium halide compounds, NQR frequency, phase transforms., temp. depend. 2−93048
polymers, ICF target preheat shield fabrication 2−85243
radicals, spin trapping by quinones, optically active complex form. 2−110645
and synthesis, conf., Ft. Collins, CO, USA (Aug. 1981) 2−53418
tetramethyltin intercalated graphite, low-temp. structural study by electron microscopy 2−76424
tetramethyltin oxidation rel. to SnO_2:Pb film deposition 2−87997
tricarbonyl(norbornadiene)iron, grand and cationic hole states, struct., INDO MO study 2−108385
trimethylantimony, oxidation rel. to SnO_2:Pb film deposition 2−87997
trimethyltin-manganese pentacarbonyl single crysts., γ-irrad., EPR obs. 2−82705

organs (artificial body) *see artificial organs*

origin of elements *see element origin*

origin of life *see evolution (biological)*

orthicons *see television camera tubes*

orthogonalised plane wave calculations *see OPW calculations*

orthosis *see orthotics*

orthotics
see also prosthetics
bone clamps, external, comparative study of behaviour, rigidity optimisation *(French)* 2−117133
electronic aids for the handicapped, problems and methods used in development *(German)* 2−88689
intra-aortic balloon pumping, influence of vascular parameters on effectiveness, model study 2−117138
lower limb orthotic loads, transducer for meas. 2−100158

orthotics continued
multifunctional control via microcomputer identification of temporal pattern differences in single-site EMG signals 2−83701
myoelectrically controlled externally powered orthosis for the upper extremities *(German)* 2−94249
osteosynthesis and fractured ribs, biomech. expts. *(German)* 2−94089
physically handicapped, electronic rehabilitation aids, developments in India 2−78487
review of physiological stimulators, from elec. fish to programmable implants 2−57919
ventilation and ventilators, historical review 2−117135
ventilators, design and use, appl. of non-linear model of breathing mechanics 2−117136

oscillations
see also circuit oscillations; electromagnetic oscillations; harmonic oscillators; harmonics; piezoelectric oscillations; plasma oscillations; resonance; stability; vibrations; waves
autooscillations derived from loss of stability of nonisothermal Couette flow 2−81316
axial torsional oscillations, automatic recording 2−114744
1,4-cyclohexanedione, oscill. oxidation by BrO_3^- in H_2SO_4 or HNO_3 soln. 2−83349
cylinder, circular, of finite size, dynamic and static contact problems of elasticity theory 2−55514
cylinder, freely floating, transient heaving motion 2−86206
cylinder oscillating in still water, freq. components of fluid-lift forces 2−103016
dissolved species in pulsating crack, advection-diffusion eqn., numerical soln. 2−91569
dusty gas, two dimens. stagnation point flow near oscillating plate 2−97618
Earth radial oscillations, eqns. 2−73477
flexibly-suspended solid body, setting-up of spatial oscillations, vibr. table design *(Russian)* 2−65473
floating hemisphere undergoing forced periodic oscillations, wave forces 2−109343
flow oscillations of spike-tipped bodies Navier-Stokes eqns. soln. 2−65616
fluid saturated porous media, transitions in time dependent thermal convection 2−109318
free oscillations and forced motion in natural basins 2−111976
free-surface flow past oscillating singularities at resonant frequency 2−97572
gas bubbles in compressible fluids, oscills., boundary stability 2−76012
geomagnetic tail, oscill. period from anal. of hydromag. stability 2−100664
giant planets, differential rotation, effect on natural oscills. 2−117628
immiscible liquid systems, small amplitude drop oscillations 2−55620
laminar flow, 2D, about cylinder oscillating in uniform stream 2−97501
laminated cylindrical shell, thin-walled, functioning for stability optimisation 2−91287
liquid oscillations in conical containerforms *(German)* 2−97682
mechanical system forced oscills. with allowance for dry friction 2−114712
membranes, oscillations, wave equations 2−69005
multilayer shell, inclined, isoparametric triangular finite element 2−91273
multitime asymptotic methods for slowly evolving oscillating systems 2−107092
nonlinear fluid oscillations in spherical containers, pendulum analogy 2−91477
nonlinear mechanical system with dry friction, oscillations *(Ukrainian)* 2−55471
nonlinear oscillators, chaotic response, review 2−107246
nonlinear systems with slowly varying parameters, forced unsteady oscills., projection method 2−79344
particle movement in a vertically oscillating liquid 2−114872
pendulum, simple, forced subharmonic oscills. 2−81217
pipe flow, critical Reynolds number 2−91538
plates, laminated, statics and dynamics, expt. investigation 2−55489
plates, rectangular, laminated, anisotropic, nonlinear oscillations, finite-element anal. 2−103084
porous media, heat exchange effect on HF oscills. 2−103163
potassium tris (oxaloto) cobalt (III), neutron irrad., oscill. effects in annealing 2−56042
profile-in-channel flow, oscillations, excitation features 2−114909
quadratically damped forced oscillator, Lorentz linearisation 2−74205
rapid measurement of oscillations' decrement assisted by structural properties 2−58602
rigid body, rapidly twisted, small oscills. in mag. field 2−53499
ring, rotating, nonlinear harmonic oscills. of gyroscopic structural systems 2−55492
satellites, oscillations in elliptical orbit plane 2−100716
shell, spherical, effect of weak shock waves 2−114714
shell container, elastic, partially filled with inviscid incompressible liq., hydroelasticity, spectral problem 2−55476
shell cylindrical, in contact with elastic medium, free oscills., asymptotic analysis 2−60455
shells, conical, stringer reinforced, dynamic characts., speckle struct. method 2−114746
shells, cylindrical, oscill. propag. numerical anal. *(Ukrainian)* 2−103074
shells, noncircular, cylindrical, fluid-filled, natural frequencies, exact asymptotic formula 2−81270
single-frequency acoustic oscillations, Rijke tube as source 2−114592
solar 5-minute oscillations, evidence for oblique magnetic solar rotator 2−100863
solar interior, gravit. oscills. rel. to neutrino brightness vars. obs. *(Russian)* 2−89226
solar low-l five-minute oscillation, implications for solar struct. 2−89220
solar magnetic core, long period toroidal oscillation 2−94685
solar oscillations, p-modes distrib. law 2−84215
solar quiescent prominences, oscillatory motions obs. *(Russian)* 2−63355
solid rectangular parallelepiped, natural oscills., analytic soln. 2−60452
stars with mag. field, stability and oscillations study 2−100908
steady-state oscillations of elastic media, external boundary problem for spherical cavity in halfspace 2−73479
sub/superharmonic oscillations and the perturbation procedure 2−75885
Sun, detect. of 192 s oscillatory component at 8.6 mm wavelength *(French)* 2−63338
Sun, periods of oscillation of solar models 2−79070
Sun, rot. splitting of global oscills. rel. to internal rot. and gravit. quadrupole moment 2−100862

oscillations continued
thermoacoustic self-oscillations in a gas volume with internal heat supply sources 2−81404
torsional oscillations of disc in fluid-particle suspension 2−76013
two-rotor gyrocompass, natural oscillations damping, Newtonometer appl. *(Ukrainian)* 2−75846
umbrella-shaped body vibrating in a fluid, average force acting on the body 2−70759
Van der Pol systems solution, using hodograph transformation 2−89526
vertical pile in waves, transverse oscillations 2−86221
water oscillatory flow at 4°C past an infinite porous plate, hydromag. free convection effects 2−81401

oscillator strengths
anomalies as described by antisymmetrised geminal power wave function 2−108628
atoms, forbidden lines in X-ray emission spectra, transition rate CF calcs. 2−102424
benzenes, substituted, absolute extinction coeff., oscillator strength, valence-shell electronic transitions 2−108537
biexcitons, in strong mag. fields 2−66458
chloroethane, IR multiphoton decomposition and energy depend. absorpt. cross section 2−93770
2,5-dichloropyrine, UV electronic absorpt. spectrum 2−54861
exciton absorpt. lineshape under lattice vibrs., average oscill. strength per state 2−82807
lithium formate, parametric light scatt. obs. of lattice vibr. 2−99145
metallic lines in solar spectrum *(Russian)* 2−79075
methyl isothiocyanate, microwave spectrum, bond angle, rovibr. energy levels 2−85642
molecules, electronic oscill. strengths, solvent effects 2−96640
multiphoton processes, collision induced 2−96528
multipole optical transition calcs. by relativistic SCF method 2−80541
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
polar crystals, polaron IR optical absorpt. 2−104862
quartz, polar vibrs. at 129 and 265 cm^{-1}, temp. depend. *(German)* 2−93181
relativistic sum rules and integral props. of Dirac eqn. 2−90436
Rochelle salt, deuterated, optical indicative and birefringence props., 42 to 318K *(Russian)* 2−61869
Rydberg series, spectrum anal. from MQDT, computer program 2−64905
semiconductors, optical absorption by bound excitons, exchange and spin-orbit effects 2−110263
solar spectrum, oscillator strength ratios rel. to photosphere physical charcts. *(Russian)* 2−73925
Al II, spin-forbidden lines, oscillator strength calcs. 2−85590
Al sequence isoelectronic ions, oscillator strengths, potential model calc. 2−80538
$Al^{n+}+H^+$, stopping power, generalised oscillator strength formulation 2−114080
Al^{n+}(Mg)(Si)(Ni)(Zn) ions, Born-approx. electron ionisation cross section, oscillator strengths, proton stopping power calc. 2−96644
Al_2O_3, optical consts. of amorphous, polycryst., α,γ phases, EELS study 2−57224
Ar, Bethe sum rule, contrib. of L+M and K electrons 2−80539
Be, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
Be-like ions, spin-orbit elec. dipole transitions 2−96497
C II and C III, spin-forbidden lines, oscillator strength calcs. 2−85590
C_2 IR bands in solar photosphere spectra, oscillator strength determ. 2−79061
C_2 Phillips ($A^1\Pi_u$-$X^1\Sigma_g^+$) system 2−63226
C_2^-, $B^2\Sigma_u^+$ state rot. level lifetimes meas. 2−114048
Cl, term energies and oscill. strengths, Thomas-Fermi Hartree Fock calcs. 2−80459
CN, $A^2\Pi$ and $B^2\Sigma^+$ states, transition moments determ. from ab initio calcs. 2−85746
CN red system in solar spectrum, oscillator strengths, radiative lifetimes and electronic transition moment 2−106641
CO, dipole oscillator strength distrib., sums and dispersion energy coeff. 2−70342
CO_2, dipole oscillator strength distrib., sums and dispersion energy coeff. 2−70342
COS, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
CS^+ in comets, oscillator, strengths and radiative lifetimes determ. 2−73905
CS_2, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
Ca, oscillator strengths meas. for transitions from metastable ^3P levels 2−113931
CaH, low lying electronic $B^2\Sigma$ state, radiative lifetimes, oscillator strengths meas. 2−65054
CaI, electric quadrupole transition, oscillator strength and inert gas induced broadening 2−90466
Cl I ^2D-^2P transitions, vac. UV, oscill. strengths 2−59733
Cl-like ions, electric dipole transition energies, wavelengths and oscillator strength for E1 transitions 2−79291
Co I, absolute oscillator strengths for lines between 2276 Å and 9357 Å rel. to solar Co abundance 2−112315
Cr I, oscillator strengths for Fraunhofer lines *(Russian)* 2−75216
Cs, electron impact excitation, oscillator strengths and cross section calcs. 2−59940
Cs, multiphoton processes, collision induced 2−96528
CuCl, excitons, wave-number dependent oscillator strength and longitudinal-transverse splitting calc. 2−98549
^{166}ErII, lifetime meas. using fast-beam laser-modulation spectroscopy 2−108423
Eu II, line intensity meas. and oscillator strengths 2−59746
Eu II, oscillator strengths, astrophysical appls. 2−59747
Fe I, relative oscillator strengths meas. 2−59728
Fe I lines in solar spectrum, equivalent widths rel. to internally consistent scale of oscillator strengths 2−58247
Fe II, interstellar lines, UV oscillator strengths and abundances 2−112522
GaAs, oscillator strength and lifetime broadening of exciton polaritons 2−93141
Gd, oscillator strength of spectral line λ=451.966 nm 2−64926
p-Ge:B(Al)(Ga), impurity states, oscillator strengths, quadrupole moments 2−104303
H, magnetic field effect, energy levels, oscillator strengths, calc. on CRAY-1 computer 2−96483

oscillator strengths continued
H plasma, oscillator strengths, photoionisation cross sections emission spectra 2−103449
H-H(He^+), polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
H_2, electron inelastic scatt., high-energy, X-B and X-E transitions 2−102650
H_2, vibrational preionisation, multichannel quantum-defect theory 2−75359
HF, pot. energy curve, Rydberg-valence mixing, spectra, ab initio Cl calcs. 2−54777
He, electron impact excitation, cross sections, Coulomb-project Born approx. 2−90717
He isoelectronic series, energy and transition probabilities correl. wavefunctions calcs. 2−113874
He, oscillator strength distrib. near ionisation limit, Stark effect 2−108426
He, S, P, D states, mass polarisation effect and oscill. strengths 2−59697
He-He(Li^+), polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
He^+-He^+(H), polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
Hg vapour, freq. up-conversion to VUV 2−81021
LaF_3:Pr^{3+} single cryst., fluoresc. line 2−61944
Li atomic K-shell, absolute photoabsorpt. cross section 2−70201
Li, autoionising states in low lying triplet excited reson., saddle point technique 2−64933
Li, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
Li^+-Li^+(He), polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
$LiNbO_3$ amorphous and polycryst. thin films, RF sputtering, struct., refractive index, X-ray study 2−72624
$LiYF_4$:Nd^{3+}, oscillator strengths and Nd^{3+} optical absorption lines 2−116175
Li(2^2P), electron impact excitation, cross sections, oscillator strengths 2−102640
MgH, $A\Pi^2$-$X\Sigma^2$ system oscillator strength comparison with solar photosphere 2−70186
MgI, laser-excitation technique for the measurement of absolute transition probabilities of weak atomic lines 2−70191
MgI, oscillator strengths from metastable ^3P levels, expt. determ. 2−96506
Mn II, interstellar lines, UV oscillator strengths and abundances 2−112522
N I, N II, N III, spin-forbidden lines, oscillator strength calcs. 2−85590
N, transition in fourth spectrum 2−96472
NH, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
NH_2, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
$NaNO_2$, lattice mode anharmonicity, order-disorder transition, IR spectra study 2−76614
Nb I lifetime meas. rel. to solar Nb abundance 2−112406
Nd I and Nd II, excited levels lifetimes and oscillator strengths 2−113930
$Nd_2(SO_4)_3 8H_2O$ complexes in soln., optical absorpt. spectra 2−70270
Ni I, oscillator strengths for optical spectral lines *(Russian)* 2−90478
O I, O III, spin-forbidden lines, oscillator strength calcs. 2−85590
O_2, electronic excitation energies, oscillator strengths and polarisabilities, MCRPA evaluation 2−80793
OH, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
PbF_2-GaF_3-$ZnF_2(MnF_2)$:Er^{3+}, fluoride glasses, optical transition probabilities, Judd-Ofelt method 2−61960
Pd I radiative lifetimes and oscillator strengths, appl. to solar photosphere abundance 2−64903
$(PdCl_4)^{2-}$, symmetry forbidden transitions, oscillator strengths 2−85635
Rb, absorpt. data using tunable dye lasers 2−113919
Rb, electron impact excitation 2−70427
Rh I lifetime meas. rel. to solar Rh abundance 2−112406
Se IV, V and VI, energy levels, lifetimes, f-values, beam-foil spectra 2−102596
Si III, spin-forbidden lines, oscillator strength calcs. 2−85590
Si^{9+}, electron impact excitation cross sections determ., fine struct. transitions, oscillator strengths 2−65094
Sm atom, oscillator strengths and electron excitation cross sections 2−85593
Sm atom, oscillator strengths and electron impact excitation cross section *(Russian)* 2−102435
Sr, metastable ^3P level transition oscill. strength meas. 2−85567
$ThBr_4$:U^{4+}, absolute oscill. strength determ. 2−61859
Ti abundance in solar photosphere from Ti I lines equiv. widths and oscillator strengths *(Russian)* 2−79063
Ti I, relative oscillator strength meas. 2−59727
TmSe, mixed valent cpd., dielec. response, anomalous features 2−56457
W atomic beam laser excitation for lifetime meas. in configuration (5 d+6s)^{5}6p 2−54806
W I and II lines, oscillator strengths 2−54802
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2−66492

oscillators
see also Gunn oscillators; microwave oscillators; relaxation oscillators; tunnel diode oscillators; variable-frequency oscillators
chaotic behaviour, unstable periodic orbits 2−69088
millimeter-wave spectrometer, sensitivity and response time improvements 2−89825
MM and sub-MM wavelength interferometry, use of two-oscillator operating modes 2−76199
modeling of frequency random walk instability and effects on spectral spreading 2−95314
mono-ion oscillator as potential ultimate laser frequency standard 2−89656
non-linear symmetrical third-order oscillatory unit, stabilisation mode comparison 2−75883
Planck's formula for classical oscillators with stochasticity thresholds 2−112823
GaAs-n-AlGaAs heterojunction, real-space transfer oscillator 2−66625

oscillograms *see oscillographs*
oscillograph recorders *see oscillographs*
oscillographs
see also cathode-ray oscilloscopes
No entries
oscilloscopes, cathode-ray *see cathode-ray oscilloscopes*
Oseen method *see flow*
osmium
see also nuclei with .....
film, on Si substrate, formation of silicides, thin film reactions, diffusion, nucleation and stability 2−104077
K_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
Rb_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
osmium alloys
see also osmium compounds
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Th(Ir,$Os)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
W-Os matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244
osmium compounds
see also osmium alloys
$CsOsO_3N$, cryst. struct., coord. number, X-ray diffr. study *(French)* 2−81724
$KOsO_3N$, cryst. struct. determ., Scheelite type struct. *(French)* 2−76370
$O_2(phen_3)^{2+}$, nonradiative decay rate consts. and emission energies, energy gap 2−114024
Os complex, $(Os(bpy)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
Os complex, $Os(bipyridyl)_3^{2+}$ electronic struct. of metal-to-ligand CT states 2−92535
Os complex, $Os(bipyridyl)_3^{2+}$ in host lattice, circular dichroism of CT bands 2−93162
Os complexes, $(\mu_2\text{-}H)_2Os_3(CO)_{10}$, vibr. spectroscopy, normal coordinate calcs., force const. 2−70469
Os complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
$Os_3(CO)_{12}$ metal mol. clusters, UV photoelectron spectra 2−65124
OsF_5, magnetic interactions of intra- and interclusters, neutron diffr. study *(French)* 2−66805
OsF_6, energy levels, vibronic coupling, IR and visible study 2−116189
OsO_4, cryogenic soln., mol. aggregates, IR study 2−67031
OsO_4 narrow resonances, use in CO_2 laser freq. stabilisation 2−90965
$OsSi_2$, formation, thin film reactions, diffusion 2−104077
Os_2Si_3, formation, thin film reactions, diffusion 2−104077
osmosis
see also membranes
anomalous electrolytes, pair distrib. and osmotic coeff. up to 1 $mol.^{-1}$ 2−61183
comparison of solar RO and solar thermal desalination systems 2−67829
design of a small solar-powered desalination system 2−67827
development of a marine osmotic solar still for sea water desalination 2−67834
electro-osmotic stability in animal cells, unified model of morphologically active membrane coat 2−99925
electroosmosis, higher order phenomenological coeffs. 2−73010
engineering design of a 6000 m^3/day seawater hybrid RO-ED helio desalting plant 2−67833
interstitial solid solns., thermal transport enthalpy calc. *(Russian)* 2−115461
membrane, with selective skin, transient diffusion 2−88376
muscle cell volume, osmotic reactivity after fixation 2−73209
neurons, perfused, inward ion current kinetics, effect of transmembrane osmotic press. gradient 2−105690
osmoregulation and interstitial fluid press. changes in humans during water immersion 2−73284
polyacrylamide gels, deswelling under reverse osmosis 2−105504
polyelectrolyte solutions, osmotic coeff., Monte Carlo method 2−57635
polymer solutions, props., extrapolation formulae 2−60860
Portland cement membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
pressure retarded osmosis at electric power source, principles and economic analysis *(Dutch)* 2−105599
wind and solar powered reverse osmosis desalination units−design, start up and operating experience 2−67813
CsCl, aqueous soln., enthalpy of dilution 2−105497
K_2CO_3, aqueous, activity and osmotic coeffs. 2−93807
KBr(Cl), aqueous soln., enthalpy of dilution 2−105497
LiCl, aqueous soln., enthalpy of dilution 2−105497
NaBr(I), aqueous soln., enthalpy of dilution 2−105497
NaCl, aq. soln., enthalpy of dilution, 348.15 to 472.95K 2−57632
$Ni(NO_3)_2$ aqueous solns., activity and osmotic coeffs. 2−105496
$PbCl_2$, molten salt, external transport number, frit material effect 2−105513
ThO_2 membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
V_2O_5 membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
osmotic pressure *see osmosis*
OTEC *see ocean thermal energy conversion*
otology *see ear*
overcurrent protection
LCT protective dump switch tests 2−69954
Overhauser effect
see also nuclear Overhauser effect
H, spin polarised, in solid H_2 matrix, Overhauser effect 2−54878
overhead line mechanical characteristics
see also oscillations
steel reinforced Al conductors, coupled axial torsion model 2−116498
overhead line sagging *see overhead line mechanical characteristics*
overvoltage
gasfilled spark gap overvoltage breakdown statistics 2−97827
high-pressure spark gap overvoltage breakdown probability 2−97828
overvoltage protection
telephone exchange energy requirements supplied by roof-top solar cell arrays *(French German)* 2−57699

oxidation
see also anodisation; combustion; corrosion; reduction (chemical)
acetylene condensation reactions in a microwave induced plasma 2−57613
adsorption of CO, decomposition and oxidation of surface carbide 2−62432
aero gas turbines, corrosion prevention by organometallic cpd. additives 2−116623
alloy, dilute, oxidation, parabolic growth of nonuniformly doped oxides containing aliovalent impurities 2−72865
binary alloys, effect of supersaturation on parabolic rate constant 2−67731
binary alloys, simplified treatment of limiting conditions for selective oxidation 2−67619
carbide-graphite composite materials, high temp. oxidation, heat treatment effect 2−72722
carotenoids, autoxidation kinetics, X-ray diffr. study 2−99667
chemical polishing initiation, effect of oxide layer 2−111383
coordination compounds, appl. of generalised Forster cycle 2−57623
corrosion resistance high temperature coatings, Si role 2−116586
1,4-cyclohexanedione, oscill. oxidation by BrO_3^- in H_2SO_4 or HNO_3 soln. 2−83349
diamond micropowder, oxidation rate, dispersity effect 2−105440
1,5dithiacyclooctane, EPR studies of isomeric monomeric cation radicals and dimers formed on oxidation 2−75331
duplex coating, diffusion-inhibited oxidation resistant, for superalloys 2−116622
formaldehyde, adsorbed on Ag(110), oxidation, EELS study 2−116728
globular proteins, comparative investigation of radiation oxidation and X-ray chemiluminesc. 2−111745
graphite, fine-grained, oxidation effects on thermal expansion coeff. and thermal shock fracture initiation 2−77896
graphite moderators, oxidation rate profile, MEDIC model validation 2−64486
hexadecane, oxidation reaction, gas chromatography-IR study 2−78085
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
hydroxy-ellipticine (-olivacines) (-methyl-z-ellipticine), oxidation pathways, CNDO calcs. *(French)* 2−96453
IC manufacture, ion implantation control of oxidation process 2−61008
Inconel 625, high-temp. air oxidation 2−80115
internal oxidation, precip. under diffusion saturation conditions, theory *(Russian)* 2−88084
light-energy conversion efficiency in photogalvanic cells and H_2O cleavage systems 2−111569
living tissue oxidation-reduction state meas. using laser fluorescence−absorption measuring device 2−111819
low-C steel, oxide film growth, vibr. technique obs. 2−83311
mechanical props. for use at high temps. 2−105343
metal oxides, depth profiling using Raman spectroscopy with ion bombardment 2−57646
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metal-oxide interface, edge-on TEM obs. 2−72889
metallic glasses, thermal oxidation kinetics 2−67621
metals, multiphase oxide film growth by cation interstitial diffusion 2−62272
metals, oxide film growth, conditions for form. of new oxide 2−87090
metals, oxide film growth, vibr. technique obs. 2−83311
methanol, adsorption, oxidation and decomposition on Ag (111), UPS and XPS study 2−76826
methyl cyanide oxidation over Ag surface, AgCn and AgOCN surface compounds formation 2−78126
naphthalene, surface photooxidation, Penning ionisation electron spectroscopy and UPS study 2−67595
plasma conference, Swansea, Wales (July 1981) 2−94899
polyacetylene, ESR linebreadth narrowing mechanisms, expt. study 2−77358
polyacetylene film, IR study of cis trans isomerisation 2−62398
polyethylene, oriented high-density, O_3-O_2 oxidation effect on low-temp. stress relax., IR spectra obs. *(Russian)* 2−67408
polyethylene, oxidation above melting point, γ-radiation effect on kinetic parameters *(Russian)* 2−67578
polyethylene under photoxidation, physico-mechanical props. *(Russian)* 2−71378
polypropylene film, effect of high O_2 press. and temp. on ageing 2−116576
polypropylene isotactic film, thermo-oxidative degradation, struct. changes 2−71377
polypyrrole film, neutral and oxidised, prep. and characterisation 2−81693
porous ceramics containing Si, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
pure metals, multiphase layered oxide growth, general formulation 2−77990
redox systems appl. to fuel cells 2−62472
rhodopsin molecule in photoreceptor membrane, photodamage, oxidation of SH groups 2−99894
rubrene, surface photooxidation, Penning ionisation electronic spectroscopy and UPS study 2−67595
Si:H, amorphous oxidised films, valence band spectra 2−104300
4-spirotetrahydrofuryl-2′-2-spirocyclohexyl-1,2,3,4-tetrahydroquinoline and nitroxyl radical formed in oxidation, cryst. and mol. struct. 2−98062
sputter etch-oxidation process, fabrication of MOSFET 2−88249
stacking faults, oxidation induced, growth kinetics, interstitial capture by partial dislocations 2−98118
steel, 304 stainless, sputter deposited, oxide and sulphide scales, AES and SEM studies 2−88272
steel, austenitic, oxidation, edge-on TEM obs. of metal-oxide interface 2−72889
steel, austenitic stainless, duplex scale form. kinetics, influence of O_2 partial press. 2−116590
steel, austenitic stainless, oxidation in CO_2 coded reactors 2−64483
steel, austenitic stainless 316, rapidly solidified Al_2O_3 dispersion strengthened, microstruct., path A alloys 2−88094
steel, constructional, low-temp. oxide film, form. after polishing, Auger spectra obs. 2−57539
steel, Cr, oxidation in CO_2 coded reactors 2−64483
steel, Cr-Mo, ferritic, carburisation-decarburisation in liq. Na environment 2−111369
steel, Cr-Ni (13, 4-6 wt.%), temper embrittlement *(Czech)* 2−116535
steel, ferritic, oxidation, edge-on TEM obs. of metal-oxide interface 2−72889

oxidation continued
steel, ferritic stainless, selective oxidation at low temp. and low O_2 press. 2−88256
steel, low-alloy, with different Ti concs., phase comp., microstruct., and mech. props. 2−72827
steel, martensitic stainless, wear against WC up to 500°C 2−83238
steel, mild, oxidation in CO_2 coded reactors 2−64483
steel, Mn-Cr-Mo-Nb, austenitic, heat resisting, props. and microstruct. *(Korean)* 2−57534
steel, oxidation of fatigue fracture surface with low cracking rates *(French)* 2−62212
steel, permeation of H, surface oxides and tempering treatments influence 2−93680
steel, Si-Al bearing electrical, internal oxidation and mag. props., annealing conditions influence 2−72724
steel, stainless, 18-8, fine-grained rapidly solidified, oxidation behaviour 2−111373
steel, stainless, Cr-Ni, anodic oxide film, XPS study *(Chinese)* 2−62250
steel, stainless, Nb stabilised, oxidation in CO_2, CVD SiO_2 coating effects 2−67620
steel, stainless, oxidation investig. using automated scanning proton microbeam 2−111351
steel, stainless, oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
steel, stainless, scale phase composition and steel structure changes during oxidation at 1100°C 2−62284
steel, stainless, Type 304, Te implantation effect on creep rate and oxidation resist. 2−93576
steel, stainless AISI 310, oxidation in high press. CO_2 2−62253
steel, structural, fatigue crack growth in air, crack surface oxide form., test freq. influence 2−105429
surface science, conference, Liverpool, England (April 1981) 2−58538
surfaces, atomically clean, prep., struct. and props. 2−82103
tetramethyltin oxidation rel. to SnO_2:Pb film deposition 2−87997
thermocouples, Chromel-Alumel, deterioration of EMF in reducing atm. at high temps. 2−67641
thin oxide layers, reflectance spectroscopy 2−67135
transition metal oxides, interatomic Auger transitions, rel. to metal oxidation 2−82965
trimethylantimony, oxidation rel. to SnO_2:Pb film deposition 2−87997
two-layer metal-dielectric film growth model 2−61303
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458
weakly conducting fluid flow instability in oxidation reduction electrode reactions 2−86260
Zircaloy, surface oxidation, protective coating form. 2−99607
Zircaloy cladding, ductility loss by inner surface oxidation 2−59461
Zircaloy-2, oxygen embrittlement on long-term exposure to fission product oxides 2−69707
Zircaloy-4, oxidation kinetics, high temp., simulation of parabolic and linear behaviour 2−111370
Zircaloy-4, reaction in steam-H_2 mixture at high temp. 2−83274
Ag^+ bis(2,2′-bipyridine)-bis-cyanoruthenium(II) complex form., redox and photochem. behaviour 2−83392
Ag-Au, oxidized, plastic deform. effect on alloy-oxide layer, TEM study 2−110219
Ag-Zn, internally oxidised, containing various alloying additions, elec. contact charact. 2−83248
AgIn dilute alloy, internal oxidation, TDPAC study 2−93080
Al, (111), blue coloured surface obs. during high temp. oxidation 2−88280
Al alloys, oxidative wear, pin-on-disc expts. 2−111328
Al alloys, vacancies generation study during oxidation, electron microscope method 2−72897
Al, anodic oxide film, breakdown during pore filling 2−67660
Al film, evaporated, oxidation studied by AES, EELS and electron stimulated desorpt. 2−76855
Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Al, ion implanted, radiation damage and annealing studies 2−76532
Al, oxidation by plasma formed due to low-threshold breakdown of air 2−99604
Al, oxide film form., EXAFS study in total yield and refl. modes 2−57212
Al, secondary ion emission enhancement during low press. oxidation 2−67178
Al surface, oxidation state, ang. correlation of positron annihilation study 2−72877
Al/Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al-Cu layer, evaporated, interface elec. resist. and Auger profiling 2−77160
Al-Mg, oxide formation, Mg diffusion, Auger and SEM study 2−82009
Al-SiO_2-Si structure, prep. under UHV conditions 2−56716
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
Al-Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al-Zn-Mg alloys, influence of alloying additions (Cr, Cu and Li) on thermal oxidation 2−105359
AlAs thin film, MBE growth, oxidation, XPS study 2−83257
Al(111), oxidation, EELS study 2−88279
As films, O_2 adsorption in oxidation, photoemission study 2−92355
As, oxidation kinetics, sublimation, rotating specimens 2−72964
Au-Ag, oxide formation during corrosion in HNO_3, electron microscopy study 2−72890
$AuIn_2$ film, O_2 and Ar plasma interaction, sheet resist. 2−77204
B, polycrystalline, oxidation, AES and EELS studies 2−77963
BN, high-temp. stability in O_2, cryst. struct. influence 2−72858
$Ba(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726
Be (0001) surface, single cryst., Auger electron spectroscopy study of initial stages of oxidation 2−78002
C adsorbed on Ir, oxidation kinetics 2−66373
C fibre, containing ZrO_2, effect of low temp. Ar plasma 2−67585
C impurity, on Ti surface oxidation 2−72882
C-C composite with hybrid C-SiC and C-TiC matrices, synthesis and characts. for high temp. applic. 2−77765
CO, absorbed on Pt, oxidation, photocatalytic effect 2−111519
CO, catalytic oxidation on Pt (100), kinetic oscills. 2−93815
CO, kinetics and mechanisms of oxidation at 600-800°C 2−67646
CS_2-O_2 mixtures, self-ignition, conditions, spectrosc. investig. 2−62402
$Ca(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726

oxidation continued
Cd surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
CdTe (110) vacuum cleaved surfaces, photoenhanced oxidation *(Japanese)* 2−116577
CdTe-TeO_2 epitaxial layer, interface struct., high resolution TEM study 2−56367
Ce, oxidised, resonant photon stimulated ion desorption 2−87048
Co, oxidation rates near $\varepsilon \rightarrow \gamma$ and $\alpha \rightarrow \gamma$ phase transitions, oxide thickness and temp. effects 2−67649
Co-Cr dil. alloy, kinetics and mechanism of high temp. oxidation 2−88277
Co-Cr-Al-Y (22, 11, 0.5 wt.%) coating, oxide form. at 700°C 2−116621
Co-Cu (8.03 wt.%), high temp. oxidation, reaction kinetics 2−62258
Co-Fe(Ni), ternary oxide scale form., diffusional growth, computer simulation 2−62271
Co-Mn (0-35 wt.%) alloys, oxidation at high temps. 2−72884
Co-Ni (0.45 wt.%), O_2 press. effect on elev. temp. oxidation *(Japanese)* 2−105375
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Cr black, selective solar absorber, optical response, high temp. substrate oxidation 2−99840
Cr epitaxial film on W (110) face, adsorbed O and Cs effect on work function, two-stage oxidation phenomenon *(Russian)* 2−61298
Cr oxide layers, reflectance spectroscopy 2−67136
Cr, reoxidation with densified Cr_2O_3 scales 2−67648
Cr, surface (110), chemisorpt. of O and initial oxidation 2−115567
Cr transport through Cr_2O_3 scales, lattice diffusion 2−86926
Cr transport through Cr_2O_3 scales, scale morphology change during high vacuum treatment 2−86927
Cr-Al-Y-M (M=Co, Ti, Si, Ni, Mn, Pt, Fe), alloying additions effect 2−116451
Cs thick film oxidation, multiplet struct. in photoemission studies 2−72596
Cu chromite catalysts, XPS struct. elucidation and correl. with catalytic activity 2−105038
Cu, oxidation by plasma formed due to low-threshold breakdown of air 2−99604
Cu oxide films, influence on dimens. change in sintered Cu-Sn (10 wt.%) *(Korean)* 2−116407
Cu, semiconducting oxide films, photoelectrochem. invest. 2−105363
Cu, surface (111), O_2 chemisorpt. 2−110155
Cu-Al-Fe, surface oxidation, suppression during laser surface treatment 2−83294
Cu-Al(-Ti)(-Hf) powder, sputtered, internal oxidation to produce dispersion strengthed Cu *(Russian)* 2−67238
α-Cu-Zn, oxidation, low temp., XPs ESCA study 2−111352
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
Cu_2O, heating dynamics, O_2 partial pressure effect 2−65459
$Cu_{2-x}S$ thin films, oxidation-reduction effects on optical absorption, application in solar cells 2−82941
Cu_2S film, topotactically grown, chalcocite-djurleite transform., TEM study 2−104195
Cu(100), angle resolved photoemission studies of oxide formation 2−93366
Fe, Al implanted, high temp. oxidation 2−77976
Fe, fatigue deform., oxygen effect, crack initiation along slip lines 2−105329
Fe, ferromagnetic, single particle and collective excitations, EELS study oxidation effects 2−76915
Fe foil, oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
Fe, initial stages of high-temp. oxidation 2−78001
Fe, oxidation, edge-on TEM obs. of metal-oxide interface 2−72889
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe, oxidation, high temp., stress effects, SEM obs. 2−99592
Fe, oxidation at room temp., Al impurity effects 2−67632
Fe, oxidation rates near $\varepsilon \rightarrow \gamma$ and $\alpha \rightarrow \gamma$ phase transitions, oxide thickness and temp. effects 2−67649
Fe, passive oxide films in aq. soln., high resolution electron microscopy study 2−72891
Fe-Al-Hf oxidation, Al_2O_3 scales with oxide dispersions, peg formation obs. 2−93670
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-Cr, oxide scale form. in air at elev. temp., Raman obs. 2−62264
Fe-Cr alloys oxide film growth, vibr. technique obs. 2−83311
Fe-Cr-Al (20, 4.5 wt.%), oxide dispersion strengthened, long-term high velocity oxidation and hot corrosion testing 2−88274
Fe-Cr-Al (22,4 wt.%), void form. mechanism at substrate oxide interface 2−67610
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-Cu binary alloy, selective oxidation, optical, X-ray and SEM obs. 2−99605
Fe-Ni, secondary ion emission under O_2^+ bombardment, oxidation 2−82980
Fe-Ni-Cr-Al-Y alloys, high-temp. oxidation, adherence of Al_2O_3 scale 2−105367
Fe-Si, grain orientated elec. steel, decarburization rate related to surface oxidation, math. model 2−83284
Fe-Si, oxidation, theoretical anal. 2−67618
Fe-Si, oxide layer composition, influence on mag. props. 2−56893
Fe-Si, oxide scale removal, interface exposure 2−105383
Fe-Si (1-4 wt.%), simultaneous creep and oxidation, 973-1073K 2−105214
Fe-Si (≤1wt.%), dil. alloy, oxidation in CO_2 2−67617
Fe-Si-Al nonoriented electrical sheet, oxide film form. and props., effect on material quality, AES obs. *(German)* 2−105386
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation charact., Mn additive effect, subsurface role 2−76690
Fe_2O_3, oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
Fe_3O_4 on steel and Fe surfaces, oxidation, IR and Raman spectroscopy study 2−116563
α-FeOOH, Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
FeTi activated surface, oxide struct., X-ray study 2−99591
$FeTiO_3$ spinel, natural, oxidation-reduction reactions, electron microscopy 2−72986
Ga surface, oxidation, photoemission spectra study 2−93376
oxidation continued
GaAs, anodic oxidation, island stage 2−111342
p-GaAs, reduction of fast surface states 2−66602
GaAs, surface (110), oxidation, low intensity laser radiation effect 2−111341
GaAs, surface donors and acceptors, Fermi energy as function of O_2 exposure 2−110426
GaAs, surface oxide phase form. by H_2O or O_2 adsorpt., UPS, XPS and SIMS study 2−115544
GaSe, layered semicond., oxidation, XPS and AES study 2−57502
$Gd_{1-x}Co_x$ amorphous films, oxidation, FMR study 2−82724
Ge, surface oxidation, modification by Al adatoms UPS study 2−67576
H_2O, photooxidation sensitisation by WO_3 powder 2−78116
HfO_2, fine monoclinic power prep. by hydrothermal oxidation 2−88039
(Hg,Cd)Te, photochemical oxidation 2−111345
$Hg_{0.8}Cd_{0.2}Te$, anodic oxidation, electrochemical and XPS study 2−77964
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
In surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
In-P-O phase diagram, condensed phase portion 2−99406
InAs, thermal oxidation, oxide film characterisation 2−111348
InGaAsP-InP DH laser, accelerated facet degradation obs. in water 2−90893
$In_{1-x}Ga_xAs_yP_{1-y}$ laser, facet degradation and passivation, AES study 2−90920
InP, anodic oxide layer composition 2−67600
InP MIS Schottky diodes, plasma oxidation prep. and charact. 2−61591
n-InP, oxidation using nitric acid, elec. props. of Au-oxide-n-InP structs. exam. 2−67581
InP, surface donors and acceptors, Fermi energy as function of O_2 exposure 2−110426
InP, thermal oxidation and props. of oxide film, IR and Raman data 2−72854
InP, thermal oxidation and props. of oxide film, IR and electron diffr. data 2−72855
InSb, anodic oxidation mechanism 2−67594
InSb layer oxidation study after ion implantation by backscattering and nuclear reaction 2−99567
Ir electrode, film growth and conversion processes, ellipsometric study of electrochromism of IrO_x film 2−77488
Li_xVO_2, preparation and lattice parameters 2−81752
Mo sheet, SIMS analysis of oxygen on brittle fracture surface 2−99581
Mo-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
$MoSi_2$-Pd protective coatings on Nb, Pd effect 2−116614
Mo(100), change in surface polarisability with oxidation, XPS of physisorbed Xe 2−77451
NH_2+O_2, oxidation mechanism, kinetic parameters 2−105450
NO_2^- summertime ground-level distrib. rel. to motor vehicle NO emissions 2−67902
$Na_n+Cl(Br)(1)$, metal cluster oxidation, chemiluminescence study 2−99681
Nb films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Nb MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Nb, photoemission studies of clean and oxidised surfaces 2−77695
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Nb/Al overlayer struct., surface oxidation, grain boundary diffusion, XPS study 2−67601
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
Nb-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Nb_3Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
$Nb_{22}O_{54}$, interstitial O, TEM 2−97879
$Nb_{22}O_{54}$ oxidised at 200°C, point defects, structural changes, TEM obs. 2−55965
Nb_3Sn, photoemission studies of clean and oxidised surfaces 2−77695
Ni (111) surface, clean and O-adsorbed, high energy ion scatt. study 2−62039
Ni, high temp. oxidation, cavity form. mechanism 2−93682
Ni, initial oxidation kinetics anisotropy, AES study 2−57541
Ni, initial stages of high-temp. oxidation 2−78001
Ni, oxidation, empty electronic states, inverse photoemission and SXAPS studies 2−61354
Ni, oxidation rate consts., grain boundary diffusion mechanism 2−78020
Ni, oxide film growth, vibr. technique obs. 2−83311
Ni surface, (111) and (211), initial oxidation kinetics, RHEED and X-ray emission study 2−57542
Ni, surface, suppression during laser surface treatment 2−83294
Ni surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Ni surfaces (001) and (111), O_2 interaction, SIMS investig., residual hydrogenated cpds. intervention 2−73015
Ni vicinal surfaces, oxidation of C 2−78137
$Ni:Cr^+(Ni^+)$ oxidation, effect of implantation 2−88254
Ni-Al-Cr (W)(Ti), Ni_3Al based structural alloy, props. 2−72874
Ni-base superalloy, IN-100, an eval. study of Al-N and Cr-Al-N coatings 2−67591
Ni-base superalloy, Inconel X-750, fatigue and creep crack growth at elevated temps., effect of environment 2−99536
Ni-Cr, oxidation and reduction, scanning Auger and XPS study 2−83278
Ni-Cr austenite steel, stable oxide film formation in N_2O_4 coolant 2−113627
Ni-Cr-Al (16, 4 wt.%), oxide dispersion strengthened, long-term high velocity oxidation and hot corrosion testing 2−88274
Ni-Cr-La-Y-Al, La, Y and Al addition effects on high temp. oxidation 2−93685
Ni-Cr-TiO_2, oxidation, high temp. influence of TiO_2 content 2−111384
Ni-Fe, surface (100), oxidation 2−116612
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Ni-Hf, surface, suppression during laser surface treatment 2−83294
Ni-SiO_2 dispersion hardened alloy made by internal oxidation method, high temp. hardness *(Japanese)* 2−105303
Ni-Ti, dil. alloy, internal oxidation and oxide particles *(Japanese)* 2−105374
β-NiAl, X-ray topographic study of α-Al_2O_3 surface film 2−88275

oxidation continued
NiCrAl-Zr alloys, oxidation features, AES study 2−88273
Pb, anodic oxidation in H_2SO_4 based soln. to form soluble species 2−67663
Pb Josephson tunnel junctions formed by thermal oxidation, fabrication *(Chinese)* 2−110536
Pb ultra thin overlayers on Ag surface, oxidation, UPS and XPS study 2−83267
PbInAu film, RF oxidation, oxide composition 2−76858
PbO, fusibility diagram and p-T diagram 2−111149
Pd crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
Pd surface (100), initial oxidation, LEED, EELS and AES studies 2−56314
Pn-In-Au, RF oxidation, XPS and ellipsometric study 2−57530
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
Pt surface (111), CO chemisorpt. and oxidation, mol. orbital study 2−98463
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
Rh, surface (111), oxidation, impurity effects, EELS and AES studies 2−111353
RuO_2 colloidal redox catalysts, O_2 evolution in aq. systems 2−78141
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
S impurity, on Ti surface, oxidation 2−72882
Sb surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
Si, anodic oxidation, SIMS investigation of surface layers 2−105352
Si cryst., perfect, oxidation-induced anisotropic deforms., dynamical X-ray diffr. 2−86517
Si, diffusion of Al, oxidation effects 2−56257
Si, diffusion of As and P enhanced by thermal oxidation 2−71720
Si, diffusion of B(P), enhancement by thermal oxidation 2−56258
Si film, polycryst., formation of thin oxide, ellipsometry study 2−105348
Si, generation kinetics oxide charges and surface states during oxidation 2−66611
Si, oxidation, laser enhanced, wavelength depend. 2−111343
Si, oxidation, transport mechanism 2−57504
Si oxidation EELS and AES of ultrathin oxide films 2−83252
Si oxidation enhanced dopant diffusion and growth or shrinkage of oxidation-induced stacking faults 2−66015
Si, oxidation in O discharges, review 2−88353
Si, oxidation induced point defects, stacking faults and dopant diffusion, theory 2−91951
Si, oxidation kinetics in dry O_2, thermal prehistory influence 2−57499
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si, oxidation studies, oxident diffusion meas. in SiO_2 films 2−88238
Si, oxidation-induced positive charges effect on oxidation kinetics 2−93654
Si, oxide film growth, plasma anodization as dry low temp. technique 2−116581
Si, stacking fault annihilation, surface orientation depend. 2−55985
Si, stacking fault growth and shrinkage kinetics in oxidizing ambient containing a Cl cpd. 2−98117
Si surface, (100), O_2 adsorption, Auger and ionisation electron spectra study 2−92365
Si surface, passivation by Au and Ag monolayers, LEED, Auger and photoemission anal. 2−83259
Si surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si, thermal oxidation, X-ray spectra 2−77960
Si, thermal oxidation in Cl_2 atm., microstruct. develop. 2−93645
Si, vac. deposited amorphous, local anomalous oxidation and recrystn. by laser irradiation 2−77728
Si, wafer shape, double-crystal topographical investigation after oxidation 2−115243
Si:B, ion implanted, B diffusion and segregation obs. in dry O_2 ambient 2−92281
Si:H, amorphous, elec. cond., effects of H_2O and NH_3 adsorbates, oxidation and light exposure 2−71984
a-Si:H, glow discharge, oxidation investig., optical consts. determ. by ellipsometry meas. 2−116578
Si:H amorphous, oxidation, UPS and Auger study 2−83260
Si:N, ion implanted, oxidation inhibition 2−115271
Si:N, low energy implantation, material composition, oxidation resist. and elec. characts. 2−86694
Si:O, polycrystalline films, prep. and props. 2−72629
Si:P, As, Sb, ion implanted, multiphase electron beam annealed, impurity profiles 2−103803
$Si/WSi_2(MoSi_2)$-based composite electrodes for MOS-type capacitor structs., elec. props. 2−98752
Si-d metal interface, interface, O_2 interaction, photoemission investig. 2−110474
Si-enriched layers on Ni, obtained by CVD, characterisation 2−105084
p-Si-Mg solar cells, fundamental props. 2−88442
Si-polypyrrole film photoelectrochemical solar cells, stability against electrode oxidation 2−78218
$Si-SiO_2$, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
$Si-SiO_2$ interface, atomic roughness, oxidation parameters influence 2−56372
$Si-SiO_2$ interface, built-in charge, localisation depth, double elec. layer 2−115908
$Si-SiO_2$ interface, Fowler-Nordheim tunnelling 2−82462
$Si-SiO_2$ interface in MOS struct. positive state generation during Fowler-Nordheim tunnelling 2−77189
$Si_{6-x}Al_xO_xN_{8-x}$, hot-pressed β-sialon, oxidation effect on room temp. strength 2−93629
SiC particles, paramagnetic defects treatment effects, ESR study 2−87593
SiC, single crystal, growth kinetics of oxide films 2−77959
SiC, thermal oxidation kinetics, expt. study 2−72060
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4, effects of oxidation and oxidation under load on strength distribs. 2−99491
oxidation continued
Si_3N_4, oxidised, hot pressed, microstruct. and subcritical crack growth 2−116530
Si_3N_4-MgO (1 and 5 wt.%), hot pressed, passive and active oxidation 2−111340
SiO_2 MOS capacitors, dielec. breakdown, effect of plasma cleaning 2−61831
SiO_2 ultra thin film growth kinetics in MOS structs., Auger and EELS study 2−87112
SiO_2-Al_2O_3-CaO MgO:Ce, U glass-forming melts, U chem., redox interactions 2−93771
Si(111), laser induced oxidation 2−99568
Si(111), stepwise oxidation and nitridation study 2−88246
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
Sn surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
SnTRe, epitaxial film, effect of thermal treatment on comp. and struct., Mossbauer and X-ray study 2−66399
Ta MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Ta, polycrystalline, oxidation at low temp. and press., AES and sputtering study 2−93684
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
TaB and TaB_2, low temp. CVD, hardness and corrosion resistance 2−83033
$TaSi_2$/Si composite structs., oxidation kinetics in dry O_2 2−105349
Tb_xFe_{1-x} amorphous RF sputtered films, magneto-optic props. 2−72459
Ti, diffusion of O_2, high temp. interaction, diffusive kinetics under nonstationary heating *(Russian)* 2−98342
Ti, in 1M Cl solns., anodic oxidation and kinetics 2−105356
Ti, oxidation by plasma formed due to low-threshold breakdown of air 2−99604
Ti, oxidation of C and S surface impurities 2−72882
Ti, pickled, anodised and thermally oxidised, oxide film effect on corrosion resistance 2−57518
Ti-Al (1.65 to 10 wt.%), oxidation behavior, effect of Al *(French)* 2−57526
α-β Ti-Mn alloy, near threshold retardation of fatigue crack propag., oxide growth effect 2−72836
TiB_2, low temp. CVD of corrosion 2−87999
TiB_2, thin film, plasma-ion sputtering, AES 2−82156
TiC-Ni containing N, high temp. oxidation *(Japanese)* 2−105372
TiNx, thin film, optical props., produced by reactive evaporation and ion-beam sputtering 2−104981
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971
TiO_2:V^{4+}, illumination and oxidation effects on ESR spectra 2−56922
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
TiO_{2-x}:Pt ceramics, heat treated, elec. rectification obs. due to $PETi_3$ lamellar microstruct. 2−115748
Ti_4O_7 crystallographic shear phase, oxidation, defects, electron microscope study 2−91985
Ti_5Si_3 coatings on Ti, high-temp. oxidation 2−67592
Tl isotope refinement and chem. recovery by anodic oxidation technique 2−108020
U, oxidation in O_2 and CO_2, surface spectroscopy 2−80059
V, hydrogen permeation, surface impurity layer effects 2−85241
V, thermal oxidation, optical consts., ellipsometric study 2−83291
W, in $O_2+CO_2+SO_2$, electron transfer props. meas. for WO_3:S 2−86691
W-Cr sintered alloys, prod. and oxidation 2−72655
W-Cr-Pd sintered alloys, Pd addition effects on oxidation 2−72885
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2−86194
ZnS, mechanism formation of ZnO-based Green phosphor 2−111508
Zr, oxidation rate calc. 2−62266

oxide coated cathodes
see also thermionic electron emission
matrix cathodes with 10A/cm² current density, emission and life testing studies 2−57244
W-BaO B-type dispenser cathode surface, theoretical model 2−99290

oxygen
see also nuclei with .....
absorbed by nonreconstructed Cr (100), induced magnetism 2−56833
absorption band used for atmosphere temperature profile by thermomicrowave imaging, fundamental integral eqn. linearization 2−73652
absorption on porous glass, bimolecular radiative processes, luminescence and Raman scatt. 2−82913
abundance and chem. evolution in interstellar medium in solar neighbourhood 2−63579
abundances in α Lyrae and α Caris Majoris from spectral obs. 2−68759
acetylene-O_2 mixture, transition from burning to detonation 2−83387
adsorbed layer, disordered, on Ni(001), He scatt. study 2−98445
adsorbed layer on a-Si:H thin film, electronic struct. XPS and UPS study, chemical shift 2−57254
adsorbed layer on Mg, photoelectric work function meas., Fowler method 2−87371
adsorbed layer on Pt, overtones and multiphonon processes in EELS, vibration spectra 2−99238
adsorbed on Ag (110), ellipsometric study near Ag plasma freq. 2−92364
adsorbed on Al surfaces, K-edge, angle-resolved XPS and extended X-ray absorpt. fine struct. spectroscopy appl. 2−70339
adsorbed on Cu low index planes, LEED fine struct., surface barrier resonances obs. 2−56309
adsorbed on Ge, influence on surface cond. *(Russian)* 2−72047
adsorbed on Mo, effect on excited particle emission *(Russian)* 2−87073
adsorbed on Ni(100), electron energy loss spectroscopy 2−87029
adsorbed on Ni(110), angle resolved UPS study 2−77699
adsorbed on Ni(111), NH_3 interaction 2−110156
adsorbed on Ni (001), c-(2×2) binding distance, LEED expt. and theoretical study 2−104152
adsorbed on Ni (100), ordered struct., EELS spectrum, theoretical anal. 2−67162
adsorbed on Ni (100) and (111), vibr. freq. calcs. 2−98422
adsorbed on Ni (110), atomic structure, LEED, AES, EELS and work function study 2−66329
adsorbed on Pt(111) and Pt(997), thermal He atom scatt. *(German)* 2−87001
adsorbed on Pt (111), water form. with coadsorbed H, XPS and temp. programmed reaction obs. 2−83411

oxygen continued
adsorbed periodic overlayer on Ni(100), adatom vibr. mode freq. estimation 2−87006
adsorption and interaction with Ni(001) and (111), SIMS investig., residual hydrogenated cpds., intervention 2−73015
adsorption and oxide form. on metal surface, photoemission studies, review 2−116331
adsorption and surface reactions on Pt (111), EELS and thermal desorption study *(German)* 2−98469
adsorption by Cr epitaxial film on W (110), efect on work function, two-stage phenomenon *(Russian)* 2−61298
adsorption kinetics on Cu cylindrical cryst. surface, AES study 2−56355
adsorption kinetics on Ni, surface struct. effects, Auger, LEED and work function meas. 2−87066
adsorption of N_2/O_2 mixture on W at low-temp., FEM study 2−76804
adsorption on Ag(110), spectroscopic ellipsometry study 2−98453
adsorption on Al(-Mg)(Zn), SIMS studies 2−104169
adsorption on Al (100), ab initio unrestricted HF calc. 2−76835
adsorption on As, oxidation, photoemission study 2−92355
adsorption on Au discontinuous thin films, effects on I-V characts. 2−110499
adsorption on CoSi (100) and $CoSi_2$ (100), LEED, AES, and UPS study 2−104162
adsorption on Cu, dielec. functions, ellipsometry study 2−87737
adsorption on Cu (100), LEED, AES, and work function meas. 2−82140
adsorption on Cu (110), Debye Waller factor, surface struct., He scatt. study 2−87070
adsorption on Cu (110)-Ni surface alloy and reaction with H_2 and CO 2−104161
adsorption on cylindrical GaAs sample, orientation depend., AES meas. 2−115565
adsorption on Fe film, excess current noise obs. 2−77137
adsorption on GaAs, surface oxide phase form., UPS, XPS and SIMS study 2−115544
adsorption on GaAs (110), density of valence states, photoemission study 2−82142
adsorption on GaAs cylindrical cryst., orientation depend. 2−110146
adsorption on LaB_6 (100), (110), and (111) surfaces, UPS, XPS, and LEED meas. 2−66365
adsorption on Ni (110), electronic binding energies of valence levels, UPS study 2−82437
adsorption on Ni (110) at 20K, UPS and work function meas. 2−104159
adsorption on Ni (111), struct. study by high energy ion scatt. 2−62039
adsorption on nonreconstructed Pt (110) surface 2−115515
adsorption on Pd islands 2−56361
adsorption on polycryst. Ag surfaces, SIMS investig. 2−105516
adsorption on Pt_3Pb, SIMS study at high temps. 2−104170
adsorption on Si, pulsed laser atom-probe study 2−110129
adsorption on Si (100), Auger and ionisation electron spectra study 2−92365
adsorption on TiN(100), surface state, photoemission study 2−77705
adsorption on V (100), surface struct., LEED and Auger study 2−71783
adsorption on W (110), effect on work function 2−61558
tropical Atlantic near Guinea, O_2 and P distrib. and water dynamics *(Russian)* 2−88914
upper atmosphere, O_2 conc. derived from MSIS model and observations 2−73743
upper atmosphere, O_2 density controlled by solar activity 2−100607
atom, electron elastic scatt. at intermediate energies 45 to 750 eV, modified Born approx. 2−102622
atom, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
atom, ionic charge state distribution in solar energetic storm particle enhancement 2−94570
atom and ions, valence state correl. energies, third-order quasidegenerate many-body perturbation theory calc. 2−80491
atom formation in $Cl+O_3$ secondary reaction, chemiluminesc. detection 2−78074
atomic, two-photon excitation in acetylene-O_2 flame 2−96526
atomic-oxygen analyzer with semiconductor sensors for researching the upper atmosphere of the Earth 2−100584
atoms, double ionisation from electron impact, cross section determ. 2−96744
chemisorbed on α-U and Th(111) surface, electron spectroscopic studies 2−56337
chemisorbed on Ni(100), p(2×2) and c(2×2) structs., surface EXAFS study 2−93326
chemisorbed on Ni at step sites, elastic interaction between atoms 2−98451
chemisorbed on Si 2−87053
chemisorbed on V and Nb, sputtering, secondary ion emission escape vel. depend. 2−77679
chemisorbed on W(Ta), 4f core electron binding energy shifts, XPS study 2−105041
chemisorbed on W surface, photoemission study *(French)* 2−105052
chemisorption, effect on adsorbed ethylene (H_2O) on Cu surface, XPS obs. 2−67188
chemisorption and absorpt. induced surface segregation on alloys 2−56345
chemisorption on (001) surfaces of BCC V, Cr, Fe, cluster model calcs. 2−98461
chemisorption on Al (111), cluster model 2−66363
chemisorption on Al (111), quantum chem. cluster model 2−110127
chemisorption on Al (111) 2−110132
chemisorption on CdS films, XPS study 2−99292
chemisorption on Cr(110) and initial oxidation 2−115567
chemisorption on Cu (100) and (110), UPS, EELS, LEED and work function study 2−87071
chemisorption on Cu (111), Cu_2O form., high resolution EELS study 2−110155
chemisorption on Cu (111), UPS, EELS, LEED, AES and work function meas. 2−87072
chemisorption on Mo (100), surface EXAFS study 2−105003
chemisorption on Ni, initial oxidation kinetics anisotropy, AES study 2−57541
chemisorption on Ni under equilib. conditions, 850°C, AES study 2−61289
chemisorption on ZnO film, heat treatment effects on elec. and optical props. 2−72087
coadsorption with Cs on LaB_6, work function change and Auger study 2−87068

oxygen continued
coadsorption with H_2O on Ru(001), vibr. and struct. props. 2−104150
concentration measurement using Clark cells *(Dutch)* 2−83427
concentration profiles in capillaries and living tissues when axial diffusion is considered 2−111610
cooling mechanism in ionosphere from momentum transfer collisions with slow electrons 2−100640
cooling of thermosphere, seasonal effect on UV heat budget 2−100614
Costa Rica Rift, Sr and O isotopes of Pacific basalts 2−106016
cryogenic storage for Space Shuttle 2−79587
DC corona discharges in air or O_2, gaseous products obs. 2−103514
desorption from Pt, ion induced 2−115562
desorption from W, electron stimulated, quantum effects 2−76801
diatomic molecules thermal dissociation with bound electron excited states 2−93764
diffusion in Cu alloys, oxide particle precipitation, thermodynamic calcs. 2−81969
diffusion in Ti, high temp. interaction, diffusive kinetics under nonstationary heating *(Russian)* 2−98342
diffusion in UO_{2-x} 2−80085
diffusivity and thermodynamic props. in liquid In, influence of Cu and Ag solute additions 2−86907
discharge, plasma oxidation of Si, review 2−88353
electric breakdown meas., focused laser irrad. induced at 1.064 μm 2−55800
electrochemical oxygen sensors, membrane type, metrological properties *(Polish)* 2−93850
evolution in aq. system using RuO_2 colloidal redox catalysts 2−78141
fast ions reson. coherent excitation in Au crystals 2−76537
fluid, transient hot wire thermal cond. apparatus 2−71060
gas, mag. birefr., Cotton-Mouton const. meas. 2−91587
gas, stopping power of protons and alpha particles 2−70386
glow discharge, negative ion signals obs. 2−103539
graphite, adsorbed O_2 monolayers, mag. props. 2−98850
heating, of Pd crystallites, wetting phenomena 2−86974
impurity behaviour in Frascati Tokamak 2−71249
ionosphere, O atom and ion precipitation 2−100621
ionospheric photoionisation of O and N_2 deduced from photoelectron flux obs. 2−89063
ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
ions, fast, foil-excited Rydberg states 2−102577
ions, low energy $O^+(O^-)$ backscatt. spectrum meas. from polycrystalline Pd surface 2−93342
isotopes in Galaxy, evolution from galactic chem. evolution model 2−68888
isotope study of atmospheric sulphates 2−63025
liquid, optical Kerr effect induced by Raman resonance 2−97124
liquid and plastic cryst. phase, LF Raman spectra 2−116164
liquid metal-O_2 system, correlations for thermodynamic and kinetic props. of gas solutes 2−98286
matrix isolated Cu clusters, UV photoemission studies 2−108757
methane-O_2, vibr.-rot. energy transfer, relax. times calcs. 2−85785
methane/O_2 sooting diffusion flames, laser induced visible fluorescence 2−116699
molecular, soln., lowest excited singlet state decay and reactions 2−74167
molecular fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
molecule, $^{16}O_2$, microwave resonant lines meas. for electronic ground state 2−85638
molecule, $^1\Delta_g$ dimol emissions, hot band intensities 2−114050
molecule, $^1\Delta g$ singlet state lifetime, solvent effects 2−70345
molecule, absorpt. and dispersion in microwave spectra 2−102468
molecule, adsorbed on Ag film, mol. charge transfer excitation, EELS obs. 2−62027
molecule, $b^1\Sigma$ state deactivation by O_2 photolysis products 2−90617
molecule, CC ^{17}O NMR, hyperfine splitting 2−59821
molecule, chemisorption on Fe_2O_3, IR study 2−82130
molecule, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
molecule, elastic electron scatt., cross section, ang. distrib. meas. 2−114108
molecule, elastic electron scatt., cross section data compilation 2−54964
molecule, elastic electron scattering cross sections of low energy electrons, 200-500 eV 2−108707
molecule, electron attachment, 3- and 4-body, models 2−65087
molecule, electron-impact excitation to long-lived Rydberg states 2−90723
molecule, electronic excitation energies, oscillator strengths and polarisabilities, MCRPA evaluation 2−80793
molecule, exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
molecule, HF Slater wave functions calc. 2−96441
molecule, ideal-gas heat capacity eqn. 2−91577
molecule, pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
molecule, quadrupole moment calc. 2−102432
molecule, quadrupole transitions, tunable diode laser sensitivity spectroscopy 2−65103
molecule, rot. quantum number, vibr.-rot. Raman spectrum, spin multiplicity effect 2−102488
molecule, search in Seyfert galaxy and 250 spectra, intervening galaxy constraints 2−74100
molecule, second order perturbation energy, CASSCF calcs. 2−64887
molecule, spectral line parameters, atm. transmission functions calcs. 2−78841
molecule, valence shell photoionisation, shape reson. induced non-Franck-Condon effects 2−90634
molecule adsorbed on Au(Ag)(Pt), UV PES, XPS and AES 2−76803
molecule magnetic dipole IR atmospheric bands 2−96551
monolayer coverages on graphite, pattern recognition optimization prediction 2−98436
NGC 6720 (Ring Nebula), C/O ratio, UV spectral obs. 2−63590
$O_2(E^3\Sigma_u^-)$, Newton-Raphson eqns., MCSCF calcs. 2−108345
O^+Ar^*, electronic energy transfer rate consts. 2−114076
O I, form. of resonance triplet and intercombination doublet in solar chromosphere 2−112398
O III, EUV line photoexcitation by solar He II Lyman α 2−89213
overlayer on Al (111), position, electronic and binding props. 2−82135
photolysis products, O_2 $b^1\Sigma$ state deactivation 2−90617
plasma, electron and ion impact, rate coeffs. 2−81446
plasma impurity, diffusion under finite reaction rates in JET 2−109471

oxygen continued
polyethylene treeing phenomena obs., effect of absorbed O_2 2−99040
positron-gas cross-section measurements 2−75420
reactions in Ar matrix, IR spectra of prods., vibr. 2−96564
Sargasso Sea, O_2 exchange rate through ocean surface 2−117364
screw-pinch Tokamak, time and space evolution 2−81558
self-diffusion in NiO, SIMS study 2−110037
singlet O_2 generation reaction $Cl_2+H_2O_2$, evaluation of amines as bases 2−78080
solar wind contaminated by O^+ from Venus ionosphere 2−117553
solubility and behaviour in TiNi melts in vac. induction melting and remelting 2−105106
solubility limits and thermodynamic properties in liq. Ni-Cu alloys 2−56199
stabilization of Al-GaAs MBE Schottky barrier height 2−87367
in stratosphere, Herzberg continuum absorpt. determ. from solar irradiance meas. 2−100550
supernova remnant, O-rich ejecta, shock wave model for optical emission from precursor region 2−74065
thermal conductivity in dissociation region, meas. by holographic interferometry 2−103251
thermal desorption from β-copperphthalocyanine, exciton dissociation, XPS study 2−92342
thermal desorption from CdSe thin film, resist. modification *(French)* 2−98773
thermal desorption of isotopically exchanged O_2 from UV irrad. MgO surface 2−66351
lower thermosphere, effect of gravity waves on $O+O_2$ comp. 2−112187
thermosphere O profile determ., use of semiconducting detectors 2−68544
transport coeff. determ. 2−103246
transport in skeletal muscle, mathematical model 2−116899
tribological behaviour of materials in contact with Na, O_2 effects 2−99566
Trichel pulses in O_2, theory 2−103503
troposphere, O_2 and H_2O millimetre-wave spectra rel. to model for atmospheric reson. transmission 2−117394
Venus, O escape from atmos. to space 2−112362
Venus, solar wind interaction, O corona 2−100789
$0^{q+}+H^*$ (q=1-5), charge exchange, impact ionisation, cross section, crossed-beam expt. 2−114102
Ag-O-Cs, S1 photocathode, surface resist. meas. 2−87940
$Ag+O_2$ system, catalytic intermediates, evidence for AgO_2 nonsymm. mol. 2−96563
Ar:O_2 impurities, mol. dynamics calc. 2−115154
Ar-He-O_2, ion implantation source, source gas composition and ion current spectrum, optimisation by gas mixing 2−69296
C_3O_2-O flame, photolysis, C_2O radical prod., laser induced fluoresc. 2−96617
CS-S-O_2, supersonic mixing, CO chemical laser, computer model 2−90881
CS_2-O_2 mixtures, self-ignition, conditions, spectrosc. investig. 2−62402
CaF_2:O, X-irrad., O centre, EPR and ENDOR study 2−61764
Cd electrodes, plastic-bonded with active C catalyst O_2 recombination rate 2−116795
Cs-O mixed film coadsorpt. on Nb (110), work function and thermal stability *(Russian)* 2−104166
Fe:C, O, min. detectable atomic fractions, STEM study, EELS technique 2−67165
Fe:O, vel. depend. of transient mag. field of O 2−56534
GaAS:O, unintentional and intentional doping 2−98132
GaAs:Cr, O, ion implanted, Cr redistribution and Cr-defect-O interactions, SIMS and TEM study 2−98149
GaAs:Cr,O, electron lifetime meas., photocond. and high field meas. 2−92655
GaAs:O, deep electron traps, elec. and optical props. 2−98585
GaAs:O, determ. of O by ^{3}He activation anal. 2−98147
GaAs:O, impurity levels and photocond., temp. depend. 2−115817
GaAs:O, ion implanted and electron irrad., deep levels and electron traps, annealing 2−98584
GaAs:O, photoelectric memory effects, theoretical model 2−82394
GaAs:O relaxation semiconductors with thin-film contacts, props. 2−66636
$GaAs_{1-x}P_x$:O, point defect induced electronic struct., calc. method 2−76981
$GaAs_{1-x}P_x$:O_2, electronic struct. induced by short-ranged defects, calc. method 2−104296
GaP:D, electronic struct. and optical props. 2−92518
GaP:O, impurity state of e symm. 2−110287
GaP:O, point defect electron states, enfeebled O bonding and metastability 2−61351
GaP:O, recombination radiation of exciton bound to Zn-O complex 2−104959
GaP:Zn, O, photoinduced Zn, O dissociation, photoluminescence 2−87859
GaP:Zn,O, IR upconversion obs., IR quantum counter appl. 2−70605
He-Xe, hollow cathode discharges, VUV study 2−97823
$In_{1-x}Ga_xP$:O, epitaxial film, photo-, electro- and cathodoluminescence involving deep levels 2−116258
KCl:O_2^-, superradiance and high-gain mirrorless laser activity 2−87820
Mo:O, delayed recrystn. during annealing, O effects, electron microscopy study *(Russian)* 2−88099
N-O-S, spatial separation of components 2−88392
N_2-O_2, air-like mixture, three-body attachment coeff., Boltzmann eqn. calc. 2−90693
N_2-O_2, ion implantation source, source gas composition and ion current spectrum, optimisation by gas mixing 2−69296
N_2-O_2 mixture, breakdown by CO_2 laser radiation near a metal surface 2−97700
NO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
NaCl:O^{2-}, γ-irrad., annealing, radiolysis products studied by mass spectrometry *(Russian)* 2−78167
Nb:Ar, O_2 supercond. thin films, ion implantation effects on supercond. props. 2−77226
Ni-O surface, interaction with H_2 and H_2O, SIMS study 2−99708
O atom association rates and airglow excitation mechanisms 2−63157
O I, O III, spin-forbidden lines, oscillator strength calcs. 2−85590
O I 1304 Å dayglow, Monte Carlo reson. scatt. model with partial freq. redistribution 2−100618
O I 5577 Å airglow line, peak emission altitude, Chapman and Barth mechanisms 2−106380
oxygen continued
O I 5577 Å line emission, solar flare and sunspot numbers effect on nightglow 2−58194
O I forbidden lines used to determine thermosphere winds time depend. var. 2−100609
O I in ε Persei line of sight, UV obs. 2−117716
O I lines in solar spectrum, problem of contrib. functions and average optical depth of line formation 2−68716
O II, III, IV, UV laser oscillations obs. 2−85942
O III 501 nm forbidden line obs. of Crab Nebula 2−117733
O III forbidden emission line widths in galactic nuclei 2−84313
O III forbidden line observations of ring planetary nebulae *(French)* 2−63577
O III temp.-sensitive lines, electron temp. mapping of planetary nebulae 2−74062
O IV, metastable levels excitation by electron impact, LS coupling and fine struct. transitions 2−80525
O IV in 1980 April 8 solar flare, transition zone plasma characts. 2−58312
O IV in solar chromosphere-corona transition zone, EUV obs. rel. to electron press. 2−106639
O IV solar transition region spectrum, calcs. including photoexcitation by Fe IX 171.07 Å 2−73923
O recombination rates in lower thermosphere, effect of gravity waves 2−112187
O V, wavelengths, fine struct. and decay times meas. using beam-foil technique 2−64898
O VI lines in WC-O VI star (ST 3) 2−68786
O VII, He-like ion, in solar corona, X-ray line ratios obs. 2−106640
O VII, line emission in Tokamak plasma with neutral injection heating 2−81532
O VII and VIII resonance line intensity in TFR Tokamak plasmas 2−55769
O VII and VIII X-ray emission lines, interstellar studies 2−63549
O^-, radicals in type A zeolites, form. and stability, cation interaction, EPR study 2−104702
O^+ diffusion equation in ionospheric F_2-layer, approximate soln. 2−112193
O^+ distribution model for high latitude ionosphere and plasmasphere 2−106408
O^+ from Venus ionosphere accel. in magnetosheath 2−73884
O^+, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O^+ impurity ion sputtering yield for first wall materials in fusion reactors 2−74921
O^+ in ionosphere F-region, radiative recomb. contrib. to near-Earth UV environment 2−117513
O^+ ion flux detection from F-region topside soundings 2−83961
O^+ ionospheric ion precipitation 2−84001
O^+, ionospheric production of ^2P state by electron impact 2−89064
O^+, O^{+*} and O_2^{2+}, mobilities in He and Ar, ion energy distrib. meas. in injected ion drift tube 2−76060
O^+ precipitation as energy source to thermosphere, wind and temp. perturbation 2−106377
O^{2+}, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O^{2+}, triplet line excitation in nebulae 2−112540
O^{4+}, electron impact excitation cross sections calc. 2−114112
O^{6+}, energy and transition probabilities correl. wavefunctions calcs. 2−113874
O^{7+}, beam foil excited, optical decay of high l Rydberg states 2−75204
O/N_2 ratio in lower thermosphere, empirical model anal. 2−73733
O-He(Ar) VUV discharge line source, excitation mechanism effect on linewidth parameters 2−108422
O+acetaldehyde, prod. distrib., mol. beam-laser induced fluoresc. study 2−116689
$O+B_2$, supersonic O beam, reactive scatt. study 2−83376
$O+CO_2$, vibr. energy transfer, cross sections, infinite order sudden calcs. 2−85784
O+Co, on Ni (100), XPS/LEED studies 2−83414
O+ethylene, surface reactions on Pt (111) 2−105511
$O+H_2$, vibr., rot. distrib., pot. energy surface, quasiclassical trajectory calcs. 2−83361
$O+H_2O \rightarrow 2OH$, energy partitioning, OH rot. relax. 2−57601
$O+H_2S$, supersonic O beam, heat of form., reactive scatt. study 2−83375
$O+H_2S$ (ethylene), translational energy threshold functions 2−72953
$O+I_2$, supersonic at. beam reactive scatt. 2−105474
O+IBr, supersonic O beam, reactive scatt. study 2−83377
O+ICl, supersonic O at. beam reactive scatt. 2−105475
$O+N_2$, reaction rate const. meas. in discharge flow reactor 2−111472
$O+N_2^+ \rightarrow NO^+ + N$, rate coeff. from auroral ion comp. anal. 2−73746
$O+Ne^+$, close coupling calcs., electron transfer cross sections 2−80805
O+tetrafluoroethylene, CF_2 triplet prod., vibr. distrib. and relax. 2−70393
O^-+allene, product energy and ang. distrib., crossed-beam studies, reaction mechanism 2−72951
$O^- + BrO_3^-$, EPR spectra obs. 2−59827
$O^+ + An$, double-differential cross sections for delta-electrons 2−75401
O^++C-foil, fast ion excited Rydberg states 2−75392
$O^+ + H_2$, pot. energy surface, diatomics in mols. calcs. 2−105469
$O^+ + H_2$, potential energy surfaces, diatomics-in-molecules approach 2−67744
$O^+ + H_2(N_2)$, atomic ground state, charge transfer cross sections 2−75417
$O^+ + N_2$, vibr. excitation, pot. energy surface, quasiclassical trajectory reaction theory 2−99662
$O^{2+} + H$, charge transfer rate consts. 2−102613
$O^{3+} + H$, charge exchange, rot. coupling matrix, ab initio CI calcs. 2−85799
$O^{3+} + H$, charge transfer rate consts. 2−102613
$O^{8+} + He$, electron capture into selective state, energy spectra meas. 2−102608
$O^{q+} + He$, one-electron capture cross sections 2−96723
O_2 ($^1\Delta_g$), global daytime and twilight study of airglow 2−100619
O_2, atmos. far IR spectral absorpt. 2−78839
O_2 dayglow radiance used to determine O_3 var. in mesosphere due to solar eclipse 2−100613
O_2 dissociation rates in lower thermosphere, effect of gravity waves 2−112187
O_2, facilitated transport with membranes in diffusion path 2−73205
O_2 flowing gas spark gaps, statistical breakdown times 2−91711

oxygen continued
O_2 Herzberg bands, dayglow emissions and backscattered UV spectrum 2−100620
O_2 in prebiological palaeoatmosphere rel. to UV radiation from young Sun 2−73929
α,β-O_2, magnetisation under high press. 2−66760
O_2 molecular spectra induced by ion impact on B with adsorbed O 2−77657
O_2 partial pressure effect on olivine dislocation recovery, creep mechanism constraint 2−106117
O_2, rot. Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
α'-O_2, solid, cryst. struct. 2−55884
O_2, UV photoabsorpt. cross-section into $^3\Pi_u$ state 2−63155
O_2^- in DMSO-d_6, electron spin-echo modulation, Fourier transform appls. 2−59828
O_2^- radicals in type A zeolites, form. and stability, cation interaction, EPR study 2−104702
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
O_2^+, excited state, optical double resonance study 2−70307
O_2^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
O_2^+, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O_2^+, laser-induced predissoc. spectra 2−102558
O_2^+, reaction paths to water clusters in cold mesosphere 2−100499
$^{16}O_2^+$ and $^{18}O_2$, predissoc. studied by photoelectron-photoion coincidence spectroscopy 2−102551
O_2^{2+}, ground and metastable states ion mobilities meas. in He, Ne 2−109451
O_2-Ar mixture, flow in nozzles, chem. and vibr. disequilib. effects 2−81381
O_2-I chemical laser, efficient small scale operation 2−90919
O_2-N_2, 4:1 mixture, nonstationary discharge maintained by electron beam, theoretical model 2−71275
O_2-N_2(N_2-CO_2)(N_2-CCl_2F_2) mixtures, ionisation and attachment obs. 2−103275
O_2+alkoxy radical, reaction, thermal source of HO_2 radicals 2−62384
O_2+Ar^+, energy depend., rate consts. meas. 2−88346
O_2+ArH^+, proton transfer reactions, rate coeffs. 2−70409
O_2+Ar(Kr), anisotropic well depth parameters, from total differential cross-sections 2−80777
O_2+BO_2^- reaction kinetics studied by laser induced fluoresc. 2−72952
O_2+Ba^+(Al^+), cross section, mass spectroscopy 2−105464
O_2+C_2^-, reactions, temp. depend. 2−93765
O_2+C^+(CH^+)(CH_2^+), reaction rate coeffs., energy depend. 2−93787
O_2+CO_2, collisional excitation cross section meas. 2−90670
O_2+Cr^+(Mn^+)(Fe^+)(Co^+)(Ni^+) andothermic reaction, translational energy depend. of cross sections 2−62389
O_2+F^-, electron detachment cross sections meas. 2−59927
O_2+H_2 surface reaction kinetics on Pt(S) 2−116727
O_2+H_2^+, H^+ and charge transfer, collision energy and ion vibr. excitation 2−102604
O_2+HCl, vibr. relax., rate consts., fluoresc. intensity meas. 2−108689
O_2+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
O_2+Kr^+, charge exchange, electronic state effects 2−90691
O_2+Kr^+, fine struct. state depend. reactivity 2−105471
O_2+Li, reaction in presence of He or Ar, energy transfer mechanism 2−72977
O_2+methyl radical, reaction rate const. meas. 2−85647
O_2+Mg* reactions undersingle collision conditions, MgO laser fluoresc. study 2−80714
O_2+N_2, vibr. transitions, quantum mechanical and semiclassical probabilities 2−54926
O_2+N_2($A^3\Sigma_u^+$) interaction, product channels 2−72955
O_2+NF, energy transfer from O_2 $^1\Delta_g$ state 2−65032
O_2+NH_2, oxidation mechanism, kinetic parameters 2−105450
O_2+NO, NO excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
O_2+NO(v=1-7) vibr. relax. 2−59910
O_2+SO, rate coeffs., chemiluminescence study 2−99651
O_2+$SiHCl_3$, UV photolysis in solid Ar, IR spectrum 2−88365
O_2^++O_2, symmetric molecular charge exchange and vibr. excitations, quantum mechanical calcs. 2−96683
O($^1D_2$)+H_2O(CH_4)(H_2)(N_2O) quenching, O(^3P_J) yields by time resolved fluoresc. 2−105492
OI, isoelectronic sequence, $2s^m2p^n$-$2s^{m-1}2p^{n+1}$ intersystem transitions 2−80530
O_2^+(O^+) ions, 1-1.6 MeV/atom, stopping power meas. in C 2−81854
O(^3P)+H_2, collinear exact quantum transmission coeff. correction to transition state theory 2−72976
O(^3P)+H_2, pot. energy surfaces, quantum and quasiclassical reaction probabilities 2−72975
O_2^+($^2\Pi_u$)←O_2($^1\Delta_g$) transition, UV photoelectron spectra, modulation technique investig. 2−107458
^{15}O, effective activity for very short-lived radioisotopes *(Japanese)* 2−101851
^{16}O background-free target for electron scatt. meas. with high beam currents 2−102298
$^{16}O^-$, trapped negative ions, Zeeman reson. spectroscopy 2−64913
$^{16}O^{18}O$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
$^{18}O/^{16}O$ in groundwater of Federal Republic of Germany *(German)* 2−106165
$^{18}O/^{16}O$ isotopic palaeo-oceanography of Caribbean and E Pacific, role of Late Neogene Panama uplift 2−111968
^{18}O+$^{16}O_2$ (v=0) exchange reaction dynamics on pot. energy surface for ground-state O_3 2−78071
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Rh, layer by layer growth of Pt, O_2 adsorpt. and Rh segregation *(French)* 2−83122
Si:C, O, reactor neutron irrad. effect on C impurities 2−109839
Si:C,O, Czochralski grown, donor form. by annealing at 700°C 2−110283
Si:H,O,N, amorphous, ESR of impurity associated defects 2−82699
Si:O, C, Czochralski grown, O related donors, 700 to 800°C, expt. study 2−56469
Si:O, Czochralski grown, defect obs. after high temp. treatment 2−76427
oxygen continued
Si:O, Czochralski grown, O precipitation and microdefect nucleation and growth obs. 2−57379
Si:O, Czochralski grown, precipitated and total O conc., meas. technique 2−103802
Si:O, diffusion and gettering studies by Cs/SIMS 2−104071
Si:O, electron irrad., carrier removal and recombination by interstitial complexes 2−115781
Si:O, incorporation of O impurities in CVD 2−86700
Si:O, induced recombination centres, struct. and formation kinetics, expt. study 2−86707
Si:O, interaction between dislocations and H or O, elec. and luminesc. props. *(Russian)* 2−56487
Si:O, ion implantation in 100 MeV range 2−81805
Si:O, ion implanted, conductivity mode conversion, dielec. isolation technique appl. 2−61003
Si:O, Mg influence of Mg on IR absorpt. and elec. cond. props. 2−87258
Si:O, minority carrier lifetime, heating effects 2−104394
Si:O, O diffusion and thermal donor formation, review 2−82021
Si:O, O donor developed around dislocations, expt. study 2−92510
Si:O, O precip., IR absorpt. and TEM study 2−92208
Si:O, secondary ion yield enhancement, implanted O conc. depend. 2−62036
Si:O, Si-O-Si complex new absorpt. band 2−72496
Si:O,H,F, amorphous, photoluminescence, localised states, temp. depend. 2−87854
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
Si:O crystals, indentation rosettes and dislocation locking by O 2−98111
Si:O donor centres, heat treatment effects, Hall meas. and ESR study 2−61401
Si:O film, amorphous, annealing behaviour of spin density and optical gap, effect of O contamination 2−87735
Si:O^+, implanted, deep level defects study by DLTS *(Chinese)* 2−92506
Si:O^{4+}, MOS capacitors and Schottky diodes, ion implantation, elec. props. 2−86696
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers 2−86688
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si:P, O, electron and neutron irrad., point defects and colour centres, DLTS study 2−103754
SiO_x, O implanted, stress-strain curves and internal stresses meas. 2−82190
ZnS:O, band gap variation due to dopant 2−76922
ZnS:O, grown from melt, O content, activation anal. 2−86702
ZnTe, O diffusion during laser annealing, photolum. obs. 2−115463
Zr:O, dislocation motion, impurity atmospheres and effective activation parameters, theory 2−115233

oxygen compounds
compounds containing heteroatoms P, N and O_2 orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
fluorite oxides, non-stoichiometric, anion transport props., dopant cation-vacancy complex effects 2−92268
OH, stratospheric conc. meas. by balloon-borne lidar 2−94505
oxide glass and slightly nitrided glass melts, viscosity temp. relation 2−56238
oxides, ion polarisabilities, nonempirical calc. 2−110752
oxides, non-stoichiometric doped, O^- ion cond. 2−92267
COS from eruptions of Mount St. Helens, meas. 2−78623
COS, photoabsorption cross sections, extreme-UV obs. 2−65001
COS, Rydberg state assignments 2−70138
COS+Ar^+, energy depend., rate consts. meas. 2−88346
LiF:Mg,OH crystals, gamma-irrad. new emission centres 2−116248
$O_2^+AsF_6^-$, phase transitions and ionic motions, Raman obs. 2−104868
OC-HF, equilib. struct., pot. energy surfaces, H-bonds 2−102656
OCS, anharmonic force fields, ab initio calcs. 2−75174
OCS, atmos. conc. in southern hemisphere 2−106209
OCS formation in reaction of OH with CS_2 2−83350
OCS, IR spectra, absorpt., overtone and combination bands meas. 2−108500
OCS, isotope effects, rot. transitions, microwave absorpt. lines 2−94923
OCS, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
OCS, relax. times, K-entropy, intramolecular dynamics 2−108470
OCS, vibr. band intensity in IR spectra, quantum and semiclassical theory 2−108454
OCS, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
OCS+He(Ar), linewidth and lineshift, unitary S-matrix theory 2−102537
OCS+Kr^+, charge exchange, electronic state effects 2−90691
OCS+Kr^+, fine struct. state depend. reactivity 2−105471
OCS+Si chemiluminesc. reaction, Si(a $^2\Sigma^+$) formation, dynamic constraints 2−105487
OD ($A^2\Sigma^+$) radicals, electron impact dissoc. of D_2O, excitation and polarisation anal. 2−102648
OD, far-IR laser mag. reson. spectra 2−75329
OF_2, vertical ionisation pot. calc. by perturbation corrections to Koopmans' theorem 2−54987
$OGeF_2$, bonds, mean amplitude of vibr. calcs. 2−64949
OH, $A^2\Sigma^+$, $B^2\Sigma^+$ and $C^2\Sigma^+$ states, radiative lifetimes and dipole moments 2−102538
OH, atmos. oxidation of halocarbons, model 2−68406
OH atmospheric band system, line parameters 2−90629
OH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
OH, broad main line emission from peculiar galaxy IC 4553, first detection 2−117757
OH conc. in atmos. rel. to solar activity 2−106210
OH dayglow radiance used to determine O_3 var. in mesosphere due to solar eclipse 2−100613
OH electron density, pseudoatom expansion 2−60931
OH emission and masers in galactic NH_3 sources 2−106944
OH emission line intensity modelling in Becklin-Neugebauer Kleinmann-Low region 2−106865
OH, far-IR laser mag. reson. spectra 2−75329
OH fluorescence equilibrium in solar radiation field, appl. to comets' spectra 2−94646
OH for IR spectrum, freq., wavelength and line strength, astrophys. appl. 2−90528
OH free radicals, collisional broadening of far-IR and microwave spectrum 2−96643

oxygen compounds continued
OH in Comet Bowell (1980b), prod. rate in April 1982 from IUE and ground-based obs. 2−84165
OH, in troposphere, decrease in concs. rel. to global increase in methane concs. (1978 to 1980) 2−100452
OH, interstellar, distrib. of $^2\pi_{3/2}$ J=3.2 maser emission assoc. with W49N 2−79188
OH, interstellar, IR line emission rel. to cooling of interstellar shocks and masers 2−106874
OH, interstellar, widespread galactic emission at 1720 MHz as new tracer of spiral arms 2−68865
OH interstellar masers, associated IR sources, JKL obs. 2−94807
OH interstellar masers evolution 2−112541
OH, laser absorpt. meas. in NH_3/O_2 flames, oscillator strength determ. 2−88388
OH laser-induced fluoresc. in flame, conc. profile, two-dimens. imaging 2−99678
OH main line masers Canis Majoris, VLBI obs. 2−63419
OH maser emission in bipolar nebulae, UHF obs. 2−106836
OH maser in Kleinmann Low Nebula, mag. fields determ. 2−117726
OH masers in H II regions W4(OH) and Sagittarius B2, UHF obs. 2−74047
OH measurements and calibration using tunable dye laser based absorpt. technique 2−117468
OH, mol. struct. calcs. using ab initio effective spin-orbit operators 2−75168
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
OH radical in flames, $A^2\Sigma^+$-$X^2\Pi$(0-0) trnsition, mag. field effects 2−59813
OH radical species identification using laser saturation fluoresc. spectrosc. 2−93839
OH reduction in preforms by isotope exchange 2−83408
OH, spin-orbit coupling consts., ab initio calc. using universal even tempered basis set of exponential functions 2−96415
OH, tropospheric, laser induced fluoresc. meas. influence of rot. relax. 2−94480
OH Type II southern maser sources, IR counterparts 2−79243
OH, $X^2\Pi$ state, vibr. rot. emission bands, rot. anal. 2−54827
OH, zero-field splitting of $^2\Pi$ mol. states, ab initio multi-config. wavefunction calcs. 2−96464
OH^-, excited state, Feshbach resonances, QDMBPT 2−85540
OH^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
OH^-, stretching vibr. freq. of solid hydroxides and free OH ions 2−82846
OH^-, threshold photodetachment cross-sections meas. 2−102548
OH^+, break-up in thin C foil, H^0 component study 2−75371
OH^+, dissoc., study of neutral H-component 2−57592
OH^+, dissoc. detection by low pressure gas detectors 2−57595
OH^+, Franck-Condon factors, rot. depend. 2−59862
OH^+ ions in Li target, dissoc. 2−57593
$OH+CS_2$, OCS formation, rate const. determ. 2−83350
$OH+H_2$, interstellar rate coeffs. for rotational excitation 2−70400
$OH+HNO_3$, rate consts., product distrib. discharge flow EPR study 2−99657
$OH+HNO_3 \rightarrow NO_3+H_2O$, atmospheric reaction channel study *(French)* 2−88931
$OH^-+H_5O_2^+$, reactive collision, energy distrib. functions calcs. 2−105476
OH_3^+ beam, internuclear separation distrib., ion-source depend. 2−75459
ONOF, vibr. pot. function and struct. by normal coordinate anal. 2−108495
O_2PF_6, phase transition at −67°C, temp. depend. Raman study 2−110840
$OSiF_2$, bonds, mean amplitude of vibr. calcs. 2−64949
$OVCl_3$, matrix isolated and vapour phase, force consts., vibr. IR obs. 2−108515
Sb-O-Te system, metastable phase vitrification and crystn. 2−103647

ozone
air pollution, formation of secondary pollutants in boundary layer 2−83865
air pollution of Los Angeles, USA, NO_x emission reduction control meas. 2−105624
air-broadening coeffs. in 9 μm region 2−94496
altitude profiles of density from SMM UV spectrometer occultation meas. 2−100416
atmosphere, 2-D model of seasonal and meridional O_3 variability 2−63065
in atmosphere, anal. of total O_3 concs. for natural and man-made trend variability 2−100454
atmosphere, heating by solar radiation, effect on surface press. 2−106255
atmosphere, human effects on content *(French)* 2−100511
atmosphere, influence of total O_3 conc. on global UV radiation at ground level 2−100462
atmosphere, late evening O_3 maxima in surface layer 2−106274
atmosphere, O_3 air broadening coeffs. and line strengths in 9 μm region 2−106309
atmosphere, O_3 conc. profiles at Uccle, Belgium *(French, Flemish)* 2−88952
atmosphere, O_3 perturbation due to CO_2 and CFC increases 2−100503
atmosphere, obs. of stratosphere chem. composition 2−83890
atmosphere, ozonograms made at Uccle, Belgium, Nov. 1980 obs. *(French, Flemish)* 2−88953
atmosphere, total O_3 content in AD 1970 to 1977 period 2−94452
atmosphere, var. with latitude and season, O_2 airglow study 2−100619
atmosphere, variability due to solar activity cycle 2−78751
atmosphere composition, comparison of ground based total O_3 spectrophotometers for meas. 2−106263
atmosphere composition in equatorial Indian Ocean, MONEX obs. 2−88937
atmosphere conc. increase due to aircraft exhaust pollution 2−106172
atmosphere global distrib. obs. made with satellite IR radiometer 2−78754
atmosphere O_3, physical and chemical effects of 1908 Tunguska meteor fall 2−106629
atmosphere variations (1970-74) from backscattered UV obs. 2−106257
atmospheric, relation to solar activity 2−63059
atmospheric abundance, effect of nucl. weapons tests and chlorofluoromethane pollution 2−73623

ozone continued
atmospheric O_3, trace gases and temp. depend. on solar UV variability 2−63066
atmospheric vertical distrib. determ. by spacecraft limb-scan technique 2−112145
BUV satellite-borne O_3 sensor, rocket ozonesonde validation 2−100568
daily max. levels in St. Louis, forecasting 2−62520
Dasibi UV-absorption ozone photometer, weak-line contribution correction 2−95441
Dobson total O_3 atmospheric meas., statistical analysis 2−111987
Earth primitive atmosphere, effect of O_3 on radiative-convective-photochemical models 2−112135
global monthly means rel. to solar activity 2−63042
mesosphere, diurnal variation determ. from rockets 2−63061
mesosphere concentration variations during total eclipse, airglow obs. 2−100613
molecule, absorpt. coeff. in Hartley continuum, temp. depend. 2−90564
molecule, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
molecule, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
molecule, repulsive pot. energy surfaces, fluoresc. spectrum 2−108609
molecule+He, vibr. relax., ab initio quantum mech. calcs. 2−59905
photolysis at 248 nm and $O(^1D_2)$ quenching 2−105492
prebiological palaeoatmosphere composition rel. to UV radiation from young Sun 2−73929
pressure-broadening coeff., computerized tunable diode laser spectrometry 2−108486
recombination form., vibr. relax. 2−90671
stratosphere, profile up to 40 km over natal 2−63026
stratosphere O_3 effect on environment 2−107081
stratosphere tide measurement, O_3 UV absorpt. as forcing component, method for solar UV variability 2−63266
stratospheric O_3 conc. meas. by balloon-borne lidar 2−94505
stratospheric O_3 data, statistical methods 2−112150
surface conc. over St. Louis, 1975-6 regional pollution study 2−93956
time series analysis of Umkehr data from Arosa (Switzerland) 2−63044
troposphere concentrations, effect of NO_x abundance, spectral obs. 2−73622
Uccle, Belgium, 1980 April-June mast obs. of O_3 distrib. *(French, Flemish)* 2−68431
Uccle, Belgium, 1980 Jan. to March mast obs. of O_3 distrib. *(French, Flemish)* 2−68430
vertical atmospheric distribs. at total O_3 (1958-79) 2−111986
vibrationally excited, UV continuum spectroscopy 2−63092
$Cl+O_3$, O formation in secondary reaction, chemiluminesc. detection 2−78074
NO and NO_2 emission effects on O_3 in metropolitan regions 2−62521
O_3, absorbed on porous particles, dissoc., rel. to ball lightning 2−105512
O_3^+, laser photodissoc. and O_3 ion energetics 2−102554
O_3^+ photodissoc. curve 2−83397
$^{16,18}O_3$, anharmonic vibr. problem, soln. by var. method 2−113962
O_3+N_2O, chemiluminescence of BaO*, vibr. transitions 2−93797
O_3+NO, transition states, mechanisms, angular distrib. chemiluminescence 2−105466
O_3+Na, in solid Ar, visible chemiluminescence, thermoluminescence 2−99682
O_3+SO, rate coeffs., chemiluminescence study 2−99651
$O_3+SiHCl_3$, UV photolysis in solid Ar, IR spectrum 2−88365

ozonosphere
2-D model of O_3 seasonal and meridional variability 2−63065
data analysis, statistical methods 2−112150
ozonograms made at Uccle, Belgium, Nov. 1980 obs. *(French, Flemish)* 2−88953
pollution effects on O_3-layer *(French)* 2−100511
remote sensing of O_3 profile determ. by satellite limb-scan method 2−112145
O_3 global distrib. obs. made with satellite IR radiometer 2−78754
O_3 perturbation due to CO_2 and CFC increases 2−100503
O_3 total content in AD 1970 to 1977 period 2−94452
O_3, trace gas and temp., model of depend. on solar UV variability 2−63066
O_3 variability due to solar activity cycle 2−78751
O_3 vertical distrib. and total content, UV DIAL technique 2−106267
O_3 vertical profiles at Uccle, Belgium *(French, Flemish)* 2−88952
O_3 vertical profiles in equatorial Indian Ocean, MONEX obs. 2−88937

P invariance
atomic and nuclear physics exptl. results on weak interactions, review 2−79775
atomic parity violation, expt. searches, review 2−70435
atoms, electron-photon coincidence theory 2−102638
atoms, parity violation effects induced by neutral currents 2−70434
atoms, time reversal symmetry and parity expts. 2−70433
baryon hadronic decay, parity violation, SU(6) broken diquark model 2−79870
cosmic magnetic fields origin, role of parity nonconservation 2−63227
electroweak gauge boson effects in superconductors, P violation, neutral currents 2−59079
elementary particles elec. dipole moments, review 2−69468
parity and time-reversal noninvariance using neutron interference 2−84814
parity violating weak Hamiltonian, baryon matrix elements, nonleptonic weak reactions 2−95737
parity-violating nuclear force, parameters estimation using single Z-boson factorisation relations 2−79954
polyatomic molecules, hyperfine struct. corrections, P odd effects *(Russian)* 2−108736
proton decay, parity conservation and selection rules, even G parity mesons 2−113182
quark supersymm. scalar partners, mass from P-violating nuclear transitions 2−101596
SO(10) grand unified theory, low-energy parity restoration tests at e^+e^-, ep colliders 2−69386
$SU(2)_I \times SU(2)_R \times U(1)_{I+R}$ electroweak symmetry and parity violations in electron-nucleon scatt. 2−113185
violation, cosmological evolution effects 2−73835
weak interactions and symmetries, reviews 2−59097
$a_1+a_2 \rightarrow \mu^+ + \mu^- + X$, general struct. of P-odd effects *(Russian)* 2−84815
$\Delta(1232)$, electroproduction, pol. e, P violation, in electroweak theories 2−74695

P invariance continued
ed→ed, d pol., neutral current effects, gauge model test 2−101727
ed→epn, parity nonconservation effects *(Russian)* 2−59160
e^+e^-→hX, charm baryon prod. and decay, P-odd effects *(Russian)* 2−64325
e^+e^-→hX, P violation, QCD calc., cut vertex method 2−79898
e^+e^-→qq̄π process, P-odd effects *(Russian)* 2−59139
eN scattering, polarised electron, gluon corrections *(Russian)* 2−59158
(n,n), pol. n, resonance scattering, P invariance effects *(Russian)* 2−90118
(n,n′), slow neutron polarisation rot., parity nonconservation *(Russian)* 2−69640
nN threshold scatt. in nuclei, parity violation 2−59052
np→dγ, field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
Ω^-→$\Xi^-\gamma$, parity violating mode, penguin contribs. to QCD hamiltonian, Wilson coeffs. 2−79869
pα scattering, 46 MeV polarised protons, parity nonconservation study 2−59057
pn, elastic scatt. at high energies, parity violation 2−95864
pp, 15 MeV, total cross section, Coulomb effects on parity violation 2−54203
pp, elastic scatt. at high energies, parity violation 2−95864
pp scattering, parity violation effects 2−59344
Ξ^-→$\Sigma^-\gamma$, parity violating mode, penguin contribs. to QCD hamiltonian, Wilson coeffs. 2−79869
Z-γ mixing in superconductors, P-violation from Josephson effect 2−59080
Ar^{17+}, H-like parity violating effects in 2 $^2S_{1/2}$→1 $^2S_{1/2}$ transition 2−54007
H, atomic, multiple cavity expts. to detect parity nonconservation 2−96760
H atoms, parity nonconservation expts. in RF cavities, theory 2−90725
^{1}H(n,γ), parity violation effects 2−59344
^{4}He(n,n), parity non-conserving elastic scatt., observables estimate 2−85042
^{239}Pu(n,f), pol.n, 0.01-0.30 eV, polarisation asymm., P violation *(Russian)* 2−101954

p-n heterojunctions
amorphous-crystalline heterojunction with built-in interface charge, steady-state transport props. 2−77170
bulk photovoltaic effect 2−73112
carrier motion, thermally activated, charged impurity effect 2−115884
effective-mass theory for electrons in heterostructures 2−110231
equilibrium electrostatic potential and energy band diagram calc. model 2−92739
GaAs-$Al_xGa_{1-x}As$ heterojunctions, low temp. quantised Hall effect 2−87381
n-GaP/p-Si (100) heterojunction, MBE growth, struct. and rectifying props., RHEED obs. 2−57297
graded crystalline or amorphous heterojunctions, models for ohmic contacts 2−98742
III-V heterostructures, formed by LPE, growth and dissolution kinetics, temp. programming effects 2−104187
multilayer, carrier conc. and mobility, calc. from Hall effect and hot electron data 2−56678
polyacetylene photovoltaic devices 2−57708
quantum well heterostructure laser, carrier collection dynamics, Monte Carlo simulation and photoluminesc. study 2−114282
reduced Hamiltonian method with evanescent states and transfer matrices 2−110462
solar cells, CC SnO_2/In_2O_3-SiO_x-nSi, role of tunnel-thin dielectrics 2−99787
(Al,Ga)As/GaAs heterostruct., MBE grown, interface quality and electron mobility, substrate temp. effects 2−56385
(Al,Ga)As/GaAs heterostruct., single and multiple period modulation doped, electron mobility meas. 2−56676
(Al,Ga)As/GaAs heterostruct., electron mobility meas., AlAs mole fraction influence 2−56677
Al-InAlAs-InGaAs heterostructure, current transport 2−104486
AlAs interfaces, dissoc. surface reactions 2−57250
AlGaAs-GaAs, tunnel heterojunction, MBE growth and elec. props., multigap cascade solar cell interconnect appl. 2−57701
AlGaAs-GaAs heterostructure, modulation doped, reson. light scatt. in strong mag. fields 2−61921
$Al_{0.35}Ga_{0.65}As$-GaAs heterostruct., modulation doped, photocond. effects 2−56679
$Al_{1-x}Ga_xAs$-GaAs heterojunction CCD, quantum efficiency, heterojunction spike effects 2−87376
$Al_xGa_{1-x}As$ heteroepitaxial struct., graded-index, current controlled thickness composition profile 2−88013
$Al_xGa_{1-x}As$/GaAs heterostructures, single and multiple period modulation and doped, I-V characts., suitability for FETs 2−56682
$Al_xGa_{1-x}As$/GaAs modulation-doped structs., transport props., rel. to Monte Carlo calcs. 2−98731
$Al_xGa_{1-x}As$-GaAs heterostruct., modulation doped, MBE grown, carrier mobility, substrate temp. effect 2−61567
$Al_xGa_{1-x}As$-GaAs heterostructure grown by LPE, Auger electron spectra *(Chinese)* 2−66388
$Al_xGa_{1-x}As$-GaAs heterojunction, single period, mobility enhancement 2−77165
AlSb-GaSb-InAs, multiheterostructs., two dimens. quantum states and semimetal-semicond. transition, theoretical study 2−61575
As_2Se_3-CdSe amorphous-crystalline heterojunction with built-in interface charge, steady-state transport props. 2−77170
CdS/Cu_xS thin film solar cells, fabrication trends and problems review 2−78223
CdS-CdTe, LPE growth of CdTe on CdS polar face from Cd soln. 2−57311
CdS-Cu_2S heterojunction solar cells, Cd anodic sulphurization and RF sputtering, MIS struct. for interface state determ. 2−78229
CdS-Cu_2S heterojunction solar cell, lateral photovoltaic effect 2−83470
CdS-Cu_xS heterojunction, electron and hole traps, deep level transient spectroscopy 2−115873
CdS-$CuInSe_2$ solar cell, interface formation, comp. and stability, XPS, EELS and AES study 2−111554
CdS-CuS thin film heterojunction solar cell, fabrication 2−116833
CdSe-p^+-n-Si tunnel junction solar cell photoanode props. meas. 2−88427
$CdSnAs_2$-GaSb heterojunctions, LPE fabrication and props. 2−92743
CdTe-Cd_3P_2, ohmic contact form. by pulsed laser heating 2−104483
CdTe-$Cu_{1.8}S$, p-n heterojunction phototransducers 2−104478

p-n heterojunctions continued
Cr_xTe_y-$Zn_xCd_{1-x}S$ heterojunction photoelectronic convertors with improved parameters 2−116807
$Cu_{2-x}S$-CdS photoconvertors, electron microprobe analysis and degradation 2−73113
CuGaTe$_2$-ZnSe heterostruct., LPE growth of $CuGaTe_2$ from Bi soln. and elec. props. 2−62084
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
$CuInSe_2$-ZnSe, LPE heteroepitaxial growth from In soln. 2−57310
Cu_2S-CdS heterojunction solar cell, Cu diffusion effects, theoreticla anal. 2−73115
Cu_2S-CdS heterojunctions, elec. and optical props. 2−99354
Cu_2S-CdS thin film solar cells, sputter deposited, fabrication and characts. 2−67850
Cu_2S-$Zn_xCd_{1-x}S$ film struct., Cd and Zn cross diffusion, AES, ESCA and atomic absorpt. spectra study 2−66299
Cu_xS-ZnS:Mn p-n heterojunction DC electroluminesc. structs., degradation theory based on donor diffusion 2−57186
(Ga,In)(As,P) microwave and optoelectronic heterostruct. growth using multibarrel reactors 2−77747
$Ga_{1-x}Al_xAs$ heterostructure diodes, laser irrad., electroluminescence emission 2−82926
$Ga_{1-x}Al_xAs$:Be-GaAs p-p-n solar cells, Be diffusioned doping and elec. props. meas. 2−105557
$Ga_{1-x}Al_xAs$-GaAs isotypic heterojunction, compact analytic model *(French)* 2−104474
n-$Ga_xAl_{1-x}Sb$−p-GaSb heterojunction, elec. and photoelec. characterization 2−98732
GaAs double heterostructure laser diodes modulation *(German)* 2−80954
GaAs interfaces, dissoc. surface reactions 2−57250
GaAs/GaAlAs lasers nonplanar structures fabrication, by metalogranic chemical vapour deposition 2−85958
GaAs-(AlGa)As heterojunction, modulation doped, intersubband scatt. 2−61573
GaAs-(AlGa)As heterostructures, plasma dispersion in a layered electron gas 2−104276
GaAs-$Al_{1-x}Ga_xAs$ heterojunction, modulation doped, two-dimens. electron gas, intersubband scatt. obs. 2−110457
GaAs-$Al_{1-x}Ga_xAs$ modulation doped heterostruct., 2D electron gas transport props. meas. 2−98739
GaAs-$Al_xGa_{1-x}As$ heterostructure, Hall resist. meas., fine struct. const. determ. 2−58777
GaAs-$Al_xGa_{1-x}As$ heterojunctions, zero-resistance state of two-dimensional electrons in a quantizing magnetic field 2−61570
GaAs-$Al_xGa_{1-x}As$ heterostructure, cyclotron and plasmon emission from two-dimens. electrons 2−61770
GaAs-$Al_xGa_{1-x}As$ heterojunction, two-dimens. electron system, magneto-phonon reson. obs. 2−98734
GaAs-$Al_xGa_{1-x}As$ quantum well struct., single particle and collective excitations temp. and incident light intensity depend. 2−61920
GaAs-$Al_xGa_{1-x}As$:Si, heterojunction barriers, elec. transport and MBE growth 2−82448
GaAs-$Al_xGa_{1-x}As$-GaAs double heterojunction, p^+-n-n^+ diode, for high temp. electronic appl. 2−77163
GaAs-AlAs p-n structs., voltage relax. and electrolum. intensity 2−92741
GaAs-AlAs p-n structures, recombination current meas. at fivefold charge centres in space charge layer 2−82450
GaAs-AlGaAs heterojunctions, 20-electron gas, f-factor enhancement, Shubnikov-de Haas oscills. 2−56685
GaAs-AlGaAs heterojunction, zero-resistance state and quantised Hall effect 2−61491
GaAs-AlGaAs heterojunctions and multiple quantum well heterostructs., doped, reson. inelastic light scatt. 2−61919
GaAs-AlGaAs heterojunction, 2-D electron gas, cyclotron resonance of photoconductivity 2−66920
GaAs-AlGaAs heterojunction, two-dimensional magnetotransport in the extreme quantum limit 2−82376
GaAs-AlGaAs heterojunctions solar cells at high level of optical excitation 2−116832
GaAs-AlGaAs heterostruct., mobility calc. of two-dimensional electron gas at 4.2 K 2−66628
GaAs-AlGaAs heterostructures grown by MBE and their application to devices *(Japanese)* 2−87380
GaAs-$Ga_{1-x}Al_xAs$ epitaxial layers, MBE and LPE, luminesc. props. 2−72564
GaAs-$Ga_{1-x}Al_xAs$ multiquantum well struct., band edge absorpt. and gain spectra after short pulse excitation 2−62003
GaAs-$Ga_xIn_{1-x}P$ DH, interface recomb. and carrier confinement study 2−77605
GaAs-GaAlAs quantum wells, exciton binding energy 2−115668
GaAs-GaAlAs-GaAs rectifying structures fabricated by metalorganic CVD composition grading 2−115871
n-GaAs-GaAs:Cr, current limitation due to IR radiation obs. 2−66626
GaAs-InAs(100) heterojunction, MBE grown, lattice disorder, Rutherford backscatt. and channelling study 2−110202
GaAs-ZnSe heterostructure, photosensitivity spectra and luminesc. 2−92691
$Ga_{0.47}In_{0.53}As$-$Al_{0.48}In_{0.52}As$ modulation doped heterostruct., current transport meas. at moderate elec. fields 2−82446
$Ga_{0.47}In_{0.53}As$-InP heterojunction, 2D electron gas, quantum oscills., magnetoresistance study 2−110466
GaSe-SnO_2 heterostructure, depth profile, XPS and AES study 2−61299
GaSe-SnO_2/In_2O_3 heterojunction, near UV detector 2−53839
Ge-GaAs, (110) and (111), MBE grown, interface morphology, RHEED study 2−98470
Ge-GaAs (100) heterojunction, MBE growth, surface processes, LEED and photoemission study 2−110203
Ge-GaAs (110) interface, amorphous and cryst. films, electronic struct., XPS study 2−110456
Ge-GaAs (110) interface electron states, polarisation dependent UPS study 2−110455
Ge-GaAs interface, two-dimens. electron states, light scatt. study 2−110885
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2−87366
InAs-GaAs, heterojunction band discontinuities, MBE growth, XPS study 2−77166
InAs-GaSb heterojunction, self-consistent calcs. 2−110461
InAs-GaSb multiheterojunction, double cyclotron resonance and interband transitions 2−61574

p-n heterojunctions continued
InAs-GaSb quantum wells, exciton binding energy 2−115668
InAs-InAsSbP heterostruct. grown by organometallic VPE 2−98498
InGaAs-InP p^+-n heterojunctions, fabrication and charact. 2−99362
$In_{0.53}Ga_{0.47}As$, Be^+ ion implantation 2−55989
$In_{0.53}Ga_{0.47}As/InP$ heterostruct. avalanche photodiodes, deep levels 2−110284
$In_{0.53}Ga_{0.47}As$-$In_{0.48}Al_{0.52}As$ interface, MBE grown, two-dimens. electron gas 2−98730
$In_{0.53}Ga_{0.47}As$-InP heterojunction, two-dimensional electron gas study 2−77161
$In_{0.53}Ga_{0.47}As$-InP heterojunction, modulation doped, quantum Hall effect 2−110464
InGaAsP/InP DH, nature of electron leakage 2−87377
InGaAsP/InP DH, photolum. intensity 2−87881
InGaAsP/InP DH wafer, chem. etching charcts. 2−88242
InGaAsP-InP DH 1.3 μm laser, doping effects exam. by SEM and V-I charcts. *(Chinese)* 2−90885
$In_{1-x}Ga_xAs_{1-y}P_y$:Cd(Zn) LPE junction laser, SEM EBIC study 2−102821
$In_{1-x}Ga_xAs_yP_{1-y}$-InP LPE layers, strain anal. and optical props. meas. 2−66392
p-InP junctions, LPE grown, abnormalities in elec. and optical charcts. 2−98738
InP-$Ga_{0.47}In_{0.53}As$-InP DH epitaxial layers, chem. interface width and struct., Auger meas. technique 2−87086
InP-InGaAsP DH with 40% external luminesc. quantum efficiency 2−77591
InP-InGaAsP-InGaAs struct., LPE grown, lattice defects study 2−71454
InSb-CdTe heterojunctions, photomemory effect 2−92693
InSe-GaSe heterojunction, EMF with large temp. gradients 2−115870
$In_{2-x}Sn_xO_{3-y}$-GaAs:Be heterojunction solar cell, AES and EBIC evaluation 2−78214
$Pb_{1-x}Ge_xTe$ p-n junction diode, capacitance, press. induced phase transition 2−72055
$Pb_{1-x}Sn_xSe$, thin layers, grown by 'hot wall' method, for injection lasers 2−72627
$Pb_{1-x}Sn_xTe$-PbTe(BaF_2), heterojunction, defect form. 2−92374
$Pb_{1-x}Sn_xTe$-Si, open-circuit EMF meas. 2−87378
$(Pb_{1-x}Sn_x)_{1-\Delta}Te_{1+\Delta}$/PbTe, diffusion phenomena, during heteroepitaxy 2−92378
PbTe-Si, open-circuit EMF meas. 2−87378
Si:Zn junction, pot. distrib. *(Russian)* 2−92734
Si-CdS($Zn_xCd_{1-x}S$) heterojunction solar cell, elec. props. 2−115875
Si-SiO_2 layers in MOS n-p junctions, electrochemical doping with As^+, diffusion coeff., C-V plots 2−66287
SnO_2/n-Si polycrystalline solar cells, spray-deposited, performance parameters 2−83497
SnO_2/n-Si solar cell, low-temp. CVD of SnO_2 film on Si, cell efficiency and stability 2−57713
SnO_2-GaSe p-n heterojunctions, I-V charcts. and space charge thickness 2−115883
n-SnO_2-p-GaTe heterojunction, electrical and optical props. *(Russian)* 2−57189
SnTe-GaAs, open-circuit EMF meas. 2−87378
$Zn_xCd_{1-x}S/Cu_2S$ single crystal photovoltaic solar cell preparation and performance charcts. 2−78222
ZnSe, heteroepitaxial, deep defects 2−92512
ZnSe-CdSe thin film electrodes, photoelectrochem. performance meas. in aq. polysulphide electrolyte 2−78230
ZnSe-GaAs heterojunction, photovoltaic props. meas. 2−73121
ZnSe-Ge heterojunction interface, nature of band discontinuities 2−104463
ZnSe-$In_{2x}Sn_2O_{3-y}$ interface props., examination 2−66638
ZnSe-$Zn_{1-x}Cd_xTe$ heterojunction, photocond. spectral response, theory and expt. 2−98733

p-n homojunctions
bulk photovoltaic effect 2−73112
cryogenic temperature sensors, use of semiconductor diodes 2−58821
diode struct., fused glass passivation charcts., rel. to avalanche breakdown voltage 2−57501
ferroelectric semicond. p-n junction, capacitance, spontaneous polarisation and pyroelectric current 2−115881
ferroelectric semicond. p-n junctions, polarisation switching and pyroelec. current 2−110453
II-VI semiconductors, deep levels, junction space-charge techniques 2−110285
p^+-n^--n^+ diode struct., breakdown charcts. improvement using field-limiting ring 2−77171
photoconvertors, HV, under high intensity solar radiation temp. dependence investigation 2−73111
photoelectric convertors based on epitaxial Si structures, production and props. 2−99790
CC Si:H,As, amorphous RF sputtered film, pulsed laser annealing, p-n junction formation 2−86726
$CdGeP_2$:Ga photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
$CdSnAs_2$ junctions, photosensitivity spectra 2−92689
$CdSnP_2$:Cu photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
GaAs monolithic solar cell array 2−88449
GaAs, n-i-p-i cryst., photoexcited electrons quantisation, photoluminesc. and light scatt. study 2−61576
GaAs, p^+-n-n^+ struct., forward I-V charcts., photon generation effects 2−115882
GaAs, p-n homojunction LEDs, emission spectra calc., ghost peak form. 2−61980
GaAs p-n homojunction solar cell, minority carrier diffusion length modification 2−92644
GaAs, planar doped barrier design and growth by MBE 2−93425
GaAs, tunnel junctions for multigap cascade solar cells 2−57701
GaAs unipolar structures with ultrathin triangular barriers, elec. props. 2−82445
GaAs:Cr structures, semi-insulating, mag. field influence of the small signal impedance *(Slovak)* 2−61485
$GaAs_{0.35}P_{0.65}$:N VPE LEDs, deep centre studies by photocapacitance method 2−56637
GaP p^+-n junctions, highly doped, injection symmetry 2−115868
GaP p-n junction, LED, thermally stimulated noise 2−104444

p-n homojunctions continued
Ge, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Ge, use as cryogenic temp. sensors 2−58821
Ge:Cu p-n junction, reversed biased, Cu^{2-} centres mobility, DLTS study 2−98336
n-InAs:Cd, ion implanted, photo-EMF, spectral response 2−92697
InGaAsP-InP wavelength division solar cells, homojunction and heteroface struct. 2−83476
InP, impact ionization coeffs. for electrons and holes, photomultiplication meas. 2−61472
InP:Cd, diffusion profiles, p-n homojunction form. 2−110038
InSb:Si, p-n junction diodes, hole traps, DLTS study 2−110452
InSb:Tl, cryst. growth and p-n junction form., zero cavity growth 2−82452
$Pb_{1-x}Mn_xS$ solid solns., energy band gap temp. and composition depend., photovoltaic effect meas. 2−110450
PbTe:Tl, In single cryst. p-n junction, tunnel cond. charcts. 2−77174
Si, amorphous, p-i-n solar cell, energy conversion calc. 2−57704
Si amorphous p-i-n glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
Si, amorphous p-i-n junction, electroluminescence 2−82927
Si, amorphous p-i-n junction, photoenhanced electroluminescence 2−82928
Si, anisotropic size effect with plasma injected in mag. field 2−92677
Si diffused p-n junction X-ray and γ-ray detector, design, fabrication and charcts. 2−59596
Si diode, neutron transmission doped, avalanche breakdown 2−115887
Si, dislocation energy levels, determ using photoelectret and thermoelectret states 2−61580
Si, dislocation generation by ion implantation during manuf. of p-n junctions for ICs *(Russian)* 2−66030
Si doping by As diffusion, spin-on source for deep junction formation 2−76746
Si, LPE, minority carrier lifetime 2−72637
Si n^+-p junction leakage behaviour, O precip. effects 2−61568
Si p^+-p-n^+ multilayer structure, multilayer carriers conc. meas. in base region 2−115886
Si p^-n and n^-p junctions, multiplication functions in avalanche *(Rumanian)* 2−66630
Si p-n junction, diffused, secondary breakdown region, artificial movement *(Russian)* 2−98735
Si p-n junction, graded dislocation, capacitance-voltage meas. 2−104293
Si p-n junction, ion implanted, CW laser annealed, junction quality, SIMS study 2−104480
Si p-n junction, ion implanted, CW laser annealed, elec. and struct. props. 2−115872
Si, p-n junction, local parameter determ. by SEM EBIV mode 2−92737
Si p-n junction, nonequilib. lattice defects, effect on current-voltage charcts. 2−115879
Si p-n junction devices, impurity distrib. profiles of diffused layers determ. 2−115272
Si, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Si p-n photovoltaic junction formation by pulse implantation doping 2−115259
Si p-π-n diodes, current controlled negative resist obs. 2−56681
Si solar cell, (cryst. p)-(amorphous i-n) struct. 2−116801
Si solar cell, flat-spot power loss phenomenon at low temp. and low intensity 2−116819
Si solar cells, current status, efficiency improvement prospects 2−116804
Si solar cells, fabrication by laser induced diffusion from dopant gas 2−57697
Si solar cells, optimised low-high junctions ineffectiveness 2−78225
Si solar cells, p-n^+ junction, n-type heavily doped emitter region effective drift current densities 2−83500
Si solar cells temperature dependence of charcts. 2−73120
Si surface, tetrahedrally textured, charact. of ion implanted n^+ layers 2−76475
Si, use as cryogenic temp. sensors 2−58821
Si:Au n^+-p junction, deep level and shallow impurity profile simultaneous meas. with C-V method *(Chinese)* 2−92505
Si:Au p^+-n diode, DLTS and C^2-DLTS, analysis 2−56470
Si:B p-n junction, BN non-cond. layer, photovoltaic obs. 2−77164
Si:B radial position sensitive detectors fabrication and charcts. 2−70058
p-i-nSi:H, amorphous solar cell struct., deep electron traps 2−56493
a-Si:H, potential distribs. in Schottky and p-i-n structs. by capacitive techniques 2−92749
a-Si:H p-i-n structs., growth and characterisation 2−83031
SiC p-n structure, defect-free, avalanche ionisation and breakdown 2−87383
SiC:Al polytypes, p-n structs., electrolum. charcts. 2−93285
SnO_2:In thin film homojunction, thermoelectric effect 2−110451

p-n junctions
see also p-n heterojunctions; p-n homojunctions
asymmetric, capacitance calcs. 2−104476
asymmetrical diffused junctions, numerical method for space-charge region anal. 2−92740
avalanche breakdown in p-n junctions subjected to overvoltage 2−66632
avalanche multiplication of abrupt junctions, impact ionisation coeffs. determ. 2−82451
carrier motion, thermally activated, charged impurity effect 2−115884
charge relaxation and instability in barrier layers 2−61582
contact pot. determ. 2−115885
diffused, breakdown voltage, conc. and junction depth relation 2−104471
entropy production, electron-hole recombination, kinetic eqn. simplification 2−110465
forward biased junction, space-charge-layer boundary modelling 2−104470
hot carrier junction, elec. oscill generation 2−115880
II-VI semiconductors, impurities and imperfections, p-n junction formation *(Japanese)* 2−91950
long-base diodes, spin-dependent effects associated with passage of current 2−77173
minority carrier diffusion length meas. using microscopic electron probe 2−71996
MOS structure, ion implanted, capacitance-voltage charcts., temp. depend. 2−77191
p-i-n diode with single impurity level, injected carrier lifetimes and double injection currents calc. 2−104469

p-n junctions continued
p-i-n structure, small-signal double injection in mag. field 2−77172
p-n-p-n structures, current-carrying channel expansion, transient switching processes 2−104479
piezoelectric-semicond. boundary, coupled, theoretical anal. 2−56647
semiconductors, deep centres concentration, determ. by rapid capacitance relax. meas. of p-n junctions and Schottky barriers 2−69201
semiconductors, defect characterisation by junction spectroscopy, review 2−71920
solar cell, finite base, open-circuit voltage decay with drift field, theory 2−88454
solar cell, short circuit current, nonlinear behaviour with light intensity depend. minority carrier lifetime 2−67857
solar cell, temp. coeffs. of open-circuit voltage 2−88432
solar cell under illumination, minority carrier life-time determ. from steady-state and transient response 2−78208
solar cells, doping and temp. dependences of minority-carrier diffusion length and lifetime 2−99804
space-charge regions, electron probe induced current 2−82453
thermo-EMF appearance due to carrier heating by unidirectional elec. field 2−77175
thermoelec. EMF of hot carriers, lattice heating effects, theoretical anal. 2−61581
X-ray beam pulse spectral quality determ. using p-n junction *(French)* 2−96349
$p\text{-}Al_{0.7}Ga_{0.3}As\text{-}pGaAs\text{-}nGaAs$, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
$Al_xGa_{1-x}As$ p-n junction, double injection, electroluminescence 2−61981
P-V-T relations *see equations of state*
Pa *see protactinium*
pacemakers
see also patient treatment
classification, utilisation, and problems 2−78490
ECG recording analysis from implanted pacemaker patients, computer technique 2−94254
electrical heart stimulation, low resistance endocardial electrodes study 2−78492
hybrid microelectronics, cardiac pacemaker *(German)* 2−88693
minimum energy pulsing by cardiac pacemakers 2−88694
nuclear battery, ^{238}Pu fueled, exposure rates from leakage radiation *(Japanese)* 2−68168
pulse shape optimisation to reduce energy consumption 2−78491
packaging
see also encapsulation; modules
Al, porous, deposition techniques and heat transfer props. 2−87979
$CaO\text{-}Al_2O_3$ glass t seals for high temp. integrated thermionic ccts. 2−84635
$Li_2O\text{-}ZnO\text{-}SiO_2$ glass ceramic tube t seals for high temp. integrated thermionic ccts. 2−84635
packing *see packaging*
pair algebra *see algebra*
pair annihilation, electron *see electron-positron interactions*
pair breaking, Cooper *see Cooper pairs*
pair production, electron *see electron pair production*
pairing, Cooper *see Cooper pairs*
pairs, electron *see electron pairs*
palaeomagnetism
S Alaska, plate tectonic origin since Triassic 2−94342
analysis method for inclination data 2−73431
archaeomagnetic intensity data, anal. rel. to geomag. dipole vars. over past 50000 years 2−111858
archeomagnetic intensity study of Indian potshards from Quebec, Canada 2−111860
Argentina, upper Palaeozoic and Triassic reversals and excursions 2−68259
Aruba, Netherlands Leeward Antilles, Upper Cretaceous study 2−57972
SE. Australia, Early Palaeozoic palaeomag. and polar wander 2−68255
Avalon Peninsular, Newfoundland, Lower Ordovician Wabana and Bell Island Groups 2−100208
Biteke Formation, northern Kazakhstan, USSR, palaeomag. and geochronoloyg 2−105935
Bonaire, Netherlands Leeward Antilles, Upper Cretaceous study 2−57972
Bonin Islands (W.Pacific), palaeomag. and tectonic rotation 2−57967
British geomagnetic secular var. record for Holocene times, detransformation 2−105914
Brunhes-Matuyama magnetic reversal, dating at 790000 yr BP by marine-astronomical correls. 2−94277
W Canada, secular variations (31000 to 19500 years BP) 2−117191
Caraquet dike system, New Brunswick, Canada, palaeomag. study 2−88728
N Cascade range, Washington, USA, Tertiary palaeomag. 2−100219
Caucasus Mountains, results of palaeomag. investigations of Palaeozoic rocks 2−117195
conference, April 1982, Cardiff, Wales 2−63736
Late Cretaceous pole position and tectonics of Pacific 2−88734
East Eifel, Germany, Quaternary volcanoes, palaeomagnetic dating 2−106052
Frankenwald area Bavaria, Lower Palaeozoic diabases and pillow lavas, palaeomagnetic results 2−105925
geomagnetic secular variation, Australian lake sediment record 2−68248
Georgia Piedmont, USA, magnetisation of Austell gneiss 2−88740
E.Ghats, India, mag. props. of mafics and ultramafics 2−88871
Great Lakes, mag. excursions due to sediment transport effects 2−83740
Green River Formation, Wyoming, USA, reliability of palaeomag. obs. 2−105917
SE Greenland, palaeomag. of Tertiary dykes (and tectonic implications) 2−73432
Grenville anorthosites of French River area, Ontario, isolation of early Palaeohelikian rermanence 2−94273
Hadar Formation (Ethiopia), magnetostratigraphy and 1.2 Myr record of isotopic changes 2−68338
Hellenic sedimentary arc, palaeomag. results from Mio-Pliocene series rel. to tectonic rot. 2−94278
Iran, apparent polar wander since Late Precambrian 2−68258
Central Iran, Mesozoic formations, tectonic inferences from palaeomgnetic data 2−106074
Ivrea Zone, Italy, mag. anomaly due to deep rock magnetisation 2−100241
late Jurassic, geomag. field strength 2−117196
palaeomagnetism continued
lower Jurassic pole position from Yorkshire rocks 2−105906
middle Jurassic pole positions 2−105905
Kauai, Hawaii, successive palaeomagnetic reversal records 2−57974
Late Cambrian polarity reversals, field intensity var. 2−111856
Mesozoic and Cainozoic polar wander curve for N America 2−73440
Moenkopi Formation, Colorado Plateau, CRM acquisition in red beds 2−57970
multi-component magnetisations, linearity spectrum anal. technique rel. to SE Australia igneous rocks 2−105913
Newfoundland, Botwood-Mt. Peyton region paleomag. and geochronology 2−88817
North America lake sediment dating, use of geomag. secular var. type curves 2−100325
Old Crow, NW Yukon Territory, Pleistocene sediments mag. reversal history 2−100207
Olympic Mts., Washington, USA, palaeomag. and accretionary origin 2−94274
Palaeozoic geomag. field reversals 2−68257
Palni Hills, charnockites NRM 2−105928
Pliocene field intensity from Bulgarian basalts 2−105920
Proterozoic supercontinent configuration from palaeomag. data 2−88730
Ridge Basin, California, magnetostratigraphy of sedimentary rocks 2−88731
Sakami Formation, Quebec, Canada, palaeomag. study *(French)* 2−88729
San Juan Mtns., Colorado, tuff flow direction 2−106049
Seven Devils volcanic arc, Oregon, USA, palaeomag. and tectonics 2−94275
Sudbury area of Canada, uplift deduced from remanent mag. 2−62937
Sudbury basin offsets, Ontario, Canada, palaeomag. of irruptive rocks 2−88744
Sydney Basin, S.E. Australia, magnetostratigraphy of Permian/Triassic 2−68254
Tennessee Late Cambrian palaeomagnetic study at palaeontological boundary zone 2−83743
Tertiary apparent polar wander path for Gondwanaland 2−68325
time series analysis of sequential paleomag. data 2−78542
Tramore volcanics, SE. Ireland, Mid-Ordovician period 2−68256
Early Triassic to Quaternary magnetic field, use of Thellier method 2−105923
Tudor Gabbro, Ontario, palaeomag. pole age from $^{40}Ar\text{-}^{39}Ar$ incremental heating studies 2−106022
tuff flow direction from palaeomagnetic data, San Juan Mtns., Colorado 2−106049
Twinn Creek Formation, Wyoming, USA, Jurassic palaeomag. 2−105905
SW Washington (USA), palaeomag. and tectonic rot. 2−94345
Wisconsin bog and Lake Michigan core samples 2−83741
Yorkshire, England, lower Jurassic rocks 2−105906
palladium
see also nuclei with .....
(100) with adsorbed H, correlation between photoemission and photon stimulated desorption 2−92351
(110) surface with chemisorbed CO, angle resolved surface Penning ionisation 2−87929
adsorbed on W curved cryst. surface, equilib. coverage distrib., field electron probe-hole study 2−56360
atom, correlation energy, relativistic effects, CI calcs. 2−108397
atom, matrix isolated, MCD study 2−80537
atom, superposition errors, contracted basis set investigation 2−85537
atoms, L subshell photoionisation cross-section determ. 2−80550
catalyst, supported on vitreous materials, phenylacetylene half-hydrogenation 2−78138
chemisorption and condensation of methanol, on (100) surface, spectrosc. investig. 2−93812
chemisorption of Br and dibromide form. on (111) surface 2−66364
chemisorption of Cl 2−56346
core-hole lifetimes, electron spectra determ. 2−57256
crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
electroplating process in dendrite growth, gelatin additive in bath 2−71845
embrittlement by H, interaction energy term role in H adsorption at cracks 2−72841
film, elec. resist., DC elec. field effect 2−87421
film thickness on Si solar cell, X-ray fluoresc. anal. 2−88396
geochemical abundances in lherzolites, implications for mantle precious metals 2−62918
hardness and topology changes on H_2 absorption-desorption cycling 2−93606
hydrogen impregnation and embrittlement, preliminary treatment influence on mech. props. 2−99554
ideal transport, rigid muffin-tin approx. calcs. 2−87221
ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
ions recoiling through Fe, Gd and Tb foils, transient mag. fields, X-ray spectra study 2−66891
islands, interaction of CO and O_2 thermal desorpt. and AES studies 2−56361
lattice dynamics and cohesion, calc. for nonsimple FCC metal 2−76615
melting point, determ. by pulse heating method, temp. reference point appl. 2−58822
membrane pumps in thermonucl. power plants, material sputtering effects 2−79601
MOS capacitor, H_2 detection props. in $H_2\text{-}O_2$ mixture 2−112882
MOS struct., dissoc. of adsorbed H_2, UPS study 2−105510
nuclear mag. relax. and Knight shift meas. 2−66941
paramagnetostriction anisotropy meas. 2−98929
phonon limited elec. resist. calc. 2−92600
polycrystalline surface, low energy $O^+(O^-)$ backscatt. spectrum meas. 2−93342
SAW delay line for H_2 detection 2−95335
semiconductor-metal interfacial reaction at room temp. 2−56267
single crystal, struct. changes under H-phase hardening 2−77822
sputtering, on to polyester film, XPS obs. 2−111026
substrate for I_2, I_3^-coadsorbed layer, surface enhanced Raman spectra 2−99132
surface, (100), CO adsorption, ordered structs., LEED, EELS and IR data correlation 2−98456

palladium continued
surface, (111), physisorbed N_2, angle resolved UPS and EELS study 2−92359
surface, exposed to H^+, electron stimulated desorption 2−76820
surface(111), chemisorption of acetylene, surface vibr., LEED and EELS study 2−71787
surface (100), adsorbed H, phase diagrams for a square lattice with two- and three-body interactions 2−115556
surface (100), adsorbed S, LEED anal. 2−98449
surface (100), CO adsorpt., IR reflection absorpt. study 2−98466
surface (100), initial oxidation, LEED, EELS and AES studies 2−56314
surface (110), S adsorbed monolayer struct. *(French)* 2−71788
surface catalytic reactions, H_2 sensitive MOS-struct. and UPS, XPS study 2−88379
surfaces, clean and absorbate-covered, metastable He atom refl. 2−82979
thermal desorpt. and decomp. on (100) surface, spectrosc. obs. 2−92344
thin films, elec. resist., annealing and thickness effects 2−98764
thin films, physical-chemical interaction with Si substrates 2−61211
trace quantity determ. by atomic absorpt. spectrophotometry 2−116767
X-ray absorpt. spectra, L- and M-edges 2−77624
Ag-Pd-Ag epitaxial junction, superconductivity 2−82545
Ge/Pd, monolayer metal coverage, interface electronic struct., XPS study 2−82455
H ion implantation by low voltage glow discharge plasma 2−96305
H permeation, invest. by electrochem. method *(Japanese)* 2−82026
H solubility in metals, deviations from Sievert's law 2−71656
Pd (III) unoccupied surface state, inverse photoemission obs. 2−98709
Pd I radiative lifetimes and oscillator strengths, appl. to solar photosphere abundance 2−64903
Pd:H, mechanical and elec. props. recovery after phase transitions *(Russian)* 2−116460
^{107}Pd:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
Pd/a-Si:H Schottky barriers, heat treatment effect 2−77183
Pd/H_2-H_2O system, H isotope distrib. equilib., Pd use in isotope separation 2−111509
Pd/n-Si Schottky diodes, H_2 gas induced DLTS signal, gas detector appl. 2−77178
Pd/Si (111)7×7 system, transmission channelling studies 2−81858
Pd/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pd/Sn thin film diffusion couples, microstructural determ. of fast diffusion species 2−71741
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2−92289
Pd-Au interface, low temp. alloying, AES study 2−71810
Pd-GaAs interface reactions, struct. characterisation by X-ray diffr. 2−110172
Pd-InP Schottky diode H_2 sensors, sensitivity transient response and detection mechanism 2−89700
Pd-MOS structures, hydrogen sensitivity and long term behaviour 2−64008
Pd-Nb system, band occupancies, correlation to chemisorption 2−82424
Pd-Pb(Sn), thin film couple, single intermetallic cpd. form., X-ray diffr. obs. 2−92288
Pd-Se interface, silicide reactions induced by millisecond laser pulses, Rutherford backscatt. study 2−76495
Pd-Si, interface bonding, XPS study 2−110477
Pd-Si (111), Schottky barrier formation, soft XPS study 2−110445
Pd-Si (111)7×7, struct. studies of Schottky barrier formation by surface EXAFS 2−110174
Pd-Si interfaces, X-ray study of domain struct. and stress in Pd_2Si films 2−115614
Pd-SiO_2:Na MOS device, H_2 induced flat-band voltage shift 2−61607
Pd-SiO_2-Si struct., isothermal H_2 desorpt. 2−110135
Pd-Si(111) interface, ion beam crystallography study 2−115613
polyimide:Pd filled polymer film, conductive, synthesis and characterization 2−57328
Si-Pd interface, O_2 interaction, photoemission investig. 2−110474
SiO_2 supported catalyst, adsorption of ethylene, H_2 and CO, IR study 2−82129

palladium alloys
see also palladium compounds
dilute, impurity d-bands and core level binding energy shifts 2−56482
dilute correlation between band struct. and hydride formation 2−98516
membrane, H permeation, effects of impurities 2−110044
rare earth-Pd alloy, B addition effects on lattice size 2−71396
Ag-Pd, AES depth profile anal., peak overlap and electron escape depth influence 2−110992
Ag-Pd, dilute, impurity system electronic struct., pseudopot. study 2−98575
Ag-Pd, electronic struct. atomic approx. 2−104244
Ag-Pd, equiatomic, metallurgical instabilities, SRO and elec. resist. anomalies 2−93490
Ag-Pd (16 wt.%), sputter behaviour, influence of ion energy and incidence angle on Auger depth profiles 2−82972
Ag-Pd alloys, potentiodynamic polarisation anal. in Cl soln. 2−57535
Ag-Pd(Au) alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
$Ag_{0.2}Pd_{0.8}$ random alloys, electronic states, SCF-KKR-CPA method 2−76904
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Au-Pd, dilute, impurity system electronic struct., pseudopot. study 2−98575
AuPd ultrathin wires, low temp. resist. rise, interaction effects 2−92566
$Au_{40}Pd_{60}$ thin wires, Ag coated, elec. resist., length depend. 2−110325
Ca-Pd, phase diagrams and intermetallic phase cryst. struct., X-ray and DTA study 2−109955
$CdPd_3$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$Ce(Ag_{0.1}Pd_{0.7})_3$, mixed valency photoemission study 2−87199
$Ce_{1-x}M_xPd_3$, M=Sc, Y, La, intermediate valence and Gd^{3+} ESR 2−56927
$CePd_3$, electronic struct. from resonant photoemission and optical reflectivity spectra 2−66498
$CePd_3$, f-states, optical refl. study 2−77550
$CePd_3$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
$CePd_3$, mixed valence, X-ray absorption spectra 2−76991
$CePd_3$ mixed valence cpd., optical absorpt. signature near 20 meV 2−57111

palladium alloys continued
$CePd_3$, mixed valency photoemission study 2−87199
$CePd_3$, reson. photoemission studies 2−57267
$CePd_3$, screening effects in core-level spectra 2−110309
$CePd_3$, volume mismatch substitution, $\gamma \rightarrow \alpha$ transition 2−66197
$Ce(Pd_{1-x}M_x)_3$, M=Rh, Ag, intermediate valence and Gd^{3+} ESR 2−56927
$Ce(Pd_{1-x}Rh_x)_3$, specific heat, susceptibility and resistivity across the entire mixed valence range 2−56212
$CePd_1Si_1$, Ce valence state, Si addition effect, lattice const. and susceptibility meas. 2−97997
$Ce_{1-x}Y_xPd_3$, electronic struct. of Ce 2−71933
Cu-Ni(Pd) alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
Cu-Pd, dil., electron irradiated, solutes as nuclei for self-interstitial complexes 2−66061
Cu-Pd, dilute, impurity system electronic struct., pseudopot. study 2−98575
Cu-Pd, ordering process during continuous process *(Japanese)* 2−77820
Cu-Pd alloys, effects of alloying and chemisorpt. on Auger line shape 2−77142
Cu-Pd long period ordered alloys, incommensurate statistical struct., high resolution electron microscopy 2−71397
$DyPd_{1-x}Pt_x(Ni_x)$, phase relationships and struct., 2−109744
$EuPd_2Si_2$, mixed valence cpd., mag. susceptibility, lattice const., Mossbauer isomer shift 2−56510
Fe-Pd, dil. alloys., model of mag. behaviour 2−72198
$Fe(Pd_{1-x}Au_x)_3$, atomic ordering, quadrupole splitting in Mossbauer spectra 2−104783
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
$MoSi_2$-Pd protective coatings on Nb, Pd effect 2−116614
$NbPd_3$, itinerant ferromagnetism study 2−66750
Ni-Pd, dil., paramag. susceptibility, temp. depend., small Pd additions influence 2−98842
Ni-Pd alloys, electronic struct. calc. by self-consistent KKR-CPA method 2−56432
NiPd, depth resolution in ion bombardment SIMS 2−99284
$Ni_{49.9}Pd_{31.8}P_{18.3}$, H in amorphous alloys 2−81963
Pb-Pd alloy polycrystalline films, grain size reduction by coevaporation 2−71815
$(Pd,Si)Al_3$ metastable phase, cryst. struct. and phase anal. *(German)* 2−103694
Pd-Ag, preliminary H impregnation influence on mech. props. 2−99554
Pd-Ag, search for superconductivity 2−77223
Pd-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Pd-Au-V solid soln., elec. props. *(Russian)* 2−92562
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
Pd-Cd system, phase stability thermodynamic studies 2−99391
Pd-Cd system, phase stability, struct. studies 2−99392
Pd-Co, anomalous Hall effect, cond. tensor *(Russian)* 2−77021
Pd-Co films, epitaxial, polycryst. and amorphous, transverse anisotropy meas. *(Russian)* 2−92975
Pd-Cu (110), chemisorbed CO, Pt core level shifts, XPS study 2−77143
Pd-Dy, dil. alloy, sp. ht., cryst. elec. field effects 2−76700
Pd-Er dil. alloy, sp. ht., cryst. elec. field effects 2−76700
Pd-Fe, anomalous Hall effect, cond. tensor *(Russian)* 2−77021
Pd-Fe, dil., thin film, AC susceptibility, ion irrad. effects, rel. to supercond. 2−56828
Pd-Fe (1.5 at.%), spin waves, inelastic neutron scatt. study 2−72178
Pd-Fe-Au(Cr) solid soln., elec. props. *(Russian)* 2−92562
Pd-Fe(Co)(Mn)(Ni)(G), Pd based solid soln., diffusivity of H meas. 2−104058
Pd-Ge, glassy and cryst., electronic struct., AES and XPS study 2−82213
Pd-Ge, liq., thermodynamic props. rel. to bonding and short-range order 2−91756
Pd-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
Pd-Mn, ferromagnetic-spin glass transition, elec. resist. study *(Russian)* 2−82601
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
Pd-Mn-H soln., dil., thermodynamic props. 2−56195
Pd-Ni, anomalous Hall effect, cond. tensor *(Russian)* 2−77021
Pd-Ni thin film, static and dynamic mag. studies 2−72303
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483
Pd-Rh, paramagnetostriction anisotropy meas. 2−98929
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Pd-Te, liq. and solid alloys, thermodynamic props. 2−67297
Pd-Ti, Mattheissen's rule deviations 2−82320
Pd-Ti-H, H diffusion study 2−82024
Pd-V thin film, physical-chemical interaction with Si substrates 2−61211
Pd-V-H, H diffusion study 2−82024
Pd-W(Si)/Si, shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Pd-Zr, amorphous, supercond., US absorpt. and dispersion 2−56784
$Pd_{1-x}Ag_x$, paramag. and diamag. susceptibility, temp. and Ag mole fraction effects 2−92863
$Pd_{1-x}Ag_xHy$, α-α' phase transition of H, X-ray scatt. study 2−103977
$Pd_{0.8}Au_{0.2}$:D, lattice location of implanted D 2−71488
PdAuCr alloys, spin fluctuation effects, elec. resist. meas. 2−71958
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
$Pd_{77.5}Cu_6Si_{16.5}$, H in amorphous alloys 2−81963
$Pd_{77.5}Cu_6Si_{16.5}$, metallic glass, diffusion rates of Au 2−104057
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
$PdD_{0.74}$, optical phonons, short range order effect 2−56125
Pd_3Fe and Pd_3FeH_x, electronic struct. and mag. props. in ordered and disordered phases 2−76917
$(Pd_{0.9966}Fe_{0.0034})_{0.95}Mn_{0.05}$, nonlinear mag. susceptibility and sp. ht. meas. 2−87480
Pd_4Ge, metallic glass, crystn. kinetics 2−81682
$Pd_{80}Ge_{20}$, amorphous and crystalline, near-edge and EXAFS studies 2−93325
PdH, dipole force tensor, relationship to electronic struct. 2−109735
$PdH_x(D_x)$, elastic moduli, optical phonon contrib. 2−115329
Pd_3Mn ordered alloy, coincidence patterns, high resolution electron microscopy study 2−86528

palladium alloys continued
$Pd_2MnAl(Sn)$, Stoner and spin wave excitation spectra, OPW calcs. 2−115990
$Pd_2MnIn(Sn)$, Heusler alloy, elec. and mag. props. 2−110326
Pd_2MnSn, elec. and mag. props. 2−66522
$Pd_2MnSn_xIn_{1-x}$, ferromag. to antiferromag. transition, NMR study 2−104613
$Pd_{0.4}Ni_{0.4}P_{0.2}$, amorphous, US attenuation, 0.3 to 2K, temp. and freq. depend. 2−56098
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2−72208
$(Pd_xPt_{1-x})_3Fe$, atomic-ordered, sp. ht., 3 to 20K *(Russian)* 2−56204
Pd_2Si (PdSi) 2−56044
Pd_4Si, metallic glass, multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
$Pd_{80}Si_{20}$ evaporated film, amorphous, radioactive tracer diffusion 2−92429
$Pd_{80}Si_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Pd_{80}Si_{20}$, metallic glass, radiation damage by heavy ions 2−103853
$Pd_{0.775}Si_{0.165}Cu_{0.06}$, amorphous, acoustic wave attenuation and vel. change, 0.05 to 90K 2−56101
$Pd_{80}Si_{14.8}Cu_{5.2}$ eutectic, laser beam interaction 2−99435
$Pd_{30}Zr_{70}$ metallic glass, elec. resist. as function of press. and temp. 2−56547
Pd_xZr_{1-x}, metallic glass, electronic struct. calc. 2−98529
Pd_xZr_{1-x}, surface segregation due to H absorpt. 2−56345
PtPd, depth resolution in ion bombardment SIMS 2−99284
RPd_3, R=La,Ce,Pr,Nd,Sm, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
$ThPd_3$, f-states, optical refl. study 2−77550
Ti-Ni-Pd alloys, influence of Pd addition in martensitic transform. 2−83117
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
$Ti_{80}Pd_{20}$ amorphous superconductor, T_c study 2−72096
UPd_3, f and d electrons, resonant photoemission study 2−116336
UPd_3, f-states, optical refl. study 2−77550
VPd_3, itinerant ferromagnetism study 2−66750
W-Cr-Pd sintered alloys, Pd addition effects on oxidation 2−72885
$Y_xR_{1-x}Pd_3$, (R=Pr,Nd,Tb,Dy,Ho,Er,Tm), cryst. field parameters and cryst. field linewidths 2−87204
Zr_3Pd, amorphous, upper critical field and paraconductivity 2−77244
Zr_3Pd amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225

palladium compounds
see also palladium alloys
linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
polyimide film, Pd-containing, electrical conductivity 2−61632
$EuPd_2Si_2$, cooperative config. change, isomer shift meas. 2−66964
$EuPd_2Si_2$, mixed-valent system, surface shifts, photoelectron spectra study 2−62047
PB_2O_4, X-ray cryst. struct. determ. 2−55938
Pd (II) complexes, palladium-azobenzene ligands complexes, synthesis and characterisation 2−76288
Pd complex, bis(en)palladium(II) dichlorobis(en) palladium(IV) tetraperchlorate, cryst. struct. 2−65940
Pd complex, catalytic hydrogenation of olefins study 2−83378
Pd complex, near IR, IR transmission and unpolarised Raman spectra, vibr. anal. 2−104863
Pd complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
Pd complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
Pd/Si system, intrinsic and Si-stabilised oxides, Auger and UPS study 2−67160
α' Pd-D system, approx. to lattice gas, Monte Carlo simulation study 2−67307
Pd-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
$PdBr_4^{2-}$, bond order from Raman intensity data 2−59962
PdC, bonding, all electron ab initio calculations 2−75140
$PdCl_4^{2-}$, bond order from Raman intensity data 2−59962
$PdCl_4^{2-}$, electronic struct., non-empirical pseudopotential methods 2−96446
PdD_x, ion implanted, phonon resistivity 2−110328
PdH, electron-phonon coupling parameter rel. to occurrence of supercond. 2−66462
PdH, superposition errors, contracted basis set investigation 2−85537
$PdH_{0.6}$, XPS/UPS study of electronic struct. 2−72600
$PdH_{0.82}$, proton dynamics at low temp., PMR line shape study 2−72370
PdH_x, electronic and cohesive props., localised theory 2−82291
β-PdH_x, electronic hyperfine coupling, PMR study 2−72371
$(Pd_{1-x}M_x)H$, M=Cr, Mn, Fe, mag. and supercond. ordering 2−98845
Pd_2Si, contact material for semicond. detection 2−70100
Pd_2Si epitaxial film, ion beam induced, growth mechanisms and thermal stability 2−115604
Pd_2Si epitaxial films, Ar-ion implanted, elec. and struct. props. 2−87413
Pd_2Si epitaxial films Si substrates, characterisation by ion channelling and backscattering techniques 2−56403
Pd_2Si epitaxial layers, struct. anal. by channelling and blocking 2−115613
Pd_2Si films, formation temp. dependence of resistivity 2−82484
Pd_2Si films at Pd-Si interfaces, X-ray study of domain struct. and stress 2−115614
Pd_2Si Schottky-barrier IR-CCD for short wave IR appls. at intermediate temps. 2−74501
Pd_2Si-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Pd_2Si-Si interface anal. of high resolution electron microscope images 2−115611
Pd_2Si-Si:Ar interface, contact resist. stabilization due to ion implantation 2−66635
Si-Pd_2Si interface, lattice imaging and defects 2−66378

paper
moisture determ. by near IR photoacoustic spectrosc. 2−89731

paraelectric materials *see dielectric materials*

paraelectric resonance
No entries

parallel processing
electron atomic collision calculations, vector processing appls. 2−96728
flow problems, partial differential eqns., parallel struct. computer technique for soln. *(French)* 2−65614
satellite climatology, ICL distributed array processor appls. 2−100575
satellite-based images, computerised processing, parallel computer appls. 2−100752
seismic data deconvolution, algorithm for ICL DAP 2−100283
seismic diffraction migration, calc. on ICL distributed array processor 2−100282

paralleled resonator filters *see band-pass filters*

paramagnetic-antiferromagnetic transitions
see also Neel temperature
anisotropic antiferromagnet, paramagnetic phase boundary 2−66818
antiferromagnet, triangular, incommensurate mag. struct., role of dipole-dipole interaction 2−66778
Ising model, BCC, with competing interactions, fluctuation induced first order transition, free energy series study 2−77306
mag. first-order transition, susceptibility and latent heat study 2−98880
MANGALIOY, elinvar type alloys, nonferromag., charcts. *(Japanese)* 2−77881
mixed-valence system, phonon-induced instabilities, phase transitions, f-d model 2−87198
nickel diglycine dihydrate, antiferromag., mag. susceptibility study, 0.6 to 120K 2−77272
nickel diglycine dihydrate, antiferromag., sp. ht. meas., 0.5 to 10K 2−77294
order-disorder first order transitions, high press. effects *(Russian)* 2−87492
Potts model, three-state, with two- and three-body interactions, Monte Carlo study 2−74345
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
$Co_xNi_{1-x}S_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
Cr-Ga, effect of press. on Neel temp. 2−72202
Cr-Si, mag. first-order transition, susceptibility and latent heat study 2−98880
Cr-Si-Fe (2, 0.5 wt.%), mag. behaviours in commensurate spin density wave state 2−92882
Cr-V, dilute alloys, elastic consts., mag. transition 2−86774
$Gd_{65.4}Y_{34.6}$, mag. phase transitions, elec. resist., elastic const. and US attenuation study 2−116006
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
K_2FeF_4, NMR study of susceptibility 2−82575
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$Mn_{0.957}Zn_{0.043}F_2$, mag. phase diagram meas., random fields effects 2−72196
$NaMnCl_3$, mag. phase diagram, paramagnetic-antiferromag. transitions circular birefringence study 2−82596
$NiBr_2$, mag. phase transitions, sp. ht. study 2−61711
$NiCl_2.4H_2O$, anisotropic antiferromagnet, paramagnetic phase boundary 2−66818
$Ni_{1-x}Cu_xS_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
$NiS_{2-x}Se_x$, phase diagram in Ni-rich region, Hubbard model 2−66816
$RbFeCl_3$, triangular XY-like antiferromag., incommensurate mag. phase transition 2−116004

paramagnetic Curie temperature *see Curie temperature*

paramagnetic-ferromagnetic transitions *see ferromagnetic-paramagnetic transitions*

paramagnetic properties of substances
see also paramagnetic resonance; paramagnetism
aromatic molecules, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
benzene, paramagnetic vortices and proton mag. shielding, symm. anal. 2−75461
$DBTTF_8(MCl_6)_3$, (M=Sn, Pt, Re, Te), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2−110566
electrical resistivity, temp. depend. in ferro- and paramag. region, behaviour in phase transition region 2−71944
2D-electron gas, paramag. susceptibility 2−61689
ferrous formate dihydrate, paramagnetic susceptibility 2−72138
manganese formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
mixed magnetic systems, susceptibility in presence of chem. short range order 2−77256
mixed valence cpds., magnetic susceptibility, periodic Anderson model 2−56818
phthalocyanines, EPR study of paramagnetism 2−82697
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
polyacetylene, I_2 doped, elec. cond. and mag. susceptibility props., review 2−71955
polychinons, ladder and partly-ladder, paramag. charcts., irrad. effects 2−104571
polymerised Fe^{3+} acetylacetonate, mag. props. 2−104572
rare earth alloys, RCo_2, C15 type, ^{59}Co NMR study, hyperfine field anisotropy 2−66934
rare earth alloys, RCoSn, cryst. struct. and mag. susceptibility, 78 to 800°C *(Russian)* 2−55891
rare earth alloys, $RNiAl_2$ (R=Y, Gd, Tb, Dy, Ho, Er, Tm, Kb, Lu), mag. susceptibility and cryst. struct. *(Russian)* 2−115968
rare earth alloys RAlGa, mag. props. study 2−72141
rare earth compounds, R_5Ga_3, mag. props., struct., anal. 2−66763
tetra(methylamino) lithium, expanded compounds, low temp. mag. susceptibility 2−77275
tetramethyl p-phereneidiamine perchlorate, Wurster's blue, solid, proton spin-lattice relax. time meas. 2−87612
TMMC, EPR study, dynamic correlation breakdown 2−98949

paramagnetic properties of substances continued
$(TMTSF)_2X$ (X=ClO_4, PF_6, AsF_6), nonlinear threshold phenomena due to SDW transitions 2−92885
TMTSF-DMTCNQ, pure and irradiated, EPR expts. 2−93004
$TMTTF_8(MCl_6)_3$, (M=Pt, Hg, Cu), quasi-1D electroconductive compounds, mag. and elec. props. 2−71975
$(TMTTF)_2PF_6$, struct. and props., exptl. evidence for importance of interchain couplings 2−55959
transition metal complexes, M(hexamethylenetetramine)SO_4, struct., mag. moments, IR study 2−77517
transition metal complexes with 4-cyanopyridine N-oxide, struct., vibr., mag. moments, IR study 2−77518
transition metal cpds., intraatomic Coulomb repulsion, ferromag.-paramag. transition 2−115966
transition metal intermetallics, short range order above T_c, paramag. neutron scatt. study 2−72139
Ag-Mg alloy, liq. and solid, conc. and temp. depend. of mag. susceptibility 2−56826
alloy, liq. and solid., conc. and dil., temp.-conc. relationships of susceptibility 2−66766
B_2O_3-Fe_2O_3-PbO-GeO_2(CaO)(As_2O_3) glass, Fe valence states, comp. dependence, Mossbauer and mag. study 2−104317
Bi-$BiCl_3$, liq. state, mag. susceptibility meas. 2−92857
CaV_2O_6:H, Fermi glass, ESR, elec. and mag. meas. 2−72352
$Cd_{1-x}Mn_xTe$, simple excitons in intermediate mag. held, energy levels calc. 2−61365
$Cd_{1-x}Mn_xTe$, spin-flip Raman scatt. 2−110870
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
$CeAl_2$, electronic struct. and mag. props. 2−66752
CeBi, p-f valence mixing, anomalous mag. and transport props. 2−56514
$CeCu_{5-x}Ni_x$, NMR and mag. susceptibility 2−66938
$CePd_3$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
$CePd_3(CeSn_3)(CeBe_{13})$ mixed-valence cpd., paramag. neutron spectra meas. 2−104577
CeSb, p-f valence mixing, anomalous mag. and transport props. 2−56514
Co-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
$Co_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
$CoSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
Cr, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$CrLa_4S_7(Ce_4S_7)$, thermal conductivity, phonon-paramag. ion scattering effects obs. 2−115480
$CsFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
Cs_2NaHoF_6, elpasolite, hyperfine splitting meas. by enhanced Ho^{165} NMR 2−61775
$CuSO_4.5H_2O$, proton relax. rate angular depend., deviations from point-dipolar model 2−61783
Dy, first order phase transition study 2−77262
Dy, paramagnetic, deviations from Curie-Weiss law 2−56825
DyC_2, first order phase transition study 2−77262
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
Eu(Gd)$Mo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
EuO(s), spin dynamics in paramag. state, method of moments 2−98839
$EuRh_3B_2$, itinerant mag. ordering 2−104578
Fe, short range order above T_c, paramag. neutron scatt. study 2−72139
α-Fe-Al, ion implanted paramagnetic, diffusion of Al 2−76731
Fe-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
$Fe(HCOO)_2.2H_2O$, paramag. susceptibility anal. *(Japanese)* 2−92862
$Fe(NO_3)_3$, glassy paramag., Fe^{3+} Mossbauer spectra, spin-spin relax., microscopic model 2−93077
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$20Fe_2O_380(3B_2O_3(1-x)PbOxAs_2O_3)$ glass, mag. reciprocal susceptibility, paramag. Curie temps., consts. 2−110570
$Fe_4(PO_4)_2O$, prep., cryst. struct., mag. props. and Mossbauer spectrum *(French)* 2−81749
FeRh, paramag., ferromagnetic and antiferromag., band struct., muffin-tin calc. 2−82216
Fe_7Se_8, transition metal substituted, paramagnetism 2−66762
FeSi, mag. susceptibility variation 2−92864
FeTi, spin polarised photoemission probing of magnetism 2−67184
$FeTiH_{1.9}$, Pauli paramagnet, mag. susceptibility, magnetisation, hysteresis 2−66765
GaAs:Cr, semi-insulating, EPR of extended defects 2−87590
Gd compounds for mag. refrigeration, 2 to 20K 2−64050
Gd, sputtering coeff., temp. depend. 2−87938
Gd-Ge, mag. props., interband mixing effect *(Ukrainian)* 2−77261
$GdAlO_3:Cr^{3+}$, optical props. meas. in paramag., antiferromag. phases 2−93275
Ge, paramagnetic susceptibility obs., dislocations effect 2−56823
^3He, BCC, neutron scatt. in paramag. phase, self-consistent phonon theory 2−76773
^3He, BCC, paramag. phase, exchange models, neutron scatt. test 2−71764
Hf-Co-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
Hf-Cu-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
Hf-Ni-Al, Laves phase, mag. susceptibility *(Russian)* 2−72142
$HfNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
Ho, first order phase transition study 2−77262
$HoVO_4$, Van Vleck paramag., ^{51}V NMR line shift, temp. depend. meas. 2−116074
In-$InBr_3$, liq. state, mag. susceptibility meas. 2−92857
In-$InCl_3$, liq. state, mag. susceptibility meas. 2−92857
$KCr_{1-x}Al_x(SO_4)_2.12H_2O$, nonlinear adiabatic effects in parallel static and harmonic mag. fields 2−104574
La, magnetic susceptibility, 77 to 293K, diamag. and paramag. contribs. 2−56824
$LaCoO_3$-$LaMnO_3$, magnetic susceptibility and hysteresis loops meas. 2−77276
$LaIr_3O_{11}$, semicond., elec. and paramag. props., Mossbauer resonance *(French)* 2−92614
LaIrSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
$LaNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
LaRhSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
LiC_6, intercalate, absolute spin susceptibility, paramagnetism 2−77259
$Li(ND_3)$, expanded compounds, low temp. mag. susceptibility 2−77275
$Li(NH_3)$, expanded compounds, low temp. mag. susceptibility 2−77275
$LiTmF_4$, influence of magnetostriction on NMR spectrum *(Russian)* 2−72361
$LiTmF_4$, Van Vleck paramagnet, magnetoelastic interactions 2−66889
$Mg_{0.7}Zn_{0.3}$ metallic glass, energy bands and Pauli spin susceptibility, pseudopot. formalism 2−71855
γ-Mn, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$Mn_{1-x}Cr_x(Fe_x)B$, Invar like props. 2−72174
MnP, evidence for Lifshitz point in mag. phase diagram 2−66814
$NdAlO_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdCl_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
NdD_{2-x}, PMR of paramag. and ferromag. phases 2−66935
NdF_3, paramag. susceptibility and optical spectra *(French)* 2−92856
NdIrSi, cryst. struct., magnetisation and susceptibility 2−65969
$NdNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
NdOCl, paramag. susceptibility and optical spectra *(French)* 2−92856
Ni, paramag. susceptibility, temp. depend.; small Pd additions influence 2−98842
Ni, short-range mag. order above Curie temp., photoelectron spectra study 2−87945
Ni-Cu, L_{II}, L_{III} X-ray absorpt. spectra and density of states, KKR CPA calc. 2−99223
$(Ni_{0.93}Fe_{0.07})_{80}P_{10}B_{10}$, amorphous, magnetization, annealing influence 2−104660
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
$Ni_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
NiO mag. and lattice mechanical props. 2−92890
$NiSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
O_2, exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
α,β-O_2, magnetisation under high press. 2−66760
Pd, paramagnetostriction anisotropy meas. 2−98929
Pd-Rh, paramagnetostriction anisotropy meas. 2−98929
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2−72208
Pr, spin fluctuations 2−66764
$PrBe_{13}$, Van Vleck paramag., cryst. field effects, magnetisation, resist. and NMR 2−72140
$PrNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
Pr_3S_4:Gd, dil. Gd moments, enhanced paramagnetism, magnetisation study 2−72195
Pr_3Tl:Gd, dil. Gd moments, enhanced paramagnetism, magnetisation study 2−72195
$R_2GeBe_2O_7$ (R=La,Pr,Sm,Gd,Dy,Er), cryst. struct., prep. and mag. susceptibility meas. 2−103719
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
$Rb_2CuBr_4.2H_2O$, spin dynamics study 2−66860
$Rb_2CuBr_4.2H_2O$, three-dimensional Heisenberg ferromagnet, spin dynamics 2−98903
$RbFeCl_3.2H_2O$, Mossbauer study of critical fluctuations 2−99011
$RbFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
$(Rh_{1-x}Cr_x)_3Te_4$, paramag. susceptibility, elec. resist. and lattice consts. meas. 2−72136
Se, magnetic susceptibility constants meas. for amorphous, cryst. and powders 2−87474
Si, paramagnetic susceptibility obs., dislocations effect 2−56823
SiC, mag. susceptibility meas. 2−61692
SmB_6:Eu^{2+}, local cryst. fields, EPR study 2−92999
SmD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
$SmVO_4$, ratio of nucl. elec. quadrupole moments of ^{50}V and ^{51}V, NMR meas. 2−77411
$SnMn_3C$-$CuMn_3N$, perovskite, local effects and short range magnetic interactions *(French)* 2−72137
$SnMo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
Tb, first order phase transition study 2−77262
Tb-Ho, paramagnetic, deviations from Curie-Weiss law 2−56825
$TbAu_2$, first order phase transition study 2−77262
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
TmSe mixed-valence cpd., paramag. neutron spectra meas. 2−104577
Tm_xSe, local prop. variation, Mossbauer study 2−87633
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
$UNi_{5-x}Cu_x$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
US(Te)(As), rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2−72153
V, susceptibility and local moments, temp. depend. in paramag. state 2−104576
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
YFe_2, amorphous, struct. relax., Mossbauer study 2−72383
YFe_2, local mag. fields temp. depend., vol. expansion effects, NMR study 2−56955
$Y_2GeBe_2O_7$, cryst. struct., prep. and mag. susceptibility meas. 2−103719
$YbCu_2Si_2$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
ZnSe, mag. and elec. props., effect of disorder 2−82356
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
$ZrCo_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$ZrNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575

paramagnetic resonance
see also acoustic paramagnetic resonance; CESR; CIDEP; electron spin-lattice relaxation; ENDOR; EPR line breadth; paramagnetic resonance of colour centres; paramagnetic resonance of free radicals; paramagnetic resonance of ions and impurities; spin echo (EPR); spin-spin relaxation
absorption curve, nomogram for calc. the area underneath 2−92990

paramagnetic resonance continued
amplitude meas. using g-value controlled device 2−64081
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
anthracene-tetracyanobenzene, triplet-exciton transport between differently oriented sites, EPR 2−116054
anthracene/tetracyanobenzene, charge transfer cryst., ODMR and EPR spectra calc., triplet excition coherent motion effects 2−56445
benzophenone, $n\pi^*$ triplet state in glassy matrices, time-resolved ESR detect. 2−59826
chlorophyll, fluoresc. and EPR signal kinetics in whole leaves of higher plants 2−116880
coupled doublet triplet system spin Hamiltonian and ESR spectra 2−87573
demonstration apparatus 2−84426
diphenylacetylene-TCNB charge transfer complexes, single crysts., excited triplet states, EPR investig. 2−92989
ethanol-water, solvated electrons, ESR and optical absorpt. study 2−66892
fatty acids, spin labelled, covalently attached to boundary of intrinsic membrane protein, EPR, chemical exchange 2−105655
hemeproteins, EPR crystallography, direction cosines 2−83710
high-temperature EPR cavity for application of uniaxial stress 2−53804
$HMTSF(TCNQ)_x(TCNQF_4)_{1-x}$ solid soln., Mott transition 2−92471
isotropic ESR spectra simulation, transportable BASIC program 2−108582
Jahn Teller antiferroelastics, metamagnetoelastic and metamagnetoelectric behaviour, EPR spectra 2−98931
longitudinally detected EPR, methods for solving eqns. 2−80686
lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
magnetic resonance spectra, simulation using stochastic Liouville eqn. with Pade approximants 2−85692
metalloproteins, zero-field splitting consts., CW microwave saturation determ. 2−70302
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
microwave cavities, cm and m ranges, for EPR expts. 2−95420
molecular pairs, triplet excitons, nonresonant coherent motion, EPR props., Zeeman effect 2−82696
molecular spectroscopy, conf., Albena, Bulgaria, (Oct. 1980) 2−107020
nitrosobenzene and cholesterol reaction, EPR obs. 2−111464
nonequilibrium spin states, meas. 3 cm ESR facility 2−84675
nucleic acid constituents, photochemistry, ESR and spin-trapping investig. 2−111624
$(perylene)_2(AsF_6)_{0.75}(PF_6)_{0.35}\cdot(dichloroethylene)_{0.85}$ conductivity, EPR and reflectance 2−92578
phase-modulation ESR spectroscopy, relaxation characts. 2−110620
phthalocyanines, EPR study of paramagnetism 2−82697
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
polyimide fibre, paramag. centres occurring during thermal extension, influence on thermal stability *(Russian)* 2−77798
polymers, characterisation, conf, Durham, UK, 13-17 July 1981 2−68957
polypyrrole film, neutral and oxidised, prep. and characterisation 2−81693
protein constituents, photochemistry, ESR and spin-trapping investig. 2−111624
pyroelectric detection of magnetic resonance 2−77379
relaxation, kinetic theory for zero frequency shift 2−82698
resonant structures matching with NMR 2−74476
sarcoplasmic reticulum, lipid-protein interactions rel. to ionophore A23187, EPR and fluoresc. obs. 2−67930
saturation transfer EPR, signal phase depend. rel. to rot. correl. times 2−89760
semimagnetic semiconductors, mag. props. 2−98898
sorbate and nitrite reaction, in presence of spin trap, ESR obs. 2−108583
spectra simulation, modulation effects inclusion 2−53800
spectroscopic splitting factors, g-values, meas. in EPR spectroscopy, microprocessor-based unit 2−101433
spin glasses, exptl. techniques, review 2−66842
spin Hamiltonian, orthorhombic HF and g tensors 2−70297
strain modulated EPR, second harmonic detection, technique for measuring strain parameters degenerate lines 2−53801
$(TCNQ)_2$ complex, mag. props. singlet triplet activation energy, ESR obs. 2−56914
TCNQ salt, 1-methyl-3′-ethyl-2,2′-quinoselenacyanine-$(TCNQ)_2$, mag. susceptibility, spin dynamics, elec. cond. and EPR study 2−66759
TCNQ salt, DBTTF-TCNQ, pure and $TCNQF_4$ doped, ESR studies 2−87576
TCNQ salt, DBTTF-$TCNQF_4$, ESR studies 2−87575
TCNQ salt, $DEM(TCNQ)_2$, ESR studies 2−77362
TCNQ salt, $DMM(TCNQ)_2$, spin-Peierls transition 2−104255
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
TCNQ salts, alkali-TCNQ, possible origin of S=1/2 ESR lines 2−77359
$(TMTSF)_2(2,5\text{-}TCNQBr_2)$, struct. and phys. props. 2−55961
$(TMTSF)_2FSO_3$, dipolar anion effect on mag. and conduct. props. 2−87232
$(TMTSF)_2X$, charge density waves, spin density waves 2−92491
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
transition probabilities in EPR, ENDOR and electron-nuclear multiple reson. transitions 2−110728
(3.3)TTF-Phan-TCNQ, electronic props., cond. and ESR meas. 2−92621
zinc porphin in n-alkane host crystals, phosphorescent ^3E_u state, EPR and spin-lattice relax. 2−85705
ArLi, spin densities calcs., matrix site effects in ESR spectra 2−75172
$ArLiOH_2$, spin densities calcs., matrix site effects in ESR spectra 2−75172
$Fe_xNi_{80-x}P_{14}B_6$, ESR study in reentrant phase 2−72331
H, spin polarised, in solid H_2 matrix, Overhauser effect 2−54878
^{4}He-alkali metal plasmas, He and free electron mag. reson. signal separation 2−113915
HgSe, far IR magnetotransmission, cyclotron and spin-flip resons. 2−57066
n-InSb, ESR, uniaxial stress enhanced 2−98940
Mn_5 high-spin molecule, S=25/2, ESR study 2−85701

paramagnetic resonance continued
Mo, matrix isolation, ESR study 2−70296
N, metastble ^2P state, EPR spectrum 2−64901
NO_2, adsorbed on Cu surface, reaction, UHV ESR obs. 2−67765
Na_3, pseudorotating, dynamic freq. shifts, ESR obs. 2−102498
$OH+HNO_3$, rate consts., product distrib. discharge flow EPR study 2−99657
$SrTiO_3$, struct. phase boundary under [111] stress, EPR study 2−61122

paramagnetic resonance of colour centres
see also paramagnetic resonance of defects
alkali halides, F centre pairs, exchange effects in ODESR 2−56981
quartz, free induction of E'_1-centres, EPR study 2−110640
quartz, natural, thermoluminesc., paramag. defects effects 2−77573
quartz, natural smoky, ESR study 2−98959
quartz, shock-metamorphosed, defects study 2−115227
BN with C impurity, ESR signals after high-temp. shock compression, reverse phase transitions, paramag. centres form. 2−56931
$CaSO_4.2H_2O$, gypsum, X-ray irrad., EPR spectra 2−66915
CdS, F^+ centres and oxygen radicals, impurities effect 2−93006
GeO_2:Zn(Mg), X-irrad., hole centre ESR study 2−87592
KCl:Br (Sr^{2+})(Ba^{2+}), X-ray irrad., H_D ntype defects, ESR study 2−110641
KCl:$PbCl_2$, X-ray irrad. V_F centres, optical production, thermoluminescence, ESR and light absorption study 2−57194
$KClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
KN_3 EPR meas. of time depend. of colour centres 2−72347
$NaClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
SiO_2:Al, vitreous, radiation colour centres, multiple nature, ESR and optical absorpt. study 2−72348
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2−66492

paramagnetic resonance of conduction electrons *see CESR*

paramagnetic resonance of defects
see also paramagnetic resonance of colour centres
chalcogenide glasses, elec. transport props. 2−72345
chalcogenide glasses and amorphous semicond., at. defects, review 2−65869
diamond, containing lonsdalite, ESR spectra, structural defects 2−72344
diamond, epitaxial growth on Ni, irradiation with C ions, ESR spectra 2−77371
ESR spectrum, theoretical anal. 2−77372
MOS interface states, EPR 2−61603
polyparaphenylenes, EPR study of mag. props. and struct. defects 2−104701
quartz point defects, acoustic loss, IR and magnetic resonance results 2−98084
semiconductors, review 2−72349
sulphide glasses, As and S centred paramag. species 2−61765
TCNQ salt, TMTSeF-DMTSNQ, pure and irradiated, mag. props. 2−98958
tetracyclohexylcyclotetraphosphine, solid, γ-irrad., ESR study 2−77377
TMTSF-DMTCNQ, pure and irradiated, EPR expts. 2−93004
As_2S_3 and As_4S_4, optically induced localised states, photolum. and EPR 2−57164
a-B:H, ESR study, annealing effects on signal intensity and linewidth 2−87591
$CaSO_4$, X-irrad., ESR of thermoluminesc. centres 2−66916
GaAs film, amorphous, plasma deposition and characterisation 2−111094
GaAs, semi-insulating, point defect chemistry, paramag. resonance technique review 2−93005
GaAs:Cr, semi-insulating, EPR of extended defects 2−87590
GaSe:Mn^{2+}-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
Ge-S, amorphous, effective electron correlation energy, EPR study 2−110271
Ge-S glasses, local order, ESR study 2−65865
GeSx, glass, photoinduced EPR meas., dangling bonds role 2−56932
InP:Fe, electron irradiated, EPR study 2−104690
KCl:Eu^{2+}, impurity-vacancy complexes, conversion under γ-irrad. and F-band bleaching, ESR study 2−76499
$KClO_4$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
$Li_xB_7O_{12.5}X$, (X=Cl, Br) 2−66917
MgO crystal, elec. breakdown at high temp. 2−77450
$(NH_4)_2SO_4$, ferroelec., EPR study of triple state centre 2−98936
$NaAl_3(PO_4)_2(OH)_4$, localised hole centres, paramagnetic defect EPR study 2−66919
$NaClO_3$, UV irrad., librations of O_3 defectsd, ESR study 2−72346
NaF:U, luminesc., EPR of U^{5+} 2−110918
Se:Cl(K)(Rb), amorphous, carrier generation and EPR studies, dopant effects 2−77083
Si, amorphous films, RF-bias sputtered, elec. cond. photoconductivity, ESR spin density, annealing effects 2−56391
Si, CVD, amorphous, post-hydrogenated, doping effects, cond. and EPR meas. 2−66679
a-Si film, diffusion of H, ESR study 2−115469
Si, heat treatment centres, g-values 2−66918
Si, ion implant. amorphisation optical and EPR studies 2−103789
Si, ion implantation, amorphous phase and point defect generation, generalised overlap-damage model rel. to EPR data 2−115315
Si, neutral divacancy, EPR spectrum, extended Huckel calc. 2−91957
Si, neutron irrad , EPR obs., review 2−110638
Si thin films, D passivation of grain boundary dangling bonds, ESR detection of defects 2−76478
Si:B, interstitial B negative-U props., EPR 2−71908
Si:B, ion implanted, radiation damage production 2−61009
Si:H, amorphous, homogeneous CVD prep. and struct., comp. and photocond. props. 2−87085
Si:H, amorphous film, vacuum evaporated, substitutional doping by ion implantation, elec. cond. and EPR study 2−55850
a-Si:H, RF sputtered, elec. and EPR meas. 2−115791
Si:H,B, amorphous, ESR lineshape, g-factors, temp. depend. 2−77373
Si:H,F, amorphous film, NMR and ESR study 2−93003
Si:H,O,N, amorphous, ESR of impurity associated defects 2−82699
a-Si:H films, SAW attenuation, paramag. defects, IR, ESR and SEM studies 2−110123
Si:H(F), amorphous, dangling bond ESR, effect of H or F, Huckel mol. orbital calc. 2−56933

paramagnetic resonance of defects continued
Si:H(F), amorphous, ESR study relation between defects and incorporated H(F) *(Japanese)* 2−87588
Si-Ge-B amorphous film, glow discharge deposited, elec. cond., optical absorpt. and EPR study 2−71965
Si-SiO_2, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
SiC (6H), vacancy deep levels traps, EPR, optical absorpt. and Hall effect study 2−56483
SiC particles, paramagnetic defects treatment effects, ESR study 2−87593
SiC, surface states, rel. to mech. fracture, ESR obs. 2−110639
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
n-SiC:N (6H), impurity-vacancy pairs, EPR study 2−61766
$Si_{1-x}C_x$:H, amorphous glow discharge films, ESR, IR and optical study 2−56934
SiO_2-Na_2O (Li_2O)(K_2O) glasses, X-ray irrad.-induced defects, ESR study 2−98960
SiO_x films, phase composition, TEM and EPR studies 2−98491
TiO_2, ESR studies of defect centres 2−87594
TiO_2 powder, shock loaded, paramagnetic defects, ESR study 2−77370
ZnO, green cathodolum. and ESR spectra 2−116275
ZnTe:Cl, EPR study of deep Cl-associated centre 2−110642

paramagnetic resonance of free radicals
acetaldehyde in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
acetone in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
acetoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
2-adamantyl radical, EPR spectrum, alpha-proton hyperfine splitting const. 2−80726
aliphatic acetoxy radicals, long-range acetyl-proton coupling, EPR obs. 2−70301
alkoxy radical radiation products, g-tensor and H^+ coupling tensors 2−85695
alkoxycarbonyl radicals, long-range H^+ couplings, EPR obs. 2−80683
amines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
anthrasemiquinone radical anions, aq. soln., stability, EPR obs. 2−90585
ascorbic acid free radicals, kinetics obs. continuous flow method, ESR imaging appls. 2−108587
1,3-benzodioxole radical cations, hyperfine splitting const., ESR, MO calcs., correl. with reactivity *(German)* 2−102511
bis(3,3,3-triphenyl propanoyl)peroxide, cryst., neophyl rearrangements, X-ray and EPR obs. 2−67742
bis(3,3,3-triphenylpropanoyl)peroxide, cryst., neophyl rearrangements, EPR obs. 2−67741
blood serum irradiated with UV, biological action mechanism, free radical products 2−100062
cholesteric mesophase induced by chiral probe, ESR obs. 2−76279
cyclohexanone 2−98962
cyclotrimethylenetrinitramine, NO_2 radicals prod. by UV photolysis, EPR spectra 2−87596
cytochrome P-450, spin labelled, complex ST-EPR and EPR spectra, selective removal of spectral components 2−88504
dibenzoyl peroxide, photoinduced reactions, EPR and spin trapping obs. 2−90586
dibutyl phthalate, liq., glass transition, diffusion, EPR study 2−104704
dipeptides, polycryst., γ-irrad. ESR and chromatographic separation of radicals 2−110643
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2−110566
1,5dithiacyclooctane, EPR studies of isomeric monomeric cation radicals and dimers formed on oxidation 2−75331
EBBA, EPR of nitroxide radical, phase transition temp. 2−56935
EBBA-MBBA mixture, EPR of nitroxide radical, phase transition temp. 2−56935
erythrocyte membrane submitted to a bending stress, spin label study of mol. struct. 2−105667
ethylene glycol:Cr^v, dynamic proton polarisation 2−116065
fluoranthenyl radical cation salts, ESR linewidths, longitudinal and transverse relax., temp. depend. 2−98961
free radical-aromatic ligand π complexes, spin density transfer mechanism, struct. effect 2−111491
free radicals, assay by ESR, spectral simulations appls. 2−111528
galvinoxyl radical, anomalous phase transition, EPR spectra, zero-field splitting 2−104703
liquids, time resolved electron spin resonance spectroscopy 2−116064
lithium alkyls, γ-irrad., ESR obs., rel. to methylene anion radical 2−108588
MBBA, EPR of nitroxide radical, phase transition temp. 2−56935
2-methylfuran radical, hyperfine splitting consts., ESR study 2−90587
2-methylthiophene, radical, hyperfine splitting consts., ESR study 2−90587
mitochondria of liver and heart, detect. of new paramag. centres by EPR 2−57792
nematic liquid crystal, phase transition temp. determ. by free radical EPR 2−56936
5-nitrofuran derivatives, radical anion electronic struct., EPR, electronic absorpt., and INDO calc. 2−96606
nitroxide radical, collisional spin exchange, EPR line broadening 2−114021
nitroxide radicals, diastereomeric, prod. by spin trapping, ESR and ENDOR obs. 2−108584
nitroxyl radicals, hyperfine splitting consts., g-factors pH effect on EPR spectra 2−108585
olefinic alcohols radicals, EPR study 2−77376
organic crystals, gamma irrad., EPR spectra obs. 2−56938
organometallic radicals, spin trapping by quinones, optically active complex form. 2−110645
peroxylamindisulphonate radical, rot. dynamics in alcohol solvents, EPR study 2−77374
phosphoranyl radical anion, EPR-spectra 2−61769
PMMA, effects of free vol. and segmental mobility in motion of nitroxide spin probes and labels 2−98963
polyamines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
polyethylene mechanical degradation, free radicals and end groups from chain scission 2−90751
polyglycidyl methacrylate (PGMA), negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polymers under stress, acoustic emission and EPR studies 2−66133

paramagnetic resonance of free radicals continued
polystyrene, negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
progesterone, single cryst., γ-irrad., stable free radical, EPR 2−70303
1,2-propylene glycol:Cr^v, dynamic proton polarisation 2−116065
strontium tartrate tetrahydrate, X-irradiated, ESR 2−82718
tetracyclohexylcyclotetraphosphine, solid, γ-irrad., ESR study 2−77377
thiophosphate O,O,O-triester of methyl β-D ribopyranoside, X-irrad., EPR spectra 2−61769
trehalose, X-ray irrad., alkoxy and hydroxyalkyl radical form., ESR study 2−110646
(triphenylarsenicdifluoride)$^-$, X-ray irrad., EPR spectra 2−82716
urea oxalic acid, radical transformation, ESR and proton ENDOR studies 2−82715
verdazyl radicals, single cryst. and polycryst., EPR 2−93011
woods, petrified, geological age assessment by ESR 2−62920
$Ba(ClO_4)_2.3H_2O$, EPR and optical absorpt. of ClO_3 2−93012
BrO_4^{2-} radical anions form. by attachment of O^- to bromate in solid matrix, EPR spectra obs. 2−59827
$^{12,13}CO^+$, matrix isolated in Ne, EST study 2−102508
$CaSO_4$ phosphor, thermolum. and thermally stimulated exoelectron emission, SO_x^- radicals role 2−77602
$Cr(CO)_6$:$Mn(CO)_4NO$, gamma-irrad., anisotropic EPR spectrum 2−82717
$FClO_3$ radical, coupled transitions, higher order effects ESR spectra 2−90578
$FClO_3^-$ radical anion, ESR spectra and struct. 2−65022
FSO_3 radical, coupled transitions, higher order effects ESR spectra 2−90578
He, liquid, liquid He, ESR spectra of trapped N atoms *(Russian)* 2−98934
KCNO, electric gun induced reactions, EPR study 2−116697
KCl:KCN irrad. single cryst., EPR study 2−77375
$KOsO_3N$, single cryst., γ-irrad., paramag. d^3 defect, EPR investig. 2−93009
$K(UO_2)(NO_3)_3$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$K_3(UO_2)(NO_3)_4$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
li-o-dimesitoylbenzene radical complexes, soln., KEPR, ELDOR and ENDOR 2−59832
MoN, matrix isolation, electronic states, ESR study 2−70296
$(NH_4)_3(UO_2)(NO_3)_4$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$^{14,15}NH_3$, matrix isolated in Ne, EST study 2−102508
Na-o-dimestoylbenzene radical complexes, soln., KEPR, ELDOR and ENDOR 2−59832
O^-, radicals in type A zeolites, form. and stability, cation interaction, EPR study 2−104702
O_2^- radicals in type A zeolites, form. and stability, cation interaction, EPR study 2−104702
Pb(II)tetraphenylporphyrin, cation radical, optical and ESR spectra 2−80682
SO_2 electroreduction in nonaqueous media, electrochem. and ESR obs. 2−114017

paramagnetic resonance of ions and impurities
see also paramagnetic resonance of iron group ions and impurities; paramagnetic resonance of palladium and platinum group ions and impurities; paramagnetic resonance of rare earth ions and impurities
bromobenzene cations, matrix isolated, formed by radiolysis, EPR spectra 2−96630
β-carotene anions, electronic absorpt. and ESR spectra 2−108539
diamond:Sb(N), ion implanted, defects, elec. cond., EPR study 2−66027
diamond, natural and synthetic, ESR spectrum of N impurities 2−87587
dynamic crystal field models 2−56528
paramagnetic host, impurity ESR, review 2−98941
poly(para-phenylene):AsF_5, electronic props., ESR and ^{13}C NMR study 2−82737
polyacetylene:$AlCl_3$, metallic elec. cond. and EPR spectrum meas. 2−77027
polyacetylene:AsF_5, solitons, inhomogeneous doping, EPR, DC cond. 2−61531
polyacetylene:Li, n-type doping, isomerisation, EPR and Raman spectra 2−65878
relaxation to cond. electron bath, method of moments 2−110618
transition metal ions 2−116055
β-Al_2O_3-Na_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
β″-Al_2O_3-Na_2O-Li_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
B_2O_3-Na_2O-PbO(CdO) glasses, press. induced struct. changes, ESR study 2−110637
C:H, amorphous glow discharge film, photoluminescence and ESR spin density 2−93244
CaF_2:H^0, ESR spectrum 2−98938
CaF_2:O, X-irrad., O centre, EPR and ENDOR study 2−61764
CdS, kinetic behaviour of O_2 radicals ESR and elec. meas. 2−87589
He, liquid, liquid He, ESR spectra of trapped N atoms *(Russian)* 2−98934
$^3He^+$, stored ions, microwave spectra, motional side band resonances obs. 2−90470
KCl:Pb^{2+}, EPR study 2−56930
KCl:Ru(I)$(CN)_5^{4-}$, EPR superhyperfine interactions 2−104699
KD_2PO_4, ferroelec. and paraelec. phase transition study by SeO_4^{3-} ESR 2−116126
KH_2PO_4:Tl^+, dynamical charge compensation, ESR, rel. to ferroelec. transition 2−56929
Li-Al(Zn)(Cd)(Hg)(Sn)(Bi), impurity solubility, dislocation and deformation effects, ESR study *(Russian)* 2−103996
β-$Li_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
$LuPO_4$:Cm^{3+}, EPR, g-factors, excited state doublet wave function 2−104700
MgO crystal, elec. breakdown at high temp. 2−77450
N_4^+, in UV irrad. KN_3, satellite EPR resons. 2−104698
NaF:U, luminesc., EPR of U^{5+} 2−110918
β-$Na_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
PO_4^{4+}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
Si film, plasma hydrogenation effects on elec. props. and ESR 2−104511
a-Si:H film, annealing effects on ESR, elec. and optical props. 2−66588

paramagnetic resonance of ions and impurities continued
Si:H(F), amorphous, ESR study relation between defects and incorporated H(F) *(Japanese)* 2−87588
Si:O donor centres, heat treatment effects, Hall meas. and ESR study 2−61401
Si-SiO_2, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
$SrCl_2:O_3^-$, EPR and Raman spectroscopy investig. 2−56928
Tl^{2+}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
Y_2O_3, N_2O adsorption, formation of O^- 2−92339
ZnO:In(Ga), ESR and ODMR obs. of shallow donors 2−116061
ZnS:Ge^{3+}(Sn^{3+}), photosensitive EPR, g-factors and hyperfine interaction 2−77369

paramagnetic resonance of iron group ions and impurities
ammonium oxalate: Cu^{2+}, EPR study 2−110627
bacteria possessing Ni(III) octahedrally coord. EPR centre 2−105659
borate glasses, structural modification, EPR and NMR study 2−103642
cadmium acetate dihydrate:Cu^{2+}, single cryst., EPR study of low symm. site 2−56918
ceramic glaze, CuO-doped, Pb^{2+} release, effects of alkaline substitution and addition of trivalent ions 2−77955
chalcogenide glasses: Mn^{2+}, EPR study, HFS at g≃4.3 2−110625
chromium phosphate, polymeric, ESR and spin dynamics 2−82710
copper calcium acetate hexahydrate, linear chain complex, EPR spectra, temp. depend. 2−61756
copper phthalocyanine, powder pattern, g and A tensors, EPR obs. 2−80684
dicalcium lead propionate, ferroelectric transitions, ESR study 2−66999
dicalcium strontium propionate, ferroelectric transitions, ESR study 2−66999
fluoride glass:Co^{2+}(Ni^{2+}), ESR study *(Chinese)* 2−110622
fluoride glass:Cr^{3+}(Mo^{3+}), ESR study *(Chinese)* 2−110621
fluorophosphate glass:Co^{2+}(Ni^{2+}), ESR study *(Chinese)* 2−110622
fluorophosphate glass:Cr^{3+}(Mo^{3+}), ESR study *(Chinese)* 2−110621
GaAs:Cr wafers, EPR charact., etch-pit-density and X-ray double diffraction meas. *(Japanese)* 2−66907
hexamethylamine nickel iodide, EPR spectrum 4.2 to 300K *(Russian)* 2−66901
inorganic glasses, Fe^{3+} and Mn^{2+} doped, glass transition, EPR obs. 2−92995
magnesium acetate tetrahydrate:Co^{2+}, EPR spectra 2−61757
paramagnetic ions doped in paramag. hosts, EPR studies, review 2−116060
phoshate glass:Co^{2+}(Ni^{2+}), ESR study *(Chinese)* 2−110622
phosphate glass:Cr^{3+} (Mo^{3+}), ESR study *(Chinese)* 2−110621
polyacetylene:$FeCl_3$, metallic elec. cond. and EPR spectrum meas. 2−77027
potassium hydrogen maleate:Cu^{2+}, EPR and optical absorpt. spectra, spin Hamiltonian parameters 2−98948
sodium magnesium chromium(III) oxalate, single cryst. mag. props. 2−82589
strontium tartrate tetrahydrate, Co^{2+} centres, optical absorpt. studies 2−115220
TCNQ salts of Cu chelates, highly conducting 2−92581
tetramethylammonium cobalt chloride, phase transitions, ESR study 2−98267
TMMC:Cu, heavily doped, ESR study 2−72334
TMMC:Cu, high temp. dynamics, effect of impurities, EPR study 2−98944
TMMC, EPR study, dynamic correlation breakdown 2−98949
TMMC, one-dimens., spin dynamics, ESR study 2−72338
transition metal complexes, orbitally degenerate, EPR spectra 2−110634
trimethylammonium cobalt manganese trichloride, impurity spin resonance 2−98953
trimethyltin-manganese pentacarbonyl single crysts., γ-irrad., EPR obs. 2−82705
tris(sarcosine) calcium bromide:Cu^{2+} hyperfine spectra, ESR study 2−61754
vanadyl acetoacetonate, in n-alkanes, rot. relax., ESR obs. 2−85702
$(Al,Cr)_2BeO_4$, laser-quality alexandrite, Cr^{3+} EPR spectrum and anti-phase boundaries obs. 2−87583
AlN:Mn, luminesc. and EPR spectra 2−57174
Al_2O_3 surface, Cu^{2+} and VO^{2+} adsorbed, dispersion modes, ESR study 2−116057
$Al_2O_3:Cr^{3+}$, second order microwave elec. field effects 2−66904
$AlPO_4:V^{4+}$, X-band ESR spectrum, spin Hamiltonian parameters 2−56917
$As_2S_3:Cu^{2+}$ and $As_4S_4:Cu^{2+}$, optically induced localised states, photolum. and EPR 2−57164
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
BaO-TiO_2-B_2O_3-SiO_2 glasses, Ti ion structs., mag. props. and EPR spectra 2−92858
$BaTiO_3:Mn^{2+}$, spin-spin relax. study 2−77407
$Be_3Al_2Si_6O_{18}$:Cr, emerald cryst., MM wave quantum amplification 2−93329
$Bi_{12}(Co_{0.5}V_{0.5}(Bi_{0.5}))O_{20}$, trivalent cation tetrahedral sites, ESR study *(French)* 2−82706
$Bi_{12}(Fe_{0.5}V_{0.5}(Bi_{0.5}))O_{20}$, trivalent cation tetrahedral sites, ESR study *(French)* 2−82706
$Bi_{12}(Ga_{0.5}V_{0.5}(Bi_{0.5}))O_{20}$, trivalent cation tetrahedral sites, ESR study *(French)* 2−82706
$Bi_{12}GeO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
$Bi_{12}SiO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
CaF_2:Mn, EPR rigid lattice dipolar broadening 2−104689
$Ca_xMg_{1-x}Fe_{2-x}Si_xO_7$ crystalline phase anal. 2−71416
$Ca_3NaMg_2V_3O_{12}$, ESR and optical absorpt. spectra of red V ions 2−110624
$CaO:Fe^{3+}(Cr^{3+})$, ESR dipolar linewidths 2−104688
CaO-B_2O_3-V_2O_5-Fe_2O_3, glass, Mossbauer and ESR studies 2−66963
$CdCl_2$-CuCl photochromic glass, colloidal darkening mechanism 2−97135
CdF_2:Eu, localised impurity excited states degenerate with cond. band, absorpt., cond., thermoluminesc., and ESR study 2−56473
$CdIn_{0.4}Cr_{1.6}S_4$, spin glass, microwave mag. reson. study, 4.2 to 300K 2−66908
$CdK_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954

paramagnetic resonance of iron group ions and impurities continued
$Cd(NH_4)_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$CdSiP_2:Mn^{2+}$, ESR spectrum 2−82708
Co(II) complex, N,N′-ethylenebis(acetylacetonatiminato)Co(II) EPR/ENDOR and semiempirical calcs. study 2−116089
$CoK_2(SO_4)_2.6H_2O$:Mn, phase transition effects in EPR 2−56915
CoS_2 single cryst., ferromagnetic and paramagnetic resonance 2−116066
xCr_2O_3-(1-x)$3B_2O_3$-PbO glasses, EPR and mag. susceptibility studies 2−98946
$(CrOCl_4)^-$, electronic struct., SCF-MS-Xalpha calc., EPR spectra, EHT calcs. 2−70144
Cu (II) complex, bis(N-benzylpyridoxaldiminato) copper (II), struct., ESR and X-ray obs. 2−54883
Cu complex, $[Cu(bipyridyl)(OH)]_2SO_4.4H_2O$, triplet state, zero-field splitting, EPR obs. 2−80687
Cu complex, alkanediammonium copper tetrachloride, EPR obs. 2−82704
Cu complex, bis(anilinium) copper tetrachloride, two-dimens. spin diffusion, EPR and ferromag. reson. study 2−77364
Cu complex, $Cu(2,5\text{-diphenyloxazole})_2(ClO_4)_2.4H_2O$ ground state wavefunction and EPR 2−82702
Cu complex, ethylenebisguanidine copper(II) chloride monohydrate, tetradentate ligand coordinated, EPR study 2−110623
Cu complexes, ESR and optical absorpt. 2−98943
Cu-Fe(Mn) spin glass alloys, elec resist., Hall effect, mag. susceptibility, and EPR meas. *(Russian)* 2−82602
Cu-Mn spin glass, LF ESR, lineshape and temp. depend. 2−104692
$Cu_yCr_yM_{2-y}S_4$ (M=Sn, Ti), mag., EPR, and Mossbauer meas. 2−98840
$Cu_{0.5}Cr_{0.5}PS_3$, cryst. struct. and mag. props. 2−60946
$CuInSe_2$:Fe, EPR study, thermal treatment effects 2−98945
$(CuO)_x(2B_2O_3.PbO)_{1-x}$ glasses, EPR study of mag. behaviour 2−110631
$CuSiF_6.6H_2O$, single cryst., EPR 2−92996
$Cu_xV_{1-x}O_2$, struct. and physical props., EPR, DTA, mag. and X-ray diffr. study *(French)* 2−81761
Fe-Mn, amorphous, ferromagnet-spin glass transition, ESR linewidth meas. 2−77305
Fe(III) compounds, high spin, X-band EPR spectra in rhombic ligand fields, computer simulation 2−87582
$FeS_2:Mn^{2+}$, ESR spectra temp. depend. 2−87584
Fe_xSi_{1-x} amorphous thin film, mag. anisotropy, Mossbauer and ESR study 2−93087
p-GaAs:Cr, EPR identification of $Cr^{44}3d^2$ using appl. uniaxial stress 2−110629
GaAs:Cr, generation of paramagnetic defects, EPR study 2−66906
GaAs:Cr^{2+}, deep levels, EPR spectra study 2−77365
GaAs:Cr^{2+}, EPR resonance parameter calcs. 2−104691
GaAs:V, photoluminesc., optical absorpt., and ESR study 2−82916
GaP:Fe^{3+}, tetrahedral paramag. complex, distortions effects, ESR study 2−110633
GaP:V, photoluminesc., optical absorpt., and ESR study 2−82916
GaSe:Mn^{2+}-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
$HfSiO_4:V^{4+}$, ESR and absorpt. spectra 2−66902
HfV_2H_x, low temp. phase, H-atom configuration, NMR study 2−72375
$Hg_{1-x}Mn_xSe$, microwave and far IR magnetotransmission studies 2−98955
InP:Fe, electron irradiated, EPR study 2−104690
InP:Mn, impurity states electronic struct., ESR and optical absorpt. study 2−82285
$KAl(SO_4)_2.12H_2O:Cr^{3+}$, SO_4^{2-} dynamics, ESR at high press. 2−77363
KCl:CrO_4^{2-}, Ca^{2+}, X-irrad., EPR and thermoluminesc. glow curves 2−56919
$KCr(SO_4)_2.12H_2O:Cr^{3+}$, SO_4^{2-} dynamics, ESR at high press. 2−77363
K_2CuF_4, low dimensional mag. system, EPR *(Japanese)* 2−82711
KH_2AsO_4, spin-spin relax. study 2−77407
$K_{1-x}Li_xTaO_3$, ferroelectric, dipole-dipole interactions, EPR line width study *(Russian)* 2−82805
K_2MnF_4, low dimensional mag. system, EPR *(Japanese)* 2−82711
K_2SO_4-$ZnSO_4:Cu^{2+}$(Mn^{2+}), glass, dopant site symmetry, ESR study 2−98947
$KSc(MoO_4)_2$:Cr monocrystals, ferroelastic phase transitions, Cr^{3+} EPR 2−115404
$KTaO_3:Fe^{3+}$, cubic cryst. field splitting, anomalous temp. effect, EPR study 2−77366
$KTaO_3$:Ni(Fe), electron trap levels, ESR and TSC meas. 2−82703
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
LiH, X-rayed at low temps., ESR studies of Mn^{2+} centre 2−98950
$LiH_3(SeO_3)_2:Cu^{2+}$, EPR spectra, g and A matrices, Q tensor 2−82709
d-$LiIO_3:Mn^{2+}$, superhyperfine and ^7Li quadrupolar interactions, ENDOR and RF discrete saturation study 2−56535
α-$LiIO_3:Ni^{2+}$, impurity ground state level splitting, EPR study 2−56530
$LiKSO_4:Cr^{3+}$, optical absorpt. and EPR spectra 2−116212
$LiNaSO_4:Cr^{3+}$, optical absorpt. and EPR spectra 2−116212
$LiNbO_3$:(Ni), γ- and X-ray irradiated, ESR, optical absorpt. and elec. cond. 2−98951
$LiNbO_3:Ni^{2+}$, impurity ground state level splitting, EPR study 2−56530
β-$Li_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
Mg particles, g-factor quantum size effect, EPR study 2−104693
$Mg(NH_4)_2(SO_4)_2.6H_2O:CrO_4^{2-}$, irradiated, EPR studies 2−61753
MgO, thermoluminescent mechanisms involving transition metal ion impurities and V-type centres under UV irrad. 2−116279
$MgO:Fe^{3+}$ quenched crystals, kinetic reactions 2−57380
$MgO:Mn^{2+}$, polycryst., EPR central transition lines, deformation broadening obs. *(Russian)* 2−116058
MgO-Fe_2O_3, solid-phase interaction, ESR investig. 2−87579
$MgTiO_3:Fe^{3+}$, Mossbauer and EPR studies 2−104773
NH_4Cl:Ni, γ-irrad., off-centre impurity model, EPR investig. 2−82701
$NH_4I:Cu^{2+}$ single crysts., EPR investig. 2−82700
$NH_4MgPO_4:Ni^{2+}.6H_2O$, X- and γ-irrad. damage, EPR and absorpt. spectra study 2−57135
$Na_3Al_3F_{14}:Fe^{3+}$, superposition model for cryst. field parameters, EPR study 2−110632
$NaAl(SO_4)_2.12H_2O:Cr^{3+}$, EPR linewidth anomaly, struct. fluctuations 2−98952
$NaN_3:Mn^{2+}$, EPR study of cation vacancy-Mn^{2+} pairs 2−61752
β-$Na_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
Ni (III) high spin configuration, and oxygen network stabilisation *(French)* 2−61759
Ni complex, hexakis- 3 crystal field interactions [-]imidazole Ni(II) nitrate, EPR fine struct. 2−72336

paramagnetic resonance of iron group ions and impurities continued
Ni-Mn, spin glass alloy, effective anisotropy field, EPR study 2−72333
$Ni(BF_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
$Ni(ClO_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
$NiSiF_6.6D_2O$, single cryst., EPR meas. 2−61758
PbF_2:Mn, EPR rigid lattice dipolar broadening 2−104689
$Pb_5Ge_3O_{11}$:Mn^{2+}, ESR spectra, hyperfine interactions 2−87585
$RbH_3(SeO)_2$:Cr^{3+}, ferroelec.-ferroelastic, domain struct., EPR study 2−116135
$RbH_3(SeO_3)_2$ crystals, Cr^{3+} doped, ESR study 2−66903
$Rb_2Mn_xCr_{1-x}Cl_4$, insulating spin glass, mag. reson. study 2−56868
Rb_2ZnCl_4:Mn^{2+}, slow soliton motion inferred from EPR meas. at $T=T_c+\varepsilon$ 2−72337
Si:Fe, electron beam irrad., EPR spectra 2−56920
Si:Fe, heat treated, interstitial impurity, EPR study 2−71439
Si:Fe,B, Fe donor activity on heat treatment, elec., DLTS and EPR meas. 2−71911
Si:Mn, B, $Mn^{2+}B^-$ pairs, EPR study 2−110628
SiO_2 surface, Cu^{2+} and VO^{2+} adsorbed, dispersion modes, ESR study 2−116057
SiO_2-Na_2O-CoO-V_2O_5 glass, Co^{2+} spin-lattice relax. by V^{4+} EPR study 2−72335
SrO:Fe^{3+}(Cr^{3+}), ESR dipolar linewidths 2−104688
$ThGeO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
$ThSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
TiO_2:Cr(Fe), rutile pigments, EPR study 2−104695
TiO_2:V^{4+}, illumination and oxidation effects on ESR spectra 2−56922
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
V complexes, VO(IV)-β-diketonates, EPR study of substituent effects 2−110626
$V(CO)_6$, EPR spectra and mol. struct., Jahn Teller modes, hyperfine struct. anal. 2−70295
V_2O_5 amorphous phase, hydrated 2−55847
α-$VOPO_4$ ($2H_2O$), paramagnetic centres, hydration, ESR study 2−82707
$VSbO_4$, chem. anal. and ESR expt. *(French)* 2−56921
$Zn(ClO_4)_2.6H_2O$:Mn^{2+}, EPR study of phase transition 2−81946
$ZnGeP_2$:Mn^{2+}, ESR spectrum 2−82708
$ZnRb_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755
ZnS:Cr^+, cubic, ESR spectrum, press. influence 2−66909
ZnS:Mn^{2+}, EPR spectrum, axial field parameter 2−66905
$ZnSO_4.7H_2O$:VO^{2+}, EPR anal. 2−56916
$ZrSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902

paramagnetic resonance of palladium and platinum group ions and impurities
polyacetylene:$ZrCl_4$, metallic elec. cond. and EPR spectrum meas. 2−77027
zeolites, A, X and Y, characterisation of Ag species by EPR and spin echo techniques 2−72339
$CaCO_3$:Pb^{3+}, EPR spectrum, Raman spin lattice relax., hyperfine interaction effect 2−61761
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
$NaNO_2$:Ag^+, triplet state, quadrupole interaction, optically detected ESR and ENDOR 2−116093
Si:Au, cluster centres, EPR study 2−56923
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581

paramagnetic resonance of rare earth ions and impurities
cryst. struct., mag., elec. and ESR props. 2−92564
glass:Gd^{3+}, EPR with g≈6.0, reinterpretation 2−110636
lanthanum ethyl sulphate:Gd^{3+}, spin lattice relax., Gd^{3+} splitting under press., ESR study 2−82713
LaS:Er, ESR and origin of random strains in dil. rare earth alloys 2−56925
noble metal-rare earth alloys, dil., magnetotransport and EPR props. 2−104355
noble metals with rare earth impurities, magnetotransport and EPR props. 2−66528
paramagnetic ions doped in paramag. hosts, EPR studies, review 2−116060
$R_2(SO_4)_3$:Gd^{3+}.$8H_2O$ 2−72340
$R(NO_3)_3$:Gd^{3+}.$6H_2O$, EPR spectra, host-lattice effects meas. 2−72340
rare earth trichloride hexahydrates:Gd^{3+}, spin-Hamiltonian parameter superposition model anal. 2−98600
RCl_3:Gd^{3+}.bH_2O, EPR spectra, host-lattice effects meas. 2−72340
Al_2O_3-Ho_2O_3-SiO_2, amorphous, EPR, optically detected EPR, and MCD meas., spin glass props. 2−56924
BiI_3:Gd, ESR and photoluminesc. spectra 2−93000
$BiVO_4$:Gd^{3+}, EPR spectra, g-factor, spin Hamiltonian monoclinic symmetry *(Russian)* 2−93001
$CaCO_3$:^{210}Po, radiation effects, EPR obs., rel. to paleodose determ. 2−78652
CaO:Gd^{3+}, ESR dipolar linewidths 2−104688
$CaWO_4$:Ho^{3+}, scheelite, ESR line shape, elec. field effects 2−87586
CdF_2:Eu^{3+}, insulating, thermally stimulated relax. 2−67129
$CeBe_{13}$:Er, ESR thermal broadening 2−61762
CeF_3:Gd^{3+} single cryst., temp. variation anal. of EPR linewidths 2−98957
$Ce_{1-x}M_xPd_3$, M=Sc, Y, La, intermediate valence and Gd^{3+} ESR 2−56927
$Ce(Pd_{1-y}M_y)_3$, M=Rh, Ag, intermediate valence and Gd^{3+} ESR 2−56927
$CsCdF_3$:Gd, EPR of Gd^{3+} centres 2−110635
$EuGa_2Se_4$, cryst. struct. and mag. props. *(French)* 2−55949
EuO ($Eu_{1-x}Gd_xO$) (Eu_{1-x}), mag. semicond., s-d exchange interaction, current carriers effect, expt. study 2−92895
EuS, EPR linewidth, reson. field, and spin-spin relax. near Curie temp., shape depend. 2−66910
$GdCl_3$ in rare gas solids, EPR anal. 2−102509
GdF_3 in rare gas solids, EPR anal. 2−102509
$HfSiO_4$:Nd^{3+}(Yb^{3+}), EPR study 2−72341
InP:Yb, impurity electron state, ESR, photoluminescence and mag. susceptibility study 2−104307
$KCdF_3$:Gd, EPR of Gd^{3+} centres 2−110635
KCl:Eu_n F-centre colouring 2−109791
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831

paramagnetic resonance of rare earth ions and impurities continued
$(La,Gd)B_6$, single cryst., exchange interaction and cryst. field splitting, ESR 2−104696
$La_{3-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
LaH_x, disorder of site occupation 2−91910
La_2LiFeO_6, high-pressure stabilisation and physical props. of Fe(V) 2−66791
$LiYF_4$:Er^{3+}, spin-lattice relax. anisotropy, ESR study 2−72343
$Lu_{1-x}(Y_{1-x})Gd_xAl_2$, cryst. struct., mag., elec. and ESR props. 2−92564
NaCl:Sr^{2+},Eu^{2+}, precipitation of $SrCl_2$, EPR study 2−98956
NbP_5O_{14}:Gd^{3+}, monoclinic-orthorhombic ferroelastic transition, EPR study 2−61763
$Pb_5Ge_3O_{11}$:Gd^{3+}, elec. field effect and model of triclinic paramag. centres 2−66912
$Pb_5Ge_3O_{11}$:Gd^{3+}, ferroelec., EPR line intensity, ferroelec. hysteresis 2−116059
$Pb_5Ge_3O_{11}$:Gd^{3+}, hyperfine interaction, discrete saturation, ESR study 2−104697
Pr:Gd^{3+}, Er^{3+}, exchange interaction, g-shift, ESR study 2−72342
$PrVO_4$:Gd^{3+}, ESR spectrum, temp. depend. 77 to 300K 2−66913
$RbCdF_3$:Gd, EPR of Gd^{3+} centres 2−110635
SbI_2:Gd, ESR and photoluminesc. spectra 2−93000
$Sc_{1-x}Ce_xAl_2$:Gd, EPR, intermediate valence 2−56926
SmB_6:Eu^{2+}, local cryst. fields, EPR study 2−92999
SrF_2:Eu^{2+}, ESR study of forbidden transitions 2−92998
$SrMO_4$-$Eu_2(MO_4)_3$ (M=Mo, W), defect formation, electrochemical props. 2−109783
SrO:Gd^{3+}, ESR dipolar linewidths 2−104688
$Tm_xY_{1-x}VO_4$:Gd^{3+}, EPR study of Jahn-Teller induced random strains 2−77368
YH_x, disorder of site occupation 2−91910
Y_2O_3:Gd^{3+}, ESR absorption spectra, hyperfine structure 2−66911
$Yb_{1-x}RAl_2$, (R=Nd, Eu, Gd, Dy, Er) exchange and electron spin-lattice relax., ESR study 2−82712
$ZrSiO_4$:Nd^{3+}(Yb^{3+}), EPR study 2−72341

paramagnetism
see also paramagnetic properties of substances
Anderson-Hubbard model elementary excitations, Bose excitations in paramagnetic media 2−61694
colloids, particle aggregation in high mag. fields 2−104681
double gamma reson. study 2−116104
electret state, induced polarisation paramagnetism 2−110749
exchange enhanced paramagnets, thermodynamic and transport props., field depend. effects 2−115969
fluids in electric and magnetic fields: pressure variation and stability 2−75490
Heisenberg paramagnet, dynamics in high-temp. limit 2−72135
Heisenberg paramagnet, S=1, with easy-planar anisotropy, spin fluctuations 2−66764
Heisenberg paramagnetic thin film, reaction field approx. 2−87473
Ising model, random site, free energy, convergence criterion and self-avoiding walk approx. 2−56812
itinerant electron system, paramagnetic susceptibility study 2−82559
itinerant electron systems with local mag. moments, paramag. state, static props. 2−98837
itinerant-electron ferromagnet, electron-phonon interaction effects 2−92855
spin glass, itinerant model, mag. impurity conc. depend., paramag.-spin glass transition 2−82609
two-dimensional Anderson localisation in presence of paramag. impurities and spin-orbit scatt. 2−66490
van Vleck ions coupled to electron gas, induced mag., calc. in narrow-band limit 2−61681
Fe-Mn-Ni alloys, influence of comp. and plastic deform. on paramag. phase content 2−83246

parameter estimation
EEG alpha range, efficient parameters calc. using peak centred power spectra 2−62801
EMG to force processing, estimation of model parameters for human triceps surae muscle 2−62584
EMG to force processing, Hill muscle model parameters estimation 2−62583
human visual system at threshold, multiplication noise, probit estimation of parameters 2−99967
left ventricular afterload parameters, automatic estimation procedure using a systemic vascular bed model 2−100149
limnic ecosystems, water quality models 2−73608
myocardium, regional flow estimation using CT, stochastic formulation 2−100104
one-dimensional transient heat conduction with temp.-dependent generation and conductivity 2−75824
parabolic distribution system for means of variational-difference methods *(Russian)* 2−74195
respiratory mechanical model, 5-element, parameter estimates 2−78357
sinusoids in noise, instrumental-variable frequency estimation and tracking 2−60310
stochastic distributed parameter systems, parameter estimation method 2−117505
vocal tract, from speech signal processing 2−78353
^{133}Xe, lung clearance parameter estimate variability 2−117054

parameter identification *see parameter estimation*

parametric devices
see also acoustic parametric devices; microwave parametric devices; optical parametric devices
free-electron relativistic parametric devices, charge density harmonic generation 2−60003

parametric up-convertors *see parametric devices*

parametric varactor diodes *see varactors*

Pariser-Parr-Pople calculations *see PPP calculations*

parity
see also baryon spin and parity; lepton spin and parity; meson spin and parity; nuclear spin and parity; P invariance
nucleon+nucleus interactions, p-parity isolation results 2−95694
pp interactions, p-parity isolation results 2−95694
Fe film, equatorially magnetized, transmitted light intensity odd-parity effect 2−116160

partial differential equations
see also boundary value problems; wave equations
asymptotic solutions of linear partial differential equations 2−107122
beam, vibrating, with nonhomogeneous boundary conditions, linear partial differential eqn. soln. 2−55493
Benjamin-Ono equation nonlinear self-modulation problem 2−107117
Benney's eqns., linearisation 2−89545
bi-Hamiltonian systems, algebraic struct., review 2−69033
chiral field hierarchy, Lax operator construction 2−59055
climate theory, fundamental theorems 2−58117
combustion noise, influence of droplet size of liquid fuel 2−102975
composite shell, three-layer, stress/strain state of boundary-layer type 2−60427
dynamical systems, symmetry transformation, first integrals 2−112689
elasticity, difference methods for elliptic partial differential equations with nonunique solutions 2−95012
electric fields, uniform and nonuniform, hyperbolic equations for electron and plasma motion, solution methods 2−81455
electrical conductivity modelling, parabolic partial differential equations with unknown coefficients 2−83748
elementary Backlund transformations, nonlinear superposition principle and solutions of the integrable equations 2−53599
elliptic equation with mixed boundary conditions 2−81206
EM field in gyrotropic media, representation in terms of scalar Hertz pot. 2−114157
Ernst eqns., with EM fields, similarity solns. 2−95159
finite element method, tutorial approach 2−74197
flow problems, partial differential eqns., parallel struct. computer technique for soln. *(French)* 2−65614
flux confinement in leading logarithmic model 2−95751
Fourier series, biorthogonal, theoretical framework 2−74211
framed underground structures, dynamic response 2−109190
ground collector/storage system, constant flow, heat transfer coefficient determ. 2−83507
hybrid elements, recent developments 2−79372
image reconstruction, eikonal eqn. 2−75517
inverse scattering method, Lax representation for nonlinear evolution eqn. 2−95138
layered aquifer-aquiclude system, dispersion model, simple numerical treatment 2−83862
magnetostatic fields, integral and differential eqns. formulation, numerical solns. 2−55017
miscible displacement in porous media, time stepping methods 2−60643
modified secant Newton method for non-linear problems 2−109191
motor vehicle passenger compartment, acoustic resonance anal., boundary-integral equation method 2−81161
neutron diffusion linear equations solution by implicit non-stationary iteration method 2−80051
non-iterative method for solving PDEs arising in electron scattering 2−54960
nonisothermal classical plasticity, computational aspects 2−109192
nonlinear diffusion eqn., Barenblatt-Pattle similarity soln., eigenvalues calc. 2−101357
nonlinear evolution eqns. integrable by Z_2-graded quadratic bundle 2−101179
nonlinear parabolic PDE, solution of Stefan problem 2−60362
numerical solution of flow near the rotor of a wind turbine 2−91406
ocean waves, numerical modelling of long waves 2−83849
optical excitation trapping in diffusion limit, differential eqn. approach 2−82910
orthotropic shallow spherical shells, dynamic buckling 2−109211
panel, parallelogram cylindrical, natural vibrs. 2−97421
plate theories, refined, numerical methods 2−114669
plates, orthotropic rectangular, new soln. method 2−114646
rotational incompressible non-viscous flows through multiply connected domains 2−60547
self-similar converging flows, one dimens. stability 2−97508
selfdual Yang-Mills eqns., nonlinear partial differential eqns., Backlund transforms. 2−53938
semiconductor device time-dependent models, stability problem 2−77068
semiconductor quasi variational inequality solution *(French)* 2−98635
semiconductor transport equations, linearization methods, decoupled and coupled approaches 2−77035
shafts of revolution, grooved, torsion, max. principles and bounds on stress conc. factors 2−109177
soil-water, nonlinear diffusion with barrier 2−83863
solar collector panels with optimal mass flow rate, temp. distribution computing 2−116849
solid-liquid suspensions in elastic tube, one-dimens. unsteady flows 2−109397
spectral theory of differential operators, conf., Birmingham, AL, USA (Mar., 1981) 2−89450
steady vibration response variance analysis 2−60443
Stefan problem, inverse problems of determining boundary regimes 2−114610
stochastic distributed parameter systems, parameter estimation method 2−117505
stratified lake dynamics, cloud-in-cell and finite-difference models 2−83861
three dimensional thermoelastic problems, boundary conditions effect 2−114647
tidal model for shallow gulf, 3-D 2−83848
tides in Gulf of Carpentaria, numerical simulation 2−83847
transonic stream function eqns., modified artifical density soln. 2−53526
tubular flow, computations of chemical reactions using iterative methods 2−81405
two species diffusion in sphere 2−99428
unsteady incompressible boundary-layer flow over a rotating sphere 2−103143
viscoelasticity, asymptotic soln. of stochastic integro-differential eqns. with small parameters 2−109209
viscous fluid non-steady state flow computational method 2−60572

partial discharges
dielectric materials behaviour and electrical and thermal stresses *(Italian)* 2−56999
embedding effect on electrode in dielectric med. 2−103553
high-frequency ripple effects on partial-discharge meas. 2−89743
metal-dielectric gap in compressed SF_6/N_2 2−115065
positive streamer, charge density distrib. on dielectric surface 2−103555

partial discharges continued
switching substations, HV, SF_6 insulated, partial discharges acquisition and localisation using noise anal. *(German)* 2−76218
SF_6 breakdown obs. using dielectric coated electrodes 2−103264

particle accelerator accessories
see also storage rings
axial symmetric cavities, nonsymmetric modes, PRUD code for calc. 2−113798
computerised data acquisition and monitoring system 2−108327
cryogenic pump 20000 l s^{-1}, GANIL particle accelerator 2−84648
Fermilab collider detector facility data acquisition system 2−59673
Fermilab particle accelerator processing power, port selection system 2−96337
MA1-MA2 system for beam anal. and transport at IFIN *(Rumanian)* 2−90341
magnetic pulse modulator and compressor for injector triggering 2−90319
periodically stabilised amplifier system for Si telescopes on pulsed accelerators 2−64809
protection systems using forced convection nucleate boiling detection by acoustic emission 2−75092
RF accelerating system, numerical example 2−113778
RF system for cyclotron, resonant freq. reduction method using ceramic vacuum capacitor *(Chinese)* 2−59573
RFQ linac injector for medical heavy ion synchrotron 2−75072
SIMS apparatus for use on accelerator beam lines 2−107445
superconducting magnet design for accelerator 2−113791
ultra high vacuum valve for storage ring vacuum protection 2−85421
ultrahigh vacuum apparatus for combined low-energy electron diffraction, Auger spectroscopy, MeV ion scattering, and nuclear microanalysis 2−89733
X-band microtron RF accessories 2−59577
^{3}He recovery system 2−108168

particle accelerators
see also beam handling equipment; beam handling techniques; cyclotrons; electron accelerators; electron ring accelerators; electrostatic accelerators; linear accelerators; proton accelerators; synchrotrons
3rd IEEE International Pulsed Power Conference, Albuquerque, NM, USA (June 1981) 2−89461
beam extraction system for circular accelerator 2−113771
betatron oscillations 2−113767
circular accelerator and storage rings, single beam coherent instabilities 2−113772
cyclic induction accelerator with const. driving field, injection efficiency 2−80358
facilities of particle physics, US program 2−80355
heavy ion accelerator for investigating ion interactions in semiconductors *(German)* 2−90321
high energy particle accelerators, summer school, Batavia, IL, USA (July 1981) 2−112632
hollow cathode and ion accelerator system for high current ion sources 2−80373
ion, water-cooled extraction grids, heat flux limitations 2−85408
JET, neutral injection system, engineering design and manufacturing 2−80322
molecular ions, molecular struct., and interaction with matter, conference, Haifa, Israel (Jan. 1981) 2−53410
multibeam heavy ion accelerator with phase-variable focusing 2−64706
neutron source characterisation for fusion material studies 2−85228
nonlinear orbit dynamics 2−113773
Particle Beam Fusion Accelerator magnetically insulated transmission lines combined into disc feed 2−96309
perturbed betatron oscill. 2−113768
phase adjusted focusing laser accelerator, stability measures *(Chinese)* 2−96332
radiation protection, conf., Vancouver, BC, Canada (May 1982) 2−112659
single particle longit. stability during accel. 2−113769

particle backscattering
see also electron energy loss spectra
achromatic proton microbeams 2−95544
amorphous solids, two-atom model in enhanced ion backscattering near 180° scatt. angles 2−67172
atomic mixing, ion bombardment induced, sputtering assessment 2−98166
Auger spectroscopy, quantitative, backscatt. factor 2−105011
backscattered electron channelling contrast, optimum detection 2−76556
beta-ray backscatter and transmission factors meas. using TLDs 2−64686
binary compound thin film, composition and thickness determ. using elastic backscattering 2−104177
bubble garnets, Ne ion implantation, damage profile, Rutherford backscatt. and channelling study 2−71524
cation insertion reactions 2−105526
channelled MeV ions, surface peak intensity, theoretical anal. 2−57236
channelling of He^+ ions at high depth resolution, backscattering spectra 2−66095
coal, ash content determ., γ-ray backscatt. spectral method 2−58136
electron backscattering, analytic model, 10 to 100 keV 2−116313
electron backscattering from low Z thick absorbers 2−82966
electron probe analyser, electron backscattering coeff. meas. *(German)* 2−116759
electron radiography of surface layers using backdiffused β-rays and photon excited electrons 2−88304
electron reflection at normal incidence from solid surface, multiple scatt. *(Russian)* 2−82970
evaporated and implanted layers characterisation by RBS and PIXE anal. 2−99724
Fecralloy surface, oxide layers nuclear reaction anal. 2−99723
foil, thickness determ. by electron probe microanal. *(French)* 2−110995
gas-surface scattering distributions according to the hard-spheroid model 2−57237
graphite, backscattering of low energy H ion, energy distrib. meas. 2−67173
graphite, pyrolitic, H ion backscatt., energy and ang. depend. 2−69849
hard sphere model in classical scatt. of particles 2−58661
ion backscattering spectra, temp. depend. and surface peaks 2−82976
ion channelling studies of defects 2−81840
ion scattering, low energy, correlated atomic vibr. effects, two-atom, three-atom and chain models 2−93350
low energy backscattering spectra anal. for samples implanted with heavy impurities 2−82977
low energy light ion sputtering, primary recoil contrib. 2−77659

particle backscattering continued
microscopy, high resolution scanning, backscatt. effects, expt. study 2−73043
multicomponent material sputtering theory 2−77736
particle reflection, scatt. and energy loss effects 2−108324
particle-matter interaction in dilute and dense media, statistical effects 2−66083
plasma-solid interactions, H, D and He ion backscattering 2−60758
reconstructed surface, backscattered channelling MeV ions, surface peak intensity 2−116322
Rutherford backscattering spectra, double scatt. 2−105022
Rutherford ion backscattering appls. to surface crystallography 2−111001
segregation of impurities due to pulsed laser beam annealing 2−103995
semi-infinite media, radiation damage from identical particle scatt. 2−103810
semiconductor materials, electron backscattering patterns 2−65825
Si:Sn, metastable alloy form., by electron beam annealing 2−56041
silicide epitaxial films Si substrates, characterisation by ion channelling and backscattering techniques 2−56403
solid layer, electron backscatt. at oblique incidence, single vel. kinetic eqn. 2−77642
SOS epitaxial films, defects and strain after CW laser annealing, Rutherford backscatt./channelling and TEM study 2−81799
SOS structures, CVD growth, surface defect and strain reduction by ion implantation and solid phase epitaxy 2−66384
steel, austenitic stainless, Sb^+ ion implantation, martensitic transition, Rutherford backscatt. study 2−76658
steel, stainless, backscattering of low energy H ion, energy distrib. meas. 2−67173
steel, stainless, N implanted, Rutherford backscatt., channelling and nucl. reaction study 2−98119
steel, stainless, oxidation investig. using automated scanning proton microbeam 2−111351
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
surface struct., ion scatt. spectroscopy study, time of flight energy anal. 2−76790
thin film, electron backscattering, review 2−77638
thin film densities, appl. of Rutherford backscatter spectroscopy 2−87118
two element thin films, stoichiometry and thickness, elastic backscatt. study 2−104199
X-ray microanalysis, electron beam geometry influence, Monte Carlo method study *(French)* 2−73031
Ag, film, electron transmission and backscattering, Boltzmann eqn. model *(French)* 2−77643
Ag, proton backscattering below 500 keV, energy depend. 2−116315
AgCl film, light illumination, modifications induced by ion implantation 2−93311
Al, film, electron transmission and backscattering, Boltzmann eqn. model *(French)* 2−77643
Al, He ion energy straggling, 0.25 to 0.75 MeV/a.m.u., backscatt. study 2−76550
Al, self-ion sputtering yields 2−77660
Al:He thin film, He ion bombardment, TEM, SEM and α-particle backscatt. study 2−115319
Al/W/NiSi structure, use of thin W barrier to inhibit Al+NiSi reaction 2−98472
Al-Cr(Ni)-Al layer system anal. by Rutherford backscatt. spectrometry 2−105177
Al-In (0.02 at.%), mid-channel He ion flux, depth and ang. depend. 2−66096
Al-Sn(Ni), metastable alloy form., by electron beam annealing 2−56041
AlN CVD films, comp., kinetics, and mechanism of growth 2−87100
Au, alpha particle stopping cross section at energies below 3 MeV 2−66085
Au film electroless, on CdTe cryst., characterization 2−87081
Au, He ion energy straggling, 0.25 to 0.75 MeV/a.m.u., backscatt. study 2−76550
Au, proton backscattering below 500 keV, energy depend. 2−116315
Au, sputtering from (111) crystal, ang. distrib., impact energy depend. 2−77652
Au-Cu sputtered surface, AES, quantitative anal., backscattering correction factors 2−57221
C foil, energy loss of 300 keV He^+ and N^+ ions 2−81864
$Cd_xHg_{1-x}Te$, sputter deposited epitaxial film, X-ray, TEM and Rutherford backscatt. obs. 2−116362
CdTe-Au electroless contacts, phys. props., Rutherford backscatt. and AES anal. 2−110168
$Cd_{1-x}Zn_xS$ films evaporated by electron bombardment, struct. study, by Rutherford backscatt. 2−71834
$CoSi_2$-Si(111), MBE growth, Rutherford backscattering, TEM and LEED studies 2−66385
Cs, backscattering of thermal H atoms, H^- production 2−82987
Cs, $D^+(D_2^+)(D^0)$ reflected particle charge states for grazing incidence 2−77646
Cu, alpha particle stopping cross section at energies below 3 MeV 2−66085
Cu, film, electron transmission and backscattering, Boltzmann eqn. model *(French)* 2−77643
Cu, He ion energy straggling, 0.25 to 0.75 MeV/a.m.u., backscatt. study 2−76550
Cu, self-ion sputtering yields 2−77660
Cu-Au, ion beam mixing study by 300 keV Kr^{4+} bombardment 2−76514
Cu-Mn (10 at.%), spin glass, lattice location of Mn 2−71489
Cu-W, ion beam mixing study by 300 keV Kr^{4+} bombardment 2−76514
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
D_2O ice crystal, light ion interaction 2−81842
Er film, stopping power and straggling of protons and ^4He ions 2−56051
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, amorphous and polycryst., He ion bombardment 2−103856
GaAs:Al(P), ion implanted, radiation damage 2−115317
GaAs:Cr, ion implanted, postannealed material state 2−103793
GaAs:Cr, Se, hot implanted, effects of damage-impurity interaction on elec. props., Rutherford backscatt. study 2−71990
GaAs:Cr, Si, damage and Si lattice location studies 2−76479
GaAs:N, defect struct. and near edge optical props., Rutherford backscatt. and light transmission expts. 2−71523
GaAs:Se implanted, dose depend. of epitaxial regrowth 2−56378
GaAs:Se implanted layer, low temp. annealing, Rutherford backscatt. channelling study 2−71818
GaAs:Se^+, ion implanted, transient annealing using graphite strip heater, elec. cond. study 2−82348
GaAs:Se^+, ion implanted, high temp. annealed, damage, defects and elec. props. 2−98097
GaAs:Sn, ion implanted, surface accumulation after laser beam annealing, Rutherford backscattering study 2−61006
GaAs:Te, implanted, laser annealed, metastable Te donor conc., expt. study 2−56025
GaAs:Zn, ion implanted, depth distrib., annealing, SIMS and Rutherford backscattering obs. 2−56000
GaAs-InAs(100) heterojunction, MBE grown, lattice disorder, Rutherford backscatt. and channelling study 2−110202
GaP, ⟨110⟩ channelling, He^+ ions backscattering yield study 2−66094
GaP film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
$Gd_3Ga_5O_{12}$:Mg, Zr, channelling study 2−81841
Ge:In(Sb), laser induced enhanced solubility, elec. and Rutherford backscatt. study 2−115416
Ge-Si alloys, electron pulse processing, solid soln. synthesis 2−66063
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
$Ge_{18}Te_{82}$ amorphous film, diffusion of Au, nucl. backscatt. anal. *(French)* 2−104069
He^+, backscattering from Pb, Sn, Al targets, equilib. charge state distrib. 2−54957
$Hg_{1-x}Cd_xTe$, annealing and ion implantation damage, Rutherford backscatt. and channelling study 2−86763
InAs-GaSb superlattices, ion beam crystallography 2−116318
InSb layer oxidation study after ion implantation by backscattering and nuclear reaction 2−99567
InSb:Mg, implanted, ion current density and dose effect on radiation defects 2−76533
K ions from Cu surface, ion fractions 2−77690
Li ions from Cu surface, ion fractions 2−77690
$LiNbO_3$, ion implant. amorphisation optical and EPR studies 2−103789
$LiNbO_3$:Ti integrated optical device fabrication, Ti oxidation process, $(Ti_xNb_{1-x})O_2$ phase form. 2−75735
Mg film formation by direct ion beam deposition 2−116387
MgO, surface struct., ionic bonding, He diffr., Auger and LEED study 2−86996
Mo, backscattering of low energy H ion, energy distrib. meas. 2−67173
Mo, H ion backscatt., energy and ang. depend. 2−69849
N_2, solid, 1-2 keV/amu H ions stopping power 2−66088
Na ions from Cu surface, ion fractions 2−77690
Nb-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
$NbSe_2$(2H), reflection of low-energy electrons from basal plane 2−77639
$NbSi_2$ film, phys. and elec. props. 2−104193
Ni, $D^+(D_2^+)(D^0)$ reflected particle charge states for grazing incidence 2−77646
Ni, laser irradiated, epitaxial regrowth and defects, Rutherford backscatt., channelling and TEM obs. 2−61031
Ni, self-ion sputtering yields 2−77660
Ni surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Ni thin film, 40 keV Xe^+ implanted, range profile and sputtering efficiency 2−66091
Ni-Ge(Si) alloys, radiation-induced segregation, defect prod. rate effect 2−92055
Ni-Pt interaction with Si 2−86953
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
Ni-Si, radiation-induced segregation, in situ Rutherford backscattering anal. 2−76679
Ni-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
NiS_2 epitaxial layers on Si(001) substrate, pulsed ion beam annealing, TEM and Rutherford backscattering study 2−66383
NiSi, Al contact using thin W barrier 2−87393
NiSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
$Ni_{1-x}Si_x$, sputtering yield, Rutherford backscatt. study 2−57230
Ni_3Si, ion and electron irrad., near-surface segregation, TEM and electron diffr. study 2−86883
$NiZr_2$ metallic glass, Rutherford backscatt. obs. of diffusion rates of Pb, Pt and Au 2−71726
P_2O_5-In_2O_3 anodic layers grown on InP, composition 2−67600
Pb film formation by direct ion beam deposition 2−116387
Pd, polycrystalline surface, low energy $O^+(O^-)$ backscatt. spectrum meas. 2−93342
Pd-Si(111) interface, ion beam crystallography study by Rutherford backscatt. 2−115613
Pd_2Si epitaxial film, ion beam induced, growth mechanisms and thermal stability 2−115604
Pt, surface (111), low energy alkali ion backscatt. 2−116323
Pt-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
PtSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
Pt(110), adsorbed CO, surface phase studies 2−66353
Pt(110), clean and with adsorbed CO and NO, surface phase study 2−86985
Si, elastic and inelastic backscattering of slow electrons 2−105018
Si, electron backscattering, secondary channelling and double-focusing effect 2−87926
Si epitaxial layers, defects anal., ion backscatt. and channelling techniques appls. *(Chinese)* 2−92376
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
Si, intense pulsed H^+, B^+, Ba^+ beam irradiation effects 2−76513
Si, ion bombarded and annealed, UPS and RBS investig. 2−103857
Si, ion implant. amorphisation optical and EPR studies 2−103789
Si, ion implanted, pulsed laser annealing, threshold energy density, backscatt. and channelling meas. 2−92029
Si, ion implanted wafers, high dose rate, laser annealing effects, TEM, backscatt. and channelling obs. 2−56019
Si, radiation damaged self-interstitial struct., double alignment channelling study 2−76433
Si surface barrier detector, response to 100-600 keV monoenergetic electrons 2−108252

particle backscattering continued
Si surface layer struct., action of directed flow of ionised halogen containing gas *(Russian)* 2−71515
Si surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si:As, ion implantation profiles, 10 keV to 2.56 MeV, Rutherford backscatt. study 2−115269
Si:As, ion implanted, pulsed X-ray annealing 2−115286
Si:As, laser beam annealed, defects and elec. props., TEM study 2−109799
Si:As, range distrib. and thermal annealing props. of low-energy implants 2−115258
Si:As diffusion and impurity concentration profiles, Rutherford backscatt. study 2−82019
Si:As(W), ion implanted, defect features 2−103796
Si:Au, depth distrib. determ. using elastic backscatt. 2−77671
Si:B, ion implanted, radiation damage production 2−61009
Si:B, laser beam annealing, recrystn. 2−103812
Si:Bi, ion implanted, impurity redistrib. after Nd laser pulse irrad. 2−115265
Si:Bi, range profile, Rutherford backscattering and SIMS meas. 2−98138
Si:Bi(As), scanning electron-beam annealing 2−103818
Si:Cu(Ag)(Au), gettering by Al at low temp., Rutherford backscatt. study 2−115264
Si:Ga (In)(Sb), ion implanted, dopant redistrib. after flash lamp annealing, He^+ backscatt. study 2−86936
Si:Ge, atomic mixing effects on high fluence 40 keV Ge^+ implantation 2−76466
Si:Ge, ion implantation, high fluence, contrib. of atomic mixing, theoretical and exptl. study 2−98131
Si:In, range distrib. and thermal annealing props. of low-energy implants 2−115258
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers, Rutherford backscatt. and channelling 2−86688
Si:P, As, Sb, ion implanted, multiphase electron beam annealed, impurity profiles 2−103803
Si:Zn layers, ion implantation, damage annealing 2−103798
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si/Si_3N_4, plasma enhanced thermally grown film, interface struct. and stoichiometry, backscattering-channelling study 2−56392
Si-CaF_2-Si heteroepitaxial struct., prep. by vac. deposition and charact. by Rutherford backscatt. 2−115612
p-Si-CdSe junction, sputter deposited, elec. props. 2−98736
Si-SiO_2 interface, atomic struct., ion backscatt. channelling study 2−104172
Si_3N_4 film form. on Si(100) by low energy ion implantation, characterisation 2−92375
Si_3N_4 layers grown by plasma enhanced thermal nitridation 2−62076
Si_3N_4, low-pressure CVD layer anal. using Rutherford backscattering spectrometry 2−116314
Si_3N_4 thin films, backscattering anal. and nuclear reaction meas. *(Chinese)* 2−66389
SiO_2:Ar^+, ion implanted electron irrad., antiannealing effect 2−66062
SiO_2:As, ion implantation profiles, 10 keV to 2.56 MeV, Rutherford backscatt. study 2−115269
Sio_2, fused and cryst., ion implant. amorphisation optical and EPR studies 2−103789
SnO_2 film, vapour deposition, Rutherford backscatt. study 2−71812
Ti:N, depth distrib. determ. using elastic backscatt. 2−77671
TiC coatings deposited onto graphite and Mo by electron beam evaporation, charact. by Rutherford backscatt. 2−71825
TiN film, Cu diffusion 2−98502
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913
V-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
W, scattering of keV H and He ions 2−77668
WO_3, scattering of keV H and He ions 2−77668
$WO_3.H_2O$ film, cation insertion reactions 2−105526
ZrS_2-1T, low energy electron reflection, energy depend. 2−87925

particle beam diagnostics
200 GW light ion beam power transport for fusion reactor ignition 2−90303
accelerated nucleus beam monitoring, multichannel system based on ionisation pickup 2−108201
acceleration characteristics for 15 MeV electron linac 2−70027
Amsterdam proton microbeam and its appl. 2−95549
beam, neutral beam profiles and computer-controlled emittance measuring device 2−102312
beam dynamics from ion gun with three electrodes *(Chinese)* 2−108204
beam trajectories calculation code for ion source in neutral beam injector 2−80269
beam-beam interaction dynamics 2−113775
betatron oscillations 2−113767
bremsstrahlung photons with muon background suppression, system for labelling 2−108322
bremsstrahlung pulsed beam, position monitoring, self-powered detector methods 2−54718
bunch deformation, differential eqn. description 2−96355
bunched beam problems with anharmonic space charge forces, Vlasov's eqn. 2−108210
circular accelerator and storage rings, single beam coherent instabilities 2−113772
Coulomb freq. shift of noncoherent oscillations of synchrotron particles 2−113804
CRYEBIS, advanced multicharged ion source, expt. results and improvements 2−102292
current measurement by obs. of deformation of metal foil 2−69310
edge penetration by radiation through collimation system 2−96348
electron beam, stability in gas-filled diode in space-charge limited current mode 2−108208
electron beam bunching by uniform mag. fields 2−80367
electron beam in spiral decelerating structure, slow cyclotron wave resonant instability 2−90340
electron beam ion source instability modification by longit. kinetic effects 2−102294
electron beam ion sources, linear electrostatic instability 2−102293
particle beam diagnostics continued
electron beam parameter meas. using pyroelectric collector 2−59590
electron cyclic inductive accelerator with const. guiding field, limiting beam intensity determ. 2−108169
electron storage rings, synchrotron radiation and electron beam dynamics 2−113770
European Hybrid Spectrometer, SPS H2 beam charact. 2−108211
fast response Faraday cup for low-energy, nanosecond-pulse ion beams 2−54703
gyromagnetic autoresonance at ultrarelativistic energies 2−64734
Harwell Tandem, ion beam optics 2−70028
heavy charged particle beam, LET spectra meas. 2−64733
heavy impurity determination in neutral beams, fusion appl. 2−80361
high-current electron beam propag. through metal channel 2−64842
hydro-acoustic effect of high energy charged particles, simulation using Q-switched pulsed laser beams *(Chinese)* 2−96342
inductive linear ion accelerators, longitudinal beam dynamics, vel. lens model 2−64707
ion beam, self-focussing, charge-neutralised, analytic calcs. 2−102291
ion beam current density monitor cross-sectional 2−85443
ion beam current meas. in fusion expts. using heavily shielded scintillation counter 2−70062
ion sources, liq. metals, extracted beam divergence calc. 2−74571
isotopic beam energy per nucleon determ. method using plastic detectors 2−70026
linac, fast nonintercepting electron beam position and current monitor 2−96343
low-energy ion beam transport, periodic focusing structure 2−75088
MA1-MA2 system for beam anal. and transport at IFIN *(Rumanian)* 2−90341
magnetoelastic microscope for inertial confinement fusion program, beam profile meas. 2−85447
microanalysis using charged particle accelerators, conf., Namur, Belgium (Sept. 1981) 2−94883
negative ion beam formation, transport and acceleration 2−80372
neutral beam injector, circular cross sectional, geometrical injection efficiency 2−54699
neutron optics, fundamental aspects, review 2−54700
neutron-optical properties of multilayer systems with absorption 2−96062
nonlinear orbit dynamics 2−113773
P^3 beam meas. at LAMPF 2−96346
Particle Beam Fusion Accelerator Performance Monitoring and Evaluation System 2−96409
periodically stabilised amplifier system for Si telescopes on pulsed accelerators 2−64809
perturbed betatron oscill. 2−113768
phase space density increases for high energy beams 2−54709
plasma focus discharge, electron and ion beam energies and currents meas. 2−70024
plasmas in particle accelerators, warm-beam equilibria 2−108209
proton beam intense from applied B_ϑ mag. insulated ion diode, charact. 2−75074
proton beams, intense, focused, diagnostic method using $^{11}B(p,\alpha)2\alpha$ reaction 2−102306
proton microprobe, spatial intensity profile characterisation for external beam 2−95545
proton synchrotron, bunched beam, longit. short-wavelength instability 2−64737
pulsed power bibliography 2−94940
RAYITO accelerator, designed to investigate electron-beam control and uniform excitation of large volume lasers, characterisation 2−96335
relativistic electron beam, cold, intense, generation using magnetised foilless diode 2−101493
relativistic electron beam in vacuum, radial profile, angular distrib. 2−85450
reversal biased p-n junction with semicond. target for electron beam investigation 2−102304
RFQ linac, beam dynamic design study *(Chinese)* 2−108203
RIKEN SSC beam orbit calc. programs, ACCEL, INJECT, INJHARM, EXTRACT, EXTHARM *(Japanese)* 2−64719
RIKEN SSC beam orbit calc. programs, EQUIOT and ACCELP *(Japanese)* 2−64718
scintillation counter hodoscope for 10 MHz beams 2−108244
sciopticon array analysis of ORNL ion sources 2−54701
signal processing cct. for electrostatic beam emittance meas. 2−96399
single particle longit. stability during accel. 2−113769
stationary orbit properties of a 4-fold symmetrical radial sector cyclotron *(Chinese)* 2−59583
steady-state gas efficiency of ion sources for neutral beams 2−80363
storage ring, electron self-polarisation effect, Compton scatt. test *(Russian)* 2−90343
storage rings, electron beam polarisation meas. using synchrotron radiation 2−80360
stored electron beam polarisation 2−113776
SURF-II irradiance uncertainty, X-ray, XUV and UV detectors linearity meas. 2−85440
tagged photon facility 20-70 GeV at CERN 2−96347
tandem injector, beam bunching, calc. program 2−64729
thick insulating sample microbeam anal., thin foil technique appl. 2−95536
transmission grating goniometer elements for synchrotron radiation facilities 2−84771
transverse head-tail effect, finite synchrotron oscill. freq. influence 2−64725
X-ray beam pulse spectral quality determ. using p-n junction *(French)* 2−96349
e^-e^+ collisions, bremsstrahlung processes, geometric beam factors *(Russian)* 2−95814
e^+e^--pair coherent accel. at nonlinear cyclotron autoreson. 2−113795
e^+e^- colliding-beam storage rings, luminosity optimisation 2−113774
$\bar{\nu}_e$ reactor spectrum from fission fragment β-spectrum, calc. method *(Russian)* 2−113807
π/K mixed beam, parent identification following $\pi(K)\rightarrow\mu\nu$ obs. 2−113793
Al, liquid, field emission ion source, emission characteristics meas. 2−74570
Ar^{2+} beam, metastable state $(3p^4\ ^1D)$ fraction determ. 2−113809
D beam species measured by fusion reactions in neutralizer 2−80362
H, excitation cross sections relevant to neutral beam diagnostics 2−80364
H neutral beam, high power, characterisation by Doppler spectroscopy 2−74573

particle beam diagnostics continued
$H^-(D^-)$ ion beam polarisation and emittance meas. 2−90333
LaB_6 cathode, thermionic emission characteristics, ⟨100⟩ and ⟨110⟩ orientations 2−53894
Si microstrip detectors for fast high resolution beam hodoscope 2−70042
Si(Li) multi-element detector for X-ray flux meas. 2−70061

particle beams
see also atomic beams; beam handling techniques; electron beams; ion beams; molecular beams; particle beam diagnostics; particle optics
1/f noise and diffraction, unified treatment 2−101494
generation and transport, pulsed power bibliography 2−94940
long-pulse ion source for neutral-beam applications 2−64161
neutral-beam systems for magnetic fusion reactors 2−80203
Particle Beam Fusion Accelerator design, implementation and effective operation 2−90323
proton beam induced quench, of superconducting solenoid 2−90338
space charge beam, finite element anal., PE2D and TOSCA computer programs 2−55055
synchrotron radiation intensity, rel. to beam spatial parameters 2−114175

particle counters *see counters*

particle counting
counting of microscopic particles in disperse systems (aerosols, colloids etc.)
analogue device for particle identification and spectra acquisition 2−107442
neutron source location and characterization method 2−85444
online optical particle and sizing for crystalliser operation control 2−64209
photoelectric counter for total particle counting 2−84778
single-particle detectors for keV ions, development 2−90404

particle detectors
see also ionisation chambers; particle track visualisation; position sensitive particle detectors
calorimetry, ideas and developments, review 2−64823
computerized gamma spectrum analysis with application to multicomponent activation detectors 2−54723
CR-39 sheets, proton detection as fuel density radius diagnostic in ICF 2−80275
dielectric, operating props. *(Russian)* 2−90401
environmental radioactivity meas., laboratory instruments, methods 2−80348
fast cluster finding cct. for Fermilab collider detector jet trigger 2−64804
fast-response surface-electrode pyroelectric detectors 2−64777
heavy ions mass identification by time-of-flight techniques 2−90347
hot ribbon detector for metastable atoms 2−70063
ion beam current density monitor cross-sectional 2−85443
ion-electron transducer for registering weak ion fluxes 2−107443
ionisation calorimeters, electron-proton discrimination capabilities study 2−113836
ionising radiation detection and meas., short history 2−75131
ISABELLE, small-angle physics 2−108167
microchannel plate X-ray detector for synchrotron radiation 2−85475
microchannel plates, soft X-ray quantum detection efficiency 2−75105
multiple solid state detectors, energy and primary mass determ. 2−75130
neutron threshold detectors, Rh foil activity determ. 2−113814
positron lifetimes in metals, meas. apparatus 2−111396
programmable decision logic module for multidetector expts. *(French)* 2−90410
real-time reactor perimeter γ-ray monitoring systems 2−54675
review *(French)* 2−59645
review 2−85498
Rydberg atoms and radiation 2−70159
sample-hold cct. with analogue multiplexer for multidetector systems 2−108304
self-powered flux detector, neutron and γ-ray sensitivities expt. meas. 2−64766
self-powered flux detectors, Monte Carlo simulation 2−64765
self-powered neutron detector with a fissile emitter 2−74862
single-particle detectors for keV ions, development 2−90404
solid-state, new type of U fission obs. 2−101949
STS-6 counters, γ-counting efficiency meas. 2−108268
superconducting toroidal particle detector for high-energy physics research 2−70102
superconducting tunnel junctions as nuclear radiation detectors 2−90384
synchrotron radiation instrumentation, conf., Ithaca, NY, USA (July 1981) 2−84369
TFTR microchannel plate detector for high energy neutrons 2−80399
thermocouple neutron detector response in normal and intrinsic config. 2−113816
time-zero detector for heavy ions mass identification 2−64156
ultrasoft X-ray radiation spatial distribution, polarization and spectrum measurement using multisectional gas counter 2−64774
X-rays and γ-rays sources and appl., symposium, Ann Arbor, MI, USA (June 81) 2−58525
Fe-Ar liquid segmented calorimeter, performance Monte Carlo simulation 2−75097
He slow-neutron counter vertical dimens. effect on neutron diffr. apparatus efficiency 2−109635
MgO detector based on controlled secondary electron emission 2−108270
Mn-activation detector calibration for intense pulsed energetic neutron sources 2−102355
Rh self-powered neutron detectors, reactivity approach to reactor core diagnostics 2−64563

particle focusing *see focusing; particle optics*

particle lenses, electrostatic *see electrostatic lenses*

particle lenses, magnetic *see magnetic lenses*

particle optics
see also aberrations; beam handling techniques; electrodynamics; electron optics; ion optics; particle beam diagnostics
charged particle beams, underlying theory 2−59591
LURE, French synchrotron radiation facility, status report 2−85417
microanalysis using charged particle accelerators, conf., Namur, Belgium (Sept. 1981) 2−94883
neutron optics, fundamental aspects, review 2−54700
neutron-optical properties of multilayer systems with absorption 2−96062
synchrotron radiation instrumentation, conf., Ithaca, NY, USA (July 1981) 2−84369
T invariance test in neutron optics 2−69377

particle range *see energy loss of particles*

particle scattering *see collision processes; energy loss of particles; particle backscattering; potential scattering; radiation effects; transport processes*

particle separators
pressurised UV photoionization threshold Cherenkov counter operation 2−64763
ring-imaging Cherenkov detector for 200 GeV/c particles identification 2−64761
time-of-flight scintillation telescope with logic sampling circuit 2−64769
β activity in mass separator collector, distrib. meas. using multichannel system 2−64826

particle size
ABS compounds, microstruct. and deform., effect of graft freq. and rubber particle size 2−99489
aerosol optical props., information content rel. to size distrib. 2−108787
aerosol particle size distrib., multifilter exam. technique 2−63113
aerosol size distribution, quasi stationary approx. 2−78772
aerosols, atmospheric, in marine boundary layer, particle size distribs. modelling 2−117389
aerosols, modified gamma size distrib. model for marine environment 2−117453
aerosols, size comp. in arid zone, seasonal var. in Karakums 2−106285
aerosols, volumetric scatt. and absorpt., parametric sensitivity in Mie modelling 2−70506
aerosols over Atlantic, n-alkanes rel. to particle size 2−94470
alloy, binary, evolution toward equil. shape of θ' precip. by interface diffusion 2−72702
anisotropic photoelectron emission from small particles 2−77697
catalysts, high-resolution electron microscopy bright and dark field imaging 2−98299
ceramic-like body, process design, prod. from recycled waste glass, green strength 2−111125
ceramic-like body, process design, prod. from recycled waste glass, phys. props. 2−111126
clouds, Skylab near-IR obs. rel to particle size and presence of supercooled liquid water drops 2−100476
coarsening kinetics, integral mean curvature meas. 2−111185
crystal growth from melt, morphological stability of shape of circular anisotropic particle 2−65898
dispersed magnetic particles, magnetisation 2−106103
fog chamber characts., used for electrooptical device performance meas. 2−96834
fog drops, effect of aerosol on concentration and size distrib. 2−117391
grain growth, resist. offered by dispersion of spherical particles 2−93486
interstellar dust grains in Orion Nebula, size distrib. from polarisation obs. 2−68873
kaolin, mech. strength rel. to specific surface 2−57403
light scattering, by spherical particles, partial-wave resonances 2−75528
liposome suspensions, optical study of microstruct. 2−111633
magnetic fluid, agglomerate form., mag. susceptibility, Monte Carlo calc. 2−82669
metal-organic precursors, powder synthesis 2−99364
metallic particles, IR radiation absorpt. *(Russian)* 2−104894
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
Ostwald ripening theory 2−83119
particulate reinforced epoxy resin, thermal expansion 2−110017
polydisperse equivalent spheres, elec. birefr. evaluation of particle size distribs. 2−70507
polydisperse systems, X-ray and neutron scatt., small-angle, proportionality of scatt. vector 2−115101
polymeric powders, cold compaction, SEM study 2−111134
polypropylene, EPDM modified, struct.-property relations under tensile and impact tensile stress *(German)* 2−67533
polystyrene, monodisperse lattices, stopped-flow spectroscopy 2−84593
powder compacts, density depend on particle size 2−116403
PVC, plastisol viscosity and particle size distrib. 2−82005
radius distribution density calcs. from spectral attenuation coeff. integral characts. 2−114194
rare earth small particles, cryst. struct. and mag. props. 2−77330
rubber toughened high-impact polystyrene, internal struct. of rubber particles and craze breakdown 2−105297
Saturn ring spoke particles 2−100818
sediments of continental slope and rise off NE Newfoundland, particle size rel . to shear strength 2−78639
sphere, charged, negative adsorption of co-ions 2−87022
stability, with recoil resoln. 2−67339
steel, Cr-Mo, precip. of Fe_2MoC carbides 2−83123
steel, dual-phase, struct.-prop. relationships 2−105253
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, low alloyed powders and compacts, hot ductility, correl. with other props. 2−88148
steel, low C, sheets, microstruct. and recrysts., influence of second phase particles *(French)* 2−93534
steel, martensite plate size distribution, determ. by kernel estimation 2−88081
steel, V, continuously cooled, strengthening contrib. at peak hardening from precip. 2−72710
steel-TiC composite with 10R6M5 high-speed steel, high-density material, processing parameters, struct. and mech. characts. 2−67262
stratosphere aerosol particles, size distrib. rel. to H_2SO_4 evaporation 2−112046
toner photoconductor adhesion in electrophotographic system, charge, size and shape effects 2−107437
ultradisperse binary systems, metastable constitution diagrams 2−77812
ultrafine particle prep. by gas evaporation with arc plasma sputtering 2−67231
X-ray analysis, distortion distributions calc. 2−115090
Ag particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
Ag particles, van der Waals forces enhancement, coagulation rate meas. 2−93822
AgI-Al_2O_3(SiO_2)(AgBr)(fly ash), enhanced ionic cond., AC elec. cond. meas. 2−82011
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al-BN plasma spray deposited composite coatings, props. 2−83231
Al-Li-Mg system, Guinier-Preston zones, coarsening mechanism, SAXS study 2−62129
Au particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580

particle size continued
$Bi_2Ru_2O_7$-$Pb_2Ru_2O_6$ thick film resistors, particle size effect on cond. props. 2−104367
Bi_2WO_6 powders, obtained in prescence of fused salts, morphology 2−97971
C particles, van der Waals forces, coagulation rate meas. 2−93822
Cd-Ni powders, predetermined comp., electrodeposition 2−72653
Cr-MgO condensates, second phase particles distrib. *(Russian)* 2−67314
Cu-Co alloys, precipitated particles, coarsening process *(Japanese)* 2−83125
Cu-Co dilute alloy powders, mag. charcts. scatter 2−72289
Cu-Fe, containing α-Fe particles, back stress hardening and static and dynamic hardening 2−67358
Cu-Ni alloy particles, Ni impurity distrib., mag. props. study 2−76485
Fe particles in Hg, aggregate size, mag. prop., US vel. study 2−82668
Fe powder, charcts., porous struct. and particle shape effects 2−83062
Fe powder, electrolytic Ni influence units distrib. on particle surfaces and powder particle size 2−116409
Fe powders, fine, prod. from ferrous oxalate dihydrate, sintering charcts. 2−88024
Fe-Ni-Cr alloys, grain coarsening, influence of second phase particles 2−93511
Fe-V-C ferritic steel, carbide precipitate size, EELS and energy dispersive anal. 2−67362
Fe_2O_3, goethite-derived, origin of preferential X-ray line broadening 2−97837
α-Fe_2O_3, solid state conversion from α-FeOOH 2−56179
Fe_3O_4 particles in silicate matrix, superparamag. and ferrimag. props., magnetisation study 2−92972
α-FeOOH, Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
γ FeOOH, mechanochemical reaction effects on struct. and surface, IR and X-ray anal. 2−116726
^{3}He, normal liq., thermal boundary resist. with small particles 2−82062
Li particles, Na impurity distrib., ESR study 2−76485
$LiAlO_2$/molten carbonate structs., compressive strength anal. 2−61050
Mo powder, fine, sintering 2−116413
Mo-ZrO_2 condensates, second phase particles distrib. *(Russian)* 2−67314
Na particle, CESR g-shift, shape depend. 2−116063
NaCl, ultrapure, particle size influence on sintering kinetics 2−99366
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Nb_3Sn, ultrafine supercond. powder form. by vapour phase reactions 2−67232
Ni particles on Spherocarb, mag. props. and particle size 2−92973
Ni superalloys, NIM80A, NIM90, NIM105, IN738, IN939, long-term growth of γ' particles 2−105153
Ni-Al (15:4 wt.%) alloy, precip. hardening by large vol. fractions of γ' 2−72712
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Co-Cr, Inconel 700, creep strength, microstruct. depend. 2−77932
NiO supported on B modified SiO_2, dispersion of Ni determ. by TEM and XPS meas. 2−56202
$PbTi(Zr)O_3$, packing pressure and particle size effect on formation reaction kinetics 2−88040
Pt particulate films, CO chemisorption 2−76818
Si powder, nitriding in NH_3, kinetics study 2−88335
SiC abrasives, 6 to 50 μm, two-body abrasion of some polymers 2−111330
Sn superconducting small particles, NMR study 2−66712
SnO_2 ultrafine particle film, Hall effect meas. and elec. cond. model 2−87425
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
ThO_2 powders, positron lifetime meas., particle size and positronium diffusion const. meas. 2−62010
α/β-Ti Mn alloys, low cycle fatigue life 2−105319
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
α-B-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77884
α-β-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77885
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516
W powder, fine, sintering 2−116413
W-Cu, liq. phase sintering, W particles rearrangement mechanism *(Korean)* 2−116406
WC particles, coating by Co electrodeposition 2−83261
WC-Co, as-milled Co distrib. 2−111118
YAG:Nd garnet, fluorescence lifetimes, particle size and refractive index effects 2−67114
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZrC-C composites, strength 2−116544
ZrO_2, sintered, struct. and fracture behaviour 2−88187
ZrO_2-zircon ceramics, prep. from plasma dissociated zircon 2−83073
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2−103658

particle size measurement
aerosol optical absorption, imaginary refr. index, mass conc. and size meas., integrating plate method 2−53806
aerosol particles size measurement, expt. and theoretical study of two-dimensional virtual impactor 2−111605
aerosol size distrib., retrieval from ang. scatt. functions, effects of particle comp. and shape 2−58118
aerosol size distrib. determ. using solar aureole technique, expt. validation 2−94503
aerosol size spectra from spectral extinction data, linear inversion method 2−94416
aerosols, atmospheric, size distrib. determ. from spectral solar irrad. meas. 2−89048
aerosols, dispersed, detection by TV camera 2−53737
atmospheric aerosol, particle size distrib. and visibility in Calgary 2−105620
atmospheric aerosol investigation by expt. transmittance data inversion 2−112118
cylinder size distribution, light-scatt. determ., analytic approx. 2−75527

particle size measurement continued
disperse systems statistical parameters determ., units assurance, meas. facilities realisation 2−58990
distribution analysis by dynamic light scatt. apparatus 2−112861
electrolytic grain-size analyser 2−112868
EM scattering and its appls., book 2−89492
flames, sooting, particle size diagnostics using photon correl. spectroscopy 2−64112
Fourier X-ray line shape anal. of single reflection 2−97846
Fraunhofer spectrum analysis, histogram of circular particle sizes determ. method *(French)* 2−95317
granulometer, electro-optical, for meas. of flowing particles 2−91564
hygroscopic particle mean diameters as functions of relative humidity and integration limits 2−116729
image analysis method of particle size distribution meas. *(Japanese)* 2−63979
Knollenberg aerosol counter, response meas. 2−94526
large droplets, light scatt. device for sizing and velocimetry using ring-shaped laser beam 2−95316
laser diagnostic probes for flames, combustion products and sprays 2−89824
laser Doppler anemometry appl., simultaneous meas. of particle velocity, size and concentration *(German)* 2−64211
laser Doppler system with transient recorder for study of particles in flowing fluid 2−74582
laser velocimeter particle sizing, Mie and refr. theory comparison 2−53730
marine aerosol size distrib., appl. of satellite meas. 2−117454
microcomputer-based particle size analyzer *(Japanese)* 2−63978
oblique light particle detection instrums. detection capability, calibration 2−107481
online optical particle and sizing for crystalliser operation control 2−64209
optical scattering data constrained linear inversion for particle size spectra, approach to ang. optimisation 2−65158
powders and compact materials, particle shape microscopic anal. methods, review 2−72906
powders used in thick film pastes 2−84779
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
rapid method 2−58780
resistive pulse technique, high resolution cct. for particle size analysis 2−53731
Roentgenographic particle size and distortion determ., distortion distrib. influence 2−109632
single beam transit time laser velocimeter, practical aspects 2−65289
size-chemical profiles of environmental samples by PIXE, 2−57761
Space Shuttle tiles coating, particle size analysis 2−77954
spherical particle in fringe pattern, light scatt., Mie calc., appl. to particle sizing 2−60016
stopped-flow spectroscopy, appl. to monodisperse polystyrene lattices 2−84593
xerographic magnetic toner particles 2−69131
Al alloy powders, particle diameter determ. by various methods 2−105415

particle sources
see also ion sources; neutron sources; radioactive sources
atomic vapour sources for laser isotope separation, electron-beam evaporation and cathode sputtering 2−65101
compact plasma source for inductive energy storage 2−90344
electron beam diode, unductively-driven, repetitive operation, expt. study 2−79710
electron beam generator for annealing appls. 2−84739
electron explosive emission source, cathode plasma-surface interaction 2−113801
electrons, spin polarised, based on Fano effect on Cs atoms 2−79711
explosive-emission, in freq. mode with long pulse duration, electron source 2−62405
ion flux characterisation prod. by saddle-field neutral beam source 2−53893
MBE, mol. beam source, collimating effusion cell 2−57298
plasma focus discharge, electron and ion beam energies and currents meas. 2−70024
pulsed neutral particle source for active plasma diagnostics 2−91666
relativistic electron beam, cold, intense, generation using magnetised foil-less diode 2−101493
relativistic electron beam in undulator, coherent radiation prod. 2−65144
Sidonix particle beam generator modification 2−90414
X-rays and γ-rays sources and appl., symposium, Ann Arbor, MI, USA (June 81) 2−58525
$Al_xGa_{1-x}As$, MBE layers, spin polarised photoelectron emission, electron source appl. 2−93365
GaP, MBE growth, P_2 beam source technique 2−57300
H, metastable atomic beam source by optical pumping 2−90743
LaB_6 cathode, thermionic emission characteristics, ⟨100⟩ and ⟨110⟩ orientations 2−53894
W-Re cesiated foil targets heated by laser pulse as electron source for high quality electron beams 2−96358

particle spectrometers
see also alpha-particle spectrometers; beta-ray spectrometers; electron spectrometers; gamma-ray spectrometers; neutron spectrometers; X-ray spectrometers
axial field spectrometer at CERN ISR 2−90348
axial field spectrometer detector performance at CERN ISR 2−90388
Bragg curve spectroscopy using gaseous ionisation chamber 2−90355
cathode cell MWPC of modular design 2−96380
CDF forward spectrometer of Fermilab colliding detector facility 2−108212
Daresbury Nuclear Structure Facility 2−64708
European Hybrid Spectrometer, datarates and triggering 2−108227
European Hybrid Spectrometer, high resolution research 2−108228
European Hybrid Spectrometer, SPS H2 beam charcts. 2−108211
European Hybrid Spectrometer using streamer chamber 2−108294
focal plane detector for INS-QDD mag. spectrograph 2−75102
focal plane drift chambers detector systems for EPICS and HRS spectrometers 2−90382
forward detector for DO area at Fermilab 2−108213
HEAO-3 Cosmic Ray Isotope Spectrometer 2−106541
heavy ion identification system for mag. spectrometer 2−108217
HOLEBC and RCBC, future program of charm physics with EHS appls. 2−108286

particle spectrometers continued
holographic bubble chamber, scanning and measuring high energy interaction holograms 2−108295
holography and high-resolution techniques workshop, Strasbourg, France, Nov. 1981 2−107018
lead-glass calorimeters and laser based monitoring system for European Hybrid Spectrometer 2−102327
linear-gate device [spectrometer pulse selection] for selecting input pulses with control signals 2−108305
long focal-plane detector with hybrid structure for spectrograph 2−90380
multidimensional sensor number-code converter with data selection and compression 2−85469
NA16 spectrometer performance 2−108225
NA26 spectrometer design performance 2−108226
Nagoya cosmic ray muon spectrometer, characts. of events selected by various trigger conditions *(Japanese)* 2−106463
operational amplifiers for nuclear spectrometry, phase shift effect on gain stability 2−64812
pion detection, low energy magnetic spectrometer 2−108218
polarised particles reactions, multichannel system for asymmetry meas. 2−108223
position sensitive gas proportional counter with induction readout for spectrograph 2−90379
proton channelling at 8.4 GeV in single crystals 2−64740
QMG/2 spectrometer, effective field boundaries location 2−96361
reaction angle determ. using mag. spectrograph 2−113838
RISK spectrometer streamer chamber electrode module 2−108265
scintillation, neutron flux density meas. methods analysis, using D(d, n) ^{3}He reaction 2−80407
scintillation hodoscope-spectrometer for studying low-energy pion reactions 2−108221
semiconductor detector, circuit using sampling ADC 2−59651
SPES-4 magnetic spectrometer, characteristics *(French)* 2−90350
streamer chambers, high-resolution, heavy quark spectroscopy appl. 2−64787
three-arm scintillation spectrometer for nucl. reaction studies at medium energies 2−96363
TOKIWA large-aperture spectrometer magnet, computer-controlled field measuring system 2−96362
UA1 detector at CERN $\bar{p}p$ collider 2−108214
wire proportional counters for mag. spectrographs in Japan 2−90378
π^- energy meas. using multilayer semiconductor spectrometer 2−64825
H^+ spectrometer for satellite meas. of Earth's magnetosphere 2−73715
NaI(Tl) crystal scintillation spectrometers for increased loads, review 2−85484

particle track visualisation
see also bubble chambers; cloud chambers; nuclear track emulsions; scintillation chambers; spark chambers; streamer chambers
alpha particle, recoil damage, preferential solution effects 2−108256
antinucleus detection in cosmic rays 2−100749
apatite, fission track induced radiation damage study using absorpt. spectroscopy 2−70111
apatite, fission tracks thermal history and length distrib. 2−70092
apatite, ion induced track formation mechanism 2−59664
automatic meas. of nuclear tracks in plastic foils 2−64775
autoradiography using CR-39, inhaled Rn decay product microdistrib. determ. for various tissues 2−68221
biotite mica, electron and α-particle damage, implications for track formation mechanisms 2−59660
bisphenol-A polycarbonate, track etching photo-oxidative enhancement, chem. basis 2−59617
Brazilian quartz crystal for track recorder appl., selected etching and annealing props. 2−70093
CA80-15 cellulose nitrate track detectors, track etching response 2−113821
cellulose acetate solid state track detector, p, d and α registration *(Chinese)* 2−96393
cellulose nitrate, alpha-particles registration, statistical behaviour 2−70078
cellulose nitrate, low charge discrimination expt. study 2−70074
cellulose nitrate detector, track spark counting 2−59612
cellulose nitrate films, chem. and phys. parameters influence on track quality 2−59637
cellulose nitrate plastic detectors, Fe ion registration props. 2−70080
cellulose nitrate recoil track detectors, type Kodak-Pathe LR 115, neutron sensitivity *(Hungarian)* 2−102347
cellulose nitrate track detector sensitivity to mass difference in low Z region 2−70108
cellulose nitrate track detectors, neutron dose distrib. meas. in water filled phantom 2−70014
cellulose nitrate track detectors sensitivity depend. on neutron energy 2−70098
cellulose triacetate, heavy ion tracks, electron microscopy obs. *(French)* 2−108273
cellulose triacetate, spatial damage distrib., at. number and ion energy influence 2−59663
cellulose triacetate track detectors for solar cosmic ray heavy ion abundances meas. 2−112335
charged particle tracks development by electrochemical etching, soln. parameter influence 2−70068
charged particle tracks in matter, dosimetric quantities 2−59659
charged tracks with minute curvature, momentum calc. 2−102352
charged-particle radiography and computerised tomography using nuclear track detectors 2−68134
chondritic meteorites, fission tracks and search for siderophile superheavy elements 2−68686
chondritic phosphates, ^{244}Pu conc. and significance in meteorites fission track dating 2−68685
CN-85 solid-state nuclear track detector, electret props. studies 2−59615
cosmic ray isotope expt. using Cherenkov range detector technique 2−68625
cosmic ray isotopic abundances meas. using plastic track detectors 2−68626
cosmic ray nuclear track record of events in early solar system 2−68583
cosmic ray nuclei, isotope meas. from Ca to Fe by plastic-electronic expt. 2−68624
cosmic ray nuclei relative abundance obtained with track detectors, correction factor calc. 2−68581
CR-39 and LR-155 type II plastic track detectors for environmental Rn level meas. 2−67915

particle track visualisation continued
CR-39 carbonate plastic track detector for neutron and α-particle dosimetry 2−64696
CR-39 detector, energy dependence of etch pit diameter for 1.29-5.48 MeV α-particles 2−113830
CR-39 detector, ions track-profile and range, thermal pre-treatment effect on etching characts. 2−59632
CR-39 detector, O effect on track etching 2−59629
CR-39 detector, radiographic characts. 2−59635
CR-39 detector, track diameters for α-particles, energy sensitivity 2−64782
CR-39 detector film development for spark counting of recoil proton tracks 2−70097
CR-39 detector response curve, effect on particle resolution, appl. areas 2−59623
CR-39 detectors electrochemical etching, parameter optimisation for neutron-induced samples processing 2−70070
CR-39 foil treated by sequential chem. and electrochemical etching, neutron response characts. 2−70096
CR-39 nuclear track detector, electrochemical etching study 2−70073
CR-39 plastic, neutron dosimetry based on chem. etching 2−70012
CR-39 plastic, neutron spectrometry using chem. and electrochemical etching 2−70099
CR-39 plastic detector, computerised method for automatic track evaluation using microdensitometer 2−64839
CR-39 plastic manufactured in controlled temperature-time curing profiles, track response 2−59626
CR-39 plastic sheets exposed to CERN-SC C beam, track meas. 2−59625
CR-39 plastic solid state track detector *(Chinese)* 2−108275
CR-39 plastic track detector, etching solns., effects on response 2−59633
CR-39 plastic track detector, mass resolution for ^{56}Fe ion beam 2−108319
CR-39 plastic track detector appl. for protons, ^{3}He and ^{4}He ions detection 2−64783
CR-39 plastic track detector appl. to study ^{208}Pb(^{12}C, X) reaction 2−64421
CR-39 plastic track detector for high resolution α-particle spectroscopy 2−96366
CR-39 plastic track detectors, etching conditions optimisation 2−59634
CR-39 plastic track detectors with dopants, etching props. and response 2−64784
CR-39 plastics, neutron dosimetry studies 2−70011
CR-39 polycarbonate detector, UV radiation influence on nucl. track recording props. 2−96391
CR-39 polycarbonate foils for biological systems dosimetry appl. 2−59562
CR-39 polymer detectors for reactor and dosimetry appl., neutron response characacts. 2−70095
CR-39 polymer track detector for Rem-equivalent personnel neutron dosimeters 2−70009
CR-39 track detector, curing cycle for detector-quality 2−59628
CR-39 track detector, etching props., post-irradiation annealing effect 2−59630
CR-39 track detector characts. for cosmic ray particle detection 2−63255
CR-39 track detector for cosmic ray appl. 2−63256
CR-39 track detectors, development status 2−59622
CR-39 track detectors, etch pit growth study using Si rubber cast technique 2−64779
CR-39 with ^{6}LiF radiation, personnel neutron dosimetry study 2−70013
cylindrical drift chamber performance at CERN ISR 2−90388
Daicel cellulose nitrate, α-particle registration props. applying diffusion etch model 2−70083
Daicel cellulose nitrate, quasi-relativistic Fe ion registration, diffusion-etch model appl. 2−70082
deuteron detection, using cellulose nitrate dielec. system, appl. to plasma focus 2−71261
dyed and fluorescent track detectors, diffusion processes 2−70081
electrochemical etching, α-particle energy discrimination 2−108320
electrochemical etching, freq. depend. in polycarbonate detector 2−108255
electrochemically etched nuclear track detectors, registration efficiency depend. on track formation time 2−70071
electrolytically controlled nuclear track plastic filter prod. 2−64831
etch plastics for personnel neutron dosimetry, monoenergetic neutron response 2−59549
fissile particle track size distribs. meas. in contaminated soils 2−113818
fission fragment range meas. in gaseous media using plastic track detectors 2−85503
fission fragment scattering measurements using solid state nuclear track detectors 2−90420
fission track age estimation method 2−73722
fission track dating, current status and problems 2−73719
fission track dating appl. to Plio-Pleistocene 2−73723
fission track dating problems and solns. 2−73724
fission-track dating, age error estimation 2−111898
flash chambers, Ne-He gas purification system 2−64747
freshwater mussel tissue, α-emitter distrib. meas. by α-track autoradiography 2−68219
glass track recorder, energy resolution improvement 2−70084
heavy charged particle beam, LET spectra meas. 2−64733
heavy ions range and energy loss rates in dielectric nuclear track detectors 2−64829
insulator, charged particle track form., core plasma model 2−96387
irradiation chamber for expts. with solid-state nuclear track detectors 2−70109
jet chamber of JADE expt. 2−90386
Kodak LR115-II films, α-particles detection at various angles of incidence 2−70077
Kodak LR-115 track detector for α-particles detection in environment 2−67914
Lexan plastic track detector, long-term thermal annealing study 2−59631
Lexan polycarbonate and Cr-39 track detectors, track response depend. on registration temp. 2−59665
Lexan polycarbonate sensitivity to mass difference in Fe peak 2−70079
light isotopes in metals, ion beam anal. using solid state track detectors 2−67789
LR-115 and CR-39 plastic detectors responses to Rn 2−67901
LR-115 plastic track detector, track diameter meas., temp. effect 2−54720
lunar silicates, concepts for fossil track studies 2−63283

particle track visualisation continued
lung sections, fissionable radionuclides spatial distrib. determ. using Lexan 2−68220
lung tissue, human, α-active nuclei microdistribution using autoradiography 2−68174
lung tissue, human, α-active nuclei microdistribution using autoradiography technique 2−68223
Makrofol KG fission track detector sensitivity to damage by radiations 2−96385
Makrofol track detectors for fission fragments, efficiency calc. 2−70076
measuring stage, for track chamber picture meas., microprocessor control 2−85502
medium and low energy heavy charged particles crossing complex media, ionisation cross-sections 2−75128
mica, alpha-recoil track registration props. study 2−70090
mica nuclear track detector for $^{238}U(^{84}Kr, X)$ reaction study 2−64422
mica track microfilters for hot contaminated air surveillance 2−64830
microchannel plate multipliers optimisation for tracking minimum ionising particles 2−70044
minerals, α-recoil damage and preferential soln. effect, track prod. mechanism 2−64778
minerals, fission track temp. age theory 2−73508
multistep avalanche chamber, min. ionising particle electrostatic imaging 2−96376
muscovite mica, fission fragment tracks, thermal annealing 2−113833
muscovite mica track detectors, low energy ion track-etch pits study 2−70088
Muscovite mica track recorders, fission track counting, optical efficiency and observer objectivity 2−64836
neutron fluence determ. from Makrofol plastic track detect. *(German)* 2−54724
neutron source location and characterization method 2−85444
nuclear reactor flux meas. with glass track detectors 2−69769
nuclear track, elec. tree generation by sequential elec. and chem. treatment 2−70072
nuclear track detection by avalanche-type processes, electrochemical etching and spark counter 2−59638
nuclear track detectors, use in radiation protection, review 2−108137
nuclear track detectors appl. in biology and medicine 2−68217
nuclear track filters, electron microscope studies 2−64832
nuclear track recording solids, appl. to high energy phenomena 2−54721
obsidian artifacts, from SE Anatolia, fission-track dating 2−111897
obsidian artifacts fission track dating 2−73720
oriented latent nuclear tracks, small angle neutron scatt. 2−59662
particle detection techniques, bubble chamber holography 2−70065
passive differentiating track detectors containing a diffusion barrier, performance 2−64755
Peking Man, fission track dating 2−70112
personnel albedo neutron dosimeter using track etch detectors, design and performance 2−70015
PETP foil, treeing on particle tracks under different expt. conditions 2−70067
plastic detector, cosmic ray track measuring microscope employing laser interferometry 2−64841
plastic detectors, automatic track meas., microprocessor based picture anal. 2−64840
plastic detectors, isotopic beam energy per nucleon determ. method 2−70026
plastic detectors, submicroscopic nuclear tracks, electrolytical studies 2−59616
plastic foil detector, electrochemical etching using AC voltage 2−59640
plastic foil detector, electrochemical etching using DC voltage 2−59639
plastic nuclear track detectors, cosmic-ray LET spectra meas. 2−68623
plastic track detector, CR-39, response function 2−75123
plastic track detectors, Kodak LR 115, sensitivity rel. to α energy and incidence angle 2−85479
plastic track detectors, neutron detection efficiency, evaluation using light transmission meas. 2−113819
plastic track detectors, neutron detection efficiency, theoretical model 2−80383
plastic track detectors, neutron detection efficiency, theoretical and exptl. results comparison 2−80384
plastic track detectors appl. to at., nuclear, particle and cosmic ray physics 2−64833
plastic track detectors behaviour in gamma dose field and high temp. conditions 2−70094
plastic track detectors CR-39 and CN-88, light particle response comparison 2−102343
plastic track detectors irradiated by heavy ions, IR, UV and ESR studies 2−59613
polycarbonate CR-39, track detecting props., internal. temp. fluctuation effects during cure 2−59627
polycarbonate foils, electrochemical etched track props. study 2−70066
polycarbonate foils elecrochemically etched with methyl alcohol-KOH soln., low neutron fluences meas. 2−64756
polyethyleneterephthalate solid state nuclear track detector, bulk etching mechanism and kinetics 2−113820
polymer resists, track-etch behaviour and chem. development, correlative studies 2−59618
polymer solid state nuclear track detectors in neutron dosimetry 2−59548
polymeric detectors, latent and etched track formation, thermodynamic approach 2−59614
polymers, radiation sensitivity meas., resists. and nuclear particle track recording appl. 2−93802
radioactive minerals from SW England, CR-39 α-particle autoradiographs 2−68524
relativistic heavy ion fragments interaction cross section meas. using plastic track detectors 2−64424
scanning electron microscopy autoradiography using emission and polymer track detectors 2−68222
soda glass detector, fission fragment tracks, efficiency calibration and etchant temp. effect 2−96390
soda glass detectors, ^{252}Cf fission fragment tracks development, etching conditions study 2−70085
soda glass nuclear track detectors, etchant development 2−70086
soda-glass detector, mag. field effects on fission track recording characts. 2−70087
solid state detectors, etched track profiles, SEM studies 2−70091
solid state nuclear track detector appl. in neutron dosimetry 2−70008
solid state nuclear track detector study 2−59636
solid state nuclear track detectors, particle track optical props. 2−64781

particle track visualisation continued
solid state nuclear track detectors appl. for fission cross-section ratios meas. 2−64444
solid state nuclear track detectors appl. to heavy ion reaction studies 2−64423
solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
solid state nuclear track recorders response to neutrons, expt. results 2−96383
solid state track detectors appl. in nuclear safeguards 2−69768
solid state track detectors for high energy heavy ions 2−59624
solid state track recorder, track counting, Buffon needle method 2−64837
solid state track recorder response to neutrons, theory and assessment 2−96384
solid state track recorders, annealing effects 2−59661
solid-state detector, irradiation cell and IR spectroscopic anal. in temp. range −160 to 25°C *(French)* 2−80387
solid-state nuclear track detector, meas. of U diffusion in Re 2−110039
solid-state nuclear track detectors, conf., Bristol, England, Sept. 1981 2−58532
solid-state track detectors, low energy ion implantation, chem. reactivity 2−70089
solid-state track detectors electrochemical etching process, elec. parameters role 2−70069
spark counting system, modified automatic, for U ore eval. 2−75120
sphene sample from pegmatite, fission track temp. ages meas. 2−73721
stainless steel, U trace content determ. using solid-state track detectors 2−70113
thin-film dosimetry for neutrons and alpha particles 2−64697
through-etched tracks, diameter meas. spark chamber appl. 2−108254
time projection chamber, data acquisition system 2−64758
time projection chamber for high energy heavy ion expt. at Saturne 2−90387
Tuffak polycarbonate track detector evaluation tests 2−59619
two-phase track developing model 2−70110
α-particle spectroscopy using CR-39 plastic track detector 2−64744
Ar, accelerated projectile fragmentation, computerised track anal. 2−64835
Ar, liquid, two-dimensional time projection chamber, track obs. 2−108237
Au(α,X), 12.7 GeV, light fragments identification from binary events using track detectors 2−64415
B mapping in minerals and rocks using CR-39 polycarbonate plastic detector 2−68522
$Ba(OH)_2.8H_2O$, aq. soln., track etchant for plastic detectors 2−64785
NaI(Tl) scintillation camera for triggerable vertex detector 2−70045
Re, diffusion of U, meas. using solid state nuclear track detector 2−66291
Rn activity meas. using automatic device 2−64827
Rn concentration meas. in indoor air using LR-115 and CR-39 detectors 2−67900
Rn concentration meas. using CR-39 detector in Orkney islands and Kinver caves 2−67897
Rn concentration meas. using solid state track detector 2−67916
Rn diffusion chamber with plastic track detectors, props. deter. 2−64828
Rn dosimetry, α-particles in plastic detector, track density distrib. 2−64695
Rn gas passive dosimeters using electrochemically etched tracks in CR-39 2−67918
Rn isodose curve drawing using microdensitometer-computer ensemble 2−64838
Rn passive dosimeter using polycarbonate track etch detector 2−67919
Rn subsurface distrib. meas. with LR-115, CR-39 and thermolum. detectors 2−67913
traces determ. using solid state track detectors 2−67920
U concentration meas. in water using solid state nuclear track detectors 2−67921
U estimation in plants using fission track technique 2−67898
U exploration, α-track technique principles 2−68525
U exploration in sandstone areas, track-etch method data interpretation 2−68526
U fragments in human lung, anal. using CR-39 plastic autoradiography 2−68175
U in sea, lake and spring water, fission track determ. 2−67922
^{238}U spontaneous fission decay constant meas. from etched fission track density 2−96057
Zn/Ni ratio meas. in cosmic radiation using Lexan polycarbonate track detector 2−68580

particle tracks
see also energy loss of particles
automatic meas. of nuclear tracks in plastic foils 2−64775
cellulose triacetate, heavy ion tracks, electron microscopy obs. *(French)* 2−108273
separating short-range protons and α-particles 2−64768
solid state nuclear track detectors, conf., Ahmedabad, India (Feb. 1981) 2−89441

particle velocity analysis
see also energy loss of particles; ion mobility; mass spectrometers; particle spectrometers
Brownian particle motion, RMS vel., holographic determ. *(Russian)* 2−75545
flow velocity distribution meas. in horizontal circular pipe using laser Doppler velocimeter *(Japanese)* 2−114956

particles, elementary *see elementary particles*

parton model
axion prod. in parton model 2−101674
baryon prod. in quark jets, recombination mechanism 2−101745
colour model, correspondence, derivation of nucleon gluon and sea quark structure functions 2−101720
deep inelastic polarised electroproduction model 2−54170
deep inelastic scattering multiplicities 2−107667
deep-inelastic lepton scatt., charge retention sum rules 2−64332
dilepton angular distrib. coeff. in different frames, geometrical methods 2−95791
Drell-Yan cross section, QCD corrections 2−54215
Drell-Yan multiplicities 2−107667
Drell-Yan pairs, transverse momentum distrib., QCD calcs., soft emission, nonabelian effects 2−84921
evolution probabilities, review 2−54056
gluon bremsstrahlung effects in large $p_\perp$ hadron-hadron scatt. 2−107703

parton model continued
gluon density, next-to-leading approx., QCD generalised parton model 2−101675
Gross-Llewellyn Smith sum rule from neutrino/antineutrino expts. 2−64313
hadron structure, pairing scheme in Yang-Mills gauge theory 2−84862
hadron-hadron collisions, lepton pair prod. process, kinematic anal. 2−95887
hadron-hadron interactions, charge distrib. in parton model 2−101679
hadron-nucleon interactions, diquark fragmentation functions determ. from pion prod. data 2−84920
hadron-nucleus interactions, space-time description based on DTU-parton model 2−95784
hadronic reactions, large perturbative corrections in soft-gluon limit 2−69423
hard hadronic collisions, large p_T jets at small angles 2−64287
hard processes, polarisation asymmetries predicted by QCD and parton model, review 2−69501
high energy perturbation QCD status 2−54061
high-energy hadrons, photons and leptons interactions with nuclei, quark-parton model 2−95796
hN→X, meson cumulative prod., quark-parton model *(Russian)* 2−74700
jet-initiating parton identification based on multiparticle fragmentation functions 2−79844
multiparticle prod. in dual fragmentation models 2−107637
nucleon valence structure functions, QCD and DTU parton model 2−84898
perturbative QCD, diagrammatic mass factorisation 2−84850
perturbative QCD, jet evolution beyond leading logarithms 2−64291
perturbative QCD, multiparton distrib. and fragmentation functions 2−95749
perturbative QCD and parton model, review 2−59109
perturbative QCD coupling, large N behaviour 2−113218
perturbative QCD parton jets, coherent effects 2−113224
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
QCD perturbative expansion, general props., review 2−79816
QCD phenomenology, mass depend. renormalisation group parameters implications 2−54063
quark-gluon jets, evolutions eqns. including quark and gluon confinement *(Russian)* 2−54114
quark-parton picture of the cumulative production 2−95795
single particle inclusive leptoproduction in QCD 2−101658
soft hadroproduction, parton roles 2−59116
soft parton model, high density events, dual fragmentation extension, multiple Pomeron exchange, 2−84868
soft QCD partons in jets, spectrum props. *(Russian)* 2−79845
strange and charm quarks in hadrons 2−107636
d, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
e^+e^-→qq̄g, ang. asymmetries and final state polarisation effects 2−69480
e^+e^-, 22, 34 GeV, hadronic annihilations, energy weighted ang. correl. anal. 2−101751
e^+e^-→ABX, A,B=hadrons, back-to-back jets in QCD, comparison with expt. 2−54186
e^+e^- annihilation, inclusive two-particle prod., nonleading Sudakov effects in QCD 2−54180
e^+e^- annihilation, partons and hadrons prod., quark and gluon jet models 2−54184
e^+e^-→hX, cut vertex formalism and higher-order QCD predictions 2−54181
e^+e^-→qq̄g, three-jet events T distrib. for heavy quarks *(Russian)* 2−54194
eN deep inelastic scatt., nucleon small bag model, R ratio 2−59124
ep, ρ^0 mesons electroproduction cross section 2−54178
hh, high energy scatt., massive lepton pair prod. in perturbative QCD 2−54220
hh→jets, transverse energy selection, in parton scatt. model 2−74717
hh→l^+l^-, Drell-Yan pairs, $p_\perp$ effects in QCD, hard partons 2−89944
hh→X, mechanisms, review 2−74659
K^+p→$K^+pK^+K^-\pi^+\pi^-$, 32 Gev/c, cross-section rel. to quark-parton model *(Russian)* 2−59188
μN, deep inelastic scatt., nucleon small bag model, R ratio 2−59124
μN, deep inelastic scatt., single hadron prod., Q^2, x and W^2 depend. meas. 2−107669
μn→X, struct. functions, QCD quark-parton model test 2−74652
μ^-N→$\mu^-\psi X$, QCD parton model test, photon-gluon fusion model *(Russian)* 2−95851
μp→X, struct. functions, QCD quark-parton model test 2−74652
n, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
$\nu(\bar{\nu})$p, hadronic system charge props. in quark-parton model, jets 2−79859
νN→νX, radiative corrections from Weinberg-Salam and quark-parton models *(Russian)* 2−113280
$\bar{\nu}_\mu$N, 10-200 GeV, inclusive charged current interactions, struct. functions, scaling, quark-parton anal. 2−101700
ν_μn(ν_μp), 0.4-10 GeV, charged-current interactions, total cross section meas. 2−54136
νp→X, struct. functions, QCD quark-parton model test 2−74652
p, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
p→π^+X, recombination model to measure sea polarisation 2−95776
pN, 70 GeV, hadron prod. in high-$p_\perp$ processes *(Russian)* 2−89989
pN, high energy, massive μμ prod., transverse momentum distrib. *(Chinese)* 2−79913
pN→φX, 70 GeV/c, inclusive prod. cross-section, rel. to quark-parton model *(Russian)* 2−59199
pp, heavy particle prod. cross section calc. using parton model 2−69496
p̄p, pp, multiplicity distribs. up to $\sqrt{s}$=540 GeV, dual parton model 2−101780
pp(p̄p), up to 540 GeV, rapidity spectra in dual parton model 2−107643
pp→ψX, inclusive prod. cross section, quark parton distrib. functions 2−74709
pp̄→$Z^0(\gamma)(W^\pm)$→$l^\pm$X, $\sqrt{s}$=540 GeV, QCD and direct lepton prod. 2−54216
πN→X, 50, 200 GeV, charge exchange, rel. to additive quark-parton model *(Russian)* 2−59196
π^-p→π^0n, large momentum transfer, quark-parton model *(Russian)* 2−59183
^{3}He(ê,e), quark spin correlations from parton model 2−107842

Paschen-Back effect *see Zeeman effect*

passenger traffic *see traffic*

passivation
concentrator solar cells, high performance, use of ion implantation processing 2−93919
corrosion fatigue crack growth, new characterising parameter 2−57487
corrosion fatigue crack initiation, theoretical considerations 2−78015
electrochemical solar cells electro hole recombination translation into chemical terms 2−111574
films, on Fe, in-situ Mossbauer studies 2−76864
glass, fused, passivation characts., rel. to avalanche breakdown characts. of diode structs. 2−57501
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
III-V semiconductor devices, hydrogenation/nitridisation passivation mechanism 2−77961
insulating film deposition technology, secondary passivation 2−62075
metals, anodic breakdown of passive films 2−77991
pitting, modelling of initiation *(German)* 2−83301
polymer film deposition in low press. reactive plasmas, characteris. and applics. 2−57287
power/voltage transformers, passivation methods for reducing catalytic effects of metals *(Rumanian)* 2−57522
steel, austenitic stainless, Mo alloyed, passivation, surface composition 2−77984
steel, austenitic stainless, stress corrosion cracking, intergranular, susceptibility effects of comp., thermodynamic model 2−93659
steel, austenitic stainless 303, current oscillations induced by presence of chloride ions 2−77974
steel, C, passivation using low energy Hg ion surface treatment 2−93677
steel, galvanised sheet, chromate passivated, ESCA obs. 2−111382
steel, mild, anodic behaviour in deaerated carboxylic acid solns. containing NO_2^-, Cl^- and NO_3^- ions 2−67607
steel, mild, cold worked, caustic SCC 2−99596
steel, mild, electrodissoln. and passivation in alkaline sulphide solns. 2−116588
steel, mild, Fe^{2+} reducing bacterium effect on passivity loss, anodic depolarisation mechanism 2−62257
steel, stainless, corrosion fatigue crack initiation mechanisms, influence of corrosion conditions 2−116594
steel, stainless, Cr-Ni, anodic oxide film, XPS study *(Chinese)* 2−62250
steel, stainless 2−88257
steel, stainless 304, sensitized, stress corrosion cracking in high temp. NaCl soln. 2−62255
thin passive films, comparison of AES and XPS anal. 2−78004
Ag-Pd alloys, potentiodynamic polarisation anal. in Cl soln. 2−57535
Al, pitting corrosion, current signature during early events 2−77994
Al-Cu thin film with polyimide passivation, electromigration 2−98503
Au, anodic corrosion obs. in conc. chloride solns. 2−93673
Cr-H_2O system, pH-potential diagrams, elevated temps. 2−105361
Cu, benzimidazole passivated, Auger anal. 2−88265
Cu electroplated Fe, passivity and its breakdown 2−77972
Cu, passivation, role of anions in film form. and breakdown 2−62251
α-Fe, corrosion and passivation, in H_2O_2 soln., Mossbauer invest. 2−116589
Fe, passivation film, automatic ellipsometry study 2−57524
Fe, passivation in organoaqueous media, solvent effects 2−83293
Fe, passive, pit form. in cathodic polarisation, anion effects 2−57516
Fe, passive film, AC electrochem. impedance study 2−77997
Fe, passive film, chemi-conductor model 2−88269
Fe, passive film formation in polyphosphate solns., XPS study 2−93672
Fe, passive oxide films in aq. soln., high resolution electron microscopy study 2−72891
Fe, pitting and pitting inhibition, in Na_2SO_4 solns. 2−105360
Fe-Cr, passive film, ESCA, AES and SIMS study 2−111366
Fe-Ni, passive film exam. by AES 2−57513
GaAs, anodic oxidation, island stage 2−111342
GaAs, donor defect, H passivation 2−87173
n-GaAs, high-purity, epitaxial, H_2 passivation of deep donor centres obs. by DLTS 2−98570
GaAs, hydrogenation/nitridisation passivation mechanism 2−77961
GaP:N LED degradation, surface corrosion 2−116559
(Hg,Cd)Te, photochemical oxidation 2−111345
$Hg_{1-x}Cd_xTe$, anodic oxidation mechanism, expt. study 2−72853
$In_{1-x}Ga_xAs_yP_{1-y}$ laser, facet degradation and passivation, AES study 2−90920
InP-P_3N_5 MIS devices with CVD P_3N_5 gate simulating film, elec. props. 2−99346
Ni electrodeposits, defect struct., TEM study 2−56387
Ni, passive oxide films, electrochem. and surface analytical techniques 2−88260
Ni-Fe (25 at.%), ESCA studies, anodic dissolution, passivation effects 2−83296
P_2O_5-SiO_2 glass passivation layers, cracks and Al corrosion 2−88234
Pb, corrosion in sea water 2−111360
Pb-acid battery, self-discharge and passivation obs. during storage 2−78200
Pb-acid battery electrodes, dry-charged, positive, influence of drying on thermo-passivation and its causes 2−105377
$PbSiO_3$ hydrophobic films, CVD prep. and microelectronic appls. 2−62070
Si detectors, passivated and ion implanted, performance and appl. 2−70050
Si p^+-n-n^+ high efficiency concentrator solar cells, fabrication and performance 2−93917
Si, polycrystalline, grain boundary passivation by H_2 2−76459
Si ribbon, H passivated struct. defects, EBIC study 2−66006
Si surface, passivation by Au and Ag monolayers, LEED, Auger and photoemission anal. 2−83259
Si thin films, D passivation of grain boundary dangling bonds 2−76478
Si:P crystal, γ-induced point defects, H passivation 2−103758
Si_3N_4, plasma deposited, characterisation by AES with N sputtering 2−110185
Ti, in 1M Cl solns., anodic oxidation and kinetics 2−105356
Ti, passive-active transition in H_2SO_4 2−111362

passive attenuators *see attenuators*

passive circuits *see passive networks*

passive filters
SAW filter, SH-type 1.6 GHz, for optical fibre transmission systems 2−81177

passive filters continued
wide-band linear phase SAW filter design using slanted transducer fingers 2−81176
$(Pb,Nd)(Ti,Mn,In)O_3$ piezoelectric ceramics, appl. to high freq. SAW filters 2−81178

passive networks
see also passive filters
nonuniform semi-infinite grounded grid, finite power soln. 2−77034

patents *see industrial property*

patient care
coronary care unit ECG monitoring 2−78485
dynamic orometer as aid to profoundly deaf in mastering speech reproduction patterns 2−78483
gait training device, auditory feedback of knee angle for amputees 2−105851
health care telecommunications, US Army example 2−88688
heated humidifiers for patients on ventilatory support, temp. control 2−88684
neonates, thermal management, clinical appraisal 2−105850
speech, relation to written text, synchronising device as lip reading aid for deaf 2−78484
telecommunication aids for elderly disabled population 2−68193
thrombosis, deep vein, periodic external compression as prophylaxis, numerical studies 2−105743
thrombosis, deep vein, periodic external compression as prophylaxis, expts. 2−105744
video aid to rehabilitation of standing balance 2−68192

patient diagnosis
see also biomedical ultrasonics; computerised tomography; electrocardiography; electroencephalography; medical diagnostic computing; radiography; radioisotope scanning and imaging; scanning radiography
acoustic imaging, recent developments, theory and practice 2−65437
arterial stenosis, on-line classification of severity by Doppler US signals anal. 2−117022
arthrography of the higher extremities *(German)* 2−68136
audio-vestibular diagnosis, automatic anal. of electro-oculographic records 2−73390
blood, luminesc. meas. using ultra-high sensitivity photon counting system 2−117043
blood, spin-lattice relax. time for healthy subjects and for patients with malignant blood disease 2−94155
blood vessel obstructions, quantification using NMR 2−83624
body surface isopotential maps, extraction of diagnostic information by spatial filtering *(Japanese)* 2−57918
body surface potentials, cardiac electromap semi-automatic processing rel. to LV time intervals 2−88682
breast cancer ultrasonic imaging 2−68089
breast diaphanography, colour rel. to blood conc. 2−111767
breast echography, high resolution, annular array system 2−68094
breast imaging methods, review 2−62703
cancer detection and treatment enhancement using passive microwave thermography and microwave heating 2−105813
cancer early detection by blood cell electrophoresis meas. using microcomputer 2−117127
capsular ligament lesions, X-ray diagnostics *(German)* 2−68135
cardiac examination, non-invasive methods 2−83695
cervical cells, differently stained, detectability and diagnostic output for quality assessment of classification 2−73313
computerised ECG, diagnostic interpretation and arrhythmia monitoring 2−68189
conference on phys. and engng. in medical imaging, Pacific Grove, USA (Mar. 82) 2−107017
CRT display advances in medical diagnosis 2−57891
data transmission via standard telephones 2−68191
dental radiographs, digitised image processing for improved diagnosis 2−68143
digital radiography, conf., Stanford, CA, USA (Sept. 1981) 2−94891
digital radiography and other imaging techniques, developments 2−100094
digital subtraction angiography, diagnostic importance and risk 2−100097
digitised images, unsharpness and contrast 2−111755
Doppler ultrasound monitoring of peripheral blood vessels 2−57880
ear, moddle, effusion diagnosis, comparison of otoscopy and tympanometry 2−117124
ECG diagnosis using digital differentiation 2−111810
ECG signal model with physically significant parameters 2−94020
ECG signal phase plane representation 2−94224
electrocochleography, use of miniaturized needle electrode 2−117126
EMG, classification by pattern-recognition method 2−83694
EMG, quantitative index independent of contraction force 2−111809
EMG signal frequency spectrum anal., clinical diagnosis appls. *(Italian)* 2−73389
Eustachian tube sonometry, classification of spectral patterns obtained 2−78402
functional diagnostic instruments, state of the art and future trends 2−62824
Hall effect transducer for apexcardiography and sphygmography 2−117125
heart disease, precordial LF vibr. meas. system, development of optical transducer *(Japanese)* 2−117047
image contrast sensitivity rel. to surround 2−73247
image interpretation, contrast-detail-noise approach to display conditions study 2−111757
image unsharpness rel. to threshold visibility of edges, bars and disks 2−73246
images, anal. automation 2−62702
imaging techniques survey 2−78400
integrated analog multiplexer for array transducers used in ultrasound diagnosis *(German)* 2−94133
intraocular melanoma localisation by laser-induced photoacoustic spectroscopic imaging 2−100181
knee joint, arthrography *(German)* 2−68137
laryngeal cancer, charactS. of pitch period and amplitude perturbations in patients' speech 2−100070
laser applications, conf., Germany (1981) 2−89467
laser uses in biomedicine, book 2−63765
LF hearing loss classification, high-pass masking 2−117030
lung, adventitious sounds, freq. anal., pulmonary diagnosis appl. 2−117028
lung water determination by NMR imaging expts. 2−105877

patient diagnosis continued
mammographic screen-film combinations, sensitometry methods for low energy radiography 2−62758
microwave imaging of cerebral edema 2−94153
microwave radiometric method for living tissue semiconductor props. meas., tumour location appl. 2−111818
microwave thermography, appl. to estimation of subcutaneous temp. profiles in human body 2−68105
mitral-leaflet closing vel., rel. to 1st heart sound spectra 2−83613
NMR, medical appls., review 2−111769
NMR, use in non-invasive assessment of cardiac metabolism 2−94152
NMR imager, Aberdeen, calibration for proton spin-lattice relax. time meas. 2−100088
NMR imaging, conf., Winston-Salem, USA (Oct. 1981) 2−74157
NMR imaging, possibilities and limitations 2−100086
NMR imaging, review of Aberdeen phys. and biological programme 2−78409
NMR imaging appl. *(German)* 2−94146
NMR imaging in medicine 2−88647
NMR imaging methods, review 2−117052
NMR medical imaging 2−83625
noisy images, phys. statistics theory for detectability of target signals 2−83539
noisy medical images, human signal detect. performance 2−111756
nuclear spin tomography for medical diagnosis *(German)* 2−68190
ophthalmologic diagnostics computer-aided quality assurance of US transducers *(German)* 2−88638
optical fibre applications to diagnosis, treatment and research 2−57884
optical instrumentation appl. in medicine, conf., San Francisco, CA, USA (March 1981) 2−94888
periapical bone lesions, dental radiographs, colour conversion for improved diagnosis 2−68142
phonopneumography, microcomputer-based analysis of recorded breath sounds 2−62826
photoelectronic-digital diagnostic radiology department 2−105822
photoelectronic-digital radiology, image acquisition components and system design 2−105824
photoelectronic-digital vs. film-based system for radiology, cost anal. 2−105823
photography, photoslitlamp, exposure settings determ. 2−88644
radiophysical method for detecting temp. anomalies of human internal organs 2−117050
review of medical imaging technology *(Japanese)* 2−105825
RF coil designs for NMR zeugmatographic imaging 2−117053
slit catheter system, new diagnostic method for limb compartmental press. meas. 2−83693
thoracic wall phonocardiogram recording and correlation 2−94129
tissue, human, Fe storage study using SQUID mag. susceptometer 2−62713
tissue, small displacements and deformations, US meas. 2−68096
TV monitor with electrochemical recording of thermograms, Soviet Ruby-3 model 2−62729
urodynamics, principles and methods of clinical investigations 2−94244
US diagnostic and therapeutic technology, status and development trends 2−62705
US in medicine, review 2−78404
US mass screening system for breast cancer detect. 2−78478
US scanner digital signal processing *(German)* 2−68082
US transducer appl., use of piezoelectric ceramics 2−88639
vascular flow of eye fundus, fluorometry and differential, luminosity integration as perfusion time function, angiographic photographs appl. 2−57890
vectorcardiogram:planarity, predilection planes and spatial gradient 2−100152
visual perception and the assessment of the quality of medical images 2−73307
visual psychophysics and medical imaging, conf., Brussels, Belgium (July 1981) 2−68973

patient monitoring
see also electrocardiography; electroencephalography
alpha wave detector, using 741 op amps for monitoring brain activity *(Spanish)* 2−100142
ambulatory ECG systems, freq. response and ST segment reproducibility evaluation methods 2−83688
ambulatory monitoring, algorithm to analyse ST segment changes 2−88677
ambulatory monitoring, review 2−83669
ambulatory patients, microprocessor based portable equipment for ECG on line recording and analysis 2−88675
apnea monitor, neonatal, multi-microcomputer based 2−62820
apnea monitors, 1982, review 2−105846
arrhythmia monitor, high performance microprocessor based 2−94240
artery contour transducer with compliant fingers and semiconductor pick-ups 2−62825
biomedical fluid flow-rate sensor for meas. and control 2−62830
blood pressure monitors, automatic, noninvasive: analogue/manual adaptation of Dinamap (TM) 2−83672
cardiac arrhythmia monitoring using Hewlett-Packard 78520A computer *(German)* 2−88670
comparator circuit for alarm using single op-amp 2−78461
computer applications, conf., Florence, Italy (Sep. 81) 2−79282
computerised ECG, diagnostic interpretation and arrhythmia monitoring 2−68189
contourography for on-line signal monitoring, CRT display, ECG ambulatory monitoring 2−68188
coronary venous blood flow, method for continous monitoring 2−83692
digital display medical temperature monitor *(Rumanian)* 2−62802
Dinamap non-invasive blood press. monitor, clinical evaluation in pre-term neonates 2−68178
ECG, high freq., notching during anaesthesia 2−62818
ECG, microprocessor-based portable anaesthesiology ST-segment analyzer 2−62823
ECG ambulatory tape analysis, Concordia high speed system, design for noise immunity 2−94231
ECG assembly for patient monitoring 2−105847
ECG waveforms, sampled analogue delay based QRS complex detector 2−62822
extracorporeal circulation, vital parameters monitoring, conf., Nijmegen, Netherlands (Mar. 1980) 2−74163

patient monitoring continued
foetal heart rate during labour, variability computation using microcomputer 2−100133
fracture site properties monitoring with external fixation, finite element and expt. analysis 2−62821
frequency-domain analysis of rheoencephalographic signals, brain blood vessels appl. *(Chinese)* 2−83665
gait patterns in children with cerebral palsy, angle-angle diagrams in monitoring and quantification 2−117099
Hewlett-Packard Model 78660A portable defibrillator-monitor 2−83698
inspiratory occlusion pressures of humans, breath-to-breath monitoring 2−78469
intracranial and cerebral perfusion press. meas. by fibreoptic applanation method 2−105845
knee function and patient mobility, continuous assessment technique 2−83673
left ventricular function, IR reflectance system for ambulatory characterisation 2−94151
left ventricular function monitoring, evaluation of a miniature CdTe detector 2−105818
oesophageal probe for heart and temp. monitoring during anaesthesia 2−68183
petit mal epilepsy seizure, microcomputer based detection and quantification 2−100134
phototherapy in newborn jaundice, meas. and monitoring 2−105814
pulmonary arterial pressure monitoring in ambulatory patients, using portable recorder 2−117122
pulmonary artery pressure monitoring using spectral analysis and Strand's algorithm 2−88678
respiration monitor for use with CT body scanning and other imaging techniques 2−105816
respiration monitoring, electrometric detectors, model and preliminary results respiratory monitoring appl. 2−117120
skin potential monitor and display system 2−68185
sleep-wake patterns characts. rel. to sudden infant death syndrome, spectral analysis 2−62819

patient treatment
see also biomedical ultrasonics; radiation therapy; surgery
amblyopia, clinical trials using rotation gratings treatment 2−62593
biofeedback, history and contemporary systems and uses *(Japanese)* 2−57920
biofeedback techniques in visual and ophthalmologic disorders treatment, review 2−78481
bone growth stimulation by elec. or mag. fields, historical development *(German)* 2−100081
cardiac defibrillation and cardiopulmonary resuscitation, conf., Lafayette, USA (Sep. 81) 2−53415
diathermy optimisation and cancer treatment using hot transfer principles 2−73198
electrical heart stimulation, low resistance endocardial electrodes study 2−78492
electro-osteo stimulation, techniques and clinical appls. *(German)* 2−117128
electrostimulators, drug dose dispensers and artificial organs, creation and development prospects 2−78486
electrostimulators for enuresis treatment 2−78493
heat therapy, local, for cancer, biology 2−88510
HF ventilation, promising new approach to mech. ventilation 2−88685
hyperthermia, whole-body, simulations of various modes in normal subjects 2−93980
muscle stimulation, over-the-skin, elec. parameters 2−57921
nerve stimulators, transcutaneous, for pain relief, elec. output characts. 2−100154
regeneration of lost limbs by electrical stimulation 2−88687
spasticity modulation: prolonged suppression of a spinal reflex by elec. stimulation 2−88531
stimulation therapy, elec. current field models with four electrodes in middle-freq. range 2−88642

pattern classification *see pattern recognition*

pattern recognition
see also character recognition; computerised pattern recognition; speech recognition
automatic data classification in mass spectroscopy 2−53799
cell tracking, modelling and minimisation approach 2−73208
cellular specimens, pattern recognition in optical microscopy *(Japanese)* 2−62715
channel flow, shear turbulence, coherent struct., pattern recognition 2−70929
closed contour extraction application to meteorological pictures 2−88975
coherent optical processor, freq.-multiplexed, intensity moment computation, design 2−114198
colour-coded character-recognition expt. with wavelength-triplexed refl.-type holographic filters 2−75536
correlation function, effect of transparency characts. 2−108821
double correlation technique for pattern recognition and counting 2−108816
electro-optical image quality summary measure improvement 2−108802
EMG, classification by pattern-recognition method 2−83694
feature extraction, appl. of bounded variation quantity 2−63133
gestalt-guided heuristic boundary follower for X-ray images of lung nodules 2−73345
image recognition, optical transformation for feature extraction *(Russian)* 2−85897
image recognition random background noise, energetic metric for optical signal discovery *(Russian)* 2−85898
IMAGIC, interactive image anal. software system for electron micrographs 2−71301
landcover classification, NOAA-6 AVHRR digital data 2−106154
least-squares linear mapping technique for image classification, optical implementation 2−85902
linear pattern elements, recognition unit *(Russian)* 2−96849
local surface orientation inference from motion fields 2−94051
measurement for and by pattern recognition 2−80908
optical information processing techniques, fundamentals and applics. 2−114210
optical multi-characteristic pattern recognition method *(Chinese)* 2−96840
optimum circular symmetrical filters, optical pattern recognition appls. 2−70658
parameter extraction by holographic filtering 2−90818

pattern recognition continued
polynuclear aromatic hydrocarbons, luminesc. and fluoresc. spectra, pattern recognition appls. 2−90596
radiographs, piecewise linear detection of small thin objects 2−57903
reality sensation estimation in picture patterns construction *(Japanese)* 2−105704
review of optics developments 2−55059
seismic pattern recognition, syntactic approach 2−62903
space-invariant pattern recognition, hybrid optical-digital image processing 2−108811
statistical pattern recognition correlators, principal-component imagery 2−55087
tachographic gait records of normal and lower extremity handicapped human subjects, pattern recognition 2−100036
techniques for earthquake and nuclear detonation discrimination 2−63145
timbre quality appraisal of musical instruments using pattern-recognition theory 2−70788
translation invariant transformations, fast, for pattern and character recognition *(Slovak)* 2−55080
two-dimensional Walsh transform system using a fly's eye lens for pattern recognition 2−114204
US NDT data, assessment of adhesive props. using pattern recognition anal. 2−62333

Patterson diagrams *see crystallography; X-ray crystallography calculation methods*

PCILO calculations
aliphatic molecules, rot. isomerism, PCILO calcs. 2−54983
4-(9-anthryl)-N,N-dimethylaniline, intramol. charge transfer, INDO/S CI and PCILO calcs. 2−90688
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
extended PCILO method 2−108388
furanose ring conformers in nucleic acids, pseudorot. interconversion, PCILO computations 2−102385
isobutene+Na^+ interaction, semiempirical ab initio calcs. 2−114064
long chain molecules, intermol. interactions, PCILO and INDO calcs. 2−75186
maleic acid anhydride dimer, geometry, PCILO calcs. *(German)* 2−85556
20-oxopregnase hormones, configs., PCILO calcs. 2−102387
periodic mol. systems, ground state energies, charge distrib., PCILO method 2−70132
propionic acid dimer, intermol. interactions, PCILO and INDO calcs. 2−75186
TBBA, conformational study *(French)* 2−96761
TBBA, theoretical conformational study 2−102657
$NH_2BH_2CO_2H$, and dimer, geometry, moments, pot., ab initio calcs. 2−85546

p.c.m. *see pulse-code modulation*

peaking circuits *see differentiating circuits*

Peierls instability
cadmium platino-oxalate, compaction cond. study 2−87246
CDW and Peierls transition in one-dimensional conductors *(Japanese)* 2−82257
commensurate one-dimensional conductor, interchain electron hopping influence 2−66539
DBTTF-TCNQF4 charge transfer salt, struct. high temp. phase transition obs. 2−109778
dimerized condensate, IR activity 2−61910
dislocation cores, Peierls reconstruction 2−65994
exactly soluble discrete Peierls models *(Russian)* 2−104219
Heisenberg antiferromagnetic chain, alternating, excitation spectra 2−92955
Heisenberg spin-Peierls system in mag. field, commensurate and incommensurate states 2−92952
Hubbard Hamiltonian, mag. and electronic Peierls transition, intersite-dependent transfer 2−66542
Hubbard model for half-filled band, phase transitions 2−87146
lead platino-oxalate, compaction cond. study 2−87246
metals, quasi-one-dimensional, displacive transitions, Peierls transitions 2−81955
one-dimensional conductor, Peierls transition and electron localisation by random pot. 2−56554
one-dimensional conductor, Peierls transition and electron localisation in random pot. 2−110336
one-dimensional disordered system with Peierls transition, elec. cond. *(Russian)* 2−61451
one-dimensional electron-phonon system, CDW dielec. response in precrit. region 2−110251
one-dimensional Heisenberg antiferromagnet, antiferromag.-spin Peierls state phase diagram calc. 2−87469
one-dimensional solids, structurally unstable, Peierls and spin Peierls transitions 2−98632
organic conductors and superconductors, review 2−115734
Peierls system, 1-dimens., functional integral method, diagrammatical approach 2−115676
phonon dynamics in Peierls systems, theory 2−104266
polyacetylene, bond alternation, electronic correl. effects 2−56455
polyacetylene, Peierls system model, equivalence to HF model on virtual equidistant lattice 2−79496
quantum fluctuation effects, Monte Carlo study 2−104253
quasi 1-D system, correlation functions and Peierls instability 2−110334
quasi-one-dimensional electron-phonon system, first order calc. of phonon propagator 2−110267
rubidium platino-oxalate, compaction cond. study 2−87246
TCNQ salt, $DEM(TCNQ)_2$, ESR studies 2−77362
TCNQ salt, $DMM(TCNQ)_2$, spin-Peierls transition 2−104255
TCNQ salt, KTCNQ, phase transition, ^{14}N NQR study 2−93059
TCNQ salt, TSeF-TCNQ, phase transitions and acceptor-stack doping 2−77134
$TMTSF_2ReO_4$, metal-insulator transition 2−71867
$(TMTSF)_2Z$, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
$(TMTTF)_2X$, ($X=BF_4^-$, ClO_4^-, PF_6^-), phase transition, IR study 2−99113
$(TMTTF)_2X$, IR study of electron-mol. vibr. interactions and phase transitions 2−93187
TMTTF-bromanil complex, phase transition, IR study 2−99113
TTF-TCNQ, far IR transmission spectra 2−116193
TTT complex, TTT_2I_3, metal-dielectric phase transition temp., dopant effects 2−76927

Peierls instability continued
FeRh, electronic band struct., and mag. order, antiferromag.-ferromagnetic transition 2−82595
$K_{1.75}Pt(CnN)_4.1.5H_2O$, electronic props. and Peierls transition, polarised refl. study 2−82858
$NbSe_3$, dielectric function, low freq. noise meas. 2−92497
$NbSe_3$, nonlinear dielec. props. below Peierls transition at 145K 2−92496
U, martensitic transform. effect on supercond. 2−110526

Peltier effect
convertor operation at small temp. differences, theory 2−112887
cooling device for X-ray powder diffractometry *(French)* 2−81631
liquid phase electroepitaxy, binary systems, anal. of growth kinetics 2−67227
liquid phase electroepitaxy, interface stability enhancement, theoretical anal. 2−72636
thermoelectric cooling in medicine, Peltier effect based devices 2−78474
Si, thermoelectric effects, X-ray interferometry study 2−98682

PEM effect *see photoelectromagnetic effects*

Pendellosung fringes *see X-ray crystallography*

pendulums
see also time measurement
composed torsion pendulums, comments on drawbacks in theory 2−64020
coupled pendulums, teaching 2−68989
internal friction in solids, torsion pendulum meas. technique 2−98197
low-noise RF capacitance bridge transducer for studying displacement of a pendulum 2−95354
rigid double pendulum, Newtonian formulation 2−94946
torsion, resonant systems Q-factor and internal friction meas. using digital meter 2−58813
torsion pendulum for studying phase transitions in ferroelastic crysts. 2−107319

penetration depth (superconductivity)
A15 superconductors, atomic disorder rel. to superconductivity 2−56769
anomalous penetration of EM field in superconductor in external stationary mag. field *(Russian)* 2−104538
composite superconductor, penetration depth near transition 2−71869
differential cure of T_c (crit. temp.) with respect of λ (penetration depth) *(Chinese)* 2−98779
inhomogeneous state under nonequilib. conditions 2−72112
surface impedance and effective penetration depth, roughness effect 2−115948
thin film, penetration depth, expt., temp. depend. calc. 2−61650
Al, granular, mag. susceptibility meas., grain clustering near T_c 2−61651
$La_{70}Cu_{30}$, amorphous, penetration depth, metallurgical phase separation 2−87446
Nb-NbN double-layered electrodes in Josephson tunnel junction 2−77233
Nb_3Ge films, critical mag. field temp. depend. *(Russian)* 2−61673
NbN-Nb double-layered base-electrode Josephson junctions, single flux quantum memory cells fabric 2−82531
Nb_3Sn, surface impedance, critical temp. 2−98796
$(Nb_{0.99}Zr_{0.01})_3Sn$, supercond., mag. field penetration depth, surface treatment effects *(Russian)* 2−115947
Pb-Zn-Pb superconductor-normal-superconductor junction, self-field effects 2−110540
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516

Penning ionisation
acenes, photoelectron spectra, CNDO/S assignment calcs. 2−80479
anilines, substituted, Penning ionisation, methyl group steric shielding effect 2−85805
atoms, closed shell, symmetry considerations in Penning ionisation 2−75402
CdII line spectrum emission from semiconductor CdS single cryst., Penning effect 2−82929
gas-discharge lasers, noise, influence of the Penning process 2−114242
hot cathode arc discharges initiation by electron confinement in Penning and magnetron configurations 2−91701
inert gas atoms or ions+alkali metal atoms, thermal energy collisions, spectroscopic study *(German)* 2−114970
ion storage for high precision spectroscopy 2−90741
naphthalene, surface photooxidation, Penning ionisation electron spectroscopy and UPS study 2−67595
rubrene, surface photooxidation, Penning ionisation electronic spectroscopy and UPS study 2−67595
sputtering source, HIM-10 type, appls. *(Hungarian)* 2−93419
Ar-Ne mixture 2−103267
Cu (100):K, surfaces, metastable de-excitation spectra 2−82197
$He-Cd^+$ positive column laser discharge Cd(II) excited states, electron and Penning excitation rates 2−60817
$He-N_2$ afterglow, Penning ionisation, charge transfer, kinetic model 2−96716
$He-N_2$ nuclear-pumped laser medium, kinetics model development and testing 2−96880
Li-Cs plasma, dense, supercooled, recomb. and Li level population calcs. 2−81448
$N_2+He(2^3S)$, Penning ionis., intermediate Rydberg states obs. 2−65082
Ne-Ar AC discharges, existence regions and discharge modes *(German)* 2−109614
Ni (100):K surfaces, metastable de-excitation spectra 2−82197
Rb+Rb(5p)(Rb(5s)), ion form. from (8s) state 2−80795
Rb*+Rb, collisional ionis. 2−90681

penny-shaped cracks
cylinder, elastic, infinitely long, elastic wave interaction with penny-shaped crack 2−91303
cylinder with finite size, approx. analytical soln. for surface and embedded cracks 2−65523
elastic solid, infinite, compressible, finitely deformed, penny-shaped crack 2−97440
fibre reinforced composites, short unidirectional fibres, prediction of failure modes 2−66114
infinite body of power law material 2−91338
isotropic elastic solid containing penny-shaped crack, stress distrib. 2−75898
propellants, high energy, fracture and fragmentation during dynamic loading 2−72789
sphere, elastic with annular, edge, or penny shaped crack, singular stresses 2−109249

pentary algebra *see algebra*

perception (hearing) *see hearing*

percolation
see also lattice theory and statistics
Anderson localisation, percolation and 1 to 3D crossover, metal insulator transition 2−92470
anisotropic bond percolation by position-space renormalization group 2−69104
anisotropic triangular lattice, bond-site percolation, real space renormalisation group study 2−95255
anisotropic triangular lattice, bond-site percolation, series anal. 2−95254
applications of theory to real world, liq. water problem 2−63938
Baxter-Wu model, random, duality relations and replica method 2−61728
Bethe lattices, conducting backbone 2−74348
bond percolation, randomly directed, position space renormalisation group approach 2−107263
bond percolation and the Yang-Lee edge singularity problems in three dimensions 2−107255
bond-disordered media, electron diffusion 2−56536
Cayley tree, combined site and bond percolation 2−77310
cluster growth on square lattice, simulation using stochastic model 2−101345
cluster radius at percolation threshold, position space renormalisation group study 2−84546
clusters, scaling props., lattice animal theory, review 2−63934
composite material, model system for obs. of percolation effects *(French)* 2−77012
composite thin film, granular, metal-insulator transition 2−66452
confluent singularities, appl. to 2D percolation 2−101349
continuous media percolation and effective dielec. const., geometric effects 2−104331
correlated, position-space renormalisation group 2−101339
cytochrome c_3 anhydrous film, percolative elec. cond. obs. 2−99875
dense random packed hard sphere Bernal model, site percolation critical conc. 2−79497
density of states on fractals, Green's function method calc. 2−107266
dilute s-state Potts model, Migdal-Kadanoff renormalisation approach anal. 2−95256
diode-resistor network, directed percolation, wetting velocity, crit. conc. 2−74342
diode-resistor network, percolation, crit. probability 2−74341
directed, cell-to-cell position space renormalisation soln. method 2−63922
directed, percolation cone shape, cond. exponents, high-dimensionality limit 2−74343
directed branched polymers and directed percolation Flory approx. 2−85852
directed lattice animals and percolation, Flory theory 2−79482
directed percolation, Domany-Kinzel model, random walk formulation, exact results 2−63926
directed percolation clusters, random walks, crit. exponents 2−63915
disordered semiconductors, strong-field hopping cond., directed percolation theory 2−77073
disordered solid, Hall effect calcs. using percolation theory model 2−104334
disordered system, two-component, topology below and above percolation threshold 2−66517
disordered systems, localisation, physical picture, exact results 2−104316
disordered systems, low freq., cond. due to variable range hopping, expt. vs. theory 2−66557
disordered systems, metal-insulator and supercond. transitions, polarisation catastrophe, freq. depend. 2−71869
disordered systems, percolation theory and transport coeffs. 2−66516
disordered systems and localisation, conf., Rome, Italy (May 1981) 2−63750
ferromagnet, dilute, spin wave excitations, fractal effects 2−72180
finite-size percolation networks, elec. cond. 2−101356
fractal lattices, percolation and crit. phenomena 2−63937
galaxies, evolution, stochastic models, directed percolation anal. 2−74091
granular superconductors, resistivity minima origin 2−56772
Heisenberg ferromagnet, dil. anisotropic, correl. lengths and transition temp., renormalisation group scaling methods 2−66863
honeycomb and square lattice, site percolation threshold 2−95257
hopping conductivity, AC, below threshold, random walks on bond percolation clusters 2−87212
hopping Hall mobility; percolation theory 2−104333
hyperscaling and crossover exponents near the percolation threshold 2−107261
infinite clusters in percolation models 2−58727
Ising model with random sublattice vacancies, phase diagram 2−95273
Ising models, frustrated, order as consequence of disorder 2−66856
isotopically mixed crystals, exciton dynamics, mode-coupling theory, percolation thresholds 2−87154
isotropic heterogeneous system, conductivity, mathematical simulation 2−107265
itinerant ferromagnets, random, percolation limit, mean field scaling relations 2−66756
laser speckle patterns, max, min and saddle points, appl. to percolation threshold 2−102719
lattice animals: $d_c=8$ for trees 2−112835
localisation model, exact solution 2−98593
Lorentz model, d-dimensional, diffusion and localisation 2−63901
magneto-transport in the two dimensional Lorentz model 2−87211
magnets, dil., with long range percolation, width of crit. region 2−92913
minimal subtraction method, percolation scaling amplitude ratio correction 2−107262
Monte Carlo renormalization group study of the percolation problem of discs with a distribution of radii 2−63910
nonlinear circuit elements, percolation theory 2−107267
one-dimensional bond-percolation model, AC hopping cond., effect of periodic boundary conditions 2−61430
one-dimensional model, AC cond., effect of periodic boundary conditions 2−61429
one-dimensional model, hopping transport 2−61431
one-dimensional percolation problem, transfer-matrix approach 2−101338
one-dimensional random chains, hopping cond. 2−87236
polyacetylene:AsF_5, solitons, inhomogeneous doping, EPR, DC cond. 2−61531
polyacrylonitrile:I thin film, I-V characts., induced percolation 2−110513
polychromatic, correlated, Potts model, q-state, clusters and droplets 2−74344

percolation continued
polymer gels, solvent effects, statistical mechanical model 2−91754
Potts ferromagnet, anisotropic planar, phase diagram 2−110588
Potts model, dil. s-state, geom. struct. and thermal phase transition at percolation threshold 2−63936
potts-model formulation of continuum percolation 2−112838
pyropolymer, semiconducting, heterogeneous system, elec. cond. 2−115745
random cluster model on a Cayley tree 2−74336
random lattice network, directed and diode percolation 2−63928
random media, effective cond., percolation problem, effective medium theory improvement 2−107274
random metal-insulator mixtures, percolation processes 2−66453
random mixture, high connectivity, rel. to 2-cluster percolation, universality class 2−79494
random resistor networks, threshold behaviour 2−77006
random resistor networks with anomalous distrib. of conductances, non-universal threshold behaviour 2−77007
random resistor-diode networks, elec. cond. and supercond. 2−82307
randomly disordered systems, elec. cond., CPA study for various percolation models 2−56539
real-space renormalisation group, appl. to directed bond percolation 2−58723
renormalized $(1/\sigma)$ expansion for lattice animals and localization 2−101347
ruby, Anderson localisation and transition, off-diagonal dipolar interactions 2−87148
selective site percolation, prob. renormalisation group study 2−101343
site percolation, high-density, on real lattices 2−95262
site percolation thresholds 2−95267
sol-gel transition, critical behaviour percolation, kinetic model 2−105481
spin glasses, exptl. techniques, review 2−66842
spontaneous interparticle percolation of particles falling through bed of larger particles 2−79508
square-lattice percolation clusters, surface tension, Monte Carlo simulation 2−69105
superconducting critical current density, percolation correl. length 2−66453
superconducting glass, diagonally disordered, supercond. transition study *(Russian)* 2−61638
superconductors, ferromag., percolation magnetoresist. 2−56774
three dimensional percolation clusters, surface struct. above p_c 2−53682
transition metal alloys, ferromagnetism and spin glass ordering, near percolation threshold 2−72197
two-dimensional continuum system, percolation threshold, computer study 2−104332
two-dimensional electron gas, Hall resistance quantisation 2−104330
two-dimensional percolation, susceptibility exponent 2−74335
two-dimensional percolation and lattice animals, phenomenological renormalisation appl. 2−63912
two-dimensional system, finite size scaling and phenomenological renormalization 2−63935
n-vector model, geom. struct. and thermal phase transition at percolation threshold 2−63936
water, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
water-ethanol, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
A, superconducting granular, mag. susceptibility meas., grain clustering near T_c 2−61651
Ag-Fe(16.8 wt.%), mag. double transition, Mossbauer study 2−87503
Al-Al_2O_3 films, cluster size distrib. near metal-insulator transition 2−82169
Au-MgO cermet thin films, cosputtered, reflectivity meas., percolation threshold and grain size effects 2−82942
Au-SiO_2 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
Bi-SiO_2 cermet films, elec. and optical props., H addition effects 2−82505
Cr-Cr_2O_3, black, selective solar film, DC resist. and optical consts. meas., percolation obs. 2−116845
CrB_2 based thick composite films, elec. cond. mechanism 2−72041
$ErRh_4B_4$, percolation magnetoresistance in ferromagnetic superconductors 2−56774
InGe, percolating supercond., upper crit. field 2−77243
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
Se-Te, liquid, thermodynamic and elec. props., inhomogeneous struct. model 2−98314
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
Si:H, amorphous, time resolved photoluminescence, quenching and carrier mobility 2−104949
Si:P, high conc. diffusion, vacancy percolation 2−82028
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
TiB_2 based thick composite films, elec. cond. mechanism 2−72041
W-Al_2O_3 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
$ZnCl_2$ solutions in D_2O, local order and dynamics, small angle neutron scatt. study 2−55828

periodic system of elements
see also elements (chemical)
broken supersymmetry, rel. to periodic table 2−59675
monotonic trend of periodicity, Thomas-Fermi theory 2−70120

peripheral models
see also multiperipheral models
broken SU(3) symmetry from quark interchange, one boson exchange model 2−101651
NN T=1 collisions, peripheral inelasticities 2−113289
one pion exchange nucleon-nucleon potential 2−54265
pion in nuclear physics and QCD 2−54065
two-meson states, with arbitrary ang. momenta, exchange operator matrix elements 2−74671
A, effective mass in nuclear matter, A-N one boson exchange 2−79963
NN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
np→pn, 790 MeV, analysing power, spin transfer, charge exchange in OPE 2−64337
pd backward scatt., relativistic nucleon exchange 2−107681
pd→pd, 0.6-2.7 GeV, backward scatt., rel. to one nucleon, one pion exchange 2−95865
pp→ΔN, single-Δ prod. contrib. to inelasticity parameters 2−74701

peripheral models continued
$\bar{p}p \rightarrow \Delta(1236)\bar{\Delta}(1236)$, 7.2-12.0 GeV, one pion exchange anal. 2−59177
pp→pp, 6, 12 GeV, forces, exchange mechanisms, eikonals 2−79907
$pp \rightarrow pp\pi^0(pn\pi^+)$, 1000 MeV, secondary nucleon polarisation in one pion exchange model 2−59205
πN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
$\pi p \rightarrow \pi^+ n$, sum rules, rel. to poor man's absorpt. model 2−59162
$\pi^- p \rightarrow D^{*-} X$, 16 GeV/c, peripheral prod. cross-section 2−64344

peripheral speed *see velocity*

peristaltic flow
two-dimensional flow, Navier-Stokes eqn.-soln., finite difference method 2−114901
viscous liquid flow in bent tube undergoing deformation 2−60645

Permalloy
film, Brillouin scatt. from magnons, Stokes-anti-Stokes asymm. 2−116202
film, domain mapping, off-axis Fresnel holographic method in TEM 2−113070
film, domain struct. and magnetisation switching *(Russian)* 2−104668
film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
film, uniaxial, relax. time under nonlinear ferromag. reson. conditions *(Russian)* 2−61771
film, wall clusters and domain structure conversions 2−82628
laminated films, magnetoresistance, mag. field detection method 2−71949
magnetoresistor mag. field sensor 2−112933
overlay interaction with mag. bubble, interaction energy determ. method 2−87564
Permalloy-FeMn system, uniaxial anisotropy temp. depend. 2−72192
photographic films, with band domains, dependence of energy characts. on time structure of registered radiation *(Russian)* 2−53877
small magnetoresistive elements, domain formation 2−72305
soft mag. props., appls. in electronic ultravacuum equipment 2−69299
thin film, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625

permanent magnet motors
DC, new high energy permanent magnets props. related to DC motor parameters 2−77319
motion picture equipment discrete electric drives structure and characts. *(Russian)* 2−89842

permanent magnets
Alnico magnets, anisotropic, model for field computation 2−82638
ALNICO steel, mag. props. *(Chinese)* 2−72262
DC permanent magnet motors, new high energy permanent magnets props. related to DC motor parameters 2−77319
rare earth-Co magnets, demagnetization curves, 300 to 1000K 2−72293
rare earth-Co matrix magnets heated in dry air, thermal stability and temp. coeffs. 2−72292
rare earth-Co permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
Au-Fe-Co system, for ornamental applic. 2−56890
$Ce_2Co_{17-x}Zr_x$, struct. and mag. props. 2−61741
Co segmented rare earth multipole magnets, perturbation effects 2−102296
Co-Fe-Cu-Hf-Sm, permanent magnet, microstruct., SEM study 2−92224
Co-Fe-Cu-Zr-Sm(-Ti), permanent magnet, microstruct., SEM study 2−92224
CrCoFe permanent magnet, powder metallurgy processing 2−72652
Fe-Cr-Co permanent magnets, mag. props. and Mossbauer effect 2−72282
Fe-Cr-Co permanent magnet alloys, coercivity mechanism obs. 2−92971
Fe-Cr-Co-Mo-Ti (24, 15, 2, 0.5 wt.%), magneto alloy, machinable, microstruct. and props. *(Chinese)* 2−72261
Fe-Cr-Co-Nb-Al alloy, high-coercivity, microstruct. rel. to mag. props. 2−111333
$R_2(Co-M)_{17}$ (R=rare earth), residual induction, mag. props., permanent magnets appl. 2−82662
Sm-Co permanent magnets, prep. by liq. phase sintering *(Chinese)* 2−62088
Sm-Co-Cu-Fe-Zr, permanent mag., struct., sintering and annealing effects *(Russian)* 2−88226
Sm-transition metal alloys, domain struct. characts. appl. to phase anal. 2−72253
$Sm(Co, Cu, Fe, Zr)_{7.4}$ permanent magnet, precip. hardened, microstruct. 2−71657
$Sm(Co, Cu, Fe)_{6.8-7.2}$ cast hard mag. alloys, fine struct. after heat treatment 2−99465
$Sm_2(Co,Cu,Zr,Fe)_{17}$, coercive force due to domain wall pinning, theory 2−66864
$Sm_2(Co,Fe,Cu,Zr)_{17}$ sintered permanent magnets, coercive force and struct., Sm content effect 2−72278
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2−72284
$Sm_2(Co,Mn)_{17}$, domain struct. parameters 2−72252
$SmCo_5$ permanent magnet, coercivity 2−72284
$SmCo_5$ permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
$SmCo_5$ sintered permanent magnets, fine struct. and mag. props. *(Russian)* 2−104664
Sm_2Co_{17-z}, struct. and mag. props. 2−61741
$Sm_2(Co_{1-x}Fe_x)_{17}$, magnetisation reversal and coercive force, comp. depend. 2−72279
$Sm(Co_{0.69}Fe_{0.22}Cu_{0.07}Zr_{0.02})_{7.22}$, magnetic hardening 2−72283
$Sm_2(Co_{1-x}M_x)_{17}$, M=Mn, Zr, struct. and mag. props. 2−72280
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2−72171
$Sm_x(Er,Gd)_{1-x}Co_5$, mag. props. and mag. induction temp. depend. meas. *(Russian)* 2−98914

permeability
alveolar epithelial solute and water transport props., effects of lung inflation 2−111646
blood-brain barrier, microwave hyperthermia-induced alterations, rat expts. 2−88589
blood-brain barrier permeation in rats during exposure to 2450 MHz microwaves 2−111734
dental enamel membranes, impedance as a predictor of permeability, meas. method 2−117168
diamond, penetration of liq. metals, high static press. 2−82082
dielectric-conductor mixtures, permeability meas. in microwave range *(Polish)* 2−53781
ferromagnetic and antiferromagnetic cryst., reflectivity spectra, permeability tensor, magnons 2−77473
fine-pored filter, gas diffusion, laser radiation control effect 2−97649

permeability continued
gas permeability of powders solidified at high and ultrahigh cooling rates 2−67235
geologic materials, laboratory meas. of ultralow permeability 2−106364
magnetisable fluids, interface stability between moving layers 2−86321
membrane, with selective skin, transient diffusion 2−88376
poly(2,6-dimethyl-1,4-phenylene oxide) in soln., conformational behaviour, sedimentation and permeabilities 2−75479
polystyrene film, biaxially oriented, glassy, gas transport, effect of tensile strain, time and temp. 2−61205
porous saturated media, eqns of motion 2−86330
red cell Na^+ permeability, hypertension-associated, racial differences 2−88526
rock permeability meas., transient method, parametric analyses 2−58160
steel, Cr-Mo type, plastic deform. influence on H transport 2−71728
steel, permeation of H, surface oxides and tempering treatments influence 2−93680
steel, reinforcing, corrosion cracking, role of H 2−67653
steel, stainless, permeability of H, protective coatings influence 2−67652
tracheal epithelium, canine, nonelectrolyte permeability 2−78305
viscous fluid, flow through porous media, permeability calcs. 2−103206
CO_2, permeability through cellulose acetate membranes *(Spanish)* 2−86307
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Fe, corrosion cracking, role of H 2−67653
α-Fe, high-purity, intrinsic diffusivity of H 2−110042
Fe, lattice dilation by dissolved D 2−104066
Fe-Si, corrosion cracking, role of H 2−67653
H, through Pd alloy membrane, impurity effects 2−110044
^3H, permeation rates for fusion reactor materials 2−75000
^3H permeation through metallic materials in HTR *(German)* 2−90240
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
$PbO-B_2O_3$ glasses, microstruct. characts. by phys. prop. meas. 2−91800
V, hydrogen permeation, surface impurity layer effects 2−85241
V-Zr-O, phase equilibria, penetration of Li at 670K 2−72681

permeability (magnetic) *see magnetic permeability*

permeability measurement (magnetic) *see magnetic permeability measurement*

permittivity
see also electric strength
alamethicin in octanol/dioxane, voltage-dependent pore former, struct. and dipolar props. 2−111616
aligned nematics, dielec. spectrosc. and mol. theory 2−65853
alkali halide, deform. dipole model analysis using compressible ion theory 2−57000
alkali halide, static dielec. const. and static polarisability, vol. depend. 2−57001
alkali metal halides, dielectric const. press. derivative 2−104797
n-alkane liquids, complex permittivity, far IR absorpt. spectra study 2−93098
n-alkanes, liq., permittivity, relax. times, microwave dielectric losses 2−61827
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2−76282
amines, primary, dielec. permittivity and relax. meas. at microwave freqs. 2−116116
animal tissues, in vivo props. at radio and microwave freqs. 2−94018
antimonates, $R_3Sb_5O_{12}$ (R=Sc,In,Ln,Pr,Tb,Yb), cryst. struct. and dielec. props. 2−109755
aqueous ionic solutions, static permittivities 2−82769
benzenes, nitro-substituted, IR attenuated total reflection spectra 2−104866
biaxial crystals, surface polarisation waves 2−72400
binary liq. mixtures, with upper crit. point, dielec. relax. meas. 2−72413
binary solids, dielec. const. and heat of form., ion depend. dielec. model 2−104796
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
butanol solution in n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
4-n-butyl-4′-n-dodecyloxyazobenzene, liq. cryst. phase transitions, dielec. relax. 2−116114
ceramics, low freq. dielectric props. *(Chinese)* 2−104788
cetyl alcohol, solid form, dielec. behaviour and mol. rot. 2−66980
cholesteryl 2,2,3,3-tetrafluoropropionate, crystalline, phase transition, dielec. const. and permittivity study 2−72399
clay, kaolinitic, dielec. props., firing temp. effect 2−99020
continuous media percolation and effective dielec. const., geometric effects 2−104331
CPA application, effective dielec. const. calc. for dielec. with inclusions 2−65456
18-crown-6, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
18-crown-6-alkali complexes, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
cubic compounds, binary and ternary, effective ionic charges rel. to optical dielec. const. 2−57005
cubic crystal, local field factors 2−110746
p,p′-cyano-n-pentylbiphenyl/p-p′-dialkylazoxybenzenes, intermol. forces, dielec. meas. 2−76290
1-cyanoadamantane, compact cryst. and powder, dielec. spectra, vol. fraction dependence, expt. and theoretical study 2−99022
cyanophenyl-thiobenzoate, dielec. const. 2−72401
4-n-decylphenyl-3′-methyl-4′-(4″-nitrobenzoyloxy)benzoate, liq. cryst. props. 2−76293
α,ω-dibromoalkanes, nonlinear dielectric effect 2−61812
dielectric slab, heating under EM illum. 2−109176
dielectrics, electromechanical resonances for study of linear and nonlinear props. 2−87682
diethylsuccinate in dioxane-H_2O mixtures, kinetics of acid-catalysed hydrolysis, dielec. const. effect 2−83382
dimethylsulphoxide, solution, dielectric study of mol. interactions 2−99016
dipolar fluids, computer simulation, pair correl. function, permittivity calcs. 2−65832
discotic mesophase, Freedericksz transition, phys. parameters meas. 2−76286
disordered media, macroscopic props., conf., New York, USA (June '81) 2−94915
disordered two-phase materials, effective dielec. const., upper and lower bounds 2−66969

permittivity continued
dispersion meas. method by time domain spectroscopy, appl. to dielec. relax. study *(Japanese)* 2−116113
L-DOBACPC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2−77455
D-DOBAMBC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2−77455
dyes, Brilliant Green and Echtblau Saltz, permittivity and polarisability calc. 2−93105
E_g, dielec. props. in liq. cryst. 2−104794
ellipsoidal polar molecules, solns. and liqs., static permittivity, Onsager model extension 2−66971
ferroelectric, second order phase transition, phys. props. under elec. and mag. fields 2−110782
ferroelectric material, microwave dielect. props., general purpose meas. system at 4.2 and 300K 2−69205
ferroelectric semiconductor, highly doped and compensated, model, anomalous photovoltage 2−110384
ferroelectrics, glasslike props. at low temps. 2−110778
ferroelectrics, thermodynamics near second order phase transition in external fields 2−110783
ferroliquids, in mag. and elec. fields, dielec. permeability *(Russian)* 2−61731
fluid, nonpolar, dielec. permittivity 2−77443
fluids of classical deformable molecules, dielectric const. 2−61811
free energy of condensed media, Van der Waals forces. contrib. *(Russian)* 2−56222
Gaussian sum rules for optical functions 2−99086
glass, cellular, strength limiting defect detection by dielectric meas. 2−105392
glass fibre reinforced epoxy, elec. props. effect of water absorpt. 2−67573
glucose, aq. solns., permittivity, transmission dielectric time domain spectra 2−110742
heptane-water-tetraoxyethylene glycol dodecyl ether, low water content, dielec. obs. 2−93830
N-p-hexyloxybenzylidene-p-toluidine, dielec. props. in liq. cryst. 2−104794
human tissue, complex permittivity at microwave freqs. 2−99936
hydrocarbons, liquid, elec. cond. meas. in low elec. field 2−92243
ice dielectric props. meas. technique for low temps. *(Japanese)* 2−89746
insulating film deposition technology, secondary passivation 2−62075
inter-electrode gap region, electrophys. props. of liqs. determ. and influencing factors *(Russian)* 2−67753
isoamyl alcohol, meas. method and temp. depend. *(Russian)* 2−66979
isobutanol solution in n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
isopropylammonium copper trichloride (tetrachloride), dielec. const. and pyroelec. current meas. 2−57004
isostructural phase transitions, in crysts. 2−98271
IV-VI semiconductors, lattice dynamics and phase transitions, pseudopot. theory 2−92139
IV-VI semiconductors, phase transitions and optical props. 2−91861
kaolinite, freq. and temp. variation of dielec. props. 2−68337
lattice of polarisable points, response to imposed elec. fields 2−104800
linear gas molecules, elect. reson. obs. 2−70313
liquid crystal twist cells, electro-optical performance, phys. props., correl. with mol. struct. 2−65856
liquid crystals, near neighbour correlations and dielec. props. 2−104795
liquids, dielectric absorpt. meas. by transmission method *(German)* 2−87652
liquids, high press. obs., strain, Eulerian representation 2−104791
local field effects and effective-medium theory, microscopic aspects 2−107041
magnetic linear double-refraction of light *(Russian)* 2−72464
mammalian tissues, dielec. props. from 0.1 to 100 MHz, summary of recent data 2−62676
metallocene polyoximes, group IV B elec. props. 2−56565
methanol, $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methanol-n-heptane crit. mixture. low freq. dielec. consts. meas. 2−82767
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
methylamine $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
moist disperse mixtures, microwave permittivity 2−72404
molecular crystal surfaces, energy level bending 2−104449
molecules in nematic host matrix, permittivity, dielectric relax. study 2−66987
n-decane, dielec. permeability, temp. depend. *(Russian)* 2−66967
naphthalene, magnetoelectret, dielec. behaviour 2−104789
nematic liq. crysts., second-order domains behaviour, in elec. fields above threshold 2−55844
nematic liquid crystal compositions, opticophysical props., temp.-freq. depend. of dielec. anisotropy 2−109669
nitroalkanes in dil. solns., permittivity and dielectric relax. times 2−72411
nitrobenzene, liq., mol. alignment, electric saturation, NMR study 2−56947
nitrobenzene-isooctane mixtures, dielectric const. anomaly near consolute point 2−87649
nonhomogeneous dielectrics, theory, iteration method 2−72403
nonmonochromatic waves scattering 2−90782
nonpolar fluid, dielectric const., deviation from Clausius-Mossott; eqn. 2−99023
nonpolar fluids, dielec. const., quadrupole approx. calcs. 2−104793
nonpolar liquids, permittivity, elec. field effects 2−82768
α-nylon 11, ferroelec. transition, dielec. const., thermal expansion and pyroelec. coeff. study 2−116128
PCH-1132, dielec. props. in liq. cryst. 2−104794
perovskite ferroelectrics, γ-ray effects on dielectric and electro-optical props. *(Russian)* 2−61809
perovskites, oxydic, ferroelec. transitions, IR and Raman spectra and dielec. const. data anal. 2−67008
piezoelectric ceramics in layer struct. oxide family, elec. props. 2−93115
piezoelectric relaxation, review 2−87676
polar hard dumb-bell fluid, dielec. const., Monte Carlo simulation calcs. 2−81646
polar molecule binary mixtures in dil. soln., dielec. relax. 2−61828
polar nonpolarisable fluids, dielec. const. calcs., density functional approach 2−61810
polarisable suspension, cluster expansion for dielectric const. 2−97697
poly(4-chlorostyrene), undiluted, temp. coeff. of the dipole moment 2−80855

permittivity continued
poly(hydroxyethyl glutamine), crosslinked, piezoelec., elastic and dielect. consts., hydration effect 2−110774
poly-γ-benzyl-L-glutamate, solid and solns., dielectric susceptibility meas. 2−61826
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene films, dielectric props. 2−87646
polyacrylonitrile, electropolymerised film, photoemission and meta-emission spectrosc. 2−93380
polymer, Pb(Zr, Ti)O_2 filled, flexible composite transducers 2−74399
polymer solutions, dielectric relax. spectra, time domain reflectometry technique 2−66978
polyvinylidene fluoride films, pyroelec. coeff. and dielec. const. and losses, heating effects 2−93118
polyvinylidene fluoride-trifluoroethylene copolymer films, piezoelec. props. 2−87692
propionic acid/tri-n-butylamine system, permittivity and viscosity meas. 2−72409
PTFE, TSC study of room temp. struct. transitions 2−57011
PVC electrical characts. deterioration when irradiated by Co^{60} γ-rays *(Japanese)* 2−56031
quartz, piezoceramic, synthetic, elastic and elec. characts. at 4.2K, acoustic device applic. *(Ukrainian)* 2−82784
Raman frequencies, isotropic and anisotropic, dielec. const. effects on non-coincidence 2−108525
random metal-insulator mixtures, percolation processes 2−66453
rare earth orthochromites, electrical transport 2−92616
rigid polar molecules, in soln., dielec. props. and solvent viscoelastic behaviour 2−110758
Rochelle salt, dielectric const. var. in strong mag. field 2−110743
sea ice, complex dielec. const., 0.1 to 40 GHz 2−57002
semiconductor, n-type, dielectric enhancement near metal-nonmetal transition 2−61361
semiconductors, dielectric const. in strong mag. field, band gap and inter-band hybridisation effects *(Russian)* 2−93100
semiconductors and metals, macroscopic permittivity, local field effects, Fermi liq. theory 2−104280
smectic B phase, local dipolar order induced by steric effects, dielec. correl. factor 2−91768
smectic liquid crysts., chiral, ferroelec. props. and appls. 2−82789
$SnCl_2.(H_2O)_2$ and deuterated form, isostructural phase transition, pseudospin model 2−76662
snow, geometry, porosity and permittivity at high freq. 2−87251
sodium carboxymethyl cellulose, aq. solns., permittivity, transmission dielectric time domain spectra 2−110742
statistical mixtures, circuit-theoretic approach for deriving elec. props. 2−92553
superconducting film, vortex phase dielec. const., AC impedance meas. 2−72116
TCNQ salt, Me ϕ_3As$(TCNQ)_2$, quasi-one-dimens. semicond., dielec. const., field and freq. depend. 2−61816
TCNQ salt, TTF-TCNQ, conductivity and dielec. const., phonon drag theory 2−87282
TCNQ salts, Qn$(TCNQ)_2$, quasi one-dimens. conductors, dielec. const. 2−104798
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
tetramethylammonium cobalt tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
tetramethylammonium copper tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
tetramethylammonium tetrachlorocobaltate, phase transitions, deuteration effects, dielec. study 2−98265
tetramethylammonium zinc tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
tetramethylanion copper bromide, ferroelec., phase transitions, high press. effects, permittivity study 2−99069
TGS, electrostriction calcs., ferroelectric transition 2−99061
TGS, ferroelec., submillimetre dielec. spectra 2−87651
TGS single cryst., permittivity meas. as a function of geometry 2−61815
thin dipolar fluid films, capacitance 2−104792
thiourea, submillimeter dielec. spectra, 85 to 300K 2−110744
thiourea-ferrocene channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
Thomas-Fermi metal-dielectric surface, scaling relations and analytic soln. 2−104484
triethylamine-I_2 charge transfer complexes and ion pairs, stoichiometry, permittivity effects 2−114063
tris-sarcosine calcium chloride$_{1-x}$ bromide$_x$, ferroelectric transition 2−87711
tris-sarcosine calcium chloride, brominated, dielec. props., press. and temp. depend. 2−61820
trissarcosine calcium chloride, deuterated, dielec. props., temp. and press. depend. meas. 2−99071
TTF-chloranil, neutral-ionic phase transition, review 2−92592
vibrations and microwaves in solids 2−99066
water, supercooled liq. permittivity meas., dielectric relax. time 2−66981
waveguides, dielectric, inhomogeneous slab and cylindrical, with discontinuous permittivities, propag. modes 2−70482
Ag-Ge, amorphous film, struct., elec. and optical props. 2−82483
$Ag_{16}I_{12}P_2O_7$, fast ion cond. characts. 2−82013
$AgNO_2.NH_3$, dielec. dispersion, a- and c-axes 2−110755
Al with adsorbed Ar, local-field effect in optical reflectance 2−104834
$AlPO_4$, recent progress on cryst. growth, dielectric const. meas. 2−99314
Ar-acetylene-methane liq. mixtures, excess vol. and compressibility, dielec. const. meas. 2−92071
As_2S_3 film, refractive index changes, permittivity *(Russian)* 2−61864
$As_xSb_{1-x}SI$ ferroelec., tricrit. points, dielec. meas. 2−93127
$As_xSb_{1-x}SI$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
BaBrF, mixed dihalides, temp. depend. of dielec. behaviour, 100-600K 2−66968
$BaMnF_4$, submillimeter dielec. spectra, 85 to 300K 2−110744
Ba(Sr)(Ca)$(Zn_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$PbZrO_3$ elec. and optical props. 2−82795
Ba(Sr)$(M_{1/3}Nb_{2/3})O_3$-$PbZrO_3$-$PbTiO_3$ (M = Pb, Ca, Sr) elec. and optical props. 2−82794
$Ba_x(Sr_{1-x})Nb_{2(3-x)}/_5O_3$-$PbZrO_3$-$PbTiO_3$ elec. and optical props. 2−82796
$Ba_xSr_{1-x}O_6$, ferroelectric, dielec. and optical props. in fund. absorption region 2−77481
$BaTiO_3$, dielec. const. crit. exponents, diffused phase transition 2−110781
permittivity continued
$BaTiO_3$ dielectrics, flux sintered 2−88033
$BaTiO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$BaTiO_3$:U, ceramic, room temp. elec. resist. and permittivity meas. 2−57003
$BaTiO_3$-$Bi_4Ti_3O_{12}$ low temp. sintered ceramics, microstruct. and elec. props. 2−88035
$BaTiO_3$-$R_2O_3.3TiO_2$ (R = La, Pr, Nd, Sm), formation of $BaR_2Ti_4O_{12}$, dielec. props. 2−71417
$Ba_{1-x}U_xTiO_3$ ceramic, U doping and sintering atmos. effects on elec. and dielec. props. 2−116107
$Bi_{1-x}Sb_x$, many-valley semicond., helicon propag. 2−115798
$Bi_xSb_{1-x}SI$ ferroelec., tricrit. points, dielec. meas. 2−93127
$Bi_xSb_{1-x}SI$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
$Bi_xSb_{1-x}SI$, uniaxial deform., influence on elec. cond. and dielectric const. 2−109886
$Bi_{10}Ti_3W_3O_{30}$, ceramic ferroelectricity, permittivity and losses 2−87701
C, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
$CdCl_2$-CuCl photochromic glass, colloidal darkening mechanism 2−97135
$Cd_{0.17}Hg_{0.83}Te$, narrow-gap semicond., dielec. const. anomaly 2−93099
$CdRCr_{0.5}Ta_{1.5}O_7$ (R = rare earth), electrophysical props. 2−87645
CeO_2, Reststrahlen spectra, transmission and reflection study dielectric constant 2−67049
$CoSiF_6.6H_2O$, anomalous dielec. props. near transition temp. 2−99018
Cs_3BiCl_6 ceramic, ferroelastic transitions, DTA, X-ray, dielec. and TSC meas. *(French)* 2−109889
$CsBi(MoO_4)_2$, phase transition, uniaxial press. effects, permittivity study 2−109982
CsD_2PO_4, critical props., dielectric const., Ising model 2−67007
CsD_2PO_4, ferroelec., static and dynamic crit. props. of dielec. const. 2−61813
CsH_2PO_4, critical props., dielectric const., Ising model 2−67007
CsH_2PO_4, ferroelec., static and dynamic crit. props. of dielec. const. 2−61813
CsH_2PO_4, one-dimens. ferroelec., crit. slowing down, dielec. meas. 2−77458
$Cs_2HgBr_4(Cl_4)(I_4)$ wafers, dielec. permittivity temp. depend. 2−66974
CuBr, optical constants and exciton spectrum *(Russian)* 2−67131
$CuSO_4$, aq. solns., permittivity, transmission dielectric time domain spectra 2−110742
$CuTlSe_2$, ternary semicond., liq. and solid, dielec. relax., defect electron states 2−61829
Fe_2O_3, acousto-optical modulation, permittivity *(Russian)* 2−57051
GaAs mesostructure dielectrics 2−61473
GaAs-GaAlAs superlattice, doped quantum wells, wavevector-freq. depend. dielec. const. 2−104279
$Gd_2(MoO_4)_2$, permitt. dispersion, infrared refl. and spontaneous parametric scatt. by polaritons 2−104837
Ge, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
Ge, photodielectric effect associated with excited acceptor states 2−104431
Ge:H amorphous film, AC losses and elec. cond., polarons 2−77055
GeO_2, vitreous, dielec. relax. and losses, elec. cond. 2−99032
H^+ neutralised beam propag. undeflectedly across a mag. field, polarisation elec. field obs. 2−80891
HCl, liq., dielectric const. and relax., computer simulation 2−66972
HNO_3, relative permittivity in dinitrogen tetroxide *(Russian)* 2−57009
^{4}He, liquid, permittivity, molar volume and crit. phenomena near λ-point *(Russian)* 2−98371
HfN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
Hg, dielectric anomaly and vapour-liq. phase transition 2−66192
(In, Ga)(As, P) lasers at 1.3 μm, anomalous effect of carriers on dielec. const. 2−102791
K-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
$(KBr)_{0.5}(KCN)_{0.5}$, permittivity, glass transition 2−72402
$(KBr)_{1-x}(KCN)_x$, dielec. props. 2−77442
$(KBr)_{1-x}(KCN)_x$, orientational freezing freq. depend. 2−71382
KCl single cryst., dielec. const. 2−99021
KCl, X-ray irrad. dielectric props. study 2−66973
KCl:$BaTiO_3$ composite crysts. dielect. props. under DC biasing fields 2−104790
KH_2PO_4 lossy crysts., dielec. and ferroelec. props. 2−82776
$KIO_3.2HIO_3$, proton conductivity, permittivity, cryst. struct. 2−86931
K$(Nb,Ta)O_3$, ceramic, solid solutions, temp., conc. and freq. depend. of dielectric constant 2−111124
$KNbO_3$, sintering characts. and dielec. props. 2−105108
K_2SO_4, sp. ht. and dielec. const. determ. phase transition 2−109970
$K(Ta_{0.55}Nb_{0.45})O_3$, dielec. const. crit. exponents, diffused phase transition 2−110781
$KTaO_3$, dielec. nonlinearity, losses, and parametric interactions at UHF 2−99072
$La_3Sb_3O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$La_{0.96}Sr_{0.04}CrO_3$ ceramic, sintering and dielectric props. 2−62094
$Li_2Ge_7O_{15}$, dielect. props. and phase transition 2−57006
$LiNH_4SO_4$, ferroelectric phase transitions, elec. props., IR spectra 2−67000
$LiNH_4SO_4$, phase transition, dielectric const., elec. cond. 2−72435
$LiNbO_3$, shock loaded, microwave dielec. const. meas. 2−72398
$LiNbO_3$, single crystal, effects of γ-irradiation on dielectric consts. and optical transmission 2−61814
$Li_2SiO_3(GeO_3)$, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$LiTaO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$Mg_{1-x}Mn_xFe_2O$$4 ferrite, abrupt behaviour of dielec. const. and loss tangent 2−66970
MgO:Li^+ crystal, dielec. behaviour 2−87661
MgO:Ti(Gd), single cryst., dielec. props. 2−110741
$MgTiO_3$ ceramics, dielec. props. deviation 2−87647
$MoSe_2$ (2H), electrolyte electroreflectance and reflectance studies 2−57060
$(NH_4)_2BeF_4$, dielec. props. near nonpolar-incommensurate-polar phase transitions 2−104824
$(NH_4)_2BeF_4$, commensurate-incommensurate polar transition, dielectric hysteresis *(Russian)* 2−82799
NH_4HSeO_4, ferroelec. transitions, dielec. const., dielec. loss and DTA study 2−93121

permittivity continued
NH_4HSeO_4, ferroelec. transition, dielec. dispersion study 2−116131
$NH_4IO_3.2HIO_3$, proton conductivity, permittivity, cryst. struct. 2−86931
$(NH_4)_2SO_4$, paraelec.-ferroelec. phase transition, low temp., thermal anal. 2−104822
$(NH_4)_2SbF_5$ type crysts., superior phase transition *(Russian)* 2−103987
Na-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
$Na_{0.5}Bi_{0.5}TiO_3$, ferroelectric, structural phase transitions, X-ray diffr. study 2−67002
NaCl, X-ray irrad. dielectric props. study 2−66973
NaCl-type alkali halides, phenomenological pots., elastic and dielec. data anal. 2−81706
Na_2GeO_3, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$Na_2MoO_4.2H_2O$, deaquation process, dielectric const., elec. cond. meas. 2−87648
$NaNO_2$, lattice mode anharmonicity, order-disorder transition, IR spectra study 2−76614
$(Nb,Pb)(Zr,Ti,Zn)O_3$ piezoceramic, influence of static compression on props. 2−72426
Nd_2O_3 films, electron beam evaporated, dielec. props. meas. 2−72422
$Ni_3B_7O_{13}Br_{1-x}Cl_x$, elec. and thermal props. near ferroelectric transition 2−66555
$Ni_{0.3}Zn_{0.7}Fe_2O_4$, dielectric spectrum, radio and optical freq. 2−99019
P_3N_5 gate insulating film, CVD prep., dielec. props. and InP-P_3N_5 MIS device props. 2−99346
(Pb, Ca) $((Co_{1/2}W_{1/2}), Ti)O_3$ piezoelectric ceramics and their applications 2−87697
(Pb,Sn,Ge)Te, dielectric props., defects influence 2−93101
$PbDPO_4$, quasi-one-dimens. ferroellec., spontaneous polarisation and dielec. const., Ising model theory 2−74359
$Pb_5Ge_3(O,F)_{11}$, ferroelectric crystals, growth, Curie point, dielectric const. 2−72616
α-$PbGe_4O_9$, ferroelectric, dielec. and pyroelec. props. 2−61845
$PbGe_4O_9$, polymorphism, cryst. struct., and dielec. props. 2−109754
Pb_2InNbO_6, elec. props., band gap energy 2−110395
$Pb_{1-x}M_xGe_4O_9$ (M=Sr, Ba), polymorphism, cryst. struct., and dielec. props. 2−109754
$Pb(M_{1/3}Nb_{2/3})O_3$-based ferroelecs., M=Mg, Zn, dielec. const. crit. exponents, diffused phase transition 2−110781
$PbMO_3$, (M=Ti, 2r, Hf), elec. props., band gap energy 2−110395
$Pb(Mg_{1/3}Nb_{2/3})O_3$, ferroelectrics, dielec. const. crit. exponent, diffused-phase-transition 2−110781
$Pb(Mg_{1/3}Nb_{2/3})O_3$ type materials, electrostrictive effect 2−87683
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
$PbScNbO_6$, elec. props., band gap energy 2−110395
PbTe epitaxial layer, dielec. const. at 4.2K 2−99017
$PbTiO_3$, amorphous ferroelec., time depend. dielec. const. during annealing 2−109676
$PbTiO_3$, amorphous state and crystn. process, Raman scatt., SEM, and dielec. meas. 2−81677
$PbTiO_3$ ceramics, piezoelectric, elastic and dielectric props. 2−87685
$Pb(Zn_{1/3}Nb_{2/3})O_3$-$PbTiO_3$, ferroelec. transitions, dielec., elastic and piezoelec. study 2−116124
$Pb(Zr,Ti)O_3$ composition piezoelectric ceramic preparation and props. 2−88030
$Pb(Zr,Ti)O_3$, transverse honeycomb composition transducers, dielectric const., piezoelectric props. 2−66991
$Pb(Zr,Ti)O_3$-polymer composites, preparation and props. 2−88045
$Pb(Zr,Ti)O_3$-polymer composite, preparation and transducer applications 2−88046
$Pb(Zr_{1/3}Nb_{2/3})O_3$-$Pb(Sn_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$PbZrO_3$ hot pressed ceramics, piezoelec. props. 2−87695
$PbZrO_3$ ceramic, dielec. props., X-ray irrad. effect 2−110745
$PbZr_{1-x}Ti_xO_3$-polyvinylidene fluoride composite, piezoelec. and dielec. const. and Young's modulus meas. 2−93119
$Pr_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$Rb(D_{1-x}H_x)_2PO_4$, phase transitions, isotope effects, dielec. const. meas. 2−86853
RbH_2PO_4, crysts., amplitude depend. of dielec. characts. 2−57008
$RbHSO_4$ cryst., near ferroelec. phase transition point, elastic and nonlinear dielec. props. 2−57007
$RbHSeO_4$, deuterated, ferroelec. transitions, isotope effects, DTA and dielec. study 2−87707
$RbHSeO_4$, ferroelec. transitions, dielec. const., dielec. loss and DTA study 2−93121
$Rb_{1-x}(NH_4)_xH_2PO_4$, mixed crysts., competing structural orderings and transitions to glass 2−56192
Rb_2ZnCl_4, incommensurate-commensurate phase transition, dielec. meas. 2−71637
Rb_2ZnCl_4, phase transitions, Raman scatt., dielec. const. and spontaneous polarisation study 2−72510
$SbSBr_xI_{1-x}$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
SbSI ferroelec., relax. processes, spontaneous polarisation screening 2−110780
SbSI-polymer composite, preparation and props. 2−88047
$SbSe_xS_{1-x}I$ and $SbSBr_xI_{1-x}$, ferroelec., tricrit. points, dielec. meas. 2−93127
$SbSe_xS_{1-x}I$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
n-Si, dielectric enhancement near metal-nonmetal transition 2−61361
Si, optical constants, reflectivity, ellipsometry study 2−82811
Si:P, giant dielectric const. near metal-insulator transition 2−87650
Si_3N_4 film, CVD deposition and AC dielec. props. meas. 2−82783
SiO MBE films on GaAs, deposition conditions, Auger anal., and elec. characts. 2−87116
SiO_x, electronic and optical props., dielec. function 2−56458
α-Sn, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
$Sn_2P_2S_6$ ferroelec. semicond., Curie temp. shift in mag. field 2−110792
$(Sr,Ba,Ca)Nb_2O_6$, diffuse ferroelec. phase transition, optical and dielec. props. study 2−61844
$Sr_{1-x}Ba_xNb_2O_6$, ferroelectric thermal cond. and permittivity 2−115477
$Sr_xBa_{1-x}Nb_2O_6$, poled, dielec. props. rel. to pyroelec. detection 2−110777
SrBrF and SrClF, mixed dihalides, temp. depend. of dielec. behaviour, 100-600K 2−66968

permittivity continued
$Sr_2Ta_2O_7$, ferroelec. transition temp., press. depend., dielec. const. study 2−87713
$SrTiO_3$, dielec. nonlinearity, losses, and parametric interactions at UHF 2−99072
$Tb_2Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
Te, optical absorption, permittivity, Hartree-Fock-Slater calc. 2−87733
TeO_3 thin films, dielectric studies 2−93114
TiN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
V_3Si, electron props. and permittivity, optical absorpt. spectra study *(Russian)* 2−93216
Yb_2O_3 thin films, elec. cond. and permittivity in MIM struct. 2−98775
$Yb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
ZnS:Mn thin films, physical and elec. characts. 2−61622
ZrN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888

permittivity measurement
automatic measurement of complex permittivity (from 2 MHz to 8 GHz) using time domain spectroscopy 2−69203
complex permittivity meas. of low loss materials using dispersive Fourier transform spectrometric technique 2−101426
detector for liquid chromatography, microprocessor-based system 2−116769
ferroelectric material, microwave dielect. props., general purpose meas. system at 4.2 and 300K 2−69205
ferroelectrics, dielectric props. meas. in microwave range 2−95405
isoamyl alcohol, meas. method and temp. depend. *(Russian)* 2−66979
open resonator method 2−53790
open resonator method 2−53791
pentachloronitrobenzene monocrystal 10 GHz dielectric absorption and anisotropic permittivity obs. *(Japanese)* 2−72420
polymer film, UHF meas. of thickness and dielectric const., recursive algorithm applicability 2−111437
reference materials certification 2−53788
reference materials for bicomplex permeability properties at high and ultrahigh frequencies 2−53794
reference materials for superhigh permittivity 2−53789
relative permittivity of solid and liquid dielectrics, in $10\text{-}10^7$ Hz, range, Soviet state standards 2−53722
relaxation meas. in ultralow frequency region 2−101420
resonance technique based apparatus for solid and liquid dielectrics, in microwave range 2−53787
standard specimens development, combined USSR-Bulgarian efforts 2−84664
thin film, microwave meas. technique 2−89747
tissue permittivity in vivo meas. using coaxial line sensor and network analyser 2−105879
waveguide method, appropriate dielec. thickness determ. *(Russian)* 2−95393
weakly polar liquids, dielectric permeability meas. by node-displacement method *(Russian)* 2−64061
PbS polycrystalline film, cond. and permittivity meas. at microwave freqs. *(Russian)* 2−95403
PbTe polycrystalline film, cond. and permittivity meas. at microwave freqs. *(Russian)* 2−95403

personal computing
see also microcomputers
Profi-5 single printed wiring board instructional microcomputer features, facilities and operating program *(German)* 2−74186
solar system with two suns and one planet model, BASIC program 2−58275

personnel
see also education; management; teaching; training
flaw detection in mine hoist transportation systems 2−78064

perturbation techniques
see also control system synthesis
conducting ferromagnetic sheet lamina, nonlinearity in harmonic quasistationary regime, EM field *(French)* 2−114151
fluid-structure interactions in model test system, perturbation analysis 2−91307
glow discharge electrode design allowing for polarisation and space charge effects 2−91709
ICF implosions, thermal front propag. and smoothing 2−90296
sub/superharmonic oscillations and the perturbation procedure 2−75885
US computer-aided tomography, correction method for refraction effect 2−94134

perturbation theory
see also quantum theory
$(\phi^6)_3$ field theory, fixed point structure at large N 2−53957
Abiskosov vortex state near upper crit. field, Ginzburg-Landau theory 2−66726
Anderson mobility edge, crit. props., field theoretic formulation 2−71927
Anderson model, asymmetric, specific heat, elec. cond., thermopower, perturbation calc. 2−76963
anharmonic oscillator, O(N) invariant vector, large N expansion, local perturbation theory 2−79732
anharmonic oscillator, Schrodinger eqn., piecewise perturbation treatment 2−74265
aromatic cpds., induced moments, polarisabilities and second hyperpolarisabilities, CNDO calcs. 2−108403
asymmetry four-state clock model, perturbation expansion, commensurate-incommensurate transition 2−56878
atom-surface scattering, iterative solution for realistic potentials 2−99267
atomic, molecular and solid state theory, and computational quantum chemistry, conference, Flagler Beach, FL, USA (March 1981) 2−79267
atoms, forward laser light scatt. in mag. field, perturbation theory 2−96515
bag fusion in SU(2) Yang-Mills matter and colour deconfinement 2−84847
baryons, loop average in large N limit 2−69420
benzene type rings and linear chains, correlation effects, PPP calc. 2−80490
bis(π-pentadienyl)dinickel, Koopmans' defects calcs. 2−75351
bond orbitals delocalisation perturbation formalism based on local Brillouin theorem 2−108343
butadiene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
butatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654

perturbation theory continued
classical fluid, crit. point, iterative perturbative theory 2−76647
classical fluids, one-dimensional Percus-Yevick eqn., phase transition 2−115389
closed shell systems, MBPT, resolvent operator approach 2−54746
constant denominator, for mol. energy calcs. 2−113854
constrained and interacting relativistic quantum fields, asymptotic level density 2−59007
continuous spin systems, perturbation expansion, analyticity and Borel summability 2−61679
convection, surface tension-driven at plane interface, linear perturbation anal. 2−61257
coupled Josephson weak links, resistivity shunted junction model perturbation calc. 2−66721
coupled oscillators, normal modes, symmetry breaking, group theory 2−79407
covariant perturbation theory in classical electrodynamics 2−101191
crystal, particle-in-box model, electric field effect, hypervirial perturbation treatment 2−79419
crystal field theory 2−110312
deep inelastic electroproduction, twist-4 contrib., QCD anal. 2−54168
deep inelastic polarised electroproduction model 2−54170
degenerate states, dynamic hyperpolarisabilities and nonlinear susceptibilities *(Russian)* 2−53588
desorption times, from rate equn., master eqn. and Fokker-Planck eqn. 2−61284
diagrammatic QDMBPT, appl. to mols. 2−108370
diatomic molecules multiplet states, Λ-type doubling 2−80734
diffractive photoproduction cross section, QCD planar ladder diagram anal. 2−69426
difluoromethane, vertical ionisation pot. calc. by perturbation corrections to Koopmans' theorem 2−54987
direct configuration interaction method, diagrammatic construction 2−80495
disordered semiconductor under illumination, electron localised state distrib., balance eqn. 2−61411
disordered system, 1-D, quasiparticle scatt. from impurities, density of states perturbation theory *(Russian)* 2−82200
disordered system, scaling theory of Anderson localisation, renormalisation group approach 2−71930
divergent perturbation, Pade approximants, generalised Euler transformation 2−101203
drift waves, nonlinear, energy conservation in coherent renormalization *(Chinese)* 2−74225
effective valence shell Hamiltonian QDMBPT, ab initio treatment 2−108369
electret state, induced polarisation paramagnetism 2−110749
electron mass operator radiative corrections in two dimens. QED approx. 2−69398
electron-phonon coupling in one dimension 2−76624
enzymatic catalysis, electronic aspects, frontier orbital perturbation theory 2−116724
equations of state, statistical mechanical, appl. to fluid phases 2−56151
evolution probabilities, review 2−54056
exlusive processes in QCD 2−54091
extended phase space perturbation theory, appl. to artificial satellites *(Chinese)* 2−78936
Feenberg scaling and higher-order invariants in Rayleigh-Schrodinger perturbation theory 2−79399
FF gauge-invariant scalar operator in pure QCD, renormalisation 2−59008
fissile materials worths, first-order perturbation calcs., intracell adjoint flux heterogeneity effects 2−96097
flames, turbulent diffusion, mol. transport effects at moderate Reynolds number 2−99674
Fock space, universal wave and energy operators 2−107146
Fourier holograms, volumetric phase, transparency image regeneration and spatial filtering *(Russian)* 2−70518
Freon-113-tri-t-butyl phenoxy radical system, ^{19}F DNP investig. 2−108591
gluonic currents propagators, two-loop calcs. 2−89937
grand potential of hot QCD, lattice calculations 2−113228
graphite with adsorbed He, statistical mechanics calcs. 2−104141
gyromagnetic dynamo problem, peturbation theory anal. *(Russian)* 2−63242
hadronic reactions, large perturbative corrections in soft-gluon limit 2−69423
hadronisation by colour bremsstrahlung 2−54097
Hamiltonian system, perturbation theory in noncanonical coordinates 2−74203
harmonic oscillators, perturbed, connections between perturbation theory and Van Vleck transformation 2−63837
Hartree-Fock generalised perturbed theory, selective summation 2−80473
heavy paraquarkonia decay, GGG and qq̄G jets anal. in perturbative QCD 2−54146
heavy quarks and perturbative QCD calcs. 2−54072
Heisenberg ferromagnet, semi-invariants of second-rank Racah operators 2−66746
Heisenberg ferromagnets, 1-D, thermodynamic props., static domain wall solitons, perturbation calc. 2−116022
hexatriene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
high energy perturbation QCD status 2−54061
higher-order QCD calcs., prescription depend. 2−54057
Hirota's method, appl. to perturbed system 2−84450
hydrogenic exciton levels, degenerate, perturbation calc. 2−71877
III-V semiconductors, cubic, indirect exciton dispersion 2−92481
III-V semiconductors, third order susceptibility in true continuum near band edge 2−102852
impurity states in anisotropic crystals, appl. of perturbative-variational approach 2−82275
induced gravity, upper bound 2−101290
inelastic J/Ψ photoproduction with linearly polarised photons, QCD based models predictions 2−54176
inner shell atomic energy levels, hyperfine splitting, screening corrections 2−70153
integrable Hamiltonian systems, perturbations, Arnold diffusion, Melnikov integrals 2−63817
intermediate valence compounds, perturbation techniques for electron systems with strong local correlations 2−56461
intrinsic charm model, 5-quark wave function calc. 2−101670
perturbation theory continued
ionic crystals, point defect pair relax. modes, approx. solns. for three-shell model 2−61016
Ising model, axial nearest neighbour, perturbation expansion, commensurate-incommensurate transition 2−56878
Ising model, kinetic, real-space renormalisation group approach 2−104642
Klein-Gordon equation, ground-state logarithmic perturbation theory appl. 2−64889
Lagrangian field theory, perturbative, Feynman graphs, dispersion relations 2−58998
Lamb shift, perturbation theory method of elucidation, teaching 2−63776
laminar natural convection on vertical cylinder, perturbation calcs. 2−97548
Langevin eqns., coupled, nonlinear, asymptotic props. and cusp bifurcation in weak noise limit 2−107239
large N expansions, semi-classical perturbation theory for quantum mechanics 2−95108
large order perturbation theory, conf. proceedings of international workshop (March 1981) 2−53412
large-order perturbation theory 2−53559
lattice boson field theory, soliton doubling 2−79769
Lennard-Jones molecular fluids, RAM perturbation theory 2−91742
level set topologies and convexity relations for Hamiltonians with linear parameters 2−59677
light atoms, analysis of fine-structure excitation energies in Dirac-Fock and perturbation theories 2−75455
liquid metals, electronic density of states, Green's function and perturbative calcs. 2−71854
liquid metals, non-simple, sound vel. and entropy, Percus-Yevick phonon description 2−61068
localised impurity problem in lattice dynamics, perturbation approach 2−66153
magnetoplasmas, symmetric, collisional transport theory, perturbative-variational method 2−109465
magnetostatics, coupled differential-integral eqn. formulation 2−55008
massless scalar electrodynamics, pair condensation 2−84836
Mel'nikov condition derivation for appearance of homoclinic points 2−69027
metal, electron energy in field of periodic perturbing pot. *(Russian)* 2−61332
metal, magnetic resistivity theory near ferromagnetic phase transition 2−92569
metal, mixed-valent impurity, theory 2−115715
metallic conductors, 2-dimens., size effects and low-temp. cond. anomalies 2−87249
metallic glass, non-commutative model, systematic perturbation calc. 2−115733
metals, simple, electron energy loss, review 2−57222
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
MHD flow induced by harmonic oscillations of insulated infinite flat plate 2−60666
mixed-valent systems, perturbative theory 2−56499
model atom, ionisation by strong electric field, perturbation theory 2−54784
molecular fluids, pair correl. functions, perturbation theory 2−65831
molecular orientation at gas-liquid interface, for model fluids 2−115496
molecules, bond-order matrix, physical prop. calcs. 2−113851
molecules, correlation energy, electron propagator calcs. 2−102359
molecules, localised bond model to fourth order perturbation theory 2−113847
molecules, rotational strength calc., perturbative soln. of RPA eqn. 2−108466
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
nematic liquid cryst., axially symmetric mols., perturbation theory 2−97918
neutrinos, perturbative behaviour, Hertz pot. formalism, for Kerr and Robertson-Walker space-times 2−63872
non-Abelian gauge theory, path mean values 2−113147
non-orthogonal localized orbitals to study delocalization effects 2−90439
non-relativistic two-electron atom in ground state 2−90435
nonadiabatic coupling matrix elements, perturbative determ. 2−70126
nondegenerate quantum system, EM field interaction, gauge-invariant time-depend. perturbation theory 2−63843
nonlinear field theories, perturbative solution non-existence 2−101533
nonlinear molecule nucl. spins interactions with vibr. and rot. motions 2−113961
nonpolynomial pot., Borel summability 2−95047
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
nonradiative multiphonon capture of free carriers, adiabatic wave functions, perturbational theory 2−57170
O(N) grand unified theories, gauge hierarchy problem 2−79792
octatetraene, nuclear spin-spin coupling calcs., π-electron contributions 2−80654
one-dimensional Schrodinger eqn., perturbation theory for shape resonances and large barrier potentials 2−53552
open shell systems, MBPT, resolvent operator approach 2−54747
optical scattering from rough surfaces, integral eqn. perturbative method 2−57034
oscillatory plane Poiseuille flow, instability calcs. 2−65648
paired electrons in mag. field, wave functions, many-electron approx. 2−95061
particle and nucl. scatt. at large p_T in perturbative QCD 2−113234
particle-hole Gel'fand states and quasidegenerate perturbation theory 2−79391
perihelion precession in central field simulators 2−53463
photon-photon elastic scatt. amplitude study at high energy 2−107720
pion form factor, corrections using perturbative QCD and dimensional regularisation 2−54155
polar semiconductor, donor states, electron lattice coupling effect 2−71915
polar substances, vapour-liq. equilib., dipole hard sphere model 2−66189
polaron problem, strong-coupling, regular perturbation theory 2−66461
polycyclic transannular diene systems, lifetimes of π-perturbation investigated using time depend. perturbation theory 2−75138
polyenes, induced moments, polarisabilities and second hyperpolarisabilities calcs. 2−108402
polymers, interaction, perturbational approach 2−96675

perturbation theory continued
polymers, simple, band struct. changes on lowering the translational symm. 2−110228
potential walls, finite, perturbative treatment 2−89558
pseudoeigenvalue equations, perturbative soln. *(Spanish)* 2−84463
pseudoeigenvalue equations, perturbative soln. for open shell RHF problem *(Spanish)* 2−84464
QCD_3, finite temp. perturbation results 2−101640
QCD, conf., Tallahassee, FL, USA (March 81) 2−53409
QCD, diagrammatic mass factorisation 2−84850
QCD, effective charges and expansion parameters 2−54058
QCD, higher order corrections, review 2−54059
QCD, IR divergences 2−54055
QCD, jet evolution beyond leading logarithms 2−64291
QCD, perturbative, box graph calc., with light-like particles 2−69358
QCD, perturbative, odd C gluonic Regge singularities 2−59111
QCD, perturbative, qg degenerate state role 2−69425
QCD, perturbative at finite temp. and density, technical review 2−54083
QCD, principle of minimal sensitivity appl. to higher-order processes 2−95767
QCD, quark-quark and quark-antiquark pot. 2−95756
QCD, three-ladder vertex in Reggeon graph technique *(Russian)* 2−74654
QCD and parton model 2−59109
QCD at nucl. dimensions, book contrib. 2−113221
QCD jets in leading log approx. and beyond, review 2−54092
QCD parton jets, coherent effects 2−113224
QCD perturbation theory, hadron energy shift and mass difference *(Chinese)* 2−54077
QCD perturbation theory, singularities for $x\sim1$ 2−54073
QCD perturbative expansion, general props., review 2−79816
QCD structure 2−54054
quadrupolar nuclei, NMR using rapid simple spinning 2−116076
quantum fluid, perturbation theory at high temp. 2−104091
quantum fluids, constant density thermodynamic perturbation theory 2−58698
quantum gravity, asymptotic freedom in renormalisable theory 2−101287
quantum mechanics, book 2−84404
quantum mechanics, perturbation-iteration methods for large perturbations 2−84470
quantum radiation of scalar particles by moving mirror 2−84804
quantum stress energy in nearly conformally space-times, correction of formula 2−95202
quantum theory of gravitation 2−95200
quark-antiquark systems, effective Hamiltonian 2−59127
quark-gluon elastic scatt., gluon polarisation in perturbative QCD 2−54098
quarkonium decay, radiative corrections, scheme depend. in perturbative QCD 2−101710
quartic anharmonic oscillator in stochastic electrodynamics 2−95036
quartic oscillator, bounded anal. approximate expression for eigenvalues 2−53573
quasi-integrable Hamiltonian system, smooth prime integrals 2−58647
radiationless transition, vibr. mode, nonlinear interactions 2−58655
Raman scattering, surface-enhanced, theory 2−61911
random systems, one- and two-dimens., electron localisation and elec. cond. 2−110305
Rayleigh-Schrodinger perturbation theory generating eqns. 2−107133
Rayleigh-Schrodinger perturbation theory with a non-Hermitian perturbation 2−112728
relativistic heavy-ion collisions, charact. time for strange quarks chem. equilibration in QCD 2−85075
renormalisation scheme depend. problem and soln. 2−53914
rotating harmonic oscillators, continued fraction theory 2−95093
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. 2−91830
rough surface, effect of spatial dispersion on classical field enhancement factors 2−104462
rough surface, two-sided boundary conditions for average scalar field 2−115363
scattering theory in relativistic quantum mechanics 2−101612
SCF convergence rates in HF and Xalpha methods 2−70133
Schrodinger energy level analyticity for confining pots. 2−95070
Schrodinger eqn., operator method and perturbational soln. 2−112736
Schrodinger equation, screened Coulomb pot., perturbation theory series higher orders calc. *(Russian)* 2−69056
Schrodinger equation, solns. for $x^2+\lambda x^2/(1+gx^2)$ interaction 2−69041
Schrodinger equation, total interaction as perturbation 2−58652
Schrodinger one-dimensional operator, absence of proper numbers *(Russian)* 2−74241
Schrodinger wave functions, perturbation expansion coeffs., recurrence relations 2−53565
screened Coulomb potentials, logarithmic perturbation theory 2−63832
semiconductor; degenerate band, bound polaron energy, variational and perturbation calc. 2−115674
semiconductor, disordered, transport props. theory 2−115742
semiconductor, wurtzite type donor electronic Raman scatt., band struct. perturbation calc. 2−82862
semiconductors, diamond like, mag. Γ_8 subbands, Luttinger method, perturbation theory calc. 2−56436
semiconductors, electron energy loss, review 2−57222
semiconductors, quantum processes, book 2−68982
semiconductors doped with 3d metals, light absorption perturbation theory 2−104828
semileptonic processes mediated by W, $O(\alpha)$ corrections, large m_w, m_z behaviour 2−59114
simple liquids and mixtures, mol. theory, review 2−55821
single-particle currents in the cranked harmonic oscillator model 2−90027
solar cell, short circuit current, nonlinear behaviour with light intensity depend. minority carrier lifetime 2−67857
static Euclidean anti-self-dual SU(2) Yang-Mills eqns. perturbation 2−79772
structure functions, deep inelastic, Regge behavior, in perturbative QCD 2−95769
SU(2) lattice gauge theories, interquark pot., Monte Carlo evaluation 2−95753
summation of perturbation series in quantum mechanics 2−89562
supersymmetric Yang-Mills theories, quartic mass matrix and renormalisation constants 2−107540
susceptibilities and conductivities, exact nonequilib. statistical relations 2−58692
perturbation theory continued
tetraiodoethylene, He(I) photoelectron spectra, relativistic effects calcs. 2−96632
tetraiodomethane, He(I) photoelectron spectrum, relativistic effects 2−96631
Toda lattice, impurity localised vibr. mode, perturbation theory based on universe scatt. method 2−103928
two dimensional system, electronic specific heat anomalies, electron-phonon interaction 2−104015
two-dimensional electron gas, dynamic correlations, first order perturbation theory 2−76958
two-dimensional kinetic Ising model, real-space dynamic renormalisation group method 2−104647
two-dimensional supersonic flow, weak nonlinear waves, reductive perturbation theory 2−75994
ultrarelativistic Dirac pot. scatt., partial wave representation 2−85011
vacuum periodicity in instanton angle, chiral perturbation theory and fractional topological charge 2−101645
variational solutions of first order perturbation eqn. 2−63836
X-ray diffraction amplitude in slightly deformed cryst. Takagi eqn., perturbative soln. *(Chinese)* 2−76233
e^+e^- annihilation, inclusive two-particle prod., nonleading Sudakov effects in QCD 2−54180
e^+e^- annihilation, multijet events perturbative calc. 2−54183
e^+e^- annihilation, partons and hadrons prod., quark and gluon jet models 2−54184
e^+e^- annihilation, three-jet cross section, higher order corrections 2−54182
$e^+e^-\rightarrow hX$, cut vertex formalism and higher-order QCD predictions 2−54181
hh, high energy scatt., massive lepton pair prod. in perturbative QCD 2−54220
μN, deep inelastic scatt. data, perturbative QCD anal. 2−95777
νN, deep inelastic scatt. data, perturbative QCD anal. 2−95777
$pp(\bar{p}p)$, heavy quark prod., Monte Carlo simulation 2−107699
$T\rightarrow K^+K^s(D^+D^-)$, decay rates calcs. using perturbative QCD 2−54144
Z^0, transverse momentum distrib., higher order QCD test 2−74650
Ar, freezing line, liq. theory and perturbation theory 2−109960
Be, dipole polarisability, perturbation study, CI calcs. 2−54774
Be, quadrupole polarisability, finite-field many-body perturbation theory 2−90440
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
CO, importance of f basis functions in molecular electron correl. energy calcs., diagrammatic perturbation body 2−59713
Cl_2, fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
Cr atom and ions, valence state structs., electron correl. effects 2−108399
Cr^{3+} pairs, interacting mag. ions, D_{3h} symmetry 2−98874
$Cs_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
$Cs_{1-x}Rb_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
Cu-Au system, Ll_2 struct., covalent contrib. to bond energy, order-disorder transitions 2−76359
F, analysis of fine-structure excitation energies in Dirac-Fock and perturbation theories 2−75455
F^- dipole polarisability, electron correl. effects, MBPT CHF calc. 2−113893
F^-+H^+, polarisation pots. and three body induction effects calc. from perturbation theory 2−108676
Fe, anisotropic magnetoelastic coupling consts. 2−82689
H, atom, ground-state energy with polynomial perturbation 2−64864
H atom, in mag. field, semiclassical perturbation theory calcs. 2−59696
H bounded atom, hypervirial-perturbational treatment 2−95087
H, excited state, Rayleigh-Schrodinger perturbation theory 2−108355
H, hypervirial perturbative treatment inside 'boxes with paraboloidal surfaces 2−58643
H, infinite metallic chain, correlation energy, perturbation theory calc. 2−97985
H, s-wave, excited states, with $2\lambda r+2\lambda^2r^2$ perturbation pot. 2−70154
H spectrum gravitational perturbation 2−95167
$H+H_2$ reaction, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
HF, multipole moments and polarisabilities, CI and perturbation theory methods 2−75192
HNF_2, vertical ionisation pot. calc. by perturbation corrections to Koopmans' theorem 2−54987
H_2O dissociation, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
$H_2O+D_2O\rightarrow 2HDO$ equilibr. const., by direct summation over rot. vibr. states 2−99663
H_2O+Li_2O reaction surface, ab initio MO calc. 2−83368
He_2, excited states, diagrammatic QDMBPT 2−108370
$Hg_{1-x}Mn_xTe$, indirect exchange interaction, perturbation theory calc. 2−82587
InSb, impact ionisation and quantum efficiency, time depend perturbation calc. 2−77075
K, specific mass shift, many-body perturbation theory 2−96642
KCl-Li, F_A(II) centre relaxed excited state, second order perturbation theory 2−76974
K_2CuF_4, ferromag. stripe domain struct., diffraction efficiency, perturbation theory calc. 2−116029
Li isoelectronic series, ionisation pots., transition freqs., perturbation theory, HF method 2−113937
Li, specific mass shift, many-body perturbation theory 2−96642
N atom and ions, valence state correl. energies, third-order quasidegenerate many-body perturbation theory calc. 2−80491
N_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
NH^-, excited state, Feshbach resonances, QDMBPT 2−85540
Na, liq., radial distrib. function studied using integral equation perturbation theory 2−91762
O atom and ions, valence state correl. energies, third-order quasidegenerate many-body perturbation theory calc. 2−80491
O_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
OF_2, vertical ionisation pot. calc. by perturbation corrections to Koopmans' theorem 2−54987
OH^-, excited state, Feshbach resonances, QDMBPT 2−85540
$Pb_5Ge_3O_{11}$:Gd^{3+}, hyperfine interaction, discrete saturation, ESR study 2−104697
$Rb_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
^{30}S, $T=1$ isospin triplet states 2−95921
Si, valence states, QDMBPT, ab initio treatment 2−108369
Si^{2+}, valence states, QDMBPT, ab initio treatment 2−108369

perturbation theory continued
Si:In(Sb), laser annealed, all formation and interfacial instability, expt. study and perturbation theory 2−56012
Te, anisotropic semicond., band shapes, effect of relativistic operators 2−92459
Ti atom and ions, valence state structs., electron correl. effects 2−108399
V atom and ions, valence state structs., electron correl. effects 2−108399
petrol engines *see internal combustion engines*
petroleum industry
BUNDLS, FORTRAN IV program for Schreinemakers bundles 2−117304
mineral oil processing industry, determination of refractive indexes 2−69239
MSONRM, FORTRAN program for mesonorm calc. in whole-rock analyses 2−117303
oil exploration, appl. of high spectral resolution airborne spectrometry 2−112157
recovery, microemulsion props. investig. 2−93828
pH
acid precipitation in S.California, spatial vars. 2−62519
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
6,7-dihydroxycoumarin, aq. soln., pH effect, fluoresc. and UV-visible study 2−65049
fluoroacetones gas-phase basicities, additivity of F substituent effects 2−78082
harmine, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2−96627
harmol, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2−96627
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
lakes within Mount St. Helens blast zone, chemical changes resulting from eruption 2−88929
marine rainfall in Samoa windward coast, acidity 2−112030
monsoon rainwater in India, pH rel. to atm. CO_2 chemistry and content 2−68438
polybutaneamide solns., solubility, viscosity and stability *(Russian)* 2−76725
rain, acid-base considerations 2−78266
rain chemistry in summit area of Kilauea Volcano, Hawaii 2−63036
rainfall in Bermuda, effect of N.America pollution 2−78270
seawater, temp. depend. 2−83837
snow in Cracow, Poland 2−83534
solar energy conversion and storage through synthetic light-driven proton pumps 2−78234
sorbate and nitrite reaction, in presence of spin trap, ESR obs. 2−108583
spinning NMR samples, pH control and rapid mixing 2−79631
steels, C, corrosion tubercles of Fe rust in aerated neutral boric-borate buffer solns. *(Japanese)* 2−62275
AgBr emulsion grains, space charge characts., effect of soln. pAg and pH 2−72418
AgBr emulsions with varying pH and pAg, primitivities *(French)* 2−58925
Al, pH potential diagram for seawater, expt. 2−62262
Al_2O_3-MgO, adsorpt. of acetone, IR obs., rel. to acid-base props. 2−96574
$Ca_{10}(PO_4)_6(OH)_2$, dissoln. kinetics, acidity constant for HPO_4^{2-} surface complex 2−60896
Cr-H_2O system, pH-potential diagrams, elevated temps. 2−105361
Fe, Pourbaix diagram, EMF-pH, presence of solid $Fe(OH)_2$ 2−116597
$In_{0.53}Ga_{0.47}As$ surfaces ⟨100⟩, peroxide etch chemistry 2−111515
$MgHPO_4.3H_2O$, newberyite, crystn. and effect of pH and conc. 2−62055
$MgNH_4PO_4.6H_2O$, struvite, crystn. and effect of pH and conc. 2−62055
Na_2O-CaO-SiO_2 glass melts, oxidation state and O activity 2−92233
Pr complex, L-carnosine-Pr^{3+}, in aq. solns., bound shifts 2−70286
pH control
acids, measurement and control of concentration *(Dutch)* 2−88384
corrosion protection, automatic control of pickling process *(Russian)* 2−72857
electroplating waste water in-stream neutralisation, meas. and control aspects *(German)* 2−105610
microprocessor based pH controls *(Italian)* 2−62408
pH factor *see pH*
pH measurement
acids, measurement and control of concentration *(Dutch)* 2−88384
electroplating waste water in-stream neutralisation, meas. and control aspects *(German)* 2−105610
offset controlling circuit 2−62443
physico-chemical magnitudes, metrological assurance *(Rumanian)* 2−74381
radio pill for ingestion and implantation 2−57885
phase angle meters *see phase meters*
phase changing circuits
see also phase shifters
RF phase-drift compensator for neutron time-of-flight meas. 2−96398
phase comparators
Fourier spectrometer scanning system feedback struct. 2−53849
phase conjugation (optical) *see optical phase conjugation*
phase-contrast microscopy *see microscopy*
phase control
proportional temperature regulator with phase control for an inductive load 2−112891
phase diagrams
see also phase equilibrium; phase transformations
^{3}He, liq., separable interactions, Landau expansion extrema, phase diagram, weak coupling limit 2−82057
adsorbed layers, order-disorder transitions, phase diagrams, adsorption isotherms 2−98275
alloys, BCC and FCC, heat of formation, comparison of pair pot. and thermochemical models 2−111506
alloys, binary, FCC struct., phase separation, phase diagram, cluster variation calc. 2−92220
alloys, binary, phase positions on near-neighbour diagrams, interatomic distances 2−92158
anisotropic antiferromagnet, paramagnetic phase boundary 2−66818
binary alloys, Ising model phase diagram calcs. 2−76634
binary systems, equilib. phase diagrams, kinetic eqn. and free energy calcs. 2−86839
brine-dodecane-pentanol-sodium octylbenzenesulphonate microemulsion, phase diagram and interfacial tensions 2−93832
phase diagrams continued
broken rotation symmetry transitions, phase diagram instability, critical phenomena 2−103945
cellulose acetate, mesomorphic solns., phase diagram 2−65876
ceramic materials in liq. metals, thermodynamic stability 2−80176
ceramics, quasibinary and quasiternary, computer-based calc. 2−62101
chalcogenide systems, vitrification capacity estimation from phase diagram 2−86570
chloramil, phase diagram under press., order parameter variations 2−109977
chloranil, phase transition, soft mode behaviour, press. depend. Raman scatt. study 2−66205
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
cholesteric and blue phases, relative order parameters 2−86560
crystal growth, impurity incorporation kinetics 2−86687
crystals *(Chinese)* 2−61114
diffusion-controlled dissolution of solid in liq. and growth of new phase layer, kinetic law 2−98294
dilute s-state Potts model, Migdal-Kadanoff renormalisation approach anal. 2−95256
DOBAMBC-MBACAB, smectic C-A mixture, ferroelectricity, phase diagrams 2−99075
FCC lattice, approx. methods of studying antiferromagnetism 2−104559
flexible polymers in nematic solvents, phase diagrams in dil. regime 2−60863
Grafoil with Kr submonolayers, EXAFS study 2−82139
granular film, superconducting transition, quantum fluctuations and topological transition 2−56767
graphite, solid-liquid-gas triple point, sublimation and boiling curve 2−61116
graphite, submonolayer phases of He, Ar, Kr, Xe, density-functional theory 2−98444
graphite intercalation compounds, staged structs. 2−109765
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2−109978
hexadecyltrimethylammonium fluoride-H_2O, phase equilibria studied by ^2H, ^{14}N and ^{19}F NMR 2−81958
Hume-Rothery systems, cpd. form and s-d reson. role, terminal solubilities 2−116423
III-V and II-VI compound phases, ternary systems calc. 2−62102
III-V antimonides, phase diagrams 2−116427
III-V polycomponent semiconductor systems modelled by computing technique, phase diagrams *(Czech)* 2−83013
III-V quaternary alloys, miscibility gaps 2−98287
imaginary compounds, Kurnakov's concept 2−99394
incommensurate phase with solitons, states *(Russian)* 2−61112
intermetallic phases, prediction by interpolation method, space filling factor 2−76640
Ising model, bond dilute, phase diagrams, renormalisation group and replica methods 2−61725
Ising model, high-temperature approach, mean field approx. 2−89634
Ising model with random sublattice vacancies, phase diagram 2−95273
isobutyric acid-H_2O-D_2O, phase behaviour near critical point, phase diagram, scatt., ang. depend. 2−61119
lamellar eutectic solidification, steady state, at high solidification rates 2−56160
lanthanide sodium perrhenates, RNa $(ReO_4)_4$, cryst. chem. and phase diagrams, X-ray study *(French)* 2−109956
lattice gauge theory, mixed, phase diagram for large N 2−101516
liquid cryst. phase transitions, ordering and modulation of smectic layers, group theoretical anal. 2−66218
liquid mixture, closed-loop phase diagrams, orientational degrees of freedom effects, lattice gas model 2−98259
liquid-liquid, D isotope effects, review 2−66193
lyotropic liq. crysts., phase diagram, symmetry anal. 2−66186
metal hydrides, energy conversion systems, props. and appls. 2−111594
metals, phase transformation wave excitation by action of square surface heat pulse 2−62120
methane, adsorbed layer on graphite (0001), phase diagram, specific heat study 2−98248
methane, solid, isotope effect in phase diagram, proton NMR expt. 2−56964
methane, solid, isotope effect is phase diagram, corresponding state anal. 2−56184
methane, solid, Raman spectra under high press., Gruneisen parameters 2−77502
methane-methane-d_4, phase II struct., stability 2−76648
micellar solutions, nonuniversal crit. behaviour, laser light scatt. study 2−83420
nematic liq. cryst. binary mixtures of terminal nonpolar cpds., reentrant nematic phase, X-ray study 2−109984
nematic liquid crystal-organic liq. mixtures, phase diagrams 2−109986
one dimensional many electron system, SDW and CDW regions, mean field theory 2−98564
one-dimensional Heisenberg antiferromagnet, antiferromag.-spin Peierls state phase diagram calc. 2−87469
one-dimensional percolation problem, transfer-matrix approach 2−101338
oxides, physical and chemical props. handbook 2−94927
n-pentyl 4-[4′-n-dodecyloxybenzylideneamino] cinnamate, smectic phase classification, smectic I phases 2−61137
4-pentyl-4′-cyanobiphenyl nematic liq. crysts., boundary layer phase transition 2−109988
periodic QED models, U(1) gauge group with mixed actions, phase structure 2−84839
peritectic alloy, thermal analysis, cooling curves interpret. 2−105118
phase anal. 2−98249
phospholipid bilayers, press. induced phase transitions, Landau phenomenological theory 2−83551
plates, reorientation transitions, phase diagrams, surface energy *(Russian)* 2−81956
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
quaternary mixtures, liquid-liquid equilib., singlet-triplet Ising model 2−61106
random cluster model on a Cayley tree 2−74336
rare earth alloy, $R_2[Co_{1-x}Fe_x]_{17}$, magnetic anisotropy 2−72191
rare earth alloys $R_2(Co_{1-x}Fe_x)_7$, magnetic anisotropy phase diagram 2−98883
rare earth trihydrides, RH_3, electronic phase transitions, excitonic insulator model 2−87151

phase diagrams continued
rare earth-copper-gallium system, RCu_5-RGa_2 sections, phase form. and crystallographic charact. *(Ukrainian)* 2−83080
rare earth-gallium-nickel system, phase comp. and crystallographic charact. *(Ukrainian)* 2−83079
rare earth-thallium alloys, liq., thermodynamic charact., intermetallides form., liquidus behaviour 2−67293
s(d)-f model, intermediate valency, phase diag. and transitions, strain effects 2−98596
spin glasses, uniaxial anisotropy, phase diagram 2−104621
spin orientation phase transition near the Curie temperature *(Russian)* 2−87509
spinel spin glasses, mag. phase diagram 2−92912
steel, austenitic stainless, phase transform, H-related 2−111298
steel, Cr-Mo-V martensitic stainless, weldments, transform. and tempering 2−88107
steel, isothermal transform. diagram, thermodynamic anal. 2−57329
SU(2)-SO(3) lattice gauge system, analyticity domains 2−107557
submonolayer film on elastic substrate, incommensurate struct., phase diag., Debye-Waller factor *(Russian)* 2−82178
superconducting materials, phase diagrams, review 2−67304
ternary, computer calc. *(Korean)* 2−67289
ternary diffusion paths, analytical representation 2−104082
ternary mixtures, liquid-liquid equilib., singlet-triplet Ising model 2−61105
ternary system, Kohler method rel. to subregular model 2−62103
tetracontane, high press. intermediate phase, optical microscopy and Raman study 2−86838
tetramethylammonium tetrachlorocobaltate, phase transitions, deuteration effects, dielec. study 2−98265
thermodynamics of heterogeneous equilibria, book 2−58572
thiourea, modulated struct., phase diagrams, commensurate-incommensurate transition, neutron diffr. study 2−66180
transition metal compounds, melting point, p-T phase diagram at high press. of H 2−71618
transition metal nitrides, phase diagrams and props., review 2−77813
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
s-triazine, high pressure elastic phase transition, neutron diffr. study 2−66210
TTF-TCNQ, low temperature phases, CDW-CDW Coulomb interaction 2−92590
two-dimensional Lennard-Jones system, phase transitions, stability, computer simulation 2−56155
ultradisperse binary systems, metastable constitution diagrams 2−77812
vector-like gauge theories with massless fermions, phase structure 2−53946
water-oil-nonionic surfactant system, phase inversion 2−93824
Ag-Cu system, T_0 curve between liquid. and α-phases, calc. and relevance to rapid solidification 2−105128
Ag-La (25 at.%), phase diagram invest., thermal anal. and X-ray meas. 2−67301
Ag-Mn spin glasses, H-T phase diagram 2−98895
Ag-Pb, system, solid-liq. region of phase diagram, interfacial tensions and adsorption 2−88057
Ag-Pb alloys, rapidly quenched, Ag-rich phase 2−88056
Ag_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
AgI-$Ag_4P_2O_7$ system, phase diagram and elec. charact. 2−82013
AgI-PbI_2 mixture, elec. and phase behaviour 2−76737
Al, liq., high-purity viscosity and density, 670-950°C 2−66272
Al-Co-Fe system, phase equilibria 2−111138
Al-Cr system, Cr dissolution in liq. Al, kinetic parameters and diffusion coeffs. 700-900°C 2−99395
Al-Ge-Sn, liq. alloy, thermodynamic props., EMF meas. 2−104031
Al-Li-Mg, Mg effect on Young's modulus 2−57391
Al-Mg-O-N, phase equilib. 2−88072
AlF_3-CaF_2-LiF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
AlF_3-CaF_2-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
Al_2O_3-$BaAl_2O_4$ system, phase relations relevant to hexagonal $BaAl_{12}O_{19}$ 2−57338
Al_2S_3-Ag_2S system, phase diagram *(French)* 2−72675
$AlSb_xAs_{1-x}$, vacuum deposition, optical and transport props., impurity states 2−82498
B-Fe(Ni), phase comp. and cryst. struct. meas. 2−88055
BaF_2-(Y,R)F_3 (R=rare earth) system, phase diagrams and phase struct. 2−109954
$Ba_{1+x}Fe_2S_4$, phase relationships 2−62105
$BaMoO_4$-$La_2(MoO_4)_3$, phase diagram, structural characteristics of $BaLa_2(MoO_4)$ 2−77809
BaO-CaO-Sc_2O_3, system, cryst. struct. and phase diagrams, X-ray diffr. study 2−91921
BaO-TiO_2:Nb, (Sb), (La) system, phase diagrams, influence of foreign atoms on cryst. lattice 2−66179
$BaTiO_3$, low-temp. phase transition in strong elec. field 2−116129
Be-Cu-Fe, phase relations in Be rich section 2−111146
Bi-In melts, thermodynamic activities by Knudsen cell-mass spectrometry 2−67296
Bi-Th alloys, cryst. struct. and heats of formation, X-ray and metallographic study 2−91873
BiI_3-$BiCl_3$, eutectic point, crystn. range 2−99405
Bi_2Te_3, thermoelec. props., elec. resist. and phase transitions meas. up to 9 GPa hydrostatic press. 2−87309
Ca-Pd, phase diagrams and intermetallic phase cryst. struct., X-ray and DTA study 2−109955
Ca-Si-Al-O-N system, study of CaO-SiO_2-AlN section *(French)* 2−57339
Ca-Sr-Ba, alloying behaviour, cryst. struct., stoichiometry and phase diagrams 2−109746
$CaCr_2O_4$-$Ca_2Fe_2O_5$, phase equilibria, under reduced partial pressure of O_2 2−88075
CaF_2-LiF-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
CaO-$AlO_{1.5}$ system, phase diagram and thermodynamic props. 2−111147
CaO-Ga_2O_3-GeO_2 system, phase form. 2−111150
CaO-MgO-Ca_2SiO_4=$Ca_4Al_2Fe_2O_{10}$ magnesia-dolomite refractories, thermal equilib. 2−62111
CaO-MgO-V_2O_5, phase diagram 2−111157
CaO-SiO_2, thermodynamic treatments 2−61167
phase diagrams continued
$Ca_6Zr_{19}O_{44}$, existence and stability in ZrO_2-CaO system, phase diagram 2−81759
Cd-Hg-Te system, eutectic microstructures obs. 2−111155
Cd-In, liq., vapour press. and calorimetric meas. 2−67298
Cd-Pb-Se-Te system, liquidus surface 2−105132
Cd-Sb-Ge system, DTA, microstruct. and microhardness 2−105130
CdS_xTe_{1-x} solid soln. films, vacuum deposited, condensation diagram and phase changes meas. 2−110208
CdSe-ZnS, DTA and X-ray phase anal. 2−72676
CdSe-ZnSe-CdS, fusibility diagrams calc. 2−86843
CdTe-Ge system, phase diagram, determ. by DTA and X-ray diffr. *(Japanese)* 2−105122
Co-B, phase comp. and cryst. struct. meas. 2−88055
Co-Cr(Mn), computer calc. of phase diagram *(Japanese)* 2−105120
Co-Cu alloys, molten, activities and thermodynamic props. 2−99401
Co-Cu-Mn(Ni), computer calc. of phase diagrams *(Japanese)* 2−105121
Co-Ge-Te, physicochemical reaction, equilibria and cross-sections 2−72680
Co-S system melts, thermodynamic activity of S 2−105126
$Co_xNi_{1-x}S_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
Cr-binary alloys, liq. and solid, enthalpies of formation 2−61175
Cr-Fe, antiferromagnetic, high press. phase diagram, neutron scatt. study 2−116000
Cr-Ga, effect of press. on Neel temp. 2−72202
Cr-Mo-O system, stability and morphology 2−67305
Cr-Ni-Fe, free energy Kohler method rel. to subregular model 2−62103
Cr-Zr-N alloy system, phase equilibria *(Ukrainian)* 2−67288
CrB-MnB system, phase diagram, 600 to 2400°C 2−62106
Cr(Mo)(W)-Gd-B, phase comp. and cryst. struct. 2−116426
Cs-In, phase diagram, cryst. struct., liquid immiscibility, X-ray diffr. study 2−66176
Cu, phase transformation wave excitation by action of square surface heat pulse 2−62120
Cu-Cr, thermodynamic study and phase diagram by mass spectrometry 2−56219
Cu-Cu_2Mg system, metastable cubic phase form. by quenching from liq. state 2−99396
Cu-Ni Zn system, ternary diffusion paths prediction 2−104082
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGa_xIn_{1-x}Se_2$ solid solns., phase diag., cryst. growth and dislocation struct. 2−86836
Cu_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2−105065
Dy-Ni phase diagrams, X-ray and DTA study *(Chinese)* 2−93488
Dy-Sm, mag. and elec. props. 2−72201
Er-H, phase boundaries at 295K, film resist. study 2−86880
Er-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
Fe (110), chemisorbed H_2 layer, phase transitions, phase diagram, LEED study 2−98276
Fe, cast, hypoeutectic, Ce microdistrib. between struct. components, wide solidification range 2−99393
Fe-C system, austenite+liquid phase boundaries, expt. determ. by DTA 2−105125
Fe-Ce-C, ternary system, liquidus and isothermal section at 8000 and 950°C 2−88061
Fe-Co-Cr system, phase diagram, thermodynamic evaluation 2−72667
Fe-H system, T-P phase diagram at temps. to 450°C and pressures 6.7 GPa 2−57335
Fe-Mn-Cr-Ni systems, alloy comp. effects on lattice parameters regarding γ, ε and α phases *(German)* 2−88058
Fe-Mo system, phase diagram and thermodynamic props. 2−111137
Fe-Mo-Cr, σ phase, range of stability 2−62100
Fe-Ni-Co powders obtained by decomp. of carbonyls, Co content influence on phase comp. 2−67294
Fe-Ni-V, σ phase, range of stability 2−62100
Fe-Ti-V-N system, complex nitrides form. in liq. metal 2−67295
Fe_2As, mag. phase diagram, critical behaviour 2−56862
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
FeS_2 electrodes in Li-Al cells, phase relationships 2−88422
Ga-In-Sb system, quantitative fit to liquidus surface and thermodynamic data, associated soln. model 2−111148
Ga-Sb, thermodynamic anal. *(Russian)* 2−93494
$GaAs_xSb_{1-x}$, LPE growth on InAs substrates 2−88010
GaF_3-BaF_2, liquid-solid equilibria diagram, DTA *(French)* 2−55948
GaSe-Sb, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
GaSe-Sb_2Se_3, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
Gd-In system, phase diagram study *(Chinese)* 2−111136
Ge-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
GeTe-$FeGe_2$, eutectic composition 2−111154
H_2O-alkaline earth dichloride systems, solid-liq. equilib., diagrams *(French)* 2−76644
^{3}He-^{4}He solutions, dilute, liquid-solid interface thermodynamics 2−76766
Hf-Nb-Ga and Hf-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
HfO_2-CaO, phase transition temp., polymorphic transition 2−88069
HfO_2-MgO, phase equilibria, 1670 to 3070K 2−72682
HfO_2-MgO system, eutectoid decomp. process influence on physico-chem. props. 2−99404
HfO_2-$PrO_{1.5}$ system, eutectoid decomp. process influence on physico-chem. props. 2−99404
HfO_2-R_2O_3, liquidus curves in region with high HfO_2 content 2−86842
Hg-Cd-Te liquidus-solidus phase diagram, pair approx. 2−88074
Hg-Cd-Te phase diagram and thermodynamic props. anal. 2−88073
HgCdTe, physics and chemistry, workshop, Minneapolis, MN, USA (Oct. 1981) 2−89437
$Hg_2Cl_2(Br_2)(I_2)$, Raman study of soft modes at high press. 2−93202
Ho-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
HoB_4, mag. struct. and phase diagram, neutron diffr. study 2−72152
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
Ho_2O_3-BeO, phase equilibrium study 2−66168
In-As, activity coefficient, regular soln. approach and lattice model 2−93492

phase diagrams continued
In-Fe-O system, equilib. phase diagram,. solid soln. form., Mossbauer study *(French)* 2−86840
In-Ga-Sb, thermodynamic anal. *(Russian)* 2−93494
In-P, activity coefficient, regular soln. approach and lattice model 2−93492
In-P-O phase diagram, condensed phase portion 2−99406
$In_{1-x}Ga_xAs_{1-y}Sb_y$ quaternary system, pseudoquaternary phase diagram calc. 2−62104
$KF-PrF_3$ system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
K_2FeF_5, Neel temp. variation, Mossbauer study 2−92905
$KMnF_3$, uniaxially stressed, phase diagrams, sp. ht. meas. 2−56177
K_2MoO_4-Pb_2MoO_5, fusibility diagrams 2−111152
K_2O-Nb_2O_5 phase diagram refinement *(Russian)* 2−98034
$K_2O.Al_2O_3$-Al_2O_3 system, phase relationships, 1200-1700°C 2−111156
K_2WO_4-Rb_2WO_4, solid solutions, phase diagram, X-ray and DTA study 2−88064
K_2WO_4-UO_2WO_4, reactions, and phase diagram, DTA study 2−88066
Kr overlayer on graphite, commensurate-incommensurate phase diagram, helical Potts model 2−82136
La-Co-Ni phase diagram, X-ray and metallographic study *(Chinese)* 2−93489
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
$LiIO_3$-$NaIO_3$ psuedobinary system, phase diagram and amorphous state crystn. kinetics, expt. study *(Chinese)* 2−91778
$LiNbO_3$ single crysts., optical inhomogeneity, high temp. diffusion annealing effect 2−65322
$LiNbO_3$-Fe_2O_3, congruently melting, phase rel. 2−62110
Li_2O-Al_2O_3-SiO_2-TiO_2 glass ceramic, phase anal., Raman and X-ray obs. 2−110853
Li_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
Li_2O-Na_2O-SiO_2 system, immiscibility isotherm 2−86882
Li_2O_3-SiO_2-TiO_2, glass, isothermal cross-section, phase decomposition 2−72706
Li_3PO_4-Li_4SiO_4 solid electrolyte system, phase diagram and cond. 2−71705
Li_4SiO_4-Li_3AsO_4, Li^+ ion conductivity and phase diagram 2−115452
Mg-Al-Y system, phase diagram, isothermal sections at 400°C 2−83091
Mg-Li-Cd-Al system, isothermal section in Mg-rich range 2−99398
Mg-Li-Y system, isothermal sections and mech. props. in Mg-rich region 2−111142
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
Mg-Ni-H_2 alloys, press.-composition isotherms, const. vol. method 2−66178
MgO-Al_2O_3-Cr_2O_3, kinetics of soln. in oxide melts 2−88063
MgO-$Cr_2O_3(Fe_xO_y)(Al_2O_3)$-$CaO.SiO_2$, fused, retrograde stability of periclase rel. to cracking 2−83103
MgO-V_2O_3-VO_2 sytem, phase diagram *(French)* 2−72674
$MgO.3.5Al_2O_3$ single crystal, non-stoichiometric spinel, precipitation 2−88085
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
Mn-binary alloys, liq. and solid, enthalpies of formation 2−61175
MnB-FeB system, phase diagram, 600 to 2400°C 2−62106
$Mn_3Cr_2Ge_3O_{12}$ garnets, mag. phase diagram *(Russian)* 2−56861
$Mn_{1-x}Cr_xSb$, mag. phase diagram and struct. 2−104612
MnO-NiO, anal. phase diagram calculation from expt. activity data 2−99408
$MnSiO_3$-$MnGeO_3$ system, phase diagram 2−72683
$Mn_{0.957}Zn_{0.043}F_2$, mag. phase diagram meas., random fields effects 2−72196
NH_3 halides, Ising model, high-temperature approach, mean field approx. 2−89634
NH_4^+/H^+-W-O system, phase diagram 2−99407
Na-C-O system, phase equilibria, recomputation, effect of O_2 as gas phase 2−99409
$NaAl(SiGe)_3O_8$ feldspars, glassy and cryst., ideal mixing of Si and Ge, calorimetric study 2−115414
$NaBO_2$-$CdO(CdB_4O_7)$, phase diagrams, DTA, X-ray phase anal. and IR spectra study 2−66174
NaCl-$CaCl_2$-$SrCl_2$, molten, thermodynamic props. and phase diagram, calc. using computer *(Chinese)* 2−105129
Na_2MoO_4-Pb_2MoO_5, fusibility diagrams 2−111152
Na_2O-B_2O_3-CeO_2.$3Nb_2O_5$(-Al_2O_3) porous glass ceramic 2−77811
Nb-Al, heat of formation and high temp. phase diagram, Knudsen effusion study 2−105117
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-H system, phase diagram and transitions, mag. susceptibility study 2−92155
Nb-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Nb-Rh(-O) systems, thermodynamics and phase equilib. 2−56218
Nb-Ti alloy, phase comp., hydraulic extrusion process parameters influence 2−57330
$NbO_{2\pm x}$, vaporisation study by mass-spectrometric method 2−77810
Nd-In system, phase diagrams and lattice spacings of cpds. 2−111141
Nd_2O_3-$NdPO_4$, high temp. behaviour 2−67740
Ne adsorbed layer on graphite, fluid-solid transition line, phase diagram, lattice constant, LEED study 2−66185
Ni-Co-S melt, associated solution model extension, thermodynamic props. 2−71669
Ni-Co-V(Cr), σ phase, range of stability 2−62100
Ni-Cr, lattice parameter studies of struct. changes near Ni_2Cr 2−105124
Ni-Cr-C, phase diagram, 1000-1200°C, thermodynamic study *(Czech)* 2−116425
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
NiAsS, standard free energy of formation 2−83101
$NiCl_2.4H_2O$, anisotropic antiferromagnet, paramagnetic phase boundary 2−66818
$Ni_{1-x}Cu_xS_2$, phase diagram in Ni-rich region, Hubbard model 2−66816
$NiGa_MSi(Sn)_N$ mixtures, phase diagram invest. 2−67303
$NiIn_MSi(Ge)_N$ mixtures, phase diagram invest. 2−67303
$NiS_{2-x}Se_x$, phase diagram in Ni-rich region, Hubbard model 2−66816
$NiSiF_6.6H_2O$, mag. prop. anomalies *(Russian)* 2−82597
$Ni_3Zn_6Ga_4$, crystal struct., phase diagram meas. 2−109749
phase diagrams continued
Pb-Bi(Sb) melts, activity coeff. of O 2−67299
Pb-Ca-Sn, phase diagram, Pb rich corner 2−105123
Pb-Pd alloy polycrystalline films, grain size reduction by coevaporation 2−71815
Pb-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
Pb-Sn, phase diagram calcs., thermodynamic anal. 2−72668
Pb-Sn-Se, p_{tot}-x-y diagram calc., 973-1353K 2−72677
Pb-Sn-Te system, solidus determ. of phase diagram 2−93495
$Pb_2KNb_5O_{15}$, phase determ. and growth for good quality crystals 2−97957
PbO, fusibility diagram and p-T diagram 2−111149
$Pb_{1-x}Sn_xSe$ epitaxial layers, equilib. compositions and cond. type 2−66398
$Pb(Zr_xTi_{1-x})O_3$ system, morphotropic phase boundary 2−62109
$(Pd,Si)Al_2$ metastable phase, cryst. struct. and phase anal. *(German)* 2−103694
Pd, surface (100), adsorbed H, phase diagrams for a square lattice with two- and three-body interactions 2−115556
α' Pd-D system, approx. to lattice gas, Monte Carlo simulation study 2−67307
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483
Pd-Te, liq. and solid alloys, thermodynamic props. 2−67297
Pr-P system, phase diagram 2−77807
R_2O_3-TiO_2, R_2TiO_5 structural transitions at high temp. obs. 2−86850
$Rb_2Cr_{1-x}Cd_xCl_4$, mag. props. study 2−87505
$Rb_2Cr_{1-x}Mn_xCl_4$, mag. props. study 2−87505
$Rb(D_{1-x}H_x)_2PO_4$, phase transitions, isotope effects, dielec. const. meas. 2−86853
Re-Si, phase diagram and supercond. transition temp., expt. study 2−98784
Rn-Sb, thermodynamic anal. *(Russian)* 2−93494
Ru-Al-Co system, phase diagram and corrosion resist. props. of various phases 2−99397
Sb_2O_3-V_2O_5 system, evidence of mixed valence compounds *(French)* 2−56921
Sc-H, phase boundaries at 295K, film resist. study 2−86880
Sc-Si-M (M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
Se-Ge, vitrification capacity estimation from phase diagram 2−86570
SeO_2-TeO_2-M_nO_m (M_nO_m=V_2O_5, MoO_3, Nb_2O_5, Sb_2O_3, La_2O_3), glass formation at high pressure 2−86576
SeO_2-V_2O_5-MoO_3, glass formation at high pressure 2−86576
Si-Ge system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
Si-R-M (R=Y, Ce, Ti, Zr, Hf, Sc, and M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
Si-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Si_3N_4, slip cast reaction bonded, α/β ratio, effect of α-Si_3N_4 grog additions 2−93493
Si_3N_4-SiO_2-La_2O_3 system, phase relationships 2−105134
Si_3N_4-SiO_2-MgO-Mg_3N_4 rel. to integranular phase of hot pressed Si_3N_4 2−111158
SiO_2-$MgO(Y_2O_3)(Ce_2O_3)$-Si_3N_4, computer-based calc. 2−62101
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
Sm-In system, phase diagrams and lattice spacings of cpds. 2−111141
Sm-In system, phase equilibria, cryst. struct., DTA, X-ray and metallographic study 2−92156
Sm_2O_3-BeO, phase equilibrium study 2−66168
Sm_2O_3-$SmPO_4$, high temp. behaviour 2−67740
Sn-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
SnO_2-Nb_2O_5, reactions after annealing, X-ray anal. 2−88065
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
SrO-Sc_2O_3-CaO(BaO), system, cryst. struct. and phase diagrams, X-ray diffr. study 2−91921
SrO-ZrO_2 system, electroconductometric analysis, struct. transitions obs. 2−98262
$SrTiO_3$, crossover exponent and struct. phase diagram, sp. ht. meas. 2−76665
Ta-H system, phase diagram and transitions, mag. susceptibility study 2−92155
Ta-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Tb-In system, phase diagrams and lattice spacings of cpds. 2−111141
Tb_2O_3-$TbPO_4$, high temp. behaviour 2−67740
Ti, liq., viscosity, C content influence, correl. with equilib. diagram 2−66273
Ti, $\omega \rightarrow \alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
Ti-Zr solid solns., phase diagram, $\alpha \rightleftarrows \beta$ transition 2−88077
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
TiNi, phys. props. temp. depend., martensitic transform. rel. to phase diagram 2−111176
$Tl_5As_2Te_3$-Te, intersecting section in Tl-As-Te system 2−111153
$TlBiTe_2$-2PbTe cross section, solid soln. form., physicochem. and electrophys. props. 2−57337
TlF-SnF binary system, cryst. struct., ionic cond. and thermal behaviour *(French)* 2−109769
$TlPrSe_2$-$TlInSe_2$, DTA, X-ray phase anal., elec. props. 2−77808
Tl_2S-GeS_2 system, phase equilibria, DTA, X-ray diffr. and hardness study 2−66171
$TlSbSe_2$-PbSe, phase diagram and physicochemical and electrophysical props. determ. 2−88067
TlSe-DySe, reaction in the system 2−88068
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
Tl_2ZnI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
TmSe, stoichiometry, press. effects, lattice parameter, resistivity 2−56203
U-W-B, phase constitution, X-ray diffr. photographs 2−83095

phase diagrams continued
UO_2-UC_2 spherical nuclear fuel, prod., appl. using thermochem. principles 2−108021
V, porous, eqn. of state and phase diagram parameters, calc. from expt. data 2−71607
V-H and V-D systems, modified phase diagrams, TEM obs. of transforms. 2−72671
V-Ni-P, phase anal., 1070K 2−83099
V-O system, phase relations, homogeneity, X-ray diffr. study 2−66173
V-Si system, A15 phase V_3Si congruent formation 2−86894
V_9N_4 and $V_{32}N_{16}$, N ordering, neutron and electron diffr. obs. 2−91879
VO_2-$CrNbO_4$ ($FeNbO_4$), solid solns., phase transitions, ^{51}V 2−110669
V_2O_3 based alloys, transition metal double doping effects on elec. resist. and phase diagrams 2−92565
W-Al-Ge system, ternary cpds. existence and struct. 2−57333
W-Ni-Fe system, thermodynamic calc. of phase diagram at 1540°C *(Korean)* 2−83085
Y-Co alloy, Y_5Co_{19} phase identification by thermomag. anal. 2−77292
Y-Cu-Ga system, phase form. and crystallographic characts. *(Ukrainian)* 2−83080
Y_2O_3-BeO, phase equilibrium study 2−66168
Yb-H, phase boundaries at 295K, film resist. study 2−86880
Yb_2O_3-Fe_2O_3-CoO (NiO)(CuO)(ZnO), phase diagrams, quenching method X-ray study 2−76639
YbS(Se)-$GeS_2(Se_2)$ reaction and phase diagrams 2−105131
YbS(Se)-$SnS_2(Se_2)$ reaction and phase diagrams 2−105131
YbTe-Sb_2Te_3, cross-section of Yb-Sb-Te system, expt. study 2−88062
Zn-Fe, delta phase stability meas. 2−111144
Zn-Sb system, crystallisation characts., metastable states, phase diagrams X-ray diffr. study 2−81935
Zn-Sn-Se phase diagram and electronic props., LPE 2−116428
$ZnCr_2S_4$-$CuCr_2S_4$ system, X-ray investigation 2−62107
Zr, liq., viscosity, C content influence, correl. with equilib. diagram 2−66273
Zr, $\omega \rightarrow \alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
Zr-Cu-Cr-Fe, phase diagram, isothermal section of Zr corner 2−83093
Zr-H, melting point, p-T phase diagram at high press. of H 2−71618
Zr-Ir system, phase equilib. study using thermal anal., metallographic and X-ray methods 2−83090
Zr-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292

phase equilibrium
see also phase diagrams; phase transformations; solutions
acetonitrile-ethanol-paraffin, liq.-liq. equilibr. study 2−103971
acetonitrile-methanol-paraffin, liq.-liq. equilibr. study 2−103971
alcohol-alkane systems, prediction of vapour-liq. equilibria, group-contrib. methods 2−115397
alkali silicate glasses, mixed alkali effect in phase separation 2−86882
alkaline earth metahafnate, thermodynamic stability investig. using EMF method with CaF_2-type electrolyte 2−81983
alloys, multicomponent, diffusional reactions, numerical treatment 2−61188
antiferromagnet, phase equilib. curve in case of strong cryst. field anisotropy *(Russian)* 2−82594
binary intermetallic compounds, struct. regularities 2−99403
binary liquid, defective two sublattice model 2−99387
cellulose ether-water-electrolyte systems, electrolyte systems, electrolyte distrib. and phase equilib. *(Russian)* 2−76642
chalcogenide systems, vitrification capacity estimation from phase diagram 2−86570
cholesteryl n-alkanoates, cholesteric helix pitch behaviour at cholesteric-smectic A phase transition 2−103988
cethanol-n-heptane, vapour-liquid equilbria, ebulliometric technique 2−98252
equilibrium fluid phases, surface tension along interface 2−103938
ethane, liquid-vapour coexistence curve *(Russian)* 2−103968
ethanol-n-nonane, vapour-liquid equilbria, ebulliometric technique 2−98252
FCC crystal-liquid interface, thermodynamic and struct. props., molecular distrib. function anal. 2−56166
fluid mixture, Redlich-Kwong-Soave volumes, consistent correction 2−98237
hexadecyltrimethylammonium fluoride-H_2O, phase equilibria studied by ^2H, ^{14}N and ^{19}F NMR 2−81958
III-V semiconductor based solid solutions, thermodynamic description 2−56194
imaginary compounds, Kurnakov's concept 2−99394
inhomogeneous fluids, transverse current-current correl. function, generalised Langevin theory 2−79500
isothermal flash problem, eqn. of state calc., stability anal. 2−115383
isothermal flash problem, phase split calc. 2−115384
liquid, coordination number, temp. depend. 2−115123
liquid mixture activity coeff. based on local area fraction concept *(Japanese)* 2−92169
liquid solution-solid powder close system, equilib. and stability conditions *(French)* 2−109948
liquid solution-solid powder closed system, hydration kinetics, appl. to $CaSO_4$ *(French)* 2−109949
liquid-gas interface, generalised van der Waals theory 2−104118
liquid-gas soln., bubble stability in closed vol., expt. and theory 2−115399
liquid-vapour equilibria, determ. by circulation methods 2−98254
metallic phase boundary, energy calc. *(French)* 2−87079
methane-ethane crit. mixt., liq.-gas crit. line prediction and interaction param. evaluation 2−71623
microemulsions, phase equilibria, Talmon-Prager model 2−98240
microemulsions, statistical mech. of interfacial region 2−57640
multicomponent mixtures, prediction of latent heat of vaporisation 2−98253
nematic fluids, Flory statistical mechanics, steric effects 2−60873
oxides, phase comp. determ., semiquantitative X-ray method 2−93708
phase separation and aggregation of precipitates, change in motive force of diffusion and free energy 2−92157
physical kinetics, theoretical aspects, book 2−58569
polar substances, vapour-liq. equilib., dipole hard sphere perturbation theory 2−66189
polydisperse fluids, phase equilibria 2−98239
polystyrene-liquid SO_2 system, phase equilibria 2−109953
precipitates, reversion of particles possessing sharp concentration gradients, theory 2−105148
PVC-oligoetheracrylates, phase equilib. obs. *(Russian)* 2−76641

phase equilibrium continued
quaternary mixtures, liquid-liquid equilib., singlet-triplet Ising model 2−61106
rigid spheres of different size, coordination numbers, number of nearest neighbour interactions in mixture estimation 2−98238
solutions, associated, vapour-liq. equilibria calc. 2−66190
steel, ferritic and austenitic, LMFBR materials, neutron irrad. effects 2−107950
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
stressed systems, thermodynamic equilibrium, chemical potential 2−92141
superalloys thermodynamics, activity coeffs. of Al, Ti, Cr, Fe, Co, Ni, Mo and W 2−99390
symmetries and collective modes in condensed matter phases 2−66158
symmetry in condensed matter physics, review 2−66159
ternary mixtures, liquid-liquid equilib., singlet-triplet Ising model 2−61105
thermodynamics of heterogeneous equilibria, book 2−58572
titanomagnetic solid solns., phase and point defect equilibria 2−109792
transition metal hydrides, low-temp. stable states, interstitial sublattices 2−86618
transition metals and alloys, omega phase formation, effect on mech. props. 2−77806
two-phase, diffusional creep 2−105218
two-phase equilibria and nucleation barriers near a critical point 2−103943
vapour phase crystal growth systems, complex heterogeneous equilibria 2−97954
vapour-liq. equilibria, modification of Martin eqn. of state 2−115398
X-ray scatt., small angle, phase boundary thickness determ., error anal. 2−65799
Zircaloy-4, Cr, Sn and O content effect on solid state phase boundary temp. 2−83083
Zircaloy-4, solid state phase equilib., 750 to 1050°C 2−83082
Ag-Pb alloys, rapidly quenched, Ag-rich phase 2−88056
Ag-Pd alloy, equiatomic, metallurgical instabilities, SRO and elec. resist. anomalies 2−93490
Ag-Sb-Te, ternary system, enthalpy of mixing *(German)* 2−76693
Ag-Sn, peritectic reactions and transforms, mechanisms 2−83087
Al alloys 2219 and 7075, precipitation and dissolution kinetics, calorimetric study 2−83127
Al-Al_2Cu, phase boundary, energy calc. *(French)* 2−87079
Al-Fe-Si alloys, commercial purity, DC casting, form. of intermetallic cpds. 2−88060
Al-Mn, peritectic reactions and transforms, mechanisms 2−83087
Al-Ti-Be, grain refinement, Be-enhanced 2−83086
Au-Mn alloys, thermodynamic anal. 2−99402
$Au_{10}In_3$, cryst. struct. 2−97998
Ba-Zn alloys, liq. 2−72670
CO_2-n-paraffins, Peng-Robinson equation of state, interaction parameters determ. 2−66160
Ca-Pd, phase diagrams and intermetallic phase cryst. struct., X-ray and DTA study 2−109955
Ca-Si-Al-O-N system, study of CaO-SiO_2-AlN section *(French)* 2−57339
$CaCl_2$ solns., densities rel. to salt effect on vap.-liq. equilib. 2−71538
$CaCr_2O_4$-$Ca_2Fe_2O_5$, phase equilibria, under reduced partial pressure of O_2 2−88075
$CdTl_2Se_4$-$CdTl_2Te_4$, solid solutions, character of formation 2−71616
Ce ternary alloys, behaviour of molar volumes 2−86893
Ce, thermodynamic props. in transcrit. region, theoretical anal. *(Russian)* 2−86905
Co-Ge-Te, phase equilibrium cross-sections 2−72679
Co-Ge-Te, physicochemical reaction, equilibria and cross-sections 2−72680
Co-Mn system, phase equilibrium for activity determ. 2−83096
Co-W-C, n-carbides, struct. stability *(German)* 2−83097
Cr-Zr-N alloy system, phase equilibria *(Ukrainian)* 2−67288
Cs-In, phase diagram, cryst. struct., liquid immiscibility, X-ray diffr. study 2−66176
Cu-Be, TEM obs. of microstruct. evol. in simulated ion irrad. alloys 2−86745
Cu-Fe-Se system, phase equilibria and stability field, X-ray, electron microprobe and DTA study 2−116429
Cu-Sb alloys, solid, thermodynamic props. *(German)* 2−88059
Cu-Sn, peritectic reactions and transforms, mechanisms 2−83087
CuPbM, (M=Ag, Ni, Sn, Sb), solid-liquid two-phase system, equilib. microstruct. and interface tensions *(French)* 2−61156
D_2-^4He system, three-phase vapour-liquid-solid equilib. *(Russian)* 2−56157
$(Fe,Ni)_3V$, long-range ordered alloys, fusion reactor appl., mech. props. 2−85218
ε-Fe phases, nitrides and carbonitrides, N substitution, influence of C, Mossbauer study 2−99389
Fe-C, phase equilib., small alloying additions influence *(Czech)* 2−116424
Fe-Co-Cr system, phase diagram, thermodynamic evaluation 2−72667
Fe-Mn, liq., activity coeff. of Mn, meas. by isobaric method *(Japanese)* 2−83084
Fe-Ni-Al system, phase equilib. and cryst. struct. of ternary phases 2−99399
Fe-Ni-Mo-B, metallic glasses, annealed, phase transforms 2−67302
Fe-Ni-NbC, phase equilib., struct., mag. props. and hardness *(Russian)* 2−67291
Fe-rich magnetites, $Fe_{3+x}O_4$, non-existence 2−83100
Fe-Sn, phase relations and multiphase diffusion 2−99400
Fe-W-C, n-carbides, struct. stability *(German)* 2−83097
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), C activity, influence of alloying additions *(German)* 2−93491
GaF_3-BaF_2, liquid-solid equilibria diagram, DTA *(French)* 2−55948
H_2O-alkaline earth dichloride systems, solid-liq. equilib., liquidus curve *(French)* 2−76643
H_2O-alkaline earth dichloride systems; solid-liq. equilib., diagrams *(French)* 2−76644
HfO_2-CaO, phase transition temp., polymorphic transition 2−88069
HfO_2-MgO, solid soln. form. 1670 to 3070K 2−72682
HfO_2-MgO system, struct. and phase props. *(Ukrainian)* 2−57336
HfO_2-MgO-Nb_2O_5(Ta_2O_5), ordered fluorite related phase 2−111159
$Hg_{1-x}Cd_xTe$, precipitation and phase stability 2−86879
Ho_2O_3-BeO, phase equilibrium study 2−66168
Ho_2O_3-SiO_2 system, solid state equilib. rels. in temp. range 1100-1600°C 2−88070
In-Sn-Cu system, dispersion-hardening pastes, phase comp. 2−111143

phase equilibrium continued
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
$LiIO_3$-HIO_3-LiOH-H_2O, microscopic obs. 2−86599
Li_2O-ZrO_2, cpd. form., thermal and X-ray obs. 2−83102
Li_2O-ZrO_2-$Na_2O(Al_2O_3)$, subsolidus phase equilibria 2−116430
Mg-Si O-N glass, dissolution kinetics of β-Si_3N_4 2−88071
MgO-B_2O_3 glass, phase relations, NMR and X-ray diffr. study 2−98247
MgO-FeO-$Fe_{2/3}O$, cation interdiffusivity in magnesiowustite solid soln., O_2 press. depend. 2−76753
Mn-Si (25 to 37.5 at.% Si), phase comp. and thermodynamic props. 2−83094
MnO-Al_2O_3 system, growth by Verneuil method, phase composition 2−105062
MoO_3-V_2O_5 system, phase equilibria, electron microscopy and X-ray diffr. study 2−115391
N_2O_4-NO, vapour-liq. equilibrium *(Russian)* 2−56170
$Na_{1/3}(H_2O)_yTaS_2$, $O \leq y \leq 2$, ambient temp. phase rels. 2−61155
Na_2O-CaO-$Ca_3(PO_4)_2$-Na_3PO_4-Na_2SiO_3-$CaSiO_3$, subsolidus struct. 2−111151
Na_2SO_3-$NaHCO_3$-H_2O system, thermodynamic relations and phase equilib. 2−83406
Nb-H, low-temp. stable states, interstitial sublattices 2−86618
Nb-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Ni alloys, C/O gas bubble form., thermodynamic requirements 2−105116
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-Cu-H solid soln., phase equilibria and magnetisation meas. *(Russian)* 2−98906
Ni-Mn liquid alloy, Mn activity 2−83089
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
NiO/Fe, solid-state displacement reaction at 1000°C 2−77805
Pb-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
$Pb_{1-x}Sn_xSe$ epitaxial layers, equilib. compositions and cond. type 2−66398
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
Pd-Cd system, phase stability thermodynamic studies 2−99391
Pd-Cd system, phase stability, struct. studies 2−99392
Sb-Te alloy, liq., absolute viscosity, temp. and comp. depend., Sb_2Te_3 intermetallic behaviour 2−82002
Se-Ge, vitrification capacity estimation from phase diagram 2−86570
Si-Sn, phase relations and multiphase diffusion 2−99400
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4-SiO_2-La_2O_3 system, phase relationships 2−105134
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
Sm-In system, phase equilibria, cryst. struct., DTA, X-ray and metallographic study 2−92156
Sm_2O_3-BeO, phase equilibrium study 2−66168
Sn-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
Sn-Tl-Hg, liq. alloys, viscosity and elec. resist. 2−71694
$SrSiO_3$-$BaGeO_3$, solid solutions, phase reactions, IR spectra 2−72693
Ta-H, low-temp. stable states, interstitial sublattices 2−86618
Ta-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Ti, $\omega \rightarrow \alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-H system, thermodynamics 2−111139
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971
Tl_2S-GeS_2 system, phase equilibria, DTA, X-ray diffr. and hardness study 2−66171
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
UO_{2-x}, hypostoichiometric, equilib. vapour press. and comp. at high temp. 2−80058
V-O system, phase relations, homogeneity, X-ray diffr. study 2−66173
V-Sn-Cu system, phase comp., stoichiometry and homogeneity, microstruct., X-ray and microhardness study 2−66172
V-Zr-O, penetration of Li at 670K 2−72681
V_2O_3-La_2O_3 system, phase equilib. relations 2−67306
W-Ni-Fe system, thermodynamic calc. of phase diagram at 1540°C *(Korean)* 2−83085
Y_2O_3-BeO, phase equilibrium study 2−66168
Yb ternary alloys, behaviour of molar volumes 2−86893
YbTe-Sb_2Te_3, cross-section of Yb-Sb-Te system, expt. study 2−88062
Zn solid/Zn-In(Bi)(Sn)(Pb) liquid, equilib. struct. transitions of solid-liq. interface 2−93487
$ZnCr_2S_4$-$CuCr_2S_4$ system, X-ray investigation 2−62107
ZnO-B_2O_3-Li_2O-H_2O system, crystallisation, characterisation by X-ray diffr. 2−103962
Zr, $\omega \rightarrow \alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
$Zr_{1-x}Hf_x(Mo_2)(W_2)$, high temp. equilib., struct. transformation 2−66177
$Zr_{1-x}Hf_x(Ti_x)Mo_2(W_2)$, high temp. equilib., struct. transformation 2−66177
ZrO_2-Al_2O_3-CaO, sub-solidus phase equilib. 2−111161
ZrO_2-Al_2O_3-Y_2O_3, solid electrolyte, phase equilib. 2−111160
ZrO_2-MgO-$Nb_2O_5(Ta_2O_5)$, ordered fluorite related phase 2−111159

phase equilibrium diagrams *see phase diagrams*

phase-locked loops
automatic tracking of a resonance peak in the Marx gauge technique 2−65547
DC motors phaselock loop control by optical tachometers, velocity and direction information recovery techniques 2−74404
heterodyne, secondary time/freq. measured standards appl. 2−79526
sarcomere length, phase-locked loop meas. with high time resolution 2−78509
US transducer frequency control using PLLs 2−97337
CO_2 lasers, freq. synchronisation and phase locking 2−114324

phase measurement
AC superficial discharge-insulating surface interaction, phase meas. apparatus 2−58848
automated high accuracy phase measurement system 2−107311
automated RF amplitude-phase meter for continuous and pulsed signals *(Russian)* 2−58850
electronic instrument for the direct measurement of phase shift and of power factor *(Rumanian)* 2−112918
meter centre-zero output, exclusive OR signal output technique 2−74468

phase measurement continued
microprocessor-controlled phase analysis for a 2-mm microwave interferometer on the TCA Tokamak 2−81588
seismic sounding, possibilities and limitations of phase unwrapping 2−100294
VLF phase meas. for precise T&F intercomparison 2−89667
VLF propagation phase velocity meas., time scale synchronisation effect 2−58774

phase meters
automated RF amplitude-phase meter for continuous and pulsed signals *(Russian)* 2−58850
centre-zero output, exclusive OR signal output technique 2−74468
digital IR phasemeter using laser emission frequency conversion 2−112985

phase modulation
ESR spectroscopy, relaxation characts. 2−110620
frequency standards, passive Rb, modulation effects 2−63964
moire topography contour interval interpolation by phase modulation 2−101455
serrodyne optical frequency translator performance, phase modulator driven by sawtooth waveform 2−60232

phase regulation *see phase control*

phase shift circuits *see phase shifters*

phase shift microphones *see microphones*

phase shifters
see also phase changing circuits
cyclotron RF beam burst phase shift corrector 2−75087
fusion reactors, thyristor power supplies control using automatic pulse phase shifter 2−69937

phase space methods
ECG signal phase plane representation 2−94224
magnetically insulated electron flow, two-dimensional time-dependent theory 2−96819

phase transfer function *see optical transfer function*

phase transformations
see also commensurate-incommensurate transformations; critical fluctuations; crystallisation; glass transition (glasses); heat of transformation; isothermal transformations; liquid crystal phase transformations; liquid-vapour transformations; phase diagrams; phase equilibrium; solid-liquid transformations; solid-state phase transformations; solid-vapour transformations; spinodal decomposition; vaporisation
σ models, strong coupling vs. large N 2−53943
ϕ^6 field system, finite temp. behaviour 2−95593
$A \approx 100$ transitional region interpretation in interacting boson model framework 2−54287
abelian gauge theories and spin systems, massless phases and symmetry restoration 2−53926
abnormal nuclear matter and pion condensation in σ-models 2−74739
n-alkanes, transition above melting point, sp. ht. meas. 2−66245
amphiphilic bipolar mols. monolayer on aq. substrates, phase transition models 2−92340
Ashkin-Teller model, Ising crit. exponents 2−107259
BeF_2/BeF_2^-, struct. changes, second order phase transition 2−75142
Benard convection, two-component, discontinuous transitions, critical and multicritical phenomena 2−70915
binary mixtures, solid and fluid, periodic spinoidal decomp. 2−61149
biomembranes, phase transitions, first order, pseudo-crit. props., statistical mechanics theory 2−67975
bistable systems, equilib. strength at deterministic limit of stochastic model 2−89623
boson and fermion systems, pressure study during interactions through mean field pot. 2−101310
broken rotation symmetry transitions, phase diagram instability, critical phenomena 2−103945
broken symmetries in condensed matter systems, review 2−63955
classical ferromag. spin systems, contour probability estimation 2−77249
classical fluids, one-dimensional Percus-Yevick eqn., phase transition 2−115389
continuous Potts model, phase transition *(Chinese)* 2−69092
cosmic entropy generation and phase transitions in the early Universe 2−58513
cosmological structure produced by phase transition near nuclear density 2−58509
trans-1,2-dichloroethylene, ordered liq. state, NMR study 2−81652
L-α-dipalmitoylphosphatidylcholine, lamellar liposome, biomembranes, phase transition study 2−78304
early Universe, de Sitter-Friedmann phase transition and finite temp. $\lambda\phi^4$ model 2−117821
early Universe, unified interactions and phase transitions 2−117840
Einstein's λ-transformation and the invariance of Einstein's tensor 2−63867
electron microscopy, conference, Kyoto, Japan (May 1981) 2−68953
first order, Landau-de Gennes model, Gaussian approx. 2−66163
first-order phase transitions, scaling function for structure factor 2−98244
fractal lattices, n^{th} order phase transitions, critical exponents from catastrophe theory 2−107256
Frohlich polaron, phase transitions in mag. field, Feynman approx. 2−76944
group theory application to phase transitions *(Japanese)* 2−101153
hadron structure, pairing scheme in Yang-Mills gauge theory 2−84862
Hamiltonian U(N) lattice gauge theory, $N=\infty$ phase transition absence 2−95628
hard ramrod lattice gas model, phase transitions using scaling transform. 2−63918
high-energy nuclei collisions, phase transition to quark matter, expt. signatures 2−69593
Hubbard model for half-filled band, phase transitions 2−87146
incommensurate phase with solitons, states *(Russian)* 2−61112
infinitely coordinated systems, size scaling 2−103941
interface, kinetic drumhead model 2−76877
Ising FCC quartet model, phase struct. 2−69097
Ising model, partition function zeros 2−101340
Ising model, regular and random, on Cayley tree, higher order susceptibilities 2−77248
Ising model of hypercubic lattices, crit temp., linear formula 2−112837
Ising model with random sublattice vacancies, phase diagram 2−95273
Ising transverse model with random local fields, tricritical line 2−84557
isotropic gases with generalised interacting charges, phase transitions 2−101369

phase transformations continued
isotropic helical Potts model on square lattice, phase boundaries 2−112839
Kosterlitz-Thouless phase transitions, two-dimens. sine-Gordon chain vortex solns. appl. 2−69028
Kosterlitz-Thouless transition, review *(Japanese)* 2−81933
Kosterlitz-Thouless transition for two dimens. phone rotator 2−95298
laminar flow heat transfer on annular channel walls, phase transitions effects 2−71030
Landau theory, inverse temp. expansion, symm. breaking pot. method 2−79519
lattice gauge theory, Monte Carlo calcs., review 2−53916
lattice QCD with fermions, high temp. behaviour 2−95750
limit cycle state, fluctuations, rel. to phase chaos 2−86830
lipid bilayers, viscoelasticity and phase transitions 2−116723
lipid monolayers, viscoelasticity and phase transitions 2−116723
majority rule model, real-space renormalisation group soln. and finite size scaling 2−84554
monolayer films, phase transitions, energy heterogeneity effect 2−104155
monopoles connected by strings, cosmological evolution 2−58516
o-nitrotoluene-n-paraffin mixtures, critical conc. and points 2−81943
non-Minkowskian space-times, vacuum stability and symmetry breaking 2−84803
nonequilibrium phase transitions, fluctuation dynamics *(French)* 2−84586
nonferroic phase transitions, order parameters 2−74375
nonlinear oscillators self-synchronisation in presence of fluctuations 2−74330
nuclear matter, quasispin systems irreversible dynamics 2−69592
nuclear matter, single particle wave functions of σ-τ phases 2−79964
open pseudobimolecular system, microscopic-macroscopic correlation 2−112851
optical pyrometry, technique at high shock press. 2−69171
order parameter profiles in one component systems with a temperature gradient 2−103940
periodic QED models, U(1) gauge group with mixed actions, phase structure 2−84839
phase transition in a lattice gas with extended hard core 2−107254
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
phospholipid bilayers, press. induced phase transitions, Landau phenomenological theory 2−83551
phospholipid bilayers, press. induced phase transitions, Landau phenomenological theory 2−105669
phospholipid vesicles, multilamellar, fluoresc. depolarisation studies of phase transition after microwave irrad. 2−111732
physical kinetics, theoretical aspects, book 2−58569
pinning of an interface by a planar defect, domain wall behaviour 2−107252
polarons, statistical props. in mag. field, thermodynamics 2−104268
polydimethylsiloxane-diethyl carbonate crit. mixt., phase separation 2−81967
polymer solution, two-dimensional, collapse transition, tricritical behaviour, Monte Carlo study 2−114142
Potts model, dil. s-state, geom. struct. and thermal phase transition at percolation threshold 2−63936
Potts model, first-order phase transitions 2−58717
Potts model, generalised three-state and antiferromag., phase transitions and entropy 2−66852
Potts models on pseudo-lattices, absence and presence of phase transitions 2−53680
quantum gravity in 1+1 dimensions with zero cosmological constant, exact soln. 2−79457
quantum optics first order phase transition analogies, complex order parameters 2−96870
quantum spin models, two dimens., approx. mapping on staggered eight-vertex models 2−101366
quark matter formation by heavy nuclear primaries, cosmic-ray anomalies explanation 2−63199
quark plasma critical behaviour, photon spectra 2−113232
quark-hadron transition in systems with net baryon number 2−90036
Quartet Ising model, Monte Carlo study consistent with selfduality 2−53681
quenched Eguchi-Kawai model, phase transition 2−113130
random cluster model on a Cayley tree 2−74336
renormalisation group eqns., Landau and Higgs polynomials extrema and fixed points 2−84582
Schlogl's second model, phase transitions 2−116683
self-dual quantum Potts model with multispin interactions in one dimension 2−53690
self-dual two-dimensional Potts model with multispin interactions 2−58724
semimetal, two-dimensional, electronic phase transitions in strong mag. field, correlation effects *(Russian)* 2−71897
solid-on-solid roughening, planar model, F model, and related systems, Monte Carlo test 2−69103
square dipole lattice, phase transitions *(Russian)* 2−53712
square well lattice gas model, phase transitions using scaling transform. 2−63918
Stefan problem, inverse problems of determining boundary regimes 2−114610
stochastic reaction-diffusion system, kinetic drumhead models of interfaces 2−112844
SU(2) Yang-Mills theory in (1+1) dimensions, finite-lattice method 2−53944
SU(3) gauge theory at finite temp., first-order phase transition 2−107545
SU(N) gauge theory, Wilson line 2−84866
superconducting phase transition, type I to type II, thermodynamic theory 2−82524
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
symmetry restrictions due to group-subgroup struct. 2−74374
thermal conductivity of materials undergoing phase change, automatic meas. equipment *(French)* 2−65464
thermal instability of phase transition front on decay of frozen metas table states *(Russian)* 2−56156
thermodynamical phases and surface effects 2−107279
three-component cubic model, fluctuation induced first-order transitions and symm. breaking fields 2−89645
two dimensional frustrated x-y model, phase transition, scaling eqns. 2−63923
two-dimensional classical XY model in random p-fold system breaking field 2−89635
phase transformations continued
two-dimensional Lennard-Jones system, phase transitions, stability, computer simulation 2−56155
two-dimensional non-abelian spin models, vortex condensation 2−79765
two-dimensional systems, quantum fluctuations 2−98241
n-vector model, geom. struct. and thermal phase transition at percolation threshold 2−63936
water-oil microemulsion, dynamic scaling near critical phase transition point 2−115400
alkali metal oxide-CaO-Al_2O_3-SiO_2 glass, liq.-liq. phase separation, struct. interpretation, alkali aluminate complex form. 2−103973
$As_{1-x}S_x$ glass-forming liqs., viscosity and struct. transition 2−61187
CO_2/CO_2^-, struct. changes, second order phase transition 2−75142
CaO-Al_2O_3-CaF_2, melt struct., anion packing 2−71325
CsCl, luminesc. above the phase-transition temp. 2−116242
Cu (110), adsorbed Kr and Xe, surface structs. and uniaxial phase transitions 2−66367
$Fe(CO)_5$, adsorbed (0001) graphite, dynamical props., Mossbauer study 2−56342
H_3/H_3^+, struct. changes, second order phase transition 2−75142
HPO_3, hydrated microdrop, normal-super liq. transform., SEM study 2−98258
NH_3/NH_3^+, struct. changes, second order phase transition 2−75142
Si (111) surface transitions, unified description 2−82106
Si crystal surface picosec.-laser-induced phase transform. 2−75616

phase transitions *see phase transformations*

phased arrays (antenna) *see antenna phased arrays*

phasons
Goldstone symmetry violation in incommensurate systems 2−69122
incommensurate cryst. phases, microscopic model 2−81925
incommensurate phase, light scatt. characts. in presence of devil's ladder 2−87806
incommensurate phases, acoustic anomalies 2−66162
metals, incommensurate charge density wave phase-amplitude instabilities 2−115683
quasi-one-dimensional CDW system, life time of phase mode due to interchain coupling 2−61104
thiourea, phases I to V, US props. 2−109911
$BaMnF_4$, incommensurate transition, phason light scatt. 2−76660
K, phason anomaly rel. to heat capacity data 2−76698
K, phason evidence from sp. ht. data 2−76699
Rb, phason anomaly rel. to heat capacity data 2−76698

phi mesons
mass, precision determ. from $K\bar{K}$ mass histograms 2−79911
production in $pp \rightarrow X$ at 63 GeV/c 2−107706
$\bar{p}p \rightarrow 0$, 2.8-4.8 GeV, differential cross-section, spin density matrix elements 2−54179
$e^+e^- \rightarrow K_S^0 K^\pm \pi^\mp$, 1.4-2.2 GeV, ϕ' obs. 2−74697
K^-p, 10,16 GeV, inclusive $\phi(1020)$ prod. cross section, comparison with ψ prod. 2−101778
$K^-p \rightarrow K^+K^-(\Lambda/\Sigma^0)$, 18.5 GeV/c, high mass ϕ-like state 2−54214
μp, 100, 150 GeV, ρ, ρ' and 0 diffractive prod., mass distrib. 2−95850
$\bar{\nu}p \rightarrow e^+n\rho^0$, possible alternative for neutrino oscillations in interaction data 2−113263
pN, 70 GeV/c, ϕ inclusive prod., differential cross section, transition coupling constants 2−69494
$pN \rightarrow \phi X$, 70 GeV/c, inclusive prod. cross-section, rel. to quark-parton model *(Russian)* 2−59199
$pp \rightarrow pK^+K^-p$, pol.p, 11.75 GeV/c, ϕ meson prod. 2−74714
$\phi \rightarrow \pi^+\pi^-(\mu^+\mu^-)$, decay probability meas. *(Russian)* 2−54147
π^-p, 16 GeV, inclusive $\phi(1020)$ prod. cross section, comparison with ψ prod. 2−101778
$\pi^-p \rightarrow \phi\phi n$, OZI rule, colour confinement and glueballs 2−59102
$\pi^-p \rightarrow \phi\phi n(\phi K\bar{K}n)$, 2^+ glueball effects 2−113237
$\psi \rightarrow \phi S^*(\phi f')$, 2^+ glueball effects 2−113237

philosophical aspects
Arabic science, natural history including geology, mineralogy, botany and zoology *(Japanese)* 2−112681
Aristotelian force as Newtonian power 2−107078
consciousness, wave logic hypothesis 2−58586
experimental facts, trustworthiness 2−68998
explanation of an event not necessarily corroborated by the event 2−107080
Gallileo, biographical notes, math. claims and contribs. to scientific rationalisation *(Italian)* 2−68994
Kant's thoughts on the ageing of the Earth 2−89515
logic discovery, invention and induction, divorce thesis 2−107076
mystical concepts, rel. to those of physics 2−53479
protecting future generations 2−63798
quantum theory, book 2−68975
science, ethnoscience, and ethnocentrism 2−107079
science and technology, regularities in development *(Russian)* 2−89518
science in Liverpool in the early 19th century 2−89517
science teaching and conceptual change 2−112675
sensation, postulational strategy, Sellarsian materialism 2−107077
verisimilitude, theoretical and pragmatic preference of rival theories 2−107075
Whitehead-Heisenberg ontology, mind, matter, quantum theory, relativity, interrelationships 2−58585

phonographs *see gramophones*

phonon bottleneck *see phonons*

phonon-defect interactions
see also lattice localised modes
ballistic acoustic phonons in crystals, high energy, optical studies 2−109931
ice, hexagonal, heat cond. anisotropy, 0.5 to 20K 2−98356
insulator, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
molecular crystal, electronic excitation energy transfer, electric field effects 2−98548
polyethylene, semicryst., low temp. phonon cond., dislocation and point defects effects 2−92295
quartz, defects created by γ-ray, electron, and neutron irrad., thermal phonon transport study 2−56273
semiconductors with cubic symmetry, influence of dynamic Jahn-Teller effect on phonon-scattering mechanism at acceptors 2−98599
thermal conductivity, lattice, role of low freq. phonons 2−61218
CaF_2:Eu^{2+} crystal, scatt. of terahertz phonons, luminesc. detection and piezospectroscopic obs. 2−103926

phonon-defect interactions continued
Ge, plastically deformed, phonon scatt. 2−92133
InSb:Ga, lattice thermal cond., 0.35-3K 2−98353
LiF, deformed, thermal cond. 0.05 to 5K, phonon-dislocation scatt. 2−56276
LiF, highly deformed, phonon-dislocation interaction anisotropy, phonon imaging study 2−86818
NaF, suitability for phaser material, phonon lifetime and scatt. 2−86815
NaF, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
SmB_6, intermediate valent, phonon softening, Raman spectra study 2−57081

phonon dispersion relations
ab initio pseudopotential calc. method 2−76620
acetylene, cryst., lattice dynamics and struct. phase transition 2−92123
alkali halide single crystal surface, inelastic He beam scatt. 2−99254
alkali halides, ion dynamics, anion-cation mirror symm. 2−81911
alkali metal, BCC, model calcs. 2−66145
anthracene-d_{10}, low freq. phonon dispersion, butterfly and twisting motions 2−76613
anthracene-d_{10}, phonon dispersion branches at 12K, inelastic neutron scatt. study 2−66149
BCC metals, noncentral force 2−98216
BCC structure, LA-$^2/_3(1,1,1)$ anomaly 2−92125
desorption entropy, surface wave theory 2−56333
diamond structure crystals, lattice dynamics, deformable ion model, calc. program 2−66144
dielectric, thermal wave propag., high freq., dispersion relation, second sound, diffusive flow 2−56113
HCP metals, lattice dynamics, three-body interaction model 2−98215
inert-gas solid, unpaired forces and phonon dispersion 2−61091
IV-VI semiconductors, lattice dynamics and phase transitions, shell model, 3D highly nonlinear 2−92140
liquid metals, non-simple, sound vel. and entropy, Percus-Yevick phonon description 2−61068
metals, interionic interactions model, elastic consts. and phonon spectra calc. 2−81711
metals, nonsimple FCC, lattice dynamics theory 2−76615
mixed valence compounds, phonon anomalies rel. to electronic struct. 2−56115
mixed valence system, dynamical susceptibility and neutron scatt. cross-section 2−56516
naphthalene, external phonon spectrum, neutron scatt. time of flight spectra study 2−71596
non simple metals, FCC, appl. of improved Fielek model 2−76611
polyoxymethylene single cryst., phonon dispersion curves and elastic props. 2−92136
transition metal oxide, three-body force shell and deform. dipole model effects 2−56114
transition metals, BCC, simplified forms of Fielek model 2−115368
transition metals, HCP, lattice dynamics, dipole fluctuation model 2−81912
zincblende structure crystals, lattice dynamics, deformable ion model, calc. program 2−66144
(100), soft surface phonons and reconstruction, dispersion relations 2−92128
Al, coherent neutron scattering from polycrystals 2−56120
Al, interatomic pair pot. calcs. 2−91865
Au, FCC, appl. of improved Fielek model 2−76611
Au, lattice dynamics, relativistic effects 2−103917
BaS(BaSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
CS_2, solid, intermol. modes, neutron and Raman scatt. studies 2−98211
Ca, coherent neutron scattering from polycrystals 2−56120
CaS(CaSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
Cd, electron-phonon coupling, inelastic neutron scatt. 2−56129
Cd, phonon dispersion calc. 2−61088
Cd, phonon spectra and cryst. struct. 2−115370
CdI_2:Ni^{2+}(Co^{2+}), phonon side bands in absorpt. spectra 2−99161
γ-Ce, lattice dynamics, dispersion curves 2−92127
CeO_2, first-order Raman spectrum linewidth, temp. depend. 2−110861
Co, FCC, cryst. dynamics 2−86813
Co, lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
$CoBr_2$, lattice and mag. vibr. study 2−86803
Cr_3Si, lattice dynamics neutron scatt. study 2−92126
Cu, interatomic pot. functions from phonon dispersion relations 2−109737
Cu, phonon dispersion, three-body interactions effects, theory 2−98217
β-Ga, metastable, neutron inelastic scatt. study of phonons at melting temp. 2−56119
GaP, lattice dynamics under hydrostatic pressure 2−98223
Ge, focusing of high-frequency dispersive phonons 2−61093
Ge, phonon focusing of dispersive phonons 2−115371
Ge, thermal conductivity at low temp. 2−76759
^{4}He, liq., phonon pulses, injected, charact. temp. meas. 2−61224
HgSe, lattice dynamics, neutron scatt. study 2−98227
HgTe, lattice dynamics, neutron scatt. study 2−98227
HgTe(Se), lattice dynamics, rigid ion model, neutron scatt. study 2−86809
Ho, phonon dispersion calc., model with 3-body forces 2−61089
KCl, surface phonon dispersion rel. meas. using He atomic beam 2−66143
$KCl_{0.5}Br_{0.5}$, phonon dispersion, inelastic neutron scatt. study 2−115372
$K_{0.5}Rb_{0.5}Cl$, phonon dispersion, inelastic neutron scatt. study 2−115372
LaAl, lattice dynamics, inelastic neutron scatt. meas. 2−56117
LiF, surface phonon dispersion rel. meas. using He atomic beam 2−66143
LiF(001), surface phonon dispersion relations 2−109929
Na, phonon dispersion and thermophysical props. 2−56118
NaF, surface phonon dispersion rel. meas. using He atomic beam 2−66143
NaF(001), surface phonon dispersion relations 2−109929
$NaNO_3$, lattice mechanics, phonon dispersion, rigid mol. ion model 2−109927
$NbH_{0.99}$, lattic vibr. spectrum, inelastic neutron scatt. study 2−71597
$NbSe_2$-2H, normal state phonon prop. anal. 2−103919
Ni, exchange energy meas. by high freq. sound probe 2−66804
Ni, exchange splitting of phonon assisted microwave transmission at 9.5 GHz 2−66885
Ni, nonsimple FCC metals, lattice dynamics theory 2−76615

phonon dispersion relations continued
Ni, phonon dispersion, three-body interactions effects, theory 2−98217
Ni-Ti, electron-phonon interaction contrib. to phonon dispersion curve, pre-martensitic phenomena 2−81915
NiO mag. and lattice mechanical props. 2−92890
Pb, linear potential calcs. of phonon props. 2−66146
6H-PbI_2, Raman spectrum, phonon dispersion curve 2−87765
PbI_2:Ni^{2+}, phonon side bands in absorpt. spectra 2−99161
Pd, nonsimple FCC metals, lattice dynamics theory 2−76615
Pt (100) soft surface phonons and reconstruction, dispersion relations 2−92128
Rb, phonon dispersion curves 2−76610
Si, ab initio calcs. of phonon dispersion relations 2−76620
Si, electronically excited, phonon spectrum, rel. to laser induced recrystn. 2−115373
β-SiC, phonon dispersion, bond-bending force model 2−76617
SiC, phonon dispersion, atomic force consts. 2−86808
SmS, mixed valence, lattice dynamics 2−76621
$Sm_{0.75}Y_{0.25}S$, intermediate valence cpd., lattice dynamics 2−56111
SrS(SrSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
$TaSe_2$-2H, normal state phonon prop. anal. 2−103919
Tb, phonon dispersion calc., model with 3-body forces 2−61089
Tc, lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
Th, FCC, appl. of improved Fielek model 2−76611
Ti, lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
Tl, phonon dispersion calc. 2−61088
TmSe, intermediate valence cpd., lattice dynamics 2−56111
Tm_xSe, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
$TmSe_{1-x}Te_x$, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
US(Te)(As), rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2−72153
YAl, lattice dynamics, inelastic neutron scatt. meas. 2−56117
Zn, phonon dispersion calc. 2−61088
Zn, phonon spectra and cryst. struct. 2−115370
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
ZrC, phonon dispersion, deform. dipole model 2−86807

phonon drag
alkali metals, electron transport props., electron-phonon and electron-electron scatt. contribs. 2−115727
extrinsic semiconductors and semimetals, Kane spectrum of electrons, nonlinear galvanomagnetic effects *(Russian)* 2−92660
graphites, exfoliated, thermopower, diffusion and phonon drag components 2−82389
metals, electron-phonon elec. resist. at low temp., theory 2−77031
one-dimensional metal, phonon drag effects on cond., SCF model, soft mode role *(Russian)* 2−56561
semiconductor, bounded, galvanomag. and thermomag. effects under mutual electron-phonon drag conditions 2−77094
semiconductor, magnetoresistance, size effect under conditions of mutual drag of heated electrons and phonons 2−61493
semiconductor, photoelectric effects from indirect interband and intervalley transitions assisted by acousticwaves 2−61519
semiconductors, galvanomagnetic and thermomagnetic phenomena in strong mag. field, hot electron-phonon mutual drag effects *(Russian)* 2−77101
TCNQ salt, TTF-TCNQ, conductivity and dielec. const., phonon drag theory 2−87282
C, soft, thermopower, 4.2 to 280K, rel. to phonon drag, heat treatment temp. influence 2−77103
Ge:P, phonon drag thermoelectric power and thermal cond., boundary scatt. effects 2−82388
TTF-TCNQ, anomalous IR dielec. const. explained 2−87732
Zn, electron drag and phonon drag on mobile dislocations, distinction using mag. field influence 2−109809

phonon-electron interactions *see electron-phonon interactions*

phonon-exciton interactions
absorption lineshape of exciton under lattice vibrs., average oscill. strength per state 2−82807
absorption lineshape of exciton under lattice vibrs., Monte Carlo calc. 2−82806
absorption lineshape of exciton under lattice vibrs., Urbach rule 2−82808
anthracene, vibronic excitons, thermorefl. spectra study 2−82832
1,4-dihalonaphthalene, crystals and solid solns., singlet-triplet transition dynamics, exciton-phonon coupling 2−81904
disordered systems, localisation of exciton states, dipole-dipole interaction 2−66496
exciton polaritons, 1-D model study 2−98550
excitons, diamagnetic, polarisation vibr. interaction in strong mag. field 2−104261
molecular cryst., excitons and carriers, band and hopping diffusion, electron-phonon coupling effects 2−56572
molecular crystal, electronic excitation energy transfer, electric field effects 2−98548
molecular crystals, dispersive and other second-order terms in exciton-phonon coupling 2−82237
naphthalene: 2(1,4-diiodotetrafluorobenzene), exciton-phonon coupling, triplet energy transfer, Raman spectrosc. obs. 2−104869
optical response of exciton-phonon system, formulation of emission spectrum 2−67098
optical response of exciton-phonon system, reson. Raman scatt. and luminesc. 2−67099
organic materials, two particle exciton phonon excitations, structural disorder effects 2−109918
α,β-perylene, optical absorpt., exciton-lattice interaction 2−87809
superfluidity in exciton systems 2−110254
tetrachlorobenzene, exciton phonon scatt. at low temp., triplet exciton dynamics 2−109917
1,2,4,5-tetrachlorobenzene, triplet exciton system, impurity assisted scatt. study 2−82241
thermal shift of the exciton absorption bands 2−93136
$Cd_{1-x}Mn_xTe$, absorpt. edge temp. depend. 2−61903
CdS, exciton luminescence and electron-hole plasma near acoustic instability 2−87865
CdS, free exciton momentum relax. *(Russian)* 2−104257

phonon-exciton interactions continued
CdS, green electrolum. and photolum. study 2−72558
CdS, recomb. radiation spectra of electron-hole plasma 2−116255
CdS_xSe_{1-x}, fluorescence line narrowing, localised exciton states, and spectral diffusion 2−82909
InSe, exciton selection rules in polarised reson. Raman scatt. by LO phonons 2−67034
NaI, excitation spectra of exciton luminescence, hot exciton effects 2−66457
PbI_2, dynamical props. of excitons in layer crysts. 2−98551
PbO, tetragonal, exciton thresholds, wavelength-modulation of photocond. spectra 2−104434

phonon-impurity interactions
see also lattice localised modes
ballistic acoustic phonons in crystals, high energy, optical studies 2−109931
crystal lattice with isomers, optical activity 2−82817
impurity diffusion rate, validity of Brownian-motion theory, phonon modes 2−76748
ionic crystals, phonon scatt. by paraelec. centres 2−109925
Jahn-Teller impurity centres, quadratic interaction with ferroelec. soft host mode 2−93128
semiconductor; degenerate band, bound polaron energy, variational and perturbation calc. 2−115674
semiconductors, II-VI and III-V, luminescence of deep transition metal centres 2−57152
two-impurity system, asymm. ground states, local phonon transfer 2−109933
$CaF_2:Eu^{2+}$ crystal, scatt. of terahertz phonons, luminesc. detection and piezospectroscopic obs. 2−103926
$CaF_2:Sm^{2+}$, acoustic phonon-impurity interaction, luminesc. study 2−93269
GaAs:Cr, phonon scatt., tunnelling parameter, thermal cond. study 2−61086
Ge, thermal cond., phonon scatt. processes at low temps. 2−56275
LiF surface (001), inelastic scatt. of Ne atoms 2−57239
NaF, suitability for phaser material, phonon lifetime and scatt. 2−86815
Ps-phonon interaction, effect on Ps atom momentum distrib. 2−115712
ZnSe, phonon scatt. at impurity pairs, luminesc. excitation spectra 2−57177

phonon-magnon interactions
antiferromagnet, nuclear spin-lattice relax. mechanisms 2−72373
magnetically ordered crysts., phonon and spin wave hybridization *(Russian)* 2−77278
spin glass, magnetoelastic interaction, spin wave and elastic wave damping 2−92917
$CdCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
$CoBr_2$, lattice and mag. vibr. study 2−86803
$CoBr_2.6H_2O$, thermal cond., mag. field depend., 1.5 to 30K 2−82043
$FeBO_3$, parametric phonon excitation *(Russian)* 2−72328
$FeBO_3$, phonon parametric excitation, FMR nonlinear relax. 2−77349
$HgCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
Ni, exchange splitting of phonon assisted microwave transmission at 9.5 GHz 2−66885

phonon-phonon interactions
see also Umklapp process
calc. of lattice thermal cond. components 2−110055
conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
dielec., sp. ht. and thermal cond. 2−86960
dielectric, thermal wave propag., high freq., dispersion relation, second sound, diffusive flow 2−56113
disordered cryst. alloys, elec. resist., calc., multiphonon processes effect 2−66521
disordered semiconductors with Coulomb-type random field, interband absorpt., multiphonon transitions effects 2−104840
displacive phase transition, dynamics of 1-D model *(Russian)* 2−98236
insulator, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
many-valley semiconductor, conductivity, phonon inequilib. effect in an EM heating field 2−82342
multiphonon recombination theory, adiabatic approx. applicability 2−61094
non-radiative multiphonon transitions, non-Condon approx. and static approach 2−57169
nonradiative multiphonon capture of free carriers, adiabatic wave functions, perturbational theory 2−57170
phosphate glass:Nd^{3+}, radiative and nonradiative props. 2−61951
semiconductor, two bands model for nonradiative multiphonon recomb. at deep level defects 2−116233
semiconductors, interzone light absorpt., multiphonon processes, with Coulomb random field 2−72439
semiconductors, multiphonon release of trapped electrons, theory 2−92650
semiconductors with cubic symmetry, influence of dynamic Jahn-Teller effect on phonon-scattering mechanism at acceptors 2−98599
silicate glass:Nd^{3+}, radiative and nonradiative props. 2−61951
surface-adspecies system, laser/phonon stimulated processes, synergistic effects, master eqn. approach 2−66371
thermal conductivity, lattice, role of low freq. phonons 2−61218
three-phonon relax. of high-energy phonons 2−103921
transition metal compounds, Raman scatt. from anomalous phonons 2−57089
two-level system, nonradiative multiphonon transitions, static versus adiabatic coupling scheme 2−98228
$BaGeO_3$-Al_2O_3-CaF_2-MgF_2:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
CsF, lattice dynamics, effect of second order deform. dipole moment 2−76622
$CuInTe_2$, two-phonon absorption spectra meas. 2−93197
$GaP_{1-x}As_x$, phonon line shape and disorder correl. 2−56127
Ge, thermal cond., phonon scatt. processes at low temps. 2−56275
Ge, three-phonon processes, resonance effects in thermal cond. 2−81913
HgTe, lattice thermal cond., three phonon scatt., SDV model 2−82042
InSe, two-phonon absorpt. spectra, pol. and temp. depend. 2−57095
α-$LiIO_3$, stimulated Raman scatt., multimode lattice vibr. excitation obs. 2−65300
N_2 multilayer films, intramol. vibr. excitation accompanied by multiphonon transitions studied by electron impact 2−72583
NH_4Br, local biphonon *(Russian)* 2−86816
NaF, suitability for phaser material, phonon lifetime and scatt. 2−86815

phonon-phonon interactions continued
NaF, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
Si, phonon-phonon scattering cross-sections from crossed phonon beams 2−76623

phonon-plasmon interactions
polar semiconductor, carrier mobility, effect of renormalised plasmon-phonon oscills. 2−77060
semiconductors, electronic Raman scatt., review *(Japanese)* 2−72508
Ag chalcogenides, collective motion, plasmon-LO phonon coupling and cond. 2−56108
$Cd_3P_2(As_2)$, far IR reflectivity meas. 2−93210
p-GaAs, heavily doped, coupled LO phonon-plasmon modes and forbidden TO modes, Raman scatt. study 2−57101
GaAs:Si, ion implanted, surface polaritons, frustrated internal refl. spectra study 2−71886
GaAs-GaAlAs superlattice with doped quantum wells, collective models 2−104279

phonon softening *see soft modes*

phonons
see also crystal surface and interface vibrations; electron-phonon interactions; lattice phonons; phonon-defect interactions; phonon dispersion relations; phonon-exciton interactions; phonon-impurity interactions; phonon-magnon interactions; phonon-phonon interactions; phonon-plasmon interactions; spin-phonon interactions; tunnelling spectra; tunnelling spectroscopy; vibrational states in disordered systems
biological systems, Bose-Einstein condensation, derivation of kinetic equation in Frohlich anharmonic model 2−116868
Bose systems, two-dimensional, quasi long range order 2−107230
galaxy formation and phonons 2−101066
particle-nature, absolute space-time theory 2−79353
rotons, phonon emission, quasiparticle gas relax. *(Russian)* 2−86967
sine-Gordon eqn., phonon-soliton interactions, wave mechanics 2−101186
He surface, two-dimens. electron lattice, phonon-ripplon coupled modes 2−110089
^{4}He adsorbed on SiO_2, isotherm, US attenuation phonon echo meas. 2−104107
^{4}He, liq., bolometer freq. response 2−61225
^{4}He, liq., sound attenuation at very low temps. 2−115485
^{4}He, liq. and solid, Kapitza resistance meas. 2−110064
^{4}He, superfluid, two-particle excitations, rel. to loss of spatial order at T_λ 2−110072
^{4}He-quartz interface, anomalous Kapitza cond. saturation 2−110073
SiO_2, fused, evidence for struct. contrib. to phonon lifetimes 2−76628

phosphate glasses
for iron and vanadium phosphate semiconducting glasses see amorphous semiconductors
see also phosphosilicate glasses
detectors, etched track profiles, SEM studies 2−70091
fluorophosphate glass:Co^{2+}, absorption spectra of Co^{2+} meas. at solid-liquid transformation 2−104924
fluorophosphate glass:Co^{2+}(Ni^{2+}), ESR study *(Chinese)* 2−110622
fluorophosphate glass:Cr^{3+}(Mo^{3+}), ESR study *(Chinese)* 2−110621
glass:Gd^{3+}, EPR with g≈6.0, reinterpretation 2−110636
glass:Nd^{3+}, radiative and nonradiative props. 2−61951
metalphospate glasses, fracture toughness 2−88176
metaphosphate, retarded elasticity 2−62162
near IR absorption of H_2O, OH group vibr. bands 2−99125
phoshate glass:Co^{2+}(Ni^{2+}), ESR study *(Chinese)* 2−110622
phosphate glass:Cr^{3+} (Mo^{3+}), ESR study *(Chinese)* 2−110621
pyrophosphates, crystalline and glassy, IR spectrum 2−72486
silicate phosphate layers, sol-gel process prep. 2−77792
solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
$50P_2O_5+FeO_{50-x}+(V_2O_5)_x$, phosphate glass, XANES study of V 2−87904
BaO-PbO-P_2O_5-Nd_2O_3, glass, separation of luminescence-quenching processes 2−104964
CaO-FeO-P_2O_5 glass, internal friction meas. 2−92105
$2CaO.K_2O.xFe_2O_3.(5-x)P_2O_5$ glass, elec. cond., temp. depend. anomaly 2−56580
CdO-ZnO-P_2O_5 glasses, elec. conduction at high elec. fields, Poole-Frenkel effect 2−56599
$CsNdP_4O_{12}$, cryst. and glass, room temp. fluoresc., laser material use 2−93240
CuO-CaO-P_2O_5, IR absorpt. spectra, CuI addition influence 2−116213
Fe-containing, elec. cond. 2−110406
FeO-V_2O_5-P_2O_5, internal friction and elec. cond., interpret. w.r.t. valency state of V ions 2−92606
Li-Nd-La phosphate glass, high conc., use in Q-switched lasers 2−55167
Li-Nd-La phosphate glass laser, high conc., efficiency at low pump energies, free lasing 2−55168
LiLaSm-phosphate glass:Sm^{3+}, luminesc. selective laser excitation study 2−67109
Li_2O-P_2O_5 glass fibres, mech. props. and struct. aspects rel. to drawing process 2−93608
Li_2O-P_2O_5:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
$NaPO_3$-$NaF(AlF_3)(AlF_3$-$CaF_2)$ glasses, Raman spectra, struct. models 2−87758
Nd^{3+}:phosphate glass, $^4I_{9/2}$ state, Stark struct. meas. under selective laser excitation 2−87867
P_2O_5 glasses, Gd^{3+} doped, vibronic spectra comparison with Raman and IR spectra 2−72499
P_2O_5-MnO_2 glass, antiferromagnetism, mag. susceptibility, Neel temp. 2−72173
P_2O_5-SnO_2-$MgO(CaO)$,(SrO),(BaO), Mossbauer and IR spectra quadrupole splitting 2−104767
V_2O_4-P_2O_5 glasses, struct. characterisation, density and molar volume 2−65872
V_2O_5-B_2O_3-P_2O_5 glasses, electronic cond. and dielec. relax. rel. to struct. 2−61471
V_2O_5-P_2O_5/Au(Al) (graphite) struct., contact limited conduction, work function effects 2−72056
V_2O_5-P_2O_5-MoO_3, glass, threshold switching in bulk specimens 2−98703
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2−66492

phosphorescence
see also fluorescent screens; MIDP; phosphors
acenaphthenequinone, in 1,4-dibromonaphthalene matrix, phosphoresc. study 2−67107

phosphorescence continued
acetaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetone, phosphoresc. lifetime, ab initio CI calcs. 2−80502
adenine cation cryst., luminesc., excitation wavelength depend. 2−104941
alkali halides, activated, photoconductivity, thermoluminescence and TSC 2−82404
anthracene, delayed fluoresc., external heavy atom and mag. field effects 2−110926
aromatic mols. in presence of heavy atom perturbers, phosphoresc. and triplet state decay functions 2−102520
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
benzil in benzophenone-d_{10}, ENDOR and electron nuclear-nuclear triple reson. study, ^{17}O hyperfine coupling 2−98995
X-benzophenone, doped, excitation transfer, temp. depend. 2−77572
benzophenone, doped, excitonic phosphorescence 2−110935
benzophenone+biacetyl energy transfer, phosphoresc. and fluoresc. decay study 2−75386
benzophenone amino derivatives, electronic absorpt. and emission spectra 2−75306
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
biphenyl-naphthalene(pyrene), mixed cryst., triplet exciton fusion, luminesc. study 2−110913
chlorobenzene in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
p-dibromobenzene, in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
p-dichlorobenzene, in rigid glass soln., dual phosphoresc. obs. by time resolved emission spectroscopy 2−87834
4,4′-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
1,4-dihalonaphthalene, crystals and solid solns., singlet-triplet transition dynamics, exciton-phonon coupling 2−81904
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
dimethylbenzaldehydes, in durene single crysts., phosphoresc. lifetimes 2−67094
formaldehyde, π^*-n phosphoresc., spin-orbit interaction 2−80713
formaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
1-indanone single cryst., Stark effect of lowest triplet states 2−104321
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2−102526
liquid chromatographic phosphoresc. detect. with micellar chromatography and postcolumn reaction modes 2−116734
multidimensional phosphorimetric analysis 2−67773
naphthalene, cryst., isotopically mixed, subst. disordered, triplet exciton transfer and fusion 2−92474
naphthalene clusters, triplet states, phosphoresc. lineshape anal. using spin-spin and spin-orbit interactions 2−96615
naphthalene in Ar, Kr and Xe matrix, phosphorescence spectra, electronic transitions 2−61957
naphthalene-d_8, phosphorescence, double exponential decay and noise levels 2−93248
nonsecond-quantised radiation effect on chemical systems 2−116690
nucleic acid components, excited-state props. 2−99899
organic crystals, level anticrossing phenomena in phosphoresc. and optical nuclear polarisation 2−104746
poly-N-epoxypropylcarbazole, films and solns., absorption and emission spectra meas. 2−67119
poly-N-vinylcarbazole, nitrated, soln., electronic excitation energy transfer, fluorescence and phosphorescence study *(Russian)* 2−77592
polyvinylcarbazole, nitrated, exciton migration and localisation on defect and impurity levels, luminesc. obs. *(Ukrainian)* 2−82896
propynal, nonradiative relax., fluoresc. and phosphoresc. 2−104933
propynal and its deuterated compounds, deactivation of $S_1(n\pi^*)$ state, fluoresc. lifetimes 2−70317
pyrazine on Ag (111) and Ni surface, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 Å 2−102523
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2−108606
ruby, electronic Raman transition and phosphorescence, zero phonon lines, pure dephasing 2−93251
tetraphenyl germanium, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl lead, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl silicon, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl tin, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenylmethane, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
thiofluorenone, phosphorescence spectra, optically resolved zero field splittings 2−87835
thioformaldehyde, gas phase phosphoresc., collisional vibr. relax. 2−108603
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
thioxanthione, phosphorescence spectra, optically resolved zero field splittings 2−87835
tunnelling pair recomb. theory 2−110911
xanthione, phosphorescence spectra, optically resolved zero field splittings 2−87835
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
xanthone, in n-hexane matrix, phosphoresc., optical detect. of sublevel splitting 2−80705
xanthone triplet state in-pentane, multiple emission from single site 2−75341
zinc porphin in n-alkane host crystals, phosphorescent ^3E_u state, EPR and spin-lattice relax. 2−85705
Ag grating, light emission from surface plasmon modes excited by N atom layer 2−82907
AgBr photographic emulsion microcrystals, luminescence investigations of tunnel relocation of holes *(Russian)* 2−74560
CaS:Ag phosphors, decay characts. and thermoluminesc. 2−99166
$Ca_3Y_2Ge_3O_{12}:Tb^{3+}$ garnet, luminescence studies 2−61952
Cu_2, $a^3\Sigma_u^+$ state, Ne matrix isolation, absorpt. and fluoresc. obs. 2−114027

phosphorescence continued
KCl:Eu^{2+}, X-irrad., luminesc. and cond. props., elec. field effects *(French)* 2−116262
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
LaOBr:Tb phosphors, two-stage excitation of phosphorescence 2−110945
MgO, thermochemically reduced, phosphoresc., role of H^- ions 2−72546
NaI(Tl), phosphorescence generated by betatron bremsstrahlung 2−67095
$NaNO_2$, phosphoresc. to fluoresc. quantum yield, energy depend. intersystem crossing and vibr. relax. 2−72536
SO_2, crystalline, low lying electronic triplet state, phosphoresc. emission and excitation spectra 2−72535
$Y_2O_2S:Tb^{3+}$, X-ray phosphor prep., luminesc. props. 2−67096
ZnS_xSe_{1-x}, donor-A-centre pairs, ODMR and phosphoresc. study 2−56978

phosphorescence microwave double resonance *see PMDR*

phosphorescence microwave photoexcitation spectroscopy *see PMDR*

phosphors
see also fluorescent screens; luminescence
acrylic, dye doped, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
coronene, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
crystallophosphors, effect of impurities on luminescent props. 2−82890
diffusion-assisted luminescent processes, nonequilib. thermodynamics study 2−82914
liumogen, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
luminescence, design of cryostat 2−58834
luminescence, excitons, conf., Ezernieki, (May 1980) 2−84366
luminescence kinetics examination in non-stationary X-ray field 2−64203
luminescent screens, contrast-frequency characts. for recording IR radiation 2−58883
luminophors, IR radiation field visualisation 2−82892
particle layer luminescence, two-const. models, fluoresc. lamp appl. 2−65157
particle layer luminescence, two-const. models, layer luminesc. 2−65156
particle layer luminescence, two-const. models, p-layer model 2−65155
powder phosphors in binder, radiation intensity determ. 2−116260
powdered, anal. using SEM cathdoluminescence 2−67126
radiography, industrial, with phosphor screens 2−58987
thermoluminescence, carrier capture during irrad. 2−104973
Al_2O_3 (Si,Ti) thermoluminescent phosphor appl. for environmental and personnel dosimetry 2−96316
$BaCl_2$:Sn, absorpt. spectra of S^2-configuration Sn ion 2−77553
$Ba_3(PO_4)_2$:Eu, luminophors, luminescent processes 2−82891
BaS phosphors, cryst., colour centres, stimulated IR spectra 2−104875
BaS:Bi phosphors, delocalisation of impurity-electron excitations 2−77574
BaS:Cu,Er, phosphors, electroluminesc., spectral characteristics 2−67122
BaS:Cu(Bi) phosphors, thermally stimulated conductivity 2−72006
BaS-Bi phosphors, Na effect on luminescence 2−72543
$BaSO_4$, rare earth doped, thermolum. after γ and microwave irrad., dosimetry applic. 2−87877
(Ca,Zn)S phosphors, phosphorescence decay, trapping levels, luminescence processes 2−61942
CaF_2, natural, TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
CaS phosphors, initial decay mechanism 2−61965
CaS:Ag phosphors, decay characts. and thermoluminesc. 2−99166
CaS:Ce,Fe(Co)(Ni)(Cd), phosphors, luminescence emission and decay, quenching 2−77584
CaS:Dy, phosphors, electroluminescence study 2−61978
CaS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
CaS:Sm, phosphors, phosphorescence decay, trapping parameters 2−61941
$CaSO_4$ phosphor, thermolum. and thermally stimulated exoelectron emission, SO_x^- radicals role 2−77602
$CaSO_4$:Dy, sensitised phosphor, and phosphor embedded teflon TLD discs, response to X- and γ-rays 2−67128
$CaSO_4$:Dy teflon thermoluminesc. discs, light induced fading 2−64690
$CaSO_4:Dy^{3+}$, cathodoluminescence spectrum meas. 2−87875
$CaSO_4$(Dy/Tm) TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
$CaSiO_3:Pb^{2+}$, phosphors, high press. phases, luminescence props., quenching 2−82903
$CaWO_4:Eu^{2+}$ and $CaWO_4$-$BaWO_4:Eu^{2+}$ phosphors, luminesc. props. 2−57150
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2−87973
KBr:Tl^+-type phosphors, quadratic Jahn-Teller effect in line shapes of A-emission and A-absorpt. bands 2−87825
LaOBr:Tb phosphors, two-stage excitation of phosphorescence 2−110945
$Li_2B_4O_7$:Cu, thermoluminesc. phosphor, radiation dosimetry characts. expts. 2−113755
$Li_2B_4O_7$:Cu thermoluminescent phosphor, dosimetry characts. 2−59556
$Li_2B_4O_7$:Mn TLD phosphor, light conversion efficiency for α-particles rel. to ^{60}Co gamma radiation 2−75136
LiF (TLD-100) phosphor, thermoluminesc. sensitivity, irrad. temp. dependence 2−116281
LiF, high level γ-dosimetry using high temp. thermolum. peaks 2−117090
LiF TLD-100 phosphor, sensitisation and supralinearity, Z-centres and nonluminescent centres role, expt. study 2−99197
Li_4WO_5:U phosphors, spectral props. 2−77545
LuOBr(Cl):Tb(Tm)(Ce)(Sm)(Dy) phosphor, photoluminesc. and cathodoluminesc. props. meas. 2−116231
MgB_4O_7:Dy, thermoluminescent props., dosimetric props. study 2−78457
NaBr:Tl, complex ion centres 2−61977
NaBr:Tl phosphors, pretreated, dimer centres 2−61937
NaCl:Tl(In), luminescence obs. at high press. 2−72533
NaCl:Tl(T) prep., beta-radiation thermolum. dosimetry 2−102272
SrS:Cu,Er, phosphors, electroluminesc., spectral characteristics 2−67122
SrS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
SrSe:Cu,Er, phosphors, electroluminesc., spectral characteristics 2−67122
$SrSiO_3:Pb^{2+}$, phosphors, high press. phases, luminescence props., quenching 2−82903
$Y_3Al_5O_{12}$:Tb single crystal, phosphor's produced by ion implantation 2−76472
Y_2O_3 phosphor, Eu activated, chem. transport method cryst. growth, red luminesc. 2−111040
Y_2O_2S phosphor, carrier migration, cathodoluminesc. study 2−116272

phosphors continued
$Y_2O_2S:Tb^{3+}$, X-ray phosphor prep., luminesc. props: 2−67096
$Zn_{1-x}Cd_xS$:Ag phosphor layer on SiO_2 and Zn_2SiO_4:Mn particles 2−110952
$Zn_{1-x}Cd_xS$:Cu, Al cathodoluminescent phosphor, saturation obs. at high current density 2−116273
ZnO, green cathodolum. and ESR spectra 2−116275
ZnO:Cu,Yb(Tm) phosphors, photo- and electro-luminesc. studies 2−110909
ZnO-based green phosphor, mechanism of formation in presence of ZnS 2−111508
ZnS ceramic phosphor, electroluminescence, temp. depend. meas. 2−116268
ZnS phosphor layer on Zn_2SiO_4:Mn particles, prep. and cathodoluminescence 2−110952
ZnS phosphors, cryst., radiative recomb. centres, cathodolum. meas. 2−110955
ZnS, photoluminesc. quenching by DC elec. field 2−110818
ZnS:Ce, Li, luminesc. excitation and emission spectra 2−57155
ZnS:Cu, Al, phonon-assisted tunnelling in the electroluminescence exciting process 2−110950
ZnS:Cu, Br phosphor, electroluminesc. and lattice const. meas. 2−93283
ZnS:Mn, pulse excited, afterglow of Mn centres 2−110924
ZnS:Mn,Cu,Cl, amorphous and cryst. electrolum. film, elec. cond. props. meas. 2−87429
ZnS:TbF_3 thin films, electroluminescence quenching obs. 2−99194
ZnS-Cu luminophore, decay time determ. from photocount statistics 2−102755
ZnS_xCdS_{1-x}:Ag(Yb)(Ni), visible image formation from IR radiation 2−77563
ZnS_xO_{1-x}:Cu,Sn, phosphor, electrolum. 2−57182
ZnSe:Cu,Cl phosphor, activated, recombination centres, photoluminesc. study 2−87850
Zn_2SiO_4-based phosphors, luminesc. props., tunnelling pair recomb. theory 2−110911

phosphorus
see also nuclei with .....
amorphous, intermediate range order, X-ray diffr. and Raman scatt. study 2−91779
amorphous, radiative, triplet luminescence and metastable states, ODMR study 2−93265
amorphous red, vibr. spectra, inelastic neutron scatt. meas. 2−56139
tropical Atlantic near Guinea, O_2 and P distrib. and water dynamics *(Russian)* 2−88914
atmospheric transport of P to NW Atlantic 2−83874
black, electronic struct., self-consistent pseudopot. calc. 2−66437
black, high press. and temp. cryst. growth and elec. resist. meas. 2−92619
black, single cryst. growth from melt, X-ray structural characterisation 2−111056
concentration meas. in $Fe_{40}Ni_{40}P_{14}B_6$ and $Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$ metallic glass ribbons *(Russian)* 2−99742
covered Fe surface, segregation, XPS, AES and EELS study 2−92221
diffusion, in Ga melt, calc. from rate of solution 2−110020
diffusion in 1 Si, enhancement by thermal oxidation 2−56258
diffusion in Be, layer-by-layer radiometric anal. *(Russian)* 2−61202
diffusion in $POCl_3$ deposition, microdefects form. in IC masking oxide 2−71721
diffusion in polycryst. Si, lateral diffusion length meas. technique 2−104062
diffusion in Si, nonequilibrium vacancies influence 2−92252
diffusion in Si, Si_3N_4 directly masked film effect 2−56260
diffusion in Si enhanced by thermal oxidation 2−71720
diffusion in Si from CVD phosphosilicate glass 2−66295
ion implantation from solid ion source, non-mass-analysed technique, solar cell appl. 2−84737
lake, water column conc. model 2−68399
orthorhombic black, vibr. spectra, inelastic neutron scatt. meas. 2−56139
world rivers, C,N, and P transport, review 2−106148
segregation in alloy steels during austenitisation, effect on cracking and embrittlement 2−57357
smoke, P-derived, IR optical props., 7-14 μm region 2−105613
steel, P grain boundary embrittlement, electronic model for alloying elements effect 2−105278
white, liq. and plastic cryst. phase, neutron diffr. study 2−97900
CdTe:P, doped by ion implantation, cathodoluminesc. 2−67124
Fe-P, struct. change of grain boundaries due to P segregation 2−67349
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, irreversible response study 2−104594
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
$(Fe_{0.65}Mn_{0.35})_{75}P_{16}B_6Al_3$, amorphous, ferromagnetism collapse 2−104618
GaAs:P, ion implanted, radiation damage 2−115317
Ge:P, impurity states fine struct., photoconductivity study 2−87190
Ge:P, ion implanted, elec. props. 2−77089
Ge:P, luminescence study of nonequilibrium charge carriers *(Russian)* 2−104945
Ge:P, phonon drag thermoelectric power and thermal cond., boundary scatt. effects 2−82388
Ge:P, US attenuation by shallow donors in mag. field 2−56649
LiF:P, phosphor, thermolum., carrier capture during irrad. 2−104973
Ni:P, implanted, channelling study of amorphous phase formation 2−81804
P III, oscillator strengths, potential model calc. 2−80538
P^+, implantation in SiO_2 films, effect on struct. 2−55995
P^{n+} (n=12, 13), transitions and lifetimes meas., X-ray and beam-foil time-of-flight spectra 2−113920
P^++C-foil, absolute L-shell Auger electron yield meas. 2−75393
P_3, Jahn-Teller distortion, struct., SCF and Cl calcs. 2−108396
PO in C_2H_2/air flame, two-photon ionisation processes 2−102549
^{31}P muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{31}P NMR reference samples for aq. samples 2−108576
^{31}P-^{31}P indirect nucl. coupling anisotropy 2−108574
^{32}P, lethal effect of transmutation on E. coli, importance of uvrA gene *(French)* 2−117004
a-Si:F, P and a-Si:C, P films, cathodic deposition, charact. 2−88011
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
a-Si:H, P, photoinduced absorpt. in picosec. range due to deep hole traps 2−72527
a-Si:H,P, IR absorption spectra, effects of annealing 2−99156
Si:H,P amorphous glow discharge thin films, elec. props., heat treatment and P ion implantation effects 2−61467

phosphorus continued
Si:In, P, electron capture coeff. of neutral In and pair recomb., photoluminesc. spectra 2−77569
Si:P, amorphous, ion implantation doping and surface conductivity 2−115262
Si:P, and other implants, SIMS studies of anomalous behaviour 2−92013
Si:P, Anderson localised system, interstate interaction effect on specific heat 2−77303
Si:P, As, Sb, ion implanted, multiphase electron beam annealed, impurity profiles 2−103803
n-Si:P, B ion implanted, deep level profiles 2−98571
Si:P, CVD film, elec. characts., grain size, effects of impurity conc. and heat treatment 2−82487
Si:P, D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:P, dechannelling by dislocations and stacking faults 2−81845
Si:P, dislocation clusters and P diffusion, TEM and X-ray topography study 2−91973
Si:P, donor state line-broadening mechanisms, photoluminesc. study 2−99181
Si:P, electrically inactive impurities, precipitation explanation, TEM study 2−67341
Si:P, electron irrad., electron trap study by transient capacitance 2−110282
Si:P, electron irrad. damage, capacitance and dielec. loss meas. 2−92037
Si:P, elemental distrib. anal., SIMS and neutron activation anal. 2−98151
Si:P, giant dielectric const. near metal-insulator transition 2−87650
Si:P, heavily doped, as amorphous antiferromagnet 2−77283
Si:P, heavily doped, defect formation under electron irrad. 2−103822
Si:P, high conc. diffusion, vacancy percolation 2−82028
Si:P, highly doped, metal-insulator transition, optical and precursive props. 2−72038
Si:P, implanted and laser annealed, electronic states, IR optical props. 2−57112
Si:P, ion implanted, depth profiles, channelling and nuclear resonance studies 2−98142
Si:P, ion implanted, distrib. profiles, elec. props. 2−103797
Si:P, ion implanted, electron beam annealing by multiple-scan method 2−92036
Si:P, ion implanted, wavelength modulation spectrum 2−104916
Si:P, ion implanted and annealed, IR reflectivity characterisation, physical model 2−77532
Si:P, measurement of sheet resistivity of shallow diffused layers for profiling by four-point probe technique 2−98650
Si:P, metal-insulator transition stress tuning at mK temperatures 2−71868
Si:P, metal-insulator transition, minimum metallic cond. 2−98544
Si:P, multivalued Sasaki effect, I-V characts., current saturation 2−56605
Si:P, neutron transmutation doping, radiation defects and annealing, review 2−71513
Si:P, neutron transmutation doping, radiation defects, electrical activity, annealing 2−86738
Si:P, O, electron and neutron irrad., point defects and colour centres, DLTS study 2−103754
Si:P, polycryst., grain boundary diffusion of P 2−92283
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
Si:P, quantitative impurity anal. by photolum. technique 2−57180
Si:P, radiation doped, recombinational props. and elec. cond., thermal treatment effect *(Russian)* 2−71995
Si:P, redistribution of heavy metal impurities, by P diffusion, theory 2−109822
Si:P, specific heat, effects of electron and impurity correlations 2−104016
Si:P, supersaturated, ion implanted and laser annealed, heat treatment effects 2−92000
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si:P and compensated Si:P,B, ion implanted, epitaxial regrowth obs. 2−92388
Si:P crystal, γ-induced point defects, H passivation 2−103758
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si:P shallow radiation induced defect levels, annealing, AC conductance study 2−76970
Si:P Z 2−115924
$Si:P_2(P_2^+)$, multiple scatt. Xα mol. cluster model of complex defects 2−76977
$Si:P^+$, ion implanted, cryst. damage, spectroscopic ellipsometry study 2−92049
$Si:P^+$, ion implanted, damaged layer study 2−71480
$Si:P^+$ layers, ion implanted, electron beam annealing, elec. props. 2−92039
Si:P; ion implanted, electrolyte electroreflectance spectra study *(Chinese)* 2−93156
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
n-SiC:P, Fermi level, Fermi-Dirac distrib. and activity coeff. 2−92452
SiO_2:P, laws of growth on Si, X-ray spectra 2−77960
WSi_2:B,P,As, dopant diffusion 2−92280
ZnTe:P, distance donor-acceptor pairs, luminescence decay 2−110941
ZnTe:P, Li, magnetoluminescence, electron and hole g-factors, Zeeman effect 2−99193

phosphorus compounds
amorphous CoP alloys, apparatus for columnar growth control 2−69311
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
phosphates, inorganic and organic, natural abundance ^{17}O NMR spectra 2−75319
phosphine-boranes and its derivatives, vibr., mean amplitudes, internal rots. 2−114129
phosphines, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2−115145
Co-P amorphous alloys, contraction during struct. relax., heat treatment effects 2−71674
$CoFe_2O_4$-P_2O_5 amorphous cpd., prep. and mag. props. 2−61735
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
Nd^{3+}:$POCl_3$-$P_2O_5Cl_4$-$SnCl_4$:Nd^{3+}, liquid laser performance and fluorescence 2−70556
PCl_3, single cryst., asymmetry parameters Zeeman NQR study 2−110713
PCl_5+tertiary amides reactions, ^{35}Cl NQR investig. 2−111482

phosphorus compounds continued
PF, mol. force consts., bond lengths, pot. energy functions, electronegativity anal. 2−75463
PF_2^+, electronic struct., geometry and charge distrib. calcs. 2−59705
PF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
PF_3, vibr.-relax., ultrasonic absorpt. meas. 2−65077
PF_5, quadratic force fields, symmetry bending consts. and bond angles 2−90734
PF_5, the ν_3 band 2−85649
PF_6^-, force const. calc. using vibr. data 2−54986
PF($b\ ^1\Sigma^+$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
PH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
PH_2, ground state, mol. consts., anomalous lifetimes, rot. transitions 2−85633
PH_2 radical, hyperfine struct. of $\tilde{X}^2B_1$ and $\tilde{A}^2A_1$ from intermodulated fluoresc. spectroscopy 2−108735
PH_2^-, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_2^+, electronic struct., geometry and charge distrib. calcs. 2−59705
PH_3, excited states, photodissociation, ab initio HF and CI calcs. 2−85561
PH_3, far-IR spectroscopic line param. 2−70245
PH_3 in Jupiter atmosphere, abundance from Voyager IRIS spectra 2−100810
PH_3, $L_{II,III}$ emission spectra, many-electron effects 2−90568
PH_3, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_3, spectral line broadening and shift, Stark effect 2−108479
PH_4^+, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
P_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
PH_2D, rot. transitions and hyperfine struct. meas., spin-rot. interactions 2−108457
PI, $bO^+-X_1O^+$ band, vibr. anal. 2−113966
P_3N_5 gate insulating film, CVD prep., dielec. props. and InP-P_3N_5 MIS device props. 2−99346
PO_4^{3-}, mol. consts. and vibr. 2−85838
PO_4^{4-}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
P_2O_5 fuel cells aged electrodes in-situ regeneration of active surface area by electrochemical methods 2−78205
P_2O_5-In_2O_3 anodic layers grown on InP, composition 2−67600
P_2O_5-MnO_2 glass, antiferromagnetism, mag. susceptibility, Neel temp. 2−72173
$POCl_3$ deposition, microdefects form. in IC masking oxide during unintentional P diffusion 2−71721
$POCl_3$+tertiary amides reactions, ^{35}Cl NQR investig. 2−111482
POF_3, force field calcs., IR obs. 2−64856
POF_3, vibr. freq. in local symm. force field *(French)* 2−108464
$PO_2F_2^-$, local symmetric force field, IR and Raman 2−90559
PO_3F^{2-}, vibr. freq. in local symm. force field *(French)* 2−108464
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2−115429
PSF_3, vibr. anal., Urey-Bradley and valence force fields, mol. consts. 2−113963
$P_4W_8O_{32}$, cryst. struct. determ., single-cryst. X-ray anal. 2−55895
$P_8W_{12}O_{52}$, cryst. struct. determ. 2−91889
Si:H,PH_3, amorphous film, density of gap states, space charge spectroscopy study 2−87181
SiO_2-GeO_2-P_2O_5 fibres, radiation damage, thermoluminesc. anal. 2−114435
V_2O_4-P_2O_5 glasses, struct. characterisation, density and molar volume 2−65872
V_2O_5-P_2O_5/Au(Al) (graphite) struct., contact limited conduction, work function effects 2−72056

phosphosilicate glasses
CVD coating, annealing encapsulant for InP 2−116585
CVD coating, annealing encapsulants for InP, AES and SIMS study 2−116584
diffusion of P from CVD phosphosilicate glass into Si 2−66295
film, H_2O absorpt. and densification 2−115630
films, low press. CVD growth 2−105082
reactive sputter etching, columnar etching residue generation 2−93644
GeO_2-P_2O_5-SiO_2 fibre composition and radiation hardness 2−114438
GeO_2-P_2O_5-SiO_2:Ce fibre composition and radiation hardness 2−114438
P_2O_5-doped graded-index multimode fibre, microbending losses 2−114448
P_2O_5-SiO_2 glass passivation layers, cracks and Al corrosion 2−88234
SiO_2:P_2O_5 optical fibres, refr. index dispersion 2−81107
SiO_2-P_2O_5, gels and glasses, mixed bonds, spectrosc. obs. 2−76314

photoacoustic effect
adsorbed layer superlattices, hypersound generation through EM excitation 2−56319
apparatus for photoacoustic effect demonstrations 2−94965
condensed matter, photoacoustic effect theory based on thermoelastic considerations 2−61071
cracks, closed, photoacoustic phase signatures 2−55504
drop-on-demand ink jet printing using photoacoustic ejection from a nozzle technique 2−81172
gas flow vel. and temp. simultaneous meas., noncontact optoacoustic technique 2−97669
heterogeneous media, thermoacoustic effect of radiation, Gruneisen parameter 2−103907
imaging using Fourier transform technique 2−91180
IR window material absorpt. coeff., photo-acoustic meas. at CO_2 laser wavelength freq. *(Chinese)* 2−91033
laser-Doppler anemometry, real-time velocity measurement *(German)* 2−97680
liquids, photoacoustic signal, freq., depend., theory 2−92110
metal, laser generation of directional SAW pulses 2−92333
metal subsurface crack and plastic deform. detect. using the photoacoustic effect *(Chinese)* 2−97473
metals, laser-generated acoustic waveforms, quantitative meas. 2−92112
moving source, acoustic field, thermal mechanism of sound excitation, arbitrary trajectory 2−55374
optical fibre, thermal diffusivity, photoacoustic meas. technique 2−114432
optoacoustic sources of sound, review 2−114595
photodisplacement microscope using modulated semiconductor laser 2−114568
picosecond transient grating generation of tunable US waves 2−115355

photoacoustic effect continued
polyvinylidene fluoride films, piezo- and pyroelectric effects, sound vel., thermally induced elec. oscills. 2−72429
pulse laser energy meas. using optical meter based on optoacoustic phenomenon 2−55235
scanning photoacoustic microscopy, principle and applications *(Chinese)* 2−91181
semiconductor, ion implanted, photacoustic meas. 2−71586
semiconductor, longitudinally magnetised, acoustohelicon wave excitation by laser beam modulation 2−66578
semiconductors, nonradiative processes, photoacoustic meas., review *(Japanese)* 2−92116
semiconductors, photoacoustic signal prod., carrier diffusion and recomb. influence 2−115359
solid dielectrics, electric field meas. using laser-generated acoustic pulses 2−79614
thermal diffusivity meas., photoacoustic and mirage effect methods *(French)* 2−65463
thermal diffusivity of metals, photoacoustic meas., elimination of 'drum effect' 2−55406
thermal-wave microscopy to image subsurface areas in semicond. manufacturing 2−75811
US coherent shear waves, laser excitation and stimulated Brillouin scatt., theory 2−114365
$(CdTe)_{1-x}$-$(ZnSe)_x$ powders, photoacoustic spectroscopy meas. 2−92464
GaAs, photoacoustic spectra meas. 2−92117
Ni, ferromagnetic, EM excitation of acoustic waves, orientational anomalies 2−86801
$Se_{1-x}Te_x$, energy gap, photoacoustic study 2−76603
Si crystals, photoacoustic effect in laser annealing 2−81824
Si, ion implanted, photoacoustic determ. of thermal cond. 2−86959
ZnS, hexagonal, photoacoustic study of two-photon absorption 2−57040
$(ZnTe)_{1-x}$-$(ZnSe)_x$ powders, photoacoustic spectroscopy meas. 2−92464

photoacoustic spectroscopy
aerosol particle light absorption meas., workshop, Fort Collins, CO, USA (July-Aug. 1980) 2−53407
alkali halide laser windows, photoacoustic spectroscopy of adsorbed surface impurities 2−60192
alkanes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
alkenes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
ammonia photoacoustic spectroscopy 2−69267
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
beam deflection sensing system for photoacoustic spectrosc. 2−64114
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2−63769
chlorodifluoromethane, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
chlorotrifluoroethylene, multiphoton excitation, collisional relax., laser-excited fluoresc. and optoacoustic spectra 2−96666
condensed matter, convenient and corrosion-resist. photoacoustic probe for spectroscopic meas. 2−107421
conventional and acoustic window cell comparison, appl. to powder and liq. samples 2−60324
diacetylene, solid-state photopolymerisation, photoacoustic study 2−93790
diffraction grating absorbed energy meas. by photoacoustic detector in Wood anomaly region 2−91035
difluoromethane, far IR lasing mols., pump offset freqs., Doppler-free optoacoustic spectroscopy meas. 2−108857
9,10-dimethylanthracene in ethanol, dye laser excited photoacoustic spectrum 2−107421
Doppler-free IR-acoustic spectroscopy using colour centre lasers, saturated absorpt. results for HCN 2−58916
ethylene, photoacoustic spectroscopy 2−69267
flame minority species concentration measurements by photoacoustic technique 2−93793
Fourier transform IR spectroscopy, analytical appls. 2−116747
Fourier transform IR spectroscopy, cell design and saturation effects in depth profile meas. 2−113011
Fourier transform IR spectroscopy, diffuse reflectance technique comparison as analytical tools 2−113012
gas analysers, single-beam differential, static charact. *(Russian)* 2−99735
gas-filled cell, photoacosutic signal, simplified computation 2−95482
gases, vibr.-translational relax. time meas. using reson. laser spectrophones 2−58912
imaging spectrometer with acoustically tunable optical filter, correction of aberrations 2−58911
intracavity photoacoustic spectroscopy with F-center lasers 2−84715
intraocular melanoma localisation by laser-induced photoacoustic spectroscopic imaging 2−100181
IR photothermal beam deflection Fourier transform spectrometer 2−84718
measurement system for 77-300K 2−64113
methane-N_2 mixing, reson. photoacoustic spectroscopy detection 2−53843
methyl cyanide, rot. line press. broadening, acoustic detect. in MM wave spectroscopy 2−96544
methylene blue particles collected on filters, photoacoustic meas. of absorptivity, substrate refl. effect 2−53851
mode-locked laser developments and appls. 2−114331
molecular absorption line saturated profile, acoustooptic spectrometer signal recording 2−84710
molecules, energy transfer influence on photoacoustic spectra 2−65110
near IR overtones and combinations, photoacoustic spectrosc. investig. appls. 2−95477
nonradiative decay rates in ion doped solids, photoacoustic determ., theory 2−103903
of quartz 2−64124
polyacetylene, p-doped, IR photoacoustic spectroscopy 2−72477
pulsed optoacoustic signals, freq. anal. and appl. to chem. anal. 2−89819
semiconductor materials nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
semiconductors, photoacoustic meas. of nonlinear absorpt. 2−58920
solid, weakly absorbing, photoacoustic kinetics 2−69252
solids, moisture determ. by near IR photoacoustic spectrosc. 2−89731
solids, opticoacoustic method of small absorpt. coeffs. meas. 2−87725
solids, photoacoustic IR spectroscopy 2−99108
solids and surfaces studied by photoacoustic spectroscopy 2−71587

photoacoustic spectroscopy continued
soot particles collected on filters, photoacoustic meas. of absorptivity, substrate refl. effect 2−53851
sub-Doppler optoacoustic spectroscopy 2−107410
toxic industrial compound CO_2 laser absorpt. spectra 2−83536
transparent ceramic exam., PLZT and BPNN 2−62442
Ag evaporated film, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
BaF_2, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
C, oxidised, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
C, particulate, collected on Teflon filters, monitoring with photoacoustic and transmission techniques 2−53850
CO_2 laser opto-acoustic spectrometer 2−69267
$CaCO_3$, calcite, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
CaF_2, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
CaF_2, surface-to-bulk optical absorpt., 1.3 μm laser rate calorimetry and photoacoustic meas. 2−58921
GaAs, high resistivity, thickness dependence of photoacoustic spectra 2−79683
GaAs, IR absorption props. at 10.6 μm, photoacoustic spectroscopy *(Chinese)* 2−93230
Ge, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
Ge, optical absorpt., photoacoustic spectra study, window material appl. 2−61855
HCN, saturated absorpt., Doppler-free IR-acoustic spectroscopy using colour centre lasers 2−58916
HCl, optoacoustic meas. of specific absorpt. coeffs. at DF laser wavelengths 2−112116
HD, collision vibr. energy transfer, time domain photoacoustic relax. study 2−102587
KCl, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
NH_3 ν_2 band Doppler-free two-photon resons., optoacoustic detect. 2−96669
$(NH_4)_2SO_4$, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
NO, V-T transition probability, photoacoustic study 2−114047
NaCl, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
Ni on kieselguhr catalyst, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
SF_6 Lamb dip, optoacoustic tracking for CO_2 laser freq. stabilisation 2−70579
ZnS, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633

photobleaching *see optical saturable absorption*

photocapacitance
see also photodielectric effect
DLTS, isothermal capacitance relax. study of electron capture coeffs. of deep centers with continuous energy spectrum 2−61405
metal-Al_2O_3-SiO_2-Si struct., charge profile, photoionisation study 2−66648
metal-oxide-semiconductor diodes, tunnelling relax. time meas. 2−66641
semiconductors, deep levels characterisation by electrochem. photocapacitance spectroscopy 2−76968
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
Al/amorphous Se/Al struct., capacitance and photocapacitance, time depend. meas. 2−56724
CdS, neg. photocapacitance and photoconductivity 2−104428
CdS/Cu_2S thin film solar cell, freq. depend. capacitance studies 2−88430
CdS/Cu_2S thin film solar cells, trapped holes depth depend., photocapacitance study 2−93905
CdS-Au Schottky diode, C^{-2}=f(V) charact., deep electron trap and interface states effect 2−115860
CdS-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
CdSe, photocond., struct. and defect levels 2−115811
CdSe-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
GaAs MOS interface states, DLTS and photoionisation study 2−110488
GaAs MOS struct., photoionisation cross-section and interface state threshold meas. 2−98759
GaAs, photoelectric memory effects, theoretical model 2−82394
GaAs:Cr, deep level optical spectroscopy 2−71902
GaAs:Cr, defect centre struct. photocapacitance study 2−104305
$GaAs_{0.35}P_{0.65}$:N VPE LEDs, deep centre studies by photocapacitance method 2−56637
InP MOS interface states, DLTS and photoionisation study 2−110488
InP MOS struct., photoionisation cross-section and interface state threshold meas. 2−98759
InP:Co, deep levels, elec. and optical meas. 2−76971
InP:Fe, deep level optical spectroscopy 2−61400
InSb-CdTe heterojunctions, photomemory effect 2−92693
Si, 20 MeV proton bombard., radiation defect parameters 2−92056
Si, amorphous, MIS struct., theory of photocapacitance 2−98755
Si, grain boundary density of states, photocapacitance meas. 2−87187
n-Si, heat treated, γ-irradiated, photoelec. props. 2−77120
n-Si:Cr, donor levels, photocapacitance and photocond. spectra 2−115707
Si-SiO_2 interface, elec. props., negative bias-temp. test influence 2−77190
ZnSe, LPE grown, deep electron traps, TSC, photocapacitance and DLTS study 2−56466

photocatalysis *see catalysis*

photocathodes
see also photoemission
C-CD detectors, electron bombarded, for VUV 2−114470
diamond photocathode, stable, high efficiency, VUV radiation 2−111021
electrographic image detector development, far and middle UV sensitive 2−117607
electron-optical convertors, resolution, fine-struct. grid influence 2−75716
III-V semiconductor photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
Ag-O-Cs, S1 photocathode, surface resist. meas. 2−87940

photocathodes continued
CsI photocathodes, quantum efficiency 2−75113
GaP:Zn,O, IR upconversion obs., IR quantum counter appl. 2−70605
p-InP surface modified photocathodes for photoelectrochem. cell 2−99813
Na_2KSb films, growth for photocathodes 2−83029
p-Si electrodes, siloxane-coated, ion selective photoelectrochemistry and stabilisation 2−83502
Si negative electron affinity, thickness of Cs_2O activation layers 2−57270
Si, p-type photocathodes, surface modification, use in photoelectrochemical generation of H_2 2−73167
Si, photosensitive field-emission cathodes with atomically clean surface, I-V charact. 2−77702

photocells *see photoelectric cells*

photochemical energy conversion *see chemical energy conversion*

photochemistry
see also photochromism; photodissociation; photoelectrochemical cells; photolysis; photosynthesis
air pollution form. control strategies evaluation, model formulation effects for United Kingdom 2−62516
amino acids, photo-CIDNP spectra, cross-relax. effects 2−108573
anthracene, slip planes crystal growth and photodimerisation 2−86598
aromatic amines, kinetics of photochemical conversion in a stabilised water-soluble photopolymerised layer *(Russian)* 2−74556
aryl ethylenes, and related cpds., assoc., photochem. reactions, spectrosc. obs. 2−54867
atmospheric photochemical modelling 2−111985
benzophenone, in PMMA soln., photochemical reaction, holography study 2−83399
biochemical effect of laser radiation 2−100058
borate glass, dye mol. spectral probe, using photochemical hole burning 2−108974
brominated methanes and ethanes, photochemistry in stratosphere/troposphere from UV absorpt. spectra 2−111600
butadiene cyclobutene isomerisation paths, nonadiabatic coupling paths 2−111465
carvone photocyclisation to carvone camphor using rare gas halide lasers 2−72993
chlorodifluoroethane, CW IR laser induced reaction kinetics 2−105493
cometary atmospheres, photochemical heating theory 2−112389
developed Ag morphology, influential factors 2−62414
9, 10-Dewar-isomer, valence isomerisation to 9-t-butylanthracene *(German)* 2−83380
diacetylene, solid-state photopolymerisation, photoacoustic study 2−93790
diacetylene-bis(toluenesulphonate), reaction induced secondary photopolymerisation 2−99673
dibenzoyl peroxide, photoinduced reactions, EPR and spin trapping obs. 2−90586
3,3'-diethyloxadicarbocyanine iodide, photochemical isomerisations, solvent effects 2−57599
diphenyl butadiene, photochemical isomerisation in soln., radiative and nonradiative decay rates 2−73002
dye films, adsorbed, electron affinity, statistical energy levels 2−58937
dye solution laser photochem. study by photoinduced elec. cond. method 2−57626
ethanol glass, dye mol. spectral probe, using photochemical hole burning 2−108974
fluorene:?acridine, photochemical H abstraction from fluorene, kinetic 2−57627
fluorescence photobleaching recovery, modulation detection 2−88373
four-level two-photon hologram recording using He-Ne laser 2−96857
Fourier transform IR spectroscopy obs. of photo-induced reactions 2−116708
Fourier transform time-resolved IR spectroscopy of pulsed transient phenomena, progress review 2−113005
free-radical photographic system 2−74540
gated holograms recording using two-photon photochemistry 2−60037
haematoporphyrin derivative, two-step laser activation 2−78289
high power lasers and appls., Int. School of Physics, Varenna, Italy, July (1978) 2−74141
high-power tunable lasers, appls. to photochemistry and isotope separation 2−75451
hydrocarbazoles, di- and hexa-, sigmatropic H^+ shift, tunnel effect 2−78072
hydrocarbons, halogenated, laser UV photofragmentation, selective bond dissoc. and wavelength specific quantum yields for I and Br 2−70360
laser role in chemistry problems 2−99694
laser-based photochemical and photothermal processes, review 2−93803
laser-chemical reactions, influence of rare gases 2−116715
metal films, UV laser photodeposition, nucleation mechanism study 2−105067
metalloporphyrin-pyridine anion complexes, degenerate electronic states, hole burning method obs. 2−113900
methyl iodide, photofragmentation dynamics, IR spectra, vibr. distrib. of methyl(ν_2) umbrella mode 2−73003
methyl radical, umbrella mode, photofragment IR emission spectroscopy, vibr. progression and pot. parameters 2−72997
4-methyl-7-oxycoumarine, H bonded complexes, luminesc. and laser radiation 2−108871
methylsilane, vertical excitation energies for singlet and triplet states, ab initio calcs., photochemistry 2−72996
methylviologen, adsorbed on colloidal CdS, photochem. 2−83394
mixed monolayer assemblies, photoinduced struct. transformations 2−93800
ortho-nitrobenzylarenes, relaxation processes and photochemical form. 2−57621
nucleic acid bases, high-power UV laser radiation effect, two-stage photodecomposition 2−100066
nucleic acid components, high intensity UV exposure, two-photon photochemistry 2−99900
nucleic acid constituents, photochemistry, ESR and spin-trapping investig. 2−111624
organic compounds transformation under N_2-laser irrad., photochemical reactions 2−57622
organic-inorganic intercalation cpds., low dimensional, photopolymerization 2−92584
1-pentene, laser photocatalytic isomerisation and hydrogenation 2−116688
1-pentene, photo-induced isomerisation, Fourier transform IR spectroscopy obs. 2−116708
perinaphtho-thioindigoid dyes, photoisomerisation, flash photolysis study 2−99649

photochemistry continued
phenyl nitrenes, spectral and photochem. props. 2−70318
photochemical, mechanisms and charact. *(Dutch)* 2−106206
photoelectrochemical spectroscopy, stress modulated 2−84707
photographic stabilisation, kinetic anal. 2−58933
photographic stabilisation, mol. mechanism 2−58935
photopolymer printing plates, isoenergy contours determ. in photopolymerising material on extended source irrad. 2−99695
photoresists, transition metal-carbonyl derivatives as photopolymerisation initiators and photocrosslinking agents 2−58938
phthalocyanine polycrystalline film, photoelectrochem. solar energy conversion 2−99815
phthalocyanins, micellar solns., photoelectrochem. hydrogen prod. 2−73128
polyatomic molecules, multiple-photon excitation rel. to laser-induced chemistry and isotope separation 2−85760
polyatomic systems, photofragmentation, prod. energy partitionings studied by classical trajectory method 2−88364
polycarbonate film on metal, photochem. degradation, Fourier transform IR spectra obs. 2−116709
polyethylene under photoxidation, physico-mechanical props. *(Russian)* 2−71378
polymeric coatings on mirrors, photochem. degradation, study using FT-IR reflection absorbance 2−79691
polymethine dyes, fast photoisomerisation process, double valley pot. model 2−99654
polyurethanes, dil. soln., intrapolymer interactions between excited singlet states 2−114025
porphin, free-base in n-alkanes, vibronic relax., photochemical hole-burning 2−67755
positive ions, photoexcited, average internal energy, source temp. effect 2−116710
protein constituents, photochemistry, ESR and spin-trapping investig. 2−111624
protein-bound pigments, spectroscopic and photochem. props. 2−99893
proteins, photo-CIDNP spectra, cross-relax. effects 2−108573
pseudoisocyanine chloride, photobleaching, ultrafast transient processes of monomers, dimers and aggregates 2−83393
pseudoisocyanine iodide photoisomers form., picosecond time resolved kinetic studies, quantum yield 2−72991
PVC oxygen-free film, X-ray-induced dehydrochlorination, XPS 2−87944
pyridine, triplet state, dynamical spectroscopy 2−102524
quinone-depleted photosynthetic reaction centers, triplet quantum yield mag. field depend. spin-spin effect 2−72994
retinol, all-trans, photodissoc. processes, biphotonic origin 2−116718
Saturn atmosphere, photochemical models rel. to eddy mixing coeff. 2−112387
semiconductor electrochemistry, electron energy levels, review 2−110468
semiconductor electrodes, photoelectrochemical processes 2−88366
smectic liquid cryst. imaging device based on photochem. reaction 2−99692
solar energy absorbing chromophoric materials in heat transfer fluids, thermal and photochemical studies 2−99839
solar energy conversion and storage through synthetic light-driven proton pumps 2−78234
spiropyran, ultrafast form. of transients in photochromism 2−108534
stratosphere trace constituents as tests of photochemical theory 2−106254
1,1,2,2-tetrafluorocyclobutane, competitive processes in multiphoton activation, RRKM behaviour 2−75363
Titan atmosphere, chemistry and evolution 2−112386
transition metal α-diimine complexes 2−75291
transition metal complex photo-chem. for H_2 production from solar energy 2−62507
unimolecular dissociation, first passage times and kinetics, multiphoton dissoc. 2−83366
unimolecular reactions with intense radiation 2−83396
UV-autoclave for high-pressure photochemistry 2−79605
UVSOR facility at IMS 2−85419
vinyl polymers, dil. soln., intrapolymer interactions between excited singlet states 2−114025
vision, photochemical step, theory 2−83564
vitamin D_3 synthesis in human skin rel. to solar UV spectra 2−99897
yeast cells, specific damage by high-intensity UV radiation 2−78386
Ag, electrodes, adsorbed pyridine, thiourea, H_2O, photochemical activation effect on surface enhanced Raman scatt. 2−110828
Ag halide photochromic glasses, darkening kinetics calc. formula 2−75642
Ag^+ bis(2,2′-bipyridine)-bis-cyanoruthenium(II) complex form., redox and photochem. behaviour 2−83392
AgCl, photoplastic effect meas., latent image formation appl. 2−115340
AlH_3, photochem. sensitivity 2−73001
As_2S_3-Ag and As_2S_3-Ag systems, transmission spectra of interacting products *(Russian)* 2−62423
BCl_3.methanethiol, IR multiphoton dissoc. 2−70359
BH_3+D_2, UV-laser photochemistry, rate consts. meas., reaction mechanism 2−62413
$BH_2D+B_2H_6$, UV-laser photochemistry, rate consts. meas., reaction mechanism 2−62413
BiI_3, photodecomp., struct. and transmittance, effect of illum. 2−87101
$^{79}Br_2$ in Ar and Kr matrices photochemical dynamics, IR spectra and relax. dynamics 2−102475
$^{79}Br_2$ in Xe matrices, photochemical dynamics, radiative lifetime meas. 2−96621
CdS, colloidal, surface photochem., rel. to adsorbed methylviologen 2−83394
Cu, semiconducting oxide films, photoelectrochem. invest. 2−105363
p-CuO:Li, conduction and valence band edge positions, photoelectrochem. determ. 2−56440
$Gd(OH_2)_8^{3+}$, aq., chemical behaviour of Gd_{aq}^{3+}, changes in inner coordination sphere 2−116684
$H+H+h\nu_0 \rightarrow H_2^*+h\nu'$, recombination via free-to-bound Raman transitions 2−72984
$H_2+F(H)$, dynamical instability, external perturbations in laser fields 2−99666
HF, multiphoton excitation in intense laser and static electric fields, quantum dynamics, Floquet theory 2−108652
H_2O, photooxidation sensitisation by WO_3 powder 2−78116
HONO, in N_2 and Ar matrices, IR laser photoisomerisation study 2−111471
H_2S, photofragmentation mechanism studied by multiphoton ionisation photoelectron spectroscopy 2−111500

photochemistry continued
(Hg,Cd)Te, photochemical oxidation 2−111345
I photodissociation lasers, stimulated light scatt. by thermal waves excited in thermodynamically nonequilib. media 2−60164
KI(Br)(Cl):NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
NO_2 summertime ground-level distrib. rel. to motor vehicle NO emissions 2−67902
NO_2+CO, laser-enhanced reaction mechanism 2−88371
Nb_2O_5, photoelectrochem. and solid-state props. 2−72016
O_3, vibrationally excited, UV continuum spectroscopy 2−63092
Os complex, $(Os(bpy)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
Pt/TiO_2 particle, photochem. diode model and photocatalytic activity 2−78127
Ru complex, tris(2,2′-dipyridine)ruthenium(II), photoinduced electron transfer with organic quenchers, temp. depend. 2−99648
Ru complexes, $(Ru(bpy)_3)^{2+}$, $(Ru(bpy)(py)_4)^{2+}$ and $(Ru(phen)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
S sensitisation, chem. mechanism 2−58934
p-Si electrodes, siloxane-coated, ion selective photoelectrochemistry and stabilisation 2−83502
Si, oxidation, laser enhanced, wavelength depend. 2−111343
SnO_2 films, prep. from organic resinate soln. and photoelectrochem. props. meas. 2−116837
n-TiO_2, Au-film coated, photocatalysts, pot. meas. 2−110469
TiO_2 electrophys. and photoelectrochem. props., uncontrolled impurities effects *(Russian)* 2−93799
TiO_2:H electrodes, SIMS and AES anal. 2−57655
n-TiO_2-aqueous electrolyte interface, photoinduced and dark charge transfer obs. 2−92747
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452
p-WSe_2 film, polycryst. semiconductor electrode, photoelectrochem. 2−72987
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000

photochromism
BS-12 glasses, Ag-activated luminesc. 2−116240
x-(2′,4′-dinitrobenzyl)pyridine (x=2,4), resonance Raman spectra of short-lived species 2−72489
dynamic recording of optical information on photochromic crystals *(Russian)* 2−60206
glass, ophthalmic and photochromic 2−60199
glass, photochromic, apparatus for spectral sensitivity determ. *(German)* 2−102892
glass, photochromic, deviation from law of mutual substitution 2−104827
molecular spectroscopy, conf., Albena, Bulgaria, (Oct. 1980) 2−107020
organic dye rigid solns. for transient optical recording, photochromic props. 2−80916
photochromic glass, flash photolysis, colour centre formation 2−103664
Schiff bases, photochromic and thermochromic, NQR spectra 2−110824
spiropyran, ultrafast form. of transients in photochromism 2−108534
triphenylformazan, semicond. films, photochromic switching 2−61998
triphenylformazon, organic semiconductor, photochromic switching, surface photovoltage study 2−77463
zinc dithizonate, thin film, photochromic switching, optical absorpt. and photovoltaic study 2−87882
zinc thizonate 2−77463
Ag halide glasses, darkening kinetics calc. formula 2−75642
AgCl, photochromic glass, flash photolysis, colour centre formation 2−103664
B_2O_3-SiO_2 glass, photochromic, spectral response of high excitation intensity 2−99149
$Bi_{12}GeO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
$Bi_{12}SiO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
$CdCl_2$-CuCl photochromic glass, colloidal darkening mechanism 2−97135
Ge-Se(S)(-As) amorphous films, obliquely deposited, Urbach tail, photoinduced changes 2−93309
HgISCN powder, ^{203}Hg, ^{35}S or ^{131}I labelled, thermal effect on photolysis 2−78118
$KTaO_3$:Ni(Fe), electron trap levels, ESR and TSC meas. 2−82703
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
Si_xC_{1-x}:H amorphous films, reactively sputtered in propane, photoinduced optical changes obs. 2−60179
α-Ta_2O_5, photocond. and photochromic props. meas. 2−92696

photoconducting devices
see also photoconductive cells; photodiodes; phototransistors
IR detector, charged-particle-induced noise suppression 2−107404
IR detector, double-layer, consisting of pyroelec. and thin photocond. layer 2−107402
picosecond high-power switching and applications 2−97069
picosecond optoelectronics advances, photoelectron switching 2−115808
picosecond photoconducting sample gate for characterisation of high-speed photodetectors 2−112976
switch, subpicosecond optoelectronics developments 2−114414
switches, picosecond lasers and appls., conf., Los Angeles, CA, USA (Jan. 1982) 2−112642
US transducer, optically activated, for real-time diagnostic imaging 2−117042
X-ray photoconductor-thermochromic film struct. for X-ray visualisation 2−84776
$CdS_{0.5}Se_{0.5}$, multikilovolt picosecond optoelectronic switching 2−56651
GaAs photoconductive detectors, thin film, ultrafast operation 2−101463
HgCdTe photoconductors, effect of diffusion and drift on generation-recombination noise 2−87324
$In_{0.53}Ga_{0.47}As$-InP photoconductive detector, pulse dispersion and preheating effects 2−115765
InP photoconductive detectors, high-speed, for UV and X-ray regions 2−112975

photoconducting materials
see also photoconductivity
chalcogenide photoreceptors, residual voltage, electron traps effects, theory 2−115809
cobalt naphthenate, photo-electrect study 2−61818
defect detection, nondestructive testing methods 2−105402
electrophotography, conf., Washington, DC, USA (Nov. 1981) 2−107011
layered organic photoconductors, localised peristent polarisation 2−61511

photoconducting materials continued
organic layered photoconductor 2−61510
organic photoconductors, carrier generation and elec. field induced fluorescence quenching 2−67108
poly-N-vinyl carbazole, synthesis, physical and elec. props., book 2−53443
poly-N-vinyl carbazole-diazonium salt system, organic photoreceptor with charge-acceptance memory 2−58941
polyethylene naphthalate photoelectret, carrier traps 2−98661
polymer films, ferrocene doped, overcoating materials for xerographic photoreceptors 2−107434
squarylium particulate, fatigue reduction by electron transport material doping 2−110398
toner photoconductor adhesion in electrophotographic system, charge, size and shape effects 2−107437
$Cd_xPb_{1-x}S$, film, growth kinetics, chem. deposition from aq. soln. 2−110190
CdS, electro-acoustically active, AC and DC cond. 2−77128
CdS films, chemisorption of O_2, XPS study 2−99292
CdS-Michlers ketone mixture binder layers, electrophotographic characts. 2−107433
$CdS_{1-x}Se_x$ mixed crystal photoconductive films for electrophotographic recording *(German)* 2−87342
CdS_xSe_{1-x} sprayed thin films, struct. props. and optical band gap 2−110199
$Cd_{1-x}Zn_xS$ mixed crystal photoconductive films for electrophotographic recording *(German)* 2−87342
PLZT ceramic, reduced, dark cond. and optical absorpt. 2−104374
Se/polystyrene-hexylmethacrylate copolymer interface, charge transfer 2−56722
Se-binder generation layer, trigonal, carrier photoinjection into organic carrier transport layers 2−87334
Se-binder photoconductive layer, trigonal, formed by in situ reduction and crystallisation, photocond. behaviour 2−87333
Si, amorphous film, laser induced controlled nucleation and growth process 2−56408
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture, electrophotography photoreceptor appl. 2−93444
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
ZnO-PVK photoreceptor, dye sensitisation for electrophotography 2−84729

photoconductive cells
No entries

photoconductivity
see also photoconducting devices; photoconducting materials
alkali halides, activated, photoconductivity, thermoluminescence and TSC 2−82404
amorphous semiconductors, intrinsic, photoconductivity dependence on photogeneration rate 2−72028
amorphous semiconductors, transient photoconductivity and photo-induced optical absorption 2−92684
anthracene, cryst., optical charge carrier generation, time depend. 2−87316
circular photon drag effect, photocurrent magnitude 2−87336
defect levels 2−115691
diamond, semiconducting, as ultrafast room temp. IR detector, time-resolved photocond. response 2−79675
diamond, semiconducting, electron irradiated, photocond. meas. 2−98692
dielectric layer, pulse photo-response to monopolar injection *(Russian)* 2−61505
poly-N-epoxypropylcarbazole, sensitized with 2,4,7-trinitrofluorenone, electrophotographic layer, device discharge 2−87338
ferroelectric with high-mobile nonequilib. electrons, photoelectric effects 2−110380
ferroelectrics, vibronic, transitional photovoltaic current in initial stage of light irrad. *(Russian)* 2−82399
free carrier absorpt., photogalvanic effect, one-band model 2−56640
n-Ge:Au, photoconductivity at photon energy less than impurity ionization energy 2−77121
Group VI dichalcogenides, semicond., photocurrent spectrosc. 2−87321
holographic meas. of photovoltaic consts. 2−110392
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
iodoform, crystn., 2-photon induced photoconductivity 2−66585
iodoform, DC photoconductivity space-charge limited currents 2−72020
iosoform cryst., hole mobility, transient photocond. study 2−71972
Kapton polyimide film, photocond. at high elec. fields 2−98694
many-valley semiconductor, polarisation-dependent photocond. and surface photocurrent 2−115821
merocyanine dye Langmuir films, high-field photoconduction 2−72029
MNOS structure, degraded, characts. restoration at room temp., effect of light on restoration rate 2−87406
molecular aggregates, trapped electrons, photinduced diffusion, absorpt spectrum 2−87320
organic energy conversion, ionised impurity induced photocarrier generation 2−99797
organic photosemiconductor, model systems for primary photoprocess in photobiology *(Russian)* 2−62574
organic semiconductor layer, photoelectric pulse current *(Russian)* 2−61625
pentacene, layer, photoelectric pulse current *(Russian)* 2−61625
α-phenazine single crysts., pulsed dye laser induced photocond. 2−104422
photocurrent relaxation time constant meter 2−107341
photogalvanic effect, anomalous, in systems with electron and phonon order parameters *(Russian)* 2−72031
photoinsulator-airgap-dielectric system, surface charge calc., separation of surfaces in elec. field 2−87337
phthalocyanine, x-metal free, electric field induced fluoresc. quenching and photocarrier generation 2−61946
phthalocyanine polycrystalline film, photoelectrochem. solar energy conversion 2−99815
phthalocyanine thin films, metal-free, photocond. and photovoltaic effects 2−72023
picosecond photoconductivity and its applications 2−87343
poly(N-vinyl carbazole), time resolution of carrier photogeneration controlled by geminate recombination 2−87328
poly(N-vinylcarbazole), appl. of TSC transport peak appl. 2−66571

photoconductivity continued
poly(p-xylylene), photocond. and vacuum UPS study 2−77113
poly-1-vinyl-1,2,4-triazole-metal boundaries, charge carrier photoinjection 2−61587
poly-(n-vinylcarbazole) film, photocarrier drift mobility meas., film struct. effects 2−72019
poly-N-vinylcarbazole, photoconductor, photoelectric sensitivity increase by doping 2−72022
polydiacetylene toluene sulphonate, quasi-one-dimensional single cryst. polymer, charge carrier mobility 2−61514
polyethylene, photoconduction, vacuum UV region, temp. depend. 2−56635
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2−77212
polyvinylcarbazole, photocurrent long relax. time and carrier mobility meas. 2−72018
polyvinylidene fluoride, photocond. study *(French)* 2−104421
PVC:I_2, photoconductivity, doping effect 2−61629
pyranthrone/dodecane (HMPA) interface, elec. field assisted photostimulated charge transfer 2−104420
rubrene, photocond. obs., carrier generation determ. 2−72017
semiconductor, compensated, impedance and photoresponse characts. under carrier heating conditions 2−77117
semiconductor, high freq. conductivity, free carrier absorption and electron-phonon interactions 2−115804
semiconductor, impurity photocond. under injection breakdown conditions, freq. depend. 2−77119
semiconductor, nonequilibrium current carrier spectrum, relationship to carrier temp. after pulse photoexcitation 2−66590
semiconductor, photoconductivity, nonequilib., external fields influence on surface photogalvanic effect 2−77118
semiconductor, picosecond photocond., photoinduced plasma cond. and dielec. props. 2−115807
semiconductor, polycrystalline, photocond. spectral response, diffusion potentials at grain boundaries 2−92685
semiconductor, surface barrier struct., photon-diffusion transport of nonequilib. carriers 2−115864
semiconductor, transition metal doped, photoanodes, steady state photoresponse in aq. soln. 2−115815
semiconductor, under steady-state optical excitation, temp.-density selfoscillations in carrier system 2−66467
semiconductor electrodes, photoelectrochemical processes 2−88366
semiconductor solid soln., photoconductivity *(Russian)* 2−82400
semiconductor thin films, optical processes, review 2−93310
semiconductor transport props., effects of sampling length and finite device length 2−92687
semiconductor-electrolyte interface, electrochemical transfer via surface states 2−87384
semiconductor-electrolyte solar cells, photocurrent, theoretical anal. 2−73117
semiconductors, illuminated, fluctuation phenomena 2−87353
semiconductors, optical characterisation of deep energy levels 2−56478
semiconductors, photomagnetoelectric effect for any injection level, numerical calc. 2−66583
semiconductors, variable gap, photon transport of nonequilib. carriers, photoluminescence 2−116257
semicondutor excess carrier transport props., focal plane processing, image degradation anal. 2−92686
silver sulphamides, cond., photocond., and luminesc. studies 2−77111
solar cell, liquid-junction, illuminated semiconductor-electrolyte interface, steady-state model 2−116802
steady-state photocurrent anal. 2−87341
tetracene, photoconductivity, mag. field effects, triplet exciton lifetime 2−72021
tetracene, photoemission data, carrier photoproduction autoionization mechanism 2−67196
thianthrene, cryst., charge carrier generation, photocond. study, multiphoton processes 2−77110
time resolved, picosecond electro-optic sampling system 2−95407
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
zinc phthalocyanine films, photocurrent generation, electric field and temp. depend. 2−61512
AgBr:Pb^{2+}, photocond. meas. for sub-bandgap light 2−87325
AgBr:Pb^{2+}, photocond. meas., pre-exposure effects 2−87326
AgBr:Pb^{2+}(Cd^{2+}), photoresponse and photoelectron lifetime 2−56641
$AgGa(Se_{0.75}S_{0.25})_2$, crystal solid soln., impurity photocond. meas. 2−61521
Al-GeS, work function determ. method 2−61553
$Al_{0.35}Ga_{0.65}As$-GaAs heterostruct., modulation doped, photocond. effects 2−56679
$Al_{1-x}Ga_xAs$-GaAs heterojunction CCD, quantum efficiency, heterojunction spike effects 2−87376
Al_2O_3 in MIMS struct., deep trapping levels, photoelec. spectrosc. obs. 2−82405
As_2S_3, glassy, photocond. and absorpt. spectra, photoinduced changes *(Russian)* 2−115825
$(As_2S_3)_{1-x}(Tl_2Se)_x$, chalcogenide glass film, photoconductivity 2−110399
As_2Se_3, amorphous, localised density of states meas. 2−82293
As_2Se_3 thin film, vitreous effect of age, photocond. meas. 2−56645
As_2Se_3:Cl(Br)(I)(Ge)(In)(Tl)(Na)(K)(Ag)(Cu), chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
As_2Te_3 chalcogenide glass, photoabsorption and photoconductivity 2−82406
$Ba_xSr_{1-x}Nb_2O_6$, photorefraction and photoelec. props., ferroelec. polarisation 2−110394
$Ba_xSr_{1-x}Nb_2O_6$:$Ce(Sr_2Nb_2O_7)$, photoluminescence, thermoluminescence and photocond. 2−110908
$Bi_{12}GeO_{20}$, drift mobility of photo-induced charge carriers, temp. depend. 2−110396
$Bi_{12}GeO_{20}$, single crystal, interaction of piezoelectric and nonequilibrial photoinduced carriers 2−87688
$Bi_{12}SiO_{20}$, IR quenching of photocond. and holographic data storage 2−87335
$Bi_{12}SiO_{20}$, pulsed and steady-state photocond. and TSC meas. in MIM struct. 2−92695
$Bi_{12}SiO_{20}$ single-crystal film, LPE growth, optically activated planar optical switch appls. 2−116391
$Bi_{12}XO_{20}$ (X=Ge, Si) energy levels in forbidden zone *(Russian)* 2−61930

photoconductivity continued
CaS:Bi excitation mech. of Bi^{3+} luminesc. centres, luminesc., TSC and photocond. meas. 2−67103
$CdBr_2:Cu^+$, impurity level and photoionisation processes, photocond. meas. 2−56638
$CdCl_2:Cu^+$, impurity level and photoionisation processes, photocond. meas. 2−56638
$CdGa_2S_4$, electroabsorption, luminescence studies 2−61875
$CdGa_2S_4$, semicond., localised states, impurity absorption and photocond. spectra 2−110298
$CdGeP_2$:Ga photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
$Cd_xHg_{1-x}Te$, compositional uniformity, directed crystn. from melt 2−76333
$Cd_xHg_{1-x}Te$, narrow gap, absorption coeff. and optical band gap 2−116146
n-$Cd_xHg_{1-x}Te$, photoconductivity relax. study 2−104426
CdI_2, Auger interaction of donor-acceptor pairs with luminesc. centres, photoluminesc. and photocond. study 2−93270
$CdMoO_4$ crystal, photocond. and luminesc. 2−66591
CdS anodes, polycrystalline, photoetching by cysteine 2−99814
CdS, dye-desensitised, photoconductive process 2−87332
CdS, electro-acoustic current fluctuations 2−98702
CdS, kinetic behaviour of O_2 radicals ESR and elec. meas. 2−87589
p-CdS, metastable states, photoluminescence 2−104425
CdS, neg. photocapacitance and photoconductivity 2−104428
CdS polycrystalline film, photoconductivity meas. 2−66674
CdS, recharge-enhanced transforms. of donor-acceptor pairs and clusters 2−61390
CdS, two-photon magnetospectroscopy of A-exciton states 2−104260
CdS:Cu, electron irrad. prod. defects interaction with impurities, elec. and optical props. study 2−56035
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
CdS:Te film, vacuum deposited, dark cond. and photocond. meas., doping effects 2−61623
CdS-CdSe films, impurity photocond. line spectra, donor mol. concept 2−115822
CdS-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
$CdS_{0.5}Se_{0.5}$, picosecond photocond. for ultrafast optoelectronic switching 2−115807
CdSe, photocond., struct. and defect levels 2−115811
n-CdSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
CdSe sprayed films, struct., optical and photocond. props. 2−98698
CdSe-As_2Se_3, amorphous-cryst. heterojunction, interface charge, non-steady state transport 2−92736
CdSe-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
$CdSnAs_2$ single crysts. and p-n junctions, photosensitivity spectra 2−92689
$CdSnAs_2$-GaSb heterojunctions, LPE fabrication and props. 2−92743
$CdSn_3Ge_{1-x}P_2$ solid solns., photoactive absorpt. and radiative recomb. anisotropy 2−92690
$CdSnP_2$:Cu photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
CdTe, bipolar photo-Hall effect and photocond. meas., defect model 2−115812
p-CdTe, imperfection anal. by photoHall effect and bipolar photocond. meas. 2−77114
CdTe MSM and MISIM radiation detectors, elec. field intensity distrib. 2−77200
CdTe, n- and p-type, photoelectrochem. determ. of minority carrier diffusion length 2−115777
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
CdTe, relaxation-case, photoconductivity 2−66589
CdTe, thermoelectric power, effects of bipolar photoconductors, photo-Hall effect meas. 2−87310
CdTe-$Cu_{1.8}S$, p-n heterojunction phototransducers 2−104478
Cu-As-Se glassy films, photoconductivity and optical absorpt. *(Russian)* 2−104516
p-$CuInS_2$, photocond. spectrum obs. 2−56643
$CuInTe_2$ single cryst., photocond. and electronic struct., impurity levels 2−115814
$Cu_6PS_5Br(I)$ argyrodite-type ionic conductors, bulk photovoltaic and photocond. effects 2−104424
$Fe_x(As_{15}Te_{37}Si_{25}Sb_{27})_{1-x}$ film, sputtered, phys. props. 2−92421
α-Fe_2O_3 electrodes in aqueous electrolytes, photoactivity, effects of chemical doping, photoelectrochem. cell appls. 2−67866
$FePS_3$, photoresponse under photoelectrolysis conditions 2−61513
$FewO_4$, prep., elec., mag. and structural props. 2−92682
GaAlAs:Zn, variable gap semicond., photon transport of carriers, photoluminescence study 2−116256
$Ga_xAl_{1-x}As$, MBE grown, persistent photocond. centres, capacitance spectroscopy meas. 2−98688
GaAs, deep impurity profile, persistent photocurrent meas. technique 2−115267
GaAs electrical surface props. determ. by thermo-optical acousto-electric voltage method 2−92720
GaAs, electrostatic effects of hydrogenic donor complexes on magneto-optical spectra 2−82279
n-GaAs, epitaxial, far IR photocond. saturation 2−87319
GaAs, epitaxial layers, donors contaminants study far-IR photoconducivity method 2−56732
GaAs, hot photoexcited electrons, theoretical study 2−82367
n-GaAs impact ionisation induced negative far IR photocond. 2−115805
p-GaAs, MBE grown, impurity characterization by far-IR photoconductivity in high mag. fields 2−66565
GaAs NIPI superlattice, tunable optical absorpt. coeff. 2−77477
n-GaAs, negative far IR photocond. obs. in mag. field 2−98690
GaAs, photocond. at high optical excitation rates, struct. disorder effect 2−115818
n-GaAs, photocurrent determ. of hole diffusion lengths 2−82396
GaAs, photoelectric memory effects, theoretical model 2−82394
GaAs, radiative recomb. and light absorpt., dislocations effect 2−104962
GaAs:Cr, impurity levels, elec. cond., IR spectra and photocond. study 2−56485
GaAs:Cr, photoconductivity, instability, mixed cond. anal. 2−72026
GaAs:Cr,O, electron lifetime meas., photocond. and high field meas. 2−92655
GaAs:O, impurity levels and photocond., temp. depend. 2−115817
GaAs:Si, donor states, photothermal ionisation spectra study 2−98767
photoconductivity continued
GaAs-AlGaAs heterojunction, 2-D electron gas, cyclotron resonance of photoconductivity 2−66920
GaAs-oxide interface electronic struct. 2−87409
GaAs-ZnSe heterostructure, photosensitivity spectra and luminesc. 2−92691
$GaAs_{0.6}P_{0.4}$:Te, electron trap spectrum obs. by DLTS and transient capacitance meas. 2−87302
$Ga_xIn_{1-x}As$-GaAs n-n^+ heterojunction, Schottky diode and photodetector appl. 2−115869
GaSe, photocond. near fundamental band edge 2−92692
GaSe:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
GaSe-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
GaSe-metal Schottky barriers, optical band rectification and photomemory 2−115892
$GaSe_xTe_{1-x}$:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
GaTe:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
Ge, deep impurity photoionisation, electron-phonon interactions, photoconductivity study 2−61520
Ge, photodielectric effect associated with excited acceptor states 2−104431
Ge, photogalvanic piezomagnetic effect *(Russian)* 2−82401
Ge, quenched, presence of shallow acceptors from far IR photocond. spectra 2−104302
Ge, recombination mechanisms, photoconductivity and IR absorption 2−115780
Ge:Cl, amorphous, ion implanted, gap-states, elec. cond. study 2−76987
Ge:Ni(Au), photoelectromotive force, carrier density 2−87339
Ge:P(Sb), impurity states fine struct., photoconductivity study 2−87190
GeS, negative photoconductivity 2−110402
p-GeSe, layered cryst., photocond., polarised light study *(Russian)* 2−77124
Ge_xSe_{1-x} glasses, photocond. and recomb. processes 2−77112
Ge_xSe_{1-x}:In(Fe)(Cu), glassy, photoconductivity 2−56634
GeSeTe, chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
(Hg, Cd)Te, carrier lifetime rel. to wafer processing parameters 2−72001
HgCdTe, electronic props., MIS IR devices 2−87295
$Hg_{0.7}Cd_{0.3}Te$, photocond. props, 4.2 to 300K, recombination mechanisms *(French)* 2−61508
$Hg_{0.8}Cd_{0.2}Te$, photoconductivity lifetime, recombination below 20K 2−92683
$Hg_{1-x}Cd_xTe$, differentiation of low temp. recomb. proceses, photocond. lifetimes meas. 2−115813
$Hg_{1-x}Cd_xTe$, photo-Hall meas. on laser-generated electron-hole plasmas 2−87323
$Hg_{1-x}Cd_xTe$, photo-Hall meas. of high-density photoexcited electrons 2−92700
n-HgMnTe, optical determ. of exchange interaction 2−104605
In/trans-$(CH)_x$/Electrodag Schottky barrier solar cells, photovoltaic and rectification props. 2−78216
p-$In_{0.53}Ga_{0.47}As$ film, high field transport charcts. of minority electrons 2−98699
InP, impact ionization coeffs. for electrons and holes, photomultiplication meas. 2−61472
InP, ionisation coeffs., avalanche photomultiplication and avalanche noise study 2−98700
InP:Fe, semiisolating, photocond. mechanism peculiarities *(Russian)* 2−104435
InP:Fe(Cr), photocurrent instability, temp. depend. meas., temp. meas. system appl. 2−58824
InP:Fe(Cr), semi-insulating, photoinduced current transient spectroscopy 2−92646
n-InP-Al Schottky barrier, prep., photocurrent, I-V and C-V charcts. study 2−61552
$In_{2/3}PSe_3$, radiative transitions, hole diffusion length, photoelectrochemical study 2−92647
InSb, photoelec. method of nonhomogeneity meas. 2−92679
p-InSb, two-photon magnetoabsorpt. spectra, using CW CO_2 lasers 2−93166
InSb:Ge(Cd)(Mn)(Zn)(Cr), deep levels in band gap, photocond. study 2−115706
InSb-CdTe heterojunctions, photomemory effect 2−92693
In_4Se_3, piezophotoconductivity spectra, carrier energy quantisation 2−104429
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
La_2S_3, α and β phases and Nd doped, photocond. meas. 2−115824
β-La_2S_3:Nd, Ce, efficient energy transfer from band excitation to Nd^{3+} 2−67102
$La_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$La_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
$LiNbO_3$:Fe, influence of irrad. power on photocurrent 2−56632
$LiNbO_3$:Fe, spatially-oscillating photogalvanic current *(Russian)* 2−56644
p-$Mn_xCd_{1-x}Te$ crystal, elec. cond., Hall effect and photocond. meas. 2−87263
$MoSe_2$ solar cells, photovoltage, kinetic model 2−83474
n-$MoSe_2$, transverse photoconductivity, electronic mobility anisotropy 2−104419
Nb_2O_5, photoelectrochem. and solid-state props. 2−72016
$Nd_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Nd_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
$NiPS_3$, photoresponse under photoelectrolysis conditions 2−61513
PLZT ceramic, transparent ferroelectric, dielec., optical and semicond. props., reduction effect *(Russian)* 2−99668
PLZT transparent ceramic, elec. cond. model, dark current, photocond., optical absorpt. coeff. *(Russian)* 2−61504
PbI_2 film surface layer, band gap illumination effects 2−92368
PbI_2, surface, photolysis and conductivity, desorption, quadrupole mass spectra study 2−66617
Pb_2InNbO_6, elec. props., band gap energy 2−110395
$PbMO_3$, (M=Ti, Zr, Hf), elec. props., band gap energy 2−110395
$PbMoO_4$ crystal, photocond. and luminesc. 2−66591
PbO, tetragonal, exciton thresholds, wavelength-modulation of photocond. spectra 2−104434
PbO-Bi_2O_3, prep. and electrophysical props. of compounds 2−72619
PbS-GeS-GeS_2 chalcogenide glass, struct. and photoelectronic props., DTA and SEM study 2−92681

photoconductivity continued
$PbScNbO_6$, elec. props., band gap energy 2−110395
$Pb_{0.76}Sn_{0.24}Te$:Cd, photoconductivity kinetics 2−104427
$Pb_{1-x}Sn_xTe$ epitaxial film, surface recombination, photoconductivity study 2−104393
n-$Pb_{1-x}Sn_xTe$:Cd, elec. cond., photocond., and elec. cond. transitions 2−115759
$Pb_{1-x}Sn_xTe$:In, dielec. phase, switching effects and I-V charcts. under IR illumination 2−92688
$Pb_{1-x}Sn_xTe$:In, semicond.-metal transitions, IR illumination induced dynamics 2−72036
PbTe layers, photocurrent decay 2−87340
$PbWO_4$ crystal, photocond. and luminesc. 2−66591
$Pr_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Pr_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
Sb-GaSe struct., γ-irrad. effect on photoelectric props. 2−61516
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
SbSI single cryst., photocond., surface perfection influence 2−104423
Se, amorphous, photogeneration, geminate recombination model, expt. and theoretical study 2−87315
Se, amorphous film, photocond. stabilisation and evolution, thermal history effects *(French)* 2−72030
Se, amorphous thin film, photoconduction spectral response, annealing near glass transition temp. 2−87330
Se, liquid, steady-state photocond., *(French)* 2−77115
Si (100) MOSFET, photoresponse of electron inversion layer, mag. field depend. 2−61518
Si, amorphous, MIS solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
Si amorphous film, CC sputter and plasma deposited, photoconductive decay, carrier lifetime 2−82398
Si, amorphous films, RF-bias sputtered, elec. cond. photoconductivity, ESR spin density, annealing effects 2−56391
Si, amorphous glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
Si, amorphous p-i-n junction, photoenhanced electroluminescence 2−82928
Si, deep impurity photoionisation, electron-phonon interactions, photoconductivity study 2−61520
Si, electron beam irrad., radiation efficiency, photocond. and carrier lifetime study 2−115293
Si film, glow discharge deposited, optical and elec. props. 2−93307
Si film, plasma hydrogenation effects on elec. props. and ESR 2−104511
n-Si, heat treated, γ-irradiated, photoelec. props. 2−77120
Si, interband Auger recomb. rate, carrier density depend. 2−77088
Si, LPE, minority carrier lifetime 2−72637
n-Si, laser irrad., shock wave defects, photocond. and annealing study 2−56017
Si, microcrystalline, plasma deposited, charact. 2−92405
a-Si, photoelectronic effects, surface and bulk contribs. 2−98687
p-Si polycrystal, grain boundary photocurrent, diffusion length, recomb. speed 2−61482
Si, polycrystalline, grain boundary recomb. vel. determ., laser spot technique for photoconductance meas. 2−77087
Si, polycrystalline, photoconductivity, temperature dependence 2−98697
Si, polycrystalline under optical illum., phenomenological model of grain boundary trapping states 2−92653
Si, transverse photo-emf *(Russian)* 2−77126
Si:Au, B, counterdoped, anal. of transient photocond. 2−66584
n-Si:Cr, donor levels, photocapacitance and photocond. spectra 2−115707
Si:F, H amorphous films, photoelec., and optical props. Schottky barrier solar cell form. 2−83480
Si:F,H amorphous films, solar cell form., film elec. and optical props. 2−83481
Si:Ga, float zone cryst., neutron irrad., X-centre formation, expt. study 2−98162
Si:H, amorphous, field effect conductance, annealing and light induced changes meas. 2−98750
Si:H, amorphous, gap states distrib., modulated photocurrent phase-shift anal. 2−92534
Si:H, amorphous, homogeneous CVD prep. and struct., comp. and photocond. props. 2−87085
Si:H, amorphous, photogeneration, geminate recombination model, expt. and theoretical study 2−87315
Si:H, amorphous film, RF sputtered, H content, and config., photoconductivity, IR study 2−82397
Si:H, amorphous film, RF planar-magnetron sputtering, IR and photoelec. props. *(Japanese)* 2−99332
Si:H, amorphous films, field effect density of states, annealing and light exposure effects 2−71850
Si:H, amorphous glow discharge film, photocond. and Fermi level temp. depend., photoinduced changes obs. 2−115810
Si:H, amorphous plasma deposited film, photocond. IR quenching and gap states, exp. study 2−87318
Si:H, amorphous sputtered film, dispersive transport, carrier mobility, photoconductivity study 2−82357
a-Si:H, electronic props., CPA calc. 2−56430
a-Si:H, Ga(As), ion implanted, absorpt. and photocond. spectra 2−115820
Si:H, N, amorphous film, elec. and photocond. variation with N doping 2−110339
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
Si:H, N(Ga), amorphous film, ion implanted, photocond. and energy spectrum 2−92698
a-Si:H, photoluminesc. emission broadening 2−110920
Si:H,P amorphous glow discharge thin films, elec. props., heat treatment and P ion implantation effects 2−61467
Si:H amorphous, photoconductivity spectrum 2−104430
Si:H amorphous glow discharge films, elec. and optical props., elec. and mag. field effects 2−82407
Si:H amorphous p-i-n solar cell, photocurrent, voltage depend. 2−78211
Si:H amorphous thin film Schottky barrier diodes, diode charcts., film props. 2−82430
Si:H amorphous thin films, ion-plated, photoconductivity and optical band gap 2−87331
a-Si:H film, annealing effects on ESR, elec. and optical props. 2−66588
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
a-Si:H films, growth and characterisation 2−83031

photoconductivity continued
Si:Ne, Ar, amorphous, ion implanted, localised defect states and impurity distrib., photocond. spectra study 2−61414
Si:Ni, γ-irrad., elec. cond., photocond. and galvomag. props. 2−115761
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si:P, neutron transmutation doping, radiation defects, electrical activity, annealing 2−86738
Si:P(As)(Li), D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:Se, donor level photoionisation cross-sections, IR spectra and photocond. study 2−56484
Si-Au, amorphous, Schottky solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
Si-metal Schottky barriers, photovoltaic props. implications for grating solar cells 2−116828
Si-Se-In film, photo-induced memory effects obs. 2−56636
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
Si-SiO_2 system, photoinjection, carrier trapping 2−77198
SiC:H, amorphous film for a-Si solar cell, props. and struct. 2−104978
$Si_{1-x}C_x$:H, amorphous glow discharge films, ESR, IR and optical study 2−56934
$Si_{1-x}Ge_x$, amorphous, optical props. and photoconductivity 2−104920
SiO_2, energy gap and photoelectric props., effects of blocking electrodes 2−82403
SiO_2 MOS struct., X-ray induced photocurrent, contact injection effects meas. 2−82395
Sn-GeS, work function determ. method 2−61553
SnO_2/In_2O_3-Si structure with tunnel-transparent insulating layer, elec., photoelec. and luminesc. props. 2−77159
$SnPS_3$, photoresponse under photoelectrolysis conditions 2−61513
$SrTiO_3$ photoanode, visible light photoresponse, surface treatment effects 2−98695
$SrTiO_3$, transient photocurrents and DC photocond. study 2−110390
$SrTiO_3:Cr^{3+}$, photoelectronic and optical props. 2−82402
α-Ta_2O_5, photocond. and photochromic props. meas. 2−92696
Te, photogalvanic effect due to free carrier absorption 2−56640
Ti, anodic oxide films, growth and instability, expt. study 2−93674
n-TiO_2-aqueous electrolyte interface, photoinduced and dark charge transfer obs. 2−92747
$TlGaSe_2$, negative photocond. obs. 2−56642
$TlPbI_3$, Tl_3PbI_5, Tl_3PbBr_5, crystal growth, elec. and optical props. 2−87967
TlSe, single crystal, photoelectrical props., influence of laser beam irradiation *(Russian)* 2−92680
$TlSnI_3$,$TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
WO_3 amorphous thin films, coloration mech. study 2−99206
WSe_2, solar cells, photovoltage, kinetic model 2−83474
ZnO, dye sensitized, donor-acceptor complex formation, photocurrent meas. *(Japanese)* 2−61507
ZnO-polymer, photoreceptors, photosensitivity, photocurrent kinetics 2−61509
Zn_3P_2, AC photocond., spectral response 2−77109
ZnS, peizoelec., effect of mag. field on photovoltaic current and photocurrent 2−110385
n-ZnSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
ZnSe-$Zn_{1-x}Cd_xTe$ heterojunction, photocond. spectral response, theory and expt. 2−98733
p-$ZnSnP_2$ Schottky diodes, current-voltage charcts., photosensitivity and recomb. radiation spectra 2−115863
p-ZnTe, photoelectrochem. determ. of minority carrier diffusion length 2−115777

photoconductors *see photoconducting materials*

photocopying
see also electrophotography
light source brightness determination *(Russian)* 2−97136
photorepeaters, problems and methods in testing and proving efficiency 2−69277

photocurrent *see photoconductivity; photoemission*

photodetectors
10.6 μm short pulse detection *(Rumanian)* 2−84706
absolute sensitivity determ. 2−107408
amplitude-freq. charcts. meas. using optical heterodyning in fast freq. scanning mode 2−58805
automatic photographic contrast meter, using photodiode detector, LED bargraph indicator 2−84724
camera automatic shutter operation using Moving Image Detector and servo unit 2−95511
cameras, automatic, exposure error meas. instrum. 2−53869
density and moisture meas., using functional equation of radiation flux 2−58836
devices for advanced fibre systems 2−97229
digital photoelectric correlator 2−53837
displacement transducer with photoreceptor array 2−95475
enhanced background illumination resistance photodetector 2−58804
far IR detectors, fast response capability, review *(Japanese)* 2−89811
fibres optical power output meas. 2−102953
heliotrope, optoelectronic aid for the blind 2−100162
high-resolution imaging with a two-dimensional resistive anode photon counter 2−79673
high-speed, characterisation by picosecond photoconducting sample gate 2−112976
high-speed photodetectors for plasma diagnostics 2−103444
intensified Si vidicon detector, appl. to direct imaging and photometry 2−73846
light emitting diodes and photodetectors for wavelength-division-multiplexed light-wave systems 2−81120
low-background hard X-ray spectrometer, APACHE, 10.6 μm laser fusion expts. appl. 2−101508
mobile phase sensor design, for thin-layer chromatograms development 2−73035
multi-channel two-photon detector based on picosec. photoconductivity 2−87343
multichannel light detector system for visible continuum measurements on Alcator C 2−112988
multichannel photoreceiver with overlapping channel spectral charcts., math. theory 2−112987

photodetectors continued
multielement radiation detector, raster shape for scanning by a plane reflector 2−89816
optical communication appls., book 2−101147
optical transmission techniques, emitters and detectors *(German)* 2−97231
p-i-n photodiode receivers for optoelectronic systems, noise sources, dynamic props. *(Czech)* 2−70705
photoconductor excess carrier transport props., focal plane processing, image degradation anal. 2−92686
photoconductor transport props., effects of sampling length and finite device length 2−92687
phototachymeter, type SG-3, noise immunity increase 2−70656
picosecond electro-optic sampling system 2−95407
polysilicon MOS tunnel devices with internal gain, use as photodetectors 2−64106
positioning sensor for Sun oriented meas. *(German)* 2−79669
pulse amplitude decay meas. system 2−112983
pyroelectric detectors, calibration method *(Spanish)* 2−84700
pyroelectric detectors for bremsstrahlung pulses 2−90406
pyromagnetic detection, reproduction of free laser generation pulse *(Russian)* 2−60138
semiconductor photodetectors, threshold props., theory 2−79674
sensitivity temperature stabilisation using diffuse dispersion filters 2−91031
signal and noise in optical receivers *(Rumanian)* 2−89789
spectrophotometry, components and quality control 2−58914
standardisation problems in optical instrumentation 2−112991
streak image tube, subpicosecond, Photochron IV 2−89813
thermal viewer basic parameter, photographic recorder recording-spot size effect 2−53838
thermopile, vacuum, for meas. very weak continuous radiant energy, based on Bi_2Te_3 thin films *(French)* 2−95473
thickness monitoring device 2−58782
two-photon field of visible radiation generation, parametric conversion, photodetector calibration 2−55266
velocity noncontact meas. using optical spatial filter detector *(Japanese)* 2−114410
wide-range photoelectric detector 2−112984
$Al_xGa_{1-x}As$-GaAs picosecond photodetectors, bias-free selectively doped 2−95466
AlGaAsSb-GaSb, multilayer avalanche photodiode low noise detector for 1.3 μm fibre optic systems 2−53833
CdS based power density meter for holography 2−95434
CdTe MSM and MISIM radiation detectors, elec. field intensity distrib. 2−77200
GaAlSb-GaSb photodetectors for the near infrared spectrum *(German)* 2−84704
GaAs photoconductive detectors, thin film, ultrafast operation 2−101463
GaAs-AlGaAs avalanche photodetector, single-carrier-type dominated impact ionisation 2−84701
$Ga_{1-x}In_xAs$ majority carrier photodetectors with large gain-bandwidth products 2−95474
$Ga_xIn_{1-x}As$-GaAs n-n^+ heterojunction, Schottky diode and photodetector appl. 2−115869
Ge, for linearly polarised radiation direct analysis 2−107387
InGaAlAs-InGaAs, multilayer avalanche photodiode low noise detector for 1.3 μm fibre optic systems 2−53833
InGaAs:Te, VPE growth for photodetectors 2−111086
InGaAs-InP photodetectors for the near infrared spectrum *(German)* 2−84704
$In_{0.53}Ga_{0.47}As$-InP photoconductive detector, pulse dispersion and preheating effects 2−115765
InGaAsP sources and detectors for the 1.0-1.7 μm wavelength range 2−95467
InP MISFET, optically gated, high gain optical detector appl. 2−53835
InP:Te, VPE growth for photodetectors 2−111086
InSb low-noise photodetector preamplifier for IR astronomy 2−112333
InSb photoconductive detectors, cooled, effects of surface treatment on performance 2−84705
Si, amorphous, photovoltaic detectors for guided-wave optics 2−64105
Si diode linearity measuring instrumentation 2−85440
Si, for linearly polarised radiation direct analysis 2−107387
Si photodetector for photometry, metrological characts. 2−112953
W-GaAs Schottky diode mixer for visible laser light and microwave harmonics up to 0.43 THz 2−112972

photodielectric effect
dielectric layer, pulse photo-response to monopolar injection *(Russian)* 2−61505
dielectric slab with taps, non-uniform illumination conditions, volt-amp characts. *(Dutch)* 2−61506
impurity-vacancy dipoles, photoinduced polarisation and depolarisation, theory 2−104799
photoinsulator-airgap-dielectric system, surface charge calc., separation of surfaces in elec. field 2−87337
polarization and depolarization, photoinduced, impurity-vacancy dipole orientation 2−77446
AgCl, microwave photodielec. effect 2−72025
Ge, photodielectric effect associated with excited acceptor states 2−104431
PLZT ceramics, photoferroelectric props., ion implantation effects, review 2−110393
$Pb_{0.78}Sn_{0.22}Te$:In, photoferroelec. behaviour and Hall coeff., expt. study 2−87708

photodiffusion effects *see Dember effect*

photodiodes
see also avalanche photodiodes
array application in astronomical spectroscopy 2−73847
development and integrated optics component trends *(Japanese)* 2−70709
EM interference, reduction *(Japanese)* 2−65397
fibre-optic transmitter/receiver modules, mounting and bonding of optical components 2−97234
fibres, transient absorpt., electron beam radiation induced, detect. using biplanar vac. photodiode 2−114436
meter measuring weak-light fluxes and conversion into voltage signal 2−64086
multidirectional Si photodiode array for solar radiance meas. 2−83973
NMOS chip autofocus system for lens shutter cameras 2−101478
optical communication appls., book 2−101147
optical transmission techniques, emitters and detectors *(German)* 2−97231

photodiodes continued
p-i-n photodiode receivers for optoelectronic systems, noise sources, dynamic props. *(Czech)* 2−70705
PMOS technology photodiode arrays for spectrometry using ultraviolet light 2−95488
self-scanned arrays, X-ray applics. in NDT 2−72935
semiconductor photodetectors, threshold props., theory 2−79674
whisker structures for IR diodes at 10.6 μm, EM effective length 2−95469
$CdGeP_2$:Ga photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
CdHgTe electronically scanned photovoltaic hybrid detector array for 8-14 μm band 2−64107
$CdSnP_2$:Cu photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
GaAs photodiodes, thermometric characts. 2−101460
Ge photodiode detection of VUV scintillations in liq. He 2−113813
HgCdTe detector for potential super-long (2-6 μm) wavelength fibre optics appls. 2−95468
InGaAs:Te, VPE growth for photodetectors 2−111086
$In_{0.53}Ga_{0.47}As$ integrated pin/FET photoreceiver, 1-1.7 μm 2−74503
$In_{0.53}Ga_{0.47}As$ surfaces (100), peroxide etch chemistry 2−111515
InGaAsP on InP LPE for 1.3 micron high radiance IR LEDs and for photodiodes 2−111101
$In_xGa_{1-x}As_yP_{1-y}$, optical fibre components for 1.3 micron telecommunication *(French)* 2−97224
InP:Te, VPE growth for photodetectors 2−111086
n-$In_{2-x}Sn_xO_{3-y}$-InP photo and electroluminesc. diode 2−61571
Pb-Sn chalcogenide photodiodes, quantum efficiency and R_0A product, struct. effect 2−107403
Si photodiode absolute spectral response self-calibration using filtered W source 2−89804
Si photodiode arrays, 1D and 2D self-scanning, imaging devices in electron microscopy 2−64190
Si photodiode radiometers, use of diffusers 2−58901
Si planar photodiode, photon-flux meas., quantum efficiency model 2−101461
Si, polcrystalline, quasi-grain-boundary-free solar cell struct., elec. perform. 2−93904
T 2−109080
ZnP_2-In_2O_3 heterojunction diode, photovoltaic effect in ZnP_2 2−87322

photodisintegration
see also deuteron photodisintegration; photofission
$cc^4He(\gamma,pn)^2H$ reaction, triangular diagram mechanism *(Russian)* 2−90087
^{12}C photodisintegration and ^{11}B nucleosynthesis, astrophysical appl. 2−64392
$^{12}C(\gamma,n_0)^{11}C$ transition in direct reaction model 2−64405
$^{12}C(\gamma,p_0)^{11}B$ transition in direct reaction model 2−64405
$^3He(\gamma,d)p$, two-body photodisintegration, 150 to 350 MeV, rel. to T invariance 2−90086

photodissociation
see also molecular photodissociation
ethyl chloride, ν_9 band, vibr.-rot. anal., diode laser spectroscopy, multiphoton dissoc. studies 2−85656
I, spectral and relax. charact. investigation using a photodissociative I laser 2−113934
single crystal surface, chem. reactivity, surface irregularities and point defects role 2−57637
transition matrix element calcs. by R-matrix propag. soln. of driven eqn. 2−95062
Ge, thin film growth by laser induced CVD 2−77752
KCl(Br):OH^-, diffusion of H 2−61206
Se thin film, prep. by photodissociation of organometallic gases 2−83036
Si, thin film growth by laser induced CVD 2−77752
Si:H amorphous film, growth by silane laser photodissociation, X-ray and IR spectra study 2−116375
SiH_4, laser dissociation, Si film prod. *(Chinese)* 2−62074
TlI, electronically excited, photodissoc., UV absorpt. spectrum 2−90471
Zn, thin film, prep. by photodissociation of organometallic gases 2−83036
ZnSe, thin film, prep. by photodissociation of organometallic gases 2−83036

photodissociation of molecules *see molecular photodissociation*

photoelasticity
see also mechanical birefringence
aqueous soln. of milling yellow, study of basic patterns of light scattering 2−80899
axisymmetric bodies, integrated photoelastic methods for stress determ. 2−103129
bars, flat, axially loaded projections, photoelastic stress anal. 2−55439
bimaterial plate, crack along interface, photoelastic study 2−75911
cantilever beam, brittle, fracture under lateral impact load 2−91348
contact problems studied using photoelastic isodynes 2−65544
crack-tips, stress wave diffr., photoelastic study 2−55505
cubic single cryst., integral photoelasticity, computer graphics study *(Russian)* 2−97380
diamond, photoelasticity, elec. field induced ionic contribs. 2−67020
dynamic holographic photoelasticity, synchronisation problems 2−65546
dynamic photoelasticity of stress waves, multiple ruby laser system for high speed photography 2−103131
elastic dielectrics, electro-elastic and elasto-optic phenomena *(German)* 2−110772
fibre optic accelerometer, mulitmode, based on photoelastic effect 2−102925
fibre optic pressure sensor, multimode, based on photoelastic effect 2−97212
fracture mechanics, error anal. of photoelasticity study 2−55502
fracture study method for use under biaxial loading 2−67696
generalised elasticity problems, combined expt. and numerical soln. 2−81300
glass, toughened, residual stress meas. using magnetophotoelasticity 2−109257
glass fibre reinforced plastics, photo-orthotropic elasticity for stress analysis 2−103128
gradient photoelasticity treatment 2−114654
holography for stress field visualisation, review of techniques 2−86246
inclusions, rigid, cuspidal point stress fields, photoelastic anal. 2−103049
interference fits, photoelastic study on progress of interference 2−81299
isodyne and gradient photoelasticity development 2−103127
isodynes, anal. foundations 2−75854

photoelasticity continued
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
methane-d_0(-d_4) single crysts., elastic and photoelastic consts., Brillouin scatt. obs. 2−66103
optical fibre preforms, nondestructive determ. of stress profiles 2−75702
optical glass, optical const., effects of external fields 2−72440
piezoelectric semiconductor, photoelastic effect, electron contrib. 2−92703
plane model subjected to an impact, stress determ. method 2−97477
plate, square, uniformly loaded on two opposite sides, stress distrib. around circular hole 2−97479
polycrystals, grain struct., stress distrib. 2−88053
polyethylene films, crystalline, struct. mol. mobility, photoelasticity and torsion pendulum obs. *(Russian)* 2−110813
polypropylene, drawn films and extruded rods, photoelastic and elastic consts., Brillouin scatt. study 2−83148
polyurethanes SKU-10, opt. and mech. props. under pulsed and static loads 2−62159
rod, viscoelastic, impulsive loading method, isochromatic fringe pattern obs. of shock waves 2−60492
scattered light method in stress analysis, review 2−65542
shells, circular cylindrical, under tension and torsion, optimum hole shapes 2−97376
stress analysis by hybrid calculating methods, CYCLO-transmission curve-discs example *(German)* 2−97480
stress intensity factors, mixed mode, photoelastic determ., far field effects 2−109254
stress intensity factors determination by photoelastic method 2−70882
stress intensity factors using photoelastic techniques on notched models *(Spanish)* 2−86210
stress meas. in three-dimensional epoxy resin models, using photoelastic sandwich method *(German)* 2−81302
stress visualisation using interferometric holography *(Spanish)* 2−86238
stress wave interaction with running cracks, photoelastic study 2−55500
stressed birefringent medium, matrix transformations for passage of polarised light 2−93150
structural integrity assessment, stress intensity values determ. by photoelastic technique 2−103119
tetracyanoethylene, Brillouin scatt. study of elastic and photoelastic consts. 2−99141
three-dimensional cracked body problems, optical methods use in stress analysis 2−103130
US wave propag., stroboscopic visualization methods 2−102993
AgCl, photoplastic effect meas., latent image formation appl. 2−115340
GaAs, thermally oxidised, Lloyd's mirror interference method for determ. of photoelastic index variation 2−64096
KH_2PO_4 crystal, forced resonance acoustic vibrs. *(Russian)* 2−103909

photoelectrets
cobalt naphthenate, photo-electrect study 2−61818
PbO, orthorhombic, photopolarisation 2−93102
Si, p-n junction, dislocation energy levels, determ. using photoelectret and thermoelectret states 2−61580

photoelectric cells
see also photoconductive cells; photovoltaic cells
mobile automatic 9-channel scanning electrophotometer *(Russian)* 2−53817
Si:H, amorphous, post-hydrogenated CVD Schottky diode solar cell 2−99796

photoelectric devices
see also image sensors; photocathodes; photoconducting devices; phototubes
human body implant, optically powered 2−68198
humidity analysers based on controlled radiation sources *(Russian)* 2−64055
intensified Si vidicon detector, appl. to direct imaging and photometry 2−73846
radiation pyrometer for temp. interval 1300 to 3300K 2−101403
transducers for spectrophotometer reference markers 2−101437
vacuum, for metallurgy plant appl. 2−116762
p-$ZnSnP_2$ Schottky diodes, current-voltage characts., photosensitivity and recomb. radiation spectra 2−115863

photoelectric effects *see photoelectricity*

photoelectric electron emission *see photoemission*

photoelectric emission *see photoemission*

photoelectric tubes *see phototubes*

photoelectricity
see also Dember effect; photocapacitance; photoconductivity; photodielectric effect; photoelectrets; photoelectromagnetic effects; photoemission; photoionisation; photorefractive effect; photovoltaic effects
disordered semiconductor under illumination, electron localised state distrib., balance eqn. 2−61411
film, gap states, xerographic spectroscopy 2−77213
hydrocarbons, saturated, liq. and solid, charge carrier form. by radiation *(Russian)* 2−61480
interstellar dust grains, contrib. to photoelectric heating of H II regions 2−63566
material equivalence calc. method, rel. to photoelec. interactions, dosimetry appl. 2−102356
narrow gap semiconductor, internal photoeffects, quantum efficiency, model 2−104418
photographic emulsions, intrinsic photoelectric effect meas. *(Russian)* 2−61524
potassium and phthalate single cryst., elasto-optic behaviour 2−93151
semiconductor, photoelectric effects from indirect interband and intervalley transitions assisted by acousticwaves 2−61519
semiconductor crystal properties, measuring apparatus *(Russian)* 2−98693
semiconductors, inhomogeneous, photoadmittance 2−66587
semiconductors, laser generated carriers by induced lattice temp. gradients 2−56630
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
Ar, Rydberg IR optogalvanic spectroscopy 2−59759
CO branch-selected laser, opto-galvanic effect obs. 2−102774
Dy, photoelectric cross-section at K edges 2−56639
Fe_2O_3:Si, (Ge)(Mg), solid solubility, elec. and photoelectric behaviou r 2−61146
Fe_2WO_6, prep. and characterisation, struct., mag., elec. and photoelectronic props. 2−76390

photoelectricity continued
n-GaAs, chaotic motions in electrical avalanche breakdown caused by weak photoexcitation 2−110359
n-GaAs epitaxial layer on semi-insulating GaAs:Cr, current limitation due to IR radiation obs. 2−66626
GaAs, hot photogenerated carriers, slow picosecond kinetics 2−61517
GaAs LEC semi-insulating crystals, appearance of negative peak in photo-induced transient spectroscopy 2−104312
n-GaAs, photoelectrical fatigue obs. at cryogenic temps. *(Russian)* 2−77125
GaAs, surface oxide thin film, carrier photoinjection 2−92699
Gd, photoelectric cross-section at K edges 2−56639
p-Ge, light induced changes in hole distrib. functions and nonlinear photon drag current 2−61515
Ge, surface oxide thin film, carrier photoinjection 2−92699
p-Ge:B(Al)(Ga), impurity states, oscillator strengths, quadrupole moments 2−104303
Ge-GeO_2, charge carrier transport in dielectric, photo-injection method obs. 2−104493
H, photoelectric effect matrix element, nonrelativistic but high energy continuum state approx. 2−53464
H, Rydberg IR optogalvanic spectroscopy 2−59759
He, Rydberg IR optogalvanic spectroscopy 2−59759
$Hg_{0.7}Cd_{0.3}Te$-anodic oxide interface, photoelec. and field effect props. 2−87398
In, photoelectric cross-section at K edges 2−56639
InSb, surface oxide thin film, carrier photoinjection 2−92699
Kr, gas and liq., quasi-free electron state, density depend., photoinjection meas. 2−103253
La, photoelectric cross-section at K edges 2−56639
Li, Rydberg IR optogalvanic spectroscopy 2−59759
Ne, Rydberg IR optogalvanic spectroscopy 2−59759
Pt, photoelectric cross-sections at L edges 2−56639
Sb_2S_3, thin film photoelectrodes, studied by spectroellipsometric and photoelectrochemical techniques 2−98689
Si planar photodiode, photon-flux meas., quantum efficiency model 2−101461
Si, surface oxide thin film, carrier photoinjection 2−92699
SiO_2, photoinjection current, electron-phonon scatt. effect 2−56646
Te, photoelectric cross-section at K edges 2−56639
$TlSbSe_2$ layer cryst., electrophys. parameters, growth conditions depend. 2−104375
W, photoelectric cross-sections at L edges 2−56639
Xe, gas and liq., quasi-free electron state, density depend., photoinjection meas. 2−103253
Y, photoelectric cross-section at K edges 2−56639

photoelectrochemical cells
see also solar cells
characterisation using capacitance-voltage and cyclic-voltammetric measurements 2−105577
charge transfer via interface states 2−88463
electrical power and H_2 generating, carrier recomb. at grain boundaries and liq. interfaces, chem. control 2−111573
electrochemical solar cells electro hole recombination translation into chemical terms 2−111574
IR real time imaging using n-GaAs photoelectrochem. cell 2−58902
light-energy conversion efficiency in photogalvanic cells and H_2O cleavage systems 2−111569
photoelectrochemical cells, generation of H and electricity, interfacial oxide layer mechanisms 2−105576
photovoltaic solar cells, eval. of various configurations 2−99816
phthalocyanins, micellar solns., photoelectrochem. hydrogen prod. 2−73128
polyacetylene photovoltaic devices 2−57708
rechargeable photoelectrochemical cell with 0.6 V open circuit voltage and 0.12 mA cm^{-2} short circuit current 2−99812
regenerative liquid junction solar cell using group VI transition metal dichalcogenides 2−67862
Schottky barrier cell, I-V characteristics, recombination effects, theory 2−93926
semiconductor photoelectrochemical systems, design, solar energy conversion 2−78233
semiconductor-electrolyte junctions, use as economical solar energy convertors 2−78235
semiconductor/electrolyte/counterelectrode cells, impedance response, equivalent circuit anal. 2−78231
p-Si/methanol interface, characterisation using capacitance-voltage measurements and cyclic-voltammetric measurements 2−105578
solar cells, review 2−116839
solar energy conversion by polycrystalline films of phthalocynine 2−99815
solar energy conversion technologies, solid-liq. interface problems, review 2−87043
solar energy conversion technologies, solid-liq. interface research needs 2−88464
solid polymer electrolyte photovoltaic cell 2−78232
n-$CdIn_2Se_4$/aqueous polysulphide photoelectrochem. cell, expt. study 2−116838
CdS anodes, polycrystalline, photoetching by cysteine 2−99814
n-CdS, photoanodic dissolution, rot. ring-disc electrode study 2−57500
CdS photoelectrochem. cell, effect of sputtered RuO_2 overlayers on CdS electrode 2−111571
CdS:Cu photoelectrochemical cells, energy conversion and storage 2−116841
CdS(Se)/polysulphide, stability against photocorrosion, effect of added salts 2−57715
n-CdS_xSe_{1-x} electrodes in photoelectrochem. cells, photoluminesc. and electroluminesc. props. meas. 2−93925
CdSe, I-V characts. including recomb. effects 2−82459
CdSe, spray-pyrolysed thin film, photoelectrochem. solar cell performance meas. 2−93924
$CdSe(CdSe_{1-x}Te_2)$ electroplated layers, growth and photoelectrochem. solar cell appl. 2−105580
n-$CdSe_{0.65}Te_{0.35}$ photoelectrochemical solar cell, expt. study 2−105579
n-$CdSe_{0.65}Te_{0.35}$, photoelectrochemical solar cells, cell performance 2−111566
Co complexes, Co(III)/Co(II) complexes with o-phenanthroline and related ligands, redox couples for electrochem. energy storage 2−57620
Cu_2O/I^- photoelectrochemical cell, photocorrosion mechanism 2−62415
α-Fe_2O_3 electrodes in aqueous electrolytes, photoactivity, effects of chemical doping 2−67866

photoelectrochemical cells continued
Fe_2O_3:Ge electrodes, photoassisted electrolysis of water 2−61146
$FePS_3$, photoresponse under photoelectrolysis conditions 2−61513
n-GaAs, electrochem. photovoltaic cell using I_3^-/I^- redox couple in acetonitrile 2−111570
p-GaAs electrochemical electrode, cathodic photocurrent meas., surface recombination and trapping effects 2−92746
n-GaP photoelectrochemical electrode, stabilisation and surface recombination, expt. study 2−77176
p-GaP, photoelectrode, photocurrent onset pot. and flatband pot., expt. study 2−62480
H_2, photoelectrochemical generation by surface modification of p-type Si semiconductor photocathodes 2−73167
H_2O photolysis, effect of surface recombination on efficiency 2−99811
heterostructure photoanode, energy diag. and photoelectrochem. props. 2−98747
p-InP (111)A face, semiconductor interface charact. in photoelectrochem. solar cells 2−111552
p-InP surface modified photocathodes for photoelectrochem. cell 2−99813
n-$MoSe_2$ photoelectrochem. cell, local spectral response meas. 2−93928
n-$MoSe_2$ photoelectrochemical halogen storage cell 2−62481
$MoSe_2$ single crystal, etching and dissolution kinetics, PEC solar cell appl. 2−93642
n-$MoSe_2$ single crystals photocatalytic behaviour in contact with I^-, I_2 redox couple 2−105575
n-$MoSe_2$/KI, I_2, formamide/Pt photoelectrochem. solar cell with layered anode and nonaq. electrolyte 2−93927
$NiPS_3$, photoresponse under photoelectrolysis conditions 2−61513
Pt/TiO_2 particle, photochem. diode model and photocatalytic activity 2−78127
Sb_2S_3, thin film photoelectrodes, studied by spectroellipsometric and photoelectrochemical techniques 2−98689
Sb_2Se_3 chemically deposited thin film electrode deposition and behaviour affecting parameters 2−67865
p-Si electrodes, siloxane-coated, ion selective photoelectrochemistry and stabilisation 2−83502
n-Si photoelectrochem. cell, electrode stabilisation in aq. soln. using PtSi layer 2−105574
n-Si photoelectrochemical cells with Pt-polypyrrole protected electrodes 2−111572
p-Si:H, amorphous, photoelectrochem. solar cell, expt. study 2−105573
Si-polypyrrole film photoelectrochemical solar cells, stability against electrode oxidation 2−78218
Si-polypyrrole photovoltaic devices, photoelectrochemical and Schottky cells 2−78217
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
SnO_2 films, prep. from organic resinate soln. and photoelectrochem. props. meas. 2−116837
$SnPS_3$, photoresponse under photoelectrolysis conditions 2−61513
TiO_2 electrode behaviour anal. 2−73126
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
n-WS_2 photoelectrochem. cell with aqueous and nonaqueous electrolyte solns. 2−116836
n-WSe_2 photoelectrochem. cell, local spectral response meas. 2−93928
WSe_2 photoelectrodes, polycryst., photoelectrochem. cell appls. 2−57716
ZnP_2 photoelectrochemical cell photocathode, appl. to solar cells 2−116840
ZnSe-CdSe thin film electrodes, photoelectrochem. performance meas. in aq. polysulphide electrolyte 2−78230

photoelectromagnetic effects
anomalous photomagnetoelec. effect, theory 2−115816
ferroelectricity, interband model, anomalous photogalvanic effect and narrow-gap semiconds. 2−99073
rubrene, photocond. obs., carrier generation determ. 2−72017
semiconductors, photomagnetoelectric effect for any injection level, numerical calc. 2−66583
CdTe, bipolar photo-Hall effect and photocond. meas., defect model 2−115812
p-CdTe, imperfection anal. by photoHall effect and bipolar photocond. meas. 2−77114
n-GaAs, negative far IR photocond. obs. in mag. field 2−98690
Ge:Au, Sb, compensated and illum., low temp. Hall mobility of electrons 2−77096
Si:P(As)(Li), D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
ZnS, Hall photoelectric effect meas. 2−87317
ZnS, peizoelec., effect of mag. field on photovoltaic current and photocurrent 2−110385

photoelectron multipliers *see photomultipliers*

photoelectron spectra
see also Auger effect; photoemission; X-ray photoelectron spectra
acenes, photoelectron spectra, CNDO/S assignment calcs. 2−80479
acetone, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
acetophenones, p-substituted, ionisation pot., PES, correl. with reactivity *(French)* 2−96629
acetylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
acetylene, angle-resolved photoelectron spectra using synchrotron radiation 2−108625
acetylene, nonFranck-Condon behaviour in photoionisation, triple differential photoelectron studies 2−80731
adenosine, vertical ionisation pot., UV PES 2−75354
adsorbate covered metal surface model, transmission characteristics 2−72599
adsorbates, AES and UPS studies 2−110133
adsorbates, photoemission splendectra, satellite structs. 2−105048
anions in adiponitrile soln., HeI photoelectron spectra, ionisation energies 2−70336
aqueous solutions, free energies, electron transfer, photoelectron obs. 2−110009
aromatic sulphinylamines electronic struct., PES and CNDO/S LCAO MO calcs. 2−85742
arylethylenes, UV photoelectron and absorpt. spectra 2−85687
atoms, laser induced autoionisation, spontaneous emission effect 2−70200
atoms, photoionisation cross section reson., pseudo-bound-state methods comparison 2−102442
atoms, polarised, exposed to polarised radiation, ang. distrib. of photoelectrons 2−59757
benzenethiol, photoelectron spectroscopic assignment of p-states 2−59858
bis(π-pentadienyl)dinickel, Koopmans' defects calcs. 2−75351
boronated graphite, photoelectron spectra *(Japanese)* 2−83009
bromomethane, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
chlorodiacetylene cation, spectroscopic studies 2−75343
chloromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
chloromethanes, photoelectron spectra by SCF Xα scatt. wave calcs. 2−64873
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
2-cyclohexene-1-one, 3 substituted, ionisation pot., PES, correl. with reactivity *(French)* 2−96629
cyclopropane adsorbed on Ru (001), orientation and symmetry, EELS and photoelectron spectroscopy 2−78130
cytidine, vertical ionisation pot., UV PES 2−75354
diamond (111), adsorbed H, photoemission and photon-stimulated ion desorpt. study 2−110144
diamond (111) reconstructed surface, electronic states, angle-resolved photoemission study 2−57257
dichloroacetylene cation, spectroscopic studies 2−75343
dichlorodifluoromethane fragmentation, multiphoton ionisation photoelectron obs. 2−70333
dicyanoacetylene cation, laser-induced fluoresc. and photoelectron-photoion coincidence obs. 2−85729
dimethyl ether-BF_3, electron donor acceptor complex, He I photoelectron spectra 2−90625
donor-acceptor charge transfer systems, in soln., charge transfer spectra, photoelectron emission 2−90622
dye, adsorbed, photoemission yield spectroscopy 2−87953
elements Nb-Te, core-hole lifetimes, electron spectra determ. 2−57256
enzymes, photoabsorpt. and photoelectron spectra in vacuum-UV region 2−105658
1,2-epoxypropane, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
ethanol ionic dissociation studied by photoelectron-photoion coincidence spectroscopy 2−75468
ethylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
ethylene, angle resolved PES as a function of photon energy using synchrotron radiation 2−85740
ethylene cation, mol. spectrosc. and unimol. decay, nonadiabatic effects and conical intersections 2−108468
final state coupling, S matrix element calcs. 2−114044
fluoroethylene, ionisation, binary (e,2e) energy spectra, Green's function study, chemical bond 2−80730
fluoromethane, ab initio MO calcs. of systematics in photoelectron spectra 2−59855
formamide, liq., photoemission and electron mean free paths in vacuum UV, reflectance meas. 2−82997
Fourier transformation direct data reduction of normal photoelectron diffr. curves 2−93372
free atoms and molecules, core-electron binding energies in the soft X-ray range obtained in X-ray emission 2−96637
gas phase clusters, photoelectron-photoion coincidence spectroscopy for obtaining photoelectron spectrum 2−80862
ghost lines interpretation in secondary electron spectra determ. by XPS 2−58967
glycine, zwitterionic, charge separation, UPS 2−93364
hexatriacontane, angular- and light-polarisation dependent valence UV photoelectron spectra, electronic struct. 2−99294
hydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
II-VI semiconductors, (110) surfaces, angle-resolved photoelectron spectroscopy, valence band struct. *(Japanese)* 2−116339
II-VI semiconductors, clean and adatom treated surface props. 2−110115
II-VI semiconductors, electronic surface states, review 2−110411
III-V semiconductor photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
inert gas monolayers on Ni (110) and Ga film, UPS meas. 2−57261
intermediate valence materials, reson. photoemission and core-level spectroscopy 2−57264
ionosphere, photoelectrons energy spectrum rel. to mid-latit. F-region plasma stability 2−106384
lanthanide gas phase, UVPES 2−85739
lanthanide trichlorides, vapour phase He I and He II photoelectron spectra 2−75226
lanthanides, nature of 3d shake-down satellites, photoelectron spectroscopy 2−62045
linear molecules, photoelectron ang. distribs., partitioning anal. 2−59864
lineshapes, phonon distortion, Gaussian limit 2−62049
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metal surfaces, monocrystalline, and chemisorbed species, photoemission study *(French)* 2−105052
metals, core-electron photoemission spectra shape 2−77701
metals, magnetic surface states, angle resolved photoemission studies 2−66604
metals, plasmon satellite in valence band PES spectra 2−116334
metals, surface magnetism, polarised electrons 2−66890
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
metastable ions, lifetimes meas. using photoion-photoelectron coincidence 2−108627
1-methylhydantoin, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
mixed valence compounds, screening effects in core-level spectra 2−110309
molecules, oriented optically active, circular dichroism in continuous absorpt. region 2−59836
naphthalene, surface photooxidation, Penning ionisation electron spectroscopy and UPS study 2−67595
nitrobenzene, photoelectron angular distrib. and PES assignments 2−102531
nitromethane, photoelectron angular distrib. and PES assignments 2−102531
nitrosomethane, HeI photoelectron spectra, shake-up satellites 2−108621

photoelectron spectra continued
nonconducting solids, comparison of results of ESCA study using spectrometers of different constructions 2−57656
organic molecules, 30.4 nm He(II) PES 2−102534
oxo-compounds, unsaturated, ionisation, hole-mixing effects 2−59857
polarised targets, photoelectrons, kinematic anal., relativistic and correl. effects 2−85603
poly(p-xylylene), photocond. and vacuum UPS study 2−77113
poly-2,4-hexadiyne-1,6 diol bis(p-toluene sulphonate), ionisation energy determ. by Milliken-Pope-Arnold technique 2−77696
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
trans-polyacetylene, optically excited states, UPS study 2−111030
polyacetylenes, electronic struct., mol. architecture depend. 2−55000
polyacrylonitrile layer, metastable de-excitation spectroscopy and UPS study 2−110516
polymers, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polyphenylenes, electronic struct., mol. architecture depend. 2−55000
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
polythienylene, electronic struct., mol. architecture depend. 2−55000
propane ion, C skeletal rearrangement, obtained by photoelectron-coincident photoion mass spectrometry 2−72972
propyne, chemisorpt. on Fe(110) and Fe(100) surfaces, decomposition, UPS 2−62427
pyridine($-d_5$), vibr. struct. in valence electron spectra 2−96535
rare earth metals, photoemission studies of surface core-level shifts and their applications 2−87941
rare earth metals, surface shifts, photoelectron spectra study 2−105046
rare earth systems, intermediate valence core-electron spectroscopy 2−57265
rare earth trifluorides, lattice self-pots., photoelectron spectroscopic determ. 2−62042
resonant photoemission spectra line shapes 2−116337
rubrene, surface photooxidation, Penning ionisation electronic spectroscopy and UPS study 2−67595
selenophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
semiconducting MBE films, interface microstruct. props. 2−87082
semiconductors, photoemission studies of surface core-level shifts and their applications 2−87941
solids, core level spectra, electronic relax. effects 2−92713
steel, mild, diffusion bonding, in situ obs. using photoemission electron microscope 2−110177
sulphur heterocycles adsorbed onto Cu(110) surface, photoelectron spectra 2−62428
surface and adsorbate structural studies by photoemission in the $h\nu$=50- to 500-eV range 2−104123
tellurophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
tetraiodoethylene, He(I) photoelectron spectra, relativistic effects calcs. 2−96632
tetraiodomethane, He(I) photoelectron spectrum, relativistic effects 2−96631
tetrathiafulvalene, electronic structure calc. using ab initio HF Slater procedure, photoemission spectra 2−64863
thienyl-ethylenes, UV photoelectron and absorpt. spectra 2−85687
thin films and interfaces, combined UPS and Auger anal. apparatus 2−116341
thymidine, vertical ionisation pot., UV PES 2−75354
transition metals, energy-momentum band structure, angle-resolved UPS obs. 2−111019
transition metals, photoemission studies of surface core-level shifts and their applications 2−87941
3d transition-metal oxides, and halides, resonant photoemission spectra 2−72603
trichloroethylbenzene, ionis. pots. and intramol. charge transfer, photoelectron spectra, electronic struct. 2−90626
trichlorofluoromethane, fragmentation, multiphoton ionisation photoelectron obs. 2−70333
trifluoroiodomethane cation, electronic states multiphoton dissoc., photon-photoelectron coincidence study 2−65058
trifluoromethyl(bromo)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2−70334
trifluoromethyl(chloro)germanes, photoelectron spectra, CNDO/2 calcs., band shapes 2−70334
trifluoromethylgermanes, UV and X-ray photoelectron spectra, binding energies, CNDO/2 and EESOP charge calcs. 2−70335
urazole, electronic struct. by UV photoelectron spectra and INDO/S calcs. 2−96636
uridine, methylated, vertical ionisation pot., UV PES 2−75354
violanthrene A film, UV photoelectron spectra, temp. depend. 2−62050
Ag (001), angular resolved photoemission, 40 to 100 eV 2−57248
Ag (100) surface, electronic struct., photoemission study 2−83002
Ag (110), SO_2 chemisorption, atomic O effects, UPS, LEED and thermal desorpt. study 2−76824
Ag (110) and (111), polarisation depend. photoemission, dipole selection rules 2−72601
Ag (111), methanol adsorpt., oxidation and decomposition, UPS and XPS study 2−76826
Ag, adsorbed pyridine, surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
Ag films growth on Si(100) and (111), LEED, AES and angle-resolved UPS study 2−92413
Ag surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Ag-Si (111), interface growth, intermixing, UPS study 2−110165
Al surface (111), angle resolved UV photoemission, direct transitions 2−87947
AlAs interfaces, dissoc. surface reactions 2−57250
$Al_xGa_{1-x}As$(100) epitaxial surface, photoemission study 2−93371
Ar 25 photoelectron spectrum, satellite struct. 2−64937
Ar, angular distrib. parameters for electron spectrometer calibration 2−85468
Ar monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
Ar, photoelectron angular distrib. β parameter near $3s^{-1}4p$ resonance 2−80551
As, electronic band struct., density of state peaks, UPS study 2−98534
As films, O_2 adsorption in oxidation, photoemission study 2−92355

photoelectron spectra continued
Au (111), spin polarised photoemission, band struct., workfunction effects 2−99301
Au (111) surface, light-induced magnetisation, PES study 2−67185
Au, photoemission studies of surface core-level shifts and their applications 2−87941
Au surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Au surfaces, photoemission, electron spin polarisation, FCC interpolation scheme calc. 2−99302
Au-GaAs (110) interface, Schottky barrier, thermal effects, XPS and UPS study 2−110441
$B_3N_3H_6$ photoelectron spectrum, theoretical models calcs. 2−80722
$B_3N_3H_6^+$ radical, photoelectron spectrum, theoretical models calcs. 2−80722
Ba and Ba compounds, photoelectron, Auger, and ionisation loss spectra 2−83003
Br^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
Br_2, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
C on Ru(0001), adsorbate band disperions, photoelectron spectra study 2−66446
CC Cr-C, X-ray emission and photoelectron spectra meas. 2−87906
CNS^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
CO chemisorbed on Cu (III), angle resolved photoelectron energy spectra 2−70331
CO matrices, photoelectron spectra of Cu and Ni atoms and clusters 2−83416
CO_2, autoionisation reson. studied using triply differential photoelectron spectroscopy 2−96648
CO_2, $C^2\Sigma_g^+$ reson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
CO_2, valence bands, solid and gas phase UPS study 2−67190
COS, angle resolved PES meas. as a function of photon energy from 21 to 70 eV 2−102532
CS_2, angle resolved PES meas. as a function of photon energy from 21 to 70 eV 2−102532
Ca_xAl_{1-x} metallic glasses, electronic struct., photoemission and soft X-ray spectra 2−104234
cc Ge, surface oxidation, modification by Al adatoms, UPS study 2−67576
Cd film, UV photoelectron spectroscopy and Auger anal. in same apparatus 2−84749
Cd, photoelectron spectra, autoionisng reson. profiles 2−96520
$CdCr_2Se_4(S_4)$, occupied d-band position, photoemission determ. 2−83005
$Cd_{0.7}Mn_{0.3}Te$, valence band, XPS and UPS studies 2−93369
CdTe, angle resolved photoelectron spectroscopy of Cd 4d core level *(Japanese)* 2−116340
CdTe, valence band, XPS and UPS studies 2−93369
CdTe-metal interface, Schottky barrier form., XPS, UPS, AES, LEED, I-V and C-V meas. 2−115861
Ce compounds, UPS, 4-f level energy, width and volume coupling 2−57266
Ce, oxidised, resonant photon stimulated ion desorption 2−87048
$CeAl_2$, reson. photoemission studies 2−57267
CeB_6, extreme UPS meas. 2−67187
CeBi, reson. photoemission studies 2−57267
$CeIn_3$, reson. photoemission studies 2−57267
$CePd_3$, electronic struct. from resonant photoemission and optical reflectivity spectra 2−66498
$CePd_3$, reson. photoemission studies 2−57267
α-$Ce_{0.9}Th_{0.1}$, ground state studied by resonant photoemission 2−56496
Cl^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
Co, adsorption and decomp. of water, LEED, UPS, surface pot., and thermal desorption study 2−104160
Co monolayer on Cu, mag. exchange splitting, photoemission, LEED and Auger study 2−98870
$Co_3(CO)_9(\mu_3\text{-}CH)$, CH fragment orientation calc., implications for metal surfaces 2−108373
CoSi (100) and $CoSi_2$ (110), interaction with O_2, LEED, AES, and UPS STUDY 2−104162
CoSi, extreme UV valence band photoemission 2−111022
Cr (100), chemisorption of Cl and surface chloride form., struct. and kinetic study 2−66366
Cs overlayer on Si(100) 2×1, plasmon excitation obs., AES, EELS, LEED and UPS 2−115542
Cu (100) and (110), O_2 chemisorption, UPS, EELS, LEED and work function study 2−87071
Cu (110), photoemission spectra, relativistic dipole selection rules 2−72602
Cu (110) and (111), polarisation depend. photoemission, dipole selection rules 2−72601
Cu (111), clean and Na covered, CO adsorption, surface state shifts, UPS study 2−98716
Cu (111), O_2 chemisorption, UPS, EELS, LEED, AES and work function meas. 2−87072
Cu (111), UV photoemission, temp. depend. 2−116328
Cu, band structure, angle resolved photoemission spectra, triangulation analysis 2−61342
Cu clusters isolated in O_2 matrices, UV photoemission studies 2−108757
Cu, photoemission, band struct. depend. damping 2−99295
Cu, resonant satellite photoemission, super-Coster-Kronig decay 2−102443
Cu surface (111), photoemission, comparison between matrix elements of 1-step and 3-step calcs. 2−87946
Cu-Al, surface electronic states, Tamm state, photoemission, LEED and Auger study 2−98712
Cu_3Au (111), surface state near Fermi level, photoelectron spectra 2−92712
$CuCl_2$, valence band photoemission spectra, electron correl. effects 2−72605
Cu(100), angle resolved photoemission studies of oxide formation 2−93366
Cu(110), physisorbed Xe, temp. depend. photoemission line slopes 2−71796
D_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
D_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
$ErFe_2$, spin polarised photoemission probing of magnetism 2−67184
Eu-Au, surface segregation study using surface shifted core levels 2−105047

photoelectron spectra continued
$EuPd_2Si_2$, mixed-valent system, surface shifts, photoelectron spectra study 2−62047
$F_3NO(PO)$, photoelectron spectra, bond struct., Xα approx. 2−54769
FSCN, He(I) photoelectron spectra, valence ionisation energies, HF Slater calcs. 2−80728
Fe complex, (cyclobutadiene)iron tricarbonyl, bonding, photoelectron spectra and photoionisation, Xalpha SW calcs. 2−102382
Fe overlayer on Pd(111), mag. behaviour, photoemission, LEED and Auger study 2−110611
FeSe, extreme UV valence band photoemission 2−111022
FeTi, spin polarised photoemission probing of magnetism 2−67184
Ga surface, oxidation, photoemission spectra study 2−93376
GaAs (001), adsorbed Pb, electronic struct., angle-resolved photoemission study 2−110424
GaAs (110), adsorption state of Al, rel. to Schottky barrier form. 2−115546
GaAs (110), chemisorption of Ge, UPS and work function studies 2−110412
GaAs, band struct., photoemission with synchrotron radiation *(Japanese)* 2−93377
GaAs interfaces, dissoc. surface reactions 2−57250
GaAs, photoelectron spectra, Monte Carlo simulations 2−67197
GaAs, Schottky barrier form., MOS interface states 2−82428
GaAs surface (110), O_2 adsorption, density of valence states, photoemission study 2−82142
GaAs, surface oxide phase form. by H_2O or O_2 adsorpt., UPS, XPS and SIMS study 2−115544
GaAs-Ga interface formation, electronic props., photoemission LEED and Auger study 2−98744
$Ga_{0.47}In_{0.53}As$, conduction band Γ-L separation, UPS study 2−61344
GaSb, Schottky barrier form., MOS interface states 2−82428
GaSe-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
GaSe-metal interfaces, Fermi level pinning, Schottky limit, photoelectron spectra study 2−56670
Gd, photoelectron spectra meas. *(German)* 2−90628
Gd_2Cl_3, photoelectron spectra meas. *(German)* 2−90628
Ge (111), clean and adsorbed H, electron states, angular resolved UPS study 2−110414
Ge-Au interface cpd. formation, valence band and cone level UPS study 2−110175
Ge-GaAs (100) heterojunction, MBE growth, surface processes, LEED and photoemission study 2−110203
Ge-GaAs (110) interface electron states, polarisation dependent UPS study 2−110455
$GeCl_2$ and $GeBr_2$, He(I) photoelectron spectroscopy, HF Slater LCAO calcs. 2−108624
GeF_2, UV photoelectron spectrum, HF Slater quantum chemical calcs. 2−102530
H, electron impact excitation of 2P state, electron-photon angular correl. meas. 2−114115
H_2 condensed layers on Cu and Au, photoemission study 2−93374
H_2, Franck-Condon factors, appl. to photoelectron spectra 2−108623
H_2, photoelectron ang. distrib., vibr. and rot. struct. 2−70337
n- and p-H_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2, vibrational autoionis., photoelectron spectrosc. obs. 2−90638
H_2^+, rotationally resolved photoelectron ang. distrib. at λ=584 and 736Å 2−80723
HBr, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
HBr^+, intramolecular dynamics, PES obs. 2−75353
HCN^+, intramolecular dynamics, PES obs. 2−75353
HCl, photoionisation cross sections, UPS obs. 2−65055
HCl, vibronic transitions and photoionis., photoelectron spectrosc. obs. 2−108626
HD, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2O, valence bands, solid and gas phase UPS study 2−67190
$(H_2O)_2$, photoelectron spectrum, vertical ionisation energies 2−59856
$(H_2O)_2$, valence ionisation energies, CI calcs., photoelectron spectrum assignment 2−96463
$H_{1,2}Os_3(CO)_{10}R$ (R=organic moiety), metal mol. clusters, UV photoelectron spectra 2−65124
H_2S, PES following multiphoton ionisation 2−85737
He, photoionisation, asymmetry parameter, photoemission obs. 2−102445
$HfSe_3$, valence band, photoemission study 2−116333
Hg, electron coincidence spectra, momentum distrib. calc. using relativistic and nonrelativistic HF wavefunctions 2−85738
Hg, photoelectron polarisation in subshell ionisation with unpolarised light, Fano effect 2−54819
Hg, photoemission of high ang. momentum electrons, relativistic and pot. barrier effects, exchange terms 2−113951
$Hg_{1-x}Cd_xTe$, cleaved (110) surface room temp., evaporation stability, XPS and UPS study 2−87040
$Hg_{1-x}Cd_xTe$, electronic struct., UPS study and virtual cryst. breakdown 2−87942
$Hg_{1-x}Cd_xTe$, surface electronic struct. and cation bonds, tight binding calc. and UPS study 2−110428
I^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
In compounds, electronic struct., photoelectron spectroscopy studies 2−62051
InP, Schottky barrier form., MOS interface states 2−82428
InP-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
In_2Te_3:Sn, elec. inactivity of Sn impurity atoms, Mossbauer and photoelectron spectra 2−115703
K_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
Kr, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
Kr, angular distrib. parameters for electron spectrometer calibration 2−85468
Kr monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
La, nature of 3d shake-down satellites, photoelectron spectroscopy 2−62045
LaB_6, adsorption of O on (100), (110), and (111) surface, UPS, XPS, and LEED meas. 2−66365
LaB_6, band struct., photoemission with synchrotron radiation *(Japanese)* 2−93377
$LiNbO_3$:Fe, emission study of surface states 2−66608

photoelectron spectra continued
Mg (0001), surface electronic struct., angle-resolved photoemission study 2−115845
Mg surface, adsorbed O_2 layer, photoelectric work function meas., Fowler method 2−87371
Mn overlayer on Cu(100), LEED, AES and UPS study 2−87111
MnSi, extreme UV valence band photoemission 2−111022
Mo-Mo quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
Mo-Si (111) interface reactions, synchrotron UPS and AES studies 2−110173
N_2, $A^2\Pi_u$ nonreson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
N_2, chemisorbed on Ni (110) and physisorbed on Pd (111), angle resolved UPS and EELS study 2−92359
N_2, Franck-Condon factors, appl. to photoelectron spectra 2−108623
N_2, solid, valence-band photoemission, partial cross sections and density of states effects 2−93363
N_2^+, intramolecular dynamics, PES obs. 2−75353
NF^+, ground state, VuV photoelectron spectrosc. and ab initio calcs., ionisation 2−114043
NF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
NH_3, valence bands, solid and gas phase UPS study 2−67190
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
NO, Rydberg-valence interactions, multiphoton UPS 2−85745
NO, valence states, (e,2e) spectroscopy 2−70340
NO^+, unimol. dissoc., threshold photoelectron-photoion coincidence obs. 2−90638
NO_2^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
N_2O, adsorpt. on W(110) and Ru(001), XPS and UPS mes., horizontal and vertical configurations 2−73009
N_2O^+, photoelectron spectrum, vibronic struct., electron correl., strong non-Condon effects, Green's function calc. 2−96633
N_2O_4, valence bands, solid and gas phase UPS study 2−67190
$N_2^{2+}(X^2\Sigma_g)$, final state coupling in photoelectron spectra 2−114044
$NaNO_3$, N KVV Auger line shapes, XES and photoelectron data 2−59818
Na_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
Na_xWO_3, electronic struct., photoemission study 2−115656
Nb, photoemission studies of clean and oxidised surfaces 2−77695
$Nb_{55}Rh_{45}(Nb_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
Nb_3Sn, photoemission studies of clean and oxidised surfaces 2−77695
Ni (011) and (111), adsorbed S and Se, photoelectron diffr. study 2−116335
Ni (100), adsorption of N_2 and CO, photoemission study 2−56335
Ni (100), H_2 and CO coadsorpt., electron spectroscopy study 2−76827
Ni (110), adsorption of N_2, O_2, and CO at 20K, UPS and work function meas. 2−104159
Ni, adsorption of N_2, HF cluster model calc. 2−56334
Ni, short-range mag. order above Curie temp., photoelectron spectra study 2−87945
Ni surface, (110), adsorbed O(S)(Se)(Te), angle resolved UPS study 2−77699
Ni surface, adsorption of Ar, Kr, Xe, CO, O_2, N_2, electronic binding energies of valence levels, UPS study 2−82437
Ni, UV isochromat spectra, k-conservation effect 2−72562
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Ni-Si, interfacial cpd. form. and electronic struct., photoemission and AES study 2−82036
$Ni_{1-x}Fe_x$ (100), spin polarised photoemission probing of magnetism 2−67184
$NiSi_2$ band struct., UPS study and APW calc. 2−105042
OH, $X^2\Pi$ state, vibr. rot. emission bands, rot. anal. 2−54827
$O_2^+(^2\Pi_u) \leftarrow O_2(^1\Delta_g)$ transition, UV photoelectron spectra, modulation technique investig. 2−107458
$Os_3(CO)_{12}$ metal mol. clusters, UV photoelectron spectra 2−65124
PF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
Pb film, UV photoelectron spectroscopy and Auger anal. in same apparatus 2−84749
Pb surfaces, halogenation, UV photoelectron spectra 2−73013
Pb ultra thin overlayers on Ag surface, oxidation, UPS and XPS study 2−83267
Pd MOS struct., dissoc. of adsorbed H_2, UPS study 2−105510
Pd, surface catalytic reactions, H_2 sensitive MOS-struct. and UPS, XPS study 2−88379
Pd/Si system, intrinsic and Si-stabilised oxides, Auger and UPS study 2−67160
Pd-Nb system, band occupancies, correlation to chemisorption 2−82424
$PdH_{0.6}$, XPS/UPS study of electronic struct. 2−72600
Pd(100) with adsorbed H, correlation between photoemission and photon stimulated desorption 2−92351
PrB_6, extreme UPS meas. 2−67187
Pt (III), adsorbed CO, photoemission reson. enhancement via autoionisation obs. 2−77700
Pt (100) CO chemisorption, mol. orientation, UPS study 2−98455
Pt (100) surface, clean and S saturated electronic struct., UPS study 2−77145
Pt surface, (110) and (111), CO chemisorption, mol. orientation, UPS study 2−87052
Pt surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
Pt-Si (100), PES study of interface states 2−77152
$Pt_{0.98}Cu_{0.02}$, surface segregation and surface electronic interactions, UPS and AES study 2−66612
Pt(110), CO chemisorption, surface phase transitions, LEED, UPS and thermal desorption study 2−98452
Pt(111), chemisorbed CO, reson. photoemission obs. 2−105039
Pt{001}, adsorption of chlorobenzene and benzene, angle-resolved photoemission meas. 2−56340
Ru (001), adsorption of N_2O, XPS, UPS, and thermal desorption study 2−61296
Ru (001) coadsorption of H_2 and CO, work function, XPS, UPS and thermal desorption study 2−71805
RuO_2 film, reactively sputtered, electronic struct. 2−110515
RuO_2 films, reactive sputtering and electronic struct., AES, photoemission and optical absorpt. study 2−82502
SO_2, valence bands, solid and gas phase UPS study 2−67190

photoelectron spectra continued
Sb_2Te_2Se, photoelectron diffr. azimuthal patterns from different at. sites 2−93375
Se, ion plated on α-brass, adhesion and interface chemistry 2−66405
$Se(CN)_2$, HeI valence PES, broken symm. effects 2−90627
Si (100), interaction with AsH_3, UPS study 2−77144
Si (111), chemisorption of NH_3 and NO, UPS study 2−87949
Si (111) 2×1, highly dispersive dangling bond band, angle-resolved photoemission study 2−66607
Si (111) and (100), adsorption of H, UPS study 2−116338
Si (111) laser annealed and impurity induced metastable surfaces, UPS and LEED study 2−76789
Si (111) surface, H adsorption, departure from stable SiH_3 phase 2−76838
Si, amorphous, tetrahedrally bonded, simple model of hydrogenation 2−56418
Si, Auger line chemical shifts, $KL_{23}L_{23}$ transition 2−90491
Si, ion bombarded and annealed, UPS and RBS investig. 2−103857
Si, laser excited, electronic struct. dynamic response, photoemission study 2−72606
Si surface, passivation by Au and Ag monolayers, LEED, Auger and photoemission anal. 2−83259
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360
Si surface electronic struct. of 1×1 and 7×7 reconstructions, UPS study 2−98715
Si, surface state bands of 2×1 reconstruction, angle-resolved photoemission study 2−98714
Si:H, amorphous thin film, pure and hydrogenated, adsorbed O_2 layer, electronic struct., XPS and UPS study 2−57254
Si:H amorphous, oxidation, UPS and Auger study 2−83260
Si-AlN-Au(Al), interface barrier heights, internal photoemission study 2−82464
Si-Cr interface morphology and electronic struct., photoemission and band struct., calcs. study 2−82460
Si-d metal interface, interface, O_2 interaction, photoemission investig. 2−110474
Si-Ni(Cr) interface, chem. bonding and density of states, UPS and LCAO calc. 2−110476
Si-silicide interfaces, electronic struct., review 2−115847
SiO_2, surface electronic struct. tight binding calc., UV photoelectron spectroscopy, and EELS study 2−82226
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
Si(111)2×1, dangling-bond surface states, photoemission study 2−110430
SnO, ($X^1\Sigma$) state, gas phase high temp. photoelectron spectroscopy 2−80724
$SnS_2(Se_2)$, angle-integrated photoemission, band struct. 2−67189
$SrTiO_3$ (100), adsorption of H_2O and D_2O EELS and UPS study 2−115537
$Ta_{55}Rh_{45}(Ta_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
Tb, photoelectron spectra meas. *(German)* 2−90628
Te, amorphous thin film, crystallisation, electronic structure, UV photoemission study 2−71355
Th-catalysts, interference effects on Rh 3D photoelectron spectra 2−99297
ThO_2, 4f-photoelectron intensities and satellites 2−82998
Ti (001), adsorption of water, photon stimulated desorption and UPS study 2−115553
Ti (001), photon stimulated desorption of methanol, UPS 2−104143
TiN, electronic struct., photoemission study 2−104249
TiN(100), surface state revealed by photoemission and gas adsorption studies 2−77705
Ti_2O_3, surface electron struct., defect, chemisorption effects 2−82421
Ti(001), with adsorbed H_2O, desorption study 2−87028
Tl compounds, electronic struct., photoelectron spectroscopy studies 2−62051
Tl epitaxial growth on Cu(100), LEED, AES, UPS and EELS studies 2−56398
UAs_xSe_{1-x}, electronic struct. and magnetism 2−66605
UO_2, 4f-photoelectron intensities and satellites 2−82998
UO_2 and UPd_3, f and d electrons, resonant photoemission study 2−116336
UO_2 thin film, inverse photoemission, 5f state cross section 2−111032
USb_xTe_{1-x}, core level binding energies and heat of formation, UPS study 2−67193
USb_xTe_{1-x}, electronic struct. and magnetism 2−66605
UTe and $U_xTh_{1-x}Sb$, f and d electrons, resonant photoemission study 2−116336
$U_xTh_{1-x}Sb(U_xY_{1-x}Sb)$, electronic struct. and magnetism 2−66605
V_3Si, band struct., photoemission with synchrotron radiation *(Japanese)* 2−93377
W (001), energy-, angle-, and spin resolved photoemission by unpolarised light 2−99300
W (110), adsorbed H, angle resolved UPS and EELS study 2−92360
W (110), adsorption of α-CO, singlet-triplet interplay in charge transfer relax. process 2−105045
W (110), chemisorption of H, photoemission and electron stimulated desorption study 2−87049
W surface, (111), clean and adsorbed H_2, ang. resolved photoemission meas. and LCAO calc. 2−83008
W-W quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
WO_3 films, evaporated and annealed, electronic struct., UPS study 2−115651
Xe, angular distrib. parameters for electron spectrometer calibration 2−85468
Xe, multiphoton ionisation studied by photoelectron spectrometry 2−75223
Xe-Kr adsorbed bilayer on Pd, interlayer diffusion, photoemission and Auger study 2−104081
Xe_2 and Xe_3, photoelectron-photoion coincidence spectroscopy for obtaining photoelectron spectrum 2−80862
Yb, 4f levels, surface effects, UPS study 2−98706
Yb-Au, surface segregation study using surface shifted core levels 2−105047
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342
ZnSe, angle resolved photoelectron spectroscopy of Zn 3d core level *(Japanese)* 2−116340
ZnSe(Te), surface electronic state spectroscopy resonances 2−115842

photoelectron spectra continued
ZnTe, angle resolved photoelectron spectroscopy of Zn 3d core level *(Japanese)* 2−116340
ZnTe, excited electronic states, picosecond time-resolved photoelectron spectra study 2−111025
ZrN, electronic struct., photoemission study 2−104249
α-$Zr(PO_4)_2M_2$ ($M=Li^+$, Na^+, K^+, Cs^+) Mg Kα ESCA spectra, shake up struct. enhancement by sputtering 2−57252
ZrS_3, valence band, photoemission study 2−116333
$ZrSe_3$, valence band, photoemission study 2−116333
$ZrTe_3$, valence band, photoemission study 2−116333

photoelectron spectroscopy
angle resolved UV, electronic band struct. determ. 2−111020
core level photoelectron spectroscopy for surface crystallography 2−77694
depth of information 2−113067
electron and ion spectroscopies using synchrotron radiation, instrumentation considerations 2−84740
goniometer for fine adjustment in nanoradian range 2−89862
high resolution (book) 2−94929
inner-shell photoelectron spectroscopy, correl. effects 2−96521
solid-liquid interface, photoemission and photoexcitations as probes 2−83431
surface analysis by electron and ion beam methods, conf., Newcastle, NSW, Australia (Feb. 1981) 2−106995
surface photoelectron spectroscopies using synchrotron radiation 2−93373
surface studies, photoelectron spectroscopy and microscopy 2−69301
synchrotron radiation, generation, measurements and appls. *(Japanese)* 2−85411
synchrotron radiation applications, conf., Stoughton, WI, USA (Oct. 1981) 2−94907
transient species, UV photoelectron spectra, modulation technique 2−107458
UV photoelectron spectroscopy and Auger anal. in same apparatus 2−84749
UVSOR facility at IMS 2−85419
VUV monochromators and electron spectrometers transmission meas. using photoemission spectroscopy 2−86082
water-containing materials, behaviour in high vac. of XPS spectrometer 2−99739
X-ray photoelectron microprobe anal. technique 2−73041
X-ray-excited Auger and photoelectron spectroscopy, review 2−99299

photoemission
see also photoelectron spectra; photoemissive devices
aqueous solutions, thermal electron transfer correl., photoelectron emission 2−70408
atomic local exchange and correlation potentials for electron scattering at solid surfaces 2−105019
atomic photoemission, proton affinities and pot. energies calcs. 2−59755
diamond photocathode, stable, high efficiency, VUV radiation 2−111021
double crystal monochromator, performance and appl. in energy region 800-4500 eV 2−84758
electron spectrometer for spin-polarized angle-and energy-resolved photoemission from ferromagnets 2−101501
field emission, photostimulated, image rounded barrier model 2−57273
graphite, K-shell near-threshold photoemission cross section, elastic peak and plasmon sideband, energy depend. 2−87950
III-V semiconductors, Schottky barrier form. and MOS interface states, unified model 2−87372
light elements and cpds., photoelectric cross sections 2−96514
low's theory for electron scattering and photoelectron production of atoms, molecules and solids 2−108703
metal surface, electron emission under pulsed laser irrad. 2−83010
metal surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
metal-electrolyte interface, photoemission as solid state and interfacial physics technique, review 2−62041
metals, electron emission during laser bombardment, time of flight energy meas. 2−62023
methanol, chemisorpt. and condensation on Pd (100), spectrosc. obs. 2−93812
methylene blue in water and acetonitrile, photoinduced electron ejection 2−75348
Millikan capacitor modified for photoemission studies 2−57258
Monte Carlo simulation, 0.1 to 3 MeV 2−62044
rare gas adsorbates, local work function determ. by photoemission 2−82436
RF cavities, electron emission reduction by electron, photon or He impact 2−116306
semiconductor crystal with thin disruptive layer, external photoeffect during Bragg diffr. 2−105051
semiconductors, variable band gap, overemission effects 2−99293
small particles, anisotropic photoelectron emission 2−77697
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
solid-liquid interface, photoemission and photoexcitations as probes 2−83431
spectrosc. obs. 2−92344
sputtered ion emission mechanisms 2−111005
surface electrons, book contrib. 2−66615
surface energy transfer enhanced by optical cavity excitation, pole analysis 2−57042
surface photoeffect with non specular surface scattering of electrons 2−67186
surface physics, conf., Bechyne, Czechoslovakia (Sept.-Oct. 1980) 2−89457
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
surface science, conference, Liverpool, England (April 1981) 2−58538
tetracene, photoemission data, carrier photoproduction autoionization mechanism 2−67196
tetrafluoromethane, arc discharge, enhanced photoemission from F atoms 2−103487
Ag, fast secondary electron emission by X-ray irrad. 2−57262
Al, fast secondary electron emission by X-ray irrad. 2−57262
$Al_xGa_{1-x}As$, MBE layers, spin polarised photoelectron emission meas. 2−93365
Ar adsorbed on Al(111), photoemission studies 2−62048
Au (110), electron spin polarisation in photoemission calc. 2−57259
Au (110) and (111), electron spin polarisation in photoemission 2−105043
Au, fast secondary electron emission by X-ray irrad. 2−57262

photoemission continued
Au-oxide-*n*-GaAs MIS struct., barrier height meas. by internal photoemission technique 2−72063
CO matrices, photoelectron spectra of Cu and Ni atoms and clusters 2−83416
CO/Co (0001), angle-resolved photoemission studies 2−83000
Cr (100) surface, nonreconstructed, O induced magnetism 2−56833
Cs, source of spin-polarised slow electrons based on Fano effect 2−79711
Cs thick film oxidation, multiplet struct. in photoemission studies 2−72596
Cs_2O activation layers thickness on negative electron affinity Si cathodes 2−57270
Cu, fast secondary electron emission by X-ray irrad. 2−57262
GaAs, density of states of photoemitting bands, Kindig-Spicer method 2−56416
GaAs epitaxial films, activated, photoemission, surface purity and perfection effect 2−72608
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
Ge, electron photoemission during X-ray diffr. 2−105050
Ge, photoelectron spin depolarisation during photoemission due to paramag. Gd atoms 2−111029
Ge(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
InSb, electron photoemission during X-ray diffr. 2−105050
Ir, band struct. calc. and photoemission anal. 2−82214
Kr adsorbed on Al(111), photoemission studies 2−62048
Ni, ferromagnetic, band struct. calc., optical absorpt., photoemission and magneto-optical data anal. 2−66434
Ni/Si systems, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
$NiCl_2$, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
$Ni_{1-x}Fe_x$ (100), spin-dependent density of states, spin-polarised photoemission meas. 2−83004
NiO, empty electronic states, inverse photoemission and SXAPS studies 2−61354
Pd (III) unoccupied surface state, inverse photoemission obs. 2−98709
Pd/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pt, inverse photoemission, density of states, fluorescence 2−77698
Pt/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
RuO_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
SF_6 arc discharge, enhanced photoemission from F atoms 2−103487
Si, photosensitive field-emission cathodes with atomically clean surface, I-V characts. 2−77702
Si:H, amorphous, Schottky barrier and MOS structs., barrier heights, photoemission study 2−82465
Si:H, amorphous film, interfacial electronic struct. and density of states 2−66601
a-Si:H, electronic props., CPA calc. 2−56430
Si-SiO_2 system, interface state generation by photoinjecting electrons from Al field plate 2−66603
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
TiI_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
V/Si interface, Schottky barrier formation 2−82433
VCl_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
WC (0001), angle resolved photoemission results 2−82999
Xe adsorbed on Al(111), photoemission studies 2−62048

photoemission spectra *see photoelectron spectra*

photoemissive devices
see also photocathodes; photoemission
picosecond electron diffraction using photoelectron pulse 2−91730

photoemissivity *see photoemission*

photofission
$^{232}Th(\gamma,f)$, 5.7-6.3 MeV, photofission cross section meas. using bremsstrahlung monochromator 2−64726
$^{A}U(\gamma, f)$, 12-30 MeV, A=235, 238, ^{134}I independent isomeric yield ratio 2−69686

photoflash lamps *see flash lamps*

photogalvanic cells *see photoelectrochemical cells*

photoglow tubes *see phototubes*

photogrammetry
block adjustment, reordering algorithm test 2−57958
bundle adjustment method for space photogrammetry 2−78531
bundle block adjustment for high accuracy photogrammetry 2−78530
close range photogrammetry, normal case accuracy 2−78532
close range photogrammetry, orientation problem of stereo pairs rel. to construction of models 2−111840
close range stereophotogrammetry, evaluation procedures for rasterstereography and Moire topography 2−78533
close-range cinephotogrammetry: from theory to practice 2−113019
close-range photogrammetry, free net anal. theory 2−94270
clouds, aircraft side camera movies during winter MONEX 2−83916
combination of aerial and terrestrial photogrammetry methods 2−78528
Earth resources mapping via imaging spectroscopy, multispectral mapper concept 2−112158
map construction using digital computer bicubic spline interpolation method 2−78853
Mars, Viking Lander imagery 2−94624
mensuration tests using digital images, depend. on pixel size 2−111839
one mirror photograph method for meas. of spatial motion of body 2−101482
orientation problem of 1-D central perspective photographs 2−78529
orthophoto technique in high mountains, appl. to glacier maps and topographic mapping *(German)* 2−106123
rasterstereography, photogrammetric method for scanning body surfaces 2−78885
reconnaissance frame photography analytical techniques 2−78660
soil surveys, digital overlay of cartographic information on Landsat MSS data 2−112141
stereo X-ray photogrammetry, appl. to determ. of body outline 2−73350
superposition comparator, motion-error immunity in photo-coordinate determ. 2−74384
Thematic Mapper on Landsat-D satellite, spectral band registration overview 2−112302
variable grid digital elevation models, progressive sampling and contouring 2−100193

photogrammetry continued
Wild Aviolyt AC 1/Aviotab TA 2 analytical stereo restoration system *(French)* 2−68503
X-ray photogrammetry using multi-parallel projections, least squares locating method 2−113020

photographic applications
see also photogrammetry; photolithography; remote sensing
air pollution plumes, colour-IR photography 2−111603
astrometry, new photographic method for meas. of visual binary stars 2−74016
astronomical photometry, calibration technique for AAT prime focus spot sensitometer 2−106550
astronomy 2−89161
diaphragm NDT using laser speckle photography 2−57545
dynamic problems, multiple ruby laser system for high speed photography 2−103131
echocardiology, directly heated photothermographic paper appl. 2−68084
elements of moving systems, rotation uniformity monitoring, photographic recording 2−91101
equidensitometry, chromosome image study 2−62867
high speed photography techniques and appls. 2−101483
hospital photographic department management 2−95502
in-plane displacement extraction from sandwich holograms using speckle photography 2−108829
internal surface deformation meas. of thick-walled structural shells, optical method 2−55523
laser bulk damage obs. by photographic technique 2−60141
laser mode detect. using half-tone method *(Chinese)* 2−90956
laser projection microscope system for fast stop-motion photography of biol. objects 2−105860
lightning and its spectrum, photographic atlas 2−94918
liquid convection, Rayleigh-Benard, flow field meas., speckle velocimetry appl. 2−76051
metals, elongation, uniform, determ. from stress-strain curves 2−62313
moire photography, high resolution, for engineering structure deform. meas. 2−103124
oceanographic underwater photography 2−68532
photogrammetry, close-range, lens distortion and film deform. rel. to orientation problem 2−111840
plant stress, early detect. by delayed light imaging 2−78514
plate deformation meas., laser speckle photography as alternative to holographic interferometry 2−86244
real-time image subtraction using complementary photographic diffusers 2−102724
schlieren, shock reflection from concave wedge-shaped wall obs. 2−91484
shapes travelling at 6.85 Mach number, large amplitude oscillatory motions, schlieren photography 2−114951
sound reproduction, principles, system components and implementation 2−109135
speckle metrology techniques, parametric exam. of observed fringes 2−89796
speckle photography, error of lateral sinusoidal vibrs., simple analytical soln. 2−74488
speckle photography data processing, diffr. halo intensity variation in Young's fringes 2−95463
steel, low C, elongation, uniform, determ. from stress-strain curves 2−62313
streamer chamber, photographic recording of tracks 2−64767
time-average defocused speckle photography, virtual fringe analysis method 2−53827
two-phase flow anal., multiple-exposure image interpretation methods 2−109433
underwater benthic surveys 2−95504
He-filled bubbles, neutral density, stereo photography of 3D fluid motion in engine cylinder 2−60674
NaI(Tl) scintillation camera for triggerable vertex detector 2−70045

photographic developers *see photographic materials*

photographic development *see photographic process*

photographic emulsions
antifogging using mercaptotriazoles, mercaptotetrazoles and benzolthiosulphonic acid salts *(Russian)* 2−58955
colour photography by speckle interferometry in white light 2−89841
developed Ag morphology, influential factors 2−62414
developer components penetration into gelatin and emulsion layers *(Russian)* 2−67771
electron microscopy, influence on image quality 2−113025
electron radiography of surface layers using backdiffused β-rays and photon excited electrons 2−88304
ferrocene/CBr_4 photosensitive layers, effect of non-interchangeability in charge transfer complexes *(Russian)* 2−74553
gelatin, thin layers, swelling 2−95507
gelatin partial substitution using F_2-containing surface active substances *(Russian)* 2−74550
gelatinous photographic layers appl. to reliefography *(Russian)* 2−53875
grain properties, deform. effects on development centres, sensitometric effects 2−116712
holographic lenses, on-axis, higher diffr. orders 2−114395
intrinsic photoelectric effect meas. *(Russian)* 2−61524
IR emulsion, short-pulse 1064 nm exposure fluences, photographic image prod. by nonlinear light absorpt. 2−111504
iron oxalate emulsions, Ag free, optical characts. of Ni, Cu and Cd scales and grids 2−107440
Kodak film disc system, Kodacolor HR negative emulsion 2−64136
laser radiation photographic recording, contrast reversal 2−97055
latent image formation in photographic emulsion grains 2−62417
latent image formation obs. by intermittent Dember effect meas. 2−62420
latent image speck delayed form. in vacuum 2−62419
light transmission eqn., relation to photographic density using Monte Carlo method *(Russian)* 2−53870
moisture control methods *(Russian)* 2−89844
monodisperse processed photographic emulsions, optical density and granularity prediction 2−64144
optimal information capturing capabilities of photographic system rel. to Ag halide film deficiencies 2−88370
organic electrophotographic layers, effect of barrier layer of polyvinyl butyral on photographic properties *(Russian)* 2−53878
panchromatic emulsion, short-pulse 1064 nm exposure fluences, photographic image prod. by nonlinear light absorpt. 2−111504
PEPC electrophotographic layers, study of ionic conductivity *(Russian)* 2−74562

photographic emulsions continued
permalloy films, with band domains, dependence of energy characts. on time structure of registered radiation *(Russian)* 2−53877
pulsed luminescence of photographic layers *(Russian)* 2−53873
quantum sensitivity determination 2−74539
radiation-sensitive specimens, electron microscopy obs., resolution limits 2−115114
static pressure effects on photographic materials, influences of exposure time, ripening and development 2−74541
surface-to-internal latent image speed ratios of emulsions exposed to high-intensity light or X-rays 2−116711
TsP-11 colour positive motion picture film, structure and properties *(Russian)* 2−69288
unbleached reflection holograms, characts. 2−65185
volume phase holography, material characts. of bleached photographic emulsions 2−65187
Weigert effect, use for optical data processing *(Dutch)* 2−58924
Ag halide, reconnaissance and surveillance appl. 2−74531
Ag halide emulsion, microcrystal growth rate and precipitation in emulsification *(Russian)* 2−58958
Ag halide emulsion layers, effect of volume conc. on attenuation factor of light *(Russian)* 2−53880
Ag halide emulsion microcrystal growth, effect of polyvalent cations *(Russian)* 2−53871
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2−111502
Ag halide grain-sie analyser, electrolytic 2−112868
Ag halide photographic emulsions, homogeneous theoretical calcs. *(Russian)* 2−74547
Ag halide photographic material, wavefront phase modulation in bleached holographic emulsion 2−85918
Ag halide/emulsion production photographic method for high sensitivity 2−113018
AgBr emulsion grains, space charge characts., effect of soln. pAg and pH 2−72418
AgBr emulsions, ionic thermocurrent meas., grain microcryst. struct. depend. 2−88383
AgBr emulsions with varying pH and pAg, primitivities *(French)* 2−58925
AgBr evaporated layers, $Na_2S_2O_3$ breakdown, electron microscopy obs. 2−88367
AgBr, fast ionic conduction concepts applied to latent image form. 2−111503
AgBr, interaction of stabilisers and antifoggants rel. to sensitising effects 2−88369
AgBr microcrystals, in gelatin layers, slow electron mobility, size effect 2−92661
AgBr photographic emulsion microcrystals, luminescence investigations of tunnel relocation of holes *(Russian)* 2−74560
AgBr photographic emulsions, luminescence, photographic process 2−82888
AgBr(I) emulsion, antifogging substance action mechanism *(Russian)* 2−58960
AgCl orthorhombic PbO spectral sensitisation, peak photographic response 2−88368
AgCl photographic emulsions, luminescence flash of latent image centres *(Russian)* 2−53882
CuSCN photographic layers, processing in hydrazine developer to give silverless photographic images *(Russian)* 2−53884

photographic filters *see optical filters*

photographic lenses
see also aberrations
camera lenses, initial optical schematics calc. using fund. aberration coeffs. 2−70650
Canon zoom lens-reflex camera combination, self-adjusting, CCD grating with sensor array *(German)* 2−84723
colour cinecamera, computer calc. colour characteristics commercial lenses *(Russian)* 2−69285
diaphragm grating lenses for integrated photography *(Russian)* 2−53876
graded-index photographic objective design 2−74524
Hasselblad System, 2000 FC and 2000 FC/M, body, mirror and F lenses 2−64134
Hasselblad System, 2000FC and 2000FC/M, filters, alternative lenses, multi-prisms and meter prism finder 2−64137
Hasselblad System, 2000FC and 2000FC/M, individual F lenses 2−64135
MTF measurement for high-speed production lens testing 2−114399
OTF measurement techniques in China 2−114203
standard 3,4,5,6 and 7 component lenses, attainable corrections *(German)* 2−74543
UV spectrograph lens 2−97139
variable focus lens 70OPF6-1, 500 to 1000 mm *(Russian)* 2−58946
veiling glare in photographic systems 2−74544
zoom, built-in range extender, paraxial anal. 2−53867
zoom lens with built-in range extender, paraxial anal., back focal distance adjustment 2−95509
zoom lens with built-in range extender, paraxial anal., modular construction 2−89840
zoom lens with built-in range extender, thin lens config. by considering exit pupil position 2−64147
zoom lenses, four-component, mech. compensated, paraxial anal. 2−89834
zoom objective, linearly compensated, Gaussian parameter determ. by gradient method 2−95510

photographic light sources *see light sources; photography*

photographic material sensitivity
ageing of photofilms in a reducing and an inert atmosphere, effect of sensitization *(Russian)* 2−53883
colour reflection hologram recording, diffr. efficiency *(Russian)* 2−60049
contrast coeff. meas. using nonlinear characts. *(Russian)* 2−58953
emulsion cooling for amateur astrophotography 2−63261
emulsion grain properties, deform. effects on development centres, sensitometric effects 2−116712
emulsions, intrinsic photoelectric effect meas. *(Russian)* 2−61524
emulsions, panchromatic and IR, short-pulse 1064 nm exposure fluences, photographic image prod. by nonlinear light absorpt. 2−111504
poly-N-epoxypropylcarbazole, sensitized with 2,4,7-trinitrofluorenone, electrophotographic layer, device discharge 2−87338
holographic materials, freq.-contrast charact. meas. *(Russian)* 2−60205
laser radiation photographic recording, contrast reversal 2−97055
latent image formation and photosensitive interfaces, symposium, Lake Placid, NY, USA (July 1981) 2−58534

photographic material sensitivity continued
optimisation of sensitometric characteristics *(Russian)* 2−69283
photochromic material, characts, during luminescence of reading information *(Russian)* 2−58961
photopolymerising compounds, sensitometric investigation of photosensitivity and rate of polymer formation *(Russian)* 2−53872
poly-N-epoxypropylcarbazole, sensitisation by pyryl salts *(Russian)* 2−58952
Possibility of controlling the process of transformation of chloranil *(Russian)* 2−58963
quantum sensitivity determination 2−74539
radiation-sensitive specimens, electron microscopy obs., resolution limits 2−115114
static pressure effects on photographic materials, influences of exposure time, ripening and development 2−74541
X-ray film for autoradiography, eval. using ^{14}C β-radiation 2−100105
Ag centres on AgBr, reduction sensitization versus photolysis 2−62418
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2−111502
Ag thermally developed photographic materials, ageing, photosensitivity *(Russian)* 2−58957
AgBr emulsions with varying pH and pAg, primitivities *(French)* 2−58925
AgBr evaporated layers, $Na_2S_2O_3$ breakdown, electron microscopy obs. 2−88367
AgBr, interaction of stabilisers and antifoggants rel. to sensitising effects 2−88369
AgBr:Au photographic grains, role of Au containing surface states, expt. study 2−74538
AgBr(I) emulsion, antifogging substance action mechanism *(Russian)* 2−58960
AgCl film, light illumination, modifications induced by ion implantation 2−93311
AgCl orthorhombic PbO spectral sensitisation, peak photographic response 2−88368
As_2S_3-Ag and As_2S_5-Ag systems, transmission spectra of interacting products *(Russian)* 2−62423
ZnS, effect of sensitization on energy spectra of local levels *(Russian)* 2−53881

photographic materials
see also photographic emulsions
16 mm raw film stock, frictional props. meas. 2−69274
cinefilm processing, bleaching process by $K_3Fe(CN)_6$, $K_2Cr_2O_7$, $(NH_4)_2Cr_2O_7$, $CuCl_2$ *(Russian)* 2−64151
colour motion picture films, two new products from EASTMAN 2−113016
colour negative film, effective exposure latitude in different reproduction systems 2−69272
colour prints, light induced fading 2−53858
contrast coeff. meas. using nonlinear characts. *(Russian)* 2−58953
N,N'dialkylcarbocyanines, influence of protected colour components on characts. *(Russian)* 2−58959
direct positive materials, silverless physical development *(Russian)* 2−74548
electrophotography 2−58540
gelatin, aldehyde partial inactivation by SO_2 2−99712
gelatin, IAG, trace metal determ. by atomic absorpt. spectroscopy 2−74542
gelatin, ribonucleic acid content 2−99711
hologram, synthetic, recording using a numerically controlled optical recorder *(Czech)* 2−96861
image multiplexing method through internal modulation of speckle patterns 2−65177
IR imaging using wax films 2−114393
papers, black and white, colour, characterisation using SAM equipment 2−58884
photopolymer printing plates, isoenergy contours determ. in photopolymerising material on extended source irrad. 2−99695
poly-N-epoxypropylcarbazole, sensitisation by pyryl salts *(Russian)* 2−58952
polyester base photographic films, chem. stability 2−64145
polyethylene glycol, mechanism of retarding action on super-additive development *(Russian)* 2−74549
polyvinylcarbazole film, impurities and struct. effect on photolum. *(Russian)* 2−67092
positive paper for laser light recording in student laboratory expts. 2−53470
scattering and non-scattering photographic layers, reflection halo avoidance *(German)* 2−79696
smectic-A liq. crysts., laser pulse recording of optical information 2−65327
solvents for use in full-immersion printing process 2−95513
thin liquid films, IR photography *(Russian)* 2−58954
triarylpyrylium salts poly-N-epoxypropylcarbazole solns., thermodynamic analysis using microcalorimetry and UV spectroscopy *(Russian)* 2−74551
Ag precipitation from waste fixing solutions *(Russian)* 2−64150
Ag thermally developed photographic materials, ageing, photosensitivity *(Russian)* 2−58957
AgBr, surface pot., adsorbed layer effects, expt. study 2−92724
AgBr:Au photographic grains, role of Au containing surface states, expt. study 2−74538
AgBr:Pb^{2+}, photocond. meas. for sub-bandgap light 2−87325
AgBr:Pb^{2+}, photocond. meas., pre-exposure effects 2−87326
AgCl, photodecomposition, XPS study 2−111497
AgCl, photoplastic effect meas., latent image formation appl. 2−115340
As_2S_3, evaporated layer, photoselective solubility rel. to heat treatment *(Russian)* 2−64141
As_2S_3-Ag, diffusion controlled sensitivity to illumination, image formation characts. 2−101484
InCl, photolysis analysis using X-ray techniques *(Russian)* 2−74554
NaCl crystals, influence of electrostatic field on photothermal decolouring *(Russian)* 2−74559
$(Sr,Ba_{1-x})_{1-y}(Nb_2O_6)_y$, cerium-doped, as holographic recording medium *(Russian)* 2−60035

photographic process
see also photochemistry
activators, influence on activity of receiving layers in physical development *(Russian)* 2−74557

photographic process continued
aromatic amines, kinetics of photochemical conversion in a stabilised water-soluble photopolymerised layer *(Russian)* 2−74556
binder-type photo-migration imaging film, image form. process *(Japanese)* 2−53865
bleaching process by $K_3Fe(CN)_6$, $K_2Cr_2O_7$, $(NH_4)_2Cr_2O_7$, $CuCl_2$, cine appl. *(Russian)* 2−64151
cine copying machines for optical printing *(Russian)* 2−64149
cinema feature length printing system with microcomputer control 2−69278
colour images, general formula for optical density *(Russian)* 2−53879
contamination in air, elimination in film, and TV tape handling rooms 2−89836
developed Ag morphology, influential factors 2−62414
developer components penetration into gelatin and emulsion layers *(Russian)* 2−67771
direct positive materials, silverless physical development *(Russian)* 2−74548
dye films, adsorbed, electron affinity, statistical energy levels 2−58937
electrochemical study of electrolysis of exhausted fixing solutions *(Russian)* 2−69281
electron microscopical holography, photographic process nonlinearity effects *(German)* 2−95555
emulsion grain properties, deform. effects on development centres, sensitometric effects 2−116712
emulsions, antifogging using mercaptotriazoles, mercaptotetrazoles and benzolthiosulphonic acid salts *(Russian)* 2−58955
emulsions, panchromatic and IR, short-pulse 1064 nm exposure fluences, photographic image prod. by nonlinear light absorpt. 2−111504
enhancement of direct astronomical images 2−89163
poly-N-epoxypropylcarbazole, sensitized with 2,4,7-trinitrofluorenone, electrophotographic layer, device discharge 2−87338
film cleaning, regeneration of contaminated perchloroethylene *(Russian)* 2−58945
free-radical photographic system 2−74540
gelatin, dichromated film, optical characts. during holographic recording, latent image stage *(Russian)* 2−102754
high-resistance magnetic toners for electrophotographic development, theory and expt. *(Japanese)* 2−53864
image enhancement for astronomical appl. 2−89164
integrated negative preparation system, frame count cueing using Apple computer 2−107424
iron oxalate emulsions, Ag free, optical characts. of Ni, Cu and Cd scales and grids 2−107440
latent image formation and photosensitive interfaces, symposium, Lake Placid, NY, USA (July 1981) 2−58534
latent image formation in photographic emulsion grains 2−62417
latent image formation obs. by intermittent Dember effect meas. 2−62420
latent image speck delayed form. in vacuum 2−62419
liquid developed migration images, polymeric matrix, developer solvent and elec. field effects 2−64143
metallic particle growth during development process *(Russian)* 2−58956
motion picture printing and duplication routes 2−107428
optimal information capturing capabilities of photographic system rel. to Ag halide film deficiencies 2−88370
optimisation of sensitometric characteristics *(Russian)* 2−69283
photochromic material, characts, during luminescence of reading information *(Russian)* 2−58961
photographic effect of ultrasound, mechanism 2−75755
photoresists, transition metal-carbonyl derivatives as photopolymerisation initiators and photocrosslinking agents 2−58938
polyethylene glycol, mechanism of retarding action on super-additive development *(Russian)* 2−74549
Possibility of controlling the process of transformation of chloranil *(Russian)* 2−58963
raster process, calc. of gradient characts. based on multiple exposure spectral theory *(Russian)* 2−74545
release prints quality, service life improvement *(Russian)* 2−69287
relief image formation in layers of gelatine, chemical conversion kinetics *(Russian)* 2−53874
stabilisation, kinetic anal. 2−58933
stabilisation, mol. mechanism 2−58935
surface-to-internal latent image speed ratios of emulsions exposed to high-intensity light or X-rays 2−116711
V/A characteristics of fixing solutions *(Russian)* 2−58944
Ag centres on AgBr, reduction sensitization versus photolysis 2−62418
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2−111502
Ag halide photographic process based on dye form. at one-equiv. steps, Ag diazotat conversion reaction *(German)* 2−83400
Ag halide photographic process based on dye form. at one-equiv. steps, colour development *(German)* 2−83401
AgBr emulsions, ionic thermocurrent meas., grain microcryst. struct. depend. 2−88383
AgBr evaporated layers, $Na_2S_2O_3$ breakdown, electron microscopy obs. 2−88367
AgBr, fast ionic conduction concepts applied to latent image form. 2−111503
AgBr, interaction of stabilisers and antifoggants rel. to sensitising effects 2 - 88369
AgBr photographic emulsions, luminescence, photographic process 2−82888
AgBr:Au photographic grains, role of Au containing surface states, expt. study 2−74538
AgBr(I) emulsion, antifogging substance action mechanism *(Russian)* 2−58960
AgCl orthorhombic PbO spectral sensitisation, peak photographic response 2−88368
AgCl, photodecomposition, XPS study 2−111497
AgCl photographic emulsions, luminescence flash of latent image centres *(Russian)* 2−53882
AgCl, photoplastic effect meas., latent image formation appl. 2−115340
As_2S_3, evaporated layer, photoselective solubility rel. to heat treatment *(Russian)* 2−64141
NaCl crystals, influence of electrostatic field on photothermal decolouring *(Russian)* 2−74559
S sensitisation, chem. mechanism 2−58934
Sn *(Russian)* 2−58962

photographic recording media *see photographic materials*

photographic techniques *see photography*

photography
see also cinematography; colour photography; electrophotography; microphotography; photographic applications; photographic lenses; photographic materials; photographic process; radiography; streak photography
aerial photography system synthesis *(Russian)* 2−74546
airborne reconnaissance, conf., San Diego, CA, USA (Aug. 1981) 2−74146
applied optics, conf., Rochester, NY, USA (May 1982) 2−112647
astronomical photography at 1.1 μm 2−68628
audio-visual materials production and photography, training courses 2−53863
auto flash slave unit 2−107439
automatic contrast meter, using photodiode detector, LED bargraph indicator 2−84724
ballistic photographic system, front light, high speed, pulsed ruby laser appl. *(Chinese)* 2−89837
camera, tripods, market review 2−107430
camera automatic shutter operation using Moving Image Detector and servo unit 2−95511
classical photography, high-resolution, dye laser light appl. 2−108930
colour make-up printing, picture processing using CCD scanners *(Japanese)* 2−101481
computerised picture processing of photographic negative of Holy Shroud of Turin 2−95495
consumer camera market, electronic methods effects 2−95505
dark room thermostat, using temperature sensor 2−113021
dark-room timer, using Western Digital WD-55 IC timer, LEDs *(French)* 2−64139
darkroom design, improvements over last few years 2−58932
darkrooms, safelight illumination 2−69280
Debye-Scherrer photograph indexing for orthorhombic cryst., algorithm and computer programme *(Chinese)* 2−76239
dots, opaque, monosized, clustered distrib., density and granularity 2−74325
electronic equipment *(Spanish)* 2−58940
electronics, appls. in photography *(German)* 2−58926
enlarger timer, using CMOS 7217 IC 2−84730
enlarger timer, using counter ICs, thyristor, relay switch 2−84726
enlarger timer cct., using 555 timer, opto-coupled triac driver 2−95498
exposure timer, using photo-resistor sensor, thyristor light control *(German)* 2−101476
exposure timer based on Electronika B3-18A microcomputer 2−95506
film marking system, computer-controlled *(Russian)* 2−74555
flash timer cct. using CMOS gates *(Spanish)* 2−79698
frame filling technique for high-speed photographic recording of symmetrical events 2−69275
grain random array, harmonic anal., jitter model appls. 2−58936
heavenly bodies imaging 2−95501
high-speed photographic cameras using optico-mechanical commutation systems, defocusing and blurring analysis *(Russian)* 2−74558
hospital photographic department management 2−95502
illustrations preparation for best reproduction 2−95503
image edge raggedness and blur anal. 2−65175
image intensification and reduction, a unified optical approach 2−95508
industrial drawing optical processing for an archive 2−70512
Kiso image detection system for photographic plates 2−89154
Kodak film disc system 2−64136
lens centering on an axis of rot. by speckle photography *(French)* 2−102901
lens-shutter automatic focusing camera rangefinder system simulations 2−91027
lighting, computer control *(German)* 2−58927
lightning photography, specialised techniques in photographic atlas 2−94918
microelectronics appl. in still picture cameras *(German)* 2−113022
microfilming, electrophotographic microimage quality evaluation using a computer *(Russian)* 2−74552
microfresnel zone plates, batch production method 2−84774
military appl. of long range oblique photography camera system 2−74530
Minolta Spotmeter-M exposure meter, microcomputer appl. *(Italian)* 2−101475
MTF measurement system, new development in image quality meas. 2−107379
multiplexed time-lapse photomicrography of cultured cells 2−73404
oceanographic underwater photography 2−68532
optoelectronic device nanosecond range processes study 2−64140
optomechanical device film-transport roller fabrication accuracy 2−55369
panoramogram, outdoor scenes in holographic cinematography *(Russian)* 2−69286
photogrammetry, close-range, lens distortion and film deform. rel. to orientation problem 2−111840
photometric calibration of AAT prime focus spot sensitometer, photographic technique 2−106550
police photographic image enhancement and deblurring system 2−113026
projection enlarging system for photographic printing, resolution calc. 2−101485
reconnaissance and surveillance appl., use of Ag halide technology 2−74531
reconnaissance by photographic imagery, using code block 2−74532
reconnaissance prism panoramic cameras 2−74529
scanning photomacrography for improved depth of field and resolution 2−107429
shadow photography, image resolution 2−53868
solid state camera for low cost image processing 2−84731
spectral density and intensity distrib. of instruments used for close-up photomacro- and photomicrography *(German)* 2−84728
stereo, convergency limits 2−74533
streamer chamber, voltage pulse generator and photographic system synchroni sation 2−85483
thermal viewer basic parameter, photographic recorder recording-spot size effect 2−53838
thermotensography−a new method of obtaining images *(Russian)* 2−74561
underwater benthic surveys 2−95504
UV photographic techniques in laboratory, basic guidelines 2−69269

photography continued
X-ray crystallography, photographic method for reconstructing 3D information 2−103560
Bi layer, vapour deposited, photolithography and optical charact. control for photography 2−89846

photoionisation
aC-Stark-shift-induced photoelectron spin polarization in resonant multiphoton ionization 2−108599
acetone, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
acetylene, autoionising Rydberg series, photoionisation study 2−70351
acetylene, nonFranck-Condon behaviour in photoionisation, triple differential photoelectron studies 2−80731
acetylene, photoexcitation and ionisation 2−54903
acetylene ion+acetylene, internal energy effects and energetics studied by photoionisation 2−111479
acetylene photoexcitation, photofragment emission, fluoresc. obs. 2−65040
alkali metal atoms, photoionisation spectra, Stark effect theory 2−90475
alkali metal clusters, photoionisation and fragmentation in supersonic mol. beams 2−102547
atomic inner shell ionisation, Al appl. 2−59768
atomic photoionisation, stochastic averages, quantum optical functional integration calc. 2−90846
atoms, coherent fluorescence radiation following photoexcitation and photoionization 2−80553
atoms, double resonance via continuum states: ionization quantum beats 2−64944
atoms, excited states, photoionisation cross sections, multiple minima, dipole matrix elements 2−54816
atoms, multiphoton ionisation, reson. effects 2−96522
atoms, photoelectron ang. distribs., energy depend. for s subshells 2−80554
atoms, photoionisation cross section reson., pseudo-bound-state methods comparison 2−102442
atoms, resonant multiphoton ionisation, laser field correl. function 2−102452
atoms, selective photoionisation, laser isotope separation 2−65100
atoms, selective photoionisation, laser isotope separation selectivity 2−65102
atoms, two-electron multiphoton ionisation 2−108432
azulene isomer, multiphoton ionisation fragmentation patterns, maximal entropy theory 2−75360
benzaldehyde, excited states, nucl. config. effect on two-step photoionisation 2−114055
benzene, aqueous solutions, UV-laser induced photo-oxidation, phenol form. 2−75358
benzene, multiphoton ionisation, translational energies of fragment ions 2−96646
benzene, multiphoton ionisation and fragmentation, UV-laser induced 2−96651
benzene clusters, mass-selective two-colour photoionisation 2−75486
biphenyl, Ar matrix isolated, two-colour resonance photoionisation 2−85751
biphenyl-$d_0(d_{10})$, matrix photoionisation, isotope shift, UV-visible obs. 2−70350
continuum process calc. program, using model pots., Breit-Pauli Hamiltonian, R-matrix 2−90431
Crab Nebula, filament photoionization model analysis 2−101005
dichlorodifluoromethane fragmentation, multiphoton ionisation photoelectron obs. 2−70333
dicyanoacetylene cation, laser-induced fluoresc. and photoelectron-photoion coincidence obs. 2−85729
dimethyl ether-BF_3, electron donor acceptor complex, He I photoelectron spectra 2−90625
1,2-epoxypropane, methyl cation prod., photoelectron-photoion coincidence spectrosc. obs. 2−93759
excited electron orbit collapse and atomic spectra 2−102400
fluoranthene, in dielectric liqs., photoionisation, fluoresc. obs. 2−85749
free ions, quantitative VUV absorpt. spectroscopy 2−70175
high-pressure gas lasers, preionisation discharge kinetics 2−96930
highly excited atomic states, radiative transition probabilities *(Russian)* 2−108428
highly excited atoms, intense circularly polarised EM radiation effects 2−90483
hydrocarbons, unsaturated, photoionisation, visible absorpt. spectra 2−114008
hydrogenic ions in mag. fields, scaling laws for photoionisation cross section, stellar appl. 2−63240
inert gas atoms counting by resonance ionisation spectroscopy 2−64899
inert gases, third-harmonic generation and multiphoton ionisation 2−70205
interference effects between different optical harmonics 2−102875
intergalactic medium, photoionisation anal. of He ionisation balance 2−94837
laser-enhanced ionisation flame velocimeter, for flame vel. meas. 2−91557
laser-induced autoionisation, relax. effects 2−102441
low's theory for electron scattering and photoelectron production of atoms, molecules and solids 2−108703
metastable ions, lifetimes meas. using photoion-photoelectron coincidence 2−108627
methyl iodide(-d_3), multiphoton ionisation spectrum with intermediate reson. in A-band region 2−70269
methyl iodide collisionless multiphoton ionisation 2−59865
methyl radical, electronic states, resonance enhanced multiphoton ionisation obs. 2−65062
methylene blue in water and acetonitrile, photoinduced electron ejection 2−75348
molecular anions, photodetachment, strong electron-dipole coupling 2−96649
molecules, oriented optically active, circular dichroism in continuous absorpt. region 2−59836
molecules, vacuum UV spectra using third harmonic generation in inert gases 2−70275
multiphoton ionisation for breakdown triggering or control Xe 2−96529
multiphoton ionisation mass spectroscopy 2−64158
multiphoton ionisation spectra, autoionisation resonance narrowing 2−85600
multiphoton reson. ionisation of sputtered neutrals from ion bombarded solids 2−85601

photoionisation continued
naphthalene, Ar matrix isolated, two-colour resonance photoionisation 2−85751
naphthalene isomer, multiphoton ionisation fragmentation patterns, maximal entropy theory 2−75360
negative ion photoionisation in strong low-freq. field 2−80549
optically controlled diffuse discharge switch 2−97801
organic gas phase negative ions, IR multiphoton photodetachment 2−85750
oxo-compounds, unsaturated, ionisation, hole-mixing effects 2−59857
1-phenyl-1-propyne, Ar matrix isolated, two-colour resonance photoionisation 2−85751
PKS 2152−69, radio galaxy, photoionisation model for optical spectrum 2−79211
planets upper atmospheres, neutral components photoionisation rate coeffs., solar activity depend. 2−106570
polarised targets, photoelectrons, kinematic anal., relativistic and correl. effects 2−85603
population trapping in photoionisation to dressed continuum states 2−64936
positronium excitation of 1^2S_1 to 2^3S_1 two-photon transition 2−70453
potential scattering in presence of static mag. field and radiation field of arbitrary polarisation 2−74255
rare earth elements, laser isotope separation by two-step selective photoionisation method 2−64940
rare earth elements, photoionisation cross section meas. from excited states rel. to laser isotope separation 2−64939
reson. photoionisation in vicinity of $2p^{-2}3s3p^1P$ reson. in close-coupling approx. 2−96519
semiconductors, LCAO calcs. of photoionisation of deep centre 2−104304
slab geometry config., third harmonic generation multiphoton ionisation, cooperative effects 2−90493
stellar winds in binary X-ray system, effects of X-ray heating and ionisation 2−106775
tetrakis-dimethyl-amino-ethylene photoionisation, quantum efficiency 2−75113
N,N,N′,N′-tetramethyl-p-phenylenediamine, recombination fluoresc., electric field quenching, two-photon ionisation 2−102518
transition matrix element calcs. by R-matrix propag. soln. of driven eqn. 2−95062
trichlorofluoromethane, fragmentation, multiphoton ionisation photoelectron obs. 2−70333
two-photon atomic ionisation, radiative collision influence 2−96523
p-xylene, multiphoton ionisation mass spectroscopy at 193 and 248 nm 2−70348
Ar, photoelectron angular distrib. β parameter near $3s^{-1}4p$ resonance 2−80551
Ar-Xe (Kr) photoionisation proportional scintillation chamber, energy transfer 2−64760
BF_3, electron impact, shape resonance enhanced vibr. excitation 2−65099
Ba, $4d^{10}$ subshell photoionisation cross section 2−70204
Ba^{2+}, $4d^{10}$ subshell photoionisation cross section 2−70204
Be, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
Br^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
C^{2+}, ground and metastable states, photoionisation cross section calcs. 2−102447
C^{3+}, ground state, inner-shell photoionisation cross section calcs. 2−102447
CIV, photoionisation from $\nu \rightarrow \gamma$ decay, in galactic haloes 2−74066
CNS^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
CO gas, resonantly enhanced vacuum UV generation and multiphoton ionisation 2−65298
CO_2, $C^2\Sigma_g^+$ reson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
CO_2, differential and total photoionisation cross sections calc. using frozen core HF final state wave functions 2−108644
CO_2, oxygen K hole photoionisation cross section 2−96647
COS, angle resolved PES meas. as a function of photon energy from 21 to 70 eV 2−102532
COS, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
CS_2, angle resolved PES meas. as a function of photon energy from 21 to 70 eV 2−102532
CS_2, mol. and dissoc. photionis., dipole oscill. strengths 2−70355
CS_2, multiphoton ionisation and fragmentation mechanisms 2−108649
Cd, near threshold double photoionisation 2−85602
Cd, photoionisation prod. alignment 2−70207
$CdBr_2$:Cu^+, impurity level and photoionisation processes, photocond. meas. 2−56638
$CdCl_2$:Cu^+, impurity level and photoionisation processes, photocond. meas. 2−56638
Cl^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
Cs, ground state, two-photon ionisation cross sections calcs. 2−54815
Cs, multiphoton processes, collision induced 2−96528
Cs, multiple minima in photoionisation cross sections 2−54820
Cs, source of spin-polarised slow electrons based on Fano effect 2−79711
Cs*, multiphoton ionisation, reson. effects 2−96522
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
D_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
Eu, photoionisation cross-section, giant reson. 2−102448
Fe complex, (cyclobutadiene)iron tricarbonyl, bonding, photoelectron spectra and photoionisation, Xalpha SW calcs. 2−102382
GaAs:Fe, LCAO calcs. of photoionisation of deep centre 2−104304
GaP:Fe, LCAO calcs. of photoionisation of deep centre 2−104304
GaP:Fe crystal, electron irradiated, IR absorpt. 2−61908
H glow discharge-Co_2 laser interaction, spectroscopic aspects 2−97812
H II regions, heating by photoionisation and photoelectric effect on dust grains 2−63566
H ionisation probability calc. based on quadratically integrable functions 2−70202
H, multiphoton ionisation in ultrastrong laser fields 2−64941
H plasma, oscillator strengths, photoionisation cross sections emission spectra 2−103449
H^-, two electron photoionisation, threshold behaviour 2−80552
H^-, two-electron photodetachment, H^+ threshold yield 2−75443
p-H_2, excited states, three-photon reson. ionisation 2−96667
n- and p-H_2, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2, three photon ionisation, quantum state specific detection 2−70353

photoionisation continued
H_2, vibrational preionisation, multichannel quantum-defect theory 2−75359
HCl, photoionisation cross sections, UPS obs. 2−65055
HCl, vibronic transitions and photoionis., photoelectron spectrosc. obs. 2−108626
HD, rot. and vibr. consts., photoionisation photoelectron obs. 2−96634
H_2S, PES following multiphoton ionisation 2−85737
H_2S, photofragmentation mechanism studied by multiphoton ionisation photoelectron spectroscopy 2−111500
He, double photoionisation cross section, Altick function 2−75221
He, photoionisation, asymmetry parameter, photoemission obs. 2−102445
He, photoionised, final state symmetry for n=2 states determ. 2−54817
He^*, multiphoton ionisation, reson. effects 2−96522
Hg, near threshold double photoionisation 2−85602
Hg, photoelectron polarisation in subshell ionisation with unpolarised light, Fano effect 2−54819
I^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
I_2, high energy electronic state identification by means of ion dip spectroscopy 2−59875
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2−102401
K, efficiency of isotopically selective laser excitation 2−70438
K, polarisation phenomena during three-photon ionisation 2−113950
K, three-photon resonance ionisation *(Chinese)* 2−90488
Kr, $4s4p^65p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203
Kr, multiphoton ionisation in continuum 2−85608
Kr_2 dimer, relative photoionisation cross section 2−70346
Li, photoionisation studied using CI theory, energy levels and oscillator strengths 2−102444
Li_2, reson. two-photon ionis., ionis. pot. calcs. 2−80741
Li^*+Li, two photon optical ionising collisions 2−70206
Mg I, photoionisation cross-section for metastable ^3P levels, expt. determ. 2−96506
N_2, $A^2\Pi_u$ nonreson. ionis., photoelectron ang. distribs., partitioning anal. 2−59864
N_2, differential and total photoionisation cross sections 2−70354
N_2, multiphoton ionisation by Nd-glass laser 2−65056
NH_3, multiphoton ionisation, mass anal., photoelectron spectra 2−90624
$(NH_3)_{n-2}NH_4^+$ cluster, (n=2-8), multiphoton ionisation mass spectra 2−70347
NH_2OH, photoionisation mass spectrometry, heats of formation of HNO^+ and NOH^+ 2−108642
NO, 4-photon ionisation two-colour double reson., fluoresc. de-enhanced obs. 2−85706
NO in atmospheric flame, resonantly enhanced two photon photoionisation 2−70365
NO, ionisation and photoexcitation, static exchange approx. 2−85752
NO, nascent, detect. in methane-air flame by multiphoton ionis. 2−59863
NO, resonantly enhanced 4-photon ionisation, electron spectra 2−85733
NO, Rydberg-valence interactions, multiphoton UPS 2−85745
NO scattered from Pt (111) surface, vibr. and rot. energy distrib., two-photon ionisation study 2−87932
NO, vacuum UV spectra using third harmonic generation in inert gases 2−70275
NO^+, unimol. dissoc., threshold photoelectron-photoion coincidence obs. 2−90638
NO_2, excited states, nucl. config. effect on two-step photoionisation 2−114055
NO_2^-, adiponitrile solns., ionisation energies, photoelectron study 2−80727
Na, blackbody photoionisation rate meas. as function of temp. 2−108433
Na, excited states, photoionisation Stark spectra 2−70183
Na, five photon nonresonant photoionisation, photoelectron ang. distrib. 2−64938
Na, photoionisation Stark spectrum, Earth mag. field effect 2−59766
Na, resonant multiphoton ionisation, time development 2−80548
Na, vapour, laser excited, hot electron spectra obs. 2−54818
Na_2, autoionising Rydberg states, ionisation pot. determ. 2−70352
Ne isoelectronic sequence, outer subshell photoionisation, ab initio calcs. 2−75222
Ne, photoionisation and state selected polarised $Ne^+(2p^{52}P_{3/2})$ 2−96518
Ne, photoionisation from ground and excited states, autoionisation states 2−80547
Ne-inert gas dimens., photoionisation cross sections, ionisation pot., dissoc. energies, binding energies 2−70349
NeAr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeKr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeXe, associative ionisation half reactions, photoionisation cross sections 2−72998
O_2, valence shell photoionisation, shape reson. induced non-Franck-Condon effects 2−90634
PO in C_2H_2/air flame, two-photon ionisation processes 2−102549
Pb, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
Pd, L subshell photoionisation cross-section determ. 2−80550
Rb, Stark states, field-induced stabilisation 2−80535
S, two-photon induced fluoresc. and reson.-enhanced photoionisation 2−113923
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
n-Si, heat treated, γ-irradiated, photoelec. props. 2−77120
Si IV, photoionisation from $\nu\rightarrow\gamma$ decay, in galactic haloes 2−74066
Sn, L subshell photoionisation cross-section determ. 2−80550
Sr, 2- and 3-photon reson. ionisation, electron 2−75224
Sr, multiphoton ionis., Sr^+ and Sr^{2+} prod. 2−75225
Sr, resonant double photoionisation 2−102446
Sr-Cs mixture, two-photon atomic ionisation, radiative collision influence 2−96523
Th, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
Ti (001), photon stimulated desorption of methanol, UPS 2−104143
1,1,1-trichloroethane, IR enhanced multiphoton ionis. mass spectrum 2−80748
U II fluorescence studies, laser induced, by U photoionisation 2−96524
U, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
Xe, $5s5p^66p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203

photoionisation continued
Xe long-lived excited atoms, autoionising resonances in photoionisation 2−54814
Xe, multiphoton ionisation studied by photoelectron spectrometry 2−75223
Xe, resonantly enhanced multiphoton ionisation, third harmonic generation 2−85609
Xe, third harmonic generation multiphoton ionisation, cooperative effects 2−90493
Zn, near threshold double photoionisation 2−85602

photolithography
see also masks; photoresists
automatic single-barrel photorepeater for LSI masks fabrication 2−69276
image projection with nonlinear optics 2−75633
ion beam milling, modelling 2−116575
microbolometer for far IR detection 2−112974
PCB imaging photolithography, new developments 2−97068
photorepeaters, problems and methods in testing and proving efficiency 2−69277
projection photolithography system, focusing and alignment by wavefront conjugation 2−84727
screenless photolithographic images, plate flash and density range 2−58939
spatial-period division, deep-UV, using an excimer laser 2−109090
substrate-tube lithography for optical fibres 2−114477
X-ray lithography masks, optically-transparent 2−87117
Bi layer, vapour deposited, photolithography and optical characts. control for photography 2−89846
Bi-Sb self-heated thermocouple for far IR detection 2−112974

photoluminescence
see also fluorescence; phosphorescence
adenine cation cryst., luminesc., excitation wavelength depend. 2−104941
alkali halide, activated, photostimulated luminesc. decay kinetics, radiation defects spatial distrib. *(Russian)* 2−82902
alkali halides aqueous solns., UO_2^+ impurity photolum. spectra meas. *(Russian)* 2−77593
alkali metal compounds, $M_2(Pt(CN)_4).yH_2O$, quasi-one-dimens., luminesc., mag. field effects 2−82899
alkaline earth compounds, $A_3BC_{10}O_{20}$ (A=Sr,Ba; B=Ti,Ge,Sn; C=Al,Ga), cryst. struct. and luminesc., neutron diffr. obs. 2−60935
alkaline earth compounds $M_2(Pt(CN)_4).yH_2O$, quasi-one-dimens., luminesc. , mag. field effects 2−82899
anthracene, luminescence obs. at 0.4K 2−61966
anthracene, photoluminesc., vibronic peaks, effect of grinding 2−104940
benzophenone, photoluminesc., vibronic peaks, effect of grinding 2−104940
crystals with quantum yield greater than unity, photoluminescence, review 2−82887
defect levels 2−115691
diamond:N_2, structural imperfection annealing, struct. 2−81766
diamond, GR1 luminesc. band, Jahn-Teller effect and stress-induced dichroism 2−57147
diamond, uniaxial stress splitting of photoluminescence transitions at optical centres 2−72537
diamond, yellow-luminescing brown, optical meas. 2−72538
diatomic molecules, laser induced spectroscopy 2−59845
1,4-dibromonaphthalene, triplet exciton trapping, delayed fluoresc. obs. 2−98547
diphenanthrylpropanes, intramol. singlet and triplet excimers, fluoresc. 2−90600
disordered system, electronic excited state transport, and trapping 2−57146
ditetramethylammonium uranyl tetrabromide, vibr., luminescence, IR and Raman study 2−61895
double beam fluorescence lifetime spectrometer with subnanosecond resolution: application to aqueous tryptophan 2−112998
excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
II-VI semiconductors, optical props. of 3d transition metals 2−110286
ionic crysts., luminescence and stimulated emission from colour centres 2−82893
KI:Sn^{2+}, polarised luminesc., nature of Sn^{2+}-cation vacancy complex 2−57159
luminescence, cross relax. optical detection 2−99180
luminophors, IR radiation field visualisation 2−82892
neodymium porphyrin complexes 2−110929
particle layer luminescence, two-const. models, fluoresc. lamp appl. 2−65157
particle layer luminescence, two-const. models, layer luminesc. 2−65156
particle layer luminescence, two-const. models, p-layer model 2−65155
α-perylene, luminescence and exciton lattice interaction 2−87840
β-perylene, luminescence study of exciton self-trapping 2−93246
phenanthrene, photoluminesc., vibronic peaks, effect of grinding 2−104940
phosphors, diffusion-assisted luminescent processes, nonequilib. thermodynamics study 2−82914
phosphors, Na effect on luminescence 2−72543
photoexcited carriers, time-resolved diffusion profiles, nonlinear luminesc. study 2−116221
photographic layers, pulsed luminesc. *(Russian)* 2−53873
phthalic acid, photoluminesc., vibronic peaks, effect of grinding 2−104940
piezoelectric semiconductor, acoustic wave visualisation using photoluminesc. modulation 2−66592
polyacetylene, resonance Raman scatt. and photoluminescence props., review 2−77522
polystyrene-polyphenylene oxide blends, solid photo-energy transfer 2−104944
polyvinylcarbazole film, impurities and struct. effect on photolum. *(Russian)* 2−67092
porphyrin, biogenous, solid solns., luminesc. study 2−67952
quantum well heterostructure laser, carrier collection dynamics, Monte Carlo simulation and photoluminesc. study 2−114282
rare-earth ion activator centers in garnet struct. laser cryst., spectroscopic anal. 2−110893
ruby, nonequilib. phonon effects on luminescence 2−82886
semiconductor, polar, direct-band, long-wave secondary radiation, temp. depend. 2−57173
semiconductor, surface barrier struct., photon-diffusion transport of nonequilib. carriers 2−115864

photoluminescence continued
semiconductors, momentum distrib. anisotropy of photoholes, hot luminescence polarisation role 2−67116
semiconductors, optical characterisation of deep energy levels 2−56478
semiconductors, variable gap, photon transport of nonequilib. carriers, photoluminescence 2−116257
sharp line donor-acceptor pair recombination luminesc. 2−104928
silver sulphamides, cond., photocond., and luminesc. studies 2−77111
sitalls, thermal stability determ. by luminesc. defectoscopy 2−116671
solutions, low viscosity, photoluminesc. quantum yield and excitation energy migration 2−110923
surface collective excitations, radiative decay in polarisable cylinders, theory 2−110431
surface emission, universal component rel. to unidentified substance absorption 2−116247
tetrabutylammonium bromide, intrinsic absorpt. and exciton luminesc. obs. 2−110933
thin films, crystalline and disordered exciton hopping and luminescence, absorbing boundaries 2−82920
tunnelling pair recomb. theory 2−110911
two-level quantum system, luminesc. and scatt. in reson. secondary radiation 2−93255
uranyl fluoride complexes, binuclear, vibr. and electronic spectra meas. 2−72488
ytterbium porphyrin complexes, luminesc. and visible absorpt. study 2−110929
ZnSe:Li, p-type cond. 2−115925
Ag films, surface plasmons, light emission efficiency meas. 2−77151
Ag particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
Ag surface (111), NO scatt., laser induced fluoresc. 2−99256
AgBr photographic emulsions, luminescence, photographic process 2−82888
AgCl:Br^-, pure and doped, band-gap-irrad., luminesc. centres, ODMR and level-anticrossing spectra 2−56980
AlAs-GaAs superlattice, disorder by Si implantation, photolum. study 2−76465
$Al_{1-x}Cr_x(PO_3)_3:Cr^{3+}$ tunable IR solid-state laser material, spectroscopic and laser props. 2−108884
AlGaAs laser diode, spontaneous and stimulated emission, picosecond. meas. 2−65216
AlGaAs, undoped, MOCVD growth and charact. 2−98497
$Al_xGa_{1-x}As$, metalorganic VPE grown, residual shallow acceptors, photoluminescence study 2−93245
$Al_xGa_{1-x}As$, composition control and superlattice fabrication by pulsed MBE and photoluminesc. props. meas. 2−99342
$Al_xGa_{1-x}As$ epitaxial solid soln., graded band-gap, photolum. *(Russian)* 2−104965
$Al_xGa_{1-x}As$:C(Si)(Ge)(Be)(Mg)(Zn), acceptor states, photoluminesc. study 2−104931
p-$Al_xGa_{1-x}As$:Ge, LPE grown, photolum. spectrum 2−57143
$Al_xGa_{1-x}As$-GaAs interface, extrinsic layer, photolum. study 2−115576
AlN:Mn, luminesc. and EPR spectra 2−57174
Al_2O_3, emission centre form. by H_2O absorpt., photoluminescence study 2−110930
η-Al_2O_3, surface states, luminescence study 2−61955
As_2S_3, amorphous, hot photoluminescence 2−93261
As_2S_3, amorphous, photoluminescence decay 2−110906
As_2S_3 and As_4S_4, optically induced localised states, photolum. and EPR 2−57164
As_2S_3 chalcogenide glass, time resolved photoluminescence 2−116253
As_2S_3, glassy and cryst., X-ray luminesc. and thermoluminesc. meas. 2−61993
a-As_2S_3, obs. of mobility gap in photolum. 2−57166
As_2Se_3:Ni glass films, photoluminesc. meas. 2−116259
Au particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
$BaGeO_3$-Al_2O_3-CaF_2-MgF_2:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
$Ba_2NaNb_5O_{15}$, photoluminesc. spectra, theoretical interpretation 2−57175
BaO-PbO-P_2O_5-Nd_2O_3, glass, separation of luminescence-quenching processes 2−104964
$Ba_3(PO_4)_2$:Eu, luminophors, luminescent processes 2−82891
BaS:Bi phosphors, delocalisation of impurity-electron excitations 2−77574
$Ba_xSr_{1-x}Nb_2O_6$:Ce($Sr_2Nb_2O_7$), photoluminescence, thermoluminescence and photocond. 2−110908
$Bi_{12}GeO_{20}$, photoluminescence spectra, effects of annealing, Al doping, X-ray and γ-ray irrad. *(Russian)* 2−61936
BiI_3, deep level photoluminescence *(Russian)* 2−93153
BiI_3, IR photoluminescence due to lattice defects *(Russian)* 2−93274
BiI_3:Gd, ESR and photoluminesc. spectra 2−93000
BiI_3:Gd, luminescence spectra *(Russian)* 2−61974
$Bi_{2-x}La_xWO_6$:Pr(Sm)(Eu)(Tb)(Dy)(Er), luminesc. props. 2−82900
$Bi_{12}SiO_{20}$:Nd^{3+} single crystals, energy level spectroscopic study 2−67110
C:H, amorphous, sidebands in luminesc. spectra 2−67111
C:H, amorphous glow discharge film, photoluminescence and ESR spin density 2−93244
CaF_2:Eu^{3+}, two photon luminescence excitation and freq. spectrum 2−110937
CaF_2:Sm^{2+}, acoustic phonon-impurity interaction, luminesc. study 2−93269
CaO:Mg, neutron or electron irrad., circular polarised luminesc. from F- and F_A-centres 2−110915
CaS:Bi excitation mech. of Bi^{3+} luminesc. centres, luminesc., TSC and photocond. meas. 2−67103
CaS:Ce,Fe(Co)(Ni)(Cd), phosphors, luminescence emission and decay, quenching 2−77584
CaS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
$CaSiO_3$:Pb^{2+}, phosphors, high press. phases, luminescence props., quenching 2−82903
$CaWO_4$:Eu^{2+} and $CaWO_4$-$BaWO_4$:Eu^{2+} phosphors, luminesc. props. 2−57150
$CdCr_2Se_4$, s-conduction band splitting, photoluminesc. study 2−87849
CdF_2:Er, Yb, energy transfer, reson. effects 2−72549
CdF_2:Eu^{3+}, insulating, thermally stimulated relax. 2−67129
$CdGa_2S_4$, electroabsorption, luminescence studies 2−61875
$Cd_xHg_{1-x}Te$, photoluminescence 2−93278
CdI_2, Auger interaction of donor-acceptor pairs with luminesc. centres, photoluminesc. and photocond. study 2−93270
$CdIn_2Se_4$, photoluminescence spectra, radiative recombination 2−57165

photoluminescence continued
$Cd_{1-x}Mn_xSe$, exciton and phonon spectra, photoluminesc. and Raman scatt. study 2−110942
$Cd_{1-x}Mn_xTe$, exciton luminescence spin splitting *(Russian)* 2−61976
$Cd_{1-x}Mn_xTe$, semimag. semicond., photoluminescence band excitation spectra 2−82898
CdS, biexcitons, luminescence assisted two-photon spectroscopy study 2−76933
CdS, excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
CdS, exciton luminescence and electron-hole plasma near acoustic instability 2−87865
CdS, green electrolum. and photolum. study 2−72558
CdS, luminescence study of cooperative defect behaviour *(Russian)* 2−87853
p-CdS, metastable states, photoluminescence 2−104425
CdS, photoluminescence, effects of polishing etchant composition 2−93271
CdS, radiative transitions between exciton sub-bands 2−99155
CdS, recharge-enhanced transforms. of donor-acceptor pairs and clusters 2−61390
CdS, recomb. radiation spectra of electron-hole plasma 2−116255
CdS, spot size effects in picosecond luminescence experiments 2−104953
CdS, thermal neutron irrad., optical anisotropy of red luminesc. centres 2−93268
CdS:Cu, Cl, sintered layers, absorpt. and photoluminescence spectra 2−110928
CdS:Cu, electron irrad. prod. defects interaction with impurities, elec. and optical props. study 2−56035
CdS:Cu, photochemically active IR centres, luminesc. and excitation spectra, polarisation characts. 2−61970
CdS:Cu_xCl, point defect luminescence anal. *(Russian)* 2−87869
CdS:V(Cr)(Co)(Ni)(Cu), excited state lifetimes, 4 to 300K, luminesc. study 2−57162
CdS(Se):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
$CdS_{1-y}Se_y$ epitaxial layers grown by H_2 transport from elements, photolum. props. 2−99172
n-CdS_xSe_{1-x} electrodes in photoelectrochem. cells, photoluminesc. and electroluminesc. props. meas. 2−93925
CdSe, excitonic luminesc. spectra, surface elec. field effect 2−82919
CdSe, luminescence from electron-hole plasma 2−87868
CdSe, spot size effects in picosecond luminescence experiments 2−104953
$CdSnA_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
$CdSn_xGe_{1-x}P_2$ solid solns., photoactive absorpt. and radiative recomb. anisotropy 2−92690
$CdSnP_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
CdTe, Ag diffused, degradation of elec. and optical props. 2−115751
CdTe, shallow acceptors, photoluminesc. study 2−57172
CdTe:Cu(Ag), acceptor levels, elec. and photoluminescence study 2−110296
CdTe:In, MBE growth, effects of doping on electron conc. and photolum. 2−76846
CdTe:Li, In, donor acceptor pairs, luminesc. excitation spectra 2−57154
CdTe:Mn, bound exciton luminesc. spectra, giant spin splitting 2−93266
CsCl, luminesc. above the phase-transition temp. 2−116242
CsCl(Br), X-ray irrad., colloid form., optical props. 2−56030
CsI:Na, tunnelling recomb. luminesc., time evolution 2−72550
CsI:Na^+, exciton-Na^+ interactions, photoluminesc., ODMR and mag. circular pol. study 2−61366
$CsMnCl_3(Br_3)(I_3)$, photoluminescence lifetime and intensity 2−110940
$Cs_2NaBi_xY_{1-x}Cl_6$, optical centre conc. effects on electron lattice coupling, optical props. study 2−57151
CuBr, excitonic mol. luminesc. at 4.2K, time depend. 2−67101
CuCl, biexciton reson. linewidth, collision broadening or not? 2−87155
CuCl, electron-hole plasma form. after subpicosec. photoexcitation 2−99175
CuCl thin film, probe biexcitons, momentum space condensation, luminesc. study 2−61363
$CuGaS_2$, luminesc. and refl. spectra of free excitons 2−104963
CuI, single cryst., luminesc. study 2−67104
CuI single crystals, exciton luminesc. 2−61964
$CuInS_2$, photoluminescence, broad band emission, defect electron states 2−93249
$CuInS_2$, photoluminescence, exciton and near edge emission, energy gap 2−93250
Cu_2O 1*S* yellow exciton luminescence intensity temp. depend. 2−87858
Cu_2O, relaxed excitons, optical and cyclotron reson. study 2−76938
Er^{3+} impurity ions in fluoride host lattices, optical props. 2−93276
Eu complex, β-diketonates:1,10-phenanthroline, IR and luminesc. spectra 2−113989
Eu(II) cryptate in aqs. soln., absorpt. and emission props. 2−104906
GaAlAs:Zn, variable gap semicond., photon transport of carriers, photoluminescence study 2−116256
$Ga_{1-x}Al_xAs$, radiative decay rate exponential distrib. 2−77583
$Ga_{1-x}Al_xAs$:Si, Ge, LPE growth and doping, elec. and photolum. props. 2−116393
$Ga_{1-x}Al_xAs$:Si, LPE layers, photon recycling, photoluminescence study 2−82897
$Ga_{1-x}Al_xAs$-GaAs double heterostruct., laser annealed, electrolum. device performance 2−55158
$Ga_{1-x}Al_xSb$, LPE layers, photolum. study, cond. bond minimum determ. 2−98540
GaAs, 1-D photoluminescence distrib. 2−77567
GaAs, bulk semi-insulating, quenching effect of luminesc. 2−87862
GaAs, deep acceptor at 77 MeV, photoluminesc. study 2−57145
GaAs, doped superlattices, quasi-two-dimensional photoexcited carriers 2−110433
GaAs, epitaxial layers, biexcitons in quantum wells 2−92479
GaAs, heat treated in H_2-Ar_2, surface thermal decomposition, photoluminesc. study 2−62246
GaAs, high purity, electron-phonon coupling associated with BA and DA transitions *(Chinese)* 2−93239
GaAs, high purity, grown by MBE, characterisation 2−56613
GaAs, hot photogenerated carriers, slow picosecond kinetics 2−61517
GaAs, ion-plasma treatment influence on structural and recomb. charact. *(Russian)* 2−66079
GaAs, LEC grown, photoluminescence, deep acceptor levels 2−99191
GaAs, LEC growth, donor impurities, photoluminescence evaluation 2−116230

photoluminescence continued
GaAs LPE layers, high-purity, residual impurity photoluminesc. studies 2−99164
GaAs, n-i-p-i cryst., photoexcited electrons quantisation, photoluminesc. and light scatt. study 2−61576
GaAs n-i-p-i superlattices, electron-hole recomb. across tunable effective gap, photoluminesc. study 2−99182
p-GaAs, photoluminescence, time resolved, by population mixing 2−57138
GaAs, photoluminescence, elec. field effects, excitons and polaritons 2−99177
p-GaAs, quantum wells, bound excitons, photoluminescence 2−104956
GaAs, radiative recomb. and light absorpt., dislocations effect 2−104962
GaAs, semi-insulating, anti-Stokes luminesc. and deep centre EL2, expt. study 2−87830
GaAs, semi-insulating LEC, deep level nonuniformity distrib., photolum. spectroscopy 2−76964
GaAs:Be, MBE layers, photoluminescence, excitonic features 2−116229
GaAs:Be MBE layers, photoluminescence, bound exciton lines 2−116228
GaAs:C(Ge) VPE layers, impurity characterisation, photoluminesc. study 2−93264
GaAs:Cr, deep level optical spectroscopy 2−71902
GaAs:Cr, deep level photoluminescence, vacancies and annealing 2−99190
GaAs:Cr, photoluminescence, Cr diffusion 2−99184
GaAs:Cu, electron irrad., photoluminescence 2−61967
p-GaAs:Cu, electron irrad., photoluminescence 2−87851
GaAs:Cu, luminescence, deep centres in bound exciton form. 2−104960
GaAs:Cu, recombination radiation band, piezospectroscopic study 2−77588
GaAs:O, deep electron traps, elec. and optical props. 2−98585
GaAs:Se, ion implanted, carrier props. and photolum. meas. *(Korean)* 2−56585
GaAs:Si, disordered, optical detection of multiple trapping relax. 2−72005
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2−77568
GaAs:Si, ion implantation, elec. props., for dual gate MESFET *(Chinese)* 2−109817
GaAs:Si LPE layer, photolum. and carrier conc. *(Russian)* 2−99174
GaAs:Si quantum well, degenerately doped, stimulated emission, luminescence 2−65215
GaAs:Sn LPE layer, deep level free-to-bound fluorescence line shapes 2−77564
GaAs:Te, Cu contamination during heat treatment, photolum. study 2−91993
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
GaAs:V, photoluminesc., optical absorpt., and ESR study 2−82916
GaAs:Zn, Cd, hot photoluminescence spectrum and polarisation 2−82894
GaAs-$Al_xGa_{1-x}As$ quantum well structs., extrinsic photoluminesc. 2−82912
GaAs-$Ga_{1-x}Al_xAs$ DH laser, deep level luminescence spectra *(Chinese)* 2−65217
GaAs-$Ga_{1-x}Al_xAs$ double heterojunction laser, deep level luminesc. 2−102790
GaAs-$Ga_{1-x}Al_xAs$ multiquantum well struct., band edge absorpt. and gain spectra after short pulse excitation 2−62003
GaAs-$Ga_{1-x}Al_xAs$:H multiple quantum wells, impurity photoluminescence 2−104955
GaAs-ZnSe heterostructure, photosensitivity spectra and luminesc. 2−92691
$GaAs_{1-x}$ solid soln., photoluminesc. obs. for $X<0.01$ 2−61972
GaAs(:Ge), MBE grown, deep levels and photoluminesc., MBE As_2/As_4 flux ratio effects 2−99341
$GaAs_xP_{1-x}$-GaP strain-layer superlattice, MOCVD growth and photoluminesc. props. 2−98729
$GaAs_xP_{1-x}$-GaP strained-layer superlattice, MOCVD growth and photoluminesc. props. 2−110919
$GaAs_{1-x}Sb_x$ LPE layer, carrier mobility and photolum., composition depend. 2−77214
$Ga_{1-x}In_xAs_{1-y}P_y$ LED, spontaneous emission efficiency and nonradiative recombination meas. at 1.58 μm 2−116220
GaN epitaxial layers, highly excited, photolum. and gain spectroscopy 2−77561
GaP, Cu related 2.177 eV band exciton, photoluminesc. study 2−110917
GaP, ODMR study of P_{Ga} antisite defect 2−98573
GaP:Cu, photoluminescence and impurity states 2−104947
GaP:Cu, photoluminescence, excitons 2−116249
GaP:Mg, LPE growth, minority carrier lifetime, photoluminescence study 2−82488
GaP:N, luminescence spectra undulations 2−104950
GaP:N, photoluminescence time decay temp. depend. 2−93258
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
GaP:N,Te, epitaxial layers, photoluminescence study 2−61968
GaP:N epitaxial films, excitation transfer mechanism to NN_1 complexes 2−77589
GaP:Nd(Sm)(Eu)(Yb) epitaxial films, photoluminesc., effect of γ-irrad. 2−93267
GaP:O, recombination radiation of exciton bound to Zn-O complex 2−104959
GaP:V, photoluminesc., optical absorpt., and ESR study 2−82916
GaP:Zn, O, photoinduced Zn, O dissociation, photoluminescence 2−87859
GaS(Se), uniaxially deformed, absorpt. and photoluminesc. spectra, energy bands 2−67081
GaSb-AlSb superlattices, MBE growth, photoluminescence 2−99188
GaSe, intercalated, low temp. reflection spectra and photoluminesc., exciton characts. *(Russian)* 2−67112
GaSe, region of existence of excitonic molecules *(Russian)* 2−76941
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
GaSe:Ni(Fe)(Cr), luminescence spectra, absorption edge, struct. defects *(Russian)* 2−93273
GaSe-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
$GdAlO_3:Cr^{3+}$, optical props. meas. in paramag., antiferromag. phases 2−93275
Ge, electron-hole drop evaporation by laser heating *(Russian)* 2−104256
Ge, electron-hole liquid phonon spectroscopy 2−115667
Ge, exciton and electron-hole liq. luminescnece, elec. cond. 2−77578
Ge, strain confined electron-hole liquid, density variations and compressibility 2−110262
Ge, uniaxially stressed, electron-hole liquid props. 2−104259

photoluminescence continued
Ge:As, bound-exciton luminesc. polarisation in longit. mag. field 2−87864
Ge:As(P), luminescence study of nonequilibrium charge carriers *(Russian)* 2−104945
$GeS_3(Ge_2Se_3)$, glassy, photoluminesc. obs. 2−61973
$GeSe_2$ glass, thin films, and crysts., thermal quenching of photoluminesc. 2−87848
$Ge_{0.15}Se_{0.85}$:In(Cu)(Fe) glasses, photoluminesc. and excitation spectra 2−93263
Ge_xSi_{1-x}:In, photoluminescence, exciton recombination 2−87857
$p\text{-}Hg_{1-x}Cd_xTe$, nonradiative recomb. at deep impurity levels 2−92527
$Hg_{1-x}Cd_xTe$, photoluminescence spectrum meas. 2−87844
HgI_2, photoluminescence, 4.2 to 77K 2−57158
$InAs_{1-x-y}Sb_xP_y$ epitaxial films, photoluminesc. and optical transmission 2−93303
$In_{1-x-y}Ga_xAl_yAs$ lattice matched to InP, band-gap energy and electron effective mass, comp. depend. 2−115650
inGaAs MBE layers, energy gap calc. using Phillips Van Vechten dielec. model, photoluminesc. 2−61939
InGaAs:Te, VPE growth for photodetectors 2−111086
$p\text{-}In_{0.53}Ga_{0.47}As$ film, high field transport characts. of minority electrons and photolum. meas. 2−98699
$p\text{-}In_{0.53}Ga_{0.47}As$, hot-carrier relax. 2−57141
$In_{0.77}Ga_{0.23}As$, lattice-mismatched MBE growth on InP 2−57296
InGaAsP LPE on InP, growth temp. and impurity doping effect on comp. 2−98482
InGaAsP relationship between struct. and props. 2−71486
InGaAsP:Zn(Cd), acceptor impurities, photoluminescence study 2−99189
InGaAsP/InP DH, photolum. intensity 2−87881
InGaAsP/InP misfit dislocations, photoluminescence, TEM and etching study 2−98109
InGaAsP-InP heterostructure, luminescence method of determ. elastic stresses 2−104957
$In_{0.48}Ga_{0.52}As_{0.01}P_{0.99}$ lattice matched to GaAs, LPE from In melt rich in P, photoluminesc. obs. 2−88008
$In_{1-x}Ga_xAs_yP_{1-y}$-InP LPE layers, strain anal. and optical props. meas. 2−66392
$p\text{-}In_xGa_{1-x}As_yP_{1-y}$:Mn epitaxial layers, doping characts., elec. and luminesc. props. 2−76866
$In_{1-x}Ga_xP$:Te(Se)(Cd)(Zn)(Si)(O), epitaxial film, photo-, electro- and cathodoluminescence involving deep levels 2−116258
$In_{1-x}Ga_xP$:Zn, photoluminesc., $0.6<x<1.0$ 2−57148
$InGaPAs_{0.01}$:Zn(Te)(Se) LPE layer on GaAs, doping effect on physical, elec. and optical props. 2−110501
InP, annealing encapsulants, photoluminesc. study 2−116585
InP, high quality, MBE growth 2−116367
p-InP junctions, LPE grown, abnormalities in elec. and optical characts. 2−98738
InP, photoluminescence of synthesis-solute-diffusion and LEC grown cryst. 2−93259
InP relationship between struct. and props. 2−71486
p-InP Schottky diodes, photoluminesc. dead layer 2−104932
InP, single crystals, liq. encapsulated Czochralski grown, photolum. and IR absorption 2−57144
InP:Cd, VPE growth and photolum. characterisation 2−88002
InP:Co, deep levels, elec. and optical meas. 2−76971
InP:Fe, $Be^+(He^+)$ ion implanted, semi-insulating, photoluminesc. meas. 2−99168
InP:Fe(Cr), photocurrent instability, temp. depend. meas., temp. meas. system appl. 2−58824
InP:Mg VPE layers, implanted and unimplanted, near-edge emission 2−57157
InP:Mn(Fe) and undoped, deep level photolum. study 2−104930
InP:Te, VPE growth for photodetectors 2−111086
InP:Yb, impurity electron state, ESR, photoluminescence and mag. susceptibility study 2−104307
InP:Zn(C)(Mg) epitaxial layers, shallow acceptor excited states, luminesc. study 2−57156
InP-InGaAsP-InP DH wafer, LPE grown, misfit dislocations 2−98096
InSb(As), subband reson., nonparabolicity parallel excitation mechanism and doublet peak problem 2−61863
InSe, layered semicond., photoluminesc. study 2−99170
InSe, stimulated photoluminescence 2−67113
InSe, uniaxially deformed, absorpt. and photoluminesc. spectra, energy bands 2−67081
p-InSe:Zn, annealing behaviour, photoluminesc. study 2−92276
$n\text{-}In_{2-x}Sn_xO_{3-y}$-InP photo and electroluminesc. diode 2−61571
KBr, F-centers, relaxed excited state, spin-lattice relax., luminescence study 2−87572
KBr:Eu, with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
$KBr:In^+$, band luminescence, two-photon spectroscopy 2−110939
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
$KBr:Sn^{2+}$, emission spectra 2−87845
KBr:Tl, visible emission intensity study 2−87846
$KBr:Tl^+$, X-ray irrad. induced defects, optical and TSC meas. 2−81825
$KCaR(PO_4)_2$, R=rare earth, Nd^{3+}, Eu^{2+} and Gd^{3+} local struct., probes, luminescence study 2−103715
KCl crystal, energy parameters for F_A(II) centres and F_A(II) like defects, radiative transitions 2−93257
KCl, F-centre excitation, reson. Raman scatt. study 2−116232
KCl:Ca(Sr)(Eu), with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KCl:Eu, F-centre colouring 2−109791
KCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
KCl:Pb, radiation kinetics during intense excitation in A absorpt. band 2−110932
KCl:Tl, visible emission intensity study 2−87846
KI, recombination luminescence of thermally stable H-centres *(Russian)* 2−104939
$KI:In^+(Tl^+)$, photoluminescence, quantum yield, ionisation of In and Tl *(Russian)* 2−104937
$KI:Li^+$, F and M centres, luminescence and absorption spectra 2−67115
KI:Tl, activator luminescence, complex excitation spectra shape *(Russian)* 2−104936
KI:Tl, decay and polarisation of luminesc. pulses in 336 nm emission band 2−77560
$KI:Tl^+$, A_X and A_T emissions double struct., photoluminescence study 2−77577

photoluminescence continued
KI:Tl(In), photoluminescence, exciton-Tl^+ and -In^+ interactions *(Russian)* 2−104938
$KMnF_3$, antiferromag., photoluminesc. study *(Russian)* 2−61940
$KNO_3:NO_2^-$, absorpt., excitation and luminesc. spectra 2−72544
$K_2NaSc_{1-x}Cr_xF_6:Cr^{3+}$ tunable IR solid-state laser material, spectroscopic and laser props. 2−108884
$KNd(PO_3)_4$, struct., synthesis and optical props. 2−81765
K_2O-B_2O_3:Tl^+ glass, luminesc. study 2−67105
$K_2Pt(CN)_4$-$K_2Pt(CN)_6$ cryst., laser excited luminesc. and absorpt. study of mixed valence 2−71932
K_2PtCl_6, two-photon excitation spectra in range 680-950 nm 2−57142
K_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
$LaF_3:Er^{3+}$, 0.2 THz phonon stimulated emission, luminescence study 2−81906
LiF crystals, X-ray luminesc. obs. of F-aggregate colour centres 2−110931
LiF lasers based on F_2 centres, lasing action, luminescence 2−80972
LiF, optical radiation from photon-stimulated desorption of excited atoms 2−110934
LiF:Mg_3OH crystals, gamma-irrad. new emission centres 2−116248
$LiGa_5O_8:Cr^{3+}$ luminescence and absorpt. spectra 2−82908
LiH, crystal with self-trapping excitons, exciton luminesc. and multiphonon Raman spectrum 2−82922
$LiLaP_4O_{12}$:Ce^{3+}(Eu^{3+})(Tb^{3+})(Bi^{3+}), luminescence of broad band emitters, concentration quenching 2−77575
LiLaSm-phosphate glass:Sm^{3+}, luminesc. selective laser excitation study 2−67109
LuOBr(Cl):Tb(Tm)(Ce)(Sm)(Dy) phosphor, photoluminesc. and cathodoluminesc. props. meas. 2−116231
MgO, additively coloured, photoluminescence, mag. circular polarisation and ODMR study 2−61948
MgO, emission centre form. by H_2O absorpt., photoluminescence study 2−110930
MgO, plastic deform., cathodoluminescence and photoluminesc. of slip bands, SEM study 2−67125
Mn complex, Mn[bromotriphenylphosphoric oxide], photo-, mechano- and electroluminescence 2−93294
NaCl lasers based on F_2 centres, lasing action, luminescence 2−80972
NaCl, optical radiation from photon-stimulated desorption of excited atoms 2−110934
NaCl:Pb, Mn, excitation and emission spectra 2−104952
NaCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
NaCl:Pb^{2+}, luminescent centre symmetry, photoluminescence meas. 2−57168
NaCl:Sr, Pb^{2+}, luminescence and absorpt. spectra 2−72547
NaCl:Sr(Ca)(Cd), Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
NaCl:Tl(In), luminescence obs. at high press. 2−72533
NaF lasers based on F_2 centres, lasing action, luminescence 2−80972
NaF:Ca^{2+}, γ-ray irrad., colour centres and interstitials, luminesc. spectra 2−110960
NaF:Ce^{3+}, F-centres, luminescence and optical study 2−77601
NaI crystal with self-trapping excitons, exciton luminesc. and multiphonon Raman spectrum 2−82922
NaI, excitation spectra of exciton luminescence, hot exciton effects 2−66457
$NaNO_2:NO_3^-$, luminescence spectrum fine struct. 2−87841
$Na_3Sr_{3-2x}R_x(PO_4)_2$, R=La to Tb, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
Nd^{3+}:phosphate glass, $^4I_{9/2}$ state, Stark struct. meas. under selective laser excitation 2−87867
Ni^{2+} impurity ions in fluoride host lattices, optical props. 2−93276
O_2 absorption on porous glass, bimolecular radiative processes, luminescence and Raman scatt. 2−82913
Os complex, $(Os(bpy)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
P, amorphous, radiative, triplet luminescence and metastable states, ODMR study 2−93265
$Pb_3GeGa_{10}O_{20}$, cryst. struct. and luminesc., neutron diffr. obs. 2−60935
$Pb_5Ge_3O_{11}:Nd^{3+}$, cryst. growth and spectroscopic props. 2−99178
PbI_2 intercalation compounds with org. donor mols., charge transfer and luminesc. *(Russian)* 2−61975
PbI_2, polariton radiation and relaxation *(Russian)* 2−92487
PbI_2, secondary radiation and reflection spectra, polaritons and excitons *(Russian)* 2−92486
PbI_2:Ga(In), exciton spectra, refl. and photoluminesc. spectra 2−67118
$Pb_{1-x}Sn_xTe$:Cd, photoluminescence study 2−104958
$Pb_{1-x}Sn_xTe$:Cd(In), photoluminesc. study 2−93279
$Pb_{1-x}Sn_xTe$:In epitaxial film, photolum. 2−77590
$Pb_{1-x}Sn_xTe(Se)$ solid soln., carrier g-factor longitudinal and transverse components, band gap depend. 2−76903
Pr^{3+} ions in Pr chloride aq. solns., luminesc. spectra with excitation in 4f-5d absorpt. bands 2−116244
Rb_2MnCl_4, photoluminescence lifetime and intensity 2−110940
$RbMnCl_3(Br_3)$, photoluminescence lifetime and intensity 2−110940
Rb_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
Ru complexes, $(Ru(bpy)_3)^{2+}$, $(Ru(bpy)(py)_4)^{2+}$ and $(Ru(phen)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
SbI_3:Gd, ESR and photoluminesc. spectra 2−93000
Si amorphous films, luminesc. study, interf. effects 2−104968
Si, amorphous p-i-n junction, electroluminescence 2−82927
Si Czochralski wafers, photoluminesc. method to characterise in-depth profile of thermally induced defects 2−93243
Si, electron irradiated, uniaxial stress anal. of 0.79 eV vibronic band 2−67019
Si, electron-hole drops, stress depend. kinetics, luminesc. study 2−76936
Si epitaxial layer, photoluminesc. anal. for characterisation of shallow impurities 2−93242
Si, excitonic system, equilib. consts., recombination luminescence 2−87860
n-Si, heavily doped, electronic struct. and photoluminesc. spectra 2−104290
Si, impurity scatt. within electron-hole liq., far IR and millimetre wave studies 2−99110
Si, ion implanted, pulse laser annealed, defect-induced photolum. 2−57181
Si, microcrystalline, plasma deposited, charact. 2−92405
Si, neutron irrad., electronic and vibr. spectra of defects 2−115299

photoluminescence continued
Si, plastically deformed, photoluminescence polarisation, stress effects 2−110907
Si, polycrystalline for solar cell appl., photolum. charact. 2−87843
Si, uniaxially stressed, electron-hole liquid props. 2−104259
Si wafers, thermally-induced defects characterisation by room-temp. photoluminesc. 2−87837
Si, with varying uniaxial stress, electron-hole liq. condensation 2−71883
Si:B, thermally evaporated, near-surface layer impurity distrib., photoluminesc. study 2−110902
Si:B(P) quantitative impurity anal. by photolum. technique 2−57180
Si:Cu, deep centre long lifetime photoluminescence 2−110938
Si:Cu, luminescence, excitons and impurity states 2−104946
Si:Fe, Tl (In), photoluminescence lines, Fe-Tl complexes 2−104948
Si:Ga, electron irrad., luminesc. of traps 2−61969
Si:Ga, heavily doped, free electron zero-phonon transition, luminescence 2−61954
Si:H, amorphous, 1.4 eV luminescence lifetime distrib. 2−72540
Si:H, amorphous, excitation wavelength depend. of luminesc. spectra 2−77586
Si:H, amorphous, ODMR obs. of luminescence fatigue 2−104954
Si:H, amorphous, photoluminescence fatigue and photo-annealing 2−110905
Si:H, amorphous, sputtered, time-resolved photolum. spectra 2−77581
Si:H, amorphous, sputtering and glow discharge prep., photoluminescence and midgap state density 2−87855
Si:H, amorphous, time resolved photoluminescence, quenching and carrier mobility 2−104949
a-Si:H, photoluminesc. emission broadening 2−110920
Si:H amorphous, photoluminescence, band gap fluctuation 2−98530
Si:H amorphous plasma deposited film, photoluminescence, sub-band gap excitation 2−87856
Si:H films, amorphous, dependence of gap on hydrogen content, photoluminesc. and IR spectra study *(Chinese)* 2−110903
Si:H(O), interaction between dislocations and H or O, elec. and luminesc. props. *(Russian)* 2−56487
Si:In, luminescence intensity enhancement by thermal treatment 2−57153
Si:In, P, electron capture coeff. of neutral In and pair recomb., photoluminesc. spectra 2−77569
Si:In, vibronic spectrum of U_2 isoelectronic centre 2−61953
Si:In,Li, In X-centre donor-acceptor pair photoluminescence 2−57139
Si:N, photoluminesc. anal. for characterisation of shallow impurities 2−93242
Si:O, C, Czochralski grown, O related donors, 700 to 800°C, expt. study 2−56469
Si:O,H,F, amorphous, photoluminescence, localised states, temp. depend. 2−87854
Si:P, donor state line-broadening mechanisms, photoluminesc. study 2−99181
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
$SiCl_2$:Sn, electron-phonon interaction of impurity centres, photolum. and Jahn-Teller effect *(Russian)* 2−57179
$Si_{1-x}Ge_x$, amorphous, optical props. and photoconductivity 2−104920
SiO_2-Ge, recombinative luminescence *(Russian)* 2−61962
$SnCl_2$, luminescence at low temp. *(Russian)* 2−57178
SnO_x-ZnS(A)-Cu_xS-ZnS(A)-Al, A=Ag,Mn,Sm, thin film struct., electrolum., cathodolum. and photolum. meas. 2−87871
SrF_2:Ni, X-ray irrad., luminesc. meas. 2−110921
$SrMoO_4$-$Eu_2(MoO_4)_3$ solid soln., photolum. and thermolum. 2−110910
SrS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
$SrSiO_3$:Pb^{2+}, phosphors, high press. phases, luminescence props., quenching 2−82903
$SrTiO_3$:Cr^{3+}, photoelectronic and optical props. 2−82402
$SrWO_4$-$Eu_2(WO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$SrYb_2F_8$, disordered, luminescence, nonlinear excitation delocalisation *(Russian)* 2−72545
Tb^{3+} ions in Tb chloride aq. solns., luminesc. spectra with excitation in 4f-5d absorpt. bands 2−116244
$TbAl_3B_4O_{12}$, luminesc. and energy transfer 2−61950
UO_2WO_4-$Na_2(K_2)(Rb_2)(Cs_2)WO_4$, solid-phase synthesis, struct., IR and luminesc. spectra 2−87752
WO_3, photo- and electroluminescence, microscopic emission mechanisms 2−116269
Xe, cryocrystals, exciton spectra, polariton and spatial dispersion effects 2−82904
YAG:Nd crystals, radiation colour centres rel. to growth defects, absorpt. and luminesc. obs. 2−71445
$YAlO_3$:Nd^{3+}(Er^{3+})(Dy^{3+}), luminescence and cryst. field splitting 2−116239
Y_2O_3, emission centre form. by H_2O absorpt., photoluminescence study 2−110930
Y_2O_3 phosphor, Eu activated, chem. transport method cryst. growth, red luminesc. 2−111040
Y_2O_2S:Tb^{3+}, X-ray phosphor prep., luminesc. props. 2−67096
ZnO, sputtered thin films, correlation between film quality and photoluminescence 2−87842
ZnO:Cu,Yb(Tm) phosphors, photo- and electro-luminesc. studies 2−110909
ZnO-B_2O_3-Li_2O-H_2O system, crystallisation, characterisation by X-ray diffr. 2−103962
ZnO(S):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
ZnS, intrinsic-defect hole conductivity, photoluminescence study 2−110927
ZnS, photoluminesc. quenching by DC elec. field 2−110818
ZnS, planar defects, luminescence study 2−82889
ZnS, radiative recombination of electron-hole drops and nonequilib. electron-hole plasma obs. 2−66459
ZnS, vacancy optically detected mag. resonance 2−77425
ZnS:Ag, photolum. and elec. props. study of Ag doping 2−110944
ZnS:Ce, Li phosphors, luminesc. excitation and emission spectra 2−57155
ZnS:Cu, donor-acceptor recombination, ODMR study 2−99185
ZnS:Cu, Eu, Cl, electron multiplication process, luminesc. kinetics study 2−67121
ZnS:Cu, ODMR study of IR photolum. 2−93066
ZnS:Cu, Sm(Eu)(Tm), electrolum. and photolum., quantum yield meas. 2−110943
ZnS:I cubic crysals, blue self-activated luminesc., N, P and Ag ion implementation effect 2−116237
ZnS:Mn, pulse excited, afterglow of Mn centres 2−110924

photoluminescence continued
ZnS:Mn^{2+}, Zeeman effects on ^{4}E-levels, decay time of luminesc. emission 2−115720
ZnS:Mn^{2+} and ZnCdS:Mn^{2+}, electrolum. and photolum. props. 2−57184
ZnS:V(Cr)(Co)(Ni)(Cu), excited state lifetimes, 4 to 300K, luminesc. study 2−57162
ZnS-Cu luminophore, decay time determ. from photocount statistics 2−102755
ZnS_xCdS_{1-x}:Ag(Yb)(Ni), phosphor, visible image formation from IR radiation 2−77563
ZnS(Se), Z 2−116235
ZnS_xSe_{1-x}, elec. and optical props., compositional disorder effects, photoluminescence and excitonic spectra 2−57171
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZnSe, edge emission, collective phenomena, radiative recombination 2−77579
ZnSe, exciton-impurity complexes, photoluminesc. spectra study 2−72552
ZnSe in Sn, LPE, phase diagram and electronic props. 2−116428
ZnSe, phonon scatt. at impurity pairs, luminesc. excitation spectra 2−57177
ZnSe, radiative processes in electron-hole drops and exciton-exciton interaction 2−104961
ZnSe single cryst., photoluminesc. microcomputer-corrected spectrosc. meas. 2−58910
ZnSe, single cryst., photoluminesc. spectra, Bi and Sb impurity effects 2−72541
ZnSe, stimulated photoluminescence, lasing mechanism 2−99183
ZnSe, VPE grown film on GaAs, optoelectric props. control 2−116382
ZnSe, ZnS_xSe_{1-x}, organometallic CVD growth, photolum. peak due to I_2 bound exciton line 2−111087
ZnSe:Ag(Au) LPE layers, luminesc. spectra, acceptor levels 2−116250
ZnSe:Al, photoluminescence obs. 2−61971
ZnSe:Cu,Cl phosphor, activated, recombination centres, photoluminesc. study 2−87850
ZnSe:Ga, MBE growth and elec. cond. and photoluminesc. props. meas., blue LED appl. 2−87986
ZnSe:Li, donor-induced acceptor-pair splittings, excitation spectroscopy study 2−82906
ZnSe:Mn^{2+}, Zeeman splitting of $^4T_1$, $^4T_2$, and ^{4}E states, luminesc. study 2−57063
ZnSe:Ni(Fe), near IR photolum. detect. 2−116236
ZnT, edge emission, collective phenomena, radiative recombination 2−77579
ZnTe, excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
ZnTe, ion implantation postrange defects and 1.59 eV luminescence origin, expt. study 2−99169
ZnTe, luminesc. and lasing under laser excitation 2−77571
ZnTe, O diffusion during laser annealing, photolum. obs. 2−115463
ZnTe:Cl, EPR study of deep Cl-associated centre 2−110642
ZnTe:P, distance donor-acceptor pairs, luminescence decay 2−110941
ZnTe(Se)(S), electron-hole drops, luminesc. and optical gain meas. 2−87847

photolysis
see also photodissociation
acetylene, UV laser photochem. at 193 nm 2−78114
amines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
benzophenone, photodestruct., mean quantum yield, radiation intensity effects 2−57624
biological macromolecules, low temp. photolysis and recomb. kinetics, Fourier transform IR spectra 2−116881
bis(3,3,3-triphenyl propanoyl)peroxide, cryst., neophyl rearrangements, X-ray and EPR obs. 2−67742
bis(3,3,3-triphenylpropanoyl)peroxide, cryst., neophyl rearrangements, EPR obs. 2−67741
4-carboxybenzophenone, photoreduction, quenching, radical form. and disproportionation 2−67756
1-chloro-1-fluoroethylene IR laser photolysis, press. and power depend., expt. and modelling calcs. 2−102550
9-cyanoanthracene-1,3-dienes, photocycloaddition and adduct photodecomp., spectrosc. 2−83391
cyclotrimethylenetrinitramine, NO_2 radicals prod. by UV photolysis, EPR spectra 2−87596
diacetylene mol. in solid Ar at 8K, photolysis, vacuum UV spectra, vibr. struct. 2−80648
dibensylketone in micelles, photochem. processes under high mag. fields, laser photolysis study 2−72992
diphenylpolyenes, singlet-singlet absorption spectra, laser flash photolysis obs. 2−59815
DNA, photodynamic action, damage and repair *(Japanese)* 2−62684
duroquinone in alcohol soln., electron transfer reaction, time-resolved flash photolysis, EPR 2−85703
ethylene ozonides, secondary, photolysis, pyrolysis and matrix IR spectra 2−113979
fast reactions in energetic systems, conf., Preveza, Greece (July 1980) 2−58544
fulminic acid, rare gas matrix isolated, isomerisation, photolysis, IR and UV obs. 2−75264
fumaronitrile, triplet energy meas. using laser flash photolysis 2−75203
glass, ophthalmic and photochromic 2−60199
haemoprotein complexes, photolysis, vibronic effects 2−99691
I, spectral and relax. charact. investigation using a photodissociative I laser 2−113934
interstellar molecular clouds, vacuum UV photolysis rel. to mols. cycling between gas and dust 2−89331
intramolecular heteroexcimers, ultrafast intersystem crossing, photolysis obs. 2−65041
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
lasers in chemistry, conf., New York, USA, (August 1982) 2−107005
light-energy conversion efficiency in photogalvanic cells and H_2O cleavage systems 2−111569
maleonitrile, triplet energy meas. using laser flash photolysis 2−75203
metalloporphyrin complexes, photolysis, vibronic effects 2−99691
metalloporphyrins, triplet state quenching by O_2 2−114036
methane, photodissociative channels at 1216 Å 2−111498
methylene blue in water and acetonitrile, photoinduced electron ejection 2−75348
methylene trithiocarbonate, matrix isolated, photolysis, IR spectra of products 2−96556

photolysis continued
nitromethane, gas phase, picosecond UV photolysis and laser induced fluoresc. probing 2−105494
perinaphtho-thioindigoid dyes, photoisomerisation, flash photolysis study 2−99649
photochromic glass, flash photolysis, colour centre formation 2−103664
pigment photodecomposition in paint, diffuse refl. FT IR spectrosc. obs. 2−89830
polyamines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
polyphenyl vinyl ketone, triplet lifetime, laser flash photolysis obs. 2−102529
porphyrins, triplet state quenching by O_2 2−114036
trans-retinal, laser photochem. evolution, Raman and visible spectrosc. obs. 2−62410
trans-N-retinylidene n-butylamine, laser photo[illegible]ion, Raman and visible spectrosc. obs. 2−62410
tetrafluoroethylene-^{13}C efficient production in IR laser photolysis of chlorofluoromethane 2−83390
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
Ag centres on AgBr, reduction sensitization versus photolysis 2−62418
AgCl, photochromic glass, flash photolysis, colour centre formation 2−103664
AgCl, photodecomposition, XPS study 2−111497
BCl_3, laser isotope separation products, IR absorpt. study 2−70437
BCl_3, laser isotope separation by multiphoton absorpt. 2−72990
BCl_3, selective UV photolysis using KrF laser for phosgene impurity reduction 2−88372
CO_2 in inert gas matrices, vacuum UV photolysis 2−108602
C_3O_2-O flame, photolysis, C_2O radical prod., laser induced fluoresc. 2−96617
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
Cs_2, selective laser photolysis 2−99696
CsKr satellite bands, semiclassical inversion 2−96678
CsKr, selective laser photolysis 2−99696
Cu complex, Cu-olefin co-condensation complex chemistry, optical spectra in Ar matrix 2−80641
HNO, photochem. complexation in low temp. matrices, IR obs. 2−67737
HO+$HNO_3(H_2O_2)$, reaction rates, flash photolysis and reson. fluoresc. 2−105460
H_2O, photodissociative channels at 1216 Å 2−111498
H_2O photolysis, effect of surface recombination on efficiency 2−99811
Hg vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
$HgBr_2$ photolysis, Hg prod., time resolved study 2−93801
HgISCN powder, ^{203}Hg, ^{35}S or ^{131}I labelled, thermal effect on photolysis 2−78118
I photodissociation laser, ultrasound intensity excited in stimulated light scatt., optically-controlled chem. reactions 2−60165
ICN, photofragment spectrosc., vibr. and rot. distrib. of CN($X^2\Sigma^+$) 2−64951
InCl, photolysis analysis using X-ray techniques *(Russian)* 2−74554
$KClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
Kr_2F^* luminescence, 420 nm range, as result of KrF_2 photolysis in KrF_2-CF_4-N_2(Ar, Kr) mixtures 2−80721
$Mo(CO)_6$, photolysis, gain line obs. 2−62422
NH_3, photodissociative channels at 1216 Å 2−111498
$NaClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
Nd:glass picosecond laser system for photolysis 2−96979
$Ni(CO)_3N_2$, synthesis and kinetics in liq. Kr, indication of Ni-N_2 bond energy 2−80834
O_2 photolysis products, O_2 $b^1\Sigma$ state deactivation 2−90617
O_3 photolysis at 248 nm and $O(^1D_2)$ quenching 2−105492
OH+CS_2, OCS formation, rate const. determ. 2−83350
PbI_2, surface, photolysis and conductivity, desorption, quadrupole mass spectra study 2−66617
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
S, excited state, flash photolysis study from UV dissoc. of CS_2 2−59719
SF_6, highly vibrationally excited, single photon excimer laser photodissoc. 2−96664
$SiHCl_3$+O_2(O_3), UV photolysis in solid Ar, IR spectrum 2−88365
XeF_2 photolysis, 108-220 nm range, XeF(B,C,D) excimer absolute quantum yield spectral dependences 2−62421

photomagnetic effect
Au (111) surface, light-induced magnetisation, PES study 2−67185
$Cd_{1-x}Ag_xCr_2Se_4$, photomagnetisation obs. *(Russian)* 2−56912
$CdCr_2Se_4$, effect of light on mag. after effects 2−87553
YIG:Fe^{2+}, irreversible photomag. effect 2−98918

photomagnetoelectric effects *see photoelectromagnetic effects*

photometers
see also photometry; spectrophotometers
attenuation factor meas. of optical glasses, using photometer and spectrophotometer attachment 2−101441
automatic photometer for stellar UBVR photometry *(Russian)* 2−78962
camera, Pentax LX system, through the lens exposure metering system 2−69270
Dasibi UV-absorption ozone photometer, weak-line contribution correction 2−95441
Dynamics Explorer mission, spin-scan auroral imaging photometers 2−58226
fibre optic, concentration meas. of particles and dyes 2−64091
flame photometer, microprocessor-controlled Flapho 40 four-channel emission 2−69230
fluorophotometer, solid state, for ophthaimic appls. 2−94149
goniophotometer for calibration of small luminous flux standard lamps 2−79644
IR photometer for Yunnan 1 m Cassegrain telescope *(Chinese)* 2−84099
IR photopolarimeter for astronomicals obs. 2−117604
irisphotometer at Kiso Observatory, description and performance 2−112332
isophotometer at Kiso Observatory, description and performance 2−112332
light detection linearity determ. 2−69237
luster measurement with a FOU photometer 2−69235
microphotometer, modified, for direct densitometry of gels 2−78502
microphotometer at Kiso Observatory, description and performance 2−112332
microphotometer automatic digital 2-coord. astronomical photographs *(Russian)* 2−78965

photometers continued
mobile automatic 9-channel scanning electrophotometer *(Russian)* 2−53817
multichannel photometer, appl. to determ. of stellar ang. dias. by lunar occultation technique 2−79078
photoelectric system for Tokyo Observatory 30 cm reflector *(Japanese)* 2−68619
photoemission pyrometer for temps. up to 1300°C 2−58829
photographic exposure meters, electronic appls. *(Spanish)* 2−58940
pulse energy of optical radiation meas., design appl. 2−64089
radiometer, test chamber *(Japanese)* 2−79645
satellite electrophotometer, high-speed, two-channel, operating in photon-counting regime, performance *(Russian)* 2−94605
spot photometer, simple, for LEED intensity meas. 2−89787
Spotmeter evolut[illegible] computer controlled exposure meter, photographic [illegible]
telephotometer, field testing and data analysis for prototype automated field instrument 2−112186
UV radiometer, compact, with cosine-corrected response 2−58905

photometric light sources
spectrophotometry, components and quality control 2−58914

photometry
see also brightness; colorimetry; densitometry; spectrophotometry; stellar photometry
1982 DV, fast-moving asteroid, UBV photometry rel. to rot. period and light var. amplitude 2−68654
1982 RA, fast-moving asteroid, BV photometry, (1982 September 22) 2−117625
A 1367, spiral-rich cluster of galaxies photometry 2−106937
absorbing films, optical constants, photometric meas. techniques, accuracy anal. 2−95435
aerosol particle light absorpt. meas., photometric and calorimetric techniques 2−53812
aerosols meas. with metal-coated Nuclepore filters 2−67926
AM 064-741, southern ring galaxy, kinematics from photometric and spectroscopic obs. 2−79216
Arakelyan galaxies of high surface brightness, emission lines spectrophotometry *(Russian)* 2−106925
asteroids, IR (JHK) photometry 2−79000
asteroids, spectrophotometry rel. to compositional struct. of asteroid belt 2−106598
astronomical photometry, appl. of intensified Si vidicon detector 2−73846
astronomical photometry, calibration technique for AAT prime focus spot sensitometer 2−106550
36 Atalante, rotation period, UBV photometry and lightcurve 2−73887
3C 345, quasar, far IR detect. and photometry 2−63702
colloidal large particle aggregates, transmitted and scatt. light meas. using photometers 2−96836
Comet Austin (1982g), UBVRI photometry, (1982 July 25 and 27) 2−112393
Comet Bowell (1980b), OH and CN prod. rates from IUE and ground-based obs., (April 1982) 2−84165
P/Comet Halley (1910 II), Bobrovnikoff's photometric power-law solns. 2−68673
comets; gas component/visual brightness at large heliocentric distances *(Russian)* 2−79031
comets, magnitude sources for visual photometry 2−94649
comparative kinetic anal. of light scatt. and absorpt. appl. to bovine rod outer segments 2−62846
concentrator photovoltaic cells performance measurement techniques 2−93916
48 Doris, rotation period, UBV photometry and lightcurve 2−73887
emissivities of surfaces for high temperature heat transfer *(Japanese)* 2−81993
eye adapted to coloured backgrounds, flicker-photometric and flicker-threshold spectral sensitivity comparison 2−78336
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
filament lamps parameters determ., IES approved method for electrical and photometric meas. 2−69234
flicker photometry and heterochromatic brightness matching, rel. luminous efficiency of 2° and 10° fields *(Japanese)* 2−64084
fluorescent lamps parameters determ., IES approved method electrical and photometric meas. 2−69233
galaxies, aperture photometry rel. to Zwicky magnitude scale and estimation of blue luminosity 2−68899
galaxies, multiaperture BV photometry of southern objects 2−106918
galaxies, multiaperture UBV photometry of isolated galaxies 2−58449
galaxies, surface photometry and luminosity distribs. for eight edge-on galaxies 2−101040
galaxies, UV photometry of spiral and irregular galaxies by OAO rel. to spectral energy distribs. 2−74077
galaxies, Zwicky magnitudes, transformation to Holmberg and B_T magnitude systems 2−74099
galaxies in Virgo cluster, UBV photometry of 46 E-S0 objects 2−106935
galaxies surface photometry, bibliography 2−107031
globular clusters in M31 (Andromeda Nebula), photoelectric UBV photometry *(Russian)* 2−112520
Iapetus, IR obs. of dark side 2−100823
IC 5063 (PKS 2048−57), radio-emitting elliptical galaxy, discovery of very red nucleus from IR obs. 2−112565
icy objects, JHK photometry for compositional remote sensing 2−100754
image scanning photometric device in Skan-2 system *(Russian)* 2−79641
interference microscopy, quantitative, microscope aperture effect 2−89802
irregular galaxies, optical photometry and spectra rel. to global props. 2−101054
isotropic material optical property meas. in VUV spectral region 2−89791
JF photographic photometry, secondary standard sequences near 14 rich clusters of galaxies 2−106819
BL Lacertae-type objects, IR polarimetry and photometry 2−89379
low light level photometry, need for absolute and secondary standards 2−78976
M87, photometry rel. to M/L ratio, vel. anisotropy and presence of massive black hole 2−94835
Markarian 421 and 501, CCD photometry of BL Lac objects 2−101029
Markaryan 314 (NGC 7468), remarkable galaxy with three bright regions, photometric and spectroscopic obs. 2−101042
Markaryan 673, 686, spectrophotometric and isodensitometric obs. *(Russian)* 2−101073
Mars, photometric and spectral investigation from Viking 2−112365

photometry continued
Maxwellian-view optical system calibration 2−95433
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
NGC 4151, Seyfert galaxy, new brightening, approximate B-magnitudes (1982 June 9 to August 19) 2−112561
NGC 6334, H II region, IR photometry of ultracompact radio source 2−68866
NGC 7814, edge-on spiral galaxy, surface photometry rel. to light, colour and mass distrib. in disc. and spheroid 2−89365
optical radiation magnitudes, progress in measurements calibration and standards *(Rumanian)* 2−74480
photodiode meter measuring weak-light fluxes and conversion into voltage signal 2−64086
photometric trace analysis of Mg and Mo in biological systems 2−69232
Pickering Racine prisms use in astronomy 2−63257
Pluto, UBV photometric study near perihelion *(Russian)* 2−63313
polyacetylene films for UV radiation actinometry 2−64110
quasars, photometric and redshift study rel. to isotropy of Hubble modulus (H_0) 2−79240
quasars, photometric and redshift study rel. to isotropy of Hubble modulus (H_0) 2−79241
reflection density fluctuation measuring SAM equipment, low spatial freq., 0.01-1 mm^{-1} 2−58884
self-calibrating for light source intensity meas. *(German)* 2−53816
semiconductor source luminance law $L(P,\theta)$ determ., near field technique *(French)* 2−107382
smoke, density meter using photometric detectors, railways appl. 2−64092
solar constant, rocket-borne meas. using absolute radiometers 2−79072
spherical galaxies, photometry and spectra rel. to M/L ratios and vel. dispersions determ. 2−94835
spiral galaxies, early-type, multiaperture UBVJHK photometry for inner (bulge) regions 2−106891
spiral galaxies, edge-on, surface photometry rel. three-dimensional light and mass distribs. 2−89364
spiral galaxies in nine clusters, UBV photometry and 21 cm survey rel. to H I contents and colour props. 2−79223
spiral galaxies of Pegasus I cluster, optical and 21 cm survey rel. to H I content 2−79205
star cluster system of M33, photometry, spectra and catalogue 2−106556
transition radiation detector, Monte Carlo calcs. *(Russian)* 2−79643
X-ray emitting QSOs, visual and IR photometry 2−106949
zero-angle reflection coeff. meas. using two-channel apparatus with photometric wedge 2−112960
GeO_2 in fibre light-guide bundles, photometric radial distrib. control 2−91053
Si photodetector for photometry, metrological charact. 2−112953

photomultiplier tubes *see photomultipliers*

photomultipliers
cathode radioheterodyning operating regime, threshold charact. 2−59644
conference, San Francisco, CA, USA (Oct. 1981) 2−58528
dark pulse subtracting cct. 2−108264
detectors and appls. of photomultipliers in expts. at CERN *(French)* 2−113829
dual rectangular photomultiplier tube for positron CT 2−117081
FEU-100, effect of illumination spectrum on single electron pulse height distribution 2−108262
FEU-100, time response investigation 2−108261
FEU-130 photomultiplier, effect of external electrostatic shield on performance 2−108263
FEU-49, operation in single electron mode 2−108260
Hamamatsu photomultipliers for nuclear radiation detectors 2−90374
high pressure photomultiplier tube development for deep underwater study 2−102337
high-speed photodetectors for plasma diagnostics 2−103444
luminous shock front vel. determ. using photomultiplier 2−65755
Mark-J detector counter monitor system *(Chinese)* 2−80403
microchannel plate, appl. to time-correlated photon counting technique 2−89828
microchannel plate intensifier for atm. emissions photometric imaging expt. 2−78872
microchannel plate photomultiplier, count rate performance 2−75111
modular HV system for phototube and MWPC appl. 2−75125
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
optical discriminator-counter for atm. O_2/N_2 mol. ratio meas. using photomultipliers 2−68510
photoelectronic sensors, perturbing magnetic fields effects on performance 2−89812
photon pulses, radioisotope standard sources, photomultiplier charact. 2−64738
portable photon measuring and imaging system, safeguards appl. 2−80398
position sensitive photomultipliers 2−90375
positron lifetimes in metals, meas. apparatus 2−111396
radiochromatographic anal. of mixtures labelled with soft β-emitting isotopes 2−67783
RCA 8854 photomultiplier charact. meas. 2−75109
reflector output, anode sensitivity control 2−64773
S83003E square tube, photocathode response uniformity 2−75112
secondary electron detector for irradiated nuclear fuel 2−70064
single electron photomultiplier pulse study using stroboscopic unit 2−108259
STEM, electron detectors, detective quantum efficiency meas. 2−89872
time-correlated single photon counting apparatus using side-on photomultiplier 2−64090
total-absorption counters for high energies, choice of photomultiplier size 2−85495
GaP first dynode photomultiplier tubes, probability and time distrib. of afterpulses 2−90376

photon correlation spectroscopy
diffusion coeff. determ. by fluoresc. correlation spectroscopy 2−95243
double-clipped photon correlation with double scaling 2−80920
ethanol, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
hydrazine, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
particle size diagnostic in sooting flames 2−64112
particle size distribution analysis by dynamic light scatt. apparatus 2−112861
phospholipid vesicles, size distribution study 2−67970

photon correlation spectroscopy continued
picosecond spectroscopy and correlated single photon counting method *(Japanese)* 2−112999
poly-n-butyl methacrylate, laser light scatt. obs. in glass transition regime 2−67070
polymer dilute solns., photon correl. spectroscopy data fitting 2−91752
polystyrene near glass transition under high press., photon correl. spectroscopy, light scatt. relax. function 2−104895
serum albumin, bovine, press. induced denaturation, photon correl. spectroscopy 2−114139
single-photon autocorrelation method of investigating scintillation in ns range *(Russian)* 2−79676
SiO_2 dispersed in cyclohexane, dynamic behaviour, photon correl. spectroscopy 2−109395

photon counting
absolute photon numbers in laser, determ. method using relative intensity meas. 2−55107
antibunching in nonlinear optical processes *(Czech)* 2−60149
biomedical measurements using ultra-high sensitivity photon counting system 2−117043
bunched and antibunched counting statistics, random deletion and additive noise effects 2−96866
coherent light in saturated m-photon amplification and attenuation, photon statistics 2−55101
coherent states, photon and phonon statistics of Brillouin scatt. 2−97104
coherently driven atom, fluoresc., squeezed states, sub-Poissonian photon statistics 2−90852
dead time correction to photon counting statistics, classical theory 2−55103
dead time corrections to photon counting statistics, quantum theory 2−55104
digital instrument for circular polarisation meas. of luminescence 2−107422
double-clipped photon correlation with double scaling 2−80920
dye laser, photon statistics 2−85956
dye ring laser, optical bistability effects, photoelec. counting distribs. 2−102826
gaseous system, stimulated Raman effect quantum statistics 2−102872
high-resolution imaging with a two-dimensional resistive anode photon counter 2−79673
imaging photon counter, low noise, astron. appl. 2−58259
IR detectors, photon bunching and photon-noise-limited performance 2−79671
laser Doppler vel. meter with low freq. modulation, meas. in photon counting regime 2−64005
laser-induced fluorescence signals, interface for registration 2−107411
lidar measurements with photon-count regime reception, energy-freq. balance *(Russian)* 2−102841
light, low intensity, spectral study using time-interval probability Laplace or Fourier transform meas. 2−85925
light beam fluctuations, student expt. 2−79305
luminescence radiation, weak modulated, decay time determ. from photocount statistics 2−102755
microprocessor-controlled multichannel photon counter with a time resolution of 2.5 ns 2−107407
mobile automatic 9-channel scanning electrophotometer *(Russian)* 2−53817
motions of photons in physical space 2−70532
multi-anode microchannel array photon counting detectors, for UV, VUV space and ground-based studies 2−117608
multichannel photon counting system for the registration of weak spectra 2−112948
open systems, photon counting probabilities 2−55099
optical fibres, multimode, transmitted light, photon counting statistics meas. 2−65364
partially coherent light, computer simulation by Monte Carlo methods 2−60015
photoelectron counting probabilities for non-classical fields 2−108844
picosecond spectroscopy and correlated single photon counting method *(Japanese)* 2−112999
satellite electrophotometer, high-speed, two-channel, operating in photon-counting regime, performance *(Russian)* 2−94605
stellar scintillation wavelength dependence meas. at Mauna Kea, Hawaii 2−73681
time-correlated photon counting technique, appl. of microchannel plate photomultiplier 2−89828
time-correlated single photon counting apparatus using side-on photomultiplier 2−64090
transition radiation detector, Monte Carlo calcs. *(Russian)* 2−79643
two-level atom, EM field interaction, Jaynes-Cummings model, photon statistics 2−85930
visual system, human, multiplication noise, quantum fluctuations, min. detectable energy 2−78334
GaP:Zn,O, IR upconversion obs., IR quantum counter appl. 2−70605
Si planar photodiode, photon-flux meas., quantum efficiency model 2−101461
ZrI, radiative lifetimes meas. using at. beam source 2−96512

photon-deuteron interactions
see also photon-deuteron scattering
γd→np, 400 and 500 MeV, proton pol. study *(Russian)* 2−85027
γd→np, neutron polarisation, theory *(Russian)* 2−59164
$\gamma d \rightarrow \pi^0 d$, coherent prod. at intermediate energies 2−69474

photon-deuteron scattering
see also photon-deuteron interactions
No entries

photon echo
atoms, billiard ball photon echo model 2−70627
double resonance regime, echo signal excitation 2−114386
four-wave mixing, transient, and coherent transient optical phenomena 2−86061
inverse scattering problem w.r.t. ultrashort light pulse propag. in dense reson. medium, solitons form. *(Russian)* 2−55280
molecular gas, coherent emission, polarisation wave, control of transverse dimens., expt. study 2−114230
naphthalene in perdeuteronaphthalene, temp. depend. photon echo meas., optical dephasing 2−90998
pentacene in benzoic acid, optical dephasing, optical absorpt. and picosecond photon echo expt. 2−70626
pentacene molecules in crystals, photon echo expts., optical dephasing due to virtual transfer of excitation energy 2−108976

photon echo continued
pentacene-benzoic acid mixed crystal, antihole prod., hole burning, fluoresc. study 2−108973
ruby R_1 line, reversed three-pulsed photon echo, forced determ. 2−75638
p-terphenyl-pentacene, delocalised dimer states, temp. depend. dephasing, photon echo expts. 2−104905
tri-level photon echoes, polarisation props. 2−90999
$LaF_3:Er^{3+}$, mag. field depend. optical dephasing 2−104856
Li, D line broadening by inert gas perturbers 2−64925
Na, backward photon echoes in nanosec. and picosec. region, in solid and gaseous systems 2−108975
Na_2, backward photon echoes in nanosec. and picosec. region 2−108975
Tl, noble gas collisional broadening, Raman echo meas. 2−85574

photon-hadron interactions
see also photon-hadron scattering; 2−79[illegible] *interactions*
electron-photon wave[illegible] of γ-rays of E=50-590 MeV, struct. [illegible]
inelastic J/Ψ photoproduction with linearly polarised photons, QCD based models predictions 2−54176
γq→Mq subprocess, higher twist contrib. in QCD 2−74692

photon-hadron scattering
see also photon-hadron interactions
γπ backward scatt., pion polarisabilities, sum rule inequalities 2−64244
$\gamma\pi^-$, Compton effect obs. *(Russian)* 2−69473

photon interactions *see photon-deuteron interactions; photon-hadron interactions; photon-lepton interactions; photon-nucleus reactions; photon-photon interactions*

photon-lepton interactions
see also photon-lepton scattering
γe→ν_e, two-dimens. QED approx. 2−59090
γe→$W\nu_e$, phenomenology of photon-$e^{\pm}$ collisions 2−113262
γe→Ze, phenomenology of photon-$e^{\pm}$ collisions 2−113262

photon-lepton scattering
see also photon-lepton interactions
No entries

photon-nucleon interactions
see also photon-nucleon scattering; photon-proton interactions
gluon spin derivation from hadron jet photoproduction 2−84859
perturbative QCD, conf., Tallahassee, FL, USA (March 81) 2−53409
vector mesons photoproduction study, H-Be target setup 2−108202
vector-meson diffractive photoproduction, polarisation characts. *(Russian)* 2−54175
γ*N, deep inelastic scatt., longit. structure function, fourth order calc. 2−54169
γN, 20-40 GeV, two-particle final states photoproduction 2−84900
γN, charmed hadron inclusive photoproduction in VDM *(Russian)* 2−74694
γN→(J/ψ)X, momentum distrib. for inelastic J/γ photoproduction in QCD 2−54177
γN→cc̄X, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
γN→DD̄, 40-150 GeV, $D^{\pm}$ lifetime, electronic meas. 2−69454
$\gamma N \rightarrow e^+e^-X(\mu^+\mu^-X)$, deep-inelastic photoproduction, broken colour symmetry effects 2−107668
γN→π, pol. γ, quark models test 2−101735
$\gamma n \rightarrow \pi^0 n$, 300 to 700 MeV, differential cross sections *(Japanese)* 2−107670
NN, baryonium, NN and dibaryons, expts. review 2−54219

photon-nucleon scattering
see also photon-nucleon interactions; photon-proton scattering
No entries

photon-nucleus reactions
for inelastic photon-nucleus scattering, see "photon-nucleus scattering"
see also photodisintegration; photon-deuteron interactions; photon-nucleon interactions
baryonic excitation and meson exchange currents in nuclei, review 2−59252
clinical linear accelerator, energy calibration with photonuclear reactions 2−88657
EM interactions on light nuclei, review 2−54359
EM interactions with nuclei at high momentum transfer 2−54353
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
high-energy hadrons, photons and leptons interactions with nuclei, quark-parton model 2−95796
nonresonant excitation of nucleus in positron annihilation with at. K-shell electrons *(Russian)* 2−54356
photoabsorption cross section, dipole polarisability and nuclear symmetry energies 2−85022
photoabsorption cross section, vol. and surface symmetry energy coeffs. 2−79999
threshold prod., model *(Russian)* 2−59333
Z=26, 29, 50, 82, 92, low energy absolute pair prod. cross-sections meas. 2−95987
Z=26, 29, 50, 82 and 92, photon impact, 1.119 MeV, pair prod. cross-sections 2−95986
(γ,f), fission isomers 2−107916
(γ,n) on ^{92}Mo, ^{90}Zr, ^{86}Sr, ^{74}Se, isomer ratio study *(Russian)* 2−54397
(γ,p), EM knockout process, nuclear momentum distribs. 2−107838
(γ,p), knockout reactions, orthogonality and Pery factor 2−74756
(γ,p), one-nucleon knockout reactions, review 2−79998
(γ,π), photoproduction cross section, polarisation effects *(Russian)* 2−90091
(γ,π) on ^6Li, ^{12}C, ^{24}Mg, ^{28}Si, ^{40}Ca *(Russian)* 2−90089
$^{10}B(\gamma,\pi^+)^{10}Be$, differential and total cross section calc. 2−85023
$^{10}B(\gamma,\pi^{\pm})$, 17, 29, 42 MeV, charged pion photoproduction cross section meas. 2−85026
$^9Be(\gamma,p)$, polarised photon, cumulative proton prod. cross section meas. *(Russian)* 2−90090
Be(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
Be(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
$^{12}C(\gamma, \pi^{\pm}X)$, 200-390 MeV, double differential and total cross sections 2−85028
$^{12}C(\gamma,X)$, model for nuclear response function 2−59231
$^{12}C(\gamma,pn)^{10}B$, 34-150 MeV, differential cross-section, rel. to quasideuteron model *(Russian)* 2−59332
$^{12}C(\gamma,\pi^- p)$, near resonance, cross-section, energy depend. *(Russian)* 2−59334

photon-nucleus reactions continued
$^{12}C(\gamma,\pi^+)^{12}B$, nuclear form factors in timelike region and pion photoproduction 2−64395
$^{13}C(\gamma,\pi^-)$, 17-42 MeV, anomalously low diff. cross section, DWIA comparison 2−64393
$^{13}C(\gamma,\pi^+)^{13}B$ ground state, DWIA anal. using Cohen-Kurath wave function 2−101880
^{111}Cd, photoactivation of 396 keV isomeric level 2−69642
C(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
C(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
Cu(γ,p), 150, 300 MeV, inclusive photoproton cross section meas. 2−85025
$^2H(\gamma, n)p$, neutron polarisation, theory *(Russian)* 2−59164
$^2H(\gamma,X)$, photoabsorption, m[illegible] and isobar currents, contribs. to electric trans[illegible] 2−[illegible] contr[illegible]
$^2H(\gamma,n)p$, [illegible] asymm[illegible] relative photoneutron yield calc. 2−64394
$^2H(\gamma,p)n$, forward prod., D-wavefunction effect 2−107844
$^2H(\gamma,\pi^0)^2H$, coherent prod. at intermediate energies 2−69474
$^3H(\alpha,X)$, photoeffect cross section from inversion techniques 2−107846
$^4H(\gamma,\pi^0)$, A=2, 3, threshold prod., model *(Russian)* 2−59333
$^3He(\gamma,\pi)$, threshold prod., model *(Russian)* 2−59333
$^4He(\gamma,p)^3H$, differential cross section in rescattering model, comparison with expt. 2−80011
$^4He(\gamma,\pi^0)^4He$, 1.5-4.5 GeV, π^0 photoproduction cross section meas. *(Russian)* 2−54357
$^4He(\gamma,\pi^0n)$, 450 MeV, energy and ang. distribs. *(Russian)* 2−107848
$^6Li(\gamma,\pi^+)^6He$, nuclear form factors in timelike region and pion photoproduction 2−64395
$^AMg(\alpha,X)$, A=24-26, 4.5 MeV, photospallation, isospin depend. *(Russian)* 2−59331
$^{14}N(\gamma,\pi^\pm)^{14}C$, charged pions threshold photoproduction study 2−95988
$^{15}N(\gamma,xn)$, 10.8 to 38 MeV, photoneutron cross-sections, giant dipole resonance decay 2−113461
$^{60}Ni(\gamma,N)$, giant dipole resonance isospin splitting 2−64385
$^{237}Np(\gamma,f)$, characteristics in E1 giant resonance region 2−54462
$Np(\gamma,f)$, delayed neutron yield meas. 2−101953
$^{16}O(\gamma,xn)$, 24-133 MeV, photoneutron partial and total cross sections 2−59327
$^{16}O(\gamma,n)$, 60-160 MeV, differential cross section 2−107845
$^{16}O(\gamma,n)^{15}O$, target system design for prod. of clinically useful quantities of ^{15}O 2−94203
$^{16}O(\gamma,\pi^+)^{16}N$, differential and total cross section calc. 2−85023
$^{18}O(\gamma,x)$, x=p,d,t,α, charged photoparticle emission from ^{18}O giant reson. 2−54354
$^APb(\gamma, X)$, A=206, 208, photoabsorption cross sections, quasiparticle phonon model 2−113448
$^{208}Pb(\gamma,n)$, 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330
$^{45}Sc(\gamma, p)$, 15.6-25 MeV, GDR direct cross-section, isospin, preequilibrium decay 2−107847
$^{232}Th(\gamma,f)$, delayed neutron yield meas. 2−101953
$^AU(\gamma,f)$, A=233, 234, 238, delayed neutron yield meas. 2−101953
$^AU(\gamma,f)$, A=235, 238, characteristics in E1 giant resonance region 2−54462
$^AZr(\gamma, \pi n)$, A=90, 91, 94, 8-134 MeV, photoneutron cross section meas. 2−95989

photon-nucleus scattering
see also photon-deuteron scattering; photon-nucleon scattering
atomic number dependence of elastic scatt. cross-sections of 0.145 MeV γ-rays 2−54352
baryonic excitation and meson exchange currents in nuclei, review 2−59252
nuclear excitation by inelastic photoelectric effect 2−85024
X-ray beam intensity meas. using resonant nuclear scattering 2−85494
$^{165}Ho(\gamma,\gamma)$, resonant scatt., E1 strength distrib. below particle threshold 2−101879
^6Li, bremsstrahlung photo-cross-section, RMS radius, clusters, resonating group wave function 2−90084
$^{60}Ni(\gamma,\gamma)$, giant dipole resonance isospin splitting 2−64385
$^APb(\gamma,\gamma)$, A=206, 208, 9.5-12 MeV, elastic scatt. cross section meas. 2−59329
$^{208}Pb(\gamma,\gamma)$, reson. fluoresc. study using bremsstrahlung monochromator 2−64726
$^{181}Ta(\gamma,\gamma)$, resonant scatt., E1 strength distrib. below particle threshold 2−101879
$^{238}U(\gamma,\gamma)$, 2-10 MeV, Delbruck scatt., nuclear resonance fluor., Coulomb correction effect 2−90085
$^{238}U(\gamma,\gamma)$, resonant scatt., E1 strength distrib. below particle threshold 2−101879

photon-phonon excitations *see polaritons*

photon-photon interactions
see also photon-photon scattering
exclusive channels, threshold enhancements and resonant effects 2−101785
jet production, expt. results 2−107648
operator-product expansion, integral representation 2−107719
PLUTO detector expts., review from e^+e^- 2−79903
γγ, high energy, vector meson diffractive prod., energy depend. 2−113317
γγ, virtual annihilation to hadrons, perturbative QCD 2−89991
$\gamma\gamma\rightarrow e^+e^-(\mu^+\mu^-)(h^+h^-)$, two body final states invariant mass >2 GeV 2−107717
γγ→hadrons, total cross section, Q^2 and energy depend. 2−54225
γγ→MM, exlusive processes in QCD 2−54091
$\gamma\gamma\rightarrow\pi^0\pi^0(\pi^0\eta)$, f(1270) and $A_2(1310)$ production 2−54226
$\gamma\gamma\rightarrow\pi\pi_\chi$, π-polarisability *(Russian)* 2−79926
$\gamma\gamma\rightarrow\rho^0\rho^0$, cross-section, 1.6 GeV bound state 2−59208
$\gamma\gamma\rightarrow\rho^0\rho^0$, threshold enhancement, possible isoscalar $J^{PC}=0^{++}$ exotic state 2−59206
$\gamma\gamma\rightarrow\rho^0\rho^0, \theta(1640)$ effects near threshold 2−107718
$\gamma\gamma\rightarrow\rho^\pm\pi^\mp$, cross-section, ρ mag. moment, Born model calcs. 2−74667
$\gamma\gamma\rightarrow\rho\rho$, 2^+ glueball effects 2−113237
$\gamma\gamma\rightarrow\rho\rho$, near-threshold cross-section, 2^+ glueball interpretation 2−84931
$\gamma\gamma\rightarrow\rho\rho$, threshold enhancement, low energy vector dominance model description 2−113319
$\gamma\gamma\text{-}\nu\bar{\nu}$, in strong external field, loop diagram 2−101784

photon-photon scattering
see also photon-photon interactions
elastic scatt. amplitude study at high energy 2−107720
QED calculation of high-energy, large-angle elastic scatt. 2−107603
γγ elastic scatt. detection at SLAC 2−113315

photon polarisation
No entries

photon-proton interactions
see also photon-proton scattering
cosmic ray sources, pp and γp role 2−84054
diffractive photoproduction cross section, QCD planar ladder diagram anal. 2−69426
hadronic multiplicities universality evidence and meaning 2−101660
total cross-section enhancement, photon shadowing, perturbative QCD calc. 2−79887
$\delta p\rightarrow 0$, 2.8-4.8 GeV, differential cross-section, spin density matrix elements 2−54179
$\gamma_p\rightarrow K^+K^-$, 2.8-4.8 GeV, 0 meson diffractive prod. 2−54179
γp, 20-70 GeV, hyperons and antihyperons inclusive photoproduction study 2−84901
γp, 25-70 GeV, Λ and $\bar{\Lambda}$ inclusive prod., KDM and quark fusion anal. 2−59159
γp, large p_T photoproduction in hard scatt. expansion 2−101734
γp, QED Compton effect, gluon distrib. function effect *(Chinese)* 2−107666
$\gamma p\rightarrow\Delta^{++}\pi^-$, 660 MeV, polarised p, cross section asymmetry meas. *(Russian)* 2−54174
$\vec{\Gamma}p\rightarrow\gamma X$, contributions to deep Compton effect 2−101728
$\vec{\gamma}p\rightarrow\vec{p}\pi^0$, 0.8-1.5 GeV, p polarisation meas. *(Russian)* 2−107716
$\gamma p\rightarrow p\pi^0$, pol. γ, pol. p, 300-420 MeV, polarisation parameters near resonance *(Russian)* 2−59163
$\gamma p\rightarrow\pi^+n$, 0.96-1.1 GeV, polarised target asymmetry, nucleon resonance radiative decay 2−64347
$\gamma p\rightarrow\pi^+n$, multipole anal., energy independ. 2−89970
$\gamma p\rightarrow\pi^+p$, 450 to 975 MeV, differential cross-section *(Japanese)* 2−107671
$\gamma p\rightarrow\pi X$, higher twist contrib. from direct pion coupling, QCD interpretation 2−95859
γp→X, 20 GeV, charm particle decay obs. 2−89969
γp→X, 20 GeV/c charm particle lifetimes 2−79888
$\pi p\rightarrow\pi^+n$, sum rules, rel. to poor man's absorpt. model 2−59162

photon-proton scattering
see also photon-proton interactions
No entries

photon scattering *see photon-deuteron scattering; photon-hadron scattering; photon-lepton scattering; photon-nucleus scattering; photon-photon scattering*

photon transport theory
build-up factors and scalar flux spectra for 6.2 MeV photon penetration through two-layered shielding slabs 2−96310
cavity-duct system, neutron and γ-ray streaming, albedo Monte Carlo method calc. 2−90310
concrete shields, weakening anal. using 6.2 MeV γ-ray source 2−96311
Engineering Test Facility, neutron beam injectors, neutron and γ-ray streaming calcs. 2−54650
forward-backward approx., transport eqn. exact solns. 2−53707
FTR, gamma-ray measurements 2−101978
fusion reactor, HIBALL, beam line penetrations, radiation shielding anal. 2−108123
fusion reactor, HIBALL, three-dimens. neutronics and photonics anal. 2−108125
fusion reactor Engineering Test Facility, vacuum pumping duct, shielding nucleonics 2−54645
gamma-ray shielding, calc. program, RASH 2−96313
gamma-ray transport calcs., Monte Carlo method 2−54663
MORSE photon and neutron transport code, revised version 2−107929
multigroup cross-sections, 0-400 MeV 2−54469
one-dimensional geometry, radiation transport eqn., delta anisotropic scatt. index *(Russian)* 2−101362
optical transmission in thin plane-parallel films *(Spanish)* 2−86095
PALLAS-PI,SP-Br code for neutron and gamma ray transport 2−69701
plane-parallel media with variable surface illumination, inverse problem in radiation transport theory 2−95280
pulsed source, radiation transport to 1.1 km 2−108144
radiation transport, sensitivity theory using Boltzmann eqn. *(Spanish)* 2−69111
random energy of scattered photon as result of Compton effect 2−53706
secondary photons, penetration in graphite, Fe, H_2O and concrete 2−54668
shielding calculations, integral transport eqn., direct integration method 2−75061
thermal reactors, key problems 2−101988
vectorised Monte Carlo algorithms 2−107937
γ-dose secondary distribs. in light- and heavy-weight concrete shields 2−96319
NaCl, neutron and γ-ray attenuation props., spent fuel disposal appl. 2−107960

photons
see also cosmic ray photons; gamma-rays; light; photon transport theory; X-rays
correlated photon pairs motion, stochastic model 2−59023
general relativity, photon behaviour and Einstein ghost waves 2−107195
magnetic moment, upper limit 2−64328
massless particle confinement 2−54041
quark plasma critical behaviour, photon spectra 2−113232
rest mass estimate 2−79436
structure function calc. in QCD perturbation theory 2−54073
structure functions in operator product expansion 2−54162
wave-particle duality, conceptual problems 2−112747
Weinberg model, γ-Z mixing, effective charges, a=−3 gauge 2−74631
$e^+e^-\rightarrow\gamma X$, direct photons, QCD predictions, W_3^γ, W_4^γ structure functions 2−95855
$e^+e^-\rightarrow X$, virtual photon structure to non-leading order in QCD 2−89966
$\pi N\rightarrow\gamma,X$, high-twist production of prompt single photons at large transverse momentum 2−95881

photonuclear reactions *see photon-nucleus reactions*

photophoresis
atmospheric aerosols, photophoretic force size depend. 2−105517
glycerol, photophoretic force size depend. 2−105517

photoplasticity
CdS, photoplastic, dislocation breakaway obs. 2−98110
KBr, photoplastic effects and their temp. depend. 2−71544
KCl, photoplastic effects and their temp. depend. 2−71544

photoplasticity continued
NaCl crystal, γ-irradiated, F-stimulated photoplastic effect 2−66108
NaCl, γ-irrad., aftereffect and photomemory, F-centres and dislocations 2−71547
NaCl, γ-irrad. suppression of photoplastic effect by mag. field *(Russian)* 2−86776

photorefractive effect
electro-optic crystals, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
ferroelectric imperfect crystal, order parameter and refractive index, photoinduced changes 2−110798
ferroelectric-semiconductors, Symposium, Rostov-on-Don, USSR (June 1981) 2−107001
ferroelectrics, photoinduced refractive index variations, theory *(Russian)* 2−61865
laser beamsteering based on photorefractive effect 2−90955
optical image form. using Pockels effect 2−104853
optically induced change in order parameter near second-order phase transition 2−103946
$Ba_xSr_{1-x}Nb_2O_6$, photorefraction and photoelec. props., ferroelec. polarisation 2−110394
$BaTiO_3$, electro-optic cryst., photorefractive effect, holographic study *(German)* 2−57057
$BaTiO_3$, photorefractive cryst., coherent oscillation by self-induced gratings 2−65310
$BaTiO_3$ photorefractive crystal based CW phase-conjugate resonator, spatial and temporal props. 2−108971
$Bi_{12}GeO_{20}$ crystals, four-wave mixing, appl. to real-time double-exposure holographic interferometry 2−114214
$Bi_{12}GeO_{20}$ crystals, real-time image subtraction in four-wave mixing 2−102752
$Bi_{12}GeO_{20}$, four-wave mixing, phase conjugate wavefront generation, refl. hologram 2−60174
$Bi_{12}GeO_{20}$ photorefractive crystals, four-wave mixing expt., interference between signal and its conjugate 2−90972
$Bi_{12}GeO_{20}$ photorefractive crystals, phase-conjugate wavefront reflectivity, spatial-freq. depend. 2−90992
$Bi_{12}GeO_{20}$, transient energy transfer between writing beams during hologram form. 2−60043
$Bi_{12}SiO_{20}$ photorefractive crystals, collinear Bragg diffr. 2−97080
$KNbO_3:Fe^{2+}$, vol. phase hologram form., coherent light amplification, optical phase conjugation 2−65311
$KTa_xNb_{1-x}O_3$, electro-optic cryst., photorefractive effect, holographic study *(German)* 2−57057
α-$LiIO_3$, bulk photovoltaic and photorefractive effects 2−110387
α-$LiIO_3$, doped, bulk photovoltaic effect and optically induced change of spontaneous polarisation 2−92694
$LiNbO_3$, photorefraction, annealing, charge carrier trapping *(Russian)* 2−104833
$LiNbO_3$, photorefraction and photogalvanic effect under high intensities 2−110796
$LiNbO_3$:Fe, electro-optic cryst., photorefractive effect, holographic study *(German)* 2−57057
$LiNbO_3$:Fe, spatially-oscillating photogalvanic current *(Russian)* 2−56644
$LiTaO_3$, depend. of photorefraction on temp. and light intensity *(Russian)* 2−61849
$LiTaO_3$, electro-optic cryst., photorefractive effect, holographic study *(German)* 2−57057
$PbMg_{1/3}Nb_{2/3}O_3$, cubic ferroelec., with diffuse phase transitions, photorefraction mech. 2−110797

photoresistors
photographic exposure timer, using photo-resistor sensor, thyristor light control *(German)* 2−101476
semiconductor photodetectors, threshold props., theory 2−79674

photoresists
see also electron resists
gratings, fabrication on reflecting surfaces 2−65407
holographic grating formation, blazed 2−96855
microcircuit fabrication, exposure instrumentation for XUV lithography at SURF- II 2−85436
optical writing of dense 1000 Å features in photoresists 2−81013
PMMA, photoresist, deep UV photoetching by excimer laser 2−57497
PMMA film, ion-bombarded, high resoln. photomasks prep., LSI appls. 2−77799
polymers, radiation sensitivity meas., resists. and nuclear particle track recording appl. 2−93802
positive photoresists, standing-wave effect reduction 2−64146
reactive ion etching of Si oxides with NH_3 and trifluoromethane, role of N_2 in discharge 2−88241
spatial-period division, deep-UV, using an excimer laser 2−109090
transition metal-carbonyl derivatives as photopolymerisation initiators and photocrosslinking agents in photoresists 2−58938
trilevel high resolution resist, film form. and directional etching 2−116574
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588

photosphere
acoustic mode oscillation, model of overstability 2−73944
active region, magnetic features hydrodynamics and electrodynamic interactions 2−73932
active region, photospheric mag. field strength meas. rel. to active region coronal evolution 2−106638
active region magnetic fields, three dimens. struct. 2−117650
coronal loops magnetic stability, effect of field line tying in dense photosphere 2−100859
departures from LTE in solar atmosphere, results of investigations *(Russian)* 2−73926
facula models distinguished through Brackett γ-ray line 2−94682
five-minute oscillation, model of overstability 2−73944
flare magnetic fields orientation and geomag. storm occurrence 2−112248
Fraunhofer lines, problem of contrib. functions and line formation optical depth 2−68716
granular convection retarded by surface magnetism 2−79071
granular vertical flow velocity, magnitude and height depend. 2−94674
granulation, basic eqns. and methods for numerical simulations 2−68695
granulation observations used to test Canary Islands as observatory site 2−84091
granule/intergranule contrast, wavelength depend. 2−73943
ionized molecules, line equivalent widths in facular and photospheric models 2−79067

photosphere continued
limb brightening at extreme solar limb, determ. from photoelectric eclipse obs. 2−94686
limb darkening function, fluctuations rel. to solar internal rot. and gravit. quadrupole moment 2−100862
limb darkening variations, appl. as diagnostic of changes in solar luminosity 2−63342
line tying, effect on coronal arcade MHD stability 2−117656
magnetic field rel. to major seismic events *(Chinese)* 2−100259
magnetic field vectors determ. from Stokes parameters profiles, influence of magneto-optical effects 2−100878
magnetic fields, rel. to adiabatic flux tube models for mag. field struct. below photosphere 2−63337
magnetic flux tube solitons 2−58318
magnetic flux tubes wave propag. 2−79066
magnetogravity waves, interconversion in solar atmosphere 2−68717
mass loss effect on Weber and Davis theory for rotating mgnetic solar wind 2−63201
multiplet line profiles and non-LTE factors *(Russian)* 2−79064
nonacoustic 5 minute period vertical traveling waves, detect. from spectral obs. 2−84194
open magnetic fluxes, photospheric sources and link with solar cycle 2−117647
oscillations, nonlinear models 2−94668
photosphere-chromosphere transition layer below flares, ionisation and radiative cooling 2−68720
pulse propagation in a magnetic flux tube 2−84190
rebound shock train propag. to transition region, spicule form. 2−89211
spectra, Fe, Ti, Cr and Ni damping consts. *(Russian)* 2−79074
spectral line breadth, damping consts. 2−73942
spectrum, multiplet line profiles under LTE conditions rel. to photosphere physical conditions *(Russian)* 2−73925
sunspot propagating oscillations from photospheric and chromospheric lines obs. 2−58314
sunspots, angle of inclination of symmetry axes to solar surface 2−94688
supergranular and mesogranular scale vertical flows, spectral obs. 2−94673
supergranulation hydrodynamics, effect of solar rotation 2−73946
supergranulation layer, radial rot. law 2−89216
temperature inhomogeneities effect on abundance determ. 2−106648
turbulence in solar atmosphere, height depend. and damping consts. of spectral lines 2−94687
velocity shear in flare-productive active region 2−100885
vertical structure, small scale vel. field from spectra anal. 2−106650
C_2 IR bands, oscillator strengths determ. 2−79061
Eu abundance 2−59747
Fe I 532 nm line formation in magnetic field *(Chinese)* 2−84198
MgH, $A\Pi^2$-$X\Sigma^2$ system oscillator strength comparison with theory 2−70186
$^{15}N/^{14}N$ composition variations, mechanisms 2−84114
Nb abundance from Nb I lifetime meas. 2−112406
Pd abundance from Pd I lines anal. 2−64903
Rh abundance from Rh I lifetime meas. 2−112406
Ti abundance from Ti I lines equiv. width and oscillator strengths *(Russian)* 2−79063

photosynthesis
bacteria, photosynthetic, reaction centre struct. and functioning mechanism 2−78309
bean leaves, greening etiolated, fluoresc. lifetime spectra 2−67976
chlorophyll, fluoresc. and EPR signal kinetics in whole leaves of higher plants 2−116880
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll a, intermol. interactions in vivo, reson. Raman spectroscopy obs. 2−105638
chlorophyll a and its analogues, photophys. of complexes with π-acceptors 2−67947
chlorophyll fluorescence, light induced, photoinhibition of intact Bryopsis chloroplasts illuminated under anaerobic conditions 2−111636
chlorophyll in barley leaves with blocked carotenoid biosynthesis, luminesc. analysis of triplet states 2−78307
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
chlorophyll-protein complexes, electrochem. regulation of excitation energy transfer 2−111620
chloroplasts, absorpt. spectrum struct. 2−105674
chloroplasts, pea, picosec. fluorimetry of 685 to 732 nm bands at low temp. 2−105676
chloroplasts, photosynthetic membrane, illuminated by short flahses, elec. processes 2−105675
chloroplasts, spinach, picosecond fluoresc. meas. rel. to energy migration in photosynthesis 2−116892
chloroplasts, subchloroplast particles and pigment-protein complexes, spectral anisotropy 2−67977
chloroplasts, thermoluminesc. in presence of photosystem II herbicides 2−111637
energy capture and biomass productivity *(Japanese)* 2−73133
etiolated bean leaves, illumination at low temp., fluoresc. lifetime spectra 2−111618
external electric field effects 2−62485
higher plants, primary photosynthesis processes, pulsed fluorometry 2−99921
laser applications in biology, conf., Tbilisi, USSR (Nov. 1980) 2−94902
light-harvesting chlorophyll a/b-protein complex, fine struct. of circular dichroic spectrum 2−67946
membrane, electrogenic props. reconstruction of isolated preps. of reaction c entres 2−78311
membranes, electochromic response of carotenoids 2−99912
modelling, solid polymer films with high protoporphyrin IX conc., spectral characts. 2−78312
modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
organic photosemiconductor, model systems for primary photoprocess in photobiology *(Russian)* 2−62574
photochemical energy conversion in chlorophyll-containing lipid bilayer vesicles 2−67869
photochlorophyllide energy transfer to chlorophyll in green leaves 2−105678

photosynthesis continued
photoelectric conversion by bacteriorhodopsin 2−67868
photosystem I enriched particles, nature of long wave fluoresc. 2−67978
photosystem I reaction centers from Chlamydomonas and higher plant chloroplasts 2−83553
phycobilisomes, reversible changes in fluoresc. and absorpt. on exposure to light 2−57791
phycobilisomes of red marine macroalgae, excitation energy migration efficiency 2−57790
plant leaves, mag. modulation of fluoresc. intensity, primary photosynthetic reactions 2−78310
primary process, charge transfer 2−57789
primary reactions in photosynthesis, electron transport to oxidised photoactive pigments 2−99922
protochlorophyllid pigment complex, energy migration 2−111621
reaction centres, anisotropic mag. interactions of primary radical ion pair 2−116893
reaction centres of photosynthesis; photochem. electron transfer 2−99916
reaction centres of photosynthetic bacteria, struct. and action mechanism 2−94005
Rhodopseudomonas sphaeroides, subpicosec. spectroscopy of primary processes in reaction centres 2−78306
solar energy conversion technologies, solid-liq. interface research needs 2−88464
solar technologies for the year 2000 and beyond 2−73088
H_2 photoevolution and waste water treatment by agar-entrapped cells of Rhodopseudomonas palustris and Rhodospirillum molischianum 2−99821

phototelegraphy *see facsimile*

photothermal conversion
see also solar absorber-convertors
absorption solar cooling system, open-cycle, possibilities of storage of cold 2−99842
domestic solar-driven refrigerator operation principles and performance 2−99825
interface problems for quantum and thermal systems, review 2−88456
optical coatings, energy related, vacuum deposition, device appl., review 2−81037
salt gradient stabilised shallow solar ponds, transient thermal behaviour 2−78257
salt-gradient solar ponds development potential, American research 2−57736
solar heating systems, liquid-based, effects of thermal stratification on performance 2−111593
solar industrial process sheat plants without storage, design, analysis and optimisation 2−105591
solar pilot test facility, in Belgium, design, construction and first operational experience 2−116850
solar pond mixing layer development interferometric study in laboratory simulation 2−83516
solar pond salt replenishment by passive method during operation 2−99843
solar still, thermal performance 2−88478
solar stills, temp. regime calc. 2−73144
solar thermal power stations, commercialisation progress 2−78245
water vapour-zeolite 13X system rates of solar energy storage and retrieval 2−78251
NH_3-H_2O absorption refrigeration cycles, solar operated, simulation, design and economics for building cooling 2−99835

phototransistors
bipolar, monolithic integration with GaAlAs buried heterostruct. laser 2−60259
glossometry, tongue-palate distance meas. during speech using LED/phototransistor combination 2−94264
IR reflectance system for ambulatory characterisation of left ventricular function 2−94151
Optacon-optical to tactile convertor, to help blind people read printed text *(French)* 2−78408
CaAlAs BH laser and bipolar phototransistor, monolithic integration 2−55360
InP MISFET, optically gated, high gain optical detector appl. 2−53835

phototubes
see also photocathodes; photomultipliers
camera, picosecond, step-by-step calibration 2−95496
electronic tube development for streak camera system 2−74535
Photocron streak image tubes, temporal and spatial resolution, theoretical evaluation 2−79697

photovoltaic cells
see also solar cells
concentrator photovoltaic cells performance measurement techniques 2−93916
direct energy conversion devices and new technology *(French)* 2−111555
Electrochemical Society, Incorporated, Spring Meeting, conf., Montreal, Canada (May 1982) 2−101133
energy conversion efficiency improvement 2−99810
II-VI semiconductor, polishing induced phase transforms. of single crysts. for device applic. 2−72852
interface phenomena, solid-solid interface and diffusion, researc h needs 2−86948
materials, technology and future developments 2−78207
module control test specifications laid down by Commission of European Communities 2−62479
optical coatings, energy related, vacuum deposition, device appl., review 2−81037
optical films, thick, for conduction of optical and IR radiation, solar cell appls. 2−99763
organic energy conversion, ionised impurity induced photocarrier generation 2−99797
parametric photovoltaic cell 2−67855
photoconvertors based on bulk photovoltaic effect 2−73112
photovoltaic solar technique−a technology for direct use of solar energy 2−73118
solar cell, finite base, open-circuit voltage decay with drift field, theory 2−88454
solar cells for electricity generation, need for improved efficiency 2−78206
solar dosimeter, miniature personal, accumulated radiation meas. in UV or other region 2−62775
solar energy conversion technologies, interface microstruct. and microchem., research needs 2−87078

photovoltaic cells continued
solar energy conversion technologies, interface needs and design requirements 2−88457
solar energy conversion technologies, mech. integrity of solid-solid interface, review 2−87077
solar energy conversion technologies, solid-gas interface reactions, research needs 2−88378
solar energy conversion technologies, solid-liq. interface research needs 2−88464
solar energy conversion technologies, solid-solid interface research needs, adhesion abrasion and polymer coatings 2−88247
solar materials, interfacial phenomena and features, review 2−88458
solar photovoltaic technology: World Bank's attitude and activities 2−111556
solar photovoltaics in the Arab world, technical and economic feasibility 2−111558
solar power conversion, Spanish national planning *(Spanish)* 2−99798
spectral matched photovoltaic systems, review *(Spanish)* 2−99800
surfactant phthalocyanine, electrodeposited, photovoltaic cells, characts. and behaviour 2−93906
technical and economic aspects of electricity generation by solar cell systems *(German)* 2−88429
terrestrial solar cells, meas., international standards establishment 2−73114
UN perspective of solar technology potential and utilisation in developing countries 2−111557
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
$Al_{1-x}Ga_xAs$-GaAs concentrator solar cell with high conc. ratio and no forced cooling 2−93898
CdS films reactive DC sputtering on glass substrate in Ar and H_2S atmosphere 2−105072
CdS-Cu_2S solar cell, photovoltaic props., cathodolum. spectrum 2−116823
CdSe-p^+-n-Si tunnel junction solar cell photoanode props. meas. 2−88427
CdTe high voltage photovoltaic cells composition and structure 2−99786
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
Cu-Cu_2O photovoltaic cells, prep. by high temp. reduction and props. meas. 2−88459
Cu_{2-x}-CdS photoconvertors, electron microprobe analysis and degradation 2−73113
$CuInSe_2$, spray pyrolysis and heat treatment, for photovoltaic appl. 2−71843
Cu_2O/Cu thin film photovoltaic cells, possible appl. as solar cells 2−93896
RuO_2-CdS Schottky barrier photovoltaic device 2−56633
Si amorphous photovoltaic cells, glow discharge prep., substrate condition effect on cell performance 2−83482
Si, amorphous progress in research and photovoltaic appl. in USA 2−88435
Si concentrator solar cell, etched multiple vertical junction 2−93920
Si crystals growth for use in solar cells, methods and economics *(Italian)* 2−93409
Si photoconvertors, HV, under high intensity solar radiation temp. dependence investigation 2−73111
Si photovoltaic solar power systems, high performance and specific output, three system concepts 2−111567
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
Si_xSe_{1-x}-SnO_2 amorphous thin film photovoltaic devices, conversion efficiency 2−83479
$Zn_xCd_{1-x}S/Cu_2S$ single crystal photovoltaic solar cell preparation and performance characts. 2−78222
$Zn_xCd_{1-x}S$-Cu_2S single crystal photovoltaic cell, optimum performance 2−116822
ZnO-merocyanine-dye thin film photovoltaic cells, prep. and spectral response, electron diffr. study 2−83478
ZnSe-GaAs heterojunction, photovoltaic props. meas. 2−73121

photovoltaic effects
see also Dember effect
crystals without a centre of symmetry, bulk photovoltaic effect 2−110378
erbium formate, piezoelec., linear and circular bulk photovoltaic effect 2−104417
ferroelectric, bulk photogalvanic effect, as phase transition into state with spontaneous current 2−110383
ferroelectric and non-ferroelectric materials, origin of photo-EMF 2−110379
ferroelectric crystal, photovoltaic bulk effect, two-dimens. LCAO calc. 2−110400
ferroelectric semiconductor, highly doped and compensated, model, anomalous photovoltage 2−110384
ferroelectric with high-mobile nonequilib. electrons, photoelectric effects 2−110380
ferroelectric-semiconductors, Symposium, Rostov-on-Don, USSR (June 1981) 2−107001
ferroelectrics, photoinduced refractive index variations, theory *(Russian)* 2−61865
ferroelectrics, vibronic, nonlinear optical props. *(Russian)* 2−81017
ferroelectrics, vibronic, transitional photovoltaic current in initial stage of light irrad. *(Russian)* 2−82399
holographic meas. of photovoltaic consts. 2−110392
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
impurity donor-acceptor complex, photovoltaic effect, theory *(Russian)* 2−77122
intrinsic bulk photovoltaic effect, sum over intermediate states 2−115806
MOS struct., interface charge inhomogeneities, surface photovoltage meas. 2−115899
noncentrosymmetric media, spin polarised electron scatt. asymm. and photogalvanic effect mechanisms 2−104335
optically active crystals, photogalvanic effects 2−110381
p-n junction, contact pot. determ. 2−115885
3,4,9,10-perylenetetracarboxylic dianhydride, Elovich photovoltage decay kinetics 2−98696
photoelectrochemical Schottky barrier cell, I-V characteristics, recombination effects, theory 2−93926
photogalvanic centres in crystals, model 2−110382
phthalocyanine thin films, metal-free, photocond. and photovoltaic effects 2−72023
quartz, anomalous photovolt. effect 2−104433

photovoltaic effects continued
SAW propagation on photoinduced grating in alternating electric field 2−91122
semiconductor, photoconductivity, nonequilib., external fields influence on surface photogalvanic effect 2−77118
semiconductor, surface barrier struct., photon-diffusion transport of nonequilib. carriers 2−115864
semiconductor-insulator-semiconductor solar cells and photovoltaic effect, review *(Polish)* 2−83496
semiconductors, photogalvanic effect at high illum. intensities 2−115823
solar cell, finite base, open-circuit voltage decay with drift field, theory 2−88454
surface (111), surface pot. low temp. baking effect, photo-EMF study 2−77971
surface space charge capacitance, determ. using light probe 2−77449
tetracene, polycrystn., photovoltaic currents 2−66586
triphenylformazan, semicond. films, photochromic switching 2−61998
triphenylformazon, organic semiconductor, photochromic switching, surface photovoltage study 2−77463
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
zinc dithizonate, thin film, photochromic switching, optical absorpt. and photovoltaic study 2−87882
zinc thizonate 2−77463
Al-phthalocyanine interface, surface photovoltage, XPS and I-V characterisation 2−56691
Al-Si_3N_4-SiO_2-Si MNOS struct., charge trapping, oxide thickness effects, capacitance and internal photoelec. effect study 2−98751
$Al_xGa_{1-x}As$-GaAs heterostruct. photovoltaic converters, fabrication by VPE 2−105562
$Bi_{12}GeO_{20}$, photogalvanic effects in impurity induced absorption region 2−110389
$Bi_{12}SiO_{20}$, photogalvanic effects in impurity induced absorption region 2−110389
$Bi_{12}TiO_{20}$, photogalvanic effects in impurity induced absorption region 2−110389
CdS, electron irrad., exciton reflection spectra and photo EMF, elec. field effects 2−82877
CdS-Cu_2S heterojunction solar cell, lateral photovoltaic effect 2−83470
CdS-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
CdSe, excitonic luminesc. spectra, surface elec. field effect 2−82919
CdSe-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
CdTe, epitaxial growth on PbTe, by close-spaced technique 2−88001
Cu_2O-Cu solar cells, grown by anodic oxidation, photovoltaic effects 2−88460
$Cu_6PS_5Br(I)$ argyrodite-type ionic conductors, bulk photovoltaic and photocond. effects 2−104424
Cu_2S/CdS sprayed solar cells photovoltaic performance 2−78221
n-$Ga_xAl_{1-x}Sb$−p-GaSb heterojunction, elec. and photoelec. characterization 2−98732
p-GaAs, linear photogalvanic effect 2−110388
GaAs, photogalvanic effects and photon drag 2−110391
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
GaAs-Al struct., exciton dissociation and annihilation, photo-EMF study 2−82250
GaSe single crystals, surface photo-EMF at high excitation levels 2−61522
Ge, photovoltaic effect due to EM wave heating, expt. study *(Russian)* 2−77123
He-Ne laser line, linewidth and profile meas. method using optogalvanic spectroscopy 2−70542
HgCdTe, electronic props., MIS IR devices 2−87295
HgS, gyrotropic, linear and circular bulk photovoltaic effect 2−104417
In/trans-$(CH)_x$/Electrodag Schottky barrier solar cells, photovoltaic and rectification props. 2−78216
n-InAs:Cd, ion implanted, photo-EMF, spectral response 2−92697
$In_xGa_{1-x}P$ LPE layer, N conc. and In content, correlation 2−71819
InP MIS Schottky barrier solar cells, instability obs. 2−88447
InSe single crystals, surface photo-EMF at high excitation levels 2−61522
α-$LiIO_3$, bulk photovoltaic and photorefractive effects 2−110387
α-$LiIO_3$, doped, bulk photovoltaic effect and optically induced change of spontaneous polarisation 2−92694
$LiNbO_3$, photorefraction and photogalvanic effect under high intensities 2−110796
$LiNbO_3$:Fe, ferroelectric, anomalous current due to electron drag, photovoltaic effects 2−72027
$LiNbO_3$:Fe crystals, anomalous effect of drag of photovoltaic electrons by light 2−110386
$LiTaO_3$, depend. of photorefraction on temp. and light intensity *(Russian)* 2−61849
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
$Pb_{1-x}Mn_xS$ solid solns., energy band gap temp. and composition depend., photovoltaic effect meas. 2−110450
Pd/a-Si:H Schottky barriers, heat treatment effect 2−77183
Si, CC amorphous p-i-n junction struct., photovoltaic effects, photo-carrier generation and recombination 2−82442
Si MOS struct., fast surface states, photovoltage spectra study 2−56697
p-Si, minority carrier diffusion length meas., computer modelling of surface photovoltage method 2−72007
Si p-n photovoltaic junction formation by pulse implantation doping 2−115259
Si, photovoltaic effect due to EM wave heating, expt. study *(Russian)* 2−77123
n-Si, transverse photovoltaic effect, intervalley relax. time 2−115819
Si:B p-n junction, BN non-cond. layer, photovoltaic obs. 2−77164
Si:H, amorphous, hole collection length, surface photovoltage study using liq. Schottky barrier 2−56631
Si:H, amorphous, undoped, diffusion of holes 2−92651
Si-SiO_2 MOS struct., interface charge inhomogeneities, surface photovoltage meas. 2−115899
SiC films, formation by ion implantation of Si cryst. and elec., photovoltaic and struct. props. *(French)* 2−72089
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
ZnP_2, monoclinic, photovoltaic effect 2−87322
photovoltaic effects continued
Zn_3P_2, band structure model of absorpt. coeff. and photovoltaic props. 2−82222
ZnS, peizoelec., effect of mag. field on photovoltaic current and photocurrent 2−110385
photovoltaic generators, solar *see photovoltaic cells; solar cells*
phthalocyanines *see organic compounds*
physical chemistry
see also chemical analysis; chemical equilibrium; chemical reactions; chemical structure; crystal chemistry; electrochemistry; nuclear chemistry; pH; photochemistry; radiation chemistry; radiochemistry; solvated electrons; surface chemistry; thermochemistry
No entries
physical data, collections of *see collections of physical data*
physical instrumentation control
analyser for toxic chemicals detection 2−83537
astronomical observatory automation, appl. of microcomputers 2−106524
Auger electron spectroscopy system, electron gun control 2−111524
Auger scanning electron microscope, computer-controlled, program suite 2−64192
automated laser Doppler anemometer, aerodynamic expts. *(Russian)* 2−114937
chromatography (HPLC), with samples rapid separation 2−83428
compression testing at constant true strain rates, high speed control systems 2−72914
Helitran exhaust gas heater, automatic control circuit 2−79592
HPLC system control through detector monitoring 2−73022
laser Doppler anemometer, computer-controlled real-time meas. of intracell protoplasm flow *(Russian)* 2−117140
magnetron system, microprocessor-controlled, for reactive sputtering of optical films 2−57289
modular data control used for automation of research in physical optics *(Russian)* 2−60010
monochromators, digital control and display system 2−55311
monochromators, programmable output intensity controller 2−91032
multichannel polarimeter, TV guider and minicomputer system *(Japanese)* 2−117601
RATAN-600 radio telescope, radioastronomical adjustment of variable profile antenna 2−94596
Space Telescope high resolution UV spectrograph, on-board computer software 2−117593
spark counting system, modified automatic, for U ore eval. 2−75120
thermal analysis system, routine analysis and quality control appl. 2−74416
UV detector for liquid chromatography, with time-programmable variable wavelength 2−83422
^3He recovery system 2−108168
physical metallurgy *see metallurgy*
physical optics
bubbles, light scatt., Mie theory, physical optics approx. 2−60619
coherent approach to optical engineering 2−108993
dissipative structure 2−108786
distributed index expression by way of power series expansion 2−75523
electromagnetic waves scatt. from slightly rough random surfaces, depolarisation, extinction theorem 2−75494
energy splitting, Huygen's theory of light 2−55065
first-order optics, canonical operator representation, lossless systems 2−60009
laser beam propagation in strong turbulence, physical implications of extended Huygens-Fresnel principle 2−65170
modular data control used for automation of research in physical optics *(Russian)* 2−60010
multistatic far-field data, scatterer reconstruction 2−65132
rough periodic surface scatt., iterative corrections to Kirchhoff approx. 2−60025
wave theory of light and Isaac Newton 2−53478
physics
see also physics computing
astrophysics and physics, problem of special importance and interests 2−94974
basics in physics, secondary school teaching 2−68990
condensed matter physics, conf., Antwerp, Belgium (Apr. 1980) 2−101132
honours students conceptual difficulties in physics courses 2−84407
physics computing
see also computerised instrumentation; spectroscopy computing
accelerated nucleus beam monitoring, multichannel system based on ionisation pickup 2−108201
acoustic frequency response curves for normal modes in a shallow sea with a layered absorbing bottom 2−73592
trans-acrylyl chloride force fields and vibr., normal coord. treatment 2−80565
ADJUST, charged tracks momentum calc. in ANSI FORTRAN IV 2−102352
AES, microcomputerised data collection 2−84741
algebraic manipulation program, for elementary particle physics 2−54128
alloy, dislocation motion during ageing, particle distrib. influence, computer simulation *(Russian)* 2−91963
alloys, binary phases with α-Mn cryst. struct., computer prediction 2−76366
alloys, heat of formation for binary systems, program in BASIC 2−111506
alloys, motive force of diffusion and change in the free energy on the phase separation *(Japanese)* 2−56242
alloys, single-phase, numerical calcs. of diffusion 2−66276
alpha-decay, half-life, fit to semiempirical relationships, self-improving parameter program 2−64377
automatic processing system of meterological radar data in real time using the ASVT-M-3000 computer *(Russian)* 2−58174
axial symmetric cavities, nonsymmetric modes, PRUD code for calc. 2−113798
BASIC program for simple field calcs. for monomode optical waveguides 2−97170
bedded salt repository for spent nuclear fuel, near field salt temperatures 2−74814
brittle fracture, environmentally induced crack nucleation 2−105277
capabilities related to test sections, cryogenics, and computer-wind tunnels integration 2−95387
cellular automata models of particles 2−95698

physics computing continued
ceramics, phase diagrams, quasibinary and quasiternary, computer-based calc. 2−62101
chaotic motion onset in terms of generalized Langevin eqns. 2−58712
circulation by perfect noncompressible fluid round a Zukovski profile, resolution by digital calculator *(Croatian)* 2−65565
cluster-phonon model calc. program, NUCORE 2−64364
colouring curves, computer simulation using heterogeneous nucl. model 2−91960
composite materials, bending displacement, computer aided design *(Japanese)* 2−72770
composite materials, CAD, reliability concept *(Japanese)* 2−72647
computer control at Technical University of Dresden 2−85512
continuum process calc. program, using model pots., Breit-Pauli Hamiltonian, R-matrix 2−90431
convection dominated, finite element method for solving flow problems, upwinding technique 2−91456
cosmic ray ion chambers, digital recording system 2−117606
crack propagation, steady state, mol. dynamics simulation 2−92098
cryogenic temperature meas. and data processing system *(Russian)* 2−112909
crystal habit and atomic struct., correspondence, computer investigations 2−65909
crystallography, computer programs, Cambridge Crystallography Subroutine Library, review 2−65810
crystallography computer programs, array processor appl. 2−65798
crystallography computing 2−55866
cubic single cryst., integral photoelasticity, computer graphics study *(Russian)* 2−97380
Debye-Scherrer photograph indexing for orthorhombic cryst., algorithm and computer programme *(Chinese)* 2−76239
dedicated EPROM-based computer for distributed instrumentation control 2−59671
deep level Fourier spectroscopy, computer simulation 2−66479
deep state profiles calc. from transient capacitance data, computer simulation 2−87170
DEPOT−a program for the calculation of double folded potentials 2−64378
diamond anvil under stress, CAD study 2−112917
diamond structure crystals, lattice dynamics, deformable ion model, calc. program 2−66144
differential interference contrast microscopy bright point image, computer simulation 2−58899
diffraction gratings, ray tracing, sign convention on order numbers for computer program 2−55314
diffusion convection problems, computer modelling 2−91454
digital multichannel analyser-computer interface for use in physics laboratory 2−94964
digital US C-scan image construction using electronic ordered dither microprocessor-based techniques 2−62303
dimethylsulphite, conformational anal. IR obs. 2−75270
discharge in air, positive streamer between rod-plane electrodes calc. 2−103536
discrete, deterministic computer modelling 2−94989
dislocation mean free path calc. by computer simulations 2−71448
DTA, computerised extraction of calorimetric information *(Russian)* 2−79586
dynamical systems, computer studies 2−53490
eddy current computation using computer code EDDYNET 2−55030
EELS, impact scattering contrib., calc. program 2−93338
elastic-plastic problems, finite element soln. 2−81259
electrode and mag. pole struct., fringing field integrals calcs. 2−74565
electron atomic collision calculations, vector processing appls. 2−96728
electron beams, anal. in space charge limited conditions 2−65151
electron beams, space charge effect, computer study 2−114178
electron diffractograms, computer-aided reconstruction of image contrast 2−55816
electron impact, R-matrix angular integrals, calc. on CRAY-1 computer 2−96729
electron impact cross section calc. program, momentum transfer formalism 2−108717
electron lenses, improved programs for calc. optical props. 2−65150
electron micrographs, image reconstruction, EM computer program system 2−113076
electron micrographs Fourier transform data, interpolation in tilted-view 3-D reconstruction 2−71302
electron objective lenses, saturated asymmetrical, calc. of field distrib. and optical props. 2−65152
electronic tube development for streak camera system 2−74535
elliptical inclusions oriented in ⟨100⟩, ⟨110⟩ and ⟨111⟩ directions in cubic crystals, elastic energy calc. *(Chinese)* 2−61001
enhanced radiation weapon, protection calcs. from ANISN code 2−113749
experimental data acquisition and handling, system based on HP-1000 minicomputer and IEEE-488 standard 2−84598
eye sensitivity, spectral characts., math. modelling with aid of programmable calculator *(Czech)* 2−99968
FACSIMILE code for void swelling and creep calc. with vacancy loops 2−67468
far-IR interferometer, microprocessor controlled 2−74492
fast microprogrammable trigger processor, ESOP, operating experience 2−85509
fatigue crack growth data, approx. 2−116647
FCC metals, high energy recoils, computer simulation, cascade shapes and sizes 2−86712
FERMI-SURFACE perspective drawing display program 2−56424
Fermilab particle accelerator processing power, port selection system 2−96337
fibre composites, thermal conductivity, transverse effective, determ. 2−98360
fibre reinforced composite, brittle fracture dynamics, num. expt. and comput. algorithm 2−60475
field reversed mirror plasma, transport, numerical simulation code 2−65695
FIM, image simulation for arbitrary cryst. struct. and orientation 2−55817
finite bar, elastoplastic waves propagated in temp. gradient, computer simulation *(Japanese)* 2−70853
flat-plate solar collector thermal performance 2−62495
flat-plate solar collectors total surface solar irradiance optimisation and calc. at any tilt and azimuth 2−67840

physics computing continued
flow, boundary and free shear layers, Navier Stokes eqns., computation technique 2−65557
flow, low-speed, calcs., STEALTH computer code appls. 2−109267
flow, two-phase and two-dimensional problems, DUVAL computer code for numerical solutions 2−103204
flow problems, partial differential eqns., parallel struct. computer technique for soln. *(French)* 2−65614
flow velocity distribution meas. in horizontal circular pipe using laser Doppler velocimeter *(Japanese)* 2−114956
fluid dynamics, future prospects 2−109264
fluid mechanics, finite difference equations soln., reassessment 2−91376
fluid-structure interaction problems, computer implementation aspects 2−109645
FORTRAN program for the integral of three spherical harmonics 2−54745
Fresnel lens approximation, simple computer program in BASIC 2−75654
fringe-pattern analysis using Fourier-transform method, computer-based topography and interferometry appls. 2−58890
fusion material, ICFR, He interaction with displacement damage, rate theory applic., comput. method 2−85232
gamma-ray spectra, analysis program CAELCO, for nuclide identification, conc. calc. 2−57649
gas chromatographic integrator, microcomputer-based 2−73021
Gaussian beams, summation for high freq. wave field calc. 2−55066
geologic depositories for nuclear waste, media temp. from finite length line source superposition model 2−74815
glass, phase separated and stretched, anisotropy of second phase distrib. 2−57413
Grad-Fokker-Planck equations of collision moments 2−86382
grain boundaries, computer mol. dynamics study, migration, sliding and annihilation, 2D solid 2−103781
grain boundaries, computer molc. dynamics study, coupled sliding and migration, 3D simulation 2−103780
grazing-incidence mirror system, props. and performance 2−84762
grid transparency influence in ion-mobility meas., numerical simulation 2−103271
HCP crystal, {11$\bar{2}$1} twin boundaries struct., computer simulation 2−86682
heat transfer problems, artificial intelligence system called KNOWTRAN 2−109159
heavy-ion collisions, TDHF anal., computer calc. 2−96025
high energy physics, dual display system for multidimens. data anal. 2−54735
high level waste vitrification, computer thermal anal. for storage canisters, review 2−74823
HOLMES project for scanning and measuring HOBC bubble chamber holograms 2−108297
holograms, computer processing 2−108839
horizontally directed crystallisation, heat transfer processes *(Russian)* 2−67211
hybrid electron synchrotron laser, expt. study and computer simulation 2−55172
hybrid particle pushing/fluid approach to modelling X-ray deposition region 2−86375
III-V and II-VI compound phases, ternary systems calc. 2−62102
IMAGIC, interactive image anal. software system for electron micrographs 2−71301
impurity-vacancy dipoles in 2-D lattice, Monte Carlo simulation on aggregation 2−115278
incompressible flow, heat transfer, finite element computer anal. 2−55587
incompressible viscous flow, conforming mixed finite element methods 2−75919
integrated negative preparation system, frame count cueing using Apple computer 2−107424
intense pulsed neutron source, neutron irrad. facilities 2−102307
interference layers calc. using TI-59 calculator *(Czech)* 2−114411
interstitials and vacancies, recomb. cross section as function of vacancy conc. 2−65988
ion bombardment, near-surface composition changes, dynamic Monte Carlo simulation 2−109851
Ising models, computer simulation using Monte Carlo techniques 2−112832
laminate, materials design using programmable calculators and personal computers *(Japanese)* 2−78065
laminated, brittle strength calc., computer algorithm, stress conc. role 2−60474
laminated polymer structures, heat protective, optimum design 2−91221
laser absorption rate in low density foam target, obs. and computer calc. 2−90960
laser-irradiated plasma, ionisation threshold intensities, ionisation periods, calc. program 2−109447
lattice gauge theories, four-dimens., Monte Carlo simulation fast algorithm 2−64214
lattice gauge theory, Monte Carlo calcs., vectorisation for CYBER 205 computer 2−95590
LIMCAL, food chain model, rad. exposure predictions from rad. waste 2−113762
liquid metal-vapour interface struct., pseudoatom theory, computer simulation 2−115497
liquid mixture, nonconformal, computer simulation of behaviour 2−60850
lower hybrid heating, particle simulation, appl. to RF heating 2−76191
magnetic fields, transient, calcs. with TRIDIF 2−55019
magnetostatic problems, saturable media iterative algorithms 2−55016
magnetostatics, anisotropic nonlinear 3D problems, two scalar pot. finite element anal. 2−55009
magnetostatics, iterative algorithm for volume integral method 2−102680
martensitic transformations, dynamic effects, plate impingement at an obstacle *(Czech)* 2−116440
mathematical physics transcendental eqns. iterative solns. with programmable pocket calculator 2−84412
matrix tridiagonalisation, rel. to recursion method 2−110224
measuring stage, for track chamber picture meas., microprocessor control 2−85502
metal silicide formation, ^{31}Si radioactive marker studies, computer simulation 2−98334
metal silicide formation, radioactive ^{31}Si marker studies, computer simulation 2−86940
metals, FCC, surface free energy anisotropy, computer model *(Russian)* 2−87007

physics computing continued
metals, flow localisation in uniaxial tension, computer simulation 2−109884
metalworking processes, math. modelling 2−105258
microfilming, electrophotographic microimage quality evaluation using a computer *(Russian)* 2−74552
microprocessors and appls., conf., Stara Lesna, Czechoslovakia (May 1981) 2−84364
modular data control used for automation of research in physical optics *(Russian)* 2−60010
molecular physics, large-scale computer systems 2−96425
molecular structure, with probability ellipsoids of atomic thermal vibrs., graphical representation, ELLIDS program 2−55811
molecule-surface impact, energy accommodation coeff., hard-cube model, multiple collisions role 2−99262
molecules, computer-assisted enumeration of NMR signals 2−90577
morphological changes in equiaxed grain structures studied by computer simulation *(Japanese)* 2−55875
MORSE photon and neutron transport code, revised version 2−107929
MP Tandem accelerator operation, computer aid 2−85410
MSXALPHA program, adaptation ACQI for numerical atomic orbitals data 2−54767
MSXALPHA program, modification to accommodate twenty-six asymmetry point groups 2−54768
MTF calculation with HP-85, HP-9845 computers 2−114200
multi-slice calculations using an array processor, for electron diffr. crystallography 2−71294
multichannel scanning defectometric systems, complex information processing using computers 2−93741
multilayer interference filters, layer-by-layer computation of Fresnel coeffs. *(Ukrainian)* 2−102909
multimicroprocessor system, high-energy physics expt. appls. 2−85513
multiple flux quantum transition, analogue computer simulation, rel. to analytical approach 2−77240
multiprocessor, FAMP, for high-energy physics appl. 2−85510
multiquark spectra, calc. using algebraic program in SCHOONSCHIP 2−107628
National Synchrotron light source, data acquisition and control system 2−59672
neutron beam instruments, control and data acquisition 2−59674
Newtonian liquids, viscosity temp. depend., BASIC computer calcs. *(German)* 2−71693
NIMROD proton accelerator, neutron transmission calc. through access way using MORSE code 2−113581
nonhomogeneous high conc. depth distrib. determ. using elastic backscatt. 2−77671
nonlinear oscillators self-synchronisation in presence of fluctuations 2−74330
nuclear structure, cluster-phonon model calc. program, NUCORE 2−64364
numerical modelling in diffusion convection, conference, Sunderland, England (May 1981) 2−89466
optical fibre backscatter signature simulations, computer-generated 2−95447
optical multilayer coating system numerical design, refr. index as variable 2−70657
optical multilayer system performance analysis using HP 41CV calculator 2−109005
optical system parameters, computer use for tolerances calc. 2−114404
organic molecular crystals, static lattice potential energy minimisations for defects, computational approaches 2−76426
orientation relationships, calc. with programmable pocket calculator 2−60911
particle accelerator cavity resonator, RF EM field, finite element method calcs. 2−85457
particle accelerators, computerised data acquisition and monitoring system 2−108327
particle beams, space charge forces, finite element anal., PE2D and TOSCA computer programs 2−55055
phase diagrams, ternary, computer calc. *(Korean)* 2−67289
photoemission, Monte Carlo simulation, 0.1 to 3 MeV 2−62044
photographic film marking system, computer-controlled *(Russian)* 2−74555
photomultiplier, square tube type S83003E, photocathode response uniformity 2−75112
plane intersections of 3D boundary element mesh, stress contour plotting, PP3D-COUPE program 2−101168
plasma MHD stability codes, vector processing efficiency on FACOM 230-75 APU 2−97721
plastic detectors, automatic track meas., microprocessor based picture anal. 2−64840
plastic flow, low temp. instability, computer simulation 2−56068
plastics, long static loading behaviour, computer aided data acqu. and eval. *(German)* 2−62334
plate weakened by two elliptical holes with parallel axes, stress state 2−91250
plates, clamped skew sandwich, finite deflection analysis 2−114676
POKER-CAMP, program for calc. of detector responses and phantom organ doses in γ-fields 2−59670
polarisation resistance data anal. by computer program, POLCURR 2−62241
positron lifetime spectra in rare gas, calc. program 2−90715
powder and pressed pellet pore morphology charact., computer program 2−88019
pROFILE: a code for evaluating line profile shapes for optically thick expanding plasmas 2−65756
protein crystallography, RESTRAIN, restrained least squares refinement program 2−68207
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
Pyrex borosilicate glass, time depend. erosion by glass beans, computer simulation 2−67552
quantum chemistry computation, CRAY-1 application 2−96439
rare earth doped alkaline earth fluorides, point defect modelling 2−103757
relativistic heavy ion fragments interaction cross section meas. using plastic track detectors 2−64424
rigid ions dynamic simulation in liq. and solids using Ewald sum, MDIONS program 2−65826
rigid ions dynamic simulation in liq. and solids using Ewald sum, MDIONS program 2−65827

physics computing continued
RIKEN SCC, sector magnet trim coils, model test *(Japanese)* 2−64716
RIKEN SCC, sector magnet trim coils configurations, current optimisation *(Japanese)* 2−64715
RIKEN SSC, sector magnet design, pole final design *(Japanese)* 2−64714
RIKEN SSC, sector magnet design, TRIM code *(Japanese)* 2−64713
RIKEN SSC, sector magnet structural anal. by finite element method *(Japanese)* 2−64717
RIKEN SSC beam orbit calc. programs, ACCEL, INJECT, INJHARM, EXTRACT, EXTHARM *(Japanese)* 2−64719
RIKEN SSC beam orbit calc. programs, EQUIOT and ACCELP *(Japanese)* 2−64718
Rydberg series, spectrum anal. from MQDT, computer program 2−64905
Schmidt corrector plates, computer program for curve calc. 2−75653
Schrodinger eqn. study program 2−107072
SEM, channelling patterns, computer estimation 2−115112
semiconductor film growth and doping, computer simulation 2−66390
semitransparent materials, numerical method for computing radiation-cond. heat transfer problems 2−114614
simulation, universal computer appl. 2−95056
sintering by volume diffusion, dynamic computer simulation 2−88021
SLACINPT - A FORTRAN program that generates boundary data for the SLAC gun code 2−108328
Snell's law of refraction, appl. to light microscopy 2−58898
soft disk systems, melting, computer simulation 2−56152
sound transmission class calc. 2−60302
spherical atomic clusters, geometric struct., computer algorithm 2−80859
spherical harmonies coupling calcs. using YLM-COUPLING program 2−63833
spinning acoustic mode propag. in partially choked converging ducts, computer model 2−70727
squaric acid, layered antiferroelec., interacting one dimensional Ising spin chain model 2−77457
stability problems, rods and shells, charcts. of discrete schemes 2−81266
STANSOL program for solenoid mechanical and struct. props. anal. 2−59525
static tensile testing system, automated 2−67702
steel, AE monitoring system for crack growth *(French)* 2−62371
steel, carbide particles, diffusion-controlled precip. and dissoln., computer simulations 2−105157
steel, dynamic fracture parameter determ. 2−105291
steel structures, limit analysis of rigid-plastic frames, shear force influence 2−75863
steels, low-alloy, dual-phase, computer simulations of austenite/ferrite diffusional transformations 2−72692
STEM, energy filtered images, simultaneous collection and processing 2−107470
STEM, image processing 2−113071
STEM, microcomputer control 2−107467
STEM system, computer control, EELS acquisition 2−107466
STP Fortran library of subroutines of water props. 2−96098
STP Fortran library routines for steam table props. 2−96099
straight through eddy current transducer signals from cracks, cross-section shape effects 2−62362
strange attractor dimensionality, box-counting algorithm impracticality 2−79480
stress-strain behaviour, α-β-Ti-Mn alloys, finite element method calcs. 2−77884
stress-strain behaviour, α-β-Ti-Mn alloys, finite element method calcs. 2−77885
structure functions, QCD evolution, heavy quark effects, Monte Carlo calc. program 2−64327
SU(4) lattice gauge theory, Monte Carlo algorithm vectorization 2−53927
symmetry operations derivation from space group symbols, computer program 2−97969
synchrotron radiation emission in plasma, two dimens. EM relativistic simulation code 2−103436
tandem injector, beam bunching, calc. program 2−64729
TEM, conventional, nonlinear high resolution computer image processing 2−113073
TEM and STEM, computer control for X-ray and energy loss line profiles and images 2−107472
ternary system, Kohler method rel. to subregular model 2−62103
texture functions, three-dimens., method for determ. 2−60910
texture of FCC metals, graphic kinematics using computer *(French)* 2−78055
thermal variables, equipment for meas. *(Hungarian)* 2−79574
TLDs, ^{6}LiF, estimation of zero dose reading build up due to neutron prod. ^{3}He, computer programme 2−64689
Toda lattice, impurity localised vibrational mode, computer simulations 2−112834
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
TRINUC program for calc. emmission parameters of light particles following pion absorption 2−96053
two-electron repulsion integrals, calc. from supermatrix elements, FORTRAN program 2−108341
two-phase flow in horizontal channels, anal. using SGAA III code user's guide 2−71021
ultrahigh-energy EM cascades development in water and Pb including LPM effect 2−73809
US transducer, broad band, simple model for computing US beam behaviour 2−109153
vectorizable eigenvalue solver for sparse matrices 2−53481
vibration elastoviscosimeter based on a micro-controller *(Russian)* 2−114955
viscous diffusion simulation for extension of surface vorticity method to boundary layer and separated flows 2−70911
wave equation, computability from initial data 2−95059
welded joint, US inspection with data processing by minicomputer 2−93739
X-ray absorption near edge structure and calc. using XANES program 2−67148
X-ray anomalous dispersion technique, partial struct. factors determ., computer simulation 2−81633
X-ray crystal struct., interactive dynamic molecular display 2−97947
X-ray crystallography, spherically symm. density distrib., recovery from its self-convolution, computer program 2−65805
X-ray diffractometry, cryst. orientation matrix coeffs. and lattice consts., computer program 2−115098

physics computing continued
X-ray phase analysis of polycrystalline mixtures 2−67688
X-ray powder diffr., probability scoring technique for phase identification 2−115097
X-ray powder diffractometry, phase anal., minicomputer algorithm 2−115096
X-ray powder indexing method based on successive dichotomies *(French)* 2−115099
yield loci of single crystals with definite orientation, computer supported description *(German)* 2−111255
zincblende structure crystals, lattice dynamics, deformable ion model, calc. program 2−66144
Zircaloy-4, oxidation kinetics, high temp., simulation of parabolic and linear behaviour 2−111370
x-Zr, dislocation motion simulation in an internal stress in creep 2−81791
Al alloy 2024-T3, perforated sheets, reinforcement by thermal shock with laser beams 2−116452
AlF_3-CaF_2-LiF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
AlF_3-CaF_2-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
Ar, accelerated projectile fragmentation, computerised track anal. 2−64835
Au, ion bombarded, damage profile, electron microscopy and computer simulation study 2−76531
$Bi_2Ge_3O_3$, computer controlled growth method *(Japanese)* 2−105055
$Bi_4Ge_3O_{12}$ crystal and photomultiplier tube optical coupling, Monte Carlo calcs. 2−75110
CO chemical laser produced by supersonically mixing CS-S-O_2, computer model 2−90881
CaF_2-LiF-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
CaO-SiO_2, thermodynamic treatments 2−61167
Co-Cr(Mn), computer calc. of phase diagram *(Japanese)* 2−105120
Co-Cu-Mn(Ni), computer calc. of phase diagrams *(Japanese)* 2−105121
Cu, binary collision simulations of high energy displacement cascades 2−103868
Cu vapour laser development, computer modelling 2−85999
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
γ-Fe vacancy pore-point defect interaction, computer modelling 2−92024
α-Fe:He, He precipitation at vacancies, computer simulation 2−86706
Fe-C, ferrite, C cluster formation, critical cluster size, computer calc. 2−67340
Fe-Si, electrotechnical steel type 2011, mag. induction anisotropy determ. 2−92898
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., field induced 'exchange-flips' 2−66811
p-GaAs, inhomogenously doped, IR plasma reflectivity, computer calc. 2−61885
GdCo amorphous bubble film, FMR spectra, angular depend. 2−72354
GdFe amorphous bubble film, FMR spectra, angular depend. 2−72354
Ge high-purity coaxial detectors, pulse shape and risetime distrib. calc. 2−70055
H atom, magnetic field effect, energy levels, oscillator strengths, calc. on CRAY-1 computer 2−96483
InAs-GaSb superlattices, ion dechannelling mechanism 2−66082
$LiNbO_3$, computer controlled growth method *(Japanese)* 2−105055
NaCl-$CaCl_2$-$SrCl_2$, molten, thermodynamic props. and phase diagram, calc. using computer *(Chinese)* 2−105129
NaI scintillation counter, spectrum anal. program 2−54734
NbC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
Nd:YAG laser cavity, ray tracing program, flashlamp pumping uniformity rel. to component damage 2−55215
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
Si, laser annealing by nanosecond pulses, temp. rise and carrier conc., computer model 2−86723
p-Si, minority carrier diffusion length meas., computer modelling of surface photovoltage method 2−72007
Si, polycrystalline, grain growth mechanisms 2−115424
Si, radiation damaged self-interstitial struct., double alignment channelling study 2−76433
Si:B, bulk and SOS struct., ion implanted, doping profile, thermal distribution, computer simulation 2−66033
SiO film, step coverage growth, computer calc. 2−82176
TiC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
W surface (110), low energy K^+ ion scatt., struct. effects 2−99264
YAG, computer controlled growth method *(Japanese)* 2−105055

physics fundamentals
see also classical field theory; complementarity; cosmology; elementary particles; fundamental law tests; mechanics; quantum field theory; quantum theory; relativity; thermodynamics; units (measurement)
aether, theories, historical review 2−58606
causality principle and non-equilibrium thermodynamics 2−63949
coherent spectroscopy on single atomic system at rest in free space 2−65111
Dirac large numbers hypothesis, cosmological implications 2−106977
gravothermal aspects of evolution of stars and Universe, theory 2−100726
inverse problems theory, ill-posedness, regularisation and no. of degrees of freedom 2−75509
large number hypothesis, rel. to spin, circulation and ang. momenta 2−106976
laser cooled-stored ions, dilute population, model for computing temp. 2−65112
lore of large numbers, historical and background to Anthropic Principle 2−63793
Lorentz group, causality, Hermitian matrix proof 2−58608
nonspacelike curves, length, causality conditions 2−53603
quantum theory, book 2−68975
second law of thermodynamics 2−107280
spontaneous generation from quantum field, rel. to Second Law of Thermodynamics 2−53629
stable lasers and optical freq. testing standards 2−69127
strong equivalence principle violation by atomic and gravit. clocks 2−69058
symmetry and spontaneous symm. breaking in physical states, review 2−64243
United States Air Force physics course in mastery mode 2−94941

physiological models
see also brain models; neurophysiology; physiology
accommodative mechanism of human eye, math. model, mech. considerations 2−99962
acetabular components in total hip arthroplasty, axisymmetric model 2−105725
alveolar-capillary diffusion and ventilation-perfusion inhomogeneity, math. model 2−67927
alveolar-capillary membrane, modelling of mass transfer *(Russian)* 2−62568
Aplysia photosensitive neuron, simulation by physically-based model 2−83563
apoplectic stroke, mathematical model 2−83541
arterial haemodynamics including bifurcation influence, math. model, normal pulse pattern prediction 2−57835
arterial haemodynamics including biufurcation influence, comparison with flow pattern noninvasive meas. 2−57836
arterial modelling with the z-transform 2−88488
arteries, posterior communicating, math. model of flow 2−105735
auditory analyser, steady signal transform., functional model 2−100002
auditory-nerve fibres, adaptation, revised model 2−111692
bacteriorhodopsin photocycle, procedure for testing kinetic models 2−73196
basilar membrane, nonlinear model, 2-tone interactions 2−68026
basilar membrane, two-tone suppression response of nonlinear model 2−57830
binocular vision, neural models of brightness perception and retinal rivalry 2−73239
biomechanical predictive model for postural attitude and strength capabilities of Indian workers 2−100016
blood and othr particulate suspensions, flow through narrow tubes, 3-layer semi-empirical model 2−105747
blood circulation system transients, computer simulation 2−100022
blood flow, regional, during physical stress, regulation mechanism and modelling *(Russian)* 2−62658
bone, functional adaptation mechanism, analytical model 2−62663
bone models for use in radiotherapy dosimetry 2−68148
bones, long, modelling and struct. anal. 2−88571
breathing mechanics, non-linear model, appl. to design and use of ventilators 2−117136
bronchial tree model, canine, steady press-flow relationship 2−78375
bronchial tree model, human, steady expiratory flow-press. relationship 2−105750
BVP axon model excitation pattern *(Japanese)* 2−94019
cancellous bone from proximal tibial epiphysis, props. and anisotropic model 2−88577
cardiac echo-interval shortening with increasing prematurity, computer model 2−88496
cardiac Purkinje fibre action pot., simulation of repolarisation events 2−88528
cardiovacular system, pulsatile mech. and math. model 2−117169
carotid bifurcation model, human, laser Doppler anemometer meas. of steady flow 2−105729
carotid bifurcation model, human, visualisation of steady flow 2−105728
cells, CHO, Cd transport and distrib. model 2−73214
cellular freezing damage, unilamellar liposomes as a model system 2−73210
circular cylinder, near-field absorpt. from elec. and mag. line sources, biological heating appl. 2−100053
circulatory system, human, digital computer model, aerial combat appl. 2−116962
circulatory system, modular, mock, programmable electronic control unit 2−100188
cochlea, dynamical motion, mathematical hydroelastic model 2−68022
collagen fibres, viscoelastic model 2−105718
colour vision, merits of model making, review 2−99971
colour vision, model for colour appearance 2−99985
cone cell model, hardware, operational characts. 2−83565
cones, general model for adaptation 2−111672
cytokinesis in animal cells, viscoelastic model 2−57793
cytoplasm, primitive motile system, information-thermodynamical model 2−99927
death dynamics in irrad. mouse populations, math. models *(Russian)* 2−88491
ear, outer hair cell, hydrodynamic model 2−73267
ECG signal model with physically significant parameters 2−94020
electro-osmotic stability in animal cells, unified model of morphologically active membrane coat 2−99925
EM dosimetry in a sitting rhesus model at 225 MHz, thermal meas. 2−111798
EMG signals in normal and pathological conditions, simulation model for study 2−67989
EMG to force processing, elec. analogue of Hill muscle model 2−62854
EMG to force processing, estimation of model parameters for human triceps surae muscle 2−62584
EMG to force processing, Hill muscle model parameters estimation 2−62583
EMG-level muscle model for fast arm movement to target 2−94090
emphysema, canine model, correl. between lung struct. and function 2−78364
expiratory flow, use of computational model to simulate airway abnormality effects 2−88489
eye sensitivity, spectral characts., math. modelling with aid of programmable calculator *(Czech)* 2−99968
finger joint force predictions rel. to joint replacement design 2−100034
finite element analysis of temperature distribution in human torso 2−99902
flexible pipes, finite-element simulation of pulsatile flow, arterial disease appl. 2−105636
foot, human, biokinematical model, biplanar radiographs of bone locations 2−62671
gait, human, simulation with aid of simple mech. model 2−105733
gait, human swing leg motion, anal. and synthesis, clinical appls. 2−88563
hair cell-primary auditory fibre complex model 2−73253
head, human, fluid-filled spheroidal and spherical shells as models, mathematical modelling techniques appl. 2−116942
head, human, local deforms. dynamics on impact 2−116966
hearing process, mathematical modelling, conf., Troy, NY, USA (July 1980) 2−89456

physiological models continued
heart, mathematical model of contractile activity and energy metabolism *(Russian)* 2−62546
heart, modelling of time and amplitude characteristics of electric field *(Russian)* 2−62588
heat flow in human torso, 2D time dependent model 2−93993
hip musculature, D biomech. model 2−62656
hyperthermia, whole-body, simulations of various modes in normal subjects 2−93980
ICRP Task Group Lung Model for radioisotope pollution dosimetry, modifications rel. to age-dependence 2−117088
insect eye, mechanical model 2−88712
intra-aortic balloon pumping, influence of vascular parameters on effectiveness, model study 2−117138
joint position sense, afferent and efferent components, interpretation of kinaesthetic illusion 2−83579
laser biostimulation, hypothetical physical model 2−83600
left ventricular contraction assessment, fluid dynamic model 2−100039
leg dynamics in torsion, human, identification 2−105721
locomotion, human, dynamics and coordination of torso motions, math. model 2−62654
lung, extravascular pulmonary space, longitudinal diffusion rel. to parameter estimates 2−83594
lung, glass tube models, longitudinal gas mixing, effects of gravity and branching 2−111719
lung, human, elasticity model 2−78360
lung, radiation damage pathogenesis, kinetic model, rel. to essential cells killing 2−117003
lung mass, determ. from flow-volume loop, weightlessness effect, astronaut appl. 2−62785
lymphocytes, human, math. model resolving X-ray survival curves into 6 components 2−68059
lymphopoiesis, math. model for postirrad. dynamics study *(Russian)* 2−116993
membranes, linear network representation of multistate models of transport 2−73202
modelling biological processes in active semiconducting medium 2−105635
movement modelling, human, computerised simulation of whole body dynamics 2−116947
muscle, cardiac, contraction model 2−116867
muscle contraction for mechanical transients, sliding-filament cross-bridge ensemble model 2−68037
muscle control, steric blocking model, rel. to myosin S-1 X-ray scatt. 2−105656
muscle fibres, single, intersarcomere dynamics during fixed-end contractions, quantitative model 2−111715
muscle force wavevorm study using population stochastic model of skeletal muscle 2−111650
muscle mechanical output, myoelec. signal as quantitative meas. 2−67991
myocardial cells, synchronisation model of beating phenomena 2−73211
nerve active membranes, elec. network modelling 2−105688
nerve pulse propagation model 2−73224
nervous system, microcomputer network in living organisms *(Hungarian)* 2−94016
nervous system serving mechanoreceptors, structure determ. 2−68029
neuromusculoskeletal control system models, practical activation and retention of locomotion constraints 2−88492
neuron membrane models, brief review 2−105692
neurosynaptic junction, impulse response anal., electrical cct. model 2−94021
ocular accommodation and vergence, control theory approach 2−116911
oculomotor system as a model for the study of neuronal interaction processes 2−57814
olfaction system of mammals, neurone pathways, electronic nose expts. 2−116939
optimal association with partly missing key vectors 2−111652
oscillators intercoupled via pure time delays, mode anal. 2−83538
perception processes, neurobionic model *(Russian)* 2−62608
peristaltic transport of a 2-layered model of physiological fluid 2−105724
photopic visual threshold performance, conceptual model 2−57816
photosynthesis, modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
postirradiation cell recovery models and effective dose diminution principle *(Russian)* 2−105775
postural control loop, math. modelling and simulation 2−105632
posturography, appl. of math. models 2−83674
power-line electric field interaction with an idealised human body 2−117120
primate retina, model for temporal organisation of X- and T-type receptive fields 2−99947
prolate spheroidal models exposed to near fields of elec. small apertures, absorpt. characts. 2−100042
pulmonary airway dynamic system, nonlinearity 2−100035
pulmonary mechanics and gas conc. dynamics, combination in a nonlinear model 2−100024
radioisotope transport in the human intestine, math. model, dosimetric considerations *(Russian)* 2−88490
reaction kinetics, deterministic and stochastic models and applications *(Hungarian)* 2−105439
respiratory mechanical model, 5-element, parameter estimates 2−78357
retina, electronic model based on freq. characts. of vision *(Japanese)* 2−62606
rod out segments, modelling birefringence change correlated with metarhodopsin II formation 2−94036
saccadic eye movements, multipulse control 2−57813
scotopic ERG, simulation with electronic model 2−99959
seated buttock, model expt. of stress distrib. 2−105737
serve impulse model using 2 first-order differential eqns. 2−62547
single motor unit, linear stochastic model 2−111649
skeletal muscle function, mathematical model 2−57770
skin, port-wine stain model, temp. behaviour during Ar laser coagulation 2−111628
spatially localised interactive neural populations, stability and dynamics of excitatory sets 2−83556
spinal rotation in Friedreich's ataxia, projected surface area index influence 2−62673
spine, stress distrib. model, 3D surgical simulation 2−116959
spontaneous breathing, linear modelling of ventilatory mechanics 2−73273
subcellular macromolecular arrays, model, periodic struct. anal. in STEM 2−78507
thermodynamic model for the transport and exchange of bodies dissolved in blood *(French)* 2−73182
tissue bending and shearing deform. anal. 2−105739
trabecular bone, porous foam model, loading 2−62548
tympanic membrane of human auditory system, transfer characts., elec. modelling 2−100001
upper extremity, quantitative kinematic linkage model 2−62672
ventricular arrhythmias, computer simulation: ventricular bigeminy 2−88495
ventricular contraction, models based on time-varying elastance, review 2−94093
ventricular myocardial action pot., simulation using math. model 2−88529
vertebrate retina response anal. 2−94026
viscoelastic behaviour, model for biological materials 2−100030
visual motion blur restoration, neural mechanism 2−68005
visual system, model of early stages, transformations in peripheral field 2−94027
weight-lifting motion, cyclic, model simulating human performance 2−62674
^{241}Am metabolism in beagles and humans 2−73379
O_2 transport in skeletal muscle 2−116899

physiological optics *see vision*

physiology
see also blood; haemodynamics; hearing; neurophysiology; physiological models; speech; vision
anuran auditory nerve, differential patterns of physiological masking 2−73251
astronaut motor functions, pathophysiology in prolonged manned space flights 2−62790
auditory brainstem response binaural interactions, stimulus level and auditory track asymmetry 2−73260
binaural interaction in auditory brainstem responses: theoretical and methodological considerations 2−73259
cardiovascular physiology in space, current views and future programs 2−62783
diving physiology implications on bubble nucleation in aq. media 2−55637
electric shocks, scientific and clinical aspects, human body physiology *(German)* 2−94012
hypogravity, physiological responses, effect of physical fitness and training 2−62784
manned space flights, overview of endocrine and metabolic changes 2−62786
Skylab flights, struct. and functional changes in man accompanying weightlessness 2−105844
zero gravity simulation expts., human adaptation 2−105843

pi mesons *see pions*

pick-up reactions
nonlocal separable bound-state Kernels in finite-range DWBA 2−113452
pion absorption probability by α-cluster in nuclei 2−95981
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
spectroscopic sum rules, spin dependent, for two-nucleon transfer 2−107751
(p,d), intermediate energy, stripping and pickup reactions, analytic eikonal model 2−85051
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
^{2}H(n,2n), three-body forces and neutron-neutron effective-range parameters 2−64358
^{193}Ir(d,^{3}He), 40 MeV, ^{192}Os levels, spectroscopic factors, DWBA anal., supersymmetric coupling test 2−113366
^{A}Li(p,dd), 670 MeV, A=6, 7, quasi-free pickup, cross sections, reaction mech. 2−113453
^{23}Mg(p,d), 100 MeV, effect of d breakup on pick-up cross section 2−59349
^{A}Mo(^{6}Li,^{8}B), A=92, 94, 96, 98, 100, 90 MeV, two-proton pick-up reactions 2−54422
^{14}Mo(^{14}C, ^{16}O), A=92, 94, 96, 98, 100, 71 MeV, Zr 0^{+} state population 2−107894
^{17}O(^{3}He,α)^{16}O, analysing power and cross section meas. 2−80023
^{208}Pb (^{3}He, α)^{207}Pb, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^{+} transition 2−69662
^{154}Sm(d, ^{6}Li), 33 MeV, ^{150}Nd α-cluster states, rot. bands 2−107729
^{116}Sn(^{3}He, α)^{115}Sn, 283 MeV, neutron pick-up cross section, deep-lying hole strength 2−101903
^{88}Sr(^{12}C,^{13}C), pickup, 80 MeV, ^{12}C 2^{+} state spin alignment, γ-decay 2−69528
^{A}Zr(^{6}Li,^{8}B), A=90, 92, 94, 90 MeV, two-proton pick-up reactions 2−54422

pick-up tubes, television *see television camera tubes*

pick-ups
artery contour transducer with compliant fingers and semiconductor pick-ups 2−62825

pickups *see pick-ups*

pictorial bandwidth compression *see bandwidth compression*

picture processing
see also computerised picture processing; pattern recognition
aerial photography system synthesis *(Russian)* 2−74546
airborne video image processing 2−63131
aromatic hydrocarbons, image interpretation by computer simulation 2−76260
arterial structures, time subtraction digital fluoroscopy with a dual memory system 2−83634
atmospheric convective cell structures revealed by Mie laser radar obs., image data processing 2−112149
biological specimens, EM image averaging, limits imposed by imperfect crystallinity 2−78518
biomedical sciences, optics appls., conf., Graz, Austria (Sept. 1981) 2−107021
closed contour extraction application to meteorological pictures 2−88975
colour image retrieval from coherent speckles by white-light processing 2−90821
colour image retrieval from incoherent speckles with white light processing 2−102737
colour information of images obtained with drum processor 2−65173
colour photographic image deblurring using white-light processing technique 2−108808
digital image intensity surfaces, topographic classification 2−117512

picture processing continued
digital image processing, tutorial review 2−80906
digital image restoration, information content improvement *(Spanish)* 2−65176
digital radiography and other imaging techniques, developments 2−100094
domain shift operations on fuzzy sets 2−80907
electron microscope, imaging process, electron-optical parameters of high resolution instruments 2−53897
electronic image processing device, continuously selectable 2D bipolar filter functions 2−94188
feature extraction, appl. of bounded variation quantity 2−63133
geophysics, appl. to gravity and topography 2−94520
gestalt-guided heuristic boundary follower for X-ray images of lung nodules 2−73345
image analysis method of particle size distribution meas. *(Japanese)* 2−63979
image information compression, for electron images 2−71303
image reconstruction for unknown smooth defocusing, theory 2−108822
image sampling, reconstruction, and the effect of sample-scene phasing 2−108797
inverse filters, holographically realised, for image processing 2−65181
IR and microwave radiometry, statistical modeling of scene variability 2−112980
IR imaging, freq.-contrast reduction of luminescent screens *(Russian)* 2−55350
IR imaging of surface current distribution 2−112979
IR pushbroom imagery acquisition and processing 2−117475
lens-shutter automatic focusing camera rangefinder system simulations 2−91027
medical imaging, optical instrumentation appl., conf., San Francisco, CA, USA (March 1981) 2−94888
Meteosat-1 radiometer response adjustment by ground processing 2−68590
Metosat-1 imagery, navigation and deformation modelling 2−68506
microdensitometer, scanning, performance evaluation, digitisation of electron micrographs 2−112950
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
noisy image optimal restoration for human observer 2−68020
optimum nonlinear contrast statistical image convertor, efficiency evaluation 2−108820
photometric device in Skan-2 system *(Russian)* 2−79641
polarised plane EM wave diffraction by phase holograms in coupled-wave approx. 2−108833
real-time image subtraction using complementary photographic diffusers 2−102724
reality sensation estimation in picture patterns construction *(Japanese)* 2−105704
remote sensing multispectral and multitemporal image processing 2−58053
resolution enhancement of two-dimensional medical sonograms 2−62711
review of optics developments 2−55059
scanner display assessment for scanner performance quality control, wedge-shaped phantom evaluation 2−94191
STEM, image processing 2−113071
STEM image processing for addition of surface information 2−53903
synthetic aperture tomographic imaging for microwave diagnostics 2−80915
tactile artificial sight: segmentation of images for scene simplification 2−57928
thermography instruments, supplying calibrated temp. images *(German)* 2−69251
tomography, posedness of band-limited image-extension problem 2−96851
tutorial short courses at nuclear science conf., San Francisco, CA, USA (Oct. 1981) 2−79264
visual image structure description in terms of light and dark blob ordered hierarchy 2−68011
Weigert effect, use for optical data processing *(Dutch)* 2−58924
X-ray image quality improvement using coherent optical spatial filtration 2−62742

picture transmission *see facsimile*

piecewise-linear techniques
elastoplastic bodies obeying Hencky's constituent law, finite element analysis 2−84443
radiographs, piecewise linear detection of small thin objects 2−57903
random measurement errors summing, using convolution integral *(Russian)* 2−84588

piezo-magneto-optical effects *see magneto-optical effects; piezo-optical effects*

piezo-optical effects
see also piezoreflectance
acetone, liq., isotropic line shapes and freq., press. effects, Raman spectra 2−72474
cholesteric liquid cryst., elastooptic behaviour of continuous compressional deform. 2−71348
cubic crystals, optical anisotropy induced by spatial dispersion 2−77485
diamond, GR1 luminesc. band, Jahn-Teller effect and stress-induced dichroism 2−57147
diamond, photoelasticity, elec. field induced ionic contribs. 2−67020
diglycine nitrate crystals, piezooptical coeffs., temp. depend. meas. *(Russian)* 2−116152
ferroelec., electro-optic and strain-optic effects 2−93159
fibre, single-mode, birefringent, stimulated four-photon mixing, stress-induced freq. tuning 2−114358
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
laser window materials, optical distortion and far field meas. 2−97041
methane, solid, Raman spectra under high press., Gruneisen parameters 2−77502
molecular cryst., high press. effect on spectra anal. 2−72451
optical glass, optical const., effects of external fields 2−72440
photoelectrochemical spectroscopy, stress modulated 2−84707
polyacetylene, optical absorpt. spectra, press. depend. meas. 2−77521
polystyrene near glass transition under high press., photon correl. spectroscopy, light scatt. relax. function 2−104895
potassium and phthalate single cryst., elasto-optic behaviour 2−93151
quartz, fused, shock compressed, elec. resist. and emission spectra meas. 2−71964
ruby, optical properties, high press. effects, theoretical studies 2−87739

piezo-optical effects continued
ruby, visible absorpt. spectrum, shock wave effects 2−72449
semiconductors, many-valley, uniaxially deformed, free carrier light absorpt., theory 2−57053
spatial filtering, real-time, utilising the piezoelectric-elasto-optic effect 2−86090
TGS, ferroelec. transition, polarisation relax. time, high press. Brillouin scatt. study 2−87802
TTF-chloranil, neutral-ionic phase transition, review 2−92592
vibronic spectra, hydrostatic and uniaxial press. effects 2−57050
$AgGaS_2$, piezooptical, electrooptical and birefringence consts., meas. in visible region *(Russian)* 2−77490
AgI, absorption spectra at press. up to 136 kbar 2−110882
$AlAs\text{-}Al_xGa_{1-x}As\text{-}GaAs$ superlattices, absorption meas. at high press. 2−82933
As_2S_3 film, vitreous, photodarkening value, press. effect 2−61026
CS_2, liquid, shock compressed, time-resolved spectroscopy 2−69266
CS_2, liquid, shock loaded, elec. resist. and UV reflectivity meas. 2−71963
CaF_2 crystal, phonon focusing obs. by luminesc. phonon detector 2−61871
$CaF_2:Eu^{2+}$ crystal, scatt. of terahertz phonons, luminesc. detection and piezospectroscopic obs. 2−103926
$Cd_{1-x}Mn_xTe$, absorption edge pinning, transmission and piezotransmission meas. 2−72443
CdS, plastically deformed, light propag. obs., dislocations effect 2−67024
$CdS(Se):Ni^{2+}$, optical spectra, isotope splitting const. 2−57163
$CsMnF_3$, pure, exciton dynamics and energy transfer, fluorescence meas. 2−99171
$Cs_2NaBi_xY_{1-x}Cl_6$, optical centre conc. effects on electron lattice coupling, optical props. study 2−57151
GaAs, piezo-optical coeffs., dispersion dependences 2−116151
GaAs, piezobirefringence dispersion due to strain-dependent lattice effects 2−67017
GaAs, resonant Brillouin scatt. under uniaxial stress 2−77542
GaAs:Cu, recombination radiation band, piezospectroscopic study 2−77588
GaP, piezo-optical coeffs., dispersion dependences 2−116151
GaP, piezo-optical study of phonons 2−67023
$GaP:Ni$, charge state of Ni^{2+}, piezoabsorpt. and Zeeman meas. 2−99087
Ge, radiation defects, light sensitivity and space orientation, IR spectra study 2−87826
Ge, Raman phonon press. depend. 2−67054
Ge, uniaxially stressed, plasma reson. of electron-hole drops, IR study 2−104861
GeS_2, glassy and cryst., pressure-optical studies, network topology analysis 2−67021
InS, Gruneisen mode parameters, structural phase transition, high press. Raman study 2−104889
KCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
KCl(Br,I) cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
KN_3, variable temp. and pressure Raman spectra 2−87782
LiF cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
Mg_2SiO_4, forsterite, single cryst., Brillouin scatt. meas. up to 40 kbar 2−57115
NH_4ReO_4, Raman spectrum at high press. 2−116182
NaCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
NaCl cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
PbI_2 (6H), high press. Raman study 2−104864
$PbMg_{0.33}Nb_{0.66}O_3$, ferroelec., electro-optic and strain-optic effects 2−93159
Si, eleotron irradiated, uniaxial stress anal. of 0.79 eV vibronic band 2−67019
a-Si:H films, Raman scatt. under high press. 2−72505
SiC-3C, Raman phonon press. depend. 2−67054
SiC(3C), optical phonons and transverse effective charge, press. depend., Raman study 2−82860
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285
$TlInSe_2$, Raman spectrum, first order, hydrostatic press. effect 2−87794
TlS, Raman spectrum, first order, hydrostatic press. effect 2−87794
Xe, solid, optical absorpt. edge at very high press., rel. to metallisation 2−110244
$ZnO(S):Ni^{2+}$, optical spectra, isotope splitting const. 2−57163
ZrS_3, depend. of phonon spectrum on hydrostatic press., Raman scatt. data 2−109922

piezoelectric devices
see also crystal resonators; piezoelectric transducers
deflection of circular piezoelectric bending plates *(German)* 2−109198
gas analyzers, sorption, surface acoustic waves appl. 2−73025
generalized orthogonality relations for the normal modes of a piezoelectric waveguide and their application in the theory of resonators 2−60340
multichannel recording piezometer system for wetland research 2−78890
polyvinylidene fluoride piezoelec. film in single-mode fibre interferometer as elec. field sensor 2−81096
quartz, piezoceramic, synthetic, elastic and elec. characts. at 4.2K, acoustic device applic. *(Ukrainian)* 2−82784
reference piezoelectric accelerometer, medium frequency range *(French)* 2−65548

piezoelectric effects *see piezoelectricity*

piezoelectric materials
see also piezoelectric semiconductors; piezoelectric thin films; piezoelectricity
acoustic surface waves, energy flux, group and phase velocities 2−98414
acoustic waves, bulk and surface, nonlinear propag. 2−98416
acoustoelectromagnetic pulse propag. in bounded piezoelec. cryst. 2−92702
antimonates, $R_3Sb_5O_{12}$ (R=Sc,In,Ln,Pr,Tb,Yb), cryst. struct. and dielec. props. 2−109755
Bi-based layer-structured ferroelectric ceramics, dielectric and piezoelectric props. 2−116122
bulk strain wave conversion at a frequency boundary in piezoelectric crystals 2−115524
ceramic, polarisation using high-voltage pulses *(Russian)* 2−99043
ceramics, development and production 2−88031
ceramics, fracture toughness determ. with kerf specimens 2−116670
ceramics, low freq. dielectric props. *(Chinese)* 2−104788

piezoelectric materials continued
ceramics, mech. props. under large amplitude operation, transducer appl. *(Japanese)* 2−67510
ceramics, thin cylindrical tubes, dielectric variables meas. method 2−74459
ceramics for power transducers, automatic performance testing 2−86193
ceramics with ferroelectric characteristics *(German)* 2−82785
crystal blanks, polarity determ. apparatus 2−95401
crystal microscopic defects, surface Rayleigh wave interactions 2−110124
cylindrical surfaces, SAW 2−98417
erbium formate, piezoelec., linear and circular bulk photovoltaic effect 2−104417
ferroelectric ceramic, TBK-3, coupling and piezoelec. coeffs., hysteresis, neutron irrad. effects 2−82804
ferroelectric layer-structure oxides, ceramics, elec. props. 2−93115
interdigital transducer in water, selection of piezoelectric material 2−97341
nonlinear acoustic wave propag., in piezoelec. crystals 2−98415
piezoceramic, explosively compacted, elec. domain struct. *(Russian)* 2−66990
piezoceramic materials, multicomponent, highly efficient, with various degrees of ferroelec. hardness 2−72425
piezoceramic plates, calc. of flexural modes using energy method 2−70757
piezoceramics, phase coexistence, domain boundary interactions 2−87703
piezoelectric crystals, for SAW 2−99057
PLZT, piezoelectric. ceramic, mech. strength 2−77907
poly(vinylidene fluoride) thin film, piezoelec. and pyroelec. props. meas. 2−104815
polyethylene thin film, piezoelec. and pyroelec. props. meas. 2−104815
polymer, Pb(Zr, Ti)O_3 filled, flexible composite transducers 2−74399
polymer electrets, piezoelectricity 2−57019
polymeric, electromechanical materials and their appls. review 2−77453
polymers, piezoelectricity and pyroelectricity, bibliography, 1980 to 1981 2−107033
polyvinylidene fluoride, ferroelectric, piezoelectric and pyroelectric polymer, props. and appl., transduction mechanisms, review 2−66994
polyvinylidene fluoride, piezo and ferroelectricity *(Japanese)* 2−87698
polyvinylidene fluoride films, γ-irrad., piezoelectric props. 2−87687
polyvinylidene fluoride-trifluoroethylene copolymer films, piezoelec. props. 2−87692
polyvinylindenfluoride thick films, piezoelectricity 2−77454
PVF_2, elec. field sensitive optical fibre using piezoelec. polymer coating 2−75696
quartz, crystn., effects of ion implantation 2−98124
quartz, mechanical properties, effect of α-β transition 2−99046
quartz, piezoceramic, synthetic, elastic and elec. characts. at 4.2K, acoustic device applic. *(Ukrainian)* 2−82784
quartz, synthetic, defects, effect on vibr. characts. and resonator performance 2−99044
quartz crystal growth, automated hydrothermal system of RADC/ESM 2−99315
quartz crystal growth in NaCl, KCl solns. and pure water, low temp. IR absorption 2−99316
quartz crystals 2−116353
reference materials for superhigh permittivity 2−53789
Rochelle salt, electromechanical resonances for phase transition studies 2−87702
Rochelle salt, nonlinear resonator, period multiplication, chaotic behaviour 2−99062
SAW materials and devices in Japan 2−99056
tanane, ferroelec. and ferroelastic phase transition, soft acoustic mode 2−93122
tanane, ferroelec. and ferroelastic transition, intermol. forces and statistical mech. 2−93123
transverse SAW, in crysts. of classes 622 and 422 2−98418
triglycine sulphate type crystals, with imperfections, piezoelec. props. 2−99052
trioxane, piezoelectric cryst., lattice modes, Raman and IR study 2−72478
vinylidenefluoride/trifluoroethylene ferroelec. copolymer, piezoelec. and polarisation 2−110776
Ag_3AsS_3, proustite, piezoelectric and SAW props. meas. 2−93116
$AgNa(NO_3)_2$, piezoelec. relax. 2−99050
Ag_3SbS_3, pyrargyrite, piezoelectric and SAW props. meas. 2−93116
AlN, metal organic CVD on Si substrate, substrate temp. effects, surface texture 2−67223
$AlPO_4$, berlinite, shallow bulk acoustic wave (SBAW) props. 2−98206
$AlPO_4$, recent progress on cryst. growth, dielectric const. meas. 2−99314
$BaO-SrO-Na_2O-Nb_2O_5$ system, cryst. growth and electromech. characts. 2−87693
$Ba_{2-x}Sr_xTiSi_2O_8$, crystal growth and SAW props. 2−87970
$BaTiO_3$, hot pressed ceramics, internal stresses, Curie temp. 2−88017
$BaTiO_3$, photorefractive cryst., coherent oscillation by self-induced gratings 2−65310
$BaTiO_3$ piezoelectric. ceramic, mech. strength 2−77907
$BeSO_4.4H_2O$, and $BeSO_4.4D_2O$, Raman and IR activity *(French)* 2−116184
$BiGeO_{20}$ resonators, influence of polarising field 2−87681
$Bi_{12}GeO_{20}(SiO_{20})$, nonlinear piezoelectricity 2−87680
$Bi_{12}SiO_{20}:Nd^{3+}$ single crystals, energy level spectroscopic study 2−67110
Bi_3TiNbO_9 piezoceramic, form. and props. 2−111122
$Bi_{12}TiO_{20}$, piezoelec., temp. modulated spectroscopy near absorption edge 2−99100
$Bi_4Ti_3O_4$, single domain single crysts., electromech. behaviour 2−87690
CsH_2AsO_4, ferroelec., nonlinear electromechanical parameters, second harmonic generation 2−104814
$Gd_2(MoO_4)_3$, electromechanical resonances for phase transition studies 2−87702
HIO_3 crystal, α-phase, NQR spectra, hydrostatic pressure effect 2−93049
KH_2PO_4, ferroelec., nonlinear electromechanical parameters, second harmonic generation 2−104814
$KNbO_3$, hot pressed ceramics, internal stresses, Curie temp. 2−88017
$KTaO_3$, piezoelectric excitation of elastic waves 2−103896
$LiNbO_3$, acoustoelectric charge injection obs. 2−92704
$LiNbO_3$, elec. field induced ionic displacement and bonding electron redistrib., modulation X-ray diffr. study 2−81718
$LiNbO_3$, exoelectron emission by uniaxial deform. 2−116344
$LiNbO_3$, nonlinear acoustic propag. 2−98415
$LiNbO_3$ piezoelectric plate, acoustoelectric convolution and correlation *(Russian)* 2−92707

piezoelectric materials continued
$LiNbO_3$ resonators, influence of polarising field 2−87681
$LiNbO_3$, SAW propag. 2−66336
$LiNbO_3$, surface-skimming bulk wave IDT on rotated Y-cuts, radiation cond. 2−75817
$LiNbO_3$:(Ni), γ- and X-ray irradiated, ESR, optical absorpt. and elec. cond. 2−98951
$LiNbO_3$:Ti optical waveguide, acoustooptic interaction, wide-band, with mode conversion 2−91045
$LiNbO_3$-CdSe multilayer struct. with periodic-array contacts, freq. doubling 2−92705
$Li_2O-SiO_2-B_2O_3$ glass ceramics, piezoelec. reson. meas., crystal resonators appl. 2−82786
$LiTaO_3$, elec. field induced ionic displacement and bonding electron redistrib., modulation X-ray diffr. study 2−81718
$NH_4H_2PO_4$ single crysts., effect of supersaturation swing in cryst. growth 2−99312
(Na,Li)NbO_3, hot pressed ceramics, internal stresses, Curie temp. 2−88017
$NaNbO_3$, solid solutions, phase transitions 2−87704
(Nb,Pb)(Zr,Ti,Zn)O_3 piezoceramic, influence of static compression on props. 2−72426
$Ni_3B_7O_{13}I$, piezoelec. meas. by techniques of admittance circle and motional capacitance 2−99051
PLZT-Pb($Zn_{1/3}Nb_{2/3}$)O_3 piezoelec. ceramics, electromech. props. 2−87696
(Pb, Ca) (($Co_{1/2}W_{1/2}$), Ti)O_3 piezoelectric ceramics and their applications 2−87697
(Pb,Nd)(Ti,Mn,In)O_3 piezoelectric ceramics, appl. to high freq. SAW filters 2−81178
(Pb, Nd)(Ti, Mn, In)O_3 piezoelectric ceramic SAW reflector, poled/unpoled domain array 2−91196
$Pb_3MgNb_2O_9$ crysts., electromech. props. 2−99047
$(Pb_{0.8}Sr_{0.2})Bi_2Nb_2O_9$ piezoelectric. ceramic, mech. strength 2−77907
$PbTiO_3$ ceramics, piezoelectric, elastic and dielectric props. 2−87685
$PbTiO_3-PbZrO_3$, solid solutions, phase transitions 2−87704
$PbTiO_3-PbZrO_3-PbNb_{2/3}Zn_{1/3}O_3-PbNb_{2/3}Mn_{1/3}O_3-PbSb_{2/3}Mn_{1/3}O_3$, stability of electrophysical props. 2−99059
Pb($Zn_{1/3}Nb_{2/3}$)O_3-$PbTiO_3$, ferroelec. transitions, dielec., elastic and piezoelec. study 2−116124
Pb(Zr,Ti)O_3 composition piezoelectric ceramic preparation and props. 2−88030
Pb(Zr,Ti)O_3, piezoceramic, influence of ZnO on props. 2−72427
Pb(Zr,Ti)O_3, piezoelectric effect 2−87686
Pb(Zr,Ti)O_3 piezoelectric ceramics fabrication by explosion compression molding 2−99381
Pb(Zr,Ti)O_3, poling method 2−87653
Pb(Zr,Ti)O_3, solid solns., piezoceramic fatigue strength, influence of polarisation on cyclic strength 2−72797
Pb(Zr,Ti)O_3-polymer composites, preparation and props. 2−88045
Pb(Zr,Ti)O_3-polymer composite, preparation and transducer applications 2−88046
Pb($Zr_{1/3}Nb_{2/3}$)O_3-Pb($Sn_{1/3}Nb_{2/3}$)O_3-$PbTiO_3$-$PbZrO_3$ hot pressed ceramics, piezoelec. props. 2−87695
$PbZr_{1-x}Ti_xO_3$-polyvinylidene fluoride composite, piezoelec. and dielec. const. and Young's modulus meas. 2−93119
Pb(Zr_xTi_{1-x})O_3+yMnO_2 solid solution, piezoelectric props. 2−87684
SbSI-polymer composite, preparation and props. 2−88047
$Sr_{0.75}Ba_{0.25}Nb_2O_6$ crysts., electromech. props. 2−99047
$Sr_{0.02}Pb_{0.98}(Li_{0.008}W_{0.012}Ti_{0.46}Zr_{0.52})O_3$, impurity distrib., props. 2−86701

piezoelectric oscillations
ceramic strips, energy trapping of width-shear vibrs. 2−87691
plate, anisotropic, spatial elastic vibrs. and normal waves *(Ukrainian)* 2−81274
quartz piezoacoustic tunable resonator 2−70804
quasiisotropic elastic medium approx. in acoustoelectronic problems 2−81151
resonators in DC elec. field 2−87678
n-InSb, acoustic and EM oscills., multitransit generation in alternating elec. field 2−66593
$Li_2O-SiO_2-B_2O_3$ glass ceramics, piezoelec. reson. meas., crystal resonators appl. 2−82786

piezoelectric resonators *see crystal resonators*

piezoelectric semiconductor materials *see piezoelectric semiconductors*

piezoelectric semiconductors
acoustic wave generation of electron density wave harmonics, detection systems 2−61526
acoustic wave second harmonic generation in piezoelect. semiconductors 2−70741
acoustic wave two directional amplification by alternating drift of carriers 2−61527
acoustic wave visualisation using photoluminesc. modulation 2−66592
acoustoelectric amplification threshold, scattering effects calc. for doped semicond. 2−98701
acoustoelectric interaction, nondegenerate, backward wave gener ators 2−56648
acoustoelectronics, and piezoelectricity 2−99055
electro-acoustic effect theory 2−72032
film, surface phonon amplification, nonparabolicity effect 2−76795
III-V semiconductors, carrier piezoelec. scatt. by dislocations, anisotropy effects 2−77033
photoelastic effect, electron contrib. 2−92703
SAW, asynchronous interaction with bulk acoustic waves 2−115525
solid plasma, Brillouin instability 2−104902
surface acoustoelectromagnetic waves, coupled, theoretical anal. 2−56647
US wave parametric instability 2−104436
$Al_xGa_{1-x}As$, Γ-X-junction position, effect of alternating exial press. meas. 2−66449
As_2SeTe_2, glassy, piezoelec. effects, expt. study 2−57021
$Bi_{12}GeO_{20}$, single crystal, interaction of piezoelectric and nonequilibrial photoinduced carriers 2−87688
CdS, AC cond. inhomogeneities, acoustic meas. 2−77131
CdS, Brillouin scatt. study of stationary electro-acoustically amplified acoustic flux 2−77541
CdS, electro-acoustically active, AC and DC cond. 2−77128
CdS, piezoelec., US luminesc., freq. depend. meas. 2−61994
CdS, piezoelectric interaction of elastic waves with carriers 2−115827
CdS(Se), elliptical polarization of acoustic shear waves 2−109912
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433

piezoelectric semiconductors continued
GaAs monolithic SAW device, new SAW modes obs. 2—104134
GaAs SAW charge transport, monolithic delay line appl. 2—115522
GaAs-Pd Schottky barrier diodes, electron irrad., piezoelec. phenomena, deep level effects 2—115893
GaP_xAs_{1-x} filamentary crystals, strain meas. props. and piezoelectric effect *(Russian)* 2—66992
$Ge_2Se_2Te_4$, glassy, piezoelec. effects, expt. study 2—57021
$Ge_{15}Te_{81}Sb_2S_2$, glassy, piezoelec. effects, expt. study 2—57021
InP monolithic SAW device, new SAW modes obs. 2—104134
InP, SAW and surface skimming bulk waves obs. 2—92331
n-InSb, acoustic and EM oscills., multitransit generation in alternating elec. field 2—66593
n-InSb, acoustoelectric stationary domains, elec. field distrib., meas. and second mode model 2—77127
n-InSb film, surface phonon amplification, non-parabolic band struct. effect 2—110126
n-InSb, quantum oscills. in magnetoacoustic attenuation 2—77132
n-InSb, solid plasma, Brillouin instability 2—104902
p-InSb, US relax. time, mag. field effects 2—56650
n-InSb, US wave parametric instability 2—104436
In_4Se_3, piezophotoconductivity spectra, carrier energy quantisation 2—104429
Se (layers), piezoelec., props. 2—99058
Se, glassy, piezoelec. effects, expt. study 2—57021
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2—86194
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2—57286
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2—56393
ZnO films, substrate biased RF sputtering of semicond. and insulating films 2—111071
ZnO piezoelectric thin films, for SAW appls. 2—97338
ZnO piezoelectric thin films, for SAW devices 2—97339
ZnO, single cryst., piezoelec. semicond., hydrothermal growth and charact. 2—77723
ZnS, peizoelec., effect of mag. field on photovoltaic current and photocurrent 2—110385

piezoelectric thin films
polyvinylidene fluoride film, uniaxially stretched, piezoelec. retention, stress relaxation effect 2—72428
polyvinylidene fluoride films, piezo-and pyroelectric effects, sound vel., thermally induced elec. oscills. 2—72429
semiconductor film, surface phonon amplification, nonparabolicity effect 2—76795
AlN, piezoelectric films, high rate deposition using magnetron sputtering 2—93421
AlN, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2—93422
AlN piezoelectric thin films, for SAW appls. 2—97338
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2—87433
$K_3Li_2Nb_2O_{15}$ piezoelectric thin films, for SAW appls. 2—97338
$K_3Li_2Nb_5O_{15}$, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2—93422
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2—86194
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2—57286
ZnO, piezoelectric films, high rate deposition using magnetron sputtering 2—93421
ZnO, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2—93422
ZnO piezoelectric films formed by RF reactive ion plating, SAW device appl. 2—93446
ZnO piezoelectric thin films, for SAW appls. 2—97338

piezoelectric transducers
accelerometer, pyroelectric side-effects modelling and calc. 2—64015
acoustic emission transducer, improved design 2—81201
adhesive layer, factors affecting props. 2—55390
biomedical peripheral pulse sensors, use of piezoelec. polymers 2—83689
biomedical piezoelectric device for vertical contact stress meas. beneath human foot 2—100141
biomedical pyropiezoelectric sensor for the measurement of pressure and cardiac output *(Spanish)* 2—68179
calibration of piezoresistive gauges 2—69152
ceramics, mech. props. under large amplitude operation, transducer appl. *(Japanese)* 2—67510
characteristics estimation using voltage transfer gain 2—75819
conversion function determ. of piezoelectric displacement transducers 2—95351
differential pressure transmitter using diffused semiconductor strain gauges 2—79558
dynamic weight detector for milligram particles using piezoelectric pick-up 2—69141
field sensitive optical fibre using piezoelec. polymer coating 2—75696
flexural transducer using shear mode piezoelectric ceramics, finite element analysis 2—91200
force and vibration meas. on hydroelastic gate model *(German)* 2—76053
force meas. in presses, with calibration up to 500 tons *(German)* 2—64019
Fresnel zone plate transducers, near field acoustic pattern 2—114598
hydrophone, temp. stability and sensitivity meas. 2—81188
imaging of ultrasonic waves in solids, using transverse acoustoelectric effect in piezoelectric semiconductors 2—91190
interdigital transducer, excited, SAW generation charact. 2—60336
interdigital transducer in water, selection of piezoelectric material 2—97341
interdigital transducers for acoustic imaging 2—114597
loaded piezoelectric transducers, simplified equivalent cct. 2—91203
low frequency acoustic flaw detectors based on transverse piezoelectric effect 2—111435
mechano-electric transducer for fish respiratory movement recording *(Chinese)* 2—62844
piezo-ceramic sensors review *(German)* 2—86197
piezoceramic hydrophone with liq., cryst. light modulator for hybrid fibre optic sensors 2—102930
piezoaccelerometers transverse sensitivity meas., using tuning-fork vibrator 2—65549
piezoresistance response, anal. and modelling 2—69154
piezoresistive gauge rel. to laser Doppler meas. of sediment grain lifting 2—68539

piezoelectric transducers continued
piezoresistive integrated pressure transducer, temp. fields calc. *(German)* 2—107317
pile of ceramic elements as displacing device 2—79552
polymer, $Pb(Zr, Ti)O_3$ filled, flexible composite transducers 2—74399
polymer film transducer for acoustic emission sensor 2—86196
polyvinylidene fluoride, ferroelectric, piezoelectric and pyroelectric polymer, props. and appl., transduction mechanisms, review 2—66994
pressure gauge for operation in presence of strong electrical noise and X-rays 2—64013
pressure sensor calibration, for high pressures *(German)* 2—79556
pulse response, diffraction phenomena 2—102966
pulsed, pressure meas., calibration by ballistic manometer 2—95315
pulsed operation of a flat piezoelectric transducer 2—91206
PVDF, US appls. in medical, underwater and NDT areas 2—91201
quartz, pulsed laser piezo-electric transducer (PULPIT) opto-acoustic spectroscopy 2—64124
reflective piezoelectric transducers in open acoustic resonator, exptal. study of oscillations 2—60341
resonance detect., appl. to determ. of plasma jet charact. in spraying 2—76206
resonant, driven by nonuniform electric field, acoustic fields 2—109155
resonant, operation in radiating and receiving modes 2—114596
resonant diaphragm pressure gauge 2—95359
SAW IDT reflection coeff. predict., four variable two port anal. 2—109148
SAW thin film IDT using apodised shorting electrode 2—60344
scattering measurements, effects of phase cancellation 2—65442
sectional piezoelectric transducer with electrically controlled resonance frequency, anal. method 2—114589
semiconductor, recent trends and developments in charact. and applications 2—79557
semiconductor pressure sensors with integrated piezo-resistive resistance bridge *(German)* 2—101396
spaced electrode 2—55391
surface-skimming bulk wave IDT on rotated Y-cuts of $LiNbO_3$, radiation cond. 2—75817
thickness-mode, transient charact., Mason's equiv. cct. analysis 2—60335
thin-walled spherical piezoelectric receiving transducer with a controllable electrical load 2—114586
ultrasonic emulsification device using piezoelectric transducer 2—114581
ultrasonic power transducers, automatic performance testing of piezoelectric ceramics 2—86193
ultrasound, diagnostic appl., use of piezoelectric ceramics 2—88639
US, for unconventional techniques *(Rumanian)* 2—86198
US 'ear' device for detect. of sounds in range 20-50 kHz, use of piezoelec. microphone *(Spanish)* 2—70800
$LiNbO_3$, shear stress gauge for dynamic loading 2—69153
$Pb(Zr,Ti)O_2$ piezoelectric ceramic, P/S mode transducer, theory and fabrication 2—53746
$Pb(Zr,Ti)O_3$, transverse honeycomb composition transducers, dielectric const., piezoelectric props. 2—66991
$Pb(Zr,Ti)O_3$-polymer composite, preparation and transducer applications 2—88046
Si IC pressure transducers using piezoresistor bridge 2—74400
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2—86194

piezoelectricity
see also electrostriction; piezoelectric devices; piezoelectric materials; piezoelectric oscillations
acoustoelectronics, and piezoelectricity 2—99055
biological materials, piezoelectric effects 2—88561
bond additivity applied to piezoelectricity 2—87677
bulk wave and SAW excitation interaction and detect. 2—110773
ceramic rod discharge in shock loading 2—82787
crystal blank, dissymmetry used for Φ, Θ angle sign determ. by non destructive method 2—88302
deflection of circular piezoelectric bending elements with passive substrate plate *(German)* 2—109197
deflection of circular piezoelectric bending plates *(German)* 2—109198
dielectrics, electromechanical resonances for phase transition studies 2—87702
dielectrics, electromechanical resonances for study of linear and nonlinear props. 2—87682
elastic dielectrics, electro-elastic and elasto-optic phenomena *(German)* 2—110772
elastoelectric effects in noncentrosymmetric crystals 2—87679
EM-acoustic wave interaction in solids 2—98419
epidermis of human skin, pyroelec. and piezoelec. sensor layer 2—100013
ferroelectric crystals, with charged domain walls, electromech. props. 2—99048
ferroelectric materials and appls., conference, Kyoto, Japan (May 1981) 2—79273
ferroelectrics, perovskite-type, piezoelec. effect with shearing strains induced by mech. stresses 2—99049
intrinsic ferroelastic transition from a piezoelectric paraelastic phase 2—86848
metal rods, elastic wave propag., elec. signal generation 2—61833
nematic liquid crystals, expt. investigation 2—109675
nonlinear acoustic wave propag., in piezoelec. crystals 2—98415
phase transformations, electromechanical interactions and morphic effects, theory 2—116121
Pierre Curie and the role of symmetry in physical laws 2—84429
point charge forced normal to elastic dielectric half-space, axisymm. boundary value problem 2—55020
polar materials and piezoelectricity 2—87674
poly(hydroxyethyl glutamine), crosslinked, piezoelec., elastic and dielect. consts., hydration effect 2—110774
polymers, oriented, electromechanical relaxations calc. 2—87689
polymers, piezoelec. relax. 2—99050
polyvinylidene fluoride 2—72423
polyvinylidene fluoride film, thermal expansion 2—92426
polyvinylidene fluoride film, uniaxially stretched, piezoelec. retention, stress relaxation effect 2—72428
polyvinylindenfluoride thick films, piezoelectricity 2—77454
quartz bar, mech. behaviour, heat influx at one end 2—72424
relaxation, piezoelectric, review 2—87676
revolving plate, thermopiezoelectric material, enclosing γ-ray source, stress and elec. induction 2—65483
Rochelle salt, nonlinear resonator, period multiplication, chaotic behaviour 2—99062

piezoelectricity continued
Rochelle salt, piezoelec. lines 2−99053
SAW propag. in piezoelectric anisotropic medium 2−66336
shell of revolution, piezoelectric, ceramic, numerical anal. 2−60459
stress response in a piezoelectric circular plate 2−86213
symmetry aspects in elec. polarisation of anisotropic media under external influences 2−99045
two-sublattice model, piezoelec. and elastic props. 2−87675
vinylidene fluoride-tetrafluoroethylene copolymer, pyroelectricity and charge transport 2−72430
$AgNa(NO_3)_2$, piezoelec. relax. 2−99050
$(Ba,Sr)TiO_3$ films on Si substrate, ferroelec. behaviour 2−66996
$BiGeO_{20}$ resonators, influence of polarising field 2−87681
$Bi_{12}GeO_{20}$, single crystal, interaction of piezoelectric and nonequilibrial photoinduced carriers 2−87688
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
GaAs, carrier mobility, electron-electron scatt. effect 2−77040
GaP_xAs_{1-x} filamentary crystals, strain meas. props. and piezoelectric effect *(Russian)* 2−66992
$K_2Cd_2(SO_4)_3$, elastic and piezoelec. props. 2−66993
LiF crystal, dielec. losses under deform. by conc. load 2−66984
LiF:Mg^{2+}, internal friction and charged dislocations 2−81793
$Li_2Ge_7O_{15}$, dielect. props. and phase transition 2−57006
$LiKSO_4$ crystals, anomalous changes in piezoelec. and elastic props. 2−99054
$LiNbO_3$ resonators, influence of polarising field 2−87681
$Li_2SiO_3(GeO_3)$, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$(NH_4)_2BeF_4$, ferroelec., incommensurate phase, quadrupole moment, homogeneous mech. stress effects 2−57023
Na_2GeO_3, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$(Nb,Pb)(Zr,Ti,Zn)O_3$ piezoceramic, influence of static compression on props. 2−72426
$Ni_3B_7O_{13}I$, piezoelec. meas. by techniques of admittance circle and motional capacitance 2−99051
PLZT, solid solutions, regions of homogeneity 2−110003
$Pb_3MgNb_2O_9$ crysts., electromech. props. 2−99047
$Pb(Zr,Ti)O_3$, solid solns., piezoceramic fatigue strength, influence of polarisation on cyclic strength 2−72797
$Sr_{0.75}Ba_{0.25}Nb_2O_6$ crysts., electromech. props. 2−99047

piezooptical effects *see piezo-optical effects*

piezoreflectance
exciton reflection depolarisation spectra, fluctuating internal strains effect 2−67022
α-Cu-Zn(Ga)(Al)(Ge), electronic struct., piezorefl. study 2−57052
KBr, piezoreflectivity studies on refl. structs. near 8.6 eV 2−82822

piezoresistance
graphite intercalation compounds, acceptor-type, pressure effect on electronic props. 2−56425
quartz, fused, shock compressed, elec. resist. and emission spectra meas. 2−71964
semiconductor, anomalous Hall effect, under uniaxial stress, theory 2−66575
TCNQ charge transfer complexes, tetramethyl benzidene-TCNQ and tetramethyl p-phenylene diamine TCNQ, elec. cond. under high press. 2−71970
TCNQ salt, TMTTF-TCNQ, charge transfer, Raman shift, XPS and elec. cond. meas. 2−87237
TCNQ salt, TSF-TCNQ, pinning of fluctuating cond. by 2D coupling 2−77028
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2ClO_4$, magnetotransport under press. 2−56556
$(TMTSF)_2PF_6$, magnetotransport under press. 2−56556
transition metal alloys, electrical resistance, pressure dependence meas. for amorphous and cryst. alloys 2−77020
$Bi_xSb_{1-x}SI$, uniaxial deform., influence on elec. cond. and dielectric const. 2−109886
Bi_2Te_3, thermoelec. props., elec. resist. and phase transitions meas. up to 9 GPa hydrostatic press. 2−87309
CS_2, liquid, shock loaded, elec. resist. and UV reflectivity meas. 2−71963
p-$CdSnAs_2$:Ga, transport coeffs., temp., field, and press. depend. 2−77061
$CeCu_2Si_2$, mixed valence state, elec. resist., mag. field and press. effects 2−110329
Cu-Mn, manganin, elec. resist. meas. to 100 kbar, press. gauge appl. 2−89735
Cu-Ni-Mn-Fe (45.19, 0.95, 1.40 wt.%) constantan wire, elec. resist., press. effect *(Japanese)* 2−98623
Cu-Zr, amorphous, press. depend. of elec. resist. meas. 2−77016
$CuK_2(SO_4)_2.6H_2O/^4He$, phonon bottleneck, thermal resist. meas. 2−76760
$Cu_{2-x}Se$, electrophysical props., effects of uniaxial deform. at different temps. *(Russian)* 2−82353
$FeNb_3Se_{10}$, metal-insulator and CDW transitions correlation, elec. cond. press. depend. study 2−77133
p-Ge, impurity band conduction, static and modulated uniaxial constraint effects 2−56575
Na, vol. depend. of elec. resist. calc. 2−66525
P, black, high press. and temp. cryst. growth and elec. resist. meas. 2−92619
$Pb_{1-x}Ge_xTe$, phonon and elec. resist. anomalies at displacive phase transition 2−98653
$Pb_{1-x}Sn_xTe$, phonon and elec. resist. anomalies at displacive phase transition 2−98653
$Pb_{1-x}Sn_xTe$:In, band struct. at high In conc., elec. cond. press. depend. study 2−82230
PbTe:H epitaxial film, elec. transport props., p-type to n-type conversion 2−66676
n-Si, plastically deformed, elec. cond. meas., dislocation levels effect 2−82364
Si:B thin film, polycrystalline, elec. props., use as sensor *(German)* 2−87427
Te, liq., elec. cond., at temps. up to 1200°C and pr ess. up to 3 kbar 2−77048

piezoresistive devices *see piezoelectric devices*

piles (nuclear fission) *see fission reactors*

pinch effect
600 kV Marx module for high-density Z-pinch experiment 2−90415
arc column, extinction chamber, pinch effect produced by Lorenz forces *(French)* 2−115030
belt pinch MHD equilibria modelling 2−115036
Blackjack III plasma diode hydromagnetic insulation 2−91682
current sustaining Tokamak, pinch effect by RF traveling wave 2−109583
discharge, surrounding neutral fluid effect, MHD instability 2−71238
discharge plasmas, local elec. field meas., optically-coupled floating double probe 2−60801
field reversed configuration, classical transport coeff. 2−55710
field reversed theta pinch, effect of inhomogeneous impurity distrib. 2−71239
field reversed theta pinch, FRX-C expt. engineering design 2−86468
field-reversed config., confinement times, particle transport study 2−76175
field-reversed config., large-orbit ion effect, optimal plasma-β study 2−76178
field-reversed config. equilibria in conducting cylinder 2−109569
field-reversed ion layer, tearing mode instability, computer simulation 2−86415
field-reversed plasmas without toroidal field, tearing mode stability 2−71240
gas-puff Z-pinches, with D_2 and D_2-Ar mixtures 2−65744
helical field effect on self reversal, stability and confinement 2−81563
high-temperature plasma forming high-current pinch discharges *(Russian)* 2−55778
hypercycloidal pinch discharge pumping of dye laser 2−86005
imploding wire plasma pinches, X-ray emission and streak photography study 2−65743
inductive store pulse compression system for driving high speed plasma implosions 2−86457
laser micropinch with combined heating of plasma 2−86467
linear Extrap pinch, equilib. study 2−109580
linear magnetic fusion system, book contrib. 2−76180
linear theta pinches, interconnected 2−86456
low-compression theta-pinch pulse power systems and diagnostics 2−91660
magnetic field reversal in stabilised pinch *(Russian)* 2−76171
magnetic-pinch imploding plasma sheath X-ray source, position and shape diagnostics 2−109590
Newcomb stability criterion, boundary-coupled generalisation 2−109494
Onsager symmetry breakdown in neoclassical transport theory 2−114979
reflected Z-pinch pulsed light source, plasma spectrosc. investig. 2−71234
regular density structures in the plasma focus 2−60792
relativistic plasma, kinetic theory 2−60795
resistive ion accel. in plasma focus, self mag. field insulation 2−109555
resistive magnetic tearing in a finite length pinch 2−71155
resistive sheet pinch, tearing mode evaluation, MHD eqn. soln. 2−109582
reverse currents nature in high current discharges 2−60824
reversed field pinch reactor, advanced fuel use 2−85321
reversed field pinch reactor, heating burn simulations 2−81569
reversed field pinches, ohmic heating 2−81540
reversed field pinches, resistive interchange modes 2−71244
reversed field theta pinch, poloidal flux loss. meas. 2−91643
reversed theta pinch, MHD particle simulation, fast mag. reconnection process 2−103320
reversed-field theta-pinch, end effects on n=2 rotational instability 2−109562
screw pinch, two-dimens. MHD simulation, impurity and neutrals effect 2−81555
screw stabilised pinch, evolution eqns. *(Russian)* 2−55775
screw-pinch Tokamak, time and space evolution of O spectral lines 2−81558
stimulated Brillouin scatt. and enhanced ion wave damping in Z pinch plasma 2−65729
strong-current pinching discharge, local high temp. plasma form. *(Russian)* 2−97764
theta pinch, high-power RF heating system 2−91661
theta pinch, linear, end plugging by pulsed mag. mirrors 2−86466
theta pinch, microturbulent ion thermalisation and heating, neutron prod. meas. 2−91677
theta pinch, successive heating 2−115034
theta-pinch plasma, field-reversed, MHD simulations 2−76188
toroidal belt pinch plasma, quantitative density diagnostics using dark-ground illum. 2−103439
toroidal pinch, fusion appls., book contrib. 2−71252
toroidal reversed-field pinch, circuit anal., computer simulation 2−86471
transient expanding plasma flow, electron density and temp. spectroscopic and Thomson scatt. meas. 2−91674
travelling mirror adiabatic magnetic compressor, scalings 2−103415
X-ray production from local plasma regions in high-current punch, microradiography appl. 2−107480
Z pinch, self similar oscillations 2−71243
Z pinch model, radially resolved calcs. for EBT 2−103367
Z-pinch, gas embedded, laser initiated, 2-D computations 2−65748
z-pinch, hydraulic model of plasma MHD flow *(German)* 2−114989
Z-pinch, nonlinear evolution of m=0 modes, effect of wall current 2−109576
z-pinch, radiation collapse dynamics, impurity enhancement allowance, plasma focus model *(Russian)* 2−60789
z-pinch, toroidal plasma relaxation, Taylor theory, anal. 2−103411
Z-pinch, toroidal-helical configuration, high-current plasma, MHD equilibria 2−81557
z-pinch gun, pulsed neutral particle source for active plasma diagnostics 2−91666
Z-pinch plasma, 10.6 μm Faraday rot. meas. of azimuthal mag. field 2−65760
ZT-40 plasma density measurements using eight-chord CO_2 laser interferometer 2−103441
ZT-40 poloidal magnetic field meas. using far-IR Faraday rot. 2−103442
ZT-40 reversed field pinch, multiple-point Thomson scatt. meas. 2−103443
Ar II dense plasma, emission rays displacement *(French)* 2−91599
Ar plasma, implosion dynamics 2−103409
H, Z-pinch discharge, afterglow, degree of ionisation 2−81562

pincushion distortion *see aberrations*

Piobert lines *see Luder's bands*

pion-baryon interactions
see also pion-baryon scattering; pion-hyperon interactions; pion-nucleon interactions
No entries

pion-baryon scattering
see also pion-baryon interactions; pion-hyperon scattering; pion-nucleon scattering
πd, s-wave six-quark states and channel coupling 2−69481

pion decay
lattice gauge theories with fermions on lattice, strong-coupling limit 2−101549
lifetime calculation from lattice structured vacuum theory 2−54138
$\nu_e(\bar{\nu}_e)$N, limits for oscillation parameters, majoron emission and L violating decays 2−79861
$\pi^- \rightarrow e\nu_e\gamma$, radiative decay, axial form factor, QCD nonperturbative contrib. 2−84895
$\pi^- \rightarrow l^+l^-\gamma$, bound state quark model calc. 2−101667
$\pi^- \rightarrow l\nu M$, Majoron emission in Gelmini-Roncadelli gauge model 2−54048
$\pi^- \rightarrow \mu\nu$, parent identification from mixed π/K beam 2−113793
$\pi^- \rightarrow l^- + \bar{\nu}_l + a$, decay in axion presence *(Russian)* 2−69452
$\pi^0 \rightarrow e^+e^-$, mass spectrum, branching ratio 2−69449
$\pi^0 \rightarrow e^+e^-$, rare decay, vector dominance model 2−79864
$\pi^0 \rightarrow \gamma\gamma$ high energy spectrum from relativistic plasma 2−73832
$\pi^0 \rightarrow \nu\bar{\nu}\gamma$, branching ratio, Weinberg model calc. 2−59141
$\pi^+ \rightarrow \mu^+\nu_\mu$, ν_μ mass upper limit from π decay in flight 2−89961

pion-hyperon interactions
see also pion-hyperon scattering
No entries

pion-hyperon scattering
see also pion-baryon interactions
No entries

pion interactions *see lepton-hadron interactions; meson-meson interactions; photon-hadron interactions; pion-baryon interactions; pion-nucleus reactions; pion-pion interactions*

pion-nucleon interactions
see also pion-nucleon scattering; pion-proton interactions
π^+n, diquark fragmentation functions determ. from pion prod. data 2−84920
charge exchange, rel. to additive quark-parton model at 50 and 200 GeV *(Russian)* 2−59196
N→Δ(1232), EM transition form factor, πN dynamics 2−113277
NN, baryonium, NN and dibaryons, expts. review 2−54219
πN, dd Δ isobar prod. at high energies, EM mechanism *(Russian)* 2−101773
πN, shower particle pseudorapidity fluctuations phenomenological investigation 2−59191
πN, strong coupling of particle and quantised field with internal degrees of freedom 2−64222
πN→γ,X, high-twist production of prompt single photons at large transverse momentum 2−95881
πN→γγN, 50 MeV, Δ resonance amplitudes, Lagrangian field theory calc. 2−107684
πN→X, 40 GeV two particle correlations, multiplicity distributions 2−107908
πn→X, 40 GeV/c, charged particle correlations *(Russian)* 2−95875
πN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
π^-N, 150, 280 GeV, ψψ prod. evidence from multimuon prod., cross section 2−101781
π^-N, 185 GeV/c, $\chi_1{}^{++}(3507)$ and $\chi_2{}^{++}(3553)$ hadronic prod. meas. 2−95878
π^-N, 200 GeV/c, double-collision, diquarks in baryons 2−101768
π^-N, 225 GeV/c, muon pair prod., at. weight depend. 2−69499
π^-N, 278 GeV, charm particle pairs forward prod. study 2−84922
π^-N, 278 GeV, limits on D^0-$\bar{D}^0$ mixing and bottom particle prod. cross section 2−84923
π^-N, 40 GeV/C, evidence for 0^- S resonance in $\pi^+\pi^-\pi^-$ systems 2−89981
π^-N, 40 GeV/c, in ^{12}C, rapidities, multiplicities, correlations, cumulative effect *(Russian)* 2−113309
π^-N, 40 GeV/c, in ^{12}C, relativistic proton average multiplicity, prod. mechs. *(Russian)* 2−113310
π^-N, 5 GeV/c, charged particle correl. with proton emission in backward hemisphere *(Russian)* 2−89978
π^-N collisions at 50 GeV/c in a pulsed mag. field, transverse momentum charact. 2−79922
π^-N→ηX, 3.8 GeV/c, η-meson prod. cross section *(Russian)* 2−74704
π^-N→$\mu^+\mu^-$X, 190 GeV/c, different flavour and colour hadronic systems fragmentation meas. 2−84924
π^-N→pX, 5 GeV/c, ^{12}C target, inclusive spectra, resonance width *(Russian)* 2−95870
π^-n→p$\pi^-\pi^-$, 21 GeV/c, data on elastic $\pi^-\pi^-$ scatt. 2−89980
π^-N→πX 2−90161
π^-N→X, 40 GeV/c, charged particle multiplicities *(Russian)* 2−59195
π^+n→e^+e^-p, nucleon and pion form factors, dispersion model anal. *(Russian)* 2−64341
π^+N→π^-X, 2.9 GeV/c, double charge exchange cross sections *(Russian)* 2−113295
$\pi^\pm$N, 39.5 GeV/c, H and W targets, J/ψ cross section, A depend. 2−59194
π^-N→$\pi^-\pi^-\pi^+$N, 40 GeV/c, coherent prod., pion absorpt. in nuclear matter 2−90162

pion-nucleon scattering
see also pion-nucleon interactions; pion-proton scattering
πN scattering in P_{11} channel in pot. model and quark bag model 2−59123
Chew-Low equation, general soln. global struct. 2−95869
polarisation at large angles, phase-shift anal., 2.26-3.26 GeV/c 2−107683
quasi-two-body phase-space factors in isobar model 2−69483
π^+ d, 120, 138 MeV, elastic scatt., tensor polarisation, rel. to dibaryon resons. 2−101764
πd, double scattering, rel. to additive quark model 2−54101
πN, baryonic excitations in nuclei 2−59254
πN, partial wave S matrix singularity parameters 2−79774
πN, separable Bethe-Salpeter eqn. kernels 2−84911

pion-nucleon scattering continued
πN phase shift determ. from isospin constraints and fixed t analyticity 2−95863
^{24}Mg(π,π), 180 MeV, elastic and inelastic scatt. cross section calc. 2−85099

pion-nucleus reactions
for inelastic pion-nucleus scattering, see "pion-nucleus scattering"
see also pion-nucleon interactions
^{A}Cu($\pi^\pm$,X), A=63, 66, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
annihilation, model for spin, isospin and energy depend. 2−54448
baryonic excitations in nuclei 2−59254
charge exchange reactions, review 2−54445
conference on mesons and light nuclei, Liblico, Czechoslovakia (June 1981) 2−58527
emulsion telescope technique to 300 GeV negative pion beam in mag. field 2−64834
high energy collisions, particle prod., chem. equilibrium and quasiergodic hypothesis 2−90076
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
inelastic interactions, soft particle multiplicity distribs., Monte Carlo simulation 2−107856
mechanisms, light nuclei struct. 2−90160
multipion-nuclear interaction study using nuclear absorpt. of antiprotons 2−90169
nuclear medium effects in pion absorption potentials 2−90168
optical pot., pion absorpt. contrib. 2−74779
pion absorption probability by α-cluster in nuclei 2−95981
pion prod. and absorpt. in nuclei, conf., Bloomington, IN, USA (Oct. 1981) 2−79266
pion production in 50 GeV collisions in pulsed mag. field 2−79922
pion-emulsion nucleus interactions, model for slow particle prod. 2−90102
review 2−54443
shower particle pseudorapidity fluctuations phenomenological investigation 2−59191
statistical theory near Δ(1232) resonance 2−74775
theory review 2−54446
C(π, 2N), contrib. towards pion-nucleus optical pot., reaction cross section 2−96048
(p̄,X), stopped p̄, high spin isomers, use to study multipion-nucleus reactions 2−96003
(π^-, 3π), 40 GeV/c, coherent prod., pion absorpt. in nuclear matter 2−90162
(π,d), at rest, final-state interaction, DWBA calc. 2−107913
(π^-,η) on C, Al, Cu, 40 GeV/c, differential cross section meas. *(Russian)* 2−54450
(π^+,^{3}He), pion-induced fission study in model using harmonic oscillator cluster wave functions 2−80038
(π,p) on nuclei A>3, pion absorpt., review 2−80000
(π^-,π^0) on Li, Be, C, Al, Cu, 40 GeV/c, π^--meson charge exchange cross section meas. *(Russian)* 2−54450
(π^+,π^-), 100-300 MeV, systematics in pion double charge exchange 2−59420
(π^+,π^0), pion charge exchange and transition densities to isobaric analogue states 2−85107
($\pi^\pm$, $\pi^\pm$), double charge exchange, spin effects and πN off-shell amplitude correction *(Chinese)* 2−96052
(π,πN) and (π,π′) on C, Al, Fe, Nb, Bi, NN cross section determ. in nuclei 2−85106
(π^-,πX) 2−90161
(π,X), A>2, reaction mechanisms and models, review 2−59406
(π,X) S-wave interaction, many body effects 2−59411
(π^-,X), 200 GeV/c, diffractive dissoc. *(Russian)* 2−64345
(π^-,X), 40 GeV/c, charged particle multiplicities *(Russian)* 2−59195
(π^-,X), 50 GeV, medium energy produced particles characteristics 2−85096
(π^+,x) on light nuclei, x=p or d, cross section for continuum and discrete states 2−59422
(π^-,xn), stopped π, A=12-208, neutron yield and spectra, nuclear temperature 2−90166
(π^-,xnyp), stopped π^-, on A=137-144, high spin states, isomeric ratios, excitation mechanisms 2−95895
Ag(π,X), 200 GeV, multiplicity meas. 2−113467
Ag(π^+, π^+p), 60 MeV, proton knockout mechanism *(Russian)* 2−59425
Al(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
^{197}Au(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{197}Au($\pi^\pm$,$\pi^\pm$n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
Au(π,X), 200 GeV, multiplicity meas. 2−113467
Bi($\pi^\pm$,$\pi^\pm$), 245 MeV, inclusive cross section meas. 2−85104
Bi(π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947
Br($\pi^+\pi^+$p), 60 MeV, proton knockout mechanism *(Russian)* 2−59425
^{12}C(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
^{12}C(π^+,π^+p)^{11}B, distorted-wave impulse approx. calcs. 2−85098
^{12}C($\pi^\pm$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{12}C($\pi^\pm$,$\pi^\pm$n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{13}C(π^+, π^0)^{13}N ground state, single charge exchange reaction, isobar excitation mechanism, theoretical study 2−59405
^{13}C(π^+,π^0), 70-180 MeV, ^{13}N small angle diff. cross sections to isobaric analogue states, energy depend. 2−64386
^{A}Ca(π^+,π^-)^{A}Ti, A=40, 42, 44, 48, double charge exchange, two-amplitude model of cross section 2−69681
^{40}Ca(π^-, X), energy spectra following pion absorpt., exciton model description 2−113572
^{40}Ca($\pi^\pm$,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components, ^{40}Ti mass excess 2−90167
^{40}Ca($\pi^\pm$,π^0), giant-resonance excitation, eikonalised strong-absorption model 2−85103
Ca(π^-, X), stopped π^-, p,d,t, ^{3}He, α emission energy spectra 2−96047
^{59}Co(π^-,X), stopped π^-, two coincident charged particle spectroscopy, missing mass 2−113568
C(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908

pion-nucleus reactions continued
- C($\pi^{\pm}$,$\pi^{\pm}$p), 245 MeV, inclusive cross section meas. 2−85104
- Cu(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
- Fe($\pi^{\pm}$,$\pi^{\pm}$P), 245 MeV, inclusive cross section meas. 2−85104
- Fe(π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947
- ^{1}H(π^-,γ), (π^-,π^0), 27.4, 39.3 MeV, radiative capture and charge exchange scatt. length 2−59407
- ^{2}H(π,NN), coupled πNN-NN system, dinucleon resonances 2−59408
- ^{2}H(π,2p), 180-320 MeV, vector anal. power iT_{11}, ang. distrib. 2−90081
- ^{2}H(π,πn)^{1}H, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
- ^{2}H(π^-,γ), three-body forces and neutron-neutron effective-range parameters 2−64358
- ^{2}H(π^+, pp), 80 to 417 MeV, differential cross section meas. 2−90163
- ^{2}H(π^+,p)p in six-quark model of two nucleon current 2−79987
- ^{2}H(π^+,pπ^+)n, three-body calc. in Δ-resonance region 2−74776
- ^{3}He(π^-,X), total and partial K-X-ray yields, pnn-and dn-reaction channels 2−113569
- ^{3}He(π^-,2n)^{1}H, absorpt., kinematically complete expt. 2−74778
- ^{3}He(π^-,n)^{2}H, absorpt., kinematically complete expt. 2−74778
- ^{3}He(π^-,π^0), T_π=200 MeV, differential cross section meas. 2−54447
- ^{3}He(π^-,π^0)^{3}H, 285,428,525 MeV; pion single charge exchange scatt. cross section 2−59424
- ^{3}He(π^-,π^0)^{3}H, differential cross-section, optical model calc., mag. radius depend. 2−96046
- ^{4}He(π,n)^{3}H, differential cross section in rescattering model, comparison with expt. 2−80011
- ^{4}He(π^-, n), 100-290 MeV, differential cross section, multinucleon absorption mech. *(Chinese)* 2−80040
- ^{4}He(π^-,n)^{3}H, pion absorpt., knockout 2−59413
- ^{4}He(π^+,p)^{3}He, pion absorpt., knockout 2−59413
- ^{4}He($\pi^{\pm}$,$\pi^{\pm}$X), 90-320 MeV, quasifree scatt., π-N medium corrections 2−80039
- ^{165}Ho(π^-,γX), π^- capture, neutron spectra coincident with discrete γ-rays 2−101948
- ^{7}Li(π^+,e$^+$e$^-$), 380 MeV, inverse pion electroprod., diffr. cross section *(Russian)* 2−107914
- ^{7}Li(π^+,π^0), 70-180 MeV, ^{7}Be small angle diff. cross sections to isobaric analogue states, energy depend. 2−64386
- ^{A}Li(π^-,X), stopped π^-, A=6, 7, X=p, d, t, inclusive energy spectra, missing mass spectra 2−113567
- ^{A}Li(π^+,xx), A=6,7, 38=90 MeV, two-particle coincidence data from pion annihilation 2−80037
- ^{25}Mg($\pi^{\pm}$,$\pi^{\pm}$p), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
- ^{14}N(π^+,xx), 38-90 MeV, two-particle coincidence data from pion annihilation 2−80037
- ^{A}O(π^+,π^-), 80-292 MeV, interference effects in pion double charge exchange 2−59419
- ^{16}O(π,π'N), quasielatic scatt., Δ-hole and DWIA approaches 2−96051
- ^{16}O(π^-,X) X=2n or pn, final state effects, optical pots. 2−96050
- ^{16}O(π^+,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components 2−90167
- ^{16}O(π^+,xx), 38-90 MeV, two-particle coincidence data from pion annihilation 2−80037
- ^{A}Pb($\pi^{\pm}$,X), A=202, 208, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
- Pb(π^-, X), 40 GeV, two particle correlations, multiparticle distribs. 2−107908
- (π^-,π^-n), 165 MeV, quasifree cross sections, π-N ang. correlations 2−101947
- ^{28}Si(π^+,π^-), 164 MeV, isotensor double charge exchange, mass depend., Δ components, ^{28}S mass excess 2−90167
- ^{181}Ta(π^-,γX), π^- capture, neutron spectra coincident with discrete γ-rays 2−101948
- ^{238}U($\pi^{\pm}$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442

pion-nucleus scattering
- *see also pion-nucleon scattering*
- C ^{16}O(π,π'), 1 GeV, cross-section rel. to molecular model *(Russian)* 2−59364
- elastic and elastic scatt., review 2−54445
- pionic nuclear excitations, review 2−79956
- relativistic kinematics 2−107912
- review 2−54443
- S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
- theory review 2−54446
- (π,π), low energy, unitary description, local field corrections 2−59410
- (π^+,π^+), pions absorption and pion-nucleus optical pot. 2−59421
- (π, π') on ^{7}Li, ^{12}C, ^{16}O, ^{15}N, ^{20}Ne, ^{24}Mg, elastic and inelastic scatt. and nuclear struct. in Glauber model 2−59417
- ($\pi^{\pm}$,$\pi^{\pm}$), IBM test on cross sections 2−69566
- πN scatt. in P_{11} channel, parameterisation, resonance effects 2−113571
- ^{12}C(π, π'), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
- ^{12}C(π,π'), distorted wave impulse approx. differential cross section calc. 2−54334
- ^{12}C(π,π'), Δ-hole descript., natural and unnatural parity state excitation 2−96045
- ^{12}C(π,π), differential cross sections, two-pot. formalisms, Coulomb nuclear interference 2−113570
- ^{12}C(π^+,π^+), 29-56 MeV, backward elastic scatt. cross section, optical pot. 2−96049
- ^{13}C($\pi^{\pm}$,$\pi^{\pm}$'), 162 MeV, ^{13}C levels, rel. to DWIA calc. 2−107911
- ^{40}Ca(π, π'), 80 MeV, inelastic scatt. cross section ang. distrib. 2−90164
- ^{40}Ca($\pi^{\pm}$, $\pi^{\pm}$), 64.8 MeV, elastic scatt. cross section ang. distrib. 2−90165
- ^{48}Ca($\pi^{\pm}$, $\pi^{\pm}$), 130 MeV, neutron density distribs. by different strong probes, radial sensitivity 2−69525
- C(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
- ^{2}H(π,π), 0.4-1 GeV, backward scatt., relativistic model ang. distrib., *(Russian)* 2−107915
- ^{2}H(π,π), 100-300 MeV elastic scatt. cross section calc. using optical pot. 2−85100
- ^{2}H(π,π), 142, 181, 228 MeV, reflection term effects on differential cross section 2−69680

pion-nucleus scattering continued
- ^{2}H(π,π), 219-294 MeV, polarised d, iT_{11} meas., dibaryon reson. effects study 2−85097
- ^{2}H(π,π), 245-539 MeV, phase shift anal. 2−113294
- ^{2}H(π,π), coupled πNN-NN system, dinucleon resonances 2−59408
- ^{2}H(π,π), general anal. using amplitudes *(Russian)* 2−74780
- ^{2}H(π,π), πNN dynamics, $^3F_3$ diproton anomaly 2−74763
- ^{2}H(π,π), relativistic treatment using πN scatt. separable Bethe-Salpeter eqn. kernels 2−84911
- ^{2}H(π,π), s-wave six-quark states and channel coupling 2−69481
- ^{2}H(π,π), scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
- ^{2}H($\pi^{\pm}$,$\pi^{\pm}$), 65 MeV, differential cross section, rel. to 3-body calc. *(French)* 2−59414
- ^{4}He(π,π), 40-400 GeV, dσ/dt and σ, inelastic correction 2−54380
- ^{4}He(π,π), low energy scatt., few-nucleon structure, review 2−59409
- ^{4}He(π,π), partial wave S matrix singularity parameters 2−79774
- ^{4}He($\pi^{\pm}$,$\pi^{\pm}$), 51 MeV, differential cross section, rel. to optical pot. calcs. *(French)* 2−59414
- ^{A}He(π,π), A=3, 4, scatt. lengths, rel. to optical model, closure approx., nucleon binding *(Russian)* 2−59426
- ^{7}Li($\pi^{\pm}$,$\pi^{\pm}$), 143 MeV, elastic and inelastic scatt. study 2−59418
- ^{20}Ne(π,π), folding pot., three body optical model for 2 clusters and a meson 2−59412
- ^{16}O(π,π), scattering length, 3-body model, nucleon binding, exclusion principle, optical pot. 2−107910
- O(π,π), 50-80 MeV, Glauber theory calc., α-particle model wavefunction 2−107909
- (π,π') and (π,πN) on C, Al, Fe, Nb, Bi, NN cross section determ. in nuclei 2−85106

pion-pion interactions
- *see also pion-pion scattering*
- $\pi\pi\to\gamma\gamma$, forward annihilation, pion polarisabilities, sum rule inequalities 2−64244
- $\pi^+\pi^-\to\pi^0\pi^0$, 1-2.3 GeV, amplitude anal. 2−69489

pion-pion scattering
- *see also pion-pion interactions*
- elastic scatt. studied by πp→$\pi\pi$N reaction *(Russian)* 2−69490
- elastic scattering amplitudes, Froissart bound saturation 2−113120
- phase curves, Roy eqn. approx. *(Russian)* 2−59179
- phase shift analysis 2−84916
- π^-n→p$\pi^-\pi^-$, 21 GeV/c, data on elastic $\pi^-\pi^-$ scatt. 2−89980
- $\pi\pi$ scattering length, current algebra and S*(980) background contrib. 2−95716

pion production
- black holes, constraints on π^0-mesons prod. and γ-ray emission from spherically symmetric accretion 2−68808
- central high energy nuclear collisions, pion prod. model 2−74771
- coupled-channel description of pion prod. and absorpt. by many-nucleon system 2−85012
- fission dynamics and collective phenomena, symposium, Bad Honnef, Germany (Oct. 1981) 2−112657
- fundamental interactions and processes 2−79986
- hadron-nucleon interactions, diquark fragmentation functions determ. from pion prod. data 2−84920
- $J^P=1^+$ three pion system anal., Watson theorem for multiquark states 2−95790
- meson production reaction by p, d, α on nuclei 2−54370
- microscopic theory of pion prod. and absorpt. 2−79985
- nuclear reactions, pion prod. and absorpt. in nuclei, conf., Bloomington, IN, USA (Oct. 1981) 2−79266
- pionic fusion reactions, coherent pion prod. 2−80044
- proton and heavy ion induced reactions, proton and pion emission in phenomenological model 2−95983
- quark models and pion prod. models of physics at short distance 2−79987
- ^{A}C(p,$\pi^{\pm}$), A=12-14, pion prod. cross section and analysing power meas. 2−80002
- e$^+$e$^-$, 14, 22, 34 GeV CM energy, charged pion prod. cross section meas. 2−84904
- e$^+$e$^-$ annihilation, hadronic events, inclusive γ and π^0 spectral meas. 2−113288
- e$^+$e$^-$ annihilation, π, K, ρ and $\bar{p}$ prod., quark combinatorics calc. *(Russian)* 2−95858
- e$^+$e$^-$→$\pi^+\pi^-$K$^+$K$^-$, 1.4-2.18 GeV, cross sections, isospin interference, K*Kπ dynamics 2−69476
- e$^+$e$^-$→πX, higher twist contrib. from direct pion coupling, QCD interpretation 2−95859
- e$^+$e$^-$→q$\bar{q}\pi$ process, P-odd effects *(Russian)* 2−59139
- e$^+$e$^-$→$\rho\pi(\phi\pi)$, 1.4-2.18 GeV, cross section meas. 2−84903
- eN→πX$_1$ enhancement due to pion condensation *(Russian)* 2−59343
- ep→enπ^+, π^+ mesons electroproduction in D_{13}(1520) and F_{15}(1688) reson. region 2−79891
- ep→π^+e'n, virtual photons in pion electroproduction 2−74758
- ep→$\pi^{\pm}$X, inclusive single soft pion prod., moment sum rules 2−113281
- (γ,π), photoproduction cross section, polarisation effects *(Russian)* 2−90091
- (γ,π) on ^{6}Li, ^{12}C, ^{24}Mg, ^{28}Si, ^{40}Ca *(Russian)* 2−90089
- γd→π^0d, coherent prod. at intermediate energies 2−69474
- $\gamma\gamma\to\pi^0\pi^0$ ($\pi^0\eta$), f(1270) and A_2(1310) production 2−54226
- $\gamma\gamma\to\pi\pi$, π-polarisability *(Russian)* 2−79926
- γN→π, pol. γ, quark models test 2−101735
- γn→π^-n, 300 to 700 MeV, differential cross sections *(Japanese)* 2−107670
- γp, large p_T photoproduction in hard scatt. expansion 2−101734
- $\vec{\gamma}$p→$\vec{p}\pi^0$, 0.8-1.5 GeV, p polarisation meas. *(Russian)* 2−107716
- γp→pπ^0, pol. γ, pol. p, 300-420 MeV, polarisation parameters near resonance *(Russian)* 2−59163
- γp→π^+n, 0.96-1.1 GeV, polarised target asymmetry, nucleon resonance radiative decay 2−64347
- γp→π^+n, multipole anal., energy independ. 2−89970
- γp→π^0p, 450 to 975 MeV, differential cross-section *(Japanese)* 2−107671
- γp→πX, higher twist contrib. from direct pion coupling, QCD interpretation 2−95859
- hh→πX, high-energy, interference effects, multicluster model 2−101697
- hh→X, charged multiplicity distribs., rel. to pionisation mass 2−74705
- hN→X, leading hadron noncoherent interaction, optical model calc., gluon cloud loss *(Russian)* 2−64346
- hp→$\pi^+\pi^-$X, particle ratios in quark cascade recombination model 2−54107

pion production continued
K^--emulsion nuclei interaction, 12.5 GeV/c, pion emission study 2−64441
$K_L^0 \rightarrow \pi\mu\nu$, $(\pi^\pm\mu^\mp)$ atom creation *(Chinese)* 2−107657
$K_L^0 \rightarrow \pi\mu\nu$, $\pi\nu$ hydrogen like atoms, formation rate 2−69448
$K^-p \rightarrow \Lambda(1520)\pi^0$, transversity amplitude anal. at 4.2 GeV 2−84912
$K^-p \rightarrow \Lambda\pi$, $\Sigma(1385)$, resonance parameters from decay mode 2−84913
$K^-p \rightarrow \Lambda\pi^+\pi^-$, 620 to 870 MeV, final state anal. 2−54211
$K^-p \rightarrow \pi^\mp\Sigma^\pm(1385)$, interference effects and kinematic reflections 2−84914
NN, pion prod. theory, review 2−79905
NN in d, α, and ^{12}C collisions at 4.2 GeV/c, pion prod. characts. 2−85064
$NN \rightarrow \pi^0X$, 5 TeV, on C in emulsion 2−69493
$NN \rightarrow \pi^0(\eta)(\Delta)$, 2 GeV, obs. in relativistic nucleus collisions 2−101919
$NN \rightarrow \pi d(NN\pi)$, below 1500 MeV, single pion prod. cross section 2−64340
$NN \rightarrow \pi d(NN\pi)$, pion prod., expt. results review 2−79904
$\nu n \rightarrow \mu^- p\pi^0(\mu^-n\pi^+)$, single-pion prod. by weak charged currents 2−69442
(p,π), expt. results on pion prod. 2−80006
(p,π), pion prod. in rescattering model 2−80011
(p,π), pion prod. model 2−80014
(p,π), systematics in pion prod. and absorpt., expt. overview 2−80001
(p,π) on ^3He, ^4He, ^6Li, ^{10}B, pion prod. in exclusive kinematical region 2−80004
(p,π) on nuceli A>3, pion prod., review 2−80000
(p,π^+), A=12, 16, 40, distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
$(\vec{p},\pi^+)$, relativistic one nucleon model description for reaction mechanism 2−80009
(p,π^+), two-nucleon model, pion prod. study 2−80012
$p \rightarrow \pi^\pm X$, recombination model to measure sea polarisation 2−95776
$pd \rightarrow dN\pi$, 2.95 GeV/c, coherent interaction, one-pion prod. 2−74765
$pd \rightarrow \pi^-X$, cumulative prod., differential cross-sections 2−95877
pN, 70 GeV, hadron prod. in high-$p_\perp$ processes *(Russian)* 2−89989
pN, 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
$pn \rightarrow pp\pi^-$, 500-1000 MeV, cross section, search for dibaryon resonances 2−101756
pp, 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
$\bar{p}p$, 32 GeV/c, inclusive prod. of $\pi^\pm$ and protons 2−79924
$\bar{p}p$, 7.3 GeV/c, absolute inclusive cross sections 2−69487
pp, $\sqrt{s}$=30-63 GeV, high-p_T direct photon and neutral-pion prod. 2−95885
pp, soft interaction, π^+/π^- ratio, valon model calc. 2−89975
$\bar{p}p \rightarrow K^+K^-4\pi^0$, partially conserved axial-vector current hypothesis, branching ratios 2−113293
$pp \rightarrow pp\pi$, pion prod. model 2−107678
$pp \rightarrow pp\pi^0(pn\pi^+)$, 1000 MeV, secondary nucleon polarisation in one pion exchange model 2−59205
$p\bar{p} \rightarrow \pi^0X$, 540 GeV, invariant prod. cross section 2−101782
$\bar{p}p \rightarrow \pi^0$+charmonium, diff. cross section, $\bar{p}p$ resonance formation, soft pion emission 2−64338
$pp \rightarrow \pi^+\pi^-X$, 70 GeV, invariant cross-section, break of slope, rel. to calcs. 2−74713
$pp \rightarrow \pi^\pm X$, inclusive cross section in central region in terms of Pomeron 2−101775
$pp \rightarrow \pi d$, complete set of observables and orthogonal geometry 2−113290
pp→X, pion and proton prod., diquark dynamical role *(Russian)* 2−59198
$(\pi^-,\pi X)$ 2−90161
π^-N collisions at 50 GeV/c in a pulsed mag. field, transverse momentum charact. 2−79922
$\pi^-n \rightarrow p\pi^-\pi^-$, 21 GeV/c, data on elastic $\pi^-\pi^-$ scatt. 2−89980
$\pi^-N \rightarrow \pi X$ 2−90161
$\pi p \rightarrow \pi^+n$, sum rules, rel. to poor man's absorpt. model 2−59162
π^-p, 200 GeV/c, π^0 prod., multiplicity distrib., diffraction dissociation 2−113303
π^-p, 40 GeV/c, identity effects study for pion prod. *(Russian)* 2−89988
$\pi^-p \rightarrow \pi^-X^+$, 40 GeV/c, single inclusive diffractive prod. study *(Russian)* 2−54222
(^{40}Ar, $\pi^\pm$), 535 MeV, on A=12-39, strong Coulomb effects, doubly differential cross sections 2−69675
$^{40}Ar(C,\pi^\pm)$, 533 meV, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
Ar(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
Au(C,π^+), 85 A MeV, subthreshold pion prod. cross section 2−59393
$^{10}B(\gamma,\pi^+)^{10}Be$, differential and total cross section calc. 2−85023
$^{10}B(\gamma,\pi^\pm)$, 17, 29, 42 MeV, charged pion photoproduction cross section meas. 2−85026
$^{10}B(p,\pi^+)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
$^9Be(\vec{p},\pi^-)^{10}C^*$, 200-250 MeV, analysing power energy depend., meas. at TRIUMF 2−80007
$^9Be(\vec{p},\pi^+)^{10}Be$, 200-250 MeV, analysing power ang. distrib. meas. 2−85047
$^9Be(p,\pi^\pm)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
$^{209}Bi(p,\pi)$, pion prod. by target emission, total cross section calc. 2−80013
$C(^{40}Ar,\pi^\pm)$, cross section for pion prod. near CM vel. 2−59400
C(C,π), nonlinear effects in pion prod. *(Russian)* 2−90116
C(C,π^+), 85 A MeV, subthreshold pion prod. cross section 2−59393
$^AC(p,\pi^-)$ A=12-14, pol. p, evidence for two-nucleon processes 2−113472
(^{12}C,X) on targets from C to Pb, 1.03 GeV, fragmentation, proton and pion emission 2−113537
$^{12}C(e,e'\pi^\pm)$, 200 MeV, π^-/π^+ ratio ang. distribs., PCAC and optical anals. 2−69645
$^{12}C(\gamma,\pi^\pm X)$, 200-390 MeV, double differential and total cross sections 2−85028
$^{12}C(\gamma,\pi^+)^{12}B$, nuclear form factors in timelike region and pion photoproduction 2−64395
$^{12}C(p,\pi^+)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
$^{12}C(\vec{p},\pi^+)X$, analysing power energy depend., meas. at TRIUMF 2−80007
$^{12}C(p,\pi)$, pion prod. by target emission, total cross section calc. 2−80013
$^{13}C(\gamma,\pi^-)$, 17-42 MeV, anomalously low diff. cross section, DWIA comparison 2−64393
$^{40}Ca(^{40}Ar,\pi^\pm)$, cross section for pion prod. near CM vel. 2−59400

pion production continued
$^{40}Ca(p,\pi^+)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
Cl(Ar,π), nonlinear effects in pion prod. *(Russian)* 2−90116
C(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
F (Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
F(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
(HI, k), 100 TeV, rel. to cosmic ray air shower interpretation 2−74718
$^1H(p,\pi)^2H$, complete set of observables and orthogonal geometry 2−113290
$^1H(p,X)$, 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
$^2H(p,\pi^0)^3He$, cross section ang. distrib. and analysing power meas. 2−80003
$^AH(n,\pi)$, A=1-2, pion prod., differential cross section meas. 2−80005
($^3He,\pi^+$) on ^3He, ^4He, ^6Li, ^{10}B, pion prod. in exclusive kinematical region 2−80004
$^3He(^3He,\pi^+)^6Li$, pionic fusion reaction mechanism study 2−80044
$^4He(^3He,\pi^+)^7Li$, coherent pion prod. study and reaction mechanism test 2−107873
$^4He(\gamma,\pi^0)^4He$, 1.5-4.5 GeV, π^0 photoproduction cross section meas. *(Russian)* 2−54357
$^4He(\gamma,\pi^0n)$, 450 MeV, energy and ang. distribs. *(Russian)* 2−107848
K(Ar,π), nonlinear effects in pion prod. *(Russian)* 2−90116
$^6Li(^3He,\pi^-X)$, 303 MeV/N, coherent π^- prod., cross sections, Weizsacker-Williams calc. 2−64416
$^6Li(d,\pi^-)^8B$, pion prod. in exclusive kinematical region 2−80004
$^6Li(\gamma,\pi^+)^6He$, nuclear form factors in timelike region and pion photoproduction 2−64395
$^6Li(p,\pi^+)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
$^{14}N(\gamma,\pi^+)^{14}C$, charged pions threshold photoproduction study 2−95988
Na(Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
Na(Ne,X), subthreshold pions ang. distrib. meas. 2−80026
(^{20}Ne, $\pi^\pm$), 280-480 MeV, on A=12-238, strong Coulomb effects, doubly differential cross sections 2−69675
$^{20}Ne(C,\pi^\pm)$, 280, 482 MeV, pion prod. cross sections, spectator fragment Coulomb effects 2−69676
$Ne(\bar{p},\pi X)$, low energy annihilation, leading particle effect, semiclassical transport theory 2−69655
$^{16}O(\gamma,\pi^+)^{16}N$, differential and total cross section calc. 2−85023
$^{16}O(p,\pi^+)$, 800 MeV, differential cross section ang. distrib. meas. 2−80008
Pb(Ne,X), 183 MeV/nucleon, negative pion prod. cross section meas. 2−85070
$\pi^-N \rightarrow \pi^-\pi^-\pi^+N$, 40 GeV/c, coherent prod., pion absorpt. in nuclear matter 2−90162
Ta+d(α)(^{12}C), 4.2 GeV/c, pion prod. characts. 2−85064
Ta(^{12}C,X), 4.2 GeV/N, π^- prod., angular and momentum characts. *(Russian)* 2−113518
Ta(α,X), 4.2 GeV/N, π^- prod., angular and momentum characts. *(Russian)* 2−113518
Ta(d,X), 4.2 GeV/N, π^- prod., angular and momentum characts. *(Russian)* 2−113518
$U(^{40}Ar,\pi^\pm)$, cross section for pion prod. near CM vel. 2−59400

pion-proton inclusive interactions
deep inelastic collisions study with large acceptance transverse energy trigger 2−107705
hadronic multiplicities universality evidence and meaning 2−101660
$\pi^\pm N$, 39.5 GeV/c, H and W targets, J/ψ cross section, A depend. 2−59194
πp, 140-360 GeV/c, charge distrib. in parton model 2−101679
$\pi p \rightarrow K_s^0(\Lambda,\bar{\Lambda})X$, 12-405 GeV/c, cross-section, multiplicity, energy depend. *(Russian)* 2−74710
π^-p, 16 GeV, inclusive $\phi(1020)$ prod. cross section, comparison with ψ prod. 2−101778
π^-p, 200 GeV/c, π^0 prod., multiplicity distrib., diffraction dissociation 2−113303
π^-p, 360 GeV, charm prod. in LEBC-EHS expt. 2−79916
π^-p, 40 GeV/c, identity effects study for pion prod. *(Russian)* 2−89988
π^-p, interaction at 5 and 40 GeV/c, KNO scaling *(Russian)* 2−84926
$\pi^-p \rightarrow (pX^-)(\pi^-X^+)$, 40 GeV/c, single inclusive diffractive prod. study *(Russian)* 2−54222
$\pi^-p \rightarrow D^{*-}X$, 16 GeV/c, peripheral prod. cross-section 2−64344
$\pi^-p \rightarrow e^+e^-X$, 16 GeV, direct pair prod. 2−113302
$\pi^-p \rightarrow \mu^+\mu^-X$, dimuon prod. at large transverse momentum, EM effects 2−101776
$\pi^-p \rightarrow \mu^+\mu^-X$, Drell-Yan process, higher twist contrib. from direct pion coupling, QCD interpretation 2−95859
$\pi^-p \rightarrow \pi^+(\pi^-)(\pi^0)X$, 5 GeV/c, Regge trajectories factorisation hypothesis test *(Russian)* 2−101765
$\pi^+p \rightarrow K^{*\pm}X$, 147 GeV/c, x and t distribs. 2−74715
$\pi^+p \rightarrow Y^{*\pm}X$, 147 GeV/c, x and t distribs. 2−74715
$\pi^\pm p$, 100, 200 GeV/c, charged multiplicity distrib. universality 2−107704
π^-p, cluster model for multiplicity distribs., KNO scaling 2−89982

pion-proton interactions
see also pion-proton inclusive interactions; pion-proton scattering
deep inelastic processes, large acceptance results at 300 GeV/c 2−74708
$J^P=1^+$ three pion system anal., Watson theorem for multiquark states 2−95790
$\pi p \rightarrow$charm, rel. to backward scatt. sum rules 2−101754
$\pi p \rightarrow \pi\pi N$, appl. to study of $\pi\pi$ elastic scatt. *(Russian)* 2−69490
π^-p, 205 GeV/c, final-state particles charged depend. behaviour study 2−69491
$\pi^-p \rightarrow e^+e^-n$, nucleon and pion form factors, dispersion model anal. *(Russian)* 2−64341
$\pi^-p \rightarrow \eta\eta n$, ε(1300-1400) identification and exposition possibilities *(Russian)* 2−54208
$\pi^-p \rightarrow K_S^0K_S^0n$, 23 GeV/c, new 0^{++} meson obs., possible scalar decuplet 2−74716
$\pi^-p \rightarrow K_s^0K_S^0n$, 23 GeV/c, $K_S^0K_s^0$ system amplitude anal. 2−69492
$\pi^-p \rightarrow K^+K^-\pi^-p$, 16 GeV, partial wave anal. of $K^+K^-\pi^-$ system 2−107693
$\pi^-p \rightarrow n\gamma(\pi^0n)$, 27.4, 39.3 MeV, radiative capture and charge exchange scatt. length 2−59407
$\pi^-p \rightarrow \phi\phi n$, 16 GeV/c, cross section and $\phi\phi$ system decay ang. distrib. 2−59185
$\pi^-p \rightarrow \phi\phi n$, OZI rule, colour confinement and glueballs 2−59102

pion-proton interactions continued
$\pi^-p \rightarrow \phi\phi n(\phi K\bar{K}n)$, 2^+ glueball effects 2−113237
$\pi^-p \rightarrow \pi^-\pi^+n$, 6 GeV/c, multidimensional anal., prism plot method 2−84909
$\pi^-p \rightarrow \pi^0n$, 40 GeV/c, polarisation *(Russian)* 2−89979
$\pi^-p \rightarrow \pi^0n$, large momentum transfer, quark-parton model *(Russian)* 2−59183
$\pi^-p \rightarrow \pi^0\pi^0n$, 25 GeV, $\pi^0\pi^0$ ang. distrib. meas. 2−113301
$\pi^-p \rightarrow \pi^-\pi^\pm X$, 40 GeV/c, leading pion sources *(Russian)* 2−59187
$\pi^-p \rightarrow \pi^0n$, 1.965-2.960 GeV/c, polarisation parameters *(Japanese)* 2−107714
$\pi^-p \rightarrow \pi^0n$, 1.969-2.965 GeV/c, differential cross sections *(Japanese)* 2−107682
$\pi^-p \rightarrow \pi^0n$, 2.77, 3.49, 4.22 GeV/c, polarisation parameters *(Japanese)* 2−107715
$\pi^-p \rightarrow X$, 200 GeV/c, diffractive dissoc. *(Russian)* 2−64345
π^+p, 147 GeV/c, topological, total and elastic cross section meas. 2−95872
$\pi^+p \rightarrow \Delta^{++}\pi^0\pi^0$, 1-2.3 GeV, $\pi^+\pi^- \rightarrow \pi^0\pi^0$ scatt. amplitude anal. 2−69489
$\pi^+p \rightarrow \pi^+\pi^\pm X$, 16 GeV/c, leading pion sources *(Russian)* 2−59187
$\pi^\pm p \rightarrow pX$, 100-200 GeV/c, high-mass diffractive states, charged multiplicities 2−74707

pion-proton scattering
see also pion-proton interactions
πp, elastic unitarity of direct channel and Froissart saturation *(Russian)* 2−101772
π^-p, slope parameter and zero trajectories 2−54206
π^-p, slope parameter and zero trajectories 2−54207
π^-p backward scattering, high energy, Δ-spectrum struct. *(Russian)* 2−59181
π^+p, 147 GeV/c, topological, total and elastic cross section meas. 2−95872
π^+p backward scatt. at high energy, baryon parity parameters, theory *(Russian)* 2−113300
π^+p elastic scatt., polarisation parameter meas. at 335-410 MeV *(Russian)* 2−59178
$\pi^\pm p$, Coulomb corrections, π-mesic H 2−84910

pion scattering *see lepton-hadron scattering; meson-meson scattering; photon-hadron scattering; pion-baryon scattering; pion-nucleus scattering; pion-pion scattering*

pions
capture probabilities in tissues and tissue-equiv. materials 2−73299
constituent quarks, momentum spectrum, additive quark model *(Russian)* 2−95797
CP_2^{N-1} model with quarks on lattice, lattice fermion, pion mass, PCAC 2−69338
EM form factor using extended VDM 2−95838
EM form factors and struct. functions, dressed quark model 2−59149
form factor, corrections using perturbative QCD and dimensional regularisation 2−54155
form factor and sum rules in QCD 2−113273
form factor at intermediate momentum transfer in QCD 2−107661
form factors, exlusive processes in QCD 2−54091
formfactor and QCD sum rules *(Russian)* 2−79881
lifetime calculation from lattice structured vacuum theory 2−54138
naive nonrelativistic quark model hybrid, pion effects, baryon mass, mag. moment 2−101676
nuclear physics and QCD, fundamental role of pion 2−54065
nuclear probe in materials research, H-atom environment 2−104787
polarisabilities, sum rule inequalities 2−64244
QCD, quark model pion and Goldstone pion 2−54096
radius from fireball space struct. 2−84875
relativistic form factors for hadrons with quark-model wave functions 2−95839
structure functions, from charge exchange quark-parton model *(Russian)* 2−59183
SU(3)×SU(3) bag model with pseudoscalar meson cloud of K, η, η′ *(Chinese)* 2−95792
superconducting ring magnets of the pion therapy facility PIOTRON at the Swiss Institute for Nuclear Research (SIN) 2−117087
wave function and EM form factor, large momentum behaviour, QCD and renormalisation theory 2−59148
$e^+e^- \rightarrow \pi^+\pi^-$, pion form factor meas. near threshold using localised discharge spark counter 2−90356
(μ,π) and (μ,γ) invariant masses from decay of possible neutral heavy lepton 2−95834
Π^-, energy deposition spectra calc. from pion nucleus interaction data 2−116984
π^- charge form factor, rel. to proton 2−89964
π^--induced β-activity in extended foils, 2D meas., cancer treatment dosimetry appl. 2−73369
π^-+Ge, K-shell excitation and ionis. by relativistic projectiles, channeling obs. 2−59920
π^++Ge, K-shell excitation and ionis. by relativistic projectiles, channeling obs. 2−59920
πNΔ system, props. in chiral bag model 2−59118

pipe diffusion *see diffusion in solids*

pipe flow
see also channel flow
aerosol particles from turbulent gas streams, thermophoretic deposition 2−60628
air convective flow, in parallelepipedic box of aspect ratio 14 *(French)* 2−55568
air-solid pipe flow, laser-Doppler velocimetry meas. 2−97672
air-solid two-phase flow in pipe at low air vel., flow pattern and press. fluctuation 2−114876
air-water, two-phase flow through pipeline with gate valve and orifice plates 2−71020
anisotropic Ericksen fluid, flo9w of fibre suspension between coaxial cylinders , Couette flow stability 2−65566
annular flow stability in horizontal tubes 2−114875
annular turbulent flow, vapour condensation 2−55546
axially developing flow in an annulus, spatial stability non-axisymm. disturbances 2−103211
axisymmetric flow in a toroidal tube with current 2−103213
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
benzene, tube boiling, heat transfer coeffs., critical heat flux 2−91419
Bingham fluid, pulsatile flow enhancement 2−70997
blood and other particulate suspensions, flow through narrow tubes, 3-layer semi-empirical model 2−105747
boiling water, unsteady thermal equilibrium outflow, 2-dimens. calc. 2−86335
boundary-layer collision initiating singularity 2−70904
Casson model slurries laminar-turbulent transitions in pipeflow 2−81320
chemical reactions in tubular flow, computation using iterative methods 2−81405
circular channel with laminar flow, heat transfer in initial segment 2−55573
circular cosh duct, acoustic mode propag., closed form. soln. 2−65581
coarse particles, plug flow in horizontal pipe 2−97661
coherent structure in turbulent shear flow, research prospects 2−81326
collapsible tube, math. model of unsteady behaviour 2−86340
collapsible tube, thick-walled, two modes of instability 2−103212
combined convection stagnation heat transfer from an isothermal cylinder with internal sources or sinks 2−114800
combined free and forced laminar convection in entrance of horizontal pipe 2−91450
composite pipeline, dynamic processes 2−114720
countercurrent flow with air and water, liquid carry-over and entrainment 2−96214
creeping flow of a visco-elastic fluid in a conical duct 2−76000
cryogenic pipeline flow, cooling temp. profile 2−103166
curved pipe, gas-particulate flow 2−60632
curved pipe secondary flow boundary-layer collisions, electrochemical meas. 2−114902
curved tubes, bifurcation in steady laminar flow 2−91385
cylindrical tube of varying radius, stationary flow, Newtonian two-fluid model 2−109414
dense-phase pipeline flow, fluid friction anal. 2−103210
discharge coefficient of an orifice in unsteady pipe flow 2−103214
discrete solids in partially-filled pipe flow, transport models 2−97641
district heating systems pressure losses reduction of turbulent pipeline flow by means of chemical additives 2−76022
double pipe heat exchanger, heat transfer superimposed pulsating flow effects *(German)* 2−97549
drag reducing fluids, heat transfer and friction, diameter effect prediction 2−109404
drag reduction in turbulent flow, soluble polymer addition method *(German)* 2−70998
dusty gas, viscous incompressible unsteady pipe flow, MHD study 2−81400
dusty viscous incompressible gas through tube under time depend. harmonic press. gradient, laminar flow 2−97496
eccentric spheres flowing in cylindrical tube 2−97639
equilibrium two-phase heat pipe flows with variable flowrate 2−91516
film, liq., irregular flow down vertical column, curvature effect on flow stability 2−55668
finite sphere, creeping motion along axis of circular orifice 2−71032
flame propagation in laminar flow, strain influence 2−114758
flaming regime in glass-plastic pipe, coolant mixed convection effects 2−60670
flapping vane as a rotodynamic machine for the forced circulation of a medium *(Russian)* 2−81410
flow, boiling in uniformly heated vertical tubes, critical heat flux, dimensionless groups 2−109405
flow control using globe valve 2−65651
flow patterns and hydraulic losses in bent pipes, appl. to heat exchangers 2−81394
flow through smooth concentric annuli, turbulent friction calcs. 2−60520
flow velocity distribution meas. in horizontal circular pipe using laser Doppler velocimeter *(Japanese)* 2−114956
flowmeter physical props. *(Slovak)* 2−55680
forced convection in a circular tube, Graetz problem, Dirichlet boundary conditions 2−81333
free convection effects on laminar forced convective heat transfer in a horizontal isothermal tube 2−91402
Freon 113, flow boiling system, dryout heat flux and entrained drop size 2−91512
frequency spectrum of liquid and gas oscillations in complex tubing 2−55670
fully developed turbulent pipe flow, drag reduction and random surface renewal 2−86333
gas bubble motion in vibr. cylindrical vessel containing two layer liq. 2−60630
gas flow in an axially moving tube as a basis of molecular pump operation 2−55662
gas-liquid pipe flow meas., basic standardised parameters analysis 2−65669
gas-liquid two phase flow, press. drop in inclined pipes 2−114879
gas-nonNewtonian liquid, two-phase flow in straight horizontal tube 2−60621
Graetz problem with third kind boundary condition, analytic soln. for eigenvalues and coeff. 2−70898
granular material in chute flow, forced convection 2−70940
Hagen-Poiseuille MHD flow, stability, nonlinear theory 2−103221
heat convection and laminar flow in annular crevices 2−114801
heat diffusion in duct flow, wall conductance effect 2−86339
heat exchangers with twisted flow, velocity and static pressure distributions experimental investigation 2−97658
heat source interference, thermally induced acoustic oscills. 2−75953
heat transfer of gas flow through a tube, finite element soln. 2−97694
helicoidal laminar flow, drag reducing polymer study 2−60560
hydraulic turbine flow condition determ. in labyrinth seal *(German)* 2−55672
hyperbolic segment cross-section tube, steady laminar flow 2−60648
immiscible Bingham fluids, 2-phase flow in conduit *(French)* 2−114908
impinging turbulent jets, low Mach number, organised wave self-generation 2−71004
incompressible turbulent flows, micropolar fluid model 2−75942
inelastic power-law fluid, unsteady flow in circular tube 2−81371
isooctane, tube boiling, heat transfer coeffs., critical heat flux 2−91419
laminar air flow in porous tube with uniform mass injection 2−55654
laminar film condensation in tube with upward vapour flow 2−109270
laminar flow in porous tube with uniform mass injection 2−55653
laminar flows at moderate Reynolds number 2−55534
laminar pulsating instantaneous flow rate meas. using venturi meter *(Japanese)* 2−114760
laminarescent, relaminarizing and retransitional flows, review 2−114773
linear inviscid stability of rotating Poiseuille flow 2−109412
liquid drops, creeping motion through a circular tube 2−55650

pipe flow continued
liquid film type evaporator, downward flow, heat transfer coeff. meas. 2−70934
liquid flow in circular cylinders, nonlinear Marangoni convection 2−97540
liquid flow in rectangular cylinders, nonlinear Marangoni convection 2−97541
liquid-liquid two-phase flows in annuli, capacitance method for determ. position and struct. of interface *(German)* 2−76052
liquids, flow in capillary tube, rheological props. determ. from response functions of flow struct. 2−60650
locally exponential tube, steady flow solns. 2−103215
low Reynolds number non-Newtonian flow in slowly varying axisymmetrical tubes 2−114854
magnetite scale in steam generator tubes, thermophysical props., operating parameters effect 2−75835
membranes elastic tubes, fluid-filled, elastic jumps 2−65649
MHD channel flow problems, finite element method 2−103219
MHD dusty viscous flow through a circular pipe 2−109416
MHD flow through rectangular pipe with discontinuity in wall temps., heat transfer 2−114918
mixed wave-equation problem, solution *(Russian)* 2−76021
model equation, global smooth soln. 2−55667
mufflers with flow reversals, aeronautic anal. 2−70765
multimode expansion chambers, acoustic performance, steady fluid flow effects 2−97532
multistage fluidisation, press. drop, solids conc. and mean holding time 2−109401
natural convection between horizontal concentric cylinders with density inversion of water for low Rayleigh numbers 2−114788
newtonian suspension, velocity profile in cylindrical tube 2−55651
non-Newtonian fluid, unsteady flow though triangular ducts, with time-depend. press. gradient 2−60583
nonlinear waves in ideal fluid in elastic variable-section tube *(French)* 2−103209
nonreactive binary mixture in vertical cylinder heated from below, Benard convection 2−109314
nonsteady gas flow through pipeline systems 2−81315
nuclear waste repositories ventilation cooling, rectangular ducts, forced convection 2−74817
oil flow in rough pipes, turbulent pressure loss determ. 2−55617
organ pipes sound generation mechanism, wave propagation on turbulent jets, amplitude growth 2−97319
oscillating pipe flow, critical Reynolds number 2−91538
oscillatory flow in pipe bends 2−76026
paraffin wax solidification fouling from kerosene soln. 2−92163
particles flow along a deformable tube 2−105738
pipe probe for low speed flow meas., wind-tunnel tests 2−65659
plate with backward facing step, flow charact. of shock tunnel and heat transfer *(Japanese)* 2−55614
polyacrylamide solns., turbulent pipe flow, pipe diameter effect on critical Weissenberg numbers 2−70996
polyatomic gas flow in cylindrical tube, thermal transpiration and mechanocalonic effect 2−76023
polymeric solns., plastic fluid pulsatile flow, enhancement 2−70997
polymers, nonlinear viscoelastic fluid, inhomogeneous shear flow 2−103193
polyoxyethylene soln., pipe flow, mass transfer, NMR study 2−103192
porous rectangular tube, viscous fluid steady flow 2−60637
power law time independent fluids, thermohydraulics in corrugated tubes 2−91427
pseudoplastic transient flow, numerical and exptl. simulation methods 2−91492
pulsatile flow in constructed axi-symmetric tubes, numerical simulation 2−81393
pulsatile flow through elastic tube, tube-valve effects, circulation model *(German)* 2−65643
pulsatile pipe flow, turbulence transitions, pulsative vel. distrib. near transition region, wave forms. and distrib. 2−91539
pulsating laminar flow in a pipe, heat transfer with const. wall temp. 2−91540
secondary turbulent flow in pipes of noncircular cross-sections 2−65647
simple gas flows with large density gradient layers 2−76011
slight non-Newtonian liquid, channel and pipe flows, random longit. vibr. influence 2−55671
solid-liquid suspensions in elastic tube, one-dimens. unsteady flows 2−109397
solidification of a liquid metal flowing through a circular pipe: a prediction of nozzle blockage 2−83104
sphere rotating in viscous fluid in cylindrical tube 2−97556
steady laminar flow in twisted square tubes, Navier-Stokes eqns. 2−55535
steady laminar flow through twisted square pipes, heat transfer 2−55581
steam, heat transfer in condensation on finely-finned horizontal tubes 2−91423
steam generator tubes, forced convection, density-wave oscillations 2−55565
steam generator tubing, critical heat flux-induced temp. oscills., thermal modeling 2−70939
straight-through mufflers with tube expansion chambers, aeroacoustic anal. 2−70764
stratified fluid between rot. coaxial cylinders, instability of MHD flow 2−114768
stratified two-phase flow condensation in horizontal or sloped tubes 2−91542
stratified two-phase flows condensation eqn. in horizontal or sloped tubes 2−91543
subcooled boiling in pipes, heat transfer and hydrodynamics 2−91420
submerged cylindrical duct, surface gravity wave radiation 2−114825
subsonic compressible gas flow, flow visualisation at junctions 2−75991
subsonic flexible tube flutter anomaly, fluid and structural damping model 2−91545
suspension, pipe flow, unsteady, numerical study 2−55648
suspension flow meas., using electric mocro-probe method *(German)* 2−81425
suspensions, unsteady flow through rectangular pipe 2−97663
swirling pipe flow, unsteady vortex breakdowns, flow modes 2−81344
thermal Marangoni effect in infinite liquid column, velocity distrib. 2−114914
thermally stratified fluid in cylinder, spin-up numerical solns. 2−71005
thermophoretic deposition efficiency, of particles in tube 2−60623
transient MHD channel flow, with axial symmetry at subsonic speed 2−86295
pipe flow continued
triangular duct with narrow apex angle, fully developed flow, turbulence and mass transfer meas. 2−70919
tube banks, staggered vibrating, in cross flow of water, flow and hydraulic resistance *(Russian)* 2−91548
tube bundles in transverse flow, vibrs. *(French)* 2−55666
turbulent, pipe flow, eddy diffusivity, electric charging theory 2−97529
turbulent duct flows, motion of particles 2−70920
turbulent flow, dispersion of released H_2O droplets, mass transfer 2−65650
turbulent flow in dust, finite element soln. 2−97652
turbulent incompressible fluid flow in circular pipe with uniform blowing through porous walls 2−109290
turbulent pipe flow, relation between mass transfer and corrosion 2−76024
turbulent two-phase channel flow, phase distrib. mechanism 2−60519
turbulent two-phase pipe flow, phase distrib. mechanism 2−71018
two dimensional flow between eccentric rotating cylinders 2−70956
two phase flow pressure drop accompanied by boiling inside circular tubes, stochastic model 2−97624
two-phase bubbly flow, flow struct. wave props. fluctuation meas. 2−60613
two-phase flow meas., by capacitive methods *(German)* 2−81424
two-phase gas-liquid pipe flow, review *(French)* 2−55665
two-phase inclined pipeline flow, bubbly and slug regimes, press. drop study 2−97621
two-phase wet steam in evaporator tube, boiling crisis 2−91417
unsteady viscoelastic flow through magnetofluidynamic porous medium in circular pipe 2−97662
US flowmeters, multichannel, errors due to flow structure variations in pipes 2−97674
vapour condensation rate inside horizontal tubes in co-current and counter-current flow 2−109406
vertical cylinder with saturated porous material, thermal convection 2−91452
viscoelastic fluid, in circular pipe, flow under time-varying press. 2−60582
viscoelastic fluids, flow through porous media, modelling 2−60633
viscoelastic fluids, turbulent heat transfer in circular tube flows 2−75940
viscoelastic-plastic flow in pipes, rheological props. 2−114904
viscous compressible fluid motion 2−81397
viscous flow in oscillatory spherical annuli, numerical study 2−55663
viscous flow solutions in Tchebycheff polynomials 2−97651
viscous inert and reactive fluids, flow in long tube, temp. discontinuity effects 2−60644
viscous liquid flow in bent tube undergoing deformation 2−60645
vortex breakdown, flow visualisation 2−55593
vortex shedding in three-dimensional flow in circular pipe *(Japanese)* 2−60559
water film thickness meas. in two-phase flow by capacitance method 2−71045
water flow, temperature meas. using external thermometer with Schmidt belt *(Japanese)* 2−114910
water thermohydraulics in corrugated tubes 2−91427
whirling instabilities in heat exchanger tube arrays 2−97261
xylene, tube boiling, heat transfer coeffs., critical heat flux 2−91419
H in pipes, film boiling, heat transfer in plug regime 2−60534
H_2O, flowing, heat transfer in a horizontal tube at supercrit. press. *(Japanese)* 2−55577
Hg, flow in vertical annuli, free convection heat transfer 2−55563
N_2O_4, in circular pipes, dissoc., heat transfer in turbulent flow 2−70918
$2NO_2 \rightleftarrows 2NO+O_2$, friction law, averaged vel. profile in turbulent reactive tube flow *(Russian)* 2−55548
O_2 concentration profiles in capillaries and living tissues when axial diffusion is considered 2−111610
water, flow in vertical annuli, free convection heat transfer 2−55563
pipeline processing
Advanced Toroidal Facility, data system design considerations for a pseudo-steady-state device 2−80231
efficiency testing, using plasma MHD codes, on FACOM 230-75 APU 2−97721
meteorological satellites, on-line processing of high resoln. imagery 2−117467
water resources, stochastic modelling, pipeline processing on AP120B 2−111971
pitch detection *see acoustic variables measurement*
PIXE *see ion microprobe analysis; X-ray chemical analysis*
plages *see Sun*
planet Mercury *see Mercury (planet)*
planetaria
No entries
planetary atmospheres
albedo calculation 2−112356
angular distrib. of radiation, discrete ordinate approx. 2−84126
bow shock, perpendicular config., hybrid simulation model 2−106470
circulation, determination from sondes, radio methods 2−84105
circulation, range and unity 2−84128
comparative study and the search for life 2−68991
convection zone, model of resonance interaction 2−84122
emergent radiation, role of scatt. 2−78989
high-temperature electronics applications in space exploration 2−89106
internal radiation, spherical harmonics moments 2−112354
Io plasma torus energy sources 2−84143
Jovian planets, o-$H_2 \rightarrow$p-H_2 conversion 2−100782
Jupiter, albedo, absorption model and airglow, UV obs. 2−79006
Jupiter, atmospheric props. from near-IR spectral mapping by Galileo Mission 2−112300
Jupiter, aurora, radiative transfer with partial freq. redistrib. 2−73899
Jupiter, aurora UV emission spectra 2−112377
Jupiter, C/H ratio from Voyager IR spectra 2−89186
Jupiter, electron precipitation and EUV emission 2−94638
Jupiter, EM radiation from magnetosphere 2−89190
Jupiter, Great Red Spot, persistence anal. 2−84145
Jupiter, HCN IR obs. 2−58298
Jupiter, inner magnetosphere light ion conc. 2−84144
Jupiter, long-lived vortices, numerical model 2−73895
Jupiter, mag. field model of interior and magnetosphere 2−89188
Jupiter, magnetosphere plasma dynamics and Io 2−63306
Jupiter, modified disc model of magnetosphere 2−73898
Jupiter, NH_3 abundance from radio occultation obs. 2−79013
Jupiter, non-biological organic molecules existence 2−100812

planetary atmospheres continued
Jupiter, PH_3, methane-d_1, and GeH_4 abundances, Voyager IRIS spectra 2−100810
Jupiter, plasma torus characts. from forbidden line visible obs. 2−58296
Jupiter, processes from Voyager mission 2−79017
Jupiter, Rossby vortex as model of Great Red Spot 2−100813
Jupiter, upper atmosphere and ionosphere, probe meas. 2−89178
Jupiter, VLF hiss emission from magnetosphere 2−89189
Jupiter aurora, study of H_2 fluorescence spectrum (1200 to 1700 Å) due to electron impact 2−63237
Jupiter eddy transports anal. 2−112379
Jupiter magnetosphere, charged particle erosion of SO_2 ice on Io, laboratory studies 2−112374
Jupiter magnetosphere, Na emission of Io origin plasma and motion 2−73893
Jupiter magnetosphere, particle accel. scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
Jupiter magnetosphere, VLF and LF emission, review 2−106430
Jupiter magnetosphere plasma ion comp. diagnostics, use of plasma resonance lines 2−63231
Jupiter plasma torus, Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
Jupiter troposphere lower boundary, zonal flows stability 2−58297
Jupiter upper ionosphere spatial irregularities from Voyager radio occultations 2−106601
Jupiter zonal mean circulation 2−112378
Jupiter-Io binary magnetosphere nature, review 2−79016
Jupiter-Io torus, multiply refl. standing Alfven waves from mag. obs. (on Pioneer 10) 2−73892
Jupiters, features and dynamics 2−79014
magnetospheres, diffusion of trapped particle sub stochastic force 2−89117
magnetospheres, review 2−89071
magnetospheres nature 2−89177
magnetospheric charged dust grain motion, theory 2−89175
Mars, atmosphere optical props. from Viking spectral investigations 2−112365
Mars, CO content estimate from spectra anal. 2−106591
Mars, effects of solar tides on general circulation 2−100800
Mars, H_2O seasonal and global variations 2−89180
Mars, IR heterodyne spectroscopy 2−73858
Mars, IR spectra and thermal emission models 2−58282
Mars, lee wave behind isolated topography 2−84137
Mars, long clouds over surface slopes 2−63292
Mars, planetary scale wave struct. 2−58283
Mars, reference atmos. model 2−94632
Mars, regolith-atmosphere exchange of H_2O and CO_2 rel. to atmospheric history and climate change 2−112367
Mars, seasonal movement due to snow evaporation and condensation 2−106593
Mars, solar wind interaction 2−100694
Mars, upper atmosphere and ionosphere, probe meas. 2−89178
Mars atmosphere $^{15}N/^{14}N$ ratio, effect of dissipation and exogenous sources 2−106590
Mercury atmosphere top, solar radiation aspects 2−58278
multilayer isotropically scatt. atmospheres, radiation field 2−117576
origin and evolution of planetary atmospheres, conference, Hamburg, Germany, (1981 August 17 to 18) 2−107010
origin and evolution of planetary atmospheres, introduction to problem 2−112357
origin of planetary gases, implications of noble gases sorption by sulphides and spinels 2−100846
physics, book *(Russian)* 2−84392
planar atmosphere, radiation field in anisotropic scatt. case, invariance relation 2−63234
planetary atmospheres, radiowave propagation, inverse refraction problem soln. 2−78815
planets, methane red bands obs. 2−90560
Pluto, polarisation of reflected light 2−79026
radar studies, Earth-based 2−106574
radiative transfer, complete soln. with reflecting boundaries and internal sources 2−63222
radiative transfer, multiple scattering problem in plane layer rel. to polarisation 2−100719
radiative transfer calculations in anisotropically scatt. atm., discrete ordinate method, intensity computation 2−78947
remote sensing, Earth-based radio studies 2−106575
Saturn, albedo, absorption model and airglow, UV obs. 2−79006
Saturn, atmos. motion, summary of pre-Voyager obs. 2−79022
Saturn, atmosphere structure from Voyager 2 radio occultation data 2−84156
Saturn, dynamical features of northern hemisphere 2−84150
Saturn, eddy mixing coefficient determ. 2−112387
Saturn, magnetosphere, low energy hot plasma and particles 2−84159
Saturn, magnetosphere, Voyager 2 obs. of energetic charged particles 2−84160
Saturn, magnetosphere radioemissions due to Titan's wake 2−68662
Saturn, magnetosphere stagnation point, influence of solar wind 2−63308
Saturn, magnetosphere trapped particles affected by Titan 2−68663
Saturn, magnetospheric ion sputtering of ice surfaces 2−94641
Saturn, methane and NH_3 bands longitudinal variability, IR obs. 2−73901
Saturn, non-biological organic molecules existence 2−100812
Saturn, plasma wake produced by Titan 2−68660
Saturn, radio emission controlled by solar wind variations 2−94639
Saturn, VLF radio emission source regions 2−94640
Saturn, Voyager 2 IR obs. of Saturnian system 2−84154
Saturn, Voyager 2 obs. of magnetopause 2−84157
Saturn, Voyager 2 plasma wave obs. 2−84162
Saturn, Voyager 2 UV obs. 2−84155
Saturn, Voyager observations *(Japanese)* 2−117629
Saturn, wake produced by Titan, radionoise obs. 2−68661
Saturn aerosol struct. model from polarisation obs. 2−73902
Saturn atmosphere, struct. and comp. from VLA obs. at 1.3, 2 and 6 cm 2−106607
Saturn cloud features, Voyager 2 results 2−84152
Saturn electron precipitation and EUV emission 2−94638
Saturn HCN IR obs. 2−58298
Saturn magnetosphere, electron effects on Titan atmosphere chemistry and evolution 2−112386
Saturn magnetosphere, source of electrostatic discharges 2−112384
planetary atmospheres continued
Saturn magnetosphere interaction with Titan 2−68659
Saturn magnetosphere plasma characts. from Voyager 2 obs. 2−84158
scattered radiation polarisation 2−63364
solar wind interactions 2−100695
spectral absorption, line widths and profiles 2−112355
techniques for composition, struct. and dynamical processes 2−63270
terrestrial planets, thermal and nonthermal atmospheric escape mechanisms 2−112359
tholins production on elec. discharge in methane+NH_3 atm., mol. anal. 2−57603
upper atmosphere neutral components photoionisation rate coeffs., solar activity depend. 2−106570
Uranus, D/C ratio of atmosphere 2−79025
Venus, aerosol component measured by Venera 11/12 descent vehicles, IR/visible obs. 2−68643
Venus, age of atmos. deduced from crater statistics 2−78995
Venus, albedo in 0.2-4 μm range, implications for atm. comp. 2−84129
Venus, atmosphere-surface interactions and implications for atmospheric evolution 2−112364
Venus, buffering of atmospheric comp. by chemical weathering of igneous rocks 2−89179
Venus, clouds, X-ray obs. of Fe 2−117622
Venus, D/H ratio, outgassing implications 2−100793
Venus, dynamics of rapidly escaping H-thermosphere, appl. to planet evolution 2−58276
Venus, EM field in atmosphere, Venera 13 and 14 meas. *(Russian)* 2−106585
Venus, far IR airborne spectroscopy and spacecraft radiometry 2−100790
Venus, gas chromatography by Venera 13 and 14 probes *(Russian)* 2−106580
Venus, H escape 2−84134
Venus, halide clouds and volatile element chem. 2−100794
Venus, haze at high-altitude indicated by far IR obs. 2−78993
Venus, haze particles IR props. 2−73886
Venus, ionopause attitude calc. 2−84133
Venus, ionosphere interaction with solar wind 2−78992
Venus, ionosphere particle removal by solar wind 2−106468
Venus, ionosphere plasma motion and mag. field convection 2−112363
Venus, mesosphere and lower thermosphere struct. 2−78994
Venus, MF wave propag. from Venera 9 and 10 bistatic radiolocation 2−58280
Venus, minor constituents, mass spectrometry by Venera landers *(Russian)* 2−106579
Venus, nightside atmosphere, neutrals comp. at 140 km and ionisation calcs. 2−68644
Venus, nightside ionosphere, electron precipitation 2−78998
Venus, nightside ionosphere, low energy electrons in planet optical shadow as source 2−68644
Venus, O escape from atmos. to space 2−112362
Venus, optical properties and radiative heat exchange 2−68645
Venus, optical properties and radiative heat exchange 2−100795
Venus, results of Pioneer Venus Orbiter mission 2−68646
Venus, scattered solar radiation ang. distrib., obs. 2−84130
Venus, struct. of atmospheric circulation rel. to irregularities of planetary rotation rate *(Russian)* 2−100792
Venus, subsonic drag determ. from flight data of Pioneer multiprobes 2−94577
Venus, thermal periodicities, Pioneer Orbiter IR radiometer meas. 2−100791
Venus, upper atmosphere and ionosphere, probe meas. 2−89178
Venus, Venera 13 and 14 spectrophotometry *(Russian)* 2−106581
Venus, water vapour conc., Venera 13 and 14 meas. *(Russian)* 2−106582
Venus, wind speed and turbulence from Venera Doppler meas. *(Russian)* 2−106583
Venus, wind vel. from Venera 13 and 14 acoustic meas. *(Russian)* 2−106584
Venus atmosphere top, solar radiation aspects 2−58278
Venus bow shock, position and three-dimens. shape 2−84131
Venus dayside ionosphere, solar wind absorpt. due to charge exchange 2−73882
Venus daytime ionosphere, ionic composition model 2−100786
Venus ionopause, turbulent accumulation of interplanetary magnetic fluxes 2−63290
Venus ionosphere, electron density depletion regions due to parallel elec. fields 2−73883
Venus ionosphere, planned expts. for Venus Orbiting Imaging Radar (VOIR) spacecraft 2−68596
Venus ionosphere and upper atmos., characts. 2−78997
Venus ionosphere model with keV electron impact ionisation 2−100788
Venus ionosphere O^+ contaminated of solar wind 2−117553
Venus magnetosheath, accel. of ionospheric O^+ 2−73884
Venus middle atmosphere, UHF/SHF absorpt. by SO_2 and SO_3 in CO_2 atm. 2−58279
Venus thermosphere, CO_2 IR bands first order approx. model 2−112360
zonal flow generate by centrifugally driven thermal convection 2−106517
H-thermosphere rapidly escaping, dynamics, appl. to Earth and Venus evolution 2−58276
o-H_2→p-H_2 conversion in Jovian planetary atmospheres 2−100782
H_2, press.-induced opacity in 5 μm region 2−60716
NH_3, far-IR spectroscopic line param. 2−70245
PH_3, far-IR spectroscopic line param. 2−70245

planetary magnetism
core rotation and convection mechanism for MHD dynamo 2−63244
dynamo model of nearly axisymmetric fields 2−106605
dynamo nonlinear oscillations 2−105918
flux ejection dynamo effect in planetary convection zones, theory 2−100722
gyromagnetic dynamo problem, peturbation theory anal. *(Russian)* 2−63242
Io torus, multiply refl. standing Alfven waves from mag. obs. (on Pioneer 10) 2−73892
Jupiter, interior and magnetospheric field model 2−89188
Jupiter, quadrupole and octupole parameters 2−68655
Jupiter magnetic field secular variation 2−84146
Jupiter magnetosphere, particle accel. scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
meteorite impact causing local mag. anomaly 2−73880
Moon, palaeomagnetic pole position displacements 2−106569
nature and origin 2−63285

planetary magnetism continued
Saturn, dynamo model of nearly symmetric field 2−106605
Saturn, mag. field rotation rel. to periodic var. of spoke activity in ring system 2−79018
Saturn, mag. field struct. determ. from charge particle absorpt. signatures 2−106548
Saturn, Voyager 2 obs. of magnetopause 2−84157
Saturn, zonal harmonic model of field 2−94642
Saturn internal mag. dipole tilt from satellite charged particle absorpt. signatures 2−84160
Saturn ringlets' structure, role of mag. field acting on plasma 2−84148
Saturn rings, cosmogonic shadow effect 2−63309
thermal current role in magnetic fields 2−73436
Venus, ionosphere plasma motion and mag. field convection 2−112363
Venus ionosphere, electron density depletion regions and assoc. radial mag. fields 2−73883
Venus magnetic tail, mag. field config., solar wind and interplanetary field effects 2−84132

planetary nebulae
3 μm emission features obs. 2−89243
Abell 41, identification of nucleus as ultra-short-period binary star 2−94718
central star wind interaction with surrounding nebula 2−68750
central stars, corrections to ang. momentum loss for close binary nuclei 2−89259
central stars mass loss rates 2−68879
chemical abundance gradients in Galaxy 2−63666
V1016 Cygni, proto-planetary nebula, visible and near IR spectral vars. 2−84241
V1016 Cygni, UV variations from spectral obs. 2−101010
distance scale, constraints from $\Delta Y/\Delta Z$ ratio and galaxies chemical evolution 2−74107
Doppler split emission line components, red/blue intensity ratios 2−74063
early-type emission-line stars, book 2−94934
Egg Nebula (GL 2688), possible planetary nebula precursor, near IR spectroscopy 2−106840
electron temperature mapping using O III lines 2−74062
evolution and composition of planetary nebulae 2−68878
evolution from red giants, evidence from spectra 2−94711
expansion velocities in planetary nebulae, meas. from [O III] emission line profiles 2−79197
extinction from UV spectral obs. 2−79187
formation from red giants 2−100915
GL 618, bipolar nebula in stage between red giant and planetary nebula, obs. 2−63571
HBV 475, UV variations from spectral obs. 2−101010
HBV 475 (V1329 Cygni), protoplanetary nebula, expanding motions in ionised envelope 2−68781
He 1-5, 3700 to 5000 Å spectrum of nucleus (FG Sagittae) in (1979 to 1980) 2−100938
He 2−131, very low excitation planetary nebula, C abundance determ. from UV spectrum 2−94817
IC 2149, central star wind, existance from UV spectral obs. 2−79192
IC 2149 central star, mass loss and wind vel., UV spectral obs.. 2−68879
IC 4997, physical var. from old spectral obs. 2−68847
IC 4997, search for UV variability, UV spectral obs. 2−101011
internal motions in planetary nebulae, forbidden O III expansion vel. meas. 2−89337
IR spectrophotometry of compact objects 2−89342
local objects, distance determ. from ionised mass/observational quantities function 2−117728
in M31 central region, velocity modulated photographs of planetary nebulae 2−74042
master list of nonstellar optical astronomical objects 2−58563
MWC 349, proto-planetary nebula, near IR spectral vars. 2−84241
NGC 2346, identification of central star as new eclipsing binary 2−68870
NGC 2440, ionisation struct., extinction and IR spectra 2−106860
NGC 40 and 7026, expansion vel. fields visible obs. 2−84299
NGC 6302, planetary nebulae with circumstellar H I ring 2−117736
NGC 6720 (Ring Nebula), C/O ratio, UV spectral obs. 2−63590
NGC 6720 (Ring Nebulae), ionization structure from UV obs. 2−63553
NGC 6853, C, N, O, Ne abundances from UV spectra anal. 2−89330
NGC 6853, NGC 7293, IUE obs. of central stars 2−58333
NGC 6905, search for UV variability, UV spectral obs. 2−101011
NGC 7027, distance determ. from several methods 2−63570
NGC 7027, H_2 intrinsic Q(3)/S(1) line intensity ratio obs. 2−101019
NGC 7293, radial vel. and struct., visible obs. 2−74050
NGC 7662, IUE spectra results 2−74061
origin involving separation of one massive nebula 2−63565
origin of planetary nebulae, role of randomly emerging mag. flux in driving stellar winds 2−89335
radio distance scale for planetary nebulae, determ. for optically thick and optically thin nebulae 2−106873
Red Rectangle (GL 915), possible planetary nebula precursor, near IR spectroscopy 2−106840
reddening relations from VBLUW and UBV photometry 2−101016
ring planetary nebulae, morphology, O III forbidden line obs. *(French)* 2−63577
HM Sagittae, proto-planetary nebula, visible and near IR spectral vars. 2−84241
HM Sagittae, UV variations from spectral obs. 2−101010
shell loss and N enrichment and abundance in galactic disk 2−112542
southern planetary nebulae, discoveries on red-sensitive objective prism plates 2−100761
southern planetary nebulae, flux densities from UHF obs. 2−63583
spectra, theoretical models of nebulae of intermediate-to-high excitation 2−84295
stellar emission-line objects in irregular galaxy NGC 6822, planetary nebulae identifications 2−106559
UV spectra, integrated emission line fluxes 2−106846
HeH^+ formation and destruction in plasma appl. to planetary nebulae and dense clouds 2−78943
SiO emission search at 86.8 GHz, EHF obs. 2−94818

planetary rings
charged dust particle orbits within magnetosphere, theory 2−89175
disc gravitational potential 2−89116
frost, condensed gas, ion induced erosion 2−100781
Jupiter, 900 nm obs. 2−73894
Saturn, collisional/thermal history from Voyager 2 results 2−84152
Saturn, collisions affecting ring struct. 2−89194

planetary rings continued
Saturn, cosmogonic shadow effect 2−63309
Saturn, delay-Doppler radar obs. at 12.6 cm (1976 Jan.-Feb.) 2−100822
Saturn, disk and rings, far IR brightness temp. 2−100821
Saturn, E-ring photometry (1979-80) 2−100820
Saturn, electrodynamics of non-circular ringlets 2−89195
Saturn, F-ring features, model and appl. to Jupiter and Uranus 2−68664
Saturn, ice particle sputtering by magnetospheric ions 2−94641
Saturn, major resonances locations and strengths with known moons 2−100814
Saturn, physics, book *(Russian)* 2−84392
Saturn, radar studies, Earth-based 2−106574
Saturn, radio occultation theory 2−100819
Saturn, radio wave transmission by rings from VLA obs. at 1.3, 2 and 6 cm 2−106607
Saturn, ring system reson. features and mass 2−84149
Saturn, spoke particle size 2−100818
Saturn, spokes in B-ring, field-aligned currents 2−100817
Saturn, thickness and scatt. props. from March 1980 obs. 2−79019
Saturn, viscous origin 2−89191
Saturn, Voyager 2 IR obs. of Saturnian system 2−84154
Saturn, Voyager 2 photopolarimetry obs. 2−84153
Saturn A-ring, Keeler gap 2−106610
Saturn A-ring, triaxial ellipsoid surfaces, Monte Carlo approach 2−100824
Saturn B-ring, narrow gap obs. by Voyager 2 and relation to Saturn electrostatic discharges source 2−112384
Saturn ring features, microwave edge diffraction obs. (from Voyager 1) 2−106609
Saturn ring system, periodic variation of spoke activity 2−79018
Saturn ringlets' structure, role of mag. field acting on plasma 2−84148
Saturn rings photometric function 2−112381
sharp edges of planetary rings, dynamics of satellite-ring particles orbital resonances 2−112383
Uranus, gravitational reson. and existence of sixth satellite 2−100827
Uranus, inclination of rings to equatorial plane 2−106613
Uranus ring system, radial widths, optical depth and eccentricities from occultation obs. anal. 2−63310
Uranus ring system, stellar occultation obs., (1982 April 22) 2−68665

planetary satellite atmospheres
escape mechanisms for satellite atmospheres, thermal and nonthermal processes 2−112359
Io, charged particle erosion of SO_2 ice rel. to SO_2 atmosphere, laboratory studies 2−112374
Io, SO_2 photochemical models 2−73897
Io plasma torus, Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
Io plasma torus, SO_2 ionisation and dissociation 2−106602
Io plasma Torus and Jovian magnetosphere plasma dynamics 2−63306
Io plasma torus characts. from forbidden line visible obs. 2−58296
Io plasma torus energy sources 2−84143
Io torus, components in Jupiter middle magnetosphere, plasma motion and origin 2−73893
Io torus, multiply refl. standing Alfven waves from mag. obs. (on Pioneer 10) 2−73892
Jupiter-Io binary magnetosphere nature, review 2−79016
origin and evolution of planetary atmospheres, conference, Hamburg, Germany, (1981 August 17 to 18) 2−107010
origin and evolution of satellite atmospheres, introduction to problem 2−112357
Titan, atmosphere, H_2CN^+-N_2 production *(French)* 2−100816
Titan, atmosphere formation, chemistry and models 2−79023
Titan, brightness temperature from 415 μm obs. 2−100815
Titan, EUV spectral emission from upper atmos. 2−68658
Titan, excess thermal flux, effect of past explosion in atm. 2−84147
Titan, H_2CN^+-N_2 production, model expt. 2−100826
Titan, influence on Saturn's magnetospheric trapped particles 2−68663
Titan, magnetosphere induced by passage through Saturn's magnetosphere 2−68659
Titan, methane red bands obs. 2−90560
Titan, non-biological organic molecules existence 2−100812
Titan, plasma wake in Saturn's magnetosphere 2−68660
Titan, radiowave emissions due to wake in Saturn's magnetosphere 2−68662
Titan, solar wind and Saturn magnetosphere effects on atmos. 2−63308
Titan, temp. and chem. composition from solar occultation obs. 2−68657
Titan, Voyager 2 photopolarimetry obs. 2−84153
Titan's wake in Saturn's magnetosphere, Voyager radionoise obs. 2−68661
Titan atmosphere, chemistry and evolution 2−112386
Titan atmosphere, comp. and origin 2−112385

planetary satellites
see also Moon; planetary satellite atmospheres
1979 J 2, first ground based detect., 900 nm obs. 2−73894
1980 S 13, 25, Tethys Lagrangian satellites, longitude differences from Tethys (May 1982) 2−89192
1980 S 6, photographic obs. and longitude separation from Dione 2−68656
1980 S 6 ('Dione B'), positional obs. and longitude difference from Dione (May 1982) 2−89192
albedo of planetary satellite surfaces var. with solar incidence angle. 2−106573
axisymmetric satellite for triaxial planet, translational-rot. motion, steady state solns. 2−100717
Callisto, mechanical model of Valhalla basin 2−73896
capture into resonance, adiabatic invariant appl. 2−89124
Dione, ice surfaces sputtering by magnetospheric ions 2−94641
Floquet reference solutions for the lunar theory and the Jovian moons 2−84068
Galilean satellite system, appl. of general planetary theory extended to case of resonance *(French)* 2−78939
Galilean satellites, 1979 mutual eclipses and occultations, visible obs. *(French)* 2−100807
Galilean satellites, anal. of early eclipse obs. 2−79011
Galilean satellites, astrometric posns., 1974-6 obs. at Pulkovo *(Russian)* 2−79009
Galilean satellites, astrometry from Leander McCormick Observatory for 1978-9, 1908, 1981 oppositions 2−73891
Galilean satellites, photographic observations (1913-1928) and ephemerides corrections 2−112376

planetary satellites continued
Galilean satellites, photographic positional obs. with long focus astrograph during (1975) *(Russian)* 2−94636
Galilean satellites, physics, book *(Russian)* 2−84392
Galilean satellites, radar studies, Earth-based 2−106574
Galilean satellites, Sampson-Lieske theory, new constants 2−79008
Galilean satellites chemical comp. and struct. and evolution 2−63307
Galilean satellites of Jupiter, comparison of Sampson-Lieske theory with obs. 2−79010
Galilean satellites of Jupiter *(French)* 2−79012
Ganymede, polygons and grooved terrain sequential development 2−63304
giant planets formation, implications of satellite systematics 2−112358
Himalia (Jupiter VI), precise posns. (1982 April 29) 2−100811
Hyperion, surface comp. and radius from IR spectrophotometry 2−106606
Hyperion orbital motion anomalies *(Chinese)* 2−112380
Iapetus, IR obs. of dark side 2−100823
Iapetus (Saturn VIII), precise posns. (1982 April) 2−100825
icy objects, JHK photometry for compositional remote sensing 2−100754
Io, atmos. SO_2 photochem. models 2−73897
Io, charged particle erosion of SO_2 ice rel. to SO_2 atmosphere, laboratory studies 2−112374
Io, correl. with arc structs. in Jupiter decametric emission observed from Earth and Voyager 2−63303
Io, S geochemistry 2−106600
Io, volcanic activity rel. to chem. comp. 2−63307
Jupiter, ancient impact cratering rates 2−63286
Jupiter, Galilean satellites, 1978 December positions, Uccle double as trograph obs. 2−79007
Jupiter, inner satellites discovery and nature 2−79015
Jupiter, simultaneous disappearance of four major satellites in occultation, transit or eclipse 2−106603
Jupiter, spectral mapping of Galilean satellites in near IR by Galileo Mission 2−112300
Jupiter inner satellites, 900 nm obs. 2−73894
146 Lucina, 1982 (146) 1, possible satellite discovery from stellar occultation, (1982 April 18) 2−84139
magnetic anomalies due to meteorite impact affecting pre-existing fields 2−73880
magnetised natural satellite with 2:1 resonance, set of steady-state rots. 2−58232
Mimas resonances with rings and clearing 2−58301
Neptune, occultation of star by possible third satellite, visible obs. 2−79027
Nereid, orbital elements from visible obs. 2−112388
orbital parameters determination method 2−84107
oscillations in elliptical orbit plane 2−100716
Phobos, tidal rigidity 2−100798
Phobos gravitational field model 2−84136
Phoebe (Saturn IX), literal theory *(French)* 2−79021
Pluto-Charon system, eclipses obs. from UBV photometric study near perihelion *(Russian)* 2−63313
Pluto-Charon system, speckle interferometric obs. (1980 June 5) 2−106612
reduction of observations 2−100785
rigid satellite rotation, gravit. and dissipative forces effects *(Polish)* 2−78990
Saturn, ancienct impact cratering rates 2−63286
Saturn, astrometry from Leander McCormick Observatory for 1978-9, 1980, 1981 oppositions obs. 2−73891
Saturn, charged particle absorpt. signatures used for internal dipole tilt determ. 2−84160
Saturn, collisional/thermal history from Voyager 2 results 2−84152
Saturn, general 2−79020
Saturn, mutual events (in April 1980) 2−106604
Saturn, orbits and formation, hydrodynamic theory appl. to Solar System 2−94637
Saturn, rings major resonances locations and strengths with known moons 2−100814
Saturn, satellite masses from Voyager 2 radio occultation data 2−84156
Saturn, satellite-ring particles orbital resonances rel. to sharp edges of rings 2−112383
SATURN, volcanism and igneous process in small icy satellites 2−94643
Saturn, Voyager 2 IR obs. of Saturnian system 2−84154
Saturn, Voyager observations *(Japanese)* 2−117629
Saturn's satellites, geological evolution 2−58302
Saturn icy satellites, ice phase transitions as resurfacing mechanism 2−112382
Saturn resonance clearing of rings 2−58301
Saturn satellite system origin, unified formation theory 2−106608
Saturn VIII (Iapetus), precise positions (1981 March 1 to 12) 2−89193
surface eruptions effects in comet families of parent planets 2−84171
symmetric satellite trajectories about non-spherical planet *(Russian)* 2−84125
Tethys, ice surface sputtering by magnetospheric ions 2−94641
three-body problem, general case, Hill stability *(Chinese)* 2−84066
Titan, EUV spectral emission from upper atmos. 2−68658
Titan, influence on Saturn's magnetospheric trapped particles 2−68663
Titan, magnetosphere induced by passage through Saturn's magnetosphere 2−68659
Titan, plasma environment due to solar wind and Saturn magnetosphere 2−63308
Titan, plasma wake in Saturn's magnetosphere 2−68660
Titan, radiowave emissions due to wake in Saturn's magnetosphere 2−68662
Titan, upper atmos. temp. and chem. composition 2−68657
Titan, voyager 1 Saturn targeting strategy 2−89111
Titan's wake in Saturn's magnetosphere, Voyager radionoise obs. 2−68661
triaxial planet axisymmetric satellite, translational rotational motion 2−68641
Triton, atmosphere physics, book *(Russian)* 2−84392
Uranus, 1980 May positions, ESO La Silla GPO astrograph obs. of four satellites 2−79024
Uranus, satellite-ring particles orbital resonances rel. to sharp edges of rings 2−112383
Uranus VI existence postulated from rings gravit. reson. 2−100827

planetoids *see asteroids*

planets
see also asteroids; comets; Earth; Jupiter; Mars; Mercury (planet); Neptune; planetary satellites; Pluto; Saturn; solar nebula; Uranus; Venus
accretion in red giant envelope/wind, transform to low mass star, cataclysmic binary form. 2−112454
albedo of planetary surfaces, var. with solar incidence angle 2−106573
analemmas from different planets 2−78942
annual review of Earth and planetary sciences, 1982, book 2−89473
anomalous motions of inner planets, anal. rel. to equivalence principle 2−68603
astrometric observations, rel. to determ. of FK5 equinox and equator 2−68598
celestial mechanics, general planetary theory extended to case of resonance *(French)* 2−78939
celestial mechanics theory of perturbed orbits 2−89129
conference on Moon/planets, celestial mechanics and ephemerides at Namur, Belgium (July 1980) 2−68951
core flow generated by centrifugally driven thermal convection 2−106517
crater formation simulation expts. using 10-tons of explosives in sediments 2−73559
Danjon astrolabe obs. and FK4 equinox and equator corrections *(Chinese)* 2−63218
early evolution, cosmogenic shadow effect 2−63280
Earthlike planets, surface features and processes (book) 2−74182
extrasolar planetary systems form., IR search for fragmentation debris near Ursa Major Stream 2−106572
extrasolar planets, detect. methods 2−79156
fluid bodies situated at liberation points, equilib. patterns 2−117568
formation, origin and evolution of planetary atmospheres 2−112357
formation, rare gas retention by accreting planets in solar nebula 2−112353
formation from plane rings of gravitating particles moving round Sun, evolution 2−106565
formation of planetary systems, new method of numerical simulation of evolution of complex discrete systems *(Russian)* 2−100773
frost, condensed gas, ion induced erosion, planetary appls. 2−100781
Geminid meteor stream, effect of planetary perturbations on evolution of orbit 2−94661
giant gaseous protoplanet in primitive solar nebula, evolution 2−100783
giant planets, differential rotation, effect on natural oscills. 2−117628
giant planets, form. and struct. 2−112358
giant planets, natural oscillations, rot. and ellipticity effects 2−106578
gravitational perturbations on meteoroid orbit evolution 2−84174
gravity causing solar wind convective motions 2−106467
growth from solar nebula 2−73865
growth of planets in gaseous solar nebula, theoretical study 2−100775
interior temperature profiles of terrestrial planets, theory 2−106577
interiors, physics 2−106571
Jovian planets, methane red bands obs. 2−90560
Jupiter like protoplanet evolution in absence of solar tidal field, shape and collapse 2−63305
Jupiter like protoplanet evolution in solar tidal field, shape and collapse 2−58300
Jupiter-Saturn-Sun system, periodic orbits 2−89126
magnetic field generation in planetary interiors 2−89176
meteorite crater formation, factors affecting crater dimensions 2−73879
N-body problem, gravit. planetary case, motion asymptotic series 2−73825
optical reflectivity of rocky surfaces, Kubelka-Munk theory 2−78999
orbital resonances and planetary formation sites 2−100784
orbital separation of two planets, theory 2−106490
orbital theory, direct method of computing small divisors 2−78934
orbital theory, integration consts. and mean elements for all planets *(French)* 2−78935
perturbations of Periodic Comet Halley 2−68671
perturbations on lunar motion, errors in ephemerides 2−73871
preplanetary disk, stability, numerical expts. 2−73864
properties of minerals at planetary interior conditions, conf., July 1981, London, Ontario, Canada 2−101121
protoplanet, nearby gas flow, in primordial solar nebula 2−100774
protoplanetary discs surrounding F and G-type stars, models *(Russian)* 2−106687
protoplanetary gas-dust cloud evolution and planet form. 2−63281
rotating fluids 2−94498
rotation axes, inclinations *(Chinese)* 2−84123
rotation problems, soln. within framework of statistical theory of planet 2−68642
rotational motion origin in accumulation model, correl. to solar nebula gravit. instability 2−84120
Saturn-Jupiter-Sun system, periodic orbits 2−89126
secular perturbations, investigation using Gauss' method *(Chinese)* 2−84124
space missions, high resolution imaging systems for spin-stabilised Probe spacecraft 2−112301
spectral reflectance meas. by bidirectional and integrating sphere methods 2−78975
stochastic collisions and rot. instability 2−84118
structural models, derived from eqns. of states of mol. fluids 2−73878
surface chemistry and mineralogy from multispectral imagery 2−63286
surface lava volume estimation 2−84127
surfaces, Earth-based radar studies 2−106574
surfaces and atmospheres, Earth-based remote sensing 2−106575
systems, resonance relative to instability 2−106802
systems, stability, extended Maxwell-like gravitational field eqns. 2−106496
terrestrial planets, thermal and nonthermal atmospheric escape mechanisms 2−112359
terrestrial type planets, ancient impact cratering rates 2−63286
general three-body problem, Hill stability and distance curves 2−78941
three-body problem, third order general planetary theory 2−84069
tides raised by satellite system, theory 2−68611
Titius-Bode law postulate 2−84119
topography of terrestrial planets 2−89174
triaxial planet axisymmetric satellite, translational rotational motion 2−68641
UV spectroscopy with rocket-borne instrument with photon-counting MCP 2−112322
H_2, press.-induced opacity in 5 μm region 2−60716

planimeters *see area measurement*

plants (industrial) *see industrial plants*

plants (power) *see power plants*

plasma
see also electromagnetic wave propagation in plasma; plasma-beam interactions; plasma impurities; plasmons; relativistic plasmas; solid-state plasma
γ-ray burst source (1979 March 5) neutron star accretion mechanism *(Chinese)* 2−79246
alfven wave generation in a turbulent plasma 2−71181
antenna in plasma, energy absorpt. in ion sheath 2−65732
astrophysical, charge particle accel. by plasma motion with randomly distributed shock waves 2−100672
astrophysical, collisionless shock waves processes 2−63247
astrophysical, conditions and radiation processes in active galactic nuclei and quasars 2−63683
astrophysical, conf., Como, Italy (Aug.-Sept. 1981) 2−58547
astrophysical, electron temp. determ. 2−94590
astrophysical, electron-positron pair equilibria in relativistic plasma 2−94587
astrophysical, emission and accel. mechanisms for relativistic plasma 2−63245
astrophysical, energetic electrons transport in fully ionised H plasmas 2−106493
astrophysical, energy radiation by current 2−55712
astrophysical, force-free fields in a three dimensional plasma torus 2−58238
astrophysical, gamma ray sources, gamma ray amplification through stimulated annihilation radiation 2−58499
astrophysical, hydromagnetic stability of rotating plasma 2−58240
astrophysical, instability of EM ordinary mode in counterstreaming plasmas 2−73831
astrophysical, matter-antimatter clouds collisional interpenetration, MHD shocks prod. and Leydenfrost layer prod. 2−73830
astrophysical, pair annihilation in relativistic plasma 2−94586
astrophysical, pair processes and equilibria in relativistic thermal plasma 2−63224
astrophysical, plasma lasers and coherent radiation sources 2−63246
astrophysical, radiative transfer in homogeneous magnetised plasma 2−73828
astrophysical, relativistic plasma, particle kinetic energies Boltzman distrib. establishment and maintenance 2−65751
astrophysical, separation mechanism for collision between matter-antimatter clouds 2−73829
astrophysical, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
astrophysical acceleration by radiation press. 2−58250
astrophysical emission diagnostics, use of ionisation equilib. 2−68610
astrophysical plasma, physics of dense plasmas and enchancement of thermonuclear reaction rates due to strong screening 2−100725
astrophysical plasmas, conditions for existence of Alfven surface waves 2−100732
astrophysical plasmas, general integrals of MHD equilib. eqns. with one ignorable coordinate 2−58234
astrophysical plasmas, hydromagnetic stability of superposed fluids 2−106499
astrophysical plasmas, MHD equilibrium of helically symmetric fields 2−112310
astrophysical plasmas, review 2−63243
astrophysical plasmas MHD equilib., nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
auroral double layers, current carrying props. rel. to low frequency auroral fluctuations 2−100622
auroral electrons energy spectrum determ. from electron profiles and auroral emission 2−73699
auroral ionosphere, weak HF electrostatic turbulence obs. 2−106399
auroral plasma, double layers and solitary wave obs. 2−71191
black hole spherically symmetric accretion, electron pair production 2−100720
bow shock particle acceleration mechanisms 2−63247
bremsstrahlung spectra in Maxwellian plasma at relativistic temperatures 2−106513
comet tail disconnection events used to study interplanetary sector boundaries 3-dimens. props. 2−68666
cometary plasma tails, interaction with turbulent solar wind 2−106615
comets inner coma plasma production, role of critical ionisation vel. phenomena 2−100838
conference on magnetosphere plasma and electric fields origin at Yosemite, CA, USA (Jan. 1982) 2−107012
coronal plasma radiation amplification due to diffuse electron stream component 2−94675
Cygnus X-1, inverse Compton effect in hot plasma cloud rel. to hard X-ray spectrum 2−74015
D-region electron concentration, diurnal variations, use of Arecibo 430 MHz incoherent scatter radar 2−83962
double extragalactic radiosources, plasma physics appls. 2−63243
double layer theory, relativistic effects, rel. to solar activity *(Russian)* 2−103287
E-region, electron density redistribution under effect of stationary homogeneous wind system 2−73749
E-region, field aligned irregularities over Iioka, Japan, characts. and interpretation 2−84009
E-region, interaction with auroral electron fluxes to account for aurora double layered struct. 2−106381
E-region at high latitude, plasma wave amplitudes and turbulence 2−106402
E-region field aligned irregularities over Iioka, Japan, characts. 2−84008
F_2 layer, December anomaly var. throughout solar activity cycle 2−73752
F_2 layer at Jicamarca, nighttime Nm increase (2-3 Feb. 1965) 2−84007
galaxy spiral structures, plasmas and density wave theory 2−63684
gamma-ray burst spectra origin in hot plasma 2−74125
gamma-ray sources, hot plasma electron density rel. to comptonised X-ray sources model 2−89410
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
High-Altitude Plasma Instrument for Dynamics Explorer-A 2−58180
incoherent scattering plasma lines enhancement due to precipitation H^+ and secondary electrons 2−84012
intergalactic hot plasma in closed Universe 2−84308

plasma continued
interplanetary medium, stratification of electron beams generating solar type III radio bursts *(Russian)* 2−112416
interplanetary plasma clouds 2−89197
interplanetary plasma density, vars. from min. to max. of solar cycle (1974 to 1981) 2−89196
interstellar clouds, reflects of plasma drift on star form. 2−100909
interstellar matter, thermal and press. balance stability 2−63605
interstellar matter components, static equilibrium configurations 2−63606
local interstellar medium, plasma density and temp. from UV spectra of nearby white dwarfs 2−106690
interstellar plasma, laboratory simulation of chemical evolution 2−106831
Io plasma torus, SO_2 ionisation and dissociation 2−106602
Io torus, multiply refl. standing Alfven waves from mag. obs. (on Pioneer 10) 2−73892
ionosphere, drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
ionosphere, electron gyrofrequency rel. to radio waves reson. absorpt. 2−112199
ionosphere, midlatitude F-region plasma stability in presence of photoelectrons 2−106384
ionosphere, plasma ohmic heating by microwave beam from Solar Power Satellite 2−71186
ionosphere, relaxation of monoenergetic electron stream 2−112195
ionosphere at high latitude, charge particle var. during ionosphere-magnetosphere disturbances 2−100625
ionosphere auroral zone ions, transverse accel. mechanism 2−106392
ionosphere E-region interaction with F-region, cond. and plasma density 2−73751
ionosphere F_2-layer, approx. soln. of O^+ diffusion eqn. 2−112193
ionosphere-plasmasphere plasma flows, rel. to midlatitude electron density vars. in topside ionosphere 2−112194
ionospheric plasma, electron beam nonlinear radiation in whistler range, theoretical model 2−94556
Jupiter, magnetosphere plasma dynamics and Io 2−63306
Jupiter magnetosphere, Na emission of Io origin plasma and motion 2−73893
Jupiter magnetosphere plasma ion comp. diagnostics, use of plasma resonance lines 2−63231
Jupiter plasma torus, Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
magnetosheath plasma flow effect on magnetotail electric field distrib. 2−73785
magnetosphere, active spaceborne expts., lab. expts. and numerical simulation 2−112294
magnetosphere, hydromagnetic stability of turbulent geomag. tail 2−100664
magnetosphere, ion cyclotron instability caused by plasma interactions 2−73786
magnetosphere, plasma drift meas. from GEOS 2−63149
magnetosphere, plasma press. gradients as energy source for driving field aligned currents 2−117532
magnetosphere, plasmasphere and outer radiation belt, relativistic electrons dynamics 2−100653
magnetosphere, polar cap, plasma convection with interplanetary mag. field component 2−68564
magnetosphere, resonance oscills. of mag. lines of force rel. to micropulsations 2−112229
magnetosphere energetic particle fluxes, modulation by mixed mode of transverse/compressional waves 2−106424
magnetosphere foreshock, coupled MHD wave excitation and ion accel. 2−106422
magnetosphere foreshock, energetic nuclei flux, sunward diffusion, bow shock and magnetosheath effects 2−106421
magnetosphere ion cyclotron turbulence in strong plasma inhomogeneity regions, effect on ionosphere 2−84017
magnetosphere of magnetic oblique rotator, EM field produced, corotating plasma soln. 2−73951
magnetosphere plasma convection rel. to geomag. vars. inside auroral oval, effect of northward interplanetary mag. field 2−112293
magnetosphere plasma wave research in International Magnetospheric Study 2−112265
magnetosphere suprauroral region, ion accel. and distrib. due to lower hybrid mode interactions 2−73788
magnetotail, elec. field and current generation in presence of conducting ionosphere 2−100654
maser source of water vapour line, interplanetary oscillations 2−100829
mid-latitude ionospheric thermal plasma, dynamic interaction with plasmasphere, review 2−83987
neutron stars and γ-ray sources, magnetosphere and surface plasma processes 2−58501
nonlinear shear instabilities in an infinite slab, appl. to radiogalaxy NGC 1265 beam 2−112316
planetary nebulae, plasma diagnostics from integrated fluxes for UV emission lines 2−106846
plasmapause discontinuity and injection event, diamagnetic effects 2−100648
plasmasphere, plasma temp. determ. from thin sheath approx. 2−106354
plasmasphere, refilling of geomag. force tubes with thermal plasma after mag. disturbance 2−106383
polar cusps near solstice, field aligned currents, particles and plasma drifts 2−106426
polar ionosphere, magnetosphere coupling, elec. fields and plasma characts. 2−112221
PSR 0531+21, anomalous braking index, plasma inertial effect 2−94762
PSR 0531+21, radiospectrum prepulse form., role of relativistic electron positron plasma turbulence *(Russian)* 2−68806
pulsar magnetospheres, quasi-steady time depend. rel. to spectrum of coherent radio emission 2−79132
pulsar particles ejection, role of plasma flute instability 2−114991
pulsars, plasma physics appls. 2−63243
pulsars polar flux tube particle acceleration and photon emission models 2−63492
radiation belt, trapped electrons outer boundary, convective MHD stability 2−73784
radiative transfer under superstrong mag. field, appl. to neutron stars 2−58374
radio galaxies, particle reacceleration by MHD turbulence rel. to apparent radio source struct. 2−68885
radiogalaxy clouds, wind instability theory *(Russian)* 2−106924

plasma continued
resonant electrodynamic heating in stellar and solar coronal loops, LRC circuit analogy 2−63229
review, book contrib. 2−71066
Saturn, magnetosphere, low energy hot plasma and particles 2−84159
Saturn, magnetosphere, Voyager 2 obs. of energetic charged particles 2−84160
Saturn, Voyager 2 plasma wave obs. 2−84162
Saturn magnetosphere plasma characts. from Voyager 2 obs. 2−84158
Saturn ringlets' structure, role of mag. field acting on plasma 2−84148
shock wave modification by cosmic rays, cosmic ray accel. 2−63193
solar ^{3}He-rich flares, model of stochastic Fermi accel. in Alfven turbulence 2−106442
solar atmosphere, current sheets evolution onset of enhanced resistivity 2−55708
solar atmosphere, magnetogravity waves interconversion theory 2−68717
solar corona, numerical simulation of type III radio bursts 2−94696
solar corona, obs. of X-ray lines of He-like O and Ne ions 2−106640
solar corona, rotational mixing of Σ and π symm. 2−59923
solar coronal loops, effect of press. gradients and field line tying on mag. stability 2−100859
solar flare of 1980 April 8, transition zone plasma characts. 2−58312
solar flares, energetic electrons transport in fully ionised H plasmas 2−106493
solar flares, interacting mag. loop model for hard X-ray bursts 2−68693
solar flares, plasma parameters from high-resolution X-ray spectra 2−63344
solar flares, plasma props. from obs. of impulsive phase in soft X-ray emission 2−94693
solar interior, electron-plasmon interactions rel. to solar neutrino problem 2−68694
solar plasma physics appls. 2−63243
Solar System early evolution in plasma phase 2−63279
solar white light flare, 1981 February 26, turbulent elec. fields rel. to flare pink colour 2−100869
solar wind, active spaceborne expts., lab. expts. and numerical simulation 2−112294
solar wind, Alfven waves propag. accel. and heating 2−103346
solar wind, convective motion due to streams devel. and planets gravity 2−106467
solar wind, electrostatic turbulence rel. to interaction with cometary plasma tails 2−106615
solar wind, ground-based obs. of interplanetary disturbances 2−68585
solar wind, ion species bulk speed and particle number density var. 2−68586
solar wind, numerical algorithm for unsteady thermally conductive coronal flow 2−112399
solar wind, statistical props. of MHD fluctuations assoc. with high speed streams 2−100697
solar wind acceleration region, plasma diagnostics from EUV coronal lines anal. 2−84182
solar wind global properties, density and temp. 2−84056
solar wind irregularities from obs. of interplanetary scintillation Jupiter HF emission 2−73816
solar wind magnetically closed regions 2−58219
solar wind minor ions resonant wave accel. 2−58220
solar wind parameters from electron and ion distrib. 2−63204
solar wind plasma acceleration and wave heating by cyclotron reson. 2−106469
solar wind plasma characteristics, influence of solar corona expansion geometry 2−112413
solar wind velocity between 0.3 and 1.0 AU, solar activity depend. 2−58221
space plasmas, multicomponent anisotropic, transport eqn. 2−84088
stellar interiors, dense plasmas physics and enchancement of thermonuclear reaction rates due to strong screening 2−100725
stellar interiors, effects of plasmon-electron interaction on radiative transfer 2−89238
stellar magnetism, plasma physics appls. 2−63243
Sun, chromosphere, MHD waves evolution in homogeneous isothermal medium 2−58245
Sun, Corona, plasma heating in mag. field 2−97754
Sun, corona active region diagnostics use of Ca and Cr lines 2−63332
Sun, corona and transition zone, condensational instability 2−63230
Sun, corona heating processes, role of mag. field 2−63357
Sun, coronal flare cooling, use of vertical mag. flux tube model 2−94665
Sun, coronal flare plasma, cooling and condensation 2−63334
Sun, coronal loop low beta model surrounded by plasma, kink instabilities 2−117655
Sun, coronal loop thermal stability, coupling of plasma with chromosphere 2−79060
Sun, coronal transient, Lagrangian velocity anal. 2−68607
Sun, coronal type III radio emission involving plasma solitons evolving in one dimens. 2−84183
Sun, electron-cyclotron maser emission from flaring loops, plasma effects 2−112409
Sun, flare triggering by magnetosonic waves in neutral sheet plasma 2−94671
Sun, Langmuir waves, decay as origin of type I radio bursts 2−73933
Sun, microwave bursts, assoc. mag. field, electron energy and brightness temp. 2−94683
Sun, radio bursts and plasma processes 2−106663
Sun, soft X-ray flare, theoretical model constraints from spectral obs. 2−68691
Sun, transition region, plasma flow along coronal mag. flux tube 2−94677
test particle distrib., interaction with electron gas, Fokker-Planck coeff. calc. 2−84087
topside equatorial spread-F, wave number spectrum for plasma density fluctuations 2−106404
turbulence, plasma containment, and galaxies 2−89372
Universe large scale structure origin, plasma problems 2−63731
Venus, ionosphere plasma motion and mag. field convection 2−112363
Venus magnetosheath, accel. of ionospheric O^+ 2−73884
warm equatorially trapped ions near geosynchronous orbit, composition meas. 2−112235
X-ray source, radiation supported plasma layer, struct. and stability 2−106960
HeH^+ formation and destruction in plasma appl. to planetary nebulae and dense clouds 2−78943
O^+ ion flux detection from F-region topside soundings 2−83961

plasma accelerators *see collective accelerators*

plasma applications
see also plasma arc spraying; plasma deposition; plasma devices
atomic emission analysis, R&D and QA appl. 2−73028
atomic emission spectrometry, skimmed inductively coupled Ar plasma appls. 2−95481
diffusion plasma columns in coaxial cylindrical glow discharge tube, environment chambers appl. 2−103476
electron beam plasma discharge, props. and appls. 2−115018
endpoint detection in a batch loaded planar etcher 2−71267
etcher, flat bed, RF voltage-current characts. and DC negative bias props. 2−109609
etching and film prep., conf., Brighton, England (March 1981) 2−53420
etching gravimetry, for determ. of polymer's stratified structs. *(German)* 2−67690
gas discharges and appls., conf., London, England (August/September 1982) 2−101134
metal surface layers, effect of spark discharge and electrolytic plasma *(Russian)* 2−62267
plasma etching systems, plasma optical emission anal. 2−71268
replica gratings contaminated by synchrotron radiation, plasma discharge cleaning 2−86086
RF sputtering discharge characteristics and power supply coupling conditions 2−57290
semiconductors and oxides, plasma etching using H_2 plasma 2−83256
steel, plasma-induced nitrided and carburised layers, technological importance 2−57543
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
CO_2-TEA laser mode-locking by intracavity plasma switching 2−55224
InP, surface etching kinetics of H plasma, Auger spectra study 2−93637
KrF laser pulse compression in plasma theory 2−90950
Pn-In-Au, RF oxidation, XPS and ellipsometric study 2−57530
SiO_2, HF plasma discharge, chemical etching, IR spectroscopy study 2−65772
$TiSi_2$, appls. in MOS technology 2−104501
Xe flashlamps, visible light emission theoretical model 2−55713

plasma arc sprayed coatings
coated materials for Tokamak fusion device appl., thermal fatigue props. 2−74909
fibre reinforced, effective contact area 2−83262
mechanical props. and appl. 2−111347
metallic vacuum plasma sprayed coatings 2−62274
refractory materials plasma-arc spraying onto preformed cores used as furnace heating elements *(French)* 2−62078
Al-BN plasma spray deposited composite coatings, props. 2−83231
Al_2O_3 on Mo, fusion reactor structural materials, plasma spray coating 2−74914
Al_2O_3, on steel rolls, roll coatings formed during Al hot rolling 2−111385
Co-Cr-Al-Y vacuum plasma sprayed coatings 2−62274
Cr_2O_3 plasma sprayed layer on rolls, roll coatings formed during Al hot rolling 2−111385
Eu_2O_3, plasma sprayed, X-ray struct. investigs., plasma jet enthalpy effect 2−99577
Mo on steel, with preliminary applic. of low-melting layer, coating influence on creep 2−99601
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Cr-BN plasma spray deposited composite coatings, props. 2−83231
Ta protective coatings on Al, Cu, AISI 316L, Inconel 600 for fusion reactor appl. 2−74911
TiB_2 on Mo, fusion reactor structural materials, plasma spray coating 2−74914
TiC on Mo, fusion reactor structural materials, plasma spray coating 2−74914
V, porous, eqn. of state and phase diagram parameters, calc. from expt. data 2−71607

plasma arc spraying
jet characteristics determ. in spraying appls., use of piezoelec. resonance detectors using quartz resonators 2−76206
steel, Cr type, plasma spraying of Mo influence on creep, preliminary applic. of low-melting layer 2−99601
WC, plasma-processed, condensation on graphite 2−105111

plasma-beam interactions
see also electromagnetic wave propagation in plasma; plasma production and heating by laser beam
Alfven-wave generation by nonlinear decay of beam-drives plasma mode 2−71168
beam induced current, effect of trapped electrons 2−86441
beam plasma discharge, probe meas. 2−76143
beam plasma discharge expts. at ionospheric conditions 2−73774
beam-plasma discharge, electron and mol. kinetics 2−103491
beam-plasma instability in the presence of low-frequency turbulence 2−91631
bunched beam problems with anharmonic space charge forces, Vlasov's eqn. 2−108210
charged particle beam energy loss decrease *(Russian)* 2−109537
charged particle bunching in self-radiation fields, theory *(Russian)* 2−114174
charged particles, stopping, Barkas effect or Z_1^3-contrib. 2−60765
cold beam-weakly collisional plasma system, amplitude oscillation, destruction mechanism 2−109510
conference, Swansea, Wales (July 1981) 2−94899
confined plasma, neutral beam heating, advanced technology 2−81499
counterstreaming plasma, EM ordinary mode instability 2−73831
coupled capillary-plasma wave excitation at liquid metal surface in plasma *(Russian)* 2−86435
cyclotron solitons radio emission control by temp. anisotropy 2−71118
discharge instability at low press. in bounded systems, ambient plasma and background temp. effects 2−65718
discharge plasma excited by electron-beam method, adhesion, recomb. 2−71073
electron beam excited discharge, volt-ampere characts., cathode layer effects 2−60805
electron beam injection, in mag. field, EM wave excitation efficiency 2−65738
electron beam interaction with plasma, instability growth rate 2−60763
electron beam nonlinear radiation in whistler range, theoretical model 2−94556
electron beam plasma discharge, props. and appls. 2−115018
electron beam propag., Langmuir wave collapse 2−86417

plasma-beam interactions continued
electron beam rotating in plasma, coherent synchrotron radiation polarisation 2−97750
electron beam-plasma system, nonlinear charge density standing wave propag. *(Russian)* 2−103389
electron beams, high-current, accel. by field of large-amplitude plasma wave 2−103395
electron beams generating solar type III radio bursts, stratification *(Russian)* 2−112416
electron drift waves interaction, stochasticity and random phase approx. 2−71145
electron heating in plasmas by high freq. EM waves, quantum kinetic theory 2−71201
electrons transverse charging into mag. mirror, theory 2−86454
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
EM wave excitation during scattering of charge density waves in electron beams by ion-acoustic oscillations in plasma waveguides 2−91632
EM wave propagation in plasma-beam system effect of superheterodyne amplification 2−76137
fast ion beams, excitation, spatial amplification of ion plasma oscills. *(Russian)* 2−60761
fast neutrals injection, charge exchange spectrum, TFR 600 Tokamak 2−81501
fueling of magnetic confinement devices 2−81483
heavy ion beam, plasma heating mechanism *(Russian)* 2−103396
heavy ion beam ignition for inertial confinement fusion systems 2−113733
Heliotron E neutral beam injection system, injection power and H ion species anal. 2−65737
high current beam injection into modified betatron accelerator 2−109607
high-current relativistic electron beam, interaction with waveguide plasma, nonlinear theory *(Russian)* 2−103388
hollow arc discharge cathode, electron distrib. and ionisation rate in active zone calc. 2−60828
in plasma 2−97752
INTOR, ion sputtering from walls during neutral beam heating 2−81493
ion acoustic wave excitation by slow ion beam 2−115019
ion beam heating, coulomb collisions, Tokamak plasma 2−81534
ion beam refl. at ion-absorbing boundary in non-magnetised plasma, pot. double layer formations 2−60760
ion beam transport in laser-initiated plasma channels 2−55752
ion beam-plasma system, ion acoustic wave freq., boundary effect 2−114998
ion beams high current voltage, long pulse duration development for neutral injector 2−80368
ion straggling and energy loss in dense plasmas 2−103392
ionosphere plasma, neutral beam interactions, Alfven's critical vel. effect 2−112224
ionospheric-like plasma, interaction with electron beam 2−73760
isolated EM wave beam state in decelerating systems 2−71188
laser-irradiated plasma, ionisation threshold intensities, ionisation periods, calc. program 2−109447
light ion fusion targets, beam and deposition stability 2−114994
magnetic field measurements in fusion plasmas using the motional Stark effect 2−86478
magnetic fusion plasma, D^0 additional heating, secondary plasma effects 2−81536
magnetic multipole ion source, hollow cathode, plasma studies for neutral beam injection 2−89859
magnetic well, low-temp. plasma production by electron beam collisional ionisation 2−65745
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magnetically confined plasma column stimulated Raman backscatter 2−103315
monoenergetic electron stream in ionosphere, relaxation 2−112195
multibeamlet neutral injection, high transparency, primary ion tetrode optics design, theoretical anal. 2−81495
NBT, electron density spatial distrib., neutral Li beam probe study 2−91653
neutral atom beams, 1-2 MeV/amu, plasma heating appl. 2−55753
neutral beam heating on T-11 Tokamak, IV Kurchatov Institute research review 2−81497
neutral beam heating results on PLT and PDX 2−81526
neutral beam injection; magnetic blocking direct recovery efficiency calc. 2−81494
neutral beam injection, lower hybrid wave heating in JIPP T II torus 2−103401
neutral beam injection heating, TEXTOR simulation, Monte Carlo method 2−81574
neutral beam injection heating 2−81530
neutral beam injection in DITE Tokamak 2−81498
neutral beam injection in PLT, confinement studies 2−81565
neutral beam injector, advanced high energy design 2−81533
neutral beam injector development for JET 2−81503
neutral beam injectors, D^- prod. by double electron-capture, appl. to plasma heating 2−81500
neutral beams injection heating in TFR 600 Tokamak 2−81527
neutral injection heating in CLEO stellarator 2−81529
neutral injection of DITE, impurity radiation, density effects 2−71114
nonlinear effects during large amplitude cyclotron wave excitation in plasma *(Russian)* 2−71196
nonlinear laser plasma interaction theory 2−71229
nonlinear parametric resonance in plasma modulated electron beam system *(Russian)* 2−86442
nonlinear wave-beam limiting state in electron plasma 2−76111
nonuniform ionization in a gas discharge gap by an electron beam 2−60829
ordinary mode in an inhomogeneous thermal plasma in the presence of mildly suprathermal electrons 2−109534
particle accelerators, plasmas, warm-beam equilibria 2−108209
particles trapped in potential trough of heat of two waves, acceleration 2−109533
PDX Tokamak, ion heating by neutral beam injection 2−103412
Penning discharge, thermionic cathode, electron modulation of HF oscillations 2−81606
plasma cluster, scatt. in vacuum, energy balance 2−60764
plasma science conf., Ottawa, Canada (May 1982) 2−107015
plasma-wall transition in an oblique magnetic field 2−109527
proton beam accel. in plasma focus, fissile fuel prod. 2−55793

plasma-beam interactions continued
proton beam transport in laser-initiated discharge channels, expt. study 2−91630
proton pulsed beam, transport efficiency meas. in plasma channel in Nagaoka ETIGO-I 2−71192
pulse propagation, observational dispersion relations 2−86418
pulsed neutralised ion beams injection into toroidal fields 2−71195
reduced stimulated Brillouin scatt. from CO_2 laser interaction 2−103393
relativistic beam-plasma system stability, linear theory 2−97751
relativistic electron beam, in plasma waveguide, charge density wave scatt., ion acoustic waves *(Russian)* 2−103387
relativistic electron beam collisions, instability excitation *(Chinese)* 2−103322
relativistic electron beam in axially symmetric waveguide, Cerenkov amplification of regular waves 2−60757
relativistic electron beam injection into plasma, induced field dynamics 2−109536
relativistic electron beam interaction, H plasma, instability excitation, floating double probe meas. 2−115020
relativistic electron beam nonlinear interaction with surface wave 2−65736
relativistic electron beam nonlinear relaxation, four-plasmon interaction *(Russian)* 2−97753
relativistic electron beam propagating in cylindrical waveguide, space charge waves props. 2−71194
resistive hose instability, multicomponent model 2−103353
resonators, composite reson. 2−109535
return-current-driven instabilities of propagating electron beams 2−103352
splitting scheme integration of the two-and-one-half-dimensional Vlasov equation 2−71078
stationary turbulence as plasma thermal insulation 2−81482
surface explosive instability for high frequency waves 2−71167
target ablation plasmas, enhanced stopping of 1-MeV deuterons 2−103391
Tokamak, beam-heated, impurity evolution calc. 2−55749
Tokamak, ICRF heating, surface physics problems 2−81506
Tokamak, wall interactions, edge plasma modelling, transport, impurity rate and diffusion eqn. 2−109528
Tokamak electron dynamics, numerical simulation 2−109572
Tokamak fuelling simulation 2−81573
Tokamak plasma, He injection, α-particle conc., ignition temp. 2−81502
Tokamak plasma, ion beam injection, heating and current maintenance 2−81535
Tokamak plasma, mag. field effect on neutral beam heating 2−81531
Tokamak plasma, neutral injection heating, electron coding 2−81532
toroidal mag. field confinement, current drive by relativistic electron beams 2−60766
trapped beam electrons in travelling wave tube, static electric field effect 2−103390
unstable waves in cold beam plasma system, nonlinear oscillations, modulation theory 2−71150
wave beam limiting state in plasma medium 2−71187
wave excitation by inhomogeneous suprathermal electron beams 2−55751
weak turbulence theory of intense beam microwave experiments 2−103375
Ar, hollow arc discharge cathode, electron distrib. and ionisation rate in active zone calc. 2−60828
Ar plasma, fast electron beam, ion and electron density distrib. *(Russian)* 2−60762
Ar thermionic cathode discharge, forward longitudinal waves, theory 2−97815
D ion radial acceleration in virtual cathode region during relativistic electron beam injection *(Russian)* 2−76144
D plasma, neutral beam heating in W VII-A stellarator 2−81528
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
D-T plasma, energy deposition of fast α-particles 2−102259
DT neutron spectrum meas. in plasma focus *(Russian)* 2−71204
H, atomic beam, Dopper shifted emission spectra, appl. to plasma diagnostics 2−80520
H, relativistic electron beam injection 2−71193
H-H_2, electron beam discharge plasma, vibr. excited states 2−109457

plasma collision processes
see also plasma transport processes; plasma-wall interactions
alpha-particle distrib. function, collisional losses, Fokker-Planck basis calc., for Tokamak reactor 2−81556
banana regime, neoclassical ion thermal cond., finite aspect ratio effect 2−109467
Boltzmann collision integral for one-particle distrib. function of particle undergoing elastic collisions 2−55701
bremsstrahlung, induced radiation 2−97716
charged particle beam energy loss decrease *(Russian)* 2−109537
charged particles, stopping, Barkas effect or Z_1^3-contrib. 2−60765
chemically active plasma with molecular nonequilibrium vibration excitation 2−76071
cold beam-weakly collisional plasma system, amplitude oscillation, destruction mechanism 2−109510
cold plasma, in strong mag. field, electron temp. meas. 2−65761
collision operators of electron Boltzmann eqn., compactness proof and statements on spectrum 2−76067
collisional plasma, wave enhancement of electron runaway rate 2−91612
collisional tearing mode, mag. field stabilising effect 2−109495
column, sustained by surface wave, characts. and energy balance 2−55746
continuous radiation polarisation from weakly ionised gas *(Russian)* 2−86385
convergent kinetic equations, collision bracket quenching functions 2−81449
counterstreaming plasma, thermalisation, runaway ion instability 2−86413
current driven electrostatic waves, effects of collisions 2−76113
degenerate plasma, bremsstrahlung emission coeffs. 2−81460
diffusion equation, nonlinear, asymptotic behaviour of solns. 2−91590
discharge plasma excited by electron-beam method, adhesion, recomb. 2−71073
discharge positive column, electron energy distrib. meas. and Boltzmann eqn. calc. 2−76227
drift dissipative instability of nonuniform plasma, mag. field curvature effects 2−91614
drift Hamiltonian in magnetic coordinates 2−71069

plasma collision processes continued
drift transfer eqns. *(Russian)* 2−97707
driven currents by HF EM waves, power dissipation *(Chinese)* 2−103377
electric probes in transitional collision regime, theory *(Russian)* 2−103445
electron collision frequency in plasmas 2−65685
electron distrib. function of weakly ionised plasma in large elect. fields, energy balance determ. by collisions *(Russian)* 2−76068
electron energy distribution in high-freq. stationary fields, calcs. 2−103488
electron plasma, transverse oscills., collisional damping 2−65708
electron-ion plasma, collision term of Fokker-Planck eqn. in strong mag. field 2−91592
electron-positron pair equilibria in astrophysical plasma 2−94587
fast-liner−compression fusion systems collisional losses 2−76182
field reversed mirror plasma, transport, numerical simulation code 2−65695
fluid model of plasma outside hollow cathode neutraliser 2−109464
fluorocarbon gases, plasma etching, physical and chemical processes 2−76062
Frascati Tokamak, O impurity behaviour 2−71249
fully ionised low-Z impurities in PDX Tokamak, spatially resolved meas. 2−109602
Grad-Fokker-Planck equations of collision moments 2−86382
hollow arc discharge cathode, electron distrib. and ionisation rate in active zone calc. 2−60828
in plasma 2−97752
incoherent scattering plasma lines enhancement due to precipitation H^+ and secondary electrons 2−84012
inert gas atoms or ions+alkali metal atoms, thermal energy collisions, spectroscopic study *(German)* 2−114970
inhomogeneous plasmas, intense wave beam self-focusing and energy absorpt. *(Russian)* 2−97736
inscattering operator, finite dimens., eigenvalues and eigenfunctions 2−107270
instability, Vlasov-Fokker-Planck description 2−76126
ion acoustic Langmuir interactions, effects of collisional and viscous dissipations 2−55741
ion beam heating, coulomb collisions, Tokamak plasma 2−81534
ion beam neutralisation, Langmuir oscillations effect on background electrons *(Russian)* 2−76074
ion-acoustic solitons, resonant interaction in 3-dimens. 2−76115
ion-ion recombination, reaction and diffusional drift 2−86384
ion-ion recombination theory 2−109460
ionic targets, stopping power, free-electron gas approx. 2−103280
isotope mixture separation in rot. plasma *(Russian)* 2−76064
jet interaction with liquid bath *(Russian)* 2−65770
kinetic theory, review, book contrib. 2−71093
Knudsen arc, time varying, thermaly electron distrib. and ionization rate, anomalous features 2−115086
laser-assisted inverse bremsstrahlung in a weakly ionised plasma 2−86450
level shifts and inelastic electron scattering in dense plasmas 2−71111
LF component microfield distributions, quantum corrections 2−65686
light absorpt., magnetic field generation, collisional ponderomotive effects, particle simulation 2−76069
light ion fusion targets, beam and deposition stability 2−114994
linear fluctuation spectrum, Boltzmann eqn. calc. with collisions 2−65690
magnetic field generation by charged particle fluxes *(Russian)* 2−55711
magnetic field generation via parametric instabilities in collisional plasmas 2−86403
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magneto-active plasma, electron cyclotron heating, runaway electrons *(Russian)* 2−60769
matter-antimatter clouds collision, separation mechanism, appl. to astrophysics 2−73829
matter-antimatter clouds collisional interpenetration, MHD shocks prod. and Leydenfrost layer prod. 2−73830
methane flowing into cold plasma, chemical behaviour, H-production *(French)* 2−91555
microparticles in low temp. plasma, heat transfer *(Russian)* 2−71197
modified Bohm criterion for a collisional plasma 2−71068
noble gas MHD generator, discharges in inlet region 2−91681
non-isothermal plasma theory in rot. HF field *(Russian)* 2−76063
non-potential instabilities in weakly ionised Na plasma, neutrals thermal motion effect 2−103345
nonideal plasma, absorpt. coeff. in visible spectrum 2−81459
nuclear reaction rates between charged particles at high energies in a magnetic field 2−114971
Nyquist theorem, validity at large collision freq. 2−71139
one component classical plasma, exact dynamical polarisability 2−109456
open field line fusion plasma, slowing-down, alpha-particle losses 2−71075
optical absorption of plasmas for various collision regimes 2−71115
pair annihilation in relativistic astrophysical plasma 2−94586
pair processes and equilibria in relativistic thermal plasma 2−63224
physical kinetics, theoretical aspects, book 2−58569
plasma science conf., Ottawa, Canada (May 1982) 2−107015
post discharge regime of weakly ionised hydrogen plasma 2−109458
quiescent collisional magnetoplasma, nonstationary irreversible thermodyamics 2−97706
rarefied multicomponent ionised gas, collision processes, physico-probabilistic analogue model 2−55705
reacting monatomic dusty gas, relax. zone behind normal shock waves 2−86432
recombination UV, visible and IR lasers in expanding metal vapour plasmas 2−65207
reflected atoms, interaction with plasma at wall, in mag. field, flux charcts. calcs. 2−91629
relativistic electron beam collisions, instability excitation *(Chinese)* 2−103322
relativistic electron-positron plasma, radiative collapse 2−103435
relativistic plasma, kinetic theory 2−60795
relativistic plasma, particle kinetic energies Boltzman distrib. established and maintenance 2−65751
relaxation kinetics in high press. inert gas plasmas *(Russian)* 2−76065
short wavelength lasing plasma, kinetic theory 2−86394
spectral line broadening in plasmas, kinetic theory, Stark profile 2−65698
stochastic magnetic field, ambipolar electric field and ambipolar diffusion 2−97709
stopping power 2−81862
suprathermal electron drive and symmetry effects in intermediate density laser fusion targets 2−86383

plasma collision processes continued
symmetric magnetoplasmas, collisional transport theory, perturbative-variational method 2−109465
tandem mirrors, reson. and neoclassical transport, collisional limits 2−97714
TM modes in parallel plane wave guide filled with plasma, collisional effects 2−91628
Tokamak plasma, neutral deuterium ionisation, Fe ions contrib. 2−109459
toroidal high energy particle confinement in crimped mag. field *(Russian)* 2−109578
Vlasov-Fokker-Planck operator, point spectrum 2−76085
wall plasma struct. near divertor neutraliser plates or limiters 2−103386
wave-particle resonances in curved mag. fields 2−97728
waves, linear theory, role of collisions, Zakharov and Karpman's Fokker Planck eqn. 2−81452
weakly ionised plasma, collision operators of electron Boltzmann eqn. 2−76066
weakly ionised plasma, electric field effects, electron energy distrib., quasi-elastic collisions *(Russian)* 2−60799
α-particle slowing-down losses in a rippled mag. field 2−71076
t, nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
Al target, H^+ collisions, plasma generation, UV spectra *(Russian)* 2−60768
Ar, collisional and radiative model, appl. to ionisation phenomena behind a shock wave 2−114972
Ar, hollow arc discharge cathode, electron distrib. and ionisation rate in active zone calc. 2−60828
Ar plasma, Cs seeded, relax. processes, radiation and nonMaxwellian electron distrib. effects 2−91594
Ar plasma, electron-ion recombination and ionisation coeff. calc. 2−91591
Ar transient conditions in inductively heated plasmas: thermodynamic equilib. and temp. meas. 2−91593
Ar-Hg mixtures, glow discharge plasma, electron kinetic investigations, transport processes 2−115061
Ar-Hg plasma fluoresc. lamps, radiation prod. efficiency, mol. gas admixture effects 2−76070
C fibre, containing ZrO_2, effect of low temp. Ar plasma 2−67585
C VI line in dense plasma, Stark profile calcs. 2−103453
Cl recombination, prelasing investigations 2−114973
Fe^{15+} plasma, dielectronic recombination via autoionisation states 2−103283
Fe^{23+}, dielectronic recombination, forbidden 2s-3d transition, plasma 2−103284
H neutral kinetic theory in bounded plasma slab with inhomogeneous temp. and density profile 2−91595
H plasma, population inversion between the recombining ground and first excited states 2−71074
H recombining plasmas, optically thin and thick, population inversion and threshold condition for laser oscill., report 2−103285
H-H_2, electron beam discharge plasma, vibr. excited states 2−109457
H-like ions, excitation and ionisation mechanism, role of autoionising states 2−65684
H-plasma, two component, charge density fluctuations dynamics 2−55703
H^+-Cs, plasma, charge exchange, population inversion, laser charcts. 2−108861
He discharge, electron beam excitation, population mixing rate consts. determ. 2−114969
He line ion broadening and shift in hot plasma, quasistatic, adiabatic and impact calcs. 2−81445
He, magnetically confined, equilib. ionisation dynamics 2−76167
Kr, highly ionised, spectroscopy for Tokamak plasmas 2−97767
Li-Cs plasma, dense, supercooled, recomb. and Li level population calcs. 2−81448
N plasma, quasi-homogeneous stationary, composition at atmos. press. 2−76179
N_2 in decaying plasma, dissociation and ionisation 2−81447
N_2 plasma, nonequilibrium, electronic relax., theory 2−114974
Na plasma, laser induced, electron density meas., emission spectra 2−65758
Ne, impurity in electron gas, temp. depend. screening, pair pot. calcs. 2−103281
O plasma, electron and ion impact, rate coeffs. 2−81446
S^{13+}, dielectronic recombination cross sections 2−59944
Si^{11+}, dielectronic recombination cross sections 2−59944
Si^{12+} plasma, line intensity ratio, model depend. 2−81444
SiH_4 in low press. hot cathode glow discharges optical emission spectroscopy in visible and near UV region 2−71072

plasma confinement
see also magnetic traps; pinch effect; plasma focus; plasma impurities; plasma-wall interactions
600 kV Marx module for high-density Z-pinch experiment 2−90415
$q<1$ discharges in Tokapole II noncircular Tokamak 2−109574
ACT-1: a steady-state torus for basic plasma physics research 2−65750
advanced fusion reactors, book contrib. 2−74941
Alcator A Tokamak, continuum X-ray emission 2−65701
Alfven wave heating in general toroidal geometry 2−55755
Alfven wave toroidal eigenmodes, mag. field struct., probe meas. 2−81477
alpha-particle distrib. function, collisional losses, Fokker-Planck basis calc., for Tokamak reactor 2−81556
American Vacuum Soc., conf., Anaheim, USA (Nov. 1981) 2−79275
Argonne plasma engineering expt. Tokamak design and operation 2−102260
ASDEX divertor Tokamak, lower hybrid wave heating 2−76157
B-20 torsatron, inductorless excitation current, plasma and runaway electrons *(Russian)* 2−103300
ballooning instability in toroidal plasmas 2−97722
ballooning mode, finite-n theory for axisymm. toroidal plasmas 2−103340
ballooning stability in Tokamak, diamagnetic drift freq. effects 2−71250
ballooning stability in toroidal devices 2−103373
belt pinch MHD equilibria modelling 2−115036
burning fusion plasma, compression-decompression control, thermal instability suppression 2−76102
charge, quantum state and energy distributions of impurities released in plasma-wall interaction processes 2−109530
classical electron plasma, static correl. function derivation by Mori's scaling method 2−109462
CLEO stellarator, neutral injection heating 2−81529
collective accelerator, mag. confined plasma ring type, appls. 2−54694
computational plasma physics, book contrib. 2−60797

plasma confinement continued
conference, Swansea, Wales (July 1981) 2−94899
controlled thermonuclear fusion electrical engineering problems 2−64638
core plasma electrons, confinement scaling in EBT 2−97774
current sustaining Tokamak, pinch effect by RF traveling wave 2−109583
density oscillations in Tokamak-10 device, expt. and simulation *(Russian)* 2−76073
density threshold for MHD activity in Alcator C 2−103292
disruption in L=2 stellarator Tokamak hybrid 2−86462
dissipative trapped-particle modes, anomalous dissipation effects 2−65707
DITE Tokamak, neutral beam injection 2−81498
DITE Tokamak, species and impurity meas. in intense neutral beams 2−97768
Doublet IIA Tokamak, lower hybrid wave electron heating 2−76151
Doublet III, dee-shaped plasma, equilibrium and axisymmetric stability 2−109491
Doublet-III, impurity reduction and remote radiative cooling with single-null poloidal divertor 2−97769
EBT, RF ion heating, turbulence, instability, lower hybrid wave excitation 2−71202
EBT reactor, design considerations for nonmagnetic divertor 2−74905
EBT-S, Thomson scatt. diagnostics 2−65767
EBT-S ion cyclotron heating, wave heating model 2−103397
EBT-S wave props., inhomogenity effects 2−109577
electron beam power multiplication and pulse forming using dynamic electron storage 2−97777
electron cyclotron waves parametric instabilities 2−103350
electron thermal energy transport in plasmas with injected heating 2−55754
ELMO bumpy torus, electron cyclotron heating 2−71223
ELMO bumpy torus, energy transport equations for a bumpy torus 2−91657
ELMO bumpy torus, hysteresis and catastrophe jumps in equilibria 2−55773
Elmo Bumpy torus, whistler instability 2−71158
ELMO bumpy torus 2−76183
energy confinement at high density in Frascati Tokamak, neoclassical effects 2−81554
energy confinement time, scaling with minor radius in Frascati Tokamak 2−81560
fast-liner−compression fusion systems, book contrib. 2−76182
field-reversed config., confinement times, particle transport study 2−76175
field-reversed plasmas without toroidal field, tearing mode stability 2−71240
force-free fields in a three dimensional plasma torus, astrophysical appl. 2−58238
Frascati Tokamak, O impurity behaviour 2−71249
Frascati torus, high density Tokamak discharge, enhanced particle recycling, optical study 2−97771
FT machine, polarimetric density meas., expt. approach 2−109599
FT Tokamak, electron cyclotron emission 2−71121
FT-1 Tokamak, electron cyclotron plasma heating 2−71220
fueling of magnetic confinement devices 2−81483
fully ionised low-Z impurities in PDX Tokamak, spatially resolved meas. 2−109602
fusion reaction products, shear-Alfven wave effect on confinement 2−65746
fusion reactor confinement, review, book contrib. 2−69889
fusion reactor technology based on Tokamak principle *(German)* 2−90286
fusion reactors, magnetic confinement, book 2−74173
fusion reactors, nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
fusion-producing plasma, RF current drive 2−86445
gas breakdown in the T-7 Tokamak *(Russian)* 2−76169
heated plasma thermal evolution, math. model, asymptotic anal. 2−97713
heating in toroidal plasma, conference, Como, Italy 2−68960
helical column plasma, current profiles, internal kink instability *(Russian)* 2−60787
helically symmetric plasma, flux conserving equilib. 2−81553
Heliotron-E confinement, plasma initiated and heated by electron cyclotron resonance frequency waves 2−60794
high frequency plasma heating in Tokamaks within the Alfven frequency range 2−81524
high-β Tokamak, ideal MHD stability limits 2−109570
high-β Tokamak equilibrium with anisotropic pressure 2−86455
high-β Tokamak plasma, free-boundary equilib., plasma stability 2−76176
HT-1, feedback control system for plasma position 2−74972
HYLIFE ICFR, plasma-jet interaction, 2D model 2−97719
ideal and resistive modes, eigenfunctions and eigenvalues 2−86409
impurity levels in Tokamak reactor with turbulent plasma blanket *(Russian)* 2−103383
inertia confinement by means of light ions for fusion *(German)* 2−90287
inertial confinement, heavy ion beam fusion reactor, HIBALL, time-depend. neutronics anal. 2−54642
inertial confinement, review, book contrib. 2−71256
instrument for synchronizing plasma diagnostic measurements with tokamak internal disruptions 2−65766
intense electron beam vacuum transmission through cusp mag. field using dielectric drift tubes 2−55774
INTOR Tokamak ballooning stability, alpha-particle diamagnetic drift effects 2−109560
ion cyclotron heating of Tokamaks distribution function of resonant ions 2−81511
ion cyclotron resonance heating (ICRH) of an EBT with periodic boundary conditions 2−81514
ion guns, charge exchange effect, appl. to confinement devices 2−96352
ion rings, adiabatic compression 2−71245
ion-temp. profile determ. by corpuscular diagnostics in Tokamaks 2−115050
isotope exchange, H recycling and impurities in ISX-B Tokamak 2−71189
Japanese fusion program developments and current-status *(German)* 2−91648
JET Tokamak, impurity diffusion under finite reaction rates 2−109471
JFT-2 Tokamak, electron cyclotron heating using an inside launch antenna 2−97758
JFT-2 Tokamak, high-β plasma, MHD equilib. position and poloidal β from mag. probes, theory 2−115032
JFT-2 Tokamak, lower hybrid heating, energy balance 2−76154
plasma confinement continued
JFT-2 Tokamak, particle confinement during high-power neutral-beam injection 2−109561
JFT-2 Tokamak first wall, plasma parameters related to arc initiation 2−109558
JIPP T-II stellarator, neutral beam injection heating 2−81530
JIPP T-II torus, neutral beam injection, lower hybrid wave heating 2−103401
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
Joint European Torus magnet coils *(German)* 2−91646
laser compressed plasmas, simulation of X-ray line emission spectra 2−65700
laser produced counter streaming plasmas, encounter interactions in toroidal mag. field 2−55764
laser-driven ablation, numerical studies 2−65749
LF mode stability in tandem mirrors and bumpy tori 2−97733
linear Extrap pinch, equilib. study 2−109580
linear mag. quadrupole, H plasma filled, flow pattern study 2−114988
linear magnetic fusion system, book contrib. 2−76180
local electron heat conduction in Tokamak-10 *(Russian)* 2−55777
low-q discharges, with D-shaped and circular cross-section, high density, in Doublet III 2−71236
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
lower hybrid RF heating in Alcator-A, -C and Versator II Tokamaks 2−76153
lower hybrid wave coupling with grill in Tokamak *(Chinese)* 2−103323
lower hybrid wave heating, details of PLT Tokamak expt. 2−76158
lower hybrid wave heating in the Octopole Tokamak 2−55759
lower hybrid waves in Alcator A Tokamak studied using CO_2 laser scatt. 2−71143
macroparticle accel. for controlled thermonuclear fusion 2−96304
magnetic confinement of hot plasma ring, rel. to nuclear fusion and world energy problem *(German)* 2−93879
magnetic coordinates establishment for given mag. field 2−71241
magnetic field measurements in fusion plasmas using the motional Stark effect 2−86478
magnetic fluctuations, ambipolarity, charge filamentation, and plasma rotation in Tokamaks 2−97775
magnetic fusion reactors, book contrib. 2−76184
magnetic fusion system, ideal MHD theory 2−96303
magnetic mode growth in anisotropic contrastreaming plasmas in Tokamaks 2−81470
magnetic reconnections in current-sheet system under different boundary conditions 2−91616
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magnetically confined plasma column stimulated Raman backscatter 2−103315
magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
MHD, axisymmetric toroidal configuration Grad-Shafranov eqn. solved in local coordinate system 2−71125
MHD equilibria, electromagnetic kinetic toroidal eigenmodes 2−71144
microstability properties of the EBT boundary layer 2−97773
mirror machines, reduced MHD eqns. 2−109477
monochromator, vac., for synchrotron radiation in 15-160 nm range, absolute calibration 2−109603
multichannel light detector system for visible continuum measurements on Alcator C 2−112988
multidipole device, electrostatic plugging of leaks 2−91655
multihelical tearing modes in shaped Tokamaks, stability 2−103354
NBS conf., Gaithersburg, MD, May 1979 2−86463
NBT, electron density spatial distrib., neutral Li beam probe study 2−91653
NβT-1M device design for confinement studies 2−115058
neoclassical ripple transport, boundary layer corrections in Tokamaks 2−91658
neutral beam heating, advanced technology 2−81499
neutral beam injection in PLT, confinement studies 2−81565
neutral beams injection heating in TFR 600 Tokamak 2−81527
neutral particle modelling assumptions 2−86388
non-circular plasmas, axisymmetric MHD equilibria anal. 2−91642
nonaxisymmetric MHD instabilities, numerical model 2−97723
noncircular cross-section Tokamaks, mag. anal. 2−109476
nonlinear gyrokinetic equations for low-frequency electromagnetic waves in general plasma equilibria 2−71146
nonlinear trapped electron mode and anomalous heat transport in Tokamaks 2−97726
Ohmic heating circuit (PRETEXT) for Tokamaks 2−115021
Ohmically heated Tokamak plasma, relation between light and metal impurities 2−109559
optimal control 2−97766
parallel-plate RF plasma systems, 380 kHz, sustaining mechanism model 2−55782
particle diffusion in Tokamaks with partially destroyed magnetic surfaces 2−109575
PDX Tokamak, divertor discharge, position control procedure 2−86458
PDX Tokamak, ion heating by neutral beam injection 2−103412
PDX Tokamak, soft X-ray meas. 2−103318
PETULA, lower hybrid waves, ion heating, four waveguide grill expt. 2−76141
pinch configurations, helical field effect on self reversal, stability and confinement 2−81563
plasma column, current carrying with inflection point, MHD stability 2−86416
plasma physics and controlled nuclear fusion workshop, Cambuquira, Brazil, (Feb. 1982) 2−109579
plasma science conf., Ottawa, Canada (May 1982) 2−107015
plasma sheet, temp. anisotropy, tearing instability 2−115004
plasma torus, MHD equilib., boundary problem soln. 2−86464
PLT, Fe transport in confined high temp. plasma 2−109565
PLT, impurity flux of Fe XXIII, transport mechanism 2−55781
PLT Tokamak, magnetosonic wave heating near ion cyclotron frequency 2−76159
PLT Tokamak, plasma density fluctuations, drift wave, nonlinear theory 2−86387
ponderomotive effect in a two ion species magnetized and bounded plasma 2−71091
ponderomotive pseudopotential near gyroresonance 2−71163
quasilaminar equilibria nonexistence in cylindrical magnetically insulated lines 2−97776

plasma confinement continued
radiation losses in T-10 Tokamak, effect on plasma behaviour *(Russian)* 2−103310
relativistic electron beam rings in conducting cavity 2−109554
rippling modes in the edge of a Tokamak plasma 2−97732
Rotamak, MHD press. balance equilib. 2−86465
Rotamak equilibria, expt. obs. 2−71246
second electron cyclotron harmonic effective opacity of dense Tokamak plasmas 2−97730
shaping and controlling dee-shaped Tokamak plasmas 2−85366
Spheromak, tearing mode instability 2−81463
spheromak configuration, ideal MHD stability 2−97718
static magnetic field, collisionless inverse bremsstrahlung 2−109543
stationary waves at the interface between a plasma stream and magnetic field 2−103337
stellarator, modular coils, optimisation techniques 2−109563
stellarator confinement, ohmic heating current, diamagnetic signal calcs. *(Russian)* 2−60783
stellarator plasma, equilib. on toroidal surface *(Russian)* 2−60786
stellarators, neoclassical diffusion losses evaluation 2−109470
stellarators confinement, book contrib. 2−71253
stellarators plasma pressure limit 2−71248
surface data for fusion devices, conf., Nagoya, Japan (Dec. 1981) 2−107019
symmetry-breaking toroidal perturbations of a stellarator magnetic field 2−103410
T-10 Tokamak, impurity atom deposition in limiter shadow, studied by Auger electron spectroscopy 2−91652
T-11 Tokamak, neutral beam heating research at IV Kurchatov Institute 2−81497
tandem mirror expt., impurity conc. and radiated power meas. 2−97770
target ablation plasmas, enhanced stopping of 1-MeV deuterons 2−103391
TCA Tokamak, Alfven wave coupling expt. with antenna struct. 2−115003
TFR 600 Tokamak, fast neutrals injection, charge exchange spectrum 2−81501
TFR Tokamak plasma, He-like C and O ions, resonance line intensity 2−55769
TFTR, neutral beam heating, plasma position and current control, optimal anal. 2−74961
TFTR plasma discharge, position and current control, optimal control theory anal. 2−86459
thermal conduction appl. to Alcator, flutter interpretation 2−71251
thermal conductivity due to ripple-trapped ions in a Tokamak 2−71097
thermonuclear detonation waves 2−54662
thermonuclear plasma, neutron diagnostic method *(German)* 2−109604
Thor Tokamak expt. 2−81568
three dimensional toroidal plasma ballooning modes, resistive MHD eqns. 2−109514
TNT-A noncircular Tokamak, plasma props. meas., elongation ratio depend. 2−76172
Tokamak, Alcator-A, driven lower hybrid waves, laser scatt. study 2−76201
Tokamak, electron cyclotron heating and preionization experiments using NRL 35 GHz gyrotrons 2−71218
Tokamak, electron cyclotron heating by extraordinary EM waves, propagation 2−71214
Tokamak, electron cyclotron resonance heating, preionisation of EM wave 2−71213
Tokamak, evaporation of injected pellets and classical flux limit parameter 2−85262
Tokamak, Frascati FT, DD charged fusion products confinement 2−81570
Tokamak, high field, electron cyclotron heating, parametric excitation effects 2−71224
Tokamak, ideal shear-driven ballooning mode, analytical theory 2−115005
Tokamak, ignitor, start up phase and compression 2−81542
Tokamak, integral method for calc. plasma equilib. 2−55780
Tokamak, ion heat cond. due to mag. ripple 2−81548
Tokamak, large, stability control method, theory 2−115033
Tokamak, ohmically heated, energy balance, transport processes 2−81539
Tokamak, sputtering yield calcs., light ions incident on wall 2−109525
Tokamak, trapped ion instability, sat. by 2-D electrostatic trapping 2−109508
Tokamak, unipolar arcs, initiation and spot types, influence of surface conditions 2−76173
Tokamak, wall interactions, edge plasma modelling, transport, impurity rate and diffusion eqn. 2−109528
Tokamak device, electron cyclotron current drive, kinetic theory 2−109557
Tokamak discharges, heating simulation, lower hybrid wave trajectory 2−76129
Tokamak discharges, transitions in n=2 ground state configurations of Cu, Ni, Fe and Ge 2−86479
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak electron dynamics, numerical simulation 2−109572
Tokamak equilibria, internal kink mode stability 2−97725
Tokamak equilibria, one-dimens., MHD stability, tearing modes 2−55729
Tokamak equilibria, vertically asymmetric, MHD stability 2−109564
Tokamak ISX-B, electron cyclotron heating, impurity radiation, electric current meas. 2−71212
Tokamak plasma, current generation by electron cyclotron waves *(Russian)* 2−60785
Tokamak plasma, He injection, α-particle conc., ignition temp. 2−81502
Tokamak plasma, heating by adiabatic compression 2−81537
Tokamak plasma, ignited, compression-decompression feedback control of stability 2−96306
Tokamak plasma, impurity ions, X-ray spectra 2−103451
Tokamak plasma, ion beam heating, coulomb collisions 2−81534
Tokamak plasma, ion beam injection, heating and current maintenance 2−81535
Tokamak plasma, ion cyclotron RF heating study 2−76161
Tokamak plasma, ion cyclotron waves, low freq. density fluctuations 2−91611
Tokamak plasma, lower hybrid heating, influence on stability 2−76146
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
Tokamak plasma, lower hybrid wave heating, electron temp. 2−76155
Tokamak plasma, lower hybrid wave heating 2−76150
plasma confinement continued
Tokamak plasma, lower hybrid wave propag. 2−76128
Tokamak plasma, mag. compression heating effects on ignition 2−103400
Tokamak plasma, mag. field effect on neutral beam heating 2−81531
Tokamak plasma, neutral deuterium ionisation, Fe ions contrib. 2−109459
Tokamak plasma, neutral injection heating, electron coding 2−81532
Tokamak plasma, runaway current sustainment by lower hybrid waves 2−76122
Tokamak plasma, tearing mode, nonlinear evolution, finite β effect 2−76116
Tokamak plasma, turbulently heated, MHD equilib. props. 2−81566
Tokamak plasma, use of gyrotrons for electron-cyclotron plasma heating 2−55757
Tokamak plasma column compression, effects of conducting vacuum chamber 2−109566
Tokamak plasma with poloidal divertor radiation losses, energy balance, impurities *(Russian)* 2−60788
tokamak plasma-position control systems 2−64648
Tokamak plasmas, Alfven wave heating studied by linearised kinetic model 2−71200
Tokamak plasmas, high temp., confinement concept, spectral radiation 2−109553
Tokamak plasmas, X-ray continuous spectra calc., impurity ion diffusion effect 2−81585
Tokamak poloidal divertor system ergodic behaviour of mag. field lines 2−97765
Tokamak reactor, transport reduction by externally driven turbulence 2−71099
Tokamak reactor, turbulent plasma blanket anal., method for the withdrawal *(Russian)* 2−60784
Tokamak wall material transport meas. using nuclear activation techniques 2−103407
Tokamaks, axisymmetric and ripple, neoclassical transport coeff., Monte Carlo simulation 2−109469
Tokamaks, current maintenance by synchrotron radiation 2−91596
Tokamaks, high-n ideal ballooning mode stability, safety factor profile optimisation 2−81469
Tokamaks, ICRF heating, antenna excitations, field and ray anal. 2−81513
Tokamaks, JFT-2 and DIVA, heating 2−71210
Tokamaks, scatt. of electron cyclotron heating waves by density fluctuations 2−71225
Tokamaks, single particle confinement ICRF heating effect 2−81564
Tokamaks JET, JT-60, T-15, TFTR and reactors, needs for impurity control, exhaust and plasma-wall interactions 2−71231
toroidal configurations, confinement props. 2−71247
toroidal drift-wave fluctuations driven by ion pressure gradients 2−71166
toroidal equilibrium, perturbational approach 2−76166
toroidal geometry, Alfven wave heating 2−81521
toroidal geometry, current generation by RF waves 2−109493
toroidal geometry, linear differential eqns. relation to MHD continuum 2−109482
toroidal geometry, magnetohydrostatic boundary value problem 2−109463
toroidal high energy particle confinement in crimped mag. field *(Russian)* 2−109578
toroidal machines, resonances in ICRF regime 2−81451
toroidal mag. field confinement, current drive by relativistic electron beams 2−60766
toroidal plasma, burning, thermal instability and possibility of its static stabilisation 2−81544
toroidal plasma, cusped mag-field, ohmic ion heating 2−86444
toroidal plasma, lower hybrid waves, anal. of ray tracing technique 2−76203
toroidal plasma, mag. lines of force diffusion study *(German)* 2−109468
toroidal plasma, relax., tearing mode, equilib., global invariants energy principle 2−76177
toroidal plasma vortices, generation 2−76092
toroidal plasmas, alpha particle loss cone type instability 2−81478
toroidal plasmas, finite beta, internal kink mode, stabilisation 2−103413
toroidal plasmas, heating, fusion reactors 2−71211
toroidal plasmas, heating by resonant absorpt. of Alfven waves 2−81520
toroidal plasmas, lower hybrid waves, ray tracing study 2−76202
toroidal plasmas, methods of driving current by heating 2−81547
toroidal plasmas, US policy on heating 2−71209
toroidal-helical configuration, high-current plasma, MHD equilibria 2−81557
torus, anisotropy combinations of dense plasma 2−91659
TRIAM-1 Tokamak, current-driven turbulence in low toroidal elec. field 2−91606
TUMAN-3 Tokamak, adiabatic compression, ohmic heating and equilib. 2−81538
turbulence, plasma containment, and galaxies 2−89372
unistructure elastomer insulator for fusion plasma shutter 2−90304
US magnetic fusion program strategy and progress *(German)* 2−91647
vacuum magnetic fields with dense flux surfaces 2−96800
Versator II Tokamak, electron cyclotron reson. heating, parametric decay instability 2−109544
W VIII-AS stellarator, magnetohydrostatic finite beta equilib. numerical study 2−109612
wall interactions role in fuel recycling, impurity generation and wall props. 2−109529
WEGA Tokamak, lower hybrid heating, microwave coherent scatt. meas. 2−76204
WEGA Tokamak, lower hybrid wave heating 2−76152
WT-1 Tokamak, electron cyclotron heating and preionisation 2−71221
ZEPHYR, compact ignition and burn study 2−109547
ZEPHYR ignition expt., thermonuclear burn, dynamics, thermal instability 2−80222
t, nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
Cr^{22+} in laboratory plasma, X-ray spectra *(Russian)* 2−108415
D plasma, heating by RF in ion cyclotron range on TFR 2−86446
D plasma, neutral beam heating in W VII-A stellarator 2−81528
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
D-T Tokamak reactors, plasma edge and divertor characts. 2−65747
D-T wall-confined fusion cycle energy gains, shock wave heating 2−90294
H, trapping, detrapping and re-emission from fusion first walls 2−109584
He, magnetically confined, equilib. ionisation dynamics 2−76167
He plasma, decay in curved mag. field with an inflection point 2−86460
He plasma, mirror confined, HF plugging, freq. depend. 2−86461

plasma confinement continued
Kr, highly ionised, spectroscopy for Tokamak plasmas 2−97767
Li blanket design of fusion reactor, MHD finite element anal. 2−113731
Mo impurity ions radiative losses in Alcator A Tokamak 2−71112
Ni first wall, passive He pumping, regeneration 2−71190
Ti flux emitted from ASDEX Tokamak divertor plates, laser induced fluorescence meas. 2−55790
Tokamaks, RF heating, mode conversion and wave damping in the low frequency range 2−81509
Zr impurity in Tokamak, CW laser fluorescence spectroscopy 2−97790

plasma containment *see plasma confinement*

plasma density
air at metal surface, optical breakdown plasma, interferometry study *(Russian)* 2−81550
Alfven solitons props. in finite-beta plasma 2−65709
anisotropy combinations of dense plasma in torus 2−91659
atoms in hot compressed matter, quasi-static electron density fluctuations 2−71086
beam-plasma discharge instability at low press. in bounded systems, ambient plasma and background temp. effects 2−65718
BLACKJACK 5 pulse generator, Al(Ca)(Ti) imploding plasma expts. 2−91640
burning fusion plasma, compression-decompression control, thermal instability suppression 2−76102
caviton form., spiky turbulence and EM radiaton obs. 2−71117
column, supersonic radiation wave propag., plasma motion influence 2−115011
column, sustained by surface wave, characts. and energy balance 2−55746
column irradiation by strong transverse SHF field, ionization deform. of resonance region 2−55796
dense low-temp. plasma, bremsstrahlung absorpt. 2−81458
density oscillations in Tokamak-10 device, expt. and simulation *(Russian)* 2−76073
Dobulet III, neutral density meas. 2−80205
double layer form., numerical simulation 2−86440
Doublet III, cold high-density plasma obs. near limiter 2−109598
drift transfer eqns. *(Russian)* 2−97707
drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
EBT, ambipolar pot., theory 2−103417
EBT transport, ambipolar pot. formation, rapid impurity ion loss 2−103296
electron beam excited discharge, volt-ampere characts., cathode layer effects 2−60805
electron density, meas. using open cylindrical resonator, inverse problem, limiting form factors 2−115052
electron density, spatial and temporal changes during restructuring of mag. field in current sheet 2−85921
electron density meas., by submillimetre interferometer using split wave front 2−103455
electron distrib. function of weakly ionised plasma in large elect. fields, energy balance determ. by collisions *(Russian)* 2−76068
electrostatic plasma wave propagation in a density modulated plasma 2−103351
EM energy anomalous transmission in plasma slab 2−81485
EM wave reflection from moving plasma, caviton dynamics 2−91603
energy confinement at high density in Frascati Tokamak, neoclassical effects 2−81554
equilibrium one components plasma, vel. distrib. and density near particle 2−71088
equilibrium two component plasma, vel. distrib. and density near test particle 2−71089
flow, ion density determ. by elec. stagnation point probe *(German)* 2−76193
flute type drift mixing, isobaric breaks form. *(Russian)* 2−103330
FT machine, polarimetric density meas., expt. approach 2−109599
gas-puff Z-pinches, with D_2 and D_2-Ar mixtures 2−65744
Heliotron E, charge exchange neutral particle meas. 2−109593
HF high press. plasma column, diagnostics meas. by microwave reflectometer 2−97791
high density plasma, electron denstiy determ., microwave method 2−86476
high density plasma, space-charge effects 2−109489
inertial confinement fusion plasmas, laser diagnostics 2−103450
ion density enhancement wave following sheath contradiction 2−60759
ion-ion recombination, reaction and diffusional drift 2−86384
ISX-B, deposition probe meas. of impurity and plasma fluxes near wall 2−81583
ISX-B, minority D_2 recycling expts. 2−81491
JFT-2 Tokamak, density fluctuation obs. by microwave interferometry 2−86390
JFT-2 Tokamak, Thomson scatt. study, simultaneous six position measurements 2−55788
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
Jupiter 1A EM trap, conc. and density profile 2−60790
Langmuir soliton, accelerating, emission of ion-acoustic waves *(Russian)* 2−86424
laser compressed plasmas, simulation of X-ray line emission spectra 2−65700
laser plasma, created on planar microtarget, optical meas. of expansion 2−109597
laser produced, resonant absorpt. and second harmonic generation at rippled critical surface 2−76087
laser produced plasma study at low laser intensity 2−115025
laser produced plasmas, struct. of generated mag. fields 2−60778
laser-produced plasma, ponderomotive force, critical density, hydrodynamic flow 2−86397
laser-produced plasma parameters from XUV line profiles 2−91675
lasers as a tool for plasma diagnostics 2−109591
level shifts and inelastic electron scattering in dense plasmas 2−71111
light-scattering in the Frascati plasma focus 2−76198
linear fluctuation spectrum, Boltzmann eqn. calc. with collisions 2−65690
local ionisation state, of plasma in low-voltage highly-ionised Cs arc 2−81590
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
lower hybrid wave coupling with grill in Tokamak *(Chinese)* 2−103323
magnetic field generation by a laser jet plasma at low laser radiation densities 2−97763

plasma density continued
magnetic multipole ion source, hollow cathode, plasma studies for neutral beam injection 2−89859
measurement, vibr. compensated far-IR laser interferometer 2−91667
measurement by feedback-stabilised dual-beam laser interferometer 2−91680
MHD activity in Alcator C, density threshold 2−103292
microwave plasma, generated by surface wave, spatial distrib. population of He and He-N_2 levels 2−65740
mirror experiment, large axisymm. config. electrostatic pot. meas. 2−103430
Monte Carlo model of plasma afterglow 2−55798
NBT, electron density spatial distrib., neutral Li beam probe study 2−91653
neutral gas profile-plasma relations in cold-gas blanket system 2−103295
neutral injection of DITE, impurity radiation, density effects 2−71114
neutral particle modelling assumptions 2−86388
noble gas MHD generator, discharges in inlet region 2−91681
nonlinear parametric resonance in plasma modulated electron beam system *(Russian)* 2−86442
parallel-plate RF plasma systems, 380 kHz, sustaining mechanism model 2−55782
PDX, Langmuir probe meas. of density and electron temp. 2−81582
plasma expansion in flashtubes and influence of arc structure on elec. cond. meas. 2−103545
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
PLT, Langmuir probe meas. of density and electron temp. 2−81582
PLT Tokamak, plasma density fluctuations, drift wave, nonlinear theory 2−86387
ponderomotive effect in a two ion species magnetized and bounded plasma 2−71091
ponderomotive force effects on slow-wave coupling, localised plasma density depressions obs. 2−71156
quasineutral plasma, electron localisation, ambipolar diffusion *(Russian)* 2−61502
radial electron density distrib., waveguide method meas. *(Russian)* 2−103447
recombination laser, electron density and energy output units calc. 2−96902
regular density structures in the plasma focus 2−60792
relativistic electron-positron plasma, radiative collapse 2−103435
relaxation kinetics in high press. inert gas plasmas *(Russian)* 2−76065
reversed theta pinch, MHD particle simulation, fast mag. reconnection process 2−103320
RF excited fully ionised low press. plasma, production 2−115023
solid H pellet interaction in L-2 stellator *(Russian)* 2−76170
standing waves along a microwave generated surface wave plasma 2−71130
stationary plasma double layers sustained by differential vacuum pumping 2−69297
stationary plasmas, selfconsistent calc. of H_2 plasma parameters 2−65691
supersonic equilibrium plasma, cylindrical Langmuir probe meas. 2−91672
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak fuelling simulation 2−81573
Tokamak fusion plasma, far IR laser scatt. study of density fluctuations 2−76192
Tokamak noncircular TNT-A, electron temp. and density, Thomson scatt. meas. 2−97786
Tokamak plasmas, high temp., confinement concept, spectral radiation 2−109553
Tokamak TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
toroidal belt pinch plasma, quantitative density diagnostics using dark-ground illum. 2−103439
transient expanding plasma flow, electron density and temp. spectroscopic and Thomson scatt. meas. 2−91674
transient plasmas, H_2 plasma parameters, selfconsistent calc. 2−65692
two-dimensional density functions, interpretation of line of sight integral meas. 2−55792
UHF interferometer for low temp. plasma diagnostics 2−71259
volume electroionisation discharge, electron beam ionis. of gas, electron conc. determ. 2−115077
weak turbulence theory of intense beam microwave experiments 2−103375
weakly ionised plasma, electric field effects, electron energy distrib., quasi-elastic collisions *(Russian)* 2−60799
X-ray emission from dense plasmas, non-LTE modelling rel. to spectrum diagnostics 2−71109
X-ray spectral line emission from high-temp. Ar plasma 2−71108
z-pinch plasma, dense, IR emission 2−60725
ZT-40 plasma density meas. using eight-chord CO_2 laser interferometer 2−103441
Ar column, excited at. densities, radial variation 2−65688
Ar, dusty ionised monatomic gas, relax. zone behind strong normal shock waves, parametric study 2−86433
Ar II dense plasma, emission rays displacement *(French)* 2−91599
Ar plasma, electron-ion recombination and ionisation coeff. calc. 2−91591
D-T Tokamak reactors, plasma edge and divertor characts. 2−65747
H influx, radiated energy and impurity density changes, in PLT 2−71087
H neutral kinetic theory in bounded plasma slab with inhomogeneous temp. and density profile 2−91595
H plasma, population inversion between the recombining ground and first excited states 2−71074
H-D changeover expts. in plasma-wall interaction simulator 2−81489
H-plasma, two component, charge density fluctuations dynamics 2−55703
He discharge, positive column at.-state densities and electron densities 2−60816
He-Br_2 discharge, positive column at.-state densities and electron densities 2−60816
Hg discharge, press. determ. from self-reversed spectral lines 2−91669
Hg, vapour, glow discharge, laser scattering diagnostics 2−97784
Hg-Ar-Ne discharge, electron energy distrib., electrokinetic charact. 2−65788
Hg-Ne-Ar discharge, low pressure, electron energy distrib., plasma basic eqns. 2−65789
Li-Cs plasma, dense, supercooled, recomb. and Li level population calcs. 2−81448
N_2 plasma jet, energy parameters anal. *(Russian)* 2−65769

plasma density continued
Na plasma, laser induced, electron density meas., emission spectra 2−65758
Ne excited atomic density in gas discharge by laser reson. fluoresc. *(Russian)* 2−76075
SF_6 arc plasma, optical spectroscopy study. at atm. press. *(French)* 2−76228
Si^{12+} plasma, line intensity ratio, model depend. 2−81444
Ti flux emitted from ASDEX Tokamak divertor plates, laser induced fluoresce nce meas. 2−55790

plasma deposited coatings
first wall coatings with low Z materials for fusion devices, conf., Nagoya, Japan (1980) 2−89463
polymer film deposition in low press. reactive plasma, characteris. and applics., review 2−57287
polystyrene film, plasma polymerised, elec. breakdown, theoretical anal. 2−66989
polystyrene film, plasma polymerised, elec. breakdown meas. 2−66988
preparation and etching, conf., Brighton, England (March 1981) 2−53420
refractory oxides, plasma deposited, elec. cond. under reactor irrad. 2−110344
transparent conducting oxides, reactive sputter deposition 2−57292
Al-BN, residual stresses, growth process influence *(Russian)* 2−77755
a-B:H, ESR study, annealing effects on signal intensity and linewidth 2−87591
C_x thin films, plasma deposition, electron diffr. anal. 2−104198
C:H, amorphous glow discharge film, photoluminescence and ESR spin density 2−93244
Cr_2O_3 plasma sprayed, control of mech. props. using IR specular reflection 2−77607
GaAs-Si_3N_4 interface quality improvement by surface treatment and annealing 2−110487
Mo coatings, high-hardness, vac.-arc discharge plasma deposited, struct. 2−72871
Si amorphous film, CC sputter and plasma deposited, photoconductive decay, carrier lifetime 2−82398
Si amorphous films, glow discharge and sputter deposited, optical band-gap, absorption coeff. meas. 2−71856
Si amorphous photovoltaic cells, glow discharge prep., substrate condition effect on cell performance 2−83482
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
Si film, glow discharge deposited, optical consts. 2−62006
Si film, glow discharge deposited, optical and elec. props. 2−93307
Si, microcrystalline, plasma deposited, charact. 2−92405
Si, polycrystalline, plasma sprayed, charge carrier mobility 2−72083
Si:B films, plasma deposition using laser microreaction 2−56375
a-Si:F and a-Si:F, H films, motional narrowing effects of NMR spectra 2−77395
Si:H, amorphous, gap states distrib., modulated photocurrent phase-shift anal. 2−92534
Si:H, amorphous, sputtering and glow discharge prep., photoluminescence and midgap state density 2−87855
Si:H, amorphous film, density of states, field effect determ. technique, annealing and illumination effects 2−61593
Si:H, amorphous film, flow discharge deposited at 1 Torr, elec. and struct. props. meas. 2−87277
Si:H, amorphous films, field effect density of states, annealing and light exposure effects 2−71850
Si:H, amorphous glow discharge film, photocond. and Fermi level temp. depend., photoinduced changes obs. 2−115810
Si:H, amorphous plasma deposited film, photocond. IR quenching and gap states, exp. study 2−87318
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture and elec. resist. and IR absorpt. meas. 2−93444
Si:H,P amorphous glow discharge thin films, elec. props., heat treatment and P ion implantation effects 2−61467
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
Si:H amorphous film, glow discharge deposited, heterogeneities and surface effects 2−92420
Si:H amorphous film, glow discharge deposited, H content and mech. stress 2−104210
Si:H amorphous films, H_2 evolution 2−93950
Si:H amorphous glow discharge films, elec. and optical props., elec. and mag. field effects 2−82407
Si:H amorphous plasma deposited film, photoluminescence, sub-band gap excitation 2−87856
Si:H amorphous solar cell, photovoltaic performance, film props., plasma deposition optimisation 2−83486
Si:H amorphous thin films, ion-plated, photoconductivity and optical band gap 2−87331
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
a-Si:H films, Raman scatt. under high press. 2−72505
Si:H microcrystalline glow discharge films, phys. props., substrate bias effect 2−87109
Si:H(PH_3), amorphous film, density of gap states, space charge spectroscopy study 2−87181
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si/Si_3N_4, plasma enhanced thermally grown film, interface struct. and stoichiometry, backscattering-channelling study 2−56392
Si-F amorphous film, grown from SiF_2 disproportionation, F conc. determ. 2−92021
Si-Ge-B amorphous film, glow discharge deposited, elec. cond., optical absorpt. and EPR study 2−71965
Si-SiO_2 MOS struct. etched in chloroform RF discharge, charge props. *(Russian)* 2−61592
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
$Si_{1-x}C_x$ amorphous film, NMR and IR spectra study 2−77389
$Si_{1-x}C_x$:H, amorphous glow discharge films, ESR, IR and optical study 2−56934
SiN_x, ellipsometric automatic in-line evaluation of thin films *(Japanese)* 2−112957
Si_3N_4, annealing encapsulant for InP, AES and SIMS study 2−116584
Si_3N_4, annealing encapsulant for InP 2−116585
Si_3N_4 film, plasma deposited, chem. characterisation by Auger signal decomposition 2−110990

plasma deposited coatings continued
Si_3N_4, plasma deposited, characterisation by AES with N sputtering 2−110185
Si_3N_4:H, amorphous plasma deposited film, AES and EELS study 2−71816
Si_3N_4:H, plasma deposited, H content 2−103801
SiO_2 ultrathin layers on Si, grown by DC plasma anodization, elec. props. 2−56745
WC plasma coating on stainless steel plates, thermal wave imaging through radio freuqency induction heating 2−99613
WSi_x compounds, chem. bonding, XPES and X-ray emission study 2−91862

plasma deposition
aromatic silanes, polymerisation in RF plasmas 2−62399
biased deposition systems, phys. processes in substrate dark space 2−57308
C Al_2O_3 coating, plasma sprayed on steel and Cu, temp. distrib. during deposition 2−116390
conference, London, England (Mar. 1982) 2−53434
enhanced CVD of thin films 2−72631
and etching, conf., Brighton, England (March 1981) 2−53420
fusion fuel, density matched coating, plasma polymerisation 2−54655
ion-assisted film form., conf., Tokyo and Kyoto, Japan (June 1981) 2−112653
metal, rapid solidification plasma deposition, struct. of production 2−62114
microspheres, plasma coating, mol. beam levitation technique 2−54657
monitoring using quartz cryst. microbalance 2−111095
MOS capacitor structure, elect. characts. of interface between laser-recrystall. poly-Si and underlying insulator 2−92770
planar magnetron characteristics at high power input rel. to film deposition 2−57291
plasmatron discharge for gas phase film deposition *(German)* 2−116359
polymer film, plasma polymerisation deposition in low press. reactive plasma, review 2−57287
RF sputtering discharge characteristics and power supply coupling conditions 2−57290
semiconductor thin films, microwave plasma CVD fabrication 2−111093
steel, alloy, coatings based on component nitrides obtained by plasma flow condensation in vacuum *(Russian)* 2−67219
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
ultrafine particle prep. by gas evaporation with arc plasma sputtering 2−67231
Al, plasma etching process, problems of surface morphology and layer deposition 2−67609
Al_2O_3 powder, plasma metallization *(Russian)* 2−67272
$AuIn_2$ film, O_2 and Ar plasma interaction, sheet resist. 2−77204
BN film, low temp. double plasma MOCVD technique 2−99349
Cu_xS thin films prep. by Activated Reactive Evaporation, elec. and optical props. 2−99354
GaAs film, amorphous, plasma deposition and characterisation 2−111094
GaAs surface state reduction by plasma growth of oxyfluorides 2−110427
$LiNbO_3$ film, plasma assisted deposition and struct. *(Japanese)* 2−115595
Mo thin film, simple technique for deposition based on plasma induced dissociation of $MO(CO)_6$ 2−83037
Si amorphous glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
Si amorphous layers, deposition and etching by means of beam plasma discharge with tube like electron beam 2−116372
Si amorphous thin film, microwave plasma CVD fabrication 2−111093
Si, oxide film growth, plasma anodization as dry low temp. technique 2−116581
Si, plasma deposition from $SiCl_4$ in inductive RF low. press. plasma 2−105091
Si:H, amorphous, RF glow discharge deposition rate, crossed elec. and mag. fields effect 2−93447
Si:H amorphous film, glow discharge deposition, plasma spectroscopy 2−115605
Si:H amorphous film, multipole DC discharge growth, ellipsometric study 2−92422
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
a-Si:H films, growth and characterisation 2−83031
Si_3N_4 plasma deposition on Si, props. of thin layers *(German)* 2−57309
SiO_2, plasma deposition, indirect 2−116383
SiO_2 step-index optical fibre production by axial lateral plasma deposition, low loss fibre process 2−81136
SiO_2:Nd glass, plasma torch CVD and fluorescence props. meas. 2−93436
W film, plasma-enhanced CVD, elec. resist. and film stress 2−93434

plasma devices
see also magnetohydrodynamic convertors; plasma diodes; plasma focus; plasma guns; stellarators; Tokamak devices
applications in industry 2−86485
beam-plasma ion source, ion beam extraction with ion space-charge compensation 2−113796
column irradiation by strong transverse SHF field, ionization deform. of resonance region 2−55796
diffusion plasma columns in coaxial cylindrical glow discharge tube, environment chambers appl. 2−103476
diode, fast pulsed neutron source 2−90342
drift cyclotron modes in mirror devices, nonlinear solns. 2−71160
ELMO bumpy torus, electron cyclotron heating 2−71223
ELMO bumpy torus 2−76183
expanded boundary divertor discharge, the exhaust and enrichment 2−81492
field reversed theta pinch, FRX-C expt. engineering design 2−81468
filament discharge device, effect of secondary electrons on plasma potential 2−115055
grid-controlled plasma switch with isolated neutral plasma and free electron flow regions 2−91684
gyrotron oscillators, pulsed and CW, plasma heating 2−76149
Heliotron E, charge exchange neutral particle meas. 2−109593
Heliotron E, heating expt. 2−81567
high frequency Rogowski coil response characteristics 2−71265

plasma devices continued
high-voltage switches, UV laser triggering 2−97800
ICP emission, signal instability due to electrostatic effects in nebuliser spray chamber 2−115057
imploding hollow plasma liners, surface shape meas. 2−84594
interconnectd linear theta pinches 2−86456
ion cyclotron waves and turbulent end plugging in mag. mirror based fusion devices 2−103334
ion source, magnetic circular multipole line-cusp 2−54698
magnetic separatrix, free-boundary modes stabilisation 2−81466
manometer, capacitance diaphragm, sensitivity to static mag. fields 2−112886
metal layer dynamics in plasma layers near a wall 2−115016
multichannel surface arc switch 2−109608
multidipole plasma, secondary electron detection 2−103448
NBT-1M device design for confinement studies 2−115058
negative ion source, self-extraction 2−89858
neutral beam injector, advanced high energy design 2−81533
neutral beam injector development for JET 2−81503
optically controlled diffuse discharge switch 2−97801
particle scoop limiter, meas. in Princeton Divertor Experiment 2−55794
plasma column, current carrying with inflection point, MHD stability 2−86416
recombination laser, electron density and energy output units calc. 2−96902
resonators, composite reson. 2−109535
stationary plasma double layers sustained by differential vacuum pumping 2−69297
steady state linear machine for collisionless plasma studies 2−55795
surface data for fusion devices, conf., Nagoya, Japan (Dec. 1981) 2−107019
tandem mirror devices, particle motion, stability anal. 2−103416
tandem mirror reactor, plasma direct convertor 2−85309
Tokamak, electron cyclotron heating and preionization experiments using NRL 35 GHz gyrotrons 2−71218
Tokamak, ignitor, start up phase and compression 2−81542
Tokamak fusion reactor, oscillating limiter 2−85310
Tokamak plasma, use of gyrotrons for electron-cyclotron plasma heating 2−55757
torch, appl. to laser microspectral anal. 2−78166
toroidal plasma vortices, generation 2−76092
torus, full, eight-coil, superconducting, magnetoelastic buckling, finite element anal. 2−103047
X-ray production from local plasma regions in high-current punch, microradiography appl. 2−107480
Al XII plasma laser, resonantly photopumped, theory 2−90873
Ar ICP torch, low Ar consumption, using external air cooling 2−115056
Ar, microwave plasma torch, spectroscopic meas. 2−103478
Cd II, CW laser oscillations in electron beam created plasma 2−102783
He, CW optical discharge as hot steady-state UV light source 2−109474
Mg XI ion recombining laser plasma, population inversion meas. 2−85948
Ne IX plasma laser, resonantly photopumped, theory 2−90873
Xe RF discharge columns in narrow tubes, striae obs. 2−103477

plasma diagnostic techniques
see also plasma probes
anisotropy, second electron cyclotron harmonic emission determ., in Tokamaks 2−81584
APEX Tokamak, impurity detection by Dopper shift laser fluorescence spectroscopy 2−85279
arc plasma, trace impurities distrib., spectrochemical anal. 2−65764
brush discharges, charge transfer meas. technique 2−115080
compact torus experiment, diagnostic equipment screen room 2−84608
computerised diagnostics from self-reversed absorpt. spectra 2−76200
computerised tomography for plasma diagnostics 2−86475
density measurement by feedback-stabilised dual-beam laser interferometer 2−91680
deuteron detection, using cellulose nitrate dielec. system, appl. to plasma focus 2−71261
Doublet III, real time two wavelength interferometer system 2−80278
Doublet III, Thomson scattering profile diagnostic, mechanical engineering 2−80291
electric current detect. by X-ray pinhole camera *(Russian)* 2−60798
electron density, meas. using open cylindrical resonator, inverse problem, limiting form factors 2−115052
ellipsometer, fast, high-sensitivity, plasma polarimetry appls. 2−60800
excited particles, velocity distrib. meas. using Doppler broadening of spectral lines 2−107312
FED, plasma diagnostic instruments 2−80321
FED fuel injectors and diagnostic instrumentation 2−80316
fibre optics with scintillators, system sensitivity and bandwidth as function of fibre length 2−115042
foil heating by focused electron beams using VUV radiation *(Russian)* 2−76194
gas, enthalpy determ. in plasmachemical processes *(German)* 2−91578
heterodyne plasma interferometer based on polarisation modulation of a HCN laser 2−109594
HF high press. plasma column, diagnostics meas. by microwave reflectometer 2−97791
high-frequency fibre optic system improvement 2−115044
high-temperature plasma, laser diagnostics by reson. fluoresc. method 2−109596
holographic interferometry, frequency conversion of radiation passing through plasma 2−65768
ICF, fuel density radius diagnostic using SSNTD CR-39 2−80275
instrument for synchronizing plasma diagnostic measurements with tokamak internal disruptions 2−65766
interstellar medium, far-IR fine struct. lines interpret., review 2−94621
JET, time of flight telescope spectrometer for neutron diagnostics 2−80285
laser driven thick shelled ablative compression targets, spectroscopic technique appl. 2−76195
laser fusion physics expts., diagnostic techniques 2−109586
laser plasma, monochromatic X-ray images using single-cryst. double reflection spectrometer 2−97783
laser scattering diagnostics, of low temp. plasma 2−97784
lasers as a tool for plasma diagnostics 2−109591
line intensities due to impurities, appl. of vac. monochromator for synchrotron radiation 2−109603
magnetic field generation by test charge in anisotropic plasma 2−86389

plasma diagnostic techniques continued
magnetic field measurements in fusion plasmas using the motional Stark effect 2−86478
magnetic fusion devices, press. and gas flow meas. techniques 2−55789
MFTF-B plasma diagnostic system, mechanic considerations 2−80287
MFTF-B plasma diagnostic system 2−80286
MFTF-B plasma diagnostics system instrumentation and data acquisition system 2−80288
microwave coherent scatt. for lower hybrid heating wave detect in Wega torus 2−97789
microwave Fraunhofer diffr. diagnostic technique for plasma waves 2−86474
MKh-7301 monopole mass spectrometer for nonstationary plasma obs. 2−109592
multichannel grazing-incidence spectrometer (SPRED) for plasma impurity diagnosis 2−91663
multichannel light detector system for visible continuum measurements on Alcator C 2−112988
neutral particle diagnostics for ohmically and auxiliary heated Tokamaks 2−81577
Nova alignment and laser diagnostic systems, data acquisition 2−75019
Nova alignment and laser diagnostics systems 2−75018
particle measurement methods, review, book contrib. 2−71264
particle reflection, scatt. and energy loss effects 2−108324
PDX, fast ion diagnostics neutral beam injector 2−81578
photodetectors, high-speed, for plasma diagnostics 2−103444
scintillators, liquid, for plasma diagnostic expts. employing fibre optics 2−109587
spark discharges, charge transfer meas. technique 2−115080
spot spectroscopy: local spectroscopic measurements within laser-produced plasmas 2−115049
sub-millimeter techniques, USA-Japan workshop 2−115053
synchrotron radiation for radiometric calibration 2−107378
TFTR, multichannel far-IR interferometer, electrical design 2−80279
TFTR, multichannel far-IR interferometer, optical and mechanical arrangement 2−80280
TFTR, Rogowski coil and diamag. loop, design, fabrication and testing 2−80295
TFTR, X-ray imaging system, mechanical design 2−80294
TFTR, X-ray pulse height anal. system 2−80292
TFTR diagnostics, stable support struct., design and anal. 2−80293
TFTR diagnostics grounding 2−80296
TFTR first plasma diagnostics 2−80289
TFTR microchannel plate detector for high energy neutrons 2−80399
thermonuclear neutron detectors, efficiency study 2−115051
thermonuclear plasma, neutron diagnostic method *(German)* 2−109604
Thompson scattering spectrum analytic form 2−103457
TMX, microwave interferometer for plasma density meas. 2−74983
TMX-U, machine and plasma diagnostic instrumentation systems 2−80290
Tokamak wall material transport meas. using nuclear activation techniques 2−103407
toroidal plasma, lower hybrid waves, anal. of ray tracing technique 2−76203
toroidal plasmas, lower hybrid waves, ray tracing study 2−76202
X-ray emission of laser plasma, absolute intensity meas. using plane crystals 2−91678
X-ray flash radiography, appl. to laser accelerated targets 2−113726
X-ray methods, review, book contrib. 2−71264
X-ray spectrographs, convex curved cryst., source size line broadening, theory 2−65757
X-ray spectrum meas. of tandem mirror experiment 2−115045
z-pinch gun, pulsed neutral particle source for active plasma diagnostics 2−91666
CO_2 laser-target interaction diagnostics, optical fibre appls. 2−115043
DT reactors, non-perturbing diagnostic for fuel mixture ratio and power density 2−80277
Na-Ne, low press. discharge, electron density meas., two-photon spectra 2−60806
Xe plasma, at mag. reson., atomic conc. meas. technique 2−115048

plasma diagnostics
see also plasma density; plasma diagnostic techniques; plasma diagnostics by laser beam; plasma temperature
60 kV, 5 cm spark gap, effects on electrodes, insulators, and gas types of number of discharges 2−91714
Abel's integral equation, derivative free inversion technique 2−91665
air at metal surface, optical breakdown plasma, interferometry study *(Russian)* 2−81550
air plasma, emission coeff. determ. 2−71102
Alfven resonance, spatial, obs. 2−71141
Alfven waves, excited by Stix coils, spatial props. of reson. 2−81473
ambipolar potential, rel. to Al impurities in EBT 2−103464
anode activity, small scale, in vacuum arcs 2−115070
arc boundary, RF-method for elec. cond. meas. 2−103471
arcs, high current, lower temp. limit determ. with double wire probes 2−103470
arcs, metal halide, additive densities estimation from self-reversed emission line contours 2−115084
Argonne plasma engineering expt. Tokamak design and operation 2−102260
Blackjack III plasma diode hydromagnetic insulation 2−91682
brightness temperature distribution of plasma bunches, meas. 2−109595
cold plasma, in strong mag. field, electron temp. meas. 2−65761
composition of multi-ion plasma from reson. line anal., appl. to Jupiter 2−63231
compressed gases, spatial and temporal resolved predischarge development, CAA 2−103278
computerised tomography reconstruction from sparse data, JETCAT Fortran program 2−97797
corona of laser produced plasmas, instability obs. by optical probing 2−55733
Culham Summer School lectures, postgraduate level, book 2−68980
DC plasma jet, time resolved meas. of rotational temp. 2−103479
density threshold for MHD activity in Alcator C 2−103292
diffusion plasma columns in coaxial cylindrical glow discharge tube, environment chambers appl. 2−103476
DITE Tokamak, species and impurity meas. in intense neutral beams 2−97768
Dobulet III, neutral density meas. 2−80205
Doublet III, cold high-density plasma obs. near limiter 2−109598

plasma diagnostics continued
drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
electric arc, rotating, as spectroscopic light source *(German)* 2−91686
electron beam excited discharge, volt-ampere characts., cathode layer effects 2−60805
electron cyclotron emission diagnostics, antenna design and performance for JET 2−103458
electron cyclotron reson. discharge, microwave heated, X-ray bremsstrahlung meas. 2−114983
electron density meas., by submillimetre interferometer using split wave front 2−103455
electron temp. in low press. gas discharges determ. by reson. laser light scatt. 2−91676
electron temperature determ. from positive ions metastable states 2−94590
electrostatic electron cyclotron radiation from a point source 2−71148
electrostatic waves, satellite lines in presence of non-cohrent and unpolarised radiation field 2−76110
EM wave depolarization in nonlinear transillumination 2−91619
EM wave transmission through plasma, far forward scatt. and rel. refractive index phenomena 2−109522
expansion in flashtubes and influence of arc structure on elec. cond. meas. 2−103545
explosive gas compressor plasma jet charact. 2−76208
fast neutrals injection, charge exchange spectrum, TFR 600 Tokamak 2−81501
field reversed theta pinch, FRX-C expt. engineering design 2−86468
fluorocarbon plasmas, difluorocarbene emission spectra, rel. to fluorocarbon polymer form. 2−55787
focus, expts. solving polarity riddle 2−86484
fuel density-radius product in laser fusion expts., direct meas. 2−103452
fully ionised low-Z impurities in PDX Tokamak, spatially resolved meas. 2−109602
fusion plasma diagnostics, new bolometer for use if noisy EM environment 2−112989
fusion-product energy-loss measurements from laser-imploded microballoons 2−80276
gas discharge ion source, plasma diagnosis with a mass spectrometer 2−103467
gas discharges and appls., conf., London, England (August/September 1982) 2−101134
gas-discharge plasma, oscills., microwave spectra, electrostatic probe effects 2−81607
gas-liner pinch, plasma comp. 2−65762
gas-liner pinch, plasma comp. 2−65763
gaseous discharge, photographic observation under elect. and mag. field appl. 2−55799
helical column plasma, current profiles, internal kink instability *(Russian)* 2−60787
Heliotron E, charge exchange neutral particle meas. 2−109593
high current vacuum arc, spectral line broadening 2−103497
high density plasma, electron denstiy determ., microwave method 2−86476
hollow cathode discharges, excitation of charge states, spectroscopy study 2−96710
hollow cathode discharges, VUV study 2−97823
hot microwave plasma, unipolar arc, diagnostics *(Russian)* 2−60812
imploding wire plasma pinches, X-ray emission and streak photography study 2−65743
incident EHF microwave in transient narrow gap arc, electron density meas. 2−103472
induced Mandel'shtam-Brillouin scatt. spectrum from dispersing laser plasma, ang. characts. 2−91679
inert gas atoms or ions+alkali metal atoms, thermal energy collisions, spectroscopic study *(German)* 2−114970
information about plasma wave behind thick opaque barrier *(Russian)* 2−81587
inhomogeneous plasma, diagnostics, three-harmonic wave profile effect *(Russian)* 2−103456
intense impulse discharge, spectral brightness meas. 2−103469
intense neutral beams, optical diagnostics, Doppler-shift emission tomography 2−65759
intercombination lines in Mg I-like Ti XI, V XII, Cr XIII, and Fe XV spectra obtained from a Tokamak plasma 2−71262
ion acoustic wave excitation by slow ion beam power spectrum meas. 2−115019
ion flux characterisation prod. by saddle-field neutral beam source 2−53893
ion-acoustic wave, reflection coeff. from charged grid electric field effect 2−86402
ion-temp. profile determ. by corpuscular diagnostics in Tokamaks 2−115050
ISX-B, deposition probe meas. of impurity and plasma fluxes near wall 2−81583
ISX-B Tokamak, plasma-limiter interactions, high-speed photographic obs. 2−76142
jets, flow velocity meas. by tracer methods *(German)* 2−81592
JFT-2 Tokamak, density fluctuation obs. by microwave interferometry 2−86390
JFT-2 Tokamak, particle confinement during high-power neutral-beam injection 2−109561
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
Langmuir probe characteristics in a plasma containing electrons with drift velocities 2−55786
laser plasma, created on planar microtarget, optical meas. of expansion 2−109597
laser plasma, fast ion expansion, calorimetric, X-ray and faraday collector study 2−55763
laser plasma, Raman scatt. resulting from parametric turbulence 2−86481
laser produced plasmas, classical and collective absorpt. processes, intensity depend. 2−71103
laser produced plasmas, filamentation and $(3/2)\omega_0$ harmonic emission interrelation investigation 2−103405
laser radiation interaction, electron distrib., plasma heating, spectra *(Russian)* 2−60775
laser-heated plasma, ion turbulence, Thomson scatt. study 2−71184
laser-plasma interaction, energy deposition by hot electrons, K α emission study 2−76136
laser-produced implosion, diagnosis by Ar X-ray lines 2−86472
laser-produced plasma and BRV-source plasma radiometric comparison at normal incidence 2−91664
laser-solid interaction, plasma prod., Brillouin scatt. 2−76164
light-scattering in the Frascati plasma focus 2−76198
linear device with field-gradient along axis, cyclotron radiation spectroscopic diagnosis 2−86473
local ionisation state, of plasma in low-voltage highly-ionised Cs arc 2−81590
low pressure spark gap Blumlein switch, testing 2−91715
low-compression theta-pinch pulse power systems and diagnostics 2−91660
lower hybrid heating, microwave coherent scatt. meas. in WEGA Tokamak 2−76204
luminous shock front vel. determ. using photomultiplier 2−65755
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magnetically confined plasma column stimulated Raman backscatter 2−103315
magnetised plasma characts. study using streak photography, mag. probes and flux loops 2−91634
magnetized plasma electron energy analyzer 2−97795
magnetoplasma, EM beam interaction with electron and ion waves, stimulated Raman and Brillouin scatt. 2−86401
microprocessor-controlled phase analysis for a 2-mm microwave interferometer on the TCA Tokamak 2−81588
microwave holography, computer-imaged, appl. 2−91673
microwave interferometer design for plasma density meas. 2−69312
microwave plasma, generated by surface wave, spatial distrib. population of He and He-N_2 levels 2−65740
microwave power, reflected and transmitted from thin plasma disc 2−55715
mirror experiment, large axisymm. config. electrostatic pot. meas. 2−103430
MM and sub-MM wavelength interferometry, use of two-oscillator operating modes 2−76199
multichannel analyser for fusion X-ray spectrometry 2−85500
multigigahertz beam diagnostics for laser fusion 2−109588
multiply charged ions in a hot electron layer ion source (HELIOS) 2−81586
NBT, electron density spatial distrib., neutral Li beam probe study 2−91653
neutral particles vel. distrib. in front of plasma wall, spectroscopic meas. 2−65733
noise power spectra of optical and acoustic emission from ICP discharge 2−76231
non-self-sustaining discharge, initiation by electron beam, power distrib., electric field intensity *(Russian)* 2−60813
nonequilibrium plasma, linear polarisation of recombination radiation 2−103316
optical discharge hydrodynamic interaction, gas movement diagnostics *(Russian)* 2−55699
PDX, Langmuir probe meas. of density and electron temp. 2−81582
PDX laser blow off trace element injectors anal. 2−81580
PDX Tokamak, soft X-ray meas. 2−103318
Penning discharge, thermionic cathode, electron modulation of HF oscillations 2−81606
plane disc probe in collisionless streaming plasma, V-I characts. 2−91670
planetary nebulae, plasma diagnostics from integrated fluxes for UV emission lines 2−106846
plasma etching, IR absorpt., spectroscopy and Langmuir probe obs. 2−116583
plasma focus, emitted deuterons, impurity ions and admixture ions, energy and mass anal. 2−91668
plasma physics and controlled nuclear fusion workshop, Cambuquira, Brazil, (Feb. 1982) 2−109579
plasma science conf., Ottawa, Canada (May 1982) 2−107015
PLT, deuterium flux in edge plasma 2−81581
PLT, Langmuir probe meas. of density and electron temp. 2−81582
PLT laser blow off trace element injectors anal. 2−81580
pROFILE: a code for evaluating line profile shapes for optically thick expanding plasmas 2−65756
pulse height analyser for plasma diagnostics using neutron spectra 2−75126
pulsed power education of Texas Tech University, in USA 2−94944
radial electron density distrib., waveguide method meas. *(Russian)* 2−103447
reduced stimulated Brillouin scatt. from CO_2 laser interaction 2−103393
reflected Z-pinch pulsed light source, plasma spectrosc. investig. 2−71234
RF discharge, low-pressure, plasma diagnostics 2−103468
second harmonic emission from laser generated plasma, spectra and polarisation 2−91638
self-sustaining discharge in gas flow, elec. field map 2−81591
soft X-ray emission, from L-2 stellarator, saw-tooth oscills. *(Russian)* 2−103311
source function and original profile determ. using self-reversed contours 2−109600
space potential measurements on EBT 2−103462
space potential profiles, in Nagoya Bumpy Torus 2−103463
spectral absorption of low-temperature quartz plasma 2−115047
Stark widths, regularities and similarities 2−97715
T-10 Tokamak, impurity atom deposition in limiter shadow, studied by Auger electron spectroscopy 2−91652
tandem mirror, potential distrib. in Phaedrus 2−103461
tandem mirror expt., impurity conc. and radiated power meas. 2−97770
target ablation plasmas, enhanced stopping of 1-MeV deuterons 2−103391
temperature meas. technique for thermal plasmas 2−55791
TFR Tokamak plasma, He-like C and O ions, resonance line intensity 2−55769
theta pinch, microturbulent ion thermalisation and heating, neutron prod. meas. 2−91677
Thomson scatt., appl. to noisy radiative plasma 2−109472
Thomson scattering diagnostic for a low-density, high-temperature, steady-state plasma 2−65767
Tokamak, ohmically heated, energy balance, transport processes 2−81539
Tokamak discharges, transitions in n=2 ground state configurations of Cu, Ni, Fe and Ge 2−86479
Tokamak fusion test reactor diagnostics and instrumentation, nuclear aspects 2−74896
Tokamak plasma, impurity ions, X-ray spectra 2−103451

plasma diagnostics continued
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
Tokamak plasma properties, changes during impurity injection 2−81579
Tokamak plasma with poloidal divertor radiation losses, energy balance, impurities *(Russian)* 2−60788
Tokamak plasmas, high temp., confinement concept, spectral radiation 2−109553
Tokamak plasmas, X-ray continuous spectra calc., impurity ion diffusion effect 2−81585
Tokamak TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
transient expanding plasma flow, electron density and temp. spectroscopic and Thomson scatt. meas. 2−91674
two-dimensional density functions, interpretation of line of sight integral meas. 2−55792
UHF interferometer for plasma density meas. 2−71259
UV and VUV systems, conf., Washington, DC, USA (April 1981) 2−106999
UV-laser produced plasma, stimulated Raman scatt. 2−71116
vacuum arc anode, X-ray detection 2−91688
volume electroionisation discharge, electron beam ionis. of gas, electron conc. determ. 2−115077
weakly ionised plasma, electric field effects, electron energy distrib., quasi-elastic collisions *(Russian)* 2−60799
X-ray and neutron emission in plasma focus of pulsed coaxial accelerator *(Russian)* 2−76205
X-ray bremsstrahlung and characteristic line emission, calc. for Maxwellian electron distrib. 2−76197
X-ray emission from dense plasmas, non-LTE modelling rel. to spectrum diagnostics 2−71109
z-pinch plasma, dense, IR emission 2−60725
ZT-40 poloidal magnetic field meas. using far-IR Faraday rot. 2−103442
Al disc target, laser irrad., preheat effects, expt. and theoretical study 2−81551
Al, laser prod. plasma, AlXl and AlX, 2p-3d multiplets, spectral intensity anomalies 2−60777
Al optically dense plasma, reson. self-reversed Al line reduction 2−109601
Al target, H^+ collisions, plasma generation, UV spectra *(Russian)* 2−60768
Ar, arc, continuous emission investigated at 255-700 nm 2−65699
Ar arc, high intensity, studies of anode region 2−91694
Ar column, excited at. densities, radial variation 2−65688
Ar dielectronic satellite spectrum from microballoon core plasma, digital enhancement 2−55765
Ar, microwave plasma torch, spectroscopic meas. 2−103478
Ar plasma, fast electron beam, ion and electron density distrib. *(Russian)* 2−60762
Ar plasma, implosion dynamics 2−103409
Ar, plasma 2−81456
Ar, self-excited electrostatic waves, instability obs. 2−86400
Ar, temp., ion velocity, spectral meas. 2−65765
C VI line in dense plasma, Stark profile calcs. 2−103453
CF_2 radicals in C_2F_6 and CF_4 discharge plasmas, laser induced fluorescence study 2−81575
C(II) plasma, UV Stark widths and shifts, photoelectric meas. 2−75212
CO_2 fast-flow laser discharge chamber processes, diagnostic procedure 2−65200
Fe plasmas, Kalpha and K_β lines, struct. 2−103313
H, atomic beam, Dopper shifted emission spectra, appl. to plasma diagnostics 2−80520
H discharge, low density, potential step development, laser resonance scatt. study 2−91687
H plasma, oscillator strengths, photoionisation cross sections emission spectra 2−103449
H plasma, spectral lines, plasma polarisation shift, interaction model 2−81576
H, plasma, Stark broadening, relax. theory 2−76196
H_2 RF-ion source beam, ion species 2−103466
He discharge, positive column at.-state densities and electron densities 2−60816
He, synchronized diagnostics of wave breakdown in long pipes 2−60814
He-Br_2 discharge, positive column at.-state densities and electron densities 2−60816
Hg discharge, press. determ. from self-reversed spectral lines 2−91669
Hg vapour discharge, appl. of orbital limited theory to electrostatic probe meas. 2−103465
Mg I and Mg II reson. lines, Stark width meas. in wall stabilised arc 2−70182
Mo ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
Mo ions on PLT Tokamak, magnetic dipole lines above 2000 Å 2−103454
N plasma, absorption coeff. at 2820 Å, determ. 2−97792
N_2 glow discharge, low press., electron conc. radial distrib. by optical method 2−71283
N_2 glow discharge, self-maintained, heating, Joule power distrib. 2−76229
N_2, molecular vibration levels population, plasma neutrals temp. meas. in microwave discharge, CARS 2−114006
N_2 plasma etching systems, plasma optical emission anal. 2−71268
Na plasma, laser induced, electron density meas., emission spectra 2−65758
Ne excited atomic density in gas discharge by laser reson. fluoresc. *(Russian)* 2−76075
Ni plasmas, Kalpha and K_β lines, struct. 2−103313
O plasma, electron and ion impact, rate coeffs. 2−81446
O VII, line emission in Tokamak plasma with neutral injection heating 2−81532
PDX, deuterium flux in edge plasma 2−81581
Pd ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
Si^{12+} plasma, line intensity ratio, model depend. 2−81444
Si:H amorphous film, glow discharge deposition, plasma spectroscopy 2−115605
SiH_4 in low press. hot cathode glow discharges optical emission spectroscopy in visible and near UV region 2−71072
SiH_4 plasma, elec. discharges IR absorpt. and emission obs. 2−71260
Ti flux emitted from ASDEX Tokamak divertor plates, laser induced fluoresce nce meas. 2−55790
Ti plasmas, Kalpha and K_β lines, struct. 2−103313

plasma diagnostics continued
Xe, RF discharge columns in narrow tubes, striae obs. 2−103477
Zr ions on PLT Tokamak, magnetic dipole lines above 2000 Å 2−103454

plasma diagnostics by laser beam
ablative acceleration meas. by streaked X-ray shadowgraphy, comparison with optical meas. 2−79722
atmospheric impulse arc plasma, temp. meas. by ruby laser scatt. 2−115064
dark-ground illumination as a quantitative diagnostic for plasma density 2−103439
driven lower hybrid waves, laser scatt. study in Alcator-A Tokamak 2−76201
Frascati torus, high density Tokamak discharge, enhanced particle recycling, optical study 2−97771
FT machine, polarimetric density meas., expt. approach 2−109599
heterodyne plasma interferometer based on polarisation modulation of a HCN laser 2−109594
high-temperature plasma, laser diagnostics by reson. fluoresc. method 2−109596
inertial confinement fusion plasmas, laser diagnostics 2−103450
interferometer, vibr. compensated far-IR, for plasma density meas. 2−91667
interferometry for laser diagnostics 2−95456
JFT-2 Tokamak, Thomson scatt. study, simultaneous six position measurements 2−55788
laser Doppler anemometer, for plasma stream diagnostics in industrial MHD systems *(Russian)* 2−115040
laser-driven ablation, numerical studies 2−65749
laser-heated plasma thermal and rarefaction waves, Thomson scatt. study 2−115027
laser-produced plasma parameters from XUV line profiles 2−91675
linear sparks, diode array imaging 2−115073
magnetic-pinch imploding plasma sheath X-ray source, position and shape diagnostics 2−109590
metal atom vel. distrib. function meas. by laser reson. scatt., rel. to plasma-wall interaction 2−60802
multichannel CO_2-laser interferometer using a PbSnTe detector array 2−53828
plasma parameters, low temp. plasma 2−97784
submillimeter waveguide laser interferometer for plasma diagnostics 2−71258
Tokamak, Faraday rot. meas. using magneto-optically modulated CH_3OH laser 2−97788
Tokamak fusion plasma, far IR laser scatt. study of density fluctuations 2−76192
Tokamak noncircular TNT-A, electron temp. and density, Thomson scatt. meas. 2−97786
Tokamak plasma ion temp. determ using waveguide CO_2 laser to pump the far-infrared (FIR) laser optically *(Japanese)* 2−90925
Tokamak WT-2, submillimeter wave scatt. from density fluctuations 2−97787
Tokamaks, plasma diagnostics using lasers, review, book contrib. 2−71263
toroidal reversed-field Z-pinch, ZT-40 multiple-point Thomson scatt. meas. 2−103443
Z-pinch plasma, 10.6 μm Faraday rot. meas. of azimuthal mag. field 2−65760
CO_2 eight-chord interferometer for plasma density meas. on ZT-40 2−103441
CO_2 laser fusion target optical diagnostics using backscatt. light 2−109589
CO_2 laser interferometer for plasma electron density meas. 2−114231
CO_2 TEA large cross-section interferometer for plasma diagnostics 2−103440
Nd:glass laser for expts. an optical discharges 2−86480
SF_6 arc plasma, optical spectroscopy study. at atm. press. *(French)* 2−76228
Zr impurity in Tokamak, CW laser fluorescence spectroscopy 2−97790

plasma diodes
anode plasma heating by X-rays in high power diodes, theory 2−86482
Blackjack III plasma diode hydromagnetic insulation 2−91682
DC plasmatron, cold gas blowing through channel side walls, flow rate 2−81593
duoplasmotron, for obtaining C ions 2−85442
electrode damage by arc spots in plasmatrons 2−60807
intense light ion beam acceleration *(French)* 2−97799
large magnetic cusp type plasma generator, design and fabrication 2−81594
magnetically insulated gap, linear waves and instabilities 2−76230
magnetically insulated reflex ion diode, operating characteristics calc. 2−102305
pinched electron beam diode with oil-covered anode, pulsed ion beam extraction 2−90339
plasmatron discharge for gas phase film deposition *(German)* 2−116359
surface ionisation Knudsen diode, oscillatory processes, electron stage 2−103474

plasma filled waveguides
charged beam stability in plasma waveguide *(Russian)* 2−76139
cylindrical waveguide filled with electron beam, energy per unit length and power flow 2−76140
electron beam injection, in mag. field, EM wave excitation efficiency 2−65738
electron beams, high-current, accel. by field of large-amplitude plasma wave 2−103395
EM wave excitation during scattering of charge density waves in electron beams by ion-acoustic oscillations in plasma waveguides 2−91632
helical slow wave antenna for launching lower hybrid waves in a plasma 2−81486
high-current relativistic electron beam, interaction with waveguide plasma, nonlinear theory *(Russian)* 2−103388
ion Bernstein wave heating via a wide $k_\parallel$-spectrum waveguide system 2−81516
ion cyclotron resonance heating antennae, coupling characts., 3-D anal. 2−55761
ion-acoustic waves, quadrupole radiation 2−114996
lower hybrid RF heating in Alcator-A, -C and Versator II Tokamaks 2−76153
lower hybrid waves, ion heating, four waveguide grill expt. in PETULA 2−76141
magnetosonic wave parametric interaction in planar plasma waveguide 2−55748

plasma filled waveguides continued
microwave third harmonic generation in a plasma-filled cylindrical waveguide 2−97747
radial electron density distrib., waveguide method meas. *(Russian)* 2−103447
relativistic electron beam, in plasma waveguide, charge density wave scatt., ion acoustic waves *(Russian)* 2−103387
relativistic electron beam propagating in cylindrical waveguide, space charge waves props. 2−71194
RF wave heating, nucl. fusion appls. *(Japanese)* 2−97757
short particle beam instability 2−103382
slow cyclotron waves in annular elec. beam, gain meas. 2−109504
time-varying, transition radiation emission by current 2−81487
TM modes in parallel plane wave guide filled with plasma, collisional effects 2−91628
Tokamaks, ICRF heating, antenna excitations, field and ray anal. 2−81513
Trivelpiece-Gould mode, excitation in 2-dimens. nonuniform plasma waveguide 2−103359
VLF receiving dipole in magnetoplasma, directivity pattern 2−63121
whistler wave propagation in plasma waveguides *(Russian)* 2−76104

plasma flow
see also plasma focus; plasma magnetohydrodynamics
ablatively accelerated thin shell fusion targets, multifreq. hydrodynamic instabilities, nonlinear effects 2−109502
anisotropic plasma flow, transport eqns., Maxwellian and biMaxwellian expansions 2−91604
arcs in high-speed flow, DC props., two-dimens. model 2−103495
Brillouin flow equilib. in mag. insulated lines, long wavelength, nonlinear perturbations 2−71124
cool plasma flow, electrostatic wall probe 2−60804
current penetration enhancement due to anomalous viscosity 2−114980
DC plasmatron, cold gas blowing through channel side walls, flow rate 2−81593
dense plasma flow, cylindrical probe, ion saturation current density and sp. ht. flux 2−115046
drift waves driven vortices and anomalous plasma diffusion in a strong magnetic field 2−81480
dynamic mag. x points, plasma flow, particle simulations 2−76189
electric arc plasma jets, supersonic expansion characts. investig. 2−115078
EM wave reflection from moving plasma, caviton dynamics 2−91603
hydrodynamic models, freezing-in integrals and Lagrangian invariants *(Russian)* 2−97720
hydromagnetic stability of superposed fluids, generalised theory 2−106499
HYLIFE ICFR, plasma-jet interaction, 2D model 2−97719
ion cyclotron instability of rotating plasma *(Russian)* 2−86423
ion density determ. by elec. stagnation point probe *(German)* 2−76193
ionised gas flow through grid, ionic transparency, numerical soln. *(French)* 2−114987
jets, flow velocity meas. by tracer methods *(German)* 2−81592
Knudsen arc, time varying, thermaly electron distrib. and ionization rate, anomalous features 2−115086
laser accelerated targets, shear flow, instabilities 2−55785
laser beam scatt. at oblique incidence 2−114984
laser produced plasma, steady-state planar ablative flow 2−109480
laser-produced plasma, ponderomotive force, critical density, hydrodynamic flow 2−86397
linear mag. quadrupole, H plasma filled, flow pattern study 2−114988
low β plasma, leak width through magnetic mirrors 2−109581
magnetic fluctuations, ambipolarity, charge filamentation, and plasma rotation in Tokamaks 2−97775
magnetised plasma expansion 2−71128
magnetosphere, energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
methane flowing into cold plasma, chemical behaviour, H-production *(French)* 2−91555
MHD equlibrium equations with one ignorable coordinate, general integrals 2−58234
MHD Kelvin-Helmholtz instability, nonlinear evolution 2−109505
RF wave induced flow and averaged force in dispersive nonuniform plasma 2−60738
rotating plasmas, turbulence limits for isotope separation 2−65727
self-organization of turbulence 2−86425
solitary toroidal vortices, turbulence *(Russian)* 2−109484
soliton envelope theory of EM waves *(Russian)* 2−76106
space plasmas, multicomponent anisotropic, transport eqn. 2−84088
spectral absorption of low-temperature quartz plasma 2−115047
steady flow stability and eigenfreq. bounds of cylindrical electrostatic plasma 2−65704
superdetonation movement of a plasma front towards an intense laser radiation beam *(Russian)* 2−60780
supersonic equilibrium plasma, cylindrical Langmuir probe meas. 2−91672
supersonic nonisothermal flow, cylinder obstacle, plasma wake struct. 2−71123
tandem mirrors, electrostatic pot. parallel variation drives instabilities 2−109571
toroidal plasma vortices, generation 2−76092
transient expanding plasma flow, electron density and temp. spectroscopic and Thomson scatt. meas. 2−91674
turbulent, Poisson's eqn. for pressure 2−71182
two phase liquid metal MHD generator, analytical model 2−71266
unsteady thermally conductive flow, theory for solar corona and solar wind 2−112399
wave model of mesothermal plasma near wakes 2−86396
Z-pinch plasma, 10.6 μm Faraday rot. meas. of azimuthal mag. field 2−65760
Ar arc, high intensity, studies of anode region 2−91694
Ar, dusty ionised monatomic gas, relax. zone behind strong normal shock waves, parametric study 2−86433
Ar low temperature plasma, microwave interactions, nonlinear phenomena *(Russian)* 2−76135
Ar plasma jets, underexpanded, in transitional mode struct. 2−109606
N_2 plasma, flowing afterglow, quenching by ethanol, reaction rate meas. 2−75339

plasma focus
200 kV capacitor band as current source for dense plasma focus 2−91635
dense plasma focus and m=1 instability opening switch concepts 2−91683

plasma focus continued
electron beam energies and currents meas. 2−70024
emitted deuterons, impurity ions and admixture ions, energy and mass anal. 2−91668
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
fission fuel breeder device 2−55793
ion beam energies and currents meas. 2−70024
light-scattering in the Frascati plasma focus 2−76198
low-voltage, neutron and hard X-ray emission 2−103308
metal electrode in plasma focus, evaporation, MHD mechanism *(Russian)* 2−103384
MHD explosive generator, possible energy source for plasma focus 2−76209
micropinch, laser, with combined heating of plasma 2−86467
neutron emission from a 1 kJ plasma focus device 2−59587
polarity riddle, expt. soln. 2−86484
pulse power applications of flux compression generators 2−91641
regular density structures in the plasma focus 2−60792
resistive ion accel. in plasma focus, self mag. field insulation 2−109555
UV emission spectra, Al V to IX and Si VI to X ion lines 2−59735
UV emission spectra, Ar XI to Ar XV ion lines 2−59734
X-ray and neutron emission in plasma focus of pulsed coaxial accelerator *(Russian)* 2−76205
z-pinch, radiation collapse dynamics, impurity enhancement allowance, plasma focus model *(Russian)* 2−60789
DT neutron spectrum meas. in plasma focus *(Russian)* 2−71204

plasma generation *see plasma production*

plasma guns
coaxial design and operation at mag. fields exceeding 0.5 MG 2−81595
coaxial plasma guns for power multiplication at high energy 2−97802
magnetised plasma formation in CTCC-I expt. 2−91634
transverse electron guns for plasma excitation 2−97756
z-pinch gun, pulsed neutral particle source for active plasma diagnostics 2−91666

plasma heating
see also plasma focus; plasma production and heating by laser beam
ACT-1: a steady-state torus for basic plasma physics research 2−65750
aerosol discharge plasma, electron space charge ion heating 2−55756
Alfven compressional waves conversion to ion-cyclotron waves in inhomogeneous mag. field 2−71162
Alfven wave heating, Faraday shielding of surface dissipation 2−81523
Alfven wave heating 2−81518
Alfven wave heating in general toroidal geometry 2−55755
Alfven wave heating in general toroidal geometry 2−81521
Alfven wave heating of high beta plasmas 2−81522
Alfven wave heating of Tokamak plasmas studied by linearised kinetic model 2−71200
Alfven wave spatial resonance heating in twisted mag. field 2−97754
Alfven wave structure and resonant dissipation in cylindrical stability and heating problems 2−81476
Alfven waves, resonant absorpt. in tori with circular cross section 2−81520
ambipolar potential effects in TMX 2−103431
anode plasma heating by X-rays in high power diodes, theory 2−86482
ASDEX fusion experiments, circuit breaker investigation 2−64635
axisymmetric double cusp confinement system, RF plugged 2−115031
Bernstein waves, propagation and absorpt. using lower hybrid couplers at ion cyclotron freq. 2−81515
bumpy tori, ambipolar pot. control by fast wave heating 2−103433
charged particle beam injection heating on solid targets 2−60767
cluster production by slit-throat nozzle, computer simulation 2−85456
collisional plasmas, small scale low freq. heating expt. 2−86447
compact toroid radiation-dominated decay, analytic model 2−97772
conference, Swansea, Wales (July 1981) 2−94899
confined plasma, neutral beam heating, advanced technology 2−81499
controlled thermonuclear fusion electrical engineering problems 2−64638
Culham Summer School lectures, postgraduate level, book 2−68980
current driven by absorpt. of RF waves at electron cyclotron reson. in Culham Levitron 2−55762
current filamentation by electrothermal instability in ionised mag. plasma, steady state model 2−86405
damping mechanisms and heating scenarii in the ICRF 2−81510
DITE Tokamak, species and impurity meas. in intense neutral beams 2−97768
Doublet III, 60 GHz microwave components for ECH experiments 2−74957
Doublet III metallic limiters, changes in near-surface microstructure 2−74901
EBT, reactor, potential control, heating and confinement 2−103426
EBT, RF ion heating, turbulence, instability, lower hybrid wave excitation 2−71202
EBT-S ion cyclotron heating, wave heating model 2−103397
EBT-S wave props., inhomogenity effects 2−109577
electron cyclotron emission and reson. heating 2−71216
electron cyclotron heating and preionisation in WT-1 Tokamak 2−71221
electron cyclotron heating and preionization experiments using NRL 35 GHz gyrotrons 2−71218
electron cyclotron heating by extraordinary EM waves, propagation 2−71214
electron cyclotron heating in ELMO bumpy torus 2−71223
electron cyclotron heating in high field Tokamak, parametric excitation effects 2−71224
electron cyclotron heating in stellarator plasma by microwave injection 2−81508
electron cyclotron heating on Tokamak ISX-B, impurity radiation, electric current meas. 2−71212
electron cyclotron heating waves, scatt. by density fluctuations in Tokamak plasmas 2−71225
electron cyclotron plasma heating expt. on FT-1 Tokamak 2−71220
electron cyclotron reson. discharge, microwave heated, X-ray bremsstrahlung meas. 2−114983
electron cyclotron reson. heating, parametric decay instability in Versator II Tokamak 2−109544
electron cyclotron resonance heating for Tokamak plasma, preionisation of EM wave 2−71213
electron cyclotron resonance heating in CLEO stellarator 2−71219
electron cyclotron waves in suprathermal plasmas 2−71177
electron cyclotron waves parametric instabilities 2−103350

plasma heating continued
electron heating in plasmas by high freq. EM waves, quantum kinetic theory 2−71201
electron thermal energy transport in plasmas with injected heating 2−55754
electron-cyclotron resonant heated electron distribution functions, bounce-averaged Fokker-Planck calc. 2−103307
electronegative gas, energy dissipation mechanism of turbulent plasma heating by tube the electron-beam 2−116372
electrostatic double layers, 1-D Vlasov model, ion heating 2−65735
ELMO Bumpy Torus, plasma heating system instrumentation and control design 2−64662
EM wave absorption in plasma resonance region in EM trap 2−55736
EM wave excitation and propagation, coupling of antennas in two component nonuniform plasma 2−81488
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
extraordinary mode near second electron cyclotron harmonic, dispersion rel., props. 2−71179
fast neutrals injection, charge exchange spectrum, TFR 600 Tokamak 2−81501
FED, ion cyclotron resonance heating system 2−74958
FED, ion cyclotron resonance heating system characteristics 2−74959
FED, RF plasma heating 2−75028
Fusion Engineering Device pump limiter material consideration 2−74904
fusion research engineering problems, conf., Chicago, IL, USA (Oct. 1981) 2−63744
fusion research in China 2−71257
fusion-producing plasma, RF current drive 2−86445
gyrotron heating in the Culham Levitron 2−71217
gyrotron oscillators, pulsed and CW, plasma heating 2−76149
heat exchange between subsonic and supersonic plasma jets and a plane surface 2−60771
heated plasma thermal evolution, math. model, asymptotic anal. 2−97713
heating in toroidal plasma, conference, Como, Italy 2−68960
heavy ion beam, plasma heating mechanism *(Russian)* 2−103396
Heliotron E, heating expt. 2−81567
Heliotron E neutral beam injection system, injection power and H ion species anal. 2−65737
Heliotron-E confinement, plasma initiated and heated by electron cyclotron resonance frequency waves 2−60794
HF plasma heating of Tokamak machines using high-power klystrons *(German)* 2−115022
high frequency plasma heating in Tokamaks within the Alfven frequency range 2−81524
high-β Tokamak, ideal MHD stability limits 2−109570
high-power RF heating system for long theta-pinch 2−91661
hot electron plasma production by electron cyclotron resonance heating 2−81507
ICRF heated Tokamak plasmas, anisotropy and tail form. 2−55760
ignitor Tokamak, start up phase and compression 2−81542
inductive coupling to a finite inhomogeneous plasma cylinder near the lower hybrid frequency 2−109545
inertial confinement fusion target, energy gain 2−80217
intense light ion beam reactors, plasma channels 2−69867
INTOR, ion sputtering from walls during neutral beam heating 2−81493
INTOR, LHRF heating, numerical simulation 2−113742
ion acoustic waves generated by optical mixing, growth and sat. meas., ion heating 2−115002
ion beam heating, coulomb collisions, Tokamak plasma 2−81534
ion beam neutralisation, Langmuir oscillations effect on background electrons *(Russian)* 2−76074
ion Bernstein wave heating via a wide $k_{\parallel}$-spectrum waveguide system 2−81516
ion cyclotron heating, effect on ambipolar pot., in Nagoya Bumpy Torus 2−103434
ion cyclotron resonance heating, EBT-S expts. 2−103402
ion cyclotron resonance heating (ICRH) of an EBT with periodic boundary conditions 2−81514
ion cyclotron resonance heating antenna, design and coupling optimisation 2−76160
ion cyclotron resonance heating antennae, coupling characts., 3-D anal. 2−55761
ion heat cond. due to mag. ripple in Tokamak 2−81548
ion rings, adiabatic compression 2−71245
ion stochastic heating by LH wave, two dimens., Fokker-Planck eqn. soln. 2−103398
ionosphere, RF probing of disturbed region, modulation transfer of powerful radio emission 2−58168
JET, lower hybrid freq. grill launcher design, mechanical aspects 2−74952
JFT-2 Tokamak, electron cyclotron heating using an inside launch antenna 2−97758
linear magnetic fusion system, book contrib. 2−76180
linertial confinement fusion, cryogenic targets, heating 2−85260
local electron heat conduction in Tokamak-10 *(Russian)* 2−55777
low frequency heating 2−81519
low-β plasma, Alfven wave heating, MHD study 2−115007
lower hybrid current drive in JIPP T-II torus 2−55758
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
lower hybrid heating, microwave coherent scatt. meas. in WEGA Tokamak 2−76204
lower hybrid heating, particle simulation, appl. to RF heating 2−76191
lower hybrid RF heating in Alcator-A, -C and Versator II Tokamaks 2−76153
lower hybrid wave electron heating in Doublet IIA 2−76151
lower hybrid wave heating, ASDEX divertor Tokamak 2−76157
lower hybrid wave heating, details of PLT Tokamak expt. 2−76158
lower hybrid wave heating in the Octopole Tokamak 2−55759
lower hybrid wave heating in WEGA Tokamak 2−76152
lower hybrid waves, ion heating, four waveguide grill expt. in PETULA 2−76141
magnetic bottles, ion cyclotron resonance heating, confinement, fusion appl. 2−91633
magnetic configs., disparition brusques mode, instability 2−115009
magnetic fusion plasma, D^0 additional heating, secondary plasma effects 2−81536
magnetic mode growth in anisotropic contrastreaming plasmas in Tokamaks 2−81470
magnetic plasma, EM wave effects on electrons 2−103399
plasma heating continued
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magnetically confined plasma, collisionless inverse bremsstrahlung 2−109543
magnetically confined plasma, heating by neutral beams, feasibility 2−81504
magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
magneto-active plasma, electron cyclotron heating, runaway electrons *(Russian)* 2−60769
magnetoplasma, EM wave to Bernstein mode conversion, electron heating 2−81475
magnetoreactive plasma, induced ls scatt., electron heating *(Russian)* 2−71203
metals, submicron particles, heating in hot gas 2−60770
MFTF-B electron cyclotron resonance heating system 2−74949
microparticles in low temp. plasma, heat transfer *(Russian)* 2−71197
microwave coherent scatt. for lower hybrid heating wave detect in Wega torus 2−97789
microwave discharges produced by a surfatron in capillary tubes 2−103543
microwave tubes for RF heating of plasmas, klystron and gyrotron 2−69169
mirror confinement, electron heating, diffusion coeffs., oscillations, plasma pot. *(Russian)* 2−60782
mode converted ion Bernstein waves, obs. in Microtor Tokamak 2−91617
multi-ion plasma, Alfven wave heating 2−103346
multi-megawatt radio frequency power source for plasma heating 2−81517
multibeamlet neutral injection, high transparency, primary ion tetrode optics design, theoretical anal. 2−81495
neoclassical ripple transport, boundary layer corrections in Tokamaks 2−91658
neutral atom beams, 1-2 MeV/amu, plasma heating appl. 2−55753
neutral beam heating on T-11 Tokamak, IV Kurchatov Institute research review 2−81497
neutral beam heating results on PLT and PDX 2−81526
neutral beam injection; magnetic blocking direct recovery efficiency calc. 2−81494
neutral beam injection, lower hybrid wave heating in JIPP T II torus 2−103401
neutral beam injection heating, TEXTOR simulation, Monte Carlo method 2−81574
neutral beam injection heating in JIPP T-II stellarator 2−81530
neutral beam injector, advanced high energy design 2−81533
neutral beam injector, D^- production, by charge exchange in Rb 2−90332
neutral beam injector control system low inductance coaxial shunt resistor appl. 2−109538
neutral beam injectors, D^- prod. by double electron-capture, appl. to plasma heating 2−81500
neutral beams injection heating in TFR 600 Tokamak 2−81527
neutral injection heating in CLEO stellarator 2−81529
neutral injection of DITE, impurity radiation, density effects 2−71114
neutral injection plasma heating, book contrib. 2−71205
neutral-beam injection, book contrib. 2−76147
noncircular plasmas, electron cyclotron heating and current profile control, MHD beta limits 2−71222
nonlinear aspects of wave propagation near the upper-hybrid mode conversion layer 2−71157
nonlinear effects during large amplitude cyclotron wave excitation in plasma *(Russian)* 2−71196
nonlinear lower hybrid waves, temporal evolution, appl. to plasma heating 2−76131
nonlinear thermal wave in a reacting medium 2−97759
nonlinear wave-beam limiting state in electron plasma 2−76111
nonresonant HF waves heating, ponderomotive effect 2−81545
ohmic heating by microwave beam, appl. to ionosphere plasma and solar power Satellite 2−71186
Ohmic heating circuit (PRETEXT) for Tokamaks 2−115021
ohmic heating in reversed field pinches 2−81540
Ohmically heated Tokamak plasma, relation between light and metal impurities 2−109559
ordinary mode propagating perpendicularly to mag. field at electron cyclotron freq., absorpt. mechanism 2−109501
parametric instabilities, boundary plasma electron heating stabilisation, in JFT-2 2−71138
parametrically turbulent plasma, heating near electron cyclotron resonance 2−81546
PDX, 60 GHz microwave components for ECH experiments 2−74957
PDX Tokamak, ion heating by neutral beam injection 2−103412
PDX Tokamak, soft X-ray meas. 2−103318
pinch configurations, helical field effect on self reversal, stability and confinement 2−81563
plane stratified cold plasma, EM wave propag., plasma transport and electron cyclotron heating 2−71215
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
plasma-materials interactions in scrapeoff region of ISX-B Tokamak 2−74918
PLT, high voltage RF coaxial vacuum bushing design considerations 2−74953
PLT, ICRH, 9 inch stub tuner design 2−74954
PLT 800 MHz RF generator for lower hybrid resonance heating 2−74955
PLT Tokamak, magnetosonic wave heating near ion cyclotron frequency 2−76159
pulsed neutralised ion beams injection into toroidal fields 2−71195
quadrupole minimum-|B| mirror, plasma heating at twice ion cyclotron freq. 2−109540
radially inhomogeneous plasma, heating by axially-nonsymmetric EM field *(Russian)* 2−60774
reversed field pinch reactor, heating burn simulations 2−81569
RF excited fully ionised low press. plasma, production 2−115023
RF heating, survey of European community efforts 2−71208
RF heating in magnetically confined plasmas 2−76148
RF ion source 2−96350
RF plasma heating experiments, review, book contrib. 2−71207
RF plasma heating theory, review, book contrib. 2−71206
RF wave heating, nucl. fusion appls. *(Japanese)* 2−97757

plasma heating continued
shifting cold and hot electron Maxwellian distrib., heat flux calc. 2−81454
solar corona 2−117645
STARFIRE, ion cyclotron resonance heating system 2−74958
STARFIRE, ion cyclotron resonance heating system characteristics 2−74959
R-O stellarator, heating by Alfven waves, HF electric and mag. field structs. 2−81525
stellarator confinement, ohmic heating current, diamagnetic signal calcs. *(Russian)* 2−60783
stellarators, heating, book contrib. 2−71253
T-10 Tokamak heating at first harmonic of electron cyclotron resonance *(Russian)* 2−60773
tandem mirror machines, beam waveguide launcher for high power ECRH heating 2−74956
TCA Tokamak, Alfven wave coupling expt. with antenna struct. 2−115003
TCA Tokamak, RF system for Alfven wave heating 2−74951
tearing modes in Tokamaks, stabilisation using electron cyclotron heating 2−55731
TEXTOR, ICRF antenna for heating system 2−74950
TFTR, neutral beam heating, plasma position and current control, optimal anal. 2−74961
TFTR ohmic heating pulsed energy conversion system, plasma striking voltage production 2−80310
thermal conductivity in a laser-created plasma heated by inverse bremsstrahlung absorption 2−103288
thermal energy diffusion in plasma with weak ohmic heating 2−81541
thermonuclear plants injection system power supplies design 2−64647
thermonuclear plasma, ignition by lower hybrid heating 2−76127
thermonuclear reactor injector power supply systems design 2−64646
theta pinch, microturbulent ion thermalisation and heating, neutron prod. meas. 2−91677
theta pinch, successive heating 2−115034
TMX upgrade, plasma pots. form. and control 2−103432
Tokamak, adiabatic compression, ohmic heating and equilib. 2−81538
Tokamak, Alfven wave heating, MHD calc. 2−109542
Tokamak, ICRF heating, surface physics problems 2−81506
Tokamak, JFT-2, lower hybrid heating, energy balance 2−76154
Tokamak, ohmically heated, energy balance, transport processes 2−81539
Tokamak, wall interactions, edge plasma modelling, transport, impurity rate and diffusion eqn. 2−109528
Tokamak discharges, heating simulation, lower hybrid wave trajectory 2−76129
Tokamak fusion plasma, far IR laser scatt. study of density fluctuations 2−76192
Tokamak lower hybrid heating, toroidal effects 2−109539
Tokamak plasma, current-driven turbulence in low toroidal elec. field 2−91606
Tokamak plasma, He injection, α-particle conc., ignition temp. 2−81502
Tokamak plasma, heating by adiabatic compression 2−81537
Tokamak plasma, ion beam injection, heating and current maintenance 2−81535
Tokamak plasma, ion cyclotron RF heating study 2−76161
Tokamak plasma, ion cyclotron waves, low freq. density fluctuations 2−91611
Tokamak plasma, lower hybrid heating, influence on stability 2−76146
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
Tokamak plasma, lower hybrid wave heating, electron temp. 2−76155
Tokamak plasma, lower hybrid wave heating 2−76150
Tokamak plasma, mag. compression heating effects on ignition 2−103400
Tokamak plasma, mag. field effect on neutral beam heating 2−81531
Tokamak plasma, neutral injection heating, electron coding 2−81532
Tokamak plasma, turbulently heated, MHD equilib. props. 2−81566
Tokamak plasma, use of gyrotrons for electron-cyclotron plasma heating 2−55757
Tokamak TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
Tokamaks, fast wave ion cyclotron reson. heating by ray tracing technique 2−81512
Tokamaks, ICRF heating, antenna excitations, field and ray anal. 2−81513
Tokamaks, ion cyclotron heating, distribution function of resonant ions 2−81511
Tokamaks, JFT-2 and DIVA, heating 2−71210
Tokamaks, single particle confinement ICRF heating effect 2−81564
toroidal axisymmetric devices poloidal field winding design for controlled thermonuclear fusion *(Italian)* 2−74786
toroidal plasma, cusped mag-field, ohmic ion heating 2−86444
toroidal plasmas, heating, fusion reactors 2−71211
toroidal plasmas, methods of driving current by heating 2−81547
toroidal plasmas, US policy on heating 2−71209
travelling mirror adiabatic magnetic compressor, scalings 2−103415
upper-hybrid mode conversion in inhomogeneous mag. field 2−71199
vacuum arcs, cathode heating 2−115063
ZEPHYR, compact ignition and burn study 2−109547
ZEPHYR ignition expt., heating 2−81543
ZEPHYR ignition expt., thermonuclear burn, dynamics, thermal instability 2−80222
t, nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
Ar, collisional and radiative model, appl. to ionisation phenomena behind a shock wave 2−114972
Ar transient conditions in inductively heated plasmas: thermodynamic equilib. and temp. meas. 2−91593
Cr^{22+} in laboratory plasma, X-ray spectra *(Russian)* 2−108415
D plasma, heating by RF in ion cyclotron range on TFR 2−86446
D plasma, neutral beam heating in W VII-A stellarator 2−81528
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
D-H plasma, dispersion relation near two-ion hybrid reson. 2−65716
D-T plasma, ion tails and neutron rates due to lower hybrid waves, quasi-linear calc. 2−109541
D-T wall-confined fusion cycle energy gains, shock wave heating 2−90294
DT neutron spectrum meas. in plasma focus *(Russian)* 2−71204
N_2 glow discharge, self-maintained, heating, Joule power distrib. 2−76229
Tokamaks, RF heating, mode conversion and wave damping in the low frequency range 2−81509

plasma impurities
see also plasma-wall interactions
Alcator-C, impurity injection effects 2−81453
arc discharge, impurity mass transport, carrier effect 2−81604
arc plasma, trace impurities distrib., spectrochemical anal. 2−65764
charge, quantum state and energy distributions of impurities released in plasma-wall interaction processes 2−109530
compact toroid radiation-dominated decay, analytic model 2−97772
current sustaining Tokamak, pinch effect by RF traveling wave 2−109583
diffusion under finite reaction rates 2−109471
discharge plasma excited by electron-beam method, adhesion, recomb. 2−71073
DITE Tokamak, species and impurity meas. in intense neutral beams 2−97768
Doublet III, first wall impurity deposition 2−80206
Doublet-III, impurity reduction and remote radiative cooling with single-null poloidal divertor 2−97769
EBT, fluctuating electric field, effect on H and impurity ions 2−103424
EBT reactor, design considerations for nonmagnetic divertor 2−74905
EBT transport, ambipolar pot. formation, rapid impurity ion loss 2−103296
expanded boundary divertor discharge, the exhaust and enrichment 2−81492
field reversed theta pinch, effect of inhomogeneous impurity distrib. 2−71239
first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
fully ionised low-Z impurities in PDX Tokamak, spatially resolved meas. 2−109602
fusion reactors, low-Z limiters, in-situ maintenance 2−74906
isotope exchange, H recycling and impurities in ISX-B Tokamak 2−71189
ISX-B, deposition probe meas. of impurity and plasma fluxes near wall 2−81583
ISX-B Tokamak, plasma-limiter interactions, high-speed photographic obs. 2−76142
levels in Tokamak reactor with turbulent plasma blanket *(Russian)* 2−103383
lower hybrid wave heating, ASDEX divertor Tokamak 2−76157
metal atom vel. distrib. function meas. by laser reson. scatt., rel. to plasma-wall interaction 2−60802
monochromator, vac., for synchrotron radiation in 15-160 nm range, absolute calibration 2−109603
neoclassical impurity transport in collision dominated plasma, electrostatic trapping effects 2−71242
Nyquist theorem, validity at large collision freq., for impure plasma 2−71139
Ohmically heated Tokamak plasma, relation between light and metal impurities 2−109559
PDX laser blow off trace element injectors anal. 2−81580
PDX Tokamak, soft X-ray meas. 2−103318
PDX Tokamak plasma impurity diagnosis using a multichannel grazing-incidence spectrometer (SPRED) 2−91663
plasma-materials interactions in scrapeoff region of ISX-B Tokamak 2−74918
PLT, Fe transport in confined high temp. plasma 2−109565
PLT laser blow off trace element injectors anal. 2−81580
radiating impurities and Bohm transport effects on cool plasma-mantle 2−103414
radiation losses in T-10 Tokamak, effect on plasma behaviour *(Russian)* 2−103310
radiative processes, book contrib. 2−71120
reacting monatomic dusty gas, relax. zone behind normal shock waves 2−86432
RF impurity-ion transport control 2−103304
screw pinch, two-dimens. MHD simulation, impurity and neutrals effect 2−81555
stochastic magnetic field, ambipolar electric field and ambipolar diffusion 2−97709
T-10 Tokamak, impurity atom deposition in limiter shadow, studied by Auger electron spectroscopy 2−91652
tandem mirror expt., impurity conc. and radiated power meas. 2−97770
TFR Tokamak plasmas, impurity pump-out at two-ion hybrid reson. 2−109567
TMX upgrade, plasma pots. form. and control 2−103432
Tokamak, beam-heated, impurity evolution calc. 2−55749
Tokamak, ohmically heated, energy balance, transport processes 2−81539
Tokamak, wall interactions, edge plasma modelling, transport, impurity rate and diffusion eqn. 2−109528
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak edges, mol. impurities penetration 2−109556
Tokamak ISX-B, electron cyclotron heating, impurity radiation, electric current meas. 2−71212
Tokamak plasma, impurity ions, X-ray spectra 2−103451
Tokamak plasma, lower hybrid wave heating, electron temp. 2−76155
Tokamak plasma, neutral deuterium ionisation, Fe ions contrib. 2−109459
Tokamak plasma properties, changes during impurity injection 2−81579
Tokamak plasma with poloidal divertor radiation losses, energy balance, impurities *(Russian)* 2−60788
Tokamak plasmas, X-ray continuous spectra calc., impurity ion diffusion effect 2−81585
Tokamak reactor, first wall erosion and plasma impurity flux reduction 2−74907
Tokamak reactor plasma, impurity generation 2−74916
Tokamaks JET, JT-60, T-15, TFTR and reactors, needs for impurity control, exhaust and plasma-wall interactions 2−71231
toroidal plasma, neutral gas transport and impurity production, Monte Carlo calc. 2−55709
wall interactions role in fuel recycling, impurity generation and wall props. 2−109529
z-pinch, radiation collapse dynamics, impurity enhancement allowance, plasma focus model *(Russian)* 2−60789
Al impurities, rel. to ambipolar potential, in EBT 2−103464
Al-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
Ar plasma in tubes, cleaning and memory effects 2−97749
Ar-Hg plasma fluoresc. lamps, radiation prod. efficiency, mol. gas admixture effects 2−76070
D plasma, neutral beam heating in W VII-A stellarator 2−81528

plasma impurities continued
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
Fe impurity atom binding energies and bound-free transition matrix elements in H plasma 2−71233
Fe XXIII, impurity flux in Tokamak plasma, transport mechanism 2−55781
H influx, radiated energy and impurity density changes, in PLT 2−71087
Li-Cs plasma, dense, supercooled, recomb. and Li level population calcs. 2−81448
Mo impurity ions radiative losses in Alcator A Tokamak 2−71112
NbB_2, fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
Ni, fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
O impurity behaviour in Frascati Tokamak 2−71249
O, in screw-pinch Tokamak, time and space evolution 2−81558
O VII, line emission in Tokamak plasma with neutral injection heating 2−81532
TiC-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
TiH_x wall, plasma contamination reduction 2−115037
Zr impurity in Tokamak, CW laser fluorescence spectroscopy 2−97790

plasma in solids *see solid-state plasma*

plasma instability
see also plasma oscillations
ablatively accelerated thin shell fusion targets, multifreq. hydrodynamic instabilities, nonlinear effects 2−109502
afterglow plasma column, microwave injection, upper-hybrid soliton, density cavity 2−60755
Alcator C Tokamak, oscillatory disruptions, spectroscopic obs. 2−60791
Alfven wave structure and resonant dissipation in cylindrical stability and heating problems 2−81476
Alfven-wave generation by nonlinear decay of beam-drives plasma mode 2−71168
alpha particle loss-cone-type instability in toroidal plasmas 2−81478
ambipolar potential effects in TMX 2−103431
anisotropic plasmas, EM dispersion relation, numerical calc. 2−81461
axisymmetric mirror, flute stabilisation by cold line-tied blanket 2−109496
axisymmetric mirror machine, stability using guiding centre plasma model 2−109568
axisymmetric toroidal plasmas, high-n collisionless ballooning modes 2−109475
ballooning, viscosity effect 2−76094
ballooning instability in toroidal plasmas 2−97722
ballooning mode, finite-n theory for axisymm. toroidal plasmas 2−103340
ballooning stability in Tokamak, diamagnetic drift freq. effects 2−71250
ballooning stability in toroidal devices 2−103373
beam-plasma discharge instability at low press. in bounded systems, ambient plasma and background temp. effects 2−65718
beam-plasma instability in the presence of low-frequency turbulence 2−91631
bremsstrahlung, induced radiation 2−97716
bump-in-tail instability role in solar radio bursts 2−106663
bumpy cylinder, equilibrium and stability two-dimens. MHD calc. 2−103371
bumpy cylinder, kinetic stability anal., Vlasov-Maxwell eqns. 2−103372
Buneman instability, nonlinear evolution, ion dynamics 2−71151
Buneman instability nonlinear dynamics simulation 2−109585
burning fusion plasma, compression-decompression control, thermal instability suppression 2−76102
cathode arcs, spontaneous extinction, instability study 2−86487
charge fluctuations of two-dimensional plasmas in a refined BBGKY truncation scheme 2−71136
charged beam stability in plasma waveguide *(Russian)* 2−76139
coherent wave interaction with non-isothermal plasma *(Russian)* 2−103332
collisional tearing mode, mag. field stabilising effect 2−109495
collisionless ballooning modes, kinetic theory 2−91615
collisionless tearing modes, thermal spectrum 2−71159
condensational instability, appl. to solar corona and transition zone 2−63230
conference, Swansea, Wales (July 1981) 2−94899
corona of laser produced plasmas, instability obs. by optical probing 2−55733
counter-streaming plasmas in longit. mag. field, interaction *(Russian)* 2−103319
counterstreaming plasma, thermalisation, runaway ion instability 2−86413
coupled capillary-plasma wave excitation at liquid metal surface in plasma *(Russian)* 2−86435
coupled ring-core stability/, for Elmo Bumpy Torus 2−103363
Culham Summer School lectures, postgraduate level, book 2−68980
current carrying plasma, HF electric field influence, surface instability 2−97735
current carrying weakly nonuniform plasma, instability mechanism, double layers form. 2−65723
current filamentation by electrothermal instability in ionised mag. plasma, steady state model 2−86405
cyclotron instability, quasilinear theory *(Chinese)* 2−76095
dense plasma focus and m=1 instability opening switch concepts 2−91683
discharge stability, self-sustaining, in resistive electrode-discharge gap struct. 2−109621
disruption in L=2 stellarator Tokamak hybrid 2−86462
dissipative drift-wave instabilities, in Tokamaks, ballooning mode calcs. 2−55732
dissipative fluids, complementary energy principles 2−53529
dissipative trapped-particle modes, anomalous dissipation effects 2−65707
Doublet III, dee-shaped plasma, equilibrium and axisymmetric stability 2−109491
drift dissipative instability of nonuniform plasma, mag. field curvature effects 2−91614
drift mode, high-beta, linear kinetic anal. 2−71147
drift transfer eqns. *(Russian)* 2−97707
drift wave eigenmodes in slab plasma with finite mag. shear, stability 2−109507
drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
drift waves, eigenmode calc., stochastic mag. field effects 2−65705

plasma instability continued
drift waves in quadrupole, radial eigenfunctions 2−109509
drift-cyclotron mode instability, nonlinear props., particle simulation 2−76118
drift-tearing mode, driven by electron temp. gradient, stability anal. 2−76109
dynamic mag. x points, plasma flow, particle simulations 2−76189
EBT, core β limits, effect on reactor performance 2−103374
EBT, interchange and compressional Alfven instabilities, anal. theory 2−103369
EBT, RF ion heating, turbulence, instability, lower hybrid wave excitation 2−71202
EBT stability theory, conf. Oak Ridge, TN, USA (May 1981) 2−101126
eigenmode stability analysis for a bumpy torus 2−103366
electric lasers, pulsed, glow discharge stability 2−90879
electromagnetic instability at boundary between matter-antimatter clouds 2−73829
electromagnetic plasma instability *(Chinese)* 2−97742
electron beam interaction with plasma, instability growth rate 2−60763
electron beam nonlinear radiation in whistler range, theoretical model 2−94556
electron beam-plasma system, nonlinear charge density standing wave propag. *(Russian)* 2−103389
electron beams, magnetically focused, rippled and partially neutralised, nonlinear equilib. and stability anal. 2−86406
electron cyclotron reson. heating, parametric decay instability in Versator II Tokamak 2−109544
electron cyclotron waves parametric instabilities 2−103350
electron phase space, electron vortex struct. stability 2−55734
electron relaxation, weakly ionised hydrogen plasma 2−109458
electron unstable plasma, fast particle generation theory *(Russian)* 2−76187
electron-ion two beam system in mag. field, dispersion charact. *(Russian)* 2−76105
electrostatic ballooning instabilities, kinetic theory 2−109498
electrostatic drift wave stability, effect of RF driven current 2−114999
electrostatic flute mode, stabilisation study 2−97738
electrostatic instabilities, temp. gradient and elec. field driven 2−97727
electrostatic oscillations in ionosphere mid-latit. F-region, stability in presence of photoelectrons 2−106384
EM circularly polarised modes with electron streaming along appl. mag. field 2−103321
EM instabilities in nonuniform plasma layer in crossed fields *(Russian)* 2−103328
EM instability of electron beams generating solar type III radio bursts, rel. to beam stratification *(Russian)* 2−112416
EM ion cyclotron wave near second harmonic cyclotron freq., decay instability 2−109500
EM ordinary mode in counterstreaming plasmas 2−73831
EM oscillating two-stream instability of plasma waves 2−71153
EM wave stability in overdense plasmas 2−65710
EM waves in relativistic plasma stream, fusion instability 2−65752
Engineering Test Facility, beta limits 2−109478
exploding-pusher target, ion vel. spectra simulation 2−109466
explosive instability in three-wave interaction 2−103335
fast ion driven EM instabilities at low threshold, expt. study 2−69966
field reversed theta pinch, effect of inhomogeneous impurity distrib. 2−71239
field-reversed config., large-orbit ion effect, optimal plasma-β study 2−76178
field-reversed ion layer, tearing mode instability, computer simulation 2−86415
field-reversed plasmas without toroidal field, tearing mode stability 2−71240
field-swelling instability in anisotropic plasmas 2−65720
filamentation of space-charge-limited flow 2−97734
finite wavefront weak shock wave stability *(Russian)* 2−71171
fluctuation measurements in EBT 2−103298
flute instability in relativistic plasma appl. to pulsar particle ejection 2−114991
flute oscills., first mode, stabilisation in axisymmetric open mag. trap *(Russian)* 2−103326
flute type drift mixing, isobaric breaks form. *(Russian)* 2−103330
force-free MHD equilibria, stability, energy principle 2−55730
four-wave interactions, explosive instability 2−55727
free-boundary modes stabilisation using mag. separatrix 2−81466
fusion reactor plasma, contour analysis 2−108119
glow discharge stability, math. model 2−103486
guiding centre plasma, kinetic energy principle using adiabatic invariants 2−109461
Hall current discharge, with closed electron drift and distributed elec. field, instability *(Russian)* 2−103327
Hall plasma, thermosolutal instability 2−86399
Hall plasma with suspended particles, gravitational stability 2−106505
heat transport properties and dynamics of a cold turbulent plasma blanket 2−103305
helical column plasma, current profiles, internal kink instability *(Russian)* 2−60787
helically symmetric equlibrium plasma, MHD stability, Green's function method 2−109483
high density plasma, space-charge effects 2−109489
high-β Tokamak, ideal MHD stability limits 2−109570
high-β Tokamak plasma, free-boundary equilib., plasma stability 2−76176
hot electron plasma stability, in EBT 2−103368
hot-electron ring stability at the University of Tennessee 2−103365
hydromagnetic stability of turbulent geomag. tail, effects of broadband electrostatic noise 2−100664
ideal and resistive modes, eigenfunctions and eigenvalues 2−86409
inhomogeneous plasma, general formulation for treating linear instability, Vlasov eqn. 2−55720
inhomogeneous plasmas, linearised Vlasov eqn. for arbitrary equilib. Hamiltonian 2−55721
instability cascades, Lotka-Volterra population eqns., Hamiltonian chaos 2−81468
internal disruptions in high β_p Tokamak 2−71176
INTOR Tokamak ballooning stability, alpha-particle diamagnetic drift effects 2−109560
ion acoustic double layers in the presence of plasma source, turbulence and negative pot. spikes form. 2−109532
ion beam-plasma system, ion acoustic wave freq., boundary effect 2−114998

plasma instability continued
ion cyclotron instability of rotating plasma *(Russian)* 2−86423
ion cyclotron waves and turbulent end plugging in mag. mirror based fusion devices 2−103334
ion source discharge performance and stability 2−91700
ion-acoustic instability, EM wave absorpt. and scatt. *(Russian)* 2−109519
ion-acoustic instability in current-carrying double layers, rel. to low frequency auroral fluctuations 2−100622
ion-acoustic turbulence, interaction with low freq. perturbations, modulational instability 2−76133
ion-acoustic turbulence angular distrib. 2−115010
ion-ion beam instability, nonlinear evolution 2−71164
ion-temperature-gradient instability *(Chinese)* 2−109486
ions accel. by ponderomotive force in laser plasma, energy spectrum 2−109523
ISX-B high-beta plasma stability, ideal MHD anal. 2−97724
ISX-B Tokamak, plasma-limiter interactions, high-speed photographic obs. 2−76142
JFT-2 Tokamak, density fluctuation obs. by microwave interferometry 2−86390
Kelvin-Helmholtz drift instabilities, hydrodynamic theory 2−103336
kinetic modes, energy integral and variational principle 2−60743
kink instabilities of plasma column with elliptical cross-section, perturbation calc. 2−65706
kink instability in solar coronal loop low beta model surrounded by plasma 2−117655
laser accelerated target expt., obs. of Rayleigh-Taylor instability 2−115001
laser accelerated targets, shear flow, instabilities 2−55785
laser plasma, Raman scatt. resulting from parametric turbulence 2−86481
laser-driven hydrodynamics, model expts. 2−59514
LF mode stability in tandem mirrors and bumpy tori 2−97733
LH wave decay into ion cyclotron mode and whistler wave 2−103343
light ion fusion targets, beam and deposition stability 2−114994
linear magnetic fusion system, book contrib. 2−76180
long wavelength oscillation excitation, boundary conditions in simulations 2−55784
longitudinal waves, hot electron plasma, modulational instability by averaged Lagrangian 2−76098
low-q discharges, with D-shaped and circular cross-section, high density, in Doublet III 2−71236
lower hybrid and electron plasma waves, parametric coupling, nonresonant decay 2−76132
lower hybrid drift instability in magnetopause *(Chinese)* 2−109485
lower hybrid drift instability in nonantiparallel reversed field plasma 2−73791
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
magnetic configs., disparition brusques mode, instability 2−115009
magnetic field generation via parametric instabilities in collisional plasmas 2−86403
magnetic fluctuations, ambipolarity, charge filamentation, and plasma rotation in Tokamaks 2−97775
magnetic fusion system, ideal MHD theory 2−96303
magnetic mirror, interchange instability and drift cone mode 2−103361
magnetic mode growth in anisotropic contrastreaming plasmas in Tokamaks 2−81470
magnetic reconnection, local current gradients effects 2−65696
magnetic reconnections in current-sheet system under different boundary conditions 2−91616
magnetic stability of solar coronal loops, effect of press. gradients and field line tying 2−100859
magnetically confined plasma column stimulated Raman backscatter 2−103315
magnetically insulated gap, linear waves and instabilities 2−76230
magnetised plasma, ion acoustic waves modulational instability 2−86412
magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
magnetosphere, EM vel. gradient instabilities 2−106417
magnetospheric plasma, LH drift instability as a dissipation mechanism *(Russian)* 2−78916
matter-antimatter clouds collisional interpenetration, MHD shocks prod. and Leydenfrost layer prod. 2−73830
MHD activity in Alcator C, density threshold 2−103292
MHD equilibria, electromagnetic kinetic toroidal eigenmodes 2−71144
MHD instabilities, large toroidal model number, spectrum, perturbative study 2−55738
MHD instability, nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
MHD instability, RF stabilization 2−76091
MHD Kelvin-Helmholtz instability, nonlinear evolution 2−109505
MHD stability codes, vector processing efficiency on FACOM 230-75 APU 2−97721
MHD stability of rotating plasma 2−58240
MHD stability theory, book contrib. 2−71174
MHD waves stability in cometary plasma tails, effects of turbulent solar wind 2−106615
microinstabilities, drift wave case 2−71175
microstability of the EBT boundary 2−103370
microstability properties of the EBT boundary layer 2−97773
microwave-heated plasmas, experimental instabilities studies 2−103364
microwave-heated plasmas, rudimentary stability theories 2−103362
mirror confinement, electron heating, diffusion coeffs., oscillations, plasma pot. *(Russian)* 2−60782
mirror devices, instabilities, book contrib. 2−71254
mirror machines, reduced MHD eqns. 2−109477
modulation nonlinear generation of the magnetic fields in a dense plasma 2−65722
modulational instability, nonlinear stage *(Russian)* 2−76107
multihelical tearing modes in shaped Tokamaks, stability 2−103354
neoclassical ripple transport, boundary layer corrections in Tokamaks 2−91658
neutral beam heating on T-11 Tokamak, IV Kurchatov Institute research review 2−81497
Newcomb stability criterion, boundary-coupled generalisation 2−109494
non-linear periodic waves, modulation instability, zone theory *(Russian)* 2−60741
non-potential instabilities in weakly ionised Na plasma, neutrals thermal motion effect 2−103345
nonaxisymmetric MHD instabilities, numerical model 2−97723
nonaxisymmetric minimum-B mirrors, equilib. and stability 2−109573
nonlinear evolution of internal ideal MHD modes 2−109481
plasma instability continued
nonlinear ion-electron instability, computer simulation 2−71090
nonlinear laser plasma interaction theory, parametric instability 2−71229
nonlinear parametric resonance in plasma modulated electron beam system *(Russian)* 2−86442
nonlinear saturation, resonant coupling, stochasticity onset 2−55740
nonlinear trapped electron mode and anomalous heat transport in Tokamaks 2−97726
nonlinear waves in low-temp. plasma with hot electrons, in E×H fields 2−81472
nonlinearity coupled modes, direct-interaction approx. and statistically steady states 2−103290
Nyquist theorem, validity at large collision freq. 2−71139
ordinary mode in an inhomogeneous thermal plasma in the presence of mildly suprathermal electrons 2−109534
ordinary mode propagating perpendicularly to mag. field at electron cyclotron freq., absorpt. mechanism 2−109501
oscillations, ionic cyclotron, parametric excitation by fast magnetosonic wave *(Russian)* 2−103360
oscillations, linearised, quantum effects 2−71140
overheat-ionisation instability, space-time evolution in bounded plasma *(Russian)* 2−103329
parametric instabilities, boundary plasma electron heating stabilisation, in JFT-2 2−71138
parametric instabilities, kinetic theory 2−81452
parametric instabilities excited by high freq. pumps *(Chinese)* 2−76096
parametric resonant excitations, irradiation by oscillating electric field 2−60746
Penning discharge, thermionic cathode, electron modulation of HF oscillations 2−81606
physical kinetics, theoretical aspects, book 2−58569
pinch configurations, helical field effect on self reversal, stability and confinement 2−81563
pinched discharge, surrounding neutral fluid effect, MHD instability 2−71238
plane Langmuir wave instability *(Russian)* 2−60752
plane magnetised slab geometry, high shear effects on ideal ballooning 2−86419
plasma column, current carrying with inflection point, MHD stability 2−86416
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
plasma sheet, temp. anisotropy, tearing instability 2−115004
plasma sheets, two-dimens., collision-free instability 2−76121
plasma shell, implosions, hydrodynamic instabilities 2−103356
proton beam accel. in plasma focus, fissile fuel prod. 2−55793
pulse propagation, observational dispersion relations 2−86418
radial eigenmode problem for EBT, numerical soln. 2−103367
Rayleigh Taylor instability of plasma in mag. field, nonlinear theory 2−55724
regular density structures in the plasma focus 2−60792
relativistic beam-plasma system stability, linear theory 2−97751
relativistic electron beam collisions, instability excitation *(Chinese)* 2−103322
relativistic electron beam injection into plasma, induced field dynamics 2−109536
relativistic electron beam interaction, H plasma, instability excitation, floating double probe meas. 2−115020
relativistic hollow electron beams, filamentation instability 2−71149
relativistic plasmas, Boltzmann theory, hydromagnetic wave propag. 2−81467
resistive g-modes, viscosity effect 2−76094
resistive hose instability, multicomponent model 2−103353
resistive interchange modes in reversed-field pinches 2−71244
resistive magnetic tearing in a finite length pinch 2−71155
resistive sheet pinch, tearing mode evaluation, MHD eqn. soln. 2−109582
return-current-driven instabilities of propagating electron beams 2−103352
reversed-field theta-pinch, end effects on $n=2$ rotational instability 2−109562
rippling modes in the edge of a Tokamak plasma 2−97732
sawtooth oscillations, one-dimens. MHD transport code, low-q Tokamaks 2−103348
shear-ballooning stability analysis of low-β plasmas 2−109497
sheet plasmas, charact. oscills. 2−109488
spheromak configuration, ideal MHD stability 2−97718
stability in presence of axial mag. field 2−103341
steady flow stability and eigenfreq. bounds of cylindrical electrostatic plasma 2−65704
steady state linear machine for instability meas. 2−55795
stellarator geometries, connection length, ballooning mode stability 2−71232
stellarators, stability, book contrib. 2−71253
stellarators plasma pressure limit 2−71248
stimulated Raman scatt. effect on penetration of EM field in magnetoactive plasma 2−109524
surface explosive instability for high frequency waves 2−71167
surface instabilities in radio galaxies, rel. to particle reaccel. and apparent radio source struct. 2−68885
symmetry-breaking toroidal perturbations of a stellarator magnetic field 2−103410
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
tandem mirror, electron ring stabilised, high-m ballooning stability 2−109506
tandem mirror concept for high β plasma confinement 2−115038
tandem mirror confinement, macroscopic stability limits obs. 2−60793
tandem mirror traps, microstability and plasma interaction along mag. field 2−109492
tandem mirrors, electrostatic pot. parallel variation drives instabilities 2−109571
tearing instabilities, drift-wave turbulent diffusion effect 2−76117
tearing mode instability, in Spheromak 2−81463
tearing modes, saturation theory, appl. to Tokamak JIPP-II 2−81464
tearing modes in Tokamaks, stabilisation using electron cyclotron heating 2−55731
thin moving conductor interaction in magnetically active plasma 2−91618
three dimensional toroidal plasma ballooning modes, resistive MHD eqns. 2−109514
Tokamak, circular cross section, beta limit, stabilising effects 2−113741
Tokamak, ideal shear-driven ballooning mode, analytical theory 2−115005

plasma instability continued
Tokamak, JFT-2, lower hybrid heating, energy balance 2−76154
Tokamak, large, stability control method, theory 2−115033
Tokamak, unipolar arcs, initiation and spot types, influence of surface conditions 2−76173
Tokamak equilibria, internal kink mode stability 2−97725
Tokamak equilibria, one-dimens., MHD stability, tearing modes 2−55729
Tokamak equilibria, vertically asymmetric, MHD stability 2−109564
Tokamak plasma, current-driven turbulence in low toroidal elec. field 2−91606
Tokamak plasma, ignited, compression-decompression feedback control of stability 2−96306
Tokamak plasma, lower hybrid heating, influence on stability 2−76146
Tokamak plasma, tearing mode, nonlinear evolution, finite β effect 2−76116
Tokamaks, high-n ideal ballooning mode stability, safety factor profile optimisation 2−81469
toroidal drift-wave fluctuations driven by ion pressure gradients 2−71166
toroidal geometry, ion pressure gradient drift mode, kinetic effects 2−81465
toroidal plasma, burning, thermal instability and possibility of its static stabilisation 2−81544
toroidal plasma, relax., tearing mode, equilib., global invariants energy principle 2−76177
toroidal plasmas, finite beta, internal kink mode, stabilisation 2−103413
transverse intermediate waves in a relativistic plasma with a finite conductivity 2−65753
trapped ion instability, sat. by 2-D electrostatic trapping 2−109508
trapped-ion anomalous diffusion coeff. on the basis of single mode saturation 2−91597
two-plasmoid decay in an inhomogeneous turbulent plasma *(Russian)* 2−103331
unstable strongly dispersive nonlinear wave evolution 2−86422
unstable wave energy transport in a magnetized plasma 2−71094
upper hybrid wave collapse 2−103355
UV-laser produced plasma, stimulated Raman scatt. 2−71116
Vlasov plasma and fluid model, dispersion functional technique appl. 2−55722
Vlasov turbulent plasma, nonlinear ion-electron instability theory 2−76119
Vlasov-Fokker-Planck description 2−76126
vortex and magnetostatic modes parametric drive in strongly non-isothermal plasma 2−65713
wave excitation by inhomogeneous suprathermal electron beams 2−55751
weak turbulence theory of intense beam microwave experiments 2−103375
weakly ionised plasma, electric field effects, electron energy distrib., quasi-elastic collisions *(Russian)* 2−60799
whistler, thermal modulation instability *(Russian)* 2−60750
whistler instability in the Elmo Bumpy Torus 2−71158
wind instability in radiogalaxy clouds, theory *(Russian)* 2−106924
Z pinch, self similar oscillations 2−71243
Z-pinch, nonlinear evolution of m=0 modes, effect of wall current 2−109576
z-pinch plasma, dense, IR emission 2−60725
α-particle slowing-down losses in a rippled mag. field 2−71076
Ar, microwave plasma, oscills., noise spectrum, instability *(Russian)* 2−60740
Ar, radiation transport mechanism at shock wave fronts 2−65703
Ar, self-excited electrostatic waves, instability obs. 2−86400
Ar, temp., ion velocity, spectral meas. 2−65765
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
D-H plasma, dispersion relation near two-ion hybrid reson. 2−65716
H discharge, low density, potential step development, laser resonance scatt. study 2−91687
Hg discharge lamp, high press., fundamental longitudinal acoustic reson. obs. 2−91690
Ne excited atomic density in gas discharge by laser reson. fluoresc. *(Russian)* 2−76075
Xe, radiation transport mechanism at shock wave fronts 2−65703

plasma interactions *see plasma collision processes*

plasma jets
air-plasma jet, heat exchange, transient processes 2−103473
brightness temperature distribution of plasma bunches, meas. 2−109595
corona of laser produced plasmas, instability obs. by optical probing 2−55733
DC, anal. utility, aerosol introduction effects 2−89818
electric arc plasma jets, supersonic expansion characts. investig. 2−115078
explosive gas compressor plasma jet charact. 2−76208
flow velocity meas. by tracer methods *(German)* 2−81592
heat exchange between subsonic and supersonic plasma jets and a plane surface 2−60771
HYLIFE ICFR, plasma-jet interaction, 2D model 2−97719
interaction with liquid bath *(Russian)* 2−65770
magnetic field generation by a laser jet plasma at low laser radiation densities 2−97763
metal damage by pulsed CO_2 laser radiation 2−66049
MPD arcjets, current distrib. at electrodes 2−97717
nonstationary low press. arc cathode anal., magnetoplasmadynamic instability of channel 2−103499
shock free nozzle for dielectric recovery 2−103480
spectral absorption of low-temperature quartz plasma 2−115047
spraying appls., jet characts. determ., use of piezoelec. resonance detectors using quartz resonators 2−76206
Ar plasma jets, underexpanded, in transitional mode struct. 2−109606
H_2 plasma-jets, energetical props. *(German)* 2−115054
N_2 DC plasma jet, time resolved meas. of rotational temp. 2−103479
N_2 plasma jet, energy parameters anal. *(Russian)* 2−65769

plasma magnetohydrodynamics
Alfven wave heating in general toroidal geometry 2−55755
anisotropic MHD turbulence, cross-helicity effects 2−76093
astrophysical magnetic fields in low beta plasma, review 2−89145
astrophysical plasmas, MHD equilibrium of helically symmetric fields 2−112310
astrophysical plasmas MHD equilib., nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
axisymmetric magnetohydrodynamic equilibria in local polar coordinates 2−71125

plasma magnetohydrodynamics continued
axisymmetric toroidal plasmas, high-n collisionless ballooning modes 2−109475
ballooning instability in toroidal plasmas 2−97722
belt pinch MHD equilibria modelling 2−115036
bounded plasma, crossed fields, nonlinear resonances, MHD and EM treatment 2−76099
Brillouin flow equilib. in mag. insulated lines, long wavelength, nonlinear perturbations 2−71124
bumpy cylinder, equilibrium and stability two-dimens. MHD calc. 2−103371
bumpy cylinder, kinetic stability anal., Vlasov-Maxwell eqns. 2−103372
computational plasma physics, book contrib. 2−60797
computer simulation in MHD theory, microscopic theory, and transport theory 2−60796
counter-streaming plasmas in longit. mag. field, interaction *(Russian)* 2−103319
current and mag. field penetration, high power-density flow in transmission lines 2−114986
density threshold for MHD activity in Alcator C 2−103292
disruption in L=2 stellarator Tokamak hybrid 2−86462
Doublet III, dee-shaped plasma, equilibrium and axisymmetric stability 2−109491
Doublet III, plasma shape and externally applied equilibrium field 2−69892
EBT, interchange and compressional Alfven instabilities, anal. theory 2−103369
electromagnetic kinetic toroidal eigenmodes for general MHD equilibria 2−71144
EM circularly polarised modes with electron streaming along appl. mag. field 2−103321
EM fields and energy, in mag. field 2−97741
Engineering Test Facility, beta limits 2−109478
1D equilibrium-diffusion code, evaluation of high temperature plasma 2−91598
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
field-reversed theta-pinch plasma, MHD simulations 2−76188
flute type drift mixing, isobaric breaks form. *(Russian)* 2−103330
force-free fields in a three dimensional plasma torus, astrophysical appl. 2−58238
force-free MHD equilibria, stability, energy principle 2−55730
helically symmetric equlibrium plasma, MHD stability, Green's function method 2−109483
helically symmetric magnetic fields, MHD equilib. 2−112310
high energy electron component cooling 2−76084
high-β Tokamak, ideal MHD stability limits 2−109570
high-β Tokamak equilibrium with anisotropic pressure 2−86455
high-current vacuum arc with and without externally-applied mag. field, current-flow pattern 2−103498
hydromagnetic waves propagation in relativistic plasma 2−55783
ideal and resistive modes, eigenfunctions and eigenvalues 2−86409
instabilities, computer codes, efficiency on FACOM 230-75 APU vector processor 2−97721
instability, RF stabilization 2−76091
internal disruptions in high β_p Tokamak 2−71176
INTOR Tokamak ballooning stability, alpha-particle diamagnetic drift effects 2−109560
ISX-B high-beta plasma stability, ideal MHD anal. 2−97724
JFT-2 Tokamak, high-β plasma, MHD equilib. position and poloidal β from mag. probes, theory 2−115032
laser Doppler anemometer, for plasma stream diagnostics in industrial MHD systems *(Russian)* 2−115040
laser-driven hydrodynamics, model expts. 2−59514
low-β plasma, Alfven wave heating, MHD study 2−115007
magnetic fusion system, ideal MHD theory 2−96303
magnetic helicity evaluation in homogeneous turbulence 2−71127
magnetic reconnection, local current gradients effects 2−65696
magnetosonic wave parametric interaction in planar plasma waveguide 2−55748
mathematical methods in hydrodynamical systems, conf., La Jolla, California, USA (Dec. 1981) 2−112637
MHD instabilities, large toroidal model number, spectrum, perturbative study 2−55738
minimum magnetic energy, MHD equilibria subject to certain constraints 2−109479
mirror machines, reduced MHD eqns. 2−109477
mixture approach to plasmas with dissipative phenomena 2−71095
MPD arcjets, current distrib. at electrodes 2−97717
Newcomb stability criterion, boundary-coupled generalisation 2−109494
non-circular plasmas, axisymmetric MHD equilibria anal. 2−91642
nonaxisymmetric MHD instabilities, numerical model 2−97723
noncircular cross-section Tokamaks, mag. anal. 2−109476
noncircular plasmas, electron cyclotron heating and current profile control, MHD beta limits 2−71222
nonequilibrium magnetoactive plasma, amplitude modulated EM waves *(Russian)* 2−60756
nonlinear evolution of internal ideal MHD modes 2−109481
nonstationary low press. arc cathode anal., magnetoplasmadynamic instability of channel 2−103499
one-fluid plasma theory applicable to magnetospheric plasma 2−112255
pinched discharge, surrounding neutral fluid effect, MHD instability 2−71238
plasma column, current carrying with inflection point, MHD stability 2−86416
plasma equilibrium and dynamics, gyroscopic analog 2−114985
plasma shell, implosions, hydrodynamic instabilities 2−103356
plasma torus, MHD equilib., boundary problem soln. 2−86464
reconnection expt. showing double layer formation 2−106420
relativistic hot plasma, discontinuity propagation in intense mag. field 2−55726
relativistic plasmas, Boltzmann theory, hydromagnetic wave propag. 2−81467
relativistic plasmas, hydromag. waves, energy transport, Boltzmann theory 2−86470
relativistic quantum plasma, strong magnetic field effect, covariant Wigner function approach 2−91662
resistive sheet pinch, tearing mode evaluation, MHD eqn. soln. 2−109582
reversed theta pinch, MHD particle simulation, fast mag. reconnection process 2−103320
review, book contrib. 2−71129

plasma magnetohydrodynamics continued
rippling modes in the edge of a Tokamak plasma 2−97732
Rotamak, MHD press. balance equilib. 2−86465
rotating plasmas, turbulence limits for isotope separation 2−65727
sawtooth oscillations, one-dimens. MHD transport code, low-q Tokamaks 2−103348
screw pinch, two-dimens. MHD simulation, impurity and neutrals effect 2−81555
second invariants of particle motion, nonadiabatic changes 2−55717
self-exciting dynamo, generalised Cowling theorem 2−76034
shear-ballooning stability analysis of low-β plasmas 2−109497
shock wave, spontaneous wave emission in longitudinal mag. field *(Russian)* 2−97740
shock waves, ionising, behaviour in mag. field 2−86434
solar atmosphere, current sheets evolution onset of enhanced resistivity 2−55708
solar wind, numerical algorithm for unsteady thermally conductive coronal flow 2−112399
solitary toroidal vortices, turbulence *(Russian)* 2−109484
spheromak configuration, ideal MHD stability 2−97718
stability of inviscid perfectly conducting rotating plasma, astrophysical appl. 2−58240
stability theory, book contrib. 2−71174
stationary surface waves in magnetohydrodynamics 2−65715
stellar optically thin atmospheres, shock wave propag., gasdynamic and magnetogasdynamic comparison 2−58324
stellarator geometries, connection length, ballooning mode stability 2−71232
superposed fluids hydromagnetic stability, generalised theory 2−106499
symmetry-breaking toroidal perturbations of a stellarator magnetic field 2−103410
tandem mirror concept for high β plasma confinement 2−115038
three dimensional toroidal plasma ballooning modes, resistive MHD eqns. 2−109514
three-dimensional flows with singularity, self-similar solns. of eqns. of MHD 2−86398
Tokamak, Alfven wave heating, MHD calc. 2−109542
Tokamak, circular cross section, beta limit, stabilising effects 2−113741
Tokamak equilibria, one-dimens., MHD stability, tearing modes 2−55729
Tokamak equilibria, vertically asymmetric, MHD stability 2−109564
Tokamak plasma, tearing mode, nonlinear evolution, finite β effect 2−76116
Tokamak plasma, turbulently heated, MHD equilib. props. 2−81566
toroidal geometry, linear differential eqns. relation to MHD continuum 2−109482
toroidal plasmas, finite beta, internal kink mode, stabilisation 2−103413
toroidal-helical configuration, high-current plasma, MHD equilibria 2−81557
turbulence, energy-conserving model, mode coupling and anomalous dissipation 2−71126
uniform current sheet implosion in a low beta plasma 2−86489
whistler wave self-focusing in plasma duct *(Russian)* 2−97737
z-pinch, hydraulic model of plasma MHD flow *(German)* 2−114989
Z-pinch, nonlinear evolution of m=0 modes, effect of wall current 2−109576
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
Li blanket design of fusion reactor, MHD finite element anal. 2−113731

plasma measurement techniques *see plasma diagnostic techniques*

plasma oscillations
see also plasma waves
$q<1$ discharges in Tokapole II noncircular Tokamak 2−109574
AC silent discharge, RF oscill. study by spectrum analyser 2−81598
autoresonance cyclotron charge acceleration in inhomogeneous plasma *(Russian)* 2−109511
charged particle beam energy loss decrease *(Russian)* 2−109537
coherent wave interaction with non-isothermal plasma *(Russian)* 2−103332
cold beam-weakly collisional plasma system, amplitude oscillation, destruction mechanism 2−109510
collision dominated two component plasmas, plasma oscillations and sound waves 2−71152
cyclotron echo signals oscillations in a plasma *(Russian)* 2−76103
electron beam interaction with plasma, instability growth rate 2−60763
electron energy distrib. function, probe current modulation meas., pot. oscills. 2−81589
electron plasma, transverse oscills., collisional damping 2−65708
electrostatic oscillations and resonant absorption in cold homogeneous plasma 2−55737
electrostatic oscillations in ionosphere mid-latit. F-region, stability in presence of photoelectrons 2−106384
electrostatic waves, satellite lines in presence of non-cohrent and unpolarised radiation field 2−76110
EM fields and energy, in mag. field 2−97741
EM wave absorption in plasma resonance region in EM trap 2−55736
EM wave side scatt. by electron-acoustic oscill. 2−65714
fast ion beams, excitation, spatial amplification of ion plasma oscills. *(Russian)* 2−60761
flute oscills., first mode, stabilisation in axisymmetric open mag. trap *(Russian)* 2−103326
gas-discharge plasma, oscills., microwave spectra, electrostatic probe effects 2−81607
high density plasma, space-charge effects 2−109489
ion acoustic Langmuir interactions, effects of collisional and viscous dissipations 2−55741
ion beam neutralisation, Langmuir oscillations effect on background electrons *(Russian)* 2−76074
ionic cyclotron, parametric excitation by fast magnetosonic wave *(Russian)* 2−103360
ions accel. by ponderomotive force in laser plasma, energy spectrum 2−109523
Langmuir turbulence in magnetoactive plasma, auto-oscillation soliton *(Russian)* 2−109517
Langmuir wave, oblique propag., nonlinear evolution 2−71161
linearised, quantum effects 2−71140
long wavelength oscillation excitation, boundary conditions in simulations 2−55784
magnetic field and density pulsations, determ. from microwave radiation modulation *(Russian)* 2−60753

plasma oscillations continued
magnetoreactive plasma, induced ls scatt., electron heating *(Russian)* 2−71203
magnetosphere, energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
MHD instability, RF stabilization 2−76091
mirror confinement, electron heating, diffusion coeffs., oscillations, plasma pot. *(Russian)* 2−60782
nonpotential oscills. in active mol. plasma in HF alternating field 2−60748
nonuniform plasma, interaction of large-amplitude longit. oscillations *(Russian)* 2−60751
one-component plasma, strongly coupled, ionic dynamics 2−60723
parametric resonant excitations, irradiation by oscillating electric field 2−60746
Penning discharge, thermionic cathode, electron modulation of HF oscillations 2−81606
plasma wavebarrier, resonance particle penetration *(Russian)* 2−60742
relaxation oscillations in a bounded magnetized plasma 2−55715
resonance oscillations of magnetospheric lines of force, rel. to micropulsations 2−112229
resonators, composite reson. 2−109535
RF amplitude modulated field in nonuniform plasma, magnetoacoustic oscillations meas. 2−97743
saw tooth density oscillations in Tokamak-10 device, expt. and simulation *(Russian)* 2−76073
sheet plasmas, charact. oscills. 2−109488
streaming cold plasma, oscills., hydrodynamic wave breaking resonant excitation 2−65725
surface ionisation Knudsen diode, oscillatory processes, electron stage 2−103474
TNT-A noncircular Tokamak, Mirnov oscillations meas., elongation ratio depend. 2−76172
Tokamak plasma column compression, effects of conducting vacuum chamber 2−109566
Trivelpiece-Gould mode, excitation in 2-dimens. nonuniform plasma waveguide 2−103359
unstable waves in cold beam plasma system, nonlinear oscillations, modulation theory 2−71150
Z pinch, self similar oscillations 2−71243
Ar, microwave plasma, oscills., noise spectrum, instability *(Russian)* 2−60740

plasma panel displays *see gas-discharge displays*

plasma probes
see also Langmuir probes
antenna moving in plasma, wave excitation, streaming at superthermal vel. 2−86438
arcs, high current, lower temp. limit determ. with double wire probes 2−103470
beam plasma discharge, probe meas. 2−76143
dense plasma flow, cylindrical probe, ion saturation current density and sp. ht. flux 2−115046
electric probes in transitional collision regime, theory *(Russian)* 2−103445
electron energy distrib. function, probe current modulation meas., pot. oscills. 2−81589
electrostatic plasma probe, equivalent cct. diagram *(Russian)* 2−103446
electrostatic wall probe in cool plasma flow 2−60804
fixed probe pairs, wavenumber and freq. spectra estimation, theory 2−91671
flow, ion density determ. by elec. stagnation point probe *(German)* 2−76193
gas-discharge plasma, oscills., microwave spectra, electrostatic probe effects 2−81607
JFT-2 Tokamak, high-β plasma, MHD equilib. position and poloidal β from mag. probes, theory 2−115032
pinch discharge plasmas, local elec. field meas., optically-coupled floating double probe 2−60801
PLT, deuterium incident on limiter-like probe, flux and energy 2−76174
relativistic electron beam interaction, H plasma, instability excitation, floating double probe meas. 2−115020
space potential meas., heavy ion probe anal. 2−103459
spherical probe theory in collisionless plasma 2−97794
spheroidal probe theory in low-density continuum plasma 2−97793
Tandem Mirror Experiment, central cell, space potential meas., heavy ion beam probe 2−103460
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
C film, ion implanted, resist. changes, plasma energetic particle probe appl. 2−115041
He, magnetically confined, equilib. ionisation dynamics 2−76167

plasma production
see also exploding wires and foils; plasma production and heating by laser beam
acetylene condensation reactions in a microwave induced plasma 2−57613
arc plasma sources, water-cooled high-capacity series resistors 2−65739
axisymmetric double cusp confinement system, RF plugged 2−115031
electron beam evaporation, plasma form. *(Russian)* 2−71504
electron cyclotron resonance heating in CLEO stellarator 2−71219
foil heating by focused electron beams using VUV radiation *(Russian)* 2−76194
gaseous spark gaps, nanosecond pulsed discharges, current waveforms 2−91713
Heliotron-E confinement, plasma initiated and heated by electron cyclotron resonance frequency waves 2−60794
high-voltage electron source with plasma emitter for forming beams with a large cross section 2−107448
hollow cathode arc for metastable inert gas atom beams 2−71282
hot electron plasma production by electron cyclotron resonance heating 2−81507
insulator, charged particle track form., core plasma model 2−96387
ion beams high current voltage, long pulse duration development for neutral injector 2−80368
ion sources, long-pulse, using filament-free LaB_6 multi-cathodes 2−59586
ion transverse velocity meas. using a sensor 2−84743
Knudsen discharge, initiation, ionisation cross-section, electron energy depend. 2−103490
magnetic well, low-temp. plasma production by electron beam collisional ionisation 2−65745

plasma production continued
magnetised plasma formation in CTCC-I expt. 2−91634
microwave plasma, generated by surface wave, spatial distrib. population of He and He-N_2 levels 2−65740
pulse power applications of flux compression generators 2−91641
relativistic charged particle beam propagation in neutral gas, self mag. field effect 2−109546
relativistic electron beam absorpt. by thin films, computer simulation and expt. study 2−103385
RF excited fully ionised low press. plasma, production 2−115023
solid H pellet interaction in L-2 stellator *(Russian)* 2−76170
spatially uniform plasma column, max. transverse size, interelectrode distance depend. 2−81610
structure form. on body surface in partially ionised gas flow 2−60772
tandem mirrors, gas box fueling 2−81505
thin foil targets, ablative accln. by intense proton beams 2−54656
Thor Tokamak expt. 2−81568
unidirectional ion source discharge 2−71198
wave resonance for plasma prod. 2−102302
Al, plasma prod. by ^1H pulse, radiation emission 2−76145
Al target, H^+ collisions, plasma generation, UV spectra *(Russian)* 2−60768
Ar, plasma 2−81456
DT neutron spectrum meas. in plasma focus *(Russian)* 2−71204
H plasma production using steady state linear machine 2−55795
He-N_2 nuclear-pumped laser medium, kinetics model development and testing 2−96880

plasma production and heating by laser beam
200 GW light ion beam power transport for fusion reactor ignition 2−90303
ablative acceleration meas. by streaked X-ray shadowgraphy, comparison with optical meas. 2−79722
accelerated targets, flash X-radiography study 2−113726
aerosol induced microflare in light field, temp. and absorpt. coeff. 2−60779
air, low-threshold breakdown, plasma form. for oxidation of metals 2−99604
air, slow optical discharge initiated by optical-breakdown plasma 2−109623
air at metal surface, optical breakdown plasma, interferometry study *(Russian)* 2−81550
air near conducting target, optical breakdown, elec. current prod. 2−55766
air plasma prod. using axicon focused laser 2−65741
Brillouin backscattering from a double-pulse CO_2 laser incident on planar targets 2−91601
Brillouin scattering, spatial struct. and coherence props. meas. 2−91600
channel formation by laser resonance saturation, N_2 influence 2−103403
column, supersonic radiation wave propag., plasma motion influence 2−115011
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268
corona of laser produced plasmas, instability obs. by optical probing 2−55733
counter streaming laser produced plasmas, encounter interactions in toroidal mag. field 2−55764
Del'fin 1 laser fusion facility, optical system, preliminary expts. 2−115029
dielectronic satellite spectra from dense laser-produced plasmas 2−71110
dynamics of CO_2 laser heated solenoids 2−115024
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
far field laser beam meas. by array imaging, laser heating of plasma expt. *(Chinese)* 2−55232
fast electron generation at 1.06, 0.53 and 0.26 μm laser wavelength 2−91637
fast electron generation in a laser plasma 2−86428
fast ion expansion, irrad. scaling, expt. study 2−55763
filamentation and $(3/2)\omega_0$ harmonic emission interrelation investigation 2−103405
fusion and laser-plasma interactions 2−76165
gas jet targets for laser plasma interaction studies 2−109551
hot electrons behavior in laser-plane target experiments 2−91639
ICF, nonuniform irrad., two-dimens. fluid simulation 2−113729
implosions, diagnosis by Ar X-ray lines 2−86472
induced Mandel'shtam-Brillouin scatt. spectrum from dispersing laser plasma, ang. characts. 2−91679
inertial confinement fusion plasmas, laser diagnostics 2−103450
integrating sphere surface plasma absorpt. at high optical flux levels 2−81549
inverse bremsstrahlung absorpt. heating of electrons and ions, self-similar state 2−86449
ion expansion energy, scaling with laser flux in moderate Z plasma, expt. study 2−115026
ion turbulence, Thomson scatt. study 2−71184
ion turbulence and thermal transport in laser-produced plasmas 2−86427
ionising shock waves in gases, adiabatic motion meas. *(Russian)* 2−71230
kinetic penetration of the electromagnetic barrier by laser plasma 2−109552
laser accelerated targets, shear flow, instabilities 2−55785
laser beam scatt. at oblique incidence 2−114984
laser created plasmas, nonlocal thermodynamic equilibrium, noncoronal equilib. ionisation model 2−86453
laser irrad. microtarget, numerical simulation of physical processes *(Russian)* 2−97782
laser irradiated spherical targets, mass ablation rate meas. using particle and X-ray diagnostics 2−109549
laser plasma, mag. field effects, space-time charact. *(Russian)* 2−60721
laser produced plasmas, classical and collective absorpt. processes, intensity depend. 2−71103
laser radiation interaction, electron distrib., plasma heating, spectra *(Russian)* 2−60775
laser spark, scatt. and pulse narrowing 2−97057
laser wavelength and pulse duration effect on laser light absorpt. and back reflection 2−65742
laser-assisted inverse bremsstrahlung in a weakly ionised plasma 2−86450
laser-generated plasma X-ray sources, keV range 2−107475
laser-irradiated foil, mag. field induced surface transport 2−81552
laser-produced plasma, ponderomotive force, critical density, hydrodynamic flow 2−86397
laser-solid interaction, plasma prod., Brillouin scatt. 2−76164

plasma production and heating by laser beam continued
laser-target interaction, plasma prod., effect of target material on absorpt. meas. 2−60776
linear sparks, diode array imaging 2−115073
linear sparks, striation spacing, press. and luminosity dependence meas. 2−115072
magnetic confinement fusion research applications *(Japanese)* 2−86451
magnetic field generation by a laser jet plasma at low laser radiation densities 2−97763
magnetic field generation by charged particle fluxes *(Russian)* 2−55711
magnetic fields generated in laser produced plasmas, struct. 2−60778
mass ablation rate variation with laser wavelength and target geometry 2−86452
metal mirrors, pulsed laser initiation of surface plasma, exoelectron emission 2−60144
metal surface, laser pulse interaction, plasma evolution process 2−82961
metallic target, charged, interaction of laser-breakdown plasma, potential step 2−71228
$(methylene\text{-}d_2)_n$ microspherical target, six-beam laser irrad. 2−97760
microballoon core plasma, Ar dielectronic satellite spectrum, digital enhancement 2−55765
micropinch, laser, with combined heating of plasma 2−86467
mirror, laser generated, for Nd:glass GILAS laser 2−114317
nonlinear laser plasma interaction theory 2−71229
opaque material irrad., plasma form. threshold, laser wavelength influence 2−55767
picosecond high-power switching and applications 2−97069
plane disc probe in collisionless streaming plasma, V-I characts. 2−91670
polyethylene, acceleration of multi-species ions, props. 2−109550
quasiresonant excitation of metal vapour, mechanism and appl. 2−103404
radiation losses from laser irrad. microballoons 2−97762
radiative transfer in laser compression, simulation 2−71226
Raman scattering resulting from parametric turbulence of laser plasma in the neighborhood of a quarter of the critical density 2−86481
Rayleigh-Taylor instability seen in laser accelerated target expt. 2−115001
resonant absorpt. and second harmonic generation at rippled critical surface 2−76087
second harmonic emission from laser generated plasma, spectra and polarisation 2−91638
smoothing of beam modulation for accelerated targets, X-ray shadowgraphy study 2−115028
spark gap, triggering by KrF UV laser 2−97825
spectroscopic determ. of plasma parameters using XUV line profiles 2−91675
spherical microtarget irradiation with 2 TW I laser radiation, exploding pusher regime case *(Russian)* 2−55768
spherical shell targets, laser driven ablative implosion, analytic model 2−71227
spot spectroscopy: local spectroscopic measurements within laser-produced plasmas 2−115049
stationary wave in optical discharge, thermal stability 2−109619
strong-current pinching discharge, local high temp. plasma form. *(Russian)* 2−97764
study at low laser intensity 2−115025
super-fast ion generation due to nonlinear processes 2−76162
superdetonation movement of a plasma front towards an intense laser radiation beam *(Russian)* 2−60780
suprathermal electron drive and symmetry effects in intermediate density laser fusion targets 2−86383
thermal and rarefaction waves, Thomson scatt. study 2−115027
thermal conductivity in a laser-created plasma heated by inverse bremsstrahlung absorption 2−103288
UV harmonic radiation emission due to intense CO_2 laser light 2−91602
UV-laser produced plasma, stimulated Raman scatt. 2−71116
UV-laser target interaction, preheat meas. 2−76163
X-ray bremsstrahlung and characteristic line emission, calc. for Maxwellian electron distrib. 2−76197
X-ray emission of laser plasma, absolute intensity meas. using plane crystals 2−91678
X-ray laser research, hydrogenic ions inverted in laser-produced plasmas 2−70550
X-ray laser research, progress and trends 2−108855
X-ray monochromatic images using single-cryst. double reflection spectrometer 2−97783
Z-pinch, gas embedded, laser initiated, 2-D computations 2−65748
Al alloys, laser irrad. at 0.35 μm, thermal and mechanical coupling coeffs., expt. and theoretical study 2−86448
Al disc target, laser irrad., preheat effects, expt. and theoretical study 2−81551
Al, laser prod. plasma, AlXl and AlX, 2p-3d multiplets, spectral intensity anomalies 2−60777
Al layer on C target, laser produced plasma, ablation thickness estimation by ion expansion anal. 2−91636
Ar, radiation transport mechanism at shock wave fronts 2−65703
Bi target, plasma prod. by laser irrad., gasdynamic processes 2−115039
C plasma, CO_2 laser produced, acceleration of multi-species ions, props. 2−109550
CO_2 laser irradiated target, phenomena study *(Chinese)* 2−109548
CO_2 laser with plasma mirror, electron-beam-controlled 2−70582
CO_2 laser-target interaction diagnostics, optical fibre appls. 2−115043
CO_2 TEA laser, multiple injection mode locking, plasma heating appl. 2−86014
D-T mixtures, lasers for compression and fusion 2−69815
Ge, picosec. pulse transmission at various thicknesses 2−77104
He, CW optical discharge as hot steady-state UV light source 2−109474
He plasma prod. using axicon focused laser 2−65741
K vapour, resonantly laser excited, energy pooling collisions and plasma production obs. 2−75214
Mg XI ion recombining laser plasma, population inversion meas. 2−85948
Na plasma, laser induced, electron density meas., emission spectra 2−65758
Na^+ plasma laser, 15.5 nm, CO_2 laser pumped, active medium form., numerical anal. 2−65205
Si^{12+} plasma, line intensity ratio, model depend. 2−81444
V_2O_5, emission by laser produced plasma 2−109830
Xe, radiation transport mechanism at shock wave fronts 2−65703

plasma sheaths
see also plasma confinement
auroral plasma, double layers and solitary wave obs. 2−71191
biased deposition systems, phys. processes in substrate dark space 2−57308
current carrying weakly nonuniform plasma, instability mechanism, double layers form. 2−65723
double layer form., numerical simulation 2−86440
double layer structure in two dimens. one component plasma, surface charge effects 2−65734
electrode drift sheath struct., numerical model 2−115017
electrostatic double layers, 1-D Vlasov model, ion heating 2−65735
etcher, flat bed, RF voltage-current characts. and DC negative bias props. 2−109609
ion acoustic double layers in the presence of plasma source, turbulence and negative pot. spikes form. 2−109532
ion beam refl. at ion-absorbing boundary in non-magnetised plasma, pot. double layer formations 2−60760
ion density enhancement wave following sheath contradiction 2−60759
modified Bohm criterion for a collisional plasma 2−71068
negative potential solitary wave structure and form. of double layer 2−71154
one dimensional static sheath, elec. pot., Langmuir probe meas. technique 2−55750
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
Ni first wall, passive He pumping, regeneration 2−71190

plasma shock waves
acoustic or EM wave interaction with moving plasma pulse 2−103379
arcs in high-speed flow, DC props., two-dimens. model 2−103495
brightness temperature distribution of plasma bunches, meas. 2−109595
cylindrical converging ion-sound waves, nonlinear evolution, theory *(Russian)* 2−115008
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
finite wavefront weak shock wave stability *(Russian)* 2−71171
ionising, behaviour in mag. field 2−86434
ionising MHD shock waves evolution in He 2−103376
ionising shock waves in gases, adiabatic motion meas. *(Russian)* 2−71230
light absorption at a shock wave front, numerical study *(Russian)* 2−76088
luminous shock front vel. determ. using photomultiplier 2−65755
plasma processes at collisionless shock waves 2−63247
reacting monatomic dusty gas, relax. zone behind normal shock waves 2−86432
shock electromagnetic waves in magnetized vacuum *(Russian)* 2−85874
shock free nozzle for dielectric recovery 2−103480
spontaneous wave emission in longitudinal mag. field *(Russian)* 2−97740
stellar optically thin atmospheres, shock wave propag., gasdynamic and magnetogasdynamic comparison 2−58324
superdetonation movement of a plasma front towards an intense laser radiation beam *(Russian)* 2−60780
Ar, collisional and radiative model, appl. to ionisation phenomena behind a shock wave 2−114972
Ar, dusty ionised monatomic gas, relax. zone behind strong normal shock waves, parametric study 2−86433
Ar, plasma 2−81456
Ar, radiation transport mechanism at shock wave fronts 2−65703
D-T wall-confined fusion cycle energy gains, shock wave heating 2−90294
N_2 dense plasma, excess emission at temps. 13000 to 15000K 2−60736
Xe, radiation transport mechanism at shock wave fronts 2−65703

plasma simulation
ablatively accelerated thin shell fusion targets, multifreq. hydrodynamic instabilities, nonlinear effects 2−109502
arc, turbulent, set simulation by Monte Carlo methods 2−76216
Buneman instability nonlinear dynamics simulation 2−109585
collision free plasma, computation formulation in two dimens. 2−103437
computations in MHD theory, microscopic theory, and transport theory 2−60796
condensational instability, appl. to solar corona and transition zone 2−63230
density oscillations in Tokamak-10 device, expt. and simulation *(Russian)* 2−76073
discharge propagation, 2-dimens. problem, numerical simulation *(Russian)* 2−76190
diverted plasma, neutral-particle transport, Monte Carlo model 2−97712
double layer form., numerical simulation 2−86440
double layers, current carrying props. simulation rel. to low frequency auroral fluctuations 2−100622
drift-cyclotron mode instability, nonlinear props., particle simulation 2−76118
dynamic mag. x points, plasma flow, particle simulations 2−76189
electrostatic double layers, 1-D Vlasov model, ion heating 2−65735
energy conservation theorem for electrostatic systems 2−97781
Engineering Test Facility, beta limits 2−109478
exploding-pusher target, ion vel. spectra simulation 2−109466
explosive generator dense plasma focus, shock dynamics and neutron production 2−65754
field-reversed ion layer, tearing mode instability, computer simulation 2−86415
field-reversed theta-pinch plasma, MHD simulations 2−76188
flow enchancement in magnetically insulated ion injectors 2−103306
fluid model of plasma outside hollow cathode neutraliser 2−109464
Grad-Fokker-Planck equations of collision moments 2−86382
implicit time integration for plasma simulation 2−97779
inertial confinement fusion, simulation for physics education 2−58582
inhomogeneous electron fluxes, Landau damping 2−81603
instability excitation, boundary conditions in simulations 2−55784
INTOR, ion sputtering from walls during neutral beam heating 2−81493
ion acoustic double layers in the presence of plasma source, turbulence and negative pot. spikes form. 2−109532
ion-acoustic solitons expts. 2−114995
ion-ion recombination theory 2−109460
ionising MHD shock waves evolution in He 2−103376
laser accelerated targets, shear flow, instabilities 2−55785
laser compressed plasmas, simulation of X-ray line emission spectra 2−65700
laser created plasmas, nonlocal thermodynamic equilibrium, noncoronal equilib. ionisation model 2−86453

plasma simulation continued
laser irrad. microtarget, numerical simulation of physical processes *(Russian)* 2−97782
laser-driven ICF, nonuniform irrad., two-dimens. fluid simulation 2−113729
light absorpt., magnetic field generation, collisional ponderomotive effects, particle simulation 2−76069
lower hybrid heating, particle simulation, appl. to RF heating 2−76191
magnetoinductive particle code, orbit-averaged, stability and appl. 2−81572
magnetosphere model, UCR T-1 terrella facility 2−100662
MHD Kelvin-Helmholtz instability, nonlinear evolution 2−109505
Monte Carlo model of plasma afterglow 2−55798
neutral beam injection heating, TEXTOR simulation, Monte Carlo method 2−81574
neutral particle modelling assumptions 2−86388
nonlinear ion-electron instability, computer simulation 2−71090
orbit-averaged implicit particle codes 2−81571
radiative transfer in laser compression, simulation 2−71226
relativistic electron beam absorpt. by thin films, computer simulation and expt. study 2−103385
reversed field pinch reactor, heating burn simulations 2−81569
reversed theta pinch, MHD particle simulation, fast mag. reconnection process 2−103320
review, book contrib. 2−60797
screw pinch, two-dimens. MHD simulation, impurity and neutrals effect 2−81555
steady state current by electron accel. in reson. region, numerical simulation *(Russian)* 2−76186
synchrotron radiation emission, two dimens. EM relativistic simulation code 2−103436
Tokamak discharges, heating simulation, lower hybrid wave trajectory 2−76129
Tokamak electron dynamics, numerical simulation 2−109572
Tokamak fuelling simulation 2−81573
Tokamak plasma, ion beam injection, heating and current maintenance 2−81535
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
Tokamak WT-2, submillimeter wave scatt. from density fluctuations 2−97787
Tokamaks, axisymmetric and ripple, neoclassical transport coeff., Monte Carlo simulation 2−109469
toroidal discharge, simulation of runaway electrons dynamics 2−81613
toroidal reversed-field pinch, circuit anal., computer simulation 2−86471
two-dimensional classical one-component plasma, Monte Carlo simulation 2−103438
two-dimensional EM plasma simulation, implicit method 2−97780
Ar, collisional and radiative model, appl. to ionisation phenomena behind a shock wave 2−114972
Bi target, plasma prod. by laser irrad., gasdynamic processes 2−115039
D ion radial acceleration in virtual cathode region during relativistic electron beam injection *(Russian)* 2−76144
H-Ar^+ plasma, H broadened Lyman-β line, radiation motion effects 2−70188
H-D changeover expts. in plasma-wall interaction simulator 2−81489
N_2 post-arc column, high-voltage breakdown simulation 2−97810

plasma temperature
aerosol induced microflare in light field, temp. and absorpt. coeff. 2−60779
afterglow plasma electron energy distrib., electron temp. and stepwise excitation 2−86490
anisotropy, second electron cyclotron harmonic emission determ., in Tokamaks 2−81584
atmospheric impulse arc plasma, temp. meas. by ruby laser scatt. 2−115064
beam-plasma discharge instability at low press. in bounded systems, ambient plasma and background temp. effects 2−65718
BLACKJACK 5 pulse generator, Al(Ca)(Ti) imploding plasma expts. 2−91640
cold plasma, in strong mag. field, electron temp. meas. 2−65761
Del'fin 1 laser fusion facility, optical system, preliminary expts. 2−115029
dense low-temp. plasma, bremsstrahlung absorpt. 2−81458
drift transfer eqns. *(Russian)* 2−97707
EBT, ambipolar pot., theory 2−103417
electric arc plasma in longitudinal mag. field, temp. field meas. 2−76217
electroconductivity and viscosity in dense degenerate H plasma, temp. depend. *(Russian)* 2−103302
electron temp. in low press. gas discharges determ. by reson. laser light scatt. 2−91676
1D equilibrium-diffusion code, evaluation of high temperature plasma 2−91598
field-swelling instability in anisotropic plasmas 2−65720
flute type drift mixing, isobaric breaks form. *(Russian)* 2−103330
Frascati torus, high density Tokamak discharge, enhanced particle recycling, optical study 2−97771
gas-liner pinch, plasma comp. 2−65762
gas-liner pinch, plasma comp. 2−65763
glow discharge, radial distrib. of gas temp. in positive column, swarm anal. 2−55803
heat flux in the presence of shifting cold and hot electron Maxwellian distributions 2−81454
heated plasma thermal evolution, math. model, asymptotic anal. 2−97713
Heliotron E, charge exchange neutral particle meas. 2−109593
inertial confinement fusion plasmas, laser diagnostics 2−103450
ion current in cylindrical Langmuir probe electron temp. meas. (on Intercosmos 10) 2−97785
ion temp. determ. using waveguide CO_2 laser to pump the far-infrared (FIR) laser optically *(Japanese)* 2−90925
ion-acoustic instability, EM wave absorpt. and scatt. *(Russian)* 2−109519
ion-temp. profile determ. by corpuscular diagnostics in Tokamaks 2−115050
ion-temperature-gradient instability *(Chinese)* 2−109486
JFT-2 Tokamak, particle confinement during high-power neutral-beam injection 2−109561
JFT-2 Tokamak, Thomson scatt. study, simultaneous six position measurements 2−55788
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
laser compressed plasmas, simulation of X-ray line emission spectra 2−65700

plasma temperature continued
laser plasma, fast electron generation via Langmuir turbulence 2−86428
laser plasma, fast ion expansion, irrad. scaling, expt. study 2−55763
laser plasma, Raman scatt. resulting from parametric turbulence 2−86481
laser produced counter streaming plasmas, encounter interactions in toroidal mag. field 2−55764
laser produced plasma study at low laser intensity 2−115025
laser-produced implosion, diagnosis by Ar X-ray lines 2−86472
laser-produced plasma, fast electron generation at 1.06, 0.53 and 0.26 μm laser wavelength 2−91637
lasers as a tool for plasma diagnostics 2−109591
light-scattering in the Frascati plasma focus 2−76198
linear device with field-gradient along axis, cyclotron radiation spectroscopic diagnosis 2−86473
local ionisation state, of plasma in low-voltage highly-ionised Cs arc 2−81590
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
magnetic field generation by a laser jet plasma at low laser radiation densities 2−97763
magnetically confined plasma, collisionless inverse bremsstrahlung 2−109543
magnetized plasma, high energy electron component cooling 2−76084
mirror experiment, large axisymm. config. electrostatic pot. meas. 2−103430
multichannel light detector system for visible continuum measurements on Alcator C 2−112988
neutral particle diagnostics for ohmically and auxiliary heated Tokamaks 2−81577
neutral particle modelling assumptions 2−86388
noncircular plasmas, electron cyclotron heating and current profile control, MHD beta limits 2−71222
nonlinear waves in low-temp. plasma with hot electrons, in E×H fields 2−81472
optical absorption of plasmas for various collision regimes 2−71115
PDX, Langmuir probe meas. of density and electron temp. 2−81582
PDX Tokamak, soft X-ray meas. 2−103318
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
PLT, Langmuir probe meas. of density and electron temp. 2−81582
quadrupole minimum-|B| mirror, plasma heating at twice ion cyclotron freq. 2−109540
solid H pellet interaction in L-2 stellator *(Russian)* 2−76170
standing waves along a microwave generated surface wave plasma 2−71130
stationary arc plasma, electron and gas temp. difference, theoretical and expt. study 2−86386
stationary plasmas, selfconsistent calc. of H_2 plasma parameters 2−65691
T-10 Tokamak heating at first harmonic of electron cyclotron resonance *(Russian)* 2−60773
thermal plasmas, temperature meas. technique 2−55791
TNT-A noncircular Tokamak, plasma props. meas., elongation ratio depend. 2−76172
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak noncircular TNT-A, electron temp. and density, Thomson scatt. meas. 2−97786
Tokamak plasma, lower hybrid wave heating, electron temp. 2−76155
Tokamak plasma properties, changes during impurity injection 2−81579
Tokamak plasmas, high temp., confinement concept, spectral radiation 2−109553
Tokamak TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
toroidal reversed-field Z-pinch, ZT-40 multiple-point Thomson scatt. meas. 2−103443
transient expanding plasma flow, electron density and temp. spectroscopic and Thomson scatt. meas. 2−91674
transient plasmas, H_2 plasma parameters, selfconsistent calc. 2−65692
weakly ionised decaying plasma, control of longitudinal electric field intensity of electron temp. 2−60827
whistler oblique mode propagation in hot anisotropic plasma 2−68565
X-ray bremsstrahlung and characteristic line emission, calc. for Maxwellian electron distrib. 2−76197
z-pinch plasma, dense, IR emission 2−60725
t, nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
Ar, dusty ionised monatomic gas, relax. zone behind strong normal shock waves, parametric study 2−86433
Ar plasma, electron-ion recombination and ionisation coeff. calc. 2−91591
Ar, temp., ion velocity, spectral meas. 2−65765
Ar transient conditions in inductively heated plasmas: thermodynamic equilib. and temp. meas. 2−91593
Cr^{22+} in laboratory plasma, X-ray spectra *(Russian)* 2−108415
D-H plasma, dispersion relation near two-ion hybrid reson. 2−65716
D-T spherical high-temp. plasma in radial adiabatic expansion, analytical treatment 2−114968
DT neutron spectrum meas. in plasma focus *(Russian)* 2−71204
H influx, radiated energy and impurity density changes, in PLT 2−71087
H neutral kinetic theory in bounded plasma slab with inhomogeneous temp. and density profile 2−91595
H plasma, population inversion between the recombining ground and first excited states 2−71074
H recombining plasmas, optically thin and thick, population inversion and threshold condition for laser oscill., report 2−103285
He discharge, positive column at.-state densities and electron densities 2−60816
He-Br_2 discharge, positive column at.-state densities and electron densities 2−60816
Hg discharge lamp, high press., fundamental longitudinal acoustic reson. obs. 2−91690
Hg, vapour, glow discharge, laser scattering diagnostics 2−97784
Li-Cs plasma, dense, supercooled, recomb. and Li level population calcs. 2−81448
N_2, molecular vibration levels population, plasma neutrals temp. meas. in microwave discharge, CARS 2−114006
N_2 plasma jet, energy parameters anal. *(Russian)* 2−65769
SF_6 axially blown arc, dielec. recovery after current zero, expt. 2−115067
SF_6 axially blown arc, dielect. recovery after current zero, theoretical 2−115068
SF_6 axially blown arc, dielect. recovery after current zero, expt. and theoretical comparison 2−115069
Si^{12+} plasma, line intensity ratio, model depend. 2−81444

plasma temperature continued
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
Ti flux emitted from ASDEX Tokamak divertor plates, laser induced fluoresce nce meas. 2−55790
V_2O_5, emission by laser produced plasma 2−109830

plasma theory
see also Debye-Huckel theory
Abel's integral equation, derivative free inversion technique 2−91665
air plasma, emission coeff. determ. 2−71102
Alfven waves generation of mean EMF in collisionless plasma 2−86404
algebraic structure of the plasma quasilinear equations 2−60724
anisotropic plasma, cyclotron reson., eikonal expansion 2−76077
anisotropic plasma, static charge, field pot. *(Russian)* 2−60720
anisotropic plasma flow, transport eqns., Maxwellian and biMaxwellian expansions 2−91604
astrophysical magnetic fields in low beta plasma, review 2−89145
atomic spectral line broadening *(Russian)* 2−71119
atoms in high density plasma, statistical average pots., rel. to degree of ionisation 2−71082
atoms in hot compressed matter, quasi-static electron density fluctuations 2−71086
atoms in hot partially ionised matter, statistical mechanics, 1-electron Green function 2−71081
averaged distrib. function dynamic evolution 2−86426
ballooning mode, finite-n theory for axisymm. toroidal plasmas 2−103340
beam-plasma discharge, electron and mol. kinetics 2−103491
bremsstrahlung, collective effects *(Chinese)* 2−76134
bremsstrahlung spectra in Maxwellian plasma at relativistic temperatures 2−106513
cavity Q for ergodic eigenmodes 2−65702
charged particles statistics in external random longitudinal elec. fields 2−103291
chemically active plasma with molecular nonequilibrium vibration excitation 2−76071
classical electron plasma, static correl. function derivation by Mori's scaling method 2−109462
collision free plasma, computation formulation in two dimens. 2−103437
collisionless ballooning modes, kinetic theory 2−91615
collisionless shock waves plasma parameters 2−63247
column irradiation by strong transverse SHF field, ionization deform. of resonance region 2−55796
compact toroid radiation-dominated decay, analytic model 2−97772
computer simulation in MHD theory, microscopic theory, and transport theory 2−60796
constitutive relation for slowly varying warm plasmas 2−103289
covariant description of dispersion in a relativistic thermal electron gas 2−71077
Culham Summer School lectures, postgraduate level, book 2−68980
current, layer explosive destruction, mag. field topology changes *(Russian)* 2−71070
current filamentation by electrothermal instability in ionised mag. plasma, steady state model 2−86405
cyclotron emission from toroidal runaway discharges 2−71122
cyclotron instability, quasilinear theory *(Chinese)* 2−76095
degenerate plasma, bremsstrahlung emission coeffs. 2−81460
dense low-temp. plasma, bremsstrahlung absorpt. 2−81458
dense plasma, hypernetted chain eqn. improvement 2−76078
density functional formalism at finite temperatures with some applications, review 2−112746
dielectronic satellite spectra from dense laser-produced plasmas 2−71110
diffusion equation, nonlinear, asymptotic behaviour of solns. 2−91590
diffusion equation for fully ionised plasma 2−71134
dissipative system, circulatory forces, Liapunov functions 2−65693
distinction between a perfect conductor and a superconductor 2−104535
double layer structure in two dimens. one component plasma, surface charge effects 2−65734
double layer theory, relativistic effects, rel. to solar activity *(Russian)* 2−103287
drift Hamiltonian in magnetic coordinates 2−71069
drift transfer eqns. *(Russian)* 2−97707
drift-tearing mode, driven by electron temp. gradient, stability anal. 2−76109
EBT, ambipolar pot., theory 2−103417
electrical conductivity of partially ionised plasma, bound states effect, Born approx. calcs. 2−76080
electroconductivity and viscosity in dense degenerate H plasma, temp. depend. *(Russian)* 2−103302
electrode drift sheath struct., numerical model 2−115017
electron acceleration by stochastic wave packets 2−103303
electron beam injection, in mag. field, EM wave excitation efficiency 2−65738
electron beams, magnetically focused, rippled and partially neutralised, nonlinear equilib. and stability anal. 2−86406
electron collision frequency in plasmas 2−65685
electron fluid, warm relativistic, eqns. of motion determ. 2−76185
electron unstable plasma, fast particle generation theory *(Russian)* 2−76187
electron-ion plasma, collision term of Fokker-Planck eqn. in strong mag. field 2−91592
electronic energy-levels in dense plasmas 2−71084
electronic pressure in dense plasma 2−114975
electrons transverse charging into mag. mirror, theory 2−86454
electrostatic electron cyclotron waves, relativistic theory 2−71178
electrostatic shielding of test particle in anisotropic plasma *(Chinese)* 2−103286
ELMO bumpy torus, energy transport equations for a bumpy torus 2−91657
EM circularly polarised modes with electron streaming along appl. mag. field 2−103321
EM wave emission at freq. around twice the plasma freq. in lab. plasma 2−103314
EM wave in magnetised plasma, electron distrib., quantum mech. collisionless Boltzmann eqn. 2−97746
EM wave reflection from magnetoplasma free space interface in presence of mag. field at gyroreson. 2−71132
EM wave stability in overdense plasmas 2−65710
emission of an expanding plasmoid 2−60735
energy conservation theorem for electrostatic systems 2−97781

plasma theory continued
energy radiation by current in plasma, astrophysics and space appl. 2−55712
equation of state for H plasma, atom-atom interactions effect 2−76072
equilibrium, in stellarators, method of transforming variables *(Russian)* 2−103408
equilibrium one components plasma, vel. distrib. and density near particle 2−71088
equilibrium two component plasma, vel. distrib. and density near test particle 2−71089
excited ionic levels in steady-state plasma, non-LTE population probabilities 2−71085
filamentation of space-charge-limited flow 2−97734
fluorocarbon gases, plasma etching, physical and chemical processes 2−76062
fluorocarbon plasmas, difluorocarbene emission spectra, rel. to fluorocarbon polymer form. 2−55787
force-free fields in a three dimensional plasma torus, astrophysical appl. 2−58238
free-free Gaunt factors for electrons, bremsstrahlung in Cs plasma 2−71104
fusion research in China 2−71257
gamma ray amplification through stimulated annihilation radiation appl. to cosmic gamma ray sources 2−58499
gamma ray amplification through stimulated annihilation radiation, appl. to astronomical γ-ray sources 2−84073
guiding centre plasma, kinetic energy principle using adiabatic invariants 2−109461
Hamiltonian systems, integrable, canonical coords. 2−74261
harmonic generation dynamics in laser plasma *(Russian)* 2−103312
heated plasma thermal evolution, math. model, asymptotic anal. 2−97713
high-current relativistic electron beam, interaction with waveguide plasma, nonlinear theory *(Russian)* 2−103388
hot plasma, theoretical calcs. 2−71079
hypernetted chain theory, systematic graphical correction 2−55704
implicit time integration for plasma simulation 2−97779
INFERNO model for atoms in dense plasma 2−71083
inhomogeneous electron fluxes, Landau damping 2−81603
instability cascades, Lotka-Volterra population eqns., Hamiltonian chaos 2−81468
ion plasma waves, nonlinear wave modulation, Lagrangian representation 2−55718
ion turbulence and thermal transport in laser-produced plasmas 2−86427
ion waves dispersion relations with finite parallel wavelength in finite beta-plasma 2−65717
ion-acoustic solitary waves in warm-ion plasma, higher order terms 2−76101
ion-ion recombination, reaction and diffusional drift 2−86384
ion-ion recombination theory 2−109460
ion-temperature-gradient instability *(Chinese)* 2−109486
ions in uniform plasma, hydrodynamic eqns. of motion, soliton solns. *(Russian)* 2−103333
Kelvin-Helmholtz drift instabilities, hydrodynamic theory 2−103336
kinetic eqn. in const. elec. and mag. fields *(Chinese)* 2−97705
kinetic eqns. in stochastic mag. field 2−65687
kinetic equation and moment expansion, appl. to strongly-coupled plasmas 2−103294
kinetic theory, review, book contrib. 2−71093
laser created plasmas, nonlocal thermodynamic equilibrium, noncoronal equilib. ionisation model 2−86453
laser irrad. microtarget, numerical simulation of physical processes *(Russian)* 2−97782
laser plasma, mag. field effects, space-time charact. *(Russian)* 2−60721
lasers, coherent radiation sources in astrophysics 2−63246
level shifts and inelastic electron scattering in dense plasmas 2−71111
LF component microfield distributions, quantum corrections 2−65686
London equation, Meissner-Ochsenfeld effect, Lagrangian methods 2−104537
London equations, Meissner-Ochsenfeld effect, classical derivation 2−104536
low-pressure He discharge fast electron energy distrib. function 2−115081
magnetic coordinates establishment for given mag. field 2−71241
magnetic field generation by charged particle fluxes *(Russian)* 2−55711
magnetic field generation by test charge in anisotropic plasma 2−86389
magnetic fusion system, ideal MHD theory 2−96303
magnetic reconnection, local current gradients effects 2−65696
mathematical methods in hydrodynamical systems, conf., La Jolla, California, USA (Dec. 1981) 2−112637
Maxwell-Vlasov equation, gauge groups, Poisson brackets 2−114976
microwave plasma, generated by surface wave, spatial distrib. population of He and He-N_2 levels 2−65740
mirror trap confinement, plasma-magnetic field boundary, electron losses *(Russian)* 2−60781
modified Bohm criterion for a collisional plasma 2−71068
multiply charged ions in a hot electron layer ion source (HELIOS) 2−81586
neoclassical transport coeffs., variational calc. using full Fokker-Planck collision operator 2−76083
neutral beam injection heating, TEXTOR simulation, Monte Carlo method 2−81574
neutral particle modelling assumptions 2−86388
non-dissipative field eqns., Poisson brackets 2−114977
non-isothermal plasma theory in rot. HF field *(Russian)* 2−76063
non-Maxwellian electron distrib. plasma, quasi-stationary mag. field generation *(Russian)* 2−60722
nonequilibrium magnetoactive plasma, amplitude modulated EM waves *(Russian)* 2−60756
nonequilibrium plasma, linear polarisation of recombination radiation 2−103316
nonequilibrium plasma fluctuations theory, spectral line broadening effect 2−76076
nonlinear gyrokinetic equations for low-frequency electromagnetic waves in general plasma equilibria 2−71146
nonlinear ion-electron instability, computer simulation 2−71090
nonlinear thermal wave in a reacting medium 2−97759
nonlinear transient signal propagation in homogeneous plasma 2−103344
nonlinear wave propagation, numerical method, appl. to laser-plasma interaction 2−97745
nonlinear wave-beam limiting state in electron plasma 2−76111
nonlinearity coupled modes, direct-interaction approx. and statistically steady states 2−103290
one component classical plasma, exact dynamical polarisability 2−109456
one-component plasma, strongly coupled, ionic dynamics 2−60723
optical absorption of plasmas for various collision regimes 2−71115
optical properties, spectral-line electronic broadening calcs. 2−109473
pair processes and equilibria in astrophysical relativistic thermal plasma 2−63224
particle in standing wave field, oscillation center approx. 2−71067
particle orbit theory, review, book contrib. 2−71071
physical kinetics, theoretical aspects, book 2−58569
physics data handbook 2−58565
plasma cluster, scatt. in vacuum, energy balance 2−60764
plasma equilibrium and dynamics, gyroscopic analog 2−114985
plasma oxidation of Si in O discharge 2−88353
plasma physics and controlled nuclear fusion workshop, Cambuquira, Brazil, (Feb. 1982) 2−109579
plasma science conf., Ottawa, Canada (May 1982) 2−107015
plasma torus, MHD equilib., boundary problem soln. 2−86464
plasma-wall interactions, role of desorption and adsorption 2−109531
ponderomotive effect in a two ion species magnetized and bounded plasma 2−71091
ponderomotive force of HF EM field in cold magnetised plasma 2−65694
ponderomotive processes, nonlinear nonresonant interaction, Hamiltonian kinetic theory 2−114992
population inversion between excited H atoms in recombining plasma 2−81450
post discharge regime atomic and molecular influences an electron relaxation 2−109458
properties, theoretical aspects, book contrib. 2−71092
pulsed power education of Texas Tech University, in USA 2−94944
quasi-linear theory, appl. to formalism for diffusion of Keplerian motions by stochastic force 2−89117
quasineutral plasma, electron localisation, ambipolar diffusion *(Russian)* 2−61502
quasisteady turbulence driven by runaway electrons 2−97739
quiescent collisional magnetoplasma, nonstationary irreversible thermodyamics 2−97706
radial electron density distrib., waveguide method meas. *(Russian)* 2−103447
radiating impurities and Bohm transport effects on cool plasma-mantle 2−103414
radiation losses in T-10 Tokamak, effect on plasma behaviour *(Russian)* 2−103310
radiation reflection from semi-infinite plasma layer with homogeneous mag. field 2−117586
radiative transfer in homogeneous magnetised plasma 2−73828
rarefied multicomponent ionised gas, collision processes, physico-probabilistic analogue model 2−55705
reacting monatomic dusty gas, relax. zone behind normal shock waves 2−86432
relative spatial diffusion in plasma turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
relativistic electron-electron Bremsstrahlung, QED calc. 2−76090
relativistic particles emission and accel. mechanisms 2−63245
relativistic plasma, kinetic theory 2−60795
relativistic plasma, particle kinetic energies Boltzman distrib. established and maintenance 2−65751
relativistic plasma, runaway electrons, Fokker-Planck eqn., recursive soln. 2−65689
renormalised plasma turbulence theory interpretation, Balescu Lenard operator 2−55742
resistive hose instability, multicomponent model 2−103353
resonances in the ICRF regime for large toroidal machines 2−81451
return-current-driven instabilities of propagating electron beams 2−103352
RF field distrib. in magnetised bounded plasmas, anomalous skin effect 2−55747
rippling modes in the edge of a Tokamak plasma 2−97732
runaway ions in multicomponent expanding plasma *(Russian)* 2−103301
runaway production enhancement by plasma waves 2−55702
scalar two-dimensional equilibrium eqn. for stellarator *(Russian)* 2−55779
self-sustaining discharge in gas flow, elec. field map 2−81591
semi-infinite plasma, solitary surface waves 2−91609
shielding of a test charge in an anisotropic plasma 2−103282
short wavelength lasing plasma, kinetic theory 2−86394
singular Poisson tensors 2−114978
soft X-ray emission, from L-2 stellarator, saw-tooth oscills. *(Russian)* 2−103311
solar interior, electron-plasmon interactions rel. to solar neutrino problem 2−68694
soliton propagation in slowly varying media 2−109503
space homogeneity of a stationary semi-self-maintained discharge *(Russian)* 2−76220
space plasmas, multicomponent anisotropic, transport eqn. 2−84088
spatial structures in plasmas with metastable states as bifurcation phenomena 2−103293
spectral line shifts plasma perturbations effect, calcs. 2−71106
spherical probe theory in collisionless plasma 2−97794
spheroidal probe theory in low-density continuum plasma 2−97793
splitting scheme integration of the two-and-one-half-dimensional Vlasov equation 2−71078
stability in presence of axial mag. field 2−103341
Stark broadening in hot dense laser-produced plasmas, review 2−71105
stationary waves at the interface between a plasma stream and magnetic field 2−103337
stellarator confinement, ohmic heating current, diamagnetic signal calcs. *(Russian)* 2−60783
stellarator plasma, equilib. on toroidal surface *(Russian)* 2−60786
stratified CGL-plasma, wave eqns. 2−91605
thermalisation by Moller scatt. in relativistic plasma, relaxation time 2−55714
Thor Tokamak expt. 2−81568
three-wave interaction kinetic theory in a magnetized, inhomogeneous plasma 2−81471
Tokamak, integral method for calc. plasma equilib. 2−55780
Tokamak plasma, neutral deuterium ionisation, Fe ions contrib. 2−109459
Tokamak plasmas poloidal fields Faraday rotation *(Spanish)* 2−86436
toroidal equilibrium, perturbational approach 2−76166
toroidal geometry, magnetohydrostatic boundary value problem 2−109463
trapped-ion anomalous diffusion coeff. on the basis of single mode saturation 2−91597

plasma theory continued
Trivelpiece-Gould mode, excitation in 2-dimens. nonuniform plasma waveguide 2−103359
turbulence, two-dimensional, relation between Kolmogoroff's theory and direct interaction approx. 2−65726
turbulent flow, Poisson's eqn. for pressure 2−71182
two component magnetised plasma, kinetic eqn., scalar pots. 2−97711
two-fluid plasma dynamics, Hamiltonian struct. 2−76079
upper hybrid wave collapse 2−103355
Vlasov equations, initial boundary value problems, appl. to linear accelerators *(Russian)* 2−97708
Vlasov plasma and fluid model, dispersion functional technique appl. 2−55722
wall plasma struct. near divertor neutraliser plates or limiters 2−103386
warm multielectron plasma, ion-acoustic soliton, Boltzmann distrib. 2−76097
wave coupling in nonuniform plasmas 2−71169
wave propagation in presence of spatially uniform external periodic mag. field in two temp. plasma 2−103339
wave-particle resonances in curved mag. fields 2−97728
weakly ionised plasma, collision operators of electron Boltzmann eqn. 2−76066
weakly nonlinear dispersive waves: group velocity 2−86407
whistler wave propagation in plasma waveguides *(Russian)* 2−76104
X-ray emission from dense plasmas, non-LTE modelling rel. to spectrum diagnostics 2−71109
X-ray spectral line emission from high-temp. Ar plasma 2−71108
XUV radiation transfer through high-Z metal foils in laser produced plasma 2−71107
Yang-Mills Vlasov plasma, noncanonical hamiltonian structure 2−95606
z-pinch, hydraulic model of plasma MHD flow *(German)* 2−114989
t, nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
Ar, arc, continuous emission investigated at 255-700 nm 2−65699
Ar, collisional and radiative model, appl. to ionisation phenomena behind a shock wave 2−114972
Ar, dusty ionised monatomic gas, relax. zone behind strong normal shock waves, parametric study 2−86433
Ar plasma, Cs seeded, relax. processes, radiation and nonMaxwellian electron distrib. effects 2−91594
Ar, temp., ion velocity, spectral meas. 2−65765
D-T spherical high-temp. plasma in radial adiabatic expansion, analytical treatment 2−114968
Fe impurity atom binding energies and bound-free transition matrix elements in H plasma 2−71233
Fe plasma, photoelec. cross-sections, at. models calcs. 2−71080
H neutral kinetic theory in bounded plasma slab with inhomogeneous temp. and density profile 2−91595
H recombining plasmas, optically thin and thick, population inversion and threshold condition for laser oscill., report 2−103285
H-like ions, excitation and ionisation mechanism, role of autoionising states 2−65684
He line ion broadening and shift in hot plasma, quasistatic, adiabatic and impact calcs. 2−81445
He-F_2 mixture low-temp. plasma, spectral characts. and electric parameters 2−81457
Hg, gaseous, electron stabilisation of high-density fluctuations 2−86379
Hg-Ne-Ar discharge, low pressure, electron energy distrib., plasma basic eqns. 2−65789
H$n\alpha$ lines in plasma, quasi-static stark profile 2−102430
N plasma, quasi-homogeneous stationary, composition at atmos. press. 2−76179
N_2 plasma, nonequilibrium, electronic relax., theory 2−114974
Ne, impurity in electron gas, temp. depend. screening, pair pot. calcs. 2−103281
Ne-F_2 mixture low-temp. plasma, splectral characts. and electric parameters 2−81457

plasma thermocouples *see plasma devices; thermocouples*

plasma torches *see plasma devices*

plasma transport processes
see also Vlasov equation
afterglow plasma, electron energy distrib., electron temp. and stepwise excitation 2−86490
Alcator-C, impurity injection effects 2−81453
ambipolar potential, effects on confinement in EBT, radial transport calc. 2−103423
ambipolar potential effects in TMX 2−103431
anisotropic plasma flow, transport eqns., Maxwellian and biMaxwellian expansions 2−91604
anomalous transport theory, book contrib. 2−71101
arc discharge, impurity mass transport, carrier effect 2−81604
atoms in hot partially ionised matter, statistical mechanics, 1-electron Green function 2−71081
auroral plasma, double layers and solitary wave obs. 2−71191
axisymmetric mirror, hot annulus electrons, non-adiabatic motion 2−85334
axisymmetric toroidal plasmas, high-n collisionless ballooning modes 2−109475
banana regime, neoclassical ion thermal cond., finite aspect ratio effect 2−109467
beam induced current, effect of trapped electrons 2−86441
Boltzmann collision integral for one-particle distrib. function of particle undergoing elastic collisions 2−55701
breakdown wave in self-consistent field of EM wave beam *(Russian)* 2−103378
Buneman instability nonlinear dynamics simulation 2−109585
Callan-Walton formula, nonlinear generalisation *(Russian)* 2−86393
channel formation during constriction of pulsed spatial discharges, model 2−81612
charge fluctuations of two-dimensional plasmas in a refined BBGKY truncation scheme 2−71136
charged beam stability in plasma waveguide *(Russian)* 2−76139
charged particles statistics in external random longitudinal elec. fields 2−103291
coherent radiation sources, in astrophysics, lasers 2−63246
column, supersonic radiation wave propag., plasma motion influence 2−115011
computational plasma physics, book contrib. 2−60797
computer simulation in MHD theory, microscopic theory, and transport theory 2−60796

plasma transport processes continued
conference, transport theory, Lubbock, TX, USA (Mar. 1981) 2−58526
convective cell turbulence and anomalous plasma diffusion 2−86429
convergent kinetic equations, collision bracket quenching functions 2−81449
Culham Summer School lectures, postgraduate level, book 2−68980
current, layer explosive destruction, mag. field topology changes *(Russian)* 2−71070
current carrying plasma, HF electric field influence, surface instability 2−97735
current diffusion in Doublet III 2−71098
current driven by absorpt. of RF waves at electron cyclotron reson. in Culham Levitron 2−55762
current filamentation by electrothermal instability in ionised mag. plasma, steady state model 2−86405
current generation in interaction between Langmuir solitons and a streaming plasma 2−76114
current maintenance in plasma by HF fields *(Russian)* 2−76082
current penetration enhancement due to anomalous viscosity 2−114980
current sheets evolution onset of enhanced resistivity 2−55708
current-carrying plasma, drift and Alfven waves, numerical study 2−81462
cyclotron echo signals oscillations in a plasma *(Russian)* 2−76103
diffusion equation for fully ionised plasma 2−71134
diffusion in systems with disrupted mag. surfaces *(Russian)* 2−103299
diffusion vacuum arc, electric characts. 2−97817
disruption in L=2 stellarator Tokamak hybrid 2−86462
dissipative trapped-particle modes, anomalous dissipation effects 2−65707
diverted plasma, neutral-particle transport, Monte Carlo model 2−97712
double layers, current carrying props. simulation rel. to low frequency auroral fluctuations 2−100622
drift waves driven vortices and anomalous plasma diffusion in a strong magnetic field 2−81480
driven currents by HF EM waves, power dissipation *(Chinese)* 2−103377
EBT, ambipolar pot., theory 2−103417
EBT, anomalous transport, rel. to ambipolar field 2−103425
EBT, fluctuating electric field, effect on H and impurity ions 2−103424
EBT reactor, design considerations for nonmagnetic divertor 2−74905
EBT transport, ambipolar pot. formation, rapid impurity ion loss 2−103296
electric current detect. by X-ray pinhole camera *(Russian)* 2−60798
electric field bumpy torus, radial electric field and pot. control 2−103427
electric fields, uniform and nonuniform, hyperbolic equations for electron and plasma motion, solution methods 2−81455
electrical conductivity of partially ionised plasma, bound states effect, Born approx. calcs. 2−76080
electroconductivity and viscosity in dense degenerate H plasma, temp. depend. *(Russian)* 2−103302
electron acceleration by stochastic wave packets 2−103303
electron beam excited discharge, volt-ampere characts., cathode layer effects 2−60805
electron energy confinement time and transport, theory and expt. 2−55706
electron energy distrib. function, probe current modulation meas., pot. oscills. 2−81589
electron thermal energy transport in plasmas with injected heating 2−55754
electron transport in fully ionised H plasmas, appl. to solar flares 2−106493
electron-cyclotron resonant heated electron distribution functions, bounce-averaged Fokker-Planck calc. 2−103307
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
ELMO bumpy torus, hysteresis and catastrophe jumps in equilibria 2−55773
Elmo Bumpy Torus, multispecies ambipolar phenomena 2−103419
EM instabilities in nonuniform plasma layer in crossed fields *(Russian)* 2−103328
energy confinement at high density in Frascati Tokamak, neoclassical effects 2−81554
energy radiation by current in plasma, astrophysics and space appl. 2−55712
Engineering Test Facility, beta limits 2−109478
equilibrium one components plasma, vel. distrib. and density near particle 2−71088
equilibrium two component plasma, vel. distrib. and density near test particle 2−71089
1D equilibrium-diffusion code, evaluation of high temperature plasma 2−91598
expansion in flashtubes and influence of arc structure on elec. cond. meas. 2−103545
exploding-pusher target, ion vel. spectra simulation 2−109466
field reversed configuration, classical transport coeff. 2−55710
field reversed mirror plasma, transport, numerical simulation code 2−65695
field-reversed config., confinement times, particle transport study 2−76175
filamentation of space-charge-limited flow 2−97734
flow enchancement in magnetically insulated ion injectors 2−103306
fluctuation measurements in EBT 2−103298
fluid model of plasma outside hollow cathode neutraliser 2−109464
fluorocarbon gases, plasma etching, physical and chemical processes 2−76062
free burning arc in air after fast short circuiting *(German)* 2−81597
fueling of magnetic confinement devices 2−81483
fusion plasma physics, nonlinear diffusion eqn. 2−55707
fusion reactor plasma, contour analysis 2−108119
gaseous spark gaps, nanosecond pulsed discharges, current waveforms 2−91713
glow discharge, current lacing on electrodes, numerical investig. 2−109618
Hall current discharge, with closed electron drift and distributed elec. field, instability *(Russian)* 2−103327
Hall plasma, thermosolutal instability 2−86399
heat flow, steady state nonlinear in Lorentz plasma, numerical study 2−60733
heat flux in the presence of shifting cold and hot electron Maxwellian distributions 2−81454
heat transport properties and dynamics of a cold turbulent plasma blanket 2−103305
heated plasma thermal evolution, math. model, asymptotic anal. 2−97713

plasma transport processes continued
high current high-freq. discharge, struct. features, stability *(Russian)* 2−103482
high density plasma, space-charge effects 2−109489
hot electrons behavior in laser-plane target experiments 2−91639
hot microwave plasma, unipolar arc, diagnostics *(Russian)* 2−60812
hybrid poloidal coil system, feedback control anal. 2−60734
impurity diffusion under finite reaction rates 2−109471
inductorless excitatron current in B-20 torsatron, plasma and runaway electrons *(Russian)* 2−103300
inhomogeneous diffusion structs., form. during recomb. processes in low temp. plasma 2−60732
ion current in cylindrical Langmuir probe electron temp. meas. (on Intercosmos 10) 2−97785
ion heat cond. due to mag. ripple in Tokamak 2−81548
ion soliton analysis in plasma without mag. field *(Russian)* 2−76108
ion stochastic heating by LH wave, two dimens., Fokker-Planck eqn. soln. 2−103398
ion tail formation in EBT, power requirements, kinetic transport model 2−103297
ion turbulence and thermal transport in laser-produced plasmas 2−86427
ion-acoustic instability, EM wave absorpt. and scatt. *(Russian)* 2−109519
ion-ion recombination, reaction and diffusional drift 2−86384
ions accel. by ponderomotive force in laser plasma, energy spectrum 2−109523
jet interaction with liquid bath *(Russian)* 2−65770
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
kinetic eqns. in stochastic mag. field 2−65687
laser-irradiated foil, mag. field induced surface transport 2−81552
laser-plasma interaction, energy deposition by hot electrons, K α emission study 2−76136
linear Extrap pinch, equilib. study 2−109580
linear magnetic fusion system, book contrib. 2−76180
low-q discharges, with D-shaped and circular cross-section, high density, in Doublet III 2−71236
lower hybrid drift instability in magnetopause *(Chinese)* 2−109485
magnetic field generation by charged particle fluxes *(Russian)* 2−55711
magnetic fluctuations, ambipolarity, charge filamentation, and plasma rotation in Tokamaks 2−97775
magnetic reconnection, local current gradients effects 2−65696
magnetized plasma, high energy electron component cooling 2−76084
magnetoplasma compressor, high-current plasmadynamic discharge, particle acceleration and VUV and X-ray emission 2−114982
magnetoreactive plasma, induced ls scatt., electron heating *(Russian)* 2−71203
magnetosphere, energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
Maxwell-Vlasov and Poisson-Vlasov eqns., Hamiltonian struct., Poisson struct., collisionless plasma 2−65697
microparticles in low temp. plasma, heat transfer *(Russian)* 2−71197
mirror confinement, electron heating, diffusion coeffs., oscillations, plasma pot. *(Russian)* 2−60782
mirror devices, classical diffusion losses, book contrib. 2−71254
mixture approach to plasmas with dissipative phenomena 2−71095
Monte Carlo model of plasma afterglow 2−55798
MPD arcjets, current distrib. at electrodes 2−97717
multihelical tearing modes in shaped Tokamaks, stability 2−103354
multiple collision solution of the linearized Vlasov equation 2−60728
neoclassical ripple transport, boundary layer corrections in Tokamaks 2−91658
neoclassical transport coeffs., variational calc. using full Fokker-Planck collision operator 2−76083
neutral particle diagnostics for ohmically and auxiliary heated Tokamaks 2−81577
neutral particle transport, kinetic theory 2−60731
noble gas MHD generator, discharges in inlet region 2−91681
non-circular plasmas, axisymmetric MHD equilibria anal. 2−91642
non-isothermal plasma theory in rot. HF field *(Russian)* 2−76063
non-potential instabilities in weakly ionised Na plasma, neutrals thermal motion effect 2−103345
nonaxisymmetric waves and convection in weakly ionised plasma in strong mag. field 2−71096
noncircular plasmas, electron cyclotron heating and current profile control, MHD beta limits 2−71222
nonideal plasmas, electrical cond. and ion distrib. function 2−76081
nonlinear effects during large amplitude cyclotron wave excitation in plasma *(Russian)* 2−71196
nonlinear transport problems 2−60729
nonlinear trapped electron mode and anomalous heat transport in Tokamaks 2−97726
one-component plasma, strongly coupled, ionic dynamics 2−60723
Onsager symmetry breakdown in neoclassical transport theory 2−114979
parallel ion viscosity, double-adiabatic fluid eqns. 2−71065
particle diffusion in Tokamaks with partially destroyed magnetic surfaces 2−109575
physical kinetics, theoretical aspects, book 2−58569
plane stratified cold plasma, EM wave propag., plasma transport and electron cyclotron heating 2−71215
PLT, Fe transport in confined high temp. plasma 2−109565
PLT Tokamak, plasma density fluctuations, drift wave, nonlinear theory 2−86387
ponderomotive force of HF EM field in cold magnetised plasma 2−65694
quasineutral plasma, electron localisation, ambipolar diffusion *(Russian)* 2−61502
radiating impurities and Bohm transport effects on cool plasma-mantle 2−103414
relative spatial diffusion in plasma turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
relativistic heavy ion beams, space charge wave simulation 2−107453
relativistic particles emission and accel. mechanisms 2−63245
relativistic plasma, kinetic theory 2−60795
relativistic plasma acceleration by radiation press. 2−58250
relativistic plasmas, hydromag. waves, energy transport, Boltzmann theory 2−86470
resistive sheet pinch, tearing mode evaluation, MHD eqn. soln. 2−109582
return-current-driven instabilities of propagating electron beams 2−103352
reverse currents nature in high current discharges 2−60824
reversed field theta pinch, poloidal flux loss. meas. 2−91643
review, book contrib. 2−71100
RF impurity-ion transport control 2−103304

plasma transport processes continued
Rotamak equilibria, expt. obs. 2−71246
runaway ions in multicomponent expanding plasma *(Russian)* 2−103301
sawtooth oscillations, one-dimens. MHD transport code, low-q Tokamaks 2−103348
semiconductor plasma, inhomogeneous diffusion structs., form. during recomb. processes 2−60732
small toroidal reactors, transport scaling laws 2−80245
soft X-ray emission, from L-2 stellarator, saw-tooth oscills. *(Russian)* 2−103311
space plasmas, multicomponent anisotropic, transport eqn. 2−84088
spatial structures in plasmas with metastable states as bifurcation phenomena 2−103293
spectrum of a Vlasov-Fokker-Planck operator 2−60727
steady state current by electron accel. in reson. region, numerical simulation *(Russian)* 2−76186
stellarators, neoclassical diffusion losses evaluation 2−109470
stochastic magnetic field, ambipolar electric field and ambipolar diffusion 2−97709
stochastic magnetic field, anomalous diffusion effect 2−97710
stochastic particle acceleration in turbulent plasma 2−112822
symmetric magnetoplasmas, collisional transport theory, perturbative-variational method 2−109465
tandem mirror devices, particle motion, stability anal. 2−103416
tandem mirrors, reson. and neoclassical transport, collisional limits 2−97714
tandem transport and ambipolarity in the resonant plateau regime 2−55772
tearing instabilities, drift-wave turbulent diffusion effect 2−76117
thermal conduction appl. to Alcator, flutter interpretation 2−71251
thermal conductivity due to ripple-trapped ions in a Tokamak 2−71097
thermal conductivity in a laser-created plasma heated by inverse bremsstrahlung absorption 2−103288
thermal conductivity of a strongly coupled hydrogen plasma 2−86391
thermal conductivity of plasma in mag. field with disturbed mag. surfaces 2−86392
thermal energy diffusion in plasma with weak ohmic heating 2−81541
thermalisation by Moller scatt. in relativistic plasma, relaxation time 2−55714
TNT-A noncircular Tokamak, plasma current meas., elongation ratio depend. 2−76172
Tokamak, ohmically heated, energy balance, transport processes 2−81539
Tokamak device, electron cyclotron current drive, kinetic theory 2−109557
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak edges, mol. impurities penetration 2−109556
Tokamak electron dynamics, numerical simulation 2−109572
Tokamak fuelling simulation 2−81573
Tokamak ISX-B, electron cyclotron heating, impurity radiation, electric current meas. 2−71212
Tokamak plasma, current generation by electron cyclotron waves *(Russian)* 2−60785
Tokamak plasma, current-driven turbulence in low toroidal elec. field 2−91606
Tokamak plasma, ion beam injection, heating and current maintenance 2−81535
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
Tokamak plasma, runaway current sustainment by lower hybrid waves 2−76122
Tokamak plasma column compression, effects of conducting vacuum chamber 2−109566
Tokamak plasma properties, changes during impurity injection 2−81579
Tokamak plasmas, X-ray continuous spectra calc., impurity ion diffusion effect 2−81585
Tokamak reactor, transport reduction by externally driven turbulence 2−71099
Tokamak reactor, turbulent plasma blanket anal., method for the withdrawal *(Russian)* 2−60784
Tokamaks, axisymmetric and ripple, neoclassical transport coeff., Monte Carlo simulation 2−109469
Tokamaks, current maintenance by synchrotron radiation 2−91596
toroidal current generation by lower hybrid wave 2−76130
toroidal geometry, current generation by RF waves 2−109493
toroidal high energy particle confinement in crimped mag. field *(Russian)* 2−109578
toroidal mag. field confinement, current drive by relativistic electron beams 2−60766
toroidal plasma, mag. lines of force diffusion study *(German)* 2−109468
toroidal plasma, neutral gas transport and impurity production, Monte Carlo calc. 2−55709
toroidal-helical configuration, high-current plasma, MHD equilibria 2−81557
transverse intermediate waves in a relativistic plasma with a finite conductivity 2−65753
trapped-ion anomalous diffusion coeff. on the basis of single mode saturation 2−91597
two component magnetised plasma, kinetic eqn., scalar pots. 2−97711
uniform current sheet implosion in a low beta plasma 2−86489
unstable wave energy transport in a magnetized plasma 2−71094
vacuum arc discharge, reaction to current discontinuity 2−103492
Vlasov-Fokker-Planck operator, point spectrum 2−76085
wall plasma struct. near divertor neutraliser plates or limiters 2−103386
weakly ionised gas, boundary conditions near wall, hydrodynamic transport eqns. 2−65679
weakly ionised plasma, collision operators of electron Boltzmann eqn. 2−76066
Yang-Mills Vlasov plasma, noncanonical hamiltonian structure 2−95606
Ar, radiation transport mechanism at shock wave fronts 2−65703
Ar-Hg mixtures, glow discharge plasma, electron kinetic investigations, transport processes 2−115061
D ion radial acceleration in virtual cathode region during relativistic electron beam injection *(Russian)* 2−76144
D^+ plasma, ISX-B Tokamak, neutral beam injection, high beta study 2−81496
D-T plasma, energy deposition of fast α-particles 2−102259
Fe XXIII, impurity flux in Tokamak plasma, transport mechanism 2−55781
H neutral atom transport in H plasma, Boltzmann eqn. soln. 2−114981

plasma transport processes continued
H neutral kinetic theory in bounded plasma slab with inhomogeneous temp. and density profile 2−91595
H, trapping, detrapping and re-emission from fusion first walls 2−109584
Xe, radiation transport mechanism at shock wave fronts 2−65703

plasma turbulence
Alfven turbulence in solar ^{3}He-rich flares, stochastic Fermi accel. model 2−106442
alfven wave generation in a turbulent plasma 2−71181
Alfven waves generation of mean EMF in collisionless plasma 2−86404
anisotropic MHD turbulence, cross-helicity effects 2−76093
anomalous transport theory, book contrib. 2−71101
arc, turbulent, set simulation by Monte Carlo methods 2−76216
arcs in high-speed flow, DC props., two-dimens. model 2−103495
averaged distrib. function dynamic evolution 2−86426
beam-plasma instability in the presence of low-frequency turbulence 2−91631
bremsstrahlung, induced radiation 2−97716
caviton form., spiky turbulence and EM radiaton obs. 2−71117
collisionless shock waves turbulence intensity and nature 2−63247
convective cell turbulence and anomalous plasma diffusion 2−86429
dipole and quadrupole radiation at harmonics of electron waves in plasmas 2−91621
dissipative trapped-particle modes, anomalous dissipation effects 2−65707
drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
drift waves driven vortices and anomalous plasma diffusion in a strong magnetic field 2−81480
drift-wave turbulence, wavenumber and freq. spectra estimation by fixed probe pairs, theory 2−91671
drift-wave turbulence from a soliton gas 2−71165
EBT, RF ion heating, turbulence, instability, lower hybrid wave excitation 2−71202
electron-acoustic mode turbulence, spectral cascade processes 2−71180
electrostatic drift wave turbulence, resonant three-wave interaction, mode coupling coeff. 2−60744
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
electrostatic turbulence in geomagnetic tail, effects on hydromagnetic stability 2−100664
electrostatic turbulence in solar wind, rel. to interaction with cometary plasma tails 2−106615
fusion plasma physics, nonlinear diffusion eqn. 2−55707
impurity levels in Tokamak reactor with turbulent plasma blanket *(Russian)* 2−103383
induced bremsstrahlung radiation, Manley-Rowe relation 2−109515
inertial confinement fusion plasmas, laser diagnostics 2−103450
interplanetary medium, fundamental emission for type III bursts, ion-acoustic turbulence 2−100893
ion acoustic double layers in the presence of plasma source, turbulence and negative pot. spikes form. 2−109532
ion acoustic Langmuir interactions, effects of collisional and viscous dissipations 2−55741
ion turbulence and thermal transport in laser-produced plasmas 2−86427
ion-acoustic instability, EM wave absorpt. and scatt. *(Russian)* 2−109519
ion-acoustic turbulence, interaction with low freq. perturbations, modulational instability 2−76133
ion-acoustic turbulence angular distrib. 2−115010
Langmuir turbulence in magnetoactive plasma, auto-oscillation soliton *(Russian)* 2−109517
Langmuir turbulence of inhomogeneous plasma, theory 2−86431
Langmuir waves, induced scatt. for case of strong turbulence *(Russian)* 2−91620
Langmuir waves nonlinear damping in a weakly turbulent relativistic plasma 2−60749
laser plasma, fast electron generation via Langmuir turbulence 2−86428
laser plasma, Raman scatt. resulting from parametric turbulence 2−86481
laser-heated plasma, ion turbulence, Thomson scatt. study 2−71184
line cusp, turbulent, leak width scaling 2−91656
longitudinal waves of the average field in a cold turbulent plasma 2−91622
magnetic helicity evaluation in homogeneous turbulence 2−71127
magnetically confined plasma, collisionless inverse bremsstrahlung 2−109543
magnetised plasma, nonlinear precessional rot. of polarised waves 2−86430
magnetized plasma turbulence, soliton gas model 2−89134
magnetoreactive plasma, induced ls scatt., electron heating *(Russian)* 2−71203
MHD turbulence and particle reacceleration in radio galaxies, rel. to apparent radio source struct. 2−68885
MHD turbulence assoc. with solar wind high speed streams, statistical props. 2−100697
microturbulence role in solar radio bursts 2−106663
modulational instability, nonlinear stage *(Russian)* 2−76107
neutral beam heating on T-11 Tokamak, IV Kurchatov Institute research review 2−81497
parametric turbulence spectra, influence of current in plasma 2−109518
parametrically turbulent plasma, heating near electron cyclotron resonance 2−81546
plasma focus of pulsed coaxial accelerator, generation of X-ray and neutron emission *(Russian)* 2−76205
Poisson's eqn. for pressure in turbulent flow 2−71182
quasisteady turbulence driven by runaway electrons 2−97739
regular density structures in the plasma focus 2−60792
relative spatial diffusion in plasma turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
relativistic electron beam nonlinear relaxation, four-plasmon interaction *(Russian)* 2−97753
renormalised plasma turbulence theory interpretation, Balescu Lenard operator 2−55742
review, book contrib. 2−71185
rotating plasmas, turbulence limits for isotope separation 2−65727
self-organization of turbulence 2−86425
solar wind, ion acoustic instability 2−100698
solitary toroidal vortices *(Russian)* 2−109484
stationary turbulence as plasma thermal insulation 2−81482
strong Langmuir turbulence, high-energy electron tail generation 2−109516
tearing instabilities, drift-wave turbulent diffusion effect 2−76117

plasma turbulence continued
Tokamak plasma, current-driven turbulence in low toroidal elec. field 2−91606
Tokamak plasma, LF microturbulence, far IR laser scatt. study of density fluctuations 2−76192
Tokamak plasma, turbulently heated, MHD equilib. props. 2−81566
Tokamak reactor, transport reduction by externally driven turbulence 2−71099
Tokamak reactor, turbulent plasma blanket anal., method for the withdrawal *(Russian)* 2−60784
Tokamak TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
toroidal drift-wave fluctuations driven by ion pressure gradients 2−71166
toroidal plasma, mag. lines of force diffusion study *(German)* 2−109468
transverse intermediate waves in a relativistic plasma with a finite conductivity 2−65753
turbulence, energy-conserving model, mode coupling and anomalous dissipation 2−71126
two-dimensional, relation between Kolmogoroff's theory and direct interaction approx. 2−65726
Vlasov turbulent plasma, nonlinear ion-electron instability theory 2−76119
vortex and magnetostatic modes parametric drive in strongly non-isothermal plasma 2−65713
weak turbulence theory of intense beam microwave experiments 2−103375
weakly turbulent plasma, self-similar state 2−55743
z-pinch plasma, dense, IR emission 2−60725
H discharge, low density, potential step development, laser resonance scatt. study 2−91687
SF_6 axially blown arc, dielect. recovery after current zero, theoretical 2−115068
SF_6 axially blown arc, dielect. recovery after current zero, expt. and theoretical comparison 2−115069

plasma-wall interactions
see also plasma impurities
Argonne plasma engineering expt. Tokamak design and operation 2−102260
charge, quantum state and energy distributions of impurities released in plasma-wall interaction processes 2−109530
classical Coulomb system near plane wall, equilib. struct. 2−97748
coupled capillary-plasma wave excitation at liquid metal surface in plasma *(Russian)* 2−86435
desorption and adsorption, role in plasma-wall interactions 2−109531
electron explosive emission source, cathode plasma-surface interaction 2−113801
expanded boundary divertor discharge, the exhaust and enrichment 2−81492
fast-liner−compression fusion systems wall interaction losses 2−76182
first wall coatings with low Z materials for fusion devices, conf., Nagoya, Japan (1980) 2−89463
first wall materials vaporisation and melting in fusion devices 2−74919
fuel recycling, impurity generation and wall props., role of plasma-wall interactions 2−109529
fusion reactor technology based on Tokamak principle *(German)* 2−90286
heavy ion beam fusion reactor, HIBALL, time-depend. neutronics anal. 2−54642
ICF reactor dry wall design, coating requirements 2−74908
impurity levels in Tokamak reactor with turbulent plasma blanket *(Russian)* 2−103383
information about plasma wave behind thick opaque barrier *(Russian)* 2−81587
intense X-ray radiation in laser plasma interaction with surfaces *(Russian)* 2−103317
INTOR, ion sputtering from walls during neutral beam heating 2−81493
isotope exchange, H recycling and impurities in ISX-B Tokamak 2−71189
ISX-B, minority D_2 recycling expts. 2−81491
ISX-B Tokamak, plasma-limiter interactions, high-speed photographic obs. 2−76142
JFT-2 Tokamak first wall, plasma parameters related to arc initiation 2−109558
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
low-q discharges, with D-shaped and circular cross-section, high density, in Doublet III 2−71236
lower hybrid freq. heating in Tokamak, boundary plasma 2−86443
metal atom vel. distrib. function meas. by laser reson. scatt., rel. to plasma-wall interaction 2−60802
metal electrode in plasma focus, evaporation, MHD mechanism *(Russian)* 2−103384
metal layer dynamics in plasma layers near a wall 2−115016
multidipole plasma, secondary electron detection 2−103448
neutral particles vel. distrib. in front of plasma wall, spectroscopic meas. 2−65733
Ohmically heated Tokamak plasma, relation between light and metal impurities 2−109559
overheat-ionisation instability, space-time evolution in bounded plasma *(Russian)* 2−103329
plasma-materials interactions in scrapeoff region of ISX-B Tokamak 2−74918
plasma-solid interactions, H, D and He ion backscattering 2−60758
plasma-wall transition in an oblique magnetic field 2−109527
recycling of H and He in plasma wall interaction 2−81490
reflected atoms, interaction with plasma at wall, in mag. field, flux characts. calcs. 2−91629
relativistic electron beam absorpt. by thin films, computer simulation and expt. study 2−103385
relativistic heavy ion beams, space charge wave simulation 2−107453
secondary electron emission, effect on plasma layer 2−103394
steel, stainless, H recycling simulation, wall temp. effect in type 304 2−74936
surface data for fusion devices, conf., Nagoya, Japan (Dec. 1981) 2−107019
surface wave phase const. limit obs. 2−86439
Tokamak, beam-heated, impurity evolution calc. 2−55749
Tokamak, first wall damage in Cat-D and D-T types 2−109605
Tokamak, ICRF heating, surface physics problems 2−81506
Tokamak, sputtering yield calcs., light ions incident on wall 2−109525
Tokamak, wall interactions, edge plasma modelling, transport, impurity rate and diffusion eqn. 2−109528

plasma-wall interactions continued
Tokamak edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
Tokamak edges, mol. impurities penetration 2−109556
Tokamak plasma column compression, effects of conducting vacuum chamber 2−109566
Tokamak reactor, first wall erosion and plasma impurity flux reduction 2−74907
Tokamak reactor plasma, impurity generation 2−74916
Tokamak wall material transport meas. using nuclear activation techniques 2−103407
Tokamaks JET, JT-60, T-15, TFTR and reactors, needs for impurity control, exhaust and plasma-wall interactions 2−71231
toroidal plasma, neutral gas transport and impurity production, Monte Carlo calc. 2−55709
wall plasma struct. near divertor neutraliser plates or limiters 2−103386
wave model of mesothermal plasma near wakes 2−86396
weakly ionised gas, boundary conditions near wall, hydrodynamic transport eqns. 2−65679
Al-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
Ar II plasma, level population near $BaTiO_3$ ferroelec. ceramic surface 2−109526
Ar plasma in tubes, cleaning and memory effects 2−97749
D-T Tokamak reactors, plasma edge and divertor characts. 2−65747
H influx, radiated energy and impurity density changes, in PLT 2−71087
H, trapping, detrapping and re-emission from fusion first walls 2−109584
H-D changeover expts. in plasma-wall interaction simulator 2−81489
Ni first wall, passive He pumping, regeneration 2−71190
Ti coatings, vapour-deposited, exposed in MACROTOR and MICROTOR 2−92392
TiC-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
TiH_x wall, plasma contamination reduction 2−115037
Zr-Al alloy, compatibility in Tokamak 2−69851

plasma waveguides *see plasma filled waveguides*

plasma waves
see also magnetohydrodynamic waves; plasma oscillations; plasma shock waves
acoustic or EM wave interaction with moving plasma pulse 2−103379
acoustic-gravity wave coupling in nonuniform plasmas 2−71169
acoustic-Langmuir wave resonance interaction, integrability of eqns. 2−76125
air, electric breakdown, low threshold, laser spark initiation, plasma waves 2−91702
Alfven, conversion to ion cyclotron waves in mag. field 2−81474
Alfven compressional waves conversion to ion-cyclotron waves in inhomogeneous mag. field 2−71162
Alfven ion cyclotron fluctuations in end-cell plasma in tandem mirror expt. 2−65721
Alfven resonance, spatial, obs. 2−71141
Alfven soliton in a low-beta plasma 2−103342
Alfven solitons props. in finite-beta plasma 2−65709
Alfven surface wave propag. along fluid-vacuum interface, two-mode struct. 2−86411
Alfven surface waves in low-β plasma, existence and appl. to solar atmosphere 2−100732
alfven wave generation in a turbulent plasma 2−71181
Alfven wave heating, Faraday shielding of surface dissipation 2−81523
Alfven wave heating 2−81518
Alfven wave heating in general toroidal geometry 2−55755
Alfven wave heating of high beta plasmas 2−81522
Alfven wave heating of Tokamak plasmas studied by linearised kinetic model 2−71200
Alfven wave instability by fast ions in a plasma in mag. mirror field 2−60745
Alfven wave propag. in plasma magnetized by curvilinear mag. field 2−76124
Alfven wave spatial resonance heating of plasma in twisted mag. field 2−97754
Alfven wave structure and resonant dissipation in cylindrical stability and heating problems 2−81476
Alfven wave toroidal eigenmodes, mag. field struct., probe meas. 2−81477
Alfven waves, excited by Stix coils, spatial props. of reson. 2−81473
Alfven waves, formalism for diffusion of trapped particles by stochastic force 2−89117
Alfven waves, nonlinear Landau damping in high β plasma 2−109513
Alfven waves generation of mean EMF in collisionless plasma 2−86404
Alfven-wave generation by nonlinear decay of beam-drives plasma mode 2−71168
alpha particle loss-cone-type instability in toroidal plasmas 2−81478
anisotropic plasmas, EM dispersion relation, numerical calc. 2−81461
antenna moving in plasma, wave excitation, streaming at superthermal vel. 2−86438
auroral plasma, double layers and solitary wave obs. 2−71191
averaged distrib. function dynamic evolution 2−86426
ballooning instability in toroidal plasmas 2−97722
ballooning stability in Tokamak, diamagnetic drift freq. effects 2−71250
Bernstein waves, propagation and absorpt. using lower hybrid couplers at ion cyclotron freq. 2−81515
bounded plasma, crossed fields, nonlinear resonances, MHD and EM treatment 2−76099
breakdown wave in self-consistent field of EM wave beam *(Russian)* 2−103378
bremsstrahlung, induced radiation 2−97716
Cerenkov amplification of regular waves by relativistic electron beam in axially asymmetric waveguide 2−60757
circularly polarised standing wave, stochastic behaviour of particles 2−71131
coherent wave interaction with non-isothermal plasma *(Russian)* 2−103332
cold beam-weakly collisional plasma system, amplitude oscillation, destruction mechanism 2−109510
collision dominated two component plasmas, plasma oscillations and sound waves 2−71152
collisional plasma, wave enhancement of electron runaway rate 2−91612
collisionless tearing modes, thermal spectrum 2−71159
conference, Swansea, Wales (July 1981) 2−94899
convective cell turbulence and anomalous plasma diffusion 2−86429

plasma waves continued
coupled capillary-plasma wave excitation at liquid metal surface in plasma *(Russian)* 2−86435
coupling in nonuniform plasmas 2−71169
Culham Summer School lectures, postgraduate level, book 2−68980
current driven electrostatic waves, effects of collisions 2−76113
current generation in interaction between Langmuir solitons and a streaming plasma 2−76114
current maintenance in plasma by HF fields *(Russian)* 2−76082
cyclotron solitons radio emission control by temp. anisotropy 2−71118
cylindrical converging ion-sound waves, nonlinear evolution, theory *(Russian)* 2−115008
cylindrical ion acoustic wave reflection 2−71142
damping mechanisms and heating scenarii in the ICRF 2−81510
dipole and quadrupole radiation at harmonics of electron waves in plasmas 2−91621
drift cyclotron modes in mirror devices, nonlinear solns. 2−71160
drift mode, high-beta, linear kinetic anal. 2−71147
drift wave eigenmodes in slab plasma with finite mag. shear, stability 2−109507
drift wave turbulence, electric field and density fluctuations, saturation spectra 2−91613
drift waves, eigenmode calc., stochastic mag. field effects 2−65705
drift waves driven vortices and anomalous plasma diffusion in a strong magnetic field 2−81480
drift waves in quadrupole, radial eigenfunctions 2−109509
drift-cyclotron mode instability, nonlinear props., particle simulation 2−76118
drift-tearing mode, driven by electron temp. gradient, stability anal. 2−76109
drift-wave turbulence, wavenumber and freq. spectra estimation by fixed probe pairs, theory 2−91671
drift-wave turbulence from a soliton gas 2−71165
driven lower hybrid waves, laser scatt. study in Alcator-A Tokamak 2−76201
EBT, RF ion heating, turbulence, instability, lower hybrid wave excitation 2−71202
EBT-S wave props., inhomogenity effects 2−109577
electron, ion sound and EM waves, Van Kampen and Case formalism appl. to nonlinear initial value problems 2−76100
electron beam nonlinear radiation in whistler range, theoretical model 2−94556
electron beam propag., Langmuir wave collapse 2−86417
electron beam-plasma system, nonlinear charge density standing wave propag. *(Russian)* 2−103389
electron beams, high-current, accel. by field of large-amplitude plasma wave 2−103395
electron beams, magnetically focused, rippled and partially neutralised, nonlinear equilib. and stability anal. 2−86406
electron cyclotron emission from FT Tokamak 2−71121
electron cyclotron heating and preionisation in WT-1 Tokamak 2−71221
electron cyclotron heating by extraordinary EM waves, propagation 2−71214
electron cyclotron heating in high field Tokamak, parametric excitation effects 2−71224
electron cyclotron heating waves, scatt. by density fluctuations in Tokamak plasmas 2−71225
electron cyclotron reson. heating, parametric decay instability in Versator II Tokamak 2−109544
electron cyclotron resonance heating in CLEO stellarator 2−71219
electron cyclotron waves in suprathermal plasmas 2−71177
electron cyclotron waves parametric instabilities 2−103350
electron cyclotron waves propag. in presence of anisotropic electron distribs. 2−103349
electron drift waves interaction, stochasticity and random phase approx. 2−71145
electron phase space, electron vortex struct. stability 2−55734
electron plasma waves, radiation patterns, nonlinear modification obs. 2−91607
electron streams, type III, Langmuir wave levels 2−73814
electron tail, RF wave induced, electric field and Langmuir wave effects 2−115006
electron thermal waves, oblique, propag. in magnetised plasma 2−71133
electron waves, remote extraction by modulated laser beam, expt. study 2−55728
electron waves below electron plasma freq. without boundary effects, expt. study 2−60747
electron waves in elec. discharge channels, theoretical study 2−91691
electron-acoustic mode turbulence, spectral cascade processes 2−71180
electrostatic ballooning instabilities, kinetic theory 2−109498
electrostatic drift wave stability, effect of RF driven current 2−114999
electrostatic drift wave turbulence, resonant three-wave interaction, mode coupling coeff. 2−60744
electrostatic drift waves in sheared mag. field, nonlinear sat. mechanism 2−109499
electrostatic electron cyclotron radiation from a point source 2−71148
electrostatic electron cyclotron waves, relativistic theory 2−71178
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
electrostatic instabilities, temp. gradient and elec. field driven 2−97727
electrostatic oscillations and resonant absorption in cold homogeneous plasma 2−55737
electrostatic plasma wave propagation in a density modulated plasma 2−103351
electrostatic waves, nonlinear damping 2−81479
electrostatic waves, satellite lines in presence of non-cohrent and unpolarised radiation field 2−76110
electrostatic waves dispersion props. in multi-ion plasma 2−63231
EM cyclotron harmonic waves, wave front 2−97729
EM ion cyclotron wave near second harmonic cyclotron freq., decay instability 2−109500
EM oscillating two-stream instability of plasma waves 2−71153
EM wave absorption in plasma resonance region in EM trap 2−55736
EM wave depolarization in nonlinear transillumination 2−91619
EM wave excitation and propagation, coupling of antennas in two component nonuniform plasma 2−81488
EM wave excitation during scattering of charge density waves in electron beams by ion-acoustic oscillations in plasma waveguides 2−91632
EM wave nonlinear interaction, stimulated Raman and Brillouin scatt. 2−55739

plasma waves continued
EM wave reflection from magnetoplasma free space interface in presence of mag. field at gyroreson. 2−71132
EM wave side scatt. by electron-acoustic oscill. 2−65714
EM wave stability in overdense plasmas 2−65710
EM waves in relativistic plasma stream, fusion instability 2−65752
EM waves tunnelling through evanescent resonance layer parallel to mag. field 2−115013
excitation of an ion-acoustic wave by two whistlers 2−91608
excitation of media with spatial dispersion of waveguide type 2−115015
explosive instability in three-wave interaction 2−103335
extraordinary mode near second electron cyclotron harmonic, dispersion rel., props. 2−71179
extraordinary wave second harmonic generation in inhomogeneous plasma 2−71170
ferromagnet, magnetostatic surface wave resonance interaction with plasma wave 2−72183
flute type drift mixing, isobaric breaks form. *(Russian)* 2−103330
four-wave interactions in plasma 2−55727
fusion reaction products, shear-Alfven wave effect on confinement 2−65746
Gaussian EM beam, nonlinear interaction with electrostatic upper hybrid wave, electrostatic lower hybrid wave generation 2−86420
heating in toroidal plasma, conference, Como, Italy 2−68960
helical slow wave antenna for launching lower hybrid waves in a plasma 2−81486
homogeneous magnetised plasma, wave excitation by inhomogeneous suprathermal electron beams 2−55751
induced bremsstrahlung radiation, Manley-Rowe relation 2−109515
inertial confinement fusion plasmas, laser diagnostics 2−103450
information about plasma wave behind thick opaque barrier *(Russian)* 2−81587
inhomogeneous electron fluxes, Landau damping 2−81603
inhomogeneous plasma, diagnostics, three-harmonic wave profile effect *(Russian)* 2−103456
inhomogeneous plasma, intense wave beam self-focusing and energy absorpt. *(Russian)* 2−97736
ion, nonlinear wave modulation, Lagrangian representation 2−55718
ion acoustic Langmuir interactions, effects of collisional and viscous dissipations 2−55741
ion acoustic wave excitation by slow ion beam 2−115019
ion acoustic waves, three-dimens. propag. in collisionless plasma 2−103347
ion acoustic waves generated by optical mixing, growth and sat. meas., ion heating 2−115002
ion beam-plasma system, ion acoustic wave freq., boundary effect 2−114998
ion Bernstein wave heating via a wide $k_{\parallel}$-spectrum waveguide system 2−81516
ion cyclotron heating of Tokamaks distribution function of resonant ions 2−81511
ion cyclotron resonance heating (ICRH) of an EBT with periodic boundary conditions 2−81514
ion cyclotron waves and turbulent end plugging in mag. mirror based fusion devices 2−103334
ion density enhancement wave following sheath contradiction 2−60759
ion soliton analysis in plasma without mag. field *(Russian)* 2−76108
ion stochastic heating by LH wave, two dimens., Fokker-Planck eqn. soln. 2−103398
ion waves dispersion relations with finite parallel wavelength in finite beta-plasma 2−65717
ion-acoustic instability, EM wave absorpt. and scatt. *(Russian)* 2−109519
ion-acoustic solitary waves in warm-ion plasma, higher order terms 2−76101
ion-acoustic solitons, resonant interaction in 3-dimens. 2−76115
ion-acoustic solitons expts. 2−114995
ion-acoustic solitons with two-temp. electron distrib. function 2−109512
ion-acoustic turbulence, interaction with low freq. perturbations, modulational instability 2−76133
ion-acoustic turbulence angular distrib. 2−115010
ion-acoustic wave, reflection coeff. from charged grid electric field effect 2−86402
ion-acoustic waves, diffraction characteristics meas. 2−55719
ion-acoustic waves, quadrupole radiation 2−114996
ion-acoustic waves second harmonic interference patterns 2−86408
ionisation waves, large amplitude wave packets, exptl. study 2−114990
ionising MHD shock waves evolution in He 2−103376
ionosphere, ion energisation by electrostatic H cyclotron waves, appl. to auroral plasma 2−73757
ions in uniform plasma, hydrodynamic eqns. of motion, soliton solns. *(Russian)* 2−103333
Landau damping of steepening magnetosonic wave 2−63178
Langmuir soliton, accelerating, emission of ion-acoustic waves *(Russian)* 2−86424
Langmuir solitons problem, self consistent anal. 2−55723
Langmuir turbulence in magnetoactive plasma, auto-oscillation soliton *(Russian)* 2−109517
Langmuir turbulence of inhomogeneous plasma, theory 2−86431
Langmuir wave, oblique propag., nonlinear evolution 2−71161
Langmuir waves, induced scatt. for case of strong turbulence *(Russian)* 2−91620
Langmuir waves assoc. with pulsar PSR 0531+21, rel. to optical radiation mechanism *(Russian)* 2−63491
Langmuir waves filamentation and collapse in weak mag. field 2−103338
Langmuir waves nonlinear damping in a weakly turbulent relativistic plasma 2−60749
Langmuir waves transformation at heavy charged particles 2−103357
laser beam-plasma interactions, nonlinear scatt. from electron Bernstein modes 2−115014
laser plasma, fast electron generation via Langmuir turbulence 2−86428
laser-plasma interactions, nonlinear ion waves, stimulated Brillouin scatt. 2−76123
LF mode stability in tandem mirrors and bumpy tori 2−97733
LF-frequency nonlinear resonance and averaged pot. in bounded parallel fields plasma 2−65711
LH wave decay into ion cyclotron mode and whistler wave 2−103343
linear modes in the presence of solitary ion holes 2−76112
linear theory of plasma waves, Zakharov and Karpman's Fokker Planck eqn. 2−81452
longitudinal wave collapse, electrostatic approx. 2−55735
plasma waves continued
longitudinal waves, hot electron plasma, modulational instability by averaged Lagrangian 2−76098
longitudinal waves of the average field in a cold turbulent plasma 2−91622
low frequency heating 2−81519
low-β plasma, Alfven wave heating, MHD study 2−115007
lower hybrid and electron plasma waves, parametric coupling, nonresonant decay 2−76132
lower hybrid heating, microwave coherent scatt. meas. in WEGA Tokamak 2−76204
lower hybrid heating, particle simulation, appl. to RF heating 2−76191
lower hybrid RF heating in Alcator-A, -C and Versator II Tokamaks 2−76153
lower hybrid wave coupling with grill in Tokamak *(Chinese)* 2−103323
lower hybrid wave electron heating in Doublet IIA 2−76151
lower hybrid wave heating, ASDEX divertor Tokamak 2−76157
lower hybrid wave heating, details of PLT Tokamak expt. 2−76158
lower hybrid wave heating in WEGA Tokamak 2−76152
lower hybrid wave ponderomotive force nonlinear effects *(Chinese)* 2−103324
lower hybrid wave propag. in Tokamak plasmas 2−76128
lower hybrid waves, ion heating, four waveguide grill expt. in PETULA 2−76141
lower hybrid waves, nonlinear coupling in Tokamak 2−71137
lower hybrid waves in Alcator A Tokamak studied using CO_2 laser scatt. 2−71143
magnetic configs., disparition brusques mode, instability 2−115009
magnetic field generation via parametric instabilities in collisional plasmas 2−86403
magnetic-gradient destabilisation of drift waves in anisotropic plasma 2−71135
magnetically insulated gap, linear waves and instabilities 2−76230
magnetised plasma, incident EM wave, decay instability, Vlasov model 2−65724
magnetised plasma, ion acoustic waves modulational instability 2−86412
magnetised plasma, nonlinear precessional rot. of polarised waves 2−86430
magnetized plasma, solitary ion-acoustic and ion-cyclotron wave, trapped particle induced 2−76120
magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
magnetoplasma, EM beam interaction with electron and ion waves, stimulated Raman and Brillouin scatt. 2−86401
magnetoplasma, EM wave to Bernstein mode conversion, electron heating 2−81475
magnetoreactive plasma, induced ls scatt., electron heating *(Russian)* 2−71203
magnetosphere, whistler wave propag., electron enforced gyroresonance 2−112249
magnetospheric plasma, LH drift instability as a dissipation mechanism *(Russian)* 2−78916
mathematical methods in hydrodynamical systems, conf., La Jolla, California, USA (Dec. 1981) 2−112637
MHD wave diffraction by plasma ellipsoid 2−103358
MHD waves stability in cometary plasma tails, effects of turbulent solar wind 2−106615
microinstabilities, drift wave case 2−71175
microstability properties of the EBT boundary layer 2−97773
microwave Fraunhofer diffr. diagnostic technique 2−86474
mode converted ion Bernstein waves, obs. in Microtor Tokamak 2−91617
modulation nonlinear generation of the magnetic fields in a dense plasma 2−65722
modulational instability, nonlinear stage *(Russian)* 2−76107
negative potential solitary wave structure and form. of double layer 2−71154
neoclassical impurity transport in collision dominated plasma, electrostatic trapping effects 2−71242
neutral beam injection, lower hybrid wave heating in JIPP T-II torus 2−103401
noise waves, excitation and detection in ion-acoustic freq. range *(Japanese)* 2−60739
non-linear periodic waves, modulation instability, zone theory *(Russian)* 2−60741
nonaxisymmetric waves and convection in weakly ionised plasma in strong mag. field 2−71096
nonequilibrium magnetoactive plasma, amplitude modulated EM waves *(Russian)* 2−60756
nonlinear aspects of wave propagation near the upper-hybrid mode conversion layer 2−71157
nonlinear dispersive waves modulation in a warm plasma stream 2−65719
nonlinear EM surface wave at plasma-conducting media interface *(Ukrainian)* 2−103325
nonlinear gravitational waves in plasma, detector theory 2−74309
nonlinear gyrokinetic equations for low-frequency electromagnetic waves in general plasma equilibria 2−71146
nonlinear ion acoustic waves, self refraction 2−115000
nonlinear ion-acoustic waves in weak magnetic fields 2−91610
nonlinear lower hybrid waves, temporal evolution, appl. to plasma heating 2−76131
nonlinear parametric resonance in plasma modulated electron beam system *(Russian)* 2−86442
nonlinear periodic highly superluminous waves in a cold unmagnetised plasma 2−65712
nonlinear thermal wave in a reacting medium 2−97759
nonlinear transient signal propagation in homogeneous plasma 2−103344
nonlinear wave equation, large-amplitude solutions 2−109487
nonlinear wave-beam limiting state in electron plasma 2−76111
nonlinear waves in low-temp. plasma with hot electrons, in E×H fields 2−81472
nonresonant HF waves heating, ponderomotive effect 2−81545
ordinary mode propagating perpendicularly to mag. field at electron cyclotron freq., absorpt. mechanism 2−109501
oscillations, ionic cyclotron, parametric excitation by fast magnetosonic wave *(Russian)* 2−103360
parametric excitation of convective cells in drift waves 2−114997
parametric excitation of eigenmodes, stimulated Raman scatt. 2−114993
parametric instabilities, boundary plasma electron heating stabilisation, in JFT-2 2−71138
parametric turbulence spectra, influence of current in plasma 2−109518
particle in standing wave field, oscillation center approx. 2−71067

plasma waves continued
particles trapped in potential trough of heat of two waves, acceleration 2−109533
plane Langmuir wave instability *(Russian)* 2−60752
plasma column, acoustic surface wave generation 2−86421
plasma column-neutral gas interface, Alfven-surface wave dispersion 2−86414
plasma diagnostic techniques, USA-Japan workshop 2−115053
plasma wavebarrier, resonance particle penetration *(Russian)* 2−60742
PLT Tokamak, magnetosonic wave heating near ion cyclotron frequency 2−76159
PLT Tokamak, plasma density fluctuations, drift wave, nonlinear theory 2−86387
ponderomotive effect in a two ion species magnetized and bounded plasma 2−71091
ponderomotive force effects on slow-wave coupling, localised plasma density depressions obs. 2−71156
ponderomotive processes, nonlinear nonresonant interaction, Hamiltonian kinetic theory 2−114992
ponderomotive pseudopotential near gyroresonance 2−71163
propagation in presence of spatially uniform external periodic mag. field in two temp. plasma 2−103339
properties correl. with solar radio bursts 2−106663
pulsar plasma waves, self-consistent solns. 2−112476
PWI for Dynamics Explorer-A 2−58183
relativistic dielectric tensor of Maxwellian plasma for electron cyclotron waves at arbitrary propag. angles 2−86469
relativistic electron beam, in plasma waveguide, charge density wave scatt., ion acoustic waves *(Russian)* 2−103387
relativistic electron beam nonlinear interaction with surface wave 2−65736
relativistic electron beam nonlinear relaxation, four-plasmon interaction *(Russian)* 2−97753
relativistic electron beam propagating in cylindrical waveguide, space charge waves props. 2−71194
relativistic heavy ion beams, space charge wave simulation 2−107453
relativistic hot plasma, discontinuity propagation in intense mag. field 2−55726
relativistic Maxwellian magnetised plasma, electron cyclotron absorpt. 2−86395
relativistic plasmas, Boltzmann theory, hydromagnetic wave propag. 2−81467
relativistic plasmas, hydromag. waves, energy transport, Boltzmann theory 2−86470
resistive interchange modes in reversed-field pinches 2−71244
resonant self-focusing of laser light in plasma 2−65731
resonators, composite reson. 2−109535
review, book contrib. 2−71173
RF impurity-ion transport control 2−103304
runaway production enhancement by plasma waves 2−55702
second electron cyclotron harmonic effective opacity of dense Tokamak plasmas 2−97730
semi-infinite plasma, solitary surface waves 2−91609
semiconductor, surface magnetoplasma wave propag. 2−77108
shear Alfven continuum in the low beta limit 2−97731
slow cyclotron waves in annular elec. beam, gain meas. 2−109504
solar corona, numerical simulation of type III radio bursts 2−94696
solar type I radio bursts, harmonic emission 2−63339
soliton envelope theory of EM waves *(Russian)* 2−76106
standing waves along a microwave generated surface wave plasma 2−71130
stationary surface waves in magnetohydrodynamics 2−65715
stationary wave in optical discharge, thermal stability 2−109619
stationary waves at the interface between a plasma stream and magnetic field 2−103337
R-O stellarator, heating by Alfven waves, HF electric and mag. field structs. 2−81525
stimulated Brillouin scatt. and enhanced ion wave damping in Z pinch plasma 2−65729
stimulated Brillouin scatt. reduction by ion acoustic harmonic generation 2−60737
stratified CGL-plasma, wave eqns. 2−91605
streaming cold plasma, oscills., hydrodynamic wave breaking resonant excitation 2−65725
superluminous waves, nonlinear, periodic, in magnetised plasma, anal. 2−55725
supersonic radiation wave propag., plasma motion influence 2−115011
surface explosive instability for high frequency waves 2−71167
surface wave phase const. limit obs. 2−86439
surface waves in radiogalaxy clouds, characteristic scale rel. to wind instability *(Russian)* 2−106924
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
TCA Tokamak, Alfven wave coupling expt. with antenna struct. 2−115003
tearing instabilities, drift-wave turbulent diffusion effect 2−76117
TFR Tokamak plasmas, impurity pump-out at two-ion hybrid reson. 2−109567
thermal conductivity due to ripple-trapped ions in a Tokamak 2−71097
thermonuclear plasma, ignition by lower hybrid heating 2−76127
three-wave interaction kinetic theory in a magnetized, inhomogeneous plasma 2−81471
TM modes in parallel plane wave guide filled with plasma, collisional effects 2−91628
Tokamak, JFT-2, lower hybrid heating, energy balance 2−76154
Tokamak device, electron cyclotron current drive, kinetic theory 2−109557
Tokamak discharges, heating simulation, lower hybrid wave trajectory 2−76129
Tokamak ISX-B, electron cyclotron heating, impurity radiation, electric current meas. 2−71212
Tokamak lower hybrid heating, toroidal effects 2−109539
Tokamak plasma, current generation by electron cyclotron waves *(Russian)* 2−60785
Tokamak plasma, ion cyclotron waves, low freq. density fluctuations 2−91611
Tokamak plasma, ion-Bernstein waves, far IR laser scatt. study of density fluctuations 2−76192
Tokamak plasma, lower hybrid heating, influence on stability 2−76146
Tokamak plasma, lower hybrid heating current generation, computer simulation 2−76156
plasma waves continued
Tokamak plasma, lower hybrid wave heating, electron temp. 2−76155
Tokamak plasma, lower hybrid wave heating 2−76150
Tokamak plasma, runaway current sustainment by lower hybrid waves 2−76122
Tokamak WT-2, submillimeter wave scatt. from density fluctuations 2−97787
Tokamaks, fast wave ion cyclotron reson. heating by ray tracing technique 2−81512
Tokamaks, high-n ideal ballooning mode stability, safety factor profile optimisation 2−81469
Tonks Dattner resonances, effect of azimuthal inhomogeneity of electron density 2−81481
toroidal current generation by lower hybrid wave 2−76130
toroidal drift-wave fluctuations driven by ion pressure gradients 2−71166
toroidal geometry, current generation by RF waves 2−109493
toroidal plasma, lower hybrid waves, anal. of ray tracing technique 2−76203
toroidal plasmas, lower hybrid waves, ray tracing study 2−76202
toroidal plasmas, methods of driving current by heating 2−81547
transverse electromagnetic waves with $\vec{E} \| \vec{B}$ 2−65135
transverse intermediate waves in a relativistic plasma with a finite conductivity 2−65753
trapped ion instability, sat. by 2-D electrostatic trapping 2−109508
two-plasmoid decay in an inhomogeneous turbulent plasma *(Russian)* 2−103331
unstable strongly dispersive nonlinear wave evolution 2−86422
unstable wave energy transport in a magnetized plasma 2−71094
unstable waves in cold beam plasma system, nonlinear oscillations, modulation theory 2−71150
upper hybrid wave collapse 2−103355
upper hybrid wave collapse in magnetised plasma 2−86410
UV harmonic radiation emission due to intense CO_2 laser light 2−91602
vortex and magnetostatic modes parametric drive in strongly non-isothermal plasma 2−65713
warm multielectron plasma, ion-acoustic soliton, Boltzmann distrib. 2−76097
wave action flux of finite amplitude Alfven waves in multi ion plasma 2−103346
wave model of mesothermal plasma near wakes 2−86396
wave-particle resonances in curved mag. fields 2−97728
weakly nonlinear dispersive waves: group velocity 2−86407
whistler, thermal modulation instability *(Russian)* 2−60750
whistler wave propagation in plasma waveguides *(Russian)* 2−76104
whistler wave self-focusing in plasma duct *(Russian)* 2−97737
Ar column, excited at. densities, radial variation 2−65688
Ar, self-excited electrostatic waves, instability obs. 2−86400
Ar thermionic cathode discharge, forward longitudinal waves, theory 2−97815
D-H plasma, dispersion relation near two-ion hybrid reson. 2−65716
D-T plasma, ion tails and neutron rates due to lower hybrid waves, quasi-linear calc. 2−109541
Hg discharge lamp, high press., fundamental longitudinal acoustic reson. obs. 2−91690

plasmatrons *see plasma diodes*

plasmoids *see plasma*

plasmons
see also phonon-plasmon interactions; solid-state plasma
bimetallic interface, surface plasmons, non-existance of hydrodynamic soln. 2−72052
coherent states and swift ion-condensed matter interactions 2−89509
desorption, fast ion induced, polarization field 2−98432
dye monolayer assemblies on Ag films, exciton surface plasmon interactions 2−71879
electron gas, dynamic correlations, RPA and kinetic eqn. approach 2−61381
electron liquid, dynamic structure factor 2−82263
electron liquid, dynamic structure factor 2−82264
fermion systems, acoustic plasma modes 2−110071
for IR surface plasmon propag. at metal-air interfaces 2−98566
graphite, K-shell near-threshold photoemission cross section, elastic peak and plasmon sideband, energy depend. 2−87950
graphite acceptor intercalate, stage 1 model, electronic struct., optical and energy loss props., LCAO calc. 2−61346
high density electron-hole plasma cooling 2−87312
homogeneous interacting electron gas theory 2−71892
hydrodynamic plasma solutions, of Boltzmann equation 2−71896
inhomogeneous conductor, surface excitation dispersion calc. method 2−76960
interface between spatially dispersive media, boundary conditions 2−61561
interface plasmons at boundary of two semi-infinite electron gases 2−104456
jellium surface, charge response through ripplons 2−87164
local boson mode interactions with local electronic system with finite Fermi level 2−98556
metal, free electron, adsorption of He, kinetics, polarization induced dissipation 2−98447
metal, surface Bernstein modes 2−82420
metal clusters, IR absorption spectrum, dielec. and mag. susceptibility, Maxwell's eqns. 2−82863
metal film, surface magnetoplasmons, quantum theory, RPA approx. 2−82259
metal particles, surface plasmon lifetime 2−61382
metal surface, phonons and collective excitations, hydrodynamic model 2−104138
metal surface, second harmonic generation with surface plasmon excitation 2−60163
metal surface, sinusoidal, surface plasmon polariton modes, contrib. of surface enhanced Raman scatt. 2−110845
metal surface enhanced Raman spectra, surface roughness effect 2−82837
metal surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
metallic grating, surface enhanced second harmonic generation 2−108963
metallic surfaces investigation by ATR and Auger spectroscopy and electrical resistance meas. 2−72078
metals, acoustic plasmon formation conditions 2−76953
metals, plasmon satellite in valence band PES spectra 2−116334
metals, simple, electron energy loss, review 2−57222
metals, X-ray spectra, low energy double plasmon satellites 2−62020

plasmons continued
metals particles isolated in Ar matrices, surface plasmon absorpt. bands. 2−85684
narrow gap semiconductors, plasmon assisted recombination in mag. field 2−92657
narrow-gap semiconductors, in mag. field, plasmon-assisted recombination 2−87297
one dimensional CDW distorted solid, charge density fluctuations, dielec. function calc. 2−71893
one-dimensional system, plasmon spectra and exchange contributions, tight binding model 2−76957
optical scattering from rough surfaces, integral eqn. perturbative method 2−57034
organic monolayer assemblies on Ag gratings, plasmon surface polariton field enhanced Raman spectra 2−110838
oscillations, linearised, quantum effects 2−71140
plasma, relativistic electron beam nonlinear relaxation, four-plasmon interaction *(Russian)* 2−97753
polyacetylene, momentum depend. dielectric function 2−110275
Raman scattering, surface-enhanced, theory 2−61911
resonant photoemission spectra line shapes 2−116337
semiconductor, heavily doped, energy loss process for nonequilib. hot carriers 2−92641
semiconductor, longitudinal sound resonance parametric cyclotron instability 2−104438
semiconductor, space charge layer, collective modes, perturbation theory 2−61383
semiconductor film, EM wave absorpt. by two-dimens. plasmons 2−115685
semiconductor superlattices, collective excitations study 2−104473
semiconductor surface, picosecond laser damage mechanisms, energy transfer by reson. surface plasmons 2−115283
semiconductors, electron energy loss, review 2−57222
small metal sphere, EM response, general nonlocal theory 2−104830
small metallic particles, quantum size effect in optical props. 2−87721
solar interior, electron-plasmon interactions rel. to solar neutrino problem 2−68694
stellar interiors, effects of plasmon-electron interaction on radiative transfer 2−89238
surface collective excitations, radiative decay in polarisable cylinders, theory 2−110431
surface electrons, book contrib. 2−66615
surface enhanced Raman scatt., surface-plasmon-polariton resonances, classical calc. 2−77529
surface plasmon dispersion relation on Au- and Ag-gratings 2−98708
surface plasmon propag. parallel to grooves of large amplitude grating 2−60000
surface plasmons, four-wave mixing and two-dimens. phase conjugation 2−86056
surface plasmons, use in meas. of third order nonlinear optical susceptibility 2−114353
surface plasmons and polaritons, nonlinear interaction, coupled-mode theory 2−115840
surface plasmons hydrodynamical theory 2−72043
surface shape resonances 2−87718
surface wake correl. of ion and ion pair 2−67169
surface-enhanced Raman scattering, radiation damping effects calcs. 2−57094
thermalised positron soliton model 2−61415
thin films, optical spectroscopic studies, appl. of surface phonon polaritons and surface plasmons 2−110437
transition emission, of bulk plasmons *(Russian)* 2−104281
transition metals, electron-electron interactions, plasmons, satellite lines in X-ray emission spectra 2−72580
tunnel structures, photon emission, expt. study 2−82471
two-dimensional electron gas, dynamic correlations, first order perturbation theory 2−76958
two-dimensional electron plasma, plasma oscill. excitation *(Russian)* 2−72014
two-dimensional plasma waves, instabilities and amplification, theoretical anal. 2−61501
AG grating, light emission from surface plasmon modes excited by N atom layer 2−82907
Ag (110), adsorbed O_2, ellipsometric study near Ag plasma freq. 2−92364
Ag (111), I_2 monolayer, core electron spectroscopy 2−72604
Ag evaporated film, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
Ag films, surface plasmons, light emission efficiency meas. 2−77151
Ag gratings in air and electrolyte, plasmon surface polaritons, nonresonant excitation, light scatt. 2−104896
Ag-Cu films, plasmon excitation by fast electrons 2−92785
Ag-pyridine sols, surface enhanced Raman scatt. 2−82859
Ag_2 film, IR surface plasmon attenuation coeffs. 2−110434
Al, electron and plasmon characteristic energy loss spectra 2−116309
Al film, evaporated, oxidation studied by AES, EELS and electron stimulated desorpt. 2−76855
Al, liquid, 3p electron density of states 2−82199
Al, plasmon dispersion at $k \leq k_F$ using EELS 2−76954
Al, secondary electron emission spectrum, ion induced 2−116320
Al-Al_2O_3-Ag tunnel junction, adsorbed mol. monolayers, surface enhanced Raman spectra obs. 2−82867
Al-Al_2O_3-Au(Cu)(Ag) tunnel junctions, electron energy loss function image in light emission 2−116267
Au film, IR surface plasmon attenuation coeffs. 2−110434
Au sol particles, adsorbed citrate ions, surface enhanced Raman scatt. 2−116195
BN, cryst. and band struct., EELS obs. 2−109874
CaD, EELS study, surface states 2−110998
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
CdS, recomb. radiation spectra of electron-hole plasma 2−116255
CdSe, high density electron-hole plasma cooling 2−87312
Cs overlayer on Si(100) 2×1, plasmon excitation obs., AES, EELS, LEED and UPS 2−115542
GaAs laser diode emission spectra in pulsed mag. fields up to 26 T 2−85970
GaAs-$Al_xGa_{1-x}As$ heterostructure, cyclotron and plasmon emission from two-dimens. electrons 2−61770
GaAs-GaAlAs superlattice with doped quantum wells, collective models 2−104279

plasmons continued
Ge, IR study of laser generated carriers 2−110859
K, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
KC_x(x=8, 24) intercalation compounds valence and core-electronic excitations, EELS study 2−87167
Li, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
MgO smoke particles, surface plasmons, low electron energy loss imaging 2−67168
MgO surface, image force for fast electrons 2−111000
Na, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
Na_xWO_3, high resolution electron energy loss spectroscopy, surface plasmons 2−82967
Nb, EELS of electronic excitations, expt. study 2−82969
NbO_x solid soln., EELS of electronic excitations, expt. study 2−82969
$Nb_xTi_{1-x}S_2$, IR thermoreflectance spectra 2−104859
Si (100) electron inversion layers, magnetoplasmon interaction with cyclotron reson. harmonics 2−110482
Si, elastic and inelastic backscattering of slow electrons 2−105018
p-Si, inversion layers, two-dimens. plasmon anisotropy, expt. study 2−61545
Si surface (001), plasmon excitation enhancement by LEED due to surface resonance 2−77139
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
Si(111), adsorption of Ti, secondary electron spectroscopy 2−87015
Sm surface divalency from electron energy loss spectra 2−66610
ZnO, surface, two-dimens. plasmon spectra, low energy EELS study 2−61544
ZnSe, exciton-plasmon Mott transition 2−56443

plastic afterflow *see recovery-creep*

plastic crystals
2-adamantanone, mol. motions, NMR study 2−56960
alkali metal halides, mol. crysts., lattice phonons, tunnel states 2−76329
carbon tetrabromide, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
carbon tetrachloride, liq. and plastic cryst., mol. dynamics calcs. 2−65839
o-carborane, low temp. phase transitions 2−61887
cetyl alcohol, solid form, dielec. behaviour and mol. rot. 2−66980
1-chloroadamantane, plastic phase, cryst. struct., X-ray diffr. study 2−65980
1-cyanoadamantane, plastic phase, internal modes, Raman study 2−99124
diffuse X-ray scatt. due to orientational correl. 2−103668
1-fluoroadamantane, $C_{10}H_{15}F$, plastic phase, cryst. struct., X-ray diffr. study 2−98045
molecular mesomorphism, concept of superpositional state 2−76289
neopentane, plastic, rot. motion studied by Raman spectroscopy 2−110841
neopentane, plastic cryst., macroscopic anisotropy, Raman light scatt. 2−93177
rotational diffusion, correl. function calcs. for neutron scatt. law 2−115156
TBBA, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
CO liquid and plastic cryst. phase, LF Raman spectra 2−116164
N_2 liquid and plastic cryst. phase, LF Raman spectra 2−116164
$NaNO_2$, mol. crysts., lattice phonons, tunnel states 2−76329
NaOH, mol. crysts., lattice phonons, tunnel states 2−76329
O_2, liquid and plastic cryst. phase, LF Raman spectra 2−116164
P, liq. and plastic cryst. phase, neutron diffr. study 2−97900

plastic deformation
see also Bauschinger effect; buckling; creep; ductility; elastoplasticity; kink bands; Luder's bands; necking; plastic flow; serrated yielding; shape memory effects; slip; superplasticity
aa Al-Be alloy, temp. and degree of deform. effect on deform. resist. 2−105203
ABS compounds, microstruct. and deform., effect of graft freq. and rubber particle size 2−99489
ABS compounds, microstruct. and deform., effect of matrix mol.wt. and rubber content 2−99488
ABS resin, thin films, plastic deform. mechanisms, TEM study 2−99487
adamantane, cryst. perfection, slip and hardness, micro-indentation study 2−86781
alloy steel, hydrogenated, type 40 KH, H interaction with defects during microplastic deform. 2−105261
aluminium, annealed, mechanical behaviour under uniaxial tension, numerical anal. *(Japanese)* 2−88136
amine cured epoxies, tensile deform. and failure processes 2−67449
BCC alloys, Peierls-Nabarro 2−111235
beam, effects of shear flexibility and rotary inertia on dynamic stiffness and vibrations 2−86219
beams, rectangular, shape change during plastic bending *(Russian)* 2−60419
Bi_2Te_3, single crystal, dislocation slip systems obs. 2−86672
Bordoni relaxation, internal friction due and microdeform. due to intrinsic props. of dislocation 2−77862
brass, equibiaxial stretching textures 2−88103
brass, plastic deform. and stress-strain rel. for various corner angles 2−72759
α-brass, single cryst. 2−116495
brass sheet, 70/30, plastic yield behaviour 2−111239
bronze, Al, recovery and recrystn. during hot deform. 2−105202
cavitation-strain and creep-strain, separation during deform. 2−76567
celluloid, softened, deform. under combined stress, viscous-viscoelasticity model *(Japanese)* 2−92082
combined longitudinal and shear plastic waves anal. by continuum theory of dislocation 2−65500
composite, spatially reinforced, elastoplastic props. determ. by averaging method 2−62182
composite materials, fibre length influence on tensile strength 2−116512
composite shells under impulsive loads, elastic-plastic deform. 2−65493
composite superconductors, non-uniform, crit. state stability and training phenomenon 2−66711
composites, elastoplastic strain, calc. under complex load 2−114677
crack opening displacement rel. to crack tip strain, model 2−66116
crazes, and plastic zones at crack tips, dislocation stress anal. 2−103096

plastic deformation continued
cylinder, rotating hollow, finite elastic-plastic deform. 2−55459
cylinders, rough, compressed between smooth flat surfaces of hard blocks, deform. 2−109210
definition and its computational significance 2−91258
diamond, type Ia, cathodoluminescence from giant platelets and 2.526 eV vibronic system, plastic deform. effects 2−72561
dislocation sources, near-surface, plastically deformed sample 2−98088
drawn, crystal stability and mech. props., statistical-mech. approach 2−86586
ductile material containing spherical voids, localisation 2−72799
ductile materials, deformed in torsion, failure anal. 2−56074
elastic-plastic boundary-value problems, finite element soln. for capturing failure states 2−91278
elastic-plastic deformation kinematics, defn. and comput. significance 2−91277
elastic-plastic material, mechanical behaviour under uniaxial tension, dia. imperfection effects *(Japanese)* 2−86217
elastic-plastic memory type materials with general work-hardening, math. theory 2−109206
electro-chemical techniques, for yielding and crack detection 2−83303
electron emission during elastoplastic deform. *(Russian)* 2−57276
energy conditions for brittle fracture, strength of ductile materials *(Russian)* 2−75905
epitaxial systems, internal stresses meas. in presence of plastic deform. 2−56401
epoxy resins, round notched, subjected to plane strain bending, internal fracture and surface morphologies 2−67534
failure criteria for fusion reactor first wall structural design 2−69839
fatigue, elastic-plastic, damage accumulation model *(Japanese)* 2−103890
fatigue crack growth kinetics, method for investigating cyclic elastoplastic deform. using J-integral 2−70881
fatigue-induced surface plasticity, meas. method 2−88306
FCC metals, self-interstitials, hyperfine interaction evidence, theoretical anal. 2−71437
fibre inclusions embedded in elastic plate, yield loci 2−55450
fibre reinforced composite, infinite elastic body, stress field due to cylindrical inclusion with constant axial eigenstrain 2−93580
fracture, dislocation-free zone model, comparison with expts. 2−103889
fracture instability, semibrittle, inclined yield strip, continuum dislocation model 2−86786
fracture toughness specimens, elastic-plastic stress state, effect of side grooves, finite element anal. 2−111394
fragment size prediction in dynamic fragmentation 2−70866
fusion material, microhardness test techniques for high energy neutron source expts. 2−88313
under generalised proportional loading, temp.-time integral operator 2−61056
glass, phase separated and stretched, anisotropy of second phase distrib. 2−57413
granular materials, dilatant plastic deform. 2−65491
homopolymers, physico-mech. props. under high press. and shear strain *(Russian)* 2−67467
hysteresis loop, anal. of loop shape 2−98186
hysteresis loop, statistical theory 2−98185
hysteresis loop, stress-dip expts. 2−98187
ideally fibre-reinforced elastic strip under tension, instability 2−72760
incompressible material, planar dynamical problem in plasticity 2−97397
internal friction measured in free decay, corrections due to inhomogeneous strains 2−105210
internal friction measured in free decay, corrections due to inhomogeneous strains 2−105211
J-estimating procedure for a solid subjected to bending loads 2−114734
lattice reorientation during plastic deformation, vorticity eqn. 2−83811
layer superstructure, domain-boundary hardening theory *(Russian)* 2−93529
local deformation methods, anal. 2−55458
localisation by heat dissipation 2−70854
mechanical ignition mechanisms 2−93794
metal, BCC single crystal, plastic deform. at very low temps. 2−57431
metal, deformation meas. by US technique 2−57577
metal, FCC, active slip systems, contribution to deform. phenomena by indentation of cube face 2−66009
metal, FCC, saturation of flow stress 2−93574
metal forming, rigid-plastic anal. using finite element method, formulation for finite deform. 2−105180
metal subsurface crack and plastic deform. detect. using the photoacoustic effect *(Chinese)* 2−97473
metallic glasses, plastic deform. near glass transition, amorphous soap bubble raft model 2−98391
metallic materials, torsion testing *(German)* 2−72925
metals, high press. eqns. of state 2−61108
metals, mono- and polycrystals, yield loci, analytical description *(German)* 2−76571
metals, plastic strain anisotropy, statistical method appl. 2−105405
metals, polycrystalline, plastic microstrain autocorrel. functions and spectral densities 2−56071
metals, shear bands, occurrence during isothermal hot forging 2−57383
metals, sheet, FCC and BCC, planar anisotropy rel. to texture *(Korean)* 2−116505
metals, shock wave and high strain rate deform., conf., Alburquerque, USA (June 1980) 2−84381
microcrystals, conical, ion irrad., surface stress and plastic deformation 2−86777
molecular crystals, directionally deform., impurity states *(Russian)* 2−71917
moving dislocation elastodynamics, precursor decay anomaly 2−71447
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
nylon-b, large deform. behaviour of thermoplastics 2−111245
optical fibre cable under lateral force, optical loss stability, coated fibre struct. optimum design 2−65363
piezoceramic shells under electrostatic load, stress and deform. calc. 2−55455
pipe, circumferentially cracked, fracture instability 2−62220
plane rectangular block, positive ellipticity and stability of deformation *(German)* 2−65496
plane strain compression testing technique for constrained surrounded crystals *(French)* 2−105428
plane strain cumulative fracture 2−97445
plastic deformation continued
plane-strain indentation by an obtuse-angle wedge, slip-line field soln. 2−91264
plastic beams, transverse load, variable end constraints, finite deflection 2−55451
plastic body, shear strength, plastic deform. 2−81878
plasticine, mechanics of impact at normal incidence between rods and plates 2−55515
plasticised epoxide, fracture under superposed hydrostatic pressure 2−105293
plate, rigid-plastic polygonal, large deform. analysis 2−75862
plates, thin, elasto-viscoplastic and elasto-plastic large deform. anal. 2−70851
PMMA, large deform. behaviour of thermoplastics 2−111245
PMMA, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polycarbonate, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
polycrystal deformation, intergranular constraint 2−55979
polyethylene, irrad., struct. orientation in deform., in air and CCl_4 2−67457
polyethylene, linear, oriented, shear and tensile relax. behaviour 2−77890
polyethylene, low-density, drawn, shrinkage and retractive forces during annealing 2−111194
polyethylene terephthalate film, mechanically deformed, orientation effect, Brillouin scattering effects 2−87803
polyethyleneterephthalate fibres, undrawn, crystn., effect of mech. stress 2−65874
polymer, oriented, elastic anisotropy and kink band form., disclination-dislocation model analysis 2−71542
polymer laminated sheets, mechanical interactions 2−77883
polymeric foam, compressive deform. 2−116510
polymers, anisotropic, yield hypothesis *(German)* 2−72776
polymers, isotropic, yield hypothesis *(German)* 2−72776
polymers, linear flexible chain, uniaxial extension in extremely broad range of stresses and strain rates 2−55525
polymers deformation studies by time resolved Fourier transform IR spectroscopy 2−89832
polymers sliding on polymeric films, wear and friction props. 2−88204
polystyrene, atactic, multistage ultradrawing by solid-state coextrusion 2−72725
polystyrene, atactic, propag. of shear bands through obstacles 2−67427
polystyrene, compressive fracture 2−99530
polystyrene, craze microstructure, strain history effect 2−77967
polystyrene, high impact microcomposite thermoplastic, stress crazing, temp. effect 2−77926
polystyrene-polyphenylene oxide blends, craze microstruct. and mol. entanglements 2−77968
porous material, plasticity theory coefficients determ. procedure, relative density depend. *(Russian)* 2−77877
porous materials plastic strain 2−91281
porous plastic solid, void nucleation effects on shear localisation 2−99486
PVC, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
quartz, single crystal, by indentation, TEM 2−56070
rate type plastic materials with combined work-hardening, simple shear deform. 2−65490
rectangular lattice, crack propagation in HF lattice vibr. 2−103893
rigid perfectly plastic bodies, slipline field solns., continued deform. calc. technique 2−91263
rings, thin, subjected to opposed conc. loads, strain hardening influence on deform. 2−97395
rolling, rheological properties of material effect on stress and strain states 2−99450
sapphire, dynamics of flow of c-axis 2−99490
selected area electron channelling patterns, elastic strains effect 2−91733
semiconductors, thermally activated slip parameters, activation volume 2−91981
sheet, hydrogen embrittlement under multiaxial loading conditions, punch-stretch testing, fracture limit diagram 2−88323
sheet metal forming, physical behaviour 2−105222
shell, elastic-plastic instability under compression 2−55465
shell structures with cuts, stress-strain state at large and small strains, pneumatic meas. 2−91274
shells, cylindrical, thick-walled, pressurised bifurcation, deform.-theory anal. 2−109205
shells, thin, elasto-viscoplastic and elasto-plastic large deform. anal. 2−70851
shet metal forming, plastic instability 2−105223
solid cylinders, acoustic emission during forging 2−105433
solid cylinders, surface contours in axi-symm. upsetting 2−67431
stainless steel, type 304, creep and creep recovery at low stresses, plastic strains, ageing effect 2−93579
steel, 316 type, construction of deform. and fracture maps 2−83218
steel, alloy, HY80 and HY130, fracture toughness transition temp., effect of loading rate 2−62227
steel, alloy, physicomech. props., influence of surface-active substances during plastic deform. 2−83191
steel, anti-tufftride coated, tensile strength and deformability effect of tufftriding time *(Japanese)* 2−93568
steel, austenitic, deformation induced martensitic transform. and transform. induced plasticity 2−83116
steel, austenitic stainless, 316, TEM observations of crack tip-cavity interactions 2−71521
steel, austenitic stainless, annealed, subcrit. crack growth and instability, mechanism of initiation 2−57438
steel, austenitic stainless, corrosion rate in boiling HNO_3, effect of cooling rate and plastic deform. 2−88264
steel, austenitic stainless, creep and plastic strains at 593°C, under step stress changes, ageing effects 2−99509
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless, H embrittlement *(French)* 2−105327
steel, austenitic stainless, partially martensitic, deformation mode effect on sensitisation 2−67423
steel, austenitic stainless, strengthening and weakening of austenite during hot deformation 2−72734
steel, austenitic stainless, strengthening by low temp. deform. 2−105182
steel, austenitic stainless, thermal shock fatigue, Type 304 and 316 steels 2−57443

plastic deformation continued
steel, austenitic stainless deform.-induced transform., effect of strain rate and strain state 2−77886
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, C and alloy, heat-treated, deform. and fracture processes by acoustic emission method 2−105420
steel, Cr type, H impregnation behaviour and embrittlement resist., microplastic deform. influence 2−99552
steel, Cr-Mo type, plastic deform. influence on H transport 2−71728
steel, cyclic strength and damping capacity, effect of stability of austenite struct. in deform. 2−111307
steel, deformation meas. by US technique 2−57577
steel, ductile plate, plastic strain conc. at crack, optical meas. 2−105268
steel, embrittlement, role of H 2−67537
steel, fatigue strength, residual stresses and surface hardening effects eval. 2−111103
steel, high-strength, time delayed surface plastic zone growth in H environment 2−72880
steel, high-tensile, retarded failure tendency determ. method 2−116644
steel, HSLA, tempered Nb-bearing, fatigue crack initiation and propag. 2−111292
steel, KhN77TYuR, dynamic recrystallisation and work hardening *(Russian)* 2−105178
steel, killed, equibiaxial stretching textures 2−88103
steel, low alloy, Mode III fatigue crack propag. 2−67521
steel, low alloy, rheological props. of ShKh15 2−72778
steel, low alloy, struct. and props. after rolling, rel. to austenite transform. kinetics 2−72745
steel, low C, cylindrical shells, deform. and fracture under internal pulse load 2−83225
steel, low C, fatigue crack growth under elastic, elastic-plastic and general yield conditions *(Japanese)* 2−105306
steel, low C, ferrite-martensite dual phase struct., Snoek and Snoek-Koster-like relaxations 2−83159
steel, low C, strengthening and weakening of austenite during hot deformation 2−72734
steel, low C austenitic, supercooled austenite, abnormal decomp. 2−72666
steel, low-alloy, shape and size of plastic deform. zone at blind fatigue crack under tension 2−116549
steel, low-C, determ. of plastic surface energy 2−83178
steel, low-C, plastic deform. features at elevated temps. 2−99503
steel, low-pearlite with Nb and V, strengthening phase precip. during hot deform. 2−62133
steel, martensitic-ageing NVS-2, deform. and texture form. during cold rolling *(Russian)* 2−62139
steel, medium C, high strain multiaxial fatigue 2−116553
steel, medium C, mech. props. in dynamic deform., struct. and ultrasonic vibrs. influence 2−72772
steel, mild, fatigue, deform. behaviour and dislocation struct. *(Japanese)* 2−72811
steel, mild, mech. behaviour invest. by combined-stress testing machine 2−105419
steel, mild, plastic deform. behaviour along orthogonal trilinear strain trajectories 2−57435
steel, mild, plastic deform. in metal cutting 2−105267
steel, SA533B-1, plane strain large-scale yielding, crack tip intense strain region 2−116527
steel, spheroidized type 1090, permeation, trapping and damage by hydrogen 2−116602
steel, stainless, austenitic Cr-Ni, combined shock loading and high-speed deform. effects 2−99560
steel, stainless, diffusion and trapping of D, SIMS study 2−76745
steel, stainless, ferrite struct., rolling, plastic deform., metallography study 2−57422
steel, stainless, pipe, circumferentially cracked fracture instability 2−62221
steel, strengthening by surface plastic deformation, dislocation aspects 2−116615
steel, structural, microplastic behaviour before fatigue softening 2−99478
steel, structural, toughening by preliminary thermomech. treatment, grain size red. *(Russian)* 2−62149
steel, tempered, pseudo-intercrystalline brittleness mechanism 2−67502
steel, tensile, hot hardness and fatigue props. of type E36 in as-rolled condition *(French)* 2−62214
steel, tool, high speed, S 6-5-2 and S 10-4-3-10, cooling during hardening process, effects on toughness *(German)* 2−57367
steel, type 08KP, structure and texture formation mechanism under hot plastic deformation *(Russian)* 2−67363
steel, uniaxial straining, thermal effects 2−99500
steel, V, hot deformed, isothermal austenite-ferrite transform, TEM study 2−111172
steel, wear mechanisms of boundary-lubricated surfaces 2−67561
steel cylinder, impact deformation meas. at high temp. 2−83172
steel lath martensite, deformed and undeformed, tempering process, effect of Nb additions 2−99454
steel structures, limit analysis in presence of shear, load-carrying factor 2−111229
steel types 1018, 1020, thermo-plastic shear instability 2−72757
steel wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
steels, reproducible AE signatures by indentation 2−62324
strain hardening deformable media, mech. anisotropy eval. based on mathematical interpretation of kinematic-isotope hardening *(Bulgarian)* 2−99453
stress-strain relations, phenomenological theory 2−103055
superconducting magnet materials, low temp. irradiation effect 2−80182
superplastic sheet, mechanical behaviour under uniaxial tension, numerical anal. *(Japanese)* 2−88136
test apparatus for studying plastic deformation under rapid tensioning 2−78061
texture development at low-strain and significance 2−67380
thermal critical stress for plastic deformation, theory 2−103883
thermobimetal, thermomech., deform., mech., and normal motions *(Bulgarian)* 2−99507
thermoelastoplastic deformation of solids, analytical description 2−114685
thermoplastic, forming by utilisation of recovery induced thermal deform. props. *(Japanese)* 2−88111
thermoplastic instability in simple shear 2−114674
threshold stress process effect on ductility 2−88133
plastic deformation continued
time delayed surface plastic zone growth in H environment, artifact interpret. comment 2−72881
time delayed surface plastic zone growth in H environment, surface artifact interpret. 2−72880
torsion bar, internal stress generated by plastic loading, X-ray meas. *(German)* 2−62336
transition elements, high press. eqns. of state 2−61108
transition metals and alloys, omega phase formation, effect on mech. props. 2−77806
tubes, thick-walled, elastic perfectly plastic materials, rel. between diametral expansion and internal pressure 2−103062
ultramicrohardness tester in SEM and X-ray topography study of deformation zone 2−83339
uniaxial tension, compression and plane problems, continuous damage theory appl. 2−91336
ureaformaldehyde resin, $BaSO_4$ filled, internal deform. determ. *(Bulgarian)* 2−99508
WC-Co alloys microscopic behaviour in deformation, anal. using finite elements *(Japanese)* 2−77882
work of plastic and elastic deformation during indenter indentation 2−81877
yield functions that account for the effects of initial and subsequent plastic anisotropy 2−97391
yield strength, general, interf. effect of double symmetrical cracks 2−91266
Zircaloy-4, O containing duplex, deform. behaviour 2−99501
Zircaloy-4, recovery and deform. substruct. in high temp. plasticity, stationary and non stationary stress 2−83173
AG, thermal cond., plastic deformation effects, dislocation scatt. 2−104349
Ag-Au, oxidized, plastic deform. effect on alloy-oxide layer, TEM study 2−110219
Ag-Cu, ion sputtered, surface topography 2−105025
Ag-Sn (1.2 at.%), dislocation band struct. produced by bending stress, X-ray topography study 2−86679
AgCl, plastic deformation, wavy slip band form. 2−115337
Al alloy, precipitation hardened, pseudo-intercrystalline brittleness mechanism 2−67502
Al alloy ADT-M, plastic strain anisotropy, statistical method appl. 2−105405
Al alloy cylindrical shells under axial compression, plastic stability investigation *(Chinese)* 2−103057
Al alloy D16AT, heat-treated, deform. and fracture processes by acoustic emission method 2−105420
Al alloys, residual stress determ., nondestructive evaluation using acoustoelasticity meas. 2−93744
Al and alloys, strain localisation under tension 2−111246
Al cold rolling, deform. anal. using visioplasticity 2−116461
Al cylinder, impact deformation meas. at high temp. 2−83172
Al, defect structure, offer low-temp. plastic deform. *(Russian)* 2−67444
Al, deform. modelling during repeated stress relax. runs 2−111248
Al, deformed, small-angle cold neutron scatt. study 2−71548
Al, deformed single crystal, high-angle grain boundaries form. 2−86683
Al, deformed., cyclically and monotonically, stress-substruct. relationships in wavy slip mode metals 2−99498
Al, dislocation dynamics, NMR and TEM study 2−105215
Al, equibiaxial stretching textures 2−88103
Al, ion bombarded with C^+, plastic deformation stress meas. 2−86760
Al, magnetic field influence on defect struct. during plastic deform. *(Russian)* 2−103882
Al magnetron sputtered film overlaid with plasma SiN film, trapped Ar induced deformation 2−82155
Al, plastic deformation and stress relax. meas., 133 to 673K *(Russian)* 2−99482
Al, plastically deformed, lattice defect trapped at In impurities, PAC study 2−92022
Al, polycrystalline, plastic deform., electric current pulse influence, 1.7 to 4.2K *(Russian)* 2−115332
Al, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Al, rolled, penetration of shear texture 2−77841
Al, self-interstitials, hyperfine interaction evidence, theoretical anal. 2−71437
Al, shear band form., effect of large deform. 2−67416
Al, symmetric rod impact technique for dynamic yield determination 2−69165
Al, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
Al- rare earth alloy granules, resist to deform. 2−116412
Al-$Al_{21}Pt_5$, unidirectionally solidified eutectic, microstruct. and mech. props. 2−116434
Al-Al_2O_3, oxide dispersion strengthened, high temp. deform. 2−93554
Al-Cu, two-phase, inhomogeneity of plastic deform. and fracture modes 2−105245
Al-Cu, Θ' precipitates, coherency loss, dislocations, plastic deformation effects, internal friction study 2−71464
Al-Cu (1 at.%), dislocation dynamics, NMR and TEM study 2−105215
Al-Cu (4 wt.%) single crysts., containing θ'' precipitates, cyclic stress/strain response 2−99495
Al-Cu-Mg-Zn, acoustic emission during static deform. 2−72777
Al-Mg, heat-treated, deform. and fracture processes by acoustic emission method 2−105420
Al-Mg-MgO, oxide dispersion strengthened, high temp. deform. 2−93554
Al-Mg-Mn-Cu-Si-Fe, AMG2 and D16 alloys, plastic deformation and stress relax. meas., 133 to 673K *(Russian)* 2−99482
Al-transition metal alloy granules, resist to deform. 2−116412
Al-Zn-Mg granules, resist to deform. 2−116412
Al-Zr alloys, microstruct. and mech. props., effect of plastic strain *(Korean)* 2−62172
Au evaporated film, tensile fracture, SEM and TEM obs. *(Japanese)* 2−115631
Au, film, tensile fracture mechanism, SEM study *(Japanese)* 2−92428
Bi_2Te_3-based alloy, deform. and recrystn., influence of second phase particles Al_2O_3 and ZrO_2 2−83170
CaF_2, single cryst., temp. depend. indentation deform. processes 2−76565
CdS, luminescence study of cooperative defect behaviour *(Russian)* 2−87853
Co-Ni (33wt.%), fatigue crack tip, plane strain distrib. 2−111261
CoO, creep and point defects, O diffusion 2−109893
CsCl, piezoluminescence study 2−87870

plastic deformation continued
Cu, cold rolling, strain rate effect on mech. prop. changes at high strains 2−105184
Cu, containing Al_2O_3 particles, yield point and strain hardening *(Russian)* 2−105226
Cu, creep under biaxial stress states, influence of prior cold work 2−67420
Cu cylinder, impact deformation meas. at high temp. 2−83172
Cu, deformed, dislocation cell boundary widths and dislocation cell sizes 2−81789
Cu, deformed, isothermal elec. resist. changes rel. to stage III recovery 2−67366
Cu, deformed, small-angle cold neutron scatt. study 2−71548
Cu, deformed single crysts., near surface and bulk dislocations, X-ray line broadening study 2−116490
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu, glide systems during in situ straining in TEM, Schmid's law deviations 2−98103
Cu, neutron irrad., yielding, surface effect 2−103842
Cu, plastically deformed single crystals, dislocation anelasticity in kHz range *(German)* 2−86680
Cu, polycrystalline, fatigue failure in air and vac., plastic strain inhomogeneity *(Russian)* 2−67528
Cu, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu, rolled, penetration of shear texture 2−77841
Cu, rolled single crystals, shear band form., TEM study 2−99455
Cu, shear stress and stored energy, high purity samples, influence of strain rate *(German)* 2−77893
Cu, single crysts., plastically deformed, dislocation structures recovery 2−71451
Cu, single crysts., plastically deformed, dislocation anelasticity in kHz range *(German)* 2−83162
Cu, strength controlling processes, temp. and strain rate effects 2−77891
Cu, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
Cu, thermal cond., plastic deformation effects, dislocation scatt. 2−104349
Cu winding conductors, mechanical props. *(Czech)* 2−111230
Cu, Young's modulus of single cryst., low temp. peak, deform. and annealing effect 2−88127
Cu:B, cavitation-erosion resist., effect of B implantation 2−88197
Cu-Al, dispersion hardened, struct. stability and resist. to deform. *(Russian)* 2−77872
Cu-Al (10 at.%), single crysts., slightly deformed, dislocation multipoles struct., TEM 2−55975
Cu-Al lamellar eutectoid alloys, spheroidization by thermomech. treatment 2−93535
Cu-Be, AE generated during tensile deform *(Japanese)* 2−105232
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Cu-Ge (8.7 at.%), shock-loaded, deform. twinning, time depend. and assoc. strengthening 2−88138
β-CuAlNi, pseudoelastic, thermal effect in β_1-β'_1 transform. 2−111177
Cu_3Au, ordered and disordered, containing SiO_2 particles, critical shear stress, Orowan stress 2−86778
Cu_2NiZn, ordering alloy, mech. props. 2−105216
$Cu_{2-x}Se$, electrophysical props., effects of uniaxial deform. at different temps. *(Russian)* 2−82353
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322
Dy, deform. modes of HCP single crysts. *(French)* 2−67417
Er, deform. modes of HCP single crysts. *(French)* 2−67417
Fe and Fe-Ni alloys, low temp. pulsed action, γ-α transitions, radiative tracers *(Ukrainian)* 2−105141
Fe, cast, austempered spheroidal graphite, strain hardening 2−93533
Fe, deformed, recovery, positron annihilation study *(Chinese)* 2−111226
Fe, embrittlement, role of H 2−67537
Fe, fatigue crack growth, mechanism and kinetics 2−88191
Fe, high purity single crysts., effect of H on mech. props. *(Japanese)* 2−77878
α-Fe, rolled or hydroextruded, dislocation struct., brittleness and impact toughness meas. *(Russian)* 2−93560
Fe-Al (30.5 at.%), plastically deformed, ordered, antiphase domain boundary tubes, electron microscopy study 2−72784
Fe-Cu wire reinforced Cu-Fe alloy, age hardening *(German)* 2−111192
Fe-Mn alloy, microstruct. and phase transform. mechanism, lenticular struct. origin 2−99424
Fe-Mn-Ni alloys, influence of comp. and plastic deform. on paramag. phase content 2−83246
Fe-Ni (32 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni-C (24, 0.5 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni(Ti)(Ga)(Al)(Co)(Pt), flow stress at low temp., influence substitutional elements 2−105213
Fe-P-C amorphous wires, prod. by in-rotating-water spinning, mech. props. 2−57317
Fe-Si (3 wt.%), plastic deform. in micro- and macro-stress regions, 293 to 773K *(Russian)* 2−99484
Fe-Si (3 wt.%), plastic deform. around fatigue crack near threshold 2−105315
Fe-Si (3 wt.%), recrystn. texture, effect of deform. methods *(Russian)* 2−99442
Fe-Si (3.5 wt.%), grain-oriented, plastic deform. and fatigue crack growth 2−72785
Fe-Si-Al, Sendust polycrystals, plastic deform. *(Japanese)* 2−57416
Fe-Si-Al, Sendust polycrystals, deformability *(Japanese)* 2−57417
Fe-Si-Al, Sendust single cryst., plastic deform. *(Japanese)* 2−57415
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107
GaAs:Si, ion implanted rad. damage, X-ray rocking curve study 2−66075
GaP, Kossel line broadening near scratch 2−103566
GaP, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
GaP:Zn, density, plastic deform. effects, defect struct. 2−71545
Ge, n 2−82249
Ge, plastically deformed, phonon scatt. 2−92133
Ge, uniaxially compressed, low-density electron-hole liquid *(Russian)* 2−61370
Ge, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
Ge:Si, ion implanted, rad. damage, X-ray rocking curve study 2−66075
In thin films, strength characts., struct. and temp. effect 2−76875
KCl, piezoluminescence study 2−87870

plastic deformation continued
Li-Al(Zn)(Cd)(Hg)(Sn)(Bi), impurity solubility, dislocation and deformation effects, ESR study *(Russian)* 2−103996
Li-Mg, asymmetric slip, thermal activation parameters 2−86676
LiF, deformed, thermal cond. 0.05 to 5K, phonon-dislocation scatt. 2−56276
LiF, forging processes development for large scale deform. without optical props. degradation 2−60194
LiF, heavily deformed, sp. ht. and thermal cond., 0.08 to 4K 2−56210
LiF, plastic deformation under tension and compression, density changes, dislocation form. 2−61057
$LiNbO_3$, exoelectron emission by uniaxial deform. 2−116344
Mg, polycrystalline, grain boundary during high temp. deform. *(Japanese)* 2−55983
Mg-Al, solid soln., creep behaviour at elev. temp. 2−83164
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
$MgAl_2O_4$, work softening, plastic deformation, slip and dislocation climb 2−86678
MgO crystal predeformed at high temp., high voltage electron microscopy straining expt. 2−65998
MgO, periclase, shock-loaded, struct. deform. 2−76586
MgO, plastic deform., cathodoluminescence and photoluminesc. of slip bands, SEM study 2−67125
MgO single cryst., cathodlum. from cutting damage 2−93286
$MgO.nAl_2O_3$ spinels, mech. props., comp. influence origin 2−92080
Mo, cold-worked, deform. and slip behaviour, cryst. orientation effect 2−99502
Mo, deformed, single cryst. foils, anomalous slip induced by surface effect, HVEM study 2−86671
Mo, dislocation relax. peaks, internal friction study 2−60994
Mo, mechanical eqn. of state 2−83194
Mo wire, rolling and flattening to ribbon, electrostimulated deform. role 2−116465
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
NaCl, deformed, dislocation motion 2−60987
NaCl, γ-irrad., aftereffect and photomemory, F-centres and dislocations 2−71547
NaCl, piezoluminescence study 2−87870
NaCl:Ni, plastic deform. around precipitates, dislocation microstruct. 2−103770
Nb, BCC single crystal, plastic deform. at very low temps. 2−57431
Nb, plastic deformation, low temp., slip, surface orientation and oxide effects 2−86677
Nb-W(Mo)(TA)-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
NbB_2, single crysts., high temp. hardness and slip systems 2−86674
Ni alloy, heat-resisting, EP-741P, fracture behaviour investig. by thermal microscopy, P/M alloys 2−67545
Ni, cold deformed, local cryst.-amorphous state phase change obs. 2−57374
Ni, deformed, small-angle cold neutron scatt. study 2−71548
Ni, fracture initiation and dynamic recrystn. during hot deform. 2−105317
Ni, plastic deform. after US hardening *(Russian)* 2−77873
Ni single cryst., plastic deformation, dislocation struct., stress/strain curves 2−109798
Ni, single crysts., plastically deformed, dislocation structures recovery 2−71451
Ni, solid soln. strengthening and softening, effect of H 2−105173
Ni superalloy IN 738, applicability of strain range partitioning to high temp. low cycle fatigue life prediction 2−88162
Ni:B, cavitation-erosion resist., effect of B implantation 2−88197
Ni:He, ion implanted, damage profiles, swelling due to Ni ion irrad. 2−103805
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
Ni-Al alloy, deform. mechanism at high temp. 2−105230
Ni-base alloys, anisotropic, creep transients in deform. 2−83163
Ni-Cr-Al-Ti, ageing and γ' phase precipitation after strong deform., recrystn. processes *(Russian)* 2−99443
NiO, creep and point defects, O diffusion 2−109892
$NiZr_2$ metallic glass, diffusion rates of Pb, Pt and Au, pretreatments effect 2−71726
Si, creep fractured, growth kinetics of plastically deformed regions at crack tips, X-ray synchrotron topography 2−86788
Si Czochralski wafers, heat treated, brittle and ductile, fracture and yield stresses meas. 2−92091
Si, ion implanted, rad. damage, crystalline props., X-ray rocking curve study 2−66075
Si, plastically deformed, photoluminescence polarisation, stress effects 2−110907
Si, shock loaded, struct. transition, dynamic yielding and shear strength reduction obs. 2−86792
Si, stress relaxation deform. at edge dislocation 2−76580
Si, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
Si, wafer shape, double-crystal topographical investigation after oxidation 2−115243
Si:H, dislocation donor and acceptor states *(Russian)* 2−92525
Si:O, O donor developed around dislocations, expt. study 2−92510
Si:O crystals, indentation rosettes and dislocation locking by O 2−98111
SiC, anisotropic tribological props. 2−88219
SiC, single cryst., friction damage, surface and subsurface, SEM and TEM study 2−67566
α-Sn, fluctuation slot in valence band *(Russian)* 2−61357
Ta cylinder, impact deformation meas. at high temp. 2−83172
Ta, deformed, low temp. internal friction 2−72751
Ta, single and bicrystals, work hardening and deformation *(Russian)* 2−105179
Ta, strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
Ta, wrought, physical-mechanical props., thermal processing effect *(Czech)* 2−57407
TaB_2, single crysts., high temp. hardness and slip systems 2−86674
Ti alloys, hot deformation of high alloy VT22 alloy, dislocation struct. obs. *(Russian)* 2−116500
Ti alloys, texture and plasticity, under hydrostatic press., deform. conditions influence *(Russian)* 2−116501
Ti, electrical resist., plastic deform. and temp. influence *(Russian)* 2−61438

plastic deformation continued
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2−77874
Ti-Al laminar composites with a soft layer, low-cycle fatigue 2−67548
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Al(Sn) alloys, struct. transition due to deform., positron annihilation parameters *(Russian)* 2−62013
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
TiC, RF floating zone grown single crystal, high temp. deform. mech. 2−105242
U cylinder, impact deformation meas. at high temp. 2−83172
V, mechanical twinning effect on T_K *(Russian)* 2−98781
V, slip plane choice at deform. temps. $T \leq 0.15\ T_m$ 2−86673
W bicrystals, grain boundary fracture 2−83198
W fibre reinforced Cu composites, tensile yield behavior, effect of thermal history *(Japanese)* 2−105238
W helical fibre reinforced Cu, fibre deform. under tensile load *(Japanese)* 2−105233
WC-Co, deformed, defect struct. of WC 2−83166
WC-Co cemented carbide, bend deform. up to 1273K 2−57432
Zn, electron drag and phonon drag on mobile dislocations, distinction using mag. field influence 2−109809
Zn, electron irrad., electroplastic effect 2−115339
Zn-Al (22 wt.%) alloy, superplastic, low-strain-rate Region I controversy 2−105260
ZnSe, melt-grown crysts., mech. props. during flexure, prep. conditions influence 2−57404
Zr, deform., mech. eqn. of state and strengthening mechanisms 2−93556
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526

plastic flow
see also ductility; Luder's bands; necking; rheology
alloys, fracture and flow in fusion reactor environment 2−85223
amorphous soap bubble raft, plastic flow anal. using inter-bubble pot. 2−98391
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
Bingham fluid, pulsatile flow enhancement 2−70997
boundary layer in some plastic medium dynamic problems 2−114680
butadiene-styrene block copolymers, strain-strength props. under uniaxial stretching *(Russian)* 2−67466
compressible materials with internal friction, finite plastic flows, discussion and reply 2−60422
crystals, equivalence of relaxed Taylor theory and Bishop-Hill theory for partially constrained deform. 2−103881
cylinders, plastic inversion 2−65488
ductile flow and fracture in two dimens. 2−70865
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
fracture processes in superplastic flow 2−72828
granular material flow under triaxial stress states, plasticity model 2−75858
Haasen plots, model and interpret. 2−72781
high strain rates, nonequilibrium mol. dynamics study 2−86775
ideal rigid plastic Huber-Mises medium, axially symmetric flow 2−114687
instability, low temp., computer simulation 2−56068
laser radiation thermoelastic action on surface of a solid 2−115285
metal forming simulation 2−72758
metals, abrasion, SEM obs. of worn surfaces 2−67568
metals, deform., rate-dependent, elevated temps., constitutive eqns. 2−105265
metals, Orowan mechanism for abrupt localized flow and fracture initiation ahead of yielding notch 2−111266
metals and alloys, yield strength, review *(Chinese)* 2−62165
metalworking processes, math. modelling 2−105258
nonuniform plastic flow in tension, discontinuous straining effects 2−62141
nuclear fuel elements, thermomechanical design 2−64468
polymer blend, mech. strength and flow behaviour, mixing effect *(Japanese)* 2−83179
polymeric solns., plastic fluid pulsatile flow, enhancement 2−70997
polystyrene, tensile stress-strain behaviour in inert and gaseous environments 2−88130
pseudoplastic liq., viscous non-Newtonian, influence of different parameters on freq. bubble form. *(French)* 2−91487
rods, hollow, curvilinear, of finite length plastic flow 2−97401
rolling, rheological properties of material effect on stress and strain states 2−99450
sapphire, dynamics of flow of c-axis 2−99490
sheet metals, neck growth and forming limits 2−93561
shell, thin axially-symmetric, creep stability, plastic flow theory *(Polish)* 2−81248
shells, cylindrical, thick-walled, pressurised bifurcation, deform.-theory anal. 2−109205
solids, shock loaded, mean and deviatoric stress determ. 2−71560
steel, 20G18S2F, hardening by ageing and γ to ε martensitic transform. *(Russian)* 2−77832
steel, alloy 2−77933
steel, austenitic, rolling in anomalous-plasticity temp. range 2−99464
steel, austenitic stainless, nonuniform plastic flow in tension, discontinuous straining effects 2−62141
steel, C, plastic flow, elevated temps., effect of C content 2−67524
steel, ferritic-martensitic, plasticity *(German)* 2−83195
steel, hot rolling theories, statistical evaluation 2−105205
steel, maraging, 00Kh11N10M2T, struct. changes and mech. props. caused by reverse α to γ transition *(Russian)* 2−77819
steel, mild, strain rate, deform. paths, plastic flow 2−57408
steel, SAE 1015, flow props., from hardness test, Luders strain 2−80117
steel, stainless, microduplex, grain size depend. and strain rate sensitivity and activation energy of high temp. deform. 2−105244
steel, stainless, Type 316, stress/strain relation, modified Hollomon eqn., grain size depend. 2−67453
steel, structural, of various strengths, temp. and strain rate effect on yield strength 2−62163

plastic flow continued
steel cylinder, impact deformation meas. at high temp. 2−83172
strain ageing, dynamic and static, strain depend. 2−67384
strain hardening extrusion, slip-line field analysis using expt. flow patterns 2−116463
strain hardening extrusion, slip-line field construction from expt. flow patterns 2−116462
stress-strain relations, phenomenological theory 2−103055
superplastic forming processes, influence of material parameters and microstruct. 2−83184
tensile plastic instability and mech. eqn. of state 2−109888
thin films, stress relax. and hillock growth 2−115627
tube, elastic-plastic, thin-walled, finite strain tension torsion test 2−55447
visco-friable incompressible materials, steady motion 2−60415
wire drawing, plastic flow and stress/strain distrib., calc., computer program 2−99480
Al cylinder, impact deformation meas. at high temp. 2−83172
Al, numerical analysis of Hopkinson bar experiments on dislocation dynamics 2−71446
Al plates between steel plates, stress-strain curves, plastic flow 2−72756
Al, symmetric rod impact technique for dynamic yield determination 2−69165
Al-Cu eutectic, superplastic, fracture behaviour *(Japanese)* 2−57460
Al-Ge (4 wt.%), superplastic deform. mechanism 2−83190
Al-Mg (5 at.%), high temp. deform. under combined high frequency stresses *(Japanese)* 2−105237
Al-Zn-Mg-Cu, superplastic alloy, cavitation, influence of hydrostatic press. and multiaxial straining 2−116494
Cu cylinder, impact deformation meas. at high temp. 2−83172
Cu, flow stress in polycryst., grain size depend., texture hardening concept 2−72780
Cu, ultrasonic irrad., effect of neutron irrad. on mechanical props. *(Russian)* 2−76512
Cu-Al, amplitude dependent internal friction and microplasticity *(Japanese)* 2−77859
Cu-Sn whiskers, stress-extension behavior, size and conc. depend. 2−61320
Fe polycrystalline wire, Ni coated, plastic deform. during diffusion homogenisation *(Russian)* 2−67445
Fe, pure, H_2 effect on deform. and fracture microprocess *(Chinese)* 2−62188
Fe-Cr (0-15 wt.%), mech. props. changes by fast neutron irradiation 2−67504
Fe-H, anomalous plastic self-deform. *(Russian)* 2−62168
Fe-Mn-Si (30, 1 wt.%), single crysts., hardening due to pre-existing ε-martensite 2−116493
Fe-Ni-C, martensite, physical-metallurgy characts. of unstable flow *(Czech)* 2−67437
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, press. distrib. under compression to 250 kbar, fluorescence study 2−83171
KD_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
KH_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
MgO, single cryst., wear props., roles of brittle microfracture and plastic flow 2−62235
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435
Mo single crystal, creep during low energy ion irrad. *(Russian)* 2−72762
$NH_4H_2PO_4$ crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
NaCl:Ca^{2+} (Pb^{2+}) single cryst., microindentation and flow limit, doping effect *(Russian)* 2−71552
Ni-Cr-Co, age-hardened, delayed discontinuous plastic flow, mechanism 2−93553
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
Ta cylinder, impact deformation meas. at high temp. 2−83172
Ti, neutron irrad., strength changes 2−71510
Ti-Al-Nb-Ta alloy, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
U cylinder, impact deformation meas. at high temp. 2−83172
V, neutron irrad., strength changes 2−71510
W wire reinforced Ni-base superalloy, flow and fracture behaviour during isothermal forging 2−93617
Zn, impression creep and dislocation controlled plastic flow, high temp. study 2−88147
Zn, plastic deform., supercond. transition effect *(Russian)* 2−116503
Zn-Al (22 wt.%), eutectoid, thermomech. treatment effect on superplasticity 2−105195
Zn-Al (22 wt.%), superplastic eutectoid alloy, mech. props. 2−83181
Zn-Al eutectic, superplastic, fracture behaviour *(Japanese)* 2−57460
Zr, jump-like creep at 4.2K *(Russian)* 2−83169

plastic strain *see plastic deformation*

plastic theory *see plasticity*

plasticity
see also elastoplasticity; photoplasticity; superplasticity
Applied Mathematics and Mechanics Society Meeting, Wurzburg, Germany (April 1981) 2−84377
beam, optimal design, appl. of optimal control theory 2−97393
beam, prismatic, plastic analysis of torsion 2−86216
bitumen, Maxwell-Norton rheological model *(French)* 2−60494
borosilicate glass, shock wave compression up to 170 kbar 2−71559
boundary element methods, for plasticity and creep, including visco-plastic approach 2−81239
brasses, deformation localisation in tension 2−77892
carbide γ/γ′ directional eutectic, fracture under creep conditions *(Russian)* 2−99517
cellular materials, two-dimens., mechanics 2−91247
composite materials perfect plasticity theory, vol. compressibility 2−81245
constitutive equation formulation according to Ilyushin's postulate *(German)* 2−55448
continua, 2D and 3D stress analysis using UNCLE finite element scheme 2−97388
continuum constitutive modelling, shock waves 2−69015
cylinders, reinforced plastics, buckling anal. 2−97412
deformable crysts., plastic rots. *(Russian)* 2−103879
elastico-visco-plastic media, motion in pipes, hydrodynamic charact. calc. *(Russian)* 2−91365
endochronic theory review, fission reactor appls. 2−97396

plasticity continued
fatigue evaluation under multiaxial loading, new approach 2−62225
ferromagnetic crystals, elastoviscoplasticity 2−72321
fibre reinforced composites, plasticity anal., elastic moduli, yield conditions, hardening rules and stress conc. factor derived 2−99510
fission reactor primary structures, thermo-mech. loading, limit design anal. 2−74872
general mathematical theory, processes with const. stress intensity 2−53514
granular material flow under triaxial stress states, plasticity model 2−75858
Hencky model, dual variational principles and energy theorem *(French)* 2−97392
incompressible material, planar dynamical problem in plasticity 2−97397
laminated composites, three-dimens. inelastic finite element anal. 2−70852
metal based composites, porous, stress-strain state during compression 2−116414
metalloplastics−high conductivity materials 2−56563
metals, plastic molding, viscous fracture criterion 2−62195
models of structurally inhomogeneous media, yield point distrib. appl. 2−81255
nonisothermal classical plasticity, computational aspects 2−109192
nonlinear viscoplastic media, rheodynamics 2−81304
organic crystals, dynamic compaction under shock 2−72648
plane strain compression testing technique for constrained surrounded crystals *(French)* 2−105428
plastic zone instability theory 2−86230
plate, rigid-plastic polygonal, large deform. analysis 2−75862
plug forcing out of rigid-plastic obstacle by bullet *(Russian)* 2−81295
porous body, plasticity theory variant 2−81253
porous material, plasticity theory coefficients determ. procedure, relative density depend. *(Russian)* 2−77877
porous solids, compressible plastic, determining eqns. 2−65492
porous solids, sintered, expt. verification of plasticity hypothesis 2−116513
rate dependent materials, elastic/viscoplastic problems using boundary elements 2−114673
rigid perfectly plastic bodies, slipline field solns., continued deform. calc. technique 2−91263
rigid-plastic solids obeying non-assoc. flow laws, variational principles, adjoint operator, prescribed jumps 2−69019
rigid-plastic structure dynamically loaded, optimal design, appl. to concrete tube 2−75861
rings, square, subjected to in-plane crushing, plastic collapse analysis 2−109200
rings, thin, subjected to opposed conc. loads, strain hardening influence on deform. 2−97395
rod, circular cylindrical, plastic wave propag. 2−103083
shells, cylindrical, stringer stiffened, dynamic axial plastic buckling 2−65497
shells of resolution, thin-walled, under large strains, strength anal. 2−97399
spherical powders, densification, influence of increasing particle coordination 2−116398
spread from cuspidal points of rigid inclusions 2−114666
square tubes subjected to opposed transverse line loads, plastic collapse anal. 2−114667
steel, 40KhN2MA, mechanical props. and struct., effect of austenitisation temp. and hot deform. *(Russian)* 2−77901
steel, austenitic, Ni-Mo, strength increase by γ-α-γ transition cycles during slow heating *(Russian)* 2−105225
steel, Cr-Mo, heat resist., partially recryst. struct. effect 2−67399
steel, Cr-Mo, low alloy, heat resistance at 500°C in Na, NaOH admixture effect 2−67459
steel, heat-resist., plasticity and strength determ. under long-term tensile stress 2−105404
steel, low C, internal friction, cyclic loading effect 2−77865
steel, low C cyclic stress-strain curves and internal friction at US freqs. 2−111321
steel, mild, aged, plastic behaviour 2−93559
steel, thin walled struct., local buckling, plastic mechanisms 2−62169
steel structures, limit analysis of rigid-plastic frames, shear force influence 2−75863
strain-space plasticity with multiple loading surfaces, formulation 2−91279
stress-strain relations, phenomenological theory 2−103055
strip rolling, plane strain, simulation by rigid-plastic finite element method 2−114737
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
superhard materials, plasticity and strength investigations by microindentation method 2−116668
technological problem formulation and soln. 2−114679
thermoelastic-viscoplastic mode with a rate-dependent yield strength 2−97404
thermoplastic elastomer, SBS type, γ-irrad. in air and vacuum, stress relaxation, oxygen effects 2−65877
thermoviscoplastic medium, coupling accel. waves, symmetry and hyperbolicity conditions 2−74224
tube, cylindrical, thick-walled, under press. non-homogeneity effect on yield stress 2−70844
two-dimensional proceses, boundary-value problem uniqueness theorem, local determinacy hypothesis 2−114678
variable heredity theory 2−74209
viscoplastic fluids, mixing displacement from channel 2−60649
viscoplastic material, spherical cavity collapse 2−60430
viscoplasticity, general model *(French)* 2−109195
Al alloy cylindrical shells under axial compression, plastic stability investigation *(Chinese)* 2−103057
Al cold rolling, deform. anal. using visioplasticity 2−116461
Al, thermal viscous model for yielding due to shock waves 2−71561
Be, shock wave data interpretation with elastic viscoplastic model 2−71556
Cr La-Ta-O-C-N dil. alloy, fracture and plasticity, structural effects *(Russian)* 2−99481
Cr-Ni steel, Kh16N15M3B, reactor irrad. in N_2O_4 medium, effect on strength and plasticity 2−116613
Fe-Mn, shape memory and plasticity transform., superelasticity *(Russian)* 2−67332
GeTe-Co_2Ge, eutectics, microstructure and mech. props. meas., thermocouples appl. 2−86890
plasticity continued
$MgO.nAl_2O_3$ spinels, climb dissoc. in {113} planes 2−91976
Mo fibre reinforced Fe and Cu composites, porous, stress-strain state during compression 2−116414
Mo single crystals, cyclic strength at room temp. 2−111319
PbS-NiSb eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
PbTe-NiSb, eutectics, microstructure and mech. props. meas., thermocouples appl. 2−86890
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483
Ti alloys, texture and plasticity, under hydrostatic press., deform. conditions influence *(Russian)* 2−116501
Ti-Al-V, mech. props. after β-annealing 2−67398
U, shock wave data interpretation with elastic viscoplastic model 2−71556
UO_2-Gd_2O_3, thermal cond. and plasticity meas. *(German)* 2−85147
Zn crystals, irradiated, electron-plastic effect *(Russian)* 2−61038

plastics
see also glass fibre reinforced plastics; polymers
acetal homopolymer, temp. rise under reversed bending stresses, math. model and test results 2−83227
CA80-15 cellulose nitrate track detectors, track etching response 2−113821
celluloid, softened, deform. under combined stress, viscous-viscoelasticity model *(Japanese)* 2−92082
celluloid, softened, deform. under complex loading, mirror transform. *(Japanese)* 2−93566
cellulose nitrate plastic detectors, Fe ion registration props. 2−70080
cellulose triacetate track detectors, neutron detection efficiency, theoretical model 2−80383
cellulose triacetate track detectors, neutron detection efficiency, theoretical and exptl. results comparison 2−80384
ceramic-plastic composites, electromechanical materials and their appls. review 2−77453
charged particle tracks development by electrochemical etching, soln. parameter influence 2−70068
conductive, appls. as current and heat conductors 2−56546
CR-39 and CN-88 track detectors, light particles response comparison 2−102343
CR-39 and LR-155 type II plastic track detectors for environmental Rn level meas. 2−67915
CR-39 carbonate plastic track detector for neutron and α-particle dosimetry 2−64696
CR-39 detector, ions track-profile and range, thermal pre-treatment effect on etching characts. 2−59632
CR-39 detector, neutron dosimetry based on chem. etching 2−70012
CR-39 detector, neutron spectrometry using chem. and electrochemical etching 2−70099
CR-39 detector, O effect on track etching 2−59629
CR-39 detector, radiographic characts. 2−59635
CR-39 detector, track diameters for α-particles, energy sensitivity 2−64782
CR-39 detector, tree generation around tracks by sequential elec. and chem. treatment 2−70072
CR-39 detector film development for spark counting of recoil proton tracks 2−70097
CR-39 detector response curve, effect on particle resolution, appl. areas 2−59623
CR-39 detectors electrochemical etching, parameter optimisation for neutron-induced samples processing 2−70070
CR-39 detectors treated by sequential chem. and electrochemical etching, neutron response characts. 2−70096
CR-39 manufactured in controlled temperature-time curing profiles, track respo nse 2−59626
CR-39 nuclear track detector, electrochemical etching study 2−70073
CR-39 nuclear track detectors, particle track optical props. 2−64781
CR-39 plastic detector, computerised method for automatic track evaluation using microdensitometer 2−64839
CR-39 plastic sheets exposed to CERN-SC C beam, track meas. 2−59625
CR-39 plastic track detector, etching solns., effects on response 2−59633
CR-39 plastic track detector appl. for protons, ^3He and ^4He ions detection 2−64783
CR-39 plastic track detector for α-particle spectroscopy 2−64744
CR-39 plastic track detector for high resolution α-particle spectroscopy 2−96366
CR-39 plastic track detectors with dopants, etching props. and response 2−64784
CR-39 plastics, neutron dosimetry studies 2−70011
CR-39 polycarbonate detector, UV radiation influence on nucl. track recording props. 2−96391
CR-39 polycarbonate foils for biological systems dosimetry appl. 2−59562
CR-39 polycarbonate plastic detector for B mapping in minerals and rocks 2−68522
CR-39 polycarbonate track detectors for Rn diffusion chamber 2−64828
CR-39 solid state track detectors for high energy heavy ions 2−59624
CR-39 track detector, curing cycle for detector-quality 2−59628
CR-39 track detector, etching props., post-irradiation annealing effect 2−59630
CR-39 track detector characts. for cosmic ray particle detection 2−63255
CR-39 track detector for cosmic ray appl. 2−63256
CR-39 track detectors, development status 2−59622
CR-39 track detectors, etch pit growth study using Si rubber cast technique 2−64779
CR-39 track detectors. etching conditions optimisation 2−59634
CR-39 track detectors for passive Rn gas dosimeters 2−67918
CR-39 with ^6LiF radiation, personnel neutron dosimetry study 2−70013
delrin, static and dynamic fatigue examined using isodensitometry *(French)* 2−57478
detectors, isotopic beam energy per nucleon determ. method 2−70026
detectors, submicroscopic nuclear tracks, electrolytical studies 2−59616
diamine cured epoxy resins, microballoon filled, acoustic. mech. and phys. props. 2−60322
electrically conducting, theory and appls. 2−77046
electrochemically etched nuclear track detectors, registration efficiency depend. on track formation time 2−70071
engineering, ^{13}C chem. shift meas. 2−79632
fibres, X-ray transition radiation meas. 2−64816
film deposition in low press. reactive plasmas, characteris. and applics., review 2−57287

plastics continued
foams, mech. props. change during storage, prediction 2−116508
foil detector, electrochemical etching using AC voltage 2−59640
foil detector, electrochemical etching using DC voltage 2−59639
heat resistant rubbers development for power cables and conductors 2−67273
impact strength increasing mechanism *(Russian)* 2−72846
isotropic and anisotropic, calc. of equivalent stress for given complex stress state *(Polish)* 2−77860
Lexan plastic track detector, long-term thermal annealing study 2−59631
Lexan polycarbonate and Cr-39 track detectors, track response depend. on registration temp. 2−59665
Lexan polycarbonate sensitivity to mass difference in Fe peak 2−70079
long static loading behaviour, computer aided data acqu. and eval. *(German)* 2−62334
LR-115 and CR-39 detectors calibration for Rn conc. meas. in indoor air 2−67900
LR-115 and CR-39 plastic detectors responses to Rn 2−67901
LR-115 detector, tree generation around tracks by sequential elec. and chem. treatment 2−70072
Makrofol track detectors for fission fragments, efficiency calc. 2−70076
metal-coated ABS plastics, interphase struct. *(Russian)* 2−61300
metalloplastics−high conductivity materials 2−56563
NE 102 plastic scintillator evaluation for beta-gated gamma coincidence counting 2−75116
nondestructive testing using thermography *(French)* 2−93725
nylon 66, temp. rise under reversed bending stresses, math. model and test results 2−83227
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
PET detector, tree generation around tracks by sequential elec. and chem. treatment 2−70072
PETP foil, treeing on particle tracks under different expt. conditions 2−70067
plexiglass, acrylic, optical wedge fabrication 2−114407
plexiglass, static and dynamic fatigue examined using isodensitometry *(French)* 2−57478
polycarbonate CR-39, track detecting props., internal. temp. fluctuation effects during cure 2−59627
rubber reinforced thermoplastics, structure and mech. props. 2−81689
scintillators for single pulse transmission Mossbauer spectroscopy 2−102342
serviceability, effect of radiation 2−83223
substrate, metal film coating by ion plating 2−116386
thermoplastic, forming by utilisation of recovery induced thermal deform. props. *(Japanese)* 2−88111
thermoplastic, temp. rise under reversed bending stresses, math. model and test results 2−83227
thermoplastic blends, and alloys, in industry 2−57277
thermoplastic slip, ceramic components continuous hot casting, temp. patterns calc. 2−60384
thermoplastics, relationship between Charpy and dart drop impact *(Japanese)* 2−88181
thermoset plastic connector blocks, rapid proof testing system using AE 2−83317
track detectors, $Ba(OH)_2.8H_2O$ aq. soln. as track etchant 2−64785
track detectors, neutron detection efficiency, evaluation using light transmission meas. 2−113819
track detectors appl. to at., nuclear, particle and cosmic ray physics 2−64833
track detectors behaviour in gamma dose field and high temp. conditions 2−70094
track detectors irradiated by heavy ions, IR, UV and ESR studies 2−59613
viscoelastic-plastic flow in pipes, rheological props. 2−114904
mylar, aluminised, beam exit window materials effect on detection sensitivity in PIXE anal. 2−99717

plate tectonics *see tectonics*

plates (anodes) *see anodes*

plating (electroplating) *see electroplating*

platinum
see also nuclei with .....
(110) surface, clean and with adsorbed CO and NO, surface phase study 2−86985
(110) surface with adsorbed CO, surface phase studies 2−66353
(110) surface with adsorbed NO, desorption, molecular beam study 2−87038
(111) surface with adsorbed carboxylates, struct. and reactivity 2−87035
adsorbed CO, oxidation, photocatalytic effect 2−111519
adsorbed ethylene, Ir 2−98460
adsorbed on (111) surface, scatt. cross sections for thermal He and H_2 beams 2−105027
adsorbed pyridine surface enhanced Raman scatt. induced by Ag adatoms 2−110871
adsorbed SO_2 on (111) face, decomp. kinetics, AES study 2−105509
adsorption, of ethylene and acetylene, field emission study 2−82119
adsorption and surface reactions of ethylene and O on (111) surface 2−105511
adsorption and surface reactions of O_2, CO, and ethylene on (111) surface, EELS and thermal desorption study *(German)* 2−98469
adsorption of chlorobenzene and benzene on {001} surface, angle-resolved photoemission meas. 2−56340
adsorption of CO, on flat and rough surfaces, IR spectrosc. 2−66352
adsorption/desorption of Co, effect of S layer, AES and temp. programmed desorption study 2−66369
aggregates in Y-type zeolites, at. struct., hydrocarbon adsorpt. and decomposition effects 2−65123
atoms, radiative lifetimes meas. for odd parity levels using laser excited technique 2−102433
backscattering spectra of He ions, temp. depend. and surface peaks 2−82976
bremsstrahlung excited Auger electron spectra 2−105035
catalyst, on graphite, high-resolution electron microscopy bright and dark field imaging 2−98299
catalyst, SiO_2 supported, surface struct., EXAFS study 2−99219
chemisorbed CO on (111) surface, reson. photoemission obs. 2−105039
chemisorpt. of CO on Pt(III) in presence of K, thermal desorpt. and electron energy loss spectra 2−83410
chemisorption of Cl 2−56346
chemisorption of CO, 4f surface core level shifts, soft XPS study 2−67195
coadsorption, of H_2 and CO on Pt 2−92338
coated X-ray mirror reflectivities from 3.8 to 50 keV 2−84756
conduction electron g-factor anisotropy, de Haas-van Alphen effect meas. 2−92445
crystal surface (111), butane and pentane adsorpt. and bonding, O treatment and D preadsorpt. effect 2−71793
cyclotron masses and many-body effects, relativistic APW calc. 2−56426
desorption of O, ion induced 2−115562
diffusion in Ag (1094-1232K) and Cu (1149-1352K) 2−61204
diffusion rates in $NiZr_2$ metallic glass 2−71726
electrode, adsorpt. of CO, polarisation modulated IR refl.-absorpt. spectrosc. obs. 2−115541
electrode, polarisation, linear and nonlinear systems anal. 2−58852
electrode, under pot.-pH control, small and large amplitude cyclic voltammetric studies 2−62409
film, DC reactively sputtered, C detection by $^{12}C(d,p_0)^{13}C$ reaction 2−62447
film, sputtered, internal stresses, optical reflectance, 2−82181
film, ultrathin oriented, on Al_2O_3, catalysis of methylcyclopentane hydrogenolysis 2−88381
film growth, on Rh, and evolution of interface under thermal treatment 2−82152
film interaction with Si, bilayer silicide form. 2−86949
foil, graphite covered, Br_2 iobular scatt. 2−99269
inverse photoemission, density of states, fluorescence 2−77698
ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
ion-irradiated, atomic resolution obs. of point defect struct. of depleted zones 2−103862
measurement for nuclear safeguards, automated analytical instrumentation appl. 2−74804
MOS capacitor, H_2 detection props. in H_2-O_2 mixture 2−112882
neutron irradiated, stage I recovery, effect of impurity atom size 2−103837
neutron irradiated, thermal and fast, Stage II recovery 2−103831
particles, ^{195}Pt NMR, intraparticle Knight shift broadening 2−66937
photoelectric cross-sections at L edges 2−56639
platinised, adsorption of trifluoroacetate and trifluoromethanesulphonate ions, soln. cond. meas. 2−110158
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
Pt-Al_2O_3 selective cermet coatings for high temperature photothermal conversion 2−105598
reconstructed (110) 1×2 surfaces, missing row model 2−86995
resistance thermometer, advantages, appls. improved designs *(French)* 2−84623
resistance thermometers, response linearisation 2−84624
solubility, in Bi_2O_3-M_xO_y, melt, M=Si, Ti, Ge, Zn, or Cd 2−71652
sputtered thin film, microstruct. and dislocation density, X-ray diffr. study 2−104201
substrate for I_2, I_3^5coadsorbed layer, surface enhanced Raman spectra 2−99132
surface, (100), clean and S saturated electronic struct., UPS study 2−77145
surface, (100), CO adsorption, ordered structs., LEED, EELS and IR data correlation 2−98456
surface, (110) and (111), CO chemisorption, mol. orientation, UPS study 2−87052
surface, (111), acetylene chemisorpt., extended-Huckel calcs. 2−66358
surface, (111), adsorbed CO, photoemission reson. enhancement via autoionisation obs. 2−77700
surface, (111), adsorbed NO vibr. coupling, IR reflection absorption spectra 2−56329
surface, (111), chemisorbed CO, photoemission study *(French)* 2−105052
surface, (111), NO beam interaction, laser induced fluoresc. study 2−67182
surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
surface, CO chemisorption, surface phase transitions, LEED, UPS and thermal desorption study 2−98452
surface, Cs adlayer structure, LEED study 2−115509
surface, highly dispersed, chemisorbed CO, double NMR study 2−104747
surface, stepped, He and H_2 beam scatt., refraction effects 2−93359
surface(100), 1×1−hexagonal transition, LEED study 2−115508
surface(111), clean and O_2 covered, formic acid adsorption, EELS study 2−115531
surface (100), catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
surface (100), catalytic oxidation of Co, kinetic oscills. 2−93815
surface (100), CO chemisorption, mol. orientation, UPS study 2−98455
surface (100), metastable 1×5 struct. 2−115517
surface (100), quasidynamical LEED intensity analysis in the medium energy range 200-600 eV 2−98405
surface (100), soft surface phonons and reconstruction, dispersion relations 2−92128
surface (110), cross-channel diffusion mechanism anal. 2−61288
surface (110), nonreconstructed, prep., thermal stability and adsorpt. charcts. 2−115515
surface (111), adsorbed acetylene and ethylene, angle resolved photoemission using synchrotron radiation 2−115564
surface (111), adsorbed CO, vibrational spectroscopy, EELS and IR 2−110125
surface (111), adsorbed naphthalene mol. orientation determ. by packing energy calcs. 2−87055
surface (111), adsorption of methylacetylene, propylene and 2-butenes, surface structs., LEED study 2−71804
surface (111), chemisorption from polar solvents, superlattice form., LEED, AES and mass spectra study 2−92354
surface (111), chemisorption of H_2, surface motion effect, quasi-classical trajectory study 2−66346
surface (111), clean and adsorbate covered, He beam scatt. 2−99259
surface (111), clean and with chemisorbed CO, surface 4f core level binding energy shifts 2−87359
surface (111), CO chemisorpt. and oxidation, mol. orbital study 2−98463
surface (111), HD scatt, rot. mediated selective adsorption calcs. 2−87012
surface (111), interaction of NO, mol. beam study 2−57238
surface (111), low energy alkali ion backscatt. 2−116323

platinum continued
surface (111), NO adsorption-desorption kinetics, mol. beam study 2−104144
surface (111), scatt. of NO, angular and vel. distribs. 2−99250
surface (111), scattering of NO, vibr. and rot. energy distrib., two-photon ionisation study 2−87932
surface (111), water form. from coadsorbed O and H, XPS and temp. programmed reaction obs. 2−83411
surface (111) and stepped surface (755), adsorbed K and K_2O monolayers, LEED, AES and TDS 2−56365
surface (321), kinked, adsorpt. of CO 2−61292
surface (997), double step form. and destruction dynamics, O_2 induced, He beam scatt. study 2−115513
surface (997), reconstruction, O_2 induced, He diffr. pattern shape changes 2−115514
surface blistering by 6 MeV alpha particles, temp. thresholds 2−80219
surface reactions of CO+NO on Pt, long transients at high press. 2−78131
surfaces, dehydrogenation of cyclohexane, cyclohexene and cyclohexadienes to benzene 2−83415
surfaces (111) and (997), clean and O covered, thermal He atom scatt. *(German)* 2−87001
thermometric resistance sensors, ZPA, low-temp. meas. in range 13-80K *(Czech)* 2−89727
thin film, methane, ethane or propane coadsorption with H_2, surface pot. meas. 2−92353
thin film, non-ohmic cond. and magnetoresistance 2−87419
thin film resistor, temperature sensor appl. *(German)* 2−79584
trace quantity determ. by atomic absorpt. spectrophotometry 2−116767
vacancies formation vol. and energy meas. 2−98076
Au/Pt (001) and (111) interface struct., misfit dislocations, TEM study 2−76843
^{3}He-Pt thermal boundary resistance study 2−86968
P_2O_5 fuel cells aged electrodes in-situ regeneration of active surface area by electrochemical methods 2−78205
Pt particulate films, CO chemisorption 2−76818
Pt, sputter deposition on ZrO_2 ceramic, interfacial reaction, Auger line shape and factor anal. 2−83429
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Pt/Al_2O_3 cermet, selective absorber coatings for solar radiation 2−83512
Pt/n-GaAs Schottky interface, effects of surface treatments 2−98743
Pt/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pt/TiO_2, thermal desorpt. of H_2 and CO 2−105502
Pt/TiO_2 particle, photochem. diode model and photocatalytic activity 2−78127
Pt-Al reaction, thermal study, and its effects on contact resistance to Si 2−87388
Pt-Si (100), PES study of interface states 2−77152
Pt-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Pt-Si interface bonding, XPS study 2−110477
Pt-Si system, mechanisms and interfacial layers, book contrib. 2−61214
Pt(S), H_2+O_2 surface reaction kinetics 2−116727
PtSi/Al contact to Si 2−110472
Rh, layer by layer growth of Pt, O_2 adsorpt. and Rh segregation *(French)* 2−83122
Si:Pt, deep levels obs., anal. of admittance spectroscopy method 2−115701
Si:Pt, minority carrier capture cross section meas. 2−66569
Si-Pt, interface states, XPS study 2−82423
Ti/Pt/Au thin film circuits, conductive via processing utilising RF sputtering and electrodeposition 2−99338
TiO_{2-x}:Pt ceramics, heat treated, elec. rectification obs. due to $PETi_3$ lamellar microstruct. 2−115748

platinum alloys
see also platinum compounds
catalyst, on SiO_2, high-resolution electron microscopy bright and dark field imaging 2−98299
dilute, neutron irradiated, influence of impurities and radiation doping on defect production 2−76511
dilute, thermal and fast neutron irradiated, interstitial-impurity reactions during stage I 2−61041
rare earth ternary alloys, RPtSi (R=La, Ce, Pr, Nd, Sm, Gd), cryst. struct. 2−65922
wettability of molten glass on Pt alloys, bond parameter approach *(Chinese)* 2−61253
$Al-Al_{21}Pt_5$, unidirectionally solidified eutectic, microstruct. and mech. props. 2−116434
$Ce(Rh_xPt_{1-x})_2$, intermediate valence effects in mag. susceptibility and lattice consts. 2−87200
Co-Pt (50 at.%), shear modulus, magnetomech. effects 2−56908
CoPt ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
CuPt(48.1 wt.%), press. induced variation of order-disorder transition *(Russian)* 2−56187
$DyPd_{1-x}Pt_x$, phase relationships and struct., 2−109744
Fe-Ni(Ti)(Ga)(Al)(Co)(Pt), flow stress at low temp., influence substitutional elements 2−105213
Fe-Pt Invar alloys, disordered, mag. props. suggesting premartensitic transform. 2−87490
$Fe(Mn_xPt_{1-x})_3$, antiferromag. structure, neutron diffr. study *(Russian)* 2−87477
Fe_3Pt, magnetisation near Curie temp. 2−72275
Fe_3Pt, ordered, thermoelastic martensitic transform. free energy changes 2−105143
$GdNi_{1-x}Pt_x$, phase relationships and struct., 2−109744
$Ir_{1-x}Pt_x$, Mossbauer spectra, localised moment continuous formation 2−82763
Nb_3Pt, neutron irrad., normal-state resistivity anal. 2−56550
Ni-Pt, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Ni-Pt interaction with Si 2−86953
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
Ni-Pt-P, amorphous, NMR, Knight shift and linewidth 2−93031
NiPt, depth resolution in ion bombardment SIMS 2−99284
NiPt/Si interface, NiSi formation at silicide/Si interface 2−104078
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483

platinum alloys continued
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2−72208
$(Pd_xPt_{1-x})_3Fe$, atomic-ordered, sp. ht., 3 to 20K *(Russian)* 2−56204
Pt-C, defect clustering induced by secondary collisions during HVEM irrad. 2−92042
Pt-Co(Fe), weakly ferromag. alloys, elastic diffuse neutron scatt. 2−98849
Pt-Cu(Au), thermal and fast neutron irrad., Stage II recovery 2−103831
Pt-Ge, liq., thermodynamic props. rel. to bonding and short-range order 2−91756
Pt-IR clusters, catalysts, EXAFS study 2−67149
Pt-Mn, Kondo system, nucl. spin relax. of host metal, field depend. 2−116083
Pt-Mn, spin glass, sp. ht. meas., 0.5 to 20K 2−98887
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
Pt-Ni alloys, layer-by-layer calcs. of alloy comps. 2−82087
Pt-P, NMR, Knight shift and linewidth 2−93031
Pt-Rh (10 wt.%) surface, blister formation by irrad., exposure and temp. depend. 2−74928
Pt-Rh alloys, field evaporation events as Markov chains, time of flight atom probe study 2−93381
Pt-W(Si) Si, shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
PtBi, band struct. and optical props. 2−76916
$Pt_{0.98}Cu_{0.02}$, surface segregation and surface electronic interactions, UPS and AES study 2−66612
$Pt_{10}Ni_{90}$, chemisorpt. of benzene, hydrogenation and exchange *(French)* 2−67766
$Pt_{10}Ni_{90}$, surface (111) composition determ. by AES, XPS and ion scatt. spectroscopy 2−98410
Pt_xNi_{1-x}, chemisorbed CO, photoemission study *(French)* 2−105052
Pt_3Pb, polycrystalline, O_2 adsorpt. at high temps., SIMS study 2−104170
PtPd, depth resolution in ion bombardment SIMS 2−99284
PtSi, AES depth profiling, ion bombardment effects 2−99234
PtSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
$Pt_2Si(PtSi)$, ion bombardment damage and annealing, sheet resist. study 2−56044
Rh-Pt (10 wt.%), (111) surfaces, stability of C islands 2−87089
Si/Pt-Si, contact reaction, Auger electron spectroscopy study 2−72058
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si-PtSi Schottky barrier diodes, implanted P distrib., barrier height 2−82457
VPt system, bandstruct. study 2−104242
VPt_3, FCC and tetragonal, ferromagnetic props., critical behaviour 2−82603
V_3Pt, band struct., XPS, NMR and sp. ht. studies 2−104243
Zr-Pt, amorphous, thermal stability study 2−104029

platinum compounds
see also platinum alloys
linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
$Co_{0.37}Na_{0.14}Pt_3O_4$, non-stoichiometric, anal. of internal struct. distortions, neutron diffr. study 2−103697
$K_2P+(CN)_4Br_{0.3}.3.2H_2O$, NMR studies on cryst. water mol. motion 2−110652
$K_2P_x(CN)_4Br_{0.3}.3.2H_2O$, quasi-one-dimensional cond., phys. props., review *(Japanese)* 2−82332
$K_2Pt(CN)_4Br_{0.3}(Cl_{0.3})$-$3.2H_2O$, solitary waves and low-temp. cond. 2−87245
$K_2Pt(CN)_4Br_{0.3}.3D_2O$, under press., metal-semiconductor transition 2−76929
$K_2Pt(CN)_4Br_{0.3}3.2H_2O$, H_2O mol. motion, PMR spin-lattice relax. study 2−93043
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
$Li_{0.64}Pt_3O_4$, non-stoichiometric, anal. of internal struct. distortions, neutron diffr. study 2−103697
$Nb_{5.04}Pt_{2.97}O_{1.08}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
Pt complex, (π-allyl)palladium complex ion pair, NMR and X-ray crystallography 2−87600
Pt complex, cis-diamino dichloro platinum(II) analogs, antitumour activity, INDO-SCF calcs. 2−80485
Pt complex, cis-dichlorobis(glycine)Pt(II), X-ray struct. study 2−76395
pt complex, dihydroxy-ethylenediamine-malonatoplatinum, cryst. and mol. struct. *(Chinese)* 2−98010
Pt complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
Pt complex, $Pt(en)_2.Pt(en)_2Cl_2.(4/2)CuCl_4$, cryst. struct., space and Laue group changes 2−65901
Pt complexes, diaminodihaloplatinites, cis-trans isomerisation, NQR study 2−108559
Pt complexes, ethylene-Pt cpds., inelastic neutron scatt. and spectrosc. obs. 2−108682
Pt complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
Pt-Pb complexes, heteronucl. second-order coupling effects in NMR 2−80666
$PtBr_4^{2-}$, bond order from Raman intensity data 2−59962
$PtCl_4^{2-}$, bond order from Raman intensity data 2−59962
Pt(II) complex, cis-$(^{15}ND_3)_2Pt(OD)_2Pt(^{15}ND_3)_2^{2+}$, ^{195}Pt chem. shift and Pt-N coupling consts. 2−90575
$Pt(NH_3)_4PtCl_4(HSO_4)_x$, synthesis, optical props., and cond. 2−93190
$Pt(PH_3)_4$, catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
$PtSb_2$, narrow-gap semiconductor, elec. props. in DC and microwave fields 2−87313
PtSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
PtSi, preferential sputtering 2−77681
PtSi-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Pt_2Si localized growth causing Ti/Pt/Au beam lead metallization instability, soft X-ray spectra 2−115608
Pt_2Si nucleation from RF sputtered Pt film on Si 2−92385
$PtWO_3$, hypothetical electrode material band struct. and electronic density of states 2−66447

pleochroism
see also dichroism
$CdGeP_2$:Ga photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
$CdSnP_2$:Cu photopleochroism spectrum, imbedded n-p junction depth effect 2−61523

plexiglas *see plastics*

plugs (electric) *see electric connectors*

Pluto
appulse to star, 1982 April 15, probably no occultation 2−63312
astrometric observations of outer planets and minor planets, (1980 to 1982) 2−106611
atmosphere and surface physics, book *(Russian)* 2−84392
Pluto-Charon system, speckle interferometric obs. (1980 June 5) 2−106612
polarisation of reflected light 2−79026
UBV photometry of Pluto near perihelion, results *(Russian)* 2−63313

plutonium
see also nuclei with .....
see also fission of plutonium
assay in nuclear waste packages, modular 4π neutron counting system 2−64471
Columbia River, Washington, USA, radioactivity due to upstream reactors 2−57745
contaminated materials from nuclear fuel cycle, treatment and disposal 2−107978
core level and valence band XPS spectra 2−105036
Cumbria environmental radioactivity, sea spray actinide enrichment in West Cumbria 2−111802
detection using Ge planar detectors array 2−85481
determination of ionic species, in soln., spectrophotometric meas. at low concs. 2−57664
fission materials, hazard pot. anal. *(German)* 2−85152
fuel fabrication residues and wastes 2−107977
international storage scheme, possibilities 2−102055
isotopic anal. using automated mass spectrometer 2−74563
isotopic composition, γ-ray spectroscopy appl. 2−54711
itinerant 5f electrons, localisation at high temps. 2−76962
monitoring and detection of movement in storage vaults 2−74803
Mono Lake, California, chemistry of elevated Pu concs. 2−94408
recovery from alpha waste 2−108031
recovery from fuel fabrication residues 2−108030
transuranic radionuclides in nuclear power plant environs, concentrations and distribution 2−59503
γ-ray spectra anal. using portable microcomputer 2−74394
Pu, anal. using mass spectroscopy 2−74567
Pu/(U+Pu) ratio determ. in FBR fuel pellets by X-ray fluoresc. anal. 2−85139
Pu(IV) complex formation, with SO_3 ions, spent fuel extraction appl. 2−64548
^{A}Pu (A=239, 240), fallout radionuclide, transport through Saguenay Fjord fluvial-marine system 2−99856
^{A}Pu, A=238, 239, 240, importance of contamination on vegetation surfaces at Rocky Flats, Colorado 2−78458
^{236}Pu, production in a nuclear reactor 2−113803
^{238}Pu,Be neutron source, effect of collimator and depth in phantom on neutron spectrum 2−117069
^{239}Pu and γ-radiation, combined effect on rat thymus nucleic acid metabolism *(Russian)* 2−88597
^{239}Pu, dominant lethal and ovarian effects in female mice 2−117001
^{239}Pu, monomeric, effects on foetal rabbit 2−111747
$^{239+240}$Pu/^{137}Cs and $^{230+240}$Pu/^{90}Sr in Greenland ice sheet cores as fallout records 2−69994
^{244}Pu concentration in chondritic phosphates and significance in meteorites fission track dating 2−68685

plutonium alloys
metallic glasses, based on U, Np or Pu, formation 2−72651

plutonium compounds
see also plutonium alloys
complexes, UV and visible absorption spectra calcs. 2−96585
UC-PuC fuel pins, neutron irrad., swelling, microstruct., fission gas release 2−80108
$CaPuTi_2O_7$, alpha decay self irrad. damage 2−80064
$(Pu,U)O_2$ fuels, unirradiated, Pu solubility determ. *(German)* 2−85138
PuC LMFBR fuel rods, modelling code, URANUS 2−90227
PuCoC, ternary compound struct., X-ray diffr. anal. 2−102040
PuF_6 vapour, electronically excited states, fluoresc. obs. 2−59852
PuNiC, ternary compound struct., X-ray diffr. anal. 2−102040
PuO_2, enthalpy values 2−80084
PuO_2 fuel, ceramic, preparation for FBRs 2−102100
PuO_2 fuel tubes, uniformity testing, γ-ray monitor appl. 2−54491
PuO_2, high temp. enthalpy 2−80065
PuO_2, secondary dissolution method, for reactor fuel reprocessing 2−64550
PuO_2^{2+}, reduction by γ-radiolysis in aqueous HNO_3 2−96125
PuO_2-UO_2 mixed oxide fuel rods construction and manufacture *(German)* 2−96095
$PuSb_2$, magnetic props. 2−92872
Pu_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
$^{239}PuO_2$, inhaled into rat and hamster lungs, distrib. 2−73380
$^{239}PuO_2$, pulmonary tumours in Syrian hamsters following inhalation 2−57865
$^{239}PuO_2$ inhalation effects, morphometric study of rat and hamster lung 2−62693
(U,Pu)C, swelling investigation 2−64479
$(U,Pu)O_2$, combustible fuel elements irrad. in fast reactor, ^{13}C presence *(French)* 2−96096
$(U,Pu)O_2$, enthalpy values 2−80084
$(U,Pu)O_2$ fuel element, strongly radioactive, X-ray microanal. *(French)* 2−67786
$(U,Pu)O_2$ fuel pellets fabrication from gel microspheres 2−108028
$(U,Pu)O_{2-x}$, relationship between FBR fuel and product quality *(German)* 2−96094
UC-PuC, fuel element fabrication and test 2−80110
UC-PuC, reactor fuel processing for LMFBR 2−80143
UC-PuC fuel pins, He-bonded, irrad. performance in EBR-II 2−80103
UC-PuC fuel pins, He-bonded, transient performance in TREAT 2−80105
UC-PuC fuel pins, irrad. performance in EBR-II 2−80102

plutonium compounds continued
UC-PuC mixed fuel, He-bonded, irrad. to goal burnup, behaviour in EBR-II 2−80104
UC-PuC mixed fuel, performance modelling code LIFE-4C, verification expts. 2−80109
UO_2, LWR fuels prod. and charact. *(German)* 2−85158
UO_2-$(U,Pu)O_2$ system, interdiffusion and chem. diffusion 2−85146
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, mixed-oxide fuel, U and Pu distrib. *(German)* 2−96090
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
UO_2-PuO_2 fuel pellet shape and structure influence on fuel pins operating behaviour 2−85148
UO_2-PuO_2 pellets, structure development during reduction sintering from granulated powders 2−85161
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162

PMDR
4,4′-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
naphthalene in dihalobenzenes, coherence in phosphoresc. triplet state, pulse ODMR study 2−104748

PMPS *see PMDR*

PMR *see proton magnetic resonance*

pneumodynamics
see also lung
alti tude acclimatisation, lung mech props. 2−111716
apnea monitor, neonatal, multi-microcomputer based 2−62820
breaths, algorithms for detect. from respiratory waveform recordings of infants 2−68181
bronchial tree model, canine, steady press-flow relationship 2−78375
bronchial tree model, human, steady expiratory flow-press. relationship 2−105750
cardio-pulmonary assessment using computerised rotating vane spirometer 2−117123
cough dynamics during progressive expiratory muscle weakness in healthy curarised subjects 2−78370
degassing effects on mech. props. of normal, hyperoxic, and irrad. mouse lungs 2−78366
diffusive gas mixing in hyperbaric environments, hindrance 2−78359
emphysema, canine model, correl. between lung struct. and function 2−78364
expiratory flow, use of computational model to simulate airway abnormality effects 2−88489
expiratory flows, steady, in dog lungs, isovol. prep. 2−78383
flow measurement by inductance pneumography 2−83680
flow partitioning in symmetric cascades of branches 2−73277
flow pulsation and mech. oscill. in augmentation of gas transport through coiled tube, artificial lung appl. 2−73395
flow-volume loop, lung mass determ., weightlessness effect, astronaut appl. 2−62785
gas mixing by cardiogenic oscills., theoretical quantitative anal. 2−78382
HF jet ventilation, cardiac synchronised, haemodynamic effects in dogs 2−73294
human respiratory tract deposition using multimodal aerosols 2−111824
hypercapnia, prolonged, effects on props. of rat lungs 2−116951
impedance pneumography, methods of filtering heart-beat artefact from breathing waveform of infants 2−68182
infant breathing dynamics 2−116953
inflation-deflation manoeuvers, bulk modulus rel. to relative vol. 2−105748
inspiratory occlusion pressures of humans, breath-to-breath monitoring 2−78469
intercostal retractometer for estimation of intrapleural pressure changes in infants 2−111804
intraoesophageal pressure, absolute, at functional residual capacity in infancy 2−78362
longitudinal gas mixing in glass tube models, effects of gravity and branching 2−111719
model, nonlinear, combining pulmonary mechs. and gas conc. dynamics 2−100024
mouth and nose resistance in newborn kittens and puppies 2−73280
multiple branching network, steady and pulsatile flow distrib., physiological appls. 2−105731
nasal flow in unrestrained domestic rabbits, meas. instrument, olfactory research appl. 2−111817
nasal resistance rel. to alae nasi activation in healthy subjects 2−111717
neonatal respiratory signals, quantitative anal. of periodicity 2−78468
non-linear model of breathing mechs., appl. to design and use of ventilators 2−117136
nuclear medicine pulmonary imaging advances, review 2−94202
occlusion pressures during the ventilatory response to hypoxemia in the newborn monkey 2−78378
peribronchial stress anal. utilising concentric shells of parenchyma 2−105751
phonopneumography, microcomputer-based analysis of recorded breath sounds 2−62826
pneumocardiogram rel. to stroke vol., dog expts. 2−111721
pressure-flow relationships, steady and unsteady, in central airways 2−78384
pressure-volume relationships of human lungs, alveolar collapse and airway closure 2−78365
pulmonary airway dynamic system, nonlinearity 2−100035
recoil hysteresis increase rel. to vagal stimulation and aerosol histamine 2−78369
resistance-volume curve, use in pulmonary ventilation assessment 2−78356
respiratory impedance, freq. dependence and partitioning in dogs 2−73279
respiratory mechanical model, 5-element, parameter estimates 2−78357
rib cage or abdominal restriction, effects on lung mechs. 2−78376
single-breath method for respiratory mechs. meas. in anaesthetised animals 2−117156
sleep-wake patterns charact. rel. to sudden infant death syndrome, spectral analysis 2−62819
specific conductance meas. using forced airflow oscill. in mech. ventilated human subjects 2−73382
spirogram analysis for quiet breathing 2−100023
spirometry system, microcomputer based, remote pulmonary function anal. 2−73385
spontaneous breathing, linear modelling of ventilatory mechanics 2−73273
upper airway receptors in humans, physiological stimulus 2−78380

pneumodynamics continued
ventilation and acid-base balance in desert iguanas, effects of temp. 2−78295
ventilation and chest wall mechs., changes during sleep in normal adolescents 2−73275
ventilation and ventilators, historical review 2−117135
ventilation distribution, changes rel. to lung growth 2−73285
ventilatory frequency rel. to regional transpulmonary press. in normal adults 2−73283
ventilatory reflexes in humans, effect of transrespiratory press. 2−73281
ventilatory responses to muscular vibrs. in healthy humans 2−78361

PNO calculations
No entries

Pockels effect
corona discharge, electric field meas. using Pockels device 2−115071
dust, high-velocity, holographic image subtraction using a Pockel's cell 2−96863
electric field measurement method in space charge by Pockels device 2−79544
multistep laser pulse generation using passive electrical networks in cavity-dumped Q-switched oscillator driver 2−81005
photorefractive crystals, optical image form. using Pockels effect 2−104853
pulse slicing with Pockels cell shutters 2−55312
KD_2PO_4, Pockels effect, image storage tube appls. *(Czech)* 2−82826
KH_2PO_4, Pockels effect, image storage tube appls. *(Czech)* 2−82826
Nd:YAG unpolarised electro-optically Q-switched laser, report 2−96990

point contacts
Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
metal-metal point contacts, resist. and kinetic inductance, electron-phonon effects *(Russian)* 2−98727
metallic point contact IR detectors, Green's function soln. to multiple image interactions 2−98728
normal metal point contacts, non-Ohm's law behaviour 2−87375
whisker structures for IR diodes at 10.6 μm, EM effective length 2−95469
Ag, low freq. elec. fluctuations 2−110449
Al point contact spectra, electron-phonon interaction anisotropy *(Russian)* 2−56673
Au, low freq. elec. fluctuations 2−110449
$CdCr_2Se_4$ single crystals, production of ohmic contacts 2−77179
Cu, low freq. elec. fluctuations 2−110449
Cu, point contact spectroscopy, temp. depend., nonequilib. phonon temp. *(Russian)* 2−61565
K, point contact spectra, pseudopot. calc. 2−76626
LaB_6, point contact spectroscopy of dynamic resistance 2−56591
LaSe, point contact spectroscopy of dynamic resistance 2−56591
Na, point contact spectra, pseudopot. calc. 2−76626
Nb Josephson point contact, supercond. energy gap, RF noise enhancement study 2−92829
Nb, superconducting point contact, crit. current-normal state resist. product meas. 2−56791
Re, single cryst., electron-phonon interaction, point-contact spectroscopy 2−56132
SmB_6, point contact spectroscopy of dynamic resistance 2−56591
TmSe, point contact spectroscopy of dynamic resistance 2−56591
W-Gd point contact M/M diode, improved performance 2−98761
W-Ni point-contact diode, expt. nonlinearity coeffs. 2−56723

point defect scattering
used for carrier scattering by point defects
GaAs:C layers, elec. props., and electron microscopy 2−61628
n-PbTe epitaxial layers, ionised defect scatt. mobility 2−92671
Ti, electrical resist., plastic deform. and temp. influence *(Russian)* 2−61438

point defects
see also colour centres; interstitials; point defect scattering; vacancies (crystal)
alkaline earth fluorides, thermal neutron irradiated, point defects study 2−65985
alloys, complex, high temp. radiation damage 2−109843
alloys, precipitate coarsening, induced by point defect recombination under irrad. 2−83121
alloys, segregation kinetics under irradiation *(Russian)* 2−104003
cholesteryl chloride-cholesteryl myristate mixture, negative-positive monopole transitions *(Russian)* 2−81961
clusterisation, statistical, theoretical probability model *(Russian)* 2−61018
creep, irrad. and thermal, by dislocation climb, theory 2−86709
critical behaviour for crystal with point defects, scaling appl. 2−115390
crystals, point defects detection using high-angle diffuse scattering in STEM 2−76436
crystals near phase transition points, nucl. mag. relax. 2−110677
cubic crystals, nucl. mag. relax. induced by lattice defect dynamics 2−104736
diamond, containing lonsdalite, ESR spectra, structural defects 2−72344
diffusion, biased, of radiation point defects to interactive sinks 2−110045
diffusion processes in irrad. materials with point defects, transport eqns. *(Russian)* 2−92251
dislocation, point defect interactions and amplitude independent US absorpt., theory *(Russian)* 2−115229
dynamics of systems with two interfaces 2−115523
elastic isotropic medium, mechanical interaction of points defects and volume defects near curved surfaces 2−56005
elastic isotropic solid, point defects elastic interaction, defect-matrix modulus influence 2−56006
elastically anisotropic cubic material, elastic dipole interaction of point defects in spherical specimen 2−91961
FCC metals, high energy recoils, computer simulation, cascade shapes and sizes 2−86712
film, ferromag., elastic strains in crystallite boundaries, segregated pt. defects effect on induced anisotropy *(Russian)* 2−66877
imaging of lattice defects by double diffractometric transmission topography 2−71289
insulating crystals, defects, conf., Riga, USSR (May 1981) 2−68967
insulator surfaces, electronic struct. of point defects, review 2−61539
irradiation creep, cascade-induced point defect fluctuations 2−86708
metal coating, reflective, failure by cracking 2−61319
metals, electronic props. of point defects, review 2−92519
metals, FCC, internal friction, time evolution under irrad., peaking effect 2−98196

point defects continued
migration to dislocations, recomb. effect *(Russian)* 2−98346
oscillating kink-mobile point defect interaction and resulting internal friction, computer simulation *(Chinese)* 2−92106
photogalvanic centres in crystals, models 2−110382
quartz, natural, thermoluminesc., paramag. defects effects 2−77573
quartz, synthetic, defects, effect on vibr. characts. and resonator performance 2−99044
quartz point defects, acoustic loss, IR and magnetic resonance results 2−98084
radiation point defect annihilation, effect on dislocation struct., theory *(Russian)* 2−98085
rare earth doped alkaline earth fluorides, point defect modelling 2−103757
reaction rate constant of point defects with traps close to cryst. surface 2−91955
semiconductor, point defect creation, electronic effects *(Japanese)* 2−115228
semiconductors, diamond and zinc-blende structurs., point defect energy spectrum calc. 2−115709
semiconductors, electronic struct. induced by short-ranged defects, calc. method 2−104296
single crystal surface, chem. reactivity, surface irregularities and point defects role 2−57637
sink capture efficiency, and sink strength for point defects 2−66039
sink strength, thin foil, with bulk recombination 2−60970
solid solutions, substitutional, order-disorder transitions, review 2−98245
steel, ferritic struct., point defect production and behaviour in fusion reactor 2−69830
STEM, point defects detection using high-angle diffuse scattering 2−76436
superconductors, vortex line pinning to small defects 2−87464
TEM, high-resolution, detection of point defects accommodating nonstoichiometry 2−97879
titanomagnetic solid solns., phase and point defect equilibria 2−109792
vibrational behaviour, renormalisation group method 2−81918
void growth, effect of precip.-matrix interface sinks 2−86661
Zircaloy, neutron irrad., microstruct. and dimens. changes, irrad. growth theory 2−109848
Ag, point defect props. calcs. based on three-body interactions 2−91962
Ag-Zn, irradiated, Zener relax. of point defects 2−56082
AgBr, surface pot. and Debye length, temp. depend. 2−61536
Al, defect structure, offer low-temp. plastic deform. *(Russian)* 2−67444
Al, deformed, elec. resistivity recovery during isochronous annealing, kinetics *(Russian)* 2−92563
Al, ion implanted, radiation damage and annealing studies 2−76532
$n\text{-}Al_xGa_{1-x}As$:Te solid soln. LPE layers, carrier diffusion length, conc. depend., 77-300K *(Russian)* 2−56741
$\alpha\text{-}Al_2O_3$, defect energetics, Mott-Littleton computational method 2−65987
As_2S_3 chalcogenide glass, time resolved photoluminescence 2−116253
Au, point defect props. calcs. based on three-body interactions 2−91962
$BaTiO_3$, phase transition, bound symm. *(French)* 2−87714
Be, diffusion of C, dislocation damping 2−56262
Bi, electron radiation damage, electron microscopic study 2−61036
Bi, thin film, as grown, lattice distortion energy spectra, thickness depend. 2−87415
Bi_2Se_3:(Cd), transport props. and plasma resonance 2−98646
$Ca_{10}(PO_4)_6F_2$, fission track radiation damage, diffusion to surface, defect absorpt. study 2−99162
CdS:Cu,Cl, point defect luminescence anal. *(Russian)* 2−87869
Cu, binary collision simulations of high energy displacement cascades 2−103868
Cu, Cu-Mn(Al)(Ni), neutron irrad., 14 MeV, damage development and hardening 2−109841
Cu, point defect props. calcs. based on three-body interactions 2−91962
Cu, ultrasonic irrad., effect of neutron irrad. on mechanical props. *(Russian)* 2−76512
Cu-Be, TEM obs. of microstruct. evol. in simulated ion irrad. alloys 2−86745
Cu-Be system, local vibr. levels, effect of long range stress fields, neutron scatt. study 2−71599
γ-Fe vacancy pore-point defect interaction, computer modelling 2−92024
GaAlAs DH LEDs, recombination-induced deep level form., DLTS study 2−98588
GaAs, deep level elec. field induced phonon assisted tunnel ionisation 2−71909
GaAs, semi-insulating, point defect chemistry, paramag. resonance technique review 2−93005
GaAs:N, radiation damage and near edge optical props. 2−71523
GaAs:Si, defect struct., effect of annealing Zn and Cu diffusion 2−55976
GaP, deep level elec. field induced phonon assisted tunnel ionisation 2−71909
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
GaP:O, point defect electron states, enfeebled O bonding and metastability 2−61351
GaSe, elec. props., effect of gamma irradiation *(Russian)* 2−76498
Ge, electron bombarded, point defect generation, nonequilib. carrier lifetime study 2−56036
InP, (n, γ)-induced point defects, NMR study 2−98980
InP, electron irrad., 200 to 300°C in HVEM, radiation damage 2−92040
InP, electron irrad., defect form. and annealing 2−98159
InSb, (n, γ)-induced point defects, NMR study 2−98980
KCl, crystals, surface polarisation by blocked point defects, TSC study 2−110750
LiF and ^{6}Lif TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
MgO_1 mechanically treated powder, struct. under impact, X-ray and Mn^{2+} ESR study 2−93472
Mo, self-ion implanted, in situ annealing 2−92011
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
$Nb_{22}O_{54}$ oxidised at 200°C, point defects, structural changes, TEM obs. 2−55965
Nb_3Sn, for fusion reactor magnets, displacement cascades, TEM obs. 2−109862
Ni, preliminary electron irrad. influence on low-temp. creep, pt. defect control of activated dislocation glide *(Russian)* 2−67448
Ni-Ge(Si) alloys, radiation-induced segregation, defect prod. rate effect 2−92055

point defects continued
$Pb_{0.7}Sn_{0.3}Te$ film, struct. and elec. props., Ar^+ bombard. and annealing effect 2−56731
PbTe film, charge carrier conc. and mobility variations after deposition 2−66680
$PbTiO_3$, 180° polarisation switching and dielec. props. associated with point defects 2−82803
Si, epitaxial stacking faults, elec. props., crystallographic struct., interaction with point defects 2−92379
Si, ion implantation, amorphous phase and point defect generation, generalised overlap-damage model 2−115315
Si, ion implanted, pulse laser annealed, defect-induced photolum. 2−57181
Si, oxidation induced point defects, stacking faults and dopant diffusion, theory 2−91951
Si, point defects, substitutional Ni diffusion study 2−56259
Si, point defects dark-field lattice phase imaging obs. technique 2−86527
Si:As(W), ion implanted, defect features 2−103796
Si:B, ion implanted, radiation damage production 2−61009
Si:B, US investigation of acceptor ground state, distrib. of splittings 2−98577
Si:O, O diffusion and thermal donor formation, review 2−82021
Si:P crystal, γ-induced point defects, H passivation 2−103758
α-Sn, n-type, electron irrad., acceptor point defects, elec. resist., thermoelec. power and Hall effect study 2−61394
TiO_2, defect energetics, Mott-Littleton computational method 2−65987
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971
Tl, polymorphic transition kinetics, point defect relax. processes, elec. resist. study *(Russian)* 2−92174
Y_2O_3:Nd laser oscillation props., point defect conc. effects 2−96954
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515
ZnS:Mn film, sputter deposit, luminesc. and struct. props. variation with annealing 2−93287
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956

point groups *see crystal atomic structure*

point of sale systems
IBM 3687 Supermarket Scanner, holographic deflector disc 2−75539

point to point radio links *see radio links*

Poiseuille flow
2D /channel Poiseuille flow characteristics 2−76019
duct flow, wall conductance effect on heat diffusion 2−86339
ethanol, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
falling parabolic jets, Poiseuille flow, instabilities, vorticity induced waveforms 2−76030
Hagen-Poiseuille MHD flow, stability, nonlinear theory 2−103221
hydrazine, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
inviscid shear flows, finite amplitude waves, Couette-Poiseuille channel flow 2−97575
linear inviscid stability of rotating Poiseuille flow 2−109412
MHD Poiseuille-type flow, heat transfer 2−60669
micropolar fluid with non-zero couple stress at boundary, blood flow appls. 2−105711
naturally permeable plane channel, unsteady flow of incompressible fluid 2−71034
Navier-Stokes fluids, steady rectilinear complex-lamellar universal motions 2−114820
nonlinear wall roughness effects on high Reynolds no. stability 2−109287
oscillatory plane Poiseuille flow, instability calcs. 2−65648
plane, in subcritical range, nonlinear stability theory 2−76029
plane Poiseuille flow, flow visualisation study of transition triggered by TiO_2 coated mica particles 2−109410
pyrolene 1460, unipolar ion injection and Poiseuille flow. *(French)* 2−86342
sphere rotating in viscous fluid in cylindrical tube 2−97556
viscometric flow stability *(German)* 2−70914

Poisson ratio
alkali halide, Poisson ratio vol. depend., Gruneisen parameter calc. 2−56144
annular membrane under axial load 2−91257
backward elastic waves in isotropic plates 2−81888
bimaterial incompressible body, plane strain interfacial fracture anal. 2−55498
cylinder, rigid restrained, dispersion eqn. complex roots anal. *(Ukrainian)* 2−114705
Earth crust, Poisson ratio at The Geysers-Clear Lake geothermal field, California from seismic wave vel. meas. 2−88778
fatigue crack growth, environmentally assisted, outline model 2−81881
fibre inclusions embedded in elastic plate, yield loci 2−55450
graphite fibre reinforced epoxy, three-dimens. elastic moduli 2−88120
Hertzian fracture angle, depend. on Poisson's ratio and indentation technique 2−81883
ice, mech. props. 2−115349
incompressible media, soln. of fundamental problems of elasticity theory 2−53517
isotropic bodies of cubic crystals, Young's modulus and Poisson's ratio determ. from X-ray meas. *(German)* 2−83320
linear materials, plane problems, uncoupled thermoviscoelastic response for all Poisson ratios, finite element formulation 2−81243
metals, interionic interactions model, elastic consts. and phonon spectra calc. 2−81711
neutron diffraction method of stress measurement, stress gradient in Al alloy bar 2−99618
non-propagating threshold of fatigue cracks, numerical approach 2−66113
nonuniform elasticity theory with variable Poisson ratio, axisymm. problem *(Ukrainian)* 2−103039
plasticity, spread from cuspidal points of rigid inclusions 2−114666
PMMA double torsion specimens, geometrical obs. on crack front profiles 2−116529
polymer, glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
polymer sphere Poisson ratio meas. using Newton's rings 2−114742
polymers, coke filled, strength and deform. props. 2−83188
polymers, Poisson's ratio meas., new technique 2−95363
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687

Poisson ratio continued
sheet moulding compounds, fracture behaviour, influence of constituents on mech. props. 2−67481
AgCl-AgBr mixed cryst., interionic pot. and cryst. props. 2−65916
Al_2O_3, sintered, variable microstruct., strength meas. *(French)* 2−88154
$CdGeAs_2$, chalcopyrite, elastic behaviour, US wave vel. study 2−61052
Fe foil, stress meas. using slip initiation 2−72792
GeTe, elastic props., room temp. 2−81872
Mo, electropulse compacted, porosity influence on elastic moduli 2−111223
SiO_x, stress-strain curves and internal stresses, bulge and tensile tests 2−82190
TiN-Al_2O_3 composites, hot pressed, props. rel. to TiN conc. 2−72753
W, electropulse compacted, porosity influence on elastic moduli 2−111223
$YbAl_2$ mixed valence cpd., elastic props. 2−56067

polar cap absorption *see ionospheric electromagnetic wave propagation*

polar cap flow *see airglow*

polar semiconductor materials *see polar semiconductors*

polar semiconductors
see also ferroelectric semiconductors; piezoelectric semiconductors
carrier mobility, effect of renormalised plasmon-phonon oscills. 2−77060
dielectric constant, complex, of free carriers, quantum theory 2−110799
donor states, electron lattice coupling effect 2−71915
donor-acceptor pairs, electron-hole correlation effect, variational calc. 2−56475
electron-phonon coupling with donor-acceptor pair recomb. 2−103925
excitons and polarons, bounding energies, local density approx. 2−61367
high frequency electron scattering rate, Drude Zener theory 2−66581
light absorpt. exciton Coulomb attraction effects and Urbach rule *(Russian)* 2−57049
negative diffusivity in transient regime, Monte Carlo calc. 2−56597
polarons, time-depend. momentum distrib. at arbitrary temp. and elec. field 2−98560
GaAs:Si, heavily doped, electron scatt. 2−92652
GaAs-$Cre_3N_4(Si_3N_4)$, interface polar exciton, variational calc. *(Russian)* 2−76940

polarimeters
see also polarimetry
circular dichroism spectropolarimeter, microcomputer automated 2−89790
Compton polarimeter for cosmic X-rays/γ-rays linear polarisation above 50 keV 2−106542
Compton polarimeter using high-purity Ge planar diodes 2−89876
division of amplitude photopolarimeter for simultaneous meas. of all four Stokes parameters of light 2−69238
holographic polariscope, aspherical optical system for rotator 2−65183
IR photopolarimeter for astronomicals obs. 2−117604
IR/optical polarimeter, appl. to determ. of composite interstellar polarisation curves 2−106540
multichannel polarimeter on 91 cm reflector, TV guiding system *(Japanese)* 2−68620
scanning resonance quasioptical millimeter wave polarimeter 2−69198
Solar Maximum Mission instrumentation and obs. 2−112328
spectropolarisation instrument, type DKhR-01, circular dichroism study and calibration 2−53819
two-crystal Compton polarimeter using Ge(Li) detectors 2−64814
UV spectrometer and polarimeter on Solar Maximum Mission satellite 2−94578
Ge(Li) coaxial detectors arrangement for Compton linear polarimeter 2−90395
Ge(Li) γ-ray polarimeter, fast counting system 2−64797

polarimetry
see also ellipsometry; polarimeters
axisymmetric bodies, integrated photoelastic methods for stress determ. 2−103129
glass, toughened, residual stress meas. using magnetophotoelasticity 2−109257
linearly polarised radiation direct analysis using Ge and Si photodetectors 2−107387
Lyot depolariser, white light depolarisation by birefr. cryst. 2−75660
plasma polarimetry, fast high-sensitivity ellipsometer proposal 2−60800
positron polarimetry, method, appls. 2−108325
stellar photometry and polarimetry, IAU Commission 25 scientific sessions (Montreal, Aug. 1979) 2−94892

polarisability
see also atomic polarisability; molecular polarisability
alkali halide, static dielec. const. and static polarisability, vol. depend. 2−57001
diamond, bond polarizabilities, transferability from saturated hydrocarbons 2−70443
dyes, Brilliant Green and Echtblau Saltz, permittivity and polarisability calc. 2−93105
ferroelectric soft modes, microscopic polarisability model 2−56149
Lie-admissible spin algebra and neutrons interaction with elec. field 2−95678
metals, core polarisabilities 2−99026
oxides, ion polarisabilities, nonempirical calc. 2−110752
pion polarisabilities, sum rule inequalities 2−64244
plasma, strongly coupled, kinetic equation and moment expansion 2−103294
polyethylene, ultraoriented, birefringence calc. fusing model structures 2−110811
semiinfinite crystals, Wannier-Mott excitons, wave functions and normal-incidence refl. 2−82244
two-dimensional dense electron gas, dynamic form factor, polarisability and intrinsic cond. at zero temp. 2−56537
two-dimensional electron gas, dynamic correlations, first order perturbation theory 2−76958
AlN:Cr, sintered, dielec. losses, lattice defect types *(French)* 2−77448
Ar adsorbed on Al(111), photoemission studies 2−62048
BaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
CaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
He-H_2, interaction dipole polarisabilities, MC TDHF theory calcs. 2−96447
Kr adsorbed on Al(1 1 1), photoemission studies 2−62048
SnS_2, electronic props., Phillip's ionicity calc. 2−66440
$SnSe_2$, electronic props., Phillip's ionicity calc. 2−66440

polarisability continued
SrF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
Xe adsorbed on Al(111), photoemission studies 2−62048

polarisation
see also beta-ray polarisation; deuteron polarisation; dielectric polarisation; electron spin polarisation; gamma-ray polarisation; light polarisation; neutron polarisation; nuclear polarisation; photon polarisation; polarisation in elementary particle interactions; polarisation in elementary particle scattering; polarisation in nuclear reactions and scattering; proton polarisation
acoustic logging, polarisation problem soln. for direct transverse and longit. waves 2−58185
anechoic chamber with EM waves, phenomena anal. *(Chinese)* 2−108767
anisotropic media, EM wave propagation, coordinate-free approach 2−96807
atmospheric bremsstrahlung X-ray emission from precipitating electrons, ang. distrib. and polarisation 2−78903
B2 1321+31 (NGC 5127), large radio galaxy, multifreq. polarisation obs. 2−89396
3C 31, 66B and 129, struct. and mag. fields, polarisation and spectral indices 2−101047
3C 76.1, radiogalaxy, polarisation sources and mag. fields, UHF obs. 2−79230
charged particle radiation in mag. systems 2−80884
circumstallar shells, radiofrequency lines linear polarisation 2−68604
cool high polarisation stars, circumstellar dust extinction and luminosity 2−94858
R Coronae Borealis, polarisation and photometry at 1977 minimum 2−84246
cosmic X-rays/γ-rays linear polarisation above 50 keV Compton polarimeter use 2−106542
Crab Nebula, obs. of polarised radio emission through Sun's supercorona 2−94815
DA 240, giant radio galaxy, polarisation obs. and struct. of hotspot 2−94836
dwarf novae polarisation obs. 2−63458
EM fields transient anal., Bergeron's method adaptation to med. with resonance absorption 2−96801
EM wave reflection from dielectric media 2−65134
G43.2−0.1, new OH maser source, circular polarisation and radial vels. obs. *(Russian)* 2−106946
geomagnetic secular variation, polarisation vectors of 60-year geomag. field vars. in Europe 2−111849
geomagnetic sudden commencement, polarisation latitudinal reversal 2−106428
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, spectra and circular polarisation 2−106494
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 80077, B2 supergiant spectroscopic binary, luminosity and obs. 2−100923
hyperon semileptonic decays, polarised neutral and charged, EM corrections 2−69457
IC 4329A, Seyfert galaxy, optical polarisation due to disc dust grains, visible obs. 2−68890
ice I_h 2−87795
induced Compton scattering in radiative transfer, polarisation eqns. 2−112319
ion sources, progress report on at. beam stage 2−75078
ion sources 2−75086
ionosphere EM wave propag., Faraday rot. meas. rel. to electron content at mag. equator 2−106385
ionosphere LF signal, circular polarisation profile rel. to electron collision frequency in D and E-regions 2−112216
BL Lacertae, flux and polarisation obs. and model 2−117745
M87, jet mag. field struct. from polarimetry in UBV 2−106915
markarian 376, Seyfert galaxy, optical polarisation obs. 2−68890
MC68000 microprocessor CAMAC system for NMR meas. of polarisation 2−107353
microwave depolarisation due to snowfall at 34.5 GHz 2−68466
molecular clouds, radiofrequency lines linear polarisation 2−68604
NGC 6946, Scd galaxy, 2.8 cm radio continuum distrib. obs. 2−68897
OB stars in molecular clouds, observed polarisation origin 2−117727
OH 205.1−14.1, unusual OH maser, intensity vars. of left circularly polarised component (1980 to 1982) 2−79238
optical fibre polarization characts. calc., use of circularly polarized waves 2−114468
PG 1550+191, AM Herculis star, polarisation and period, visible obs. 2−84265
photoconductors, layered organic, localised peristent polarisation 2−61511
plasma, EM wave depolarization in nonlinear transillumination 2−91619
proton beam, intense neutralized, cross-field propag. near metal plate 2−75508
PSR 0329+54 and 1237+25, mode switching polarisation anal. 2−94761
quarter wave plates for subMM wavelengths 2−97154
radio wave reflection from ionosphere, space correl. of polarisation characts. of partly scattered vector field 2−112200
radiogalaxies in clusters, scatt. and polarisation of radio emission by intergalactic gas *(Russian)* 2−106923
radiosources, compact flat spectrum sources, variability and polarisation depend. on spectral shape, obs. 2−68913
radiosources, extragalactic, flux density and linear polarisation, SHF obs. 2−58478
radiosources in relativistic motion, synchrotron polarisation props. 2−117786
radiowave propagation in ionosphere, VHF Faraday polarisation fluctuations near Appleton anomaly crests 2−100647
rain scatter interference dependence on polarisations and positions of terrestrial and Earth stations 2−94477
reflection nebula model, interstellar grains mixtures, polarisation and UBV colour differences 2−94814
Saturn atmosphere, aerosol struct. model from polarisation obs. 2−73902
seismic polarisation method using earthquakes 2−112167
seismic surface wave analysis, polarisation filter, statistical approach 2−100567
Sharpless 106, bipolar nebula, central star polarisation due to dust lane aligned grains 2−68856
solar corona, intensities, shapes and polarisation, use of eclipse camera 2−112405
polarisation continued
solar gradual rise and fall bursts, circular polarisation and source struct. at 17 GHz 2−100871
solar millimetre-wave emission, circular and linear polarisation meas. by Itapetinga large mm-wave antenna 2−100744
solar radio bursts, electron-cyclotron maser model rel. to circular polarisation 2−112312
stars with extreme λ_{MAX}, wavelength depend. of interstellar linear polarisation 2−74048
stellar inhomogeneous atmosphere, polarisation of scatt. radiation 2−63364
stellar radio bursts, electron-cyclotron maser model rel. to circular polarisation 2−112312
storage rings, electron beam polarisation meas. using synchrotron radiation 2−80360
storage rings, electrons polarisation using free electron laser 2−64711
stored electron beam polarisation 2−113776
Sun, coronal magnetic fields above active regions from microwave polarisation reversal 2−106547
Sun, coronal magnetic fields structure from polarisation sign change anal. 2−106667
Sun, McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
sunspots, surrounding polarised horseshoe structures at SHF obs. 2−73924
superluminal EM fields polarisation 2−101520
supernova remnant associated compact radio sources, X-ray/UHF/SHF obs. 2−63690
synchrotron radiation, coherent, from electron beam rotating in plasma, polarisation obs. 2−97750
synchrotron radiation, optically thin, spectral polarisation props. 2−112309
synchrotron radiation circular polarisation and absolute intensity meas. and calcs. 2−85501
T Tauri stars, linear polarisation and colour 2−58345
terrestrial electricity, surface polarisation fields for two-dimensional bodies of infinite conductivity 2−117194
twisted coordinate system, electromagnetic fields 2−70472
US wave polarization plane rotation rate in metal, meas. method 2−86189
Valonia ventricosa cells, excitation and hyperpolarisation response 2−105673
X-ray beam, repeatedly reflected, polarisation factor determ., theory 2−95569
X-ray powder diffraction with single-cryst. monochromator, polarisation factor 2−65791
e^+e^- gas, symm. props. of polarisation gas in mag. field 2−113201
$\Sigma^-\rightarrow ne^-\bar{\nu}$, pol.$\Sigma^-$, beta decay electron asymmetry 2−64321
$\Sigma^-\Lambda e^-\bar{\nu}$, Λ polarisation and vector/axial vector form factor ratio 2−84892
^{43}Ca, hyperfine structure anal. of 4s4p configuration and nucl. quadrupole moment 2−114124
D^-, Lamb-shift polarised ion sources, review 2−75075
Fe, electropolishing rel. to other types of metal dissolution 2−57568
GaAs, probability of cond. band-acceptor optical transitions 2−116254
H, polarised at. beam target 2−75085
H polarised ion sources, ground state at. beam stage, review 2−75077
H^-, Lamb-shift polarised ion sources, review 2−75075
H^-, Lamb-shift polarised ion sources improvements, working group summary 2−75076
H^- polarised ion prod., progress on ionisation stage 2−75080
H^- polarised ion prod. using optical pumping 2−75083
$H^-(D^-)$ polarised ion source design and performance 2−90333
Ni ferrites, dynamic elasticity moduli, mag. polarisation depend. 2−77348

polarisation in elementary particle interactions
deep inelastic polarised electroproduction model 2−54170
deep-inelastic scatt., total gluon helicity 2−54160
hard processes, polarisation asymmetries predicted by QCD and parton model, review 2−69501
high energy physics with polarized proton beams, book contrib. 2−54224
inelastic J/Ψ photoproduction with linearly polarised photons, QCD based models predictions 2−54176
$pp\rightarrow$hyperon+X, large p_T, gluon helicity distrib. 2−59203
QCD, polarisation density matrix, pion asymm. *(Russian)* 2−95774
rotation invariance and polarisation expts. 2−95686
total cross section symmetries for high energy polarised particles and antiparticles *(Chinese)* 2−95889
vector-meson diffractive photoproduction, polarisation characts. *(Russian)* 2−54175
$d\pi\rightarrow$NN, deuteron quadrupolarisation, rel. to reverse interaction *(Russian)* 2−95867
Δ(1232), electroproduction, pol. e, P violation, in electroweak theories 2−74695
$e^-e^+\rightarrow q\bar{q}g$, ang. asymmetries and final state polarisation effects 2−69480
e^+e^- annihilation, polarised beams, radiative corrections in standard electroweak model 2−113279
e^+e^- collisions, polarised and unpolarised, 30-150 GeV, polarised baryon prod. 2−69479
$e^+e^-\rightarrow q\bar{q}g$, broken colour gauge symm. test 2−79900
γd, 80-600 MeV, polarised photon, photodisintegration cross section asymmetry meas. *(Russian)* 2−90088
$\gamma d\rightarrow np$, 20-150 MeV, asymmetry function and relative photoneutron yield calc. 2−64394
$\gamma d\rightarrow np$, 400 and 500 MeV, proton pol. study *(Russian)* 2−85027
$\gamma d\rightarrow np$, neutron polarisation, theory *(Russian)* 2−59164
$\gamma\gamma\rightarrow\pi\pi$, π-polarisability *(Russian)* 2−79926
$\gamma N\rightarrow\pi_1$ pol. γ, quark models test 2−101735
$\gamma p\rightarrow\Delta^{++}\pi^-$, 660 MeV, polarised p, cross section asymmetry meas. *(Russian)* 2−54174
$\vec{\gamma}\vec{p}\rightarrow\vec{p}\pi^0$, 0.8-1.5 GeV, p polarisation meas. *(Russian)* 2−107716
$\gamma p\rightarrow p\pi^0$, pol. γ, pol. p, 300-420 MeV, polarisation parameters near resonance *(Russian)* 2−59163
$\gamma p\rightarrow\pi^+n$, 0.96-1.1 GeV, polarised target asymmetry, nucleon resonance radiative decay 2−64347
$K^+n\rightarrow K^0p$, 1.06-1.49 GeV/c, polarisation meas. 2−79925
$K^-p\rightarrow\eta\Lambda(\eta'\Lambda)$, differential cross-section and polarisation study of Regge pole model 2−101766
μN, dimuon events, shrinking cone limit and quark spin effects 2−101733
$\mu^+p\rightarrow\mu c\bar{c}X$, spin-spin asymmetries, structure function depend. 2−59161

polarisation in elementary particle interactions continued
np→pn, 790 MeV, analysing power, spin transfer, charge exchange in OPE 2−64337
p→$\pi^{\pm}$X, recombination model to measure sea polarisation 2−95776
pd, 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
pd breakup reaction, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
$\bar{p}p$, W^+W^-, $W^{\pm}\gamma$ prod. in quark-antiquark annihilation 2−107702
pp→dπ, deuteron quadrupolarisation, rel. to reverse interaction *(Russian)* 2−95867
pp→jet+x, jet polarisation in perturbative QCD 2−54098
$\bar{p}p$→$\bar{n}n$, spin observables in charge exchange interaction 2−64339
pp→npπ^+, medium energy, spin correl., relativistic 3-body model 2−59170
pp→pK^+K^-p, pol.p, 11.75 GeV/c, ϕ meson prod. 2−74714
pp→ppπ^0($p\pi^+$), 1000 MeV, secondary nucleon polarisation in one pion exchange model 2−59205
$\bar{p}\bar{p}$→π^+d, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
$\bar{p}p$-π^+d, 400, 450 MeV, analysing power meas. 2−69659
π^-N, 5 GeV/c, charged particle correl. with proton emission in backward hemisphere *(Russian)* 2−89978
$\pi^-\bar{p}$→π^0n, 1.965-2.960 GeV/c, polarisation parameters *(Japanese)* 2−107714
π^-p→π^0n, 2.77, 3.49, 4.22 GeV/c, polarisation parameters *(Japanese)* 2−107715

polarisation in elementary particle scattering
Bhabha and Moller scatt. in left-right symmetric theories 2−95813
deep inelastic scatt. in QCD, power corrections theory 2−101730
QCD, polarisation density matrix, pion asymm. *(Russian)* 2−95774
quark-gluon elastic scatt., gluon polarisation in perturbative QCD 2−54098
time-reversal invariance tests from polarisation quantities in elastic scatt. 2−59056
total cross section symmetries for high energy polarised particles and antiparticles *(Chinese)* 2−95889
DD pn, 24 GeV/c, elastic scatt., polarisation parameter meas. 2−101769
ed→ed, d pol., neutral current effects, gauge model test 2−101727
e^-e^-→e^-e^-, polarised Moller scatt. electroweak model tests 2−64311
e^+e^-, Bhabha polarised scatt., multiboson electroweak gauge models 2−54132
eN scattering, polarised electron, gluon corrections *(Russian)* 2−59158
KN, 1.47-1.89 GeV, quasiunique amplitude for I=0 and implications for bag models 2−54210
K^+n scatt., 1.06-1.49 GeV/c, polarisation meas. 2−79925
Nd, off shell sensitivity, wave functions, nucleon analysing p ower 2−59174
$\bar{N}$N, spin observables in low energy scatt. 2−64339
pα scattering, 46 MeV polarised protons, parity nonconservation study 2−59057
pd backward scatt., polarisation, relativistic effects, Bethe-Salpeter eqn. 2−107681
pn, 1.3-1.82 GeV/c, elastic scatt., polarisation parameter meas. 2−69484
pp, 2.5-5.0 GeV, spin-spin correlation factor, struct. 2−69482
pp, 643 MeV, spin correl. parameter and analysing power meas. 2−69660
pp, 800 MeV, spin depolarisation parameters and spin transfer parameters meas. 2−64409
pp (pn) forward scatt., amplitude anal. 2−59171
pp→pp, 6 GeV/c, spin parameters 2−101759
π^+ d, 120, 138 MeV, elastic scatt., tensor polarisation, rel. to dibaryon resons. 2−101764
πd, 219-294 MeV, polarised d, iT_{11} meas., dibaryon reson. effects study 2−85097
πN, 2.26-3.26 GeV/c, polarisation at large angles, phase-shift anal. 2−107683
πN phase shift determ. from isospin constraints and fixed t analyticity 2−95863
π^-p→π^0n, 40 GeV/c, polarisation *(Russian)* 2−89979
π^+p elastic scatt., polarisation parameter meas. at 335-410 MeV *(Russian)* 2−59178

polarisation in nuclear reactions and scattering
10 to 200 keV target nucleus spin orientation effects *(Russian)* 2−54460
20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
deep inelastic heavy ion reactions, polarisation anal. *(Russian)* 2−59402
dipole polarisability and nuclear symmetry energies 2−85022
electron bremsstrahlung polarisation effect on nucleus in const. external field 2−69643
hadron-nucleus interaction dynamics, review 2−54367
heavy ion reaction mechanisms, from fragment spin pol. 2−80027
heavy ion reactions, review, book contrib. 2−54351
heavy ion reactions, review 2−53436
heavy-ion collisions, role of rotational degrees of freedom 2−113548
heavy-ion transfer reactions, energy spectra, ang. distrib. and polarisation anal., semiclassical theory 2−54423
irreducible Cartesian tensors, Cartesian rel. to spherical components 2−69633
mass asymmetric heavy-ion systems, spin-depolarising modes equilibrium treatment 2−74769
photoabsorption cross section, vol. and surface symmetry energy coeffs. 2−79999
pion-nucleus S-wave optical pot., rescattering contrib. and medium polarisation 2−59255
proton-light ion scatt. at intermediate energy, review 2−54368
proton-nucleus scatt., polarisation, nucleon-nucleon amplitudes influence 2−54364
resonances in heavy ion reactions, conference, Bad Honnef, Germany (Oct., 1981) 2−101127
spin-3/2 deformed projectile scatt., polarisation, complex folded potentials anal. 2−101875
statistical reactions, polarisation fluctuations, from S-matrix *(Russian)* 2−59321
time reversal invariance, evidence of violation 2−95675
time-reversal invariance tests from polarisation quantities in elastic scatt. 2−59056
time-reversal invariance tests via polarisation-analysing power equality 2−95676
$^{\wedge}$C(p,π^+), A=12-14, pion prod. cross section and analysing power meas. 2−80002

polarisation in nuclear reactions and scattering continued
(d,d′), A=16-232, 20 MeV, evidence for different proton and neutron deformations, transitions 2−69521
(e,e) on ^{49}Ti, ^{51}V, ^{59}Co, ^{87}Sr, ^{93}Sb, ^{208}Bi, mag. electron scatt. and valence nucleon radial wave functions 2−85033
(e,e′), inelastic scatt. at low energy, mag. transitions and mag. polarisability of nuclei 2−54360
(ēe), heavy nuclei, parity violating asymmetry, partial wave anal. 2−107749
(γ,π), photoproduction cross section, polarisation effects *(Russian)* 2−90091
(n,γ), E1 transitions, p-state spectroscopy 2−107867
(n,n), pol. n, resonance scattering, P invariance effects *(Russian)* 2−90118
(n,n′), slow neutron polarisation rot., parity nonconservation *(Russian)* 2−69640
($\bar{n}$,n′) on ^{54,56}Fe, ^{58,60}Ni, ^{120}Sn, ^{208}Pb, 10 MeV, inelastic scatt., spin-orbit deform. from analysing powers 2−85055
(n,x) on ^{141}Pr, ^{159}Tb, ^{165}Ho, ^{167}Er, ^{169}Tm, pol. n, neutron cross section, strengthfunction, spin depend. 2−54373
(p,p), 800 MeV, polarisation, spin effects and Coulomb interaction 2−64411
($\bar{p}$,p′), inelastic scatt. to continuum, orbiting effects 2−85040
($\bar{p}$,π), microscopic calcs. using isobar-doorway approach 2−80010
(p,π), pion prod. in rescattering model 2−80011
($\bar{p}$,π^+), relativistic one nucleon model description for reaction mechanism 2−80009
(π,X) S-wave interaction, many body effects 2−59411
2H($\bar{p}$,x), x=2p, pn, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
^{12}($\bar{p}$,π^+)^{13}C, 200-250 MeV, analysing power energy depend. 2−59357
Ag($\bar{p}$,X), X=^{3}He or α, 237, 445, 518 MeV, analysing power in inclusive reactions 2−59352
$^{\wedge}$Al(d,α), A=36, 38, 16 meV, tensor anal. powers, α-particle D-state effects 2−90082
^{27}Al(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
$^{\wedge}$Ar(d,α), A=36, 38, 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{11}B($\bar{p}$,d), 11.34-11.94 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{9}Be(^{3}He,$\bar{p}$)^{11}B, 13.6 MeV, proton polarisation and implications for time-reversal invariance 2−59378
^{9}Be(γ,p), polarised photon, cumulative proton prod. cross section meas. *(Russian)* 2−90090
^{9}Be($\bar{p}$,π^-)^{10}C, 200-250 MeV, analysing power energy depend. 2−59356
^{9}Be($\bar{p}$,π^-)^{10}C*, 200-250 MeV, analysing power energy depend., meas. at TRIUMF 2−80007
^{9}Be($\bar{p}$,π^+)^{10}Be, 200-250 MeV, analysing power ang. distrib. meas. 2−85047
$^{\wedge}$Br(n,X), A=79, 81, P violation obs. in total cross section *(Russian)* 2−80020
$^{\wedge}$Br(n,γ), A=79, 81, P violation obs. for thermal neutron capture *(Russian)* 2−80020
C(^{12,13}C, ^{12,13}C), 300-400 keV, beam-foil interaction polarisation, quantum beats 2−69636
C(^{13}N, ^{15}N), 300-400 keV, beam-foil interaction polarisation, quantum beats 2−69636
$^{\wedge}$C(p,π^-) A=12-14, pol. p, evidence for two-nucleon processes 2−113472
^{12}C(μ^-,ν)^{12}B, average and longitudinal recoil pol. meas. 2−107849
^{12}C(^{12}C, ^{12}C′), spin alignment meas. in intermediate struct 2−107905
^{12}C(^{13}C, ^{13}C), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{12}C(^{6}Li,Li), Watanabe pot., correction 2−113523
^{12}C(μ,ν_μ)^{12}B, induced pseudoscalar coupling and neutrino helicity 2−101847
^{12}C(n, n), cross section ang. distrib. and vector pol. 2−101857
^{12}C(n,n), vector polarisation, angular variation, modified Simon theory 2−54350
^{12}C($\bar{n}$,p), 18 MeV, ^{12}B β-decay asymmetry as fast neutron spin analyser 2−90080
^{12}C(p,p′), proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{12}C(p,p′)^{12}C, 1^+ states excitation at 150 MeV, polarisation and analysing power 2−96007
^{12}C($\bar{p}$,π^+)X, analysing power energy depend., meas. at TRIUMF 2−80007
^{12}C(t,t), 15, 17 MeV, polarised triton scatt., parity depend. pot. 2−54405
^{13}C($\bar{p}$,d), 13.79-14.39 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{40}Ca, polarisation and correlation contribs. to shell model pot. 2−59263
^{40}Ca($\bar{n}$,n), 14 MeV, anal. powers at forward angles 2−69638
^{40}Ca(p, p) and (p, p′), 800 MeV, cross section and analysing power ang. distribs. 2−90108
^{40}Ca(p,p), 500 MeV, polarisation, spin rot. function, nuclear geometry, scatt. amplitudes 2−113360
^{40}Ca(p,p), optical pot. energy depend., Dirac eqn. based anal. 2−59353
^{48}Ca($\bar{p}$,p′), 160 MeV, 1^+ state excitation, anal. powers, possible mesonic effects 2−90078
Ca(n,n), 9.9-13.9 MeV, optical parameters, anal. power, differential cross section 2−107843
$^{\wedge}$Cu(e,e), A=63, 65, cross sections for elastic mag. scatt. 2−113465
^{65}Cu($\bar{n}$,n), 14 MeV, anal. powers at forward angles 2−69638
$^{\wedge}$Dy, A=151,152 continuum γ-ray linear polarisation, collective rotations from ^{124}Sn(^{32}S,xn) 2−59322
^{164}Dy(n,γ)^{165}Dy, energy level scheme 2−113503
$^{\wedge}$Er, A=156-158, continuum γ-ray linear polarisation, collective rotations from ^{130}Te(^{32}S,xn) 2−59322
^{54}Fe($\bar{d}$,^{3}He), 80 MeV, finite range effects, DWBA calcs. 2−113517
^{54}Fe($\bar{n}$,n), 14 MeV, anal. powers at forward angles 2−69638
Fe($\mu,\mu\nu\bar{\nu}$), cross section and scattered-muon distrib. calc. 2−54131
^{1}H(p,p), 643 MeV, spin correl. parameter and analysing power meas. 2−69660
^{1}H(p,p), 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
^{1}H($\bar{p}$,π^+)^{2}H, 400, 450 MeV, analysing power meas. 2−69659
^{1}H($\bar{p}$,π)d, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
^{2}H(e,e′), inelastic scatt., cross section and polarisation of recoil electron 2−69648
^{2}H(e,e′p)n, six-quark model of two nucleon current appl. 2−79987
^{2}H(γ, n)p, neutron polarisation, theory *(Russian)* 2−59164

polarisation in nuclear reactions and scattering continued
^{2}H(γ,n)^{1}H, 400 and 500 MeV, proton pol. study *(Russian)* 2−85027
^{2}H(γ̄,n)p, 19.8 MeV, asymmetry function Σ(θ) 2−90077
^{2}H(γ,n)p, 20-150 MeV, asymmetry function and relative photoneutron yield calc. 2−64394
^{2}H(γ,p), pol.γ, 80-600 MeV, cross section asymmetry 2−95984
^{2}H(γ,pn), 0.3-0.7 GeV, polarised target asymmetry 2−64388
^{2}H(γ,pn), 80-600 MeV, polarised photon, photodisintegration cross section asymmetry meas. *(Russian)* 2−90088
^{2}H(n,n), 10 MeV, analysing power meas. and comparison to few-nucleon calc. 2−101892
^{2}H(n,n), 14 MeV, elastic scatt. anal. power, Legendre polynomial anal. 2−101873
^{2}H(n̄,n), 50 MeV, analysing power meas. at backward angles 2−85045
^{2}H(n̄,n), 50 MeV, analysing power meas. at forward angles 2−85046
^{2}H(n,n), off shell sensitivity, wave functions, nucleon overlapping power 2−59174
^{2}H(p,d), pol.p, 10 MeV, polarisation transfer 2−54381
^{2}H(p̄,p), 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
^{2}H(p̄,p), 65 MeV, anal. powers and differential cross sections 2−101874
^{2}H(p,p), off shell sensitivity, wave functions, nucleon analysing power 2−59174
^{2}H(p,π^{0})^{3}He, cross section ang. distrib. and analysing power meas. 2−80003
^{2}H(p̄,π^{+}), 305-400 MeV, anal. power, cross sections 2−113459
^{2}H(π,2p), 180-320 MeV, vector anal. power iT_{11}, ang. distrib. 2−90081
^{2}H(π,π), 219-294 MeV, polarised d, iT_{11} meas., dibaryon reson. effects study 2−85097
^{2}H(π,π), s-wave six-quark states and channel coupling 2−69481
^{3}H(α, α), specific distortion effects in resonating-group method 2−90123
^{3}H(d,n̄), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{3}He(α, α), cross section ang. distrib. and vector pol. 2−101857
^{3}He(α,α), specific distortion effects in resonating-group method 2−90123
^{3}He(ē,e), quark spin correlations from parton model 2−107842
^{3}He(n̄,γ)^{4}He, 9 MeV, polarised neutron capture, analysing power ang. distrib. meas. 2−69661
^{4}He(d,pn)^{4}He, tensor analyzing powers for deuteron breakup reaction 2−85058
^{4}He(n̄,d), 50 MeV, polarisation, time reversal and charge symmetry 2−69639
^{4}He(n,n), cross section ang. distrib. and vector pol. 2−101857
^{4}He(n,n), differential cross section and polarisation, EM effects 2−113479
^{4}He(n,n), parity non-conserving elastic scatt., observables estimate 2−85042
^{4}He(p̄, d), anal. power, reaction mech. and polarisation effects 2−113458
^{4}He(p, p), cross section ang. distrib. and vector pol. 2−101857
^{4}He(p̄,2p), 250-500 MeV, anal. powers, quasifree angles, asymmetries 2−90079
^{4}He(p̄,d), 32-50 MeV, anal. power, time reversal and charge symmetry 2−69639
^{4}He(p,p), 46 MeV polarised protons, parity nonconservation study 2−59057
^{4}He(p,p), differential cross section and polarisation, EM effects 2−113479
H($\mu,\mu\bar{\nu}\bar{\nu}$), cross section and scattered-muon distrib. calc. 2−54131
^{A}Ir(t,α), A-191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
^{78}Kr(d,p)^{79}Kr, 11 MeV, differential cross section and vector analysing power meas. 2−54403
^{7}Li(n,n), pol. ^{7}Li, pol. n, 2.0-80.0 keV, s-wave scatt., spin depend. *(Russian)* 2−59361
^{24}Mg(p̄,d), 94 MeV, anal. powers, DWBA failure on ^{23}Mg l=0 transition 2−69634
^{26}Mg(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{A}Mo(p,p′), pol. p, A=92, 94 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{94}Mo(p,t), 22 MeV, anomalous $0_g^+ \rightarrow 0_g^+$ anal. powers and partial cross sections 2−64389
^{98}Mo(d,p), ^{99}Mo spin and parity determination of low-lying states 2−113359
^{100}Mo(d,t), ^{99}Mo spin and parity determination of low-lying states 2−113359
^{14}N(p,d), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{14}N(p,p′), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{23}Na(n,γ), n pol., A_2 coeffs., ^{24}Na levels, J assignment 2−107868
^{93}Nb(^{14}N,p), 95Mev, spin polarisation of preequilibrium proton emission 2−113460
^{58}Ni(^{6}Li,^{6}Li), 20 MeV CM, spin-orbit interaction induced by projectile excitation 2−85072
^{58}Ni(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{58}Ni(^{7}Li, ^{7}Li), pol. ^{7}Li 14-22 MeV, tensor anal. power, shape effect model test 2−85069
^{58}Ni(^{7}Li,^{7}Li), spin-$^{3}/_{2}$ particles, elastic scatt., analysing powers calc. 2−101917
^{58}Ni(^{7}Li,^{7}Li), spin-3/2 deformed projectile scatt., polarisation, complex folded potentials anal. 2−101875
^{58}Ni(d,α), 80 MeV, ^{56}Co level spin determs. from vector anal. power ang. distribs. 2−54257
^{16}O(^{15}N, ^{15}N), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{16}O(^{16}Li,^{6}Li), Watanabe pot., correction 2−113523
^{16}O(p̄,n)^{16}F, 134 MeV, analysing power and differential cross section meas. 2−64404
^{16}O(p̄,p), 6.482 MeV, spin-parity determ. of 6.699 MeV level in ^{17}F 2−59236
^{17}O(^{3}Hē,α)^{16}O, analysing power and cross section meas. 2−80023
^{18}O(^{19}F, ^{19}F), analysing power and cross section, parity depend. pot. model anal. 2−90145
^{18}O(d,α), 52 MeV, ^{16}N stretched configuration states, J$^{\pi}$, anal. power, DWBA anal. 2−101805
^{208}Pb polarisation and correlation contribs. to shell model pot. 2−59263
^{208}Pb(HI,HI), sub Coulomb elastic scatt., relativistic effects, polarisability, screening 2−64427
^{208}Pb(n̄,n), 14 MeV, anal. powers at forward angles 2−69638
^{208}Pb(p,p′), 400 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^{+} transition 2−69662

polarisation in nuclear reactions and scattering continued
^{239}Pu(n,f), pol.n, 0.01-0.30 eV, polarisation asymm., P violation *(Russian)* 2−101954
^{32}S(d̄,α), 16 meV, tensor anal. powers, α-particle D-state effects 2−90082
^{32}S(d,α), 16 MeV, vector and tensor pol. d, cross section and analysing power meas. 2−54402
^{34}S(d̄,α), 52 MeV, ^{32}P stretched configuration states, J$^{\pi}$, anal. power, DWBA anal. 2−101805
^{28}Si(^{6}Li,^{6}Li), Watanabe pot., correction 2−113523
^{28}Si(t,t), t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
^{A}Sn(p,p′), A=116, 124, proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{112}Sn(d̄,t), 40 MeV, ^{111}Sn deep hole states, J$^{\pi}$, anal. power, DWBA anal. 2−89994
^{116}Sn(p,p′), 800 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{120}Sn(n̄,n), 14 MeV, anal. powers at forward angles 2−69638
^{129}Xe, nuclear spin polarization by spin exchange with Cs atoms 2−90013
^{89}Y(p̄,p′), 21.1 MeV, elastic and inelastic scatt. 2−54372
^{A}Zr(p,p′), pol. p, A=90, 92 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{90}Zr(p,p′), 500 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{92}Zr(p,t), 22 MeV, anomalous $0_g^+ \rightarrow 0_g^+$ anal. powers and partial cross sections 2−64389

polariscopes *see polarimeters*

polaritons
active four-photon Raman spectroscopy 2−114369
anthracene, luminescence obs. at 0.4K 2−61966
antiferromagnet, uniaxial, surface mag. polaritons 2−71885
antiferromagnet, uniaxial, surface polaritons 2−104600
antiferromagnetic thin films, guided polariton dispersion relations *(French)* 2−104263
bounded nonlocal medium, transient optical reflectivity 2−77478
carbon tetrachloride, liquid, hyper Raman light scatt. *(Russian)* 2−82856
dye monolayer assemblies on Ag films, exciton surface plasmon interactions 2−71879
electron surface polariton interaction, electron transmission expt. appl. 2−87354
EM study of grating enhanced nonlinear surface polariton excitation 2−61372
exciton polaritons, 1-D model study 2−98550
excitonic molecules, non-linear optical response and optical bistability, polariton dispersion, dielec. function calc. 2−55246
interface between spatially dispersive media, boundary conditions 2−61561
lithium formate crystal, light scatt. by polaritons in uncoupled two-particle states 2−82251
lithium formate crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
luminescence, excitons, polariton effects, review *(Russian)* 2−93272
metal surface, randomly rough, elec. field enhancement, surface enhanced Raman scatt. 2−87790
metal surface, second harmonic generation with surface plasmon excitation 2−60163
metal surface, sinusoidal, surface plasmon polariton modes, contrib. of surface enhanced Raman scatt. 2−110845
metallic thin, volume EM, surface polaritons and SAWs, theory of three-wave mixing 2−82937
metals, surface enhanced Raman scatt. 2−104885
molecular crystals, radiative prop. calcs., polaritons and exciton decay 2−104262
narrow-gap semiconductors, surface polariton excitation by laser radiation 2−104264
organic monolayer assemblies on Ag gratings, plasmon surface polariton field enhanced Raman spectra 2−110838
quartz, CO_2 laser-method, frozen periodic surface struct. 2−110110
α-quartz, ion irrad., surface polaritons, ATR study 2−57133
Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
semiconductor, direct band gap, electronic Raman scatt. on donor levels, Coulomb interactioneffects 2−57096
surface, density of states, radiation laws in the vicinity of metallic boundaries 2−59991
surface, Raman scatt., surface roughness effect 2−110844
surface enhanced Raman scatt., surface-plasmon-polariton resonances, classical calc. 2−77529
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
surface plasmons and polaritons, nonlinear interaction, coupled-mode theory 2−115840
surface polariton scattering by order parameter fluctuations near phase transition point 2−110265
surface polaritons, p-polarised nonlinear, in layered structs. 2−98705
surface polaritons along a grating, linear EM study 2−109029
thin films, nonlinear surface polariton dispersion at resonance with oscills. 2−61371
thin films, optical spectroscopic studies, appl. of surface phonon polaritons and surface plasmons 2−110437
Zenneck wave localisation on conducting liq. surface 2−114164
Zenneck waves conversion at inhomogeneity of waveguide surface 2−114165
Ag gratings in air and electrolyte, plasmon surface polaritons, nonresonant excitation, light scatt. 2−104896
Ag, surface polaritons, attenuated total refl. 2−116288
Al-Al_2O_3-Ag tunnel junction, adsorbed mol. monolayers, surface enhanced Raman spectra obs. 2−82867
$CaCO_3$, calcite, phonons and mixed polaritons, hyper-Raman scatt. study 2−61900
$CaCO_3$, calcite, polariton hypercombination scatt. spectra, anharmonism effects *(Russian)* 2−56449
CdS, biexcitons, luminescence assisted two-photon spectroscopy study 2−76933
CdS, excitonic polariton and excitonic mol. dispersion curves, two-photon Raman scatt. 2−87159
CdS, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
CdS, refl. spectrum, additional boundary conditions, linear response theory 2−77548

polaritons continued
CsBr, surface phonon polariton, far IR dielec. const. determ. in reststrahlenband, laser spectroscopy 2−99085
CuBr, Raman study of exciton-polariton dispersion relation 2−93180
CuCl, excitonic mol. broadening under giant two-photon excitation, circular dichroism and light depolarisation study 2−66454
GaAs, excitonic polariton-induced compensation of pulse broadening in optical fibers obs. 2−91047
GaAs, oscillator strength and lifetime broadening of exciton polaritons 2−93141
GaAs, photoluminescence, elec. field effects, excitons and polaritons 2−99177
GaAs, resonant Brillouin scatt. under uniaxial stress 2−77542
GaAs:Si, ion implanted, surface polaritons, frustrated internal refl. spectra study 2−71886
$Gd_2(MoO_4)_2$, permitt. dispersion, infrared refl. and spontaneous parametric scatt. by polaritons 2−104837
Ge, pulsed-laser-annealed, stimulated surface polariton wave scatt. and grating formation, time resolved meas. 2−114359
$In_{1-x}Ga_xP$ mixed crysts., light scatt. by phonon polaritons 2−104891
LiF film, on $LiNbO_3$, Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
$LiIO_3$ crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
α-$LiIO_3$, stimulated Raman scatt., multimode lattice vibr. excitation obs. 2−65300
$LiNbO_3$, A_1 polariton dispersion characts., low temp. 2−67046
$LiTaO_3$, A_1 polariton dispersion characts., low temp. 2−67046
PbI_2, polariton radiation and relaxation *(Russian)* 2−92487
PbI_2, secondary radiation and reflection spectra, polaritons and excitons *(Russian)* 2−92486
Xe, cryocrystals, exciton spectra, polariton and spatial dispersion effects 2−82904
ZnO, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
ZnO, excitons exhibiting spatial dispersion, refl. and transmission spectra, additional boundary conditions 2−57122
ZnO, refl. spectrum, additional boundary conditions, linear response theory 2−77548
ZnO, surface exciton polariton, attenuated total refl. meas. 2−115666

polarization in elementary particle interactions *see polarisation in elementary particle interactions*

polarization in elementary particle scattering *see polarisation in elementary particle scattering*

polarographs *see polarography*

polarography
see also voltammetry (chemical analysis)
digital AC polarographic techniques, theory 2−116735

polarons
see also small polaron conduction
acoustic deformation potential interaction in the two-polaron problem 2−66460
amorphous chalcogenides, AC conduction due to polarons *(Japanese)* 2−104384
bipolaron in one- and two-dimens. system 2−104270
density of states of hole in narrow band of alternate lattice of fermions 2−98557
dispersion interaction temp. depend. 2−114068
donor-acceptor transfer, kinetic theory, polaron effect *(Russian)* 2−104271
effective mass and radius, temp. and coupling strength depend., path integral calc. 2−61373
effective mass and radius at finite temp. 2−82252
effective mass and radius at finite temps., path integral calcs. 2−98558
energy, temp. depend., dispersion energy model calc. 2−71887
ferromagnetic semiconductors, mag. polarons, review 2−87160
Frohlich polaron, mobile-localised state transition 2−98562
Frohlich polaron, phase transitions in mag. field, Feynman approx. 2−76944
Holstein polaron model, in linear chain 2−98561
local boson mode interactions with local electronic system with finite Fermi level 2−98556
molecular cryst., excitons and carriers, band and hopping diffusion, electron-phonon coupling effects 2−56572
non-piezoelectric systems, electron-acoustic phonon system, non-perturbative treatment 2−110268
one-dimensional acoustic polaron via deform. pot. under influence of Coulombic impurity 2−98555
one-dimensional semiconductors, electron mobility, hot electron effects, and polarons 2−92611
path integral formalism, functional variational approach *(Russian)* 2−76942
polar crystals, polaron IR optical absorpt. 2−104862
polar crystals, surface or interface weak coupling polaron *(Chinese)* 2−110266
trans-polyacetylene, electrochem. voltage spectroscopy 2−110227
trans-polyacetylene, optically excited states, UPS study 2−111030
polyacetylene, soliton excitations and polarons 2−115673
trans-polycetylene, doped, impurity states 2−71905
semiconductor; degenerate band, bound polaron energy, variational and perturbation calc. 2−115674
semiconductor, donor states, electron lattice coupling effect 2−71915
semiconductor, streaming motion and population inversion of hot carriers, crossed elec. and mag. fields 2−98668
semiconductors, polar, excitons and polarons, bounding energies, local density approx. 2−61367
small polarons, review 2−98559
statistical parameters in mag. field 2−104267
statistical props. in mag. field, thermodynamics 2−104268
strong-coupling polaron problem, regular perturbation theory 2−66461
surface polaron, ground-state energy, phase diagram 2−56657
thermal effects, high temp. behaviour of mean energy and effective polaron mass 2−61374
time-depend. momentum distrib., of polarons at arbitrary temp. and elec. field 2−98560
GaAs-$Al_xGa_{1-x}As$ heterojunction, two-dimens. electron system, magneto-phonon reson. obs. 2−98734
Ge:H amorphous film, AC losses and elec. cond., polarons 2−77055
He film surface, self-trapped electron, temp. depend. effective mass 2−76776

polarons continued
He films on solid Ne, two dimens. electrons, electron mobility meas. 2−61246
^{3}He, solid, vacancies, spin polaron, variational method 2−61251
^{4}He film, adsorption of spin polarised H, surface polaron 2−82075
^{4}He film, surface two-dimens. electron, polaronic aspects, path integral formalism 2−61245
NaCl, tightly focused intense laser beam deform., multiphoton-polaron and avalanche breakdown models 2−66056
UO_2, high temp. data on Seebeck coeff., elec. cond., thermal cond., specific heat 2−115796
ZnSe, carrier mobility, temp. depend., polaron effects, carrier scatt. mechanisms 2−66558

poles and zeros
resonances in coupled channels in nuclear and particle physics 2−59307
$Cd_3P_2(As_2)$, far IR reflectivity meas. 2−93210

police data processing
photographic image enhancement and deblurring system 2−113026

polishing
see also electrolytic polishing
ceramic ultrafine finishing by float polishing 2−60267
cylindrical optics grinding and polishing, ZShP-350M machine modification 2−114480
diamond, explosive shock synthesis prod., polycrystalline, polishing performance 2−72921
gallate-aluminate glass, chem. unstable TSM206, aq. Polirit suspension for polishing 2−109091
geodesic lens fabrication techniques in $LiNbO_3$:Ti waveguides 2−75733
glass, antireflection polished, strengthened by ion exchange 2−97134
II-VI semiconductor, polishing induced phase transforms. of single crysts. for device applic. 2−72852
jig for orienting and polishing single crystals 2−58803
laser rod holder during grinding and polishing 2−91094
magnetic-abrasive, effectiveness, methodology 2−67656
metal superpolished mirrors, deterioration by blue haze 2−102902
metal ultrafine finishing by float polishing 2−60267
optical component production line grinding and polishing equipment 2−97248
optical fibre coupler, tunable single mode, coupling between mated polished fibre faces 2−81102
optical film waveguides obtained by RF sputtering, cathode-ray vaporisation, loss mechanisms, ion polishing improvement 2−75672
optical glass components, chemically unstable, polished surface preservation 2−55368
optical glass polishing with the lapping method, kinematic features 2−97246
optical glass thin film substrates, detergent effect after polishing 2−81129
polisher powder technological property determ. 2−91104
segmented mirror polishing experiment 2−55361
semiconductor samples, demountable, sectioning technique 2−86670
semiconductors, surface prep. by selective chem. etching 2−83254
shape generation process of optical glass and polisher in pitch-polishing 2−60265
steel, constructional, low-temp. oxide film, form. after polishing, Auger spectra obs. 2−57539
steel, stainless, chopper wheel, polishing of both sides 2−109084
steel parts, magnetoabrasive polishing influence on macrostresses magnitude and distrib. *(Russian)* 2−77989
thin film pressure sensor design and manufacture *(German)* 2−79570
wafer, single crystal, lapping and polishing damage investig. by X-ray double- and triple-crystal diffr. *(Chinese)* 2−93690
Al, pure, effect of intermittent polishing on low-cycle fatigue 2−105292
CdS, photoluminescence, effects of polishing etchant composition 2−93271
$CoFe_2O_4$ single cryst., ellipsometric and magneto-optical study 2−61880
CsCl(Br), X-ray irrad., colloid form., optical props. 2−56030
Cu-Sn, sample prep. for TEM 2−69150
Ge, optical surface and bulk absorption at 10.6 μm rel. to polishing processes 2−70631
Hg_2Cl_2, plasmatic etching, study of treated surface layer 2−111336
MgO_2 single crystals, polishing with vibr. sliding in water, characts. 2−88250
Mo optical components, polishing procedures for surface texture reduction 2−102898
PbO-SiO_2 glass, IR polishing process 2−67584
SiO_2, fused, CO_2 laser polished, 1.06 μm laser-induced breakdown 2−60142
SiO_2 surfaces, fused, CO_2 laser polishing for increased laser-damage resist. at 1064 nm 2−114342

politics
international atmospheric and oceanic programmes, scientific and political aspects 2−112136

pollution
see also air pollution; pollution detection and control; water pollution; water treatment
actinides, gamma-ray spectra, anal., environmental contamination appl. 2−54712
assessment of environment pollutants by exposure commitment method 2−99853
atmospheric debris deposition following nuclear explosion, quantitative anal. *(Chinese)* 2−59545
coal, gasification, Texaco process, waste anal., environmental acceptability 2−67806
energy model design, impact of energy and environmental policy 2−78174
environmental contamination with radionuclides: levels and population exposures in the UK in 1980 2−78262
environmental migration of long-lived radionuclides, international symposium, Knoxville, Tennessee, (1981 July 27 to 31) 2−89446
environmental standards implementation based on moving averages 2−111609
fractured rock, radionuclide transport from waste repository 2−64495
geological disposal, site-specific migration anal. *(German)* 2−85129
geological waste disposal, nuclide transport, groundwater buoyancy effects 2−64492
nuclear medicine departments, surface contamination evaluation, least square method appl. 2−68170
radioactive material released from nuclear power plants in 1978 2−59498
radioactive waste, geological disposal, actinide chain migration modelling 2−64496
space systems environmental effects 2−88487

pollution continued
transuranic radionuclides in nuclear power plant environs, concentrations and distribution 2−59503
urban heat islands and pollutant dispersion, models 2−106166
waste, geological repository, thermally induced fractures, radionuclide migration in groundwater 2−64516
^{60}Co and stable Co, concs. in migratory marine organisms *(Japanese)* 2−78459
^{60}Co and stable Co, concs. in coastal marine organisms *(Japanese)* 2−78460
^{129}I, radioecology problems 2−93977
^{131}I in Cumbrian milk due to release from nuclear fuel reprocessing plant 2−62778
Pb in soil near Adelaide, S Australia, sources 2−73171
^{A}Pu, A=238, 239, 240, importance of contamination on vegetation surfaces at Rocky Flats, Colorado 2−78458
^{106}Ru migration in NTS aquifer 2−83525

pollution detection and control
see also air pollution detection and control; noise abatement; remote sensing; waste disposal; water pollution detection and control; water treatment
aerosols and waters, analysis by neutron activation and X-ray fluorescence methods 2−93848
assessment of environment pollutants by exposure commitment method 2−99853
contaminated soil, fissile particle track size distribs. meas. using particle track anal. 2−113818
CR-39 and LR-155 type II plastic track detectors for environmental Rn level meas. 2−67915
environmental samples, α-spectrometry, large area source preparation 2−111607
monitoring and control hardware selection *(Russian)* 2−62541
Olympic National Park, Washington, USA, pollutant monitoring results 2−99854
organic halides, in environmental samples, assay by NAA 2−57663
organic recycling, effect on energy, employment and environmental problems 2−73089
petroleum analysis, UV spectroscopy appl. 2−67912
radiation, environmental measurement and monitoring, quality assurance and control 2−80350
radioactivity measurement, laboratory instruments and methods 2−80348
radioactivity measurement by thermoluminescence dosimetry method 2−80349
radionuclide and gamma-radiation detection methods 2−80405
radionuclides standard specimens appl. 2−85448
As, determ. in soil extracts, atomic absorpt. spectroscopy 2−73170
Rn subsurface distrib. meas. 2−67913

polonium
see also nuclei with .....
Red Sea, ^{226}Ra, ^{210}Pb, ^{210}Po profiles and residence times 2−68387
$CaCO_3$:^{210}Po, radiation effects, EPR obs., rel. to paleodose determ. 2−78652
^{84}Po, probabilities of KMM Auger transitions 2−59767
^{210}Po, assay using background rejecting extractive liq. scintillation 2−54678
^{210}Po in rain at tropical oceanic sites 2−63037

polonium compounds
No entries

polyelectrolytes *see electrolytes; polymers*

polymer films
see also dielectric thin films; insulating thin films
ABS resin, plastic deform. mechanisms, TEM study 2−99487
acetylene-methylacetylene copolymer film, conductive, synthesis 2−57327
acoustic properties measuring apparatus 2−102991
acrylic, dye doped, UV sensitive phosphors for Si imaging detectors, fluoresc. props. 2−116224
aromatic silanes, polymerisation in RF plasmas 2−62399
azomethyne polymeric films, thermotropic liq. cryst. behaviour 2−60877
cellophane, blue, γ-radiation response under controlled humidity conditions 2−78450
cellulose acetate monolayers on Cu, IR refl.-absorpt. spectroscopy techniques comparison 2−116748
cement based matrix reinforced with polyalkene films of varying elastic moduli 2−57411
coatings on mirrors, photochem. degradation, study using FT-IR reflection absorbance 2−79691
creep and life testing apparatus 2−62317
deposition in low press. reactive plasmas, characteris. and applics., review 2−57287
discharge treatment of polymer film surface, temp. effects 2−105353
epoxy, Fourier transform IR spectra using heated ATR for T_g determ. 2−116167
epoxy based coatings, hygrothermal ageing 2−111368
glassy polymer thin films, competition between shear deform. and crazing 2−99528
hydrophobic coatings for increasing chem. resist. of KD_2PO_4 cryst. optical components 2−55301
Kapton polyimide film, dual model sorption and transport of SO_2 2−87042
Kapton polyimide film, elec. cond. at high elec. fields 2−71707
Kapton polyimide film, photocond. at high elec. fields 2−98694
Langmuir-Blodgett monolayers of preformed polymers, fabrication technique 2−88050
microgel polymer thin films, cationic and anionic charged, elec. and phys. props. 2−56729
molecular processes during friction, thermally stimulated depolarization current obs. 2−67560
Nafion polymer membranes, exchanged with Fe^{2+}, Fe^{3+}, and Eu^{3+}, Mossbauer spectroscopy 2−97943
nitrocelulose/nitroglycerine films, sorption of iso-propyl nitrate and acetone 2−71798
nylon 12, doubly oriented, elec. cond., anisotropy 2−82500
overcoating materials, ferrocene or derivative doped polymer films, for xerographic photoreceptors 2−107434
perfluorosulfonate ionomer membranes, phase separation 2−86881
PET films, physical ageing in glassy polymer, IR spectra 2−103667
photosynthesis, modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
photosynthesis modelling, solid polymer films with high protoporphyrin IX conc., spectral characts. 2−78312

polymer films continued
piezoelectric polymer film transducer for acoustic emission sensor 2−86196
plasma etch characts. rel. to struct. comp., electron resist appls. 2−62244
PMMA, damping meas. by coated beam method 2−67675
PMMA, effects of free vol. and segmental mobility in motion of nitroxide spin probes and labels 2−98963
PMMA film, ion-bombarded, high resoln. photomasks prep., LSI appls. 2−77799
PMMA thin films, time dependence effects in shear 2−67554
poly(4,4'-biphenylylene), elec. cond., IR absorption and reflection study 2−77218
poly(γ-methyl glutamate) films, mech. props. and aggregated states of α-helical chains 2−111217
poly(γ-methyl L-glutamate-co-γ-benzyl L-glutamate) film, irreg. layer lattice 2−86583
poly(N-vinyl carbazole), time resolution of carrier photogeneration controlled by geminate recombination 2−87328
poly(N-vinyl carbazole) films, excimer dynamics 2−116222
poly(N-vinylcarbazole) film, doped, energy transfer, fluoresc. study 2−116223
poly(vinylidene fluoride) film, crystallinity evidence 2−71376
poly(vinylidene fluoride) thin film, piezoelec. and pyroelec. props. meas. 2−104815
poly-(n-vinylcarbazole) film, photocarrier drift mobility meas., film struct. effects 2−72019
poly-N-epoxypropylcarbazole, absorption and emission spectra meas. 2−67119
poly-N-vinylcarbazole film, extrinsic carrier photogeneration CT fluorescence quenching by electric field *(Japanese)* 2−110963
trans-polyacetylene: I_2 film, elect. cond. and IR absorpt. 2−71969
polyacetylene:AsF_5, soliton pinning mode Fourier transform IR study 2−93175
polyacetylene:I_2 elec. cond., three-dimens. disordered semicond. islands model 2−56589
polyacetylene:Li, n-type doping, isomerisation, EPR and Raman spectra 2−65878
trans-polyacetylene:Li film, visible spectra 2−116206
polyacetylene:$MoCl_5(WCl_6)$ films, phys. props., dopant effects 2−104880
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
polyacetylene film, IR study of cis trans isomerisation 2−62398
polyacetylene film, nonuniform doping effect on resistivity, metal-insulator transition 2−104518
polyacetylene films, dielectric props. 2−87646
polyacetylene films, doping inhomogeneity, Castaing microprobe anal. 2−81810
polyacetylene films for UV radiation actinometry 2−64110
trans-polyacetylene oriented film, cryst. struct., X-ray scatt. study 2−91819
polyacrylonitrile:I thin film, I-V characts., induced percolation 2−110513
polyacrylonitrile, electropolymerised film, photoemission and meta-emission spectrosc. 2−93380
polyacrylonitrile, I swelling, creep yield and conformational transition 2−76275
polyacrylonitrile, pyrolyzed, elec. cond., IR spectra study 2−77219
polyacrylonitrile layer, metastable de-excitation spectroscopy and UPS study 2−110516
polyarylate, 1,1'-dimethylferrocene doped, overcoating materials for xerographic photoreceptors 2−107434
polycarbonate on metal, photochem. degradation, Fourier transform IR spectra obs. 2−116709
polychlorotrifluoroethylene film (Aclar), electret props., TSC study 2−77445
polyester, sputtering of Pd, XPS obs. 2−111026
polyester resin, damping meas. by coated beam method 2−67675
polyesters, aliphatic, epitaxial crystallisation on trioxane and aromatic hydrocarbons 2−87107
polyethersulfone film, dielectric breakdown under DC voltage conds. 2−110764
polyethylene, elec. ageing, radiothermolum. obs., relax. characts. *(Russian)* 2−93288
polyethylene, elec. breakdown, surface roughness and space charge form. 2−110761
polyethylene, electron irrad., micro-Brownian motion of segments, electron diffr. study 2−86580
polyethylene, epitaxial crystallisation on organic substrates, nucleating agent mode of action 2−87106
polyethylene, linear, amorphous, annealing effects in films 2−72726
polyethylene, low and high density films, corona charging, vibr. excited diatomic mols. as charge injectors 2−115775
polyethylene, low density films, prestressed, impulse breakdown strength 2−87670
polyethylene, oriented film, rotational isomers distrib., IR spectra study 2−108753
polyethylene film, numerical anal. of SCL cond. with consideration of diffusion and elec. field at electrode 2−110358
polyethylene films, crystalline, struct. mol. mobility, photoelasticity and torsion pendulum obs. *(Russian)* 2−110813
polyethylene films, plasma-polymerised, dielec. losses, effect of H_2 treatment 2−61824
polyethylene films in active environments, local yielding 2−76576
polyethylene oxide-$LiClO_4$ filled polymer electrolytes, electrochem. and mechanical props. 2−115458
polyethylene oxide-$LiClO_4$ filled polymer electrolytes, electrochem. and physical props., prep. condition effects 2−115459
polyethylene terephthalate, crystn. of cyclic oligomers, annealing and solvent exposure effects 2−76328
polyethylene terephthalate, irradiated in liq. He, radiothermoluminesc. *(Russian)* 2−57190
polyethylene terephthalate film, mechanically deformed, orientation effect, Brillouin scattering effects 2−87803
polyethylene terephthalate films, ethylamine soln. treated, biaxially stretched, fine struct. *(Japanese)* 2−86590
polyethylene thin film, piezoelec. and pyroelec. props. meas. 2−104815
polyethylene tubular film, cross-sections, effects of film forming conditions on strength *(Japanese)* 2−62173
polyethyleneterephthalate thin films, charge distrib., electron beam meas. method 2−93113
polyimide film, Pd-containing, electrical conductivity 2−61632
polyimide film, surface tension, tensile stress effects, expt. study 2−98485

polymer films continued
polyisobutylene film, sputter yield measurements on simulated adventitious carbonaceous contamination 2—77678
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2—77212
polyphenylene oxide, glassy, craze micromech., entanglement network role 2—111346
polyphthalocyanine, polymerised, thin film prep. by thermal vaporis. in vacuum, characteris. *(Russian)* 2—93424
polypropylene, drawn films and extruded rods, photoelastic and elastic consts., Brillouin scatt. study 2—83148
polypropylene, isotactic, dielec. relax. and loss, impurity effects 2—110757
polypropylene, orientated, crystn. of partial melt during annealing *(Russian)* 2—65873
polypropylene, stretched, time-resolved Fourier transform IR spectra, stretching-relax. obs. 2—116287
polypropylene, stretched film, time resolved IR study 2—116180
polypropylene evaporated films between Cu electrodes, I-V characts. and breakdown strength 2—110512
polypropylene film, effect of high O_2 press. and temp. on ageing 2—116576
polypropylene film, electric breakdown under electron irradiation 2—110763
polypropylene films, corona charging, vibr. excited diatomic mols. as charge injectors 2—115775
polypropylene films, positively corona-charged, TSC meas. 2—98659
polypropylene films, uni- and biaxially oriented, struct. and props. 2—86593
polypropylene films blended with ethylene-propylene copolymers and polyisobutylene, morphology, crystallisation, melting 2—65881
polypropylene isotactic film, thermo-oxidative degradation, struct. changes 2—71377
polypyrrole, elec. cond., IR absorption and reflection study 2—77218
polypyrrole, electrochemical and cond. props., chem. modification, SEM and voltammetric study 2—77217
polypyrrole, neutral and oxidised, prep. and characterisation 2—81693
polypyrrole film, conductive, electrosynthesis and behaviour 2—57615
polypyrrole film, electropolymerisation prep. in presence of BF_4^- 2—111099
polypyrrole-Si photovoltaic devices, photoelectrochemical and Schottky cells 2—78217
polystyrene, atactic, glassy, craze healing kinetics 2—62247
polystyrene, biaxially oriented, glassy, gas transport, effect of tensile strain, time and temp. 2—61205
polystyrene, Fourier transform IR techniques comparison for quantitative analysis 2—116749
polystyrene, glassy, craze micromech., entanglement network role 2—111346
polystyrene, high-impact, rubber-toughened, internal struct. of rubber particles and craze breakdown 2—105297
polystyrene film, anionically polymerised, refractive index rel. to glass transition 2—87730
polystyrene film, atactic, effect of thermal history on gas transport 2—92275
polystyrene film, plasma polymerised, elec. breakdown, theoretical anal. 2—66989
polystyrene film, plasma polymerised, elec. breakdown meas. 2—66988
polystyrene film, pyrene doped, thermally stimulated discharge current spectra meas. 2—72408
polystyrene films, soln. grown., DC elec. conduction 2—66564
polystyrene films, soln. grown, DC electrical props., free and trapped carrier conc., density of states 2—56742
polystyrene films, soln. grown, dielec. props. 2—66982
polystyrene polar mol. systems, mol. rot. mobility study by TSC 2—91823
polystyrene-acrylonitrile, glassy, craze micromech., entanglement network role 2—111346
polystyrene-methyl methacrylate, glassy, craze micromech., entanglement network role 2—111346
polystyrene-polyphenylene oxide blends, craze microstruct. and mol. entanglements 2—77968
polystyrene-polyxylenylether blend, craze-shear band interaction, TEM study 2—97939
polytertbutylstyrene, glassy, craze micromech., entanglement network role 2—111346
polytetrafluoroethylene films, corona charging, vibr. excited diatomic mols. as charge injectors 2—115775
polyurethane acrylate, UV-cured coatings on opt. fibres, sub-T_g annealing, correl. with microbending loss of fibre 2—60251
polyvinyl alcohol thin films, time dependence effects in shear 2—67554
polyvinylbutyral films, adhesion to flat glass, measured by shear and exfoliation methods 2—57590
polyvinylcarbazole, impurities and struct. effect on photolum. *(Russian)* 2—67092
polyvinylidene fluoride, pyroelectricity and space charge, expt. study 2—116123
polyvinylidene fluoride, thin film magnetoelectret, thermally stimulated discharge current obs. 2—99025
polyvinylidene fluoride and poly(vinylidene fluoride-TFE) copolymer dielec. films, polarisation distrib., numerical evaluation from thermal-pulse data 2—93103
polyvinylidene fluoride drawn films, NMR second moments, poling effects on anisotropic temp. changes 2—93019
polyvinylidene fluoride film, anisotropic thermal diffusion, transient pyroelec. currents 2—86958
polyvinylidene fluoride film, thermal expansion 2—92426
polyvinylidene fluoride film, uniaxially stretched, piezoelec. retention, stress relaxation effect 2—72428
polyvinylidene fluoride films, γ-irrad., piezoelectric props. 2—87687
polyvinylidene fluoride films, pyroelec. coeff. and dielec. const. and losses, heating effects 2—93118
polyvinylidene fluoride piezoelec. film in single-mode fibre interferometer as elec. field sensor 2—81096
polyvinylidene fluoride-trifluoroethylene copolymer, ferroelec., refractive index and birefringence meas. 2—57038
polyvinylidene fluoride-trifluoroethylene copolymer films, piezoelec. props. 2—87692
polyvinylindenfluoride thick films, piezoelectricity 2—77454
processing, modelling of nonisothermal processes 2—77800
PTFE, macromol. orientation, IR investig. *(Russian)* 2—110873
PVC:I_2, photoconductivity, doping effect 2—61629
PVC oxygen-free film, X-ray-induced dehydrochlorination, XPS 2—87944

polymer films continued
PVDF films in various solvents, unusual swelling behaviour 2—109691
PVF films in various solvents, unusual swelling behaviour 2—109691
solar energy conversion technologies, solid-solid interface research needs, adhesion abrasion and polymer coatings 2—88247
solar materials, interfacial phenomena and features, review 2—88458
spun-on thin films associated with semicond. industry, thickness variation 2—62081
stressed polymers microstruct. changes, vibr. Fourier transform IR spectroscopy 2—93201
stretched, partially oriented mol. fluoresc. polarization, electronic transition moment 2—77609
structural layer heterogeneity determ. by waveguide technique *(Russian)* 2—71380
Teflon based conducting polymer, elec. cond. meas. 2—87255
thermal conductivity meas., rapid technique 2—84621
thermoplastic, pulsed detonational sputter deposition *(Russian)* 2—72620
UHF meas. of thickness and dielectric const., recursive algorithm applicability 2—111437
vinyl chloride: vinyl acetate copolymer thin films; mol. motion, TSC obs. 2—82772
vinyl chloride and vinylidene chloride, solubility in own copolymers *(Russian)* 2—66227
wear of polymers sliding on polymeric films deposited on rough surfaces 2—88204
$(CH)_x$ undoped film, hyperfine coupling anisotropy, π electron character, ENDOR study 2—116092
Co-polybutadiene interface chemistry, ^{57}Co emission Mossbauer spectroscopy 2—87638
In/trans-$(CH)_x$/Electrodag Schottky barrier solar cells, photovoltaic and rectification props. 2—78216
polyimide:Pd filled polymer film, conductive, synthesis and characterization 2—57328
Ru complexes, soln.-polymer film interfaces, outer sphere electron transfer kinetics 2—62385
Se/polystyrene-hexylmethacrylate copolymer interface, charge transfer 2—56722
Si-polypyrrole film photoelectrochemical solar cells, stability against electrode oxidation 2—78218

polymer melts
alkylene glycol terephthalate copolymers with mesogenic p-oxygenzoate units, thermal transitions 2—61139
amorphous thermoplastic polymers, chain entanglement at high-T_g 2—76274
biaxial extension flow, transient stress and flow birefringence meas. 2—55610
blend, multicomponent fluid theory applic. to eqn. of state and PVT data 2—115387
blended, flow indices, temp. shift factor *(Japanese)* 2—81374
blends, melt rheological behaviour 2—109260
blends, thermodynamic and rheological props. *(Russian)* 2—76711
chain dimensions in melt, Monte Carlo studies 2—102673
complex shear modulus during periodic shear flow 2—81308
constitutive equations for polymer melts predicted by the Doi-Edwards and Curtiss-Bird kinetic theory models 2—97600
diffusion controlled processes, entanglement effects, reaction kinetics 2—67749
dynamic coherent struct. factor 2—86539
equations of state, bulk creep problems 2—93571
flow measurement using laser speckle photography 2—76043
homopolymer melts, monomer correlations, neutron scatt. method 2—71329
linear flexible chain, uniaxial extension in extremely broad range of stresses and strain rates 2—55525
liquid crystalline phases, review 2—76299
model polymers, dynamics and statics of a long chain in a dilute melt of shorter chains 2—56231
nonisothermal flow in narrow rectangular cavity 2—97656
phenoxy, glassy and melt states, PVT relations 2—115388
poly(ethylene terephthalate) flowing melts, Raman spectroscopy 2—72497
poly(ethylene terephthalate-co-p-oxybenzoate), phase transitions 2—98279
polyarylate, glassy and melt states, PVT relations 2—115388
polybromotrifluoroethylene, index-matching fluids, high intensity transmission props. 2—102866
polycarbonate, glassy and melt states, PVT relations 2—115388
polycarbonate-PMMA resins, blended melts, temp. influence on flow characts. *(Japanese)* 2—81373
polychlorotrifluoroethylene, index-matching fluids, high intensity transmission props. 2—102866
polyesterionomer, melt rheology, ionic content effect 2—91366
polyesters, thermotropic liq. cryst., orientation in high mag. fields 2—103607
polyethylene, low density, stainless steel non-agglomerating spherical powder filled, rheological anal. of melt 2—114749
polyethylene, molten, diffusion of linear hydrocarbons, hydrostatic press. effects 2—104041
polyethylene, molten, local struct., wide-angle X-ray scatt. 2—109659
polyethylene, nematic systems, chair statistics theory 2—65116
polyethylene, rotational isomers distrib., IR spectra study 2—108753
polyethylene, shear-induced anisotropy in thermal cond. 2—110053
polyethylene terephthalate/polyamide-6,6, melt rheology of blends 2—109260
polyethylene-polystyrene blended melts, temp. influence on anomalous flow behaviour *(Japanese)* 2—81375
polyisobutylene in presence of temp. ramps, shear and elongational stress growth 2—55527
polypropene, dynamic viscosity determ. 2—55528
polypropylene, flow behaviour obtained with various capillary rheometers *(Japanese)* 2—81376
polypropylene, molten, diffusion of linear hydrocarbons, hydrostatic press. effects 2—104041
polypropylene, supercooled condition, viscous and viscoelastic characts., 140-230°C *(Russian)* 2—91364
polystyrene, flow behaviour obtained with various capillary rheometers *(Japanese)* 2—81376
polystyrene melt, dynamics, real time neutron scatt. expt. 2—109656
polystyrene melt, real time neutron scatt. expt. during stress relax., interpretation 2—109657
polystyrene-poly(2,6-dimethyl-1,4-phenylene ether) blend, theoretical eqn. of state and PVT data comparison 2—115387

polymer melts continued
polystyrene-poly(2,6-dimethyl-1,4-phenylene ether) blends, glassy and melt states, PVT props., comp. depend. 2−115386
polystyrenes, high impact, melt rheology at high shear stresses 2−109261
polysulphone, glassy and melt states, PVT relations 2−115388
polytetrafluoroethylene, nematic systems, chair statistics theory 2−65116
processing, modelling of nonisothermal processes 2−77800
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, dynamic viscosity determ. 2−55528
PVC, elongational flow behaviour 2−75913
PVC cpds., fusion, processing variables effect, rheological obs. 2−81306
PVC cpds. fusion, lubricants effects, rheological obs. 2−81307
styrene-acrylonitrile thermoplastic melts, glass fibre filled, flow behaviour *(German)* 2−70887
transient shear flow behavior of polymeric fluids according to the Leonov model 2−55526

polymer solutions
agarose gels, laser light-scattering study of struct. 2−97897
aminosilane coupling agents, in aq. solns. and partially cured solids, struct. 2−97899
amorphous thermoplastic polymers, chain entanglement at high-T_g 2−76274
boundary layer noise, influence of polymer addition *(French)* 2−75767
carboxymethylcellulose, aq. soln., bubble dynamics, rheological model 2−60610
cellulose acetate, mesomorphic solns., phase diagram 2−65876
cellulose derivatives, solns., intrinsic viscosity, Yamakawa model 2−104046
cellulose ether-water-electrolyte systems, electrolyte systems, electrolyte distrib. and phase equilib. *(Russian)* 2−76642
comb-like polymers, solns., intramol. structurisation investig. *(Russian)* 2−65120
complex shear modulus during periodic shear flow 2−81308
critical double points of polymer mixtures and solns. 2−109658
dielectric relax. spectra, time domain reflectometry technique 2−66978
dilute, drag of plate in uniform flow 2−109372
dilute solns., photon correl. spectroscopy data fitting 2−91752
dilute solutions, turbulent flow classification scheme 2−103194
dilute solutions effective viscosity near confining boundaries 2−98323
diphenyl polymer, dil. solns., behaviour in turbulent flow conditions, Thoms effect *(Russian)* 2−76001
drag reducing, boundary layer of a body of revolution 2−81365
dynamics, appl. of field theoretical renormalisation group method 2−109655
dynamics, screening effects 2−75485
elastic moduli relationships *(French)* 2−86247
elongational flow during film drawing, rheological dynamics 2−114747
flexible polymers, Ptitsyn-Eizner lambda param. study 2−75480
flexible polymers in nematic solvents, phase diagrams in dil. regime 2−60863
flow around rotating sphere, normal stresses determ. using electrochemical diagnostics 2−97561
gelation, solvent effects, statistical mechanical model 2−91754
gels, transverse modes, light scatt. 2−98231
helicoidal laminar flow, drag reducing polymer study 2−60560
hydroxyethylcellulose, aq. soln., bubble dynamics, rheological model 2−60610
impenetrability of polymer balls with excluded volumes 2−81660
Lagrangian tricritical theory near θ-point 2−92151
liquid crystalline phases, review 2−76299
local viscosity investig. by electrolytic conductivity 2−71692
macromolecules, optically anisotropic, struct., depolarised light scatt. obs. 2−99144
mesomorphic polymer and monomer liq. cryst. mixture, nematic phases 2−115410
methacrylonitrile-styrene copolymers in dil. soln., conform. changes, light scatt. obs. 2−60866
methylmethacrylate-acrylonitrile random copolymers behaviour in dilute soln. 2−92248
microgels, soft-sphere, model, static and dynamic light scatt. behaviour of regularly branched chains 2−93819
Monte Carlo calcs., two-, three-dimens. multichain systems, screening length determ. 2−114143
n=0 vector model, negative susceptibility 2−65838
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
nonautocatalytic polymer solution reaction model, stable limit cycles 2−111492
nonentangled systems, diffusion-controlled reactions, kinetics study 2−67748
oligobutene, polymeric liquid, Brillouin scatt., ultrasonic and hypersonic relax. data 2−61916
orifice flow, birefringence and pressure drop meas. 2−97673
PAA polymeric additives, effect on viscosity, mol. wt. depend. *(German)* 2−98324
partially flexible macromolecules, liq. crystalline ordering 2−97920
particle size distribution analysis by dynamic light scatt. apparatus 2−112861
partition function, mol. wt. depend., criticality 2−63920
PBI/formic acid solns., experimental determination of US velocity and density 2−56092
PMMA, stereoregular, unperturbed dimens. meas. by gel permeation chromatography 2−71330
PMMA copolymers with anthracene chromosphores, intrachain luminesc. quenching *(Russian)* 2−110946
PMMA soln. viscosity in good and poor solvents 2−76724
PMMA-polymethyl acrylate copolymers, benzene soln., chain motion, elementary processes 2−93107
poly(2,6-dimethyl-1,4-phenylene oxide) in soln., conformational behaviour, sedimentation and permeabilities 2−75479
poly(2,6-dimethyl-1,4-phenylene oxide) solns., spin-lattice relax. in rotating frame 2−97898
poly(4-chlorostyrene), undiluted, temp. coeff. of the dipole moment 2−80855
poly(α-methyl styrene) in solution, excimer struct., fluorescent emission, polarisation 2−65046
poly(ethylene oxide), solubility parameter determ. at 25°C by gas-liq. chromatography 2−109661
poly (dimethylsiloxane) in methylethylketone, interaction parameter depend. on mol. wt. and conc. 2−108752

polymer solutions continued
poly-4-chlorostyrene-poly-4-methylstyrene copolymers, benzene solns., dipole moment temp. coeffs. 2−108748
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
poly-ω-methacryloyl oxycarboxylic esters, intramol. mobility obs. *(Russian)* 2−108754
poly-N-epoxypropylcarbazole, absorption and emission spectra meas. 2−67119
poly-n-nonyloxyphenol poly-p-methacryloyl oxybenzoate, hydrodynamic and conform. props. *(Russian)* 2−108755
poly-N-vinyl-3-methyl-2-pyrrolidones, opt. active, synthesis and characteris. 2−61866
poly-N-vinylcarbazole, nitrated, soln., electronic excitation energy transfer, fluorescence and phosphorescence study *(Russian)* 2−77592
polyacrylamide, aq. soln., bubble dynamics, rheological model 2−60610
polyacrylamide gel, neutron and quasielastic light scatt., screening length rel. to elastic modulus 2−93820
polyacrylamide solns., turbulent pipe flow, pipe diameter effect on critical Weissenberg numbers 2−70996
polyacrylonitrile, solns., rheological investig. using high temp. viscometer *(German)* 2−70888
polybutadienes, linear and star-shaped, in soln., US attenuation and vel. meas. 2−76599
polybutaneamide solns., solubility, viscosity and stability *(Russian)* 2−76725
polydiacetylene conjugated solution, Raman photoselection 2−82864
polydimethylsiloxane gels, swelling and orientational order, NMR obs. 2−62437
polydimethylsiloxane-diethyl carbonate, conc. fluctuation dynamics 2−103972
polydimethylsiloxane-diethyl carbonate, liq. mixture, phase separation, light scatt. study 2−98260
polyelectrolyte soln., diffusion of small molecules 2−66269
polyelectrolyte solution, counterion distrib. around cylindrical polyion 2−109644
polyelectrolyte solution containing mixture of same charge counterions, thermodynamic props., cell model 2−116721
polyelectrolyte solutions, osmotic coeff., Monte Carlo method 2−57635
polyelectrolyte-electrolyte solns., mean activity coeff. calc. 2−104024
polyelectrolytes solution, counterion self-diffusion coeff. 2−104036
polyethylene, lamellar thickening from isothermal soln. annealing 2−67373
polyethylene in soln., PMR relax. and mol. motion, isotopic dilution technique 2−93041
polyethylene oxide, aq. soln., bubble dynamics, rheological model 2−60610
polyethylenes, chlorosulphonated, solns., rheology 2−70886
polyisoprene chains, unperturbed dimensions 2−75478
polymethylene chains, conform. changes in soln., Monte Carlo calcs. *(Russian)* 2−76267
polymethylphenylsiloxane, solid and solns. US relax. meas. 2−61079
polyoxyethylene soln., pipe flow, mass transfer, NMR study 2−103192
polypeptide solutions, lyotropic cholesteric phase, statistical theory 2−81661
polystyrene and poly(α-methylstyrene), oscillatory flow birefringence props. at infinite-dilution 2−116147
polystyrene gel, isotactic, extended and threefold helical conforms., solvent geometry effect 2−78144
polystyrene in mixed solvents at high temp., unperturbed dimensions, intrinsic viscosities meas. 2−109651
polystyrene in solution, excimer struct., fluorescent emission, polarisation 2−65046
polystyrene networks, specific vol. meas. at different degrees of swelling 2−109660
polystyrene solutions, conc., behaviour in large amplitude oscillating shear fields 2−86768
polystyrene-liquid SO_2 system, phase equilibria 2−109953
polystyrene-polyethylene oxide (polyisoprene) block copolymer-solvent systems, liq. cryst. textures 2−115130
polystyrenes in isorefractive PMMA-toluene solvents, light scatt. obs., radii of gyration, virial coeffs., θ condition 2−116730
properties, extrapolation formulae 2−60860
Rao constants 2−97893
real gas model, and props. of dilute solns. of polymers *(Russian)* 2−57039
rod-like polymer soln. phase behaviour, Gaussian distrib. of chain lengths effects 2−91753
rodlike, flow through fine pores, pore size influence on rheological behaviour 2−76018
rubber, temp. transitions, mech. losses, vibr. freq., effective viscosity, struct. development *(Russian)* 2−65837
semi-dilute, viscosity meas., de Gennes theory comparison 2−56237
semidilute, conformation space renormalisation theory 2−81658
semiflexible macromolecules, liquid crystal solns., susceptibility in external orienting field 2−65852
sodium polystyrene sulphonate, mixtures, activity coeffs. calcs., ^{23}Na NMR study 2−104023
sol-gel transition, flow birefringence 2−57641
star shaped polymer, model for conformation, conc. depend. 2−54998
starch, aqueous soln., study of US vel. and associated parameters 2−71577
stress relaxation, in double-step shear deforms., stress components eval. 2−97482
styrene-acrylonitrile copolymer solns., hydrodynamic characts. and light scatt. *(Russian)* 2−108756
styrene-acrylonitrile random polymer, in ethyl acetate 2−99143
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
triarylpyrylium salts poly-N-epoxypropylcarbazole solns., thermodynamic analysis using microcalorimetry and UV spectroscopy *(Russian)* 2−74551
two-dimensional, collapse transition, tricritical behaviour, Monte Carlo study 2−114142
viscoelastic liq., bubble, surface tension driven oscills. 2−60581
viscoelastic liq. threads, surface tension driven jet breakup, stability anal. 2−97599
viscosities, of concentrated solns. 2−86769
viscosity power law study 2−110023

polymerisation
acetylene, polymerisation using dibenzenetitanium catalyst 2−67045

polymerisation continued
acetylene condensation reactions in a microwave induced plasma 2−57613
aromatic silanes, polymerisation in RF plasmas 2−62399
ε-caprolactam, activated anionic polymerisation, superimposed processes, exothermal effects 2−78095
concrete, vinyl monomer additives, effect on radiative styrene polymerisation *(Russian)* 2−54523
copolymers, complex radical synthesis mechanism, unit distrib. and comp. heterogeneity *(Russian)* 2−78096
CR-39 track detector, curing cycle for detector-quality 2−59628
CR-39 track detector for cosmic ray appl. 2−63256
cyclic ethers, cationic polymerisation mechanism from electrostatic mol. potential contour maps 2−83383
deposition in low press. reactive plasmas, characteris. and applics., review plasma polymerisation thin film deposition, review 2−57287
diacetylene, solid state polymerisation autocatalytic region, neutron diffr. study 2−67751
diacetylene, solid-state photopolymerisation, photoacoustic study 2−93790
diacetylene-bis(toluenesulphonate), reaction induced secondary photopolymerisation 2−99673
2-(4-N,N-dimethylaminobenzyl)-2-(1-pyrenylmethyl)propane-1, 3-diol, polyester synthesis and emission props. 2−88356
dl-/lactide, thermodynamic props. and thermodynamics of polymerisation *(Russian)* 2−111510
ethylene, polymerisation using dibenzenetitanium catalyst 2−67045
fluorocarbon polymer form., difluorocarbene emission spectra from fluorocarbon plasmas 2−55787
formaldehyde-$d_0(d_2)$, dipole moment, polymerisation effect; IR obs. 2−70241
fusion fuel, density matched coating, plasma polymerisation 2−54655
gelation, critical props., kinetic approach 2−105482
gelation, nearby critical kinetics 2−78094
glass transitions, statistical mechanical theory 2−71649
intensity fluctuating spectroscopic anal. 2−111493
methyl methacrylate and styrene polymerisation using azoisobutyronitrile as radical initiator, ^{13}C NMR 2−67750
methyl methacrylate-vinyl phenylacetate gradient-index fibre lens fabrication by photocopolymerisation 2−75687
organic-inorganic intercalation cpds., low dimensional, photopolymerization 2−92584
photopolymer printing plates, isoenergy contours determ. in photopolymerising material on extended source irrad. 2−99695
photopolymerising compounds, sensitometric investigation of photosensitivity and rate of polymer formation *(Russian)* 2−53872
photoresists, transition metal-carbonyl derivatives as photopolymerisation initiators and photocrosslinking agents 2−58938
poly-ε-caproamide, form., crystallisation 2−78095
poly-N-vinyl carbazole, synthesis, physical and elec. props., book 2−53443
poly-N-vinyl-3-methyl-2-pyrrolidones, opt. active, synthesis and characteris. 2−61866
poly-p-phenylene, highly conducting, prep. by solid-state polymerization 2−57614
polybis-p-toluene sulphonate diacetylene, single cryst. perfection, synchrotron radiation topography, defects role in solid-state polymerisation 2−71373
polycarbonate CR-39, track detecting props., internal. temp. fluctuation effects during cure 2−59627
polyethylene films, plasma-polymerised, dielec. losses, effect of H_2 treatment 2−61824
polyglycidyl methacrylate (PGMA), negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polymer melts, diffusion controlled processes, entanglement effects, reaction kinetics 2−67749
polymer soln., nonentangled systems, diffusion-controlled reactions, kinetics study 2−67748
polyparaphenylenes, EPR study of mag. props. and struct. defects 2−104701
polypyrrole film, conductive, electrosynthesis and behaviour 2−57615
polypyrrole film, electropolymerisation prep. in presence of BF_4^- 2−111099
polystyrene, negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polytrifluoromethylacetylene, synthesis and characterisation 2−116694
polyvinyl-polypeptide block copolymers, polypeptide chain folding 2−91825
sol-gel transition, critical behaviour percolation, kinetic model 2−105481
solid state polymerisation, radiation induced, Monte Carlo simulation 2−105483
stochastic theory 2−83384
sulphonaphthalene macronetwork polyelectrolytes, synthesis and props. *(Russian)* 2−78093
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
vinyl monomers, radical polymerisation, mol. mass and branching centre distribs. *(Russian)* 2−111494
S_2N_2, polymerisation, Woodward-Hoffmann orbital correl. diagrams 2−81952

polymers
see also elastomers; filled polymers; glass fibre reinforced plastics; glass transition (polymers); plastics; polymer films; polymer melts; polymer solutions; rubber
α-/nylon 12, unit cell determination, X-ray diffr. study 2−97938
ABS compounds, microstruct. and deform., effect of graft freq. and rubber particle size 2−99489
ABS compounds, microstruct. and deform., effect of matrix mol.wt. and rubber content 2−99488
accelerated-stress life-test data exhibiting two failure modes, proposed model 2−111424
acetylene-phenylacetylene:I_2 copolymers, stability and stabilisation, phys. and elec. props. 2−56593
acoustic emission and e.s.r. studies of polymers under stress 2−66133
acoustic emission associated with tree growth 2−110762
acrylate-coated fibres, UV-cured, environmental testing 2−114443
acrylic resin, shielding expts. for neutrons and γ-rays from ^{252}Cf neutrons source *(Japanese)* 2−54671
adhesive, dielec. monitoring of bonding process, correl. of dielec. props. with curing thermoset resin props. 2−111449
adsorbed at solid-soln. interface, config. investig. by small angle neutron scatt. and NMR 2−114140
polymers continued
adsorbed layers on square lattice, critical exponents for self-avoiding lattice walks 2−107250
adsorption, self-avoiding lattice walk model 2−87016
alkylene glycol terephthalate copolymers with mesogenic p-oxygenzoate units, thermal transitions 2−61139
allylbenzene-(R)-3,7-dimethyl-7-octene copolymers, opt. active, chiroptical props., main chain-side group distance depend. 2−61867
amine cured epoxies, tensile deform. and failure processes 2−67449
aminosilane coupling agents, in aq. solns. and partially cured solids, struct. 2−97899
amorphous, in glassy state, conformational anal. by magic angle spinning ^{13}C-NMR 2−66931
amorphous structure, review 2−91821
anisotropic, yield hypothesis *(German)* 2−72776
aromatic copolyesters containing rigid binaphthyl units, mech. and thermal props. 2−67452
aromatic heterocyclic polymers, rigidity and tractability rel. to mol. swivels 2−70463
aromatic polymers, benzoid and heterocyclic, characterisation by cross-polarisation, magic-angle ^{13}C NMR 2−110670
azobenzene-base, struct. features of liq. cryst. state *(Russian)* 2−60885
band struct. changes on lowering the translational symm. 2−110228
biaxially oriented polymers, orientation distrib., functions calc. 2−109697
biopolymer, proton-C distance meas. as mean of simultaneous determ. of donor and acceptor moieties, H-bonds 2−85707
biopolymers in aqueous soln., study of acoustic relaxation mechanism 2−115365
bis(p-toluene sulphonate) ester of 2,4-hexadiyne-1,6-diol, electron mobility, hot electron effects, and polarons 2−92611
blend, mech. strength and flow behaviour, mixing effect *(Japanese)* 2−83179
blends, phys. and thermodynamic props., review 2−67450
blends, use of chem. contrast in SEM anal. 2−97944
bonded solid film, effect of load area of contact and contact stress on wear mechanisms 2−88224
brittle, with submicrocracks, deform. props. and macroscopic breakdown kinetics, di slocation model 2−62209
brittle glass polymers, tensile strength elevation by entanglements 2−93621
butadiene-styrene block copolymers, strain-strength props. under uniaxial stretching *(Russian)* 2−67466
cable insulation, aging, for equipment qualification, in nuclear reactors 2−107961
cellophane, fine struct., X-ray and electron diffr. obs. 2−103666
cellulose acetate membranes, CO_2 permeability *(Spanish)* 2−86307
cellulose hydrate, struct transformations by heat treatment, $AlCl_3$ effects 2−109979
cellulose nitrate, alpha-particles registration, statistical behaviour 2−70078
cellulose nitrate, creep behaviour in unloading process under superimposed tensile and hydrostatic loading 2−67430
cellulose nitrate, dielec. detect. of deuterons, appl. to plasma focus 2−71261
cellulose nitrate, low charge discrimination expt. study 2−70074
cellulose nitrate film, α-particles ang. response 2−70077
cellulose nitrate films, chem. and phys. parameters influence on track quality 2−59637
cellulose nitrate track detector sensitivity to mass difference in low Z region 2−70108
cellulose nitrate track detectors, neutron dose distrib. meas. in water filled phantom 2−70014
cellulose nitrate track detectors sensitivity depend. on neutron energy 2−70098
cellulose triacetate, heavy ion tracks, electron microscopy obs. *(French)* 2−108273
cement, KR-3, for optical component fabrication, technological props. 2−102960
ceramic low-shrinkage material, optimum form. conditions 2−67280
chain, fractal dimensionality 2−79487
chain, regularly branched, static and dynamic light scatt. behaviour, soft-sphere microgels model 2−93819
chain, soliton characteristics, variational approach *(Russian)* 2−76945
chain in mol. cryst., motion, adiabatic approx. calcs. 2−81903
chains, Davydov soliton, acoustic wave dispersion effects, theoretical anal. *(Russian)* 2−59983
characterisation, conf, Durham, UK, 13-17 July 1981 2−68957
cis-polyacetylene, resonant Raman scatt., theoretical anal. 2−77524
cluster CPA calcs., appl. to coupled polymer chains 2−80852
coating adhesion applied as hot melt, test temp. effect on steel, Cu and Zn substrate 2−67637
comb-like, with phenylbenzoate side groups, liq. cryst. ordering *(Russian)* 2−76278
combined deformation by creep and fracture, driving process 2−115342
conducting materials, electronic struct. and lattice architecture 2−92439
conductive, cond., Las Vegas, NV, USA (Aug. 1980) 2−53430
conformation change, dynamic lattice model, exact and Monte Carlo calcs. 2−69094
conformational space renormalisation, random and self-avoiding walks 2−75481
conformational state relax., time correl. functions 2−108750
coupled stereo-irregular chains, local antiferromagnetic ordering 2−116013
CR-39 polymer detectors for reactor and dosimetry appl., neutron response characacts. 2−70095
CR-39 polymer track detector for Rem-equivalent personnel neutron dosimeters 2−70009
cracked, inner potential, electron microscopy meas. technique 2−93746
craze deformation, finite-element analysis, surface displacements and stresses 2−67590
crystalline polymers, birefringence meas. using far-IR interferometry 2−95465
crystallisation kinetics studied using differential scanning calorimetry 2−109702
Daicel cellulose nitrate, α-particle registration props. applying diffusion etch model 2−70083
Daicel cellulose nitrate, quasi-relativistic Fe ion registration, diffusion-etch model appl. 2−70082
DC elec. field induced SHG 2−110816
decomposition characteristics studied using semiinfinite body method, thermophysical props. 2−115149

polymers continued
deformability prediction in complex stressed state 2−83189
deformation process instabilities in cold drawing 2−67372
degree of cyrstallinity, volumetric meas. 2−71360
detectors, latent and etched track formation, thermodynamic approach 2−59614
diallyl phthalate polymer below gel point, rheology 2−65553
trans-1,2-dicarbazolylcyclobutane or carbazolyl struct. containing polymers, fluoresc. quantum yields and lifetimes 2−90605
diffraction studies on non-crystalline substances, book 2−58566
diffuse adsorbed layer, loop weight distrib. *(French)* 2−110137
directed branched polymers and directed percolation Flory approx. 2−85852
drag reduction in turbulent flow, soluble polymer addition method *(German)* 2−70998
drawn, crystal stability and mech. props., statistical-mech. approach 2−86586
ductile-brittle transition model 2−57452
Edwards' model, Borel summability 2−95251
Edwards's model for long polymer chains 2−102677
elastic and fracture props., design and testing 2−88195
electret, charge distrib. meas. by new press. pulse method 2−66976
electrets, piezoelectricity 2−57019
electrical time dependent currents, rel. to external elec. field strength 2−66286
electromechanical relaxations in oriented polymers, theory 2−87689
electron delocalisation, diamag. anisotropy study 2−98838
electron microscopy, of polymer blends 2−65818
electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
entropy of polymer chains on square and cubic lattices, lower bounds calc. 2−110013
epoxide resin adhesives, having different network structs., fatigue behaviour *(Japanese)* 2−62202
epoxide resins, cured with aliphatic diamines, mech. relax. mechanism 2−99474
epoxide resins for vacuum-tight cement mounting of optical windows in crystals 2−74423
epoxies, cryogenic thermal expansion meas. method 2−65460
epoxy, tetrafunctional, adhesive fracture energy, fracture mech. approach, T_g and relax. processes depend. 2−111403
epoxy binders, strain-strength props. above glass transition temp. 2−83186
epoxy insulators for composite supercond magnet, radiation resist. in magnet location 2−108118
epoxy resin, amine cured, thermal modification, thermal and mech. obs. 2−111206
epoxy resin, expt. K-value determ., appl. to brittle fracture *(Japanese)* 2−111402
epoxy resin monomers, unreacted DGEBA type, local order investig. by light scatt. 2−93212
epoxy resin-glass adhesion 2−78066
epoxy resins, materials variables controlling transverse cracking 2−105295
epoxy resins, mol. weight, crosslink densities, elastic moduli 2−116482
epoxy resins, round notched, subjected to plane strain bending, internal fracture and surface morphologies 2−67534
epoxy resins, thermal expansion coeffs., 30 to 300K, temp. depend. *(German)* 2−61179
epoxy resins stress meas. using photoelastic sandwich method *(German)* 2−81302
epoxy systems, high-resoln. dark-field imaging 2−97941
epoxy thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
epoxy/LiF alternating layers, shock wave attenuation, effect of thin glue bonds 2−71568
equations of state, bulk creep problems 2−93571
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
failure under load with constant strain rates *(German)* 2−72830
fatigue wear equation, expt. verification 2−111326
fatigue-crack front marking technique 2−116654
ferroelectric materials and appls., conference, Kyoto, Japan (May 1981) 2−79273
fibre, oriental, tensile failure obs. by quantitative fractography 2−93723
fibres, acoustic props. meas. apparatus 2−102991
finite polymer chains, with end defects, approx. eqns. for calc. of chain vibr. freqs. *(Russian)* 2−54995
flow, eqns. of motion of nonlinear viscoelastic liq. appl. 2−81250
fluid mechanics, and polymer processing, deform. rate softening of memory 2−65554
foam, compressive deform. 2−116510
formaldehyde copolymer, serviceability, effect of radiation 2−83223
fractal dimensionality in self-avoiding walks, theoretical and numerical study 2−109696
fracture, complete longevity isotherm calc. 2−93627
friction and wear, book 2−79295
friction coefficient eqn. 2−111327
gas sorption theory, conformational effects and double-sigmoid shape of sorption isotherm 2−71789
gels, diffusion of solutes 2−92249
glass, Case II diffusion theory 2−92253
glass, nonequil. props., conf., Las Vegas, USA (Aug. 1980) 2−58535
glass transitions, statistical mechanical theory 2−71649
glasses, excess entropy and stress-strain behavior 2−76710
glasses, in surface active medium, strength, time depend. *(Russian)* 2−109891
glassy, approach to thermodynamic equil., improved calorimetric procedure 2−89717
glassy, craze micromech., entanglement network role 2−111346
glassy, deform. props. prediction using dislocation analogy 2−62183
glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
glassy, free vol. fraction, excess entropy and mech. deform. 2−61176
glassy, inhomogeneous dissipative structure using variational principle of nonequil. thermodynamics 2−61142
glassy, mol. vibr., IR absorption spectra study 2−104890
glassy, nonequil. behaviour, review 2−60892
glassy, nonequil. nature obs. using Fickian diffusion of alkane permeants 2−66292
glassy polymers, nature of nonlinear anelasticity 2−88121
glued connections, residual stresses meas. at low temps. 2−72911
glued steel joints, strength eval. 2−72903
(gly-pro-hypro)$_n$, models of polymer struct. 2−67932
polymers continued
grafted on solid surface, free and adsorption, configuration 2−82134
hard, failure processes sequence 2−57483
heat resistant rubbers development for power cables and conductors 2−67273
helical crystals, struct. phase transitions, statistical mechanical theory 2−66165
helix struct., vibr. spectrum low-freq. branches and low temp. thermal capacity *(Russian)* 2−56137
highly conducting, electronic struct., ab initio calculations 2−80851
highly-crosslinked, fractography, Preston's analysis of stries form. 2−71551
homogeneous interpenetrating polymer networks, thermal and rheological props. 2−55452
homopolymers, physico-mech. props. under high press. and shear strain *(Russian)* 2−67467
hydrogen derivatives, elec. cond., bond gaps, valence effective Hamiltonian study 2−76890
ICF target, multishell plastic form cushion materials, prep. by thermally induced phase inversion 2−80198
impact friction and wear 2−67564
impact testing based on velocity and acceleration meas. 2−105427
impurity dephasing by optical modes 2−86822
infinite chains, cluster CPA calcs., appl. to coupled polymer chains 2−80852
insulating materials, degraded, radiation induced cond. 2−110397
insulating materials for supercond. magnets, low temp. irradiation effect 2−80182
interchain sp. ht., calc. from thermo-acoustic data 2−92228
interchain sp. ht. ratio and US absorpt., calc. from lattice Gruneisen coeff. 2−115382
ionic transport, in amorphous solid electrolytes 2−56250
N-isopropylcarbazole-polycarbonate mixture, transport and trapping processes, comparison 2−66572
isotropic, yield hypothesis *(German)* 2−72776
kappa-casein, biopolymer, far-IR spectra 2−108749
Kevlar-29 fibre, tensile fatigue and creep behaviour 2−105299
laminated sheets, mechanical interactions 2−77883
laminated structures, heat protective, optimum design 2−91221
light scatt. appls. 2−87805
light scattering by polyethylene spherulites with aid of polarizing microscope 2−72515
lignins, amorphous, X-ray diffractograms, temp. depend. 2−76327
linear alkanes, localised Auger final states 2−77632
linear flexible chain, uniaxial extension in extremely broad range of stresses and strain rates 2−55525
linear viscoelastic material, stress response and energy dissipation under periodic triangular strain loading 2−114675
liquid, hydrodynamical eqns. obeying entropy principle 2−91377
liquid crystal, thermotropic, elec. field induced cooperative struct. transition, electro-optical behaviour 2−76677
liquid crystalline polymers, microheterogeneous struct., X-ray scatt. 2−91773
liquid crystalline polymers, mol. order and motion, ^{2}H NMR spectroscopy 2−86545
low-molecular cpds. in polymers, translational and rot. diffusion coeffs., rel. to glass transition temps. *(Russian)* 2−76723
macromolecular metals and semiconductors: a comparative study 2−56567
magnetic relaxation time, transverse, mol. wt. depend. *(Russian)* 2−66966
maleic acid copolymer with styrene in aq. salt soln., conformational transition studied by derivative spectroscopy 2−65119
materials testing, state and development *(German)* 2−111419
mechanical properties, influence of mol. wt. and mol. wt. distrib. 2−111306
metallic vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
metallocene polyoximes, group IV B elec. props. 2−56565
metallomacrocycle cofacial assembly, elec. conductive polymer 2−56569
methacrylic and epoxy metworks, thermal and rheological props. 2−55452
methanol-d_6 polymer, H-bonds, underdamped anharmonic stochastic oscill., IR obs. 2−85646
microcomputer-based system for instrumented impact testing 2−78038
microtension test, new scale of specimen 2−78035
model, polymers, long range interactions calc. using unit cell arbitrary concept 2−80850
molecular weight averages determ. by gel permeation chromatography, data analysis effect on accuracy and precision 2−116763
multicomponent systems, in industry 2−57277
mutually entangled long flexible molecules, statistical gauge theory of topological entanglements 2−114144
Mylar, materials suitable for use in far IR 2−60187
N,N'-di-n-hexyladipamide, a model for nylon 6,6 2−76323
nonlinear stress in oscillatory shear fields, reptative motions 2−109904
nonlinear viscoelastic polymer, unloading process, birefringent effect 2−109201
nylon, lattice thermal cond. at low temp., density fluctuation model 2−76757
nylon, static and dynamic fatigue examined using isodensitometry *(French)* 2−57478
α-nylon 11, ferroelec. transition, dielec. const., thermal expansion and pyroelec. coeff. study 2−116128
nylon 11, lamellar single crysts., polymorphism 2−71432
Nylon 12, α form, formation from melt and quenched state under high press., DTA and X-ray study 2−72684
nylon 12, soln. crystn., morphology, crystal form and thermal behaviour 2−91818
nylon 6,6-PTFE, two-body abrasion against 6 to 50 μm SiC abrasives 2−111330
Nylon 6, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
nylon 6/inorganic salt fiber, struct. and dynamic mech. behaviour, drawing effect 2−109695
nylon monofilaments, oriental, tensile failure obs. by quantitative fractography 2−93723
nylon-12, oriented, mech. anisotropy, H bonding effects 2−105209
Nylon-6,6 annealed in glycerol, thermomechanical props., stress-strain anal. 2−111213
nylon-6, current following voltage reversal 2−86922

polymers continued
nylon-b, large deform. behaviour of thermoplastics 2−111245
one-dimens. cond., electronic struct., ab initio SCF LCAO calc. 2−76892
optical information storage using multiple photochem. hole burning 2−75641
ordered and disordered systems, treatment by lattice methods 2−108751
organometallic polymer, ICF target preheat shield fabrication 2−85243
oriented, elastic anisotropy and kink band form., disclination-dislocation model analysis 2−71542
oriented flexible polymers, glass transition *(Russian)* 2−66225
n-paraffins, chains with end defects, approx. eqns. for calc. of chain vibr. freqs. *(Russian)* 2−54995
partially cured, glass transition temp. as nonequil. parameter, effect on dynamic mech. response 2−66224
PEPC electrophotographic layers, study of ionic conductivity *(Russian)* 2−74562
perspex, photoelectric cross sections 2−96514
perturbational approach to the interaction between two nearly incommensurable polymers 2−96675
PET, diagmag. anisotropy as probe of electron delocalisation 2−98838
PET crystallisation, press. effect 2−109692
phenol resin, C fibre reinforced, Young's modulus, repeated heat cycles effect 2−83154
phenoxy, glassy and melt states, PVT relations 2−115388
photoacoustic Fourier transform IR spectroscopy, analytical appls. 2−116747
photopolymer printing plates, isoenergy contours determ. in photopolymerising material on extended source irrad. 2−99695
phthalocyanine resin, adhesive fracture energy, fracture mech. approach, T_g and relax. processes depend. 2−111403
piezoelectric, electromechanical materials and their appls. review 2−77453
piezoelectric polymers as peripheral pulse sensors 2−83689
piezoelectric relaxation 2−99050
piezoelectricity and pyroelectricity, bibliography, 1980 to 1981 2−107033
plasma, CO_2 laser produced, acceleration of multi-species ions, props. 2−109550
plasticised epoxide, fracture under superposed hydrostatic pressure 2−105293
plexiglas, MM wave absorpt. meas. using untuned cavity resonator 2−99030
plexiglas, shaped charge jet penetration, compressibility related effects 2−86794
plexiglass, permittivity meas., USSR-Bulgarian development of standard specimens 2−84664
PMMA, and copolymers, dye, appl. to laser passive shutters, decouplers 2−97128
PMMA, collinear cracks dynamic interaction 2−98192
PMMA, crack resist., temp. and rate relationships with high loading rates 2−67542
PMMA, creep kinetics, influence of stressed state 2−105262
PMMA, deform. props. prediction using dislocation analogy 2−62183
PMMA, dielectric relax. transitions, separation 2−104806
PMMA, dynamic bulk and shear moduli and relax. 2−93548
PMMA, expt. verification of fatigue wear eqn. 2−111326
PMMA, fracture, complete longevity isotherm calc. 2−93627
PMMA, glassy, dye laser calorimetry, linear absorpt. coeff., 605-675 nm 2−93221
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2−62160
PMMA, glassy state relax. characteris. by low press. CO_2 sorption, preswelling influence 2−65883
PMMA, hot Ni atom interaction with polymer surfaces, XPS study 2−93805
PMMA, immersed in transformer oil, anomalous breakdown characts. under direct and impulse stresses 2−110766
PMMA, large deform. behaviour of thermoplastics 2−111245
PMMA, lattice thermal conductivity anal. at low temps. 2−104086
PMMA, low temp. glass transition temps., Brillouin scatt. obs. 2−61140
PMMA, low viscosity PMMA cement, fatigue crack propag. comparison with PMMA bone cement 2−116528
PMMA, microdeformations in glass transition region, electron microscopic studies 2−109887
PMMA, nonoriented, static load effect on mech. relax. processes 2−62156
PMMA, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
PMMA, oriented, Brillouin spectroscopy 2−72516
PMMA, photoresist, deep UV photoetching by excimer laser 2−57497
PMMA, radial distrib. functions, struct. anal. 2−81690
PMMA, rigidity modulus near a running crack tip, US method 2−77928
PMMA, serviceability, effect of radiation 2−83223
PMMA, shock wave attenuation induced by contact detonation 2−71567
PMMA, shock-compression temperature rise determined from resistivity of embedded metal foils 2−69196
PMMA, space-charged, elec. discharge propag. 2−93112
st-PMMA, struct. changes on drawing, absorpt. and desorpt., solvent-induced crystallisation, IR spectra 2−109698
PMMA, tensile impact resist., effect of weathering at different exposure angles 2−105309
PMMA, thermal conductivity meas. by Forbes' method using IR temp. meas. 2−103010
PMMA, thermal diffusivity of flat plate specimen 2−71742
PMMA, thermal phonon softening and crazing under tensile stress, Brillouin scatt. study 2−110877
PMMA, transparent materials, abrasion meas. with hazemeter 2−78036
PMMA, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
PMMA, Young's modulus of craze, crit. temp. for craze growth, interferometric obs. 2−105206
PMMA bone cement, fatigue crack propag., comparison with low viscosity PMMA and C fibre reinforced PMMA 2−116528
PMMA co-polymers, free radical accumulation kinetics under irradiation, 270-400K 2−78117
PMMA cracks, stress intensity factor meas. using method of caustics *(Japanese)* 2−88180
PMMA double torsion specimens, geometrical obs. on crack front profiles 2−116529
PMMA electrets, TSC meas. with needle-plate electrode geometry 2−57010
PMMA in vacuum, effect of surface deterioration 2−91707
PMMA plates, brittle fracture in tension, static field radiated by abrupt crack-arrest 2−56077
polymers continued
PMMA plus water, sorption kinetics and volumetric changes 2−65880
PMMA resist, ion beam exposed, dry development 2−116573
PMMA scintillator testing 2−75100
PMMA tubes, liq. filled, fluid effects and response in transverse impact 2−114707
PMMA-methanol system desorption and resorption of methanol, kinetic curves *(Russian)* 2−76800
PMMA-PVC blends, transition behaviour, tacticity effects, TSDC obs. 2−76657
Poisson's ratio meas. new technique 2−95363
polar, radiation-induced elec. cond. *(Russian)* 2−110355
poly(1,3-dioxolane), crystallisation, morphology and growth rate, temp. and mol. wt. effects 2−76355
poly(1,3-dioxolane), crystallisation kinetics 2−76354
poly(1,6 heptadiyne), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly(1-vinyl naphthalene) solid, time-resolved spectra following electron beam pulse radiolysis 2−72995
poly(2,5-thiophenediyl):AsF_5, prep., struct. and elec. cond., IR spectra study 2−76325
poly(γ-benzyl-L-glutamate), orientation behaviour in electric field 2−71335
poly(acetylene), mol. struct. and elec. cond. 2−98609
poly(aspartic acid), ^{13}C NMR study of struct. 2−104717
poly(bisphenol-A carbonate), effects of thermal history, crystallinity and solvent on transitions and relaxs. 2−86872
poly(butylene terephthalate), struct., tensile strength meas. 2−86589
poly(cobalt n-butylphosphinate), weak ferromagnetism and domain wall motion, susceptibility study 2−82570
poly(cyanoacrylate), new class of materials for holography in the infrared 2−75538
poly(di-cyclo-octyl itaconate), sub-glass transition events detection using differential scanning calorimetry 2−92200
poly(dimethyl siloxane), anomalous dielectric relax. meas. 2−110759
poly(ethylene oxide), surface struct., Auger spectroscopy study 2−71785
poly(ethylene oxide)-PMMA, spherulitic crystallisation, light microscopy study 2−109701
poly(ethylene terephthalate), crystal perfection and crystallinity, melting behaviour, wide angle X-ray diffr. 2−65879
poly(ethylene terephthalate-co-p-oxybenzoate), phase transitions 2−98279
poly(hydroxyethyl glutamine), crosslinked, piezoelec., elastic and dielect. consts., hydration effect 2−110774
poly(N-hexyl-4-vinylpyridinium)bromide, ^{13}C spin relax. time, Monte Carlo method 2−75477
poly(N-vinylcarbazole), appl. of TSC transport peak appl. 2−66571
poly(p-phenylene), band struct., density of states, valence effective Hamiltonian study 2−98515
poly(p-phenylene), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly(p-phenylene), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly(p-phenylene), IR spectra and electronic struct. 2−104886
poly(p-phenylene sulfide) hexafluoroarsenate, novel conducting polymer 2−87275
poly(p-phenylene sulphide):AsF_5, elec. cond., effects of polymer struct., morphology and doping 2−77044
poly(p-phenylene sulphide), band struct., density of states, valence effective Hamiltonian study 2−98515
poly(p-phenylene sulphide), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly(p-phenylene sulphide), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly(p-phenylene vinylene), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly(p-xylylene), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly(p-xylylene), photocond. and vacuum UPS study 2−77113
poly(para-phenylene):AsF_5, electronic props., ESR and ^{13}C NMR study 2−82737
poly(phenylene oxide), tensile props. and density, effect of residual stresses 2−67401
poly(styrene-co-acrylonitrile), gamma-irrad., crack healing, fracture toughness 2−111305
poly(tertiary butyl acrylate), laser-Raman spectrum and normal coord. anal. 2−86582
poly(tetrafluoroethylene), cryst. transformation and mol. disorder, X-ray diffr. study 2−92178
poly(tetramethyleneterephthalate), solid state, Fourier transform IR study 2−76324
poly(vinyl acetate), temp. depend. of viscoelastic softening and terminal dispersions 2−99475
poly(vinyl pyrrolidine), mol. wt. determ. by fluorimetric const. evaluation 2−85851
poly(vinylidene fluoride), pyroelectricity anal. by residual charge meas. technique 2−87700
poly (2,5-thienylene), electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
poly-1,3-pentadiene stereoisomers, vibr. spectra anal. 2−75482
poly-1-vinyl-1,2,4-triazole, trapping centres, TSC, thermally stimulated discharge and SCL cond. meas. 2−87298
poly-1-vinyl-1,2,4-triazole-metal boundaries, charge carrier photoinjection 2−61587
poly-2,4-hexadiyne-1,6 diol bis(p-toluene sulphonate), ionisation energy determ. by Milliken-Pope-Arnold technique 2−77696
poly-2-methyl-5-ethynylpyridine, pyrolysed, electron spin-lattice relax. *(Russian)* 2−66896
poly-γ-benzyl-L-glutamate, solid and solns., dielectric susceptibility meas. 2−61826
poly-ε-caproamide, form., crystallisation 2−78095
poly-arylate-arylensulphonoxide block copolymers, increments of refr. indices, mol. wt. depend. *(Russian)* 2−93137
poly-DL-alanine, gyration radius, statistical mechs. 2−96784
poly-n-butyl methacrylate, laser light scatt. obs. in glass transition regime 2−67070
poly-N-epoxypropylcarbazole, sensitisation by pyryl salts *(Russian)* 2−58952
poly-N-vinyl carbazole, synthesis, physical and elec. props., book 2−53443
poly-N-vinyl carbazole-diazonium salt system, organic photoreceptor with charge-acceptance memory 2−58941

polymers continued
poly-N-vinylcarbazole, carrier transport layer, carrier photoinjection from Se binder layer 2−87334
poly-N-vinylcarbazole, photoconductor, photoelectric sensitivity increase by doping 2−72022
poly-N-vinylcarbazole, TSC spectrum meas., Onsager theory appl. 2−87293
poly-N-vinylcarbazole-ZnO photoreceptor, dye sensitisation for electrophotography 2−84729
poly-p-phenylene, highly conducting, prep. by solid-state polymerization 2−57614
poly-p-phenylene sulphide, doped, processible polymer, conducting complexes 2−56566
poly-p-phenylene vinylene, doped, conductive, synthesis and elec. props. 2−57327
polyacenes, infinite, band struct. investig. 2−87128
polyacetaylene, oriented, dimensions change under isomerisation and I doping 2−57361
polyacetylene:AsF_5, solitons, inhomogeneous doping, EPR, DC cond. 2−61531
polyacetylene:$AsF_5(I_2)$, pure and doped, electronic struct. as meas. by EELS 2−67161
polyacetylene:F^+, ion implanted, ^{19}F NMR spectroscopy study 2−61773
polyacetylene:$FeCl_3(AlCl_3)(ZrCl_4)$, metallic elec. cond. and EPR spectrum meas. 2−77027
polyacetylene:I_2, conducting polymer, doping mech. 2−66028
polyacetylene:I_2, stability and stabilisation, phys. and elec. props. 2−56593
polyacetylene:I, conductivity, struct. variables effect 2−56568
polyacetylene:I, microwave harmonic mixing in metallic regime 2−104412
polyacetylene:$Ir(H_2IrCl_6.6H_2O)$, dopant size effect on elec. cond. 2−87285
polyacetylene:pristine (I_2), struct., electron diffr. study 2−86588
polyacetylene, $(CH)_x$, cathode and anode active materials, appl. to lightweight rechargable batteries 2−78203
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
polyacetylene, appl. in Schottky barrier solar cells, characts. 2−57707
polyacetylene, AsF_5 and HF doping, ^{13}C NMR study 2−76473
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2−93185
polyacetylene, bond alternation, electronic correl. effects 2−56455
polyacetylene, bond lengths, bond strengths and electron-lattice coupling calc. 2−76625
polyacetylene, Br doped, XPS and elec. cond. study 2−93368
polyacetylene, Br substituted, synthesis and EPR, dynamic nucl. polarisation and Raman study 2−76474
polyacetylene, cathode-active material for rechargeable batteries 2−57694
polyacetylene, cis, trans. and I_2 doped, cryst. struct., electron diffr. study 2−91820
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polyacetylene, cis-trans isomerisation induced by mech. rolling, report 2−72746
polyacetylene, cis-trans isomerisation mechanisms due to thermal treatment and doping 2−83371
polyacetylene, cis-trans isomerisation on doping and heat treatment, MINDO/3 calc. 2−93791
polyacetylene, collective fields, functional integral formalism 2−92588
polyacetylene, commensurate one-dimensional conductor, interchain electron hopping influence 2−66539
polyacetylene, conductive, mol. wt. 2−57327
trans-polyacetylene, doped, elec. cond. freq. depend., two-band tight-binding model 2−77026
polyacetylene, doped, elec. cond. mechanism, IR absorption and reflection spectra study 2−77520
cis-polyacetylene, doped, electronic and vibrational struct., finite model 2−76891
polyacetylene, doped, low dimensional conductor, review *(Japanese)* 2−82333
polyacetylene, doped, modulated crystal, excitations near commensurate-incommensurate transition 2−92179
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
trans-polyacetylene, electrochem. voltage spectroscopy 2−110227
polyacetylene, electronic struct., lattice distortion unrestricted HF transfer matrix method 2−76907
polyacetylene, electronic struct. and photoemission spectra, CNDO/S3 calc. 2−75483
polyacetylene, ENDOR spectrum meas. 2−77421
polyacetylene, ESR linebreadth narrowing mechanisms, expt. study 2−77358
polyacetylene, ESR spectrum, theoretical anal. 2−77372
polyacetylene, f-sum rule for absorpt. spectra, solitons 2−87812
polyacetylene, far IR absorpt. spectrum below isometal-metal transition 2−77525
polyacetylene, geometry change on charge transfer, cryst. orbital calcs. 2−109689
polyacetylene, I_2 doped, elec. cond. and mag. susceptibility props., review 2−71955
polyacetylene, I doped, three-dimens. variable range hopping obs. 2−92620
polyacetylene, ion implantation, ESR, NMR, IR and XPS study 2−92008
polyacetylene, IR spectra, vibronic charge oscills. 2−116171
polyacetylene, lightly doped, electron hopping in soliton band 2−82361
polyacetylene, lightly doped, optical absorpt. spectrum, nonsoliton theory 2−110887
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
polyacetylene, momentum depend. dielectric function 2−110275
polyacetylene, optical absorpt. spectra, press. depend. meas. 2−77521
polyacetylene, optical absorption and boundary conditions in soliton model 2−82814
trans-polyacetylene, optically excited states, UPS study 2−111030
polyacetylene, p-doped, IR photoacoustic spectroscopy 2−72477
polyacetylene, partially reson. Raman scatt. meas. 2−77523
polyacetylene, Peierls dimerized condensate, IR activity 2−61910
polyacetylene, Peierls system model, equivalence to HF model on virtual equidistant lattice 2−79496
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
polyacetylene, pure and doped, ^1H NMR spin-lattice relax. rate, freq. and temp. depend. meas. 2−77406
polymers continued
polyacetylene, quantum corrections to solitons 2−103929
polyacetylene, resonance Raman scatt. and photoluminescence props., review 2−77522
polyacetylene, semicond. and metallic, electronic props. 2−82327
polyacetylene, soliton diffusion, acoustic phonons 2−115379
polyacetylene, soliton diffusion, optical phonons 2−109935
polyacetylene, soliton excitations and polarons 2−115673
polyacetylene, solitons, optical conductivity 2−56573
polyacetylene, thermal cond. anisotropy meas. 2−92587
polyacetylene, undoped, p-π orbitals, EPR anisotropy study 2−66894
polyacetylene, vibrational props., dynamical model 2−76607
polyacetylene chains, ab initio HF calcs. using Christoffersen basis set 2−70457
polyacetylene derivatives, thermoelec. power studies 2−98681
polyacetylene MIS struct., field effect props. meas. 2−92772
polyacetylene photovoltaic devices 2−57708
polyacetylene ring, quantum ground state 2−86823
polyacetylene-AsF_5, association reaction, thermodynamics and kinetics meas. 2−93775
polyacetylenes, electronic struct., mol. architecture depend. 2−55000
polyacrylamide gels, deswelling under reverse osmosis 2−105504
polyacrylates, synthesis and props., optical and electron scanning microscopy, X-ray and DSC anal. 2−109664
polyamide, serviceability, effect of radiation 2−83223
polyamide 6, struct. parameters variation resulting from fatigue failure process *(Polish)* 2−83219
polyamides crystalline stoichiometric adducts with phosphoric acid 2−86584
polyarylate, glassy and melt states, PVT relations 2−115388
polybis-p-toluene sulphonate diacetylene, single cryst. perfection, synchrotron radiation topography, defects role in solid-state polymerisation 2−71373
polybutadiene, hypersonic relaxation, Brillouin scatt. obs. 2−66136
1,2-polybutadiene, rupture strength criteria above vitrification temp. *(Russian)* 2−67474
polybutadiene, stereoirregular, characteristic ratios 2−99142
1,2-polybutadiene characterisation above glass transition temp. 2−72774
1,2-polybutadiene viscofluid, strength characterisation in uniaxial extension 2−72829
1,2-polybutadienes, hydrogenated, configurational sequences, ^{13}C NMR spectra 2−65882
1,2-polybutadienes, hydrogenated struct. characterisation by ^{13}C NMR 2−77394
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polybutylene terephthalate, elastic modulus of cryst. regions, conform. relation 2−93550
polycaproamide, polymorphism and struct. transform. under annealing *(Russian)* 2−66212
polycaprolactone/chlorinated polyethylene blends, miscibility, Cl conc. depend. DSC and light scatt. obs. 2−92215
polycarbonate, crazing and fracture, SEM obs. 2−116517
polycarbonate, deformability prediction in complex stressed state 2−83189
polycarbonate, ductile-brittle transition model 2−57452
polycarbonate, electrochemical etching, freq. depend. 2−108255
polycarbonate, fatigue crack propag., mol. wt. depend. 2−88171
polycarbonate, glassy and melt states, PVT relations 2−115388
polycarbonate, notched, fracture difference between atmospheric and hydrostatic press. 2−57448
polycarbonate, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
polycarbonate, serviceability, effect of radiation 2−83223
polycarbonate, tensile impact resist., effect of weathering at different exposure angles 2−105309
polycarbonate, thermal expansion and specific heat *(Russian)* 2−104035
polycarbonate, weathered, tensile failure 2−116511
polycarbonate foil, solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
polycarbonate foil nuclear track detector appl. in neutron dosimetry 2−70008
polycarbonate foils, electrochemical etched track props. study 2−70066
polycarbonate glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polycarbonate sheet, rapidly cooled from melt, residual stresses and their relief by sectioning 2−57378
polycarbonate track etch detector for passive Rn dosimeter 2−67919
polycarbonate-copolyester miscible blends, mech. props. 2−72775
polycarbonate-PTFE, two-body abrasion against 6 to 50 μm SiC abrasives 2−111330
trans-polycetylene, doped, impurity states 2−71905
polychinons, ladder and partly-ladder, paramag. characts., irrad. effects 2−104571
polycyclohexyl methacrylate, deform. props. prediction using dislocation analogy 2−62183
polydiacetylene, band struct., neighbour strand interactions, self-consistent electrostatic field calcs. 2−92440
polydiacetylene, cryst., space, charge limited currents, electron mobility 2−104390
polydiacetylene, electronic excited state, Raman study 2−72484
polydiacetylene, spontaneous excitation localisation 2−110300
polydiacetylene cryst., dislocations and stacking faults, TEM study 2−71457
polydiacetylene toluene sulphonate, quasi-one-dimensional single cryst. polymer, charge carrier mobility 2−61514
polydiacetylenes, diagmag. anisotropy as probe of electron delocalisation 2−98838
polydiacetylenes, struct.-property rels., colour changes 2−71375
polydimethylsiloxane networks, end-linked containing unattached PDMS, stress relax. and viscoelasticity 2−67411
polydimethylsiloxane pre- and post-breakdown events obs., viscosity and rate of voltage effects 2−99035
polydimethylsiloxane-diethyl carbonate crit. mixt., phase separation 2−81967
polydiphenylphenylene oxide, craze-shear band interaction, TEM study 2−97939
polyepoxides, crosslinked, additive moduli, US meas., rel. to mol. struct. 2−109881
polyester, linear, struct. effect on dielectric loss and volume resistivity *(Chinese)* 2−72412
polyester, nematic, poly(2,2'-dimethyl-4,4'-dioxyazoxybenzenedodecanedioyl), synthesis of model cpds. 2−103610

polymers continued
polyester, solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
polyester, thermotropic nematic, phase transition entropies, influence of mol. weight 2−103990
polyester, unsaturated, thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
polyester base photographic films, chem. stability 2−64145
polyester binder, interaction with mag. powder *(Japanese)* 2−87547
polyester resin, cryogenic thermal expansion meas. method 2−65460
polyester resin, styrene-crosslinked unsaturated, dynamic mech. relax., styrene ring substituents effect 2−109989
polyester resin, unsaturated, flexural stress relaxation *(Japanese)* 2−111219
polyester resins, isophthalic acid type, water and H_2SO_4 influence, determ. by radioactive tracer technique *(German)* 2−67593
polyester shells, pressurised, circular cylindrical, postbuckling behaviour, theory 2−70857
polyester shells, pressurised, circular cylindrical, postbuckling behaviour, expt. 2−70879
polyester/chlorinated PVC blends, miscibility study by calorimetric glass transition temp. meas. 2−92219
polyesters, rigid-chain, thermotropic liq. cryst., crystallites 2−76303
polyesters, smectic mesophases, synthesis and mesomorphic props. 2−86548
polyesters, synthesis and emission props. 2−88356
polyethelene, thermal neutron radiography, point spread functions due to neutron scatt. 2−99610
polyether-alkali metal salt complexes, ionic cond. meas. 2−110032
polyether-polyurethane networks containing Li perchlorate, ionic cond. correlation with ^{7}Li-NMR 2−86928
polyether-polyurethane zwitterionomers, phys. props. and phase segregation 2−67451
polyethylene:anthracene, γ-irradiated, trap depth 2−61479
polyethylene, branched, α-loss band fine struct., stress relax. study 2−72749
polyethylene, branched, partial crystallisation, molecular model 2−109700
polyethylene, branched, stress relax., γ-loss band fine struct. meas. 2−57392
polyethylene, calc. of free surface energy at cryst.-melt interface on crystn. *(Russian)* 2−56299
polyethylene, chlorinated, as impact modifier for PVC, mech. and dielec. relax. obs. 2−81692
polyethylene, conform. influence on wide-angle neutron scatt. patterns, folding models 2−91815
polyethylene, creep kinetics, influence of stressed state 2−105262
polyethylene, crosslinked, steam cured, voltage and freq. dependence of bow-tie trees 2−110765
polyethylene, crosslinked low-density, drawing depend. of mech. and transport props. 2−93549
polyethylene, cryst., relax. effects, stochastic defect diffusion model 2−76326
polyethylene, cryst. order, ^{13}C NMR cross polarisation/magic-angle spinning T_1 obs. 2−116080
polyethylene, cryst. polymer chemorheology and Young modulus meas. 2−111218
polyethylene, crystallites and lattice distortions, temp. depend. *(Russian)* 2−65884
polyethylene, diagmag. anisotropy as probe of electron delocalisation 2−98838
polyethylene, effect of neutron irradiation on glass transition temp. 2−76678
polyethylene, elec. cond. activation energy, elec. field and low press. effects 2−115754
polyethylene, elec. cond. and space charge phenomena at high elec. fields *(German)* 2−87292
polyethylene, extended chain single cryst. growth rate and morphology, optical microscopy study 2−91838
polyethylene, extruded, microstruct. study by electron microscopy 2−91826
polyethylene, heat deposition meas. in ZING-P′ pulsed spallation neutron source 2−102028
polyethylene, high density, carrier mobility meas. 2−71971
polyethylene, high density, expt. verification of fatigue wear eqn. 2−111326
polyethylene, high density, plane strain fracture toughness testing 2−67692
polyethylene, high density and ultrahigh mol. wt., friction, effect of linear and rot. motions 2−57493
polyethylene, high-density, cryst., long-term fracture in plane stress state under transient load 2−116538
polyethylene, high-density, cryst., wear, morphological study 2−83240
polyethylene, high-density, dynamic birefringence, α-relax. mechanism 2−110812
polyethylene, high-press. phase transition, thermodynamic anal. 2−76656
polyethylene, highly drawn linear, gauche defects, accordion-type laser Raman scatt. obs. 2−67041
polyethylene, highly oriented sheets, lateral compliances and Poisson ratio 2−83149
polyethylene, irrad., struct. orientation in deform., in air and CCl_4 2−67457
polyethylene, laser beam scatt. at oblique incidence, plasma hydrodynamics 2−114984
polyethylene, lattice destruction due to electron irradiation 2−92035
polyethylene, lattice thermal cond. at low temp., density fluctuation model 2−76757
polyethylene, linear, absolute integrated small-angle X-ray scatt. obs. during crystn., mass density determ. 2−115150
polyethylene, linear, oriented, shear and tensile relax. behaviour 2−77890
polyethylene, linear, ultrahigh modulus, melting, superheating effects 2−103955
polyethylene, linear fraction, crystallised at different temps., quantitative electron microscopic obs. 2−65875
polyethylene, low density, solubility for volatile hydrocarbons, prediction using UNIFAC-FV model 2−66236
polyethylene, low-density, drawn, shrinkage and retractive forces during annealing 2−111194
polyethylene, microtension test, new scale of specimen 2−78035
polyethylene, MM wave absorpt. meas. using untuned cavity resonator 2−99030
polyethylene, mol. struct. uniformity 2−80858
polymers continued
polyethylene, oriented high-density, O_3-O_2 oxidation effect on low-temp. stress relax., IR spectra obs. *(Russian)* 2−67408
polyethylene, oxidation above melting point, γ-radiation effect on kinetic parameters *(Russian)* 2−67578
polyethylene, photoconduction, vacuum UV region, temp. depend. 2−56635
polyethylene, polycrystalline, neutron inelastic scatt., polarisation props. of optical phonons 2−61099
polyethylene, semicryst., low temp. phonon cond., dislocation and point defects effects 2−92295
polyethylene, semicrystalline, boundary scatt. and lattice thermal cond. at low temps. 2−76758
polyethylene, single crystal, radiation-sensitive specimens, electron microscopy obs., resolution limits 2−115114
polyethylene, solid, rotational isomers distrib., IR spectra study 2−108753
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
polyethylene, super-high mol. wt., morphology from melt 2−97937
polyethylene, surface struct., Auger spectroscopy study 2−71785
polyethylene, thermal cond., 3 to 9K, effect of microcryst. struct. 2−56272
polyethylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polyethylene, TSC after low temp. γ irrad. 2−110365
polyethylene, TSC following AC stressing 2−87655
polyethylene, ultrahigh mol. wt., isothermal crystn. kinetics 2−103665
polyethylene, ultrahigh mol. wt., wear characts. against high density alumina 2−88222
polyethylene, ultrahigh-modulus, nitric acid etching and gel permeation chromatography, struct. obs. and influences 2−109693
polyethylene, ultraoriented, birefringence calc. fusing model structures 2−110811
polyethylene, unannealed and annealed soln.-crystallised, straight chain length distrib. by Raman spectroscopy 2−109699
polyethylene, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polyethylene, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polyethylene and polydeuteroethylene blends, composition determ. by SIMS *(Russian)* 2−73038
polyethylene chain, breaking energy with missing H atom 2−115153
polyethylene chain, configs. and dynamics, excluded vol. effect on inner segments 2−96781
polyethylene coated C-black, secondary ion mass spectroscopy 2−93843
polyethylene crystals, randomly reentrant chain folding, neutron scattering anal. 2−97940
polyethylene fibre, ultrahigh strength, prep. by zone annealing method, mech. props. *(Japanese)* 2−88051
polyethylene fibres, influence of low-temp. radiolysis on strength *(Russian)* 2−57402
polyethylene in vacuum, effect of surface deterioration 2−91707
polyethylene mechanical degradation, free radicals and end groups from chain scission 2−90751
polyethylene moderator, power densities in spallation neutron source environments 2−102027
polyethylene naphthalate photoelectret, carrier traps 2−98661
polyethylene oxide, critical Weissenberg numbers, solvent effects 2−109371
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
polyethylene oxide fractions, supermol. struct., mol. wt. and crystn. conditions depend. 2−115151
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polyethylene pipe, sorption and diffusion of solvents 2−71797
polyethylene resins, phosphorylated, surface area, SEM meas. 2−101386
polyethylene single cryst., chain folding, mixed-cryst. IR obs., effect of crystn. temp. 2−110850
polyethylene subjected to switching surges superimposed upon AC voltage, tree mechanisms obs. 2−99041
polyethylene terephthalate, ^{13}C shielding anisotropies 2−108572
polyethylene terephthalate, amorphous, conform. changes during vol. recovery, Fourier transform IR spectra obs. 2−61906
polyethylene terephthalate, deformation process instabilities in cold drawing 2−67372
polyethylene terephthalate, elec. cond., low-energy electron effects *(Russian)* 2−66562
polyethylene terephthalate, electroluminescence and space charge layers 2−93282
polyethylene terephthalate, microtension test, new scale of specimen 2−78035
polyethylene terephthalate, semi-cryst., extrusion-drawn, multiple internal refl. IR obs. 2−67042
polyethylene terephthalate, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polyethylene terephthalate films infrared radiation properties, application as solar collector covers 2−67890
polyethylene terephthalate-p-acetoxybenzoic acid copolyester, oriented liq. crystalline, struct. anal., wide angle X-ray scatt. 2−109671
polyethylene terepthalate for flexible magnetic media 2−98919
polyethylene thermoelectret, TSC and space charge 2−110361
polyethylene treeing phenomena obs., effect of absorbed O_2 2−99040
polyethylene under photoxidation, physico-mechanical props. *(Russian)* 2−71378
polyethylene-1,3,5-tribomobenzene mixture, eutectic solidification and oriented growth 2−92164
polyethylene-deuteropolyethylene mixed cryst. blends, wide-angle neutron scatt. obs. of folding nature 2−91816
polyethylene-polypropylene blends struct. charact. by small-angle neutron scatt. 2−91822
polyethylene-sodium lignosulphonate blends, fibre form. in hydrostatic extrusion 2−67356
polyethylenes, localised Auger final states 2−77632
polyethyleneterephthalate fibre, β_2 relax., dielec. meas. 2−104805
polyethyleneterephthalate fibres, undrawn, crystn., effect of mech. stress 2−65874
polyethyleneterephthalate solid state nuclear track detector, bulk etching mechanism and kinetics 2−113820
polyethylenimine backbone polynucleotide models, synthesis and ^{1}H and ^{13}C NMR characterisation 2−116865

polymers continued
polyethylenimine backbone polynucleotide models, UV absorpt. spectra 2−116866
polyglycidyl methacrylate (PGMA), negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polyglycol 4000, effect on surface charact. of SiO_2 gels 2−78143
polyimide and polyamide-imide, stress relax. meas. in T_2 atmos. 2−88134
polyimide fibre, paramag. centres occurring during thermal extension, influence on thermal stability *(Russian)* 2−77798
polyimide insulators for composite supercond. magnet, radiation resist in magnet location 2−108118
polyimide passivation of Al-Cu thin film, electromigration 2−98503
polyimide systems, high-resoln. dark-field imaging 2−97941
polyimide-C composites, elec. cond. props. 2−61462
polyiodide chains, resonant Raman scatt., theoretical anal. 2−77524
polyisoprene, hypersonic relaxation, Brillouin scatt. obs. 2−66136
polyisoprene, rupture strength criteria above vitrification temp. *(Russian)* 2−67474
polyisoprene, stereoirregular, characteristic ratios 2−99142
polymer-electrode interface, penetration of metal into polymer based on electrochem. reaction 2−62404
polymer-metal interface chem. interactions, correlation with adhesion 2−78132
polymer-protein interactions, excluded vol. theory, polymer chain, statistics 2−102674
polymers deformation studies by time resolved Fourier transform IR spectroscopy 2−89832
polymethacrylates, synthesis and props., optical and electron scanning microscopy, X-ray and DSC anal. 2−109664
polymethyl-1-pentene, isotactic small angle X-ray scattering 2−86585
polymethylene, cryst. and amorphous, chains Fermi reson. and vibr. spectra 2−116172
polymethylene, gyration radius, statistical mechs. 2−96784
polymethylene chains, ring closure dynamics, reaction rates, Brownian motion 2−59982
polymethylmethacrylate, elec. field induced damage, space charge, light scatt. study 2−87672
polymethylpentene foam, substrate for vacuum deposition of high quality Al films 2−87988
polymethylphenylsiloxane, solid and solns. US relax. meas. 2−61079
polyolefin-polystyrene blends, thermomech. anal. 2−77801
polyolefins, diffusion of organic cpds., collection of kinetic data 2−107026
polyorganosilazane binder, for Fe carbonyl powder based sintered mag. material 2−67261
polyoxides, heat capacity and other thermodynamic props. 2−74168
polyoxymethylene, gyration radius, statistical mechs. 2−96784
polyoxymethylene, single crystal, adsorption of serum proteins 2−61280
polyoxymethylene, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polyoxymethylene cryst. conformational regularity, IR study 2−93200
polyoxymethylene hexagonal cryst., IR and Raman vibr. spectra 2−77501
polyoxymethylene single cryst., phonon dispersion curves and elastic props. 2−92136
polyoxymethylene single crystal, SAXS determ. of max. amorphous surface layer 2−86587
polyparaphenylenes, EPR study of mag. props. and struct. defects 2−104701
polyphenyl vinyl ketone, triplet lifetime, laser flash photolysis obs. 2−102529
polyphenylacetylene:I_2, stability and stabilisation, phys. and elec. props. 2−56593
polyphenylene, ESR spectrum, theoretical anal. 2−77372
p-polyphenylene association reaction, thermodynamics and kinetics meas. 2−93775
polyphenylene oxide, cond. and conformational anal., dopant intercalation model 2−77045
polyphenylene sulphide, cond. and conformational anal., dopant intercalation model 2−77045
polyphenylenes, doped conducting complexes, elec. cond. and optical props. 2−77043
polyphenylenes, electronic struct., mol. architecture depend. 2−55000
polyphenylenesulphides, doped conduction complexes, elec. cond. and optical props. 2−77043
polyprenol homologues struct. charact., ^{13}C NMR spectroscopy 2−90752
polypropene, dynamic rheological props. influence on calendering ability 2−55453
polyproplylene copolymer, injection moulded, microstruct. effect on dynamic fatigue props. 2−57447
polypropylene, activation enthalpy for vol. relax., thermal stimulation 2−92108
polypropylene, crystallising, impurity diffusion rel. to annealing 2−104049
polypropylene, diffusion coeff. of phenyl-β-naphtylamine, conc. depend. *(Russian)* 2−76726
polypropylene, EPDM modified, struct.-property relations under tensile and impact tensile stress *(German)* 2−67533
polypropylene, heat capacity and other thermodynamic props. 2−74169
polypropylene, isostatic, mech. relax., compensation rule validity 2−77861
polypropylene, isotactic, fracture toughness eval. *(German)* 2−111304
polypropylene, isotactic, isothermal crystn. kinetics 2−103665
polypropylene, isotactic, microparacryst. globules study by SAXS and TEM 2−91824
polypropylene, microtension test, new scale of specimen 2−78035
polypropylene, rolled, mech. props. rel. to struct. 2−67377
polypropylene, stress determ. using X-rays *(German)* 2−116662
polypropylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polypropylene, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polypropylene co-polymer, injection moulded, effect of recycled plastic and compound additives on props. 2−99529
polypropylene electret, vapour induced depolarisation currents 2−87658
polypropylene fibre, multiple skin, refractive index and birefringence variations, interferometric meas. 2−91048
polypropylene foil condenser, thermoelectret, TSC study 2−72406
polypropylene powder, compact strength, rel. to shear-normal stress curve obtained from uniaxial compression 2−116400
polypropylene-polyethylene copolymers, random and impact, fracture toughness 2−67535
polypyromellitimide, Hugoniot cusp, low press. 2−76581
polypyromellitimide, shock induced elec. polarization, mol. struct. effect 2−77444
polystryene, elec. field induced damage, space charge, light scatt. study 2−87672
polystyrene, and copolymers, dye, appl. to laser passive shutters, decouplers 2−97128
polystyrene, atactic, depolarisation ratios and low temp. Raman spectra 2−108747
polystyrene, atactic, mol. fracture 2−72817
polystyrene, atactic, multistage ultradrawing by solid-state coextrusion 2−72725
polystyrene, atactic, propag. of shear bands through obstacles 2−67427
polystyrene, charged spheres in colloidal suspension, spatial correls. calcs. 2−105520
polystyrene, charged spheres in colloidal suspensions, dynamic correls. calcs. 2−105521
polystyrene, compressive fracture 2−99530
polystyrene, craze layer, crack nucleation and propag. 2−67500
polystyrene, craze microstructure, strain history effect 2−77967
polystyrene, deform. props. prediction using dislocation analogy 2−62183
polystyrene, glassy, dye laser calorimetry, linear absorpt. coeff., 605-675 nm 2−93221
polystyrene, glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polystyrene, high impact, synthetic rubber modified, Charpy impact *(Japanese)* 2−88182
polystyrene, high impact microcomposite thermoplastic, stress crazing, temp. effect 2−77926
polystyrene, high impact microcomposite thermoplastic, stress crazing relax. behaviour 2−77927
polystyrene, high-press. CO_2 effects on T_g and mech. props., plasticisation effect 2−115413
polystyrene, inner potential of cracked material, electron microscopy meas. technique, EM 2−93746
polystyrene, isotactic, crystallisation from bulk, low density crystalline form 2−86594
polystyrene, lattice thermal conductivity anal. at low temps. 2−104086
polystyrene, microdeformations in glass transition region, electron microscopic studies 2−109887
polystyrene, mol. wt. determ. by fluorimetric const. evaluation 2−85851
polystyrene, monodisperse colloids, Wigner cryst. and glasses, shear modulus meas. 2−78142
polystyrene, monodisperse lattices, particle size determ., stopped-flow spectroscopy 2−84593
polystyrene, negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polystyrene, PVC or polybutadiene coated, ellipsometric meas. of thickness of interfacial layer *(Japanese)* 2−84596
polystyrene, serviceability, effect of radiation 2−83223
polystyrene, shock induced elec. polarization, mol. struct. effect 2−77444
polystyrene, sulfonated, effect of ageing on thermal behaviour 2−88109
polystyrene, tensile stress-strain behaviour in inert and gaseous environments 2−88130
polystyrene, toughened, crazed, strain rate depend. of yield stress, model and eqn. development in terms of craze growth 2−67424
polystyrene, toughened, stress-strain behaviour model 2−67428
polystyrene, toughened, stress-strain behaviour model 2−67429
polystyrene, ultradrawn, thermal expansion 2−98316
polystyrene derivatives, amorphous, X-ray diffractograms, temp. depend. 2−76327
polystyrene high resolution electron beam negative resist with very narrow molecular weight distributions for semiconductor IC technology 2−70461
polystyrene ionomers, sulphonated, microphase separation, small- and wide-angle X-ray scatt., cluster form. 2−115152
polystyrene isothermal enthalpy, vitrification press. and cooling rate effects 2−110014
polystyrene near glass transition under high press., photon correl. spectroscopy, light scatt. relax. function 2−104895
polystyrene phantom, penetration of backscatt. electrons for energies between 1 and 25 MeV, dosimetry appl. 2−73370
polystyrene powder, rheological studies on compaction *(Japanese)* 2−83077
polystyrene spheres, two-dimensional, hypernetted chain approx. 2−110220
polystyrene surface, SIMS anal., ion beam damage charge neutralisation, surface pot. 2−93353
polystyrene-low density polyethylene blends, const. stress behaviour 2−105229
polystyrene-low density polyethylene blends, crazing, effect of varying polyethylene and co-polymer contents 2−116571
polystyrene-poly(2,6-dimethyl-1,4-phenylene ether) blends, glassy and melt states, PVT props., comp. depend. 2−115386
polystyrene-polyphenylene oxide blends, solid photo-energy transfer 2−104944
polystyrene-Ru catalyst, EXAFS studies with synchrotron radiation 2−104998
polystyrol, stress determ. using X-rays *(German)* 2−116662
polysulfone, injection molded, effects of residual stress and orientation on fatigue 2−67536
polysulphone, glassy and melt states, PVT relations 2−115388
polysulphone, Hugoniot cusp, low press. 2−76581
polysulphone, shock induced elec. polarization, mol. struct. effect 2−77444
polytetrafluoroethylene, formation mechanism of wear particles 2−88212
polytetrafluoroethylene, heat of fusion 2−98250
polytetrafluoroethylene surface, SIMS anal., ion beam damage charge neutralisation, surface pot. 2−93353
polythienylene, electronic struct., mol. architecture depend. 2−55000
polytrifluoromethylacetylene, synthesis and characterisation 2−116694
polyurethane acrylates, UV curable, phys. props. rel. to chem. struct. 2−86581
polyurethane foam, mech. props. change during storage, prediction 2−116508
polyurethane foams, elastic, fracture under short-term loading, statistical obs. *(Russian)* 2−109900
polyurethanes, dil. soln., intrapolymer interactions between excited singlet states 2−114025
polyurethanes SKU-10, opt. and mech. props. under pulsed and static loads 2−62159
polyvinyl acetate, dielec. relax. meas. in ultralow freq. region 2−101420
polyvinyl acetate, hot Ni atom interaction with polymer surfaces, XPS study 2−93805

polymers continued
polyvinyl acetate, Kerr effect, phase and elec. field induced absorpt. meas. 2−57056
polyvinyl acetate, nonequil. annealing behaviour, water sorption and glass transition, dielec. and thermal meas. 2−66223
polyvinyl acetate, stress relax. behaviour 2−67412
polyvinyl alcohol, hot Ni atom interaction with polymer surfaces, XPS study 2−93805
polyvinyl alcohol, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
polyvinyl alcohol, vibr. spectra, effects of simultaneous UV irrad. and heating 2−57121
polyvinyl ketones reacted with $POCl_3$, elec. cond. 2−56596
polyvinyl methyl ether, hot Ni atom interaction with polymer surfaces, XPS study 2−93805
polyvinyl-polypeptide block copolymers, polypeptide chain folding 2−91825
polyvinylcarbazole, nitrated, exciton migration and localisation on defect and impurity levels, luminesc. obs. *(Ukrainian)* 2−82896
polyvinylcarbazole, photocurrent long relax. time and carrier mobility meas. 2−72018
polyvinylidene fluoride, ferroelec. hysteresis at high temp. 2−116125
polyvinylidene fluoride, ferroelectric, piezoelectric and pyroelectric polymer, props. and appl., transduction mechanisms, review 2−66994
polyvinylidene fluoride, photocond. study *(French)* 2−104421
polyvinylidene fluoride, piezo and ferroelectricity *(Japanese)* 2−87698
α-polyvinylidene fluoride, X-ray induced current transients, carrier traps 2−110338
polyvinylidene fluoride 2−72423
polyvinylidene fluoride films, piezo- and pyroelectric effects, sound vel., thermally induced elec. oscills. 2−72429
polyvinylidene fluoride-$PbZr_{1-x}Ti_xO_3$ composite, piezoelec. and dielec. const. and Young's modulus meas. 2−93119
poly[α,ω-alkanedioyl(1′,4′-dioxyphenyl)-oxy-4-benzoate]s, mol. wts., structs., NMR obs. *(French)* 2−70458
powders, cold compaction, SEM study 2−111134
powders, compaction conditions on press. and density variations 2−72664
PTFE, cryst., long-term fracture in plane stress state under transient load 2−116538
PTFE, deformed, ^{19}F NMR chemical shift 2−72365
PTFE, friction, effect of linear and rot. motions 2−57493
PTFE, helical crystals, struct. phase transitions, statistical mechanical theory 2−66165
PTFE, low-temp. reduction, radial electron density distrib. meas. of C product 2−76308
PTFE, materials suitable for use in far IR 2−60187
PTFE, MM wave absorpt. meas. using untuned cavity resonator 2−99030
PTFE, permittivity meas., USSR-Bulgarian development of standard specimens 2−84664
PTFE, phase transitions, positron lifetime study 2−104988
PTFE, semicryst., sliding against steel, wear and material transfer 2−83241
PTFE, stretched, unidirectional invar-effect, α-β transform. contrib. 2−71672
PTFE, surface composition, XPS study, X-ray flux effects 2−57251
PTFE, surface pretreatment 2−67589
PTFE, TSC study of room temp. struct. transitions 2−57011
PTFE, uniaxially stretched, broad-line NMR obs. of mol. mobility 2−110663
PTFE, wear behaviour in dry reciprocating sliding 2−83236
PTFE, X-ray damaged, improved adhesion of Ni films, XPS study 2−76872
PTFE in vacuum, effect of surface deterioration 2−91707
PTFE particles in water, elec. birefr. evaluation of particle size distribs. 2−70507
PTFE texturing with an RF-ion source 2−105390
PVC:lead stearate, dielec. relax., thermally stimulated depolarisation current anal. 2−72414
PVC, chlorinated, use a neutron absorber in fissile material solns. 2−96134
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, creep kinetics, influence of stressed state 2−105262
PVC, deform. props. prediction using dislocation analogy 2−62183
PVC, expt. verification of fatigue wear eqn. 2−111326
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
PVC, high-temp. struct. changes, X-ray diffractometer investig. 2−76652
PVC, impact resistant rigid, microstruct. rel. to mech. props., additives influence *(German)* 2−62215
PVC, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
PVC, plasticised, stress relaxation behaviour 2−88122
PVC, plasticized, microdomain struct., electron microscope obs. 2−81691
PVC, plastisol viscosity and particle size distrib. 2−82005
PVC, rigid, embrittlement by weathering, indentation testing 2−83310
PVC, rigid, wall slip processes, capillary rheometer obs. *(German)* 2−71465
PVC, stearate additive interaction, high temp., differential calorimetric obs. 2−81966
PVC, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
PVC electrical characts. deterioration when irradiated by Co^{60} γ-rays *(Japanese)* 2−56031
PVC glass, vitrified at elevated press., nonequil. processes, conform. and enthalpic changes 2−86873
PVC resin-C composites, elec. cond. props. 2−61462
PVC-$BaCl_2$, DC elec. cond. and glass transition temp. meas. 2−98639
PVC-oligoetheracrylates, phase equilib. obs. *(Russian)* 2−76641
PVF_2 pyroelec. detectors *(German)* 2−58828
Pyralin, pyrolysed, elec. conduction 2−61470
pyroelectric materials, props. and appls. 2−82788
pyropolymer, semiconducting, heterogeneous system, elec. cond. 2−115745
quality control, of non-metallic materials and structs., capacitance technique 2−62331
quasi-one-dimensional disordered systems, eigenvectors calcs. 2−82289
quenchants, use in surface heat treatment of metals 2−116471
radiation sensitivity meas., resists. and nuclear particle track recording appl. 2−93802
relaxation processes, and rupture, stress influence on activation energies *(Russian)* 2−57401
resistance of polymers to surface discharges, quantitative method 2−109616
polymers continued
resists, track-etch behaviour and chem. development, correlative studies 2−59618
rheological props. meas., automatic unit for US oscillation propagation velocity meas. 2−60325
rilsan, static and dynamic fatigue examined using isodensitometry *(French)* 2−57478
ring polymer, prob. of knots calc. 2−102675
ring polymers, statistical props., Monte Carlo technique 2−70460
self-avoiding walks, critical phenomena approach 2−80857
self-repelling chain, short-distance monomer correlations 2−65117
self-repelling ring polymers, spatial correl. 2−54997
semi-crystalline, ^{13}C NMR relax. param. 2−87617
semicrystalline, sliding against steel, wear and material transfer 2−83241
serviceability, effect of radiation 2−83223
shellac, cohesive energy density 2−76686
single crystal, substrate use in adsorption studies 2−61280
solid, acoustoelectric light scanner studies *(Chinese)* 2−91828
solid, C-13 rotating frame relaxation 2−66944
solid, mol. motion by ^2H NMR study 2−87618
solid, separation method of neutron incoherent inelastic scatt. in time of flight method 2−91724
solid electrolyte for water electrolysis, optimal structure study 2−71715
solid polymer electrolyte photovoltaic cell 2−78232
solid structure, cross-polarisation ^{13}C NMR spectroscopy 2−86592
solids and composites, ^{13}C NMR 2−87606
solitons, charge and momentum carrier role in conjugated polymers *(French)* 2−53540
3-D spherulite, disorder effect in twist angle on light scattering 2−87804
static coherent scatt. function, conformational space renormalisation 2−70464
statistical mech., Boltzmann eqn. approach 2−84555
statistical reverberation method for ultrasonic measurements in liquid polymeric systems 2−76604
statistics of chains embedded on a diamond lattice 2−96782
stratified structures, determ. by plasma etching gravimetry *(German)* 2−67690
stress cracking and crazing, environmental, irreversible thermodynamics 2−103891
structure and dynamics by solid-state ^{13}C NMR 2−86591
structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
styrene-acrylamide copolymers, IR spectra, temp. var. effects 2−96780
styrene-acrylic acid copolymers, IR spectra, temp. var. effects 2−96780
styrene-acrylonitrile copolymers, sequence distrib. and intramol. excimer formation 2−77562
styrene-hydroxystyrene copolymers, glass transition, effect of water *(Japanese)* 2−109990
styrene-isoprene block copolymers, effect of temp. depend. of permitt. on TSC 2−87654
sulphonic polyester binder, interaction with mag. powder, particles packing and orientation behaviour *(Japanese)* 2−87547
superconductors, high temp., synthesis *(Russian)* 2−72110
surfaces, asymmetric model for XPS 2−93378
surfaces, SIMS anal., ion beam damage charge neutralisation, surface pot. 2−93353
surgical, biodegradation, review 2−88243
swollen crosslinked gels, NMR studies 2−87605
symmetry groups, electron energy bands, irreducible representations 2−109690
TCNQ salt, polyvinylcarbazole-TCNQ charge transfer complex, AC cond. meas. 2−115737
Teflon, lattice thermal cond. at low temp., density fluctuation model 2−76757
tetraazaannulene macrocyclic complexes, metalloorganic conducting materials, synthesis and characterization 2−56564
thermal expansion effect on diffr. intensity from molecules 2−80849
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
thin-film optical waveguides, ageing process, visible-UV study 2−109039
topological entanglement, field theory 2−63919
topologically entangled molecules, configurational props. 2−53689
tough, rheological installation for testing in liq. media 2−116645
transition points, dynamic and thermodynamic, NMR and relax. methods 2−87619
tree initiation mechanism obs. 2−99039
turbogenerator superconducting windings bonding material requirements and development 2−62097
two long flexible polymers, interactions, gauge theory of topological entanglements 2−114145
two-phase, small-angle neutron scattering 2−97942
unified model of kinetic treatments of glass transition and viscoelastic props. 2−66221
US velocity and damping coefficient measuring device 2−62309
vinyl chloride-vinyl acetate copolymer, dielec. relax. and struct. morphology 2−82778
vinyl polymers, dil. soln., intrapolymer interactions between excited singlet states 2−114025
vinylidene fluoride-tetrafluoroethylene copolymer, pyroelectricity and charge transport 2−72430
vinylidenefluoride/trifluoroethylene ferroelec. copolymer, piezoelec. and polarisation 2−110776
viscoelastic, Bucci relax. times obtained from thermal sampling 2−111220
viscoelastic fluids, turbulent heat transfer in circular tube flows 2−75940
viscoelasticity, linear eqns., aftereffect kernels choice 2−91272
wear behaviour in dry reciprocating sliding 2−83236
wear of polymers sliding on polymeric films deposited on rough surfaces 2−88204
X-ray crystallography, at high pressures, 1933-1980: a bibliography 2−63771
C fibre/epoxy composite, thermal cond., 2 to 80K 2−92296
Fe doped, impurity clustering, relax. Mossbauer studies 2−104753
(H_2), atmospheric polymers, reson. absorpt. 2−73651
PVC, derivative spectra, resolution enhancement, band width and shape effect 2−64121
PVC, rigid, wear, effect of mol. wt., surface roughness and sliding speed 2−111323
ZnO-polymer, photoreceptors, photosensitivity, photocurrent kinetics 2−61509

polymorphic transformations
see also displacive transformations; order-disorder transformations; reverse martensitic transformations
$A^{I}_{2-x}B^{VI}$ semiconducting cpds., nonstoichiometric, physicochem. props. 2−104005
alkali halides, press. induced polymorphic transition, hysteresis phenomena, theoretical study 2−109973
2-[4-n-alkylphenyl]-5-[4-n-alkyloxyphenyl]-pyrimidines, calorimetric investig. 2−56172
alloys, entropy, role in phase transformations 2−104030
black P to A7 As struct. transform., Woodward-Hoffmann orbital correl. diagrams 2−81952
brass, creep rheological study in single and two phase alloys near stoichiometric composition 2−62174
graphite-to-diamond conversion, transition metal lamellar compounds of graphite as catalysts 2−67330
ice, phase transition, VII to VIII, X-ray study 2−71630
IV-VI semiconductors, phase transitions and optical props. 2−91861
metals, entropy, role in phase transformations 2−104030
monochloroacetic acid, spin-spin relax., phase transitions, NQR study 2−110710
polycaproamide, polymorphism and struct. transform. under annealing *(Russian)* 2−66212
quartz, mechanical properties, effect of α-β transition 2−99046
stearic acid cryst., polymorphic transformation, soln. mediated 2−66195
steel, alloy, cold rolled, type 08, isothermal austenitization 2−105201
steel, constructional, fine-grained austenite struct. formed in $\alpha\rightarrow\gamma$ recrystn., stability *(Russian)* 2−67376
steel, low-alloy, superplasticity and polymorphic transforms. 2−62177
steel, Mn, superplasticity and polymorphic transforms. 2−62177
steel, Ni-Mo, austenitic, strengthened by phase strain hardening and hydroextrusion, mech. props. 2−72715
steel, stainless, SUS 304 *(Japanese)* 2−67635
steel, type 08KP, structure and texture formation mechanism under hot plastic deformation *(Russian)* 2−67363
steel, V, mech. props. rel. to $\gamma\rightarrow\alpha$ transform. kinetics 2−83112
ternary compounds, structural types related by polymorphic transitions 2−86606
thermodynamic props., lattice dynamics and polymorphic transitions 2−109731
transition metals and alloys, group IVB, $\alpha\rightarrow\omega$ transform. crystallography 2−91860
troilite, meteoritic phase transitions and domains, TEM obs. 2−117641
Woodward-Hoffmann orbital correl. diagrams 2−81952
$Ag_{1-x}Cu_xI$, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
AgI, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
$Ag_{2+\delta}S$, α to β phase transitions, entropy changes, calorimetric study 2−86847
Ag_3SI, anomalies of acoustic attenuation and vel. at β-γ phase transition 2−109910
Ag_3SI superionic conductor, Ag ion dynamics, IR reflectivity study 2−61199
Ag_2Se, polymorphic transition and cryst. struct., electron mieroscopy study 2−86610
$Ag_{2+\delta}Se$, α to β phase transitions, entropy changes, calorimetric study 2−86847
Al-Ni-Co-Cu-Ti, Alnico 8 alloy, $\alpha\rightarrow\gamma$ transformation, α_1 phase precipitation, coercive force study 2−91858
Al_2O_3, influence of MgO and SiO_2 additives 2−111169
BN, graphitelike, interlayer reaction energy and relative stability of various cryst. modifications 2−65972
Be, high press. α-β transition at T=0 2−71628
Bi_2WO_6, polymorphism, differential dilatometry and DTA study 2−60913
C, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
$CaSiO_3$, ceramic-forming glass, thermal expansion 2−71673
$CdGa_2Te_4$, amorphous film, structural ordering, effect of group I metal impurities 2−87114
$CsCu_4Cl_3I_2$, solid electrolyte, cond. and struct. props. 2−82016
Fe, Compton profiles, effect of BCC-FCC phase transition 2−82949
Fe, isomorphous cooling, $\delta\rightarrow\alpha$ transition and polymorphism *(Russian)* 2−103683
Fe, superplasticity and polymorphic transforms. 2−62177
Fe-Cu wire reinforced Cu-Fe alloy, age hardening *(German)* 2−111192
Fe-Mn, shape memory and plasticity transform., superelasticity *(Russian)* 2−67332
Fe-Mn alloys, $\gamma\rightarrow\alpha$ polymorphic transition and α-phase struct. *(Russian)* 2−103684
Fe-Ni-Co, phase transitions occurring during heating *(Russian)* 2−62119
Fe-Ni-Co (54, 28.5, 17.5 wt.%), struct. transforms. of FCC phases on heating 2−62121
FeS, polymorphism at high temps. and press., X-ray diffr. study 2−97976
$GaSe_{1-x}Sx$, polytype phase transition X-ray diffr. obs. 2−60912
Ge, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
$Ge_{1-x}Pb_xTe$ solid soln., physicochem. investig. 2−104008
GeTe, acoustic emission during polymorphic transitions 2−109972
GeTe, intervalley Jahn-Teller effect and polymorphic ferroelectric transitions 2−87208
GeTe solid solutions, polymorphic phase transitions kinetics, elec. cond. and Hall coeff. study 2−86851
HfO_2-CaO, phase equilib., 1600 to 2800°C 2−88069
In-Cd(Tl), shape memory behaviour and FCC to FCT transform. 2−93502
InSb, polymorphic transition meas. at low temp. and high press. 2−109981
InSe, cryst. grown from melt, struct. transition, X-ray diffr. study 2−55942
KCl, press. induced polymorphic transition, hysteresis phenomena, theoretical study 2−109973
K_2WO_4-UO_2WO_4, reactions, and phase diagram, DTA study 2−88066
Li_3NaPO_4, synthesis and props. 2−111102
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
γ-$Mn_{83}Cu_{18}$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
γ-$Mn_{83}Fe_{10}Cu_3$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
NaCl, rocksalt to CsCl struct. transform., Woodward-Hoffmann orbital correl. diagrams 2−81952
polymorphic transformations continued
NaOH (NaOD), cryst. struct. and struct. transitions, X-ray and neutron diffr. and sp. ht. study 2−97972
NbP_5O_{14}:Gd^{3+}, monoclinic-orthorhombic ferroelastic transition, EPR study 2−61763
Nd, internal friction, high-temp. spectra, relax. and phase shift peaks 2−57395
Ni-Cr, lattice parameter studies of struct. changes near Ni_2Cr 2−105124
Pb_2AlNbO_6, prep., polymorphic transition from pyrochlore to perovskite struct. 2−77787
Pb_2MnTaO_6, prep., polymorphic transition from pyrochlore to perovskite struct. 2−77787
α/β-Pd, H permeation, invest. by electrochem. method *(Japanese)* 2−82026
Pr, internal friction, high-temp. spectra, relax. and phase shift peaks 2−57395
R_2O_3-TiO_2, R_2TiO_5 structural transitions at high temp. obs. 2−86850
$RbAg_4I_5$ crystal, superionic conductor, cubic-trigonal phase transition, order-disorder theory 2−55876
Si, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
α-Sn, cohesion, polymorphic transition, elastic and dielec. props. 2−60919
$Sn_{1-x}Cr_xTe$ degenerate mag. semiconductor, struct. transform.-induced mag. ordering 2−56852
Ti alloy, near-α IMI 829, weldment, struct. and transform. characts. 2−116439
Ti alloys, two-phase, $\beta\rightarrow\alpha+\beta$ transition, α-phase struct. study *(Russian)* 2−116437
Ti, $\alpha\rightarrow\omega$ phase transform., press. induced, kinetics 2−56174
Ti, $\omega\rightarrow\alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
Ti-Al-V (6,4 wt.%), high temp. phase transformations and thermal and mechanical props. meas. 2−71625
Ti-Al(Sn) alloys, struct. transition due to deform., positron annihilation parameters *(Russian)* 2−62013
Ti-V, β-ω transform under press., stacking solition model for diffuse omega phase 2−71639
TiO_2, Raman spectra in anatase and rutile 2−82851
Tl, polymorphic transition kinetics, point defect relax. processes, elec. resist. study *(Russian)* 2−92174
$V_2H(V_2D)$, B$\rightarrow\alpha$ transition, press. effects meas. 2−98269
VO_2 and VO_2:Al, IR absorpt. 2−104879
V_3Si, Debye-Waller factor, temp. depend., 8 to 293K 2−56143
Yb single crystals, vapour condensation growth, BCC to FCC, FCC to HCP transitions 2−76349
Zr, $\omega\rightarrow\alpha$ transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
ZrO_2, crystallisation and transform. under hydrothermal conditions 2−111170
ZrO_2, polymorphism, high press. transitions, Raman spectra study 2−91859

polymorphism
see also crystal structure; isomorphism; polymorphic transformations
N-(alkoxycarbonyl-n-pentyl)-3β-cholesteryl urethanes, synthesis, polymorphic and mesomorphic props. 2−81957
anhydrous, H bonds in metastable forms, spectrosc. investig. 2−57078
4-cyano-4′-octyloxy biphenyl, solid cryst. polymorphism 2−103738
cyclopentanol-d_0(-d_1), solid and liq., IR spectra 2−99135
1,3-dichloro-2-bromobenzene, polymorphism and phase transformation 2−87622
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2−109978
iodanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
maximum degree of order polytypes, theory for equivalent OD layers 2−97973
maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
p-methyl-N-(p-methylbenzylidine) aniline trimorphic, cryst. energetics incl. disorder 2−115171
mica, oxybiotite, coexisting 1 M and 2 M_1 cryst. struct., polytypism 2−91856
nylon 11, lamellar single crysts., polymorphism 2−71432
Nylon 12, α form, formation from melt and quenched state under high press., DTA and X-ray study 2−72684
organic substances, H-bonds in polymorphic modifications 2−97988
oxide solid soln., elimination of polymorphism *(Chinese)* 2−60932
n-pentyl 4-[4′-n-dodecyloxybenzylideneamino] cinnamate, smectic phase classification, smectic I phases 2−61137
rare earth oxides, complex, high-resolution electron microscopy 2−97880
tetraselenotetracene, polymorphism 2−91943
tetraselenotetracene, prep., purification and polymorphism 2−76423
thermodynamic props., lattice dynamics and polymorphic transitions 2−109731
trichloroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
trichlorotrifluoroethane, polymorphism, mol. motion, spin-lattice relax., NQR study 2−110681
Ag SCN, cryst. struct. and polymorphism, X-ray powder diffr. 2−115191
AlN, multilayer polytypes and packing defects 2−55878
AlN, multilayer polytypes form. during sintering 2−76404
BN, graphitelike, interlayer reaction energy and relative stability of various cryst. modifications 2−65972
$BaCrO_3$, 14-layer polytype, cryst. struct. 2−55910
Bi_2WO_6, polymorphism, differential dilatometry and DTA study 2−60913
CaI_2, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
$CdBr_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
CdI_2, melt-grown single crystal, polytypism, X-ray diffraction study 2−111051
CdI_2, polytypism, mag. field effects during solution growth, X-ray study 2−109751
CdI_2, single cryst. purification and growth by zone refining, X-ray diffr. obs. of polytypism 2−93415
$Cs_2Mo_2O_9$, $Cs_2W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
CuSe, superlattice struct. polymorphism and elec. props. *(French)* 2−66556
$Fe_2Ga_2S_4$, 3R polytype, cryst. struct. determ. *(French)* 2−55929
FeS, polymorphism at high temps. and press., X-ray diffr. study 2−97976

polymorphism continued
$HClO_4$, anhydrous, H bonds in metastable forms, spectrosc. investig. 2−57078
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$K_6Mo_2O_9$, $K_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
$K_3Yb_3[Si_6O_{16}]_2(OH)$, cryst. struct. and $[Si_3O_8]$ radical polymorphism, X-ray diffr. study 2−55951
$(Mg_{5.58}Fe_{0.08}^{2+}Fe_{0.2}^{3+}Al_{0.14})(Si_{3.66}Al_{0.34})O_{10}(OH)_8$, lizardite, cryst. struct., polymorphism 2−98008
$(Mn,Fe)_8Si_6O_{15}(OH,Cl)_{10}$, mcGillite, polytypism and disorder, electron microscopy study 2−115182
MoS_2, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
Na_3PO_4, ionic cond. *(French)* 2−56247
$NbSe_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
Ni-P metallic glasses, polymorphism rel. to processing conditions, Knight shift meas. 2−91811
$PbGe_4O_9$, polymorphism, cryst. struct., and dielec. props. 2−109754
PbI_2, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
$Pb_{1-x}M_xGe_4O_9$ (M=Sr, Ba), polymorphism, cryst. struct., and dielec. props. 2−109754
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
$Rb_6Mo_2O_9$, $Rb_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
SiC (45Rb) polytype, synthesis and anal. 2−97999
SiC, polycrystalline, long-period polytypism, TEM study 2−115199
SiC, polytypes of $[(44)_n43]_3$ struct., X-ray and electron diffr. study 2−65951
SiC, sintered, α and β polymorph proportion estimation procedure using X-ray diffr. 2−65943
SiC:Al polytypes, p-n structs., electrolum. characts. 2−93285
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
Sm_5Ni_{19} polytypes, cryst. struct., electron diffr. and microscopy study 2−91877
SnS_2, structural polytypism rel. to environments of formation 2−76338
$SrAl_2O_4$-$SrGa_2O_4$, isotructural series, solid solutions of polymorphic modifications 2−109757
$SrSiO_3$, α-, δ-, δ'-forms, struct. and high-pressure polymorphism 2−55931
β-Ta_2O_5, vibr. spectra and X-ray diffr. obs. of cryst. struct. 2−98012
$TaSe_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
TbO_x, struct. of intermediate phases, TEM and electron diffr. obs. 2−60940
$YCl(OH)_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
$Zn_{1-x}Cd_xS$, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
ZnS polytype, stacking fault sequences, high resolution electron microscopy study *(Chinese)* 2−91987
ZnS, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
ZrO_2, structural chemistry 2−97977

polynomials
see also splines (mathematics)
advection equation, stability and convergence of polynomial spectral methods *(French)* 2−75964
diatomic mols., pot. adaption, polynomial method 2−80762
eclipsing binary stars, approximation of light loss curves via special polynomials *(Russian)* 2−94779
eddy current testing, multiple props. determ. with multiple meas., polynomials fitting 2−72938
elastic plates theories via orthogonal polynomials 2−91253
Konhauser biorthogonal polynomials, dual series eqns. 2−53484
post buckling behaviour, instability of dual eigenvalue fourth-order systems 2−114699
sinusoids in noise, instrumental-variable frequency estimation and tracking 2−60310
Thai speech tones, polynomial approx. of pitch contours 2−65432

polytypism *see polymorphism*

Pomeranchuk poles and trajectories
additive quark model, QCD derivation from 2 and 3 gluon exchanges, pomeron couplings 2−113212
cylindrical graph, topological glueball contribs., vacuum trajectories 2−74646
diffraction in accelerators, colliders and QCD 2−107627
hadron-hadron interactions, charge distrib. in parton model 2−101679
high mass diffractive dissociation, jets, gluonia, pomeron fragmentation region 2−64308
inclusive multipomeron corrections in Regge-eikonal model, higher terms calc. 2−84880
inclusive resonance spectra, constituent quark distributions and dual topological pomeron 2−54119
Polyakov string theory, pomeron singularities, saddle point anal. 2−101694
Pomeranchuk-Okun' hypothesis and Pomeranchuk theorem, present status 2−59132
pseudoscalar meson decay constant-pomeron residue relation 2−95821
QCD, three-ladder vertex in Reggeon graph technique *(Russian)* 2−74654
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
Reggeon field theory, Hamiltonian props. 2−95620
Reggeon field theory with Pomeron and f-pole bare Pomeron intercept and IR behaviour 2−84881
soft parton model, high density events, dual fragmentation extension, multiple Pomeron exchange, 2−84868
total cross section symmetries for high energy polarised particles and antiparticles *(Chinese)* 2−95889
ultrahigh-energy EM cascades development in water and Pb including LPM effect 2−73809
Yang-Mills theories, Abelian dominance and quark confinement 2−84853
K_S^0 regeneration on nuclei, energy depend. 2−54449
$\bar{p}p$, large $|t|$ behaviour, triple scatt., pomeron model 2−79914
$pp(\bar{p}p)_t$ up to 540 GeV, rapidity spectra in dual parton model 2−107643
$pp \to \pi^{\pm}X(k^{\pm}X)(\bar{p}X)$, inclusive cross section in central region in terms of Pomeron 2−101775

Pontryagin maximum principle *see maximum principle*

Poole-Frenkel effect
anthracene, charge carrier escape from Coulombic pot. well, time-resolved meas. 2−82372
insulating materials hopping conduction, Poole-Frenkel effect, carrier mobility 2−71991
insulating thin films, conduction mechanisms *(Spanish)* 2−72091
polystyrene films, soln. grown., DC elec. conduction 2−66564
p-terpenyl/TCNE MIM structs., elec. cond., Poole-Frenkel coeff. 2−72073
Wannier-Stark states, Poole-Frenkel effect 2−98601
CdF_2:Gd(Eu), insulating single cryst., electronic cond. 2−98657
CdO-ZnO-P_2O_5 glasses, elec. conduction at high elec. fields, Poole-Frenkel effect 2−56599
CdTe films, DC elec. props. Poole-Frenkel eqn. 2−110510
Si:B, interstitial B negative-U props., EPR 2−71908
SiN film, plasma enhanced CVD coating, phys. and elec. props. 2−115629
V_2O_5-P_2O_5/Au(Al) (graphite) struct., contact limited conduction, work function effects 2−72056

popcorn noise *see random noise*

population inversion
see also laser theory; lasers; stimulated emission
active media, ultrashort light pulse propagation 2−70531
alkali halide colour centre lasers, electrical pumping 2−102801
chemical lasers, population inversion processes 2−75562
coherent state Jaynes-Cummings model, dephasing and revivals, quantum origin 2−101247
four-level lasers, optimised 2−90862
granulated active medium, amplification of field upon total internal reflection 2−85932
heterogeneous media, rot. levels, population inversion prod. 2−80929
laser based on amplification by refl. from inverted medium 2−70562
multilevel system excitation, superselectivity, adiabatic switching on of resonant radiation *(Russian)* 2−96867
particle concentration longit. gradient increase under laser vel.-selective photodissociation 2−70361
plasma, recombining, population inversion between excited H atoms 2−81450
plasma cyclotron instability, quasilinear theory *(Chinese)* 2−76095
polyatomic dipole mols., vibr. level population inversion behind shock wave front 2−108860
POPOP vapour excitation efficiency by wide-band flashlamp radiation 2−65047
rhodamine 6G soln., laser based on amplification by reflection from inverted medium 2−70562
semiconductors, radiative transitions between exciton sub-bands 2−99155
semiconductors lasers, longitudinal mode self-stabilisation 2−96950
short wavelength lasing plasma, kinetic theory 2−86394
single-mode laser instabilities, role of population pulsations 2−55108
water vapour laser, population inversion by rapid heating of mol. system 2−108860
X-ray laser research, hydrogenic ions inverted in laser-produced plasmas 2−70550
X-ray laser research, progress and trends 2−108855
$Al_xGa_{1-x}As$ laser, longitudinal mode self-stabilisation 2−96950
α-Al_2O_3:Ni^{2+}, US self-focusing 2−66134
Ba^+ VUV autoionisation-pumped laser 2−70551
CO chemical laser produced by supersonically mixing CS-S-O_2, computer model 2−90881
Ca beam, metastable level transitions for freq. sub-mm wavelength standards 2−107293
CdS, radiative transitions between exciton sub-bands 2−99155
Er, Yb:glass, Er^{3+} $^4I_{13/2}$ level population inversion characts. 2−55171
H plasma, population inversion between the recombining ground and first excited states 2−71074
H recombining plasmas, optically thin and thick, population inversion and threshold condition for laser oscill., report 2−103285
H^+-Cs, plasma, charge exchange, population inversion, laser characts. 2−108861
He^+ plasma dynamic recombination laser, population inversion 2−108852
He-like ions, optical pumping rel. to gain at X-ray wavelengths 2−70536
He-Ne lasing medium, resonant Faraday effect, maximum population inversion determ. 2−114238
Hg blue-green laser emitting at 435.8, 546.1 nm, using HgI_2 photodissociation 2−96937
LaF_3:Er^{3+}, 0.2 THz phonon stimulated emission, luminescence study 2−81906
Mg beam, metastable level transitions for freq. sub-mm wavelength standards 2−107293
Mg XI ion recombining laser plasma, population inversion meas. 2−85948
N_2 laser cavity, transversely excited, ionising waves of potential gradient 2−90940
Ne discharge, population inversion obs. using optogalvanic effect 2−85596
$OH+H_2$, interstellar rate coeffs. for rotational excitation 2−70400

porosity
see also porous materials
bronze-graphite antifriction material, sintered, struct. and mech. props. 2−67556
cellulose felt, metal-filled, high-porosity material prep., heat treatment and strength props. 2−99383
ceramic, densification kinetics during press. sintering, porosity effect 2−116416
concrete, silicate ceramic, porosity and mech. props. 2−57424
fibre reinforced plasma-sprayed coatings, effective contact area 2−83262
inhomogeneous fluidised beds, porosity and expansion investigation 2−103208
irradiated materials, absence of pore formation, vacancy diffusion *(Russian)* 2−56010
metals, swelling, radiation-induced, effect of defect struct. 2−86721
nonuniform grain size, interconnected pores stability 2−93481
organic crystals, dynamic compaction under shock 2−72648
oxide fuel, gas release swelling, gas porosity development kinetics model 2−80063
powder and pressed pellet pore morphology charact., computer program 2−88019
powder metallurgy materials, density measurement, albedo electron method 2−83327
rocks, porosity rel. to natural ^3H production 2−100381

porosity continued
sintered metallic materials, elastic modulus, model 2−105208
sintered solids, props. 2−116404
sintering, microstruct. development, grain and pore coarsening 2−93469
sintering, microstruct. development, pore/grain boundary separation 2−93468
snow, geometry, porosity and permittivity at high freq. 2−87251
steel, stainless, powder metallurgical, mech. props., sintering environment influence 2−72782
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
steel-TiC composite with 10R6M5 high-speed steel, high-density material, processing parameters, struct. and mech. charact. 2−67262
viscoplastic material, spherical cavity collapse 2−60430
water, in porous media, self-vaporisation *(French)* 2−81940
Al coating on steel, porosity determ. using electron probe microanalysis 2−99624
Al, vacuum condensate, heterogeneous struct. formation 2−105107
Al-BN plasma spray deposited composite coatings, props. 2−83231
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al_2O_3, effects of Cr_2O_3 additions on sintering and mech. props. 2−99375
Al_2O_3 suspension, high conc., rheology and binding props. 2−88042
Al_2O_3-ZrO_2-SiO_2 refractories, props. with different ZrO_2 and SiO_2 concs. 2−88188
B_4C, hot pressed, mech. props., effect of porosity and grain size 2−116543
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
C, disorder, micropore struct. obs. by high resolution electron microscopy 2−78024
CrCoFe permanent magnet, powder metallurgy processing 2−72652
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Ga diffusion in quartz and amorphous SiO_2, neutron activation 2−66289
Li ferrite, polycryst., anisotropy field determ. from FMR linewidths 2−66809
MgO, high-purity fusions, sintering, effect of CeO_2, ZrO_2 and Y_2O_3 additives 2−57324
$MgO.Al_2O_3$, high-purity fusions, sintering, effect of Y_2O_3 additive 2−57324
MnO-MnS, reactions and sintering, struct. props. variation 2−88015
Mo, electropulse compacted, porosity influence on elastic moduli 2−111223
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Ni film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2−61019
Ni films and coatings, porosity and internal stresses, annealing and thermal cycling effects *(Russian)* 2−76870
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Cr-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
$PbTiO_3$ ceramics, grain-orientated, prep. by unidirectional solidification of melts 2−62118
$Pb(Zr,Ti)O_3$ composition piezoelectric ceramic preparation and props. 2−88030
Si_3N_4, reaction bonded, mech. props., creep and thermal shock behaviour, influence of microstruct. variables 2−116541
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SiO_2, methanol and N_2 adsorpt., porosity charact. 2−62433
SiO_2, non-porous, surface lyophobicity and heat of immersion in cyclohexane 2−62434
Ti-Cr_3Cr_2 composite, struct. form. mechanism 2−67260
TiNi, porous sintered, shape memory effect features 2−99505
UO_2 fuels, qualitative approach for characterisation 2−85160
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162
W, electropulse compacted, porosity influence on elastic moduli 2−111223
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101
WC powders, submicroporosity, milling influence, small-angle X-ray scattering investigation 2−67269

porous materials
see also flow through porous media
acoustic charact., wave propag., transmission and reflection 2−65423
albedo electron densitometry, single channel method 2−89694
boiling in a porous bed 2−55652
bulk reaching porous sound absorbers and a new boundary condition for thin porous layers 2−70719
cellular structure, wavelength selection, thermoconvection in porous materials 2−70954
cellulose felt, metal-filled, high-porosity material prep., heat treatment and strength props. 2−99383
ceramic-like body, process design, prod. from recycled waste glass, phys. props. 2−111126
ceramic-like body, process design, prod. from recycled waste glass, microstruct. and devitrification 2−111127
ceramics, thermal shock stability *(French)* 2−88155
ceramics containing Si, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
composite, porous glass, microcrack fusion dynamics obs. by acoustic emission 2−62337
compressible plastic porous solids, determining eqns. 2−65492
concrete slab, surface heated, heat and mass transfer, evaporation-recondensation mechanism 2−114621
ductile fracture by cavity nucleation between larger voids 2−115348
electrochemical insertion electrodes with liq. electrolyte, math. model 2−116794
evaporating flow inside heated porous metal, struct. 2−114883
glass, cellular, strength limiting defect detection by dielectric meas. 2−105392
granular, boiling in porous bed, parametric calcs. 2−97353
half space, heated, transient heat and mass transfer, self-similar temp., press. and moisture distrib. 2−114603
intercrystallite fracture obs. by high power US *(Russian)* 2−88160
laser radiation effects, geometric charcts. of craters 2−71501
macroscopic props. of disordered media, conf., New York, USA (June '81) 2−94915
metal based composites, porous, stress-strain state during compression 2−116414
microgeometric modelling, quantitative methods 2−94364
plastic solid, void nucleation effects on shear localisation 2−99486

porous materials continued
plastic strain in porous materials 2−91281
plasticity theory coefficients determ. procedure, relative density depend. *(Russian)* 2−77877
plasticity theory variant 2−81253
porous bodies, surface phenomena occurring due to heat and mass transfer processes 2−109315
sandstone, 2−72791
sedimentary rocks, pure fluid, NMR, proton desorption rate 2−117297
shock Hugoniot diag., analytic model 2−56089
sintered, expt. verification of plasticity hypothesis 2−116513
sintered metallic materials, elastic modulus, model 2−105208
steel, porous fibre materials, corrosion resist. determ. 2−67694
surface, fluid boiling, capillary hysteresis *(Russian)* 2−60363
US attenuation in Massilon sandstone and Vycor porous glass, effects of partial water saturation 2−86163
viscoplastic material, spherical cavity collapse 2−60430
Vycor, porous, low temp. thermal cond. 2−56270
Al, anodic oxide film, breakdown during pore filling 2−67660
Al, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Al, porous, deposition techniques and heat transfer props. 2−87979
Al-Si (0.9 wt.%) alloy fibres, sintering in presence of liq. phase, capillary-porous struct. prep. 2−67246
Al_2O_3, sintered, variable microstruct., strength meas. *(French)* 2−88154
Al_2O_3:Cu porous anodic film, elec. props. meas. 2−82501
Al_2O_3-SiO_2, porous ceramic, sound insulating charcts. 2−97252
C, disorder, micropore struct. obs. by high resolution electron microscopy 2−78024
Co powder, sintering in mag. field 2−116411
Co-Ni-Al-Ti-Cu, porous, laser pulse treatment *(Russian)* 2−67355
Cu coated W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Cu composite, porous and filled, internal friction and effective elastic moduli 2−99476
Cu, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu/W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Cu-Sn, porous, laser pulse treatment *(Russian)* 2−67355
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe powder, charcts., porous struct. and particle shape effects 2−83062
Fe powder, sintering in mag. field 2−116411
γ-Fe vacancy pore-point defect interaction, computer modelling 2−92024
HfV_2H_4, Laves phase, H ordering, thermodynamic description 2−86629
KCl, large gas filled pore migration due to temp. gradient 2−56265
KCl, small pore migration due to temp. gradient 2−56266
Mo composite, porous and filled, internal friction and effective elastic moduli 2−99476
Mo fibre reinforced Fe and Cu composites, porous, stress-strain state during compression 2−116414
Na_2O-B_2O_3-CeO_2.3Nb_2O_3(-Al_2O_3) porous glass ceramic 2−77811
Ni composite, porous and filled, internal friction and effective elastic moduli 2−99476
Ni, high-porosity strips, capillary infiltration by Pb-Sn 2−115506
Ni, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Ni, pore formation and swelling under Ar ion irrad., temp. depend. *(Russian)* 2−115312
Ni, porous, laser pulse treatment *(Russian)* 2−67355
Ni powder, sintering in mag. field 2−116411
Ni-C, sintered compacts, nodular graphite form. *(German)* 2−77845
Ni-Ti porous material, shape memory and vol. memory effects *(Ukrainian)* 2−67425
NiO supported on B modified SiO_2, dispersion of Ni determ. by TEM and XPS meas. 2−56202
SiO:H, porous antireflection coating for solar cells 2−75659
SiO_2-B_2O_3-Na_2O microporous glass, swelling in water rel. to heat treatment 2−111209
TiB_2, porous, Al penetration and fracture 2−57456
TiNi, porous sintered, shape memory effect features 2−99505
UO_2, densification, fission-induced 2−76508
UO_2 fuel, swollen, with nonuniform grain size, interconnected pores stability 2−93481
UO_2, porous, low-temp. Kr adsorpt. 2−61297
V, porous, eqn. of state and phase diagram parameters, calc. from expt. data 2−71607

porous media *see porous materials*
porphyrins *see organic compounds*
Portevin-Le Chatelier effect *see serrated yielding*
posistors
$KNbO_3$, polycryst., prep. using glass-ceramic methods 2−67279
position control
see also attitude control
astronomical telescope, novel autoguider system using microcomputer 2−106524
drift chamber positioning, dynamic compensation of small errors using optical CCD system 2−90390
Hall-effect sensors, appl. in magnetic field meas. for position control *(German)* 2−74403
micromanipulators with high frequency vibratory drive *(Russian)* 2−53744
monolithic goniometer for pure rotation and fine orientation control 2−89877
PDX Tokamak, divertor discharge, position control procedure 2−86458
satellite platform for solar activity research, automated and stabilised *(Czech)* 2−63205
TEM, convergent beam diffraction, alignment methods 2−113066
TFTR plasma discharge, position and current control, optimal control theory anal. 2−86459
underwater sound research, position control for acoustic probe 2−81193
position finding *see navigation*
position measurement
see also astrometry
computerised tomography guided stereotaxis, localisation error sensitivity 2−94166
Doppler laser network longitude orientation determ. *(Chinese)* 2−112151
Hall-effect sensors, appl. in magnetic field meas. for position control *(German)* 2−74403
IR position sensor development, PbSe and InSb detectors 2−101459

position measurement continued
magnetic/gravitational field direction-of-action meas. using concentrically rotating elements, theory *(Japanese)* 2−79618
magnetoresistive element position detector using ferrite closure, electrical capacitance meas. basis 2−112885
photoelectric positioning sensor for Sun orientated measurements *(German)* 2−79669
satellite Doppler translocation technique for relative coords. between stations *(Chinese)* 2−112152
sondes in planetary atmospheres, positions and vels. from radio techniques 2−84105
superposition comparator, motion-error immunity in photo-coordinate determ. 2−74384
wind tunnel models, position and deform. meas. using optical sensor *(French)* 2−107300
X-ray photogrammetry using multi-parallel projections, least squares locating method 2−113020

position sensitive particle detectors
acrylic scintillator particle counters, performance testing 2−108243
adjustable field drift chamber, construction and performance *(Chinese)* 2−80396
angle resolved charged particle detection with toroidal electrostatic analyser 2−80386
bremsstrahlung pulsed beam, position monitoring, self-powered detector methods 2−54718
cathode cell MWPC of modular design 2−96380
cathode strips read-out MWPC, avalanche localisation along wire, systematic errors evaluation 2−90397
Ceratron, continuous dynode electron multiplier, detection efficiency for positrons 2−85480
charged particle detector, radical position-sensitive using Si surface barrier devices 2−64776
circular electrodeless drift chamber characts. 2−108247
CR-39 detector, radiographic characts. 2−59635
CRISIS detector, characteristics and performance 2−64790
digital scintillation camera for single photon computerised tomography appl., concepts and design 2−73343
drift and multiwire proportional chamber efficiencies determ., on-line method 2−90392
drift chamber, dE/dX sampling 2−85508
drift chamber module fabrication for pion set up 2−85485
drift detectors, high press., particle identification by dE/dx sampling 2−90389
drift tube, position sensing by charge division using self-quenching streamer pulses 2−70039
electrodeless drift chambers, geometrical config. and appl. 2−108248
fine-grain marble calorimeter, response and resolution for hadronic and EM showers 2−108239
fission counter sensitivity increase with transmission line electrode configuration 2−96396
focal plane detector for INS-QDD mag. spectrograph 2−75102
focal plane drift chambers detector systems for EPICS and HRS spectrometers 2−90382
freon bubble chamber, holographed charmed candidates 2−108282
gamma-ray camera nonidealities, computer correction 2−96405
gas proportional counter with induction readout for spectrograph 2−90379
gas scintillation counter performance at high count rates 2−108249
gas scintillation proportional counter camera for X-ray astronomy appl. 2−78951
gas scintillation proportional counters 2−90358
gas scintillation proportional counters for Japanese astron. satellite 2−94609
gaseous detectors, recent trends in evolution 2−90351
gridless position sensitive time-zero detector for heavy-ion spectrometer 2−102331
heavy ion identification system for mag. spectrometer 2−108217
heavy-ion identification system based on kinematic coincidence techniques 2−90418
high resolution detecting system with single wire proportional counter for electron spectroscopy 2−90383
HOLBEC, bubble chamber with classical optics 2−108285
imaging detectors, multiple electron scatt. simulation 2−54716
imaging gas scintillation proportional counter for X-ray detection 2−78950
imaging gas scintillation proportional counter props. 2−90359
integrated amplifier and sample-and-hold analogue multiplexer module for proportional chamber 2−64802
jet chamber of JADE expt. 2−90386
LBL time projection chamber, fast digital trigger 2−70047
lead glass shower detector at SLAC hybrid facility 2−90394
lead-glass calorimeters and laser based monitoring system for European Hybrid Spectrometer 2−102327
lead-glass segmented hodoscope for multiple photon final states detection 2−96378
linear position sensitive scintillator 2−113824
long focal-plane detector with hybrid structure for spectrograph 2−90380
microchannel plate multipliers optimisation for tracking minimum ionising particles 2−70044
multidetector system for electrons using CCD 2−85477
multineedle counters with cathodic focusing for UV Cherenkov imaging device 2−64762
multiparameter multichannel anal. system for X-ray sources 2−84767
multistep avalanche chamber, min. ionising particle electrostatic imaging 2−96376
multistep avalanche chamber, multiplicity detector using glow discharge memory 2−70046
multiwire array proportional counter, front guard for improved background rejection 2−75107
multiwire drift chambers, method for comprehensive anal. using finite element approach 2−90391
multiwire proportional chamber for particle tracking, cathode charge sampling, resolution study 2−102329
multiwire proportional chambers, charges and current induced by moving ions 2−102334
multiwire proportional chambers, local desensitisation 2−108242
multiwire proportional counters, read-out method 2−102341
MWPC, multielement detector system for synchrotron X-ray source 2−85476
MWPC imaging detector for small angle X-ray diffr. study 2−96375

position sensitive particle detectors continued
MWPC of cylindrical geometry for nuclear physics expts. 2−90354
neutron time-of-flight diffractometer with one-dimensional position sensitive counter 2−65808
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
one-dimensional scintillation camera appl. in positron tomographic ring detector 2−73323
particle identification for heavy ions in time-of-flight spectrometer 2−90346
photoelectron drift detector, use for Cherenkov ring imaging 2−108241
photomultiplier principle, prototype and test results 2−90375
PLUTO detector expts., review 2−79903
proportional chamber, rise-time method for read-out 2−108246
proportional tube chambers for neutrino calorimeter, resistive charge division appl. 2−70040
proportional tube EM calorimeter with conductive plastic tube 2−75114
proportional wire calorimeter 2−102328
pulse height readout system for proportional chambers 2−96397
scintillating optical fibres for fine grained hodoscopes 2−70041
scintillation camera, planar images, spatial resolution recovery 2−54717
scintillation counter hodoscope for 10 MHz beams 2−108244
scintillation detector for thermal neutrons 2−90385
scintillation detectors for gamma-ray imaging telescope 2−100738
semiconductor counter appl. 2−64786
single-wire position sensitive proportional counter construction and characts. 2−90381
small-angle X-ray scatt. system with linear position-sensitive detector 2−64198
streamer chambers, particle tracks holography through high density wire grids 2−70043
TASSO high precision vertex detector 2−90408
time and position-sensitive detector for dissociative processes in fast beams 2−96395
time digitiser with 10 MHz conversion rate for X-ray detector positional read-out 2−64807
Time Projection Chamber, analogue signal processing system 2−59649
time projection chamber, CCDs appl. 2−64799
time projection chamber, data acquisition system 2−64758
time projection chamber for high energy heavy ion expt. at Saturne 2−90387
time-spectra anal. from coincidence meas. with high stop-rates 2−96402
two-dimensional electro-optical X-ray detectors survey 2−85474
wire proportional counters for mag. spectrographs in Japan 2−90378
Ar, liquid, two-dimensional time projection chamber, track obs. 2−108237
Ar-Xe (Kr) photoionisation proportional scintillation chamber, energy transfer 2−64760
$Bi_4Ge_3O_{12}$ crystal response to 150-700 MeV electrons 2−96381
Fe-scintillator modular electron/hadron calorimeter, response to electrons 2−108231
Fe-scintillator segmented hadron calorimeter performance 2−64759
Ge camera, planar images, spatial resolution recovery 2−54717
Ge, detectors, status and problems 2−90365
Ge laminar emission camera 2−73324
H gas time projection chamber development and performance 2−96379
H time projection chamber development and performance 2−70036
^{3}He-propane proportional detector for thermal neutrons 2−113822
HgI_2 gamma-radiation detectors development, appl. in nuclear medicine for blood flow meas. 2−73322
HgI_2 position sensitive detector, operating characts. 2−70059
NaI(Tl) scintillation camera for triggerable vertex detector 2−70045
Pb-scintillator sampling shower counter characts. for electron and photon detection 2−75099
Pb-scintillator sandwich shower detectors for electron, photon detection 2−64746
Si detectors, status and problems 2−90365
Si, epitaxial integrated E-dE position sensitive detectors 2−70057
Si microstrip detectors for fast high resolution beam hodoscope 2−70042
Si p-i-n position sensitive detectors fabrication using ion-laser method 2−108271
Si radiation detector, epitaxial crystal growth appl. 2−90367
Si strip detector with 12 μm resolution 2−90370
Si:B radial position sensitive detectors fabrication and characts. 2−70058
Si(Li) detector array, multielement detector system for synchrotron X-ray source 2−85476
Si(Li) multichannel X-ray detector, for crystal struct. determ. 2−54719
U/scintillator, multicell hadron calorimeter in AFS expt. at CERN ISR, test results 2−70035
X-CO_2 filled position sensitive proportional counter for X-ray astronomy appl. 2−78952
Xe, liquid, γ-ray detectors, present status and future plans 2−90362
Xe-methane MWPC, gas limits to position resolution and linearity 2−108235

positioning *see position control*

positive column
see also glow discharges
cataphoresis, transient, in discharge tube with end volumes 2−115083
dye vapors, cataphoresis and dissociation in DC glow discharge positive column 2−91692
generation mechanism and HF noise current 2−103538
glow discharge stability, math. model 2−103486
HF high press. plasma column, diagnostics meas. by microwave reflectometer 2−97791
optogalvanic effect applications to opening switches 2−97824
stability in presence of axial mag. field 2−103341
striated plasma column of a long laser spark, steady-state theory 2−115085
Ar longitudinal flow, ionisation wave instabilities in DC discharge rel. to laser parameters 2−97819
He discharge, at.-state densities and electron densities 2−60816
He-Br_2 discharge, at.-state densities and electron densities 2−60816
He-Cd^+ positive column laser discharge Cd(II) excited states, electron and Penning excitation rates 2−60817
He-F_2 mixture low-temp. plasma, spectral characts. and electric parameters 2−81457
He-Ne laser tube positive column region gas temp. meas. by thermal expansion method *(Chinese)* 2−95369
He-Se^+ cataphoretic lasers in positive column plasmas, origin of laser-output noise 2−96905

positive column continued
Hg discharge, positive column, line emission, collisional excitation cross sections 2−65778
Hg discharge positive column, electron energy distrib. meas. and Boltzmann eqn. calc. 2−76227
N_2 post-arc column, high-voltage breakdown simulation 2−97810
Ne excited atomic density in gas discharge by laser reson. fluoresc. *(Russian)* 2−76075
Ne-F_2 mixture low-temp. plasma, spectral characts. and electric parameters 2−81457
positive feedback *see feedback*
positive ray sources *see ion sources*
positive rays *see ion beams*
positive temperature coefficient thermistors *see thermistors*
positons *see positrons*
positron annihilation *see electron positron interactions*
positron annihilation in liquids and solids
4d transition metals, positron wave function, anisotropy 2−62011
alkali metal glass, mixed, structural features 2−71370
alloys, binary, Fermi surface meas., positron annihilation study, expt., apparatus *(German)* 2−104232
amorphous alloys, positron annihilation expts., review 2−104986
bulk media, gamma-ray spectra and energy loss, fluoresc., bremsstrahlung and annihilation effects 2−90311
cryostat design for position annihilation research at −195-+800°C 2−107329
deconvolution of curves rel. to instrumental resolution function 2−57206
$Fe_5Co_{70}Si_{15}B_{10}$ ($Fe_{40}Ni_{40}P_{14}B_6$), glassy, free vol., positron annihilation study 2−104987
graphite, neutron irradiation, defect prod. and annealing behaviour 2−80189
lifetimes in metals, meas. apparatus 2−111396
metallic glasses, crystallisation, positron annihilation study 2−104989
metallic glasses structural studies by positron annihilation, review 2−103646
metals, defect structs. below surface after neutron or ion irrad., monoenergetic positron study 2−92052
metals, momentum depend. positron annihilation rate 2−99214
neopentane, liq., positronium yield correl. with excess electron mobility 2−99210
optical stimulation technique for solids, theory 2−99212
positron annihilation in testing of materials *(Spanish)* 2−62305
positronium, diffusion in crystals, temp. depend. 2−76752
positronium, form. in hydrocarbon-solute mixtures, inhibition, antiinhibition and enhancement 2−67759
PTFE, phase transitions, positron lifetime study 2−104988
quartz, amorphisation by neutron irrad. positron annihilation study 2−103851
quartz crystals, quasi-positronium diffusion coeff. from ACAR meas. 2−93320
self-trapped states of positrons and positronium in dense gases in liquids, review 2−98595
semiconductors, positron lifetimes, systematic study 2−57207
sodium dodecyl sulphate aq. soln., positronium lifetime, micellar effects 2−104990
statistical analysis of positron annihilation and Compton profile experiments using normal probability plots 2−67146
steel, pearlitic eutectoid, phase interfaces and dislocations positron trapping 2−99619
o-terphenyl, supercooled, positron annihilation 2−76504
thin layers, positron profiles and positron annihilation 2−87897
two-dimens. correlation curves, numerical calc. method 2−93318
Ag ultrafine particles, positron annihilation 2−93319
Ag-Al, Fermi surface of Hume-Rothery phases, positron annihilation study 2−61335
Al, fast neutron irrad., positron annihilation 2−87894
Al, Fermi surface parameters, Fourier transform of positron annihilation curves 2−98524
Al, positron annihilation radiation meas. *(Chinese)* 2−110971
Al positron interaction, annihilation photon angular correlation spectra 2−77617
Al surface, oxidation state, ang. correlation of positron annihilation study 2−72877
Al, thermal quenching, positron anihilation study 2−104994
Al, thin film, on GaAs substrate, positron-annihilation study 2−82952
Al-based alloys, precipitation mechanism of Ge, positron annihilation study 2−57359
Al-Mn (1.5×10^{-2} at.%), thermal quenching, positron anihilation study 2−104994
Al-Zn (49 at.%), positron lifetime and γ-line Doppler broadening studies 2−87896
Be, positron annihilation photons and positron lifetime, band theoretical calcs. 2−104995
Cd, positron trapping meas., 80 to 330K 2−67143
Cu ultrafine particles, positron annihilation 2−93319
Cu:Kr, ion implanted, cryst. defects, positron annihilation and TEM study 2−81781
Cu-Ga(Ge)(Ni), Fermi surface, density of electron states, positron annihilation study *(German)* 2−104231
Cu-Ge, Fermi surface of Hume-Rothery phases, positron annihilation study 2−61335
Fe complexes, high spin-low spin Fe(II) solns., positron annihilation study 2−93321
Fe, deformed, recovery, positron annihilation study *(Chinese)* 2−111226
Fe, positron annihilation spectra, k.p interpolation scheme 2−116296
Fe, positron trapping and detrapping 2−77616
α-Fe:C, electron irrad., vacancies and impurities, positron lifetime study 2−66065
Fe:C, positron trapping and detrapping 2−77616
Fe-Ti, dil. alloy, vacancy-impurity interaction, positron annihilation study 2−98152
$Fe_{40}Ni_{40}Si_{14}$ (P_{14})B_6 metallic glass, positron annihilation, electron irrad. and heat treatment effects 2−104992
Fe_2O_3, hematite, shock compressed, point defect generation, positron annihilation study 2−86795
GaAs, impurity atoms and positron states, positron annihilation study 2−104996
GaAs, positron annihilation at low temp. 2−62009
GaAs thin layers, positron profiles and positron annihilation 2−87897
GaAs:Si, Sn epitaxial films, double doping effect on defects 2−76867
positron annihilation in liquids and solids continued
GaAs:Si(Cd), positron annihilation at low temp. 2−62009
GaP, impurity atoms and positron states, positron annihilation study 2−104996
Ge, electron irrad., displaced atom profiles, positron annihilation study 2−110972
InAs, electron irrad., vacancies and defect states, positron annihilation study 2−116295
InP, elec. props., radiation defects 2−115292
KCl:KBr mixed crystals, positron annihilation studies 2−87895
KCl:Mn^{2+}, positron annihilation, impurity induced positive ion vacancies 2−99213
KCl:Sr^{2+}(Ba^{2+}), positron annihilation study 2−67145
Li, Fermi surface parameters, Fourier transform of positron annihilation curves 2−98524
Li, momentum depend. positron annihilation rate 2−99214
LiH, proton bombard., positron annihilation study 2−62012
Mg, Fermi surface parameters, Fourier transform of positron annihilation curves 2−98524
Mg, vacancy props., positron annihilation, thermal expansion studies 2−103753
$Mg_{70}Zn_{30}$, amorphous, crystn., positron annihilation, X-ray diffr. and elec. resist. study 2−103635
Mo, surface damage from diamond-saw emitting, positron lifetime study 2−61266
Mo, thin film, on GaAs substrate, positron-annihilation study 2−82952
Mo:N,H, defect-gas impurity interactions, positron annhilation study 2−67142
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Ni, electrodeposited, cryst. struct., positron annihilation, Mossbauer and X-ray study 2−104178
Ni-B alloy glasses, positron annihilation, comparison with Compton scatt. 2−104991
$Ni_xFe_{80-x}B_{20}$ amorphous, electron momentum distrib., positron annihilation 2−103626
$Ni_{1-x}P_x$ amorphous, struct. inhomogeneities, processing effects, NMR, DTA and positron annihilation study 2−104993
Pb-Sn alloys, effect of precipitation on positron annihilation 2−67144
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
Si, energy struct. changes after As ion bombard. 2−92057
Si, positron interaction, annihilation photon angular correlation spectra 2−77617
Si, positron mass absorpt. coeff. *(Russian)* 2−57208
Si wafer, microscopic defects, positron annihilation study 2−82951
TaS_2 (1T), CDW phase transform., positron annihilation Doppler broadening study 2−99215
ThO_2 powders, positron lifetime meas., particle size and positronium diffusion const. meas. 2−62010
Ti-Al, positron annihilation meas. near polymorphic transition *(Russian)* 2−99211
Ti-Al-Mo, IMI 550 fatigue testing by positron annihilation 2−62339
Ti-Al(Sn) alloys, struct. transition due to deform., positron annihilation parameters *(Russian)* 2−62013
Ti-Sn, positron annihilation meas. near polymorphic transition *(Russian)* 2−99211
γ-U, chem. diffusion of Ta in samples fabricated for positron studies 2−110052
U, positron annihilation photons Doppler broadening 2−67141
UO_2 powders, positron lifetime spectra 2−80062
V, positron annihilation radiation, two-dimensional correlation, rel. to Fermi surface topology 2−66423
W, thin film, on GaAs substrate, positron-annihilation study 2−82952
Zn, positron annihilation Doppler broadening profile anisotropy 2−72576
Zn+Se(S), mechanochem. reaction, positron annihilation study 2−105446
positron scattering *see electron impact*
positron states
electron Fermi sea, positron self-energy, RPA calc. 2−92488
metal surface positron binding calcs. 2−98707
self-trapped states of positrons and positronium in dense gases in liquids, review 2−98595
thermalised positron soliton model 2−61415
Ag ultrafine particles, positron annihilation 2−93319
Al, neutron irrad., shallow positron traps 2−82295
Cu ultrafine particles, positron annihilation 2−93319
GaAs, impurity atoms and positron states, positron annihilation study 2−104996
GaP, impurity atoms and positron states, positron annihilation study 2−104996
LiH, proton bombard., positron annihilation study 2−62012
positronium
see also electron pairs
atom-positron system, energy spectrum investigated within Bohr's atomic model 2−59975
Balmer-energy difference corrections 2−114137
diffusion in crystals, temp. depend. 2−76752
electric-field−enhanced positronium formation in condensed matter 2−70451
ethane and ethane-Ne mixtures, positronium form. 2−75475
excitation of 1^2S_1 to 2^3S_1 two-photon transition 2−70453
experimental tests of QED 2−75473
formation, in hydrocarbon-solute mixtures, inhibition, antiinhibition and enhancement 2−67759
negative positronium ion, possible effects on 0.511 MeV γ-ray line in astrophysical sources 2−106500
orthopositronium decay rate, QED calc., electron self-energy contrib. 2−54991
positron lifetime spectra, positronium form. 2−75422
QED, review 2−69401
QED experiments test, review 2−69403
singlet and triplet decay rates meas. 2−101635
small atoms, positron and positronium interactions 2−75421
sodium acetate methanol soln., positronium form., temp. effects 2−102671
surface bound portions, theory of desorption 2−87195
Fe complexes, high spin-low spin Fe(II) solns., positron annihilation study 2−93321
Ge, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
H, positron scatt., s-wave, positronium form. 2−75441

positronium continued
H, positron scattering, field theory, in Fock-Tani representation 2−85808
LiH, proton bombard., positron annihilation study 2−62012
O-Ps annihilation rates in ethane gas, density fluctuations effects 2−54992
Si, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
ThO_2 powders, positron lifetime meas., particle size and positronium diffusion const. meas. 2−62010

positrons
see also electron pairs; electrons
atom, positron impact ionisation, threshold law 2−80816
geonium electron and positron spectra, invariant freq. ratios 2−70448
NDT by positron meas. *(Japanese)* 2−57571
scattering and annihilation in gases 2−76059
slow beam production, efficiency meas. 2−74569
slow positrons production, with 100-MeV electron linac 2−64723
supercritical atoms, resonance in positron continuum 2−96726
surface bound, theory of desorption 2−87195
Kr, positron diffusion, elastic cross sections 2−76057
U+U, positron spectra calcs. 2−96690
Xe, positron diffusion, elastic cross sections 2−76057

potassium
see also nuclei with .....
adsorbed layers on Ge (111) surface, EELS obs. 2−72585
adsorption on Ag (111), ellipsometry, LEED, and EELS study 2−61295
adsorption on Ir covered by graphite monolayer 2−115569
atom, 4s electron momentum distrib., electron coincidence spectroscopy 2−102641
atom, electron impact excitation of lowest autoionising states 2−80820
atom, laser excited, collisional processes 2−59914
atom, polarisation phenomena during three-photon ionisation 2−113950
atom, radiative lifetimes, Coulomb approx. 2−113936
atom, specific mass shift, many-body perturbation theory 2−96642
atomic beam interaction with Si(111) and (100), surface ionization and desorpt. kinetics 2−115566
atomic clusters, pseudopot. CI calcs. 2−59984
atoms, efficiency of isotopically selective laser excitation 2−70438
atoms, g factor correction calc. 2−85565
CDW state and residual resist. anisotropy 2−82316
concentration in coal, gamma-ray spectra meas. 2−67781
determination in waste water by radionuclide X-ray fluoresc. anal. 2−78164
electrical resist. anomaly below 0.35K 2−61441
electrical resist. below 1K, high precision meas. 2−87220
electron-electron scatt. resist., sample depend. 2−82337
electron-phonon interaction, microcontact function calc., pseudopot. method *(Russian)* 2−98229
galvanomagnetic and thermomagnetic props. 2−87226
induced torque temp. depend. 2−110617
ion scatt. from Cu surface, ion fractions 2−77690
liquid, internal energy and entropy, Gibbs-Bogolyubov variational technique 2−56221
magnetoresistance, open-orbit spectra, effective medium theory 2−77023
molecule, $B^1\Pi_u$ state excitation, laser induced fluoresc. 2−108416
molten, dil. solns. of K halides, struct. and elec. resist. 2−56233
monolayer on Pt(111) and stepped (755) surfaces, LEED, AES and TDS studies 2−56365
non-simple metal behaviour, elec. resist., temp. depend. 2−87219
open orbits, rel. to high-field magnetoresistance 2−87227
phason anomaly rel. to heat capacity data 2−76698
phason evidence from sp. ht. data 2−76699
phonon dispersion relations model calcs. 2−66145
plasmon energies, long wavelength, nearly-free-electron pseudopotential calc. 2−98510
point contact spectra, pseudopot. calc. 2−76626
pseudopotential elastic const. calcs. *(Chinese)* 2−109880
seawater chemical composition (U, K, Rb, Cs) alteration due to hydrothermal circulation 2−68386
solid, spin density, analytic tetrahedron method 2−87123
submonolayer adsorbed on W, field emission flicker noise, cross-correlation coeff. 2−99306
targets prep. from KI by vacuum evaporation 2−108177
three-photon resonance ionisation *(Chinese)* 2−90488
vacancies and self-interstitials 2−103749
vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
vapour, resonantly laser excited, energy pooling collisions and plasma production obs. 2−75214
work function by Thomas-Fermi-Dirac method 2−82429
As_2Se_3:K, chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
Cu (100):K, surfaces, metastable de-excitation spectra 2−82197
CuCl laser, K addition effect on operating charcts. 2−108862
Fe surfaces, (111) and (100), K promoted, N_2(N) adsorpt. meas. 2−56357
Hg-K pumping lamps, expt. study *(Chinese)* 2−91014
K I, non-LTE level populations in solar spectrum *(Russian)* 2−79065
K III, electron impact ionisation cross sections 2−80826
K III electron impact excitation from ground state 2−80824
K^+ channel cond. in bilayer lipid membranes induced by proteins of bovine heart mitochondria 2−99923
K^+ conductance in compressed water at 25°C 2−81998
^{40}K, energy levels, isotope shifts, two-photon spectra 2−54824
K:H, lattice relax. and crystallographic distortion around impurity 2−103914
K-Cs mixtures, blue asymmetry of K reson. lines by Cs atoms 2−75207
K-KCl solution, ionic struct. study 2−103589
K-Na melt, partial enthalpy of form. and heats of mixing 2−73005
K-Rb pumping lamps, expt. study *(Chinese)* 2−91014
K+Ar, 4 p-ns and 4 p-nd lines, collisional broadening and shift 2−59897
$K+H^+$, single electron capture, attenuation cross sections meas. 2−114077
K+He(Ne), electronic and nuclear spin relax., hyperfine interaction 2−96688
K+He(Ne)(Ar)(Kr)(Xe), 4p $^2P_{3/2}$-7s $^2S_{1/2}$ transition, effect of collisions 2−59732
K+He(Ne)(Kr), excited states, transition cross sections, fluoresc. obs. 2−75408
K+Hg, rainbow scatt. at thermal energies 2−80778

potassium continued
$K+Na_2$, effective cross sections of excitation transfer 2−54925
K+Ne(Kr)(Xe), Π interaction, pot. param. 2−108677
K+Rb laser induced collisional energy transfer obs., K fluoresc. meas. 2−90656
K^++Ar(Kr)(Xe), interaction pot. determ. 2−102567
K^++CsCl, differential cross sections for ion-dipole scatt., intermol. pot. calc. 2−70381
K*+K high Rydberg state, collision effects 2−59904
$^{43,44}K$, ground state HFS, atomic beam mag. reson. coupled with laser pumping 2−54790
K(4P)+Ar, differential scatt., $^2\Sigma$ potentials, line profile meas. 2−96672
K(5P)+Ar, differential scatt., $^2\Sigma$ potentials, line profile meas. 2−96672
Ni (100):K surfaces, metastable de-excitation spectra 2−82197
Se:K, amorphous, elec. cond. and EPR studies, dopant effects 2−77083
$SrCl_2$:K, photochemically coloured, thermally stimulated depolarisation currents meas. *(Russian)* 2−116112
ZrP_2O_7:K^+, solid electrolyte, ionic cond. meas. 2−92256

potassium alloys
Cs-K solid solns., elastic-stiffness constants under pressure 2−98182
$Cs_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
K-Cs, liquid, thermodynamic calcs. 2−98308
K-Sb, elec. and mag. props., transition to semicond. charcts. 2−92709
KCs, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
KRb, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
$K_xRb_{1-x}Au$, indirect small gap semiconductor, electronic props. 2−92473
K_2Sn_3, semiconductor, electrophys. props. 2−110346
Na-K, liquid, concentration fluctuations 2−97907
Na-K, liquid, thermodynamic calcs. 2−98308
Na-K, ordering and segregation, density of states, electronic theory 2−76888
Na-K liq. alloys, statistical thermodynamics 2−86540
Na-K liquid alloys with atomic size mismatch, conc. fluctuation 2−81965
NaK, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
Rb-K solid solns., elastic-stiffness constants under pressure 2−98182
$Rb_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101

potassium compounds
see also potassium alloys; Rochelle salt
coatings for increasing chem. resist. of KD_2PO_4 cryst. optical components 2−55301
crystals, grinding, damaged layer study 2−97245
feldspar track detectors, low energy ion implantation, chem. reactivity 2−70089
feldspars, non-centrosymm., SHG test 2−115192
halides, dil. solns. in molten K, struct. and elec. resist. 2−56233
hydrogen maleate:Cu^{2+}, EPR and optical absorpt. spectra, spin Hamiltonian parameters 2−98948
intercalation compound with graphite, phonon branches, neutron spectra study 2−76618
intercalation compounds with graphite, σ-electron energy bands, secondary electron spectroscopy study 2−93337
$K_2Cr_2O_7$, growth morphology, by solvent evaporation method 2−91835
KCNS, λ-type order-disorder phase transition, Raman study 2−103984
KDP crystals, selective etching 2−98098
KI:Sn^{2+}, polarised luminesc., nature of Sn^{2+}-cation vacancy complex 2−57159
KNO_3-$NaNO_3$ matter mixture, thermal cond. meas. 2−115474
$KTa_{1-x}Nb_xO_3$, induced ferroelec. phase transition mech., thermal cond. meas. 2−56274
piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
potassium thiocyanato complexes, ESCA investigation, binding energies 2−83434
pyrophosphates, crystalline and glassy, IR spectrum 2−72486
Rochelle salt, piezoelec. lines 2−99053
zeolite, VSZ-4 crystals, hydrothermal growth and characteris. 2−99311
zeolites, quantum chemical study of physico-chemical props. 2−65917
(Ag, Tl, K)NO_3-H_2O electrolyte solns., water activities, vapour press. meas. 2−105498
AgI-KI, eutectic mixture, impurity behaviour during crystn. refining 2−111064
β-Al_2O_3-K_2O, superionic conducting membrane, prod. by ion exchange 2−76733
B_2O_3-K_2O-Tl_2O (14, 1 mol.%) glass, Tl^+ centre interaction with laser radiation *(Russian)* 2−105009
$C_{24}K$, graphite intercalation cpd., mass-and charge-density modulation, X-ray diffr. study 2−81951
C_8K, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
C_8K, graphite intercalation cpd., vibr. density of states 2−81909
C_8K intercalated cpd., Madelung energy studies 2−86616
C_8K, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
C_xK (x=8,24), stage and CESR line breadth, temp. depend. 2−87595
$C_8KD_{2/3}$, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
$C_8KD_{2/3}$, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
$C_8KD_{2/3}$, intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
$C_8KH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
$C_8KH_{2/3}$, cryst. dynamics and binding, inelastic neutron scatt. obs. 2−109736
$C_8KH_{2/3}$, intercalation cpd., struct., dynamics, neutron diffr. obs. 2−109763
$C_8KH_{2/3}$ intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
C_4KHg, intercalate, superconductivity study 2−82512
C_6KHg, intercalate, superconductivity study 2−82512
CKl-NaCl thermoluminesc., narrow glow peak obs. 2−104974
$Ca(NO_3)_2$-KNO_3 glasses, low temp. thermal props. rel. to glass transition temp., water doping effect 2−56271
$Ca(NO_3)_2$-KNO_3 glasses, sp. ht. and glass transition temp. charges upon doping 2−81979
$2CaO.K_2O.xFe_2O_3.(5-x)P_2O_5$ glass, elec. cond., temp. depend. anomaly 2−56580
$Cd_2KCl_7.4H_2O$, cryst. struct., X-ray diffr. study, least squares refinement *(French)* 2−81740

potassium compounds continued
$CdK_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$Cs_{2-x}K_{1+x}BiCl_6$ solid soln., phase transitions and cryst. struct. 2−81948
$CuO-B_2O_3K_2O$ glass, ^{11}B NMR and mag. susceptibility 2−104587
$GeO_2-ZnO-K_2O$ glass cladding for 940 cm^{-1} CO_2 laser transmitting hollow-core fibre waveguide 2−102946
(K, Bi^{3+}, Bi^{5+}) pyrochlore, thermally induced cation migration, structural study 2−66285
$(K,Na)_{2-x}(H_2O)_x.[UO_2SiO_4].H_2O$, boltwoodite, cryst. struct., symm. twinning 2−86653
K salts, molten, ^{39}K NMR obs. 2−77397
K-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
K-KCl solution, ionic struct. study 2−103589
K-TiS_2 ambient temp. cell using organic electrolyte 2−62468
KAg_4I_5, ice-nucleating behaviour 2−86829
$K_3Ag_4Se_3$, prep. and cryst. struct. 2−65959
KAl_2Br_7, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
$K_2Al_2(SO_4)_4$, crystal growth kinetics from soln., metastable zone width 2−91837
$KAl(SO_4)_2.12H_2O:Cr^{3+}$, SO_4^{2-} dynamics, ESR at high press. 2−77363
$K_2Al_2(SO_4)_4.24H_2O$, batch precipitation by mixing component aq. solns. 2−116351
$KAl(SO_4)_2.12H_2O$, nonuniform soln. growth 2−77722
$KB_5O_8.4H_2O$, single ultrashort pulse duration meas. by second harmonic method 2−55267
$KB_5O_8.4H_2O$, UV tunable picosecond pulse generation down to 197 nm 2−86047
$K_2Ba(NO_2)_4$, ferroelastic phase transition, US study 2−66194
$K_2Ba_7Si_{16}O_{40}$, cryst. struct., X-ray diffr. study 2−103695
$(K_{0.90}Ba_{0.35})(Ti, Fe, Mg)_8O_{16}$, cryst. struct., symm. and cation displacements 2−65928
$(K_{1.2}Ba_{0.4})(Ti_{6.7}Mg_{0.2}Fe_{1.1})O_{16}$, structural refinement 2−55922
$KBi(CrO_4)(Cr_2O_7).H_2O$, cryst. struct. determ. *(French)* 2−91883
KBr, ab initio interaction polarisability and pair pot. 2−75179
KBr, aqueous soln., enthalpy of dilution 2−105497
KBr, carrier drag by photons 2−104432
KBr, crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
KBr, F-centers, relaxed excited state, spin-lattice relax., luminescence study 2−87572
KBr, intensity depend. absorpt. at 10.6 μm, laser damage process 2−60193
KBr, intrinsic luminescence under H^+ and He^+ ion bombardments 2−67123
KBr, microcrystalline powder, colouration, isothermal decay, temp. effects meas. 2−98083
KBr, Mossbauer isomer shift of $^{40}K^+$ 2−56993
KBr, optical losses in middle IR band, influence of microinclusions 2−87800
KBr, photoplastic effects and their temp. depend. 2−71544
KBr, piezoreflectivity studies on refl. structs. near 8.6 eV 2−82822
KBr, planar channeled positron radiation characts. 2−81852
KBr, polycryst., shocked, temp. meas. by time-resolved IR radiometry 2−69227
KBr, Raman scatt. induced by V-centres 2−67037
KBr, thermal breakdown, ionic cond., optical microscopy study of breakdown channels 2−82017
KBr:Ag, ligand relax., isotropic superhyperfine const. anal. 2−109816
KBr:Eu, with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KBr:In, photoconductivity, thermoluminescence and TSC 2−82404
KBr:In^+, band luminescence, two-photon spectroscopy 2−110939
KBr:In(Tl), pressure induced absorpt. spectra changes 2−93235
KBr:NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
KBr:Na, fluorescence restoration from lowest singlet state in self-trapped exciton 2−67100
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KBr:OH^-, diffusion of H 2−61206
KBr:Sn^{2+}, colour centres, optical absorpt. line shapes, calc. 2−67089
KBr:Sn^{2+}, cryst., absorpt. spectrum, annealing effects 2−87821
KBr:Sn^{2+}, emission spectra 2−87845
KBr:Sn^{2+} cryst., mag. circular dichroism 2−93163
KBr:Sr, dielec. relax., impurity-conc. effects 2−104811
KBr:Sr (Pb), mech. strengthening and impurity precip. 2−88093
KBr:Tl, activator electroluminesc., recomb. and intracentre processes, strong electric field effect 2−72557
KBr:Tl, visible emission intensity study 2−87846
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KBr:Tl^+-type phosphors, quadratic Jahn-Teller effect in line shapes of A-emission and A-absorpt. bands 2−87825
KBr_xCl_{1-x}, cryst. solid soln., Bragg neutron diffr. studies 2−97864
KBr(I), cation size effect on ionic thermocurrents 2−72405
KBr(I), UV two-photon absorpt. 2−104908
$(KBr)_{0.5}(KCN)_{0.5}$, permittivity, glass transition 2−72402
$(KBr)_{1-x}(KCN)_x$, dielec. props. 2−77442
$(KBr)_{1-x}(KCN)_x$, orientational freezing freq. depend. 2−71382
KBr; F centre pairs, exchange effects in ODESR 2−56981
KC_{12n} intercalation cpd., Raman scatt. studies of folded shearing phonons 2−57088
KC_{24}, stage two intercalation compound, in-plane charge distribution, XPS study 2−62046
KC_8, intercalation compound., cryst. and band struct., Fermi surface, de Haas-van Alphen effect 2−82227
KC_8, stage one intercalation compound, in-plane charge distribution, XPS study 2−62046
KC_x (x=4,5,8), intercalation compound, Shubnikov-de Haas oscill. freqs., expt. meas. methods 2−82210
KCN, ab initio vibr.-rot. spectrum calcs. 2−90535
KCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
KCN, vibr.-rot. spectrum, ab initio pot. energy surface calcs. 2−80572
$KCN_xBr_{1-x}(Cl_{1-x})$, acoustic soft modes, US vel. meas. 2−81926
KCNO, electric gun induced reactions, EPR study 2−116697
KCN_xX_{1-x} mixed crysts., (X= Cl, Br, I), Brillouin scatt. and rot.-translational coupling 2−110876
K_2CO_3, aqueous, activity and osmotic coeffs. 2−93807
$K_2CO_{1-x}Fe_xF_4$, magnons, Raman study 2−104596
$K_2Ca(CO_3)_2$, synthetic fairchildite, struct., X-ray study 2−60961
potassium compounds continued
$KCaR(PO_4)_2$, R=rare earth, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
$K_2Cd(CN)_4$, high press. phase transitions, Raman study 2−76650
K_4CdCl_6 crystal, vibr. spectra, factor group anal. 2−99107
$KCdF_3$, cryst. struct. study 2−98016
$KCdF_3$:Gd, EPR of Gd^{3+} centres 2−110635
$K_2Cd_2(SO_4)_3$, elastic and piezoelec. props. 2−66993
KCl (001), 001 LEED beam intensity, temp. depend. hysteresis 2−103567
KCl (001), Ar ion irrad., defect instability, LEED study 2−82110
KCl, aqs. solution, evaporation from capillaries, corona discharge field effect 2−114626
KCl, aqueous soln., enthalpy of dilution 2−105497
KCl, b1⇄b2 dynamic transition, stress gauge meas. 2−66129
KCl Brewster angle window, aberration correction in converging light 2−102915
KCl, CN^- radical formation by ion implantation 2−76470
KCl, carrier drag by photons 2−104432
KCl, cryst., electron injection, role of space charge on F centre focus 2−65991
KCl cryst., optical breakdown at localised states 2−82809
KCl crystal, energy parameters for F_A(II) centres and F_A(II) like defects, radiative transitions 2−93257
KCl crystals, γ irrad. influence on absorpt. coeff. at CO_2 laser radiation wavelength 2−87828
KCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
KCl, crystals, surface polarisation by blocked point defects, TSC study 2−110750
KCl, crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
KCl, depolarisation of positive muons, effect of F'-centres 2−93095
KCl direct-gap crystals, three-photon absorpt. 2−97079
KCl, EM emission stimulated by acoustic wave 2−116301
KCl, edge dislocation movement by large elec. fields 2−98105
KCl, electron stimulated desorption of excited alkali atoms 2−87026
KCl, electron struct and X-ray absorption spectra, APW calc. 2−56441
KCl, electron struct. and X-ray absorpt. spectra, core hole effect in cluster approx. 2−98536
KCl, electron-induced sputtering 2−99236
KCl, F and U centers, excitons, local correl. effects 2−87153
KCl, F centre pairs, exchange effects in ODESR 2−56981
KCl, F-centre excitation, reson. Raman scatt. study 2−116232
KCl, γ-ray diffr. by thermal diffuse scatt., Mossbauer study 2−61796
KCl, γ-ray irrad., impurity-vacancy dipoles, ionic cond. study 2−109790
KCl, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
KCl, intensity depend. absorpt. at 10.6 μm, laser damage process 2−60193
KCl, Kryopoulos grown crystals, cryst. shape 2−65908
KCl, large gas filled pore migration due to temp. gradient 2−56265
KCl, laser damage, microdefect characts. determ. from statistical relations 2−70601
KCl laser window material, stress-induced birefr. and thermal lensing expts. 2−61870
KCl, microcrystalline powder, colouration, isothermal decay, temp. effects meas. 2−98083
KCl, Mossbauer isomer shift of $^{40}K^+$ 2−56993
KCl, optic phonons, ab initio calc. 2−66147
KCl, optical losses in middle IR band, influence of microinclusions 2−87800
KCl, photoplastic effects and their temp. depend. 2−71544
KCl, piezoluminescence study 2−87870
KCl, planar channeled positron radiation characts. 2−81852
KCl, press. effect on dislocation mobility 2−60986
KCl, press. induced polymorphic transition, hysteresis phenomena, theoretical study 2−109973
KCl, prod. and decay of hole centres, pulse radiolysis study 2−71444
KCl, radiation-induced F- and V-centres formation by γ-rays 2−66058
KCl, radiative tunnelling transitions between defects, energies calc. 2−77587
KCl, self-induced optical anisotropy, reorienting F_A(Li)-centres 2−108980
KCl, sequential C^+ and N^+ implantation, CN^- radical formation, ionolum. study 2−81802
KCl single cryst., dielec. const. 2−99021
KCl single cryst. containing Al_2O_3 sphere, crowdion mass transfer mechanism in localized stress relaxation *(Russian)* 2−66121
KCl, small pore migration due to temp. gradient 2−56266
KCl, surface, laser irrad., emission of EM radiation (flashes) study 2−66048
KCl, surface phonon dispersion rel. meas. using He atomic beam 2−66143
KCl surfaces, adsorbed pyridine, desorpt., IR laser stimulated 2−76807
KCl, synthetic single cryst., thermal gradient migration of brine inclusions 2−56264
KCl, thermal breakdown, ionic cond., optical microscopy study of breakdown channels 2−82017
KCl $Tl^0(1)$ colour centre laser, mode locking by synchronous pumping using gain medium with microsec. decay times 2−108889
KCl with adsorbed pyridene, gas-surface interactions, IR laser stimulated 2−87037
KCl, X-ray irrad. dielectric props. study 2−66973
KCl:Ag(Cu), ligand relax., isotropic superhyperfine const. anal. 2−109816
KCl:$BaTiO_3$ composite crysts. dielect. props. under DC biasing fields 2−104790
KCl:$Br^-(Sr^{2+})(Ba^{2+})$, X-ray irrad., H_D ntype defects, ESR study 2−110641
KCl:Ca, dielec. relax., impurity-conc. effects 2−104811
KCl:Ca(Sr)(Eu), with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KCl:CrO_4^{2-}, Ca^{2+}, X-irrad., EPR and thermoluminesc. glow curves 2−56919
KCl:Cu, Schottky defects, energy of form., ion mobility and cond. study 2−71441
KCl:Eu, F-centre colouring 2−109791
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831
KCl:Eu^{2+}, impurity-vacancy complexes, conversion under γ-irrad. and F-band bleaching, ESR study 2−76499
KCl:Eu^{2+}, X-irrad., luminesc. and cond. props., elec. field effects *(French)* 2−116262

potassium compounds continued
KCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
KCl:$Ga^0(In^0)$, hyperfine consts., relativistic many body calc. 2−104327
KCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
KCl:In(Sn)(Eu), photoconductivity, thermoluminescence and TSC 2−82404
KCl:KBr mixed crystals, positron annihilation studies 2−87895
KCl:KCN irrad. single cryst., EPR study 2−77375
KCl:Li, IR absorpt., lattice dynamics 2−104884
KCl:Li, $Li(F2^+)_A$ centre lasing action 2−85980
KCl:Mn^{2+}, positron annihilation, impurity induced positive ion vacancies 2−99213
KCl:NH_4^+, localised modes, Green's function technique 2−56136
KCl:NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
KCl:Na, fluorescence restoration from lowest singlet state in self-trapped exciton 2−67100
KCl:O_2^-, superradiance and high-gain mirrorless laser activity 2−87820
KCl:OH^-, diffusion of H 2−61206
KCl:OH^-, elec. dipoles, mol. field distrib. function calc. 2−93132
KCl:$OH^-(Na^+)$, heat capacity, 5 to 40K, effect of impurities 2−98301
KCl:Pb, mech. strengthening and impurity precip. 2−88093
KCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
KCl:Pb, radiation kinetics during intense excitation in A absorpt. band 2−110932
KCl:Pb^{2+}, (100) and (111) face crystal growth rates, Pb^{2+} effects *(Russian)* 2−65897
KCl:Pb^{2+}, EPR study 2−56930
KCl:Pb^{2+} excited in A absorpt. band, time resolved spectra 2−104921
KCl:$Pb^{2+}(Cu^+)$, Kerr const. dispersion 2−72453
KCl:$PbCl_2$, X-ray irrad. V_F centres, optical production, thermoluminescence, ESR and light absorption study 2−57194
KCl:Rb, pulsed CO_2 laser damage threshold meas. 2−60140
KCl:$Ru(I)(CN)_5^{4-}$, EPR superhyperfine interactions 2−104699
KCl:SO_3^{2-}, cryst., SO_4^{2-} conc. and separation factors, spectrophotometric meas. 2−57132
KCl:$SnCl_2$, thermoluminescence on γ-irrad. 2−61992
KCl:Sr_i interstitial centres and thermoluminescence 2−72565
KCl:Sr^{2+} solid solns., solvus, impurity precipitation, density meas., thermodynamic anal. 2−92217
KCl:$Sr^{2+}(Ba^{2+})$, positron annihilation study 2−67145
KCl:Tl, visible emission intensity study 2−87846
KCl:Ti(Br)(I)(Cs)(Na)(Ag), dielec., sp. ht. and thermal cond. 2−86960
KCl-KBr mixed cryst., colour centres, Mollwo-Ivey relationship 2−61933
KCl-Li, F_A(II) centre relaxed excited state, second order perturbation theory 2−76974
KCl-NaCl two-phase mixed cryst., etching obs. of impurity ion defects 2−55988
KCl+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
KCl(Br,I) cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
$KCl_{0.5}Br_{0.5}$, phonon dispersion, inelastic neutron scatt. study 2−115372
$KCl_{1-x}Br_x$ crystals, lattice parameter and F-band position 2−98037
KCl_xBr_{1-x} crystals, Compton profile anal. 2−86730
KCl(I)(Br), F-coloured, light induced refractive index change 2−72441
$^{41}KCl(^{39}KCl)$, F-centres, relaxed excited states, ODMR study 2−61790
$KClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
$KClO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
$KClO_4$, cryst. struct., deform. density in complex anions, neutron diffr. study 2−103698
$KClO_4$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
$KClO_4:MnO_4^-$, reson. Raman profile line shapes from optical absorpt. data 2−93233
$K_3Co(CN)_6$, struct. phase transition, Raman study 2−99116
$KCr_{1-x}Al_x(SO_4)_2.12H_2O$, nonlinear adiabatic effects in parallel static and harmonic mag. fields 2−104574
$K_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$K_2Cr_2O_7$ and K_2CrO_4, L_3MM Auger transitions under ion bombard. 2−105028
$K_2Cr_2O_7$, bleaching action in cinefilm processing *(Russian)* 2−64151
$K_2Cr_2O_7$ crystals grown from aqueous soln., growth hillocks obs. 2−97962
$K_2Cr_2O_7$, etching, revelation of dislocations, rel. to cryst. growth 2−91969
$KCr(SO_4)_2.12H_2O:Cr^{3+}$, SO_4^{2-} dynamics, ESR at high press. 2−77363
$KCr(SO_4)_2.12H_2O$, behaviour in high vac. of XPS spectrometer 2−99739
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
$K_3Cu(CN)_4$, high press. phase transitions, Raman study 2−76650
$KCuF_3$, Jahn Teller distorted, anharmonic vibr. and electron density distrib. 2−81920
K_2CuF_4, ferromag. stripe domain struct., diffraction efficiency, perturbation theory calc. 2−116029
K_2CuF_4 ferromagnetic stripe domains, mag. phase grating multiwave diffr. theory 2−57064
K_2CuF_4, low dimensional mag. system, EPR *(Japanese)* 2−82711
K_2CuF_4, optically active phonons, interionic pot. calc. and vibr. spectra 2−66148
K_2CuF_4, spin wave instability, subthreshold parallel pumping 2−110574
K_2CuF_4, two-dimens. ferromag., mag. susceptibility, X-Y anisotropy in Heisenberg system 2−116011
K_2CuF_4, two-dimens. planar ferromag., phase transitions, neutron scatt. study 2−98877
K_2CuF_4, two-dimensional planar ferromag. Kosterlitz-Thouless transition 2−66826
$KCu_3M_7O_{21}$ (M=Nb, Ta), intergrowth of hexagonal and perovskite-like structs. 2−65962
KC_x(x=8, 24) intercalation compounds valence and core-electronic excitations, EELS study 2−87167
$KD_{2x}H_{2(1-x)}PO_4$ crystal half-wave voltage determ. nomogram 2−57062
$K(D_xH_{1-x})_2PO_4$ CC crystals, solution growth, for electrooptic devices 2−111041
KD_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
KD_2PO_4, domain structure study using neutron time-of-flight diffractometer 2−65808
KD_2PO_4 electrooptic deflectors for laser pulse time parameter control in 10^{-11}-10^{-8} sec. range 2−97164
KD_2PO_4, ferroelec., dynamics of proton sublattice, Raman scatt. study 2−86814
KD_2PO_4, ferroelec. and paraelec. phase transition study by SeO_4^{3-} ESR 2−116126
KD_2PO_4, ferroelectric fluctuation, diffuse X-ray and neutron scatt. anal. 2−61837
KD_2PO_4, for nonlinear devices, temp. dispersion data 2−60148
KD_2PO_4, light scatt. study of acoustic phonon damping 2−86804
KD_2PO_4, opticoacoustic method of small absorpt. coeffs. meas. 2−87725
KD_2PO_4, SHG expts. using double pulse Q-switched TEM_{00} ruby laser 2−114337
KD_2PO_4-type ferroelectrics, cluster approx. for q-depend. correls. 2−82800
$KEr(MeO_4)_2$, (Me=W,Mo), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$K_3Eu(NH_2)_6$, $K_3Y(NH_2)_6$ and $K_3Yb(NH_2)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2−98022
KF, crystals and aq. solns., optical dispersion and molar refractivities 2−110795
KF crystals and aqueous solns., four-wave mixing 2−102865
KF, Mossbauer isomer shift of $^{40}K^+$ 2−56993
KF-PrF_3 system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
KF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
$K_3Fe(CN)_6$, bleaching action in cinefilm processing *(Russian)* 2−64151
$K_3Fe(CN)_6$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
$K_3Fe(CN)_6$-$K_4Fe(CN)_6$, rehydration, IR and derivatography studies 2−110833
$K_4Fe(CN)_6.3H_2O$, vibrational spectrum and water of crystn. sublattice struct. in ferroelec. phase 2−72506
$KFeF_4$, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
K_2FeF_4, NMR study of susceptibility 2−82575
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
K_2FeF_5, field depend. magnetisation curves, Mossbauer study 2−77435
K_2FeF_5, Neel temp. variation, Mossbauer study 2−92905
K_3FeF_4, two-magnon Raman scatt., spin wave anal. 2−82865
K_2FeO_4, cryst. struct. study 2−103701
$KFeS_2$, effect of amorphisation in mag. props. 2−82659
$KFe_4[PO_4]_3$, crystl. struct., X-ray diffr. study 2−65971
$K_x(Ga_xGe_{1-x})O_2$, ionic cond. and cryst. chem. *(French)* 2−92269
$K_7GaPbW_{11}O_{39}.16H_2O$, cryst. struct. X-ray diffr. and Fourier synthesis study *(French)* 2−81722
$KGd(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KGd(WO_4)_2:Ho^{3+}$, 2-μm stimulated emission 2−104915
KH_2AsO_4, spin-spin relax. study 2−77407
$KH_{2x}D_{2(1-x)}PO_4$, X-ray and gamma irrad., domain struct. freezing 2−82802
KH_2PO_4, bulk laser damage obs. by photographic technique 2−60141
KH_2PO_4 crystal, forced resonance acoustic vibrs. *(Russian)* 2−103909
KH_2PO_4 crystal, parametric amplification and oscill., freq. depend. in picosecond pulse regime 2−55268
KH_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
KH_2PO_4 crystals, SHG conversion efficiency, optical quality influence 2−55269
KH_2PO_4, doped, non-ohmic behaviour 2−104386
KH_2PO_4, ferroelec., dynamics of proton sublattice, Raman scatt. study 2−86814
KH_2PO_4, ferroelec., nonlinear electromechanical parameters, second harmonic generation 2−104814
KH_2PO_4, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
KH_2PO_4, for nonlinear devices, temp. dispersion data 2−60148
KH_2PO_4 isomorphs, refr. index var. with temp. and timing rate for SHG 2−90979
KH_2PO_4, KD_2PO_4, growth features of prismatic faces, refl. microscopy obs. 2−115160
KH_2PO_4, KD_2PO_4, large single crystal growth from soln. for laser technology 2−116354
KH_2PO_4, laser damage threshold, baking and pulsed laser irrad. effects 2−91007
KH_2PO_4 longitudinal electrooptic modulation, intensity spectrum of modulated light 2−86092
KH_2PO_4 lossy crysts., dielec. and ferroelec. props. 2−82776
KH_2PO_4, opticoacoustic method of small absorpt. coeffs. meas. 2−87725
KH_2PO_4, paraelectric, very low freq. Raman spectra near ferroelec. phase transition 2−67059
KH_2PO_4, protonic transference number, EMF meas. 2−92264
KH_2PO_4, second and third harmonic generation from multistage Nd laser 2−114360
KH_2PO_4, single ultrashort pulse duration meas. by second harmonic method 2−55267
KH_2PO_4 small crysts., sp. ht., 1.7 to 25K 2−110005
KH_2PO_4, soft mode, proton-lattice interaction 2−98222
KH_2PO_4 type crystals, ferroelectric resonance and nonlinear effect *(Chinese)* 2−61848
KH_2PO_4 type crystals, taper effect rel. to growth soln. bulk supersaturation 2−109713
KH_2PO_4 type ferroelec., instabilities in coupled acoustic and optical modes *(Japanese)* 2−86806
KH_2PO_4 type structure, Monte Carlo simulation of order-disorder transition 2−104818
KH_2PO_4, UV tunable picosecond pulse generation down to 197 nm 2−86047
KH_2PO_4:$NH_4H_2PO_4$, soft mode spectra and ferroelec. phase transition 2−57029
$KH_2PO_4:Tl^+$, dynamical charge compensation, ESR, rel. to ferroelec. transition 2−56929
KH_2PO_4-type cryst., isotopically disordered, central peak, continued-fraction calc. 2−77460
KH_2PO_4-type ferroelec., Curie temp., isotope effect 2−110786
$K_3H_2PO_4$ electrooptic deflectors for laser pulse time parameter control in 10^{-11}-10^{-8} sec. range 2−97164
$K_4H_2(S_2I_2O_{14})$, monoclinic, cryst. struct., X-ray diffr. study *(French)* 2−60948
$KH_3(SeO_3)_2$, ferroelastic phase transition, US study 2−66194
$KH_3(SeO_3)_2$ ferroelastic, internal friction and shear modulus 2−103899

potassium compounds continued
$K_3H(SeO_4)_2$, ferroelastic transition and twin structs., X-ray and optical study 2−86854
KHe, model potential method used to compute ionisation energies and dipole moments 2−59967
K_2HfF_6, phase transitions, TDPAC study 2−92181
$K_2Hg(CN)_4$, high press. phase transitions, Raman study 2−76650
KHo_2F_7, cryst. struct., X-ray diffr. study *(French)* 2−81725
KI, crystals and aq. solns., optical dispersion and molar refractivities 2−110795
KI crystals and aqueous solns., four-wave mixing 2−102865
KI, F centre pairs, exchange effects in ODESR 2−56981
KI, far IR optical consts. determ. by dispersive Fourier transform spectrometry 2−99112
KI, H-centre creation, exciton non-radiative decay *(Russian)* 2−103755
KI, intrinsic luminescence under H^+ and He^+ ion bombardments 2−67123
KI microcrysts., surface electronic transitions and adsorbate charge transfer 2−104453
KI, planar channeled positron radiation characts. 2−81852
KI, recombination luminescence of thermally stable H-centres *(Russian)* 2−104939
KI:In, photoconductivity, thermoluminescence and TSC 2−82404
KI:$In^+(Tl^+)$, photoluminescence, quantum yield, ionisation of In and Tl *(Russian)* 2−104937
KI:In(Tl), pressure induced absorpt. spectra changes 2−93235
KI:Li^+, F and M centres, luminescence and absorption spectra 2−67115
KI:NO_3^-, gap mode, half-width and freq. shift, IR absorpt. study 2−56134
KI:NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
KI:OH^-, electrodichroism and paraelectric alignment 2−104848
KI:Sn^{2+}, cryst. field effects, visible-UV study 2−72523
KI:Sn^{2+}, luminesc. kinetics and radiative decay times 2−67093
KI:Sn^{2+}, spectral line shape, visible-UV study 2−72524
KI:Tl, activator luminescence, complex excitation spectra shape *(Russian)* 2−104936
KI:Tl, decay and polarisation of luminesc. pulses in 336 nm emission band 2−77560
KI:Tl^+, A_X and A_T emissions double struct., photoluminescence study 2−77577
KI:Tl^+ crystal, optical absorption induced by intense laser radiation 2−87829
KI:Tl(In), photoluminescence, exciton-Tl^+ and -In^+ interactions *(Russian)* 2−104938
KI$(F_2^+)_A$ centre laser, continuous timing between 2 and 4 μm 2−90900
KIO_3 cryst., phase transition under press., NQR investig. 2−110694
$KIO_3.2HIO_3$, proton conductivity, permittivity, cryst. struct. 2−86931
$KInF_4$, struct. modifications, IR and Raman investig. 2−87771
K_3InF_6, struct. modifications, IR and Raman investig. 2−87771
$K_3LiNb_5O_{15}$ films for SAW devices 2−82111
$K_3LiNb_6O_{17}$ and $K_3LiTa_6O_{17}$, polycryst., ionic cond. meas. and comparison 2−66283
$K_3Li_2Nb_2O_{15}$ piezoelectric thin films, for SAW appls. 2−97338
$K_3LiNb_6O_{17}(Ta_6O_{17})$, Li ion motion, NMR study 2−66939
$K_{1.8}(Li_{2.45}Sb_{5.55})O_{16}$, hollandite phase, cryst. struct. and ionic cond. meas. *(French)* 2−103717
$K_{1-x}Li_2TaO_3$, ferroelectric, dipole-dipole interactions, EPR line width study *(Russian)* 2−82805
$KLu(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KLu(WO_4)_2:Ho^{3+}$, 2-μm stimulated emission 2−104915
$KM^{II}Cr_2(VO_4)_3$ where M=Cu, Ni, Co or Mg, IR spectra, internal vibrs. 2−99122
KMF_3, M=Mn, Fe, Co, Ni, Cu, multiplet struct. in reflection spectra 2−110980
$K(Mg,Fe)_3AlSi_3O_{10}F_2$, fluorphlogopite, cryst. struct. anal. 2−98041
$KMgF_3$, electronic energy band struct. 2−82225
$KMgF_3:Tm^{2+}$, paramagnetic centres, ENDOR, transferred hyperfine interaction parameters 2−61789
$K_{2x}Mg_6(Si_{4-x}Al_x)_2O_{20}(OH)_4.4H_2O$, water uptake, charge layer depend. 2−86617
$KMnCl_3$, cryst. and mag. struct., paramag.-antiferromag. transition, neutron diffr. study 2−86641
$KMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2−103710
$KMnF_3$, antiferromag., photoluminesc. study *(Russian)* 2−61940
$KMnF_3$, struct. phase transition, precursor effect in lattice const., single-wall pot. model 2−92185
$KMnF_3$, uniaxially stressed, phase diagrams, sp. ht. meas. 2−56177
K_2MnF_4, antiferromag., mag. phase diagram 2−92956
K_2MnF_4, low dimensional mag. system, EPR *(Japanese)* 2−82711
K_2MnF_4, quasi two dimensional Heisenberg antiferromag., mag. phase diagram 2−77300
$KMnO_4$, open thermodynamic system, thermolysis 2−110010
K_2MnO_4, reson. Raman spectra of vibr. 2−85670
$K_{0.33}MoO_3$, optical refl. spectra, optical consts. 2−87814
K_2MoO_4-Pb_2MoO_5, fusibility diagrams 2−111152
$K_6Mo_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
KN_3 EPR meas. of time depend. of colour centres 2−72347
KN_3, UV irrad., satellite EPR resons. of N_4^- 2−104698
KN_3, variable temp. and pressure Raman spectra 2−87782
KND_2, phase transitions, group theory anal. of symmetry reduction 2−81950
KNH_2SO_3, normal coordinate anal. of $NH_2SO_3^-$ using Urey-Bradley force field and laser Raman freq. 2−113993
KNO_3, crystallisation kinetics in solvent 2−103961
$KNO_3:NO_2^-$, absorpt., excitation and luminesc. spectra 2−72544
KNO_3-$Ca(NO_3)_2$ mixture, hypersonic relax., Brillouin scatt. study, transverse mode obs. close to Rayleigh line 2−71591
$K_{0.01}Na_{0.03}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite, channel H_2O and CO_2 orientation and effects 2−91829
$K_2NaSc_{1-x}Cr_xF_6:Cr^{3+}$ tunable IR solid-state laser material, spectroscopic and laser props. 2−108884
$(K_{0.94}Na_{0.25}Sr_{0.13}Ba_{0.10})(Mn,Fe,Al)_8(O,OH)_{16}$, cryst. struct., symm. and cation displacements 2−65928
$K(Nb,Ta)O_3$, ceramic, solid solutions, temp., conc. and freq. depend. of dielectric constant 2−111124
$KNbO_3$, ferroelec. transition role of polar phonons in chemical bond, Fourier spectroscopy 2−57028
$KNbO_3$, high-efficiency high-power parametric oscill. 2−65301
potassium compounds continued
$KNbO_3$, hot pressed ceramics, internal stresses, Curie temp. 2−88017
$KNbO_3$, polycryst., prep. using glass-ceramic methods 2−67279
$KNbO_3$ single cryst., struct. props., growth conditions influence *(Russian)* 2−98034
$KNbO_3$, sintering characts. and dielec. props. 2−105108
$KNbO_3:Fe^{2+}$, vol. phase hologram form., coherent light amplification, optical phase conjugation 2−65311
KNb_3O_8, layered, cryst. struct., X-ray diffr. study *(French)* 2−98006
$K_4Nb_6O_{17}$, layer type ferroelec., rel. to KN_4O_3, chem. and crystallographic props. 2−110779
$KNd(PO_3)_4$, struct., synthesis and optical props. 2−81765
KNe, model potential method used to compute ionisation energies and dipole moments 2−59967
$KNiCl_3$, symmetry modes and distorted phase struct. 2−103685
K_2NiF_4, optically active phonons, interionic pot. calc. and vibr. spectra 2−66148
K_2O monolayer on Pt(111) and stepped (755) surfaces, LEED, AES and TDS studies 2−56365
K_2O-B_2O_3:Tl^+ glass, luminesc. study 2−67105
K_2O-B_2O_3-Al_2O_3 glass, Al^{3+} with non-bridging O, density, refr. index and microhardness determ. 2−109684
K_2O-B_2O_3-SiO_2 glass, temp. derivative of elec. resist. near transition temp. 2−76730
K_2O-B_2O_3-SiO_2 glasses and melts, microstruct., X-ray scatt. study 2−91794
K_2O-B_2O_3-siO_2 glass, phase separation and structon types, DC elec. resist. meas. 2−76729
K_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
K_2O-MO-B_2O_3 (M=Ca, Zn, Sr, Cd, Ba) glass, microhardness 2−105335
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
K_2O-SiO_2 glasses, conc. fluctuations and ionic cond. props. 2−92261
K_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
KOH solutions, electrolysis, electrocatalysts and separators 2−62407
$K_2O.Al_2O_3$-Al_2O_3 system, phase relationships, 1200-1700°C 2−111156
β''-$K_2O.Mg0.5Al_2O_3$, ionic cond. and IR absorption spectra 2−92260
$K_2O.4\ TiO_2$, crystallographic study, X-ray obs. 2−81767
K_2OsCl_6, phase transitions, NQR study 2−110703
$KOsO_3N$, cryst. struct. determ., Scheelite type struct. *(French)* 2−76370
$KOsO_3N$, single cryst., γ-irrad., paramag. d^3 defect, EPR investig. 2−93009
$K_2P+(CN)_4Br_{0.3}.3.2H_2O$, NMR studies on cryst. water mol. motion 2−110652
$K_2P_x(CN)_4Br_{0.3}.3.2H_2O$, quasi-one-dimensional cond., phys. props., review *(Japanese)* 2−82332
KPF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
$KPbCr_2F_9$, structural and mag. props., X-ray diffr. and EPR study 2−60949
$K_2PbCu(NO_2)_6$, cooperative Jahn-Teller system, incommensurate phase struct. 2−66507
$K_2PbCu(NO_2)_6$, Jahn-Teller effect, uniaxial stress effects, ESR study 2−87580
$KPbF_2Cl(Br)(I)$, $PbBiO_2Cl$ type struct., cryst. struct. and prep. 2−103718
K_2PtBr_6, crysts., struct. phase transitions, precursor clusters 2−77410
$K_2Pt(CN)_4$-$K_2Pt(CN)_6$ cryst., laser excited luminesc. and absorpt. study of mixed valence 2−71932
$K_2Pt(CN)_4Br_{0.3}(Cl_{0.3})$-$3.2H_2O$, solitary waves and low-temp. cond. 2−87245
$K_2Pt(CN)_4Br_{0.3}.3D_2O$, under press., metal-semiconductor transition 2−76929
$K_2Pt(CN)_4Br_{0.3}3.2H_2O$, H_2O mol. motion, PMR spin-lattice relax. study 2−93043
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, electron-phonon coupling in one dimension 2−76624
$K(Pt(CN)_4).yH_2O$, luminesc., mag. field effects 2−82899
K_2PtCl_4, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
K_2PtCl_6, two-photon excitation spectra in range 680-950 nm 2−57142
$K_{1.75}Pt(CnN)_4.1.5H_2O$, electronic props. and Peierls transition, polarised refl. study 2−82858
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
$K_{0.5}Rb_{0.5}Cl$, phonon dispersion, inelastic neutron scatt. study 2−115372
K_2ReCl_6 crysts., struct. phase transitions, precursor clusters 2−77410
$KReO_4$, nuclear quadrupole echoes, advanced and lagged 2−107361
$KReO_4$, temp. and enthalpies of melting 2−103950
K_2SO_4, arcanite, phase transition, thermodynamic and phenomenological study 2−61129
K_2SO_4, sp. ht. and dielec. const. determ. phase transition 2−109970
K_2SO_4-Na_2SO_4-$ZnSO_4$ glass, struct., X-ray diffr. study 2−97933
K_2SO_4-$ZnSO_4$:$Cu^{2+}(Mn^{2+})$, glass, dopant site symmetry, ESR study 2−98947
2 $K_2SO_4.Na_2SO_4$, crystalloluminescence and mechanoluminescence spectra 2−110947
K_2SbF_3 crystals, superior plate transition *(Russian)* 2−103987
$KSbO_2$, IR spectra isolated in N_2 matrix, bond angles estimation 2−80595
$KSc(MoO_4)_2$, ferroelastic, Raman and IR refl. spectra, 4 to 300K *(Russian)* 2−116170
$KSc(MoO_4)_2$, soft phonon modes at ferroelastic phase transition *(Russian)* 2−56148
$KSc(MoO_4)_2$:Cr monocrystals, ferroelastic phase transitions, Cr^{3+} EPR 2−115404
K_2SeO_4, ferroelec. incommensurate transition, Brillouin scatt. study 2−66997
K_2SeO_4, incommensurate superlattice, X-ray diffr. study 2−55943
K_2SeO_4, incommensurate phase transition, uniaxial stress depend., Raman scatt. study 2−71638
K_2SeO_4, phase transform. Raman study 2−72481
K_2SeO_4-type crystals, sp. ht. in incommensurate phase 2−66247
K_2SiO_3, cryst. struct., lattice energy, X-ray diffr. study *(German)* 2−86643
K_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
K_2TaF_7, cryst., vibr., Raman study 2−77510
$K(Ta_{0.55}Nb_{0.45})O_3$, ferroelec., dielec. const. crit. exponent, diffused-phase-transition 2−110781
$KTa_xNb_{1-x}O_3$, electro-optic cryst., photorefractive effect, holographic study *(German)* 2−57057

potassium compounds continued
$KTaO_3$, dielec. nonlinearity, losses, and parametric interactions at UHF 2−99072
$KTaO_3$, induced ferroelec. phase transition mech., thermal cond. meas. 2−56274
$KTaO_3$, piezoelectric excitation of elastic waves 2−103896
$KTaO_3$, search for supercond., 0.01 to 4K 2−98787
$KTaO_3$, two-photon interband absorpt. spectra rel. to band struct. 2−116203
$KTaO_3:Fe^{3+}$, cubic cryst. field splitting, anomalous temp. effect, EPR study 2−77366
$KTaO_3$:Li, dynamics of freezing electric dipoles, dielec. relax. meas. 2−77447
$KTaO_3$:Ni(Fe), electron trap levels, ESR and TSC meas. 2−82703
K_2TiF_6 crystal, vibr. spectra, factor group anal. 2−99107
$KTl_{.5}C_x$ (x=4, 8), intercalation cpd., supercond. transition temp. and crit. field 2−92844
K_3UF_6, tetragonal cryolite-type lattices 2−71419
K_4UF_8, thermochemical investigation, heat of form. 2−73006
$K_3(UO_2)_2F_9$, vibr. and electronic spectra meas. 2−72488
$K(UO_2)(NO_3)_3$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$K_2(UO_2)(NO_3)_4$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
KVO_3, X-ray emission spectra, second coord. sphere effects 2−90567
$KVO_3.H_2O$, topotactic dehydration, competing struct. reaction mechanisms 2−62396
K_2WO_4-Rb_2WO_4, solid solutions, phase diagram, X-ray and DTA study 2−88064
K_2WO_4-UO_2WO_4, reactions, and phase diagram, DTA study 2−88066
$K_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
$KY(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KY(WO_4)_2:Ho^{3+}$, 2-μm stimulated emission 2−104915
$KYb(PO_3)_4$, monoclinic struct. with anion chain struct. 2−65947
$K_8Yb_3[Si_6O_{16}]_2(OH)$, cryst. struct. and $[Si_3O_8]$ radical polymorphism, X-ray diffr. study 2−55951
$K_{1-x}Zn_{1-x}Al_xPO_4$, ionic con. and cryst. struct., comp. dependence meas. 2−104053
$K_2Zn(CN)_4$, high press. phase transitions, Raman study 2−76650
K_2ZnCl_4, high temp. phase transitions, lattice consts., X-ray diffr. study 2−92186
K_2ZnCl_4, phase transform. Raman study 2−72481
K_2ZnCl_4, thermal expansion coeffs. and phase transitions 2−61181
K_2ZnF_4, optically active phonons, interionic pot. calc. and vibr. spectra 2−66148
$K_x(Zn_{x/2}Ge_{1-x/2})O_2$, ionic cond. and cryst. chem. *(French)* 2−92269
$K_2Zn(SO_4)_2.6H_2O$, IR and Raman spectra, phonon modes 2−87787
K_2ZrF_6, high resolution TDPAC meas. 2−56988
$K_{12}[As_2W_{18}O_{66}Cu_3(H_2O)_2].11H_2O$, X-ray cryst. struct. determ. 2−55926
$(K_2)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
LiCl-KCl, liq. state, ion mobility mol. dynamic simulation 2−110022
$LiKSO_4$, low temp. phase, phase transitions, thermal expansion and twinning 2−86861
Li_2O-K_2O-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Li_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
Mn^{2+}-citric acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mn^{2+}-malic acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
$MnPS_3$-K^+ intercalated, IR and Raman vibr. study 2−87769
$(NH_4)_{1-x}K_xAl(SO_4)_2.12H_2O$, mixed alum, microhardness 2−86784
$(Na,K)AlSi_3O_8$, albite-orthose vitreous system, enthalpy of mixing *(French)* 2−61147
NaCl-KCl crystals, Ca doped, etching studies of non-dislocation pits 2−76482
NaCl-KCl mixed cryst., thermal evaporation study 2−109965
NaCl-KCl powder, thermoluminescence study of colour centre isothermal stability 2−72567
$NaKTeO_3.3H_2O$, cryst. struct. refinement *(French)* 2−71399
Na_2O-K_2O-Al_2O_3-SiO_2 glasses, functional form of Arrhenius eqn. for elec. cond. 2−110350
Na_2O-K_2O-GeO_2 glass, DC conductivity, mixed-alkali effect 2−82010
Na_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
$1.67[(Na_2O)_x(K_2O)_{1-x}].1.33ZnO.10.34Ga_2O_3$, mixed alkali effect, cond. minimum 2−61200
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
$Pb_2KNb_5O_{15}$, ferroelectric-ferroelastic domain struct., electron diffr. and microscopy study 2−67011
$Pb_2KNb_5O_{15}$ films for SAW devices 2−82111
$Pb_2KNb_5O_{15}$, phase determ. and growth for good quality crystals 2−97957
$(Rb_{1-x}K_x)_2ZnCl_4$, thermal hysteresis of modulation wavevector, X-ray study 2−109975
SiO_2-B_2O_3-K_2O-Na_2O glass, leaching characts., surface roughness and surface area effects 2−93650
SiO_2-K_2O glass, X-ray irrad.-induced defects, ESR study 2−98960
UO_2WO_4-$Na_2(K_2)(Rb_2)(Cs_2)WO_4$, solid-phase synthesis, struct., IR and luminesc. spectra 2−87752

potential dividers *see voltage dividers*

potential energy curves and surfaces of molecules
for Morse curves see Morse potential
see also molecular vibration
acetone related mols., torsional pot. and dipole moment, conformational depend., ab initio calcs. 2−102663
alkali dimers and dimer cations, pot. curves, spectrosc. rule 2−80757
4-(9-anthryl)-N,N-dimethylaniline, intramol. charge transfer, INDO/S CI and PCILO calcs. 2−90688
carbonyl compounds, tetraatomic, lowest triplet state pot. surfaces, ab initio SCF MO calcs. 2−64872
CS radical, band intensity parameters and ground state dissociation energy 2−114045
diabatic states, novel variational definition 2−102412
diatoms, dissociation energy from pot. curves 2−108731
potential energy curves and surfaces of molecules continued
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
dithioglyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
energy hypersurfaces, isoelectronic and isoprotonic, nucl. charge space topology 2−80754
ethanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
ethylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
exciplex, formation and relax., solvent effects, vibr., pot. energy curves 2−85570
fluoromethane, anharmonic force fields, ab initio calcs. 2−75174
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
glyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
homonuclear diatomic mols., Hartree-Fock and CI calcs. 2−108394
hyperspherical mapping and harmonic expansions for pot. energy surfaces 2−54912
ion+asymmetric top rigid rotor, perturbed rot. state method, adiabatic pot. curves and nonadiabatic couplings 2−85798
methane, CH bond dissoc., ab initio pot. energy curve 2−93758
methane dication, struct., stability, pot.-curve, HF calcs. 2−85535
methanol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
methyl dication, struct., stability, pot.-curve, HF calcs. 2−85535
methyl radical, geometry, restricted and unrestricted Hartree-Fock calcs. 2−85541
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2−96469
methylene-dication, struct., stability, pot.-curve, HF calcs. 2−85535
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
multi-dimensional potential energy surfaces, topography 2−80760
multimode vibronic coupling effects 2−80561
multiple bonding as a screening phenomenon 2−114127
MX_2 ionic states, pot. surfaces 2−80771
perturbative calcs., improved virtual orbitals 2−102413
points in pot. energy surfaces for fitting polynomial functions, appl. to permutational symmetry 2−70162
polyatomic molecules with harmonic pot. surfaces, Raman excitation profiles 2−96578
potential energy gradient derivation for arbitrary electronic wave function 2−80761
potential energy hypersurface, second derivative rel. to force in SCF theories 2−108360
propan-l-ol, H complexes, vibr. anharmonic anal. IR spectra 2−108460
propane ion, C skeletal rearrangement, obtained by photoelectron-coincident photoion mass spectrometry 2−72972
propylene, potential-energy and dipole moment surfaces 2−102410
propylidene, struct., mol. rearrangement, MINDO and UHF calcs. 2−85547
quasimolecular potential curve reconstruction from emitted electron spectra *(Russian)* 2−54915
quasimolecules, intramolecular interactions, mol. beam spectroscopic studies 2−75365
quixotic molecules, hypothetical HAB, geom., electronic struct. and common props. 2−85551
silicates, bonding, computational quantum chemistry study 2−97980
triatomic ions, equilib. geometries and dissociations, mol. pseudopotential calcs. 2−75161
triatomic molecules, anal. pots., calcs. 2−80768
trifluoroiodomethane cation, electronic states multiphoton dissoc., photon-photoelectron coincidence study 2−65058
trinuclear mixed valence system, pot. energy surface, semiclassical model 2−80759
triphenylene, excited triplet state IR spectroscopy 2−80596
van der Waals complexes, degenerate states of coupled vibrs., dynamic Jahn-Teller effect 2−59878
vinylcyclopropane, rot. isomerism, pot. energy curves, ab initio SCF calcs. 2−108352
X-ray emission spectra, vibr., pot. energy surfaces, bond lengths and force consts. 2−65003
Al_2, pot. energy curves and dissociation energy 2−114062
$AlBF_4$, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
$AlBH_4$, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
Al_2F_4, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
Al_2H_4, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
Ar complexes with Mg, Ca, Sr and Ba, pot. curve crossing 2−64895
Ar+HCl, vibr. and rot. relax., quasiclassical trajectories on model pot. energy surfaces 2−90673
AsS^+ mol., true pot. energy curves, dissociation energy, r-centroids, Franck-Condon factors 2−75205
B_2F_4, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
B_2H_4, isomerisation, pot. energy surfaces calc. ab initio using double-zeta basis sets 2−102411
BO^- ion, pot. energy curves, CAS SCF calcs. 2−80513
BaF, potential energy curves and dissociation energy 2−70163
BaH, potential energy curves, Franck-Condon factors 2−70164
$BeAlF_5$, struct. and pot. energy surfaces, ab initio MO studies 2−54757
BeCl, electronic ground states, dissociation energies 2−70375
BeF, potential energy curves and dissociation energy 2−70163
BeH^+, pot. energy curves and spectroscopic consts. for $X^1\Sigma^+$ and $A^1\Sigma^+$ states 2−102416
BiF, dissoc. energies and pot. energies curves 2−70373
Br_2, $B^3\Pi(0_u^+)$ state, spontaneous predissociation 2−80746
CCl, $A^2\Delta$ state predissoc. investig. 2−80747
CH^- excited state, Feshbach resonances, QDMBPT 2−85540
CH^{2+}, struct., stability, pot.-curve, HF calcs. 2−85535
CN* radical, dissociation energy from pot. curves 2−108731
Ca_2, transition moments, pot. energy curves, green and red spectra 2−85629
CaF, potential energy curves and dissociation energy 2−70163

potential energy curves and surfaces of molecules continued
CaH, potential energy curves, Franck-Condon factors 2−70164
Cl_2, $B^3\Pi(0_u^+)$ state, spontaneous predissoc. mechanism and rate consts. 2−114057
Cl_2, electron impact excitation, valence states, pot. energy curves, spectra 2−54974
Cs_2, rot. lines meas. by Doppler free polarisation spectroscopy and ODR, fluoresc., mol. const., pot. energy curves 2−80689
CsH, $X^1\Sigma^+$ state, laser induced fluoresc. spectrum, pot. energy curve, avoided crossing region 2−108607
CsKr satellite bands, semiclassical inversion 2−96678
$CuCl_6^{5-}$, electronic struct., multiple scatt. Xalpha calc., harmonic force const. 2−108376
CuH, RKR turning points of $A(^1\Sigma^+)$, $B(^3\Pi(0^+))$ and $X(^1\Sigma^+)$ states, pot. energy curves 2−70165
F_2, ground and excited states, variational cellular calcs. 2−80447
FCN, anharmonic force fields, ab initio calcs. 2−75174
GaH, electronic ground states, dissociation energies 2−70375
$H+H_2$ reaction, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
H_{14}, metallic and mol. rings, SCF and CI calcs. 2−108405
H_2 potential curve, electron exchange parameter effects, X_α-SW calcs. 2−90450
H_2^+, ground state, pot-curve, covalent bond anal. 2−102414
$(H_2)_2$ pot. surface and interaction between H_2 mols. at low temp., correl. effects 2−96484
HBr^+, intramolecular dynamics, PES obs. 2−75353
HCN, anharmonic force fields, ab initio calcs. 2−75174
HCN, highly excited, struct., force const., dissoc. energies, mol. pot. 2−96676
HCN^+, intramolecular dynamics, PES obs. 2−75353
HCl, electronic spectrum assignment, ab initio CI calcs. 2−70211
HF, pot. energy curve, Rydberg-valence mixing, spectra, ab initio CI calcs. 2−54777
HF-NN (OC), equilib. struct., pot. energy surfaces, H-bonds 2−102656
H_2O dissociation, pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
$H_2O \rightarrow O(^1D_g)+H_2(^1\Sigma_g^+)$, photodissoc., pot. energy surfaces, MRD CI calcs. 2−90636
H_2O, pot. energy of ground state, MCSCF and MR-CI calcs. 2−102396
H_2O_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
H_2S_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
Hg vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
KCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
KCN, vibr.-rot. spectrum, ab initio pot. energy surface calcs. 2−80572
Kr.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
LiH, correl. energy, pot. energy surface, Green's function Monte Carlo method 2−96468
LiH, electronic ground states, dissociation energies 2−70375
LiH, mol. consts., pot. energy curves, isotope shifts 2−96541
LiH, $X^1\Sigma^+$ state, dipole polarisability function, complete active space SCF study 2−80458
$Li_2(^1\Sigma_g^+)$, excited state, ion-pair interaction effect on vibr. energy spectrum 2−80567
^{6}LiH, ground state pot. energy curve determ., fluoresc. study 2−108412
LuF gaseous mol., pot. energy curves and dissociation energy 2−113909
$MgAlF_5$, struct. and pot. energy surfaces, ab initio MO studies 2−54757
MgF, potential energy curves and dissociation energy 2−70163
MgHe system, ab initio CI pot. energy curves 2−80765
N_2^+, intramolecular dynamics, PES obs. 2−75353
NCNO, pot. surface for dissoc., ab initio CI calcs. 2−62394
N_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
NO, valence and Rydberg states, SCF and CI calcs. 2−96470
NOAr, direct photodissociation, fluoresc. spectra 2−59874
NOHe, direct photodissociation, fluoresc. spectra 2−59874
NONe, direct photodissociation, fluoresc. spectra 2−59874
$N_2^+(X^2\Sigma_g)$, final state coupling in photoelectron spectra 2−114044
$Na_2(A^1\Sigma_u^+ \rightarrow X^1\Sigma_g^+)$ fluoresc. and continuous spectrum 2−90609
NaAr, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
NaCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
$Na_2(^3\Sigma_u^+)$ triplet molecule parameters 2−114067
NaXe, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
Ne_2, ground and excited states, variational cellular calcs. 2−80447
Ne.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
NiO, O-O interactions, covalency effects 2−59686
O_3^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
O_3, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
O_3, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
O_3, repulsive pot. energy surfaces, fluoresc. spectrum 2−108609
OCS, anharmonic force fields, ab initio calcs. 2−75174
P_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
SF_6, model of vibr.-vibr. relax., mol. quasicontinuum 2−70210
SH, pot. energy curves, ab initio MRD CI calcs. 2−80503
SO_2, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
$^{121}Sb^{123}Sb$ mol. bands, RKRV curves, Franck-Condon factors 2−64966
$SnCl_2$, photofragmentation, pot. surface time of flight spectra 2−65059
SrF, potential energy curves and dissociation energy 2−70163
SrH, potential energy curves, Franck-Condon factors 2−70164
XeF, pot. energy curves, dissoc. energy, ionisation pot. 2−54783
Xe.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514

potential energy functions
see also Lennard-Jones potential; molecular vibration; Morse potential; muffin-tin potential
acetylene, double zeta pseudopotentials, pseudo-FSGO calcs. 2−102371
acetylenes, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
trans-acrylyl chloride force fields and vibr., normal coord. treatment 2−80565

potential energy functions continued
alkali dimers, lowest triplet state curve, pot. model for evaluation isotropic pairwise interaction energies 2−80767
alkali halide, static dielec. const. and static polarisability, vol. depend. 2−57001
alkali halides, hydrogen centres, interatomic pot., vibr. modes, and diffusion, pseudopot. cluster calc. 2−65992
alkali halides, third-order elastic consts. from model pots. 2−98180
alkali metal cations, solution, pot. energy function models 2−59886
alkali metal halides, molecules, spectroscopic constants and dipole moment calcs. 2−102561
alkali metals, liq., liquid, interionic potentials and struct. factors calc. 2−97905
alkali metals, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
alkaline earth ions+H^+, electron capture, model pot. calcs. 2−75414
amorphous soap bubble raft, plastic flow anal. using inter-bubble pot. 2−98391
atom-surface scattering, iterative solution for realistic potentials 2−99267
atomic collisions, pair-potential calcs. 2−65069
atomic potential calc., simplified Thomas-Fermi-Dirac eqn. 2−80478
bacteriochlorophyllic pigments, triplet-triplet energy transfer 2−108668
binary alloys and pure metals 2−115215
carotenoids series, triplet-triplet energy transfer 2−108668
chalcogenide crystals, relative stability and structural phase transitions 2−98270
channelling, continuum potentials, superposition criteria 2−76542
chlorobenzene vapour, second virial coeff. and viscosity coeff. evaluation with regard to intermol. pot. *(German)* 2−91575
complex scaling method for numerical potentials 2−59879
condensed systems vibr. spectra, intermol. pot. effects 2−72493
conformational studies by IR and Raman spectra 2−80633
crystal potential, interpolation form factors calc. *(Russian)* 2−98520
diacetylene, vibr. freq., pot. energy functions, IR intensities, SCF calcs. 2−113872
diatomic molecule, classical oscill. dynamics and IR absorpt., double well pot. 2−59797
diatomic molecules, chem. bonds, pot. energy functions 2−102568
diatomic molecules, effective nuclear charge model 2−59778
diatomic molecules, electronic pot., eigenvalue function 2−54914
diatomic mols., Dunham energy coeffs. calcs. 2−59885
diatomic mols., pot. adaption, polynomial method 2−80762
diatomic solids, mixed, interionic pot. and cryst. props. 2−65916
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
C-DNA, molecular electrostatic pot. and steric accessibility 2−90648
elastic collision kernels calc., comparison of quantum mechanical and semi-classical scatt. amplitudes 2−96679
electrostatic potential molecular surfaces, computer graphics representations 2−105642
empirical potential parameters for alkali halide molecules and crystals, hydrogen halide molecules, alkali metal dimers, and hydrogen and halogen molecules 2−90643
energy eigenvalue calc. for a local pot. 2−54911
ethylene, double zeta pseudopotentials, pseudo-FSGO calcs. 2−102371
fluoromethane-d_3+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
formaldehyde in $\tilde{A}^1A_2$ and $\tilde{a}^3A_2$ electronic states, geometry and inversion pot. function 2−108666
hypervirial rels. for box pot. and harmonic oscillator models 2−63834
ice Ih, Raman spectrum, OH stretching region, vibr. anal., anharmonic pot. energy functions 2−104867
intermolecular interaction energies, transferable pot. function from quantum mechanical calcs. 2−108664
intermolecular repulsion energy, rel. to viscosity of rarefied gas 2−80770
ionic crystal, NaCl struct. cohesive and surface energy eval. 2−65915
Langevin's mobility maximum 2−65066
lattice gases, particle distrib. functions 2−107251
liquid metals, static struct. factor rel. to effective pair pot. 2−60868
liquid structure, integral equation calcs. using waterlike intermol. pots. 2−103572
liquids, interatomic pair pot., combined WCA and RPA calc. 2−60857
LIX 65N extracting agent, 3-dimens mol. struct. calcs. 2−90645
methane, liq., Monte Carlo simulations, thermodynamic and struct. props. 2−91748
methane-d_4+He(Ne)(Ar)(Kr)(Xe)(HCl), vibr. relax., intermol. interactions 2−75381
methanol, liq., struct., thermodynamic props. and H-bonds, pressure effect, intermolecular interactions 2−71326
methyl radical, umbrella mode, photofragment IR emission spectroscopy, vibr. progression and pot. parameters 2−72997
methylethynyl mercury(II)-d_0, -d_1, d_3, -d_4, vibr. anal. and pot. energy const. 2−80563
molecular oscillators, classical turning points, anal. expressions 2−59884
molecules, vibr. pot. function, energy in effective nucl. charge model 2−96677
nematogens, pre-transitional effects, g-factor simulation using Monte Carlo technique 2−98282
organoleadamines, primary, second and tertiary, normal coord. anal. 2−75237
perfluorocarbon, use in O_2 and CO_2 transport, STO-3G calcs. 2−88527
phase shift calcs. for short range pots. by method of partial waves 2−95071
polyatomic molecules, anharmonic shrinkage effect on mol. vibr. on electron diffr. 2−114105
potassium deuterium furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2−67056
potassium hydrogen furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2−67056
proton transfer reactions, kinetic isotope effect, interaction pot. influence 2−111467
rare gas crysts., binding energy, zero isotherms, and elastic consts. from model attractive pot. *(Russian)* 2−55879
siloxanes, geometry, energetics, pot. energy functions 2−114069
singular interatomic pots., Regge pole positions and residues, energy depend. 2−75367
small ring molecules, vibr. Hamiltonian, pseudopot. terms evaluation 2−108667
soap bubble rafts, pot. and force law between different-size bubbles 2−98390

potential energy functions continued
tetrafluoromethane hot mol., anharmonic shrinkage effects, electron diffr. study 2−102625
tetrafluoromethane hot mol., thermal expansion, electron diffr. study 2−102624
tilt grain boundaries with substitutional impurities, atomistic study 2−115247
trichloroacetamide, IR and Raman vibr. spectra and normal vibr. 2−80564
trihalogenmethanes, harmonic force fields and mol. consts. 2−80837
trimethylammonium aluminium trichloride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2−85544
trimethylammonium aluminium trihydride, electron density distrib., electrostatic mol. pot. anal., CNDO/2 calcs. 2−85544
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2−77516
two-electron atoms, electron dynamics in double excited states 2−65067
water, structure, many-body effects 2−115126
XY_6 type molecules, vibr. anal. 2−108445
Al, interatomic pots. and electronic props., ab initio calc. 2−56460
Al, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
AlD_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
AlH_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
Ar dimer, exchange repulsion, ab initio calcs. 2−80463
Ar-H_2, second interaction virial coeffs. 2−80758
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
ArHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
Ar.HCl quasimol., rot. vibr. energy level calc. 2−75232
Ar.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766
BCl_3, harmonic pot. function 2−85767
BD_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
BH_4^-, anharmonicity connection and mol. consts. calcs. 2−90500
Be, spectroscopic parameters, V^N and V^{N-1} potential results in many-body calcs. 2−75206
BeCl, electronic ground states, dissociation energies 2−70375
BeH_2, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
C gas, transport props., atomic interaction pots. 2−97689
C_2N_2, stretching vibrs., freq. and IR intensities, anharmonic pot. energy functions, geometry and rot. consts. 2−96554
CO, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
CO, elastic scatt. of intermediate and high energy electrons by two-pot. coherent approach 2−85807
CO^+, electronic states, spin-rot. coupling, RKR pot., deperturbation anal. 2−85624
CO+H_2(He), rot. energy transfer and anisotropic intermol. pots., ab initio calcs. and expt. 2−75387
CO_2-H_2, use of space fixed expansion for fitting ang. depend. of ab initio rigid rotor pot. 2−108658
$(CO_2)_2$, vibr. freq., empirical pots., ab initio calcs. 2−85615
Ca sulphides, IR matrix isolation spectra 2−75284
Cd Z 2−75284
CsCl+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
CsF+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
Cu, interatomic pot. functions from phonon dispersion relations, stacking fault energy 2−109737
Cu, interionic pot. and stacking fault energy 2−66016
DCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
Ga_2Br_6, mol. consts. calcs. 2−96530
$GaCl_3$, pot. energy distrib., normal coordinate calcs. 2−77516
Ga_2Cl_6, mol. consts. calcs. 2−96530
GaH, electronic ground states, dissociation energies 2−70375
Ga_2I_6, mol. consts. calcs. 2−96530
H_2, electron impact, parameter free nonadiabatic polarisation pot. 2−59948
H_2, electron scatt., low energy, ab initio optical pot. appl., correl. and polarisation effects 2−75429
H_2^-, potential energy function for $^2\Sigma_u^+$ shape reson. state at SCF level 2−70374
H_2^+ system, diatomic interactions in momentum space 2−85769
H_2+CO, SCF pot. anal., dispersion energy 2−85571
HCN (HNC), ground states, freq. optimised pot. energy functions 2−90644
HCN, highly excited, struct., force const., dissoc. energies, mol. pot. 2−96676
HCN, stretching vibr. states, ab initio pot. energy functions, electron correl. effect 2−85765
HCN-HCl complex, H-bonds, rot. spectrum and mol. props. 2−59790
HCNO, pot-functions, equilib. functions, ab initio MO calcs. 2−90441
HCP, ground states, freq. optimised pot. energy functions 2−90644
HCl, $X^1\Sigma^+$ state, pot. energy function calcs. 2−114065
HCl-Xe(Ar), far IR spectra, temp. depend., intermol. pot. well depths 2−102473
H_2O, double zeta pseudopotentials, pseudo-FSGO calcs. 2−102371
H_2O...HF, H-bonded heterodimer, conformation, pot. energy function, from microwave rot. spectra 2−75253
He-H_2, interaction dipole polarisabilities, MC TDHF theory calcs. 2−96447
He-He, interaction dipole polarisabilities, MC TDHF theory calcs. 2−96447
He+He, low energy scatt., $^4He_2$ bound state 2−88349
He_2, determ. of ground state pot. from expt. by use of reliable pot. model 2−59881
Hg, photoemission of high ang. momentum electrons, relativistic and pot. barrier effects, exchange terms 2−113951
Hg+inert gas, interaction pot. determ. on basis of diffusion coeff. temp. depend. 2−108669
I+Kr(Xe), interaction pots., crossed-beam meas. 2−108661
I^++$H_2O(D_2O)$, recombination, Monte Carlo classical trajectory method 2−111481
I_2+inert gas atoms, vibr. energy transfer from highly excited anharmonic oscillators, quantum state and interaction pot. depend. 2−96697
IF_7, struct, vibr. assignment, and intramol. forces, pseudopot. SCF-MO studies 2−75171
In, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
potential energy functions continued
K-Cs mixtures, blue asymmetry of K reson. lines by Cs atoms 2−75207
K+He(Ne)(Ar)(Kr)(Xe), 4p $^2P_{3/2}$-7s $^2S_{1/2}$ transition, effect of collisions 2−59732
K^++Ar(Kr)(Xe), interaction pot. determ. 2−102567
K^++CsCl, differential cross sections for ion-dipole scatt., intermol. pot. calc. 2−70381
KCl+He(Ne)(Ar)(Kr)(Xe), rot. inelastic cross sections, long-range pots. 2−96699
KHe, model potential method used to compute ionisation energies and dipole moments 2−59967
K_2MF_4 (M=Zn,Ni,Cu), optically active phonons, interionic pot. calc. and vibr. spectra 2−66148
KNe, model potential method used to compute ionisation energies and dipole moments 2−59967
K(4P)+Ar, differential scatt., $^2\Sigma$ potentials, line profile meas. 2−96672
K(5P)+Ar, differential scatt., $^2\Sigma$ potentials, line profile meas. 2−96672
Kr.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766
Li-He (Ne), $A^2\Pi$ pots. well depths, fluoresc. obs. 2−108670
Li+F_2, excited atom system, pot. surface for weakly bound electron in coulombic and point pot. field 2−108411
Li^++Ar(Kr)(Xe), interaction pot. determ. 2−102567
Li_2, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
LiCN, ab initio SCF pot. energy surface 2−96482
LiH, electronic ground states, dissociation energies 2−70375
LiH, geometry, dipole moments, pseudopotentials, FSGO calcs. 2−102372
Mg (0001) surface, interatomic pot. considerations in low energy Ar^+ scatt. 2−77666
Mg sequence, n=3 singlet complex, short range interactions involving plunging configurations 2−65074
Mg sulphides, IR matrix isolation spectra 2−75284
Mo, empirical pair potentials for He interaction with substitutional Ne(Ar) 2−65065
MoO_3, vibr. anal. and characteristic consts. 2−96531
N_2, elastic scatt. of intermediate and high energy electrons by two-pot. coherent approach 2−85807
NH_3, liquid, empirical pot. for conformational, intermol. and solvation studies 2−91747
$NH_2BH_2CO_2H$, and dimer, geometry, moments, pot., ab initio calcs. 2−85546
Na, collision-perturbed, with doublet excited states, near reson. scatt. 2−96499
Na, liq., radial distrib. function studied using integral equation perturbation theory 2−91762
Na+Ne, model potentials and pseudopotentials 2−59880
$NaNO_2$, solid and molten, paraelectric phase, molecular dynamics computer simulations, struct. 2−98035
Ne-Ar, interatomic pot., Dunham expansion 2−102562
Ne+Ne($^3P_0$)($^3P_2$), differential elastic scatt. cross-sections meas. 2−90651
NeHe, pair pots. and electric dipole moments, ab initio calculations 2−54755
Ne_2* potentials for dissoc., rel. to Ne+Ne collisions 2−67743
NiO, anion-anion interionic pot., covalency influence 2−54782
O_2, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
O_3, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
O_3+He, vibr. relax., ab initio quantum mech. calcs. 2−59905
OCS, relax. times, K-entropy, intramolecular dynamics 2−108470
OH free radicals, collisional broadening of far-IR and microwave spectrum 2−96643
ONOF, vibr. pot. function and struct. by normal coordinate anal. 2−108495
Pb, linear potential calcs. of phonon props. 2−66146
Pt surface (111), adsorbed napththalene mol. orientation determ. by packing energy calcs. 2−87055
$Ru_3(CO)_{12}$, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
SF_6 hot mol., anharmonic shrinkage effects, electron diffr. study 2−102625
SF_6 hot mol., thermal expansion, electron diffr. study 2−102624
SO_2, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
SiF_4 hot mol., anharmonic shrinkage effects, electron diffr. study 2−102625
SiF_4 hot mol., thermal expansion, electron diffr. study 2−102624
$SnBr_4N_2$, pot. and vibr. consts. 2−90499
$SnCl_4N_2$ pot. and vibr. consts. 2−90499
Sr sulphides, IR matrix isolation spectra 2−75284
Te_2, laser induced fluoresc. spectrum studied by Fourier transform spectrometry, RKR pot. and dissoc. energies 2−65043
W, empirical pair potentials for He interaction with substitutional Ne(Ar) 2−65065
Xe.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766
Zn sulphides, IR matrix isolation spectra 2−75284

potential energy surfaces for collision processes
collinear exchange reactions, quantum mech. calcs. 2−62381
energy transfer in gases 2−59899
fluoromethanol, chemical laser system, dynamic behaviour of intrinsic reaction coordinate, HF laser emissions 2−93798
ion-molecule collisions, perturbed rotational state, effect of pot. ridge 2−108691
low temperature chemical reactions, models 2−83356
Mu+Cl_2→MuCl+Cl, kinetic isotope effect, pot. energy surface 2−57598
multi-dimensional potential energy surfaces, topography 2−80760
one-electron pot. surface props. 2−80512
proton-proton hole asymmetry in gas-phase neutralisation reactions 2−105476
reacting systems, pot. energy surfaces, transition state struct. studied by distinguished coordinate method 2−116682
reactive paths in the diffusion limit, frictional coupling effects 2−105443
Ar+HF, energy transfer, Monte Carlo quasiclassical trajectory study, vibr.-rot. states 2−96684
Ar+$N_2(O_2)$, anisotropic well depth parameters, from total differential cross-sections 2−80777
C^++H_2, pot. energy surfaces, CEPA calcs. 2−93766
C^{6+}+H(1s), electron capture cross section, Landau-Zener formula 2−114101

potential energy surfaces for collision processes continued
$CO+D_2$, rot. excitation at 87.2 meV, differential cross sections, classical path calc. 2−108673
$CO+H_2(He)$, rot. energy transfer and anisotropic intermol. pots., ab initio calcs. and expt. 2−75387
CO+He(Ne), vibr. relax. rate coeff., ab initio calcs. 2−59906
$Cl+H_2$, semiempirical method of modelling pot. energy surfaces for generalised TST and appl. to kinetic isotope effects 2−62376
$D+Cl_2 \rightarrow DCl+Cl$, kinetic isotope effect, pot. energy surface 2−57598
D+HCl, reaction kinetics, infinite-order-sudden method 2−88348
$F+H_2$, kinetic field pot., Morse function, pot. energy surface 2−85770
H^+ transfer reactions, gas-phase, energy barriers and wells 2−62386
$H+C_2H$, reactive scatt. classical dynamics 2−72982
$H+Cl_2 \rightarrow HCl+Cl$, kinetic isotope effect, pot. energy surface 2−57598
H+formaldehyde, rate const., pot. energy surface, transition state theory, ab initio CI calcs. 2−72980
$H+H_2$, kinetic field pot., Morse function, pot. energy surface 2−85770
$H+H_2$, kinetic isotope effects, transition state theory, quantum calcs. 2−88347
$H+H_2$ (v=0,1), quasiclassical trajectory calcs. on H_3 pot. energy curve from force field data 2−102570
$H+H_2$ pot. energy surface, near Hartree-Fock calc. 2−59891
$H+H_2$(MuH), collinear reactive scatt., reson. widths, quasiclassical model 2−93767
H+XY and X+HY where X and Y are halogen atoms, semiempirical pot. energy surfaces 2−99644
H^++H_2, isotope exchanges, reactive cross-sections and rate coeffs. calcs. 2−93789
H_2+ethynyl radical$\rightarrow H_2+C_2H_2$ reaction rate const., ab initio determ. 2−83358
H_2+He(Ne), van der Waals pot. hypersurfaces, bond dist. depend. 2−59882
$H_2+O(^1D)$, vibr., rot. distrib., pot. energy surface, quasiclassical trajectory calcs. 2−83361
H_n systems, pot. energy surfaces, semiempirical calcs. 2−102566
He+Ar, cross sections, pot. energy curve 2−54939
$He+Ar^+$, excitation cross sections, spectra, Landau-Zener model 2−96711
$He+I_2$, vibr. relax., Morse type pots., quantum mechanical study 2−80787
He^++Ar, excitation cross sections, spectra, Landau-Zener model 2−96711
Hg+inert gas, interaction pot. determ. on basis of diffusion coeff. temp. depend. 2−108669
$Kr+N_2(O_2)$, anisotropic well depth parameters, from total differential cross-sections 2−80777
$Li+F_2$, excited atom system, pot. surface for weakly bound electron in coulombic and point pot. field 2−108411
Li+FH, endothermic reaction, vibr. threshold, pot. energy surface 2−99658
$Mu+H_2(D_2)$, kinetic isotope effects, transition state theory, quantum calcs. 2−88347
NH_3+He, energy corrected scaling theory, further development and appl. 2−102585
$N_2O+Cr+(Mn^+)(Fe^+)(Co^+)(Ni^+)$ 2−62389
$Na+H_2$, pot. energy surfaces and nonadiabatic couplings calc. using eight config. diatomics-in-mol. formalism 2−102572
Na^*+CO, (3^2P) state quenching, stereochem. effects, expt. and calcs. 2−108605
$O+B_2$, supersonic O beam, reactive scatt. study 2−83376
$O+H_2S$, supersonic O beam, heat of form., reactive scatt. study 2−83375
O+IBr, supersonic O beam, reactive scatt. study 2−83377
O^++H_2, pot. energy surface, diatomics in mols. calcs. 2−105469
O^++H_2, potential energy surfaces, diatomics-in-molecules approach 2−67744
O^++N_2, vibr. excitation, pot. energy surface, quasiclassical trajectory reaction theory 2−99662
$O^{3+}+H$, charge exchange, rot. coupling matrix, ab initio CI calcs. 2−85799
$O_2+Cr^+(Mn^+)(Fe^+)(Co^+)(Ni^+)$ andothermic reaction, translational energy depend. of cross sections 2−62389
$O(^3P)+H_2$, collinear exact quantum transmission coeff. correction to transition state theory 2−72976
$O(^3P)+H_2$, pot. energy surfaces, quantum and quasiclassical reaction probabilities 2−72975
$^{18}O+^{16}O_2$ (v=0) exchange reaction dynamics on pot. energy surface for ground-state O_3 2−78071

potential scattering
amorphous solids, two-atom model in enhanced ion backscattering near 180° scatt. angles 2−67172
asymmetric double minimum potential, higher-order semiclassical quantisation 2−74244
atomic collisions in solids, conf., Lyon, France (July 1981) 2−68949
central pot. scatt. parameter bounding 2−101195
central potentials, off-shell Jost solns., explicit forms 2−84465
charged particle scatt. in mag. and laser fields, nonlinear bremsstrahlung 2−95136
charged particle scatt. in presence of static mag. field and radiation field of arbitrary polarisation 2−74255
charged-particle scatt. on mag. and laser field, nonlinear bremstrahlung 2−89569
coordinate space approach to scatt. on energy depend. separable pot. 2−53580
Coulomb scattering of fast electrons 2−107608
Delbruck scattering, lowest-order amplitude calc. 2−107607
delta function repulsive pot. in two and three dimens. 2−63838
disordered system, 1-D, quasiparticle scatt. from impurities, density of states perturbation theory *(Russian)* 2−82200
false vacuum decay and density of states in random, repulsive pot. 2−84476
fluctuating potential scatt., quantum mech. theory 2−63839
general lower bounds for reson. in one dimension 2−112722
generalised second-order Coulomb phase shift functions 2−53598
half-shell scattering by screened Coulomb potential 2−113429
high-energy elastic scatt. at fixed angle, multidimensional WKB approach 2−107568
inverse scatt. problem nonuniqueness and presence of E=0 bound states 2−84478
inverse scattering from 3-D finite range pots., perturbation expansion 2−74269
potential scattering continued
inverse scattering method, relationship betwen Ablowitz-Kamp-Newell-Segur and Wadati-Konno-Ichikawa schemes 2−112727
low energy scattering for slowly decreasing potentials 2−107134
low-energy direct nuclear reactions, resonating group method 2−54345
modified effective-range function 2−112740
multiple scattering and eikonal pole approx. 2−54338
neutral particle scatt. by exponential corrugated pot. 2−84483
nonrelativistic Coulomb scatt., IR radiation effect 2−112741
nonspherical potentials, small-angle scatt. amplitude, quasiclassical affects *(Russian)* 2−53587
off-shell T matrix in the semiclassical limit 2−95140
particle scattering in modified Coulomb field 2−74670
particle-matter interaction in dilute and dense media, statistical effects 2−66083
perturbative treatment of finite pot. walls 2−89558
phase shift calcs. for short range pots. by method of partial waves 2−95071
quantum mechanical scatt., phase shift angular momentum struct. 2−94952
quantum theory of scatt. at fixed energy level *(Russian)* 2−89578
quantum-mechanical scatt. theory for pot. $V(r)=(\sin r)/r^\beta$ 2−74248
quasipotential equations reduction to Sturm-Liouville problems 2−89574
resonance scattering from a double δ-function potential 2−94961
resonance tunneling through a three-dimensional asymmetric potential with a barrier *(Russian)* 2−101240
resonances and analyticity of scattering wave function for square-well-type potentials 2−107067
Schrodinger eqns., driven (inhomogeneous) and homogeneous, invariant imbedding soln. 2−107145
Schrodinger equation, three-dimens. 2−63850
Schrodinger inverse scatt. problem soln. with polynomial spectral depend. in pot. 2−53564
self-supporting targets thickness topography study using ion multiple scatt. 2−67171
semiclassical phase integrals close to pot. extreme 2−74243
short-range two-body pot., bound and scattered states, irregular solns., completeness 2−63840
slowly moving electron, dynamic image pot. 2−107173
three-particle Coulomb scatt., ionisation threshold singularity *(Russian)* 2−53590
two centre potential scatt., non-eikonal corrections for spinless projectile 2−113428
two-range potentials, modified effective range function 2−58631
ultrarelativistic Dirac pot. scatt., partial wave representation 2−85011
wave packets semiclassical mol. dynamics 2−89560
NN energy dependent single separable pot. models 2−59346
(p,p), high-energy scatt., nuclear matter distrib. calc. and comparison with expt. 2−84985
π^-p, Coulomb corrections, π-mesic H 2−84910
Al_2O_3 thin films, ^{4}He ions multiple scatt., ang. distrib. anal. 2−67170
$In_{1-x}Ga_xAs_yP_{1-y}$, low field mobility and thermoelectric power, scatt. mechanisms 2−82362

potential transformers
passivation methods for reducing catalytic effects of metals *(Rumanian)* 2−57522

potentials (bioelectric) *see bioelectric potentials*

potentials (electric) *see electric potential*

potentiometers
see also voltage measurement
Josephson, voltage standard appl. 2−112928
uncured insulating layer thickness meas. by potentiometric micrometer 2−74469

powder diffraction cameras *see cameras; X-ray crystallography apparatus*

powder metallurgy
brass, atomised powder prod. and characters. 2−67251
coatings produced by elec.-pulse sintering and weld facing for engine valve units., wear resist. 2−67659
composites, porous, stress-strain state during compression 2−116414
defects, optimisation of use of PM materials 2−83057
density measurement, albedo electron method 2−83327
detonation spray-deposition of coatings, systematic anal. 2−67596
gas permeability of powders solidified at high and ultrahigh cooling rates 2−67235
liquid-phase sintering, recrystn. of C during diffusion-limited process 2−67234
magnetic parameters spread, method for anal. 2−89752
metallic glass powder prep. by H_2 charging 2−93474
pneumoacoustic atomizer for liquid metal spraying 2−91189
pressing, external friction coeff. rel. to applied press. 2−67244
rare earth-Co powders, prep. process 2−111108
shrinkage process during sintering, method for determ. activation energies 2−116401
sintered solids, props. 2−116404
steel, austenitic stainless, powder, hot ductility effect of Pb and Bi 2−88129
steel, Cr, martensitic-ferritic, struct. and props., sintering technology, influence 2−83193
steel, Cu(-Ni), characteristic props. relevant to fatigue design 2−83226
steel, high speed, prods. produced by powder metallurgy 2−77776
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, high-speed, powder prod. by pneumoacoustic atomisation, mech. characts. 2−67250
steel, high-speed, type R6M5, powders, primary crystn. features at high cooling rates *(Russian)* 2−62112
steel, low alloyed powders and compacts, hot ductility, correl. with other props. 2−88148
steel, powdered material improvements 2−72649
steel, stainless, powder metallurgical, mech. props., sintering environment influence 2−72782
steel, stainless, powder metallurgical, struct. condition, effect of different sintering environments 2−67254
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
steel-TiC composite with 10R6M5 high-speed steel, high-density material, processing parameters, struct. and mech. characts. 2−67262
steels, austenitic powder, oxide inclusions effect on mech. props. and annealing 2−67422
superalloys, gas turbine hot section components fabrication, using advanced forming methods 2−93475

powder metallurgy continued
superalloys, hot isostatic pressing 2−83061
surface oxide effect on sintering 2−77774
synthetic materials for electronics, conf., Warsaw, Poland (Oct. 1979) 2−68964
Al alloy powders, particle diameter determ. by various methods 2−105415
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al, vacuum condensate, heterogeneous struct. formation 2−105107
Al- rare earth alloy granules, resist to deform. 2−116412
Al-Al_2O_3, powder metallurgical, heat resistant, props. 2−72875
Al-BN plasma spray deposited composite coatings, props. 2−83231
Al-C alloy, dispersion hardening, mech. alloying in attrition mill, struct. obs. 2−111113
Al-Cr-Zr, powder metallurgical, heat resistant, props. 2−72875
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Al-steel-Pb admixed alloys, wear-resistant, prod. by dynamic compaction 2−88025
Al-transition metal alloy granules, resist to deform. 2−116412
Al-Zn-Mg granules, resist to deform. 2−116412
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
Au-Cu alloy particles produced by Au and Cu smoke particles coalescence, electron microscopy study 2−93476
C fibre reinforced Al, chopped fibres, prod. by powder metallurgy, dry wear *(Japanese)* 2−105344
Cd-Ni powders, predetermined comp., electrodeposition 2−72653
Co powder, sintering in mag. field 2−116411
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Cr-MgO, sintered, struct. and mech. props. 2−67544
Cr-MgO-B, struct. and mech. props. 2−72783
CrCoFe permanent magnet, powder metallurgy processing 2−72652
Cr(Mo)(W)-Gd-B, phase comp. and cryst. struct. 2−116426
Cu, atomised, prod. and characts. 2−67243
Cu composite, porous and filled, internal friction and effective elastic moduli 2−99476
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu powder electrodeposition at gas-evolving electrodes, mass transfer role 2−62090
Cu powder sintering kinetics 2−111114
Cu-C steel multilayer composite, dislocation density and diffusion processes study by thermo-EMF method 2−67381
Cu-Co dilute alloy powders, mag. characts. scatter 2−72289
Cu-Sn (10 wt.%), sintered, Cu oxide film influence on dimens. change *(Korean)* 2−116407
Fe, atomised, pressing behaviour, zinc stearate lubricant effect 2−67245
Fe, carbonyl, manufacturing conditions and influence on mag. permeability temp. coeff. 2−67242
Fe carbonyl based high-frequency magnetic powder materials 2−77331
Fe carbonyl powder based sintered magnetic material, polyorganosilazane resin bonded 2−67261
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe, cast, grey, degraphitized powder, sintering *(Korean)* 2−57318
Fe powder, characts., porous struct. and particle shape effects 2−83062
Fe powder, electrolytic Ni influence units distrib. on particle surfaces and powder particle size 2−116409
Fe powder, sintering in mag. field 2−116411
Fe powders, atomised, pressing behaviour, compressibility and compactibility rel. to sponginess and agglomeration 2−77779
Fe powders, fine, prod. from ferrous oxalate dihydrate, sintering characts. 2−88024
Fe-Co powder, form., struct., and mag. props., electrolysis conditions effect 2−83063
Fe-Cr-Al alloy, wrought, prep. and characts. 2−67249
Fe-Cr-Ti-Mo-TiO_2, dispersion strengthened, void swelling in HVEM, influence of fabrication procedure 2−111189
Fe-Mn-Cr-Mo-C-P, metallography rel. to sintering 2−116665
Fe-Ni-Co powders obtained by decomp. of carbonyls, Co content influence on phase comp. 2−67294
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle disperion 2−57352
Fe-Tribaloy 700 mixture, sintering temp. effect on microstruct. and mech. and tribological props. 2−77775
Hf powders, prep. process 2−111108
LaB_6-Co(Ni) systems, wetting and contact reactions 2−77780
Mo, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Mo composite, porous and filled, internal friction and effective elastic moduli 2−99476
Mo, electropulse compacted, porosity influence on elastic moduli 2−111223
Mo fibre reinforced Fe and Cu composites, porous, stress-strain state during compression 2−116414
Mo powder, fine, sintering 2−116413
Mo-Cr powder mixtures, alloy form. during sintering 2−83065
Mo-Hf-C, powder metallurgical, props. 2−111228
Mo-Ti-Zr-C, powder metallurgical, props. 2−111228
Nb, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Nb powders, prep. process 2−111108
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Nb-Hf-Ti (10, 1 wt.%), hot isostatically pressed powder compact, creep 2−116504
Nb_3Sn, infiltration process prep., supercond. props., effect of Cu and Ga additions 2−61676
Ni alloy, heat-resisting, EP-741P, fracture behaviour investig. by thermal microscopy, P/M alloys 2−67545
Ni alloy, molten particles impinging on water-cooled Cu plate, cooling rate calc. 2−67252
Ni composite, porous and filled, internal friction and effective elastic moduli 2−99476
Ni powder, sintering in mag. field 2−116411
Ni-BN plasma spray deposited composite coatings, props. 2−83231
Ni-base superalloy, powder consolidated, superplastic response, effect of heat treatment 2−93570
Ni-base superalloy, powder-formed, near-threshold crack growth, effects of grain size and microstruct. 2−93616
Ni-base superalloys, P/M, fatigue crack initiation, effect of defects 2−67518
Ni-base superalloys, P/M, fatigue crack initiation, effect of defects, surface-subsurface transition 2−67519
Ni-C, semiliquid sintered material and melted-solidified material, modular graphite content *(Japanese)* 2−77817
Ni-Cr-BN plasma spray deposited composite coatings, props. 2−83231
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
NiC, sintered, nodular graphite content *(Japanese)* 2−77771
Ta powders, prep. process 2−111108
Ti powder, prod. from Na-thermic reaction mass 2−116410
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Cr_3Cr_2 composite, struct. form. mechanism 2−67260
TiC-Ni, densification during heating under high pressure 2−72662
TiNi, porous sintered, shape memory effect features 2−99505
U-W-B, phase constitution, X-ray diffr. photographs 2−83095
W, activated sintering mechanism, defective struct. influence 2−67253
W, carburisation, effects of trace impurities *(German)* 2−105113
W, effects of foreign element additions on reduction of WO_x *(German)* 2−105102
W, electropulse compacted, porosity influence on elastic moduli 2−111223
W, high-purity, prep. scheme 2−105105
W powder, fine, sintering 2−116413
W-Cr sintered alloys, prod. and oxidation 2−72655
W-Cu, liq. phase sintering, W particles rearrangement mechanism *(Korean)* 2−116406
W-Cu(Ag), powder metallurgy factors affecting elec. contact props. 2−116408
W-Fe powders, predetermined comp., electrochem. prod. 2−83064
W-Ni-Fe, sintering, effects of impurities *(German)* 2−105103
WC-Co VK6 hard metal, optimum conditions for hot pressing, characts. 2−67247
WC-Ni, densification during heating under high pressure 2−72662
Zr powders, prep. process 2−111108

powder sprayed coatings
aqueous powder suspension, new paint prep., applic. and props. 2−67599
charge meas. in electrostatic powder coating 2−58849
fibre reinforced plasma-sprayed coatings, effective contact area 2−83262
microparticle processor appl. 2−83055
wear resistance of coatings produced by elec.-pulse sintering and weld facing for engine valve units 2−67659
Eu_2O_3, plasma sprayed, X-ray struct. investigs., plasma jet enthalpy effect 2−99577

powder spraying
aqueous powder suspension, new paint prep., applic. and props. 2−67599
brass, atomised powder prod. and characters. 2−67251
metal powder solidified at ultrahigh cooling rates, gas permeability 2−67235
nitrides of group IIIA elements, thermodynamic props., at. no. depend., synthesis method selection 2−66259
steel, high-speed, powder prod. by pneumoacoustic atomisation, mech. characts. 2−67250
Cu powder, atomised, prod. and characts. 2−67243
Fe, atomised, pressing behaviour, zinc stearate lubricant effect 2−67245
Ni alloy, molten particles impinging on water-cooled Cu plate, cooling rate calc. 2−67252
WC, plasma-processed, condensation on graphite 2−105111

powder techniques *see powder technology*

powder technology
see also densification; hot pressing; powder metallurgy; powder spraying; sintering
alkali metal niobates, prep. using glass-ceramic methods 2−67279
brittle powder media, densification behaviour prediction method 2−99367
cellulose felt, metal-filled, high-porosity material prep., heat treatment and strength props. 2−99383
cemented carbides, stereology, review 2−111443
ceramic, powder compaction charact. 2−116415
ceramic-like body, process design, prod. from recycled waste glass, green strength 2−111125
ceramic-like body, process design, prod. from recycled waste glass, phys. props. 2−111126
ceria-yttria high-density ceramics, preparation 2−88036
compacts, density depend on particle size 2−116403
current-conducting pastes based on polymer binders and fine Ag and graphite powders, prep. and electrophys. props. 2−99384
diamond, densified, laser treatment *(Russian)* 2−66045
diamond, micropowder, thermal ovalling, theoretical model 2−88018
diamond micropowder, oxidation rate, dispersity effect 2−105440
ferrites, fundamental materials for production *(Polish)* 2−99365
ferrites, microwave sintering 2−83071
isostatic pressing without an isostat 2−57315
metal-organic precursors, powder synthesis 2−99364
mica reinforced cellular soda-lime glass composite, fabrication, mica dehydration effect 2−93485
microparticle processor appl. 2−83055
particle production in vacuum chamber, size and density control 2−83053
polymer powders, compaction conditions on press. and density variations 2−72664
polymeric powders, cold compaction, SEM study 2−111134
polystyrene rheological studies on compaction *(Japanese)* 2−83077
porous solids, compressible plastic, determining eqns. 2−65492
pressing equation variants stat. probability basis 2−67236
refractory metals, hardmetals and special materials, trends, conf., Reutte, Austria (June 1981) 2−101115
rolling, coeff. of external friction calc. 2−116402
α-Sialon, stability at high temps. 2−83145
sintering, one-component, dislocation-activated shrinkage rates *(German)* 2−93470
steel, C-tool, hot-isostatic powder densification 2−57316
Synroc-B, powder prep. and densification for fabrication 2−93478
ultrafine particle prep. by gas evaporation with arc plasma sputtering 2−67231
white cast Fe powders, enhanced densification by cyclic phase transformations under stress 2−111110

powder technology continued
AlN polytype ceramic formation, mech. props. *(Japanese)* 2−88044
AlN:Cr, sintered, dielec. losses, lattice defect types *(French)* 2−77448
AlN-Al_2O_3, ALON powder prep. by carbothermal reduction of α-Al_2O_3 in N_2 2−77784
Al_2O_3-Ni(Cr)(Ni-Cr) cermet prep. by plasma metallization of Al_2O_3 powder *(Russian)* 2−67272
α-Al_2O_3-SiO_2 (fused) compacts, sintering 2−99374
$BaAl_2Ti_6O_{16}$, powder prep. and densification for fabrication 2−93478
$Ba(Nb_xTi_{0.84}Sn_{0.16-x})O_3$, semicond. ceramics, space-charge-limited currents and dopant cond. influence, firing procedure effect *(Russian)* 2−56607
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
$BaTiO_3$ dielectrics, flux sintered 2−88033
Bi_3TiNbO_9 piezoceramic, form. and props. 2−111122
Bi_2WO_6 ceramics, grain oriented, fabrication 2−77790
$CaTiO_3$, powder prep. and densification for fabrication 2−93478
$CaZrTi_2O_7$, powder prep. and densification for fabrication 2−93478
Fe-B, refractory layer, powder boriding, photoelectron spectra, thermodynamic studies 2−93471
Fe-P-M (M:Ni, Mo), powder premixes, effect of Cu addition on sintering 2−72650
$Fe_{2-x}Cr_xCa_2O_5$ sintering, mag. transitions, solid soln. composition depend. 2−98875
α-Fe_2O_3, solid state conversion from α-FeOOH 2−56179
HfO_2, fine monoclinic power prep. by hydrothermal oxidation 2−88039
$KNbO_3$, polycryst., prep. using glass-ceramic methods 2−67279
MgO_x mechanically treated powder, struct. under impact, X-ray and Mn^{2+} ESR study 2−93472
MgO-TiO_2 mixtures, reaction sintering 2−99376
MnZn ferrite, temp. and time stability 2−82694
NaCl, ultrapure, particle size influence on sintering kinetics 2−99366
Na_2O-CaO-$Ca_3(PO_4)_2$-Na_3PO_4-Na_2SiO_3-$CaSiO_3$, subsolidus struct. 2−111151
PLZT, chemically prepared powders, grain size of mixed oxides 2−72660
PbTi(Zr)O_3, packing pressure and particle size effect on formation reaction kinetics 2−88040
Pb(Zr,Ti)O_3 composition piezoelectric ceramic preparation and props. 2−88030
Pb(Zr,Ti)O_3 piezoelectric ceramics fabrication by explosion compression molding 2−99381
Pb(Zr,Ti)O_3-polymer composites, preparation and props. 2−88045
Pb(Zr,Ti)O_3-polymer composite, preparation and transducer applications 2−88046
Si, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
SiC, pressureless sintering 2−99380
SiC, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
SiC-AlN solid solutions, hot pressed, comp. and props. 2−88037
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4, densification by high pressure hot-pressing 2−93477
Si_3N_4, fabrication by hot isostatic pressing 2−83070
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Si_3N_4 prep., nitridation of Si in N_2/H_2 atm. 2−105110
Si_3N_4, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
Si_3N_4, slip cast reaction bonded, α/β ratio, effect of α-Si_3N_4 grog additions 2−93493
Si_3N_4, ultrafine amorphous powder, crystallisation during sintering 2−111132
Si_3N_4:Y_2O_3, sintering behaviour and microstructural development 2−93480
ThO_2 powder, initial sintering stage study by emanation thermal anal. 2−88032
TiC and TiC_xN_y, abrasive power of powders, prod. technology role 2−67271
TiC, synthesis by self-propagating high-temp. method, effect of O content of Ti powder 2−99382
TiN, fabrication by hot isostatic pressing 2−83075
TiN powder, shock treatment effect, microstrain increase 2−105112
TiO_2 varistors, prep. and props. 2−57320
UO_2 powder manufacture, LWR fuel quality control, prod. parameters determ. *(German)* 2−96088
WC particles, coating by Co electrodeposition 2−83261
WC powders, submicroporosity, milling influence, small-angle X-ray scattering investigation 2−67269
YIG, microcrystalline, activation energy, synthesis by hot spray, spray dry and sol-gel methods 2−72659
$Y_2O_2S:Tb^{3+}$, X-ray phosphor prep., luminesc. props. 2−67096
ZnSe, optical ceramic, synthesis and props. 2−111123
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2−103658

powders
see also densification; granular structure; particle size; powder sprayed coatings; powder spraying; sintering
adhesion of dust and powder, book 2−94933
amber, powdered, NMR study of C site chemistry 2−106112
characterisation, computer program 2−88019
coal, pulverised, complex refractive index, light scatt. meas. technique 2−95443
coherent strength meas. by tensile rupture test method *(Japanese)* 2−64022
crystallite dimensions, X-ray Laue photography determ. technique 2−65801
1-cyanoadamantane, compact cryst. and powder, dielec. spectra, vol. fraction dependence, expt. and theoretical study 2−99022
densification during sintering, dislocation multiplication 2−116399
diamond, micropowder, thermal ovalling, theoretical model 2−88018
diamond, penetration of liq. metals, high static press. 2−82082
diamond micropowder, oxidation rate, dispersity effect 2−105440
dispersed particles, precipitation in elec. field *(Russian)* 2−62127
graphite, nucl. grade, particulate, kinetics and equil. of Cs sorption and desorption 2−74796
graphite inercalation cpds., rod intensities distrib., powder goniometer expt. and simulated spectra calcs. 2−115095
IR absorpt. spectrum of clustered ionic spheres, size effects, dipolar approx. 2−61901
magnetic, interaction with polyester binder, particles packing and orientation behaviour *(Japanese)* 2−87547

powders continued
magnetic-abrasive, effectiveness, methodology 2−67656
magnetite, multidomain powders magnetostrictive control of coercive force 2−100374
mass transfer routes, reactions between powdered substances 2−72963
metal, thermoelec. behaviour depending on press. *(German)* 2−77024
metal-organic precursors, powder synthesis 2−99364
metallic, TEM, new thinning technique 2−88321
metallic particles, IR radiation absorpt. *(Russian)* 2−104894
metals, phonon echoes *(Japanese)* 2−115375
neutron powder diffraction data anal. 2−60841
NQR spectrum line narrowing 2−110719
particle shape, microscopic anal. methods, review 2−72906
particle size analyses for powders used in thick film pastes 2−84779
phosphor powders, anal. using SEM cathdoluminescence 2−67126
polisher powder technological property determ. 2−91104
porous material, plasticity theory coefficients determ. procedure, relative density depend. *(Russian)* 2−77877
pyroelectric coeffs., pyroactivity, capacitor method 2−104817
TCNQ salt, N-n-propylquinolinium$(TCNQ)_2$ powders, pure and irrad., IR spectra 2−93189
TGS powder, phonon echo attenuation coeff., freq. depend., 10 to 60 MHz 2−66142
ultradisperse binary systems, metastable constitution diagrams 2−77812
X-ray powder diffraction with single-cryst. monochromator, polarisation factor 2−65791
Al_2O_3 powder, plasma metallization *(Russian)* 2−67272
Bi_2WO_6 powders, obtained in prescence of fused salts, morphology 2−97971
C, fibrous and particulate, catalytic graphitisation, process characts. and mechanism 2−78129
CdS, F^+ centres and oxygen radicals, impurities effect 2−93006
CdS powder particle perfection, fused $CdCl_2$ and Na_2S_x solvent effects 2−105066
Cu-Al(-Ti)(-Hf) powder, sputtered, internal oxidation to produce dispersion strengthed Cu *(Russian)* 2−67238
Fe powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
α-FeOOH, Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
Fe_3P, FeP and FeP_2 powders, Mossbauer spectroscopy 2−116105
Gd, electron diffr. pattern of Fm3m phase, Ge_2O_3 effects, theory 2−91868
GdF_2, Mossbauer spectrum, dipolar contrib. and quadrupole effect 2−93092
HgISCN powder, ^{203}Hg, ^{35}S or ^{131}I labelled, thermal effect on photolysis 2−78118
KBr, microcrystalline powder, colouration, isothermal decay, temp. effects meas. 2−98083
KCl, microcrystalline powder, colouration, isothermal decay, temp. effects meas. 2−98083
Li ferrites, ordering mechanisms 2−57345
Li_2O powder, neutron irrad., T release study 2−76509
MgO_x mechanically treated powder, struct. under impact, X-ray and Mn^{2+} ESR study 2−93472
NaCl-KCl powder, thermoluminescence study of colour centre isothermal stability 2−72567
Nb_3Sn, ultrafine supercond. powder form. by vapour phase reactions 2−67232
Ni catalyst, dispersed, low-temp. transfer of H from surface to bulk 2−56252
Ni powders, textured single-domain, mag. props. meas. *(Russian)* 2−116038
PbO(-ZrO_2) powder, shock-induced chem. and struct. modifications 2−76583
Se, powder, mag. susceptibility consts. meas. 2−87474
Si, nitriding in NH_3, kinetics study 2−88335
Si, powder wetting and dispersion without deflocculants 2−115491
TaC single-crystal powders, morphology, hardness, and grinding ability 2−83230
Tb, electron diffr. pattern of Fm3m phase, Te_2O_3 effects, theory 2−91868
ThO_2 powders, positron lifetime meas., particle size and positronium diffusion const. meas. 2−62010
TiC single-crystal powders, morphology, hardness, and grinding ability 2−83230
$TiN_{0.95}O_{0.05}$ powder, cryst. struct. characts., X-ray diffr. study 2−65950
TiO_2, adsorption of H_2O, SIMS study 2−104168
TiO_2 powder, shock loaded, paramagnetic defects, ESR study 2−77370
TiO_2 powder, shock loaded, catalytic activity 2−78125
UO_2 powders, positron lifetime spectra 2−80062
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
YCo_2 powders, ferromagnet and Mossbauer props., grinding effects *(Russian)* 2−87546
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
ZnS, crystals, powders, films, thermoluminesc., luminesc. temp. depend. and damping 2−77604
ZrO_2, highly dispersed powder, hydrothermal modification 2−99461
ZrO_2(-PbO) powder, shock-induced chem. and struct. modifications 2−76583

power amplifiers
1.5 MW high-freq. amplifier for ICRH of fusion plasma 2−85387
NQR coherent relaxometer, receiver section power amplifier 2−89764
optically controlled diffuse discharge switch 2−97801

power apparatus
see also electric machines; power conversion; switchgear; transformers
power device struct., chemical Ni plating, nondestructive control *(Russian)* 2−83049
Si power device struct., Ni contact coatings, burn-in process control by electroinductive method *(Russian)* 2−83050

power cables
see also power overhead lines; superconducting cables; underground cables
heat resistant rubbers development for power cables and conductors 2−67273
loss-of-coolant-accident test proof for Leibstadt nuclear power station *(French, German)* 2−54691
MFTF neutral beam power supplies, air insulated source cables 2−69945

power control
3rd IEEE International Pulsed Power Conference, Albuquerque, NM, USA (June 1981) 2—89461
power conversion
see also direct energy conversion
TFTR power conversion system, design and cost 2—80311
power convertors
composite material, heat conduction, air void distrib. *(Russian)* 2—82041
DC-DC, acoustic noise radiated by electronic exchange power supplies 2—97280
JET flywheel-generator-convertor, design fabrication and erection 2—69939
power supply systems for tokamak thermonuclear installations 2—64640
power factor
see also reactive power
TEXTOR, poloidal field thyristor amplifier with improved power factor 2—69941
power factor correction
TMX Upgrade, magnet power supply, power factor correction appl. 2—69953
power factor measurement
electronic instrument for the direct measurement of phase shift and of power factor *(Rumanian)* 2—112918
power factor meters *see power factor measurement*
power factor Q *see Q-factor*
power generation, electric *see electric power generation*
power generators, electric *see electric generators*
power lines *see power cables*
power measurement
see also wattmeters
calibration of broadband meters in presence of source fluctuations 2—112855
calorimeter automation, adiabatic, 5 to 300K 2—53766
concentrator photovoltaic cells performance measurement techniques 2—93916
defibrillation episodes, transthoracic impedance, delivered energy and peak current determ. 2—73393
far IR/near MM wave spectral region, calibration of power and energy meters 2—95470
laser beam in dual-beam laser scanner 2—95423
laser calorimetric wattmeter, thermocouple sections selecting system 2—81007
laser emission power relative density distribution, standard meas. facility 2—53725
laser energy meas., working standard 2—53724
laser energy meas. using calorimeter with conical chamber, absorption coeff. determ. 2—85991
laser ice calorimeter for pulsed radiation meas. 2—114346
laser mean power and energy standards, digital meas. instruments characts. 2—114345
laser power meas. in visible region, international intercomparison of He-Ne and Ar-ion lasers 2—102771
laser radiation displacement influence on units transmission of relative distribution of power density 2—86023
laser radiation mean power unit, working standard 2—53723
laser-radiation energy meas., working standard errors determ. 2—84591
microwave, working standard 2—95400
modal distributionin multimode optical fibres, near-field intensity technique 2—60242
optical power output of optical fibres 2—102953
photon 2—75549
pulse energy of optical radiation meas., photometer design appl. 2—64089
pulse laser energy meas. using optical meter based on optoacoustic phenomenon 2—55235
radiant power meas., remote sensing of temperature by a TGS pyroelectric detector 2—53771
radiation energy charcts. comparator calibration, using. conjugate-comparator method 2—95471
self-heated thermistors for flow rates and energy measurement *(German)* 2—86361
power overhead lines
see also power cables
sea salt deposition on ceramic insulators 2—94463
power overhead transmission lines *see power overhead lines*
power packs *see power supplies to apparatus*
power plants
see also solar power; space vehicle power plants; wind power plants
fuel cell, current status and future developments *(Czech)* 2—57695
fuel cell, development trends 2—73109
fuel cells, S tolerant catalysts, Toyo T-12 and T-12/T-48 combination, for processing no.2 fuel oil for use in fuel cells 2—62474
methanol, co-production, in gasification combined cycle power plant 2—67801
nuclear, diagnostic system for reactor core and plant control system, process signal noise anal. 2—96296
two-loop gas-liquid refrigerating power plant anal. 2—62487
H_3PO_4 fuel cell power plants, effects on performance and economics of alternative fuels 2—62473
power station computer control
CANDU PHW nuclear power plants, instrumentation and control systems 2—96297
design and evaluation of nuclear reactor control room display 2—96241
nuclear power plant, primary coolant temperature, optimal control 2—102102
nuclear power station control room design, lessons of TMI accident 2—96221
Oldbury nuclear power station, computerised monitoring and control system 2—108053
thermal and nuclear plants, industrial computer systems appl. *(Japanese)* 2—80151
thermoelectric plant, supervisory scheme, design criteria *(Italian)* 2—62484
Tokamak-type fusion reactors, control and instrumentation *(Japanese)* 2—74897
power station control
see also power station computer control
BWR plant control room design, human factors 2—102257
power station control continued
nuclear power plant control and instrumentation system reliability *(Japanese)* 2—74857
nuclear power plant operation, advanced display-control concepts 2—85173
nuclear power plant operational training simulators, design in light of TMI 2—102247
solar powered central receiver, quadratic optimal control 2—57687
power stations
see also energy resources; gas turbine power stations; geothermal power stations; hydroelectric power stations; nuclear power stations; power plants; solar power stations; steam power stations; tidal power stations
11 MW fuel cell power plant for electric utility dispersed generation appls. 2—73108
assessment of the legislative and regulatory environment: NO_x case studies 2—67903
boiler furnaces heat flux measurement devices 2—81212
coal-fired open cycle MHD power generation, cost effectiveness *(German)* 2—62482
combined heat and power generation plants utilisation and conditions of utilisation of solar energy *(Rumanian)* 2—73071
combined heat/power generating plants using primary energy sources *(Czech)* 2—88467
compressed air storage power plant, operation prospects 2—78256
effluents, air pollution, plume model validation 2—73176
equipment corrosion protective measures and economics *(German)* 2—93664
micro-climatic measurements in power stations for optimizing protection against corrosion. *(German)* 2—93665
Nanticoke Thermal Generating Station, Ontario, effect of discharge on water temps. in Lake Erie 2—88918
supercharged fluidised bed combustion, for district heating *(German)* 2—91527
thermal storage power station for peak-load generation near to consumers *(German)* 2—57734
NO_x flue gas removal systems, economic evaluation 2—73054
power supplies to apparatus
see also cells (electric); constant current sources; power plants; power supply circuits; prosthetic power supplies
3-electrode short pulse X-ray generators, HV power unit 2—58981
200 kV capacitor band as current source for dense plasma focus 2—91635
ASDEX neutral injectors, damping element in high voltage circuits 2—74944
Auger electron spectroscopy system, 0-2 kV/200 μA linearly variable supply design 2—111524
concentrating photovoltaic systems for generating power in satellites 2—93909
concentrating spectrophotovoltaic system for orbital power generation, economic feasibility 2—83494
controlled thermonuclear fusion electrical engineering problems 2—64638
Doublet III 2 MW ECH power supply system 2—85388
Doublet III neutral beam power system 2—74945
electron beam pumped excimer laser system with HV pulsed power supply 2—90939
FED control power 2—75032
fusion reactors, thyristor power supplies control using automatic pulse phase shifter 2—69937
high-resolution electron energy loss spectrometers, high-stability low-noise power supply design and construction 2—89868
human body implant, optically powered 2—68198
INTOR power handling and conversion 2—80260
JET flywheel-generator-convertor, design fabrication and erection 2—69939
laser high-speed current regulated power supply, optovoltaic effect study in CW CO_2 lasers 2—114318
laser power supply, designer requirements 2—108893
Lawrence Berkeley Laboratory neutral beam engineering test facility power supply system 2—69950
LCT protective dump switch tests 2—69954
MFTF, power supply hardware protection, CAMAC based interlock system 2—74989
MFTF electrical systems, status and plans 2—85276
MFTF HVDC beam components protection by electronic crowbar 2—74948
MFTF neutral beam arc power supplies, output current transient elimination 2—69947
MFTF neutral beam power supplies, 80 kV snubber core assemblies, test and design 2—69948
MFTF neutral beam power supplies, air insulated source cables 2—69945
MFTF sustaining neutral beam power supply safety procedures 2—74960
miniature batteries, long life, present trends for electronic appls. *(Japanese)* 2—99776
modular HV system for phototube and MWPC appl. 2—75125
Nova, high density energy storage capacitor 2—80309
Nova, power system and energy storage 2—75015
Nova power systems and energy storage 2—75016
PDX, 60 GHz ECRH system 2—85389
PLT, high voltage RF coaxial vacuum bushing design considerations 2—74953
PLT, ICRH, 9 inch stub tuner design 2—74954
PLT 800 MHz RF generator for lower hybrid resonance heating 2—74955
power pack using Ni-Cd battery 2—62470
pulsed power for inertial confinement fusion 2—80235
solar cell arrays, materials, technology and future developments 2—78207
tampon plating, plant, material, solutions *(German)* 2—105489
telephone exchange energy requirements supplied by roof-top solar cell arrays *(French German)* 2—57699
TEXT, motor generator installation and operation 2—69936
TEXT poloidal field power systems operation 2—69934
TEXT toroidal field power supply operation 2—69935
TEXTOR, magnetising circuit 2—69946
TEXTOR, poloidal field thyristor amplifier with improved power factor 2—69941
TEXTOR toroidal field power supply system commissioning tests 2—69942
TFTR multistage ignition crowbar development 2—69949
TFTR neutral beam test facility, discharge ion sources and power supply 2—69951
thermonuclear installation power supply injector systems design 2—64645

power supplies to apparatus continued
thermonuclear plants injection system power supplies design 2−64647
thermonuclear reactor injector power supply systems design 2−64646
TMX Upgrade, magnet power supply, power factor correction appl. 2−69953
Tokamak poloidal coil power supply system 2−80308
Varennes Tokamak, power supply design 2−69944
ZT-40M system design, modification, and installation 2−69952
power supply, emergency *see emergency power supply*
power supply circuits
see also constant current sources; power supplies to apparatus
600 kV Marx module for high-density Z-pinch experiment 2−90415
constant power source, 500 μW-275 mW, 30-120 mA *(Spanish)* 2−69162
power supply industry *see electricity supply industry*
power supply systems *see power systems*
power system CAD
see also power system computer control
absorption heat pumps, computer-aided design *(German)* 2−62486
power system computer aided design *see power system CAD*
power system computer control
see also power station computer control; power system CAD
ASDEX feedback system, plasma control techniques 2−69964
power system control
see also power station control; power system computer control
wind energy conversion plant interface with electric utility systems 2−73060
power system interconnection
wind power plants for irrigation pumping in USA, sale of excess electricity to utility 2−116774
power system protection
see also lightning protection; overcurrent protection; overvoltage protection
ASDEX neutral injectors, damping element in high voltage circuits 2−74944
MFTF, power supply hardware protection, CAMAC based interlock system 2−74989
MFTF HVDC beam components protection by electronic crowbar 2−74948
wind energy conversion plant interface with electric utility systems 2−73060
power systems
see also power apparatus
combined wind-electric/conventional generation systems reliability anal. 2−73062
dynamic isotope power systems, features and spacecraft applications 2−80165
homopolar generators, shockwave, for power supply to thermonuclear installations 2−64641
silicon solar satellite power system: a net energy analysis 2−57700
solar cell electricity supply systems for remote areas of Kenya 2−111561
technology review, USA developments 2−78168
telephone exchange energy requirements supplied by roof-top solar cell arrays *(French German)* 2−57699
thermonuclear reactor injector power supply systems design 2−64646
thyristor supply systems for experimental thermonuclear reactors, design problems 2−64644
tokamak thermonuclear installations power supply system 2−64640
wind-assist electric power systems, energy transfer model 2−88403
power transformers
electromagnetic field distribution in solid metallic structures near current-carrying finite-length bar conductors, three-dimensional analysis 2−80875
oil transformers gas anal., similarity of results *(German)* 2−99732
passivation methods for reducing catalytic effects of metals *(Rumanian)* 2−57522
power transistors
semiconductor device physics, book 2−53437
power transmission lines
detection of incipient faults in transmission cables using time domain reflectometry techniques: technical challenges 2−101447
power utilisation
see also domestic appliances; environmental engineering; heating; metering; refrigeration; transportation
energy consumption in Israeli industry and agriculture 2−83442
heat pump installation operating and investment cost minimisation mathematical model *(German)* 2−67877
PPP calculations
alternant conjugated hydrocarbons, physical and chemical props., use of concept of quasispin 2−80408
benzene type rings and linear chains, correlation effects, PPP calc. 2−80490
bi(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformational anal., CNDO/2, MNDO and PPP calcs. 2−96459
conjugated π systems, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2−90461
energetic anal. of electronic struct. of mol., MO SCF PPP method appl. 2−75149
hexatriene, excited states and pairing relations 2−54770
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
4-isocyanate-trans-stilbene, donor substituted, excited state, dipole moments, PPP calcs. *(German)* 2−64882
molecules, localised bond model to fourth order perturbation theory 2−113847
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
perturbation theory, constant denominator, for mol. energy calcs. 2−113854
polyacenes, linear, electronic struct. calc. using SCF-RPA method 2−108375
polyacetylene, bond alternation, electronic correl. effects 2−56455
polyenes, finite, correl. states, exact PPP results 2−75190
polyenes, infinite, RHF singlet ground state instabilities, PPP calcs. 2−102392
polyenes, infinite, RHF triplet ground state instabilities, PPP calcs. 2−102393
PPP calculations continued
SCF valence bond method, effective spin Hamiltonian 2−108392
transition dipole moments calc. by biexcited CI method *(French)* 2−108407
praseodymium
see also nuclei with .....
atom, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
hyperfine interactions, mag. impurities and antiferromag. ordering 2−104582
internal friction, high-temp. spectra, relax. and phase shift peaks 2−57395
magnetoresistance, transverse, Fermi surface topology 2−104228
paramagnetic phase, spin fluctuations 2−66764
specific heat and mass renormalisation 2−66828
valence transition under press. 2−56502
$Ba_{0.4}Sr_{0.6}Nb_2O_6:Pr^{3+}$, inverse Raman spectra 2−104877
$Bi_{2-x}La_xWO_6$:Pr, luminesc. props. 2−82900
$CaF_2:Pr^{3+}$, optically detected NMR, hole burning 2−72379
$CaO:Pr^{3+}$, site selective spectroscopy, UV and fluoresc. study 2−110895
$Cs_2NaYCl_6:Pr^{3+}$, optical emission spectra and cryst. field anal. 2−104935
$LaF_3:Pr^{3+}$, fluoresc. quenching by cross relax. 2−82917
$LaF_3:Pr^{3+}$, interaction strength of weakly coupled pairs measured by a two laser spectroscopy technique 2−82881
$LaF_3:Pr^{3+}$, phonons created by quenching process, direct detection 2−71595
$LaF_3:Pr^{3+}$ single cryst., fluoresc. line 2−61944
$LaF_3:R^{3+}$, Pr^{3+} where R=Nd, Dy, fluoresc. obs., decay time meas. 2−110914
$LiYF_4:Pr^{3+}$ hyperfine struct., NQR studies 2−66949
$LuPO_4:Pr^{3+}$, IR spectra, Zeeman effect and fluoresc. obs. 2−72522
Pr^{3+} ions in Pr chloride aq. solns., luminesc. spectra with excitation in 4f-5d absorpt. bands 2−116244
Pr^{3+}, Sternheimer hexadecapole antishielding factor η_{oo}, angular and self-consistency contrib. 2−90464
$Pr:Gd^{3+}$, Er^{3+}, exchange interaction, g-shift, ESR study 2−72342
$PrAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957
$PrCl_3$ gas phase, UVPES 2−85739
$YAlO_3:Pr^{3+}$, perturbed ^{27}Al photon echo ENDOR double reson. 2−104745
$YAlO_3:Pr^{3+}$, two-pulse photon echo ENDOR study 2−98997
$YIG:Pr^{4+}$, cryst. growth from melt, spontaneous magnetisation and mag. anisotropy meas. 2−77273
$Y_2O_3:Pr^{3+}$, optical absorpt. and fluoresc. spectra, crystal field anal. 2−72525
$YPO_4:Pr^{3+}$, IR spectra, Zeeman effect and fluoresc. obs. 2−72522
praseodymium alloys
amorphous, mag. props., nonaxial crystal field model 2−77301
amorphous alloys, low temp. mag. props. 2−56870
valence fluctuation systems, systematics 2−56498
$La_{1-x}Pr_x$, intermediate valence materials, press. expts. 2−56502
Pr-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
PrAg, magnetisation and susceptibility meas. 2−116032
$PrAg_{1-x}Cu_x$, quadrupole interactions and struct. instabilities, neutron diffr. and magnetisation study 2−71943
$PrAl_2$, complete mag. moment vector, magnetisation meas. 2−66784
$PrAl_2$, quadrupole interaction at ^{111}Cd probe 2−116100
$PrBe_{13}$, Van Vleck paramag., cryst. field effects, magnetisation, resist. and NMR 2−72140
$PrCo_2$, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
$PrCo_2$, anomalous hyperfine field and orbital moment 2−56973
$PrCo_5$, X-ray L_{III} absorpt. spectra of tetravalent Pr *(Russian)* 2−99218
$PrFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
$PrIn_3$, singlet ground state system, Hall effect meas. and calc. 2−98625
$Pr_cLa_{1-c}Ni_2$, heat capacity meas. 2−92916
$PrNi_2$, heat capacity meas. 2−92916
$PrNi_2$, Laves phase, cryst. field 2−98598
$PrNi_5$, elec. and thermal cond., 0.5 to 20K, cryst. field effects 2−56549
$PrNi_x$, heat cap., Schottky contribution, nucl. mag. ordering 2−98304
$PrNi_5Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
$PrPd_3$, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006
PrPtSi, cryst. struct. 2−65922
$(PrRd8_0Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
$PrSn_3$, monocryst., thermopower 2−71952
$Pr_{1-x}Y_xCo_2$, Curie temp. magnetisation and NMR, Co local environment effect 2−116071
Sn-Pr, liquid., dil., 4f spin dynamics, TDPAD study 2−56992
$Y_{1-x}Pr_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706
praseodymium compounds
see also praseodymium alloys
praseodymium ethylsulphate, crystal field splittings by polarisable ligands 2−92539
$BaTiO_3$-Pr_2O_3.$3TiO_2$, formation of $BaPr_2Ti_4O_{12}$, dielec. props. 2−71417
CaF_2-PrF_3, radiation induced F^- interstitials, TDPAC study 2−98163
$Er_xPr_{1-x}Sb$, impurity nearest-neighbour distances, EXAFS study 2−82957
HfO_2-$PrO_{1.5}$ system, eutectoid decomp. process influence on physico-chem. props. 2−99404
KF-PrF_3 system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
$La_{2-x}Pr_xCuO_4$, struct. transitions, elec. props., semicond.-metal transition 2−81949
$La_{1-x}Pr_xF_3$, inhomogeneous broadening, time resolved fluoresc. meas. 2−116251
Pr complex, L-carnosine-Pr^{3+}, in aq. solns., bound shifts 2−70286
Pr-P system, phase diagram 2−77807
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
PrB_6, extreme UPS meas. 2−67187
$PrBO_3$, preparation from PrO_x and B_2O_3, characterisation 2−72645
$PrCl_3$ complexes in soln., optical absorption spectrum, cryst. field parameters 2−116205
$PrCl_3$, crystal field splittings by polarisable ligands 2−92539
Pr_5Ga_3, mag. props., struct., anal. 2−66763

praseodymium compounds continued
Pr_2O_3, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
Pr_2O_3, cubic, lattice and binding energies 2−60916
Pr_6O_{16}, electron beam induced reduction, high resolution electron microscopy study 2−78086
Pr_3S_4:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2−72195
$PrSb_5O_{12}$, cryst. struct. and dielec. props. 2−109755
$PrSb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$Pr_8Sb_2S_{15}$, cryst. struct. 2−55952
$Pr_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Pr_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
Pr_3Tl:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2−72195
$PrVO_4$:Gd^{3+}, ESR spectrum, temp. depend. 77 to 300K 2−66913
$RbPr(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808

preamplifiers
chamber preamplifiers/amplifiers system 2−70104
chip 733 as low input impedance preamplifier for current-division use 2−90411
electrometer preamplifier, with high-stability and low-noise 2−84663
Fourier transform spectroscopy, slow scanning, bolometer-preamplifier for balloon-borne appls. 2−112334
microwave coaxial structure for packaged MESFET operation at top noise and gain performance at 24 GHz 2−100734
pulsed transistor reset preamplifier for high resolution spectroscopy 2−64811
signal processing appls. in laser-enhanced ionisation spectrosc. 2−64115
TEC-He_3-I, charge sensitive preamp. RC shaping amplifier, low level discriminator *(French)* 2−90413
InSb low-noise photodetector preamplifier for IR astronomy 2−112333

precession, Earth *see Earth rotation*

precipitation
microstructural process and features only
see also Guinier-Preston zones; segregation; Widmanstatten structure
alkali halide, divalent cation-doped, mech. strengthening and impurity precip. 2−88093
alloy, binary, evolution toward equil. shape of θ′ precip. by interface diffusion 2−72702
alloy, irrad., recoil resolution and particle stability, dissolution and inverse coarsening 2−86719
alloys, complex, high temp. radiation damage 2−109843
alloys, multistage ageing, elastic stress effect, coherent particle crit. radius *(Russian)* 2−105152
alloys, multistage ageing, elastic stress effect, precipitate stability *(Russian)* 2−105151
alloys, precipitate coarsening, induced by point defect recombination under irrad. 2−83121
alloys, segregation kinetics under irradiation *(Russian)* 2−104003
alloys, surface precipitation in case of ordering in interior *(Russian)* 2−104125
binary alloys, effect of supersaturation on parabolic rate constant 2−67731
chemically deposited, struct., precipitation etching *(German, English)* 2−116663
coarsening kinetics, integral mean curvature meas. 2−111185
coherent precipitate growth approx., stability 2−56193
damage structures irrad. with cascade of various PKA energy spectra 2−109825
diffusion saturation conditions, theory *(Russian)* 2−88084
discontinuous, improved model 2−105147
dispersed particles, precipitation in elec. field *(Russian)* 2−62127
elastic interaction, integral eqn. approach 2−98293
elastic interaction between self-stress fields of two precipitates, theory 2−111178
electron microscopy, conference, Kyoto, Japan (May 1981) 2−68953
hematite, from defective spinels, kinetic study by elec. cond. *(French)* 2−92201
$Hg_{0.70}Cd_{0.30}Te$ anodic oxidation 2−111344
internal oxidation, precip. under diffusion saturation conditions, theory *(Russian)* 2−88084
interphase interfaces theory, geometrical parameters use 2−105164
metals with BCC lattices, precipitation of interstitial solns., initial stages, computer simulation *(Russian)* 2−77824
meteorites, Richardton H5 chondrite, metal discontinuous precipitation reaction 2−73918
Nimonic PE16, ion bombarded, damage struct. 2−109855
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
Ostwald ripening theory 2−83119
particle growth by difference approx. 2−60904
particle stability, with recoil resoln. 2−67339
phase separation and aggregation of precipitates, change in motive force of diffusion and free energy 2−92157
Shirasu volcanic glass-CaO-MgO system, glass form. composition range, props. *(Japanese)* 2−88049
silica, crack blunting in water and silicic acid soln. 2−111276
solid solutions, precipitation, diffusion theory 2−86885
steel, Al, high C, struct. changes during tempering *(Russian)* 2−105190
steel, alloy, interphase boundary migration, bowing mechanism 2−83129
steel, alloy, weld metal similar to X20 CrMoV121, heat treatment effect on phase transform. and mech. props. 2−62144
steel, alloy type, carbide precipitates, comp. and morphology, STEM and X-ray microanalysis, replica technique 2−67352
steel, austenite precipitation, supercooled, after forced austenitization, kinetics *(Russian)* 2−93516
steel, austenitic, Laves phase scaly precipitation of type 0Kh16N15M3B following neutron irrad. 2−54509
steel, austenitic ferritic, with low interstitial level, mech. and corrosion props. *(Italian)* 2−99563
steel, austenitic stainless, 316, cold worked, Ti modified, tensile props., irrad. in high flux isotope reactor 2−72764
steel, austenitic stainless, 316, degradation of props. during irrad., preirrad. microstruct. development 2−69865
steel, austenitic stainless, corrosion resistance, effect of high temp. low cycle fatigue 2−78018
precipitation continued
steel, austenitic stainless, Cr-Mn, uniaxial tensile props., Li exposure influence 2−80178
steel, austenitic stainless, cyclic strain hardening, during fatigue, elevated temps. 2−93530
steel, austenitic stainless, high temp. creep, mech. props., influence of C and N 2−105246
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, austenitic stainless, irrad. in EBR-II and HFIR, swelling, microstruct. development and He effects 2−108109
steel, austenitic stainless, Nb-stabilised, neutron irradiated, void-swelling and precipitation 2−105154
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, austenitic stainless, precip. reactions, effect of stabilising additions 2−72699
steel, austenitic stainless, sensitisation, model, expt. evaluation 2−88261
steel, austenitic stainless, surface hardening and microstruct. changes, influence of US vibr. 2−99538
steel, austenitic stainless, type 316, long-temp. creep rupture properties, 550 to 700°C 2−99564
steel, austenitic stainless, void swelling, 1.1 MeV N-ion irrad., TEM study 2−109854
steel, austenitic stainless, weld metal, carbide form. at 649°C 2−67345
steel, austenitic stainless 316, radially solidified, B doped, pre-irrad. spatial distrib. and stability of boride particles 2−85211
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, carbide particles, diffusion-controlled precip. and dissoln., computer simulations 2−105157
steel, Cr-Mn, high-N, precip. and intercryst. corrosion after isothermal annealing 2−72729
steel, Cr-Mn type, carbide form., W and Mo influence 2−105160
steel, Cr-Mo, H stress cracking, enhanced resist., role of Mo 2−99537
steel, Cr-Mo, low alloy, mech. props. improvement by cyclic heat treatment *(Korean)* 2−67387
steel, Cr-Mo, low C, tempering behaviour, effect of C content 2−77853
steel, Cr-Mo, precip. of Fe_2MoC carbides 2−83123
steel, Cr-Mo-Mb-V, used in vapour generators for fast neutron reactors 2−77826
steel, Cr-Mo-Nb-V, fast breeder reactor components, precip. study *(French)* 2−88089
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, Cr-Ni (13, 4-6 wt.%), temper embrittlement *(Czech)* 2−116535
steel, Cr-Ni-Mo-Mn, Mo distrib. during long-term holding between 554 and 654°C *(French)* 2−72700
steel, high speed, precip. of carbidic phases during tempering 2−88090
steel, high-speed, tempered carbides, precip. sequence interpret. 2−105150
steel, low alloy, metastable austenite, mech. props. 2−105254
steel, low alloy, struct. and props. after rolling, rel. to austenite transform. kinetics 2−72745
steel, low alloy ESR, grain boundary sulphide precip. effect on hot ductility 2−67350
steel, low-C, chem. capped, anomalous struct. layers form. 2−105185
steel, lower bainite struct., cementite precip., crystal geometry obs. *(Russian)* 2−93515
steel, maraging, N18K9M5T, influence of Ti additions on delayed fracture props. *(Russian)* 2−105286
steel, martensitic, Cr, precip. and decomp., DSC study *(Korean)* 2−62128
steel, mild, cold forming suitability 2−72718
steel, mild, precip. of $Cu_{1.8}S$, Digenite I 2−105158
steel, Mo and V, tempered, struct. changes and carbide formation, electron microscopy study *(Russian)* 2−99459
steel, Ni-Cr-Ti-Al, precip. and dislocation struct. in creep, 1023-1173K *(Czech)* 2−116507
steel, nitrided, AES eval. of nitrides 2−93681
steel, Si-Mn, bainitic transform. *(German)* 2−116436
steel, stainless, 1.4970, He embrittlement reduction by finely dispersed TiC precipitates 2−71520
steel, stainless, austenitic, ageing with γ′ precipitation, intermittent reaction *(Russian)* 2−67346
steel, stainless, austenitic, precip. and cavity form. during irrad. 2−86735
steel, stainless, maraging, susceptibility to warm embrittlement 2−67531
steel, stainless, martensitic, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
steel, stainless, radiation-induced struct. changes 2−86714
steel, stainless, rapid solidification 2−83106
steel, stainless, type 316, cast, creep, effect of thermal ageing and grain size 2−105196
steel, stainless austenitic, Cr-Ni-Mo (15, 15, 1 wt.%), DIN 1.4970, precipitation behaviour *(German)* 2−67343
steel, stress-relieved SAW metal, Nb microalloyed, mech. props. and microstruct. 2−105192
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
steel, V, hot deformed, isothermal austenite-ferrite transform, TEM study 2−111172
steel lath martensite, deformed and undeformed, tempering process, effect of Nb additions 2−99454
steel wire, high-elasticity, rapid annealing for prod. lines in thermomech. treatment *(French)* 2−72742
steels, AISI 302, 304, 316, 347, C-precipitation influence on low temp. impact strength, corrosion, austenite stability 2−57508
steels, ferritic stainless, fast neutron irrad., microstruct. obs. 2−108108
transition metal clusters in activated intermetallic hydrogen sorbers, ferromag.-paramagnetic transition 2−66233
two species diffusion in sphere 2−99428
void growth, effect of precip.-matrix interface sinks 2−86661
Ag halide emulsion, microcrystal growth rate and precipitation in emulsification *(Russian)* 2−58958
Ag-Sn, peritectic reactions and transforms, mechanisms 2−83087
Al-Ag-Al strip, pressure-welded, interdiffusion layer struct., ultramicrotomed thin section method 2−71738
Al-based alloys, precipitation mechanism of Ge, positron annihilation study 2−57359
Al-C alloy, dispersion hardening, mech. alloying in attrition mill, struct. obs. 2−111113

precipitation continued
Al-Cu, Mn, Ti, Cd and Zr impurities effect on ageing, electron microscopy study *(Russian)* 2−93539
Al-Cu, θ′ precipitates, coherency loss, dislocations, plastic deformation effects, internal friction study 2−71464
Al-Cu (4 wt.%), resistivity maximum during Guinier-Preston zone formation 2−82319
Al-Cu (4 wt.%), θ′ precipitates, lattice image obs. 2−76363
Al-Cu (4 wt.%) alloy, evolution toward equil. shape of θ′ precip. by interface diffusion 2−72702
Al-Cu (4 wt.%) single crysts., containing θ″ precipitates, cyclic stress/strain response 2−99495
Al-Cu-Mg, ageing, elec. cond. study using eddy current meas. 2−88230
Al-Cu-Mg (1.3,1.3 at.%), high temp. ageing, coherent precipitation obs. *(Russian)* 2−99429
Al-Fe(4wt.%), STEM-EDS X-ray microanal. of rod-shaped precipitator 2−67795
Al-Li-Mg system, Guinier-Preston zones, coarsening mechanism, SAXS study 2−62129
Al-Mg, dispersion hardening, X-ray matrix reflections, double maxima study *(Russian)* 2−93522
Al-Mg-Sc alloy, elastic strain caused by $ScAl_3$ precipitates, electron microscopy study *(Russian)* 2−105207
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al-Mn, peritectic reactions and transforms, mechanisms 2−83087
Al-Mn, unhomogenized, recrystn. 2−83138
Al-Mn solid soln., precip. and recrystn., internal friction obs., fine-grained struct. *(French)* 2−77842
Al-Ni-Co-Cu-Ti, Alnico 8 alloy, $\alpha \rightarrow \gamma$ transformation, α_γ phase precipitation, coercive force study 2−91858
Al-Ru (10-15 wt.%), rapidly quenched, phase transform 2−77823
Al-Zn, irradiation induced solubility decrease and precipitation 2−71655
Al-Zn (15 and 25 wt.%), intercryst. precipitation *(French)* 2−116448
Al-Zn (15-25 wt.%), grain boundary migration mechanism *(French)* 2−86684
Al-Zn (38 wt.%), morphological features of discontinuous reactions 2−67344
Al-Zn (4 wt.%), GP zones, ageing and reversion, elec. resist. meas. *(Japanese)* 2−83143
Al-Zn alloys, cellular decomp. 2−83120
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
$CdRCr_{0.5}Ta_{1.5}O_7$ (R=rare earth), electrophysical props. 2−87645
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-Cr-Al-Y (22, 11, 0.5 wt.%) coating, oxide form. at 700°C 2−116621
Co-Cr-Mo-C alloys, wrought, phase transform. 2−99423
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-Fe (20 at.%), grain boundary precip., TEM, STEM, SEM and electron channelling study 2−72708
Co-Fe-Nb semihard mag. alloy, cold working effects on precipitate morphologies rel. to mag. hysteresis 2−92962
$(Co_{0.78}Fe_{0.22})_3V$ alloy, ordered, microstruct. 2−72719
Cr-Fe-C alloy with precip. $(Cr,Fe)_{23}C_6$ phases, nonrandom site occupation, parameters 2−72705
Cu alloys, oxide particle precipitation, thermodynamic calcs. 2−81969
Cu-Al, short-range order and coherent precipitation in α-phase *(French)* 2−57358
Cu-Be, TEM obs. of microstruct. evol. in simulated ion irrad. alloys 2−86745
Cu-Be (1.4 wt.%) alloy, discontinuous precip., secondary reaction 2−105149
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Cu-Be alloy, multistage twinning of tetragonal two-phase blocks formed during ageing, γ′ particle distrib. *(Russian)* 2−67348
Cu-Be-Ni (2 wt.%, 0.30 wt.%), ageing charact. *(Chinese)* 2−62147
Cu-Co alloys, precipitated particles, coarsening process *(Japanese)* 2−83125
Cu-Cr sputtered thin film, precipitate morphologies, annealing effects, electron microscope and EDX study 2−67353
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Sn (10.8,wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Cu-Ni-Sn (9, 6 wt.%), combined recrystn. and precip. 2−77840
Cu-Sn, peritectic reactions and transforms, mechanisms 2−83087
Cu-Ti alloy, thin foil, microstruct. changes 2−71826
Cu_2MnAl, Heusler alloy, decomp. of β-phase 2−88086
$ErFe_2$, spin polarised photoemission probing of magnetism 2−67184
Fe alloy, martensite produced by cooling austenite with coherent inclusions, cryst. struct. calc. *(Russian)* 2−67347
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
α-Fe:He, He precipitation at vacancies, computer simulation 2−86706
Fe-base superalloy A-286, effect of composition and high energy rate forging on precipitation 2−111183
Fe-C, ferrite, C cluster formation, critical cluster size, computer calc. 2−67340
Fe-Cr (32 at.%) supersaturated solid solns., spinodal decomp. at 470°C, precip. morphology 2−105162
Fe-Cr (45.5 at.%), σ phase form., Mossbauer effect study 2−104776
Fe-Cr-Co-Nb-Al alloy, high-coercivity, microstruct. rel. to mag. props. 2−111333
Fe-Cr-Ni-Al, NiAl precipitation during ageing 2−105156
Fe-Cu, precipitation during annealing, after low temp. electron irrad. *(Russian)* 2−116445
Fe-Cu-Ni (2,2 at.%), ε-Cu precip. on interphase boundaries, orientation relationships, electron microscopy study 2−72707
Fe-N, thermodynamics, kinetics and props., data collection 2−89474
Fe-Ni martensitic alloys, tempering behaviour in cryst. microstruct. *(Korean)* 2−83144
Fe-Ni-C alloys, precipitation and distrib. of carbides, effects on martensitic transform. and electrochem. behaviour *(French)* 2−99433
Fe-Ni-Co-Ti, martensite and austenite, disperse γ′ particles elastic deform. and γ⇌α transitions *(Russian)* 2−88078
Fe-Ni-Cr alloys, grain coarsening, influence of second phase particles 2−93511
precipitation continued
Fe-Ni-Si (18,3 at.%), martensite aging, precipitated intermetallic phase struct., electron microscopy study *(Russian)* 2−93514
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
Fe-Si electric steel, disperse excess phase formation 2−105165
Fe-Si-C, primary stage of bainite reaction, TEM obs. 2−83109
Fe-Ti, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
Fe-Ti-V-N system, complex nitrides form. in liq. metal 2−67295
$Fe_{85}B_{15}(Fe_{77}B_{23})(Fe_{60}Ni_{25}B_{15})$, metallic glasses, AC magnetisation props. meas. cryst. precipitates effect 2−72851
$Fe_{81}B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
FeTi, spin polarised photoemission probing of magnetism 2−67184
Ga liquid layer dispersion on surface of Ag film *(Russian)* 2−71778
GaAs:Cr (Cr_2O_3), supersaturated soln., precipitation processes, TEM study 2−92203
GaAs:S, ion implanted, elec. carrier and atomic profiles correlation 2−72000
GaAs:Se^+, ion implanted, high temp. annealed, damage, defects and elec. props. 2−98097
GaP:S, homoepitaxial layers, influence of microdefects on dislocation generation 2−92377
GaP:S LEC epitaxial layer, microdefects and dislocation generation, TEM study 2−115236
Ge high-purity crystals, H conc. and distrib. 2−70051
Ge, low levels of O meas. by Li precipitation technique 2−61012
Hb-Hf, dynamic strain aging, 20 to 900°C *(French)* 2−57377
$Hg_{1-x}Cd_xTe$, precipitation and phase stability 2−86879
$In_{0.53}Ga_{0.47}As$ surfaces (100), peroxide etch chemistry 2−111515
InGaAsP relationship between struct. and props. 2−71486
InGaAsP/InP double heterostruct. lasers, aged, TEM obs. of dark defects 2−55143
InP relationship between struct. and props. 2−71486
KCl:Eu, F-centre colouring 2−109791
KCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
KCl:Sr^{2+} solid solns., solvus, impurity precipitation, density meas., thermodynamic anal. 2−92217
$LaNi_5$, Ni microprecipitates produced by cyclic H absorpt. and desorpt., Ni^{61} Mossbauer study 2−66953
LiF implanted single crystals, oriented In metallic aggregates formation 2−76680
LiF:Mg, TLD-100, clustering and precip., dielec. loss study 2−92213
LiF:Mg, TLD-100, thermoluminesc. meas., clustering and precip. effects 2−93291
Mg-Sm, supersaturated solid soln., precipitation study *(Russian)* 2−116443
MgO:Fe^{3+}, quenched crystals, kinetic reactions 2−57380
$MgO.3.5Al_2O_3$ single crystal, non-stoichiometric spinel, precipitation 2−88085
Mo, ion implantation effect on microstruct., TEM obs. 2−71522
Mo, precipitation at room temp., TEM and THDS obs., He platelet form. 2−88088
MoC_x, metastable semicoherent precipitate struct. anal. by diffr. contrast image matching 2−76685
NaCl bicrystals, microhardness 2−57454
NaCl:Ca^{2+}(Cd^{2+})(Ni^{2+})(Pb^{2+}), microhardness and bulk density meas., precip. and impurity-dislocation interactions 2−115345
NaCl:Ni, plastic deform. around precipitates, dislocation microstruct. 2−103770
NaCl:Ni, precipitation-induced dislocation loops and helices 2−98102
NaCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
NaCl:Sr^{2+}, Eu^{2+}, precipitation of $SrCl_2$, EPR study 2−98956
NaCl:Sr(Ca)(Cd), Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
Nb, behaviour of H, optical microscopy, SEM and ion microprobe anal. 2−83130
Nb, magnetic struct., hydride precipitation pinning centres 2−61700
Nb-H alloys, low freq. internal friction study 2−116479
Nb-H alloys, low freq. internal friction study 2−116480
Ni alloys, quantitative evaluating exposures, stereological models 2−83313
Ni superalloys, NIM80A, NIM90, NIM105, IN738, IN939, long-term growth of γ′ particles 2−105153
Ni superalloys, precipitate struct., convergent beam electron diffr. study 2−72709
Ni-Al (13 at.%), precipitation, early stages *(Japanese)* 2−77828
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
Ni-Al alloys, γ′ precipitate doublets formation and their energetic stability 2−99431
Ni-base eutectic superalloy, γ/γ′-α, interfacial struct. 2−82149
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-Be alloy, multistage twinning of tetragonal two-phase blocks formed during ageing, γ′ particle distrib. *(Russian)* 2−67348
Ni-Co-Cr, Inconel 700, creep strength, microstruct. depend. 2−77932
Ni-Cr, lattice parameter studies of struct. changes near Ni_2Cr 2−105124
Ni-Cr-Al-Ti, ageing and γ′ phase precipitation after strong deform., recrystn. processes *(Russian)* 2−99443
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-Mo, irrad.-induced Mo_2C precip. 2−57356
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ni-Ni_3Al system, microdendritic precipitation 2−111179
Ni-Ni_3Si_2 system, microdendritic precipitation 2−111179
Ni-Sn system, grain refinement by discontinuous precip. *(German)* 2−99466
Ni-W, eutectic alloy, directionally solidified, precip. of Ni_4W around W fibres mosaic struct. form. 2−105146
γ″-Ni_3V precipitates, habit plane 2−65923
Pb-Ag (0.038 at.%), kinetics of Ag precip. 2−111187
Pb-Sb, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
Pb-Sn, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
Pb-Sn, grain boundary diffusion 2−104074
Pb-Sn, supersaturated solid soln., discontinuous precip. obs. during ageing *(Russian)* 2−88082

precipitation continued
Pb-Sn alloys, effect of precipitation on positron annihilation 2−67144
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
$(PrRd_{80}Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
Pt-C alloy, defect clustering induced by secondary collisions during HVEM irrad. 2−92042
RbCl:$CoCl_2$, heavily doped crystals, Co precip., elec. cond. studies 2−56201
Si as-grown Czochralski crystal, nucleation temperature of large oxide precipitates 2−91841
Si Czochralski grown crystals, microdefects and their appl. as gettering sites 2−91992
Si, Czochralski-grown, effect of oxide precipitates as minority-carrier lifetime 2−66568
Si, melting and laser annealing using pulsed lasers 2−66052
Si n^+-p junction leakage behaviour, O precip. effects 2−61568
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si, precipitation of O, effect of C impurities 2−66240
Si, precipitation of O and intrinsic gettering 2−66239
Si, radiation damage, defect study 2−66068
Si, Sb diffusion, anomalous conc. profiles due to local precipitation 2−76741
Si, single cryst., floating zone growth, defects study *(Chinese)* 2−109796
Si, stacking fault morphology, annealing temp. effect 2−66021
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si:Au, cluster centres, EPR study 2−56923
Si:O, Czochralski grown, O precipitation and microdefect nucleation and growth obs. 2−57379
Si:O, Czochralski grown, precipitated and total O conc., meas. technique 2−103802
Si:O, diffusion and gettering studies by Cs/SIMS 2−104071
Si:O, neutron irrad., defect density and O precip. obs. after high temp. treatment 2−76427
Si:O, O diffusion and thermal donor formation, review 2−82021
Si:O, O precip., IR absorpt. and TEM study 2−92208
Si:P, electrically inactive impurities, precipitation explanation, TEM study 2−67341
Si-Mn, supersaturated solid soln., Mn interstitials, disintegration kinetics *(Russian)* 2−92222
Si_3N_4, MgO-fluxed, soln.-precipitation creep 2−99492
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
$Sm(Co_{0.65}Cu_{0.35})_x$ (x=4.5, 5.6, 6), coercive force, precipitation effects *(Russian)* 2−92961
Sn-Sb, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
Ta-H alloys, low freq. internal friction study 2−116479
Ta-H alloys, low freq. internal friction study 2−116480
Ti, liq., C influence on viscosity 2−66273
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2−77874
Ti-Al based alloys, precipitation of metastable phases, X-ray diffr. and mech. props. meas. *(Russian)* 2−77825
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
Ti-Al(Al-V)(Mo-Zr), fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
Ti-Mo (10 at.%), ω-phase precip. after low temp. ageing, X-ray and electron microscopy study *(Russian)* 2−93538
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
α-U, field ion microscopy 2−86622
V-H alloys, low freq. internal friction study 2−116479
V-H alloys, low freq. internal friction study 2−116480
W:Ag,He, ion implanted, He precipitation at substitutional Ag atoms He desorption study 2−92218
n-WSe_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
$Y(Co,M)_5$, (M=Ni, Cu, Al, Ti, V, Cr, Mn, Fe), metastable character, decomposition behaviour, precipitation 2−67342
ZnS, form of Cu_xS and Zn secondary phases, dislocation and stacking fault decoration 2−115240
Zr alloys, hydride precipitate stacks form., elastic strains role 2−72704
Zr, liq., C influence on viscosity 2−66273
Zr-Mo-Al, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Nb (2.5 wt.%), metallographic obs. of hydride morphology at H_2 induced crack tip 2−88174
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846
ZrO_2-Y_2O_3, partially stabilised, anal. using STEM 2−77827

precipitation, electrostatic *see electrostatic precipitators; precipitation (physical chemistry)*

precipitation (atmospheric) *see atmospheric precipitation*

precipitation (meteorology) *see atmospheric precipitation*

precipitation (physical chemistry)
for precipitation within solid systems (microstructural changes) see precipitation
see also coagulation; crystal growth from solution; flocculation
alkaline earth compounds, precipitation of sparingly soluble salts from aq. soln. heterogeneous nucleus numbers meas. 2−66229
alkaline earth metal hydroxosalts, $M_x[Ay(OH)_z]hH_2O$ (A-Be, Zn, Cr^{III}, Fe^{III}, Al, Ga, Ti, Zr, Sn^{IV}, Sb^V), precip. from aq. soln. 2−67726
binary solution, spherically symmetric freezing precipitate, time depend. soln. 2−109961
calcium oxalate, precipitation, nucleation and growth kinetics, temp. effect 2−76336
calcium oxalate trihydrate, growth morphology rel. to urinary stone research 2−76335
Liesegang rings, nucleation and growth in concentration gradients 2−105518
pattern formation, instability theory, rel. to Liesegang rings 2−105519
rare earth titanates, $R_2O_3.2TiO_2$, prep. by coprecipitation, crystal struct. 2−72610

precipitation (physical chemistry) continued
sodium urate crystals, growth morphologies 2−76348
stearic acid cryst., polymorphic transformation, soln. mediated 2−66195
transition metal compounds, precipitation of sparingly soluble salts, heterogeneous nucleus numbers 2−66229
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2−111502
$BaMoO_4$, periodic precip. in SiO_2 gel, elec. and mag. fields effects 2−93397
Ca phosphates, crystallisation, homopolymer additive effect 2−76341
$CaHPO_4.2H_2O$, crystallisation, representation of growth curves 2−76340
$Ca_4La(NH)_6Si_4P(V, As)_2O_{26}$, solid phase synthesis, apatite struct. 2−111067
$Ca_5(PO_4)_3OH$, hydroxyapatite, crystallisation, representation of growth curves 2−76340
CdS-CdSe, struct. and phase comp. of precips. and films 2−110191
α-FeOOH, Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
$K_2Al_2(SO_4)_4.24H_2O$, batch precipitation by mixing component aq. solns. 2−116351
MgO-Al_2O_3, transparent ceramic, coprecipitation followed by calcination 2−99379
$Mg(OH)_2$, periodic crystallisation in agar-agar gel 2−116350
^{203}Pb, carrier-free, prod. and separation method 2−100125
$Sr_4La(Nd)_6Si_4P(V, As)_2O_{26}$, solid phase synthesis, apatite struct. 2−111067
YIG phase containing glass ceramics, prep. and mag. characts. 2−67278
ZnSe, optical ceramic, synthesis and props. 2−111123
Zr, oxidation rate calc. 2−62266

precipitation ageing *see precipitation hardening*

precipitation annealing *see precipitation hardening*

precipitation hardening
alloy, dislocation motion during ageing, particle distrib. influence, computer simulation *(Russian)* 2−91963
alloy, spinodally modulated struct., energetics in thermally activated dislocation motion 2−103777
alloys, coherent particle precipitation hardening, anisotropic eleasticity theory 2−116454
high strength, precipitation kinetics during discontinuous cooling *(French)* 2−99467
Inconel X750, age hardenable, stress corrosion cracking in hot water, rel. to prior heat treatment 2−83299
steel, 20G18S2F, hardening by ageing and γ to ε martensitic transform. *(Russian)* 2−77832
steel, austenitic stainless, precip. strengthened, flow localisation and shear band form. 2−105252
steel, low-alloy, strengthening mechanism of NiAl precipitate *(Korean)* 2−116453
steel, low-pearlite with Nb and V, strengthening phase precip. during hot deform. 2−62133
steel, micro-alloyed, secondary-hardened and austenitic, precipitation of carbides, nitrides *(French)* 2−67361
steel, mild, aged, plastic behaviour 2−93559
steel, Mn-Si-(Nb), low alloy, heat treated, $M_{23}C_6$ type carbides form. 2−116469
steel, Ni-Mo-Co, age-hardening, weld struct., hot stage microscopic invest. 2−111190
steel, stainless, Ni-Cr-Mo-Nb-Al, precip.-hardening, struct. and props. after heat treatment 2−72728
steel, V, continuously cooled, strengthening contrib. at peak hardening from precip. 2−72710
Al alloy, precipitation hardened, pseudo-intercrystalline brittleness mechanism 2−67502
Al-Cu (4wt.%), GP zones at initial stages of ageing small-angle X-ray scatt. *(Japanese)* 2−83142
Al-Cu alloys, precip. hardening, sound wave vel. and US attenuation 2−88318
Al-Cu-Mg (1.3, 1.3 at.%), high temp. ageing, coherence loss, electron microscopy study *(Russian)* 2−93540
Al-Li alloys, cyclic and monotonic ductility, effect of slip distrib. 2−67419
Al-Li-Cu-Zr-Cd system alloys, microstruct.-prop. rels. 2−111210
Al-Mg-Si-Cu-Cr, quench sensitivity, effects of Cu and Cr 2−105174
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al-Si, as-cast and age-hardening, wear, friction and surface topography in dry sliding 2−83237
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
Al-Zn-Mg-Cu, precip., DSC study 2−99430
(Al-4Cu)-Al_2O_3 composite, SAP type, precipitation hardening 2−77836
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Cu-Be, AE generated during tensile deform *(Japanese)* 2−105232
Cu-Be-Co (13.1, 0.2 at.%), rapid solidification effect on ageing *(Japanese)* 2−105137
Cu-Co (2 at.%) alloy, fatigue softening, precip. state depend. 2−72837
Cu-Fe alloys, solid soln. to precip. hardening transition, mech. props. 2−105172
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ti single crysts., model for anomaly in age-hardening 2−57368
α-Fe, Mn and N_2 additions effect on work hardening, 200-400° C 2−67369
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-Cr-Ni alloys, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Fe-Cu, sintered, mech. props., effect of steam treatment and age-hardening 2−88097
Fe-Cu wire reinforced Cu-Fe alloy, age hardening *(German)* 2−111192
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
Fe-V-C, cold rolled, containing carbides, recrystallisation 2−83137
Fe-V-C ferritic steel, carbide precipitate size, EELS and energy dispersive anal. 2−67362
NaCl:Pb^{2+}, yield stress, solid soln. precip. and dissolution effects, IR absorpt. study 2−57366
Nb-Zr-N, strengthened by ZrN precip., ageing characts. 2−83132
Ni superalloy, γ'-strengthened, particle misfit effect on void form. under electron and neutron irrad. 2−109838
Ni-Al (15:4 wt.%) alloy, precip. hardening by large vol. fractions of γ' 2−72712
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290

precipitation hardening continued
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
Ni-Cr-Al-Y_2O_3, dispersion and precip. hardened superalloy, recrystn., influence of hot working 2−111196
Ni-Cr-Al-Y_2O_3, oxide dispersion and precip. strengthened, creep and rupture 2−111299
Ni-Cr-Co, age-hardened, delayed discontinuous plastic flow, mechanism 2−93553
Ni-Ti (102wt.%), liquid quenched modulated struct. alloy, ageing *(Japanese)* 2−105193
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
Si, Czochralski grown, yield stress, O precip. and dissolution effects 2−57365
SiC whisker reinforced Al alloy composites, deform. behaviour 2−105250
$Sm(Co, Cu, Fe, Zr)_{7.4}$ permanent magnet, precip. hardened, microstruct. 2−71657
Ti-Al (8.6 wt.%), dislocation pile-ups and tensile fracture, influence of grain size and age-hardening 2−105320
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-Al(-V), tensile props., influence of test temp. and microstruct. 2−111236
β-Ti-Mn(V)(Mo-V), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846

prediction theory *see filtering and prediction theory*

predictor-corrector methods
see also Runge-Kutta methods
static structural analysis, algorithms 2−114691

predissociation of molecules *see molecular predissociation*

preferred orientation *see texture*

prerotation *see rotation*

presentation, technical *see technical presentation*

presintering *see sintering*

pressing, hot *see hot pressing*

pressure
see also atmospheric pressure and density; high-pressure phenomena and effects; radiation pressure; vapour pressure
benzene-n-dodecane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
benzene-n-hexane, binary liq. mixtures, excess internal press. and intermol. interactions 2−71324
boson binary mixture, ground-state props., Jastrow wave functions in hypernetted chain approx. 2−98382
cold gas, nonadiabatic compression, P-V relation 2−94949
interstellar clouds, isothermal, evolution under varying external pressure *(Russian)* 2−94813
partial discharges across metal-dielectric gap in compressed SF_6/N_2 2−115065
rare gas solids, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922
solar corona, base pressure correl. with photosphere longit. mag. field strength 2−106638
solar coronal loops, effect of press. gradients and field line tying on mag. stability 2−100859
solar coronal loops, footpoints press. difference rel. to energetics of steady-state flows 2−100858
solar transition zone, electron press. determ. from EUV obs. of O IV and N IV 2−106639
thermodynamic systems, pressure, virial coeff., overlap graph expansion 2−84575
two dimensional dense hard discs fluid, equilib. props., semiclassical statistical mechanics 2−81647
^{3}He, BCC, isochronic press., nucl. magnetism contrib. 2−92305

pressure, atmospheric *see atmospheric pressure and density*

pressure measurement
see also vacuum measurement; vapour pressure measurement
Bayard-Alpert gauge, three-grid modulated, static characteristics *(Japanese)* 2−79604
biomedical pyropiezoelectric sensor for the measurement of pressure and cardiac output *(Spanish)* 2−68179
blood, Dinamap non-invasive monitor, clinical evaluation in pre-term neonates 2−68178
blood pressure and flow meas. instrumentation development 2−78479
blood pressure monitors, automatic, noninvasive: analogue/manual adaptation of Dinamap (TM) 2−83672
blood pressure transducer, quartz crystal *(German)* 2−88669
charge-rate digital ion gauge system to pressure measurement 2−74440
differential pressure meas. instrumentation system for PWR LOCA investig. 2−96193
digital portable barometer-thermometer *(French)* 2−79568
explosive, aquarium test, shock press. anal. 2−74442
explosive detonation press. meas. by aquarium technique, charge diameter effect 2−74443
felt-tip pens writing on overhead projectors *(German)* 2−53729
fibre optic microbend pressure sensor 2−95360
fibre optic pressure sensor, multimode, based on photoelastic effect 2−97212
film deposition meas. under vacuum with two gauges 2−74430
foot, system for meas. of dynamic press. distrib. beneath 2−105863
foot-ground pressure, comparative display of dynamic data by data compression method 2−100137
gas properties, measurement without inertia *(French)* 2−63967
ice pressure sensor, inclusion factors 2−63141
ice pressure sensor embedded type, elastostatic anal. 2−63142
intracranial and cerebral perfusion press. meas. by fibreoptic applanation method 2−105845
intracranial pressure, epidural meas. using silicone rubber-lined press. transducer *(Japanese)* 2−94225
ionisation gauges, hot filament, possibilities for enhancement of range of press. meas. *(German)* 2−74441
laser interferometer appl. for continuous meas. *(German)* 2−79531
magnetic fusion devices, press. and gas flow meas. techniques 2−55789
mass adjuster for pressure balance, use in thermometry 2−53759
metals, molten, magnetodynamic meas. technique *(French)* 2−76049
microprocessor based reactor vessel level/containment monitor 2−85175

pressure measurement continued
multichannel system with pneumatic commutator, dynamic characts. calc. 2−63968
nuclear reactor thermohydraulic expts. *(German)* 2−64598
oscillometric method for indirect meas. of press. in human finger, model expt. 2−68215
oscillometric method for indirect meas. of press. in human finger, correl. study 2−68216
partial pressure of oxygen meas. and regulation, electrochemical system adaptation to symmetrical thermogravimetric anal. system using Cahn 1000 electrobalance 2−99687
piezoelectric pressure gauge for operation in presence of strong electrical noise and X-rays 2−64013
polymer solutions, orifice flow, birefringence and pressure drop meas. 2−97673
precordial pressure, dynamic instrumentation for meas. 2−117103
pressure cell bodies, anal. of dynamic stresses and motion in alluvium 2−95392
pulmonary arterial pressure monitoring in ambulatory patients, using portable recorder 2−117122
pulsed pressure meas. by piezoelectric transducer, calibration by ballistic manometer 2−95315
resonant diaphragm pressure gauge, using piezoelectric transducer 2−95359
sensors and actuators development for pressure-volume-flow relations meas. in isolated rabbit hearts 2−100189
sensors for force, pressure, displacement and flow, conf., Enschede, Netherlands (May 1982) 2−94913
sensors technological developments due to electronic advancements, 'Valvo' range *(German)* 2−53747
slit catheter system, new diagnostic method for limb compartmental press. meas. 2−83693
standards review, primary 2−95313
strain-gauge balances, capacitive transducer linearisation 2−58809
sung vowels inside and in front of mouth, pressure wave meas. *(German)* 2−102979
systolic blood press. meas. using sphygmomanometer, errors 2−89504
water, flow in vertical channels, press. drop meas *(Hungarian)* 2−109436
weather station as example for microcomputer sensorics *(German)* 2−100440
Cu-Mn, manganin, elec. resist. meas. to 100 kbar, press. gauge appl. 2−89735
Hg discharge, press. determ. from self-reversed spectral lines 2−91669
Si strain gauges application to pressure and force measurement in biomedicine *(Czech)* 2−57917

pressure sintering *see sintering*

pressure transducers
biomedical transducer for meas. of press. under foot during function 2−83679
blood pressure transducer, quartz crystal *(German)* 2−88669
differential membrane, automotive appl. *(German)* 2−53748
differential pressure transducer, sensitive, mag. field independent, for low temp. use 2−74421
differential pressure transmitter using diffused semiconductor strain gauges 2−79558
digital, capacitive, design and flight deck appl. 2−64017
magnetic discharge manometric transducers, time characts. 2−69189
manometer, capacitance diaphragm, sensitivity to static mag. fields 2−112886
nuclear reactor thermohydraulic expts., zero drift and linearity problems *(German)* 2−64598
piezoelectric pressure gauge for operation in presence of strong electrical noise and X-rays 2−64013
piezoelectric pressure sensor calibration, for high pressures *(German)* 2−79556
piezoresistive integrated pressure transducer, temp. fields calc. *(German)* 2−107317
pulses, meas. using dielec. sensor 2−58778
quartz resonator pressure sensor, sea depth measurement with great precision *(German)* 2−78864
roll load during cold strip rolling, contact stress distribution meas. 2−64016
semiconductor, recent trends and developments in characts. and applications 2−79557
semiconductor pressure sensors with integrated piezo-resistive resistance bridge *(German)* 2−101396
semiconductor remotely-operated pressure gauges *(Russian)* 2−64060
thin film pressure sensor design and manufacture *(German)* 2−79570
thin film types, appls. *(French)* 2−109434
n-$Ga_{1-x}Al_xAs$ for high sensitivity pressure sensors, resist. variation with press. 2−95338
Si circular-diaphragm pressure sensor, design considerations 2−95336
Si IC pressure transducers using piezoresistor bridge 2−74400

pressure vessels
coupling device for quick high-pressure connections to 100 MPa 2−79606
diamond-anvil cell, appln. to electrical resistance meas. at high pressures and low temps. 2−58847
fission reactor, burst protection system, dynamic behaviour with various boundary conditions 2−64608
high-pressure cell for meas. of optical absorption coeffs. at liquid N_2 temps. 2−69197
high-pressure vessels, AE during hydrostatic testing 2−62349
nuclear power pressure vessels, reliability estimation 2−96115
nuclear reactor, in-service inspection automation 2−102193
PWR cracks and flaws detection using ultrasonic techniques 2−74866
PWR pressure vessel, ultrasonic inspection 2−102052
PWR pressure vessel integrity, flaw assessment 2−96240
PWR pressure vessel safety assurance 2−102053
PWR pressure vessels, construction, inspection and safety 2−80067
PWR pressure vessels, role of NDT in integrity assurance 2−88298
PWR vessels, tackling the pressurized thermal shock issue 2−102192
steel, Cr-Mo type, plastic deform. influence on H transport 2−71728
steel, heavy-section, controlled flaw prep. for fracture mech. testing 2−72929
steel, reactor pressure vessel, radiation damage, evaluation by elastic-plastic fracture mechanics 2−57486
steel, stainless, austenitic Cr-Ni, combined shock loading and high-speed deform. effects 2−99560
steel, thick-walled, brittle-failure resist. 2−99626

pressure vessels continued
steels, C, pressure vessel, ASTM A533-B, microhardness, temp. depend. 2−80121
thick walled cylinders, pressurised, cracked, strain behaviour 2−116524
tornado-type wind energy system flow anal. within the tower using numerical model 2−75945

primary cells
air batteries, add water type, using solid caustic potash, AWZ-2000N *(Japanese)* 2−73099
battery technology, primary and secondary cell development *(Japanese)* 2−73093
button-type alkaline primary batteries, technology, charact. *(Japanese)* 2−73096
electrochemical energy sources for microelectronic devices *(German)* 2−73092
electrochemical energy sources for microelectronics appls. *(German)* 2−83467
graphite intercalation compounds, electrochemical appl. 2−57688
Leclanche cells internal resistance measurement technique 2−105550
miniature Ag/Zn batteries, construction and mass production technology 2−116791
miniature batteries, long life, present trends for electronic appls. *(Japanese)* 2−99776
packed-bed electrodes and static electrolyte, performance charact. 2−62467
selection and design considerations 2−83463
small batteries output trends and future prospect 2−83464
small-size batteries, present state and technological trends 2−83465
Ag/IAgβ/Te vaporisation cells, printed cct. power supplies appl. *(Spanish)* 2−88419
Ag/zeolite 4A-I_2 solid state cell, electrochemical performance 2−73101
AgBr, solid electrolyte thin film battery 2−62466
AgI, solid electrolyte thin film battery 2−62466
Ca-Ca$(AlCl_4)_2$-$SOCl_2$ cell, performance and safety meas. 2−78195
Ca-SO_2Cl primary cell 2−78197
Cu, $Rb_4Cu_{16}I_7Cl_{13}/Rb_4Cu_{16}I_7Cl_{13}/Cu_{1.75}Se$ solid electrolyte cell electrochemical behaviour 2−78198
Li batteries, charact. and appls. 2−99774
Li batteries, future development 2−105551
Li batteries, technology, charact. *(Italian)* 2−105549
Li batteries, technology charact. *(Japanese)* 2−73097
Li cells, Mo_8O_{23} and $Mo_{18}O_{52}$ as cathodes props. 2−93883
Li paper thin battery, technology, charact. *(Japanese)* 2−73098
Li/MnO_2, discharge charact. at low temp. 2−116790
Li/MnO_2 batteries, structure, features and future prospects 2−83466
Li/organic electrolyte batteries, charact. of MoO_3 and CrO_x cathodes 2−93889
Li/SO_2 cell, discharge products, X-ray diffr. and DSC study 2−78196
Li-B anode for molten salt thermal cell, discharge characteristics meas. 2−93882
Li-Bi_2O_3 batteries *(German)* 2−99775
Li-CF_x(MnO_2, SO_2, $SOCl_2$), development, high power and high energy cell concepts *(Czech)* 2−73100
Li-MnO_2 batteries *(German)* 2−99775
Li_3N, Li^+ conductivity, primary cell application 2−92270
Mn dry batteries, Japanese development history *(Japanese)* 2−73094
MnO_2 alkaline batteries, struct. and charact. *(Japanese)* 2−73095
$ZnCl_2$ battery electrolytes, transference numbers of Zn ion species 2−88418

primary cosmic radiation *see primary cosmic rays*

primary cosmic rays
10^{13} to 10^{14} eV primaries, anisotropies determ. from cooperative obs. of EAS in Tasmania *(Japanese)* 2−106454
10^{15} eV cosmic rays composition from EAS muons+electrons 2−106448
composition near 10^{17} eV 2−84050
electrons with $e \geq 10^{12}$ eV, detect. 2−106449
heavy nuclei content meas. 2−89093
local anisotropy at 10^{11} eV and above from shower muons anisotropy determ. 2−106461
mass composition from longitudinal cascade development of cosmic ray showers 2−117549
nuclear interactions and primary cosmic-ray components around 10^{15} eV, γ-ray families cluster anal. 2−100687
sea level muon spectra, zenith angles, derivation from cosmic ray spectrum 2−68582
^{22}Ne excess in cosmic rays, origin from WC stars 2−94568

printed circuits
Ag/IAgβ/Te vaporisation cells *(Spanish)* 2−88419
electroplating alternatives for Au in electronics and decorative industries 2−67665
electroplating with Au and Ag, future trends, substitute materials and cos t reduction 2−67667
imaging photolithography, new developments 2−97068
power supplies, Ag/IAgβ/Te vaporisation cells *(Spanish)* 2−88419

printers
laser printing, optical system design for HP 2680 system 2−102842
microprocessor controlled time-decoder and printer to aid seismic event detection 2−58157

printing
colour make-up development, CCD scanners appl. *(Japanese)* 2−101481
drop-on-demand ink jet printing using photoacoustic ejection from a nozzle technique 2−81172
screenless photolithographic images, plate flash and density range 2−58939

prismatic dislocations
arrays produced by slip on imperfect glide surface 2−76455
loop sizes and interference error, connection with loop nature determ. methods 2−81787
two-phase transversely isotropic solid, elastic fields due to dislocation loops 2−75855
CdS, plastically deformed, light propag. obs., dislocations effect 2−67024
MgO:Au dislocation loops, decoration obs. 2−71452
NaCl:Ni, plastic deform. around precipitates, dislocation microstruct. 2−103770
Si, heat-treated, Czochralski grown, compression tests, dislocation study, TEM and etch pit obs. 2−60985

prisms (optical) *see optical prisms*

private telephone exchanges
energy requirements supplied by roof-top solar cell arrays *(French German)* 2−57699

probability
see also game theory; Monte Carlo methods; queueing theory; random processes; statistics
dead time distorted Poisson behaviour, correlated pulse time spectra 2−58690
high-pressure spark gap overvoltage breakdown probability 2−97828
information gain concept, probability nearness evaluation *(French)* 2−112684
information thermodynamics, classical, partition function, higher order temps. 2−95293
Markov random fields and chains on trees 2−79343
martensitic transformation, generalised lattice correspondence theory 2−71611
maximum entropy principle as consequence of Laplace principle 2−74372
normally distributed populations of same variance, mean values comparison using sampling results *(German)* 2−84435
nuclear power risk estimates, realistic assessment 2−74867
nuclear power station, man-machine interfaces *(Japanese)* 2−74858
nuclear power station safety analysis *(Chinese)* 2−80159
ocean surveillance, attribute problem, combined probabilistic and fuzzy set technique 2−63147
phased-mission system reliability analysis, PHAMAS computer code 2−59451
photon counting probabilities for open systems 2−55099
powder pressing equation variants, stat. probability basis 2−67236
probabilistics, status and physics appls. 2−95299
quantum mechanics, probability rule derivation 2−95103
quantum statistics, probability distribution law 2−53658
quantum theory as probability theory on Hilbert space 2−95081
quantum theory probabilistic formulation 2−95082
quasars associations with companion galaxies to bright spirals, probability anal. using Poisson statistics 2−106954
satellite telecommunication, link availability subject to correlated rain attenuation at ground terminals 2−106293
speckle intensity due to strong and weak scatterers in presence of amplitude-correl. multipaths 2−90816
traffic noise signal regularity 2−75770
unit-dimension transmitting system, events probability computing 2−58767
SiO_2 optical fibres, static fatigue failure probability rel. to localised bending 2−81133

probes
see also electron probes; muon probes; plasma probes
100 kV subnanosecond direct voltage monitors 2−95334
eddy current probe circuits for nondestructive testing, optimal design *(German)* 2−79564
electric field meas. probe *(Polish)* 2−89748
hot-film static-pressure probe for flow meas. 2−97670
light-focusing optical fiber displacement-vibration probe 2−97218
liquid metal ion source, field effect ion beam exposure apparatus 2−113045
NMR probe, high temperature 2−101434
optical in-situ meas. of growth and etch rates 2−72626
optical probe expt. on Giotto spacecraft 2−68589
optical probe for monitoring dust explosions 2−53808
pion nuclear probe in materials research, H-atom environment 2−104787
pipe probe for low speed flow meas., wind-tunnel tests 2−65659
soil water sampling and subsurface meas., probe method 2−68535
split film probe response under electrical perturbations 2−103234

problem oriented languages *see high level languages*

procedure oriented languages *see high level languages*

process computer control
see also direct digital control
Agano irrigation water system, centralised monitoring and control system *(Japanese)* 2−73601
Cantonal Chemical Laboratory integrated heat supply system component items *(German)* 2−73136
crystal growth of InP, computer controlled automatic diameter control system 2−99326
Czochralski crystal growing furnace, quality considerations 2−99324
dry etching process, implementation of adaptive process control 2−83258
fibre-optic manufacturing process control by laser beam 2−91099
Hot Fuel Examination Facility, data acquisition and process control system 2−107968
microprocessor controlled, dry pumped, high-vacuum coating system for thick film depositions 2−69183
nuclear reactor, computerised fault diagnostic via analytical redundancy 2−96215
nuclear reactor fuel element manufacturing, computer data acquisition system 2−102093
pH controller, microprocessor based *(Italian)* 2−62408
physics applications, conf., Stara Lesna, Czechoslovakia (May 1981) 2−84364
prismatic components fabrication, computer-assisted part-list-orientated generation of technological production documentations *(German)* 2−81128
Al industry process control using X-ray anal. system 2−116706
GaP, large diameter single cryst., computer controlled LEC growth 2−99327

process control
see also process computer control
corrosion protection, automatic control of pickling process *(Russian)* 2−72857
isothermal pressing of alloys, adaptive control system *(Russian)* 2−72720
mass spectrometer, quadrupole, microprocessor controlled 2−89852
mass spectrometers, industrial use 2−89851
particle production in vacuum chamber, size and density control 2−83053
TIG welding arc, acoustic control of arc length 2−103542
vacuum process control, spinning rotor viscosity gauge appl. 2−84652
Si power device struct., Ni contact coatings, burn-in process control by electroinductive method *(Russian)* 2−83050

processors (program) *see program processors*

Procopiu effect
massive samples, theoretical study 2−85865

product control *see quality control*
production control
see also process control; quality control
prismatic components, computer-assisted part-list-orientated generation of technological production documentations *(German)* 2−81128
production schedules *see production control*
program and system documentation
transient incompressible fluid flow, quadratic finite element program user's manual 2−54487
program debugging
MFTF Supervisory and Control and Diagnostic system, debugging process 2−74967
program processors
universal pre- and post-processing system, for finite element analysis 2−107932
programmed control
see also process control; production control
circulatory system, modular, mock, programmable electronic control unit 2−100188
digital frequency control in acoustic and vibration measuring systems *(German)* 2−95368
MFTF personnel safety interlocks, use of programmable controllers 2−74968
monochromators, programmable output intensity controller 2−91032
Simatic S31, programmable logic controller appl. 2−69761
temperature control system, programmable, for biological materials 2−100175
^{60}Co irradiation chamber, programmable electronic controller *(Chinese)* 2−59584
programmer training *see training*
programming, mathematical *see mathematical programming*
programs (computer listings) *see complete computer programs*
projectiles
see also ballistics; missiles; rockets; weapons
distributed-energy-store railgun projectile velocity meas. 2−95330
EM gun, impact fusion applic. 2−54651
EM gun, TRAIL, Tokamak limiter for fusion reactors 2−54652
railgun energy stores and systems 2−96333
shaped charge jet interactions, with low strength materials 2−92070
projectors (optical) *see optical projectors*
PROM
SAMOS structures, charge retention, thermionic electron emission model 2−56696
promethium
see also nuclei with .....
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
promethium alloys
No entries
promethium compounds
see also promethium alloys
No entries
prominences (solar) *see solar prominences*
propagation, wave *see wave propagation*
proportional control
myoelectric hand controller with proportional control 2−68200
proportional counters
see also position sensitive particle detectors
alpha particle detector for studying (n, α) reaction in pulsed neutron services 2−85491
amplifier chip 733 as low input impedance preamplifier for current-division use 2−90411
analogue drift chamber readout cct. for colliding beam facility at Fermilab 2−64803
BEBC internal picket fence based on proportional tubes, performance study 2−64757
C-CD leased read-out for charged particle identifier 2−64800
cathode cell MWPC of modular design 2−96380
cathode strips read-out MWPC, avalanche localisation along wire, systematic errors evaluation 2−90397
charge-dividing, pulse currents, dynamical props. 2−102348
charged particles meas. from fast neutron induced reactions in close geometry 2−108309
circular electrodeless drift chamber characts. 2−108247
cosmic ray trigger cct. for large solenoidal particle detectors 2−68621
cylindrical drift chamber performance at CERN ISR 2−90388
design parameter optimisation, dE/dx measurement in inert gases and pure hydrocarbons 2−108312
detectors for high-energy neutrino interactions 2−70105
drift and multiwire proportional chamber efficiencies determ., on-line method 2−90392
drift chamber positioning, dynamic compensation of small errors using optical CCD system 2−90390
drift chambers study for nucleon decay detector 2−70037
drift detectors, high press., particle identification by dE/dx sampling 2−90389
drift tube, position sensing by charge division using self-quenching streamer pulses 2−70039
drift tubes, self-quenching streamers 2−108250
dual parameter discriminator for gas scintillation proportional counters 2−64808
electrodeless drift chambers, geometrical config. and appl. 2−108248
EM calorimeter with conductive plastic proportional tubes 2−75114
FFTF, proton recoil proportional counter meas. 2−102145
fine-grain marble calorimeter, response and resolution for hadronic and EM showers 2−108239
flash chamber-proportional tube calorimeter, neutrino detector operation 2−70106
focal plane detector for INS-QDD mag. spectrograph 2−75102
focal plane detectors for mag. spectrographs in Japan 2−90378
focal plane drift chambers detector systems for EPICS and HRS spectrometers 2−90382
gas counter, avalanche growth around anode wire 2−90353
gas flow counter, low energy photon detectors calibration for microbeam PIXE anal. 2−59601
gas flow counter for conversion electron Mossbauer spectra study 2−99003
proportional counters continued
gas proportional scintillation counter, light output in rare gases and mixtures, press. depend. 2−102340
gas sampling EM calorimeter in saturated avalanche mode 2−108229
gas scintillation counter performance at high count rates 2−108249
gas scintillation proportional counter camera for X-ray astronomy appl. 2−78951
gas scintillation proportional counters 2−90358
gas scintillation proportional counters for Japanese astron. satellite 2−94609
gaseous detectors, recent trends in evolution 2−90351
heavy ion beam CT, imaging with a multiplane multiwire proportional chamber 2−117083
heavy ion identification system for mag. spectrometer 2−108217
heavy-ion identification system based on kinematic coincidence techniques 2−90418
high angular resolution 2-D correlation apparatus for positron annihilation studies 2−108321
high density proportional wire calorimeter 2−102328
imaging drift chamber in axial field spectrometer at CERN ISR 2−90348
imaging gas scintillation proportional counter for X-ray detection 2−78950
imaging gas scintillation proportional counter props. 2−90359
integrated amplifier and sample-and-hold analogue multiplexer module for proportional chamber 2−64802
jet chamber of JADE expt. 2−90386
LBL time projection chamber, fast digital trigger 2−70047
long focal-plane detector with hybrid structure for spectrograph 2−90380
methane gas flow counter, self-induced space charge effect on gas gain 2−90357
miniature proportional counter for laser fusion target compression meas. 2−75118
multi-hit drift time digitiser for drift chamber 2−64801
multistep avalanche chamber, min. ionising particle electrostatic imaging 2−96376
multistep parallax-free X-ray imaging counter 2−75098
multiwire array proportional counter, front guard for improved background rejection 2−75107
multiwire chambers, charges and current induced by moving ions 2−102334
multiwire drift chambers, method for comprehensive anal. using finite element approach 2−90391
multiwire proportional chamber for particle tracking, cathode charge sampling, resolution study 2−102329
multiwire proportional chambers, local desensitisation 2−108242
multiwire proportional chambers, low-pressure, recent progress 2−90352
multiwire proportional counters, read-out method 2−102341
MWPC, compact modular HV system 2−75125
MWPC, multielement detector system for synchrotron X-ray source 2−85476
MWPC detector data acquisition system for macromolecules, X-ray studies and other diffr. expts. 2−85478
MWPC imaging detector for small angle X-ray diffr. study 2−96375
MWPC of cylindrical geometry for nuclear physics expts. 2−90354
MWPC wire tension measurements *(Chinese)* 2−59609
neutron time-of-flight diffractometer with one-dimensional position sensitive counter 2−65808
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
Penning mixture filled counters in avalanche multiplication zone for electrons 2−108251
photoelectron drift detector, use for Cherenkov ring imaging 2−108241
pocket neutron REM meter 2−64692
position detecting system with single wire proportional counter for electron spectroscopy 2−90383
position sensitive gas proportional counter with induction readout for spectrograph 2−90379
position sensitive read-out, rise-time method 2−108246
pulse height readout system for proportional chambers 2−96397
radiation detectors for X-ray and γ-ray spectroscopy, needs and prospects 2−58974
resistive charge division appl. in large proportional tube chambers 2−70040
single-wire position sensitive proportional counter construction and characts. 2−90381
small-angle X-ray scatt. system with linear position-sensitive detector 2−64198
time projection chamber, CCDs appl. 2−64799
time projection chamber, data acquisition system 2−64758
time projection chamber, low noise preamlifiers/amplifiers system 2−70104
time projection chamber for high energy heavy ion expt. at Saturne 2−90387
tissue equivalent spherical counter 2−113844
tissue-equivalent universal equidosimeter design 2−59561
trigger system using two levels of field programmable logic arrays 2−70103
universal spectrometer for obtaining gamma reson. spectra of Fe containing materials 2−108222
X-ray transition radiation meas. from plastic fibres 2−64816
Ar-ethane-ethyl alcohol mixture drift tubes, self-quenching streamers obs. 2−70038
Ar-methane proportional counter, deposited energy losses for 40 MeV/n ^{3}He ions 2−90417
Ar-N gas scintillation proportional counter performance 2−102336
Ar-Xe (Kr) photoionisation proportional scintillation chamber, energy transfer 2−64760
H gas time projection chamber development and performance 2−96379
H time projection chamber development and performance 2−70036
^{3}He neutron detector, polyethylene moderated, energy depend. of response 2−108238
^{3}He proportional counter in neutron counting system for Pu array in nuclear waste 2−64471
^{3}He-propane proportional detector for thermal neutrons 2−113822
X-CO_2 filled position sensitive proportional counter for X-ray astronomy appl. 2−78952
Xe, liquid, γ-ray detectors, present status and future plans 2−90362
Xe-methane MWPC, gas limits to position resolution and linearity 2−108235

prospecting (geophysical) *see geophysical prospecting*
prosthetic power supplies
cardiac pacemaker, ^{238}Pu fueled nuclear battery, exposure rates from leakage radiation *(Japanese)* 2−68168
energy transfer systems for implantable medical devices, design methods 2−78494
human body implant, optically powered 2−68198
prosthetics
see also artificial limbs; artificial organs; orthotics; sensory aids
acetabular components in total hip arthroplasty, axisymmetric model 2−105725
aortic valves, flow situations and patterns *(German)* 2−57923
biochips, implanted electronic systems, practical realisation, problems encountered *(Czech)* 2−68196
bioglass ceramic coated metal implants, loaded total hip prosthesis model *(German)* 2−88692
bone growth stimulation in endoprostheses by elec. or mag. fields *(German)* 2−100081
cardiac valve replacement, low profile bioprosthesis, hydraulic and haemodynamic studies 2−88696
dentures, complete, clinical studies of strain behavior 2−83702
electrets as an implantable material 2−62839
electronic aids for the handicapped, problems and methods used in development *(German)* 2−88689
electrostimulators for enuresis treatment 2−78493
femoral components, straight stemmed, for total hip replacement, stress anal. 2−57931
finger joint force predictions rel. to joint replacement design 2−100034
fluid power technology appl. to therapeutic device implantation techniques 2−117137
hear valves, flow-induced shear stress distrib. meas. 2−62836
heart valves, in vitro evaluation, anomalies and limitations 2−100157
hip, total replacement, effects of cement thickness and metal backing on acetabular region stress distribs. 2−105717
hip, total replacement system, failure prediction 2−88695
hip implant, total, geometry effects on femoral stress distrib. 2−62841
hip joint, Al_2O_3, mech. characterisation by double torsion method *(French)* 2−88690
hip joint, English prosthesis, in vivo force obs. 2−94250
hip joint total prosthesis, stress/strain analysis of Ti net cement construction *(German)* 2−88691
hip joint total replacement, acetabular subchondral bone influence on stress distribs. 2−62840
hip prosthesis, total, failure prediction and load transmission charact. of bone cement interface 2−62838
hip replacements, Ti-Al-V alloy implants, fracture cause 2−105855
hip stem of Ti alloy, geometry effect on circumferential strains in proximal femur 2−62842
implantable composites, controlled press. appl. for bone growth stimulation 2−62837
ion beam sputter modification of surface topography, SEM obs. 2−116570
lumbar vertebral segment and nuclear prosthesis, in vitro study *(French)* 2−116945
neural prosthetics of skeletal muscle, recruitment order impact on electrode design 2−62831
optometry, prosthetic correction of disfigured eyes with contact lenses and shells 2−94248
PMMA bone cement, fatigue crack propag., comparison with low viscosity PMMA and C fibre reinforced PMMA 2−116528
polyethylene, ultrahigh mol. wt., wear charact. against high density alumina 2−88222
polymers, surgical, biodegradation, review 2−88243
review of physiological stimulators, from elec. fish to programmable implants 2−57919
rubber, natural and polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
sensory prosthesis devices, electronically controlled, for the physically handicapped *(Japanese)* 2−94251
steel, stainless 316L, fibre reinforced bioglass, processing and static mech. props. 2−57412
stimulation electrodes, miniature, implantable, Ta/Ta_2O_5 2−57927
tibial plateau prosthesis design, performance considerations 2−62843
tibial prosthesis, stresses at PMMA-bone interface, model variables and fixation post length effects 2−62835
vibrotactile hearing substitution device for the very deaf 2−68199
walking, normal and prosthetic gait, variation of mech. energy levels 2−105741
$Ca_3(PO_4)_2$ ceramic, dense, mech. props., prosthetic appl. 2−57409
Co, pure, corrosion in physiological media 2−93675
protactinium
see also nuclei with .....
$ThCl_4:Pa^{4+}$, absorpt. and emission spectra, spin-orbit and crystal field parameters 2−99158
protactinium compounds
PaP_2, prep. and cryst. struct. *(French)* 2−65955
Pa_2P_4, prep. and cryst. struct. *(French)* 2−65955
protection
see also alarm systems; corrosion protection; power system protection; protective coatings; radiation protection; safety
discharge indicators for commercial batteries, evaluation and new approach based on dynamic impedance meas. 2−111547
modular analogue isolator for signal isolation in nuclear power plants 2−85177
superconducting magnets protection, using shunted circular grid for electric arc extinguishing *(Czech)* 2−65777
protection of software, legal *see industrial property*
protective coatings
see also corrosion protective coatings; wear resistant coatings
acrylate-coated fibres, UV-cured, environmental testing 2−114443
anti-tufftride coating on steel, tensile strength and deformability, effect of tufftriding time *(Japanese)* 2−93568
C Al_2O_3 coating, plasma sprayed on steel and Cu, temp. distrib. during deposition 2−116390
coated materials for Tokamak fusion device appl., thermal fatigue props. 2−74909
detonation spray-deposition of coatings, systematic anal. 2−67596
fungicidal coatings to protect optical surfaces, comparative evaluation of Hg, Sn microelements 2−109092
insulating film deposition technology, secondary passivation 2−62075
protective coatings continued
magnetic powder, interaction with polyester binder, particles packing and orientation behaviour *(Japanese)* 2−87547
metallisation, electrode heating efficiency and coeff. of material use *(Russian)* 2−67582
multilayer antireflection and protective coatings on optical items of STK3, STK7 and STK8 glass 2−97149
optical fibre cable under lateral force, optical loss stability, coated fibre struct. optimum design 2−65363
optical fibres, acrylate coatings, environmental effects, static fatigue testing 2−81134
optical fibres, long high-strength with low loss, modified CVD fabrication 2−91096
organic coatings on steel, Fourier transform IR spectroscopy, coating chem. interaction and mol. struct. and orientation 2−116603
polyimide passivation of Al-Cu thin film, electromigration 2−98503
polymer films, ferrocene doped, overcoating materials for xerographic photoreceptors 2−107434
polymer hydrophobic coatings for increasing chem. resist. of KD_2PO_4 cryst. optical components 2−55301
polymeric coatings on mirrors, photochem. degradation, study using FT-IR reflection absorbance 2−79691
polyurethane acrylate, UV-cured coatings on opt. fibres, sub-T_g annealing, correl. with microbending loss of fibre 2−60251
quartz passivation of Al-Cu thin film, electromigration 2−98503
solar energy conversion technologies, film and coating deposition and characteris., research needs 2−87974
solar energy conversion technologies, solid-solid interface research needs, adhesion abrasion and polymer coatings 2−88247
Space Shuttle tiles coating, particle size analysis 2−77954
steel, stainless, permeability of H, protective coatings influence 2−67652
steels, ferritic, protection by Al cementation with or without subsequent oxidising *(French)* 2−99597
surface with viscoelastic coating, turbulent boundary layer calc. 2−60522
thin hard coatings, effect on Hertzian stress field, finite element anal. 2−93652
tufftriding protection, by inorganic coating *(Japanese)* 2−62277
Al-rich coatings on Ni-base alloys, interdiffusion coeffs. in $Ni_2Al_3(\gamma)$ phase 2−104080
B, first wall coatings by plasma CVD 2−74910
BiC, first wall coatings by plasma CVD 2−74910
C, diamond-like hard films, deposition and characteris. 2−57307
C-SiC, structured composite limiters for ablation control in fusion devices 2−74902
Cd coatings on Fe, H absorption during electrodeposition and H charging 2−77993
Cd plated C steel, ductility, surface layers H content influence 2−67538
Ce diffusion coatings on cast Fe and medium C steel, cavitation resist. 2−72872
Fe-Cr-Ni-Al coatings, for resisting fretting wear in temp. range 20-700 °C 2−88291
In protective coatings for optical fibres, microbending losses and static-fatigue life 2−81112
Mo, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
$MoSi_2$-Pd protective coatings on Nb, Pd effect 2−116614
Nb, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Ni, electroless deposits, heat treatment effects on physical props. 2−57384
Ni-base superalloy, IN-100, an eval. study of Al-N and Cr-Al-N coatings 2−67591
Ni-base superalloys, deterioration of aluminide coating *(Chinese)* 2−62248
(Ni)-Co-Cr-Al-Y coatings, on IN-100 and Udimet 520 superalloys, microstruct. stability 2−99462
Ni-P-B coatings, heated in air, struct. and props. *(Russian)* 2−57382
Sn coatings on Fe, H absorption during electrodeposition and H charging 2−77993
Ta coated steel tubes for ICF reactor dry wall design 2−74908
Ta protective coatings on Al, Cu, AISI 316L, Inconel 600 for fusion reactor appl. 2−74911
TiB_2 coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiH_x wall, plasma contamination reduction 2−115037
TiN coating on Mo fibres, in Mo fibre reinforced Ni-Ci, influence on props. 2−67455
TiN, TiC layers, CVD, nucleation and kinetics 2−83034
Ti_5Si_3 coatings on Ti, high-temp. oxidation 2−67592
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304
proteins
see also gelatin
actin filaments, Sl-decorated, struct. calc. from X-ray diffr. data, phases from electron micrographs 2−116879
actinoxanthin, mol. struct., X-ray diffr. study 2−67943
adsorption, from sheep's blood, Fourier transform IR obs. 2−100015
albumin microspheres, radioisotope labelled, dose absorpt. in organism and certain organs *(Russian)* 2−62766
alfalfa mosaic virus coat protein, orientation in hexagonal cryst. array, X-ray diffr. study 2−99877
alkaline phosphatase activity of growing rat bone, effect of 50 kV X-ray irrad. 2−57867
alpha-helix protein molecules, E. coli, vibr. struct. of Davydov solitons 2−83545
apomyoglobin-chlorophyllide, high mol. wt. complexes, giant circular dichroism obs. 2−88507
aq. solns., proton connectivities investig. 2−80668
aqueous solutions of proteins and other substances, macroscopic fluctuations rel. to cosmo-geophys. factors 2−111746
atomic displacements, temp. depend., local nonharmonic pots. 2−57777
bacteriorhodopsin, lateral and rot. diffusion in lipid bilayers 2−111634
bacteriorhodopsin, linking regions between helices, electron microscopy 2−62554
bacteriorhodopsin, photoelectric conversion 2−67868
bacteriorhodopsin, Schiff base group, struct. of retinylidene chromophores, Raman spectra 2−88502
bacteriorhodopsin's primary photoproduct, resonance Raman spectra, distorted 13-cis retinal chromophore 2−88508
bacteriorhodopsin in purple membrane, photoselection and circular dichroism 2−67969

proteins continued
bacteriorhodopsin photocycle, procedure for testing kinetic models 2−73196
barnase (a ribonuclease), molecular structure 2−83549
basic pancreatic trypsin inhibitor, collective variable description of small-amplitude conformational fuctuations 2−73192
bateriorhodopsin contained in model membranes, kinetics of light-driven proton movement 2−68049
blood plasma lipoprotein microviscosity rel. to risk of contracting isc-haemic heart disease 2−100019
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
blood serum irradiated with UV, biological action mechanism, free radical products 2−100062
capsid protein synthesis in infected mouse cells, UV-enhanced reactivation and infectious centre formation 2−83604
carboxymyoglobin, photodissociated, IR spectra at low temp., haeme pocket behaviour 2−105657
carboxymyoglobin ligand photodissociation, kinetics and temp. dependence 2−68048
catalase, beef liver, mol. struct., X-ray diffr. study 2−67942
catalase, Penicillium vitale, mol. struct., X-ray diffr. study 2−67941
ceruloplasmin, human, UV laser radiation effect 2−78394
channel-forming protein of an Na, K-ATPase prep. of pig kidney medullary layer 2−111643
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
chlorophyll-protein complexes, electrochem. regulation of excitation energy transfer 2−111620
CHO DNA polymerases α and β, effect of hyperthemia 2−88521
chromatin degradation in irrad. rat thymocytes, mechanism *(Russian)* 2−116988
chromatin fibres, electron micrographs, Fourier analysis and optical diffr. 2−111826
chromosomal proteins, cross-linking with DNA induced by X-rays, thermal enhancement 2−88621
collagen, solid state, far IR spectra 2−67954
collagen, temp. stability rel. to biological functions 2−67958
collagen fibres, viscoelastic model 2−105718
collagen solns., rat skin, dynamic light scatt. studies 2−105654
collagen-fibrils, characterisation of leucine side-chain reorientation by solid-state ^2H NMR 2−88499
collagen-glyoxal complex, solid state, far IR spectra 2−67954
collagen-mineral orientation relationships in bone 2−105644
conformation, determ. from electron spin relax. data 2−93986
crystallography, crystal cooling device for use with synchrotron radiation 2−68209
crystallography, RESTRAIN, restrained least squares refinement program 2−68207
crystals, electron radiation sensitivity 2−117018
cytochrome c_3 anhydrous film, percolative elec. cond. obs. 2−99875
cytochrome c_{550} protein, three-phase struct. invariants 2−83547
cytochrome c, cryst. and soln., comparison of struct. by high-angle X-ray scatt. 2−57774
deoxyribonuclease I, bovine pancreatic, effect of dilution on thermal neutron induced inactivation 2−105753
dipolar NMR relaxation of nonprotonated axomatic C, struct. and dynamical effects 2−99896
DNA-binding proteins, homology rel. to conserved super-secondary struct. 2−99887
DNA-protein complexes in Ehrlich ascites carcinoma cells, radiation-induced dissociation 2−105788
DNA-protein recognition, mol. basis inferred from cro repressor struct. 2−105641
double beam fluorescence lifetime spectrometer with subnanosecond resolution: application to aqueous tryptophan 2−112998
dynamics, solid state PMK studies 2−88501
electron microscopy functional site mapping 2−99892
electron tunnelling connection with conform. mobility and isolated degrees of freedom 2−78286
electrophoretic mobility, holographic interferometric obs. 2−78512
electrostatic potential molecular surfaces, computer graphics representations 2−105642
EM, contrast variation method, discrimination of protein and nucleic acids 2−94262
enzymatic catalysis, electronic aspects, frontier orbital perturbation theory 2−116724
enzyme, chemical amplification of immunosensors 2−83668
enzyme-substrate interactions, ^1H spin-lattice relax. 2−59822
enzymes, photoabsorpt. and photoelectron spectra in vacuum-UV region 2−105658
enzymes, solid state, far IR spectra 2−67954
enzymes in liver and brain, effects of chronic ingestion of tritiated water in mice 2−57868
erythrocyte membrane proteins, human, radiation-induced struct. changes 2−88632
ethyl glycine dipeptide, struct., bonding, conformational anal. of Cα side chain 2−85848
ethyl glycine residue, valine and isoleucine side chain on C_α conformational anal. 2−85849
exonuclease, membrane-bound, γ-radiation-releasable, Arrhenius plot behaviour 2−62701
F-actin, struct. as helix with random variable twist 2−93987
ferredoxin, ^{13}C NMR subspectra, spin multiplicities, attached proton test appl. 2−108551
ferredoxin, anomalous scatterers position in cryst. struct., two-wavelength techniques 2−115092
ferredoxin, from B. stearothermophilus, electron spin-lattice relax. 2−70299
ferredoxin, heteronuclear 2-dimens. chem. shift correl. NMR spectrosc. 2−108552
ferritin, adsorbed on W, field desorption imaging technique 2−76829
ferritin clusters, point-projection imaging of macromolecular contours 2−69302
ferritin clusters, unstained, point-projection imaging 2−94263
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
fibrinogen, α-chain extensions obs. by electron microscopy specimen preparation technique 2−73195
formatedehydrogenase enzyme, radii of inertia, X-ray and neutron scatt. study 2−105652
proteins continued
freeze-fracture electron microscopic analysis of solutions of biological molecules 2−83548
globular proteins, comparative investigation of radiation oxidation and X-ray chemiluminesc. 2−111745
guanyl-RNase C_2, microfungi, Asp. clavatus, crystn. modifications 2−57779
haematoporphyrin derivative, two-step laser activation 2−78289
haematoporphyrin derivative aggregated species 2−75476
haemocyanin, Limulus polyphemus, UV laser radiation effect 2−78394
haemoglobin, dissolved, human, configuration of the 4 Fe atoms, anomalous dispersion obs. 2−67937
haemoglobin, human, anomalous X-ray scatt., use of synchrotron radiation 2−68224
haemoglobin, metamagnetic props. 2−105709
haemoglobin, normal and abormal, human, H NMR investigation of proximal histidyl residues 2−99895
haemoglobin, possible effects of 10^{11} Hz radiation on O_2 affinity 2−111733
haemoglobin, R-state Fe-imidazole freq., time-resolved resonance Raman spectroscopy obs. 2−73197
haemoglobin, rat, hydrated monocrystals, reproducibility of electron diffr. intensity data 2−116884
haemoglobin, solns., O_2 diffusivity investig. 2−88523
haemoglobin, tracer diffusion coeff determ. by pulsed field gradient NMR 2−105640
haemoglobin multilayers, LF elect. props. 2−73184
haemoglobin of normal human adults, proton longitudinal relax. study of histidyl residues 2−111623
haemoproteins, $Fe(II) \rightleftarrows Fe(III)$ cooperative mol. distortive transitions, ligand field theory 2−76649
half-tone representation of molecular surfaces 2−90746
helical hydrophobic moment as meas. of helix amphiphilicity 2−116876
α- helical protein, particlelike excitations in chain model 2−80853
hemeproteins, EPR crystallography, direction cosines 2−83710
histone H1, theoretical prediction of tertiary struct. 2−111614
histones H2A and H2B, spatial packing of polypeptide chains 2−57775
histones H3 and H4, model of spatial packing of polypeptide chains 2−67933
histones H3 and H4 from calf thymus, cryst. of tetramer 2−99891
immobilised protein systems, ^2H NMR of water 2−67951
immunoglobulin, human, Ig G1, cryst. struct. calc., multiple isomorphous replacement method 2−116873
kappa-casein, biopolymer, far-IR spectra 2−108749
α-keratin fibres thermally stimulated depolarized currents, correl. walk model 2−88498
lactate dehydrogenase, active centre, CNDO/2, INDO and EHT calcs. 2−80854
leghaemoglobin derivatives, ferro and ferri states, multichannel X-ray diffractometry study 2−57778
light-harvesting chlorophyll a/b-protein complex, fine struct. of circular dichroic spectrum 2−67946
localisation, STEM, heavy atom imaging 2−100185
luciferase, inactivation by pulsed ionising radiation, real-time kinetic study 2−105798
luciferase of luminous bacteria, electron microscopic investig. of mol. struct. 2−105645
lysozyme in D_2O, dynamics of Overhauser effects 2−85853
lysozyme-Cu^{2+} complex, hen egg-white, ENDOR study 2−62561
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
metal substituted carbonic anhydrases, spectroscopic investigation, binding sites 2−111613
metalloproteins, zero-field splitting consts., CW microwave saturation determ. 2−70302
methaemoglobin, low spin state associated with conformational equilibrium 2−67935
microglobulin, Human β_2, NMR investig. 2−78290
mitochondria, bovine heart, protein inducing channel K^+ cond. in bilayer lipid membranes 2−99923
molecular size and confirmation 2−99880
monolayer arrays, two-dimensional, negative staining C film technique 2−117165
Mossbauer effect rel. to conformational mobility and moisture content 2−67950
muscle structure investigation, cryo-methods and image anal. 2−83719
myelin extracted protein, monomolecular layers, insoluble, dynamical props. under press. *(French)* 2−62646
myosin behaviour during unstriated muscle contraction 2−116874
myosin molecule, protein complex bound to rod part, secondary struct. and amino acid comp. 2−99879
myosin rod amino acid sequence, matching of periodic charge distribs. with cross-bridge spacings in muscle 2−111617
myosin S-1, X-ray scatt. rel. to steric blocking model of muscle control 2−105656
nucleic acid-protein associations, interactions between functional groups, review 2−83546
oligotripeptide isomorphous to collagen, $(gly\text{-}pro\text{-}pro)_{10}$, diffr. effects in X-ray patterns 2−111622
oxyhaemoglobin, human, Fe-O-O bond 2−67936
pancreatic polypeptide, avian, cryst. struct. anal. at 1.37 Å resolution 2−105651
pancreatic trypsin inhibitor, 2-dimens. NOE and chem. exchange spectrosc. 2−69220
peptides, desorption of chromophor ions under laser irrad. *(Russian)* 2−105763
photo-CIDNP spectra, cross-relax. effects 2−108573
photochemistry, ESR and spin-trapping investig. 2−111624
pigments, protein-bound, spectroscopic and photochem. props. 2−99893
plasma protein interactions, rel. to erythrocytes reduced filtrability 2−105672
PMR spectra simplification 2−54999
polymer-protein interactions, excluded vol. theory, polymer chain, statistics 2−102674
polypeptide chains of histones H2A, H2B, H3 and H4 as part of octamer, packing 2−99878
protamine, dark field TEM, sources of image instabilities 2−117173
protohaeme, binding of CO, ligand diffusion effects in solvents 2−78282
pyrochlorophyllide a-apomyoglobin complex, triplet state, zero-field fluoresc. ODMR 2−85709
RecA protein-DNA complexes, DNA helicity 2−105648

proteins continued
rhodopsin, conversion on light irrad., orientational changes of absorbing dipole of retinal 2−62614
rhodopsin, light-dependent phosphorylation in rod outer segment suspension *(German)* 2−68010
rhodopsin, photoreceptor membrane multilaminar films, photon-correlation spectroscopy combined with integrated optics study 2−88500
rhodopsin chromophore, and desmethyl analogues, theory, neg. counter charge, optical absorption 2−62551
rhodopsin molecule in photoreceptor membrane, photodamage, oxidation of SH groups 2−99894
rhodopsin molecules, aggregation on exposure of photoreceptor membranes to damaging action of light 2−111737
rhodopsin-GTP-binding proteins, interactions, kinetics and stoichiometric anal., light scatt. meas. 2−57771
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2−73190
ribosomal proteins, struct., X-ray, neutron scatt. and electron microscopy study 2−67944
ribosomal subunits, dark field TEM, sources of image instabilities 2−117173
RNA molecules, single- and double-stranded, improved visualisation by STEM 2−73193
RNA polymerase, DNA-dependent, γ-irrad. effects on activity in rat thymus cells 2−111750
sarcoplasmic reticulum, lipid-protein interactions rel. to ionophore A23187, EPR and fluoresc. obs. 2−67930
secretory protein translocation across membranes, role of docking protein 2−88515
selforganisation, directed mechanism, model calc. 2−67945
serine proteinases, catalytic rate enhancement, electrostatic effect 2−116864
serum albumin, borine, temp. depend. of viscosity 2−116948
serum albumin, bovine, press. induced denaturation, photon correl. spectroscopy 2−114139
single cell, synthetic, moisture determ. by near IR photoacoustic spectrosc. 2−89731
small intestine lysosomal enzymes, modifications after ^{60}Co γ-irrad., rat expts. 2−111740
small ligands bound to proteins, conformations, transferred NOE theory and appls. 2−105647
sodium dodecylsulphate-protein complex, binding, light scatt. study 2−70459
solid state, far IR spectra 2−67954
solid state dynamics by nucl. mag. relax. 2−73186
stellacyanin, metal-binding site studies using X-ray absorpt. spectroscopy 2−93985
structure, three-dimensional, electron microscopy 2−100184
structures, computer-generated schematic diagrams 2−93989
systems, elec. field effects on kinetics 2−111723
T7 bacteriophage, struct. study by small-angle neutron scatt. 2−105650
TEM, dark field, sources of image instabilities 2−117173
terminal regions, conformation anal. 2−99884
thermitase, negative staining to reveal struct. 2−73408
thyroglobulin, investigation of intrinsic fluoresc. 2−67949
troponin complex, prediction of approx. quaternary struct. 2−105649
trypsin, conformational fluctuations of protein mol. 2−73185
trypsinogen, bovine, intramol. reorientation, ^{199m}Hg perturbed ang. correl. obs. 2−67938
two-dimens. NOE, J cross-peak effects 2−90749
tyrosinase, mushroom, UV laser radiation effect 2−78394
virus capsid destruction by laser radiation 2−100060
viruses and proteins, method to increase lifetimes under X-ray exposure 2−117155
X-ray crystallographic studies, area detector data acquisition system 2−85478
X-ray crystallography, atomic coordinates, RMS errors calc. 2−99876
X-ray diffr. study, multiwavelength method with synchrotron radiation 2−65806
At-protein bond, nature of 2−62549
Fe-S proteins, electronic struct. calc. on active site models 2−108746
Fe(III) complexes, X-band EPR spectra in rhombic ligand fields, computer simulation 2−87582
^{1}H NOE, time development 2−80691

proton absorption
No entries

proton accelerators
see also cosmotrons
cooling electrons capture by cool protons 2−85455
cyclotron, superconducting magnet model, design 2−96341
cyclotron beam, neutral beam profiles and computer-controlled emittance measuring device 2−102312
high-energy facilities in Europe 2−80356
ICF target expts., high energy small emittance accelerator utilisation 2−108171
IHEP U-70 proton synchrotron and physics programme, status and outlook 2−113787
ISABELLE, small-angle physics 2−108167
KEK polarised beam project and polarised ion source 2−75084
NIMROD proton accelerator, neutron transmission calc. through access way using MORSE code 2−113581
proton synchrotron, bunched beam, longit. short-wavelength instability 2−64737
proton synchrotron, ultrahigh energy, bunched beam longitudinal instability, current loading 2−113786
RF accelerating system, numerical example 2−113778
saturn synchrotron, polarised proton accel. 2−75073
shielding at proton accelerator, absorbed dose meas., comparison with Monte Carlo calc. 2−96317
storage ring design 2−113777
superconducting solenoid, proton beam induced quench 2−90338
synchronous transfer of beam in the BPS *(Chinese)* 2−108205
thyratron nanosecond pulse generator based on strip line 2−85441
transverse shielding, determ. using Moyer model 2−108140
two-dimensional beam-beam interaction integrability 2−85454
URAL-30 proton linear accelerator, injector for 76 GeV proton synchrotron 2−64710
$\bar{p}$ accumulation, electron cooling 2−113790

proton affinity
atomic photoemission, proton affinities and pot. energies calcs. 2−59755

proton affinity continued
formaldehyde, electronic ground, excited triplet and ionised doublet state, ionisation pot. and geometry depend. 2−114134
formic acid ion, electronic ground, excited triplet and ionised doublet state, ionisation pot. and geometry depend. 2−114134
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
Ar-H_2 mixtures, H^+ transfer and isotopic exchange reactions 2−93785
HCl in Ar matrices, IR spectra, vibr., proton affinities 2−80608
Li^+-X (X=O^{2-}, OH^-, OH_2, N^{3-}, NH^{2-}, NH_2^-, NH_3) isoelectronic series, geometric struct. and stability, FSGO calc. 2−80442

proton angular distribution
see also proton spectra
^{10}B(α,p$_1$γ), 2.5-3.1 MeV, proton ang. distrib., from γ-ray line shape 2−90121
^{12}C(^{1}C,p), 29.5-30.5 MeV, proton ang. distribs., ^{23}Na levels, prefusion emission 2−90151
^{48}Ca(^{16}O,X), 142 MeV, deep inelastic collisions, neutron, proton and alpha emission 2−59401
^{3}He(e,e′p), 643, 806 MeV, nuclear struct., NN interaction *(Russian)* 2−59342
^{25}Mg(^{3}He,X), X=p or α, 8.05-20.42 MeV, fluctuations due to statistical multistep compound emission 2−59375

proton beam effects *see proton effects*

proton belt *see radiation belts*

proton detection and measurement
cellulose acetate solid state track detector, p, d and α registration *(Chinese)* 2−96393
CR-39 detector film development for spark counting of recoil proton tracks 2−70097
CR-39 plastic track detector appl. for protons, ^{3}He and ^{4}He ions detection 2−64783
CR-39 polycarbonate foils for biological systems dosimetry appl. 2−59562
CR-39 sheets, proton detection as fuel density radius diagnostic in ICF 2−80275
dE/dx meas. in Ne, Ar, Kr, Xe and pure hydrocarbons 2−108312
drift chambers study for nucleon decay detector 2−70037
Hornyak-button detector optimisation for fast-neutron detection 2−70048
ion-electron convertor detector for low-energy protons 2−96401
ionisation calorimeters, electron-proton discrimination capabilities study 2−113836
NE213 scintillator response to electrons and protons, size depend. 2−108234
plastic track detectors CR-39 and CN-88, light particle response comparison 2−102343
recoil proton monitor efficiency calc. for several neutron energies 2−102350
ring-imaging Cherenkov detector for 200 GeV/c particles identification 2−64761
scintillation counter telescope for light charged particles 2−90399
separation from α-particles in relativistic nuclear emulsion 2−64768
three-arm scintillation spectrometer for nucl. reaction studies at medium energies 2−96363
γp coincidence techniques in conjunction with (t,pγ) reaction, feasibility test 2−64815
H gas time projection chamber development and performance 2−96379
H time projection chamber development and performance 2−70036

proton-deuteron interactions
see also proton-deuteron scattering
p($\bar{p}$)d, double-collision, diquarks in baryons 2−101768
pd breakup, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
pd breakup reaction, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
pd→dNπ, 2.95 GeV/c, coherent interaction, one-pion prod. 2−74765
pd→π^-X, cumulative prod., differential cross-sections 2−95877

proton-deuteron scattering
see also proton-deuteron interactions
3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
backward scattering, polarisation, relativistic effects, Bethe-Salpeter eqn. 2−107681
Landau-Smorodinsky theory for composite particles *(Russian)* 2−59176
pd, 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
pd double scattering, rel. to additive quark model 2−54101
pd→pd, 0.6-2.7 GeV, backward scatt., rel. to one nucleon, one pion exchange 2−95865
$\bar{p}$d scattering, low energy, few-body approx. soln. 2−59169

proton effects
amino acids, optically active, effect of longitudinally polarised protons 2−62691
bacteriophage T4B, 70 GeV proton irrad., microdosimetric anal. *(Russian)* 2−88603
brain, proton irradiation injuries, study in expt. animals by ^{99m}Tc penetration techniques *(Russian)* 2−111813
fusion materials, mechanical-radiation effects test capsule for simulating in-reactor environments 2−88311
fusion materials-radiation effects facility, use of Los Alamos Meson Physics Facility 2−85239
gas targets, high-press., opt. obs. of intense particle beam influence, radionuclide prod. 2−113794
graphite, water-cooled pyrolytic targets, design and operation at LAMPF 2−108188
LED, proton damage effects 2−71517
metals, damage initiation and energy spectra formation of primary knocked atoms, nucl. reaction effects 2−76526
moderators and decouplers, heat deposition meas. in ZING-P′ pulsed spallation neutron source 2−102028
semiconductor counters, radiation damage, review 2−80390
solar-array radiation damage, spacecraft power plant design 2−67856
Space Telescope digicon, proton-induced noise 2−117590
steel, austenitic stainless, void swelling in type 316 under long time proton irrad. 2−102038
steel, stainless, type 316, H^+ impact, D desorption, in Tokamak first walls 2−69845
thin foils, stopping power meas., angle dependent energy loss of 7 MeV protons 2−71529

proton effects continued
(TMTSF)$_2$PF$_6$, pure and radiation damaged, magnetotransport and non-linear effects 2−56555
(TMTSF)$_2$PF$_6$, radiation damage effect on cond. 2−87243
water, small angle multiple scatt., lateral displacement 2−92053
Ag, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
Ag, proton irrad., In-vacancy interaction, TDPAC study 2−56004
Al, microstructural evolution during 600 MeV proton irrad., He prod. rate effects 2−86746
Al, pure, cavities formation at and away from grain boundaries during 600 MeV proton irradiation 2−66078
Ar-N_2 laser, intense proton beam pumping, kinetic model 2−75561
Au, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
p-$CdSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
Cr, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
D_2O ice crystal, light ion interaction 2−81842
Er film, stopping power and straggling of protons and ^{4}He ions 2−56051
$Fe_{80}B_{20}$ metallic glasses, response to irradiation with 800 MeV protons 2−80188
$Fe_{40}Ni_{40}P_{14}B_6$ metallic glasses, response to irradiation with 800 MeV protons 2−80188
GaAlAs layers, localised transmutation doping by $^{27}Al(p,\gamma)$ ^{28}Si reaction 2−103792
GaAs, proton irrad., damage distrib. and proton range, TEM study 2−76507
GaAs, proton irradiated, profiles interpretation obtained by C(V) technique 2−98663
GaAs, proton-bombarded, deep levels study 2−66474
GaAs:Si, ion implanted and proton irrad., deep levels, laser beam annealing 2−98587
GaN, heteroepitaxial layers, characterisation by Kossel effect technique 2−92380
GaP, proton irrad., elec. cond. and electron conc. meas. 2−77053
n-Ge:Sb, defect cluster form. and shaping after high-energy particle irrad. 2−76535
InGaAsP/InP DH stripe geometry lasers using proton-defined LPE-grown wafers *(Chinese)* 2−65244
InSb:Ge(Sn)(Co), gamma-ray, electron and proton beam irrad., defect annealing, elec. props. *(Russian)* 2−103817
LiH, proton bombard., positron annihilation study 2−62012
Nb, hardening stages, irrad. with 14 MeV neutrons and 16 MeV protons 2−93521
Nb, surface damage during irrad. in plasma accelerator 2−113737
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
Ni, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
Pd, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
Pt, ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
Si, 20 MeV proton bombard., radiation defect parameters 2−92056
Si, gamma and proton radiation defects formation, dislocation effects, elec. cond. and Hall coeff. study 2−86729
Si, proton and γ-irrad., defect clusters, Hall effect study 2−115225
Si, proton damage by channelling, depth profiling *(Japanese)* 2−109864
Si, proton irrad., defect centre form., electrophys. props. 2−76534
Si, proton irrad., rearrangement of intrinsic defects during annealing, Hall coeff. meas. 2−109863
n-Si, proton-irradiated, radiation defect clusters, struct. and props. 2−81833
Si:B, proton irrad., impurity distrib. and diffusion 2−61203
V, surface damage during irrad. in plasma accelerator 2−113737
p-$ZnSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527

proton excited X-ray emission *see ion microprobe analysis*

proton interactions *see electron-proton interactions; kaon-proton interactions; lepton-nucleon interactions; photon-proton interactions; pion-proton interactions; proton-deuteron interactions; proton-nucleus reactions; proton-proton interactions*

proton magnetic moment
gyromagnetic ratio determ. in weak magnetic field, Soviet research 2−80845
strong-coupling expansion with fermions, nucleon mag. moment calc. 2−74615

proton magnetic resonance
acenes, linear ^{1}H NMR chemical shifts, ring current effects 2−70281
acetaldehyde in nematic liq. cryst., high-order multiple quantum transition intensities search procedure 2−77393
acetamide, solvent effect on amidic bond, PMR study 2−70291
2-adamantanone, mol. motions, NMR study 2−56960
agar-H_2O system, mol. dynamics and entropy changes, PMR study 2−78281
alkynyl mercury (II), chemical shifts, coupling consts., NMR 2−54880
aqueous acid solns. dissoc. consts., anion effects by PMR spectroscopy 2−65017
aromatic compounds, PMR study 2−102496
aromatic halides, comparitive study by PMR 2−56948
aromatic heterocyclic compounds, S-containing, proton, ^{13}C and ^{15}N chemical shifts, MO LCAO SCF method 2−75321
aromatic molecules, PMR chem. shifts due to proton mag. shielding, symm. anal. 2−75461
2-arylamino-1,2-diarylethanephosphoric acid esters, stereochemistry, PMR study 2−114019
B_0 homogeneity spatial extent in high-resolution NMR expt., high-order gradient effects 2−53803
benzene, PMR chem. shifts due to proton mag. shielding, symm. anal. 2−75461
benzil, structural phase transition, proton mag. relax. study 2−116079
benzocyclenones, isopropyl substituted, UV spectra, steric interaction, ^{1}H NMR chemical shift 2−70274
benzonitriles, alkyl-substituted, struct. elucidation using lanthanide-induced shifts 2−80685
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
benz[a]anthracenes, methyl substituted, ^{1}H and ^{13}C NMR chem. shifts 2−65020
biomedical NMR imager, Aberdeen, calibration for proton spin-lattice relax. time meas. 2−100088
biomolecules, soln. conform. and dynamics, with internal motions, ^{1}H NMR anal. of relax. data 2−116863
bis(methylammonium)copper tetrachloride, quasi-two-dimensional ferromag., proton spin-lattice relax. 2−61780
blood, spin-lattice relax. time for healthy subjects and for patients with malignant blood disease 2−94155
blood vessel obstructions, quantification using NMR 2−83624
bond lengths riding model convection for thermal motion effects 2−96768
4-n-butoxybenzylidene-4′-aminopropiophenone, smectic A to B transition, PMR spin-lattice relax. study 2−93037
2-butyne, partially oriented, PMR spectra, a_p, struct. determ. 2−96599
carbonic acid-Co substituted, ^{1}HNMR spectra of coordination sphere 2−72359
o-carborane, H^+ second moments and spin-lattice relax. time 2−77404
2-chloro-5-chloromethyl-1,3,2-dioxa-arsolane, three-dimens. struct., NMR study 2−96767
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
compounds with intramol H-bonds with large proton polarisability, ^{1}H NMR spectra, solvent effect 2−102503
N-(α-cyanobenzylidene)alkylamines, dipole moments, IR and PMR study 2−113983
N-(α-cyanobenzylidene)anilines, dipole moments, IR and PMR study 2−113983
cis-syn mesocyclobutadi-2′-deoxyuridine, 2-dimens. PMR 2−80671
1,3-cyclohexadiene, ^{13}C NMR 2−110671
p,p′-di-n-heptylazoxybenzene, diamag. susceptibility, ^{1}H NMR, chem. shift 2−98979
1,4-diacetyl-1,4-dihydro-2,3-diphenylpyrazine cryst. struct. and conform. anal. 2−75310
dibenzo-18-crown-6, solvent effects on PMR spectra 2−108578
beta-dicarbonyls, H bonding and proton migration, ^{1}H and ^{13}C NMR chem. shift. obs. 2−80680
2,5-dichloroanisole, small coupling consts., signs, ^{1}H NMR investig. 2−70287
o-difluorobenzene in nematic liq. crysts., struct., orientation, ^{1}H and ^{19}F NMR spectra 2−108571
dilute spins in solids, high resolution ^{1}H NMR obs. 2−58867
dimethyl disulphide cleavage, ^{1}H NMR and ^{199}Hg FTNMR equilib. consts. 2−72358
diphenyl disulphide derivatives, intramol. H bonding effects on conformation 2−75309
diphenyl sulphide derivatives, intramol. H bonding effects on conformation 2−75309
N,N-diphenylthiourea, NMR and IR studies of solvent effect 2−75325
DNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
DNA intercalating mols., comparison between quinacrine and chloroquine ring-ring interaction with adenine and thymine 2−85679
ethyl bromide, liq., mol. rot. diffusion tensor determ., PMR study 2−114020
fluorobenzenes, containing free radicals, NMR relax. 2−54870
gentiobiose octaacetate, conformation, NMR obs. and hard-sphere calcs. 2−96602
haemoglobin, normal and abormal, human, H NMR investigation of proximal histidyl residues 2−99895
heart, canine, regionally ischemic, PMR signal enhancement effect 2−105874
HF splitting meas. by NMR Gaussmeter, accurate gauge 2−107354
histidyl residues of normal human adult haemoglobin, proton longitudinal relax. study 2−111623
4-hydroxy-5-phosphinyl-2-imidazolidinones, substituted, ^{1}H NMR 2−96593
imaging, medical appl. 2−83625
imaging in medicine 2−88647
indene, high-resolution ^{1}H NMR, anal. 2−65010
leukemia cell proton NMR during differentiation 2−105682
leukocytes:mn^{2+} suspensions, H^+ NMR relax. 2−116895
liquid cryst. mixtures, diamagnetic susceptibility anisotropies, ^{1}H NMR study 2−65850
liquid crystals, intra- and interpair dipolar order, proton NMR signals 2−116081
liquids subjected to space-ordered light radiation *(Ukrainian)* 2−116077
macromolecular systems, structure and dynamics study by NMR methods, conf., Prague, Czechoslovakia (July 1981) 2−84376
malignant and healthy tissue, improved characterisation by NMR line-shape relax. correls. 2−93990
manganese formate perdeuterate, subsystem mag. susceptibilities, PMR study 2−116070
medical application, review of positron tomography and NMR imaging 2−78425
medical application of NMR, imaging methods, review 2−117052
medical applications of NMR, review 2−111769
medical diagnosis appl. of NMR imaging *(German)* 2−94146
medical imaging, optical instrumentation appl., conf., San Francisco, CA, USA (March 1981) 2−94888
medical imaging by NMR, review of Aberdeen phys. and biological programme 2−78409
medical imaging technology, review *(Japanese)* 2−105825
medical NMR imaging, possibilities and limitations 2−100086
medical tomography, limited angle reconstruction problems 2−117051
mercaptoacetaldehyde, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercaptoacetone, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
methane, solid, isotope effect in phase diagram, proton NMR expt. 2−56964
methanes and its deuterated analogues partially oriented in nematic liq. crystals, ^{1}H and ^{2}H NMR spectra 2−70280
methoxylated isoflavones, ^{1}H NMR spectra, solvent effect 2−70292
methyl phenyl sulphide derivatives, intramol. H bonding effects on conformation 2−75309
N-methylacetamide, solvent effect on amidic bond, PMR study 2−70291
methylammonium iodide, solid, pre-melting phases, ^{1}H spin-lattice relax. and DTA study 2−77409
1-methylgermatrane, 3,7,10-carbonyl containing analogues, X-ray struct. anal. and NMR spectra 2−96766
N-methylthiourea, NMR and IR studies of solvent effect 2−75325

proton magnetic resonance continued
molecular-tunneling spectroscopy in crystals with the use of a double-level-crossing technique 2−76331
monobromobenzene in nematic liq. cryst., r_α struct., ^{13}C satellites in PMR spectrum 2−54873
monosaccharidic (-dn) and ^{13}C enriched compounds, ^1H and ^{13}C two dimens. spectroscopy *(French)* 2−80679
4-nitrobenzoic acid-phenolate, H-bonded complex, ^1H transfer, PMR and IR obs. 2−80602
nucleotide metal ion complexes, binary and ternary, ^1H-NMR shift studies 2−108581
organic and biological cpds. second moment in wide-line PMR, rel. to unit cell proton density 2−103570
organic compounds, estimation of wide-line PMR second moment, group geometry anal. 2−103571
oscillatory free-induction decay and oscillatory spin echoes 2−86062
parachlorophenoxy acetic acid, wide-time NMR studies 2−110653
phenolic H^+ chemical shift, high dilution meas., correl. with electronic charge calc. by CNDO/2 method 2−75326
phenylamines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylarsines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
1-phenylgermatrane-3-one, X-ray struct. anal. and NMR spectra 2−96766
phenylphosphines, and anions in soln., ^1H, ^{13}C and ^{31}P NMR study 2−85693
phenylthioacetic acids, substituted, ^1H NMR spectra, substituent effects 2−65009
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
polyacetylene, pure and doped, ^1H NMR spin-lattice relax. rate, freq. and temp. depend. meas. 2−77406
polyethylene in soln., PMR relax. and mol. motion, isotopic dilution technique 2−93041
polyethylenimine backbone polynucleotide models, synthesis and ^1H and ^{13}C NMR characterisation 2−116865
polyheteroarylene fibre reinforced epoxide binder composites, ^1H NMR study of mol. mobility 2−116073
polymer swollen crosslinked gels, NMR studies 2−87605
protein dynamics, solid state PMK studies 2−88501
proteins, PMR spectra simplification 2−54999
proteins, solid state dynamics by nucl. mag. relax. 2−73186
proton-proton spin coupling in spectrum of many lines 2−101431
purines+phenylalanine, collision complexes, ^1H NMR spectra 2−57591
quantitative flow FT ^1H NMR, repetitive pulse conditions 2−107367
β-quinol-methanol clathrate static and dynamic struct., ^{13}C NMR and H^+ T_1 meas. 2−104730
rare earth metal complex, elemental anal., NMR, IR, UV-visible study 2−110672
RF coil designs for NMR zeugmatographic imaging 2−117053
rheotomography, feasibility and clinical pot. for blood flow anal. 2−68103
rhodamine dyes, struct., PMR spectra 2−75323
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
selenolo[3,2-b]selenophenes, ^1H, ^{13}C and ^{77}Se NMR, substituent-induced shifts 2−75312
succinimide cryst., mol. reorientation and H bonding, PMR study 2−82726
sulphanilamide, NQR and NMR study 2−108568
tetraethyloxysilane, mol. dynamics below freezing pt., PMR relax. investig. *(German)* 2−110689
tetrakis(N,N-dimethylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
tetrakis(N,N-dimethylformamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
tetrakis(N-methylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
tetramethyl p-pherenediamine perchlorate, Wurster's blue, solid, proton spin-lattice relax. time meas. 2−87612
2,4,6,9-tetrathiaadamantane and its methyl derivatives, synthesis, mass and ^1H-NMR spectra 2−114016
thioureas, di- and tri-substituted, IR and Raman spectra, conformational anal. 2−90545
tissue NMR relaxation times, rel. to local inflammatory response, rat and rabbit expts. 2−83550
$(TMTSF)_2ClO_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
$(TMTSF)_2PF_6$, proton magnetic resonance study 2−110687
$(TMTSF)_2PF_6$, spin dynamics dimensionality, proton relax. rate meas. 2−110683
$(TMTSF)_2X$, charge density waves, spin density waves 2−92491
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
para-toluenesulphonic acid hydrate, solid, H_3O^+ and CH_3 group reorientations, PMR spin-lattice relax. 2−72369
triethylammonium halides, mol. and intramol. motion, pot. barriers, PMR study 2−77390
trifluoromethene, solid phase, spin-lattice relax., NMR study 2−110673
two spin system, homonuclear multiple quantum transitions, PMR pulse sequence effect 2−87602
water content meas. using NMR content meters, errors with materials containing combined H 2−99736
water crystallisation, grapevine tissue, possible mechanism of process, ^1H NMR obs. 2−111615
wax, microcryst., degree and type of branching, PMR spectroscopy determ. 2−56949
$Al(ClO_4)_3$, solns. in methanol (ethanol), ligand exchange rates, PMR obs. 2−104712
β-Al_2O_3-NH_3^+, defect struct., PMR study 2−110649
$Al(OH)_3$, anodic oxide layer of Al electrolytic capacitor, proton magnetic relaxation study 2−104733
$Ba(NH_3)$, NH_3 diffusion and H^+ shift, PMR obs. 2−82735
$Ba_3P_6O_{18}.9H_2O$, preparation and props. 2−72643
$BaTiO_3$:Mn^{2+}, spin-spin relax. study 2−77407
Be complex, tetrakis(dimethylmethylphosphonate)Be(II), ligand exchange, PMR obs. 2−70278
Be complex, tetrakis(methylmethylphenylphosphinate)Be(II), ligand exchange, PMR obs. 2−70278
$Ca(NH_3)_6$, NH_3 diffusion and H^+ shift, PMR obs. 2−82735
$CsFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
$Cu(NO_3)_2.2.5H_2O$, cryst. struct. PMR and DMR study 2−81717
$CuSO_4.5H_2O$, proton relax. rate angular depend., deviations from point-dipolar model 2−61783
proton magnetic resonance continued
$[rGa(OH)_2]_6P_6O_{18}.12H_2O$, preparation and props. 2−72643
H_2, HD and D in nematic solvents, ^1H and ^2H NMR meas., environmental effects 2−85699
$HNbO_3.xH_2O$, proton conductor, charact. 2−104054
H_2O in conc. aq. ZnCl solns., NMR and H^+ spin-lattice relax. 2−110674
H_2O liq., H^+ lifetime, temp. and density depend. 2−70282
H_2 ^{17}O liquid, rot. correl. time, quadrupole coupling consts., PMR relax. study 2−85690
$HSbO_3.xH_2O$, proton conductor, charact. 2−104054
$HTaO_3.xH_2O$, proton conductor, charact. 2−104054
KH_2AsO_4, spin-spin relax. study 2−77407
$KIO_3.2HIO_3$, proton conductivity, permittivity, cryst. struct. 2−86931
$K_2P+(CN)_4Br_{0.3}.3.2H_2O$, NMR studies on cryst. water mol. motion 2−110652
$(K_2)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
LaH_x, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
$LiNH_4SO_4$, tunnelling, reorientation, PMR study 2−93034
$LuH_{2.03}$, ^1H NMR studies 2−116082
NH_4ClO_4, cryst. spin-rot. relax., ^1H NMR study 2−77403
NH_4HSeO_4, polycrystalline, ^1H NMR chem. shift 2−104725
$NH_4IO_3.2HIO_3$, proton conductivity, permittivity, cryst. struct. 2−86931
$(NH_4)_2SO_4$, ^{14}N spin diffusion, proton resonance 2−82733
$(NH_4)_2SnCl_6$ and other ammonium salts, NH_4^+ reorientation, dielec. and NMR studies 2−93108
$(NH_4)_2ZnCl_4$, proton mag. relax., commensurate-incommensurate transition 2−77400
$NbH_{0.89}$, phase transitions, PMR spin-lattice relax. time temp. depend. study 2−110688
NdD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
NdH_3, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
$PdH_{0.82}$, proton dynamics at low temp., PMR line shape study 2−72370
β-PdH_x, electronic hyperfine coupling, PMR study 2−72371
Pr complex, L-carnosine-Pr^{3+}, in aq. solns., bound shifts 2−70286
$RbFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
$RbHSeO_4$, polycrystalline, ^1H NMR chem. shift 2−104725
$(SN)_x$, proton-spin lattice relax. time from incorporated water 2−61781
a-Si:H films, mol. H_2 presence, proton spin-lattice relax. time meas. 2−61786
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
$Si_{1-x}C_x$:H, amorphous glow discharge films, ESR, IR and optical study 2−56934
SmD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
Sn complexes, dithiocarbamates Sn (II), mol. group reorientation, PMR lineshape study 2−93016
$SnCl_2.xH_2O$, x=1.5 and 2, ^{35}Cl NQR spectra, Zeeman effect, PMR 2−61787
$SnO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
$Sr(NH_3)_6$, NH_3 diffusion and H^+ shift, PMR obs. 2−82735
$TiO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
β-$VH_{0.59}$, H superstruct. and diffusion, ^1H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
β-$VH_{0.59}$, pulsed NMR study of two types of H 2−61777
β-$VH_{0.77}$, H diffusion, superstructure, ^1H NMR study 2−104731
VH_2, ^{51}V and ^1H nucl. spin-lattice relax. 2−98984
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
ZrH_x, proton site occupancy, PMR line shape study 2−116088

proton-nucleus reactions
for inelastic proton-nucleus scattering, see "proton-nucleus scattering"
see also neutron-proton interactions; proton-proton interactions; proton radiative capture
inelastic interactions, soft particle multiplicity distribs., Monte Carlo simulation 2−107856
KNO scaling in high energy proton-nucleus interactions 2−95876
meson production reaction 2−54370
nuclear props. at intermediate energy with light ion probes 2−54371
pion prod. and absorpt., fundamental interactions and processes 2−79986
pion prod. and absorpt., microscopic theory 2−79985
proton and pion emission in phenomenological model 2−95983
proton-emulsion nucleus interactions, model for slow particle prod. 2−90102
shower particle pseudorapidity fluctuations phenomenological investigation 2−59191
shower prong distributions, semi-inclusive KND scaling in emulsion 2−113470
snowball model for light fragment prod. 2−59319
$^AC(p,\pi^\pm)$, A=12-14, pion prod. cross section and analysing power meas. 2−80002
(p,α), microscopic form factor for DWBA anal. 2−54374
(p,d), intermediate energy, stripping and pickup reactions, analytic eikonal model 2−85051
(p,d) one-nucleon knockout reactions, review 2−79998
(p,f) on nuclei near Pb and lighter nuclei, fast p, shell effects in fission *(Russian)* 2−90185
(p,n), Gamow-Teller reson. 2−54318
(p,n), Gamow-Teller reson. energetics 2−101893
(p,n) on Li,C,Mg,Cl,Ca, 5-200 MeV, isovector effective interaction strength ratio, energy depend. 2−59358
(p,p'X), drifting hot spots in inclusive reactions, preequilibrium evolution 2−101869
(p,π), expt. results on pion prod. 2−80006
($\vec{p}$,π), microscopic calcs. using isobar-doorway approach 2−80010
(p,π), pion prod. and absorpt. in nuclei, conf., Bloomington, IN, USA (Oct. 1981) 2−79266
(p,π), pion prod. in rescattering model 2−80011
(p,π), pion prod. model 2−80014
(p,π), pion prod. models and quark model of physics at short distance 2−79987
(p,π), systematics in pion prod. and absorpt., expt. overview 2−80001
(p,π) on ^3He, ^4He, ^6Li, ^{10}B, pion prod. in exclusive kinematical region 2−80004
(p,π) on nuceli A>3, pion prod., review 2−80000
(p,π^+), A=12, 16, 40, distortion effects, relativistic one-nucleon model, DWBA anal. 2−90111
($\vec{p}$,π^+), relativistic one nucleon model description for reaction mechanism 2−80009
(p,π^+), two-nucleon model, pion prod. study 2−80012

proton-nucleus reactions continued
(p,t), direct processes, simultaneous transfer DWBA descript., unhappiness factors 2−79996
(p,t) on A=66-230, 52 MeV, two-hole states obs. at high excitation energy 2−54376
(p,t) on Zr, Mo, Ru, Pd isotopes, analysing powers and two-step transfer processes 2−59355
(p,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(p,X), continuum spectra, multistep direct reaction anal. 2−107863
(p̄,X), low-energy, optical pot. 2−59347
(p̄,X), stopped p̄, high spin isomers, use to study multipion-nucleus reactions 2−96003
(p,X) on Al, Cu, W, 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
(p,X) on Cu, Ag, Au, Gd, Ta, U, 400 GeV, fragments recoil props. 2−54430
(p,x) on U, Th, Au, Ta, 5 GeV, neutron deficient nuclides alpha spectroscopy 2−59299
p̄ atom, antiproton nuclear absorpt. for studying multipion-nuclear interaction 2−90169
pN in nuclei, nuclear response to high energy interactions, knock-out p 2−85057
2H(p̄,x), x=2p, pn, 65 MeV, polarisation effects in quasi-free scatt. regions 2−90105
^{12}(p̄,π^+)^{13}C, 200-250 MeV, analysing power energy depend. 2−59357
^{15}(p,α), 78-810 keV, stellar energies, cross sections, ang. distribs., astrophysical S-factor 2−90119
^{108}Ag, p̄ annihilation, intranuclear cascade model 2−101871
^{109}Ag(p,d)^{128}Ag, nuclear spectroscopy study 2−113487
Ag(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Ag(p,X), 200 GeV, multiplicity meas. 2−113467
Ag(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
Ag(p̄,X), X=^{3}He or α, 237, 445, 518 MeV, analysing power in inclusive reactions 2−59352
Ag(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
^{27}Al(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
Al(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Al(p,mN')X, 90 MeV, fast inelastic collision in precompound reactions, cross sections, optical pot. 2−101887
Al(p,x), 16-70 MeV, excitation functions meas. for radioactive isotopes 2−101886
Al(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
Ar(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
Au(p,X), 200 GeV, multiplicity meas. 2−113467
Au(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
Au(p, X), relativistic nuclear collisions, fission and deep spallation characts. 2−90135
^{10}B(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{11}B(p̄,d), 11.34-11.94 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{11}B(p,n), multi-configuration shell model in continuum and reson. states in ^{12}C 2−95996
^{138}Ba (p, 2n), 17.1-20.3 MeV, medium-spin levels and 360 ns I $^\pi$=19/2$^-$ isomer in ^{137}La 2−54232
^{9}Be(p,dα)^{6}He, 30 MeV, quasi-free effects study 2−85037
^{9}Be(p̄,π^-)^{10}C, 200-250 MeV, analysing power energy depend. 2−59356
^{9}Be(p̄,π^-)^{10}C*, 200-250 MeV, analysing power energy depend., meas. at TRIUMF 2−80007
^{9}Be(p̄,π^+)^{10}Be, 200-250 MeV, analysing power ang. distrib. meas. 2−85047
^{9}Be(p,π^-), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{209}Bi(p,f), 60 MeV, fragment γ-multiplicity, collective modes, spin, shell effects 2−113338
^{209}Bi(p,π^-xn), near 200 MeV, intranuclear cascade model 2−107865
^{209}Bi(p,π), pion prod. by target emission, total cross section calc. 2−80013
^{A}C(p,π^-) A=12-14, pol. p, evidence for two-nucleon processes 2−113472
^{12}C(p,2p) ^{160}MeV, factorisation corr. for DWIA matrix element 2−69663
^{12}C(p,$\mu^-\nu$)^{13}C, weak muon prod. study using impulse approx. 2−59354
^{12}C(p,n)^{12}N, 20-30 MeV, resonances, three-quasiparticle intermediate states, shell model 2−90097
^{12}C(p,pα)^{8}Be, 700 MeV, role of processes with cluster rearrangement 2−95995
^{12}C(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{12}C(p̄,π^+)X, analysing power energy depend., meas. at TRIUMF 2−80007
^{12}C(p,π), pion prod. by target emission, total cross section calc. 2−80013
^{13}C(p,^{3}He)^{11}B, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{13}C(p̄,d), 13.79-14.39 MeV, analysing power ang. distribs., comparison with inverse reactions 2−69635
^{13}C(p,t)^{11}C, 65 MeV, differential cross section and analysing powers meas. 2−54384
^{40}Ca, p̄ annihilation, intranuclear cascade model 2−101871
^{40}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{40}Ca(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{44}Ca(p,n)^{44}Sc, cross section and thermonuclear reaction rates meas. 2−80019
^{48}Ca(p,n), 160 MeV, cross-section, Δ(1232) isobar effect 2−85039
^{48}Ca(p,pn), 149.5 MeV, p-n coincidences, neutron-hole states, spectroscopic factors 2−113474
^{48}Ca(p,t)^{46}Ca, DWBA calc. for two step amplitude 2−54333
^{A}Cd(p,n), A=110, 114, 116, ground and excited state analogues study 2−54378
^{113}Cd(p,n), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
C(p,π), nonlinear effects in pion prod. *(Russian)* 2−90116
^{63}Cu(p,nγ)^{63}Zn, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
Cu(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Cu(p,h), 225 GeV/c, ang. and energy distrib. meas. of secondary hadron fluxes 2−107854
proton-nucleus reactions continued
Cu(p,x), 16-70 MeV, excitation functions meas. for radioactive isotopes 2−101886
Cu(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
^{162}Er(p,α), 17 MeV, ^{159}Ho single proton states, bands, J$^\pi$, Coriolis strengths, Nilsson assignments 2−69516
^{170}Er(p,t), ^{168}Er level excitation, rel. to IBM calcs. 2−107866
^{19}F(p,$\alpha\gamma$)^{16}O, resonance strengths relative to elastic scatt. cross section 2−90075
^{A}Fe(p,n), A=54, 56, 28-35 MeV, ang. distrib. for low-lying states, DWBA anal. 2−74764
^{74}Ge(p,α), 36.25 MeV, DWBA anal., ^{71}Ga levels, spectrosc. strengths 2−107864
Ge(p,t), even isotopes, low lying 0$^+$ states, microscopic coupled channel description 2−59350
Ge(p,t), even-A nuclei, shape coexistence and shape transitions 2−84949
^{1}H(P$_2\pi^+$)^{2}H, six-quark bag model study 2−79840
^{1}H(p, π)^{2}H, complete set of observables and orthogonal geometry 2−113290
^{1}H(p,X), 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
^{1}H(p,e$^+\nu$)^{2}H, reaction rates in stellar interiors 2−68612
^{1}H(p̄,π^+)^{2}H, 400, 450 MeV, analysing power meas. 2−69659
^{1}H(p,π)^{2}H, πNN dynamics, ^{3}F$_3$ diproton anomaly 2−74763
^{1}H(p̄,π)d, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
^{2}H(p,2p), low energies, N-N forces investig. 2−113373
^{2}H(p,d), pol.p, 10 MeV, polarisation transfer 2−54381
^{2}H(p,pn), breakup, 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
^{2}H(p,π^0)^{3}He, cross section ang. distrib. and analysing power meas. 2−80003
^{2}H(p̄,π^+), 305-400 MeV, anal. power, cross sections 2−113459
^{3}H(p,n), 9-14 MeV, tritium break-up contrib. to neutron source reaction 2−90101
^{3}He(p,n), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,π^+)^{4}He, pion prod. in rescattering model, comparison with expt. 2−80011
^{4}He(p̄, d), anal. power, reaction mech. and polarisation effects 2−113458
^{4}He(p̄,2p), 250-500 MeV, anal. powers, quasifree angles, asymmetries 2−90079
^{4}He(p,2p)^{3}H, 250,350,500 MeV, energy sharing spectra, coplanar symmetric and quasifree ang. distrib. 2−54391
^{4}He(p̄,d), 32-50 MeV, anal. power, time reversal and charge symmetry 2−69639
^{4}He(p,d)^{3}He transfer processes, diffractional theory, three-particle approach *(Russian)* 2−113434
^{180}Hf(p,n), 6.5-9.0 MeV, ^{180}Ta^{g,m} prod. cross-sections 2−107811
^{199}Hg(p,t)^{197}Hg, 25 MeV, reaction Q value meas. 2−84946
In(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
^{A}Ir(p,f), A=191, 193, 68, 85, 100 MeV, Rb isotopic distrib. and neutron emission 2−90181
^{41}K(p,X), X=γ, n, $\alpha\gamma$, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
^{A}Kr(p,pxn), A=82-86, 600 MeV, ^{81}Kr prod. cross section meas. *(Russian)* 2−90114
^{A}Kr(p,t), A=78-84, low-lying octupole vibr. strength splitting in ^{76,78,80,82}Kr 2−84939
La(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
^{6}Li(p, pd), 156 MeV, quasifree scatt., eikonal wave function appl., nuclear pot. *(Chinese)* 2−96010
^{6}Li(p,Δ^{++}), 1.04 GeV, cross section, Δ-N interaction, Glauber calc. 2−64402
^{6}Li(p,pd)^{4}He, quasifree scatt., theoretical anal. 2−95994
^{6}Li(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{7}Li(p,n), 2.5 MeV, appl. as neutron source 2−102315
^{7}Li(p,n)^{7}Be, 60-200 MeV, total cross section 1/E depend. 2−59351
^{A}Li(p,dd), 670 MeV, A=6, 7, quasi-free pickup, cross sections, reaction mech. 2−113453
Lu(p,X), 400 GeV, Sc fragments ang. distrib., target-A depend. 2−54395
^{23}Mg(p,d), 100 MeV, effect of d breakup on pick-up cross section 2−59349
^{24}Mg(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{24}Mg(p̄,d), 94 MeV, anal. powers, DWBA failure on ^{23}Mg l=0 transition 2−69634
^{24}Mg(p,d), 94 MeV, antisymmetrized deuteron stripping, three-body model appl. 2−107815
^{24}Mg(p,n)^{24}Al, 35 MeV, stretched 6$^-$ T=1 state in ^{24}Al 2−54379
^{A}Mo(p,n), 6-9 MeV, A=95,98, n spectra, cross sections, ^{95,98}Tc level density *(Russian)* 2−107758
^{94}Mo(p,t), 22 MeV, anomalous 0$_g^+$→0$_g^+$ anal. powers and partial cross sections 2−64389
^{98}Mo(p,n), 2.4-4.0 MeV, ^{98}Tc excited states 2−101837
^{14}N(p,d), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{15}N(p,X), S-matrix unitarity, resonance phenomena 2−107826
^{93}Nb(p,n)^{93}Zr, phenomenological and microscopic optical model analyses 2−85048
Ne(p̄,πX), low energy annihilation, leading particle effect, semiclassical transport theory 2−69655
^{60}Ni(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{16}O(p, X), binary fragmentation, cross sections, statistical model calc. 2−113468
^{16}O(p,n,), 35 MeV, ^{16}F T=1 4$^-$state excitation 2−79976
^{16}O(p̄,n)^{16}F, 134 MeV, analysing power and differential cross section meas. 2−64404
^{16}O(p,n)^{16}F, 99, 135 MeV, spectroscopy of ^{16}F 2−64407
^{16}O(p,π^+), 800 MeV, differential cross section ang. distrib. meas. 2−80008
^{18}O(p,p'γ), (p,n'γ) and (p,$\alpha'\gamma$) reactions, ^{19}F analogue resonances obs. 2−107820
^{18}O(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{18}O(p,t)^{16}O, sequential and simultaneous transfer of neutron pair 2−107860

proton-nucleus reactions continued
(p,p′), 4.0-9.5 GeV, fast proton spectra at 62 mrad *(Russian)* 2−96011
^{208}Pb(p,t), finite range DWBA anals. with realistic wave functions 2−64410
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^+ transition 2−69662
^{A}Pd(p,Xn), A=105,106,108,110, Ag isotopic yields 2−64417
^{A}Pd(p,n)^{A}Ag^{mg}, A=102, 104, 105, isomeric ratios 2−95999
^{198}Pt(p,t), ^{196}Pt level excitation, rel. to IBM calcs. 2−107866
Rb(p,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473
^{104}Ru(p,d), 29 MeV, ^{103}Ru states, J^{π}, spectroscopic factors, DWBA anal. 2−79949
^{45}Sc(p,n)^{45}Ti, cross section and thermonuclear reaction rates meas. 2−80019
^{A}Se(p,n), 19 to 25 MeV, A=76, 80, 82, excitation of analogue states, coupled channel analysis 2−113444
^{28}Si(p,X), 400 MeV, p-γ coincidences, prod. cross sections for various nuclei *(French)* 2−107857
^{30}Si(p,α)^{27}Al, 4.9-6.08 MeV, excitation energies and reson. strengths 2−64406
^{A}Sm(p,t), A=144, 148, 150, 154, 25.5 MeV, ang. distrib., two-step processes effects 2−95998
Sm(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
Sn, struct. study in (p,d) 20 MeV reaction 2−74759
^{117}Sn(p,2nγ), 15-25 MeV, ^{116}Sb bands, J^{π}, transitions and $T_{1/2}$, decoupled neutron 2−79931
^{120}Sn(p,d)^{119}Sn, 26.3 MeV, d ang. distrib. and ^{119}Sn level structure 2−54377
^{120}Sn(p,n) 45 MeV, multistep direct emission, statistical theory 2−79997
^{124}Sn(p,t)^{122}Sn, 34.9-65.0 MeV, zero-range normalisation constant, ang. distrib. 2−85053
Sn(p,f), 155-200 MeV, fission product anisotropy, cross-section *(Russian)* 2−59435
Sr(p,X), systematics for Kr prod., cosmogenic Kr appl. 2−113473
^{181}Ta(p,t)^{179}Ta, 19 MeV, differential cross section meas., evidence for particle-core coupling 2−85049
^{181}Ta(p,xn), 22 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
Ta(p,X), 12 GeV, composite particle prod. and prod. source size 2−69657
Ta(p,X), 190-268 MeV, neutron prod. spectra, energy deposition 2−54366
Ta(p,X), 8 GeV, Rb, Cs, β-active superdense nuclei search 2−95909
Ta(p,X), cc Rb, In, Cs isotropic distrib. *(Russian)* 2−54398
^{A}Te(p,d), A=122, 124, 130, 42 MeV, Te neutron strength distribs. 2−84936
^{124}Te(p,n)^{124}I, ^{124}I odd-odd nucleus excited states, γ-spectra study 2−101814
^{232}Th(p,X), 0.15-24 GeV, Kr and Xe isotopes prod. 2−54394
^{232}Th(p,f), 15 MeV, correl. between ang. anisotropy and fragment mass 2−59431
^{232}Th(p,f), 4-11 MeV, excitation function meas. 2−96061
^{232}Th(p,f), 70-1000 MeV, fission fragment ang. correlations, momentum transfer 2−59429
^{232}Th(p,f), 8-22 MeV, fission fragment yields and excitation functions, statistical anal. 2−90182
Ti(p,α), 40.35 MeV, ^{43,45,47}Sc levels, J^{π}, microscopic form factors, DWBA anal. 2−101812
^{238}U(p,f), 10-100 MeV, spallation yields and fissionability calc. 2−59430
W(p,x), 70 GeV, protons, pions, kaons, antiprotons and deuterons prod. cross section 2−101899
^{89}Y(p,spallation), excitation functions of Kr isotopes, application to lunar cosmogenic Kr 2−113473
^{88}Zr(p, spallation), excitation functions of Kr isotopes, application to lunar cosmogenic Kr 2−113473
^{90}Zr(p,n), 200 MeV, pionic mode of excitation in continuum, DWBA calc. 2−85043
^{90}Zr(p,n), 7.8 MeV, ^{90}Nb^{m} decay rate obs. via E3 conversion electrons 2−54315
^{92}Zr(p,t), 22 MeV, anomalous $0_g^+ \rightarrow 0_g^+$ anal. powers and partial cross sections 2−64389

proton-nucleus scattering
see also neutron-proton scattering; proton-proton scattering
advances in nuclear physics, book 2−58571
elastic and inelastic scatt., review 2−54369
elastic scattering, unified pot., nonlocal formalism 2−59251
forward-angle inelastic scatt., single-step contrib. anal. in independent particle model 2−59318
hadron-nucleus interaction dynamics, review 2−54367
intermediate energy proton and light-ion scatt., review 2−54368
optical model, VR^{n} ambiguity, quantum-mechanical anal. 2−107817
polarisation, nucleon-nucleon amplitudes influence 2−54364
solar flares, inelastic proton scatt. and nucleosynthesis as sources of gamma-ray emission 2−68719
transmission coefficients for light projectiles 2−69621
(p,p), 1 GeV, A=2 to 208, cross sections, densities, neutron and matter distribs. 2−96002
(p,p), 800 MeV, polarisation, spin effects and Coulomb interaction 2−64411
(p̄,p̄), A=12, 16, 40, 90, 208 *(Russian)* 2−79994
(p,p), high-energy scatt., nuclear matter distrib. calc. and comparison with expt. 2−84985
(p,p′), 200 MeV, A=51-140, M1 resonance excitation, cross sections, DWIA anal. 2−113439
(p,p′), Coulomb multiple scattering of heavy particles 2−74760
(p̄,p′), inelastic scatt. to continuum, orbiting effects 2−85040
(p,p′), pionic and Δ(1232) degrees of freedom in nuclei, review 2−59339
(p,p′) on ^{90}Zr, ^{120}Sn, ^{144}Sm, ^{206}Pb, 800 MeV, transition matrix elements proton-neutron decomposition 2−54392
Al(p,mN′)X, 90 MeV, fast inelastic collision in precompound reactions, cross sections, optical pot. 2−101887
^{9}Be(p,p) differential cross-section, optical model, two-step processes 2−90099
^{12}C(p,p′), 24-44 MeV, M1 transitions, tensor force effect 2−54302
^{12}C(p,p′), 800 MeV, low spin state excitation, differential cross section, DWIA anal. 2−90112
^{12}C(p,p′), proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{12}C(p,p′γ), 41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
^{12}C(p,p), bremsstrahlung spectrum and time delay, multidetector coincidence study 2−85044
^{12}C(p,p), differential cross sections in coupled channel study 2−59348
^{12}C(p,p), list-mode study of bremsstrahlung spectra near reson. and time delays 2−90100
^{13}C(p,p′), 9.50 MeV $9/2^+$ state obs., DWBA anal. 2−69535
^{13}C(p,p), (p,p′), 135 MeV, differential cross section meas. 2−85038
^{A}Ca(p,p′γ), A=42, 44, γ-ray yield meas. 2−80019
^{40}Ca(p, p) and (p, p′), 800 MeV, cross section and analysing power ang. distribs. 2−90108
^{40}Ca(p,p), 1 GeV, cross sections from fluctuon model 2−69527
^{40}Ca(p,p), 500 MeV, polarisation, spin rot. function, nuclear geometry, scatt. amplitudes 2−113360
^{40}Ca(p,p), optical pot. energy depend., Dirac eqn. based anal. 2−59353
^{44}Ca(p,p′), ^{45}Sc resonance decay channels, amplitude correlations 2−90074
^{48}Ca(p̄,p′), 160 MeV, 1^+ state excitation, anal. powers, possible mesonic effects 2−90078
^{48}Ca(p,p′), 44.4 MeV, 10.212 MeV 1^+ state excitation 2−69658
^{48}Ca(p,p′), 65 MeV, 1^+ state obs. 2−54396
^{48}Ca(p,p), 1 GeV, neutron density distribs. by different strong probes, radial sensitivity 2−69525
^{52}Cr(p,p′), resonance phenomena in cross section 2−95997
^{166}Er(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{56}Fe(p,p), 3.1-4.2 MeV, ^{57}Co isobaric analogue resonances, J^{π}, spectroscopic factors 2−59311
^{74}Ge(p,p′), 22 MeV, levels, J^{π}, DWBA and CCBA anals. 2−107724
^{1}H(p, p), 500-600 MeV, relative cross section 2−113291
^{1}H(p,X), 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
^{1}H(p,p), 643 MeV, spin correl. parameter and analysing power meas. 2−69660
^{1}H(p,p), 796 MeV, elastic scatt. in Coulomb-nuclear interf. region 2−54390
^{1}H(p,p), 800 MeV, spin depolarisation parameters and spin transfer parameter meas. 2−64409
^{1}H(p,p), parity violation effects 2−59344
^{1}H(p,p), πNN dynamics, $^{3}F_3$ diproton anomaly 2−74763
^{1}H(p,p) phase shift anals., potentials, optimised polynomial expansions 2−90109
^{2}H(p, p), Landau-Smorodinsky theory for composite particles *(Russian)* 2−59176
^{2}H(p̄,p), 10 MeV, separable NN interactions and appl. in three-nucleon Faddeev calcs. 2−90104
^{2}H(p,p), 3-body scatt., numerical calc. using Faddeev eqn. *(Russian)* 2−54204
^{2}H(p̄,p), 65 MeV, anal. powers and differential cross sections 2−101874
^{2}H(p,p), analysing power meas. 2−101892
^{2}H(p,p), low energy elastic scatt., Landau-Smorodinsky theory generalisation 2−64403
^{2}H(p,p), off shell sensitivity, wave functions, nucleon analysing power 2−59174
^{3}H(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
^{3}He(p,p), 318 MeV, differential cross-section, rel. to multiple scatt. theory *(Russian)* 2−59359
^{3}He(p,p), intermediate energies, u-channel exchange, diagrams and anal. *(Russian)* 2−101898
^{4}He(p, p), cross section ang. distrib. and vector pol. 2−101857
^{4}He(p,p), 145-393 GeV, $d\sigma/dt$ and σ, inelastic correction 2−54380
^{4}He(p,p), 1.03 GeV, spin and isospin effects, coupled channel calc. 2−90094
^{4}He(p,p), 46 MeV polarised protons, parity nonconservation study 2−59057
^{4}He(p,p), 992 MeV, differential scatt. cross section meas. *(Russian)* 2−54399
^{4}He(p,p), differential cross section and polarisation, EM effects 2−113479
H(p,p), 500-600 MeV, differential cross section for elastic scatt. at 90° CM 2−80016
^{A}Li(p,p′), A=67, 24.4 MeV, rel. to folding model with DWA 2−96005
^{A}Mg(p,p′), A=24,26, 0.8 GeV, elastic and inelastic scatt. 2−54393
^{24}Mg(p,p′γ), 14.5-41.1 MeV, spin-flip probability in inelastic scatt. 2−54385
^{A}Mo(p,p′), pol. p, A=92, 94 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{14}N(p, p′), 0.8 GeV, elastic and inelastic scatt., ang. distrib. meas. 2−90107
^{14}N(p,p′), 21 MeV, vector anal. power, sequential two-step transfer, DWBA anal. 2−101885
^{93}Nb(p,p), phenomenological and microscopic optical model analyses 2−85048
^{20}Ne(p,p′), low-lying state wave functions, realistic Hamiltonian 2−84965
^{58}Ni(p,p′), 27 MeV, levels J^{π}, collectivity, microscopic DWBA anal. 2−107727
^{16}O(p,p′), 1 GeV, cross-section rel. to molecular model *(Russian)* 2−59364
^{16}O(p,p), 6 GeV, total cross section, Coulomb effects on parity violation 2−54203
^{16}O(p̄,p), 6.482 MeV, spin-parity determ. of 6.699 MeV level in ^{17}F 2−59236
^{207}Pb(p,p′), 95 MeV, levels, DWBA, DWIA, t-matrix and G-matrix anal. 2−107756
^{208}Pb(p, p′), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
^{208}Pb(p,p′), 400 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{32}S(p, p′), 7.5 MeV, 4.28-2.23 MeV transition, E2/M1 mixing ratio 2−113390
^{32}S(p,p′γ), 15.5-40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
^{28}Si(p,p′γ), 35.3, 40.9 MeV, spin-flip probability in inelastic scatt. 2−54385
Si(p,p′), 115 MeV, giant resonances and low lying levels, DWBA anal. 2−69625
^{A}Sm(p,p), 1 GeV, A=144, 150, 152, elastic and inelastic, levels, transition strengths for A=144 2−113471
^{154}Sm(p,p′), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{A}Sn(p,p′), A=116, 124, proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
^{116}Sn(p,p′), 800 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384

proton-nucleus scattering continued
^{232}Th(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{238}U(p,X), X=p or p', 20, 26 MeV, nuclear deformation in actinide region 2−54387
^{182}W(p,p'), elastic and inelastic scatt., multistep processes, analytic treatment 2−54382
^{89}Y(p,p'), 21.1 MeV, elastic and inelastic scatt. 2−54372
^{A}Zr(p,p'), pol. p, A=90, 92 18.6-20.0 MeV, anal. power, differential cross-section, shell effects 2−90096
^{90}Zr(p,p'), 500 MeV, giant resonance continuum excitation, analysing power, spin-flip probability 2−64384
^{90}Zr(p,p'), giant M1 states within simple shell model 2−69627

proton polarisation
APOLON polarised ion source and KEK polarised beam project 2−75084
ion sources, conf., Ann Arbor, MI, USA (May 1981) 2−74144
polarised proton ion sources, cold H techniques 2−75081
saturn synchrotron, polarised proton accel. 2−75073
^{12}C(p,p'), proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754
Na+H$^-$, polarised proton and N$^-$ source, target optical orientation *(Russian)* 2−102311
^{93}Nb(^{14}N,p), 95Mev, spin polarisation of preequilibrium proton emission 2−113460
^{A}Sn(p,p'), A=116, 124, proton polarisation, multiple diffr. scatt. theory *(Russian)* 2−74754

proton production
energetic nuclear reactions, proton and pion emission in phenomenological model 2−95983
relativistic central nuclear collisions, inclusive proton prod., precritical scatt. effect 2−74772
e$^+$e$^-$ annihilation, 1-10 GeV/c, inclusive p$\bar{p}$ prod. at PEP 2−79896
e$^+$e$^-$ annihilation, inclusive p, $\bar{p}$, Λ and $\bar{\Lambda}$ prod. at PETRA 2−79895
e$^+$e$^-$ annihilation, π, K, ρ and $\bar{p}$ prod., quark combinatorics calc. *(Russian)* 2−95858
hN→X, leading hadron noncoherent interaction, optical model calc., gluon cloud loss *(Russian)* 2−64346
pN, 70 GeV, hadron prod. in high-p$_\perp$ processes *(Russian)* 2−89989
pN, 70 GeV, low-energy hadron prod. cross section at zero angle *(Russian)* 2−89987
$\bar{p}$p, 32 GeV/c, inclusive prod. of π$^\pm$ and protons 2−79924
$\bar{p}$p, 7.3 GeV/c, absolute inclusive cross sections 2−69487
pp→$\bar{p}$X, inclusive cross section in central region in terms of Pomeron 2−101775
pp→X, pion and proton prod., diquark dynamical role *(Russian)* 2−59198
π$^-$N, 40 GeV/c, in ^{12}C, relativistic proton average multiplicity, prod. mechs. *(Russian)* 2−113310
π$^-$p→pX$^-$, 40 GeV/c, single inclusive diffractive prod. study *(Russian)* 2−54222
Be(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
(^{12}C,X) on targets from C to Pb, 1.03 GeV, fragmentation, proton and pion emission 2−113537
C(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
^{2}H(γ,n)^{1}H, 400 and 500 MeV, proton pol. study *(Russian)* 2−85027
^{28}Si(^{28}Si,X), 2.1 GeV/nucleon, subthreshold prod. of K$^-$, $\bar{p}$ 2−80031

proton-proton inclusive interactions
charm and beauty prod. at CERN ISR 2−107695
deep inelastic collisions study with large acceptance transverse energy trigger 2−107705
Drell-Yan cross section, QCD corrections 2−54215
gluon bremsstrahlung effects in large p$_\perp$ hadron-hadron scatt. 2−107703
hadronic multiplicities universality evidence and meaning 2−101660
Higgs boson phenomenology in standard SU(2)×U(1) electroweak model 2−107572
high energy physics with polarized proton beams, book contrib. 2−54224
high transverse energy events, prod. at 400 GeV/c 2−107711
pp, high-p$_T$ single particle prod. cross section, QCD short distance behaviour 2−54068
pp→hyperon+X, large p$_T$, gluon helicity distrib. 2−59203
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
Salam-Weinberg theory expt. verification 2−69396
p→π$^\pm$X, recombination model to measure sea polarisation 2−95776
p-p collisions compared to e$^+$e$^-$ annihilation in hydrodynamic model 2−101752
pp, 140-360 GeV/c, charge distrib. in parton model 2−101679
pp, 22.4 GeV/c, charged particle multiplicity distrib., topological cross sections *(Russian)* 2−113308
pp, 32 GeV/c, charged particle multiplicity and topological cross sections, annihilation parameters 2−74711
pp, 32 GeV/c, inclusive prod. of π$^\pm$ and protons 2−79924
pp, 360 GeV, charm prod. in LEBC-EHS expt. 2−79916
pp, 540 GeV/c, search for open 'top' baryonic states 2−59190
pp, 62 GeV, associated hadronic prod. in μ-pair events, multiplicity 2−101777
pp, 63 GeV CM, diquark fragmentation and comparison with νp, $\bar{\nu}$p interactions 2−107712
pp, 7.3 GeV/c, absolute inclusive cross sections 2−69487
pp, 7.3 GeV/c, inclusive baryon and meson reson. prod. cross sections 2−69488
pp, √s=30-63 GeV, high-p$_T$ direct photon and neutral-pion prod. 2−95885
pp, axion prod. in parton model 2−101674
pp, beauty prod. at ISR using two Cherenkov counters 2−84919
pp, collider energies, gauge vector boson pair prod. in SU(2)×U(1) model 2−84928
pp, cross sections at asymptotic collider energy, reggeon field theory calcs 2−79917
pp, diquark fragmentation functions determ. from pion prod. data 2−84920
pp, heavy particle prod. cross section calc. using parton model 2−69496
pp, Λ$_c$ and Λ$_b$ prod. and semileptonic decays, lepton spectrum calc. 2−95886
pp, $\bar{\Lambda}^0$, Λ^0 hyperon prod. combined model *(Russian)* 2−54223
pp, multiple prod., hadron distrib. calc. and comparison with e$^+$e$^-$ annihilation 2−95874
pp, νν̄ pair prod. in Drell-Yan model, fermion generation and big-bang 2−59193
pp, pp, cluster model for multiplicity distribs., KNO scaling 2−89982

proton-proton inclusive interactions continued
p$\bar{p}$, pp, multiplicity distribs. up to √s=540 GeV, dual parton model 2−101780
p$\bar{p}$, pseudoscalar meson flux, axions, ghosts, standard model chiral predictions test 2−89984
p$\bar{p}$, toponium prod. and decay characts. study 2−107698
p$\bar{p}$, W$^+$W$^-$, W$^\pm$γ prod. in quark-antiquark annihilation 2−107702
p$\bar{p}$, W's, W pairs and Higgs boson prod. cross-section for CERN UA1 expt. 2−107701
p$\bar{p}$, Z and W bosons prod. 2−107700
p$\bar{p}$ (pp), 53 GeV, multiplicity distrib. meas. at CERN ISR, review 2−79915
p$\bar{p}$ annihilation, at rest, γ-to-charge multiplicity ratio 2−101758
p$\bar{p}$ annihilation, meson resonances, glueballs, quark-gluon interactions, review 2−113312
p$\bar{p}$ collider physics 2−113313
p$\bar{p}$ colliders strong interactions, diffr. and QCD 2−107627
pp→DX, 10^3-10^5 GeV, multiple prod. model *(Russian)* 2−59197
pp→eX, 53,63 GeV, single electron prod. 2−79919
pp→γX, large perturbative corrections in soft-gluon limit 2−69423
pp→γx, large-p$_T$ photon prod., QCD O(α_s^2) corrections 2−54217
pp→jet+x, jet polarisation in perturbative QCD 2−54098
pp→k^{0}X(ΛX)(ΛX), s$^{1/2}$=63 GeV, neutral strange particle prod. cross section 2−69500
pp→K$^{*\pm}$X, 147 GeV/c, x and t distribs. 2−74715
p$\bar{p}$→μ$^+$μ$^-$X, dimuon prod. at large transverse momentum, EM effects 2−101776
pp→p̄X, invariant cross section parametrisation using scaling variable 2−113307
pp($\bar{p}$p), 100, 200 GeV/c, charged multiplicity distrib. universality 2−107704
p$\bar{p}$(pp), 53 GeV CM, total and elastic cross-sections and global event characts. 2−107690
pp($\bar{p}$p), √s=53 GeV, short-range rapidity correl. comparison 2−107713
pp(p$\bar{p}$), CMS energies up to 1000 GeV, charged hadron multiplicity 2−79920
p$\bar{p}$(pp), hadronic toponium prod. 2−79921
pp(p$\bar{p}$), heavy quark jets as technicolour signatures 2−54218
pp($\bar{p}$p), heavy quark prod., Monte Carlo simulation 2−107699
pp(p$\bar{p}$)→HX, associated prod., Weinberg model 2−84925
pp(p$\bar{p}$)→HX, neutral Higgs boson prod. cross section 2−69497
p$\bar{p}$(pp)→Z^{0}X→l$^+$l$^-$X, scaling, nonleading QCD corrections 2−113305
p$\bar{p}$→π^{0}X, 540 GeV, invariant prod. cross section 2−101782
pp→π$^+$π$^-$X, 70 GeV, invariant cross-section, break of slope, rel. to calcs. 2−74713
pp→π$^\pm$X(k$^\pm$X)(p̄X), inclusive cross section in central region in terms of Pomeron 2−101775
pp→ψX, inclusive prod. cross section, quark parton distrib. functions 2−74709
p$\bar{p}$→W$^\pm$X→l$^\pm$X, W bosons decay-lepton distrib. study 2−54221
p$\bar{p}$→X, 540 GeV, γ prod., Centauro-like event search 2−101783
pp→X, 63 GeV/c, ρ^0, K*^{0}, $\bar{K}$*^{0}, and φ prod. 2−107706
pp→X, pion and proton prod., diquark dynamical role *(Russian)* 2−59198
pp→Y*$^\pm$X, 147 GeV/c, x and t distribs. 2−74715
p$\bar{p}$→Z^0(γ)(W$^\pm$)→l$^\pm$X, √s=540 GeV, QCD and direct lepton prod. 2−54216
pp→K$_s^0$(Λ,$\bar{\Lambda}$), 12-405 GeV/c, cross-section, multiplicity, energy depend. *(Russian)* 2−74710

proton-proton interactions
see also proton-proton inclusive interactions; proton-proton scattering
cosmic ray sources, pp and γp role 2−84054
deep inelastic processes, large acceptance results at 300 GeV/c 2−74708
EAS high energy hadrons, charged to neutral ratio meas. 2−112286
EAS meas. via atm. fluoresc. 2−112280
high energy cosmic ray interaction props. and comparison with accelerator expt. results 2−112288
low P$_T$ physics from cosmic rays, review 2−112287
multiple prod. process study in balloon borne cosmic ray expt. 2−112285
p-parity isolation results 2−95694
p̄, 335-950 MeV/c, resonant structure search 2−101755
pp, 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
pp, 147 GeV/c, topological, total and elastic cross section meas. 2−95872
pp, 540 GeV, pseudorapidity distrib. and hadron charged multiplicity from SPS collider 2−107687
pp, 540 GeV, results from UA1 detector at CERN 2−108214
pp, 5.7 GeV/c, two particle correl. 2−107679
pp, 6, 9 GeV/c, p and f meson prod., narrow exotic mesons 2−101762
pp, √s=30, 44, 62 GeV, average charged-particle multiplicity study 2−59184
pp, forward-backward correl. in dual model 2−113297
pp̄, hydrodynamic theory for high energies *(Russian)* 2−79912
pp, soft interaction, π$^+$/π$^-$ ratio, valon model calc. 2−89975
pp→charm, rel. to backward scatt. sum rules 2−101754
pp collider physics, conf., Madison, WI, USA (Dec. 1981) 2−106992
pp→de$^+$ν, reaction rates in stellar interiors 2−68612
pp→dπ, deuteron quadrupolarisation, rel. to reverse interaction *(Russian)* 2−95867
pp→dπ$^+$, six-quark bag model study 2−79840
pp→Δ^{++}Δ^{++}, cross section and density matrices, parameter-free Reggeised absorpt. model 2−84907
pp→ΔN, single-Δ prod. contrib. to inelasticity parameters 2−74701
pp→Δ(1236)$\bar{\Delta}$(1236), 7.2-12.0 GeV, one pion exchange anal. 2−59177
pp→γγX, large p$_T$, QCD test 2−74703
pp→hX multiplicities, quark combinatorial anal. *(Russian)* 2−64300
p$\bar{p}$→K, 540 GeV, strangeness prod. yields 2−101767
pp→K$_S^0$X, 403-670 MeV/c, exclusive cross-section, enhancement 2 74702
pp→K$^0\bar{K}^0$, K$^0\bar{K}^0$ system nonseparability test 2−101229
pp→K$^+$K$^-$4π^0, partially conserved axial-vector current hypothesis, branching ratios 2−113293
pp→K$^+$K$^-$π^{0}π^{0}π^0 (K$^+$K$^-$), current algebra and PCAC appl. 2−84906
p$\bar{p}$→Λ, 540 GeV, strangeness prod. yields 2−101767
pp→ñn, spin observables in charge exchange interaction 2−64339
pp→npπ$^+$, medium energy, spin correl., relativistic 3-body model 2−59170
pp→pK$^+$K$^-$p, pol.p, 11.75 GeV/c, φ meson prod. 2−74714
pp($\bar{p}$)→Z^0, lepton pair prod. asymmetries, Weinberg model calc. 2−107611
p$\bar{p}$(pp), ISR physics, present and prospects 2−107689

proton-proton interactions continued
$\bar{p}p(pp)$, review of ISR physics results 2−107688
$pp(\bar{p}p)$, up to 540 GeV, rapidity spectra in dual parton model 2−107643
$pp\rightarrow pp\pi$, pion prod. model 2−107678
$pp\rightarrow pp\pi^0(pn\pi^+)$, 1000 MeV, secondary nucleon polarisation in one pion exchange model 2−59205
$\bar{p}p\rightarrow\pi^0+$charmonium, diff. cross section, $\bar{p}p$ resonance formation, soft pion emission 2−64338
$\bar{p}\bar{p}\rightarrow\pi^+d$, 515, 578 MeV, polarisation asymmetries and spin correl. parameter meas. 2−74762
$pp\rightarrow\pi d$, complete set of observables and orthogonal geometry 2−113290
$pp\rightarrow\pi d$, πNN dynamics, $^3F_3$ diproton anomaly 2−74763
$pp\rightarrow X$, 53 GeV, rel. to $p\bar{p}$ results 2−74706
$p\bar{p}\rightarrow X$, 53 Gev, rel. to pp results 2−74706
$\bar{p}p\rightarrow X$, 7.3, 12.0 GeV/c, rapidity density distribs. 2−101757
$pp\rightarrow X$, low $p_\perp$ interaction, QCD test 2−79834
$\bar{p}p-\pi^+d$, 400, 450 MeV, analysing power meas. 2−69659
$p^\pm p\rightarrow pX$, 100-200 GeV/c, high-mass diffractive states, charged multiplicities 2−74707

proton-proton scattering
see also proton-proton interactions
Coulomb nuclear interference region, differential cross-section *(Russian)* 2−89977
diproton resonances, phase-shift soln. 2−79908
elastic scattering at 6 GeV/c, spin parameters 2−101759
forces in several GeV region, exchange mechanisms, eikonals 2−79907
low energies, S- and P-wave parameters 2−54201
parity violation effects 2−59344
partial wave S matrix singularity parameters 2−79774
spin-spin correlation factor, struct. at 2.5-5.0 GeV/c 2−69482
pp, 0.9-2.0 GeV/c, total, elastic and inelastic cross sections, pion prod. 2−113292
$\bar{p}p$, 100, 200 GeV/c, elastic scatt. cross-sections 2−101771
pp, 147 GeV/c, topological, total and elastic cross section meas. 2−95872
pp, 15 MeV, total cross section, Coulomb effects on parity violation 2−54203
pp, 30 GeV/c, elastic scatt., hadronic form factors and quark size determ. *(Russian)* 2−54213
$\bar{p}p$, 50 GeV/c, elastic scatt. at CERN SPS, quark multiple scatt. model 2−84918
pp, 500-600 MeV, differential cross section for elastic scatt. at 90° CM 2−80016
pp, 500-600 MeV, elastic scatt. relative cross section 2−113291
$\bar{p}p$, 52.8 GeV, cross sections and rates 2−113298
pp, 53 GeV, elastic scatt. study at CERN ISR, review 2−79915
$\bar{p}p$, 540 GeV, low momentum transfer elastic scatt., t-distrib. 2−107692
pp, 643 MeV, spin correl. parameter and analysing power meas. 2−69660
pp, 796 MeV, elastic scatt. in Coulomb-nuclear interf. region 2−54390
pp, 800 MeV, spin depolarisation parameters and spin transfer parameters meas. 2−64409
pp, elastic scatt. at high energies, parity violation 2−95864
pp, elastic unitarity of direct channel and Froissart saturation *(Russian)* 2−101772
pp, forward scatt. amplitude, analyticity, restraints *(Russian)* 2−95868
$\bar{p}p$, large |t| behaviour, triple scatt., pomeron model 2−79914
pp, πNN dynamics, $^3F_3$ diproton anomaly 2−74763
pp elastic scatt., Chou-Yang optical model modification 2−84908
pp forward scatt., amplitude anal. 2−59171
$\bar{p}p(pp)$, 52.8 GeV CM, elastic scatt. data comparison 2−107691
$\bar{p}p(pp)$, 53 GeV CM, total and elastic cross-sections and global event characts. 2−107690
$\bar{p}p(pp)$, $\sqrt{s}$=52.8 GeV, total cross section meas. 2−84917

proton radiative capture
E1+M2 mixing ratios from (n,γ) and (p,γ) 2−107805
E1 γ-ray strength function parametrisation for (n,γ), (p,γ) cross section calcs. 2−113400
$^{11}B(p,\gamma)$, 0.82-2.83 MeV, ^{12}C $0^+,3^-$ resonances, J^Π and transitions 2−69623
$^{11}B(p,\gamma)^{12}C$, 2.9-4.6 MeV, cross section meas. at 60° and 90 ° 2−85054
$^{11}B(p,\gamma)^{12}C$, 5-14 MeV, cross-section corrections 2−107862
$^{11}B(p,\gamma)^{12}C$, excited nuclear states, direct reaction model c alc. 2−64405
$^{11}B(p,\gamma)$, 8-60 MeV, ^{12}C bound and unbound state transitions, cross sections, possible giant resonance 2−90110
$^9Be(p,\gamma)^{10}B$, 320 keV, isoscalar E2 transition strengths 2−95970
$^{12}C(p,\gamma)$, 5 TeV reactions, accelerator results comparison with cosmic ray data 2−106456
$^ACa(p,\gamma)$, A=42, 44, cross section and thermonuclear reaction rates meas. 2−80019
$^{52}Cr(p,\gamma)$, resonance phenomena in cross section 2−95997
$^1H(n,\gamma)$, parity violation effects 2−59344
$^3H(p,\gamma)$, <30 MeV, cross sections, ang. distribs., Legendre polynomial coeffs. 2−69654
$^{41}K(p,X)$, X=γ, n, $\alpha\gamma$, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
$^{84}Kr(p,\gamma)^{85}Rb$ decay scheme and transition probabilities 2−84994
$^{25}Mg(p,\gamma)$, 1.2 MeV, ^{26}Al levels, analogue E2 transitions, lifetimes, branching ratios 2−107797
$^{25}Mg(p,\gamma)^{26}Al$, 317, 390 keV, reson. levels, 6.13 MeV γ-transition energy in ^{16}O 2−95959
$^{26}Mg(p,\gamma)^{27}Al$, 0.29-2.2 MeV reson. strengths and γ-decay study 2−54307
$^{26}Mg(p,\gamma)^{27}Al$, stopping values and ^{27}Al lifetimes, expt. and Monte Carlo simulation 2−107806
$^{14}N(p,\gamma)^{15}O$, resonance strengths relative to elastic scatt. cross section 2−90075
$^ANe(p,\gamma)^{23}Na$, A=21, 22, low energy resonances obs. 2−101891
$^{58}Ni(p,\gamma)$, isospin impurity and core polarisation of IAR fragments in ^{59}Cu 2−101856
$^{60}Ni(p,\gamma)$, 1570-1850 keV, proton resonance intermediate struct., Gamow-Teller config. 2−85035
$Ni(\bar{p},\gamma)$, $^{61,63}Cu$ radiative strength functions and intensity correlations *(Russian)* 2−107800
$^{16}O(p,\gamma)^{17}F$, direct capture cross section 2−90075
$^{18}O(p,\gamma)^{19}F$, resonance strengths relative to elastic scatt. cross section 2−90075
$^{88}Sr(p,\Gamma)$, 2.2-3.7 MeV, ^{89}Y level density, partial width fluctuation method, stat. anal. 2−59243
$^{89}Y(p,\gamma)$, 2.6-3.3 MeV, ^{90}Zr level density, partial width fluctuation method, stat. anal. 2−59243
$^{64}Zn(p,\gamma)^{65}Zn$, $d_{5/2}$ isobaric analogue resonance decay 2−90066

proton scattering *see electron-proton scattering; kaon-proton scattering; lepton-nucleon scattering; photon-proton scattering; pion-proton scattering; proton-deuteron scattering; proton-nucleus scattering; proton-proton scattering*

proton spectra
energetic nuclear reactions, proton and pion emission in phenomenological model 2−95983
FFTF, proton recoil proportional counter meas. 2−102145
$\pi^-N\rightarrow pX$, 5 GeV/c, ^{12}C target, inclusive spectra, resonance width *(Russian)* 2−95870
Be(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
Be(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
$Bi(\pi^\pm,\pi^\pm)$, 245 MeV, inclusive cross section meas. 2−85104
(^{12}C, X) on U, Th, Au, Ni, 30-84 MeV/u, linear momentum transfer determ. 2−113539
C(γ,p), 360 to 600 MeV, proton momentum spectra 2−74755
C(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
$C(\pi^\pm,\pi^\pm p)$, 245 MeV, inclusive cross section meas. 2−85104
$Fe(\pi^\pm,\pi^\pm P)$, 245 MeV, inclusive cross section meas. 2−85104
$^{58}Ni(\alpha,\alpha'p)$, 140 MeV, localised excitation, proton spectra 2−90125
$^{18}O(\gamma,x)$, x=p,d,t,α, charged photoparticle emission from ^{18}O giant reson. 2−54354
(p,p'), 4.0-9.5 GeV, fast proton spectra at 62 mrad *(Russian)* 2−96011
Si surface layer struct., action of directed flow of ionised halogen containing gas *(Russian)* 2−71515

proton-surface impact *see ion-surface impact*

protonium *see protons*

protonosphere *see upper atmosphere*

protons
see also cosmic ray protons; delayed protons
B-L nonconserving decay in SO(10), (6) and SU(5) GUTs 2−101715
beam, intense neutralized, cross-field propag. near metal plate 2−75508
charge rms radius from chiral quark model 2−59126
cosmological baryon prod. vs. intermediate mass scales, consequences for proton stability 2−89426
decay, fully confined events at Kola Gold Field, mean lifetime estimate 2−107659
decay, inclusive decay rate in deuteron, nuclear effects 2−95830
decay, lifetime and branching ratio, bag model calc. in SU(5) GUT 2−95827
decay, Lorentz invariance violation 2−69458
decay, non exponential law 2−79873
decay, parity conservation and selection rules, even G parity mesons 2−113182
decay and fundamental length hypothesis in gravitation theory 2−58676
decay and SU(5) grand unified model 2−79802
decay in SU(3)⊗SU(2)⊗U(1) supersymmetric ground unified theory 2−101615
decay in supersymmetric SU(5), enhancement factors 2−95829
decay in supersymmetric SU(5) GUT 2−101617
decay in supersymmetric SU(5) model 2−79800
decay lifetime, in SO(10) supersymmetric GUT 2−101622
decay lifetime in $SO(10)_V\times SO(10)_H$ grand unified extended technicolour models 2−95727
elastic EM form factors, parton light-cone approach, quark interchange 2−95837
electric dipole moment, review 2−69468
electroproduction, twist-4 effects, canonical operators, coeff. functions, proton constituents 2−95847
exotic bosons, contrib. to B- and L-violation, proton decay, neutron oscills., ν mass 2−107582
general supersymmetric grand unification, proton decay, one-loop contribs. 2−107580
mass, nonperturbative power correction effect in QCD *(Russian)* 2−54079
mass-radius symmetry rel. to electron 2−107651
non-adiabatic behaviour in radiation belts *(Russian)* 2−63172
nucleon decay, weak interactions and symmetries, review 2−59097
operator analysis of proton decay in SU(7) grand unified theory 2−84821
radiation belts protons, noise prod. in Space Telescope digicon 2−117590
relativistic form factors for hadrons with quark-model wave functions 2−95839
relativistic quark model in infinite momentum frame and nucleons static characts. 2−79843
solar wind proton temp. in 1-10 AU range, Voyager obs. 2−100689
spin kinetic energy, intrinsic mass 2−95808
$SU(2)_L\times SU(2)_R\times U(1)_{B-L}$, left-right symmetric GUT, proton lifetime, quark-lepton mass ratio 2−95721
SU(3)×SU(2)×U(1) supersymmetric GUT, proton decay 2−64248
SU(3)×SU(2)×U(1) supersymmetric model, masses, p decay, conservation laws, spontaneous breakdown 2−101599
SU(5) and SO(10) GUTs superheavy particles, $\sin^2\theta_w$, and proton lifetime 2−113192
SU(5) model, CP nonconservation effects in proton decay 2−64258
super-cosmology, supersymmetric theories, baryon asymmetry, proton decay 2−68945
supersymmetric flavour unification model SU(11), invisible axion and proton decay 2−95726
supersymmetric SU(5) model, ordinary SU(5) predictions, proton decay mode 2−107594
NN→ex, nucleon decay and neutron oscill. inside nucleus, nuclear effects 2−54150
$\bar{p}$, stopping power, in vivo density meas., radiography, biomedical appls. 2−68117
$p\rightarrow e_L^+(\mu_L^+)+$ mesons in SU(8) model 2−95712
$p\rightarrow e^+_L\gamma_b$ radiative proton decay in SU(5) GUT, 3q annihilation 2−79795
$p\rightarrow e^+\pi^0$, proton stability, review of limits and expt. prospects 2−79868
p→hi, SO(10) grand unified models, symm. breaking 2−79797
$P\rightarrow K^+\bar{\nu}_\mu$, supersymm. models calc. 2−74684
$p\rightarrow\omega e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$p\rightarrow\pi^0e^+$, in nuclei, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
$p\rightarrow\pi^0e^+$, intensity, ang. and energy distrib., nuclear effects *(Russian)* 2−95831
$p\rightarrow\pi^0e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
p/e mass ratio, empirical formula 2−69438
pp, 30 GeV/c, elastic scatt., hadronic form factors and quark size determ. *(Russian)* 2−54213
$pp\rightarrow e^+e^+(\mu^+\mu^+)$, double proton decay and grand unified theories 2−89924

proximity effect
electron-tunnelling spectroscopy, locality of information, impurity disorder effect on phonon spectra 2−66720
fluctuation conductivity in a superconducting proximity sandwich 2−61658
Josephson current, in nonsymmetric proximity systems, theory *(German)* 2−61661
Kondo alloys, transition temp., sp. ht., and DC Josephson effect 2−98818
layered model systems and in situ materials, supercond. proximity effect 2−66725
magnetic impurities effect on proximity tunnelling, theory 2−72120
metal slab, superconductor coated, transverse focusing of electrons *(Russian)* 2−61662
normal metal in contact with supercond., Ginzburg-Landau calcs. 2−115953
normal metal in proximity system, coherence length 2−98823
normal metal-superconductor bilayer, discontinuity in heat capacity 2−56780
normal-superconducting multiform struct., electron states calc. *(Chinese)* 2−92825
superconducting multilayer films, proximity effect 2−77232
superconductor-normal metal proximity sandwiches, Meissner effect, microscopic theory 2−66723
superconductor-normal metal struct., proximity effect tunneling, review 2−115954
superconductor-semimetal contact, influence of electron-phonon coupling 2−56799
AG-Mn, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Au-Fe, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Cu-Cr, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
In film, overlayered on $SrTiO_{3-x}$, supercond. transition temp. 2−66693
Mg, electron-phonon interaction, proximity electron tunnelling spectra determ. 2−103922
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Cu superlattice, supercond. transition temp., proximity theory, density of states 2−66701
Ni-Ti/Cu multifilamentary supercond., proximity effect, diamag. transitions obs. 2−61664
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800

pseudobinary semiconductors *see II-VI semiconductors; III-V semiconductors; III-VI semiconductors; IV-VI semiconductors; semiconductor materials*

pseudopotential methods
ab initio pseudopotential calculations, theory 2−104223
alkali halide crysts., localisation structs. calcs. *(Russian)* 2−56486
alkali halides, hydrogen centres, interatomic pot., vibr. modes, and diffusion, pseudopot. cluster calc. 2−65992
alkali metal-alkaline earth alloys, disordered, heat of form., density functional pseudopot. formalism 2−104283
alkali metals, liq., liquid, interionic potentials and struct. factors calc. 2−97905
alkali metals, liquid, electrical resistivity and thermoelectric power 2−61436
alkali single valence-electron cpds., core polarisation, pseudopots. calc. 2−90458
atomic polarisability, static, norm-conserving pseudopot. calc. 2−59952
chemical bonds, computerised pattern recognition, model and computation method 2−54753
crystal potential, interpolation form factors calc. *(Russian)* 2−98520
disordered alloys, electronic density of states calc. 2−61325
Einstein-Maxwell fields, pseudopot. approaches 2−95186
higher-order ion-size effects in pseudopotential theory 2−71904
III-V semiconductors, high pressure phases, pseudopotential calcs. 2−103723
IV-VI semiconductors, lattice dynamics and phase transitions, pseudopot. theory 2−92139
IV-VI semiconductors, phase transitions and optical props. 2−91861
K clusters, pseudopot. CI calcs. 2−59984
light scattering from spherical macroscopic bodies, integrated density of states 2−60018
liquid and solid, eqn. of state and struct., mol. dynamics study using model pseudopot. 2−71606
matrix elements calcs. in Gaussian functions 2−90442
metallic glasses, struct. stability 2−65863
metals, finite cluster description of electromigration 2−86956
metals, interionic interactions model, elastic consts. and phonon spectra calc. 2−81711
metals, liquid, electrical resistivity, pseudopot., model 2−87217
metals, liquid, structure factors, pseudopotential and WCA method 2−65844
metals, pseudopot. theory, density functional formalism 2−115637
metals, pseudopotential elastic const. calcs. *(Chinese)* 2−109880
metals, simple, electron energy loss, review 2−57222
metals, surface tension, electron density modulation effect 2−87009
model, efficacious form for energy band calc. 2−87125
narrow gap semiconductors, pseudopotential approach to total energy calcs. 2−92500
Newtonian and fluid-dynamical viewpoint of pseudopotentials 2−75157
noble metals, electronic props., one parameter model pot. 2−61331
nonlinear ionic pseudopotentials in spin-density-functional calculations 2−115684
one electron integral calcs. from ab initio pseudopot. calcs. 2−54765
oxides, ion polarisabilities, nonempirical calc. 2−110752
rare earth metals, compact inner shell approx. calcs. *(Russian)* 2−87136
relativistic norm-conserving pseudopotentials, calc. for heavy atoms 2−76896
Schrodinger equation, nonlinear, pseudopotentials and Lie symm. 2−63848
semiconductor, disordered, transport props. theory 2−115742
semiconductors, doped, metal-insulator transition stress depend. 2−110252
semiconductors, electron energy loss, review 2−57222
semiconductors, Ge and α-Si isoelectronic series, band struct., nonlocal pseudopot. calc. 2−110245
semiconductors, pseudopotential theory, total energies, phonon freq., bulk modulus 2−87130
simple metals, electron-phonon interaction theory 2−86817

pseudopotential methods continued
solid solubility and ion-implantation sites, atomic orbital radii phenomenological model 2−66234
structural sorting diagram interpretation for AB compounds 2−81696
surface pseudopotential calcs., aspects of self-consistent procedures 2−104451
transition metal oxides (hydrides), effective core pot. calcs., pseudopotential methods 2−64861
transition metals, model pseudopotentials, OPW calcs. *(Russian)* 2−56433
transition metals, normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
transitional and noble metal impurity systems, dil., electronic struct., pseudopot. study 2−98575
triatomic ions, equilib. geometries and dissociations, mol. pseudopotential calcs. 2−75161
Ag-In melt, X-ray investigation, hard sphere model *(Russian)* 2−86541
Al, interatomic pots. and electronic props., ab initio calc. 2−56460
Al-B(C), interstitial solid solution, energy of mixing 2−92216
$Al_{1-x-y}Ga_xIn_yAs$, pseudopot. band struct., CPA calc. 2−115657
BiSeI(Br), band struct., pseudopotential calcs. 2−71860
$Ca^{2+}+H_2O$ interactions pseudopotentials representation 2−75366
Cd, liquid, nearly-free-electron-phonon interaction and elec. resist. temp. depend. 2−98610
$CdGa_2S_4$, band struct., linear optical characts., effective carrier masses, pseudopotential calc. 2−61355
$Cs_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
$Cs_{1-x}Rb_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
Cu-Au, X-ray diffuse scatt. and ordering energy *(Russian)* 2−77618
Cu-Au system, Ll_2 struct., covalent contrib. to bond energy, order-disorder transitions 2−76359
Cu_3Au, elec. cond. and long range order *(Chinese)* 2−104342
GaAs (110), adsorbed Al, surface structure, first-principles pseudopot. determ. 2−110143
GaAs (110), chemisorbed H, pseudopot. calc. 2−110423
GaAs, high field transport and impact ionization, band struct. depend. 2−77070
GaAs, impact ionization and high field transport, band struct. depend. 2−77069
GaP:O, point defect electron states, enfeebled O bonding and metastability 2−61351
GaP(110), chemisorbed H, pseudopot. calc. 2−110423
$Ga_2S_3(Se_3)(Te_3)$, random defect semicond., electronic props. 2−115653
Ge (111) surface, electronic struct., photoemission meas. 2−66609
Ge, lattice consts. and bulk moduli, self-consistent pseudopot. calc. 2−109741
Ge, lattice dynamics, Gruneisen coeffs., pseudopot. calc. 2−98226
Ge, melting point, press. derivatives 2−61117
Ge:H, (111) surface, electronic struct., photoemission meas. 2−66609
Ge-Se(-Te), amorphous and cryst., electronic struct., density of states, pseudopotential methods 2−61345
Ge-Si, solid soln., equation of state, pseudopot. calc. 2−61109
Ge-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
GeTe, cubic and rhombohedral, band struct. 2−92468
H atoms, trapping sites in Ar and Ne matrices 2−69256
$Hg_{1-x}Cd_xTe$, electronic struct., localised orbital calc. 2−87139
$Hg_{1-x}Cd_xTe$, shallow and deep defect levels, alloy broadening, pseudopot. theory 2−87177
IF_7, struct, vibr. assignment, and intramol. forces, pseudopot. SCF-MO studies 2−75171
InP (110), elec. props., pseudopotential calcs. 2−66606
InSb, band struct. calcs., hydrostatic press. effects 2−92457
In_2Te_3, random defect semicond., electronic props. 2−115653
K, electron-phonon interaction, microcontact function calc., pseudopot. method *(Russian)* 2−98229
K, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
K, point contact spectra, pseudopot. calc. 2−76626
KCl, F and U centers, excitons, local correl. effects 2−87153
Li clusters, pseudopot. CI calcs. 2−59984
Li, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
LiF, excitons, local correl. effects 2−87153
$Li_{1-x}Na_x$, immiscible liq. metals, interfacial tension, pseudopotential theory 2−86980
Mg-Cd alloys, ordering energy, pseudopot. calc. 2−103687
Mg-In alloys, ordering energy, pseudopot. calc. 2−103687
$Mg^{2+}+H_2O$ interactions pseudopotentials representation 2−75366
$Mg_{0.7}Zn_{0.3}$ metallic glass, nearly free electron energy bands, pseudopot. formalsm 2−71855
Na clusters, pseudopot. CI calcs. 2−59984
Na, electron-phonon interaction, microcontact function calc., pseudopot. method *(Russian)* 2−98229
Na, long-wavelength plasmon, nearly-free-electron pseudopotential calc. 2−98510
Na, point contact spectra, pseudopot. calc. 2−76626
Na surface, interionic interactions, exchange-correlation correction, pseudopot. calc. 2−115680
Na, thermodynamic props. from lattice and mol. dynamics, pseudopot. calc. 2−104028
Na, vol. depend. of elec. resist. calc. 2−66525
NaCl, cohesive props., ab initio pseudopot. calc. 2−109738
Ne, crystalline, cond. bands, OPW calc. *(Russian)* 2−115654
NiH_4^{2-}, rot. barrier, core pot. calcs. 2−64860
NiO, anion-anion interionic pot., covalency influence 2−54782
NiO, excitons, local correl. effects 2−87153
P, black, electronic struct., self-consistent pseudopot. calc. 2−66437
$PdCl_4^{2-}$, electronic struct., non-empirical pseudopotential methods 2−96446
PdH, dipole force tensor, relationship to electronic struct. 2−109735
$Rb_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
Sb, electron energy spectrum, thermal expansion, band struct, pseudopotential method 2−71858
Si, ab initio calcs. of phonon dispersion relations 2−76620
Si, lattice consts. and bulk moduli, self-consistent pseudopot. calc. 2−109741
Si, melting point, press. derivatives 2−61117
Si, phase stability, ab initio pseudopot. and linear-muffin-tin-orbitals calcs. 2−55883
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360

pseudopotential methods continued
Si-Ge solid solns., pressure-induced covalent-metallic phase transition, pseudopot. calc. 2−87149
Si-Ge system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
Si-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
SiC (3C), optical phonons and transverse effective charge, temp. depend., 77 to 750K, Raman study 2−82861
SiC(3C), optical phonons and transverse effective charge, press. depend., Raman study 2−82860
Si(111), electronic struct., π-bonded chain model and nonbuckled antiferromag. insulator model 2−110420
α-Sn, lattice consts. and bulk moduli, self-consistent pseudopot. calc. 2−109741
Sn, liquid, dielectric function calcs. 2−76959
ZnP_2, tetragonal, valence band, X-ray emission spectra and pseudopot. study 2−57218
pseudoternary semiconductors *see ternary semiconductors*
psi mesons
1^- glueball and OZI-violating couplings in J/ψ prod., vector dominance model 2−74673
charmonium, P-state decay, quark confining pot. 2−74682
charmonium spectroscopy, Schrodinger eqn. solns. for superposed pot. 2−74656
decays, configuration mixing effects, QCD calc., rel. to confining pot. 2−54140
fine and hyperfine structure in Coulomb plus linear pot. model 2−79826
hadronic decay, exlusive processes in QCD 2−54091
inelastic J/Ψ photoproduction with linearly polarised photons, QCD based models predictions 2−54176
interquark potential with oscillator asymptotics *(Russian)* 2−101655
mass spectra 2−59113
production, from 2−79842
radiative decays, coherence, mixing and interference phenomena 2−69469
spectra, harmonic oscillator model with $(mass)^2$ eigenvalues *(Chinese)* 2−54122
$e^+e^-\rightarrow\psi X$, PLUTO detector expts., review 2−79903
$eN\rightarrow eX$, X includes ψ, Υ or other heavy resonance, differential cross section 2−113282
$\gamma N\rightarrow(J/\psi)X$, momentum distrib. for inelastic J/γ photoproduction in QCD 2−54177
$\gamma N\rightarrow J/\psi X$, inelastic neutrinoproduction of J/ψ in QCD-based model 2−101736
J/ψ states, hadronic channel influence, P-matrix formalism 2−95798
$J/\psi\rightarrow B\bar{B}$, B=baryon, isospin-violating EM contrib. 2−69456
$J/\psi\rightarrow\gamma K^+K^-\pi^0$ radiative decay 1440 MeV pseudoscalar state identification 2−95820
J/$\psi\rightarrow\gamma$+axion, branching ratio, upper limit 2−54166
$J/\psi\rightarrow\gamma a$, a=axion, unambiguous test for axion 2−69470
$J/\psi\rightarrow\gamma\eta\eta$, evidence for θ reson. in radiative decays 2−54165
$J/\psi\rightarrow\gamma f(1270)$, decay branching ratio and polarisation meas. 2−95822
μN, inelastic muoproduction of J/ψ, ψ', Υ in QCD based model 2−101736
μN, multimuon prod., review 2−79892
$\mu N\rightarrow\mu X$, X includes ψ, Υ or other heavy resonance, differential cross section 2−113282
$\mu^-N\rightarrow\mu^-\psi X$, QCD parton model test, photon-gluon fusion model *(Russian)* 2−95851
$\mu^-p\rightarrow\mu^-J/\psi X$, deep inelastic heavy reson. prod., azimuthal depend. 2−101737
pp$\rightarrow\psi$X, inclusive prod. cross section, quark parton distrib. functions 2−74709
π^-N, 150, 280 GeV, $\psi\psi$ prod. evidence from multimuon prod., cross section 2−101781
$\psi\rightarrow\eta\gamma(\eta'\gamma)$, SU(3) breaking effects enhancement, Ward identities appl. 2−59136
$\psi\rightarrow$ggg, gluon recomb. functions 2−101664
$\psi\rightarrow G\gamma$, glueball obs. 2−79862
$\psi\rightarrow\gamma$+glueball, vertex const. in QCD 2−79863
$\psi\rightarrow\gamma\eta(\eta')$, decay rates and anomalous Ward identities 2−113266
$\psi\rightarrow\gamma i(1440)\rightarrow\gamma K^+K^-\pi^0$, L(1440) state study in Crystal Ball detector 2−79883
$\psi\rightarrow\gamma\rho^0\rho^0$, observation, branching fraction 2−101721
$\psi\rightarrow\gamma\theta(1640)\rightarrow\gamma\eta\eta$, glueball and exotic meson candidates study 2−79884
$\psi\rightarrow\gamma\theta(1640)\rightarrow\gamma\eta\eta$, $\theta(1640)$ state study in Crystal Ball detector 2−79883
$\psi\rightarrow$hadrons, QCD scale parameter Λ, analytical continuation effects influence 2−113211
$\psi\rightarrow\iota(1440)\rightarrow\bar{K}K\pi$, glueball and exotic meson candidates study 2−79884
$\psi\rightarrow\phi S^*(\phi f')$, 2^+ glueball effects 2−113237
$\psi'\rightarrow\gamma\eta_c'$, 3592 MeV state study in Crystal Ball detector 2−79883
$\psi'\rightarrow\gamma\gamma\psi$, branching ratio, multipole struct., χ spin 2−74690
$\psi'\rightarrow\psi\pi^0(\eta)$, decay rates and anomalous Ward identities 2−113266
ψ'-η_c' hyperfine splitting, potential model calcs., charmonium mass spectrum 2−107650
psychological optics *see vision*
psychology
consciousness, wave logic hypothesis 2−58586
nervous system functions, general theory *(German)* 2−88493
PTC thermistors *see thermistors*
public utilities
see also water supply
public power utility unconventional energy sources 2−83446
pulsars
see also neutron stars; radiofrequency cosmic radiation
binary pulsar, quadrupole formula for gravitational radiation energy loss 2−95178
birthrate and evidence for injection, statistics anal. 2−74002
black holes, oscillating, pulsar model 2−94764
coherent radio emission, power-law spectrum derivation 2−79132
Crab pulsar, mass determ. from equation of state of nuclear matter 2−106766
crust Ae phase, eqn. of state allowing for superstrong mag. field 2−117696
cutoff in magnetised neutron stars with nondipolar mag. geometry 2−68804
Cygnus X-3, star model with pulsar component 2−106781
dispersion measures used to find inner Galaxy free electron distrib. 2−89358
distribution and galactic non-thermal radiation 2−63659
pulsars continued
evolutionary models, discrimination from (P,γ) diagram 2−84254
evolutionary sequence gaps in period plot 2−106764
formation rates and emission anal. 2−106880
gamma-ray bursters as old radio pulsars, model 2−106958
gamma-ray emission from radio pulsars, review of obs. *(German)* 2−94868
gravitational energy 2−89144
high velocity pulsars, prod. by evolution of massive common envelope binaries with mass loss 2−63537
interstellar medium and pulsar proper motion causing radioscintillation 2−106765
LMC pulsar discovery 2−79131
magnetic inclination relative to apparent beamwidth distrib. *(Chinese)* 2−112477
magnetic window and diffuse gamma-ray background 2−100967
magnetized neutron stars, evolutionary diagram 2−106767
magnetosphere, high energy particles, motion and γ-ray emission 2−63489
magnetosphere, longitudinal waves generation by mag. drift mechanism 2−117699
magnetospheric structure 2−100968
MC2 objects, distance and luminosity function 2−117698
MSH 15−32 object, UHF obs. 2−84256
MSH 15−52, SNR, X-ray pulsar discovery in SNR shell, obs. 2−84255
neutron stars, mechanisms, life-histories and relationship with supernovae 2−74003
northern hemisphere pulsar survey, results and discovery of third binary pulsar 2−63486
NP 0532, balloon borne γ-ray obs. 2−58252
NP 0532, Crab pulsar, pulse arrival times and periods, availability 2−84257
NP 0532, spectrum, IR fluxes and pulse shapes, JHKL obs. 2−63488
null states, mode changes and timing noise 2−112479
nulling, origin from evolutionary models 2−106763
optical emission mechanism, synchrotron laser operating along open field lines 2−63490
pair production by accelerated charges ρ-meson prod., pulsars 2−64264
particles ejection, role of plasma flute instability 2−114991
period determ., Earth rotation angular vel. vars. effect *(Chinese)* 2−62881
plasma physics appls. 2−63243
plasma waves, self-consistent solns. 2−112476
polar flux tube particle acceleration and photon emission models 2−63492
polarization of coherent radio emission 2−112478
PSR 0329+54 and 1237+25, mode switching polarisation anal. 2−94761
PSR 0525+21, spin-ups from JPL timing obs. 2−94763
PSR 0531, Crab pulsar, transient UHE pulsed γ rays 2−74005
PSR 0531+21, 1971 to 1981 flux at 74 MHz, interplanetary scintillation obs. 2−84253
PSR 0531+21, anomalous braking index, plasma inertial effect 2−94762
PSR 0531+21, Crab Nebula pulsar, optical radiation mechanism *(Russian)* 2−63491
PSR 0531+21, gamma-ray interpulse, emission obs. 2−74004
PSR 0531+21, radiospectrum prepulse form., role of relativistic electron positron plasma turbulence *(Russian)* 2−68806
PSR 0531+21 (Crab pulsar), pulsed emission, models and X-ray obs. 2−117694
PSR 0531+21 in Crab Nebula, X-ray emission nature 2−63712
PSR 0655+64, new binary pulsar, orbital elements from timing obs. 2−63486
PSR 0809+74, fine-scale time structure, statistical analysis 2−74006
PSR 0833-45 (Vela pulsar), pulse period decrease obs., (1982 August 10) 2−117697
PSR 1133+16, 100 nanosecond time resolution obs. 2−63487
PSR 1133+16, emitting regions location and dispersion meas. determ. 2−89290
PSR 1822−09, pulse-interpulse interaction obs. 2−89289
PSR 1822−09, pulsed emission, X-ray and γ-ray upper limits 2−117695
PSR 1913+16, binary collision and r-process nuclei ejection 2−106779
PSR 1913+16, binary pulsar, evolution history, mag. field and period constraints 2−68799
PSR 1913+16 (pulsar+compact star) general relativity test and gravit. radiation evidence 2−63498
PSR 1913+16 companion, possible pulsar in propeller phase, X-ray emission anal. 2−84258
PSR 1913+16 quasiperiodic binary system, grav. radiation calc. 2−100989
PSR 1929+10, apparent proper motion from SHF obs. 2−117610
pulse timing observations, rel. to improved parameters for 67 pulsars 2−68805
pulsed emission, X-ray and γ-ray upper limits 2−117695
rotational energy loss, scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
simulation in electron storage ring 2−54697
spin down mechanism, neutron superfluid vortex, neutrino cyclotron radiation 2−79135
time-keeping methods in pulsar observation 2−79540
timing irregularities 2−117693
timing noise, contrib. of stochastic background of gravit. radiation 2−79249
timing noise and external disturbances, gravitational wave emission 2−58671
Vela pulsar, pulsed emission, X-ray and γ-ray upper limits 2−117695
$\gamma\gamma$-$\nu\bar{\nu}$, in strong external field, loop diagram 2−101784
pulsatile flow
see also peristaltic flow
ascending two-phase flow, pulsation characts. 2−114907
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
Bingham fluid, pulsatile flow enhancement 2−70997
blood flow high-resolution meas. using optical fibre laser Doppler velocimeter 2−83704
blood flow measurement, electromag., theory 2−81414
double pipe heat exchanger, heat transfer superimposed pulsating flow effects *(German)* 2−97549
dusty gas, unsteady flow between parallel plates, one plate oscill. effects 2−114769
elastic tube flow, tube-valve effects, circulation model *(German)* 2−65643
flexible pipes, finite-element simulation of pulsatile flow, arterial disease appl. 2−105636
heat exchangers, pulsating flow effect 2−114913

pulsatile flow continued
laminar flow in a pipe, heat transfer with const. wall temp. 2−91540
laminar instantaneous flow rate meas. using venturi meter *(Japanese)* 2−114760
laser velocimeters for study of nonNewtonian flow *(French)* 2−91563
numerical simulation of flow in constricted axi-symmetric tubes 2−81393
pipe flow, turbulence transitions, pulsative vel. distrib. near transition region, wave forms. and distrib. 2−91539
polymeric fluids, pulsatile flow 2−97655
polymeric solns., plastic fluid pulsatile flow, enhancement 2−70997
porous channel, heated, pulsatile flow, combined free and forced convection 2−71031
pressure pulsations in subsonic or supersonic flow over recess 2−60654
pulsating jet flow, pressure distrib. around sphere meas. 2−60693
shock wave decay at a perforated baffle 2−81359
supersonic jet entering conical cavity, gas heating and press. pulsations 2−70985
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
vibrationally relaxing gas, spherical nonlinear wave propag. 2−91549
viscous flow in oscillatory spherical annuli, numerical study 2−55663
wall bounded pulsating flow, shear stresses determ. on surface 2−97659

pulse amplifiers
bipolar transistor head amplifiers for high energy appl. of Si detectors 2−64795
chamber preamplifiers/amplifiers system 2−70104
electrical signal shape measuring system 2−102349
integrated amplifier and sample-and-hold analogue multiplexer module for proportional chamber 2−64802
operational amplifiers for nuclear spectrometry, phase shift effect on gain stability 2−64812
periodically stabilised amplifier system for Si telescopes on pulsed accelerators 2−64809
spectroscopy amplifiers with time-invariant filters, critical parameters regulation and design aspects 2−64810
transformer coupling between radiation detector and head amplifier 2−64796
transistor reset preamplifier for high resolution spectroscopy 2−64811

pulse amplitude analysers *see pulse height analysers*

pulse circuits
see also digital circuits; modulators; pulse generators; pulse shaping circuits
3rd IEEE International Pulsed Power Conference, Albuquerque, NM, USA (June 1981) 2−89461
cyclotron RF beam burst phase shift corrector 2−75087
dual parameter discriminator for gas scintillation proportional counters 2−64808
HV pulse registration with subnanosecond resolution using liquid resistive divider 2−84662
signal processing cct. for electrostatic beam emittance meas. 2−96399
submarine transducer pulse cct., used for experimental tank *(Spanish)* 2−97332
HgBr laser, pulsed discharge exciter design and testing 2−90936

pulse-code modulation
see also delta modulation
optical PCM clock regenerator with integrated optical directional coupler 2−86125

pulse generators
see also multivibrators; square-wave generators
150 kV, 100 kA spark gap switch for Marx generator 2−97831
600 kV Marx module for high-density Z-pinch experiment 2−90415
capacitive accumulators as energy source for controlled thermonuclear fusion 2−64643
digital pulse train generator for NMR and NQR spectrometers 2−107357
direct-coupled optical pulse generator hybrid IC for fibre-optic testing 2−97250
EAGLE, 2 TW pulsed power generator 2−90322
homopolar generators, shockwave, disc-type, with gas-pressure supported rotor for pulse power supply systems 2−64642
homopolar generators, shockwave, for power supply to thermonuclear installations 2−64641
implantable cardiac pacemaker, pulse shape optimisation to reduce energy consumption 2−78491
instrumentation, characts. and special features 2−101424
NMR spectrometer, video pulse signal simulator with specified envelope form 2−69214
Nova laser pulse power system, hardware current status 2−90937
Particle Beam Fusion Accelerator (PBFA-I), HV modular interconnecting and operating systems 2−90326
picosecond high-power switching and applications 2−97069
pulse power applications of flux compression generators 2−91641
sequence generator for periodic sampling of transient phenomena 2−107412
Sidonix particle beam generator modification 2−90414
spectroscopy, DLTS, design and construction of measuring instrument *(Japanese)* 2−89821
streamer chamber, voltage pulse generator and photographic system synchroni sation 2−85483
subnanosecond optical pulse generator using argon ion laser 2−65249
thyratron nanosecond pulse generator based on strip line 2−85441
thyristor supply systems for experimental thermonuclear reactors, design problems 2−64644
transient processes examination apparatus for semiconductor field-emission device 2−74464
variable duration, with fast rise-time, Rydberg states study appl. *(French)* 2−74470
Cu laser energizing pulse generator 2−85989
$KClO_3$ NQR thermometer, pulse excitation device 2−89707

pulse height analysers
7 MHz analyser for plasma diagnostics using neutron spectra 2−75126
digital multichannel analyser-computer interface for use in physics laboratory 2−94964
electrical signal shape measuring system 2−102349
electron differential energy distrib. calc. using amplitude analyzer and inverse function generator 2−84742
inspector-instrument interface in portable NDA instrumentation 2−74856
liquid scintillation counter connected to multichannel pulse-height analyser, quantitative α-emitter meas. method *(Japanese)* 2−54732
microprocessor controlled multichannel analyser 2−90409
modular system, CAMAC RAM controllers, microprocessor and LSI appls. 2−85511

pulse height analysers continued
multichannel analyser for fusion X-ray spectrometry 2−85500
multichannel analyses based on SDK 85 2−59650
multichannel information-measurement system for astrophysical appl. 2−80400
multichannel signal accumulator 2−75127
multiple input multichannel scaling selector with IC components *(Chinese)* 2−59647
nuclear pulse height anal., sliding scale averaging effects 2−64806
portable multichannel analyser from on-site radiation monitoring 2−54725
readout system for proportional chambers 2−96397
spacecraft multichannel analyser for multidetector solid state detector array 2−75124
TFTR, X-ray pulse height anal. system 2−80292

pulse modulation
see also modulators; pulse-code modulation
stripline magnetic modulators for lasers and accelerators 2−97024

pulse motors *see stepping motors*

pulse oscillators *see pulse generators*

pulse position modulation
optical broadband signal transmission using pulse position modulation *(German)* 2−81092

pulse shaping circuits
implantable cardiac pacemaker, pulse shape optimisation to reduce energy consumption 2−78491
magnetic pulse compressor cct. for elec. excitation of XeCl laser 2−60094
operational amplifiers for nuclear spectrometry, phase shift effect on gain stability 2−64812
remote controlled pulse-shaping device for subnanosecond voltage pulses, for use with Van de Graaff electron accelerator 2−64068
semiconductor counters, signal processing, pulse shaping for resolution optimisation 2−80401
time projection chamber, CCDs appl. 2−64799

pulse transformers
pulse power applications of flux compression generators 2−91641

pulse width modulation
capacitance measurement, PWM technique 2−101408
magnetic pulse modulator and compressor for injector triggering 2−90319

pulverised coal *see pulverised fuels*

pulverised fuels
see also coal
coal, solvent refining, pilot plant 2−67802
coal fines, pelletisation, process engineering 2−73056
Critical Solvent Deashing ash concentrate, agglomeration, briquette tests 2−67803

pumped-storage power stations
Austrian national economy, significance of unconventional energy sources *(German)* 2−73045
underground, safety, socio-economic legal and environmental aspects 2−73152
underground energy storage in hard rock, geotechnical data base 2−99841

pumping *see pumps*

pumping (optical) *see optical pumping*

pumping plants
wind power plants for irrigation pumping in USA, sale of excess electricity to utility 2−116774

pumping stations *see pumping plants*

pumps
see also vacuum pumps
artificial heart electromechanical drive unit with rotary/translational motion kinematic convertor 2−78498
coupling device for quick high-pressure connections to 100 MPa 2−79606
electromagnetic pump idealised model, for molten metals *(French)* 2−69771
fission reactors, model coolant pump steady under single and two-phase flow conditions 2−108077
flat induction pumps high feed rate, transverse fringe effect 2−103156
high-pressure magnetic fluid circulation pump 2−107339
linear induction pump, instability suppression by external mag. field 2−103147
molecular pump operations, gas flow in axially moving tube as basis 2−55662
natural circulation air-lift pump, flow fluctuation rel. to flow rate 2−71042
negative ion source, self-extraction 2−89858
phenolic wastewater, purification by parametric pumping, nonequilib. dead volume model 2−83526
photovoltaic water pumps developments and utilisation in developing countries 2−111563
radioactive waste slurry, pump cleaning ability 2−64505

purification, crystal *see crystal purification*

Purkinje effect *see vision*

push pull amplifiers *see differential amplifiers*

push pull microphones *see microphones*

p.w.m. *see pulse width modulation*

pyroelectric devices
absolute radio-frequency measurements of the exposure dose rate of pulses of photon radiation 2−113759
biomedical pyropiezoelectric sensor for the measurement of pressure and cardiac output *(Spanish)* 2−68179
detectors, calibration method *(Spanish)* 2−84700
detectors for bremsstrahlung pulses 2−90406
electron beam parameter meas. using pyroelectric collector 2−59590
fast-response surface-electrode pyroelectric detectors 2−64777
heat receiver, two-dimens., internal struct. defects influence on ferroceramic performance 2−66995
infrared detectors *(German)* 2−64109
IR detector, double-layer, consisting of pyroelec. and thin photocond. layer 2−107402
IR detector based in the use of TGS (triglycine sulphate) *(German)* 2−107401
IR detectors 2−112981
IR sensors, normalised current sensitivity calc. *(German)* 2−79670
IR sensors, review *(Japanese)* 2−89810
IR spectrometer for expts. with solar occultation using pyroelectric vidicon 2−95493

pyroelectric devices continued
power and energy meter calibration for far IR/near MM wave spectral region 2−95470
PVF_2 pyroelec. detectors *(German)* 2−58828
PVF_2 pyroelectric detector used for optical fibre attenuator calibration 2−86108
sensor, construction, performance and appl. 2−74414
sensors for thermal cond. meas. 2−112890
sensors using $NaNO_2$ layers, for EM radiation 2−95472
subnanosecond pyroelectric infrared detector 2−112986
TGS pyroelectric detector, electrically balanced 2−58903
TGS pyroelectric detector for remote sensing of temp., radiant power meas. 2−53771
TGS type II detector based pyro-spectroscopic technique for high resolution IR absorpt. data using FIR laser 2−112977
thermal diffusivity measurement using pyroelec. detector 2−89705
UV large area high speed detectors 2−101458
$LiTaO_3$ pyroelectric infrared detector 2−84703
$LiTaO_3$ substrate fabrication and characterization for pyroelectric sensors 2−87969
$PbTiO_3$ ferroelectric film for pyroelectric IR sensor fabrication on Si wafer 2−79668

pyroelectricity
bistoluene sulphonate diacetylene monomer and polymer, pyroelectric props. 2−104816
boracites, symmetry related prop. tensors, pyroelectric and ferroelectric props. 2−99064
centrosymmetric dielectrics, thermopolarisation effect *(Russian)* 2−61835
epidermis of human skin, pyroelec. and piezoelec. sensor layer 2−100013
ferroceramic, internal struct. defects influence on applics. in technology, two-dimens. heat receivers 2−66995
ferroelectric conversion of heat to electricity 2−93934
ferroelectric semicond. p-n junction, capacitance, spontaneous polarisation and pyroelectric current 2−115881
ferroelectric semicond. p-n junctions, polarisation switching and pyroelec. current 2−110453
isopropylammonium copper trichloride (tetrachloride), dielec. const. and pyroelec. current meas. 2−57004
literature guide, 1980-1981 2−107032
magnetic resonance, pyroelectric detection 2−77379
α-nylon 11, ferroelec. transition, dielec. const., thermal expansion and pyroelec. coeff. study 2−116128
photo-EMF, origin in ferroelectric and non-ferroelectric materials 2−110379
piezoelectric accelerometer, pyroelectric side-effects modelling and calc. 2−64015
poly(vinylidene fluoride), pyroelectricity anal. by residual charge meas. technique 2−87700
poly(vinylidene fluoride) film, crystallinity evidence 2−71376
poly(vinylidene fluoride) thin film, piezoelec. and pyroelec. props. meas. 2−104815
polyethylene thin film, piezoelec. and pyroelec. props. meas. 2−104815
polymers, piezoelectricity and pyroelectricity, bibliography, 1980 to 1981 2−107033
polyvinylidene fluoride, ferroelectric, piezoelectric and pyroelectric polymer, props. and appl., transduction mechanisms, review 2−66994
polyvinylidene fluoride, pyroelectricity and space charge, expt. study 2−116123
polyvinylidene fluoride film, anisotropic thermal diffusion, transient pyroelec. currents 2−86958
polyvinylidene fluoride film, thermal expansion 2−92426
polyvinylidene fluoride films, piezo- and pyroelectric effects, sound vel., thermally induced elec. oscills. 2−72429
polyvinylidene fluoride films, pyroelec. coeff. and dielec. const. and losses, heating effects 2−93118
powders, pyroelectric coeffs., pyroactivity, capacitor method 2−104817
PTFE, TSC study of room temp. struct. transitions 2−57011
pyroelectric materials, props. and appls. 2−82788
TGS:alanine pyroelect. cryst., domain struct. meas. by laser probe techniques 2−61847
thiourea, phase transition under high press., SHG, pyroelec., and Raman scatt. meas. 2−66202
vinylidene fluoride-tetrafluoroethylene copolymer, pyroelectricity and charge transport 2−72430
$(Ba,Sr)TiO_3$ films on Si substrate, ferroelec. behaviour 2−66996
$Ba(NO_3)_2.H_2O$, pyroelectric cryst., struct., neutron diffr. study 2−86635
$BiMO_4$ (M=Nb, Tb, Sb), stibiotantalite struct. antiferroelec., ferroelec. and pyroelec., prep. and props. 2−66998
$Li_2Ge_7O_{15}$, dielect. props. and phase transition 2−57006
$LiNH_4SO_4$, ferroelectric phase transitions, elec. props., IR spectra 2−67000
$Li_2SiO_3(GeO_3)$, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$LiTaO_3$ substrate fabrication and characterization for pyroelectric sensors 2−87969
NH_4HSeO_4, dielec. and struct. props., isotope effect, pyroelec. and X-ray studies 2−57022
NH_4HSeO_4, pyroelectric props. 2−99063
Na_2GeO_3, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
$Ni_3B_7O_{13}Br_{1-x}Cl_x$, elec. and thermal props. near ferroelectric transition 2−66555
α-$PbGe_4O_9$, ferroelectric, dielec. and pyroelec. props. 2−61845
$PbGe_4O_9$, polymorphism, cryst. struct., and dielec. props. 2−109754
$Pb_{1-x}M_xGe_4O_9$ (M=Sr, Ba), polymorphism, cryst. struct., and dielec. props. 2−109754
$PbMg_{1/3}Nb_{2/3}O_3$, pyrocurrents, dielectric polarisation *(Russian)* 2−61834
$Pb_{0.99}Nb_{0.02}(Zr_{0.68}Sn_{0.25}Ti_{0.07})_{0.98}O_3$, ferroelectric, direct heat to electrical energy conversion, pyroelectric meas. 2−67878
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
PbO-Bi_2O_3, prep. and electrophysical props. of compounds 2−72619
$PbTiO_3$:Mn ceramics, Mn doping effect on dielec. and ferroelec. props. *(Chinese)* 2−72431
$SbMO_4$(M=Nb, Ta, Sb), stibiotantalite struct. antiferroelec., ferroelec. and pyroelec., prep. and props. 2−66998
$(Sr,Ba,Ca)Nb_2O_6$, diffuse ferroelec. phase transition, optical and dielec. props. study 2−61844
$Sr_xBa_{1-x}Nb_2O_6$, poled, dielec. props. rel. to pyroelec. detection 2−110777

pyrolysis
aluminium acetylacetonate, thermal decomp., growth of Al_2O_3 film 2−87994
catalyzed thermal decomposition of H_2SO_4 and production of HBr by the reaction of SO_2 with Br_2 and H_2O 2−57740
cis-1,2-dichloroethylene, prep. of low temp. pyrolytic C 2−78075
diethylthiophosphinatocadmium complex, thermal decomposition for growth of CdS films 2−67224
energy recovery from municipal refuse, using dual fluidised-bed pyrolysis system 2−83462
bisethylbenzene Cr, comp. and nature of impurities in thin film 2−82157
ethylene ozonides, secondary, photolysis, pyrolysis and matrix IR spectra 2−113979
flaming regime in glass-plastic pipe, coolant mixed convection effects 2−60670
glass and ceramic nuclear waste, alteration under hydrothermal conditions 2−107946
iron pentacarbonyl, oxidative pyrolysis, FeO_x film formation, struct. and chem. comp., expt. study 2−56399
laser-based photochemical and photothermal processes, review 2−93803
magnesium formate monoclinic and orthorhombic forms, struct. and thermal stability, X- ray diffr. and IR spectra obs. *(French)* 2−60939
micas, 1 M, distortions of octahedra and octahedral sheets rel. to stability 2−60960
organic acids, laser desorpt. mass spectroscopy 2−69295
poly-2-methyl-5-ethynylpyridine, pyrolysed, electron spin-lattice relax. *(Russian)* 2−66896
polyacrylonitrile film, pyrolyzed, elec. cond., IR spectra study 2−77219
polymers, decomposition characteristics studied using semiinfinite body method, thermophysical props. 2−115149
Pyralin, pyrolysed, elec. conduction 2−61470
silver oxalate, thermal decomposition, mech. pretreatment effects, mass-spectrometric thermoanalysis 2−62397
single pulse shock tube, high-temp. processes investig. *(German)* 2−60569
solar H_2 production using two-step-thermochemical cycles 2−83522
thermal decomposition of a substance in the tracks of ionizing particles 2−115318
thermochemical H_2 cycles utilising $ZnSO_4$ decomposition 2−73160
tholins, vacuum pyrolysis anal. 2−57603
CaO, surface area and morphologies of samples produced from decomp. of $CaCO_3$ crysts. 2−76353
CdS:In film, low resist., prep. by spray pyrolysis 2−71842
CdS_xSe_{1-x} sprayed thin films, struct. props. and optical band gap 2−110199
CdTe, deposition by spray pyrolysis, for solar cell appl. 2−71828
$Cu_xCo_{3-x}O_4$, props. of spinel prep. at low temps. and normal press. 2−55945
$CuInSe_2$, spray pyrolysis and heat treatment, for photovoltaic appl. 2−71843
Fe powder, carbonyl, manufacturing conditions and influence on mag. permeability temp. coeff. 2−67242
Fe-polydimethylphenylsitsesquenone, filled polymer, ferromag. adsorbents, mag. props. 2−66871
Fe−phenol-formaldehyde resin, filled polymer, ferromag. adsorbents, mag. props. 2−66871
GaAs, heat treated in H_2-Ar_2, surface thermal decomposition, Ar_2 partial press. effects 2−62246
GaN, gas phase deposition by pyrolysis of Ga tri-iodide ammine, vel. front 2−72630
H_2 production by thermochemical decomposition of water using bench scale plant employing Mark-13 process 2−83521
H_2 production via thermal decomposition of H_2S, separation by pressure swing adsorption 2−73161
H_2 recovery from H_2S with metals or metal sulphides 2−73162
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
$KMnO_4$, open thermodynamic system, thermolysis 2−110010
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
$NiC_4O_4.2H_2O$ thermal decomposition 2−67746
Pd/Si system, intrinsic and Si-stabilised oxides, Auger and UPS study 2−67160
Si-F amorphous film, grown from SiF_2 disproportionation, F conc. determ. 2−92021
SiH_4 heterogeneous decomposition in fixed bed reactor, Si production appl. 2−116376
SiO_2:P(Bi)(Pb), oxidative pyrolysis of SiH_4, thermal oxidation of Si 2−77960
ZnO, thermodesorpt. of atomic O 2−67768

pyromagnetic effects *see magnetocaloric effects*

pyrometers
see also temperature measurement
grinding workpiece temp. meas. with infrared radiation pyrometer using optical fibres *(Japanese)* 2−101404
infrared, two wavelength, for large and rapid temperature changes 2−84631
IR optical pyrometers design, for dust explosion temps. meas. 2−53772
IR pyrometer for continuous temp. meas. of moving wire or bar *(French)* 2−95385
luminance, calibration using reference black-body radiator 2−53770
multiwavelength pyrometry using induced-transmission interf.-filter array 2−65341
opaque materials, monochromatic directional reflectivity and emissivity determ. *(French)* 2−64045
opaque materials, thermal radiation props., meas. methods *(French)* 2−65467
optical pyrometry, technique at high shock press. 2−69171
optical-electronic pyrometric system, liquidus curves of HfO_2-R_2O_3 meas. 2−86842
photoelectric, precision, IPTS-68 scale above 1064.43°C realisation 2−69179
photoelectric radiation pyrometer for temp. interval 1300 to 3300K 2−101403
photoemission pyrometer for temps. up to 1300°C 2−58829
PVF_2 pyroelec. detectors *(German)* 2−58828
six-wavelength radiation pyrometer 2−64042
spectropyrometer, sighting device for replacing temp. lamp 2−64044
vacuum brazing machine power and coolant switching unit 2−74396
water, shock-compressed, temp. meas. using pyrometer 2−89719

Q *see Q-factor*
Q-factor
circuit breakers, HV, are behaviour anal. using Cassie, Mayr and Rizk's models *(French)* 2−86491
circuit elements having low Q-factor inductance, capacitance and resistance meas., impedance meter *(Rumanian)* 2−89738
Earth interior, elastic radiation from source in medium with almost freq.-independent Q 2−100314
Helmholtz resonator, influence of throat configuration on Q-value 2−70731
quartz crystal tuning fork with modified basewidth for high Q, finite element anal. and expts. 2−81197
quartz resonators, radiation induced cond. and high temp. Q changes meas. 2−98335
seismic waves, estimates of Q in central Asia as function of freq. and depth from local earthquakes coda 2−88750
seismic waves meas. of intersection phase and group vels. and Q-factor using Wiener filtering 2−88748
three mode 50 kg gravitational antenna, Q-factor at liq. He temps. 2−79461
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Q-factor measurement
resonant systems Q-factor and internal friction meas., using digital meter 2−58813
Q power factor *see Q-factor*
Q-switching
see also lasers
bleachable dye Q switch with improved control 2−81002
laser resonator Q-switching using VO_2 film metal-semicond. phase transition 2−90952
multistep laser pulse generation using passive electrical networks in cavity-dumped Q-switched oscillator driver 2−81005
prism, compound total internal refl., for use in laser resonator 2−90947
ruby laser, double pulse Q-switched TEM_{00}, for holography, SHG in KD_2PO_4 2−114337
ruby laser, free-running, passive Q-switching and self-mode-locking regime study at 100K 2−108890
ruby laser, Q-switched, mode-locked and cavity-dumped 2−114292
ruby lasers, internal parameters determ. from output radiation charact. 2−96957
ruby multiple laser system for high speed photography 2−103131
ruby Q-switched laser cavity, self-induced ellipse rot. and self-focusing effects 2−102798
short laser pulse generation, review 2−108898
shutter Q-switch, use of two-fold or four-fold speed-up device *(Chinese)* 2−55222
single-mode laser model with saturable absorber, bistable limit cycles 2−85934
temporal pulse-shaping for laser-fusion experiments using a cavity-dumped O-switched oscillator 2−64637
$K(D_xH_{1-x})_2PO_4$ electro-optic *Q*-switch and four-cryst. modulator 2−111041
Li-Nd-La phosphate glass, high conc., use in Q-switched lasers 2−55167
Nd:glass fibre laser, lasing kinetics in periodic giant pulse regime 2−114289
Nd:YAG CW laser, simultaneous mode locking and Q-switching, use as picosecond pump source 2−114330
Nd:YAG laser, CW pumped acousto-optically Q-switched *(Czech)* 2−85987
Nd:YAG laser, Q-switching with continuous pumping by nonlinearly absorbing LiF cryst. with F_2^- colour centres 2−102804
Nd:YAG polarisation-coupled stable/unstable-resonator laser oscillator, single-axial-mode operation 2−55165
Nd:YAG pump laser for sum-freq. light generation in optical fibres 2−81019
Nd:YAG unpolarised electro-optically Q-switched laser, report 2−96990
Nd:YAG unstable resonator, high repetition rate *(Chinese)* 2−97005
Nd:YLF single-frequency active-passive mode-locked oscillator at 1.053 μm 2−90915
Nd:YLiF active mode-locked/Q-switched oscillator, temporal shape analysis 2−70592
Nd^{3+}:YAG laser, passively Q switched by LiF crysts. containing colour centres, charact. 2−85978
QC *see quality control*
quadratic programming
elastoplastic analysis problem 2−81244
quadrupole crystal field interactions *see crystal hyperfine field interactions*
quadrupole lenses *see electron lenses; electrostatic lenses; magnetic lenses*
quadrupole mass analysers and filters *see mass spectrometer components and accessories*
quadrupole moments
see also atomic electric moment; molecular moments; nuclear electric moment; nuclear quadrupole resonance
A=224 to 260, even nuclei static props., HF+BCS calcs. 2−54291
CC^{194}Ir, oriented in Fe and Ni, NMR, elec. quadrupole moment and g-factor 2−98977
diatomic polar molecule in external electric field, electric quadrupole interaction energy 2−113959
dimers, H-bonded, ^{2}H and ^{14}N quadrupolar coupling consts., SCF MO calcs. 2−96449
ethane, collision induced adsorpt. in microwave and IR region 2−54838
muonium quadrupole moment and hyperfine struct. of muonium levels in Si 2−61806
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
rare-earth nuclei with quadrupole-plus-pairing interactions, equilibrium deformations 2−95908
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
CO_2, quadrupole moment calc. 2−102432
^{43}Ca, hyperfine structure anal. of 4s4p configuration and nucl. quadrupole moment 2−114124
^{43}Ca metastable 3d4s $^1D_2$ state, laser RF double reson. HFS meas. 2−96756
^{65}Cu, M3 strength quenching in ground state 2−113465
FCl molecule, quadrupole moments of F nuclei 2−70442
H_2, quadrupole moment calcs. 2−102432
HF, multipole moments and polarisabilities, CI and perturbation theory methods 2−75192
quadrupole moments continued
^{165}Ho, spectroscopic nucl. elec. quadrupole moment 2−113903
^{115}In, $8p^2P_{3/2}$ and $8p^2P_{1/2}$ levels HFS meas. 2−96757
N_2 quadrupole moment calcs. 2−102432
$(NH_4)_2$ BeF_4, dielec. props. near nonpolar-incommensurate-polar phase transitions 2−104824
$(NH_4)_2BeF_4$, ferroelec., incommensurate phase, quadrupole moment, homogeneous mech. stress effects 2−57023
NaCl, dislocation density determ. from NMR quadrupolar linewidth meas. 2−98114
O_2, quadrupole moment calc. 2−102432
^{17}O coulomb excitation, giant-dipole resonance contribution 2−113443
^{A}Sr, A=77-80, extreme prolate deformation 2−101802
quality control
see also reliability
atomic emission analysis, R&D and QA appl. 2−73028
cine cameras, radioelectronic meas. apparatus development *(Russian)* 2−69282
cinematographic equipment during development *(Russian)* 2−69289
cinematographic projectors *(Russian)* 2−58950
FBR fuel optimisation using data bank system BESEX 2−85150
gamma cameras, Anger-type, routine quality control testing 2−94196
glass fibre reinforced plastic laminates, nondestructive inspection 2−67672
glass fibre reinforced polyester resin sheet moulding cpd. imperfection monitoring by NDT 2−78042
hologram interferometry microscope for IC checking 2−114219
IR spectroscopy, automated quality control 2−79693
LCP, USA magnet manufacturers QA and QC 2−69976
LWR fuel fabrication, quality assurance 2−85159
Magnox fuel elements manufacture for nuclear power stations, safety assurance 2−59481
mammary radiography in Finland, equipment quality control: dose and image quality 2−83631
materials classification on the basis of statistically evaluated props. *(German)* 2−116657
measurement quality assurance and accuracy, Rumanian Inst. of Metrology review *(Rumanian)* 2−74377
metal deposition during electrolysis, quality prediction using current response graphs 2−99686
metals, case-hardened layers, hardness and thickness monitoring 2−111415
module control test specifications laid down by Commission of European Communities 2−62479
nuclear fuel, characterisation and quality control, conf., Karlsruhe, Germany (June 1981) 2−84372
nuclear fuel characterisation, image anal. appl. 2−85135
nuclear fuels, Gd determ. techniques for quality control *(German)* 2−96089
nuclear fuels, quality control, technical and economic aspects 2−85132
nuclear medicine imaging instruments, contrast measurement and quality control, phantom design 2−94192
nuclear medicine instrumentation performance and quality control including gamma cameras 2−94194
nuclear power plant primary circuit structural metals, remotely controlled NDT devices, methods and technology 2−90234
optical item, at 10.6 microns wavelength, using diffraction point method 2−114402
optical waveguide fibres, product qualification procedure 2−109087
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
radiation, environmental measurement and monitoring, quality assurance and control 2−80350
radiography, quality-assurance test films, optical density comparator 2−94184
release prints quality, service life improvement *(Russian)* 2−69287
scanner display assessment for scanner performance quality control, wedge-shaped phantom evaluation 2−94191
scintillation cameras, quality control using a minicomputer 2−62752
spectrophotometry, components and quality control 2−58914
steel, high temperature temper treatment, quality control, performance anal. of magnetic probe 2−67703
test methods and facilities, quality criteria 2−63958
thermal analysis system appl., computer-based 2−74416
UO_2, Zircaloy cladded combustible CARAMEL fuel for research reactors *(French)* 2−96093
US transducers for use in ophthalmologic diagnostics, computer-aided quality assurance *(German)* 2−88638
water reactor fuel, performance-related charact. 2−85133
Fe, cast, nodular, statistical study of graphite and pearlite *(German, English)* 2−111423
Si_3N_4, reaction bonded, hot pressed, comparison of US and radiographic methods of crack detection 2−67673
UO_2 fuel, Indian experience on prod. and quality control 2−85163
UO_2 pellets, occluded gas anal. by mass spectrometer and fuel quality control 2−85140
UO_2 powder manufacture, LWR fuel quality control, prod. parameters determ. *(German)* 2−96088
WC-Co sintered carbides, quality inspection instrument 2−83337
quality factor *see Q-factor*
quanticule theory of chemical binding *see bonds (chemical)*
quantisation
affine mechanical systems, Schrodinger quantisation 2−107127
asymmetric double minimum potential, higher-order semiclassical quantisation 2−74244
Bohr-Sommerfeld quantization with the effective action variable 2−74263
canonical quantisation of gauge fields, gravitational field 2−53640
charge space, single particle, gauge invariance, rel. to rot. invariance 2−59004
conformal gravity quantisation, renormalisation of gravity, phase transitions 2−107214
conformal Kepler problem quantisation and appl. to H atom 2−95085
constrained systems, quantisation 2−89553
Coulomb potential, semiclassical quantisation conditions 2−69049
deformation theory applied to quantization and group representations 2−101244
derivation properties of a deformed Poisson algebra and the quantisation problem 2−107150
Dirac monopoles, relativistic quantum field theory, charge quantisation, renormalisation 2−59019

quantisation continued
dynamical quantisation of system of two point particles interacting via harmonic pot. 2−95042
EM field with Dirac's monopoles, canonical quantisation 2−79810
Fermi systems, structure results for Segal quantisation 2−112731
field theoretical methods in chemical physics, book 2−94932
field theory quantisation in sector with zero charges 2−59043
gauge field theory, generalised BRST quantisation 2−79763
gauge invariant periodic quantisation method, periodicity condition investigation 2−107171
gauge tensor fields, antisymm., covariant quantisation *(Russian)* 2−64226
gauge theory stochastic quantisation using supersymmetry formalism 2−95577
geometric quantisation, rel. to discrete series unitary irreducible representations of semisimple Lie groups 2−64236
geometric quantisation, symmetry group 2−95091
geometric quantisation method using symmetry group structure 2−53572
graded Lie algebra (Sp(4):4), infinite-dimensional representation 2−95682
gravitational charge quantisation condition, grav. dyons 2−112789
harmonic oscillator potential, radial, semiclassical quantisation conditions 2−69049
invariant *-quantisation associated with affine group 2−95083
Komar's solution to factor ordering problem of constraint algebra 2−101260
linearised theory of gravity 2−107217
linearly expanding universe, quantised scalar field behaviour at low energy 2−112617
magnetic charge quantisation, topological meaning 2−74597
Newton's constant quantisation in supergravity theories 2−107225
non-Abelian gauge theory, canonical quantisation 2−69315
Polyakov quantisation, dual string spectrum 2−89948
principal bundles, free gauge field quantisation 2−69317
protic monopoles and quantization of strong charge 2−69070
quantum field theory, stochastic regularisation, superpropagator modification interpretation 2−95578
relativistic harmonic oscillator, quantisation 2−95100
relativistic systems on phase space, procedure for quantisation 2−95583
second-quantization representation and diagrammatic technique for systems of composite particles 2−107130
semiclassical expanding discrete space-times 2−112754
semiclassical quantisation of integrable systems using periodic classical orbits 2−95063
semisimple Lie groups, principal and supplementary series unitary irreducible representation, geom. quantisation 2−64237
singular dynamical systems, Dirac theory of constraints 2−101158
spin(2,1) and spin(2,2), semisimple Lie groups, geometric quantisation and representations 2−54009
spinor field quantisation, bosonisation in 1+1 and 1+3 dimens. 2−53934
stochastic phase space formulation and non-potential interactions 2−95051
SU(2) vector potential, quantisation, for EM field 2−79735
symplectic geometry and quantisation 2−95131
symplectic quantisation, anal. in partial differential series 2−69322
three-particle relativistic harmonic dynamics in the constraint formalism 2−101163
Weinberg model, beta function calc. using background field quantisation 2−53979
Weyl Quantization on compact Abelian groups and the quantum mechanics of almost periodic systems 2−89572
H, semiclassical quantisation in crossed electric and mag. fields 2−79414

quantisation (communications) *see analogue-digital conversion*

quantitative analysis *see chemical analysis*

quantum beat spectra
atomic electron impact excitation, quantum beats, spin-orbit coupling, electron-photon ang. correls. 2−114109
atoms, coherent fluorescence radiation following photoexcitation and photoionization 2−80553
atoms, double resonance via continuum states: ionization quantum beats 2−64944
light shifts in quantum-beat spectroscopy 2−80544
pyrazine, $^1B_{3u}(n\pi^*)$ state, intermediate level struct., quantum beats, electronic relax. 2−59785
pyrazine, jet-coded, quantum beats, fluoresc. obs. 2−59846
pyrimidine, jet-coded, quantum beats, fluoresc. obs. 2−59846
tensor polarisability determ. by quantum beat spectroscopy 2−59744
Fe I, cascade quantum beats, fluorescence obs. 2−102425
He^++C-foil interaction, quantum beat study 2−75396
Na, electron impact, hyperfine struct. and zero-field quantum beats 2−108714
SO_2, $C(^1B_2)$ state, quantum beats, fluoresc. obs. 2−59847
Se_2, $B^3\Sigma_u^-$ state, Lande factors and perturbations, pulsed dye-laser studies 2−75462
$^{130}Te_2$, ground electronic state, Lande factor meas. 2−108641
Yb, tensor polarisability determ. by quantum beat spectroscopy 2−59744

quantum beat spectroscopy
Ba, 6snd $^1D_2$ Rydberg states, tensor polarisabilities, quantum beat spectra 2−114136

quantum chemistry
see also chemical reactions; orbital calculation methods; perturbation theory; potential energy surfaces for collision processes; pseudopotential methods; quantum statistical mechanics; quantum theory; reaction kinetics; wave functions
computation, CRAY-1 application 2−96439
reaction systems, chem. potential, algebraic quantum theory *(German)* 2−78121

quantum chromodynamics *see colour model*

quantum counters *see photon counting*

quantum crystals *see quantum solids*

quantum electrodynamics
see also electromagnetism
abelian gauge theories and spin systems, massless phases and symmetry restoration 2−53926
Adler-Bardeen theorem, proof using Ward-Takahashi identities 2−79808
anisotropic dielectrics, phenomenological QED 2−79807
atomic physics conference, Cambridge, MA, USA (Aug. 1980) 2−68959
atoms, quantum electrodynamics and unified electroweak theories 2−59957
bound state energy calc. 1/c expansion 2−59091
box graph calc., with light-like particles 2−69358

quantum electrodynamics continued
Callan-Symanzik γ function in $1/N_f$ expansion 2−79829
Casimir electrostriction and magnetostriction forces calc. for $\epsilon\mu 1$ 2−101631
casimir forces without the vacuum radiation field 2−59094
charged particle in mag. monopole field, Jackiw transformation in path integral 2−113197
charged spin-$^1/_2$ fermion, high intensity Compton scatt., low-freq. approx. 2−101726
charges and monopoles, quantum field theory regularisation 2−84837
chiral mols., spin-polarised particles, inelastic differential cross section, quantum electrodynamics calc. 2−114071
compact QED, partition function expansion near weak coupling 2−113202
compact QED with an extended lattice action 2−89897
Compton heating and cooling and astrophysical jets 2−112318
confined magnetic charge, chiral anomaly, magnetostatics, integrability 2−101534
conformal invariance in QED 2−101634
Coulomb scattering of fast electrons 2−107608
critical phenomena in external fields 2−54045
Delbruck scattering, lowest-order amplitude calc. 2−107607
dimensional regularisation techniques, rel. to QCD and QED two-point functions 2−89910
Dirac equation, SL(2,C) invariant representation 2−95598
Dirac equation transformation props., derivation from EM principles 2−84832
dynamical mass generation without quark liberation in 1+1 dimensions 2−79809
$e^+e^-\rightarrow e^+e^-\mu^+\mu^-$, cross section meas., higher-order QED at small distances, expt. tests 2−59096
effective lagrangian and the Johnson-Baker-Willey function 2−54039
effective potential evaluation 2−84841
electron, self-energy due to EM interaction, vacuum fluctuation effects 2−107604
electron and monopole pair prod. rate at strong coupling in weak external fields 2−64265
electron field asymptotic limit, charged field construction 2−107605
electron Green function in Coulomb field, use of O(2.1) algebra 2−101632
electron magnetic moment at high temp., one-loop QED correction 2−107662
electron mass and anomalous mag. moment, finite temperature effects 2−59093
electron mass operator radiative corrections in two dimens. QED approx. 2−69398
EM field with Dirac's monopoles, canonical quantisation 2−79810
Euclidean $(QED)_2$ construction via lattice gauge theory, boundary conditions, vol. depend. 2−59089
experimental tests using positronium 2−75473
finite QED at small distances, Coulomb interaction modification 2−95731
finite temperature QED, mass generation 2−113198
free Euclidean EM field, Markov property 2−84834
gauge field theory, book 2−84399
gauge technique for massive electrodynamics 2−107602
Gell-Mann-Low function, restrictions calc. 2−84842
Hamiltonian formalation in superaxial gauge 2−113199
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
Heisenberg-Euler Lagrangian, representation by special functions 2−107600
infrared dynamics, application to electron form factor 2−107598
interaction of atoms and molecules with radiation confined in cavity 2−69399
IR phase factors 2−59092
Kallen's theorem and the unphysical nature of Abellian external fields in Yang-Mills theory 2−59014
Klein paradox, resolution 2−95732
lattice fermions, IR regularisation, rel. to θ-vacua in QED 2−69354
Lie groups and supergroups, Casimir operators, anomalies, eigenvalues 2−64238
local quantum field theory, analyticity, renormalisation group *(Russian)* 2−95655
locally gauge invariant charged states 2−84835
loop diagrams in boxes, appl. to QED and QCD vacuum 2−95634
Lorentz group nonlinear realisations, effect on electrodynamics 2−112699
magnetic bremsstrahlung gain, quantum theory, appl. to electron lasers 2−90853
magnetic flux line, circular, singular, rotation, EM field resulting 2−74642
magnetic interactions between stable particles, strong and weak force derivation 2−69402
mass operator behaviour in superstrong mag. field 2−89930
massive meson prod. in an external field, prod. probabilities *(Russian)* 2−113204
massless scalar electrodynamics, pair condensation 2−84836
Maxwell's equations and the multipolar Hamiltonian 2−112721
Maxwell's equations in the multipolar representation 2−112719
Maxwell's equations in the multipolar representation 2−112720
Millikan oil drop expt. modification to test existence of electrodynamic field 2−113205
Mo-Papas eqn. for charged particles, heuristic derivation 2−74641
muonium 2−85843
neutrino photoproduction on electrons in two dimens. QED approx. 2−59090
non-Abelian gauge theories, vacuum polarisation tensor 2−113141
nonlocal Bloch-Nordsieck model propagator, Green's function 2−59095
nonrelativistic quantum electrodynamics, scatt. matrix elements 2−84838
nuonium, ground-state hyperfine splitting corrections, QED 2−85842
orthopositronium decay rate, QED calc., electron self-energy contrib. 2−54991
pair production by accelerated charges ρ-meson prod., pulsars 2−64264
particle production in varying electric fields, spectral density *(Russian)* 2−113203
periodic QED models, U(1) gauge group with mixed actions, phase structure 2−84839
perturbative QCD, IR divergences, differences and similarities to QED 2−54055
photon, massless particle confinement 2−54041
photon in Coulomb field, pair prod. cross-section *(Russian)* 2−89931
photon pairs, correlated, motion, stochastic model 2−59023
photon propagator singularity in axial gauges 2−89929

quantum electrodynamics continued
photons and electrons, wave function eqns. 2−113200
physical state space 2−101630
Planck constant heuristic calc., critique of Barut 2−107597
plasma, relativistic electron-electron Bremsstrahlung, QED calc. 2−76090
plasma physics techniques for QED and QCD systems 2−64266
point particles, internal retardation 2−54040
positronium, singlet and triplet decay rates meas. 2−101635
QCD, Maxwell eqns., semiclassical approach 2−69407
quantization of gravitational and electric charges 2−53628
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quantum field theory of elec. and mag. charges, IR problem and radiation effects 2−89894
quantum vacuum energy in Taub-NUT-type cosmologies 2−117834
reciprocally invariant electrodynamics on quantum space-time 2−74640
reduction formulas 2−69347
relativistic electrons, in quantising mag. field, electron gas transverse transport 2−95733
S-operator for the external field problem of QED 2−107599
scalar QED, effective potentials, functional evaluation *(Chinese)* 2−89928
scalar QED, massive, coupling consts., temp. depend. calc. 2−101554
scattering in lattice gauge theories 2−53998
Schwinger-Dyson eqn. anal. for finite electron propagator 2−107601
Schwinger-Dyson eqn. for finite electron propagator 2−84833
searches for particle creation in strong static external fields 2−107610
semiclassical theory, evolution operator 2−113196
SI units appl. 2−95303
solid ball, with permittivity and permeability, Casimir stress 2−69400
spin 1/2 particles, conical refraction *(Russian)* 2−54042
spinor electrodynamics, generalised commutation relations 2−79737
spontaneous pair creation, Schwinger analysis 2−107606
state space problem 2−95734
statistical mechanics of quarks and hadrons, conf., Rielefeld, Germany (Aug. 1980) 2−53423
strong EM field, quantum theory, semiclassical representation 2−95728
strong interaction corrections to certain electromagnetic effects 2−101633
superheavy ion+atom collisions in quasimolecular model, nonperturbative QED testing 2−85796
supersymmetry breaking, Goldstino production 2−107556
symmetrical electromagnetic energy-momentum tensor from Noether's theorem 2−69397
tests using H, Mu and Ps, review 2−69403
theoretical advances, review 2−69401
three-dimensional lattice QED, string tension, upper and lower bounds calc. 2−101629
three-dimensional O(N) theories, vacuum stability 2−84840
time symmetric, absorber theory and the Kocher-Commins expt. 2−89513
topological particle structure probing by period integrals 2−95689
trace anomalies and QED in curved space 2−107596
two electron ions, atomic struct. theory and quantum electrodynamics 2−113849
two-dimensional, rel. to Schwinger model, vacuum struct., external field model. 2−58999
uncertainty relations 2−95729
vacuum medium props. in non-Abelian gauge theory 2−95730
vacuum polarisation due to invariant sources *(Russian)* 2−54043
vacuum rearrangement in strong electric and grav. fields, e^+e^- creation at stars *(Russian)* 2−107609
vacuum structure beyond QED 2−54044
weak link, current-biased, fluxoid tunnelling, QED theory 2−72117
zitterbewegung-possessing particles, generalised Fokker-Planck equation 2−107276
e^+-e^- gas, symm. props. of polarisation gas in mag. field 2−113201
$e^+e^-\to e^+e^-\gamma$, large impact parameter cut-off 2−95812
$e^+e^-\to\gamma X$, influence of macroscopic factors on bremsstrahlung 2−113261
e^+e^- PLUTO detector expts., review 2−79903
e^+e^- physics at PETRA, review 2−79856
$\gamma e^\pm$, phenomenology, QED tests, intermediate boson prod. 2−113262
$\gamma\gamma$, elastic scattering at high energy and fixed angle in QED 2−107603
γp, QED Compton effect, gluon distrib. function effect *(Chinese)* 2−107666
^{24}Mg, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{31}P muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{28}Si, muonic atoms, X-ray transition, QED test, μh interactions 2−59974

quantum electronics *see quantum optics*

quantum field theory
see also axiomatic field theory; Bethe-Salpeter equation; dispersion relations; gauge field theory; meson field theory; nonlinear field theory; quantisation; quantum field theory of elastic scattering; quantum field theory of interactions; Reggeon field theory; relativistic quantum field theory; renormalisation; scaling phenomena; Schwinger source theory; unified field theories
1/n expansion, critical exponents η and ν in order $1/n^2$ for arbitrary no. of dimens. 2−64224
4-dimens. field theories, failure of strong asymptotic conditions 2−53596
't Hooft's consistency condition for confining field theory from analytic S-matrix theory 2−107638
antisymmetric tensor field theory, geometrical approach 2−53958
boundary conditions, symmetry breakdown and Feynman path integral 2−95586
calibration fields with discrete symmetries 2−95604
closed time path Green's function, Dyson eqn. and Ward-Takahashi identities 2−53919
coherent state Jaynes-Cummings model, dephasing and revivals, quantum origin 2−101247
coupled quantum mechanical oscillators with independent Fermi systems, pseudo scalar interaction 2−74247
covariant representations of massless Fermi fields 2−95666
deformation theory in particle physics, fundamental concepts, physical theories 2−69318
dilation invariance, local approach, spontaneous scale breaking 2−59021
dimensional reduction from the infinitesimal point of view 2−107526
dynamical systems with constraints, Poincare-Cartan invariant form 2−107533
dyon field, fermion bound states 2−95642
effective potential subtraction scheme for theories with auxiliary fields 2−59028
entropy-to-energy ratio bound, possible violations 2−107197

quantum field theory continued
extended objects, position operators 2−101541
false vacuum decay and density of states in random, repulsive pot. 2−84476
Fermi fields, Galilei covariance and quasi-free representations 2−101522
Feynman amplitudes in momentum space, singularities 2−64223
Feynman integral for exponential interaction in 4-dimens. space-time 2−64225
field redefinition rules for auxiliary field searches 2−107521
finite temperature field theory, with boundaries, photon field 2−58992
free massless scalar field theory, local algebras, modular struct. 2−64213
fusion field of free massless spinor fields in two dimens. 2−79755
Godel Universe, scalar and neutrino fields 2−112623
Grassman algebra integrals, theories with Fermi fields 2−53986
Hartree approximation as high density limit 2−74134
integrable 2-dimens. quantum models, relativistically invariant quasiclassical limits 2−53987
integrable field theories, conf., Tvarminne, Finland (Mar., 1981) 2−84388
interacting locally supersymmetric field theories, field representations 2−54013
interface between QFT and stat. mech. 2−95663
internal collective motions and the large-N limit in field theories 2−53951
IR R-operation and UV counterterms in MS-scheme 2−107539
Jost-Lehmann-Dyson representation in the spaces S'_α 2−95695
large N expansion, local perturbation theory 2−79732
large-N planar models, collective coordinate method applicability, Wilson loops 2−64221
large-order perturbation theory 2−53559
local conservation laws for two-dimens. field theories 2−69328
Lorentz-invariant formulation, absence, consequences 2−101597
massless model, effective coupling and propagators, analytic props. 2−107490
massless two-dimens. models, bosonisation formula 2−113126
mathematical problems in theoretical physics, conf., Berlin, Germany (Aug., 1981) 2−94911
matrix superpropagators in non-polynomial theories 2−84786
modular automorphisms of local algebras in quantum field theory 2−101578
nonequilibrium statistical field theory, closed time path Green's function renormalisation 2−53918
nonlinear waves and quantum mechanics, book 2−58555
null aesthetic field theory, second-rank antisymm. tensor introduction 2−53928
odd-A nuclei, strongly anharmonic spectra, particle pairing vibr. coupling description 2−54279
one polygon (plaquette) model, large-N classical soln. 2−113107
one-dimensional anharmonic oscillators, quasiclassical calc. *(Russian)* 2−63856
order disorder variables, complete integrability, 1/N implications 2−54120
Pade approximants appl., book 2−79289
particle physics development, quantum field theory role 2−68996
path integrals and the WKB approximation 2−107065
pathology in indefinite metric inner product space 2−101512
perturbation at large order, conf. proceedings of international workshop (March 1981) 2−53412
perturbative field theory, approximation method theorems 2−64220
phenomenological lagrangians, multiple derivative terms 2−53961
planar field theories, planar QCD, planar Ward identities 2−113207
planar model, crit. exponent, one-dimens. quantum field theory calc. 2−79493
propagator for fermion field and quark confinement, spectral representation 2−101669
pure spinors as pfaffians connecting Clifford and Grassmann algebras 2−89893
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quasipotential equations reduction to Sturm-Liouville problems 2−89574
real Clifford algebras modulo 8 periodicity and particle phys. 2−113132
renormalisation logical justification 2−53915
renormalisation point dependence in simple scalar theory 2−89887
saddle point method, possibly ineffective for planar approx. 2−59035
scalar field, in δ-function pot., stress-energy tensor, vacuum expectation values *(Russian)* 2−64227
scalar field, of accelerated mirror interacting with quantum system 2−95603
scalar field theory, on symm. space 2−58993
scalars coupled to fermions in 0+1 dimensions 2−101571
scale covariant field theories, augmented scalar theory 2−107524
scale covariant field theories, pseudo-perturbation expansion 2−107523
scale covariant field theories 2−107522
second law of thermodynamics, violation by moving mirror in quantum field theory 2−84800
self-consistent field, particle interaction, exact solns. 2−95654
semiclassical non-perturbative effects 2−54005
spin-1 particles, vector field, dually invariant theory 2−113145
spinor field quantisation, bosonisation in 1+1 and 1+3 dimens. 2−53934
stochastic regularisation, superpropagator modification interpretation 2−95578
superconformal anomalies, algebraic characterisation 2−59016
supersymmetric dimensional regularisation 2−95673
topological invariants, search for differential geometry 2−101579
vector field reduction by invariant structures 2−89891

quantum field theory of elastic scattering
see also elementary particle scattering; relativistic scattering theory
effective electroweak Lagrangian for composite models 2−74635
fermionic Lagrangians, composite bilocal boson variable formulation 2−74611
gauge theory, Higgs fields, dynamical origin, singular fluctuation loops 2−89890
Hamiltonian lattice gauge theory, spacelike Wilson loops, deconfining roughening transition 2−69353
Lagrangian choice criterion, physical consequences 2−95643
Lagrangian field theory, perturbative, Feynman graphs, dispersion relations 2−58998
nonAbelian gauge theories, spont. symm. breaking, gauge hierarchy, Lagrangian, decoupling 2−74613
rest-inertia, rel. to number of generations 2−101561
strings, effective Hamiltonian, spatial symm. 2−64295

quantum field theory of gravitation
see also elementary particle gravitational interactions; gravitons; supergravity
$\lambda\phi^4$ theory, quartic self-coupling const., curvature effects in closed Einstein Universe 2−89601
antisymmetric tensor gauge fields and gravity, unified geometry 2−101289
asymptotic freedom in renormalisable theory 2−101287
axial gauge, Ward identities, in quantum gravity 2−53639
axial gauge, Ward identities, Yang-Mills theory, quantum gravity appl. 2−53966
axial gauge gravity, matter field infinities 2−63874
background quantisation at high frequency 2−79455
Bianchi Universes, quantum stationary states 2−117822
black hole event horizon area, Weyl geometry 2−106770
broken symmetry theories of gravity and implications for cosmology 2−84505
BRS transformation, superspace formulation 2−101291
canonical quantisation of gauge fields, gravitational field 2−53640
Casner metric, interacting scalar and EM fields, model isotropisation, quantum case 2−74140
complex scalar fields coupled with Zel'dovich fluids, cylindrically symm. solns. 2−107516
conference, New Orleans, LA (May 1981) 2−112646
conformal gravity and anomalies, de Sitter space, field theories 2−69077
conformal gravity quantisation, renormalisation of gravity, phase transitions 2−107214
conformally covariant spin-2 and spin-$^3/_2$ equations 2−63875
conformally invariant theories of Weyl-Dirac type 2−107586
cosmological, particle creation, single vacuum propagators 2−84357
cosmological constant, rel. to QCD colour charge 2−89600
cosmological constant and gauge-covariant theory 2−63727
cosmology, dynamical symmetry breaking by EM corrections 2−79262
coupling of gravitation in quantum field theory *(German)* 2−74298
curved space, book 2−84398
de Sitter model, singularity problem 2−101279
deformation theory in particle physics, fundamental concepts, physical theories 2−69318
Deser-Van Nieuwenhuizen algebraic vierbein gauge 2−84503
determinism, time symm. 2−84502
dynamical torsion in gravitational theory coupled to twist-tensor matter fields 2−101292
early Universe, scalar field, coherent-state representation 2−74136
Einstein gravity as a symmetry-breaking effect in quantum field theory 2−95205
Einstein open metric, vacuum instability, spontaneous broken symm. phase 2−74295
Einstein-de Sitter universe of radiating massive photinos 2−94880
Einstein-Dirac-Maxwell fields, exact solns., rel. to massive neutrinos 2−74297
energy release mechanism in astrophysical objects 2−100733
energy-momentum tensor regularisation *(Russian)* 2−74306
EPR paradox resolutions, quantum mechanics 2−95150
equivalence principle 2−74304
exact solution of quantum gravity in 1+1 dimensions 2−79457
exactly soluble moving-mirror problem 2−107218
extended Becchi-Rouet-Stora invariance for gravity via local OSp(4|2) supergravity 2−101293
extended BRS symmetry, superfield approach 2−79456
extended Maxwell-like gravitational field eqns., astrophysical consequences 2−106496
foliation analysis of gravitation singularities 2−112790
gauge field interactions from extra dimensional gravity 2−84499
gauge field theory, book 2−84399
gauge formulation of gravitation theories 2−95195
gauge gravitation theory, relativity and equivalence principle 2−63880
gauge theories of gravity, Hamiltonian dynamics 2−84506
gauge theory of gravitation and nodal singularity 2−74303
gauge unification of relativistic and unitary spin 2−74632
general affine gauge gravity, short range component, quark confinement 2−59030
generalised theory of gravitation, field redefinition of string Lagrangian 2−95169
geometrodynamics in multidimensional unified theory 2−95185
gravitational charge quantisation condition, grav. dyons 2−112789
gravitational field with Heavisidean monopoles, linear eqns., quaterionic form 2−63881
gravitational interaction from a relativistic viewpoint 2−101275
graviton self-energy in general axial gauge 2−69076
gravity, Dirac Hamiltonian formalism 2−95203
gravity as an EM quantum phenomenon 2−84117
gravity theories with asymptotically flat instantons 2−58678
half-integral spin from quantum gravity 2−107215
heat kernel expansion, induced quantum gravity 2−84504
higher dimensional gravity, spontaneous compactification 2−95199
HKX transformations, new representation 2−89602
induced gravity, upper bound 2−101290
integer-spin radiation fields, isolated systems 2−74301
internal Yang-Mills theory of Poincare group 2−53633
Kahler manifolds, four-dimensional geometry 2−101288
Kaluza-Klein theory and extended BRS symmetry 2−107219
Kerr black hole, relativistic particle nongeodesic motion, radiation emission 2−53623
linearised theory of gravity, quantisation 2−107217
linearly expanding universe, quantised scalar field behaviour at low energy 2−112617
matter fields, cosmology, topology and field theory 2−101101
measurement of gravitational field, quantum gravity indirect evidence 2−53651
measurement of gravitational field, quantum gravity indirect evidence 2−53652
neutrino interactions effect, Dirac formalism 2−74010
non-self-dual nonlinear gravitons derived from complex space-times 2−107216
nonlinear waves and quantum mechanics, book 2−58555
parametrised post-Newtonian metric, gravitational deflection of light 2−112791
Planck length, conceptual understanding 2−107191
Poincare gauge theory, gravitational singularity 2−58681
propagation amplitude, strong coupling limit, explicit soln. 2−53642
quantization of gravitational and electric charges 2−53628

quantum field theory of gravitation continued
quantum gravity and the structure of scientific revolutions 2−53643
quantum hydrodynamics of self-gravitating matter 2−95206
quantum vacuum energy in Taub-NUT-type cosmologies 2−117834
quaternionic metrics and SU(2) Yang-Mills 2−95196
recursive formula for evaluation of diagonal matrix element, appl. to semiclassical theory 2−95197
relativistic point particle and quantum mechanics of gravitational field 2−95200
relativity, Hermitian theory, static symm. solns., generalisation to vacuum fields 2−69075
relativity and equivalence principles in gauge theory of gravitation 2−58683
renormalisation, background field method, gravity and Yang-Mills theory 2−107507
scalar spherical waves expansion in gravit. field with quadrupole struct. second order approx. *(German)* 2−107199
scalar-tensor gravitation theories, Weyl scalings, spinor matter interactions 2−58682
scalar-tensor theory, possible finite range gravitation forces, composition independ. 2−74300
schiff's conjecture on gravitation 2−112761
semiclassical gravity, flat spacetime instability, quantised matter coupling 2−89603
sixteen dimensional Noether supercurrents in indefinite metric quantum gravity 2−58680
SL(2,C) gauge theory of gravitation and Noether's theorem, conserved vector current 2−95198
small cosmological constant, model using twisted symm. breaking on projective hypersphere 2−53641
space-time, fermionic substructure 2−74302
space-time model from quantum mechanics 2−112787
spatial topology and Yang-Mills vacua 2−112788
spin $^1/_2$ particle, gravitational anomalous magnetic moment 2−74299
spinor field representation of Stiefel-Whitney class 2−101547
spinor gauge fields and gravitation *(Chinese)* 2−95204
spontaneous symmetry breaking in noninertial frames and curved space-time 2−74279
spontaneously broken conformal gauge theory of gravitation 2−58679
stress energy in nearly conformally space-times, correction of formula 2−95202
super-luminal communication in EPR expts. 2−89606
tetrad gravity fields, unification of fermions and gauge bosons 2−113118
three dimensional massive Yang-Mills and gravity theories 2−64218
topologically massive gauge theories, gravity models in 3D space-time 2−95194
transverse Schwarzschild external field 2−95201
two Heavisidean monopole system energies 2−63882
two-loop quantum gravity, absence of leading divergences 2−112785
unified field theory, symmetric affine connection 2−95184
unifying physical theory, derivation from quantum theory 2−112786
Universe, inflationary, graviton creation and grand unification scale 2−112628
vacuum rearrangement in strong electric and grav. fields, e^+e^- creation at stars *(Russian)* 2−107609
Yang eqn. generalisation, gravitational gauge field eqns. *(Chinese)* 2−69314
Yang-Mills field, algebraic interpretation 2−107211
Yang-Mills theory, maximum four-dimens., post Newtonian approx. 2−74305
Yang-Mills theory in a multiply connected three space 2−95207

quantum field theory of interactions
see also elementary particle coupling constants; elementary particle interactions; Feynman diagrams; quantum electrodynamics; quantum field theory of gravitation; quantum field theory of strong interactions; quantum field theory of weak interactions; vertex functions
Bose systems, quantum field theory, higher effective actions 2−89888
complex scalar fields coupled with Zel'dovich fluids, cylindrically symm. solns. 2−107516
interaction-line descriptions of fields 2−79734
W-T identities, interacting vertices in non-Abelian gauge thoery 2−59001

quantum field theory of strong interactions
see also elementary particle strong interactions; Lee model
asymptotic freedom requirements, asymptotic convergence, convergent resummation in QCD 2−59107
atomic mechanics, hadronic generalisation, interior strong problem, bimodular genoptic Hilbert space formulation 2−113111
atomic mechanics, hadronic generalisation, modular isotopic Hilbert space formulation for exterior strong problem 2−113256
calculus of variations, inverse problem, general soln. 2−113257
lattice QCD, quark-antiquark state in strong-coupling limit 2−84851
quantum theory, hadronic generalisation, Heisenberg and Schrodinger representation 2−113255
quark-gluon dynamics, Monte Carlo studies 2−79733
e^+e^- annihilation, QFT in momentum space of const. curvature 2−101567
πN, strong coupling of particle and quantised field with internal degrees of freedom 2−64222

quantum field theory of weak interactions
see also elementary particle weak interactions; Weinberg model
gauge field theory, book 2−84399
lepton-nucleon scatt. and neutrino puzzle 2−54129
Majoron emission by neutrinos in Gelmini-Roncadelli gauge model 2−54048
$SU(2)\times SU(2)_R$ theory, strong bounds on weak couplings 2−95711
weak interactions and dispersion relations in localised axiomatic field theory 2−89918

quantum fluids
see also boson systems; fermion systems; liquid helium
boson fluid, ground-state wave function struct. 2−98362
boson fluid mixtures, stability 2−98379
constant density thermodynamic perturbation theory 2−58698
many-particle physics in solid state theory, book 2−68981
perturbation theory at high temp. 2−104091
physical kinetics, theoretical aspects, book 2−58569
spin fluids, two-dimens., vortex dynamics, Heisenberg model 2−104094
spin polarised, internal energy, lower-bound formula and quantum theory of corresponding states 2−71768
zero temperature, parquet diagram alternatives to variational calcs. 2−104092

quantum fluids continued
D, spin aligned, ground-state energy, Monte Carlo calc. 2−86972
D, spin polarised, quantum gas props. 2−110088
H, atomic, spin polarised, ballistic heat pulses to 200 mK 2−82078
H, atomic, stabilisation 2−56298
H atoms, spin polarised, recombination calorimetry at liq. He temps. 2−92307
H, spin polarised, hydrodynamic modes 2−82076
H, spin polarised, on ^{4}He superfluid film, third sound 2−82077
H, spin polarised, quantum gas props. 2−110088
H, spin polarised, surface mag. relax. rates 2−82079
H spin polarised atomic, adsorbed on ^{4}He film, spin relax. 2−82067
H, spin-polarised, confinement, prod. and props. 2−71770

quantum generators (optical) *see lasers*

quantum mechanics *see quantum theory*

quantum numbers *see quantum theory*

quantum optics
see also nonlinear optics
atomic beam, slowing down by reson. laser beam, theory 2−108431
atomic radiative interactions *(Russian)* 2−108437
atomic superradiance modal structure in long cylinder, numerical calc. 2−80558
atoms, forward laser light scatt. in mag. field, perturbation theory 2−96515
bistability, generalised coherent state P-representation 2−97097
bistability, semiclassical and quantum statistical dressed mode description 2−102855
chemical potential of radiation, appl. to two-level systems 2−90849
coherent state propagator, path-integral approach to quantum optics 2−90854
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268
conference, Cetniewo, Poland (Sept. 1981) 2−89428
cooperation in optical bistability system 2−97093
cooperative states and reson. fluorescence 2−85588
cooperative systems, single atom fluctuations spectrum 2−102757
crystalline luminescence, overlap integral calculus in optical transition *(French)* 2−104926
diodes, fundamental noise sources, theory 2−104442
dispersive optical bistability with fluctuations, Fokker Planck eqn. 2−97090
driven Dicke model and its macroscopic extension, bistability or bifurcation 2−96869
Einstein-Podolsky-Rosen paradox and Bell's theorem 2−101234
first order phase transition analogies, complex order parameters 2−96870
four level atomic system, Autler-Townes effect study 2−85929
free electron laser, single-particle theory 2−75583
free electron laser, spontaneous radiation, squeezed coherent state generation 2−55175
gaseous system, stimulated Raman effect quantum statistics 2−102872
gaseous system, third harmonic generation, quantum theory 2−55253
general relativity, gravit. wave detect., quantum optics foundations, NATO advanced study institiue report 2−75546
harmonic generation, photon antibunching and squeezing 2−102873
laser diode, directly modulated, quantum intensity noise 2−75578
laser-switched collision processes, diagrammatical anal. 2−55098
lasers and laser light, theory, lectures 2−96886
light pulse evolution, effects of propag., transverse mode coupling and diffr. 2−97098
linear system, optical pulse propag., pulse area 2−70501
luminescence, anti-Stokes, diagonal density matrix 2−55100
magnetic bremsstrahlung gain, quantum theory, appl. to electron lasers 2−90853
molecular vibration parametric excitation, laser-chem. reactions, quantum approach 2−108638
multi-atom system, coherent radiation and entropy increase, theory *(Chinese)* 2−90848
multilevel system excitation, superselectivity, adiabatic switching on of resonant radiation *(Russian)* 2−96867
multilevel systems, light-induced drift 2−108840
multilevel systems, refr. index, nonperturbative quantum calc. 2−60053
multilevel systems driven by exponential or semiexponential pulse, Schrodinger eqn. soln. 2−108845
multipolar hamiltonian, derivation 2−55102
n-level quantum system, boson representation for SU(n) generators 2−90850
nonlinear optical parametric up conversion, coherent interaction, statistical and coherence effects 2−108961
nonlinear optical parametric up conversion, incoherent interaction, statistical and coherence effects 2−108962
open systems, laser dynamics and optical bistability, quantum statistical treatment 2−96871
parametric amplification processes, noise amplification in quantum theory 2−70606
photon 2−75549
photon correlation experiment, delayed choice obs., quantum eraser 2−85927
photon dynamics in physical space 2−70532
populated upper state effect on quantum statistics 2−60050
quantum paramagnetic travelling-wave amp. with constant slow wave w.r.t. group velocity in tuning band 2−60057
resonance medium, EM noise charact. filtering under collision, radiation trapping conditions 2−90851
resonance-light pressure, theory 2−90847
resonant medium, 3 polarised wave interaction 2−65160
ring cavity, multimode optical bistability with trilinear interaction, quantum statistics 2−108932
ring-laser gyros, quantum noise in unlocked region 2−90943
Rydberg superradiance 2−60055
self-trapping light waves and quanta, towards wave-photon duality explanation 2−108984
spontaneous emission, vacuum fluctuations role 2−70530
squeezed states in the Jaynes-Cummings model 2−85926
stochastic averages, functional integration calc. 2−90846
Stokes modes, first and second order, correl. and anticorrel. effects 2−75548
summer school in quantum optics, Natal Drakensberg, South Africa (Jan. 1981) 2−94881
superradiance and inhomogeneous broadening, spontaneous emission by two detuned sources 2−60051

quantum optics continued
superradiance and inhomogeneous broadening, spontaneous emission by many detuned sources 2−60052
three-atom system, incoherently and continuously pumped, cooperative radiation, photon correl. 2−80527
three-level atomic system, two-mode laser operation, quantum theory 2−85935
three-level atoms, laser field interactions, precision study 2−59763
three-level quantum system, optical selective excitation not limited by field broadening 2−85931
three-level quantum systems, nonlinear const. of motion 2−70533
total internal reflection theories from amplifying media, possible critical expts. 2−96865
two-atom cooperative system, reson. fluoresc. and absorpt. spectrum, dispersion forces effect 2−96500
two-atom system coherently driven by laser field, reson. fluoresc. intensity correlations 2−96501
two-level atom, deflection and internal dynamics dressed by reson. standing wave 2−59758
two-level atom, EM field interaction, Jaynes-Cummings model, photon statistics 2−85930
two-level atom, reson. fluoresc., detuning effect 2−54799
two-level atom with variable transition freq., dynamics in reson. light wave field 2−108841
two-level atoms, collective reson. fluoresc., S-conserving theory 2−85928
two-level quantum system, luminesc. and scatt. in reson. secondary radiation 2−93255
two-level system driven by chaotic radiation, quantum revivals calc. 2−102756
zero-point fluctations, quantum noise and spontaneous-emission noise, relevance in communication systems 2−90855

quantum solids
see also solid helium
H_2, ordered solid, IR absorpt. spectra, theory 2−104112

quantum statistical mechanics
see also jellium; many-body problems; quantum fluids; quantum solids; quantum theories of fluid structure
adiabatic processes in condensed phases, quantum stochastic Fokker-Planck theory 2−89615
Bethe-ansatz quantum sine-Gordon thermodynamics, excitation spectrum 2−101367
bion, theory in one-dimens. sine-Gordon system, quantum statistical mech. 2−53662
black holes, appl. to thermodynamic entrop/energy ratio 2−94767
Bose systems, bimodality and long-range order 2−112808
boson system, classical quantum crossover in large n-limit 2−101309
boson systems, degenerate, canonical transform., extended convolution approx. 2−74317
C* dynamical system, KMS states spectral characterisation 2−74316
Cantoni's generalized transition probability 2−53549
chaos, quantum recurrences and Anderson localisation 2−101227
classical electrodynamic noise, equations of state, Schwinger renormalisation group 2−84533
classical sine-Gordon model, 2-dimens., Kosterlitz-Thouless transition 2−112810
control of quantum statistical systems 2−95231
Coulomb system, infinite one-dimens., time evolution 2−84525
covariant observable densities, in Hilbert space 2−63895
density functional theory, Maxwell relations, Legendre transforms 2−95223
driven systems, eqns. of motion, variational technique 2−101311
dynamical semigroups, path integrals and stationary phase approx. 2−95230
Ehrenfest theorem and information theory 2−112811
enclosed quantum mechanical systems, hypervirial anal. 2−79400
energy gap, clustering and Goldstone theorem in statistical mechanics 2−74350
equilibrium states, continuous symmetry, absence of spontaneous breakdown 2−58726
equilibrium systems, exact eqns. for correl. moments 2−58765
Euclidean invariance, rel. to clustering 2−63892
Fermi-Dirac statistics appl. to defects in solids 2−56481
Fokker-Planck eqns., class of exact solns. 2−95279
free boson systems, condensation 2−58697
generalised virial relations, subdynamics theory 2−84524
generalized Fokker-Planck equation for quantum systems 2−95234
hadron interferometry, dynamics vs. symmetrisation 2−53661
Heisenberg spin system, quantum statistical Monte Carlo method 2−89613
interacting bosons, Fermi-Dirac and Bose-Einstein statistics 2−79465
interacting fermions, Fermi-Dirac and Bose-Einstein statistics 2−79465
Jaynes' information theory approach to statistical mechanics 2−95217
Jordan's boson representation for the one-dimensional two-fermion model 2−112806
kinetics of relaxation transitions between multilevel quantum states 2−101239
Legendre transformations and equations for Green's functions 2−53985
Liouville space theory of sequential quantum processes, appl. to system with internal reservoir 2−95227
Liouville space theory of sequential quantum processes 2−95226
massive sine-Gordon eqn. in first few regions of collapse 2−53925
monopole+charged particle composites, mag. flux, ang. momenta, statistics 2−69051
non-linear oscillators under excitation, fast phase relax. in non-monochromatic external field 2−101308
nonadiabatic processes in condensed phases and on surfaces, quantum stochastic theory 2−89616
nonequilibrium, collision and destruction operators, analytical continuation, spectral deform. method 2−63893
nonequilibrium, collision operator singularity, rel. to pseudo Markovian eqn., Lee model appl. 2−63894
nonequilibrium statistical mech., formalism, N.S. Krylov theorem 2−112815
nonequilibrium statistical operator, Markov-form integral eqn. including memory effects 2−53670
nonequilibrium system, quantum virial expansions, collision integrals *(Russian)* 2−53664
nonexponential decay, criteria 2−112812
one-body response formulas and generalised Boltzmann equations 2−53659

quantum statistical mechanics continued
open systems, coherent state propag. 2−84526
open systems, laser dynamics and optical bistability, quantum statistical treatment 2−96871
optical bistability, semiclassical and quantum statistical dressed mode description 2−102855
orthosymplectic Lie superalgebras, para-Bose and para-Fermi operators as generators 2−95086
physical systems, correl. functions of fluctuation forces, Langevin eqn. appls. 2−53675
probability distribution law in quantum statistics 2−53658
quantum dynamics, recurrence phenomena 2−58653
quantum thermal mixture, harmonic oscillator and thermal bath, stochastic description 2−63903
Schrodinger-like equations, nonlinear, dissipative, master eqn. derivation 2−79466
self gravitating fermions, thermodynamic quantities model 2−58244
semiclassical Coulomb system, in periodic boundaries, lattice sums 2−69086
singular Kirkwood-Salsburg eqn., soln. existence and stability 2−101313
spatial Bose condensation, cluster size distrib. 2−101312
spin systems, inverse problem in statistical mechanics 2−101307
strongly positive semigroups and faithful invariant states 2−101197
thermodynamical system, generalisations of KMS boundary condition 2−95294
transition moments for linear potentials 2−95225
Turing machines, with no energy dissipation, quantum mech. models 2−79424
universal electron density functional, explicit formula 2−95222
Van Hove two-time resolvent method, quantum kinetic equation, three-particle scattering 2−112809
variational principle, unified, for statistical and quantum mechanics 2−89610
variational quantum mechanical principle for statistical mechanics 2−89611
Wigner distribution function, positive-definite, appls. 2−107231
zitterbewegung-possessing particles, generalised Fokker-Planck equation 2−107276
H, quantum mechanical second vivial coeff., effect of internal variables *(French)* 2−95224

quantum statistics *see quantum statistical mechanics*

quantum statistics of many-particle systems *see quantum statistical mechanics*

quantum theories of fluid structure
see also liquid theory; quantum fluids
correlations and quantum decay law 2−60855
dense gas, kinetic equations with bound states 2−109438
quantised polarisable fluid, eigenmodes 2−109646
Ne, liquid, thermodynamic props. calc. *(Russian)* 2−115436

quantum theory
see also Clebsch-Gordan coefficients; complementarity; correspondence principle; indeterminancy; perturbation theory; quantisation; quantum field theory; spin hamiltonians; wave mechanics
ϕ^4-kinks, diffusion const., quantum corrections 2−112817
accidental degeneracies in quantum mechanics and the symmetries of the classical Hamiltonian 2−58651
Aharonov-Bohm effect, electron holography test 2−74262
Aharonov-Bohm effect, elimination from quantum theory 2−53581
Aharonov-Bohm effect, exptl. demonstration of winding number depend. 2−74258
Aharonov-Bohm equation, soln. using gauge transformation 2−101225
Aharonov-Bohm scattering, Schrodinger eqn., diffraction 2−58639
almost periodic Schrodinger operator, density of states, frequency module 2−107135
analytic SU(3) states in a finite subgroup basis 2−101208
angular momentum, book 2−74172
angular momentum on lattice 2−107170
angular momentum-angle commutation relations and minimum uncertainty states 2−95104
anharmonic oscillator, 1/N expansion 2−69034
anharmonic oscillator, complex energy eigenvalues, semiclassical calcs. 2−84466
antisymmetrised geminal power and projected AGP wavefunctions 2−79390
application to mol. problems 2−95119
approximate simultaneous meas. of noncommuting observables 2−101223
asymmetric double minimum potential, higher-order semiclassical quantisation 2−74244
atom-ellipsoid scatt. quantum theory, model for atom-molecule inelastic collision 2−90662
atomic, molecular and solid state theory, and computational quantum chemistry, conference, Flagler Beach, FL, USA (March 1981) 2−79267
atoms in elec. field, continuum eigenfunction expansions and resonances: a simple model 2−84416
Bargmann transform, Zak transform, and coherent states 2−74349
barrier penetration via path integrals 2−107066
barrier transmission, linear passive dissipation effect 2−79423
Bell's inequalities, expt. tests 2−95127
Bell's inequality and quantum correlations 2−107062
Bell inequality generalisation, quantum violations 2−107143
Bell inequality violation in classical macroscopic situation 2−84471
bi-Hamiltonian systems, algebraic struct., review 2−69033
bivariational problems, linear group approach 2−63835
Bohm's quantum mechanical potential, relationship to modified potential 2−112744
Bohm-Bub hidden-variable theory, partial meas. 2−58635
Bohr-Sommerfeld quantization with the effective action variable 2−74263
book 2−68975
book 2−84404
Bose functions, convolution identities for quasiprobabilities 2−107129
bound, antibound and resonant states, overcompleteness set 2−53570
C*-algebra, limits of states 2−101198
Caldirola-Montaldi eqn. for quantum dissipative system, related approx. methods 2−107162
calibration theories without Faddeev-Popov ghosts *(Russian)* 2−79425
canonical structure of soliton eqns. 2−95109
canonical transformations and Hamiltonian path integrals *(Russian)* 2−53595
canonical transformations as integral transforms. 2−69053
Cantoni's generalized transition probability 2−53549

quantum theory continued
cellular vacuum array model 2−95058
central potentials, off-shell Jost solns., explicit forms 2−84465
chance theory, appl. to quantum mechanics *(French)* 2−89570
chaos, quantum recurrences and Anderson localisation 2−101227
chaotic states of almost periodic Schrodinger operators 2−107169
charged particle bound states, theory in resonance media 2−95116
charged particle scatt. in mag. and laser fields, nonlinear bremsstrahlung 2−95136
charged particle wake, quantum theory 2−53545
charged scalar particle in Coulomb field, quadratic Hamiltonians 2−101238
classical and quantum mechanics, comparison, for teaching purposes 2−112676
classical mech. formalism 2−107142
classical photon behaviour, relativistic Hamiltonian description, Aspect expts. interpretation 2−53571
classical quasiperiodic motion, quantum analog 2−80436
classical statistical quantum theory, 4-velocity divergence 2−53561
classical stochasticity, quantum manifestations, bound states wave packets dynamics 2−101319
classical stochasticity, quantum manifestations, rel. to nonlinear systems energetics 2−101318
coherent state Jaynes-Cummings model, dephasing and revivals, quantum origin 2−101247
collective motion theory in many-body quantum mechanics, valleys and fall lines on Riemannian manifold 2−74202
collisions and umbilic catastrophes, control parameters for uniform S-matrix approx. 2−101215
commuting functions of noncommuting operators 2−94957
complex numbers, statistical meaning in quantum theory 2−89559
complex path integrals and finite temperature 2−107141
complex Schrodinger config. plane, rel. to one-dimens. quantum theory representations 2−112724
composite system on a light front, vector of state angular condition *(Russian)* 2−69055
conference, New Orleans, LA (May 1981) 2−112646
consciousness, wave logic hypothesis 2−58586
conservation laws associated with Lax equations 2−74251
constrained Hamiltonian system, physically equivalent points, generators 2−63842
constraints in quantum mechanics 2−89568
constraints in quantum mechanics 2−107157
coupled oscillators, normal modes, symmetry breaking, group theory 2−79407
coupled quantum mechanical oscillators with independent Fermi systems, pseudo scalar interaction 2−74247
coupled quantum system, factorisation, damped nonlinear Schrodinger eqns. 2−53582
coupled quantum system, separation yielding nonlinear Schrodinger eqn. 2−112723
crystal, particle-in-box model, electric field effect, hypervirial perturbation treatment 2−79419
de Broglie's phase waves, phys. props. 2−63783
de Broglie wave meas. set-up 2−89561
decay theory, long time tails 2−89565
decaying quantum states, stochastic mech. approach 2−74253
defect theory, Coulomb functions analytic in the energy 2−53557
degeneracy in the particle-in-a-square problem 2−94963
degeneracy onset in confined systems 2−107174
dephasing in isolated one-dimensional quantum systems 2−89554
desorption, electron stimulated, of H_2 and O_2 from W, quantum effects 2−76801
desorption rate constants, quantum theoretical evaluation 2−87074
diatomic molecules, multiphoton dissociation, time independent quantum mechanical theory 2−102556
Dirac wave equation implications 2−113112
direct interactions of particles 2−112745
discrete mappings, stochasticity, quasi-classical approx. 2−79417
discrete quantum theory 2−89556
discrete rotation spectra in central symmetric fields of force moments *(Russian)* 2−84481
discrete spectrum absence in very negative ions, extension to fermions 2−107137
dissipative quantum-mechanical system dynamics, complex pot. and Feynman integrals 2−95040
distance between quantal states, statistical inference, projection postulate 2−63831
divergent perturbation, Pade approximants, generalised Euler transformation 2−101203
double Gel'fand states, explicit expressions, group theory 2−63846
dynamic stochasticity in nonlinear quantum systems 2−101570
dynamical systems, symmetries and first integrals 2−59054
dynamical systems with constraints, Poincare-Cartan invariant form 2−107533
Ehrenfest theorem and information theory 2−112811
eigenfunction decay in N-body quantum systems 2−95124
eigenvalue problem, associated with Feynman path integration 2−74257
Einstein-Podolsky-Rosen and Bell paradoxes resolution 2−69052
Einstein-Podolsky-Rosen argument, 'no-interaction' assumption 2−101219
Einstein-Podolsky-Rosen paradox, generalised reality criterion 2−89555
Einstein-Podolsky-Rosen paradox and Bell's theorem 2−101234
Einstein-Podolsky-Rosen physical reality description 2−101221
Einstein-Podolsky-Rosen-Bohm gedankenexperiment, expt. realisation, Bell inequality violation 2−89566
electrodynamics, time symmetric, absorber theory and the Kocher-Commins expt. 2−89513
electron densities in search of Hamiltonians 2−112739
electron surface polariton interaction, electron transmission expt. appl. 2−87354
electron-molecule elastic scatt. operator, energy depend. 2−114104
enclosed quantum mechanical systems, hypervirial anal. 2−79400
enclosed system, linearly perturbed, hypervirial methodology 2−69036
energy band theory, transition between E_4 and M_4 solutions *(Chinese)* 2−79426
energy spectrum calculation of quantum mechanical system 2−84473
expectation values, quantum mech. trace formulation, rel. to classical probability 2−58634
fermionic coordinates, supersymm. display 2−58645
Feynman integrals, Cameron-Martin formula 2−101243

quantum theory continued
Feynman path integral and Poisson processes with piecewise classical paths 2−53566
Feynman path integrals and the trace formula for the Schrodinger operators 2−53550
Feynman-Goldstone diagrams, permutation group classification 2−79402
finite-dimensional quantum theory 2−79403
fixed-shell statistical atomic models with piecewise exponentially decaying electron densities 2−90424
Fock space, universal wave and energy operators 2−107146
force measurement, quantum amplifier limits 2−84590
foundation based on microsystems 2−95129
foundation defects 2−95130
free charged particle in nonuniform mag. field and laser field, quantum mechanical states 2−58644
free wave packet spreading 2−79312
gauge-invariant Brownian motions and nonrelativistic quantum mechanics 2−107159
Gaussian channels and quantum mechanics 2−53575
Gaussian functional measures, nonstandard infinite dimensional vector space approach 2−95076
general lower bounds for reson. in one dimension 2−112722
general quantum meas., local transition maps 2−74239
generalized coordinates in quantum mechanics 2−107175
generalized Fokker-Planck equation for quantum systems 2−95234
geometric analysis, co-Riemannian metric 2−112726
geometric methods in quantum many-body problems 2−95125
geometric model, maximal acceleration hypothesis 2−84472
grating, particle scatt., relation between general relativity and quantum theory 2−58636
Green's functions for the rapid computation of nonrelativistic wave functions 2−112738
group representation theory, permutation group quasistandard bases and unitary group Gelfand bases 2−53547
group representation theory for finite-groups, commuting operators method 2−53546
group representations in Liouville spaces and algebraic approach 2−63849
hadronic generalisation, Heisenberg and Schrodinger representation 2−113255
half-plane barrier, exact time depend. Green's function 2−101228
Hamiltonian systems, isospectral eigenvalue problems use obtaining hereditary symmetries 2−95080
Hamiltonian systems, time evolution with regular and irregular spectrum 2−107131
harmonic oscillator, symmetry group in Hamiltonian formalism 2−95084
harmonic oscillator representation, Coulomb matrix elements 2−53567
harmonic oscillators, perturbed, connections between perturbation theory and Van Vleck transformation 2−63837
Heisenberg eqns. of motion in Caldirola-Montaldi procedure 2−58646
hidden variables, joint probability and Bell inequalities 2−89567
hidden variables theory, two photon correl. test 2−63857
highly negative ions, existence, quantum many-body problem, geom. methods appl. 2−107136
Hilbert space, von Neumann algebra 2−95045
Hilbert space formulation, logic, book 2−74174
hindered rotors, infinite conical well analytic model 2−101226
Hylleraas-Undheim theorem, proof 2−69046
hyperfine structure, Pauli's 1924 note 2−79320
hypervirial relations for bounded systems 2−79401
hypervirial rels. for box pot. and harmonic oscillator models 2−63834
incompatible spin components, stochastic space meas. 2−79394
instanton gas parameters in the double well model 2−101573
instrumental complexity of states 2−58633
integrable 2-dimens. quantum models, relativistically invariant quasiclassical limits 2−53987
integrable systems, Goryachev-Chaplygin problem, exact soln. 2−79412
integrable systems in multidimensional spaces 2−95132
integrals involving Bessel functions, hypervirial calc. 2−53563
intermittency, exact solns. to Feigenbaum renormalisation group eqns. 2−84538
invariance transformations and AGP optimization 2−79389
isolated system, Josephson phase coherence, amplitude superposition 2−79421
joint distrib., quantum correl. and commuting observables 2−95092
Jordan algebraic approach 2−95094
jump processes, appl. to quantum theory and relativistic Bose field theory 2−101572
Kaup-Newell system, canonical struct. of soliton eqns. 2−95110
kinetic equation for quantum system interacting with phonon field 2−89575
kinetics of relaxation transitions between multilevel quantum states 2−101239
Klein-Gordon equation, ground-state logarithmic perturbation theory appl. 2−64889
Kochen and Specker's impossibility proof 2−95098
Kubo-Martin-Schwinger condition, group duality 2−101199
Langevin equation for particle in dissipative medium 2−107165
Laplace operator, spectral problem, eigenvalues, asymptotic determ. *(Russian)* 2−69032
Laplace transforms of Airy functions 2−107151
large N expansion, local perturbation theory 2−79732
large N expansions, semi-classical perturbation theory for quantum mechanics 2−95108
large N limits as classical mechanics 2−79427
large-order perturbation theory 2−53559
Legendre functions, family of sums of products 2−95075
Lie-admissible spin algebra and neutrons interaction with elec. field 2−95678
Lowdin's partitioning theory 2−101200
magnetic flux quantum, elementary derivation 2−84410
magnetism theory, statics and dynamics, book 2−68978
many electron system, Schrodinger fluid dynamics, density-functional framework 2−95221
many-body systems, decaying states, variational approach, generator coord. method 2−74238
Markov methods of analysis of stochastic quantum dynamics of quasiclassical open systems 2−95115
materials, quantum mechanics 2−95112
mathematical problems in theoretical physics, conf., Berlin, Germany (Aug., 1981) 2−94911
quantum theory continued
mathematical structure, relation to operationally definable physical principles 2−95128
matrix transformation, appl. to quantum mech. problems 2−79339
mean position operator 2−79411
measurement systems and Jordan algebras 2−112732
measurement theory, space-time theories *(Hungarian)* 2−101264
metal film, surface magnetoplasmons, quantum theory, RPA approx. 2−82259
metastable atom reflection at surface, quantum theory 2−99260
microscopic stress tensors, dynamical derivation 2−79393
minimum-uncertainty coherent states for time depend. systems 2−95106
modified effective-range function 2−112740
molecular ions, molecular struct., and interaction with matter, conference, Haifa, Israel (Jan. 1981) 2−53410
monopole+charged particle composites, mag. flux, ang. momenta, statistics 2−69051
multiple surface mol. motion, t-matrix approach 2−85614
muonic He, one-dimens., theory 2−79327
N-body Calogero system quantum soln., projection method anal. 2−79422
N-body Green's function, expansion using distorted field solns. 2−107128
N-body problem, related combinatoric result 2−53569
n-point functions, for differential eqns. with source, diagrammatic soln. construction 2−63853
Nelson process, sample-wise characterisation, two-sided continuous local semimartingales 2−112819
NMR, Bloch equation, associated dynamical map, positivity 2−58638
noise and quantum nondemolition meas. 2−95102
non-bijective canonical transform., quantum representation 2−101207
non-negative quantum mechanical distrib. function 2−107161
nonadiabatic coupling matrix elements, perturbative determ. 2−70126
nonadiabatic scatt. problems, generalisation of geometric optical series approach 2−69038
nonbijective canonical transformation theory in mechanics, appl. to Coulomb problem 2−94992
noncommutative integration theory 2−101196
nondegenerate quantum system, EM field interaction, gauge-invariant time-depend. perturbation theory 2−63843
nonequilibrium stochastic transitions and quantum-mechanical tunnelling 2−112735
nonexponential decay, criteria 2−112812
nonlinear Hamiltonian system, evolution of quantum props. of physical quantities 2−101218
nonlinear relativistic quantum mechanics of extended particles 2−69035
nonlinear waves and quantum mechanics, book 2−58555
nonlocality propagation, four-coincidence expt. test 2−74252
nonpolynomial pot., Borel summability 2−95047
nonpotential interactions, geometrical treatment 2−95052
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
nonselfadjoint systems, non-Euclidean and non-Desarguesian geometries 2−95054
nonstandard analysis, appl. to path integrals and generalised functions 2−113123
observables, continuous spectra, Hilbert space formulation 2−79396
observables, increasing mixing character principle 2−79413
observation, state vector collapse, vel. to psychokinetic effect 2−79395
one-dimensional anharmonic oscillators, quasiclassical calc. *(Russian)* 2−63856
one-dimensional Schrodinger eqn., perturbation theory for shape resonances and large barrier potentials 2−53552
one-electron atoms, Coulomb symmetry breaking 2−74246
orbital configs., two-body operator matrix elements, unitary group approach 2−101202
orthosymplectic Lie superalgebras, para-Bose and para-Fermi operators as generators 2−95086
Pade approximants appl., book 2−79289
paired electrons in mag. field, wave functions, many-electron approx. 2−95061
particle-hole Gel'fand states and quasidegenerate perturbation theory 2−79391
path integrals, asymptotic evaluation 2−95079
path integration for velocity-dependent potentials 2−95046
path integration of a generalized quadratic action 2−101220
path spaces, polygonal path approximations 2−79404
perturbation at large order, conf. proceedings of international workshop (March 1981) 2−53412
phase shift calcs. for short range pots. by method of partial waves 2−95071
phase space translations and inversions and Wigner functions 2−69054
phase-space distributions which are probability distributions 2−107154
photon, wave-particle duality, conceptual problems 2−112747
photon counting statistics, dead time corrections 2−55104
polarons, path integral formalism, functional variational approach *(Russian)* 2−76942
position probability spreading, variance and covariance 2−53560
potential bag dynamics and tunnelling 2−101680
potential scatt., phase shift angular momentum struct. 2−94952
potential walls, finite, perturbative treatment 2−89558
probabilistic formulation 2−95082
probabilistics, status and physics appls. 2−95299
probability rule derivation 2−95103
probability theory on Hilbert space, quantum theory representation 2−95081
q Bose operators generalisation 2−101214
quantum correspondence to classical chaos 2−107132
quantum integrability 2−89564
quantum spin state superposition verification 2−89563
quantum stochastic processes 2−101242
quantum Toda lattice 2−53574
quarks, quantum logic explanation 2−58637
quasi Landau resonances, spacing, mag. quantum number effect 2−74245
quasi-integrable Hamiltonian system, smooth prime integrals 2−58647
quasiperiodic potentials, spectral behaviour 2−84467
quasipotential equations reduction to Sturm-Liouville problems 2−89574
quasirelativistic interacting particle systems *(Russian)* 2−53558
quasistationary quasi-energy states and convergence of perturbation series in a monochromatic field 2−95114
Rach-Wigner algebra, book 2−79287
radiationless transition, vibr. mode, nonlinear interactions 2−58655
Rayleigh-Schrodinger perturbation theory generating eqns. 2−107133

quantum theory continued
Rayleigh-Schrodinger perturbation theory with a non-Hermitian perturbation 2−112728
recurrence phenomena in quantum dynamics 2−58653
relativistic Hamiltonian models, world line transforms. 2−95048
repulsive exponential pot., poles of scatt. amplitude, analytic and complex rot. studies 2−112729
repulsive singular potentials, resons., eigenvalue calcs. 2−89511
resonance scattering from a double δ-function potential 2−94961
resonances and analyticity of scattering wave function for square-well-type potentials 2−107067
resonances in quantum mechanics 2−95111
resonant scatt. theory, generalised completeness relations 2−74249
rotating harmonic oscillators, continued fraction theory 2−95093
rotation number for almost periodic Schrodinger operator 2−84468
S-matrix, gauge invariance/independence, in quantum theory and relativistic QFT 2−107550
scattering by periodic surfaces 2−95089
scattering on energy depend. separable pot., coordinate space approach 2−53580
scattering theory, discrete variable representations and sudden models 2−95044
scattering theory, Numerov method for coupled differential eqn. solns. 2−53555
scattering theory, Numerov method for coupled differential eqn. soln. 2−53556
scattering theory for pot. $V(r)=(\sin r)/r^{\beta}$ 2−74248
scattering theory for time-dependent Hamiltonians 2−95123
Schrodinger inverse scatt. problem soln. with polynomial spectral depend. in pot. 2−53564
Schrodinger wave eqn., strange bound states, scalar pots. 2−63782
Schrodinger wave function first derivative discontinuity 2−84419
screened Coulomb potentials, logarithmic perturbation theory 2−63832
semiclassical limit of quantum mechanics in terms of diffusion process 2−95121
semiclassical phase integrals, higher order, Chebyshev series approx. and Taylor series expansion calcs. 2−101204
semiclassical phase integrals close to pot. extreme 2−74243
semiconductors, multiphonon release of trapped electrons, theory 2−92650
semiconductors, quantum processes, book 2−68982
semigroups, propagator, semiclassical approx., functional integral method 2−79420
sets, rel. to Clifford algebras 2−95057
short-range two-body pot., bound and scattered states, irregular solns., completeness 2−63840
SI units appl. 2−95303
smearon interpretation 2−79397
Smoluchawski equation for particle in dissipative medium 2−107165
$SO_{4,2}$ conformal group, canonical realisation 2−74254
soliton Hilbert space, ice model, Bethe ansatz eigenstates 2−89542
space-time, extension to time oscills., quantum theory interpretation 2−58642
space-time theory of gravitation 2−112787
spectrum generating algebra and closed form expression for r^k-radial Coulomb matrix elements 2−95041
spherical harmonies coupling calcs. using YLM-COUPLING program 2−63833
spin relaxation for arbitrary time scale 2−89557
spin-1/2 particle in mag. field, stochastic description 2−101206
spin-3/2 particles, in Einstein space, quantum theory 2−58641
sputtering, negative ion formation 2−62030
state vector, physical props., expt. determ. proposal 2−107163
state vector reduction, 'gambler's ruin' problem appl. 2−58632
states on logic of projection operators of hyperfinite type III factor 2−89577
statistical interpretation of quantum mechanics 2−74256
Stern-Gerlach expt., theory 2−107039
stochastic jump processes in phase space representation 2−101241
stochastic optimal control and quantum mechanics 2−95239
stochastic quantisation, modification to true stochastic mech. 2−79416
stochastic space-time, generation of potential 2−112743
strong magnetic field effect on simple quantum mech. system *(Russian)* 2−53594
strongly positive semigroups and faithful invariant states 2−101197
summation of perturbation series in quantum mechanics 2−89562
superconducting condensate, invariant system, macroscopic wave function 2−115942
symmetric double square well, quantum solns. 2−53458
symmetric operators in Krein space, exponential map 2−95078
symmetry group, representation spaces projections on Minkowski space 2−112730
teaching, using H ground state hyperfine splitting 2−107040
test of quantum mechanics by neutron interferometers 2−95050
tests based on photon interference 2−74260
theory of τ functions in integrable systems 2−95134
third-order system with folded slow manifold, bifurcation sequences 2−69090
three body quantum mechanics, hyperspherical function calcs. 2−95068
three-body scattering, cross-section, Hilbert space Faddeev method calc. 2−69044
three-body scattering, double scatt. waves, O(1) interferences 2−79415
three-dimensional time and quantum mechanics 2−53508
three-particle scatt. theory, limiting relation 2−54330
time averages, quantum mechanical, analytic approach 2−101233
time evolution, rel. to parallel transport 2−101210
time operator, examples 2−53577
time-dependent problems, numerical soln., method and appl. 2−79410
time-dependent quantal oscillators, linear invariants 2−95095
time-dependent scatt. theory for identical particles 2−53578
topological particle structure probing by period integrals 2−95689
trace formalism, state assemblies, Bell-Wigner locality 2−95049
transport processes in strong magnetic field, quantum theory, macroscopic current operator *(Chinese)* 2−98604
Turing machines, with no energy dissipation, quantum mech. models 2−79424
two-electron atoms, Coulomb symmetry breaking 2−74246
two-level atom interaction in EM field 2−107167
two-state model, stochastic resonances 2−79348
two-variable relativistic tensor harmonics 2−53930
unified gravitational and quantum-mechanical space-time structure and special relativity foundations 2−74296
quantum theory continued
unifying physical theory, derivation of relativity 2−112786
unitary group irreducible representation for $U(p+q)\downarrow U(p)\otimes(q)$ 2−95090
unitary quantum mechanics, macroinstruments for particle detection 2−107166
univalent functions theory 2−95055
universal computer appl. 2−95056
Universe, rel. to computer theory 2−95060
validity of quantum theory 2−107061
variational methods for bound-state and scattering problems 2−84479
variational principle, unified, for statistical and quantum mechanics 2−89610
variational principles for reson. 2−95088
variational quantum mechanical principle for statistical mechanics 2−89611
virial theory, boundary conditions for wave functions approx. 2−69037
wave packets semiclassical mol. dynamics 2−89560
Weyl Quantization on compact Abelian groups and the quantum mechanics of almost periodic systems 2−89572
Wheeler-Feynman absorber theory, rel. to EPR paradox and stochastic electrodynamics 2−63845
Whitehead-Heisenberg ontology, mind, matter, quantum theory, relativity, interrelationships 2−58585
Wigner-Eckart theory, wave mechanical formalism, teaching 2−63778
zeroth order Coulombic hyperangular interaction integrals, upper and laser bounds 2−112733
$K^0\bar{K}^0$ system nonseparability test 2−101229
H atom, one-dimensional, in infinite square well, theory 2−79328
H atom Kowalewski basis, quantum analogue 2−63855
H bounded atom, hypervirial-perturbational treatment 2−95087
H, hypervirial perturbative treatment inside boxes with paraboloidal surfaces 2−58643
HF, multiphoton dissociation, time independent quantum mechanical theory 2−102556

quantum theory of light *see quantum electrodynamics*

quantum theory of many-body problems *see many-body problems*

quark confinement
πN scattering in P_{11} channel in pot. model and quark bag model 2−59123
't Hooft's consistency condition for confining field theory from analytic S-matrix theory 2−107638
abelian gauge theories and spin systems, massless phases and symmetry restoration 2−53926
additive quark model, QCD derivation from 2 and 3 gluon exchanges, pomeron couplings 2−113212
additive quark model for spin-orbit interaction 2−107642
Adler-Weisberger sum rule saturation in quark shell model, general proof 2−69431
anisotropic chromodynamics, spontaneous chiral symmetry breaking 2−113252
axial gauge gluon propagator, IR limit at high temp., screened colour mag. fields 2−69411
bag fusion in SU(2) Yang-Mills matter and colour deconfinement 2−84847
bag model gluonia, hyperfine splittings 2−89936
bag models and nucl. forces, book contrib. 2−113247
bag models for nuclear physics 2−79840
bags, non-gauge lattice models 2−69427
baryon mass splitting in quark model with broken symmetry 2−69439
baryon-baryon and pion-deuteron scatt., reson. 2−69481
baryons, loop average in large N limit 2−69420
baryons and dibaryons, colour elec. instabilities 2−101816
Bethe-Salpeter equations, relativistic confinement 2−69357
Bogoliubov transformations and coupling constants calc. in MIT bag model 2−54111
boson resonance, decay into two pseudoscalar mesons, quark-gluon model *(Russian)* 2−95824
bound states, Schrodinger eqn. closed form soln. 2−101230
broken SU(3) symmetry from quark interchange, one boson exchange model 2−101651
charmonium, interquark potential with oscillator asymptotics *(Russian)* 2−101655
charmonium, P-state decay, quark confining pot. 2−74682
charmonium properties in bag-like potential approach 2−69435
charmonium spectroscopy, Schrodinger eqn. solns. for superposed pot. 2−74656
Cherenkov hadron radiation in nuclear active medium, theory 2−84860
chiral bag model, ρ-meson coupling 2−64298
chiral deconfining phase transitions, critical behaviour onset 2−54110
classical SU(2) gauge theory, axially symmetric solns. 2−53956
cloudy bag model 2−59117
colour switching, smooth topological representation 2−79830
coloured pseudo-Goldstone boson pair production at very high energies, hypercolour 2−101652
composite quark-lepton model, generation, confinement and S^0 scalar mesons 2−79849
composite quarks and Cabibbo mixing 2−59128
confinement and deconfinement of quarks in nuclear matter, review 2−95952
confinement and hadron-hadron interactions by general relativistic methods 2−95742
confining potential in relativistic eqns. 2−84418
constrained and interacting relativistic quantum fields, asymptotic level density 2−59007
cylindrical graph, topological glueball contribs., vacuum trajectories 2−74646
deep inelastic electroproduction, twist-4 contrib., QCD anal. 2−54168
dense-gluon plasma and condensation 2−64282
deuteron quark model 2−107632
diquark fragmentation 2−95787
dynamic theory of quark and meson fields 2−95789
effective interactions of quarks and static properties of hadrons 2−95761
electromagnetic mass differences in relativistic quark confining potential model 2−107660
energy levels, influence of gluon condensate in QCD 2−113229
excited glueball states in four-dimensional SU(3) lattice gauge theory 2−107633
excluded pions and confined quarks, many-body theory, chiral bag perturbative study 2−95781
exotic hadrons, mass sum rules from bag model 2−107640

quark confinement continued
exotic meson reson. with $J^{PP}=1^{-+}$ from QCD sum rules *(Russian)* 2−74655
extra ($q\bar{q}$) admixture in hadrons, bagged QCD perturbation theory 2−59105
fermionic composite models from confining $SU(2)_L$ 2−89951
field theory caustics, quark confinement model 2−64286
flux confinement in leading logarithmic model 2−95751
fractional charges and quark confinement 2−54113
fractional charges binding to nuclei 2−54075
frozen and broken colour, Lipkin's mechanism, matrix Schrodinger eqn., semiclassical limit 2−89933
gauge fermions model in grand unification SU(5) theory 2−84817
gauge theory, Hamiltonian, lattice, spacelike Wilson loops, deconfining roughening transition 2−69353
general affine gauge gravity, short range component, quark confinement 2−59030
general gauge theories with fermions, dynamical symmetry breaking, complementarity principle 2−79740
generalised Maxwell eqns. and mass generation gauge mixing 2−53955
generalized bag models as mean-field approximations to QCD 2−69412
glueball G(1440) and radially excited pseudoscalar states 2−84858
glueball mass, in SU(2) lattice gauge theory, Monte Carlo calc. 2−107635
glueballs masses in MIT bag model 2−59101
glueballs theoretical models, review 2−79833
gluino mass in supersymm. theories 2−79782
gluino search in e^+e^- annihilation, quarkonium decays 2−79897
gluodynamics, dilaton effective Lagrangian, Ward identities 2−101639
gluon bound states, review 2−79862
gluon condensation and QCD 2−64283
gluon confinement in QCD *(Russian)* 2−107621
gluon gas, Stefan-Boltzmann law, SU(3) Yang-Mills calc. 2−54070
gluon propagator IR behaviour at finite temp. 2−69418
gluon vertex, W-T identities, interacting vertices in non-Abelian gauge thoery 2−59001
gluonia energy hyperfine splitting in MIT bag model 2−54116
gluons, quantum logic explanation 2−58637
hadron structure, pairing scheme in Yang-Mills gauge theory 2−84862
hadron-hadron interaction cross sections and secondary Reggeons residues in quark-gluon model *(Russian)* 2−74660
hadronic mass-relations from topological expansion and string model 2−54126
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
harmonic oscillator cum centrifugal pot., Klein-Gordon eqn. meson spectroscopy 2−107631
harmonic quark bag model 2−84865
heavy quark systems, leptonic widths, duality and gluonic radiative corrections 2−95818
heavy quarkonium systems, hadronic channel influence 2−95798
heavy quarks and perturbative QCD calcs. 2−54072
high mass diffractive dissociation, jets, gluonia, pomeron fragmentation region 2−64308
high-energy nuclei collisions, phase transition to quark matter, expt. signatures 2−69593
hot SU(2) glue, Monte Carlo study 2−53995
hyperon decays, nonleptonic, gluon exchange contrib. 2−95828
inelastic diffraction, simple two-component model, hadron confinement, nuclear matter 2−59134
infrared asymptotic behavior of the gluon propagator 2−95648
infrared asymptotics of power type for the gluon propagator in the axial gauge 2−95650
instability of quantum Yang-Mills field and vacuum fluctuations 2−64229
instanton contribution to the potential between quarks 2−84867
lattice gauge field theory invariance, energy-momentum dispersion of glueballs 2−107515
lattice gauge theories, torus magnetic-flux free energy inequalities and confinement 2−79747
lattice gauge theory, Monte Carlo calcs., review 2−53916
lattice QCD, large-N, mean field approx., chiral symm. breaking 2−89903
lattice QCD, quark-antiquark state in strong-coupling limit 2−84851
lattice QCD with fermions, high temp. behaviour 2−95750
light cone gauge supersymmetrical string theory 2−59058
local QCD sum rules and quarkonia 2−69422
long range quark-antiquark pot. from asymptotic QCD dynamics 2−69419
loop diagrams in boxes, appl. to QED and QCD vacuum 2−95634
lowest lying scalar glueball 2−95766
many body content of gauge theories, spontaneous supersymmetry breaking, colour confinement 2−59020
massless quark, Schrodinger vs. Dirac eqn. 2−64299
meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
MIT bag, gluonia states, QCD perturbation effects, $\theta(1640)$ and $\iota(1440)$ 2−54071
MIT bag, overlap integrals in cavity approx. 2−54112
MIT bag model, $\theta(1640)$ and $\iota(1440)$ states as gluonia 2−54115
MIT bag model, cylindrical deformation 2−59119
MIT bag model with centre-of-mass correction 2−84864
multiquark charm hadrons, mass spectra, MIT bag model, with SU(4) flavour symm. 2−84884
multiquark hadrons in nonrelativistic quark-potential models 2−54067
multiquark states, colour content 2−101642
multiquark states in nonrelativistic pot. formalism 2−69433
neutrino deep inelastic scatt., gluon distribs., nucleon struct. functions, QCD anal. 2−59140
neutron-antineutron transition amplitude in MIT bag model 2−101673
next-to-leading log model, confining properties 2−107644
non-Abelian fields, charges and strings 2−107529
non-Abelian gauge field to string transformation 2−54066
nonAbelian gauge theories, colour confinement, local gauge symm. restoration 2−101540
nonrelativistic coloured constituent quark models, explicit gluonic components in multiquark wave functions 2−95752
nonrelativistic quark model, momentum depend. effects, beyond wave function at origin 2−69432
nuclear forces and quarks, book 2−113219
nuclei and quark matter, book contrib. 2−113388
quark confinement continued
nucleon magnetic moment, spin orbit term in gluon exchange QCD pot. 2−79835
nucleon-meson coupling in QCD perturbation theory for confined quarks *(Chinese)* 2−79828
nucleon-nucleon forces from bags, quarks and boson exchange 2−95794
nucleon-nucleon potential in the cluster model with six quarks 2−95763
nucleons, pionic corrections to props. in cloudy bag model 2−54104
nucleons, small-bag model, rel. to MIT bag 2−107617
off-axis glueball masses, strong coupling expansions from lattice gauge theory 2−95782
one pion exchange nucleon-nucleon potential 2−54265
particle and nucl. scatt. at large momentum transfers 2−113248
Pauli principle and QCD for quarks and nucleons in hadrons and nuclei, book contrib. 2−113220
PCAC condition in quark model, G_A/G_V for vector mesons and $\omega p\pi$ coupling constant 2−95786
periodic QED models, U(1) gauge group with mixed actions, phase structure 2−84839
perturbative QCD, conf., Tallahassee, FL, USA (March 81) 2−53409
perturbative QCD, particle and nucl. scatt. at large p_T 2−113234
perturbative QCD, quark-quark and quark-antiquark pot. 2−95756
phase-variable equation for the bound-state problem of confinement potentials 2−89945
pion in nuclear physics and QCD 2−54065
pion prod. and absorpt., fundamental interactions and processes 2−79986
pion-nucleon σ commutator, spin-orbit interaction, QCD calc. *(Russian)* 2−95770
pion-nucleus interaction theory, review 2−54446
Polyakov's quantized string with boundary terms 2−79853
Polyakov string theory, pomeron singularities, saddle point anal. 2−101694
potential bag dynamics and tunnelling 2−101680
potential model for light and heavy quark systems 2−54103
potentials, Regge trajectories 2−64275
$pp \rightarrow$hyperon+X, large p_T, gluon helicity distrib. 2−59203
propagator for fermion field and quark confinement, spectral representation 2−101669
proton decay, lifetime and branching ratio, bag model calc. in SU(5) GUT 2−95827
pseudoscalar meson decay constants in a quark confinement model 2−84889
pure SU(2) lattice gauge theory, glueball masses, Monte Carlo method 2−69339
QCD_{3+1}, finite N, master fields and variational method for gluon condensation 2−95747
QCD, 3-dimens., at finite temp., Monte Carlo study, confinement and critical point 2−54064
QCD, chiral symm. breaking, quark pair condensation 2−89938
QCD, confinement and hadron problem 2−69406
QCD, Dyson eqns., confinement, chirality 2−74647
QCD, glueball mass spectrum, lattice Monte Carlo calc., SU(2) gauge theory 2−59108
QCD, gluon condensation, vacuum props., axial gauge formalism 2−79823
QCD, gluon condensation, vacuum props. 2−79822
QCD, gluon propagator, effective Lagrangian 2−95758
QCD, gluon propagator, IR asymptotic form 2−95745
QCD, hadron classification, meson mass scales *(Russian)* 2−74649
QCD, hadronic structure 2−79832
QCD, L=1 light quark mesons 2−59115
QCD, nonlinear effects, self-consistent treatment 2−107618
QCD, perturbative, odd C gluonic Regge singularities 2−59111
QCD, perturbative, qg degenerate state role 2−69425
QCD, phase structure, 'superconducting' extended object appls. 2−69343
QCD, qq scatt., IR divergences, KLN theorem 2−95744
QCD, quark model pion and Goldstone pion 2−54096
QCD, quark-antiquark pair effective interaction, static pot. 2−84848
QCD, quark-gluon plasma, instantons role 2−107616
QCD, soft gluon emission, hadron transverse momenta 2−54081
QCD, transversal gluon propagator, IR instability at finite temps. 2−89940
QCD, two-point functions, quark vacuum condensate contribs., gluonic corrections 2−59110
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
QCD and the search for glueballs 2−107625
QCD at nucl. dimensions, book contrib. 2−113221
QCD charmonium sum rules, higher gluonic power correction calcs. 2−64279
QCD confinement, infrared behaviour of gluon propagator, Wilson loop 2−113227
QCD gluon, compositeness 2−54076
QCD hard jets, average multiplicity, multiplicity fluctuations *(Russian)* 2−95772
QCD influence on nucl. physics, book contrib. 2−113222
QCD local colour symmetry, anomalous props. 2−113209
QCD perturbation theory, hadron energy shift and mass difference *(Chinese)* 2−54077
QCD vacuum quark condensate and MIT bag lagrangian with broken chiral symmetry 2−69413
quantization of bag-like solitons 2−107612
quantum mechanics and nonlinear waves, book 2−58555
quark effects in nuclear physics, review 2−95933
quark interactions and colour chemistry 2−95740
quark matter, possibilities in cooling neutron stars 2−54053
quark plasma critical behaviour, photon spectra 2−113232
quark plasma in superdense matter, instanton effects 2−54085
quark self-energy in the chiral bag 2−54108
quark-antiquark pot. and QCD 2−54060
quark-gluon confinement in chiral bag model 2−95793
quark-gluon jets, evolutions eqns. including quark and gluon confinement *(Russian)* 2−54114
quark-gluon model, prediction testing using electron synchrotron *(Russian)* 2−89947
quark-gluon plasma, strangeness prod. in QCD, chemical equilibration time 2−69408
quark-hadron form factors, damping, and diffraction scatt. 2−74689
quark-hadron transition in systems with net baryon number 2−90036
quarkonia, fine and hyperfine structure in Coulomb plus linear pot. model 2−79826

quark confinement continued
quarkonia potential by a numerical inversion method with given end-point behavior 2−74658
quarkonium, review 2−84855
quarkonium potential model with a non-zero gluon effective mass for charmonium and ϒ *(Chinese)* 2−95778
quarkonium spectroscopy in heavy $Q\bar{Q}$ bags approach 2−79846
quarkonium systems, interquark pot. using gluon condensate and quark screening 2−64277
quarks and the nucleus, conf., Erice, Italy, (Apr. 1981) 2−94900
radiation processes in quantum systems with boundary, hadron physics 2−101525
relativistic effects for quarks within hardrons 2−95779
relativistic ideal Bose condensation and related matters 2−64274
relativistic spin depend. generalisation of linear pot. between two quarks, mesons 2−84869
relativistic string model, exotic mesons and glueballs 2−54109
SO(3) lattice gauge theory, defect melting 2−95617
SO(3) lattice gauge theory, monopoles, vortices, confinement 2−89896
soft gluon emission and the QCD Λ mass parameter 2−95748
soliton bag model study 2−69417
space-time symmetry, Poincare subgroup 2−69429
spectroscopy of hadrons containing one heavy quark, D and F weak decay 2−84882
spontaneous chiral symmetry breaking before confinement, quenched fermions, nonrelativistic quarks, η, glueballs 2−113238
statistical mechanics of quarks and hadrons, conf., Rielefeld, Germany (Aug. 1980) 2−53423
statistical quark bag model and light hadrons 2−64294
string model at high density 2−54297
strong interacting matter, quark-gluon phase 2−90035
structure functions, soft gluon corrections, Bloch-Nordsieck moments 2−101718
SU(2)×SU(2) symmetry, current algebra sum rules saturation 2−69430
SU(2) adjoint Higgs model 2−95788
SU(2) lattice gauge theories, interquark pot., Monte Carlo evaluation 2−95753
SU(2)-SO(3) lattice gauge theory, 2nd order deconfining transition, continuum limit 2−79743
SU(3)×SU(3) bag model with pseudoscalar meson cloud of K, η, η′ *(Chinese)* 2−95792
SU(3) gauge theory at finite temp., first-order phase transition 2−107545
SU(3) lattice gauge theory predictions for low-Q^2 phenomenology 2−54074
SU(4) gauge theory, symmetry breakdown and condensates 2−79767
SU(N) gauge theory, Wilson line 2−84866
symmetries and quark aggregates as hadron constituents 2−107649
technicolour, weak interaction confining models, strong $SU(2)_L$ effects 2−113208
thermodynamics of chromomagnetism 2−64285
thermodynamics of relativistic composite systems 2−64273
three-heavy-quark system spectroscopy 2−64297
topological vector gluons, quark chirality 2−79831
transitionally singular pot. for quark-antiquark interaction 2−101696
tumbling SU(N) gauge theories 2−59036
twist four two quark processes, anal. by renormalisation mixing 2−107613
two-baryon currents, quark shell model 2−84863
two-dimensional models, West's proof of confinement 2−84852
up-down quark mass difference in MIT bag model 2−69464
upsilon physics at CESR 2−59166
variable pressure bag model, quark mass and baryon mag. moment 2−113242
vector mesons, with natural J^{PC}, unified Bethe-Salpeter wave functions, mass 2−74609
WKB approach to the Schrodinger equation with relativistic kinematics 2−112742
Yang-Mills theories, Abelian dominance and quark confinement 2−84853
Yang-Mills theory, quark confinement, Abelian dominances, oblique confinement, η′ mass 2−101653
$c\bar{c}(b\bar{b})$ systems, effective power law pot., predicted mass, decay widths, fine-hyperfine splittings 2−101677
D^0, nonleptonic decays by $c\bar{q}$ annihilation, two-gluon radiation 2−59143
$e^+e^-\rightarrow 3\pi^+3\pi^-$, 2^+ glueball effects 2−113237
$e^+e^-\rightarrow a+b+X$, cross section, QCD soft gluon emission resummation 2−79899
e^+e^- annihilation, testing QCD with moment sum rules 2−69421
$e^+e^-\rightarrow$hadrons, baryon-antibaryon production in quark and gluon jets 2−59122
$e^+e^-\rightarrow q\bar{q}g$, broken colour gauge symm. test 2−79900
eN deep inelastic scatt., nucleon small bag model, R ratio 2−59124
η-η′-glueball mixing in MIT Bag Model, radiative decay widths 2−101671
$\eta_c\rightarrow 2\gamma$, three point functions contributions, relativistic corrections 2−79886
F^+, nonleptonic decays by $c\bar{q}$ annihilation, two-gluon radiation 2−59143
gg 0^+ state, scalar decuplet neutral mesons, hadronic decay widths 2−113265
gg states, account in QCD exclusive processes *(Russian)* 2−64293
γ-W^0 mixing in composite weak boson models, confinement in quantum haplodynamics 2−64267
$\gamma\gamma\rightarrow\rho\rho$, 2^+ glueball effects 2−113237
$\gamma\gamma\rightarrow\rho\rho$, near-threshold cross-section, 2^+ glueball interpretation 2−84931
$\gamma N\rightarrow c\bar{c}X$, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
hh, multiquark resonant states 2−54198
$hh\rightarrow l^+l^-$, Drell-Yan pairs, p_ε effects in QCD, soft gluons 2−89944
$hN\rightarrow X$, leading hadron noncoherent interaction, optical model calc., gluon cloud loss *(Russian)* 2−64346
ι(1440) pseudoscalar state interpretation as glueball 2−79838
$K_2\rightarrow\mu^+\mu^-$ dispersive contrib., neutral-kaon mixing and top quark mass 2−69450
KN, 1.47-1.89 GeV, quasiunique amplitude for I=0 and implications for bag models 2−54210
Λ resonances, Bethe-Salpeter treatment under harmonic confinement 2−89935
Λ_c^+ decays, hard and soft gluonic effects, Weinberg-Salam weak Hamiltonian 2−84893
μN, deep inelastic scatt., nucleon small bag model, R ratio 2−59124
$\mu^-N\rightarrow\mu^-\psi X$, QCD parton model test, photon-gluon fusion model *(Russian)* 2−95851
NN, 2^+ glueball effect in QCD 2−64336
$N\bar{N}$ annihilation, 2^+ glueball effects 2−113237

quark confinement continued
NN interaction from bag-model quark interchange, ^{2}H phase shifts and bound state 2−69544
νN deep inelastic scatt., nucleon gluon distrib., QCD, struct. function scaling violation 2−84887
p and n charge rms radius from chiral quark model 2−59126
$p\rightarrow e\omega^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$p\rightarrow\pi^0e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$\bar{p}p$ annihilation, meson resonances, glueballs, quark-gluon interactions, review 2−113312
πNΔ system, props. in chiral bag model 2−59118
$\pi^-p\rightarrow\phi\phi n$, OZI rule, colour confinement and glueballs 2−59102
$\pi^-p\rightarrow\phi\phi n(\phi KKn)$, 2^+ glueball effects 2−113237
ψ, spectroscopy from phenomenological confinement approach 2−79854
ψ decays, configuration mixing effects, QCD calc., rel. to confining pot. 2−54140
ψ family mass spectra 2−59113
$\psi\rightarrow ggg$, gluon recomb. functions 2−101664
$\psi\rightarrow\gamma+$glueball, vertex const. in QCD 2−79863
$\psi\rightarrow\phi S^*(\phi f')$, 2^+ glueball effects 2−113237
ψ spectroscopy from phenomenological confinement approach 2−79854
$q\bar{q}$ pairs, Ginzburg-Landau theory 2−69428
$qq(q\bar{q})$ systems, chromostatics 2−69415
$q\bar{q}g$ mesons, bag model spectrum 2−89943
Σ resonances, Bethe-Salpeter treatment under harmonic confinement 2−89935
ϒ family, mass spectra 2−59113

quark models
see also colour model
πN scattering in P_{11} channel in pot. model and quark bag model 2−59123
additive quark model, suitability for describing interactions 2−107624
additive quark model for high energies 2−74752
additive quark model for spin-orbit interaction 2−107642
Adler-Weisberger sum rule saturation in quark shell model, general proof 2−69431
anisotropic chromodynamics, spontaneous chiral symmetry breaking 2−113252
asymptotic $|\Delta\vec{I}|=1/2$ rule derivation 2−89962
bag model, bag motion in hadron decay processes 2−64296
baryon hadronic decay, parity violation, SU(6) broken diquark model 2−79870
baryon mag. moments, quark model and spectrum generating SU(3) fits 2−113275
baryon magnetic moments in the quark model and pion cloud contributions 2−59151
baryon mass spectra, (56, 0^+) states, quark-diquark contrib. 2−74674
baryon mass splitting in quark model with broken symmetry 2−69439
baryon masses in relativistic quark-diquark model 2−84883
baryon octet, quark fragmentation function, spin correlations 2−107645
baryon-baryon and pion-deuteron scatt., reson. 2−69481
baryon-vector-meson couplings in quark model with chromodynamics 2−54095
baryonic current sum rules and chiral symmetry breaking 2−59066
baryonic excitations in nuclei 2−59254
baryons, magnetic moment and structure 2−95916
baryons, radiative weak decay, single- and two-quark transition amplitudes 2−95844
Bogoliubov transformations and coupling constants calc. in MIT bag model 2−54111
bound quark-antiquark states, inverse relativistic problems for charm 2−64268
Casalbuoni-Gatto subquark model study 2−79851
CERN-JINR School of Physics, Hanko, Finland (June 1981) 2−112634
charge fractionalisation conditions 2−113244
charmed baryons, weak EM decays, quark model 2−74685
charmonium properties in bag-like potential approach 2−69435
charmonium spectroscopy, Schrodinger eqn. solns. for superposed pot. 2−74656
Cherenkov hadron radiation in nuclear active medium, theory 2−84860
CP_2^{N-1} model with quarks on lattice, lattice fermion, pion mass, PCAC 2−69338
decay amplitude helicity suppression, relativistic quark models 2−54148
deep inelastic structure functions, diquark model 2−101719
deep-inelastic lepton scatt., charge retention sum rules 2−64332
degenerate quark matter, ν emissivities, mean free paths, possible search in neutron stars 2−89932
deuteron, six-quark drop model, total weight *(Russian)* 2−101824
deuteron, two-nucleon interaction model 2−107632
deuteron form factor, quark exchange corrections *(Russian)* 2−54256
dibaryon resonance spectra, diquark cluster model, with jj coupling scheme 2−95780
diquark model, comparison with Isgur-Karl model, meson-baryon two-body reactions 2−113246
diquarks in baryons from $\bar{p}d$, pd, π^-d collisions 2−101768
Drell-Yan cross section factorisation 2−64269
EM interactions with nuclei at high momentum transfer 2−54353
flavour-changing neutral interactions in broken supersymmetric theories 2−54051
fractional charges and quark confinement 2−54113
gluon spin derivation from hadron jet photoproduction 2−84859
gluonia energy hyperfine splitting in MIT bag model 2−54116
(hadron, X), collision number, in additive quark model 2−96006
hadron gas to quark matter, bootstrap eqn. 2−64271
hadron multiplicities, quark combinatorial anal. *(Russian)* 2−64300
hadron-hadron collisions, cluster model for multiplicity distribs., KNO scaling 2−89982
hadron-hadron collisions, heavy quark pair formation, theory 2−101665
hadron-hadron collisions, lepton pair prod. process, kinematic anal. 2−95887
hadron-hadron interaction cross sections and secondary Reggeons residues in quark-gluon model *(Russian)* 2−74660
hadron-nucleon interactions, diquark fragmentation functions determ. from pion prod. data 2−84920
hadronic collisions, charm prod. cross section meas. 2−107694
hadronic inclusive meson prod., particle correls., recombination model from Kuti-Weisskopf struct. functions 2−95882

quark models continued
hadrons, constituent quarks, momentum spectrum, additive quark model *(Russian)* 2−95797
hadrons, critical props. study in degenerate quark gas model 2−84861
hadrons, SU(6) six-quark model 2−54143
hadrons diffraction dissoc. in additive quark model *(Russian)* 2−74661
half-favoured inclusive distribs., quark recomb. model 2−79841
harmonic quark bag model 2−84865
heavy multiquark states, existence 2−74657
heavy quarkonia, S levels, hyperfine splitting in QCD *(Russian)* 2−64309
high-energy hadrons, photons and leptons interactions with nuclei, quark-parton model 2−95796
high-energy nuclei collisions, phase transition to quark matter, expt. signatures 2−69593
highly penetrating hadrons made of heavy flavour quarks 2−59125
horizontal $SU(3)_H$ gauge symmetry and flavor changing neutral currents 2−79812
hyperon semileptonic decay, evidence for SU(3) breaking in Cabibbo-type fits 2−69459
hyperons, weak EM decays, quark model 2−74685
inclusive and semi-inclusive processes in quark-cascade jet model, energy depend. 2−95785
inelastic neutrino interactions, limit on right handed weak coupling parameters 2−69446
instanton contribution to the potential between quarks 2−84867
instantons in quark plasma, fermion zero modes *(Russian)* 2−59100
internal quark symmetry, quantum mech., Jordan algebraic approach 2−95094
intrinsic charm model, 5-quark wave function calc. 2−101670
$J^P=1^+$ three pion system anal., Watson theorem for multiquark states 2−95790
jet production, expt. results, review 2−107648
jet-initiating parton identification based on multiparticle fragmentation functions 2−79844
kaon charge radii, relativistic corrections from quark model 2−89946
lepton-hadron collisions, cluster model for multiplicity distribs., KNO scaling 2−89982
Lie algebras in particle physics, book 2−79298
light current quark masses 2−64270
mass matrix eigenvalues, review 2−113243
massless quark, Schrodinger vs. Dirac eqn. 2−64299
mesons, SU(4) quark model, mass relations, Regge trajectory *(Chinese)* 2−54121
microscopic approach to hadrons and nuclei using quarks 2−95739
MIT bag model, $\theta(1640)$ and i(1440) states as gluonia 2−54115
multiple hadron prod., quark combinatorial anal., comparison with expt. data *(Russian)* 2−74662
multiquark charm hadrons, mass spectra, MIT bag model, with SU(4) flavour symm. 2−84884
multiquark states in nonrelativistic pot. formalism 2−69433
naive nonrelativistic quark model hybrid, pion effects, baryon mass, mag. moment 2−101676
neutral mesons with heavy quarks and mixing angles in six-quark model 2−54105
neutrino-nucleon interactions, quark fragmentation functions, contrib. from higher twist effects 2−64314
nonrelativistic coloured constituent quark models, explicit gluonic components in multiquark wave functions 2−95752
nonrelativistic quark model, hadron EM mass splitting 2−54123
nonrelativistic quark model, momentum depend. effects, beyond wave function at origin 2−69432
nuclear forces, charge asymmetry, $\pi^0\eta'$ mixing role 2−107763
nuclear forces and quarks, book 2−113219
nuclear spin-isospin sum rules based on the quark model 2−107750
nuclei, quark spin-isospin rules and Adler-Weisberger relation 2−101806
nucleon quark core, electromagnetic properties in confining potential 2−113245
nucleon-nucleon forces from bags, quarks and boson exchange 2−95794
nucleon-nucleon potential in the cluster model with six quarks 2−95763
nucleons, pionic corrections to props. in cloudy bag model 2−54104
nucleus-nucleus interactions, quark matter formation, cosmic-ray anomalies explanation 2−63199
parity-violating nuclear force, parameters estimation using single Z-boson factorisation relations 2−79954
particle and nucl. scatt. at large momentum transfers 2−113248
PCAC condition in quark model, G_A/G_V for vector mesons and $\omega\rho\pi$ coupling constant 2−95786
pion prod. and absorpt., fundamental interactions and processes 2−79986
pion prod. models and quark model of physics at short distance 2−79987
pion-nucleus interaction theory, review 2−54446
pionic decays, current-algebra sum rules saturation in quark shell model nonrelativistic expansion 2−69430
Polyakov quantisation, dual string spectrum 2−89948
potential model for light and heavy quark systems 2−54103
pseudoscalar mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
quark and diquark fragmentation into mesons and baryons 2−113240
quark effects in nuclear physics, review 2−95933
quark fragmentation into hadron jet, quark statistical model 2−113235
quark interactions and colour chemistry 2−95740
quark matter, thermodynamical information from nucleon valence quark distrib. 2−95783
quark matter stability in neutron stars 2−117702
quark scattering amplitudes with flavour exchange, double logarithmic asymptotics 2−113241
quark-antiquark systems, effective Hamiltonian 2−59127
quark-gluon confinement in chiral bag model 2−95793
quark-gluon plasma, bag model and bootstrap description 2−64272
quark-hadron form factors, damping, and diffraction scatt. 2−74689
quark-parton picture of the cumulative production 2−95795
quarks and the light hadrons, review 2−95759
quarks and the nucleus, conf., Erice, Italy, (Apr. 1981) 2−94900
recombination model testing with ρ^0 resonance to $(\pi^+\pi^-)$ background production ratio 2−113236
relativistic effects for quarks within hardrons 2−95779
relativistic form factors for hadrons with quark-model wave functions 2−95839
relativistic polarised deuteron fragmentation, test of deuteron six-quark nature 2−96015
relativistic quark model in infinite momentum frame and nucleons static characts. 2−79843
relativistic spin depend. generalisation of linear pot. between two quarks, mesons 2−84869
review of 'New Physics' 2−54049
scalar meson decay, triangular quark diagrams, rel. to vector dominance model *(Russian)* 2−95825
scalar mesons in the unitarized quark model 2−101672
scaling violations in deep inelastic phenomena, massive quark model description 2−59186
single quark transition model for resonance electroproduction 2−101738
soft hadroproduction, parton roles 2−59116
spinless constituent quarks, existence 2−95800
spontaneous chiral symmetry breaking before confinement, quenched fermions, nonrelativistic quarks, η, glueballs 2−113238
statistical quark bag model and light hadrons 2−64294
strange and charm quarks in hadrons 2−107636
string model at high density 2−54297
strong interactions at low energies, quarks and nuclei 2−95741
$SU_n\times SU_n$ chiral broken symm., quark mixing in $SU_k\times SU_k$ exact limit 2−95669
SU(2)×U(1) guage models, permutation symmetries and fermion mass matrix 2−69392
SU(2) lattice gauge theory with quarks, mean field anal., coupling constant 2−69336
SU(2) symmetry groups *(Russian)* 2−54052
superconductivity in quark matter 2−79814
symmetries and quark aggregates as hadron constituents 2−107649
symmetry violation in quark models of mesons 2−95764
thermodynamics of relativistic composite systems 2−64273
top quark mass, review 2−79839
toponium decays, weak tbW coupling meas., neutral current coupling 2−79866
toponium mass spectra in Martin potential model, bottomonia e^+e^- decay 2−107641
twist four two quark processes, anal. by renormalisation mixing 2−107613
two-baryon currents, quark shell model 2−84863
unitarised quark model, axial meson props., A_1, B, D, E, H, Q_1, Q_2, $\chi(3507)$ 2−107639
up-down quark mass difference in MIT bag model 2−69464
vector mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
weak interaction theory, comparison with expts., review 2−79811
B neutral mesons induced decay and mixing, top quark mass 2−69434
$b\bar{b}$ states, in nonrelativistic pot. model 2−54099
BB widths of diquoniums in various models 2−59120
d, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
$\Delta^*\to N\pi$, partial rate, quark model calc. 2−74683
$e^-e^+\to q\bar{q}g$, ang. asymmetries and final state polarisation effects 2−69480
$e^+e^-\to 2$ jets, $\Lambda\bar{\Lambda}$ pair prod., possible 5 GeV pseudoscalar meson weak decay 2−113283
e^+e^- annihilation, high-transverse-momentum leptons from B mesons 2−54189
e^+e^- annihilation, π, K, ρ and $\bar{p}$ prod., quark combinatorics calc. *(Russian)* 2−95858
e^+e^- collisions, polarised and unpolarised, 30-150 GeV, polarised baryon prod. 2−69479
$e^+e^-\to$hadrons, baryon-antibaryon production in quark and gluon jets 2−59122
e^+e^- jet production, quark-based model *(Chinese)* 2−54193
$e^+e^-\to$three jets, integer-charged quark model 2−101740
$e^+e^-\to$VX, vector mesons structure functions in QCD framework using relativistic quark model *(Russian)* 2−74699
e^-N deep inelastic scatt., gluon and quark jets, theory 2−101732
ep, ρ^0 mesons electroproduction cross section 2−54178
$ep\to en\pi^+$, π^+ mesons electroproduction in $D_{13}(1520)$ and $F_{15}(1688)$ reson. region 2−79891
$\eta\to\pi^0\gamma\gamma$, decay width, $\delta(980)$ quark struct., quark diagram anomalies *(Russian)* 2−113278
$\eta'\to\delta\pi\to\eta\pi\pi$, $\delta(980)$ meson quark struct. *(Russian)* 2−84890
γN, charmed hadron inclusive photoproduction in VDM *(Russian)* 2−74694
$\gamma N\to c\bar{c}X$, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
$\gamma N\to\pi$, pol. γ, quark models test 2−101735
γp, 20-70 GeV, hyperons and antihyperons inclusive photoproduction study 2−84901
γp, 25-70 GeV, Λ and $\bar{\Lambda}$ inclusive prod., KDM and quark fusion anal. 2−59159
hh multiparticle prod. models, quadrijets, fireballs, annihilation relationship multiplicity sure rules 2−64342
$hh\to W^{\pm}\gamma X$, W ang. distrib., kinematics, quark subprocess 2−113306
$hh\to X$, large p_T jet prod., multiquark scatt. 2−107709
hN→hN, inelastic screening corrections, constituent quark model *(Russian)* 2−95861
$hp\to\pi^+\pi^-X$, particle ratios in quark cascade recombination model 2−54107
$K_2\to\mu^+\mu^-$ dispersive contrib., neutral-kaon mixing and top quark mass 2−69450
KN, 1.47-1.89 GeV, quasiunique amplitude for I=0 and implications for bag models 2−54210
$K^+p\to f(1270)X$, 32 GeV, inclusive cross-section, rel. to quark recomb. model 2−59202
$K^+p\to K^+pK^+K^-\pi^+\pi^-$, 32 Gev/c, cross-section rel. to quark-parton model *(Russian)* 2−59188
$K^+p\to K^nX$, low p_T reaction, quark distribs. in K, valon model 2−107647
$K^+p\to K^{*0}(1430)X$, 32 GeV, inclusive cross-section, rel. to quark recomb. model 2−59202
$K^+p\to K^{*+}(1430)X$, 32 GeV, inclusive cross-section, rel. to quark recomb. model 2−59202
μN, dimuon events, shrinking cone limit and quark spin effects 2−101733
n, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
$N^*\to N\pi$, partial rate, quark model calc. 2−74683
NN force description 2−64360
NN(NN), dibaryon reson. existence 2−54200
$NN\to\psi X$, quark model anal. 2−101665
NN resonance in the quark model 2−84844
$\nu(\bar{\nu})$, charged-current interactions, strange particle prod. 2−69444
$\bar{\nu}N\to hX$, quark jets, transverse struct. 2−107656
$\nu N(\bar{\nu}N)$, deep inelastic scatt., weak current phenomenological strict. 2−79858

quark models continued
$\bar{\nu}$N-hX, quark jets, inclusive spectra, multiplicities 2−107655
$\bar{\nu}_\mu$N, 10-200 GeV, inclusive charged current interactions, struct. functions, scaling, quark-parton anal. 2−101700
ν_μN→μ^-N($\mu^-\Delta$), exclusive neutrino prod. cross section in quark model 2−69443
$\bar{\nu}_\mu$N→μ^+N($\mu^+\Delta$), exclusive neutrino prod. cross section in quark model 2−69443
ν_μn(ν_μp), 0.4-10 GeV, charged-current interactions, total cross section meas. 2−54136
Ω→ΛK (Ξπ), nonleptonic decays in relativistic composite model with QCD effects 2−54149
Ω^- electric quadrupole moment from nonrelativistic quark models 2−84896
p, elastic EM form factors, parton light-cone approach, quark interchange 2−95837
p and n charge rms radius from chiral quark model 2−59126
pd double scattering, rel. to additive quark model 2−54101
pN, 70 GeV, hadron prod. in high-$p_\perp$ processes *(Russian)* 2−89989
pN→φX, 70 GeV/c, inclusive prod. cross-section, rel. to quark-parton model *(Russian)* 2−59199
$\bar{p}$p, 32 GeV/c, inclusive prod. of $\pi^\pm$ and protons 2−79924
$\bar{p}$p, 50 GeV/c, elastic scatt. at CERN SPS, quark multiple scatt. model 2−84918
$\bar{p}$p, 540 GeV/c, search for open 'top' baryonic states 2−59190
pp, 63 GeV CM, diquark fragmentation and comparison with νp, $\bar{\nu}$p interactions 2−107712
$\bar{p}$p, 7.3 GeV/c, absolute inclusive cross sections 2−69487
$\bar{p}$p, 7.3 GeV/c, inclusive baryon and meson reson. prod. cross sections 2−69488
pp, $\bar{\Lambda}^0$, Λ^0 hyperon prod. combined model *(Russian)* 2−54223
pp, soft interaction, π^+/π^- ratio, valon model calc. 2−89975
$\bar{p}$p annihilation, meson resonances, glueballs, quark-gluon interactions, review 2−113312
$\bar{p}$p collider physics, conf., Madison, WI, USA (Dec. 1981) 2−106992
pp→ψX, inclusive prod. cross section, quark parton distrib. functions 2−74709
pp→X, pion and proton prod., diquark dynamical role *(Russian)* 2−59198
π-polarisability *(Russian)* 2−79926
πd, double scattering, rel. to additive quark model 2−54101
πN→X, 40 GeV two particle correlations, multiplicity distributions 2−107908
πN→X, 50, 200 GeV, charge exchange, rel. to additive quark-parton model *(Russian)* 2−59196
π^-p→π^0n, large momentum transfer, quark-parton model *(Russian)* 2−59183
ψ→η(η′)γ, pseudoscalar mesons mixing in $SU(3)_c$ quark-gluon model 2−54145
Ψ radiative decays, coherence, mixing and interference phenomena 2−69469
$q\bar{q}$ bound state, annihilation vertex, relativistic Bethe-Salpeter model, renormalisation 2−101539
$q\bar{q}$→hX, hadron cluster production *(Russian)* 2−95857
$q\bar{q}$ pairs, Ginzburg-Landau theory 2−69428
$Q\bar{Q}$ states, moment ratios and depend. on quark mass definition 2−113239
$q\bar{q}g$ hybrid mesons, hadronic decay widths and modes, ι(1440) and θ(1640) 2−113267
$q\bar{q}g$ mesons, bag model spectrum 2−89943
$qq\bar{q}\bar{q}$ baryonium states, Bethe-Salpeter relativistic theory 2−107487
ρ(770)→4π, π,ω,A_1,A_2 contribs., broken SU(6)×O(3) model 2−113268
Σ^-→Λeν, deviation from Cabibbo theory, symmetry breaking effects 2−64322
Σ^+→pγ, radiative decay, quark diagram anal., formulation 2−95845
t, decay into doubly charged Higgs scalars, χ^{++} 2−95890
t quark mass, quark-lepton generation number in SU_5 GUT *(Russian)* 2−84827
$t\bar{t}$ and $t\bar{u}$ spectra and electric dipole transitions, interquark force test 2−107646
V→Pγ, spin interaction affected interquark distances, effect on radiative decay 2−64330
^{2}H form factor, six-quark structure 2−95913
^{2}H, nuclear force and binding energy of quark model, double well cluster model calc. 2−59245
^{3}H, magnetic moment and structure 2−95916
^{3}He, Z 2−95916
^{4}He(α,α), ISR energies, additive quark model of multiparticle prod. 2−79847
^{A}He, A=3, 4, form factors, multiquark cluster effect 2−84948
^{90}Zr, total weight of six-quark drops 2−79961

quarks
see also quark confinement; quark models
anomaly eqns. solns. based on SU(N)×SU(N) hypercolour and superalgebras 2−84846
black hole, appl. to elementary particles, species limit number 2−94767
Casalbuoni-Gatto subquark model study 2−79851
charge $^2/_3$ quark mass constraints from K_L→$\mu^+\mu^-$ and K_L-K_S mass difference 2−113189
charge flow tests for quark charges in two quark or diquark jet prod. 2−79860
charge fractionalisation conditions 2−113244
Cherenkov hadron radiation in nuclear active medium, theory 2−84860
colour switching, smooth topological representation 2−79830
colour van der Waals forces between leptons made of coloured constituents 2−54118
common substructure of quarks and leptons using basisons 2−59130
composite Harari-Shupe model, revision, new algebraic formulation 2−101681
composite models, generation problem soln. 2−84871
composite models, group theoretical search 2−89950
composite models, mass scale, rel. to flavour gauge symm. 2−95801
composite models of quarks and leptons 2−79848
composite particles with highly relativistic components, potential models 2−64303
composite quarks in supersymmetric grand unification 2−101686
composites, effective symm. 2−74664
constituent models 2−101685
doublet composite schemes of leptons and quarks *(Russian)* 2−74665
E(6) grand unified gauge model, mass hierarchy for quarks and leptons 2−69393
quarks continued
early Universe, free quark-baryon ratio, time development 2−68941
early Universe, quark-hadron transition, QCD and effective interaction calcs. 2−84362
electric dipole moments in standard SU(2)×U(1) model 2−101717
electroweak unification of quarks and leptons in Sp(8) and Sp(10) symplectic gauge symmetry 2−101623
experimental evidence of quarks and gluons, book contrib. 2−113233
fermion masses, from large mass scale, rel. to GUTs, composite quark/lepton 2−95704
fermionic composite models from complementarity 2−101684
fermionic flavours and generations, unification before flavours and colours 2−95700
fractionally charged particles search in cosmic rays at large zenith angles 2−100684
fractionally-charged atomic systems and the Stanford quark-search experiments 2−79815
fragmentation functions, higher order QCD corrections for scaling violation 2−64290
geometric rishon model, quark and lepton generations 2−69436
gluonic currents propagators, two-loop calcs. 2−89937
grand unified model with composite fermions based on SO(3)×SU(8) group 2−69394
gravitational decay in unified theories *(Russian)* 2−54228
hadron-hadron collisions, lepton pair prod. process, kinematic anal. 2−95887
heavy, effect on struct. function QCD evolution, Monte Carlo calc. program 2−64327
heavy quark mass, one-loop radiative correction in U(1)×SU(2)×SU(3) model 2−101725
heavy quarks, bound states, light-plane formulation 2−59046
heavy quarks and perturbative QCD calcs. 2−54072
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
inelastic neutrino interactions, limit on right handed weak coupling parameters 2−69446
internal structure of quarks and leptons and asymptotic freedom in $SU(8)_L$×$SU(8)_R$ model *(Russian)* 2−74639
intrinsic charm model, 5-quark wave function calc. 2−101670
jet, mean charge, appl. to quark charge determ. *(Russian)* 2−95773
jet-initiating parton identification based on multiparticle fragmentation functions 2−79844
Lie algebras in particle physics, book 2−79298
light composite fermion spectrum from gauge theory of quark and lepton constituents 2−64304
light current quark masses 2−64270
magnetic levitation expts. 2−95892
mass, effect on QCD coupling constant 2−101656
mass, in variable pressure bag model 2−113242
mass, rel. to overlap integral in Bethe-Salpeter theory *(Chinese)* 2−53982
mass hierarchy in grand unified theories 2−54125
mass matrix eigenvalues, review 2−113243
masses from effective potentials in internal space 2−59135
massless quark, Schrodinger vs. Dirac eqn. 2−64299
neutrino-nucleon interactions, quark fragmentation functions, contrib. from higher twist effects 2−64314
neutron stars, neutrino cooling by percolating quarks 2−58376
nuclei and quark matter, book contrib. 2−113388
Pauli principle and QCD for quarks and nucleons in hadrons and nuclei, book contrib. 2−113220
pion in nuclear physics and QCD 2−54065
preon models within 10 constraints 2−101682
preons with strong and electroweak quantum numbers, composite quarks and leptons 2−101687
QCD, minimal subtraction and heavy quark decoupling 2−54062
QCD and the search for glueballs 2−107625
QCD corrections to mass and width 2−107630
QCD phenomenology, mass depend. renormalisation group parameters implications 2−54063
QCD renormalisation using momentum-space subtraction scheme 2−84854
quantum logic explanation 2−58637
quark matter stability in neutron stars 2−117702
quark-lepton correspondence in model with $(SU(2)_L×U(1))_{WS}×U(1)'_{II}×U(1)''_{II}$ symmetry 2−54029
quark-lepton unification in $SU(4)_{PS}×SU(2)_L×SU(2)_R×SU(2)_{L'}×SU(2)_{R'}$ model 2−54026
quarks and the nucleus, conf., Erice, Italy, (Apr. 1981) 2−94900
relativistic heavy-ion collisions, charact. time for strange quarks chem. equilibration in QCD 2−85075
relativistic quark model in infinite momentum frame and nucleons static characts. 2−79843
renormalisable model with Peccei-Quinn global symmetry, axion elimination by 't Hooft mechanism 2−95755
review of 'New Physics' 2−54049
sea quark structure function model, QCD and DTU correspondence 2−101720
SO(10) grand unified model, unification constraints on mirror fermion mass scale 2−89923
SO(10) GUT, mass relations and neutrino oscillations, t mass, B lifetime 2−84819
$SU(2)_L×SU(2)_R×U(1)_{B-L}$, left-right symmetric GUT, proton lifetime, quark-lepton mass ratio 2−95721
SU(2)×U(1) gauge models, permutation symmetries anal. top quark mass 2−69392
$SU(3)_{HC}×SU(6)_L×SU(6)_R$ theory, four families of composite quarks and leptons 2−84873
SU(3)×SU(2)×U(1) model, supersymmetric extension 2−79803
SU(3) lattice QCD, hopping parameter expansion, meson and quark masses 2−69410
SU(3) lattice QCD, meson spectrum, quark masses, analytic calc. 2−89939
SU(8) hyperunification, composite quarks and leptons derivable from SO(8) extended supergravity 2−95712
subconstituent model, 't Hooft consisting conditions 2−54117
subconstituent model of quarks and leptons, spectrum inducing pot., elementary construction 2−84870
subquark fermion-boson two body model, Cabibbo model 2−89949
subquark models of leptons and quarks, observable effects 2−79850
superconductivity in quark matter 2−79814
supersymm. scalar partners 2−101596

quarks continued
top quark mass and neutral B meson induced decay and mixing 2−69434
topological vector gluons, quark chirality 2−79831
up-down quark mass difference in MIT bag model 2−69464
vacuum periodicity in instanton angle, chiral perturbation theory and fractional topological charge 2−101645
weak current algebra, composite W bosons and weak interactions universality 2−101683
Z_{2K} cyclic group, fermion generation labeling in composite models, t mass 2−101688
D semiletponic and nonleptonic weak decays, branching ratios, quark mass effects 2−64320
d-u quark effective mass difference expression 2−69424
e^+e^-, top quarks detection and study through jet identification 2−54185
e^+e^- annihilation, heavy quarks electroweak prod. 2−69477
e^+e^- annihilation, search for exclusive free-quark prod. 2−84902
$e^+e^-\rightarrow$hadrons, 12-36.7 GeV CM, total cross section meas. 2−95854
$e^+e^-\rightarrow q\bar{q}\pi$ process, P-odd effects *(Russian)* 2−59139
eN scattering, polarised electron, gluon corrections *(Russian)* 2−59158
$K_2\rightarrow\mu^+\mu^-$ dispersive contrib., neutral-kaon mixing and top quark mass 2−69450
K^-p, 30 GeV/c, elastic scatt., hadronic form factors and quark size determ. *(Russian)* 2−54213
$p\rightarrow\pi^+X$, recombination model to measure sea polarisation 2−95776
pp, 30 GeV/c, elastic scatt., hadronic form factors and quark size determ. *(Russian)* 2−54213
$\bar{p}p$ collider physics, conf., Madison, WI, USA (Dec. 1981) 2−106992
t, decay into doubly charged Higgs scalars, χ^{++} 2−95890
t quark mass, quark-lepton generation number in SU_5 GUT *(Russian)* 2−84827
U- and d-quark masses, daughter sum rule tech. appl. to V-A spectral functions 2−59067

quartz
adsorption of propane, influence of adsorbed water *(Japanese)* 2−61281
amethyst quartz, twinning microstruct. and growth 2−109815
amorphisation by neutron irrad. positron annihilation study 2−103851
anisotropic phonon propag., SEM study 2−115369
anomalous photovolt. effect 2−104433
ballistic phonon propag. imaging by electron beam scanning 2−56124
Brazilian quartz crystal for track recorder appl., selected etching and annealing props. 2−70093
ceramic obtained from synthetic SiO_2 2−99377
contact reactions with Ga-Ti(V)(Cr) melts, X-ray diffr. study 2−82085
crystal, splitted Laue-spots intensity change at piezodeformation *(Russian)* 2−81777
crystal growth, automated hydrothermal system of RADC/ESM 2−99315
crystal growth, interfaces and growth history 2−93401
crystal growth in NaCl, KCl solns. and pure water, low temp. IR absorption 2−99316
crystal hydrothermal growth, autoclave design 2−67204
crystalline, optical S-waveguides fabricated by ion bombardment 2−109044
crystalline, struct. phase transitions, neutron-induced, IR spectrosc. obs. 2−82868
crystals, quasi-positronium diffusion coeff. from ACAR meas. 2−93320
cyclic cluster calculation on the electronic structure of α-quartz and of its vacancy 2−61393
defects created by γ-ray, electron, and neutron irrad., thermal phonon transport study 2−56273
diffusion of adsorbed Br_2 and acetone 2−66294
diffusion of Ga, neutron activation anal. 2−66289
displacive phase transformations, coexistence of structurally different regions 2−61121
doubly rotated crystals, automated meas. of angles of cut 2−97859
etching, plasma and reactive ion, in planar plasma reactor 2−77970
free induction of E'_1-centres, EPR study 2−110640
fused, far IR absorpt. coeff. meas. of different types 2−60188
fused, shock compressed, elec. resist. and emission spectra meas. 2−71964
fused and crystal, materials suitable for use in far IR 2−60187
glass, absorption characteristics for γ-ray dosimetry 2−96322
glass, static load effect on mech. relax. processes 2−62156
glass ampoules, water desorption and absorption during Ge chem. transport *(German)* 2−93440
glass fibre-optic waveguides, induced absorpt., temp. and optical power level influence 2−55344
GT-type quartz crystal plates, frequency eqn. and characts. 2−60338
gyrotropic bounded medium, surface wave dispersion 2−96827
horizontally-polarized shear-wave type SAW propag. on rotated Y-cut quartz 2−55372
ion implantation effects, in SAW propagation 2−98124
ion irrad., surface polaritons, ATR study 2−57133
mechanical properties, effect of α-β transition 2−99046
microbalance, monitoring of plasma etch and deposition 2−111095
microtwinning, interferometry study 2−115248
microwave discharges produced by a surfatron in capillary tubes of quartz 2−103543
muonium hyperfine freqs., meas. technique 2−99015
natural, thermoluminesc., paramag. defects effects 2−77573
neutron irrad., thermal props. 50 mK to 4K 2−66248
oblique dislocations in prism fracture faces of synthetic quartz 2−98101
particles, anisotropic, spectral transmission 2−114192
permittivity meas., USSR-Bulgarian development of standard specimens 2−84664
piezoacoustic tunable resonator 2−70804
piezoceramic, synthetic, elastic and elec. characts. at 4.2K, acoustic device applic. *(Ukrainian)* 2−82784
piezoelectric bar, mech. behaviour, heat influx at one end 2−72424
piezoelectric crystals, growth using quartz from Trun, Bulgaria, as raw material 2−116353
plasma, low temp., spectral absorpt. 2−115047
point defects, acoustic loss, IR and magnetic resonance results 2−98084
polar vibrs. at 129 and 265 cm^{-1}, temp. depend. *(German)* 2−93181
positive temperature coefficient thermistor quartz crystal temperature controller 2−84612
pressure sensor resonator, sea depth measurement with great precision *(German)* 2−78864
pulsed laser piezo-electric transducer (PULPIT) opto-acoustic spectroscopy 2−64124
α-quartz, Brazil twin-boundary model 2−81797
β-quartz, lone pair compounds, charge distrib. determ. 2−81707

quartz continued
radiation expansion, irradiation temp. effect 2−103852
Rayleigh wave propag. in samples with SiO film overlays 2−66335
rectangular cantilever crystal plates, stresses under transverse loading 2−97430
resonators, high temp. resonance loss and IR characterisation 2−99137
resonators, radiation induced cond. and high temp. Q changes meas. 2−98335
SAW materials and devices in Japan 2−99056
SAW propagation characts. on α-quartz with arbitrary cut 2−91115
SAW propagation characts. on singly and doubly rotated cuts 2−98421
shock compression measurements at pressures >1 TPa 2−76590
shock-metamorphosed, defects study 2−115227
shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
single cryst., fracture toughness, room temp. *(Japanese)* 2−67507
single crystal, plastic deform., by indentation, at room temp., TEM 2−56070
Smoky, γ-ray irrad., low energy density of states gap, tunnelling model, US attenuation meas. 2−61324
smoky, natural, ESR study 2−98959
solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
sputtered, passivation of Al-Cu thin film, electromigration 2−98503
substrate for Al films, optical props., open wove resonator characts. *(Russian)* 2−93312
surface struct. change on interaction with $NaNO_3$, RHEED study 2−110109
surface struct. changes on interaction with simple gases, RHEED study, computer simulation 2−92325
surface structure, periodic, frozen into CO_2 laser method quartz 2−110110
synthetic, defects, effect on vibr. characts. and resonator performance 2−99044
synthetic, defects and Q-values of −18-5° X-cut bar 2−91949
synthetic, growth, seed influence on dislocation density *(French)* 2−76351
α-synthetic, twisted crystals as Brazil penetration twins 2−98116
thermal expansion, Gruneisen functions and static lattice props. 2−98313
transducer design, combined semiconductor and magnetic transductor technology appl. *(German)* 2−74405
tube, inside to outside dia. ratio meas. technique using forward scatt. light field *(Chinese)* 2−63970
tubes for filter envelopes and pulsed Xe flash lamps for laser use *(Chinese)* 2−55177
twinned according to Japan twin law, X-ray, topographic study 2−109814
Vickers microhardness anisotropy meas. for α-phase 2−105311
wafers, AT-cut, etching in $NH_4F.HF$ 2−88244
X-ray goniometry of modified doubly rotated cuts 2−97858
X-ray irrad., X-ray topograph under high electrostatic field 2−110112
X-ray specular refl. and anomalous scatt. near Si K absorpt. edge 2−82953
zonal struct. study 2−98042
^{4}He-quartz interface, anomalous Kapitza cond. saturation 2−110073
SiO_2:Ar^+, ion implanted electron irrad., antiannealing effect 2−66062

quartz resonators *see crystal resonators*

quasars
see also BL Lacertae-type objects; cosmology; galaxies; radiofrequency cosmic radiation; stars
3C 345 structure at 18 cm, UHF obs. *(Russian)* 2−68917
0104-408, radio quasar, optical identification and precise position 2−106943
250 absorption systems, red shift distrib., cosmological implications 2−89403
0351+026, optical nebulosity nature and H I props., obs. nature and H I props., obs. 2−89400
2345+007, double quasar, identification as third gravitational lens 2−68924
A_1 field, blue objects classification from visible spectra obs. 2−68926
absorption line redshift correl. with emission line redshift due to selection effects 2−58481
absorption line spectra due to high redshift mol. clouds in intervening galaxies 2−84346
absorption line systems, expulsion vel. correl. with luminosity 2−58480
absorption line systems, X-ray emission detect., obs. 2−112604
accretion disc winds driven by super-Eddington luminosities, thermal and spectral props. 2−84076
active extragalactic objects, complete sample from 1411 MHz VLA survey in Virgo 2−78978
alignments, assessment of statistical significance 2−112606
amplification by condensed objects in galactic haloes 2−101089
associations with companion galaxies to bright spirals, probability anal. using Poisson statistics 2−106954
background density in control field far from bright galaxies 2−84344
black holes, theory of steady accretion disks 2−100913
broad line forming regions, evidence for hot dust, IR obs. 2−89404
3C 232, absorpt. spectrum evidence for nonluminous matter in nearby galaxy (NGC 3067) 2−79201
3C 249.1 and 3C 232, spectra anal., UV obs. 2−94854
3C 273, QSO, search for short term variability, SHF obs. 2−79232
βC 273, surrounding nebulosity galactic nature from deep CCD obs. 2−84345
3C 345, far IR detect. and photometry 2−63702
3C 345, obs. of quasar candidates in nearby field 2−106955
3C 351, intrinsic intensity ratios of broad and narrow lines 2−68918
3C 48, detection of galaxy underlying QSO 2−74122
central activity, review *(Polish)* 2−94844
Cherenkov line radiation and emission line spectra calc. 2−68927
clouds vel. fields and physical conditions from spectra anal. 2−112544
clustering of quasars 2−79242
compact comparisons, nature and redshifts, visible obs. 2−89399
continuum 3600 Å broad emission feature model 2−89401
distances, QSO-galaxy assoc. with redshift differences 2−117762
distribution in three dimensions, evidence for Universe large scale anisotropy 2−79253
Doppler theory involving non cosmological redshift 2−74121
emission line regions, isothermal isobaric models 2−117794
emission line regions, reverberation mapping technique 2−78966
emitting regions for time dependent narrow emission lines 2−68922
energy production, massive oscillators as possible sources 2−58241
evolution from Hβ luminosity calcs. 2−106894

quasars continued
expanding double radio sources, possible meas. of time delay between gravit. images 2−63691
explosions, shock waves evolution rel. to triggering of galaxy form. 2−68902
extended images of distant quasars, universal expansion test 2−106951
extended radio struct., UHF/SHF obs. 2−74115
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
gravitational lenses detection, use of interfering delay signals, cepstral anal. *(Russian)* 2−68630
high redshift quasars, redshift upper limit implications and spatial distrib. 2−117793
intergalactic Lyman-alpha absorption lines in a close pair of high-redshift QSOs 2−84309
intermediate-strength radio sources from GB/GB2 surveys, radio maps and optical identifications of steep spectrum sources 2−106940
Kazaryan 120, visible spectral obs. and anal. 2−117790
Lα absorption features and surrounding gas clouds due to winds 2−58482
BL Lacertae objects underlying quasars 2−89376
large redshift quasars, spectral energy distrib., intervening clouds effects, visible obs. 2−68919
light variations, historical, from Turko (since 1938) 2−84343
linear polarisation and flux density, SHF obs. 2−58478
low excitation absorption lines due to intervening galaxies H I shells 2−89360
luminosities and Universe deceleration parameter *(Chinese)* 2−79254
Lyα/Hα ratio in high-redshift quasars, obs. 2−94856
Lyman α absorption lines, large red shift intergalactic clouds 2−117769
Markarian 1413, quasi-stellar nature, visible obs. 2−117613
mass estimation using gravitational distortion effect 2−84101
masses rel. to accretion onto massive black holes 2−89405
master list of nonstellar optical astronomical objects 2−58563
models, emission features and jets 2−63698
nebulous regions around quasars, review *(Russian)* 2−94857
nonthermal radiation, optical spectrum shape and variability 2−79207
NRAO 140, apparent superluminal motion obs. 2−68925
nuclei, spectral line radiation press. effect on gas and dust 2−63232
optical radiation scatt. and polarisation by circum-quasar gas, theory *(Russian)* 2−106923
OV−236, QSO, search for short term variability, SHF obs. 2−79232
Parkes 2700 MHz resurvey of ±4° declination zone, optical identification 2−89394
Parkes radio sources, 2.3 GHz accurate positions and optical identifications 2−79234
photography at 1.1 μm 2−68628
photometric observations and structure 2−74085
PKS 0254−334, QSO, pair, common absorpt. lines interpretation, visible obs. 2−63703
PKS 2000−330, emission redshift from AAT IDS obs. 2−117791
plasma conditions and radiation processes 2−63683
properties in radio and IR bands *(Polish)* 2−106922
Q1115+080, triple quasar, spheroidal gravit. lens model 2−112607
Q2204−408, He II absorpt. rel. to He ionisation balance in intergalactic medium 2−94837
Q 0957+561 A, B, UV spectra of double quasar, IUE obs. of variability 2−74123
QSO 0095+561, double quasar light var., B-obs. 2−68920
QSO 0957+561, gravit. lens, short period var. detect. *(French)* 2−101088
QSO 1525+227, X-ray flux, evidence for 200 second variability 2−94855
QSO absorption features at different emission redshifts 2−106950
QSO candidates from Jodrell Bank 966 MHz survey 2−89406
QSO clusters 2−101090
QSO elemental relative abundance and galaxy evolution 2−106953
QSO emission-line clouds, probabilistic radiative transfer for finite slab atmospheres 2−101086
QSO-galaxy assocs., statistical analysis of large sample 2−112605
QSOs, optical identifications for 5 GHz sources 2−112603
radio contour structures using VLBI techniques *(German)* 2−89165
radio sources, intermediate-strength, from GB/GB2 1400 MHz surveys, radio spectra and optical identifications 2−106939
radio sources, variable, obs. with RATAN-600 radio telescope 2−101083
radio sources at 4.755 GHz, astrometry and optical identifications 2−63689
radio two-colour spectral distributions, for quasars and radio galaxies 2−79235
radioastronomy review, history, development and state of art *(German)* 2−89148
recurrent activity in galactic nuclei, possible mechanism *(Russian)* 2−101072
red shift due to ejection speed from explosion centre 2−117789
redshift distrib. of Lyman limit absorpt., cosmological model 2−101102
redshift distribution periodicity rel. to Universe density perturbations and deceleration parameter 2−63721
relativistic beaming and quasar statistics 2−112608
rotating magnetic superstars model for quasi-stellar objects, luminosity and density evolution 2−106952
rotation of gaseous discs, assoc. spectral line calcs. 2−101087
SA 29, list of faint blue objects 2−68637
search for redshifted formaldehyde, water, NH_3 and O_2, intervening galaxy constraints 2−74100
space density decrease in $Z \gtrsim 3.5$ range 2−63700
spectra, 3000 Å bump interpretation 2−68921
spectral flux distribution in IR, obs. 2−79239
structure models based on SHF obs. 2−68923
triplets physical nature and parameters 2−117789
ultrarelativistic expansion velocities of radio sources components, highlight model as possible explanation for ultrarelativistic expansion vels. 2−94851
Universe deceleration parameter from quasar data anal. 2−106975
Universe probes at large distances 2−79263
UV excess of Seyfert 1 galaxies and quasars, anal. of components of spectrum 2−63616
variable sources, quenching and outbursts, EHF data comparison with SHF data 2−79229
X-ray absorption line detectability 2−74124
X-ray background, contrib. of quasars 2−117812
X-ray emission, log N-log S relation from medium-sensitivity survey by Einstein Observatory 2−58271
X-ray emission process involving emission from radiatively driven shocks formed in line driven winds 2−68731
quasars continued
X-ray emitting QSOs, visual and IR photometry 2−106949
X-ray luminosity, relations with optical spectroscopic features 2−89402
X-ray selected objects, redshift distrib. 2−117792
X-ray sources, correl. between optical, radio and X-ray luminosities 2−63716
X-ray sources, EHF obs. 2−74120
X-ray sources, identification and X-ray/optical luminosity-redshift relations 2−117795
X-ray sources, radio loud and radio quiet, contrib. to X-ray background 2−63716
C IV absorption lines, evidence for intervening galaxy hypothesis 2−106963
H spectra, model of emitting regions 2−63701

quasi-particles
see also excitons; helicons; magnons; phonons; plasmons; polaritons; polarons; ripplons; rotons; solitons
Fermi liquid, tensor forces and spin susceptibility 2−84962
glass, quasiparticle and defect theory, applicability 2−103660
heavy nuclei, single-particle and collective excitation dynamics 2−79935
intermediate valence systems, local fermi liq. theory 2−56500
Josephson junction, quantum dynamics of tunnelling 2−92835
liquid alloy melts, crystal quasiparticle anal. using cluster-variation method 2−103586
nuclear pairing field, path integral approach 2−54276
semiconductor, bielectron in an external magnetic field 2−76952
spin echo response calc. for interacting pairs of spin-$^3/_2$ quasi-particles 2−93061
superconducting film, phonon-induced nonequilib. states, kinetic eqn. study 2−82519
superconducting tunnel junction, nonequilib., with inhomogeneous order parameter, impedance *(Russian)* 2−82533
superconductor, charge imbalance, voltage, taking approx. charge neutrality into account 2−56770
superconductor, inhomogeneous state under nonequilib. conditions 2−72112
superconductor, quasiparticle-injected, Bose-Einstein condensation of excitons 2−56768
superconductor, supercritical current pulses response 2−56771
superconductor, thermoelectric effects, review 2−115946
superconductors, pair breaking and charge relax. 2−61649
$(TMTSeF)_2PF_6$ superconductor, thermal conductivity 2−92822
transport with intermediate degree of coherence, disorder effect, mean square displacement calc. 2−74365
Al, superconducting, magnetoabsorpt. resonances, 35 GHz 2−57067
$CsNiF_3$, ferromag., transverse spin fluctuations, neutron inelastic scatt. study 2−56836
He, liquid, acoustic echo on bubblons *(Russian)* 2−66319
^{3}He, superfluid, B-phase, shear viscosity, Landau parameters effect 2−104098
^{3}He-^{4}He quantum crysts., quasiparticle collisional diffusion 2−82072
Pb superconducting film under quasiparticle injection, inhomogeneous gap states obs. *(Chinese)* 2−92826
Pb/Bi/Jn oxide-Pb/Bi tunnel junction, quasiparticle mixer and other appls. 2−98812
Sn, bulk, radiation detector using supercond. tunnel junctions 2−90384

quasi-stellar objects *see quasars*

quasi-stellar sources *see quasars*

quasimolecules
atom-diatom van der Waals complex, branching ratios, Feshbach reson., coordinate rot. calcs. 2−70212
fluorene-Ar$_n$ van der Waals complex, energetics, solvent shifts and decay lifetimes 2−70322
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
inner shell excitation in superheavy quasimolecular systems 2−54929
intramolecular interactions, mol. beam spectroscopic studies 2−75365
potential curve reconstruction from emitted electron spectra *(Russian)* 2−54915
superheavy ion+atoms, K-vacancy formation, X-ray and δ-electron emission in quasimolecular model 2−85796
transition metals, chemisorption energy polarisation effect, quasimolecule projection method 2−82141
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
Ar.HCl quasimol., rot. vibr. energy level calc. 2−75232
He_2^{2+} quasimolecular states, calc. using diabatic MO basis set 2−70384
I_2Ar van der Waals complex, photodissoc. cage effect 2−96661
I_2Ne, intramolecular energy transfer, dissoc., time depend. SCF approx. 2−108452
LiHe, van der Waals mol., rovibration struct., optical double reson. 2−70308
NOAr, direct photodissociation, fluoresc. spectra 2−59874
NOHe, direct photodissociation, fluoresc. spectra 2−59874
NONe, direct photodissociation, fluoresc. spectra 2−59874
SF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981

quench hardening
steel, alloy, quenched and tempered, fracture, effect of H_2 2−67527
steel, alloy 2−77933
steel, alloy Charpy-V type specimens, fracture appearance, effect of notch root radius and austenitising temp. 2−99534
steel, Cr, nitrided, microstruct. 2−105381
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, Mn(-Nb), intercrit. austenitisation, quantitative study 2−77854
steel, Ni-Cr, stress corrosion cracking in NaCl soln. near lower temper martensite embrittlement range 2−83264
steel, Ni-Cr(-Mo)(-V), relative hardenability and interaction effects of Mo and V 2−62131
steel, Si-P, dual-phase, development of high strength sheets 2−105251
steel lath martensite, deformed and undeformed, tempering process, effect of Nb additions 2−99454
Al alloys, substrength, improperly quenched, fatigue crack growth 2−57437
Al-Mg-Si-Cu-Cr, quench sensitivity, effects of Cu and Cr 2−105174
C steel, US attenuation, rel. to thermal treatment 2−72896
Cu-Al (9.8-11 wt.%), dual-phase, struct.-prop. relationship, individual phases 2−77833

quench hardening continued
Cu-Al (9.8-11 wt.%), dual-phase struct.-prop. relationship, alloy behaviour 2−77834
Fe-Al-Si alloy, sputtered granules, characters, before and after annealing *(Russian)* 2−67368
Pb-Au, yield stress and resist., effect of composition and thermal treatment 2−83165

quenching (optical) *see radiation quenching*

quenching (thermal)
see also quench hardening; splat cooling
alloy steel, hydrogenated, type 40 KH, H interaction with defects during microplastic deform. 2−105261
amorphous, ribbons, mag. anisotropy distrib., internal stress fields *(Chinese)* 2−110602
brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramic, brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramics, thermal shock stability *(French)* 2−88155
circular cylinder during quenching, transient temp. distrib. 2−109172
epoxy thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
glass, opt. grade, stress distrib., nonuniformity during air-jet quenching 2−67274
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
melt-spinning process, Kavesh's model of ribbon form. 2−93467
metallic foils, high-speed casting by double-roller quenching technique 2−99370
metallic glass form. in hammer and anvil apparatus, cooling rates 2−67239
metals, FCC, vacancy migration, trapping and clustering by γ-ray spectra 2−56996
poly(phenylene oxide), tensile props. and density, effect of residual stresses 2−67401
polycarbonate sheet, rapidly cooled from melt, residual stresses and their relief by sectioning 2−57378
polyester, unsaturated, thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
polyethylene, linear fraction, crystallised at different temps., quantitative electron microscopic obs. 2−65875
polymer quenchants, use in surface heat treatment of metals 2−116471
polystyrene film, atactic, effect of thermal history on gas transport 2−92275
rare earth alloys, $R_{0.4}Fe_{0.6}$ (R=Pr, Sm, Gd, Tb, Er), melt-spun coercivity, quench rate depend. 2−72285
Shirasu volcanic glass-CaO-MgO system, glass form. composition range, props. *(Japanese)* 2−88049
steel, 40KhN2MA, mechanical props. and struct., effect of austenitisation temp. and hot deform. *(Russian)* 2−77901
steel, alloy type Ck 15, fatigue charact., nitriding effects *(German)* 2−57475
steel, austenitic, Ni-Cr-(Mn), P segregation during austenitisation, effect on cracking and embrittlement 2−57357
steel, B, type 10B35, X-ray factography on const. fatigue fractured surface *(Japanese)* 2−77919
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, Cr-Mo, vacuum carburised, SCM 420, fatigue strength, carburised layer microstruct. effects *(Japanese)* 2−105304
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, high C, carbonitriding 2−111374
steel, high Si, ribbons, roller quenched, mag. props., pot. core material of elec. machines and power transformers 2−87522
steel, high speed, precip. of carbidic phases during tempering 2−88090
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, hypoeutectoid, spheroidising treatment from various initial conditions, struct. form. 2−99451
steel, low alloy, quenched and tempered, susceptibility to environment assisted cracking, relationship with banding 2−77975
steel, low-alloy, quenched and tempered, transcryst. cleavage microcracks initiation and propag. 2−111320
steel, martensitic stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
steel, medium C, N implanted, Mossbauer surface study 2−93086
steel, medium-C low-alloy En 24, intercritical treatments, duplex struct. 2−105189
steel, Mg, quenched and tempered, fracture behaviour 2−83221
steel, mild, plastic deform. in metal cutting 2−105267
steel, Ni, Mn and Ni-Mn based, maraging, economically alloyed, heat treatment influence on struct. and props. 2−67394
steel, Ni-Co-Mo-Ti, maraging, heat treatment for service life improvement 2−72739
steel, quenched and tempered, crack nucleation and propag., electron microscope obs. *(German, English)* 2−57477
steel, stainless, austenitic, grain boundary segregation of B, atom probe microanalysis 2−72701
steel, stainless, weld solidification struct. and transform. behaviour, effect of quenching 2−99412
steel, supercooled austenite, decomp. products morphology changes during continuous cooling, HTTMT influence 2−105159
steel U8 and automatic steel A40G, struct. superplasticity w.r.t. treatment conditions 2−57426
steels, abrasive wear resist. improvement, cryogenic treatment 2−116556
steels, alloy and C, martensite struct. after quenching and tempering *(Russian)* 2−99460
steels, quenched and thermomechanically hardened, austenite form., struct. and substruct. *(Russian)* 2−99421
Zircaloy-4, solid state phase equilib., 750 to 1050°C 2−83082
ZnSe:Li, p-type cond. 2−115925
Ag-Pb alloys, rapidly quenched, Ag-rich phase 2−88056
Al, commercial purity, microstruct. development during rolling 2−83136
Al, pure, static and cyclic creep behaviour, quenching effect 2−72779
Al, quenched, clustering process of vacancies 2−55964
Al, quenching curves 2−57388
Al, thermal quenching, positron anihilation study 2−104994
Al-Cu films, amorphous, crystallisation 2−71837
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al-Fe, solid solns., secondary quenching defects features 2−62153

quenching (thermal) continued
Al-Mg, microstruct. development during rolling 2−83136
Al-Mn (1.5×10^{-2} at.%), thermal quenching, positron anihilation study 2−104994
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
Al-Zn (4 wt.%), GP zones, ageing and reversion, elec. resist. meas. *(Japanese)* 2−83143
Al-Zn-Mg, aged at 20, 80 and 120°C, decomp., quench conditions influence *(French)* 2−72743
Al-Zn-Mg, decomp. kinetics, effect of small Mg additions 2−99388
Al-Zn-Mg, isothermal ageing, O-180°C, after direct quench, mech. props. and microstruct. 2−93536
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
(Al-4Cu)-Al_2O_3 composite, SAP type, precipitation hardening 2−77836
As-S glasses, Raman inelastic light scatt. 2−104887
B, metallic vapour-quenched thin film with A1 type cryst. struct. 2−110214
B-Fe(Ni), phase comp. and cryst. struct. meas. 2−88055
BaF_2-MnF_2-RF_3 (R=Dy, Ho, Er, Tm, Yb, Lu, Y), glass form., quenching, IR study *(French)* 2−91808
$Ba(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726
$CaCr_2O_4$-$Ca_2Fe_2O_5$, phase equilibria, under reduced partial pressure of O_2 2−88075
$Ca(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726
CdS, chlorinated, press. quenched, AC conductance and phase angle anomalies 2−82359
Co-B, phase comp. and cryst. struct. meas. 2−88055
Co-V FCC alloy, quenched from 1200°C, elec. resist. 2−104345
$(Co_{0.78}Fe_{0.22})_3V$ alloy, ordered, microstruct. 2−72719
Cu, pure, static and cyclic creep behaviour, quenching effect 2−72779
Cu-Ag, amorphous films with high stability 2−104196
α-Cu-Al, DSC eval., energetics 2−83111
Cu-Al (10.1 wt.%), bronze, cast, characterisation using X-ray diffr. and microscopy *(French)* 2−88104
Cu-Al-Mn alloys, influence of Mn on phase shifts *(French)* 2−99543
Cu-Al-Zu, damping capacity, quenching and Zn addition effects 2−116441
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Sn (10.8.wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Cu-Ni-Sn spinodal alloy, tensile props. improvements by two-phase heat treatment 2−116478
Cu-Pb, microstruct., mech., elec., and mag. props., depend on synthesis conditions 2−56748
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
β-Cu-Zn, quenched, elec. resist. and hardness recovery on annealing 2−92568
β-Cu-Zn-Al, ordered, martensitic phases, premartensitic states and struct. *(Russian)* 2−62123
Cu-Zn-Al (32.23, 1.84 wt.%), martensitic transform. and shape memory effect *(Chinese)* 2−62122
Cu-Zn-Al alloy, martensite structures for various quenching conditions 2−93510
Cu-Zn-Al quenched alloys, martensitic structs., electron diffr. study 2−62124
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
Cu_6BiS_6, cubic, modulated struct. 2−91900
$CuInS_2$, photoluminescence, broad band emission, defect electron states 2−93249
Fe, cast, hot-worked high-strength, kinetics of isothermal breakdown of austenite 2−105140
Fe, cast, hypoeutectic, Ce microdistrib. between struct. components, wide solidification range 2−99393
Fe-Al (10 to 50 at.%), quenched from 1100°C, 10 to 26.5 at.% Al during tempering *(German)* 2−111215
Fe-Al (40 at.%), quenched, nucleation of dislocation helices *(French)* 2−55969
Fe-Al (40 at.%), quenched or electron irrad., nucleation of dislocation loops *(French)* 2−55968
Fe-B-Si(Cr) metallic glass ribbon, elec. resist. free volume depend. 2−110322
Fe-Cr-Al alloys, rapidly quenched, microstructs., mech. props., elec. cond. 2−111332
Fe-Ni-Co-Ti (23, 10, 10, wt.%), martensitic transformation 2−83118
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
Fe-Ni-V, σ phase, range of stability 2−62100
Fe-P alloys, fracture mode and toughness, C effects 2−57484
Fe-Si alloys, polycrystalline ribbon form, rapid quenching technique *(Japanese)* 2−116475
Fe-Si ribbon-form alloys, rapid quenching preparation techniques, soft mag. props. *(Japanese)* 2−67240
Fe-Si-Al Sendust ribbon, rapidly quenched, annealing effect on coercive force 2−72273
$Fe_{100-x}B_x$, metallic glass, electrochem. corrosion and Mossbauer spectra, composition and processing parameters effects 2−93640
$Fe_{81.8}B_{14.2}Si_4$, metallic glass, struct. relax., effect of quench rate 2−81683
$Fe_{40}Ni_{40}B_{20}$, metallic glass, Vitrovac 0040, crystallisation, TEM obs. 2−116474
$Fe_{40}Ni_{38}Mo_4B_{18}$ metallic glass ribbon, elec. resist. free volume depend. 2−110322
$Fe_{1-x}S$, Mossbauer study of Fe vacancy distrib. 2−81783
Ga_2Se_3, ordered and disordered phases, struct., electron diffr. and microscopy obs. 2−60957
Ge:Cu, quenched, Cu related shallow acceptor, hole density temp. depend. study 2−92509
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
$La_{0.33}NbO_3$, thermal quenching prep., crystallisation and struct. 2−91924
$LiCe(MoO_4)_2$, synthesis, structural characterisation 2−86633
LiF:Mg, TLD-100, thermoluminesc. meas., clustering and precip. effects 2−93291
Li_2SO_4, elec. cond. in monoclinic phase 2−71710
MgO:Fe^{3+}, quenched crystals, kinetic reactions 2−57380
MgO:Li^+ crystal, dielec. behaviour 2−87661
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435

quenching (thermal) continued
NaCl bicrystals, microhardness 2−57454
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Ga high T_c supercond. wires, prep. by heating and quenching in liq. He 2−77770
$Nb_3(Al_{1-x}Ge_x)$, A15 superconductor, prep. from transformation from liq. quenched BCC phase 2−98777
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
$Nb_3Ge(Si)$, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
NbTi supercond. composite, unpainted, exptl. study of quenching dynamic processes *(Chinese)* 2−110531
Nd-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
Ni, segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
Ni-Co, relation between damping capacity and magnetomech. props. 2−57397
Ni-Cr, lattice parameter studies of struct. changes near Ni_2Cr 2−105124
Ni-Cr, quenched, short range order form. and vacancy annihilation on annealing, elec. cond. study 2−115723
Ni-Ti, close to equiatomic, hardening and shape memory effect 2−72737
Ni-Ti (102wt.%), liquid quenched modulated struct. alloy, ageing *(Japanese)* 2−105193
NiFe, 3d electron density charge on atomic ordering, Mossbauer study 2−61804
PbS, lattice period, influence of composition and γ-irradiation 2−76382
Pr-Fe alloys, melt-spun, mag. hardening and crystn. props. 2−88228
Pt, vacancies formation vol. and energy meas. 2−98076
Si, cryst., laser quenching induced transition to defective cryst. and amorphous state 2−92030
Si, epitaxial layer, boundary segregation of impurities, under action of γ-radiation, or quenching 2−87095
Si:B,Fe, quenched-in trap level at E_v+0.45 eV 2−104291
Si:Fe, heat treated, interstitial impurity, EPR study 2−71439
Si:In, luminescence intensity enhancement by thermal treatment 2−57153
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
$Sm(Co_{0.86}Cu_{0.14})_7$, struct. and coercivity, heat treatment effects *(Russian)* 2−88227
$SrTiO_3$:La, quenched, highly reduced, electronic cond. 2−56583
steel, Al, US treatment effect on C redistrib. and austenitic-martensitic transform. *(Russian)* 2−67331
Ti alloys, metastable transformations study, by acoustic charcts. meas. 2−105421
Ti-Al-Mo, α″ phase form. and decomp. *(Russian)* 2−99385
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Ti-V-Cr-Mo, VT3-1, α″ phase form. and decomp. *(Russian)* 2−99385
U, positron annihilation photons Doppler broadening 2−67141
Yb_2O_3-Fe_2O_3-CoO (NiO)(CuO)(ZnO), phase diagrams, quenching method X-ray study 2−76639
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520
$Zr_3Pd(Rh)$ amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225

queueing theory
Ising model, finite, crit. dynamics, queueing theory 2−104638

queuing theory *see queueing theory*

R and D management *see research and development management*

R-centres
No entries

R waves *see Rayleigh waves*

Racah coefficients *see angular momentum theory*

radar
see also Doppler effect; optical radar
ducting conditions at Poona, diurnal and seasonal variations up to 33.5 m height 2−68434
sea surface observation by UHF and SHF radar, backscatt. props. 2−117489

radar altimeters *see radioaltimeters*

radar antennas
phase-controlled VHF Yagi, lower and middle atmospheric structure and dynamics study appl. *(German)* 2−106360

radar applications
acoustic sounding system for remote meas. of temp. in lower atmosphere *(Japanese)* 2−58171
agriculture land remote sensing by radar, Dutch ROVE program 2−58044
Arctic sea ice mapping with radar 2−78667
astronomy, popular introduction *(German)* 2−112346
atmospheric gradients, fluxes and structure meas. in elevated layers 2−89045
cometary studies 2−94648
crop classification combining radar remote sensing and Landsat data 2−58047
D-region electron concentration, diurnal variations, use of Arecibo 430 MHz incoherent scatter radar 2−83962
diffuse vegetation layer over a smooth surface, oblique backscatter and bistatic scatter 2−73557
double polarisation radar for detection of rain and good weather *(French)* 2−100597
frontal rain, forecasting using weather radar network 2−112018
Geminid meteor shower (1980), high-resolution radar studies 2−94660
human body movements, random, quantification by Doppler radar device 2−117048
insects in sea-breeze front at Canberra, radar study 2−100529
ionosphere sounding, STARE obs. of long discrete echoes 2−112217
Madras region, India, convective clouds spatial distrib. from radar obs. 2−112084
meteors, selectivity function of radio obs., evaluation method 2−84173
ocean surface waves imaging, model and expt. verification 2−68514
ocean surface wind speed and direction, spaceborne scatterometer meas. 2−106351
ocean wave imagery by synthetic aperture radar 2−106331
ocean wave measurement by radar amplitude method 2−117496
planetary surfaces and atmospheres study 2−106574
polar ice-edge, water column structure determ. and wind-generated upwelling search 2−94390
prestorm boundary layer obs., single Doppler radar appl. 2−88963

radar applications continued
radio meteor ionisation columns, initial radii meas. determ. method 2−63107
radioactive waste low level disposal sites, evaluation by subsurface radar techniques 2−54513
remote sensing, partially coherent backscatt. from irregular surfaces 2−58050
remote sensing, radar cross-section for randomly rough sections 2−58051
remote sensing, scatt. from randomly absorbing layers 2−58049
remote sensing by SAR method, angle of incidence considerations 2−111926
remote sensing for rock-type discrimination 2−112170
remote sensing from aircraft or satellite platform, calc. of ground clutter 2−58048
remote sensing of crops on ploughed land by side-looking radar 2−58046
remote sensing of Earth, radar appls. *(French)* 2−63136
remote sensing of sea surface, discrepancy between ground-based and airborne obs. 2−58156
river runoff model incorporating radar data on rainfall 2−100411
sea surface observation by UHF and SHF radar, backscatt. props. 2−117489
Seasat radar scatterometer, calibration by obs. of Amazon rain forest 2−58148
SEASAT remote sensing synthetic aperture radar data reduction 2−112138
soil evaporation, active microwave radar meas. 2−68533
soil moisture determination, use of C-band radar 2−106122
soil moisture remote sensing by radar, land surface roughness effects 2−58151
solar corona, radar studies, 1961-69, rel. to corona large-scale struct. determ. 2−100875
sounding of ice on two Peruvian glaciers 2−106152
storm rainfall rate, comparison of radar differential refl. and disdrometer meas. 2−73707
synthetic aperture radar imagery, method for pixel location 2−111923
synthetic aperture radar images of extended targets for level and hilly terrain 2−73556
thunderstorms and lightning 2−89047
tropical cyclones over Arabian Sea and Bay of Bengal, radar features 2−88972
upper atmosphere, Meteor Wind Radar System at Waltair, Nagarampalem field station, meteor echoes 2−117491
upper atmosphere wind variations over Waltair from meteor trails radar obs. 2−78892
Venus, global surface radar reflectivity meas. 2−117621
weather forecasting at airports in Japan, 1979 to 1980 *(Japanese)* 2−94532

radar clutter
SHF scattering at sea surface at small grazing angles, characts. 2−73653

radar measurement
automatic processing system of meterological radar data in real time using the ASVT-M-3000 computer *(Russian)* 2−58174
inhomogeneous object reconstruction from microwave scattered field meas. 2−105815
meteor height detection using radar techniques, error estimation *(Italian)* 2−89153
ocean surface wind vector determ. from radar backscatter meas. 2−106371
ocean wave height meas. with SEASAT SAR using speckle diversity 2−68515
solar corona, appl. of radar studies to determ. of large-scale coronal geometry 2−100875
Venus Orbiting Imaging Radar (VOIR) spacecraft, preview 2−68596

radar systems
90 GHz radiometer system for sensitive high resolution airborne meas. 2−64111
EISCAT, for studying ionosphere at high latitudes 2−58188
FM/CW, rain attenuation of mm waves measurement appls. *(Japanese)* 2−94539
HF radar meas. system for ocean wave height and direction 2−68379
Meteor Wind Radar System at Waltair, Nagarampalem field station, meteor echoes in upper atmosphere 2−117491
microwave sea state measurements 2−68384
ocean wave height and direction indication based on commercial radar 2−68380
Seasat altimeter and scatterometer 2−68541
synthetic aperture radar, appls. to meas. of ocean waves 2−68383
synthetic aperture radar imagery, capillary wave random motion effect, oceanographic appls. 2−68528

radar telescopes *see radiotelescopes*

radar theory
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
rain reflectivity for non-spherical drops and 34.8 GHz signal 2−58109

radiance *see brightness*

radiation
see also atmospheric radiation; beta-rays; cathode rays; cosmic background radiation; electromagnetic waves; heat radiation; radiation effects; radiative transfer; stellar radiation
absorption solar cooling system, open-cycle, possibilities of storage of cold 2−99842
photocell heat engine solar power systems, concept, operation and performance 2−93941
relativistic positrons, refl. from solid surface, EM radiation emission 2−72575
semi-infinite media, radiation damage from identical particle scatt. 2−103810

radiation belts
see also atmospheric electron precipitation; atmospheric proton precipitation
electron lifetimes from precipitating particles flux 2−83988
equatorially mirroring particles in Mead-Fairfield model, elec. field effects 2−78923
International Magnetospheric Study results review 2−112263
outer belt relativistic electrons dynamics 2−100653
particle lifetimes dependence on longitude and local time 2−106391
particle precipitation bursts, correl. with X-ray rapid burster magnetosphere processes 2−79147
proton fluxes at high energy, determ. from nonadiabatic loss mechanisms 2−73783

radiation belts continued
protons, non-adiabatic behaviour in radiation belts *(Russian)* 2−63172
pulsations of high energy electrons from precipitating particles anal. 2−106418
South Atlantic Anomaly, proton-induced noise in Space Telescope digicon 2−117590
trapped electrons outer boundary, convective MHD stability 2−73784
warm equatorially trapped ions near geosynchronous orbit, composition meas. 2−112235
He ions trapped in quiet conditions, pitch angle distrib. 2−106423
radiation biology *see biological effects of radiation*
radiation chemistry
see also chemical effects of nuclear reactions and scattering; photolysis; radiochemistry; radiolysis
acetaldehyde in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
acetone in fluorotrichloromethane, exposure to ^{60}Co γ-rays, radical cations form., EPR spectra 2−98962
alkane radical cations, radiation prod., the use of freons and perfluoro(cyclo)alkanes as matrix 2−80642
allyl-type free radical trapped in γ-irrad. potassium hydrogen glutamate single cryst., ENDOR investig. 2−56975
alpha radiolysis of FUETAP concrete, rad. waste containment material 2−80141
carbon tetrachloride, liq., electron pulse irrad., transient absorpt. 2−80647
concrete, vinyl monomer additives, effect on radiative styrene polymerisation *(Russian)* 2−54523
cryomicroscopy and radiation damage, conf., Schloss Ringberg am Tegernsee, Germany (Nov. 1981) 2−112655
cyclohexanone 2−98962
electron transfer processes, Franck-Condon factors, electrostatic interactions 2−99690
gases, electron thermalisation, moment theory 2−99693
ion implantation in SiO_2 thin films, CO_2 form., astrophysical implications 2−92009
liquid crystal/dye mixtures, UV stability determ., quantitative method 2−62416
lithium alkyls, γ-irrad., ESR obs., rel. to methylene anion radical 2−108588
model for predicting leaching behavior of high-level radioactive waste forms 2−80140
nonsecond-quantised radiation effect on chemical systems 2−116690
organic crystals, gamma irrad., EPR spectra obs. 2−56938
organic solids, electron interactions, phys. mechanisms 2−115296
PMMA co-polymers, free radical accumulation kinetics under irradiation, 270-400K 2−78117
polyethylene, oxidation above melting point, γ-radiation effect on kinetic parameters *(Russian)* 2−67578
polyglycidyl methacrylate (PGMA), negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
polymers, radiation sensitivity meas., resists. and nuclear particle track recording appl. 2−93802
polystyrene, negative electron resist., γ-irrad., ESR study and INDO UHF MO calc. 2−93010
pre-knock-on concept in electron microscopy 2−115297
proteins and other substances, aq. solns., macroscopic fluctuations rel. to cosmo-geophys. factors 2−111746
radiation and transmutation effects on crystalline radioactive waste forms 2−80138
radioactive waste, actinide immobilisation, valence, size and radiation effects 2−80137
radioactive waste leach tests using radioactive tracers and neutron activation 2−80139
Rydberg states in radiation chemistry 2−59786
H_2CN^+-N_2 production from α-irrad. N_2+CH_4 mixture, Titan atm. appl. 2−100826
KN_3, UV irrad., satellite EPR resons. of N_4^- 2−104698
$K(UO_2)(NO_3)_3$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$K_2(UO_2)(NO_3)_4$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$(NH_4)_2(UO_2)(NO_3)_4$, NO_3 radical in γ-irrad. single crysts., EPR study 2−56937
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
TaC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
TiC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
WC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
radiation counters *see counters*
radiation damage *see radiation effects*
radiation detection and measurement
see also alpha-particle detection and measurement; beta-ray detection and measurement; electron detection and measurement; gamma-ray detection and measurement; hyperon detection and measurement; meson detection and measurement; muon detection and measurement; neutrino detection and measurement; neutron detection and measurement; particle detectors; proton detection and measurement; radioactivity measurement
active well coincidence calibration for ^{235}U meas. 2−113840
amplifier chip 733 as low input impedance preamplifier for current-division use 2−90411
analogue device for particle identification and spectra acquisition 2−107442
angle resolved charged particle detection with toroidal electrostatic analyser 2−80386
antinucleus detection in cosmic rays 2−100749
apatite, ion induced track formation mechanism 2−59664
autoradiography using CR-39, inhaled Rn decay product microdistrib. determ. for various tissues 2−68221
axial field spectrometer at CERN ISR 2−90348
az egesztestszamlalo detektormozgatast vezerlo elektronikajanak tovabbfejlesztese (A whole body counting moving detector with electronic control) *(Hungarian)* 2−111779
BEBC internal picket fence based on proportional tubes, performance study 2−64757
bisphenol-A polycarbonate, track etching photo-oxidative enhancement, chem. basis 2−59617
BOL measurement system for nuclear reaction investig. 2−59666
radiation detection and measurement continued
Bragg curve spectroscopy using gaseous ionisation chamber 2−90355
bremsstrahlung detection using pyroelectric detectors 2−90406
calorimetry, ideas and developments, review 2−64823
cathode strips read-out MWPC, avalanche localisation along wire, systematic errors evaluation 2−90397
cellulose nitrate, low charge discrimination expt. study 2−70074
cellulose nitrate films, chem. and phys. parameters influence on track quality 2−59637
cellulose nitrate plastic detectors, Fe ion registration props. 2−70080
cellulose nitrate track detector sensitivity to mass difference in low Z region 2−70108
cellulose triacetate, spatial damage distrib., at. number and ion energy influence 2−59663
charged particle tracks development by electrochemical etching, soln. parameter influence 2−70068
charged particle tracks in matter, dosimetric quantities 2−59659
charged particles meas. from fast neutron induced reactions in close geometry 2−108309
charged tracks with minute curvature, momentum calc. 2−102352
charm decay detection in freon bubble chamber equipped for holography 2−108282
chondritic meteorites, fission tracks and search for siderophile superheavy elements 2−68686
chondritic phosphates, ^{244}Pu conc. and significance in meteorites fission track dating 2−68685
CN-85 solid-state nuclear track detector, electret props. studies 2−59615
conference, San Francisco, CA, USA (Oct. 1981) 2−58528
cosmic ray isotope expt. using Cherenkov range detector technique 2−68625
cosmic ray isotopic abundances meas. using plastic track detectors 2−68626
cosmic ray nuclear track record of events in early solar system 2−68583
cosmic ray nuclei relative abundance obtained with track detectors, correction factor calc. 2−68581
cosmic-ray LET spectra meas. using microprocessor supported microscope 2−68623
CR-39 detector, ions track-profile and range, thermal pre-treatment effect on etching charact. 2−59632
CR-39 detector, O effect on track etching 2−59629
CR-39 detector response curve, effect on particle resolution, appl. areas 2−59623
CR-39 plastic detector, computerised method for automatic track evaluation using microdensitometer 2−64839
CR-39 plastic manufactured in controlled temperature-time curing profiles, track response 2−59626
CR-39 plastic sheets exposed to CERN-SC C beam, track meas. 2−59625
CR-39 plastic track detector, etching solns., effects on response 2−59633
CR-39 plastic track detector appl. for protons, ^3He and ^4He ions detection 2−64783
CR-39 plastic track detector appl. to study $^{208}Pb(^{12}C, X)$ reaction 2−64421
CR-39 plastic track detectors, etching conditions optimisation 2−59634
CR-39 track detector, curing cycle for detector-quality 2−59628
CR-39 track detector, etching props., post-irradiation annealing effect 2−59630
CR-39 track detector charact. for cosmic ray particle detection 2−63255
CR-39 track detector for cosmic ray appl. 2−63256
Daicel cellulose nitrate, quasi-relativistic Fe ion registration, diffusion-etch model appl. 2−70082
deuteron detection, using cellulose nitrate dielec. system, appl. to plasma focus 2−71261
digital readout device for scatt. chamber *(German)* 2−64794
double time-of-flight mass spectrometer for dE/dx meas. of fission fragments 2−64157
double-energy fission fragment meas., mass resolution correction 2−108318
drift and multiwire proportional chamber efficiencies determ., on-line method 2−90392
drift chamber, dE/dX sampling 2−85508
drift detectors, high press., particle identification by dE/dx sampling 2−90389
EM radiation parameters of dielectrics, instrum. for meas. *(Polish)* 2−107409
emulsion telescope technique to 300 GeV negative pion beam in mag. field 2−64834
environmental radioactivity meas., laboratory instruments, methods 2−80348
European Hybrid Spectrometer, high resolution research 2−108228
exposure dose rate meters, metrological charact. checking, using Si-Li detectors 2−85404
Fermilab collider detector facility data acquisition system 2−59673
fission fragment scattering measurements using solid state nuclear track detectors 2−90420
fission track age estimation method 2−73722
fission track dating appl. to Plio-Pleistocene 2−73723
fission track dating problems and solns. 2−73724
forward calorimeters, small-angle particle detection in pp collisions 2−108240
forward detector for DO area at Fermilab 2−108213
gas scintillation nuclear particle detectors 2−90360
Geiger counters, dead-time loss estimation and correction using events time distrib. 2−64824
glass track recorder, energy resolution improvement 2−70084
gridless position sensitive time-zero detector for heavy-ion spectrometer 2−102331
hadron showers in Pb, 100 TeV, instabilities of particles responsible for anomalies in absorption 2−85507
heavy charged particle beam, LET spectra meas. 2−64733
heavy ion reaction study using solid state nuclear track detector 2−64423
heavy ions behind foils, empirical formula for average equilibrium charge-state 2−114087
heavy ions mass identification by time-of-flight techniques 2−90347
heavy ions range and energy loss rates in dielectric nuclear track detectors 2−64829
heavy-ion identification system based on kinematic coincidence techniques 2−90418
high mass resolution in medium-heavy ion reactions using short ion pulses 2−90345

radiation detection and measurement continued
hybrid streamer chamber for intermediate energy heavy ion physics 2−102330
ion mass spectrometer appl. in ion composition meas. in space 2−94612
ionising radiation, metrological assurance, standards and instrumentation *(Rumanian)* 2−75133
ionising radiation detection and meas., short history 2−75131
irradiation chamber for expts. with solid-state nuclear track detectors 2−70109
isobaric elemental yields determ. technique in vel. selected fission products 2−64443
isotope diagnostic measuring devices, deadtime *(Hungarian)* 2−113843
jet chamber of JADE expt. 2−90386
Lexan plastic track detector, long-term thermal annealing study 2−59631
Lexan polycarbonate and Cr-39 track detectors, track response depend. on registration temp. 2−59665
Lexan polycarbonate sensitivity to mass difference in Fe peak 2−70079
light isotopes in metals, ion beam anal. using solid state track detectors 2−67789
liquid scintillation cosmic ray veto detector with BBQ shifter, design optimisation 2−68622
low level radiation counting conference, Berlin, Germany (Apr., 1981) 2−84378
lunar silicates, concepts for fossil track studies 2−63283
lung sections, fissionable radionuclides spatial distrib. determ. using Lexan 2−68220
Makrofol track detectors for fission fragments, efficiency calc. 2−70076
mica nuclear track detector for $^{238}U(^{84}Kr, X)$ reaction study 2−64422
microchannel plate multipliers optimisation for tracking minimum ionising particles 2−70044
minerals, fission track temp. age theory 2−73508
multi-angle detector for heavy ion reaction studies 2−64748
multidimensional expts. on nucl. interactions, measuring and computing complex 2−108326
multielectrode radiation detectors, signal evaluation using time depend. weighting factor 2−64754
multineedle counters with cathodic focusing for UV Cherenkov imaging device 2−64762
multiple solid state detectors, energy and primary mass determ. 2−75130
multisection 4π detector, for multiplicity meas. 2−64843
multistep avalanche chamber, min. ionising particle electrostatic imaging 2−96376
multiwire array proportional counter, front guard for improved background rejection 2−75107
multiwire proportional chamber for particle tracking, cathode charge sampling, resolution study 2−102329
muscovite mica track detectors, low energy ion track-etch pits study 2−70088
Muscovite mica track recorders, fission track counting, optical efficiency and observer objectivity 2−64836
MWPC of cylindrical geometry for nuclear physics expts. 2−90354
nuclear emulsion, low energy heavy fragment track widths 2−59621
nuclear emulsion response specification through track theory 2−59620
nuclear pulse height anal., sliding scale averaging effects 2−64806
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
nuclear track detection by avalanche-type processes, electrochemical etching and spark counter 2−59638
obsidian artifacts fission track dating 2−73720
p-i-n semiconductor diodes, ionising radiation detection by charge storage in shallow levels 2−70049
particle detectors, review 2−85498
particle identification for heavy ions in time-of-flight spectrometer 2−90346
particle momenta estimation, minimisation parameters choice using 4-momentum conservation law 2−108308
Peking Man, fission track dating 2−70112
PETP foil, treeing on particle tracks under different expt. conditions 2−70067
photon dosimetry and radiation protection, SI units 2−85402
photonics and holography 2−108836
plastic detector, cosmic ray track measuring microscope employing laser interferometry 2−64841
plastic detectors, automatic track meas., microprocessor based picture anal. 2−64840
plastic detectors, isotopic beam energy per nucleon determ. method 2−70026
plastic detectors, submicroscopic nuclear tracks, electrolytical studies 2−59616
plastic scintillator for time determ. in mag. spectrometer 2−90396
plastic scintillator response to relativistic Ne, Ar, Fe ions and cosmic ray muons 2−80385
plastic track detectors appl. to at., nuclear, particle and cosmic ray physics 2−64833
plastic track detectors irradiated by heavy ions, IR, UV and ESR studies 2−59613
polycarbonate CR-39, track detecting props., internal. temp. fluctuation effects during cure 2−59627
polymer resists, track-etch behaviour and chem. development, correlative studies 2−59618
polymeric detectors, latent and etched track formation, thermodynamic approach 2−59614
programmable decision logic module for multidetector expts. *(French)* 2−90410
pyroelectric sensors using $NaNO_2$ layers, for EM radiation 2−95472
radioactive decay curves with background, noniterative method for fitting 2−96410
radionuclides standard specimens appl. 2−85448
radionuclides standard specimens certification 2−85449
reaction angle determ. using mag. spectrograph 2−113838
reaction cross section calc. from sequence of irradiation count cycle 2−108310
relativistic heavy ion fragments interaction cross section meas. using plastic track detectors 2−64424
resolution of meas. with square root metric. for detectors with photomultipliers 2−108316
review *(French)* 2−59645
secondary hadron flux ang. and energy distrib. meas. with spallation detectors 2−107854
soda glass detectors, ^{252}Cf fission fragment tracks development, etching conditions study 2−70085
radiation detection and measurement continued
soda glass nuclear track detectors, etchant development 2−70086
soda-glass detector, mag. field effects on fission track recording characts. 2−70087
solid state detectors, etched track profiles, SEM studies 2−70091
solid state nuclear track detector study 2−59636
solid state nuclear track detectors, conf., Ahmedabad, India (Feb. 1981) 2−89441
solid state nuclear track detectors, particle track optical props. 2−64781
solid state nuclear track detectors appl. for fission cross-section ratios meas. 2−64444
solid state nuclear track detectors for fission fragments, detection efficiencies 2−70075
solid state track detectors for high energy heavy ions 2−59624
solid state track recorder, track counting, Buffon needle method 2−64837
solid state track recorders, annealing effects 2−59661
solid-state nuclear track detectors, conf., Bristol, England, Sept. 1981 2−58532
solid-state track detectors, low energy ion implantation, chem. reactivity 2−70089
solid-state track detectors electrochemical etching process, elec. parameters role 2−70069
spectrum anal., peak search algorithm quality, computer study 2−79546
sphene sample from pegmatite, fission track temp. ages meas. 2−73721
stainless steel, U trace content determ. using solid-state track detectors 2−70113
standard for IR radiation detector and radiometer, 220 to 900K range 2−53721
streamer chamber for charm particle lifetime meas. 2−108301
synchrotron radiation circular polarisation and absolute intensity meas. and calcs. 2−85501
thermal limitations of detectors in high-level radiation fields 2−108257
thin film scintillation detector response to ^{236}U fission fragments 2−64752
time projection chamber for high energy heavy ion expt. at Saturne 2−90387
time-of-event counting system, low level radioactivity meas. 2−54728
time-spectra anal. from coincidence meas. with high stop-rates 2−96402
time-zero detector for heavy ions mass identification 2−64156
traceability for ionising radiation measurements, conf., Gaithersburg, MD, USA (May 1980) 2−84384
transformer coupling between radiation detector and head amplifier 2−64796
Tuffak polycarbonate track detector evaluation tests 2−59619
two-phase track developing model 2−70110
X-ray transition radiation meas. from plastic fibres 2−64816
γ-ray yields in nuclear emulsion 2−65681
Ar, accelerated projectile fragmentation, computerised track anal. 2−64835
Ar liquid ionisation chamber design for heavy ion detection 2−70034
Ar-methane proportional counter, deposited energy losses for 40 MeV/n ^3He ions 2−90417
Au(α,X), 12.7 GeV, light fragments identification from binary events using track detectors 2−64415
B mapping in minerals and rocks using CR-39 polycarbonate plastic detector 2−68522
$Ba(OH)_2.8H_2O$, aq. soln., track etchant for plastic detectors 2−64785
Br solar neutrino detector calibration, implications of ^{81}Kr ground state mass 2−59227
^{12}C(p,p), list-mode study of bremsstrahlung spectra near reson. and time delays 2−90100
Fe-Ar liquid segmented calorimeter, performance Monte Carlo simulation 2−75097
Fe-scintillator segmented hadron calorimeter performance 2−64759
Ge high-purity coaxial detectors, pulse shape and risetime distrib. calc. 2−70055
LiF in teflon TLDs, response to positrons 2−64685
NaI(Tl) scintillation camera for triggerable vertex detector 2−70045
Pb multi plate liq. Ar calorimeter for elementary particle energy meas., resolution 2−96388
Rn diffusion chamber with plastic track detectors, props. deter. 2−64828
Rn gas passive dosimeters using electrochemically etched tracks in CR-39 2−67918
Rn isodose curve drawing using microdensitometer-computer ensemble 2−64838
Rn passive dosimeter using polycarbonate track etch detector 2−67919
Si, epitaxial integrated E-dE position sensitive detectors 2−70057
Si microstrip detectors for fast high resolution beam hodoscope 2−70042
Si surface barrier detector, pulse height defect 2−90371
Si surface barrier detector, plasma delay expt. investigation 2−102339
traces determ. using solid state track detectors 2−67920
U concentration meas. in water using solid state nuclear track detectors 2−67921
U estimation in plants using fission track technique 2−67898
U in sea, lake and spring water, fission track determ. 2−67922
U/scintillator, multicell hadron calorimeter in AFS expt. at CERN ISR, test results 2−70035
^{238}U projectiles fission induced by ^{12}C target in Makrofol detector 2−64445
^{238}U spontaneous fission decay constant meas. from etched fission track density 2−96057
Xe gas excited by ^{252}Cf fission fragments, recombination luminesc. time delay 2−90361
Zn/Ni ratio meas. in cosmic radiation using Lexan polycarbonate track detector 2−68580

radiation detectors *see particle detectors*

radiation dosimetry *see dosimetry*

radiation effects
see also acoustic wave effects; alpha-particle effects; beta-ray effects; biological effects of radiation; deuteron effects; electron beam effects; gamma-ray effects; hyperon effects; ion beam effects; laser beam effects; meson effects; neutron effects; proton effects; radiation chemistry; radiation hardening; voids (solid); X-ray effects
alloy, irrad., recoil resolution and particle stability, dissolution and inverse coarsening 2−86719
alloys, fracture and flow in fusion reactor environment 2−85223
alloys, precipitate coarsening, induced by point defect recombination under irrad. 2−83121
alloys, segregation kinetics under irradiation *(Russian)* 2−104003
apatite, fission track induced radiation damage study using absorpt. spectroscopy 2−70111

radiation effects continued
atomic collisions in solids, conf., Lyon, France (July 1981) 2−68949
BCC metals, radiation damage, Mossbauer spectroscopy study 2−103808
Boltzmann equation, slowing down approx. appls. to recoil atoms 2−66041
charged particle propag. in crystalline solids, defect effects, review 2−81818
charged particle steering by bent single crystals, possible appl. 2−80359
colouring curves, computer simulation using heterogeneous nucl. model 2−91960
condensed medium, oscillatory evaporation by EM radiation 2−92312
CR-39 plastic track detectors with dopants, etching props. and response 2−64784
CR-39 polycarbonate detector, UV radiation influence on nucl. track recording props. 2−96391
cracks, radiation-induced, micro-mechanical destruction model *(Russian)* 2−92101
crystalline phases, fission fragment damage 2−102058
cyclic irradiation parameters, calc. for radiation technological unit *(Russian)* 2−54688
damage structures irrad. with cascade of various PKA energy spectra 2−109825
diatomic materials, displacement cascades 2−86710
diffusion processes in irrad. materials with point defects, transport eqns. *(Russian)* 2−92251
dislocation loop production in irradiated FCC metals 2−55973
dislocation sink strengths, rate theory of irrad. damage 2−86716
displacement cascades, molecular dynamic calcs. 2−86711
droplet formation, light-induced, in capillary films of solns. 2−115503
eddy currents treated as a radiation effect 2−55042
electron microscopy, conference, Kyoto, Japan (May 1981) 2−68953
European programme of fusion materials 2−69822
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
failure criteria for fusion reactor first wall structural design 2−69839
FCC metals, high energy recoils, computer simulation, cascade shapes and sizes 2−86712
fibre optic system space appls. 2−114445
fibre optics in adverse environments, conf., San Diego, CA, USA (Aug. 1981) 2−112641
formaldehyde copolymer, serviceability, effect of radiation 2−83223
frozen hydrated specimens for electron microscopy, thermal and radiation damage 2−83720
fusion material, ICFR, He interaction with displacement damage, rate theory applic. 2−85232
fusion material, void nucleation by gas atoms, He generation rate and conc. effect 2−86720
fusion reactor data base for irradiation data of type 316 stainless steel 2−69841
fusion reactor first wall material, radiation blistering, review 2−113735
fusion reactor materials, conf. Seattle, WA, USA (Aug. 1981) 2−68954
gas, laminar convective channel flow, radiation effects 2−97667
glass, optical bulk breakdown, statistical props. 2−104813
glass, photochromic, deviation from law of mutual substitution 2−104827
glass, thermal lens formation by radiation at softening temperature *(Ukrainian)* 2−114672
hydrocarbons, saturated, liq. and solid, charge carrier form. by radiation *(Russian)* 2−61480
insulating crystals, defects, conf., Riga, USSR (May 1981) 2−68967
IR photoconductive detector, charged-particle-induced noise suppression 2−107404
irradiated materials, absence of pore formation, vacancy diffusion *(Russian)* 2−56010
Japanese program of materials research for fusion reactors 2−69821
liquids subjected to space-ordered light radiation, proton mag. relax. *(Ukrainian)* 2−116077
low dimensional conductors, electron irrad. effects 2−103821
low dimensional conductors, irradiation effects and role of disorder, review 2−87233
LWR fuel rod behavior, during reactor in-pile tests in LOCA 2−90224
metal, irradiated, recovery during second stage of annealing *(Russian)* 2−62138
metal, void growth during irrad., cyclic pulsed temp. effect 2−86717
metals, FCC, internal friction, time evolution under irrad., peaking effect 2−98196
metals, irrad. struct., evolution, effect of cascades 2−86713
metals, self-diffusion subthreshold processes under irradiation 2−61195
metals, swelling, radiation-induced, effect of defect struct. 2−86721
metals, void ordering during irrad., bifurcation and phase transition 2−61020
one-dimensional conductors, radiation effects on cond., review 2−71496
oxides, physical and chemical props. handbook 2−94927
particle stability, with recoil resoln. 2−67339
plate, three-layered, unbounded, thermoelastic stresses due to optical radiation *(Russian)* 2−70846
PMMA, serviceability, effect of radiation 2−83223
point defect sink strength, thin foil, with bulk recombination 2−60970
point-edge dislocation rate consts. and bias factors using lattice relax. and Monte Carlo simulations 2−86718
polyamide, serviceability, effect of radiation 2−83223
polycarbonate, serviceability, effect of radiation 2−83223
polyethylene, serviceability, effect of radiation 2−83223
polymerisation, in solid state, radiation induced, Monte Carlo simulation 2−105483
polystyrene, serviceability, effect of radiation 2−83223
polyvinyl alcohol, vibr. spectra, effects of simultaneous UV irrad. and heating 2−57121
radiation damage transport eqn., analytic solns. 2−81817
reactor safety equipment qualification, irrad. requirements 2−108095
recombining particles, large cluster form, during excitation in solids 2−61379
ruby, UV absorption induced by ionising radiation 2−67077
simplified transport theory of radiation damage in semi-infinite media 2−66040
sink capture efficiency, and sink strength for point defects 2−66039
sink strengths, for high concs. of competing sinks 2−66038
steel, austenitic stainless, irrad. in EBR-II and HFIR, swelling, microstruct. development and He effects 2−108109
steel, stainless, cavity swelling, model based on fission-fusion correl. 2−85226
steel, stainless, radiation-induced struct. changes 2−86714
steel tubes, stainless long time effects in radiation enhanced permeation of H_2 2−98345
surface topography with blistering of radiation and nonradiation origin 2−56315
temperature measurement, radiation effects when using thermocouples 2−101402
thermal decomposition of a substance in the tracks of ionizing particles 2−115318
thermocouples, rad. effects on thermoelectromotive force 2−112903
TMTSF-DMTCNQ, pure and irradiated, EPR expts. 2−93004
vacancy loops and interstitial loops, intrinsic bias differential 2−91954
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
Ag-Zn, irradiated, Zener relax. of point defects 2−56082
Al, radiation damage, math. model 2−81835
Al-Co dil. alloys, damage rate and recovery meas. 2−76488
Al-Zn, irradiation induced solubility decrease and precipitation 2−71655
Au, stage III recovery, single vacancies, migration energy 2−91956
BeO, thermostimulated exoelectron emission, UV and laser irrad. effects 2−99307
BiI_3, photodecomp., struct. and transmittance, effect of illum. 2−87101
CaF_2, fluorite, thermoluminescence rel. to pretreatment history 2−72566
$Ca_{10}(PO_4)_6F_2$, fission track radiation damage, diffusion to surface, defect absorpt. study 2−99162
Cr-Ni steel, Kh16N15M3B, reactor irrad. in N_2O_4 medium, effect on strength and plasticity 2−116613
Cu alloys, dil., single vacancies and clustered interstitials, spontaneous recomb., elec. resist. meas. 2−76435
Cu, irradiated, atomic displacement, temp. depend. of threshold energy 2−66042
Cu, single vacancies and clustered interstitials, spontaneous recomb., elec. resist. meas. 2−76435
GaAs implantation annealing using incoherent light focused by elliptical mirrors 2−76490
Ga_2Se_3, IR spectra, radiation effects 2−57110
Ge, detector materials, radiation effects 2−80392
Ge detector telescopes, appls., radiation damage, annealing 2−80391
Ge, detectors, status and problems 2−90365
Ge, epitaxial growth from Ge-In solution, radiation effects *(Russian)* 2−76869
He partitioning, low doses, trap theory 2−86715
LiF:Mg_2OH, radiation point defect condensation at dislocations *(Russian)* 2−71494
NaCl:Sr, UV light irrad., thermoluminesc. study 2−57197
$NaClO_3$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
Ni film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2−61019
Ni, He bubble growth at dislocations, kinetics and phys. mechanisms 2−109826
PbO-SiO_2 glass, IR polishing process 2−67584
Pt-Rh (10 wt.%) surface, blister formation by irrad., exposure and temp. depend. 2−74928
Pu recycling in BR3 reactor, post-irradiation examination 2−102082
Si, back-surface damage regions, gettering of mobile O, defect stability, annealing and water vapour effect 2−56255
Si, back-surface damage regions, gettering of mobile O, defect stability, O diffusion 2−56256
Si, detector materials, radiation effects 2−80392
Si detectors, status and problems 2−90365
Si, implantation annealing by thermal imaging of incoherent light sources 2−66037
Si, implanted wafers, annealing using incoherent light and Si cryst. growth on SiO_2 2−103791
Si, radiation damaged self-interstitial struct., double alignment channelling study 2−76433
Si-SiO_2 MOS system, interface state generation 2−87408
Si-SiO_2-Al_2O_3 struct., radiation effects *(Chinese)* 2−92761
SiO_2 silica optical fibre waveguides, radiation damage at long wavelengths 2−55335
SmB_6, mixed valence cpd., small energy gap, electron tunnelling and IR spectrum 2−56442
Ti alloy, irrad., miniaturised fatigue crack growth specimen technology and results 2−88308
UO_2 and (U, Pu) mixed oxide fuels 2−107952
UO_2, CEA fuel rod components design for power reactor assemblies *(French)* 2−96091
UO_2, fission gas release, effect of irrad.-induced resoln. 2−107951
Zr, radiation induced dimens. changes 2−103809
α-$Zr(PO_4)_2M_2$ (M=Li^+, Na^+, K^+, Cs^+) Mg Kα ESCA spectra, shake up struct. enhancement by sputtering 2−57252

radiation hardening
alloys, fracture and flow in fusion reactor environment 2−85223
BCC metals, mech. props., effects of low-temp. neutron irrad. 2−103845
Cu Cu, Cu-Al, deform., effect of low-temp. irrad. 2−93564
fusion material, microhardness test techniques for high energy neutron source expts. 2−88313
ion bombarded by 10 meV $^4He^+$ ions, depth depend. of radiation hardening 2−88095
metals, 14 MeV neutron irrad., strengthening and microstruct. alterations, determ. by microhardness 2−103848
steel, austenitic, stainless, annealing twins absence during radiation-induced recrystn. 2−105187
steel, austenitic stainless 316, yield strength changes during fission or fusion irrad., microstruct. origins 2−71507
steel, ferritic stainless, fracture toughness rel. to first wall and blanket appl. in fusion reactor 2−72804
steel, high-speed, laser strengthening *(Russian)* 2−67625
steel, martensitic, ferritic, Cr-Mo-V-W, low temp. irrad. with (n,α)He prod., effect on tensile props. 2−71508
steels, Cr-Mo-V-Nb, with (n,α) He, yield strength, tensile strength, neutron hardening 2−80122
Al alloy 2024-T3, perforated sheets, reinforcement by thermal shock with laser beams 2−116452
Al, ion bombarded with C^+, radiation softening obs. 2−86760
Cu, Cu-Mn(Al)(Ni), neutron irrad., 14 MeV, damage development and hardening 2−109841
Fe-Al (40 at.%), quenched or electron irrad., nucleation of dislocation loops *(French)* 2−55968
Fe-Cr(Al), mech. props., effect of fast neutron irrad. 2−103844

radiation hardening continued
GeO_2-B_2O_3-SiO_2 fibre composition and radiation hardness 2−114438
GeO_2-B_2O_3-SiO_2:Ce fibre composition and radiation hardness 2−114438
GeO_2-P_2O_5-SiO_2 fibre composition and radiation hardness 2−114438
GeO_2-P_2O_5-SiO_2:Ce fibre composition and radiation hardness 2−114438
Mo, ion bombarded by 10 meV $^4He^+$ ions, depth depend. of radiation hardening 2−88095
Mo, neutron irrad., anneal hardening, influence of purity, cold work and alloying elements 2−103843
Nb, hardening stages, irrad. with 14 MeV neutrons and 16 MeV protons 2−93521
Ni, plastic deform. after US hardening *(Russian)* 2−77873
Ni-Al(Si), irrad. creep enhancement, 21 MeV deuteron bombardment 2−86750
Ti, neutron irrad., strength changes 2−71510
V, neutron irrad., strength changes 2−71510

radiation hardening (electronics)
CMOS RAMs, LSI, radiation resistance for Jupiter radiation belt 2−68595
fusion reactors, instrumentation hardening 2−74982
semiconductor counters, radiation damage, review 2−80390

radiation injuries *see biological effects of radiation*

radiation monitoring
see also dosimetry
^{3}H-solute conc. monitoring using encapsulated plastic scintillator 2−73400
accelerated nucleus beam monitoring, multichannel system based on ionisation pickup 2−108201
aerosol filtration developments since 1968, nuclear appl. 2−96312
air monitoring requirements and alarm response procedures in reprocessing plants 2−64597
all-round operative monitoring of radioactive aerosols in the effluents of nuclear power stations 2−113760
alpha, monitor for reprocessing plant 2−69997
angular distribution of particles incident on a detector from a circular source 2−59656
atmospheric radionuclide releases, automated reponse system WIND 2−54569
bremsstrahlung pulsed beam, position monitoring, self-powered detector methods 2−54718
BWR nuclear power station, monitoring of critical radiation exposure pathways 2−90306
BWR operating experience with gamma-sensitive traversing in-core probes 2−102139
CAMAC-based controller for nuclear power plant radiation monitoring 2−64562
conceptual physical basis for monitoring external radiation 2−73376
criticality accident alarm system, function and characteristics 2−96327
criticality alarm systems, current technologies 2−96329
cryogenic sampling technique for fission gases 2−54682
Cumbria environmental radioactivity, sea spray actinide enrichment in West Cumbria 2−111802
dissolved gas conce. determ. in coolant in normal and accident conditions 2−102281
dynamic modeling system for the transfer of radioactivity in terrestrial food chains 2−59546
environmental, TLD appl. 2−80349
environmental γ-ray, meas. methods, for nuclear plants 2−54669
environmental measurement and monitoring, quality assurance and control 2−80350
exposure dose rate meters, metrological characts. checking, using Si-Li detectors 2−85404
gamma radiation hand held monitor 2−85499
gas-filled luminescent neutron detector 2−108269
high precision Davis-Gray titrations, appl. to standards for safeguards 2−69740
high radiation levels effects on B anal. equipment and pH probes 2−102137
high sensitivity methods for detecting environmental radioactivity 2−54679
IAEA safeguards, Belgian experiences 2−69733
IAEA safeguards, effect on system design 2−69739
IAEA safeguards, impact on USA safeguards activities 2−69736
IAEA safeguards, Japanese experience 2−69734
IAEA safeguards, joint interaction with Euratom 2−69732
IAEA safeguards, USA agreement 2−69735
IAEA safeguards, USA initial experience 2−69757
IAEA safeguards 2−69731
IAEA safeguards application at Trojan Nuclear Plant 2−69738
IAEA safeguards experience to date 2−69730
IAEA safeguards impact on NRC 2−69737
isotope specific noble gas monitoring from reactors using Ge gamma spectrometer 2−64595
LIMCAL, food chain model, rad. exposure predictions from rad. waste 2−113762
linac, fast nonintercepting electron beam position and current monitor 2−96343
Los Alamos L_{III} edge densitometer for U, Pu conc. meas. in reprocessing solns. 2−69758
low enriched critical assembly, need for rad. field meas. 2−96326
low-energy housing experimentation, colloquium, Liege, Belgium (May 1981) 2−57763
measurement control, problems and solns. 2−70016
meteorological data for reactor accident risk calculations 2−54570
meteorological information system with enhanced reliability for emergency preparedness 2−54687
microprocessor based reactor vessel level/containment monitor 2−85175
multiplication ionisation chamber survey meter for low level X- and γ-ray monitoring 2−59558
neutron detection and monitoring methods and their problems, review 2−90316
nondestructive assay techniques for safeguards at Hanford 2−69759
nuclear material analytical measurements, quality control soln. standar ds 2−70018
nuclear power station, exhaust emission monitoring equipment *(German)* 2−85399
nuclear power station, post accident conditions, emergency monitoring and assessment systems 2−102213
nuclear reactor post accident sampling, NSAC workshop 2−102278
on-line reactor coolant monitoring 2−102279
passive γ-ray assay, practical standards 2−70017

radiation monitoring continued
plant uptake of radionuclides, review 2−116855
pocket neutron REM meter 2−64692
portable multichannel analyser from on-site radiation monitoring 2−54725
portable photon measuring and imaging system, safeguards appl. 2−80398
post-accident sampling at the James A. FitzPatrick Plant 2−102134
post-accident sampling system optimization for an operating plant 2−102135
proton accelerators, high energy, protection monitoring in vicinity using TLDs 2−64687
PWR circuits, chemical decontamination LOMI reagents development by CEGB, in Britain 2−90305
RA73 gamma ray detector, home defence appl. 2−100131
radioactivity distribution in spark-source mass spectrometer 2−54670
radiofrequency hyperthermia systems safety and regulatory considerations in United States of America 2−62726
radioisotope laboratories and radiation areas, utilisation of instrumentation *(Japanese)* 2−57905
radiological analysis of primary coolant and containment atmosphere 2−102136
real-time reactor perimeter γ-ray monitoring systems 2−54675
recoil proton monitor efficiency calc. for several neutron energies 2−102350
reference materials and nuclear safeguards in USA 2−70019
removable surface contamination on rad. material transport containers 2−54674
SABRE, PDP-11/10 computer-based assessment system for body radioactivity 2−90421
safeguards bulk and in-process measurements for fissile materials 2−69741
safeguards in process monitoring 2−69742
sensitivity analysis for transport of radionuclide in a groundwater flow system 2−93953
SHEBA, neutron and γ-ray dose meas. 2−96328
SHEBA, neutron and γ-ray spectrum meas. for criticality monitors 2−96198
soil contamination meas. using alpha-beta-gamma spectrometer 2−54676
solid-state nuclear track detectors, conf., Bristol, England, Sept. 1981 2−58532
spent fuel composition, comparison of predicted and measured data 2−70020
spent reactor fuel monitoring, safeguard instrument 2−74802
stack discharged radionuclides, ground level conc. depend. on averaging time 2−102275
statistical tests for radiologic environmental monitoring quality control data 2−54677
Swedish air monitoring network for particulate radioactivity 2−75058
Swedish nuclear power station on-line isotopic stack monitoring system 2−70004
thermal limitations of detectors in high-level radiation fields 2−108257
thermoexoemission detectors for monitoring rad. contamination of effluents 2−116857
Three Mile Island, environmental radiation doses using TLDs *(Spanish)* 2−70001
tissue-equivalent ionisation chamber for area radiation monitoring at IPNS facility 2−75115
TLD personnel monitoring systems, automated, present situation 2−64683
TMI-2 containment building accident water sampling and reactor primary coolant accident source term 2−102280
tutorial short courses at nuclear science conf., San Francisco, CA, USA (Oct. 1981) 2−79264
UOSAT experiment 2−117500
Westinghouse WL-24142 Ion Chamber, gamma ray energy on sensitivity 2−102276
wide-range monitor for pulsed X-ray sources using ionisation chamber 2−75056
Al_2O_3 (Si,Ti) thermoluminescent phosphor appl. for environmental and personnel dosimetry 2−96316
^{41}Ar monitoring system at University of Missouri research reactor 2−54683
^{14}C content in terrestrial food chain 2−117096
$^{14}CO_2$ monitoring, determ. in air 2−85398
CaF_2, natural, TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
$CaSO_4$:Dy crystal TLD development 2−113753
$CaSO_4$:Dy embedded in teflon, reliability for routine personnel monitoring 2−68149
$CaSO_4$(Dy/Tm) TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
HT and HTO in air, prototype monitor design and performance 2−78272
^{3}H monitor using ionisation chamber, design and performance 2−75117
^{3}H on-line monitor development with γ-ray rejection and energy discrimination 2−75057
^{85}Kr detection, evaluation of radiation monitor effectiveness 2−90307
NaI(Tl) counter, calibration 2−90407
^{210}Po, assay using background rejecting extractive liq. scintillation 2−54678
Pu in storage vaults, movement monitoring and detection 2−74803
Pu processing, criticality alarm system 2−96135
RaA atoms, attached and unattached, deposition in human respiratory tract *(Japanese)* 2−68157
^{226}Ra in water, development of a continuous monitor 2−67911
Rn and Rn daughters, working level meter for meas. inside houses 2−62537
Rn flux measurement, Environmental Protection reg. 40 CFR 192, compliance achievability 2−57908
Rn flux monitoring, continuous system development 2−54680
Rn flux nonuniform emanation anal. 2−54684
Rn ionisation chamber monitor which eliminates effect of decay products 2−59643
Rn levels, depend. on household conditions 2−54686
Rn, monitoring using Track Etch detectors 2−54681
Rn monitors, continuous flow-through, simple procedure for calibration 2−62535
^{222}Rn and daughters, indoor exposures, concentrations and standards 2−57906
^{222}Rn, meas., national needs, NBS role 2−57907
^{222}Rn, natural and technologically enhanced sources, health effects 2−57910

radiation monitoring continued
U mill tailings, cover system performance and costs optimisation 2−54685
^{133}Xe, airborne in medical clinics, instrument for survey monitoring 2−83662
radiation monitors *see radiation monitoring*
radiation patterns, antenna *see antenna radiation patterns*
radiation pressure
see also acoustic streaming
accretion disc winds driven by super Eddington velocities, appl. 2−84077
accretion disc winds driven by super-Eddington luminosities, thermal and spectral props. 2−84076
accretion disc winds driven by super-Eddington velocities, dynamical theory 2−84075
atomic deceleration, monochromatisation and trapping in laser waves 2−64929
circumplanetary dust particle dynamics 2−100828
dielectric sphere in a Gaussian laser beam, radiation press. 2−90968
gas mixture, selective diffusion under the action of radiation 2−103241
gas-dust systems with nonlocal radiative coupling, spectral line radiation press. 2−63232
interstellar giant shells driven by field star radiation press., runaway expansion 2−68846
light-induced gas drift under pulse-periodic excitation *(Russian)* 2−60719
long-period variable stars, radiation press. on circumstellar dust rel. to mass loss rates 2−94748
multilevel systems, light-induced drift 2−108840
negative optical pressure 2−55700
OTS attitude control by solar sailing, one year's experience 2−117567
planetary nebulae, radiation pressure driven models rel. to expansion vels. meas. 2−79197
planetary nebulae with close binary nuclei, effect of radiation press. on ang. momentum loss 2−89259
protosun causing dust coagulation leading to comets form. 2−112351
radiant energy transfer, teaching 2−63777
radiometric levitation of micron sized spheres 2−67154
radiosources, extragalactic, jets relativistic vel. due to radiation press. 2−84339
relativistic plasma acceleration by radiation press. 2−58250
resonance-light pressure, theory 2−90847
solar atmosphere, acoustic radiation pressure effects 2−117653
solar diffusion radiation, effects on artificial spherical balloon satellites 2−117562
solar radiation effect on Explorer 19 orbit 2−117561
stars, early type, wind heating mechanism, radiation press. causing ion motion 2−58326
stellar winds, ionisation balance and IR spectrum of radiatively-driven winds in O-type stars 2−63387
stellar winds, line acceleration calc. for radiatively driven winds 2−106668
Tokamaks, current maintenance by synchrotron radiation 2−91596
viscous fluid mixture, equations of motion, thermal and intermol. diffusion, chemical reactions, radiation press. 2−76722
X-ray binary stars, effect of mag. field on radiative force and critical luminosity 2−112505
Na atom beam, radiative slowing down and velocity monochromatisation in laser beam *(Russian)* 2−85840
Na atomic beam, velocity distrib. deform. by reson. laser radiation press. 2−108429
SF_6 diffusion in He buffer due to CO_2 laser radiation *(Russian)* 2−109444
radiation protection
see also radiation monitoring
440 MW unit commissioning at Paks Nuclear Power Plant *(Hungarian)* 2−94215
AGR, fuel plug units, maintenance 2−108156
AGR, Windscale, UK, final expts., fission product release 2−64628
agricultural products, radionuclides dose, transfer factors review 2−88667
assessment of performance in evaluating numerical samples 2−54666
auxiliary pipe, remote welding repair 2−108065
backscattered X-ray spectrum at an air-concrete interface 2−59566
bulk media, gamma-ray spectra and energy loss, fluoresc., bremsstrahlung and annihilation effects 2−90311
BWR radiation assessment and control, 1978 to 1980, review 2−113719
BWR torus decontamination 2−102231
concrete, reinforced containments, design and construction, permissible shear stress 2−96105
concrete containment structures, research needs 2−96103
conference, Vancouver, BC, Canada (May 1982) 2−112659
conference on radiation protection quantities for external exposure, Braunschweig, Germany (Oct. 1980) 2−89449
containment vessels, neutron spectra meas., at power stations 2−108150
decontamination of soft plated Ni surfaces used in transport and storage containers 2−108157
decontamination using conc. chemicals 2−102284
decontamination using dilute chemicals 2−102285
decontamination using Freon solvent, cost effectiveness 2−102283
development, exposure minimisation, risk quantification 2−54664
electrochemical polishing, radioactive decontamination appl. 2−102282
emergency dose projection, review, appl. 2−108092
emergency preparations near nuclear power stations 2−108089
enhanced radiation weapon, protection calcs. from ANISN code 2−113749
epidemiological methods for assessing risks from low level occupational exposure to ionising radiation, review 2−117146
fission reactors, radiation protection plans 2−108147
fuel cycle safety, review 2−102092
fusion materials irradiation test facility, hot cell workstation design 2−108154
gamma-ray transport calcs., Monte Carlo method 2−54663
health and safety program at Whiteshell Nuclear Research Establishment 2−90318
hearing protectors, performance 2−94216
heavy particle filters, testing and sorption material removal *(German)* 2−85396
hot cell, supplied air respiratory system 2−108153
hot experimental facility, remote handling electromech. three-axis development 2−108025
hot experimental facility, remote maintenance requirements 2−108026
Hot Fuel Examination Facility, Ar cell, decontamination and refurbishment 2−108152
radiation protection continued
hot fuel examination facility, operating philosophy and experience 2−107964
IAEA safeguards, Belgian experiences 2−69733
IAEA safeguards, effect on system design 2−69739
IAEA safeguards, impact on USA safeguards activities 2−69736
IAEA safeguards, Japanese experience 2−69734
IAEA safeguards, joint interaction with Euratom 2−69732
IAEA safeguards, USA agreement 2−69735
IAEA safeguards, USA initial experience 2−69757
IAEA safeguards 2−69731
IAEA safeguards application at Trojan Nuclear Plant 2−69738
IAEA safeguards experience to date 2−69730
IAEA safeguards impact on NRC 2−69737
in-reactor maintenance and repairs 2−108066
industrial radiography, test room shielding calcs. *(German)* 2−85400
instruments calibration, comparison of collimated and free air radiation sources 2−64684
International Commission on Radiation Units and Measurements 2−69999
International Commission on Radiological Protection (ICRP), history and present role 2−69998
International Electrotechnical Commission, work rel. to radiological protection 2−73373
International Labour Organisation, review of work rel. to protection of workers against ionising radiation 2−73375
INTOR radiation shielding for personnel access 2−80257
ISO radiation protection standards 2−73372
laser protective eyewear, developments 2−100132
LWRs, NRC containment safety margins programme 2−96232
multicomponent diffusion decay, numerical soln., conservation variational principle 2−108151
neutron and gamma-ray doses at Hiroshima and Nagasaki 2−100127
neutron dosimetry and radiation protection, conf., Neuherberg, Germany (June 1981) 2−53421
neutron shielding of a medical linac room *(Japanese)* 2−68169
New Waste Calcining Facility, shield integrity study 2−75068
nuclear criticality accidents, shield neutron and gamma attenuation 2−90317
Nuclear Energy Agency of the OECD, activities rel. to radiological protection 2−73374
nuclear fuel casks, cooldown testing 2−75063
nuclear reactor fuel reprocessing and radioactive waste management radiological protection activities of German Federal Republic *(German)* 2−59479
nuclear track detectors, use in radiation protection, review 2−108137
nuclear weapon accident exercises, using radioactive materials, management 2−108146
on-site emergency preparedness, NRC appraisal 2−108091
photon dosimetry and radiation protection, SI units 2−85402
pulsed source, radiation transport to 1.1 km 2−108144
PWR circuits, chemical decontamination LOMI reagents development by CEGB, in Britain 2−90305
radiation field calculation errors 2−59564
radiation safety standards for space flights 2−59565
radioactive laboratories and radiation areas, utilisation of instruments and equipment for radiation protection *(Japanese)* 2−64698
radioactive waste, high-level, radiological impact assessment 2−64515
radioactive waste storage in mines, techniques, risks and problems *(German)* 2−59457
radiofrequency hyperthermia systems safety and regulatory considerations in United States of America 2−62726
radioiodine control in power reactors, evolution and current state 2−85401
radioisotope cardioangiography by in vivo labelling of red blood cells, effective radiation protection *(Japanese)* 2−57899
radioisotope laboratories and radiation areas, utilisation of instrumentation *(Japanese)* 2−57905
radiological safety, standardisation problems *(German)* 2−57904
radionuclides standard specimens appl. 2−85448
rare gas holdup bed capacity, statistical moment theory appl. 2−102271
reinforced concrete, containment elements, shear tests, research status and needs 2−96104
RIKEN SSC, neutron shielding, dose rate *(Japanese)* 2−64722
risk calculation for waste repositories based on ICRP-30 2−54512
risks and acceptability 2−54665
safe automated fabrication, batch furnace operation, chemical anal., automated handling 2−108024
secure automated fabrication 2−108023
shielding at proton accelerator, absorbed dose meas., comparison with Monte Carlo calc. 2−96317
space flight, manned, radiation risk and protection 2−62792
steam generator replacement at Surry Power Station: ALARA aspects 2−102277
steel, containment, buckling research, NRC programme 2−96233
stressed shell fuel isolation container, design, fabrication and testing 2−108019
Swedish nuclear power station on-line isotopic stack monitoring system 2−70004
synchrotron radiation facility, radiation protection problems 2−70003
Tokamak fusion reactor, INTOR-J, radiation streaming calc. 2−54646
transportation of nuclear material 2−108158
transportation of radioactive materials, safety aspects *(Spanish)* 2−70002
VVR-M reactor, atmospehric pollutant reduction 2−64699
Al, γ-ray photon multiple scatt., saturation depth 2−115320
^{252}Cf neutron source, shielding expts. with acrylic resin for neutrons and γ-rays *(Japanese)* 2−54671
Cu, γ-ray photon multiple scatt., saturation depth 2−115320
H isotope release with fire or explosion, at tritium recovery plant, hot gas rise 2−54689
^{3}H, glove box air clean-up process 2−75070
^{3}H, glove box air cleanup, removal system 2−75069
^{131}I uptake in organic resin, rel. to activated charcoal 2−85397
^{85}Kr storage cylinder, adsorption, heat transfer 2−64694
Pu, multiple recycling effect on mixed oxide fuel, radiation protection consequences 2−59477
Th processing facility, decommissioning, population dose 2−64700
radiation quenching
anthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
anthracenes, electron deficient, fluoresc. singlet state quenching 2−65037

radiation quenching continued
aromatic hydrocarbons, triplet states O_2 quenching, intersystem crossing enhancement 2−96624
azaphenanthrenes, excited states, nonradiative deactivation by acids in aprotic solvents 2−108618
X-benzophenone, doped, excitation transfer, temp. depend. 2−77572
chlorophyll, in soln., lipid vesicles and liposomes, conc. quenching, fluoresc. study 2−67955
chlorophyll in barley leaves with blocked carotenoid biosynthesis, luminesc. analysis of triplet states 2−78307
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
compartmentalised systems, partition consts. evaluation from fluoresc. quenching 2−111505
9,10-dimethylanthracene, in CTAB and CTAC micelles, fluoresc. study 2−85718
diphenyl ketyl radical, fluoresc. quenching by methyl methacrylate and p-chlorobenzenediazonium tetrafluoroborate 2−90602
electronic excitation energy, intermol. transfer and quenching 2−108663
energy transfer to randomly distributed acceptors in fast-migration limit 2−82915
excitation transfer, atomic fluoresc., two-photon absorpt., quenching 2−70389
fluoresc., in CTAB and CTAC micelles, fluoresc. study 2−85718
fluorescence, ratio deconvolution, quenching and inner filter effects 2−99715
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
ion geminate and homogeneous recombination and fluoresc. quenching, Debye-Smoluchowski eqns. 2−83379
luminescence quenching of F centers due to nonradiative de-excitation during lattice relaxation 2−104951
metalloporphyrins, triplet state quenching by O_2 2−114036
methylene blue+Fe complexes, quenching rates and efficiencies of forward and reverse electron transfer, temp. depend. 2−83369
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
nonlinear phenomena, luminescence, optical susceptibility and radiation quenching 2−86037
nonradiative energy transport in case of negligible correls. with impurity centre surroundings 2−67117
organic photoconductors, carrier generation and elec. field induced fluorescence quenching 2−67108
photosynthesis, modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
phthalocyanine, x-metal free, electric field induced fluoresc. quenching and photocarrier generation 2−61946
plasma channel formation by laser resonance saturation, N_2 influence 2−103403
PMMA copolymers with anthracene chromosphores, intrachain luminesc. quenching *(Russian)* 2−110946
poly(N-vinylcarbazole) film, doped, energy transfer, fluoresc. study 2−116223
poly-N-vinylcarbazole film, extrinsic carrier photogeneration CT fluorescence quenching by electric field *(Japanese)* 2−110963
polystyrene-polyphenylene oxide blends, solid photo-energy transfer 2−104944
porphyrins, triplet state quenching by O_2 2−114036
propynal-d_0(-d_1), S_1 decay, energy depend. and collision effects 2−90606
pyrene, fluoresc. quenching by tertiary alkylamine in cholesteric solvent 2−65036
pyridine, adsorbed mols. on Ag-Cu electrode, surface enhanced Raman scatt. 2−99131
radioluminescence, prompt, stochastic model of radiation quality effects in quenching 2−61984
Rhodamine-6G, aq. soln. triplet state deactivation, visible-UV obs. 2−108540
rhodamine-6G solutions, stimulated emission, light quenching of fluoresc. effect 2−60073
rubrene, triplet lifetime, temp. depend., sensitized delayed fluoresc. obs. 2−59841
ruby, electronic Raman transition and phosphorescence, zero phonon lines, pure dephasing 2−93251
semiconductor, luminescence quenching by non-radiative tunnelling 2−99179
N,N,N′,N′-tetramethyl-p-phenylenediamine, recombination fluoresc., electric field quenching, two-photon ionisation 2−102518
thioindigo, exciplex form. and fluoresc. quenching by electron donors 2−85724
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
Al(III)complex, sulphonated phthalocyanine, excited singlet and triplet state electron transfer reactions 2−78089
Ar+H_2O, dissociative excitation, crossed mol. beam and luminesc. study 2−57602
Ar_2F^*, form. kinetics, fluoresc. meas. of electron beam excited Ar/F_2, Ar/NF_3 mixtures 2−80708
Ar_2F^* in electron beam excited Ar-NF_3 mixtures, fluoresc. obs. 2−70325
As_2Se_3:Ni glass films, photoluminesc. meas. 2−116259
B_2O_3-K_2O-Tl_2O (14, 1 mol.%) glass, Tl^+ centre interaction with laser radiation *(Russian)* 2−105009
BaO-PbO-P_2O_5-Nd_2O_3, glass, separation of luminescence-quenching processes 2−104964
Bi_2, A-X band system, lifetimes, transition moment 2−65051
$Bi_{12}SiO_{20}$, IR quenching of photocond. and holographic data storage 2−87335
CO Ar, laser-induced fluorescence, vibr. nonequilib. effects 2−59838
CO(a $^3\Pi$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
C2p^2($^1S_0$), excited state, collisional quenching, UV obs. 2−59736
CaS:Ce,Fe(Co)(Ni)(Cd), phosphors, luminescence emission and decay, quenching 2−77584
$CaSiO_3$:Pb^{2+}, phosphors, high press. phases, luminescence props., quenching 2−82903
GaAs, bulk semi-insulating, quenching effect of luminesc. 2−87862
GaAs, photoluminescence, elec. field effects, excitons and polaritons 2−99177
GaAs:Cr, exciton and subband-gap absorption, quenching and enhancement, acoustoelectric volt. spectroscopy 2−82235
$GeSe_2$ glass, thin films, and crysts., thermal quenching of photoluminesc. 2−87848
$Ge_{0.15}Se_{0.85}$:In(Cu)(Fe) glasses, photoluminesc. and excitation spectra 2−93263
H_2/F_2 photoinitiated laser, performance characts. with O_2 inhibitor 2−108866
HO_2, photodissoc. at 193 and 248 nm, O(^{1}D) obs., quenching rates 2−72999
He, muonic, metastable state quenching, clustering 2−65115
He^+(2S) ions, electric field quenching, radiation polarisation 2−114029
Hg+Br, collisional de-excitation, ion-pair form. in entrance channel, quenching rate coeff. 2−72973
Hg+HgBr (Br), collisional de-excitation, ion-pair form. in entrance channel, quenching rate coeff. 2−72973
Hg(6^{3}P), optical pumping, quenching, visible triplet radiation transport 2−113948
KBr:Sn^{2+}, emission spectra 2−87845
K_2O-B_2O_3:Tl^+ glass, luminesc. study 2−67105
Kr_2F, electron beam pulse irrad., fluorescence lifetime and quenching rate const. 2−108727
LaF_3:Pr^{3+}, fluoresc. quenching by cross relax. 2−82917
LaF_3:Pr^{3+}, phonons created by quenching process, direct detection 2−71595
$La_{1-x}P_5O_{14}$:Nd_x^{3+} resonant fluoresc. line narrowing 2−104943
$La_{1-x}Tb_xP_5O_{14}$:Tb^{3+}, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
Li+inert gas atom, 3^2D state quenching, product state specific obs. 2−80796
Li+Li (He)(Ne), quenching, excitation transfer processes, radiative coeff., collision rate coeff. 2−108418
LiF lasers based on F_2 centres, lasing action, luminescence 2−80972
$LiLaP_4O_{12}$:Ce^{3+}(Eu^{3+})(Tb^{3+})(Bi^{3+}), luminescence of broad band emitters, concentration quenching 2−77575
Mg+N_2O, quenching, cross sections, kinetics, chemiluminescence 2−111496
N, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
$N_2(B^3\Pi_g)$, collision induced transition, time-resolved fluoresc. 2−59908
$N_2(B^3\pi_g)$, quenching by ethanol, reaction rate meas. from plasma flow 2−75339
NO, electronically excited Rydberg states, quenching mechanism, two photon excited fluoresc. 2−59848
NO*, vibr. excited, quenching rate consts., fluoresc. study 2−83360
Na/Na_2 free jet expansion, laser induced fluoresc., dimer form. and excitation energy transfer 2−85726
Na+H_2, pot. energy surfaces and nonadiabatic couplings calc. using eight config. diatomics-in-mol. formalism 2−102572
NaCl lasers based on F_2 centres, lasing action, luminescence 2−80972
NaF lasers based on F_2 centres, lasing action, luminescence 2−80972
$Na_xLa_{2-x}Tb_x(PO_4)_6Cl_2$:$Tb^{3+}$, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
Na*+CO, (3^2P) state quenching, stereochem. effects, expt. and calcs. 2−108605
Na*+N_2, energy transfer, mol. bond form., at. alignment and orientation effects 2−105480
NdP_5O_{14} and $NdNa(WO_4)_2$, radiation quenching, cross relax. and exctionic behaviour 2−93247
Ne_2 excimer, triplet state, O_2 quenching rate const. 2−80711
Ne($^3P_0$) de-excitation kinetics, time resolved absorpt. spectra, temp. studies, quenching kinetics 2−113925
O, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
O_2, b$^1\Sigma$ state deactivation by O_2 photolysis products 2−90617
PF(b $^1\Sigma^+$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
Pb+Pb metastable levels 6p^2 $^3P_1$ and 6p^2 $^3P_2$, collisional quenching, rate const. meas. 2−59888
Rb, Rydberg levels, rare gas atom quenching cross sections 2−102426
Rb+N_2, quenching, depolarisation, electronic and nuclear spin polarisation 2−90660
Ru complex, tris(2,2′-dipyridine)ruthenium(II), photoinduced electron transfer with organic quenchers, temp. depend. 2−99648
Ru(bipyridyl)$_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
SO radical, $A^3\Pi$ and $B^3\ \Sigma^-$ excited states, vibr. level lifetimes 2−114049
SO_2, electronic relax., collision induced, long range interaction mechanism 2−65079
SO_2*($\tilde{A}^1A_2$) fluoresc. quenching by He and Ar in supersonic jet 2−80715
Si:H, amorphous, time resolved photoluminescence, quenching and carrier mobility 2−104949
Si:O,H,F, amorphous, photoluminescence, localised states, temp. depend. 2−87854
$SrSiO_3$:Pb^{2+}, phosphors, high press. phases, luminescence props., quenching 2−82903
$SrTiO_3$:Cr^{3+}, photoelectronic and optical props. 2−82402
$TbAl_3B_4O_{12}$, luminesc. and energy transfer 2−61950
TbP_5O_{14} and $TbNa(WO_4)_2$, radiation quenching, cross relax. and exctionic behaviour 2−93247
Xe_2Br^*, electron beam excited, formation and quenching kinetics 2−102573
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000
Xe_2F^*, emission spectra and quenching kinetics meas. 2−114023
Y_2O_2S:Tb^{3+}, X-ray phosphor prep., luminesc. props. 2−67096
ZnS, photoluminesc. quenching by DC elec. field 2−110818
ZnS:Mn AC electrolum. thin film device, Mn^{2+} emission saturation 2−116265
ZnS:TbF_3 thin films, electroluminescence quenching obs. 2−99194

radiation therapy
accelerators, beam alignment tests 2−78418
auricular keloid irradiation dosimetry 2−105841
backscatter, build-up in energy range 1 mm Al to 8 mm Al HVT 2−100109
beam compensator design and patient contour plotting, microcomputer-based system 2−68131
bone electrical properties and healing using pulsed EM fields 2−83622
bone fractures, treatment by pulsed mag. field, elec. and mag. fields prod. 2−83620
bone fractures, treatment by pulsed mag. field, elec. and mag. fields prod. 2−83621
bone models for use in radiotherapy dosimetry 2−68148

radiation therapy continued
brachytherapy sources, methods for routine calibration 2−94183
Bragg's peak irradiation of intracranial targets, physicotopographic prep. *(Russian)* 2−111773
breast treatment, 3-field technique using a rotatable $^{1}/_{2}$-beam block 2−62748
cancer detection and treatment enhancement using passive microwave thermography and microwave heating 2−105813
cancer patients therapy using combined local hyperthermia and irradiation 2−62725
cancer treatment using localised hyperthermia, practical considerations 2−62724
cell biology role in radiotherapy, particle radiation effects *(Japanese)* 2−62749
central nervous system, tolerance to photon irrad., endocrine complications in radiotherapy patients 2−111739
centre-blocked field technique for extensive chest wall disease treatment 2−62747
charged particle radiotherapy, three dimensional graphics appl. 2−100122
chest walls, post-mastectomy, late skin changes following twice-weekly electron beam radiation 2−68067
clinical hyperthermia systems engineering problems and solutions 2−62829
clinical hyperthermia trials: design principles and practice 2−62720
clinical radiofrequency hyperthermia by magnetic-loop induction 2−62721
compensating filters for high energy X-rays 2−83647
computerised tomography scanner, 4-MV, for radiation therapy, prototype system 2−94180
computers in radiation therapy, conf., Kawasaki and Tokyo, Japan (Sept. 1980) 2−100123
conference on biological effects and medical uses of elec. and mag. fields, London, England (May 1982) 2−79285
conference on fractionation and dose-time relations in radiobiology and radiotherapy, Leiden, Netherlands (Oct. 81) 2−63737
data for medical phys., book 2−112665
dielectric properties of tumor and normal tissues at radio through microwave frequencies 2−62717
dosimetry, Batho's correction factor combined with scatter summation 2−83656
dosimetry, computerised review system for cooperative group research 2−68161
dosimetry, inhibitory and electron beams for Hodgkin's disease and oral cavity tumours *(Russian)* 2−62768
electron beam applicator for intraoperative therapy, dosimetric props. 2−68164
electron beam scattering, calc. method in treatment planning 2−68159
electron linear accelerator, energy spectrum of inhibitory radiation *(Russian)* 2−88649
electron-beam treatment planning, the problem of obliquely incident beams 2−68165
exposure of technologists, sources of radiation 2−68116
gamma-therapeutic units, tissue-air relations *(Russian)* 2−62735
gustatory tissue response during photon and neutron radiotherapy, quantitative dose-response relationships 2−117014
haematoporphyrin, laser excitation, energy transfer, appl. to photochemotherapy 2−62681
hemibody and total body irradiators, fixed, single source: review of dosimetry 2−83655
hyperthermia, local, using a computer-controlled microwave system 2−111768
hyperthermia, local, using microwaves for therapy, expts. with various applicators 2−105761
hyperthermia, localized, in cancer treatment 2−83629
hyperthermia delivery system using scanning, focused US 2−62712
hyperthermia local therapy for cancer, physical principles, RF and US heating 2−73199
hyperthermia production for cancer therapy: a review of fundamentals and methods 2−62716
inhomogeneity corrections, reconsideration of the power-law (Batho) eqn. 2−94209
IR radiation, use to reduce heat loss in burned patients, phantom expts. 2−68100
laser applications, conf., Germany (1981) 2−89467
laser photocoagulation treatment using fibre bundle scanner 2−81106
laser uses in biomedicine, book 2−63765
lasers and fibreoptic endoscopy for medical use 2−78406
light therapy in tubercular illness *(Italian)* 2−57883
linear accelerator, energy calibration with photonuclear reactions 2−88657
linear accelerator photon beam, 15 MV, contamination by electrons and scattered photons 2−105829
living tissue thermal dosimetry and heat transfer 2−62564
local and regional hyperthermia, microwave/radiofrequency system clinical evaluation 2−62722
localised microwave hyperthermia meas. in thorax phantom 2−78385
malignant neoplasms among atomic bomb survivors following radiation therapy 2−83602
mantle field treatment of lymphomas with ^{60}Co 4- and 10-MV photon beams, neck dose meas. 2−105840
mantle fields, dose distrib. meas. 2−78453
mantle-field radiotherapy of malignant lymphoma, choice of beam energy 2−62760
microstrip loop radiators for medical applications 2−105811
microwave and radiofrequency applicators thermal effectiveness and safety evaluation 2−62718
microwave and RF hyperthermia, applicators 2−62730
microwave and RF hyperthermia, theoretical comparison of temp. distribs. prod. by several systems 2−62731
microwave cancer therapy, blood flow effects on temp. distrib. from invasive antenna array 2−100087
microwave hyperthermia, deep heating technique 2−68106
microwave hyperthermia, embedded insulated antenna 2−62732
microwave hyperthermia direct contact dielectrically loaded applicators design and operation eval. 2−62719
mirror device to plot topometric schemes for preradiation preparation of patients *(Russian)* 2−62739
multidipole applicators for regional and whole-body hyperthermia 2−73311
nasopharynx carcinoma, max. likelihood estimation of dose-response parameters for therapeutic operating charact. anal. 2−117058

radiation therapy continued
neutron beam quality, effect of hydrogenous land nonhydrogenous filters 2−68124
neutron beam shaping, use of nonhydrogenous wedges 2−68160
neutron capture, ^{10}B anal. system by prompt γ-ray spectrometry 2−100089
neutron capture theory−theory versus practice 2−62827
neutron capture therapy, ^{10}B dosage in cell nucleus, analytical calc. 2−105803
neutron therapy beam, effect of missing backscatt. on dose distrib. 2−94210
optical fibre applications to diagnosis, treatment and research 2−57884
parotid saliva, human, effects of ^{60}Co γ-ray therapy 2−62700
parotid salivary function in cancer patients after electron beam treatment 2−68065
pelvic irradiation, accuracy of delivered dose 2−68156
pelvic region arterial changes following bladder carcinoma treatment *(Russian)* 2−111742
phantom material for radiotherapy X-ray and γ-ray beam calibrations 2−83658
phototherapy in newborn jaundice, meas. and monitoring 2−105814
physiotherapeutic device for medical treatment with EM fields *(Bulgarian)* 2−83618
physiotherapy, production and use of optical, electrical and US energy 2−78399
pion beam, range modulation technique 2−100111
pions^{-}, absorpt. within O_2-containing organic compounds, energy spectra of emitted particles, therapy appl. 2−111727
planning, accuracy of topometric information input from CT scans *(Russian)* 2−111774
planning, limitations of 2D programs 2−94181
planning, role of CT, computer dose calcs. 2−105836
plesiotherapy applicators, curved, using ^{222}Rn, discrepancies in depth doses 2−111796
proton beam dose field optimisation for cervical cancer *(Russian)* 2−62736
radiobiology for radiotherapy, review *(Japanese)* 2−117011
radiofrequency hyperthermia, clinical experience 2−62723
radiofrequency hyperthermia systems safety and regulatory considerations in United States of America 2−62726
radiographic screen resolution, significance in treatment verification 2−100108
review of phys. and engng. in radiation therapy *(Japanese)* 2−111775
RF hyperthermia, calc. of elec. fields in conductive media 2−94145
RF hyperthermia by magnetic-loop induction for human cancer therapy 2−111772
roentgenotopometric results in intracavity irrad. of cervical cancer patients, dose estimation *(Russian)* 2−62737
rotation therapy, soln. of an integral equation 2−117093
Scandinavian radiation therapy centres, dosimetric intercomparison 2−111797
simulator, appl. to tomographic imaging 2−62764
skin, port-wine stain model, temp. behaviour during Ar laser coagulation 2−111628
strain gauge US therapeutic exposimeter 2−111760
superconducting ring magnets of the pion therapy facility PIOTRON at the Swiss Institute for Nuclear Research (SIN) 2−117087
SW diathermy, exposure to operator and patient 2−68102
taste and salivary function, long-term effects of radio therapy 2−111751
thermocouple thermometry in microwave fields 2−68101
thyroid cancer therapy patients, 2-orthogonal-view method for quantification of rad dose 2−94208
tibia, non-union treatment by pulsed-mag. field therapy, mag. and elec. fields prod. 2−83619
treatment planning, inexpensive simulator based CT scanner 2−117082
US diagnostic and therapeutic technology, status and development trends 2−62705
US hyperthermia in malignant brain tumours treatment, tissue damage threshold and thermal dosimetry 2−62679
US in medicine and biology, conf., Brighton, England (Jul. 82) 2−101123
US lens, annular focus, for local hyperthermia treatment of small tumours 2−94139
US-induced hyperthermia for treatment of human superficial tumours 2−117024
X-ray therapy tube targets, high-resolution pinhole photography 2−100095
^{125}I volume implants, dose table describing peripheral vol. fractions 2−94212
^{131}I therapy of thyroid cancer, effective focal doses and radiation loads *(Russian)* 2−62767
^{192}Ir interstitial implants, localised current field hyperthermia system 2−83700
^{192}Ir seed implants, effect of geometric errors in reconstruction 2−68126
^{182}Ta, specific γ-ray constant and exposure rate constant 2−68162

radiationless transitions *see nonradiative transitions*

radiative corrections
"radiative corrections" is distinguished in use from "electromagnetic corrections" by application to atomic and molecular spectra
see also electromagnetic corrections; radiative shifts
atoms, photoeffect, high energy tip bremsstrahlung, radiative corrections 2−90484

radiative lifetimes
acetaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2−80502
acetone, phosphoresc. lifetime, ab initio CI calcs. 2−80502
alkali atoms, photon assisted radiative collisions 2−85594
alkali halides, Stark effect in F-centre emission, theoretical problems 2−104850
alkali metal compounds, $M_2(Pt(CN)_4).yH_2O$, quasi-one-dimens., luminesc., mag. field effects 2−82899
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2−108616
anthraquinone derivatives, radiationless deactivation and picosec. fluoresc. lifetimes 2−114028
aromatic mols. in presence of heavy atom perturbers, phosphoresc. and triplet state decay functions 2−102520
atomic system, two level, interaction with light, analytic soln. *(Chinese)* 2−96504
atoms and ions, ion accelerator study of props., review 2−96478
atoms and molecules, excited, diffusion lifetime calcs. 2−60701

radiative lifetimes continued
benzoxazoles, excited, intramol. proton transfer, tautomeric fluoresc., isotope effect 2—105447
benzyl radicals in gas phase, laser-induced fluoresc., excitation spectrum 2—80702
charge transfer in polar media, transition probability, path. integral method 2—108695
chemical potential of radiation 2—90849
chemisorbed Z 2—115526
chlorophyll, monomeric, in liposomes at —196°C, triplet state, phosphoresc. and delayed fluoresc. 2—62557
chloroplasts, pea, picosec. fluorimetry of 685 to 732 nm bands at low temp. 2—105676
cyclic alkanes, S_1 state deactivation, fluoresc. lifetime meas. 2—85722
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2—90620
diatomic molecules laser dynamics using raising and lowering operators 2—70341
Dicke model, transition probabilities, Green function method 2—64914
dielectric surface levels, optical props. 2—61548
3,3′-diethyl thiacarbocyanine iodide, picosecond time-resolved spectroscopic studies 2—96557
3,3'-diethyloxadicarbocyanine iodide, photochemical isomerisations, solvent effects 2—57599
digital optical information storage by spatial lifetime hole burning 2—60189
dimethylbenzaldehydes, in durene single crysts., phosphoresc. lifetimes 2—67094
diphenyl butadiene, photochemical isomerisation in soln., radiative and nonradiative decay rates 2—73002
dye cresyl violet perchlorate, fluoresc. lifetime and orientational relax. times, laser phase fluorimetry *(German)* 2—80707
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2—70320
EPR, ENDOR and electron-nuclear multiple reson. transitions, transition probabilities 2—110728
ethoxy radial, $\tilde{A} \rightarrow \tilde{X}$ fluoresc. spectra, collision-free lifetimes 2—96618
exponential decays characterisation, lambda invariance test 2—108630
exponential depression as a test of estimated decay parameters 2—108629
fluoromethane, matrix isolated, rot.-librational motion, IR obs. 2—90537
fluorophores, interacting, dynamic depolarisation effect of internal rot. and energy transfer 2—108439
formaldehyde, phosphoresc. lifetime, ab initio CI calcs. 2—80502
heptamethine cyanine IR dyes, lifetime, photostability and chem. struct. 2—102884
highly excited atomic states, radiative transition probabilities *(Russian)* 2—108428
2-(2′-hydroxy-5′-methylphenyl)-benzotriazole, solns., excited state relax., fluoresc. lifetimes 2—85727
I, spectral and relax. charact. investigation using a photodissociative I laser 2—113934
impurity centres, two-well adiabatic pot., relax. and optical processes calc. 2—61931
metalloporphyrin-pyridine anion complexes, degenerate electronic states, hole burning method obs. 2—113900
metastable ions, lifetimes meas. using photoion-photoelectron coincidence 2—108627
methoxy radial, $\tilde{A} \rightarrow \tilde{X}$ fluoresc. spectra, collision-free lifetimes 2—96618
methylene ($-d_2$), Renner-Teller effect, laser induced fluoresc., radiative lifetimes, vibronic levels 2—80717
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2—90620
nucleic acid components, excited-state props. 2—99899
organic fluorophores, excited state lifetimes, optoelectronic cross-correl. determ. 2—90477
pentacene-benzoic acid mixed crystal, antihole prod., hole burning, fluoresc. study 2—108973
perturbations studied using time resolved techniques 2—65044
phosphate glass:Nd^{3+}, radiative and nonradiative props. 2—61951
pinacyanol iodide, internal-conversion, fluoresc. lifetime temp. depend. meas. 2—108601
polyatomic vibr. radiative relax. rates estimation 2—59773
polymers containing trans 1,2-dicarbazolylcyclobutane or carbazolyl struct., fluoresc. quantum yields and lifetimes 2—90605
polyphenyl vinyl ketone, triplet lifetime, laser flash photolysis obs. 2—102529
polystyrene-polyphenylene oxide blends, solid photo-energy transfer 2—104944
propynal and its deuterated compounds, deactivation of $S_1(nT1^*)$ state, fluoresc. lifetimes 2—70317
pyrazine on Ag (111) and Ni surface, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 Å 2—102523
pyrazine-d_0(-d_4) vapour, $S_1(n,\pi^*)$ state, vibr. levels, sub-ns. fluoresc. lifetimes 2—59842
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2—108606
pyrene, excited singlet and excimer states, absorpt. bands 2—102462
rhodamine 6G-malachite green, soln., fluoresc. decay time meas. 2—67120
rhodamine B monomer and dimer, population and rot. kinetics using picosecond transient spectrometry 2—102521
rubrene, triplet lifetime, temp. depend., sensitized delayed fluoresc. obs. 2—59841
semiconductor, III-V, band to band transitions, lifetime and probabilities, minority carrier lifetime 2—93253
silicate glass:Nd^{3+}, radiative and nonradiative props. 2—61951
trans-stilbene, soln., fluoresc. lifetime, temp. depend. 2—70315
tetradeuterophenanthrenes, vapour phase fluoresc. lifetimes, position depend. deuterium effects 2—85725
s-tetrazine vapour, fluoresc. meas., S_1 vibronic level assignments, polarisation and lifetime meas. 2—108611
time-resolved fluoresc. relax., deconvolution calcs. 2—80710
transition probability matrix elements, calcs., simplification 2—65052
two-electron single-photon transition probabilities 2—59751
two-level system, nonradiative multiphonon transitions, static versus adiabatic coupling scheme 2—98228
Ag I radiative lifetimes 2—64919
Ag II radiative lifetimes 2—64919
Al I, lifetimes, MQDT calcs., mixing coeffs. appls. 2—102438
$Al_2O_3:Cr^{3+}$, heavily doped, fluroesc. spectra and decay times 2—110925
Al_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2—96955
radiative lifetimes continued
Ar+Ar, K-shell excitation probabilities meas. 2—54949
Ar_2F^*, form. kinetics, fluoresc. meas. of electron beam excited Ar/F_2, Ar/NF_3 mixtures 2—80708
AuI, radiation lifetimes of excited n^2D_j(n=6-8) states 2—64921
B I lifetimes, MQDT calcs., mixing coeffs. appls. 2—102438
Ba, perturbation of 6sns $^1S_0$ sequence by 5d7d $^3P_0$ state by lifetime meas. 2—59748
BaO-PbO-P_2O_5-Nd_2O_3, glass, separation of luminescence-quenching processes 2—104964
Be-like ions, spin-orbit elec. dipole transitions 2—96497
Bi, $6^2D_{3/2}$ state, radiative lifetime, absorpt. spectra 2—96486
Bi_2, A-X band system, lifetimes, transition moment 2—65051
$Bi_{2-x}La_xWO_6$:Pr(Sm)(Eu)(Tb)(Dy)(Er), luminesc. props. 2—82900
$^{79}Br_2$ in Ar and Kr matrices photochemical dynamics, IR spectra and relax. dynamics 2—102475
BrCl, $B^3\Pi(0^+)$ manifold, laser-induced fluoresc. obs. 2—114030
$^{79}Br_2$ in Xe matrices, photochemical dynamics, radiative lifetime meas. 2—96621
C III, wavelengths, fine struct. and decay times meas. using beam-foil technique 2—64898
C_2, $A^1\Pi_u$ state, vibr. levels radiative lifetimes, time resolved spectra obs. 2—63226
C_2 in interstellar clouds, excitation, radiative lifetimes and rot. levels 2—101009
C_2^-, $\tilde{B}^2\Sigma_u^+$ state rot. level lifetimes meas. 2—114048
CCl, $A^2\Delta$ state predissoc. investig. 2—80747
CH, excited state lifetimes 2—96645
$CH^+(CD^+)$, $A^1\Pi \leftrightarrow X^1\Sigma^+$ system, laser-induced fluoresc. 2—75344
CI, term energies and oscill. strengths, Thomas-Fermi Hartree Fock calcs. 2—80459
CN, $A^2\Pi$ and $B^2\Sigma^+$ states, radiative lifetime determ. from CI calcs. 2—85746
CN red system in solar spectrum, oscillator strengths, radiative lifetimes and electronic transition moment 2—106641
CO, laser-assisted collisional energy transfer between Rydberg states 2—65078
CO, molecular overtone transitions, quantum dynamical study, vibr.-rot. transition probabilities 2—102541
CO, radiative decay lifetimes and optical excitation functions meas. using electron impact excitation 2—70187
CO, vibr., radiative lifetimes determ. optical emission functions 2—90722
CO_2, vibr. fine struct., natural lifetime, K X-ray emission obs. 2—54869
CO(a $^3\Pi$), metastable free radicals, radiative lifetimes quenching coeffs. 2—65050
CS^+ in comets, oscillator, strengths and radiative lifetimes determ. 2—73905
Ca, 4s6s^{1}S to 4s4p ^{1}P transition probability, visible obs. 2—70173
CaF_2:Sm^{2+}, acoustic phonon-impurity interaction, luminesc. study 2—93269
CaH, low lying electronic $B^2\Sigma$ state, radiative lifetimes, oscillator strengths meas. 2—65054
CaS phosphors, initial decay mechanism 2—61965
CdS:V(Cr)(Co)(Ni)(Cu), excited state lifetimes, 4 to 300K, luminesc. study 2—57162
CdS_xSe_{1-x}, fluorescence line narrowing, localised exciton states, and spectral diffusion 2—82909
Co, transition probabilities, decay branching ratios *(French)* 2—54789
Cs, radiative lifetimes, Coulomb approx. 2—113936
CsBr(Cl):Ag^+, far UV spectra, fluorescence and optical bleaching studies 2—110901
CsI:Na^+, exciton-Na^+ interactions, photoluminesc., ODMR and mag. circular pol. study 2—61366
$CsMnCl_3(Br_3)(I_3)$, photoluminescence lifetime and intensity 2—110940
$Cs_2NaErCl_6$, fluoresc. spectra and lifetimes 2—110922
Cu I complexes, luminesc. spectra, decay times and intensities 2—80716
Cu II, radiative lifetimes and transition probabilities 2—75217
CuBr, excitonic mol. luminesc. at 4.2K, time depend. 2—67101
Er^{3+}, single-phonon nonradiative transition regularities 2—114035
Eu II, line intensity meas. and oscillator strengths from lifetimes 2—59746
Fe^{23+}, transition probability, dielectronic recombination rate coeffs., HF calcs. 2—108679
GaAs, oscillator strength and lifetime broadening of exciton polaritons 2—93141
$Ga_{1-x}In_xAs_{1-y}P_y$ LED, spontaneous emission efficiency and nonradiative recombination meas. at 1.58 μm 2—116220
Ga_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2—96955
H isoelectronic sequence, 2E1 and M1 radiative decay rates 2—102436
H, two-photon transition probabilities and rel. radiation matter interaction problems, second-order eqn. appl. 2—108436
H-like atoms, Coulomb excitation, cross-section, bound-bound transition probability and energy loss study 2—113939
H_2, radiative transition probability meas. 2—114052
H_2, rotational S(2) and S(3) transitions, freq. and transition probabilities 2—80585
H_2 thyratron, metastable species form. 2—54936
H_2+H_2, vibr. transitions, quantum mechanical and semiclassical probabilities 2—54926
HD(HT)(TD), muonic mols., deexcitation rates calc. *(Russian)* 2—70455
HF, in intense laser field, classical and quantum mech. calcs. 2—102544
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2—54897
He isoelectronic series, energy and transition probabilities correl. wavefunctions calcs. 2—113874
^{2}He, 1^1S-2^1S transition, two-photon transition probability calc. 2—113952
Hg, 6^3P_1 state, hyperfine struct., radiative lifetime, fluoresc. obs. 2—108424
Hg, metastable states, wall losses, kinetic theory 2—113906
Hg vapour, UV reservoir states quantum yield and lifetime, dimer form., luminesc. 2—113926
I_2, E region states excited by two-photon spectroscopy, kinetic obs. 2—85758
K, radiative lifetimes, Coulomb approx. 2—113936
KI:Sn^{2+}, luminesc. kinetics and radiative decay times 2—67093
Kr II, $4p^45p$ config., lifetime and transition probabilities meas. 2—102434
Kr II, transition probabilities 2—96507
Kr III, beam-foil level lifetimes 2—96511
Kr lasers, singly ionised, excitation mechs. 2—70545

radiative lifetimes continued
Kr, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
Kr_2F, electron beam pulse irrad., fluorescence lifetime and quenching rate const. 2−108727
KrF* broad band emission at 400 nm 2−96625
KrI, transition probabilities 2−96507
$La_{1-x}Pr_xF_3$, inhomogeneous broadening, time resolved fluoresc. meas. 2−116251
$La_{1-x}Tb_xP_5O_{14}:Tb^{3+}$, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
Li-like ions, radiative transition rates and wavelengths, MCDF-EAL calc. 2−54803
Li_2, $B'\Pi_u$ state, quenching and vibr. energy transfer 2−80789
MgI, laser-excitation technique for the measurement of absolute transition probabilities of weak atomic lines 2−70191
Mn II line transition probabilities, 237 to 357 nm, arc emission meas. 2−80524
Mo I, radiative lifetime meas. using novel atomic beam source 2−75219
N, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
N IV, wavelengths, fine struct. and decay times meas. using beam-foil technique 2−64898
N_2, transition in fourth spectrum 2−96472
N^+, $^5S_2$ metastable state, radiative lifetime meas. by monitoring spontaneous emission 2−64923
N_2 ($B^3\pi_g$-$A^3\Sigma_u^+$) system, vibr. transition probabilities for Hulbert-Hirschfelder oscillator model 2−70218
N_2^+ $B^2\Sigma_u^+$, v=0 state effective cross-section meas. 2−70157
N_2+$CO(O_2)$, vibr. transitions, quantum mechanical and semiclassical probabilities 2−54926
NCO, $A^2\Sigma$-$X^2\Pi$ transition, laser-induced fluoresc. 2−90598
NH_3, adiabatic rapid passage within Doppler-broadened line, level lifetime meas., Stark effect 2−70311
NO, excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
NO, V-T transition probability, photoacoustic study 2−114047
NO_2, A $^2B_2$ state, vibr., reson., fluoresc. intensities 2−102517
NO_2, fluorescence, dispersed and time resolved, decay times 2−90607
$N^+(^2S)$ state possible identification of 2145 Å emission feature in aurora 2−63160
N**, metastable state, collision-induced ionisation, time of flight study 2−114095
Na, density meas. using radiation trapping 2−102374
Na, excited state lifetimes, optoelectronic cross-correl. determ. 2−90477
Na^+, radiative transition probabilities and level excitation cross-sections 2−113935
NaCl:Tl(In), luminescence obs. at high press. 2−72533
$Na_2La_{2-x}Tb_x(PO_4)_6Cl_2:Tb^{3+}$, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
Nb I, radiative lifetime meas. using novel atomic beam source 2−75219
Nb I lifetime meas. rel. to solar Nb abundance 2−112406
NbI, atomic beam, radiative lifetime, time-resolved laser induced fluoresc. 2−90473
Nd I and Nd II, excited levels lifetimes and oscillator strengths 2−113930
Nd^{3+}:LNP crystal electric dipole transition intensity *(Chinese)* 2−90479
Ne, self-alignment of $5d_2$-level, hollow cathode discharge 2−54810
Ne^{+2}+Xe, excited ions lifetime meas. long-lived ions preparation, selective electron capture appl. 2−102616
Ni II, transition probabilities and collision strengths 2−94589
O, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
O V, wavelengths, fine struct. and decay times meas. using beam-foil technique 2−64898
O_2, $^1\Delta g$ singlet state lifetime, solvent effects 2−70345
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
OH, $A^2\Sigma^+$, $B^2\Sigma^+$ and $C^2\Sigma^+$ states, radiative lifetimes and dipole moments 2−102538
P^{n+} (n=12, 13), transitions and lifetimes meas., X-ray and beam-foil time-of-flight spectra 2−113920
PF($b\ ^1\Sigma^+$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
PH_2, ground state, mol. consts., anomalous lifetimes, rot. transitions 2−85633
Pb, L_1, L_2 and L_3 subshells, X-ray fluoresc. yields and Coster-Kronig transition probabilities 2−70114
Pb_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
$Pb_5Ge_3O_{11}:Nd^{3+}$, cryst. growth and spectroscopic props. 2−99178
PbSnTe diode laser, lifetime mechanisms, tunnelling currents and laser threshold 2−80956
Pd I radiative lifetimes and oscillator strengths, appl. to solar photosphere abundance 2−64903
$PrCl_3$ complexes in soln., optical absorption spectrum, cryst. field parameters 2−116205
Pt, radiative lifetimes meas. for odd parity levels using laser excited technique 2−102433
Rb, radiative lifetimes, Coulomb approx. 2−113936
Rb_2MnCl_4, photoluminescence lifetime and intensity 2−110940
$RbMnCl_3(Br_3)$, photoluminescence lifetime and intensity 2−110940
Rh I lifetime meas. rel. to solar Rh abundance 2−112406
S IV, electric dipole transition probabilities calcs., appl. to solar transition zone 2−89210
S, two-photon induced fluoresc. and reson.-enhanced photoionisation 2−113923
S XII, electron collisional excitation, radiative lifetimes, energy level calcs. 2−108723
SO radical, $A^3\Pi$ and $B^3\ \Sigma^-$ excited states, vibr. level lifetimes 2−114049
SO_2 in supersonic jet, fluoresc. excitation spectrum and single rovibronic level lifetime 2−90615
Se IV, V and VI, energy levels, lifetimes, f-values, beam-foil spectra 2−102596
Si, excitonic system, equilib. consts., recombination luminescence 2−87860
Si isoelectronic series, ground config. up to $3p^2$, forbidden lines radiative transition probabilities 2−85592
Si^{n+}, transition energies, lifetimes and fluoresc. yields 2−59738
a-Si:H, photoluminesc. emission broadening 2−110920
Sn_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850

radiative lifetimes continued
W atomic beam laser excitation for lifetime meas. in configuration ($5d+6s)^5 6p$ 2−54806
Xe, autoionising resonances in photoionisation, level positions, lifetimes and line-shape parameters 2−54814
Xe III, $5p^4$ ground configuration, transition probabilities for forbidden lines, Auger transitions 2−64927
Xe, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
Xe_2Cl, excimer state, absorpt. and emission transition probabilities 2−96583
Xe_2F^*, emission spectra and quenching kinetics meas. 2−114023
YAG:Nd garnet, fluorescence lifetimes, particle size and refractive index effects 2−67114
$YAlO_3:Nd^{3+}(Er^{3+})(Dy^{3+})$, luminescence and cryst. field splitting 2−116239
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
Yb^+, ionisation energies, polarisability, transition probability, one-electron spectrum anal. 2−80519
ZnS:V(Cr)(Co)(Ni)(Cu), excited state lifetimes, 4 to 300K, luminesc. study 2−57162
ZnTe, bound exciton time decay, radiative and nonradiative transition rate study 2−76932
ZrI radiative lifetimes, time resolved laser induced fluoresc. 2−80542
ZrI, radiative lifetimes meas. using at. beam source 2−96512

radiative shifts
electron-ion collisions at medium energies, radiative coupling effect 2−108722
rare earth silicides, Si K_α emission spectra, energy shift, cryst. struct. effects 2−99227

radiative transfer
airborne laser fluorosensors, transfer model inc. water Raman scattering 2−112122
angle-averaged redistribution function in the laboratory frame 2−84082
anisotropically scatt. atm., discrete ordinate method, intensity computation 2−78947
atmosphere, radiative interaction in 3-dimens. cloud fields 2−100549
atmospheric 4.3 μm clutter obs. 2−117441
book, EM scattering and its applications 2−89492
C stars, opacity and thermal struct. of model atmospheres 2−112426
Chandrasekhar's X and Y functions solns., use of F_N method 2−117611
Chandrasekhar H-function, method of moment and Newton approximants 2−117581
Chandrasekhar X and Y eqns. for isotropic scatt., iterative soln. 2−103006
chlorophyll fluorescence from the ocean exact 1-D soln. 2−106124
circumstellar envelopes in early type stars, modellings of UV reson. lines form. 2−63386
circumstellar shells, reflected and external radiation effects on flux distribs. 2−89233
coherent scattering problem, analytic soln. of difference eqns. for radiative transfer 2−78946
comets, intensity and linear polarisation of Na I D_2-line resonantly scattered in cometary atmosphere *(Russian)* 2−73907
comets H I atmospheres, solar Lα radiation scatt. *(Russian)* 2−73906
32 Cygni, excitation through radiative pumping of Fe UV multiplet 191 during eclipse 2−68815
cylindrical medium, semi-infinite, exposed to laser beam, two dimens. linear anisotropic scatt. 2−96830
doublet resonance lines in expanding stellar wind, nonlocal radiative coupling, escape probability treatment 2−68730
emission frequencies from angle depend. partial freq. redistributions, refined algorithm 2−68608
energy exchange in W40 molecular cloud 2−101022
expanding universe, radiation hydrodynamics of H plasma below 10^{10}K 2−106974
finite difference equations for one-dimensional radiative transfer, comparison 2−89139
galactic centre, radiowave scatt. by ionised gas clouds rel. to apparent variability of 'point' radio source *(Russian)* 2−101074
gamma ray point sources, optical thickness at subgamma ray frequencies 2−74127
gamma-ray bursts, comptonised X-ray source model for burst spectra 2−89410
general relativistic radiative transfer, 14-moment approx. 2−84085
generalised spectral angular emission coefficients calc. of 3-D radiating systems with radiation characts. variation 2−60366
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, radiative transfer 2−106494
heat rejection in space using liquid drop radiators 2−86204
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
homogeneous magnetised plasma, astrophysical appl. 2−73828
hot star winds, energy transport 2−63373
hot stars, radiation driven winds, models involving radiative transfer 2−63372
induced Compton scattering in radiative transfer, appl. to astronomical sources 2−112319
inertial confinement fusion target, deflagration wave with radiative energy transport 2−54654
infrared radiative transfer in cloudy atm., parameterisation 2−78835
interstellar C I radio recombination lines, influence of low temp. dielectronic-like recomb. 2−112314
interstellar medium, radiative transfer rel. to OH cooling of interstellar shocks and masers 2−106874
Jupiter, aurora, radiative transfer with partial freq. redistrib. 2−73899
Jupiter atmosphere, radiative transfer modelling rel. to H_2 fluoresc. spectrum excitation in aurora 2−63237
laser beam scanning of solid, temp. profiles calc. 2−92028
line profile fluctuations in a turbulent atmosphere 2−112429
linear transport in nonhomogeneous media 2−74367
long-period variable stars, outer layers opacity rel. to theoretical growth rates, periods and pulsation consts. 2−106715
LTE model atm., radiative transfer, energy balance, iterative solns. 2−84222
M-type giants and supergiants, radiative transfer in dust shells 2−89247
magnetic stars line transfer equation of radiation in mag. field presence in non LTE atm. 2−78967

radiative transfer continued
molecular cloud CO lines, profiles determ., effect of complete freq. redistribution assumption relaxation 2−117723
Moon, photometry interpretation with radiative transfer theory for planetary regolith 2−100777
multidimensional space, radiative transfer, spherical harmonic method 2−112126
multiple scattering corrections to Beer-Lambert law, open detector 2−96835
multiple scattering problem in plane layer, polarisation of radiation 2−100719
NGC 2071, reflection nebula, radiative transfer theory for CO lines broad wings and self-reversals 2−58425
nocturnal boundary layer, radiative cooling effects, model 2−78786
ocean-atmosphere systems, iterative radiative transfer code rel. to polarisation of diffuse radiation 2−100554
one-dimensional randomly inhomogeneous medium, EM wave intensity fluctuations radiative transfer 2−85869
YY Orionis stars, spectral line form. in infalling envelopes using multilevel H I atom 2−89260
FU Orionis stars (fuors), atmospheric opacity increase rel. to evolutionary connection with T Tauri stars 2−100921
passive optical sounding in homogeneous atm., eqns. *(Russian)* 2−106310
planetary albedo estimates from meteosat data 2−94492
planetary atmosphere, internal radiation, spherical harmonics moments 2−112354
planetary atmospheres, angular distrib. of radiation, discrete ordinate approx. 2−84126
planetary atmospheres, complete soln. with reflecting boundaries and internal sources 2−63222
planetary atmospheres, line form. and emergent radiation, role of scatt. 2−78989
planetary multilayer isotropically scatt. atmospheres, radiation field 2−117576
plasma, strongly magnetised, Fokker-Planck eqn. for radiation transfer 2−78945
plasmas under superstrong mag. field, appl to neutron stars 2−58374
polar molecules, in interstellar clouds, spectral intensity, electron impact effects 2−112533
polarised light scattering, basic phase matrix 2−89136
power plant plume effect on radiative transfer, radiation meas. 2−100558
QSO emission-line clouds, probabilistic radiative transfer for finite slab atmospheres 2−101086
radiation attenuation length due to correl. of weak scatterers *(Russian)* 2−106311
radiative fluids, transient and transport coeffs., astrophys. appl. 2−94588
radiative transfer in laser compression, simulation 2−71226
radiogalaxies in clusters, scatt. and polarisation of radio emission by intergalactic gas *(Russian)* 2−106923
red giant stars model atmospheres, opacity and thermal struct. for C enriched models 2−112426
reflection from semi-infinite plasma layer with magnetic field 2−117586
resonance radiation thermalisation length for partial freq. redistribution case 2−63233
solar atmosphere, damping consts. of spectral lines rel. to turbulence 2−94687
solar atmosphere, departures from LTE rel. to continuum and Fraunhofer spectrum *(Russian)* 2−73926
solar chromosphere, O I resonance triplet and intercombination doublet form. by Lyβ fluoresc. 2−112398
solar corona, obs. of radio echo and sporadic radiation scatt. 2−94698
solar corona, theory of Hanle effect in coronal H I Lα line 2−94697
solar granulation numerical simulation, hydrodynamic and radiative transfer eqns. 2−68695
solar interior, effect of electron distrib. distortion on opacity and solar neutrino problem 2−68694
solar photosphere, problem of contrib. functions and optical depths of form. of Fraunhofer lines 2−68716
solar spectrum, influence of magneto-optical effects on determ. of mag. fields from Stokes profiles 2−100878
spectral line formation, theory of redistrib. and radiative transfer eqns. 2−112313
spectral line formation in one-dimens. expanding medium, rectangular and Doppler absorpt. coeffs. *(Russian)* 2−84090
spectral line photons formed in planar atm., escape probability 2−68725
statistically inhomogeneous and anisotropic absorptive medium, two-freq. radiative transfer eqn. 2−63946
stellar atmosphere, line source functions dipole scatt., effects of redistribution 2−73957
stellar atmospheres, appl. of horizontally averaged opacity and modified mixing-length theory to convective models 2−112427
stellar atmospheres, irreversible thermodynamics in radiating fluid 2−112428
stellar atmospheres, magnetised, broadband linear polarisation tables for mag. intensification mechanism 2−112431
stellar interiors, effects of plasmon-electron interaction on radiative transfer 2−89238
stellar nonspherical winds and envelopes, radiative flux 2−68735
stellar planar atmosphere, radiation field in anisotropic scatt. case, in variance relation 2−63234
stellar semi infinite atmosphere, reson. radiative transfer, Monte Carlo calcs. 2−68733
stellar spectra, non-LTE C IV line profiles rel. to temp. struct. in atmospheres of hot stars *(Russian)* 2−112435
stellar winds, ionisation balance and IR spectrum of radiatively-driven winds in O-type stars 2−63387
Sun, quiescent prominence reson. lines, two dimens. nonlocal thermodynamic equilib. transfer computations 2−68687
Sun, quiescent prominences, H lines form. 2−84204
Taurus Molecular Cloud 1, Monte Carlo radiative transfer code rel. to cyanoacetylene (HC_3N) obs. 2−63560
time dependent initial frame equation of radiative transfer in moving media to O(v/c) 2−97355
troposphere, isotropic multiple scattering and surface albedo effects on photochemistry 2−94419
troposphere water vapour emitted radiation, radiative transfer theory 2−83919
two-layer structure, scanning electron or laser beam irrad., temp. distrib. calc. 2−92027
underwater off-axis radiance meas. comparison with radiative transfer eqn., analytical 2−88882

radiative transfer continued
Venus, atmosphere, optical properties and radiative heat exchange 2−68645
Venus atmosphere, optical properties and radiative heat exchange 2−100795
white dwarfs, magnetic, influence of magneto-optical effects on continuum 2−112443
X-ray binary stars, mag. fields rel. to electron cyclotron reson. absorpt. and critical luminosity 2−112505
X-ray source, radiation supported plasma layer, struct. and stability 2−106960
X-ray sources, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
XUV radiation transfer through high-Z metal foils in laser produced plasma 2−71107
H_2, density in interstellar mol. cloud, spectrosc. obs. 2−112534
radicals, free *see free radicals*
radio broadcasting
digital AM channel bandwidth, effect of interferential ionospheric propag. 2−83989
standard time/frequency dissemination, India 2−79539
time and frequency, standard, in Korea, and dissemination by AM/FM broadcasting network 2−89663
time and frequency services in Kenya, establishment, future radio broadcasting appl. 2−89662
radio equipment
see also antennas; loudspeakers; transceivers
RF hazards to the radio amateur 2−83630
radio links
see also microwave links; radiocommunication
British Telecom transhorizon on radio service to offshore oil/gas platforms 2−94434
COMSTAR satellite propagation experiments, 19 and 28 GHz 2−94471
data transmission over high freq. links 2−63169
digital high frequency radiocommunications, applications of microprocessors 2−73781
route diversity systems at freqs. above 10 GHz, performance analysis 2−83886
seismic station network in Hungary, telemetry system 2−78850
Sudan-Saudi Arabia, solar energy system with 13 days reserve power *(German)* 2−99766
tropospheric scatter radio links, propag. delay distortions 2−73621
radio networks
seismic station network in Hungary, telemetry system 2−78850
time and frequency, standard, in Korea, and dissemination by AM/FM broadcasting network 2−89663
time and frequency services in Kenya, establishment, future radio broadcasting appl. 2−89662
radio receivers
see also superheterodyne receivers
RATAN-600, receiving apparatus for centimetre band sky survey work 2−94608
radio reception
see also atmospherics
time and frequency, standard, in Korea, and dissemination by AM/FM broadcasting network 2−89663
radio reception quality *see radio reception*
radio relay systems *see radio links*
radio transceivers *see transceivers*
radio transmitters
see also radiosondes
wire-less microphones, linearity and SNR improvement *(German)* 2−91195
radioactive age determination *see radioactive dating*
radioactive chemical analysis
For applications of radioactivity to chemical analysis, see chemical analysis by nuclear reactions and scattering
see also neutron activation analysis; radiochemistry
direct α-spectrometric analysis method for environmental materi als 2−62543
electron probe microanalyser, modifications for radioactive sample anal., appls. *(French)* 2−73033
irradiated fuel, fission products, isotope correl. anal. 2−54502
nuclear materials, nondestructive anal. using neutrons 2−93854
radiochromatographic anal. of mixtures labelled with soft β-emitting isotopes 2−67783
seawater anal. by nucl. physics methods 2−100600
steel, austenitic, strongly radioactive, X-ray microanal. of C diffusion *(French)* 2−67786
waste water from citric acid production, radionuclide X-ray fluoresc. anal. 2−78164
Fe, determ. in lateritic ores, using radioisotope X-ray fluoresc. 2−57665
Ni, determ. in lateritic ores, using radioisotope X-ray fluoresc. 2−57665
Pu assay in nuclear waste packages, modular 4π neutron counting system 2−64471
Pu ionic species, in soln., spectrophotometric meas. at low concs. 2−57664
$(U,Pu)O_2$ fuel element, strongly radioactive, X-ray microanal. *(French)* 2−67786
radioactive dating
see also geochronology
air impurities: radioactive carbon dating and computerization 2−57747
biotite samples age estimation by Rb-Sr method *(Japanese)* 2−94366
ceramics, thermoluminescence dating, grain size distrib. and beta dose-rate 2−100571
chondritic phosphates, ^{244}Pu conc. and significance in meteorites fission track dating 2−68685
Cortlandt complex, New York, emplacement history and tectonic significance 2−100377
Fife Hills, Enderby Land, Antarctica, crust age and form. from granulite facies rocks dating 2−106034
fission track age estimation method 2−73722
fission track dating, current status and problems 2−73719
fission track dating appl. to Plio-Pleistocene 2−73723
fission track dating problems and solns. 2−73724
fission track dating using solid state nuclear track detector 2−59636
Grenville anorthosites of French River area, Ontario, remanence components rel. to radiometric ages 2−94273
Hadar Formation volcanic units, Ethiopia, K/Ar ages 2−62922
Hartland stock, Maine, mineral ages determ. 2−78647

radioactive dating continued
isotopic evidence for upper mantle long lived heterogeneities 2−100333
Lake Turkana, Kenya, palaeoclimate determination from gastropod shell $^{18}O/^{16}O$ ratios 2−83967
meteorite, terrestrial age of estimation using thermoluminescence data 2−84100
minerals, fission track temp. age theory 2−73508
minerals, fusing with continuous laser for $^{40}Ar/^{39}Ar$ dating 2−63119
New Zealand, Quaternary terraces, uplift rates and speleothem dates 2−100361
Nordlinger Ries crater, bedrock age and impact breccia temp. history 2−106121
nuclear microprobe meas. of F conc. profile, appl. in archaeology and geology 2−100572
obsidian artifacts fission track dating 2−73720
Peking Man, fission track dating 2−70112
rock, Zr isotopic composition, implications for ^{92}Nb as solar system chronometer 2−84116
sediment age determination method based on Th^{230} content 2−117494
sphene sample from pegmatite, fission track temp. ages meas. 2−73721
Tahoe-Tioga interglaciation, Sawmill Canyon, Sierra Nevada, USA, intermixed basalt flow dating 2−78830
thermoluminescent dating, low level Th and U determ. 2−54727
$^{39}Ar/^{40}Ar$ dating of trans-Himalayan magmatism in S Tibet 2−94330
$^{39}Ar/^{40}Ar$ laser probe dating of terrestrial rocks 2−89020
$^{40}Ar/^{39}Ar$ spectral method of geological dating 2−83786
Be sample prep. for accelerator radiometric dating by BeO reduction evaporation 2−112155
^{9}Be profile in N.Pacific water column, use for radioactive dating 2−78701
^{10}Be dating, evidence for constancy of oceanic ^{10}Be deposition rate from Mn crusts 2−111920
^{14}C studies of coastal deformation near Straits of Hormuz 2−100365
^{210}Pb radioactive dating of lake sediments, γ-ray spectroscopic method appl. 2−58087
Sm and Nd isotope ratio determination method using laboratory standard solutions 2−63253
Sm/Nd ratio determination method using laboratory standard solutions 2−63253

radioactive decay periods
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
alpha-decay, half-life, fit to semiempirical relationships, self-improving parameter program 2−64377
centroid-shift time meas. with Si(Li) plus mag. lens electron spectrometer 2−108216
neutron-deficient nuclides produced in (p,x) on U, Th, Au, Ta, alpha spectroscopy 2−59299
nuclear lifetime meas. using electron spectrometer 2−108314
prompt and delayed gamma distrib. anal. 2−59655
short-lived radionuclides meas., Ruark-Devol statistics appls. 2−54731
Z=109, existence in nature, invest. *(Chinese)* 2−59442
Z=110, existence in nature, invest. *(Chinese)* 2−59442
^{144}Ba β-decay, $T_{1/2}$, ^{144}La levels, J^{π}, transitions 2−113421
$^{121}Cd^{g,m}$, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{31}Cl decay, β-delayed protons, half life 2−64376
^{137}Cs, half life calc. on basis of human metabolism 2−101848
^{168}Dy, radioactive half-life and γ-emission probs. meas. 2−101841
$^{115}In(n,\gamma)^{116}In^{m}$, neutron activation parameters, cross sections and half-lives 2−95969
^{121}In, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{197}Ir decay, use of clinical accelerator in spectroscopic studies 2−85407
^{A}Kr, A=76, 82, 84, Coulomb excitation and lifetime meas. of 2_1^+ states 2−54309
^{A}Lu, A=181,182, β-decay, $T_{1/2}$, $^{181,182}Hf$ levels, J^{π}, transitions 2−69609
^{151}Lu direct proton decay, half life, prod. cross section from $^{96}Ru(^{58}Ni,X)$ 2−69614
^{176}Lu, half-life, γ-γ coincidence meas. 2−64375
^{99}Mo, level half-life and transition probability from delayed βγ coincidence 2−95971
^{99}Nb, level half-life and transition probability from delayed βγ coincidence 2−95971
$^{104}Nb\rightarrow{}^{104}Mo$, beta-decay half life meas. 2−95976
^{36}P decay, half life, ^{36}S levels, J^{π} and transitions 2−90059
^{212}Po 0^+ α-emitting state half life, transition, levels, spins 2−59298
^{218}Po half-life meas. 2−85005
^{81}Rb, EM transition strength study 2−54305
^{87}Rb, half-life obs. 2−54329
^{109}Sb β^+-decay, $T_{1/2}$, Q_{EC} value, ^{109}Sn levels and transitions 2−113416
^{A}Se, A=85-88, fission products, on-line system for isolation and study 2−96404
^{71}Se, β-decay daughter of ^{71}Br, decay scheme and half-life study 2−101845
$^{139}Sm^{g}\rightarrow{}^{139}Pm$, decay props. study from γ-ray, β^+ and internal conversion electron spectroscopy 2−54324
^{90}Sr, half life calc. on basis of human metabolism 2−101848
^{147}Tm direct and beta-delayed proton decay from $^{92}Mo(^{58}Ni,X)$ 2−69615
$^{122}Xe\rightarrow{}^{122}I\rightarrow{}^{122}Te$, decay scheme and periods, energies, intensities of transitions 2−64373
^{165}Yb level scheme from gamma-rays observed in $^{165}Lu\rightarrow{}^{165}Yb$ 2−107795
^{179}Yb β-decay, $T_{1/2}$, ^{179}Lu levels, J^{π}, transitions 2−69609

radioactive decay schemes
see also nuclear energy levels
A=144-150, proton rich nuclei with N≈82, beta decay studies 2−95977
liquid decay channel optical obs. *(Russian)* 2−101852
^{227}Ac levels and transitions 2−54301
$^{78}As\rightarrow{}^{78}Se$, β^- decay, γ-rays spectroscopy 2−69597
^{205}At, high-spin state props. study 2−59220
^{212}At, low-seniority shell-model structure 2−54233
^{A}Bi, A=203, 205, in-beam studies and shell model features 2−113394
^{78}Br, high-spin states in-beam study 2−54234
$^{121}Cd^{g,m}$, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{249}Cm energy levels from thermal neutron capture γ-rays 2−84992
$^{63}Cu(p,n\gamma)^{63}Zn$, 5-7.8 MeV, EM props. of states in ^{63}Zn 2−54386
^{A}Er, A=148, 150, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{153}Er, high spin states study 2−69514
^{171}Er, highly mixed $13/2^+$ states, structure and decay 2−59219
^{151}Eu, low-lying states study via (n,n'γ) reaction 2−54245

radioactive decay schemes continued
$^{152}Eu\rightarrow{}^{152}Sm$ (^{152}Gd), radioactive decay, gamma-gamma coincidence studies 2−74747
$^{218}Fr\rightarrow{}^{214}At\rightarrow{}^{210}Bi$, isomeric states in Fr and At from α-spectroscopic data 2−85004
^{145}Gd, complex beta-decay schemes 2−79984
^{156}Gd, levels study using (n, γ) reaction 2−79934
^{75}Ge, $5/2^+$ level at 192.5 keV, 52.5 keV transition 2−84956
^{145}Ho, in-beam gamma spectroscopy, seniority isomerism 2−101838
^{121}In, decay study by γ-ray and conversion electron spectroscopy 2−54306
^{137}La, N=80 nucleus, medium-spin levels and 360 ns $I^{\pi}=19/2^-$ isomer 2−54232
^{151}Lu direct proton decay, half life, prod. cross section from $^{96}Ru(^{58}Ni,X)$ 2−69614
^{171}Lu, γ-ray spectra, internal conversion, eγ coincidence, decay scheme 2−90051
^{104}Mo, energy level scheme from singles and γγ coincidence spectra 2−95976
^{89}Nb, γ-ray spectroscopy 2−95965
^{A}Os, A=176,178,180, high-spin yrast and non-yrast bands study 2−101789
^{180}Os, side bands props. study using in-beam spectroscopy method 2−54246
$^{A}Pb\rightarrow{}^{A}Tl$, A=194-196, decay props. study using γ-ray spectroscopy 2−85002
^{97}Pd, excited states study 2−69600
^{147}Pm, level structure and γ-γ directional correl. studies 2−59283
^{228}Ra, K=0 bands and ^{228}Fr decay scheme 2−101844
^{A}Rb, A=93-100, β-delayed neutron emission to excited states in Sr isotopes 2−95978
^{85}Rb, decay scheme and transition probabilities 2−84994
^{101}Ru, high spin collective excitations 2−54235
^{A}Sb, A=114, 116, high-spin states and multiquasiparticle excitations 2−113339
^{71}Se, β-decay daughter of ^{71}Br, decay scheme and half-life study 2−101845
^{83}Se, coexisting intruder bands and role of proton subshell closure 2−54241
$^{139}Sm^{g}\rightarrow{}^{139}Pm$, decay props. study from γ-ray, β^+ and internal conversion electron spectroscopy 2−54324
^{155}Sm, rotational-vibrational band structure 2−54231
^{83}Sr ground-state decay, γ branching ratios meas. 2−84991
^{A}Tb, A=144, 145, identification and decay, levels in ^{145}Gd 2−59286
^{A}Te, A=116, 118, 120, 122, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
^{A}Te, A=118, 120, band structure study using Sn(α, 2nγ)Te 2−89992
^{232}Th decay chain, gamma-rays intensities meas. 2−95958
^{147}Tm direct and beta-delayed proton decay from $^{92}Mo(^{58}Ni,X)$ 2−69615
^{120}Xe, high-spin states, $1g_{9/2}$ proton-hole excitations collective props. 2−59218
$^{122}Xe\rightarrow{}^{122}I\rightarrow{}^{122}Te$, decay scheme and periods, energies, intensities of transitions 2−64373
^{99}Y, rotational band 2−95904
^{165}Yb level scheme from gamma-rays observed in $^{165}Lu\rightarrow{}^{165}Yb$ 2−107795
^{98}Zr, excited 0^+ levels study 2−59288

radioactive lifetimes *see radioactive decay periods*

radioactive sources
see also radioisotopes
brachytherapy sources, methods for routine calibration 2−94183
collimated and free air radiation sources, comparison in radiation protection instruments calibration 2−64684
gamma spectrometric sources, standard reference data development 2−60327
photon pulses, radioisotope standard sources, photomultiplier characts. 2−64738
radioactive implant induced X-ray emission 2−59581
radionuclides standard specimens appl. 2−85448
radionuclides standard specimens certification 2−85449
refractory metals sources prep. and characterisation for X-ray and electron spectrometry 2−59582
spontaneous fission source strength, non-destructive anal. principles 2−96339
α-emitting nuclides as absolute efficiency calibration source for Ge detector 2−59580
Am/Li 5 Ci neutron source, neutron spectrum 2−102303
^{144}Ce, specific activity determ. by $4\pi\beta$-γ coincidence method *(Chinese)* 2−59654
$^{244}CmO_2$, high-density capsule fabrication technique 2−108186
^{60}Co irradiation chamber, programmable electronic controller *(Chinese)* 2−59584
^{166m}Ho sources for energy and efficiency calibration of Ge(Li) detectors 2−75121
^{226}Ra, γ-radiation source, anal. *(French)* 2−80366
^{226}Ra standard source for Ge(Li) detectors efficiency calibration 2−113792
^{125}Sb-^{154}Eu-^{155}Eu, NBS long-lived mixed-radionuclide standards, photon emission rates determ. 2−59579

radioactive tracers
albumin microspheres, radioisotope labelled, dose absorpt. in organism and certain organs *(Russian)* 2−62766
determination of influence of water and H_2SO_4 on glass fibre reinforced polyester resins *(German)* 2−67593
dose, age-dependent, internal, from radiopharmaceuticals: estimation of 2−83659
ion-beam surface interaction, radioactive isotope prod. review 2−103859
labelled compounds, in-beam prod., review 2−100124
low level tracers quantitation in X-ray fluoresc. excitation anal. 2−62743
radiochromatographic anal. of mixtures labelled with soft β-emitting isotopes 2−67783
water pollution detection and control, tracers technology development 2−67923
wear rates measurement using stable tracers and neutron activation 2−83234
X-ray fluoresc. tracers development for pollutant path tracing in small water system 2−67909
^{110}Ag, diffusion in n-InP from vapour 2−86941
^{18}F-5-fluorouracil, dosimetry and preliminary human studies 2−78452
Fe and Fe-Ni alloys, low temp. pulsed action, γ-α transitions, radiative tracers *(Ukrainian)* 2−105141
^{67}Ga citrate, use in lung cancer diagnosis *(Russian)* 2−62733

radioactive tracers continued
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
^{111}In labelled platelets, PAC obs., labelling mechanism 2−78416
Nb:Fe(Co)(Cr), electromigration and self diffusion, effective valence, radioactive tracer method *(French)* 2−76756
Pb, grain boundary diffusion of Sn, radioactive tracer study 2−82022
^{75}Se labelled conjugated bile salt, absorbed dose to man 2−78454
n-Si, diffusion profile of As(Sb), sheet conductance and tracer studies 2−71730
^{31}Si radioactive marker studies of metal silicide form., computer simulation 2−86940
^{31}Si radioactive marker studies of metal silicide form., computer simulation 2−98334
Sn diffusion mobility of Fe(Co), radioactive tracer study *(Russian)* 2−92277
^{99m}Tc labelling of glass fibres 2−117086
Tl_2Se_3, fused, diffusion of impurities ^{204}Tl, ^{110}Ag and ^{113}Sn 2−81996

radioactive waste
see also fission reactor materials; fusion reactor materials; materials handling; radioactivity; waste disposal
accident analyses of compacted spent fuel 2−96129
actinide immobilisation, valence, size and radiation effects 2−80137
activity movement in ground water saturated formations 2−102032
aged spent nuclear fuel in dry environment, temp. distrib. 2−74820
airborne effluents, collective doses 2−78456
n,n alkyl aliphatic amides as extracting agents for actinide separation 2−107996
alpha radiolysis of FUETAP concrete, rad. waste containment material 2−80141
alpha waste management strategy within fuel cycle, incentives for integration 2−107991
alpha waste reprocessing for Pu and U recovery 2−108031
alternative fuel cycle evaluation 2−108041
bedded salt repository for spent nuclear fuel, mine layout optimization 2−74816
bedded salt repository for spent nuclear fuel, near field salt temperatures 2−74814
bedded salt repository for spent nuclear fuel, thermal criteria 2−74812
bedded salt repository for spent nuclear fuel, uncoupling thermal problems 2−74813
bituminization of reactor wastes: development, design and demonstration 2−74844
building technology appl. in low level solid reactor waste storage 2−74843
burnup of radioactive nuclear fuel wastes in a fast neutron flux 2−113628
BWR, resin and sludge wastes, volume reduction 2−64503
BWR, spent fuel, neutron emission charact., transuranics buildup 2−90228
candidate ceramics for immobilization of high level fuel reprocessing wastes 2−108017
CANDU spent fuel repositories, temp. maxima, heat transfer study 2−90238
chemical mitigation and transmutation problem 2−64478
cladding waste, conditioning and decontamination technique *(French)* 2−54492
conference, Canadian Nuclear Soc., Ottawa, Ont., Canada (June, 1981) 2−63743
conference on new directions in nuclear energy, Brussels, Belgium (April, 1982) 2−101122
container design for irrad. fuel underground disposal 2−74837
contaminant migration into drainageways from stored pitchblende residues 2−54514
coreless induction melting for transuranic waste processing 2−69727
corrosion effect by borosilicate melts on heat resisting alloys *(Japanese)* 2−59465
criticality analysis of low-density fissile material in radioactive waste 2−90236
criticality considerations of interim spent fuel storage 2−90253
criticality of normal compacted spent fuel 2−96128
criticality safety of an annular tank for fissile solution 2−90257
crystalline nuclear waste, coating to improve inertness 2−107955
crystalline phases, fission fragment damage 2−102058
Danish high-level waste disposal facility in Mors Dome, preliminary design 2−107987
decontamination techniques impact on waste management 2−102071
decontamination using conc. chemicals 2−102284
decontamination using dilute chemicals 2−102285
deep geological disposal, licensing assessment of facilities 2−74848
deep geological nuclear waste repositories, data transmission alternatives assessment 2−64470
deep saline groundwaters within the Canadian Shield, consequences for radwaste disposal 2−68400
defense waste management, transportation requirements 2−69724
developing guidelines on managing radioactive waste 2−102034
disposal, economic factors, calc. program, RWCOST 2−64508
disposal, polyethylene drum, integrity enhancement 2−64497
disposal, underground facility, seismic evaluation 2−64494
disposal and storage, radiological protection activities of German Federal Republic *(German)* 2−59479
disposal conditioning in graphite matrix 2−107992
disposal groundwater aquifers and boreholes, suitability 2−116856
disposal in geological formations, Belgian R and D *(French)* 2−90248
disposal in NaCl, neutron and γ-ray attenuation props. 2−107960
disposal in space, solar-thermionic generator 2−73132
disposal policy in Federal Republic of Germany 2−107980
disposal safety, necessity for international consensus 2−74845
disposal status in West Germany *(German)* 2−85127
Doel nuclear site waste treatment building 2−107990
dried waste solidification scheme at Tihange-2 PWR power plant 2−107995
dry spent fuel storage, element and cladding integrity 2−64521
drying by microwave heating, feasibility study 2−85157
dumping packaged low level wastes in the deep ocean 2−64480
dynamic tests on shell-type shock absorbers for an LWR spent fuel shipping cask 2−108010
engineering concepts for spent fuel encapsulation processing techniques and final disposal casks 2−108004
environmental effect of the barriers in the KBS disposal system 2−74847
environmental migration of long-lived radionuclides, international symposium, Knoxville, Tennessee, (1981 July 27 to 31) 2−89446

radioactive waste continued
mono-2-ethylhexylphosphoric acid effect on regeneration of spent fuel cells 2−113632
evaporator pretreatment by ultrafiltration 2−64499
filter sludge, solidification with polyethylene 2−85130
fissile assay measurement of ^{235}U in a lead slowing down time spectrometer 2−80134
fissile waste or scrap assay system with 1-mg sensitivity 2−80132
fission product transmutation effects on high-level radioactive waste forms 2−73172
fuel rod consolidation: a key process in spent fuel storage systems 2−108006
fuel waste disposal, Canadian contrib. to international consensus 2−74849
fuel water disposal in German salt dome, safety assessment 2−74846
geologic depositories for nuclear waste, media temp. from finite length line source superposition model 2−74815
geologic disposal of nuclear waste 2−102026
geological disposal, actinide chain migration modelling 2−64496
geological disposal, integrated performance assessment model 2−64493
geological disposal, nuclide transport, groundwater buoyancy effects 2−64492
geological disposal, radionuclide chain fissure flow 2−64495
geological disposal, site-specific migration anal. *(German)* 2−85129
geological disposal in Canadian Shield, drill core material, radionuclide sorption 2−90230
geological disposal sites in EEC, catalogue 2−54525
geological repository, thermally induced fractures, radionuclide migration in groundwater 2−64516
glass, saline leaching, ion bombardment enhancement 2−74811
glass and ceramic nuclear waste, alteration under hydrothermal conditions 2−107946
handling radioactive wastes from nuclear power plants and reprocessing spent nuclear fuel 2−54530
high active waste, disposal in borosilicate glass, heat dissipation *(German)* 2−54524
high integrity container design requirements for TMI low-level waste 2−69719
high level waste management, heat transfer in storage and processing 2−74824
high level waste vitrification, computer thermal anal. for storage canisters, review 2−74823
high-level waste repository sites, instrumentation reliability study 2−64472
high-level wastes, isolation in a geologic repository 2−102057
hollandite, $BuAl_2Ti_6O_{16}$, sp. ht., thermal cond. and thermal diffusivity 2−90225
hot cell experiments for dry storage of spent LWR fuel 2−108008
HTGR fuel reprocessing plant, thermal aspects in design 2−74852
HTR fuel elements, dry mechanical graphite separation process *(German)* 2−90239
hydrogeologic transport of decay chains with nonequilibrium chemical species 2−80142
immobilisation in glass, batch process development 2−74836
incineration at Chalk River 2−74841
incineration system, design and development 2−64506
independent spent fuel storage installations, design 2−102068
institutional low-level radioactive wastes, radioisotope emissions from incineration 2−93963
interim storage facility for Italian LWR spent fuel 2−108000
interim storage of spent fuel 2−108001
intermediate level, Canadian disposal strategy 2−74840
international developments in spent fuel storage 2−107997
ion-exchange, radioactive spent resins, in situ immobilisation, Dow process 2−64501
ion-exchange waste resins, Cs release during solidification 2−64502
irradiated fuel, fission products, isotope correl. anal. 2−54502
irradiated fuel isolation program, Canada 2−96121
leach tests using radioactive tracers and neutron activation 2−80139
licensing and regulatory aspects of independent spent fuel storage installations 2−102067
LIMCAL, food chain model, rad. exposure predictions from rad. waste 2−113762
liquid containers, seismic response, prediction status and research needs 2−96234
liquid effluents, collective dose commitment to UK population 2−105839
liquid waste solidification, prod. facility 2−108032
liquid wastes, calcining at Idaho National Engineering Laboratories 2−90233
location systems analysis of away-from-reactor spent fuel storage facilities 2−108009
long term decay, analytical approxs. 2−74832
long term management technology for ICPP defense waste 2−69723
long-term dry storage of spent fuel 2−107998
long-term onsite radwaste storage 2−113668
low enriched U scrap and waste, elephant gun assay, age correction 2−80131
low heat generating defense nuclear waste depository temps., sensitivity calcs. 2−74819
low level, transportation, regional management, operational and regulatory impacts 2−69715
low level disposal sites, evaluation by subsurface radar techniques 2−54513
low level rad. waste, ground disposal, radiological safety study *(Japanese)* 2−96123
low level radioactive waste incineration *(German)* 2−113618
low level waste, ocean disposal, history 2−96086
low level waste management in France 2−69717
low-level, Canadian disposal strategy 2−74840
low-level water, packed bed electrodialysis method *(Chinese)* 2−59456
LWR fuel storage, criticality calcs. using Monte Carlo and ENDF/B-V data 2−96127
LWR waste in Switzerland, repositories for final disposal 2−107985
magnetic signatures of spent fuel assemblies 2−80135
magnetoplumbite crystal struct. as radwaste host 2−107954
management, disposal and storage options *(Spanish)* 2−59458
management, scale considerations 2−102056
management in Belgium, general perspectives 2−107981
management of contaminated scrap metal waste streams 2−69720
management program of the Commission of the European Communities 2−107983
management programs in UK 2−107982

radioactive waste continued
management system optimisation by multiobjective linear programming 2−59459
minerals, α-recoil damage and preferential soln. effects, implications for nuclear waste disposal 2−64778
mobile ion exchange and filtration treatment 2−64500
mobility of radionuclides in synthetic rock 2−93976
model for predicting leaching behavior of high-level radioactive waste forms 2−80140
modular dry expandable storage system, for transport and storage 2−64517
modular dry storage of spent LWR fuel 2−113669
national waste management strategy, approach for development 2−107986
neutron assay meas. techniques on crate size radioactive waste packages 2−80130
New Waste Calcining Facility, shield integrity study 2−75068
noble gas recovery and treatment systems, critical review 2−59454
nondestructive assay of waste containers probabilistic interpretation 2−85128
nondestructive assay technique for 55 gal. radioactive drums 2−80133
nondestructive assay techniques for safeguards at Hanford 2−69759
nuclear fuel and waste management problem 2−69712
nuclear fuel casks, cooldown testing 2−75063
nuclear fuel waste disposal vault, nuclide inventory for post-closure phase 2−113667
nuclear medicine department, radioactive liq. waste 2−68171
nuclear waste ceramics, leaching, microstruct. and phase characterisation 2−98290
nuclear waste disposal facility, methodology for consequence anal. 2−107988
nuclear waste management in Switzerland 2−102035
nuclear waste management policy in France 2−107989
nuclear waste related to elec. prod. unit, management cost 2−107979
nuclear waste repositories ventilation cooling, rectangular ducts, forced convection 2−74817
ocean distribution processes for radioactive pollution *(German)* 2−100401
passive neutron measurement applications for irradiated fuel assemblies 2−80136
perovskite, sp. ht., thermal cond. and thermal diffusivity 2−90225
photon interrogation for bulk measurement of transuranic materials 2−80072
plant root penetration mitigation using herbicides 2−54515
processing, hydrocylcone separators, two types, evaluation 2−80128
programmable multi-timer for transuranic waste anal. appl. 2−64798
PWR radioactive waste processing, ultrafiltration system operational impact 2−108014
PWR spent fuel storage rack, reactivity sensitivity 2−96126
radiation and transmutation effects on crystalline radioactive waste forms 2−80138
radiation protection, conf., Vancouver, BC, Canada (May 1982) 2−112659
radioactive waste, crystalline phases, fission fragment damage 2−102058
radiological impact of high-level wastes, disposal alternatives 2−64515
radwaste ceramics, sintered, solid-state reactions, Purex and Magnox wastes without additives 2−62372
reactor waste, symp., Kungalv, Sweden (Sept. 1981) 2−112656
regional Waste Treatment with Underground Monolith Disposal for low-heat wastes 2−69716
repository, regional heat transfer 2−64514
repository sites, hydrologic characterisation techniques for fractured rock sites 2−78873
reverse osmosis plant to process CRNL low level radioactive liquid wastes 2−74842
review of waste management practices at nuclear facilities pays 2−113670
risk calculation for waste repositories based on ICRP-30 2−54512
rock mass meas. instrumentation for Basalt Waste Isolation Project 2−74797
rock salt repository, structural behaviour, creep 2−64491
rocks, in-situ fracture mapping to characterise geological sites for nuclear waste disposal 2−74798
sewage sludge, γ-ray treatment with spent nuclear fuel 2−74831
shale, simulated by cement mixture, for nucl. waste dumping, thermal diffusivity meas. by Angstrom's method 2−68333
shielded containers for highly active vitrified waste 2−64481
simulated high level waste glass, fracturing in canisters 2−74822
slurry, pump cleaning ability 2−64505
solidification of Savannah River Plant high-level waste 2−69725
space disposal possibility 2−107949
spent fuel, interim storage pool, cost-optimisation 2−64518
spent fuel, storage options, utility perspective 2−102063
spent fuel, surface drywell storage 2−64519
spent fuel, Taipower approach to storage 2−102064
spent fuel composition, comparison of predicted and measured data 2−70020
spent fuel disposal container, shrinkage void detection, autoradiography appl. 2−105438
spent fuel management, concepts and disposal techniques 2−108003
spent fuel management, IAEA cost study 2−108002
spent fuel shipping cask, transport experience *(Japanese)* 2−96124
spent fuel storage, research in support of licensed demonstrations 2−102070
spent fuel storage capabilities at the Barnwell Nuclear Fuel Plant 2−102069
spent fuel storage concepts away from reactor, cost comparisons 2−69749
spent fuel storage options 2−102065
spent fuel storage racks, neutron shielding materials, irrad. effects 2−80116
spent fuel storage status for Washington Public Power Supply System 2−102066
spent fuel transport, cask fleet projections, rel. to storage site location 2−64522
spent fuel transport, safety assessment, source term database 2−64520
spent fuel transport casks, natural convection heat dissipation 2−64523
spent high burnup LWR fuel, interim storage 2−108007
spent LWR fuel, props. effects on long term storage concepts 2−107999
spent nuclear fuel storage under water, natural convection 2−74818
standard testing methods development 2−69726
storage facility, computer-aided design 2−64507
storage in mines, techniques, risks and problems *(German)* 2−59457
stressed shell fuel isolation container, design, fabrication and testing 2−108019
radioactive waste continued
strong base anion exchange resins, thermal cycles effect on stability *(Czech)* 2−59466
structural influences on the lanthanide-actinide selectivity of some amino-carboxylates 2−113619
Swedish nuclear fuel cycle, waste management 2−102036
Swedish temporary storage and sea transport system 2−108005
Swiss LWR waste repositories, storage capabilities 2−107984
SYNROC, accelerated irrad. testing using fast neutrons 2−113621
SYNROC, damage cross-section of heavy ions 2−115313
SYNROC, sp. ht., thermal cond. and thermal diffusivity 2−90225
SYNROC-B, γ-ray effects on leaching behaviour 2−107993
SYNROC-B ceramic, leaching characterisation 2−74835
SYNROC-B ceramic waste, leachability study, γ-ray effects 2−74833
synthetic slagging pyrolysis incinerator slags consolidation 2−69728
SYVAC code for assessing nuclear fuel waste disposal concepts 2−74838
toxicity of U, Th, As, on Scots pine 2−64539
transport, soft Type B container, puncture resistance 2−64498
transport cask tie-downs, design for trucks, shock and vibr. results 2−64524
transportation, NRC proposed rule 2−69714
transportation of nuclear material 2−108158
transuranic waste assay by simultaneous photon and thermal neutron interrogation 2−64469
tritium storage, immobilisation in inorganic solids 2−102033
UK view of the management of high-level waste 2−102037
USA national long-term high-level waste technology program 2−69722
ventilation system for an underground nuclear waste repository 2−69729
vitrification, small-scale facility for high-level waste 2−64509
vitrification by direct induction heating in ceramic container 2−59472
vitrification of nuclear waste with low heat generation 2−74821
vitrified high-level waste disposal, pressure depend. of glass dissolution 2−104001
vitrified radioactive waste, effects of radiation on leach rates 2−102044
volume reduction and solidification system for on-site storage 2−69718
volume reduction system 2−64504
volume reduction techniques for nuclear plant waste 2−107994
VVR-M reactor, atmospehric pollutant reduction 2−64699
waste disposal glass, fracture surface energy, temp. effect 2−54495
waste injection, flow and transport codes, SWIFT-AECL/PTC and SSP 2−108018
water, decontamination methods *(Russian)* 2−54519
water dilution volumes 2−64513
weapons material waste, vitrification 2−64511
WIPP site, New Mexico, USA, radioactive waste disposal, geotechnical instrumentation systems 2−74801
WIPP site in New Mexico, USA, for radioactive waste disposal, geotechnical field meas. 2−74799
zeolite from TMI-2, vitrification plant 2−64512
zirconolite, sp. ht., thermal cond. and thermal diffusivity 2−90225
^{14}C, projected estimate of biosphere content due to nucl. power programme 2−62526
$CaPuTi_2O_7$, alpha decay self irrad. damage 2−80064
^{60}Co and stable Co, concs. in migratory marine organisms *(Japanese)* 2−78459
^{60}Co and stable Co, concs. in coastal marine organisms *(Japanese)* 2−78460
$CsAlSi_5O_{12}$, ^{137}Cs immobilisation, possible host 2−64477
^{137}Cs, particulate transport from buried high level waste 2−64540
^{137}Cs pollutant concentration in Irish Sea 2−105608
I, incorporation into low melting point glasses *(French)* 2−54493
^{A}I, A=129, 131, UV photodecomposition from organic iodides in nuclear facility off-gas beams 2−74839
^{131}I in Cumbrian milk due to release from nuclear fuel reprocessing plant 2−62778
Kr, solid-state storage in SiO_2 based matrix 2−54494
^{85}Kr disposal, immobilisation, storage, cost and safety 2−64510
^{85}Kr disposal and storage problems *(German)* 2−90246
^{85}Kr, fixation on KrF_2 with zeolites 2−102085
Na saturated reactor fuel particle bed, heat transfer behaviour 2−107958
$NaZr_2(PO_4)_3$, ceramic, sintering prep., appl. to radioactive waste disposal 2−90226
Pu assay in nuclear waste packages, modular 4π neutron counting system 2−64471
Pu container, for air transport, safeguards appl. 2−107959
Pu containing waste, acid digestion *(German)* 2−108016
Pu contaminated materials from nuclear fuel cycle, treatment and disposal 2−107978
Pu fuel fabrication residues and wastes 2−107977
Pu recovery by incineration and pyrolysis 2−102030
Pu recovery from fuel fabrication residues 2−108030
U in waste solids, delayed neutron interrogator control system 2−74855
U mill tailings and closed low-level waste disposal sites, long-term monitoring 2−74800
U mine waste, safe disposal problems 2−64546
UO_2 pellet, pulse n irrad., ^{137}Xe and ^{137}I release *(Japanese)* 2−64476
ZrO_2-B_2O_3-SiO_2 glasses, leachability, immobilisation of radioactive wastes 2−102046

radioactivity
see also alpha decay; atmospheric radioactivity; beta-decay; radioactive decay periods; radioactive decay schemes; radioactive sources; radioactive tracers; radioactivity measurement; radiochemistry; spontaneous fission
Atlantic Ocean and European regional sea pollution 2−117363
Caribbean Sea, Ra distrib. in surface layers 2−106145
Columbia River, Washington, USA, radioactivity due to upstream reactors 2−57745
decay curves with background, noniterative method for fitting 2−96410
effective activity for very short-lived radioisotopes such as ^{11}C, ^{13}N, ^{15}O and ^{18}F *(Japanese)* 2−101851
fission materials, hazard pot. anal. *(German)* 2−85152
historical survey of radioactivity appls. *(German)* 2−84431
natural factors limiting the spread of radioactivity after serious damage to a reactor *(Dutch)* 2−64604
ocean distribution processes for radioactive pollution *(German)* 2−100401
Red Sea, ^{226}Ra, ^{210}Pb, ^{210}Po profiles and residence times 2−68387
Rona, Elizabeth (1890-1981), contributions to radioactivity research and appl. 2−63791
seawater Th isotope composition (dissolved and in particulates) 2−68389

radioactivity continued
sediment radionuclide conc. in sediments, influence of mixing and compaction 2−58089
^{95}Zr atmos. conc. due to Chinese nucl. bomb tests 2−100526
radioactivity measurement
see also radioactivity measuring apparatus
atmosphere, beta-ray background meas. system and obs. at Belgium *(Flemish)* 2−106363
CR-39 and LR-155 type II plastic track detectors for environmental Rn level meas. 2−67915
environmental measurement and monitoring, quality assurance and control 2−80350
environmental radioactivity meas., laboratory instruments, methods 2−80348
fission reactor coolant, post-accident dose rates, Cs isotope effect 2−108088
high sensitivity methods for detecting environmental radioactivity 2−54679
human body radioactivity meas., use of US 2−62709
in situ methods for quantifying gamma-radiation levels and radionuclide concentrations 2−80405
low level radiation counting conference, Berlin, Germany (Apr., 1981) 2−84378
low-level radionuclide measurement of extraterrestial and environmental samples 2−57760
LR-115 and CR-39 plastic detectors responses to Rn 2−67901
Mbq display for an isotope calibrator 2−73351
measurement control, problems and solns. 2−70016
reactor coolant water, radionuclide anal. system, ion-exchange method 2−75064
short-lived radionuclides meas., Ruark-Devol statistics appls. 2−54731
Swedish air monitoring network for particulate radioactivity 2−75058
thermoluminescent dating, low level Th and U determ. 2−54727
traceability for ionising radiation measurements, conf., Gaithersburg, MD, USA (May 1980) 2−84384
transuranic radionuclides in nuclear power plant environs, concentrations and distribution 2−59503
tutorial short courses at nuclear science conf., San Francisco, CA, USA (Oct. 1981) 2−79264
CaF_2, natural, TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
$CaSO_4$(Dy/Tm) TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
^{60}Co, origin in LWR cooling system 2−80353
^{55}Fe soln., international comparison of activity meas. 2−108317
Pu contamination, airborne detection by α-spectrometry 2−70116
^{226}Ra concentration in water, monitoring system 2−67925
Rn activity meas. of geophysical significance 2−68293
Rn activity meas. using automatic device 2−64827
Rn concentration meas. in indoor air using LR-115 and CR-39 detectors 2−67900
Rn concentration meas. in air and water using Kodak LR-115 track detector 2−67914
Rn concentration meas. using CR-39 detector in Orkney islands and Kinver caves 2−67897
Rn concentration meas. using solid state track detector 2−67916
Rn diffusion chamber with plastic track detectors, props. deter. 2−64828
Rn subsurface distrib. meas. with LR-115, CR-39 and thermolum. detectors 2−67913
Rn transport in Earth, U exploration and earthquake prediction 2−73725
U rocks, simultaneous U, Ra determ. using scintillation detectors *(Chinese)* 2−63109
radioactivity measuring apparatus
beta-ray background meas. system and obs. at Belgium *(Flemish)* 2−106363
gamma probe design for root activity meas. in situ 2−88483
radiochromatographic anal. of mixtures labelled with soft β-emitting isotopes 2−67783
single well pulse technique, permeability and solute retention determination 2−102032
radioactivity protection *see radiation protection*
radioaltimeters
see also aircraft instrumentation; radionavigation
measurements of sea from ERS-1 and aircraft 2−68382
SEASAT radar altimeter correction for tropospheric propagation 2−89028
SEASAT radar altimeter sea-state related altitude errors 2−89030
SEASAT radar altimeter time tag bias 2−89032
SEASAT radar altimeter timing bias estimation 2−89031
SEASAT radar altimetry, height correction for sea state 2−89029
SEASAT radar altimetry ionosphere corrections 2−89027
SEASAT radar altimetry system for ocean and atmos. meas. 2−89024
SEASAT radioaltimeter height calibration 2−89025
radioastronomical observations
see also radiosources (astronomical)
3C 345 structure at 18 cm, UHF obs. *(Russian)* 2−68917
3C 84, Seyfert galaxy structure at 18 cm, UHF obs. *(Russian)* 2−68917
0125+628, point source in SNR G127+40.5, H I absorpt. spectra 2−106945
0351+026, optical nebulosity nature and H I props., obs. nature and H I props., obs. 2−89400
{Sagittarius A-West, H110α recomb. line, SHF obs. 2−112602
Abell 2241E and W, galaxy clusters, radio and X-ray obs. 2−94846
Abell 566, cluster of galaxies, radio and X-ray galaxies obs. 2−106934
Abell 779 and 1314, detect. of 110 radiosources, positrons, UHF obs. 2−63693
Abell clusters of galaxies, 1400 MHz survey of 1478 clusters 2−106932
Abell galaxy clusters, radio halo emission search at 430 MHz 2−101081
active extragalactic objects, complete sample from 1411 MHz VLA survey in Virgo 2−78978
AO 0235+164, time vars. in redshifted 21 cm absorption spectrum 2−106883
R Aquarii, symbiotic star, jet and assoc. radio source nature 2−94732
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
Ara OB1, H166α line obs. of diffuse ionized gas 2−106842
B2 1321+31 (NGC 5127), large radio galaxy, multifreq. high resolution obs. 2−89396
B335, dark cloud density distrib. from CS EHF obs. 2−68859
Barnard 18 cloud, interior low mass star form., CO line obs. 2−89328
radioastronomical observations continued
bright galaxies with strong nuclear radio sources, H I distrib. and nature, UHF obs. 2−117785
3C 10, supernova remnants, expansion speeds implications for young remnants models 2−101085
3C 111, radio galaxy, azimuth aperture synthesis RATAN-600 radio telescope 2−94620
3C 120, radio galaxy, large-scale radio struct. obs. 2−68912
3C 120 and 273, extended structures in SHF *(Russian)* 2−74116
3 C 120 radiogalaxy, rapid structural var., SHF obs. 2−89348
5C 12 catalogue, deep radio optical survey near North Galactic Pole 2−106558
3C 273, QSO, search for short term variability, SHF obs. 2−79232
3C 388, intermittent jet evidence, model and nature, SHF/UHF obs. 2−89393
3C 76.1, radiogalaxy, polarisation sources and mag. fields, UHF obs. 2−79230
3C sources, multifreq. obs. of ten extended radio galaxies 2−106904
VY Canis Majoris, main line OH masers in VY, VLBI obs. 2−63419
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
Cassiopeia A, compact source obs. at 20 and 25 MHz 2−84342
Cassiopeia A, supernova remnant, HF obs. 2−58427
Cassiopeia A, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
Centaurus A, search for short term variability, SHF obs. 2−79232
Cetus region high velocity clouds, UHF mapping in H I, obs. 2−101023
circumstellar shells, obs. of new cyanoacetylene sources 2−68736
clumpy irregular galaxies, search for interstellar CO 2−106920
cold dark clouds, HCN hyperfine anomalies from EHF obs. 2−94812
Periodic Comet Encke, radar obs. of nucleus 2−94658
cometary nebulae, UHF obs. 2−112528
compact radiosource H II regions survey SHF/EHF obs. 2−79237
Corona Austrina, gas and dust survey, UHF obs. 2−106877
Crab Nebula, obs. of polarised radio emission through Sun's supercorona 2−94815
Crab Nebula, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
NML Cygni, assoc. H II region and radiosource, spectrum and nature 2−74053
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
P Cygni, radio star, comparison of precise optical and radio positions 2−89319
Cygnus A, interplanetary scintillation at 81.5 MHz, VHF obs. 2−63695
Cygnus A, nuclear jets, analysis of VLBIL data 2−89380
Cygnus Loop SNR, struct. and spectrum of different nebula parts, VHF obs. 2−74056
Cygnus OB2 association, comparison of precise optical and radio positions for member stars 2−89319
Cygnus X-3, X-ray binary, 1975-1980 activity in SHF 2−84284
DA 240, giant radio galaxy, polarisation obs. and struct. of hotspot 2−94836
dark clouds, pedestal features from ^{12}CO obs. 2−84292
DR21(OH), formaldehyde emission obs. 2−68863
elliptical galaxies with nuclear radiosources and optical emission lines, H I survey 2−112545
Eridanus H I shell, mag. field meas. 2−106868
evolved stars, mass loss meas. from obs. in CO (2-1) line 2−58320
evolved stars, SiO masing and nonmasing emission, EHF obs. 2−89228
extragalactic radio sources, radio obs. of complete sample at 1 Jy at 408 MHz 2−78984
extragalactic radio sources, radio two-colour spectral distributions 2−79235
formyl ion (HCO^+) J=4-3 transition in galactic sources 2−89341
G109.1−1.0, similar object to SS 433, X-ray and SHF/UHF obs. 2−63710
G127.11+0.54, VLBI obs. of radiosource in SNR 2−117787
G127+40.5, SNR, continuum obs. at 608.5 MHz 2−106945
G1342+0.8 H II region, B0.5 star form. at shock front, SHF obs. 2−74046
G206.9+2.3, SNR, radio props. and spectra, continuum UHF obs. 2−89395
G33.2−0.6, SNR with spectral break, UHF/SHF obs. 2−63572
G43.2−0.1, new OH maser source, 1612 MHz obs. *(Russian)* 2−106946
G45.5+0.1, H II region complex and assoc. OB star cluster, CO mapping obs. 2−79179
galactic centre, discovery of high-velocity H II regions delineating bar struct. 2−63640
galactic centre, gas distribution and velocity field from SHF, UHF, VHF obs. 2−112578
galactic centre molecular clouds, formaldehyde/formaldehyde-^{13}C ratio, SHF obs. 2−63591
galactic HF noise observed with ISS-b 2−58503
galactic plane IR sources, far IR, CO and SHF obs., survey 2−68929
galactic radio emission below 16.5 MHz and the galactic emission measure 2−74128
galaxies, early-type, radio obs. 2−106910
galaxies, late-type, of low surface brightness, optical and H I study 2−94834
galaxies of high surface brightness obs. 3.66 GHz flux SHF obs. 2−58457
Geminid meteor shower (1980), high-resolution radar studies 2−94660
Geminid meteor stream, 1980, anal. of visual, photographic and radio obs. 2−106630
Geminids, meteor shower flux from 1959 to 1978 radar obs. 2−73850
GGD Herbig-Haro-like objects mol. clouds, mass outflow anisotropy 2−117730
giant molecular clouds, distrib., mass, size and struct., CO survey 2−63595
globular star clusters, no association at 2.7 and 5 GHz with nearby radio sources 2−100997
Goldstein region, H I 21 cm obs. by RATAN-600 radio telescope using acousto-optical spectrometer 2−94607
AM Herculis, radio emission detect., origin in white dwarf magnetosphere, model and SHF obs. 2−74020
HH 24-27, HH 1-2, Herbig-Haro objects, obs. of nearby high-vel. mol. gas 2−112526
high velocity H I stream (Weaver jet) in galactic anticentre, obs. of assoc. colliding H I shells 2−106856

radioastronomical observations continued
IC 342, Scd galaxy, CO gas distrib. following light distrib., EHF obs. 2−101037
IC 342, Scd galaxy, interstellar gas temp. meas. from NH_3 radio spectrum obs. 2−68629
IC 4553, broad OH emission from peculiar galaxy 2−117757
IC 5146, emission nebula, CO obs. of nearby mol. cloud complex 2−74044
IC 5146 (S125), emission nebula, atomic and ionised H obs. 2−74043
intermediate-strength radio sources from GB/GB2 1400 MHz surveys, radio spectra and optical identifications GB/GB2 1400 MHz survey, radio spectra and optical identification 2−106939
intermediate-strength radio sources from GB/GB2 surveys, radio maps and optical identifications of steep spectrum sources 2−106940
interplanetary scintillation, appl. to ground-based obs. of interplanetary disturbances 2−68585
interstellar CH towards α Cam and κ Cas, HF obs. 2−117715
interstellar clouds, formyl-d_1 ion emission regions, models from EHF obs. 2−68860
interstellar cyanodiacetylene in Taurus MC-1, Sagittarius B2 and IRC+10216, rot. temps. 2−63559
interstellar dark dust clouds, NH_3 obs. of cold cloud cores 2−106857
interstellar ethynyl radical (CCH), detect. of N=3−2 transition in Orion rel. to mol. rot. consts. determ. 2−63556
interstellar formaldehyde, isotope ratios from 6 cm obs. 2−68850
interstellar formaldehyde-^{12}C, ^{13}C, towards galactic centre, $^{12}C/^{13}C$ var. with distance 2−89334
interstellar molecular clouds, formaldehyde absorpt. meas. 2−112532
interstellar NH_3, obs. of (1,1) transition in southern hemisphere mol. clouds 2−106839
interstellar OH, widespread galactic emission at 1720 MHz as new tracer of spiral arms 2−68865
ionized gas 2−101028
far-IR sources in galactic plane, IR and radio obs. and nature of sources 2−58413
IRC+10°216, circumstellar shell NH_3 inversion lines, SHF obs. 2−63428
IRC 10216, shell CN abundance from EHF obs. 2−89326
irregular galaxies, global props. from optical and radio obs. 2−101054
Jupiter, HF spectra, fast drift shadow events 2−58299
Jupiter, inner magnetosphere light ion conc. 2−84144
Jupiter, narrow band splitting at HF cutoff freq. 2−106599
Jupiter, NH_3 abundance from radio occultation obs. 2−79013
Jupiter, S-bursts obs. in freq. range 3.2-32 MHz 2−89187
Jupiter decametric radio emission, obs. of arc structs. from Earth and from Voyager 2−63303
Jupiter HF radiation, interplanetary scintillations used to analyse solar wind plasma irregularities 2−73816
Khavtasi 141, interstellar dark cloud complex, H I self-absorpt. obs. rel. to H I content 2−68874
Kleinmann-Low nebula, 86 GHz SO emission maps, kinematics 2−106835
Kleinmann-Low nebula, CO mapping, EHF obs. 2−89340
BL Lacertae, expansion props., SHF obs. 2−84326
BL Lacertae objects, structure models based on SHF obs. 2−68923
BL Lacertae objects radio variability in short term, UHF obs. 2−63625
BL Lacertae-type objects, 102 MHz survey 2−74108
BL Lacertae-type objects, extended radio structure 2−94839
CW Leonis (IRC+10216), rot. temps. of cyanodiacetylene 2−63559
CW Leonis (IRC+10°216), HC_3N detection in cool C star 2−58369
LkHα 101, surrounding H I cloud, UHF obs. 2−79186
LMC pulsar discovery 2−79131
LS I +61°303, radio X-ray binary, model of periodic radio emission, SHF obs. 2−68915
Lupus Loop SNR, assoc. H I, shell expansion and models 2−106862
Lynds 134N, dark cloud density from CS EHF obs. 2−68859
Lynds 1529, dark cloud, CO wings, high vel. evidence, energetics/kinematics, EHF obs. 2−74054
M17, H II region, formaldehyde distribution at 4.8 GHz 2−106875
M31, 20 cm radio emission from optically identified SNRs 2−58420
M31, central extended radiosource size and nature, UHF obs. 2−84325
M31, high resolution H I obs. 2−112559
M87, high-resolution studies at long radio wavelengths 2−112562
Magellanic Clouds, H_2O maser survey, SHF obs. 2−79204
Magellanic Stream, mapping in 21 cm H I line, UHF obs. 2−63652
Mars, radar meas. of small-scale surface texture of Syrtis Major 2−100797
maser source of water vapour line, interplanetary oscillations 2−100829
MCG 5-29-86, optical jet like features from nucleus, SHF/UHF obs. 2−101038
meteor bodies distribution from radar observations, algorithm *(Russian)* 2−100839
molecular clouds near H II regions, J=2→1 CO line, EHF obs. 2−63584
Monoceros Nebulosity, SNR, radio props. and spectra, continuum UHF obs. 2−89395
Moon, appl. of radio emission for radioastronomical adjustment of variable profile antenna 2−94596
Moon, radar scattering laws for lunar surface 2−94631
MSH 15−32, radio pulsar observed in UHF 2−84256
N159, H II region in LMC, search for H_2O maser emission 2−94852
nearby galaxies, general and H I parameters, H I UHF obs. 2−63645
NGC 1275, multifreq. VLBI obs. of galactic nucleus 2−74080
NGC 1365, Seyfert galaxy I nucleus radio struct., SHF, UHF obs. 2−94825
NGC 157, 2903, 4321 and 5248, SAB galaxies, CO emission mapping, EHF obs. 2−74086
NGC 1977, assoc. bright rim cloud, abundances/density/temp. from EHF/IR obs. 2−84300
NGC 2071, reflection nebula, obs. of broad wings and self-reversals in CO lines 2−58425
NGC 2071 reflection nebula region, NH_3 mapping and star form. 2−84298
NGC 253, southern hemisphere galaxy, search for H_2O maser emission 2−94852
NGC 2655 and 2715, extended H I envelopes, mass and diameters 2−89360
NGC 2841, 5055 and 7331, spiral galaxies, radio continuum, UHF obs. 2−63621
NGC 2841 and 7331, CO 115 GHz obs., of molecular rings in Sb galaxies 2−117756
NGC 3067, Sb III galaxy, evidence for nonluminous matter, visible/UHF obs. 2−79201
radioastronomical observations continued
NGC 3359, barred spiral galaxy, H I kinematics and struct. 2−79206
NGC 3992, barred spiral galaxy, disc mass from rot. vel. from H I UHF obs. 2−117741
NGC 4151 Seyfert galaxy, nucleus struct. and jets, UHF obs. 2−63651
NGC 4945, southern hemisphere galaxy, H_2O maser emission obs. 2−94852
NGC 5236 and 5253, historical SN, radio search at 1.5 GHz 2−100962
NGC 5548, Seyfert 1.5 galaxy, nucleus radiosources detect. and astrometry, UHF/SHF obs. 2−117740
NGC 5905, NCG 5908, double spiral galaxy, H I obs. 2−68894
NGC 6193 region in Ara OB1, H166α line obs. of diffuse ionized gas 2−106842
NGC 628, outlying H I ring around Sc I galaxy, 21 cm obs. 2−106887
NGC 6302, planetary nebulae with circumstellar H I ring 2−117736
NGC 6334, H II region, star form. ridge, radiosources discovery and nature, SHF/UHF obs. 2−68857
NGC 6334 interstellar complex, struct. and dynamics of 3.5 pc diameter filamentary shell 2−112535
NGC 6946, Scd galaxy, 2.8 cm radio continuum distrib. obs. 2−68897
NGC 6946, Scd galaxy, CO gas distrib. following light distrib., EHF obs. 2−101037
NGC 7027, planetary nebulae distance from H I 21 cm line obs. 2−63570
NGC 7538, H II region, assoc. mol. cloud, CN line emission and star form. 2−101008
NGC 7591, late-type spiral galaxy in Pegasus I cluster, 21-cm VLA obs. 2−106890
NGC 7814, edge-on spiral galaxy, H I obs. and surface photometry 2−89365
NP 0532, Crab pulsar, pulse arrival times and periods, availability 2−84257
NRA 140, quasar, apparent superluminal motion obs. 2−68925
NRAO 584, H II region, RATAN-600 obs. 2−117737
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
OH 205.1−14.1, unusual OH maser, intensity vars. of left circularly polarised component (1980 to 1982) 2−79238
OH 231.8+4.2, VLA obs. of 1667 MHz OH maser emission in bipolar nebula 2−106836
OH 351.78−0.54, interstellar OH maser source, radio and IR obs. 2−112600
OMC-1, map in CN N=2-1 line, EHF obs. 2−89326
Orion A, anal. of VLBI obs. of H_2O masers using CS-type computer software 2−68634
Orion A, detection of torsionally excited state of methanol 2−63551
Orion B, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850
Orion B (NGC 2024), compact H II region, recomb. line and continuum map 2−101084
Orion Moelcular Cloud, vibr. excited cyanoacetylene, rot. transitions detect., EHF obs. 2−117718
Orion Nebula H I cloud and CO cloud, mag. fields determ. UHF obs. 2−106869
Orion SiO maser, time var. of vel. struct. of maser emission envelope 2−68875
OV−236, QSO, search for short term variability, SHF obs. 2−79232
Parkes 2700 MHz survey, resurvey of ±4° declination zone 2−89168
Parkes radio sources, 2.3 GHz accurate positions and optical identifications 2−79234
EQ Pegasi, red dwarf binary flare star, detect. of microwave emission from both components 2−68775
Pegasus I cluster, galaxy counts and H I UHF obs. 2−89388
Pegasus I galaxy cluster, 21 cm and optical survey of gas-rich spiral galaxies 2−79205
planetary nebulae, search for SiO emission at 86.8 GHz, EHF obs. 2−94818
planetary nebulae, southern, flux densities from UHF obs. 2−63583
pre-main-sequence stars, radio obs., results and interpretations 2−73966
PSR 0329+54 and 1237+25, mode switching polarisation anal. 2−94761
PSR 0525+21, spin-ups from JPL timing obs. 2−94763
PSR 0531+21, 1971 to 1981 flux at 74 MHz, interplanetary scintillation obs. 2−84253
PSR 0655+64, new binary pulsar, orbital elements from timing obs. 2−63486
PSR 0809+74, fine-scale time structure, statistical analysis 2−74006
PSR 0833-45 (Vela pulsar), pulse period decrease obs., (1982 August 10) 2−117697
PSR 1133+16, 100 nanosecond time resolution obs. 2−63487
PSR 1822−09, pulse-interpulse interaction obs. 2−89289
PSR 1913+16 (pulsar+compact star) general relativity test and gravit. radiation evidence 2−63498
PSR 1929+10, apparent proper motion from SHF obs. 2−117610
pulsar radioscintillation due to interstellar propagation 2−106765
pulsars, northern hemisphere survey 2−63486
pulsars, pulse timing obs. and improved parameters for 67 objects 2−68805
ζ Puppis (04 If), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
quasar, extended radio struct., UHF/SHF obs. 2−74115
quasars, search for redshifted formaldehyde, water, NH_3 and O_2, intervening galaxy constraints 2−74100
quasars, structure models based on SHF obs. 2−68923
radio sources within 30′ of Cepheus A catalogue and precise positions 2−106551
radiosources, bright extragalactic, UHF/SHF obs. 2−63694
radiosources, compact, precise positions from SHF/UHF interferometric obs. 2−79233
radiosources, compact extragalactic, struct. polarisation and astrometry, UHF/SHF obs. 2−112601
radiosources, compact flat spectrum surces, variability and polarisation depend. on spectral shape 2−68913
radiosources, extragalactic, flux density and linear polarisation, SHF obs. 2−58478
radiosources, extragalactic, milliarcsecond VLBI nuclei, arcsecond position, UHF obs. 2−79231
radiosources, extragalactic, SHF flux densities 2−84340
radiosources, extragalactic objects from 5 GHz survey 2−112350
Rosette Nebula (NGC 2237-46), H II region, radio props. and UHF continuum obs. 2−89395
Sa-type galaxies, global props. from H I obs. 2−89366

radioastronomical observations continued
Sagittarius A, B2, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850
Sagittarius A, search for short term variability, SHF obs. 2−79232
Sagittarius A at galactic centre, apparent proper motion from SHF obs. 2−117610
Sagittarius B2, H II regions/mol. cloud, OH maser source, UHF ob s. 2−74047
Sagittarius-B2, mol. cloud, struct. and component spectra from brightness at SHF, UHF 2−106941
Saturn, magnetosphere radioemissions due to Titan's wake 2−68662
Saturn, radio emission controlled by solar wind variations 2−94639
Saturn, VLA obs. at 1.3, 2 and 6 cm 2−106607
Saturn, Voyager 2 radio astronomical obs. 2−84161
Saturn, Voyager 2 radio occultation data 2−84156
Saturn, Voyager radio studies 2−58303
Saturn, wake produced by Titan, radionoise obs. 2−68661
Saturn rings, delay-Doppler radar obs. at 12.6 cm (1976 Jan.-Feb.) 2−100822
SC galaxies, CO emission depend. on luminosity and star form. rate 2−106903
semiregular variable stars, short period, different type of maser star 2−63420
Seyfert galaxies, search for redshifted formaldehyde, water, NH_3 and O_2, intervening galaxy constraints 2−74100
Sharpless 106, biconical H II region, surrounding mol. gas dynamics and model, EHF obs. 2−79180
Sharpless 106, H II region, assoc. mol. cloud, CN line emission and star form. 2−101008
Sharpless 308, ring nebula assoc. with Wolf-Rayet star, study of interstellar environment 2−68852
Sharpless 37 molecular cloud; radio and IR obs., energetics 2−63548
Sharpless 68, mol. cloud boundary, CO isotope selective photodestruction and abundance, obs. 2−68858
Small Magellanic Cloud, H I 21 cm line survey, UHF obs. 2−58467
Small Magellanic Cloud H I distrib., UHF obs. 2−106916
SN 1572, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
SNR associated with radio loop II, mag. field meas. from UHF obs. 2−106868
SNR structure in four objects at 1.4 GHz 2−112538
SO galaxies radio continuum props., UHF obs. 2−63634
solar corona, radar studies, 1961-69, rel. to corona large-scale struct. determ. 2−100875
solar flare remote brightnings and type III radio bursts 2−73939
solar gradual rise and fall bursts source struct. at 17 GHz 2−100871
solar radio burst emission (type I) 2−73936
solar radio bursts, obs. of radio echo and sporadic radiation scatt. in corona 2−94698
solar radio bursts (type II), positions identified with flares 2−73937
solar S-bursts, spectral characts. obs. 2−100872
solar spike radio bursts, obs. of spectrum and location of burst sources *(Russian)* 2−63356
solar surges and relation to radio bursts 2−73940
solar type I radio bursts, harmonic emission 2−63339
solar type II radio events observed in interplanetary medium, general characts. 2−94572
solar wind streams vels. out of ecliptic, scintillation obs. and correl. with high latitude coronal holes 2−100879
spectral index behaviour of low frequency variable radiosources, SHF obs. 2−94864
spiral galaxies in nine clusters, UBV photometry and 21 cm survey rel. to H I contents and colour props. 2−79223
star formation regions in galactic plane, identification from IR and radio obs. 2−112421
Stockert 21 cm radio continuum survey of northern sky (first part) 2−68916
Sun, 1968 Sept. 22 eclipse obs. at Xinjiang in SHF and VHF *(Chinese)* 2−63345
Sun, assoc. between coronal structs. and type III radio burst sources 2−106651
Sun, coronal loops observed with VLA in UHF 2−94666
Sun, coronal radio emission at 29.5 MHz rel. to A_p index (cycle 20) 2−106657
Sun, detect. of 192 s oscillatory component at 8.6 mm wavelength *(French)* 2−63338
Sun, EHF observations with large single dish 2−73931
Sun, flaring region producing microwave and X-ray bursts, mag. struct., SHF obs. 2−63330
Sun, gyroresonance emission, magnetic field meas. above sunspots 2−100884
Sun, high-sensitivity research using Itapetinga large mm-wave antenna 2−100744
Sun, m wavelength bursts with periodic modulation 2−73920
Sun, m-dm bursts assoc. with hard X-ray bursts, positions 2−100888
Sun, McMath 13043, burst activity and local radiosources at SHF 2−84205
Sun, McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
Sun, obs. of rising motion of behind limb flare at 35 GHz 2−94695
Sun, radio blips rel. to soft X-ray emission during weak solar activity 2−63340
Sun, radio burst source structure at 6 cm, evolution 2−94667
Sun, radio obs. rel to props. of wave motion in transition region and low corona *(Russian)* 2−100864
Sun, Type I and III emissions, nearly contemporaneous source positions 2−106665
Sun, type II and III radio events, VHF/UHF obs. 2−68721
Sun, type II radio burst, assoc. shock wave deccel., VHF obs. 2−94680
sunspots, surrounding polarised horseshoe structures at SHF obs. 2−73924
supernova remnant associated compact radio sources, X-ray/UHF/SHF obs. 2−63690
supernova remnant candidates in SMC, 843 MHz obs. 2−112537
supernova remnant search from radio brightness distrib. 2−106947
supernova remnants, space distrib. and radio emission evolution of plerions and shell remnants *(Russian)* 2−101026
T Tauri, discrepancy between optical and radio positions 2−89258
T Tauri stars, mass loss and struct., SHF obs. 2−68753
T Tauri stars, winds anal. from CO lines obs. 2−100925
Taurus MC 1, cyanoacetylene (HC_3N) obs. and model 2−63560

radioastronomical observations continued
Taurus MC-1, detect. of N=1→0 transition of butadiynyl (C_4H) 2−68867
Taurus Molecular Cloud 1, detect. of butadiynyl and cyanopropynyl rot. transitions, SHF obs. 2−84297
TMC-1, dark cloud density from CS EHF obs. 2−68859
UGC 12423, giant spiral galaxy in Pegasus I cluster, 21-cm VLA obs. 2−106890
variable extragalactic radio sources, obs. with RATAN-600 radio telescope 2−101083
Venus, global surface radar reflectivity meas. 2−117621
Venus, wind speed and turbulence from Venera Doppler meas. *(Russian)* 2−106583
very high velocity clouds, 21 cm obs. rel. to clouds collision with Milky Way in anticentre 2−74083
γ Vetorum (WC8+09 I), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
W33 continuum source, NH_3 ortho/para ratios from spectral obs. 2−101013
W3(OH), H II region OH maser sources, UHF obs. 2−74047
W44, H I clouds, RATAN-600 obs. of SNR 2−117737
W49N, H II region H_2O maser maps 2−68914
W51, components props., and spectra anal., IR/SHF obs. 2−79227
W51, W53, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850
X-ray clusters of galaxies, obs. at 102.5 MHz 2−112599
X-ray extragalactic sources, SHF obs. 2−79244
X-ray quasars, EHF obs. 2−74120
young stars, radio emission obs. 2−73965
Zelenchukskaya 8.7 and 14.4 GHz survey in 0°-4° decl. zone 2−74117
CO cloud complexes around galactic longitude l=45°, CO maps 2−79179
CO survey of southern galactic plane, EHF obs. 2−106876
^{13}CO, obs. in second galactic quadrant *(French)* 2−89367
FeO in interstellar mol. clouds and stellar atmospheres, search for J=5-4 transition 2−74045
H I absorption in direction of Sagittarius A, Westerbork obs. 2−89336
H I distribution in line of sight towards background extended radio sources, UHF obs. 2−89338
H I regions, absorption and emission, use of radio interferometry 2−63258
H II regions, He II recombination line survey 2−106833
H_2O maser survey of galactic plane at 22 GHz 2−79189
H_2O masers, high velocity, search in regions of star form. 2−74072
OH maser emission assoc. with W49N, distrib. of $^2\pi_{3/2}$ J=3.2 emission 2−79188
SiO vibrationally excited masers in late type stars and Orion, EHF obs. 2−84219

radioastronomical techniques
aperture synthesis processing by CLEAN and least squares fitting 2−100751
astrometric VLBI at JPL 2−58266
azimuth aperture synthesis RATAN-600 radio telescope, algorithm 2−94620
centimetre band sky survey with RATAN-600 radio telescope, receiving apparatus 2−94608
differential astrometry with connected element interferometer 2−117610
disk galaxy, largely tilted, H I spatial distrib. from H I line emission profiles 2−73859
EHF/SHF observations limited by atm. noise, fluctuation suppression methods 2−73848
expanding double radio sources, possible meas. of time delay between gravit. images 2−63691
interferometric technique, use in H I regions spectra obs. 2−63258
interferometry, math. principles *(Spanish)* 2−68631
meteor height detection using radar techniques, error estimation *(Italian)* 2−89153
meteor shower flux determ. from radar obs. 2−73851
meteor shower flux determination from radar obs. 2−73850
meteors, selectivity function of radio obs., evaluation method 2−84173
performance limitations and design tolerances of synthesis arrays 2−68618
planetary atmospheres, descending sondes position and vel. determ. methods 2−84105
planetary nebulae, radio distance scale determ. 2−106873
radar astronomy, popular introduction *(German)* 2−112346
radio meteor ionisation columns, initial radii meas. determ. method 2−63107
radio source tracking by RATAN-600 radio telescope, appl. of plane-mirror operation 2−94595
radioastrometry and imaging of radiosources *(Russian)* 2−78972
resolution improvement by aperture synthesis 2−63268
scintillating source detection at 102.5 MHz using two-frequency correlation technique 2−117788
solar corona, appl. of radar studies to determ. of large-scale coronal geometry 2−100875
solar magnetic field meas. above sunspots using gyroresonance emission 2−100884
solar radio astronomy, appl. of Itapetinga large mm-wave antenna in high-sensitivity research 2−100744
solar radiofrequency radiation observation at mm wavelength, instruments and preliminary results *(Japanese)* 2−94603
spectroscopy *(Japanese)* 2−73854
Sun, EHF observations with large single dish 2−73931
synthesis arrays, response to interfering signals 2−94625
temperature measurement in external galaxies, appl. of interstellar NH_3 radio spectrum 2−68629
variable profile antenna, radioastronomical adjustment using radio emission from Moon 2−94596
very long baseline interferometry, applications *(Russian)* 2−112345
very long baseline interferometry *(Japanese)* 2−89166
VLBI, appl. of specialised three-interferometer complex *(Russian)* 2−100737
VLBI, broadband synthesis 2−68632
VLBI 2−100745
VLBI arc method, astrometric and geodetic appls. 2−58265
VLBI experiments, software for CS-type computers 2−68634

radioastronomical techniques continued
H I 21 cm line obs. by RATAN-600 radio telescope, appl. of acousto-optical spectrometer 2−94607
H I line observations, design features and anal. of acousto-optical spectrograph 2−94606

radioastronomy
see also pulsars; quasars; radiofrequency cosmic radiation; radiosources (astronomical); radiotelescopes; solar radiofrequency radiation
acousto-optical spectrograph for H I line obs., design features and anal. 2−94606
acousto-optical spectrometer for RATAN-600 radio telescope, appl. to H I 21 cm line obs. 2−94607
asteroid radar backscattering, theory 2−79003
centimetre band sky survey with RATAN-600 radio telescope, receiving apparatus 2−94608
circular-periscope antenna for radio telescopes, description 2−94610
cometary studies using radar, prospects 2−94648
Cosmic Background Explorer (COBE) satellite, apl. to meas. of IR and microwave background radiation 2−106478
cosmological research, role of radioastronomy *(German)* 2−89421
earthquake precursory radiowave emissions, Chile, May 1960 event 2−88800
Faraday rotation, magnetized plasma turbulence soliton gas model 2−89134
fifty years of radioastronomy, progress, discoveries and prospects *(French)* 2−68995
galactic centre thermal emission 2−63697
galactic non-thermal radiation 2−63659
interplanetary scintillation and its astrophysical significance 2−89103
Jupiter, VLF hiss emission from magnetosphere 2−89189
Jupiter upper ionosphere spatial irregularities from Voyager radio occultations 2−106601
mapping the radio sky using long baseline interferometry 2−89149
Maryland-Green Bank galactic 21 cm line survey, telescope beam charcts. and temp. scale 2−106526
Maryland-Green Bank galactic 21-cm line survey, atlas 2−106555
maser, 1-CM rutile travelling wave, use in radioastronomical obs. 2−114226
methane, microwave spectra, rel. to radioastronomy 2−75280
Moon, appl. of radio emission for radioastronomical adjustment of variable profile antenna 2−94596
Moon, radar scattering laws for lunar surface 2−94631
nebulae with high emission measure, radio recombination lines 2−84294
observatory site testing in India, atmos. humidity obs. 2−88977
planetary surfaces and atmospheres, Earth-based remote sensing 2−106575
pulsar radiosignal fluctuations due to interstellar propagation 2−106765
radar studies of planetary surfaces and atmospheres 2−106574
RATAN-600 radio telescope, plane-mirror operation 2−94595
review, history, development and state of art *(German)* 2−89148
Saturn, VLF radio emission source regions 2−94640
Saturn, Voyager 2 radio astronomical obs. 2−84161
Saturn electrostatic discharges source, relation to narrow gap in Saturn B-ring 2−112384
Saturn rings, radio occultation theory 2−100819
solar radio astronomy, appl. of Itapetinga large mm-wave antenna in high-sensitivity research 2−100744
solar wind high speed streams causing enhanced scintillation 2−73815
special theory of relativity and radar astronomy 2−74206
submillimetre astronomy, appl. of portable atmospheric water-vapour monitor 2−106543
terrestrial interference in HF range 2−63167
time accuracy requirements for VLBI exp. 2−89167
Venus Orbiting Imaging Radar (VOIR) spacecraft, preview 2−68596
VLA instrument in USA, obs. program 2−106532
VLBI experiments, software for CS-type computers 2−68634
NS, mol. consts., isotope effects, microwave obs., relevance to radio astronomy 2−90524

radiocarbon dating *see radioactive dating*

radiochemistry
see also radioactive chemical analysis; radioactive tracers
labelled compounds, in-beam prod., review 2−100124
polluted atmospheres in vicinity of nuclear power stations, behaviour analysis under low β radiation rates 2−62515
radio-gas chromatography for ^{3}H and ^{14}C labelled compounds *(Chinese)* 2−62438
radionuclide behaviour in aqueous soln., sorption on hydrated oxides 2−57628
relativistic heavy ion physics expts. review 2−85095
solar neutrino detection using laser radiochemical Ga detector 2−78957
solvent extraction chemistry applied to nuclear science 2−57629
Three Mile Island accident, physical chemistry of fission products rel. to reactor safety research 2−85203
Ar-N_2, collisions with subexcitation electrons, thermalisation, recombination luminesc. 2−73004
C steel, OL-32, corrosion kinetics in acid media, radiochem. method investig. *(German)* 2−83290
^{128}Cs, positron emitter for medical applic., cyclotron prod. 2−117084
D_2+T_2, liq. and solid, chem. exchange reactions, IR spectra study 2−96301
Ra traces in aqs. soln. containing chlorides, sulphates and carbonates, isotope separation 2−78120
^{90}Sr, low activities assay by early counting of Chenkov radiation induced by ^{90}Y 2−67782

radiocommunication
see also radio links; radio reception
digital high frequency radiocommunications, applications of microprocessors 2−73781
ELF wave generation in ionosphere by use of HF waves radiated from ground 2−68552
meteorological appls. in Japan, 1979 to 1980 *(Japanese)* 2−94532
skywave field strength estimation, HF, in tropical region, AIR method appl., E-mode propagation 2−106413

radiocrystallography *see X-ray crystallography*

radiofrequency amplifiers
see also preamplifiers
EM wave propagation in plasma-beam system, effect of superheterodyne amplification 2−76137

radiofrequency amplifiers continued
NQR spectrometer, regenerative wideband transistorised transducer 2−89768
superconducting modulation-amplification-demodulation amplifier for weak sonic and infrasonic radio signals 2−89052

radiofrequency and microwave spectra of diatomic inorganic molecules
see also nuclear magnetic resonance; paramagnetic resonance
group III/VII diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
group IV/VI diatomic mols. with ten valence electrons, millimeter wave spectra, Born-Oppenheimer approx. 2−70225
CO J=1-0 115 GHz obs.of molecular rings in Sb galaxies 2−117756
CO^{+} excited vibr. state, millimetre wave spectrum 2−90527
CO^{+}, microwave spectra, struct. 2−54835
CaBr $^{2}\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
CaCl $^{2}\Sigma$-radical, microwave rot. spectra, unresolved hyperfine struct. investig. 2−90519
FeO, search for J=5-4 transition in interstellar medium and stellar atmospheres 2−74045
NS, mol. consts., isotope effects, microwave obs., relevance to radio astronomy 2−90524
$^{14}N^{15}N$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
O_2, absorpt. and dispersion in microwave spectra 2−102468
OH, broad main line emission from peculiar galaxy IC 4553, first detection 2−117757
OH free radicals, collisional broadening of far-IR and microwave spectrum 2−96643
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
$^{16}O_2$, microwave resonant lines meas. for electronic ground state 2−85638
$^{16}O^{18}O$, atmospheric absorpt. of millimeter to submillimeter waves 2−59787
SF radical, rot. and centrifugal distortion const., microwave obs. 2−75249
SO, highly excited vibr. states, millimetre wave, mol. consts. 2−64962

radiofrequency and microwave spectra of organic molecules and substances
see also nuclear magnetic resonance; paramagnetic resonance
acetic acid, microwave spectrum, internal rot. 2−108477
acetonitrile, liq., dynamics and interactions, microwave and far-IR study 2−82869
acetylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
acetylene-HF complex, microwave spectrum and mol. struct. 2−59789
s-cis-acrolein, microwave spectrum, rot. consts. and dipole moment 2−75242
allyl alcohol, centrifugal distortion effects in microwave spectrum 2−54836
amines, primary, soln., dielectric loss, microwave spectra *(German)* 2−66985
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
amyl acetate solns., microwave absorpt. 2−87914
bromomethane, JK=0,0→1,0 transition, press. broadened microwave linewidth 2−102432
bromomethane, rovibrational transition, saturation spectra 2−70229
3-bromothiophene, rot. consts., nucl. quadrupole coupling, hyperfine struct., microwave obs. 2−75246
bromotrifluoromethane; ground and excited states, rot., microwave obs. 2−59791
butadiynyl, interstellar, detect. of N=1→0 transition in (Taurus MC-1) 2−68867
butyronitrile, quadrupole coupling, hyperfine struct., microwave Fourier transform spectra 2−64965
carbon tetrachloride, liq., optical and dielec. parameters meas. in 3 mm to 50 μm range 2−99084
2-chloroethanethiol, rot. isomerism and consts., microwave obs. 2−75248
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2−70234
cyanoacetylene, interstellar, obs. in Taurus Molecular Cloud 1 rel. to cloud model 2−63560
cyanodecapentayne, detection in IRC+10°216 cool C star at 24 GHz 2−58369
cyanodiacetylene, discharge chemistry and mm spectrum up to 210 GHz 2−85637
cyanodiacetylene, interstellar, in Taurus MC-1, Sagittarius B2 and IRC+10216, rot. temps. 2−63559
dicyclohexylamine, solns., dipole reorientation, dielec t. loss, microwave absorpt. *(German)* 2−66986
2,3-dihydrothiophene, rot. consts., IR and microwave obs. 2−70228
diphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
ethane, collision induced adsorpt. in microwave and IR region 2−54838
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
ethylene-HCN(DCN) complexes, struct., quadrupole coupling, microwave rot. spectra obs. 2−108474
ethylene-HF and ethylene-DF complex, microwave spectrum, vibr. and rot., mol. struct. 2−70230
ethynyl radical, interstellar, detect. of N=3−2 transition in Orion rel. to mol. rot. consts. determ. 2−63556
fermic acid, excited state, optically pumped, microwave obs. 2−75245
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
m-fluoroanisole, anti rotamer, microwave spectrum and methoxy torsional freq., rot. consts. 2−96547
fluoroformyliminosulphur difluoride, struct., microwave spectrum 2−85640
fluoromethane, Stark-split components, reorientation and press. broadening of IR and microwave lines 2−70227
trans-3-fluorophenol, deuterated, microwave spectrum, rot. and quartic centrifugal distortion consts. 2−90526
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2−85715
formyl cyanide rotational spectra from ab initio calcs. 2−59682
formyl ion (HCO^{+}) J=4-3 transition in galactic sources 2−89341
germylazide, microwave spectra and struct., rot. consts. 2−70233
glycolic acid, microwave spectrum and conformation, rot. consts., dipole moments 2−96546
glycolic acid, struct., microwave spectrosc. investig. 2−96545

radiofrequency and microwave spectra of organic molecules and substances continued
isobutylene, microwave rot. spectra, centrifugal distortion effects 2−54837
isocyanic acid, rotational spectra from ab initio calcs. 2−59682
malononitrile, millimetre rot. spectrum meas. *(French)* 2−113970
methane, microwave spectra, rel. to radioastronomy 2−75280
methanimino cation, rot. spectra and dipole moment from ab initio calcs. 2−85524
methanol, interstellar detection of torsionally excited state in Orion A 2−63551
methoxyflurane, internal rot., vibr., microwave, IR and Raman obs. 2−75252
methyl cyanide, laser Stark and microwave spectra, vibr.-rot. bands 2−85714
methyl cyanide, rot. line press. broadening, acoustic detect. in MM wave spectroscopy 2−96544
methyl cyanide, rot. transitions, pressure shift 2−64963
methyl flouride, microwave transitions studied in intracavity absorbers using off-resonant response of IR lasers 2−108484
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl glycolate, barrier to internal rot. 2−96769
methyl iodide in carbon disulphide soln., mol. dynamics and interactions, far IR and microwave spectra 2−80617
methyl isothiocyanate, microwave spectrum, bond angle, rovibr. energy levels 2−85642
methylcyanoacetylene, ground state, rot. and centrifugal distortion consts., microwave obs. 2−75250
N-methyldiphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
2-nitromalonaldehyde-d_0(d_1), H^+ tunnelling and nitro group torsion 2−96548
nitrosoacetylene, struct. calc. by ab initio SCF and GVB calcs., consts. rel to IR, microwave and visible spectra 2−59698
pentafluorobenz, centrifugal distortion constants from pure rotational spectrum 2−80583
perfluoro methylene imine, microwave spectrum, rot. consts. 2−70232
perfluoromethylamines, mol. struct., electron diffr. and microwave spectra, normal coordinate anal. 2−90701
1-phenylphosphaethyne, microwave spectra, bond length determ. 2−85641
phosphoalkynes detection using microwave spectroscopy 2−70231
propiolyl chloride, microwave spectrum, harmonic force field, struct., dipole moment, nuclear quadrupole coupling consts. 2−90518
propyne-d_1(-d_3), beam maser spectrosc. 2−90521
silyl acetylene, ground vibr. state, Stark effect, microwave obs. 2−102466
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2−64964
thioformaldehyde-d_0(d_2), average struct., dipole moments, quadrupole coupling, microwave obs. 2−85645
thiomorpholine, microwave spectrum, centrifugal distortion effects 2−96549
trifluorochloromethane, ground vibr. state mol. consts., isotope effects, microwave obs. 2−90523
triphenylamine, solns., dipole reorientation, dielect. loss, microwave absorpt. *(German)* 2−66986
CF_2, mm and sub millimeter spectrum, prod. in DC glow discharge, rot. transition freq. 2−108481
COH^+, rot. spectra and dipole moment from ab initio calcs. 2−85524
$HOCO^+$, rotational spectra from ab initio calcs. 2−59682

radiofrequency and microwave spectra of polyatomic inorganic molecules
see also nuclear magnetic resonance; paramagnetic resonance
microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
$^{14}NH_2$, $^{14}NO_3$ and $^{15}NO_3$, submillimeter wave, diode laser, Fourier transform and grating spectra., vibr.-rot. anal. 2−108485
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
AgCl, isotopically invariant Dunham coeff. 2−85643
AsH_3, spectral line broadening and shift, Stark effect 2−108479
AsH_3, submillimeter spectrum, vibr. and rot. anal., spectroscopic consts. 2−108478
$BH(NH_2)_2$, microwave spectra and mol. struct. 2−108475
CCN^+, microwave spectroscopic consts., equilib. bond lengths and rot. consts., CI calcs. 2−102467
CCl radical, microwave spectra, rot. transitions, mag. and electric quadrupole hyperfine coupling consts. 2−108476
CO^+, hyperfine and spin-rot. parameters, isotope effects, microwave obs. 2−70226
C_3O_2, microwave spectrum, vibr.-rot. anal., rot. and centrifugal consts. 2−108480
ClBO, mol. consts., vibr.=rot., IR diode laser and microwave spectra 2−90541
CuBr, isotopically invariant Dunham coeff. 2−85643
CuCl, isotopically invariant Dunham coeff. 2−85643
D_2CO, microwave transitions studied in intracavity absorbers using off-resonant response of IR lasers 2−108484
D_2O, microwave transitions studied in intracavity absorbers using off-resonant response of IR lasers 2−108484
GaBr, isotopically invariant Dunham coeff. 2−85643
HCN-HCl complex, H-bonds, rot. spectrum and mol. props. 2−59790
HCO^+, microwave spectra, struct. 2−54835
HCS^+, microwave spectra, struct. 2−54835
HN_2^+, microwave spectra, struct. 2−54835
HN_3, rotational spectra from ab initio calcs. 2−59682
HO_2, mm and submillimeter spectrum, effect of unpaired electron spin and nuclear hyperfine interactions 2−108483
H_2O, lab. jet simulation of rocket plume, radiometric obs. of 752.033 GHz rot. absorpt. line 2−90520
H_2O, spectral line broadening and shift, Stark effect 2−108479
H_2O, vapour spectrum, use in atm. remote sensing *(Chinese)* 2−78886
HOC^+, microwave spectra obs. 2−70235
H_2O...HF, H-bonded heterodimer, conformation, pot. energy function, from microwave rot. spectra 2−75253
K-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
LiCl, isotopically invariant Dunham coeff. 2−85643
NH_3 appl. of J,K=2,2 inversion transition as thermometer for external galaxies 2−68629
NH_3, microwave transitions studied in intracavity absorbers using off-resonant response of IR lasers 2−108484
NH_3, molecular vibr. rot. states, high and very high resolution spectroscopy 2−80838
NH_3, spectral line broadening and shift, Stark effect 2−108479
NH_2D, vibr.-rot., hyperfine struct., microwave obs. 2−85644
NO_2, ground state energy level struct., microwave obs. 2−90522
Na-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
OCS, isotope effects, rot. transitions, microwave absorpt. lines 2−94923
PH_3, spectral line broadening and shift, Stark effect 2−108479
$SeOF_2$, microwave rot. spectrum, centrifugal distortion effects 2−75241
SiH_3I, vibr. excited states, microwave obs. 2−90525
SiH_3SiH_2CN, struct., vibr. assignment, microwave, IR and Raman spectra, normal coordinate anal. 2−59788

radiofrequency cosmic radiation
see also pulsars; quasars; radioastronomy
anisotropy measurements and cosmological implications 2−117805
galactic background synchrotron emission, possible origin from SNRs 2−63717
galactic radio emission below 16.5 MHz and the galactic emission measure 2−74128
HF noise observed with ISS-b 2−58503
microwave background, effect of graviton prod. in inflationary Universe 2−112628
microwave background, free-streaming radiation theory in cosmological models with spatial curvature 2−63715
microwave background, gravit. scintillation, density inhomogeneity cause 2−112611
microwave background, large-scale anisotropy meas. 2−117804
microwave background, Population III stars contrib. 2−117711
microwave background, spectrum and ang. distrib. meas. via Cosmic Background Explorer (COBE) 2−106478
microwave background, temp. fluctuations in Swiss Cheese model 2−58515
microwave background anisotropy due to mass distrib. in open cosmological model 2−106967
microwave background anisotropy mechanisms 2−117807
microwave background distortion and Population III stars generation *(Polish)* 2−94795
microwave background distortions, Planckian spectra superposition 2−101094
microwave background in far IR, quadrupole anisotropy determ. 2−117801
microwave background observational aspects 2−117809
microwave background produced by thermalisation of starlight by interstellar elongated grains 2−79248
microwave background radiation, ang. fluctuations of temp. in Universe with massive neutrinos *(Russian)* 2−63718
microwave background radiation, effects of stochastic back ground of gravit. radiation 2−79249
microwave background radiation as Universe large scale struct. probe 2−117843
microwave background spectral distortions and angular anisotropy 2−117802
microwave background spectrum, effects of double Compton process 2−68936
microwave background spectrum, effects of primordial gas heating by background radiation in presence of heavy elements 2−101046
microwave background spectrum, pregalactic Population III stars 2−106818
microwave background spectrum 2−117806
nonprimordial background due to thermalisation by dust or molecules 2−84352
radioastronomy review, history, development and state of art *(German)* 2−89148
Sunyaev-Zeldovich effect, X-ray clusters of galaxies and microwave emission 2−106933
tensor spherical and pseudo-spherical harmonics in four-dimensional spaces, 2.7K radiation anisotropy 2−117808
thermal, discrete radio line and mag. bremsstrahlung radiations *(German)* 2−89421

radiofrequency heaters *see radiofrequency heating*

radiofrequency heating
biological phantom, microwave irrad., influence of bone on temp. patterns 2−62683
blood-brain barrier, microwave hyperthermia-induced alterations, rat expts. 2−88589
characean cells, vacuolar pot., effects of 20-300 MHz EM radiation 2−100049
circular cylinder, near-field absorpt. from elec. and mag. line sources, biological heating appl. 2−100053
clinical RF hyperthermia by magnetic-loop induction for human cancer therapy 2−111772
coal, dielectric properties, frequency-dependence application in industrial heating 2−104808
frozen coal thawing using Thawtron microwave device 2−73058
high-power RF heating system for long theta-pinch 2−91661
hyperthermia, localized, in cancer treatment 2−83629
induction, for thermal wave imaging, thickness meas. of WC plasma coating on stainless steel plates 2−99613
medical hyperthermia, microwave and RF applicators 2−62730
medical hyperthermia, theoretical comparison of temp. distribs. prod. by several systems 2−62731
microwave bioeffects, heat transfer in surface-cooled objects subject to microwave heating 2−116885
microwave cancer therapy, blood flow effects on temp. distrib. from invasive antenna array 2−100087
microwave heating principles, applications and safety aspects *(Dutch)* 2−95372
microwave tubes for RF heating of plasmas, klystron and gyrotron 2−69169
phantoms and animals, thermal distrib. of magnetic-loop induction hyperthermia 2−99904
pig thorax and abdomen and large phantoms, heating pattern induced by 13.56 MHz RF generator 2−100057
plasma, nucl. fusion appls. *(Japanese)* 2−97757
radioactive waste, drying by microwave heating, feasibility study 2−85157
RE-insect interaction applied to pest control *(Spanish)* 2−62682
RF ion source using RF heating plasma 2−96350

radiofrequency heating continued
SW diathermy, exposure to operator and patient 2−68102
vacuum brazing machine power and coolant switching unit 2−74396
Tokamaks, RF heating, mode conversion and wave damping in the low frequency range 2−81509

radiofrequency interference
see also atmospherics; whistlers
digital high frequency radiocommunications, applications of microprocessors 2−73781
ionospheric effects on the SARSAT system 2−94550
radioastronomy, terrestrial interference in HF range 2−63167
thermal noise-power standard, precision HF termination, function, special features *(German)* 2−107345

radiofrequency spectra of diatomic inorganic molecules *see radiofrequency and microwave spectra of diatomic inorganic molecules*

radiofrequency spectra of inorganic solids
see also nuclear magnetic resonance; paramagnetic resonance
KCl, EM emission stimulated by acoustic wave 2−116301
LiF, EM emission stimulated by acoustic wave 2−116301
NaCl, EM emission stimulated by acoustic wave 2−116301

radiofrequency spectra of organic molecules and substances *see radiofrequency and microwave spectra of organic molecules and substances*

radiofrequency spectra of polyatomic inorganic molecules *see radiofrequency and microwave spectra of polyatomic inorganic molecules*

radiofrequency spectrometers
see also magnetic resonance spectrometers
ferromagnetic resonance spectrometer, digital recording system 2−69215

radiofrequency spectroscopy
see also magnetic resonance spectroscopy; nuclear magnetic resonance; radiofrequency spectrometers
No entries

radiofrequency sputtering
alloy films, RF sputter deposition 2−99334
carbide films, sputtered, effect of ion implantation on props. 2−87120
discharge characteristics and power supply coupling conditions 2−57290
glass, planar optical waveguide fabrication by ion-assisted techniques 2−55331
glass thin film optical waveguides, fluctuation and scattering props. 2−81078
magnetron-type planar RF sputtering device, high deposition rate *(Japanese)* 2−67216
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
Ni-Cr thin film resistors 2−87976
Permalloy film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
planar magnetron characteristics at high power input rel. to film deposition 2−57291
planar magnetron high-rate sputtering techniques *(Polish)* 2−57284
plasma deposition, conference, London, England (Mar. 1982) 2−53434
plasmatron discharge for gas phase film deposition *(German)* 2−116359
polymer film deposition in low press. reactive plasmas, characteris. and applics., review 2−57287
sputter etch-oxidation process, fabrication of MOSFET 2−88249
transparent cond. film, planar magnetron sputtering 2−105074
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
Al thin film deposition in Ar using DC planar magnetron sputtering, O_2-partial press. condition effects 2−57294
AlN film, basal orientation, RF diode sputtering, low temp. growth 2−72623
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
$BaPb_{1-x}Bi_xO_3$ superconducting films, RF sputtering prep. 2−83019
$Ba_{0.95}Sr_{0.05}Pb_{0.75}Bi_{0.25}O_3$ superconducting films, RF sputtering prep. 2−83019
C film, sputter deposition 2−62066
CdS films, RF sputtered, struct. and elec. resist., deposition dependence meas. 2−105073
CdS-Cu_2S heterojunction solar cells, Cd anodic sulphurization and RF sputtering, MIS struct. for interface state determ. 2−78229
CdS-InP RF sputtered solar cell, comparison with $In_{2-x}Sn_xO_{3-y}$-InP cell 2−57714
Co-Cr film, RF sputtered, HCP phase and perpendicular mag. anisotropy, N_2 induced 2−56394
Cu/Cr epitaxial film, ion mixing during RF sputtering deposition 2−82161
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
$CuInSe_2$, thin film, prep. by RF sputtering, optical props. 2−110962
Fe films, RF sputtered, lattice expansion 2−60922
Fe-N thin films, RF sputtered, static mag. and Mossbauer study 2−82641
$(GaSb)_{1-x}Ge_x$ epitaxial film, ion mixing during RF sputtering deposition 2−82161
GdCo amorphous RF sputtered films, substrate bias effect on film composition and mag. props. 2−56900
Ge epitaxial film on Si(100), RF sputter deposition, struct. and elec. meas. 2−66386
Ge, film, deposition by DC and RF double cathode sputtering *(Japanese)* 2−62065
HgS, sputter-deposited film, comp. determ. by electron microprobe anal. *(Japanese)* 2−92399
La_2O_2S films, RF sputtered, luminescent, high purity deposition 2−93423
$LiNbO_3$ amorphous and polycryst. thin films, RF sputtering, struct., refractive index, X-ray study 2−72624
$LiTi_2O_4$ supercond. film, prep. and props. 2−115940
NbO_2 films, RF sputtered, crystallisation, DTA and elec. cond. 2−104441
Ni-Cr-Cr_2O_3 films, RF sputter-deposited struct. and comp. 2−87983
PbTe films, RF sputtered, struct. props. obs. by X-ray asymm. refls. 2−110197
$PbTiO_3$ ferroelec. thin films, prep. by RF sputtering and laser annealing 2−82792
RuO_2-CdS Schottky barrier photovoltaic device 2−56633
Si, amorphous, RF sputtered, optical props., by spectroscopic ellipsometry *(Chinese)* 2−67012

radiofrequency sputtering continued
Si, amorphous films, RF-bias sputtered, elec. cond. photoconductivity, ESR spin density, annealing effects 2−56391
Si film, sputter deposition 2−62066
Si:H, amorphous film, RF sputtered, H content, and config., photoconductivity, IR study 2−82397
Si:H, amorphous film, RF planar-magnetron sputtering, IR and photoelec. props. *(Japanese)* 2−99332
Si:H, amorphous film, tetrode RF sputtering and optical and elec. props. meas. 2−111072
Si-Fe contacts, sputter deposited, barrier height meas. 2−110473
SiC film, sputter deposition 2−62066
$Si_xC_yF_z$ thin film, amorphous, prep. by reactive sputtering in tetrafluoromethane *(Japanese)* 2−115596
Ta, magnetron sputtered, nucleation props., substrate surface effects 2−115624
Ta_2N, HCP thin film resistors, mass prod. by planar-magnetron sputtering 2−99337
Ti film, reactive magnetron sputtering 2−87980
Ti thin film deposition in Ar using DC planar magnetron sputtering, O_2-partial press. condition effects 2−57294
Ti/Pt/Au thin film circuits, conductive via processing utilising RF sputtering and electrodeposition 2−99338
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiN film deposition by reactive magnetron sputtering, elec. resistivity, comparison with other methods 2−57293
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913
TiO_x film, reactive magnetron sputtering 2−87980
Y_2O_2S film, RF sputtered, luminescent, high purity deposition 2−93423
ZnO film, c-axis orientation, energetic atom bombardment influence 2−98476
ZnO film, preferred orientation controlled by RF sputtering 2−61314
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO films, substrate biased RF sputtering of semicond. and insulating films 2−111071
ZnO on SiO_2 substrate, RF sputtering, TEM anal. 2−56410
ZnO piezoelectric thin films, for SAW devices 2−97339
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZrO_2, sputter deposited, microstruct. control 2−115619
ZrO_2-$CaO(Y_2O_3)$, sputter deposited, microstruct. control 2−115619

radiogalaxies
see also BL Lacertae-type objects; Seyfert galaxies
3C 84, Seyfert galaxy structure at 18 cm, UHF obs. *(Russian)* 2−68917
Abell 566, cluster of galaxies, radio and X-ray galaxies obs. 2−106934
active extragalactic objects, complete sample from 1411 MHz VLA survey in Virgo 2−78978
angular diameter-red shift relations 2−117784
B2 1321+31 (NGC 5127), large radio galaxy, multifreq. high resolution obs. 2−89396
bright galaxies with strong nuclear radio sources, H I distrib. and nature, UHF obs. 2−117785
3C 111, azimuth aperture synthesis RATAN-600 radio telescope 2−94620
3C 120, large-scale radio struct. obs. 2−68912
3 C 120, rapid structural var., SHF obs. 2−89348
3C 31, 66B and 129, struct. and mag. fields, polarisation and spectral indices 2−101047
3C 371, N galaxy-BL Lacertae object, X-ray light curve anal. 2−112543
3C 388, intermittent jet evidence, model and nature, SHF/UHF obs. 2−89393
3C 445, Paschen α flux and dust extinction, IR obs. 2−84338
3C 449, cD galaxy, double jet model with orbiting massive object at centre 2−79226
3 C 449, precessing relativistic jet model 2−94830
5C 4.81, head-tail radio galaxy, physical parameter determ. 2−79236
3C 76.1, polarisation sources and mag. fields, UHF obs. 2−79230
BC sources, JHK photometry and IR Hubble diagram 2−89398
3C sources, multifreq. obs. of ten extended objects 2−106904
4C sources in poor clusters, red shifts, clustering props. and radio parameters 2−79225
Centaurus A, search for short term variability, SHF obs. 2−79232
Centaurus A, X-ray transition radiation emission 2−117533
Centaurus A (NGC 5128) nucleus 2.2 μm mapping 2−94840
central activity, review *(Polish)* 2−94844
close double, elliptical galaxies, radio jet effects 2−73861
clusters of galaxies, radio emission probability from brightest galaxy and subsequent members 2−58459
in clusters of galaxies, radio waves scatt. and polarisation by intergalactic gas *(Russian)* 2−106923
collimated beam formation driven by high energy particles from nucleus, hydrodynamics and MHD 2−106942
compact double radio sources, relativistic beam model rel. to symmetric struct. 2−63692
compact radio sources, inverse Compton radiation spectra from relativistic flows 2−74114
compact radio sources, synchrotron radiation from relativistic flows 2−74113
cosmic ray electrons diffusion, role in morphology and spectral index distrib. 2−106899
Cygnus A, interplanetary scintillation at 81.5 MHz, VHF obs. 2−63695
Cygnus A, interpretation of milli-arcsecond radio jet 2−68884
Cygnus A, nuclear jets, analysis of VLBIL data 2−89380
Cygnus A, stellar component and poor cluster, spectroscopy and photographic photometry 2−89381
DA 240, giant radio galaxy, polarisation obs. and struct. of hotspot 2−94836
distant galaxies, radiosource identifications reliability and radio/stellar population props. var. with cosmic epoch 2−117776
distant radiogalaxies with strong emission lines, redshifts and spectroscopy 2−106917
double radio sources, obs. of X-ray emission from assoc. galaxy clusters 2−58474
double radio sources evolution, fluid dynamics of relativistic beams flowing through channels 2−84337
double radiosources and central region jet-like struct. form. 2−94842

radiogalaxies continued
early-type galaxies, radio obs. 2−106910
elliptical galaxies with nuclear radiosources and optical emission lines, H I survey 2−112545
evolution from Hβ luminosity calcs. 2−106894
expanding double radio sources, possible meas. of time delay between gravit. images 2−63691
extended radio struct., UHF/SHF obs. 2−74115
gaseous halos and jet disruption 2−106884
IC 5063 (PKS 2048−57), radio-emitting elliptical galaxy, discovery of very red nucleus from IR obs. 2−112565
intermediate-strength radio sources from GB/GB2 1400 MHz surveys, radio spectra and optical identifications GB/GB2 1400 MHz survey, radio spectra and optical identification 2−106939
intermediate-strength radio sources from GB/GB2 surveys, radio maps and optical identifications of steep spectrum sources 2−106940
jet like formations nature 2−58460
BL Lacertae objects, extended radio struct., UHF/SHF obs. 2−74115
linear polarisation and flux density, SHF obs. 2−58478
M87, high-resolution studies at long radio wavelengths 2−112562
M87, presence of massive black hole rel. to M/L and vel. anisotropy determ. 2−94835
magnetic field distribution from X-ray and radio map anal. 2−58505
milli-arcsecond jets in radio galaxies, interpretation 2−68884
models, emission features and jets 2−63698
NGC 1265, beam, appl. of infinite slab nonlinear shear instabilities 2−112316
NGC 1275, multifreq. VLBI obs. of galactic nucleus 2−74080
NGC 5128, interstellar spectral lines in globular clusters 2−117731
NGC 5128 (Centaurus A), structure from Hα obs. 2−79218
NGC 7591, late-type spiral galaxy in Pegasus I cluster, 21-cm VLA obs. 2−106890
optical identification/flux density relationship 2−63639
optical identifications for 5 GHz sources 2−112603
Parkes radio sources, 2.3 GHz accurate positions and optical identifications 2−79234
particle reacceleration in radiogalaxies, rel. to apparent radio source struct. 2−68885
PKS 2152−69, optical spectrum 2−79211
properties in radio and IR bands *(Polish)* 2−106922
radial velocities of galaxies detected in Arecibo 2380 MHz survey, meas. 2−101050
radio two-colour spectral distributions, for quasars and radio galaxies 2−79235
relativistic electron adiabatic deceleration in galactic wind, steady-state case 2−63638
Seyfert galaxies, radioemission, model involving star burst 2−112548
shapes of radio sources, effect of galactic gas 2−68883
sources at 4.755 GHz, astrometry and optical identifications 2−63689
spectral flux distributions and red shift estimates, IR photometry 2−94850
supersonic expanding jets, helical and pinching instability 2−89392
turbulent radio jets, synchrotron brightness distrib. 2−89391
UGC 12423, giant spiral galaxy in Pegasus I cluster, 21-cm VLA obs. 2−106890
ultrarelativistic expansion velocities of radio sources components, highlight model as possible explanation for ultrarelativistic expansion vels. 2−94851
Universe rotation indicated by double radiogalaxy polarisation 2−101103
wind instability in radiogalaxy clouds, theory *(Russian)* 2−106924
in X-ray clusters of galaxies, obs. at 102.5 MHz 2−112599

radiogoniometers *see goniometers*

radiography
see also electrophotography; neutron radiography; radioisotope scanning and imaging; scanning radiography
angiographic images, atherosclerosis, computer assessment 2−83636
angiographic picture processing, real-time classification of pictures *(Spanish)* 2−68133
angiography, sequential ventricular borders, complex dynamic shape representation 2−100117
antiproton in vivo density meas., radiography, biomedical appls. 2−68117
antiscatter grids, Monte Carlo simulation studies of performance 2−83649
arterial structures, time subtraction digital fluoroscopy with a dual memory system 2−83634
arthrography of the higher extremities *(German)* 2−68136
autoradiography of plant cells, scintillator effect on exposure time 2−57945
biplane cineradiograms, 3-D positions and motions of large numbers of spherical radiopaque markers meas. 2−68205
boundaries perception, general principles and their appl. 2−68110
capsular ligament lesions, X-ray diagnostics *(German)* 2−68135
cardiac examination, non-invasive methods 2−83695
cardiac imaging by digitised intravenous angiocardiography, contrast enhancement 2−88661
cardiovascular disease diagnosis by digital subtraction angiography 2−57900
charged-particle radiography and computerised tomography using nuclear track detectors 2−68134
chest radiographs, posterior/anterior, automatic anal. 2−100116
chest radiography in rabbits, expt. stand 2−88701
cine-angiograms, knowledge based identification of artery branches 2−100115
cineangiograms, coronary obstructions characterisation using single and multiple views 2−73354
cineangiograms, left ventricular, acquisition, quality problems and solns. 2−88659
coherent optical spatial filtration use for improving X-ray image quality 2−62742
composite materials, NDT, review 2−62338
Compton scatter imaging system, sensitivity, appls. 2−79723
conference, optical instrumentation appl. in medicine, San Francisco, CA, USA (March 1981) 2−94888
conference on medical phys., Varenna, Italy (Jun.-Jul. 79) 2−89448
conference on phys. and engng. in medical imaging, Pacific Grove, USA (Mar. 82) 2−107017
contrast sensitivity of digital fluorographic systems 2−111785
coronary angiograms, semiautomatic computer technique for processing 2−88662
coronary obstruction severity, densitometric assessment from monophase views 2−88664

radiography continued
coronary obstructions, objective meas. by digital image processing 2−111786
coronary stenosis degree, meas. by digital densitometry 2−88663
CR-39 detector, radiographic charcts. 2−59635
data for medical phys., book 2−112665
densitometer 2−57582
dental radiographs, digitised image processing for improved diagnosis 2−68143
Diamentor transmission ionisation chamber, evaluation for exposure-area product indication in radiological exam. 2−83660
digital image processing, medical radiography appls., tutorial review 2−80906
digital radiography, conf., Stanford, CA, USA (Sept. 1981) 2−94891
digital radiography, Xe ionisation chamber 2−68127
digital radiography and other imaging techniques, developments 2−100094
digital subtraction angiography, diagnostic importance and risk 2−100097
digital subtraction angiography 2−83633
digital subtraction angiography implementation with synchrotron X-ray beam 2−73319
digital subtraction angiography unit, evaluation 2−105831
digital subtraction videoangiography, technique for scatt. and glare correction in videodensitometric studies 2−78421
direct X-ray enlargement, concurrent process for contact prints of peripheral extremity sections *(German)* 2−117072
dose reduction limits 2−73371
doses received by diagnostic radiology patients, effect of patient size 2−73366
double contrast radiography, stomach region extraction 2−57902
dual-potential imaging in digital radiography 2−111791
edge image correction in radiation inspection, physical and information aspects 2−116673
electron, of surface layers using backdiffused β-rays and photon excited electrons 2−88304
energy selectivity in projection radiography and computerised tomography 2−111784
equipment, general-purpose radiographic and fluoroscopic table 2−100113
explosive, polymer bonded, impact on steel plate, radiographic study 2−78107
exposure to patient during diagnosis, possibilities of dose reduction, conf., Neuherberg, Germany (Apr. 81) 2−53426
flash X-ray system, home-made, charact. 2−57566
fluorescent X-ray source, rigid, for monoenergetic radiation studies in radiographic imaging 2−78424
fluoroangiographic pictures, computerised elaboration *(Italian)* 2−73315
fluoroscopy, dose received by staff due to scatt. radiation 2−68147
focal spot sizes of X-ray tubes rel. to angiography 2−105827
foot, human, biokinematical model, biplanar radiographs of bone locations 2−62671
frequency content modulation method 2−58986
GDP-1 gamma flow detector for panoramic radioscopy of annular welded joints of hollow cylindrical articles 2−111436
gestalt-guided heuristic boundary follower for X-ray images of lung nodules 2−73345
glass fibre reinforced polyester resin sheet moulding cpd. imperfection monitoring by NDT 2−78042
graphite fibre reinforced epoxy laminate, in situ transverse lamina strength, X-radiographic obs. 2−88135
grid elimination during intensfied fluoroscopy and photofluoro spot imaging 2−105830
heel effect for various target angles 2−64205
high-resolution pinhole photography of therapy tube targets 2−100095
image granularity, conditional entropy in bivariate entropy method 2−107286
image quality, absolute measures, appl. to radiographic magnification 2−94177
image quality eval., ASTM method 2−111390
image quality of negative- and reverse-processed films with intensifying screens, entropy method 2−57895
industrial radiography, test room shielding calcs. *(German)* 2−85400
industrial radiography with phosphor screens 2−58987
intensifying screens, efficiency improvement by special design 2−78423
intensifying screens, image quality and intensifying factor 2−73352
knee, human, quantitative method for assessing malalignment and joint space loss 2−117067
knee joint, arthrography *(German)* 2−68137
L X-rays from solid W target of medical radiography tube 2−111776
laser fusion target dynamics, time and space resolved radiography 2−74893
laser fusion targets, coating thickness variations meas., automated computer anal. of X-ray radiographs 2−79533
laser-accelerted targets, flash X-radiography study 2−113726
left ventricular wall motion abnormalities, assessment from contrast ventriculograms 2−94186
left ventriculography, digital, determ. of benefit from post-acquisition processing 2−88660
localisation grid for transluminal angioplasty 2−105834
lumbar spine movements, meas. by 3D X-ray anal. 2−94169
mammary radiography in Finland, equipment quality control: dose and image quality 2−83631
mammographic recording materials, X-ray sensitometry *(German)* 2−68120
mammography, somatic radiation risks of various techniques, permissible doses *(German)* 2−78420
mammography, X-ray generator performance and unnecessary dose 2−105828
mammography using film-foil combinations, absorbed dose study *(German)* 2−68138
mamography, optimum X-ray spectra 2−117068
medical imaging techniques survey 2−78400
metal foil sandwiched multiple radiography 2−111789
microchannel plate X-ray detector for synchrotron radiation 2−85475
microradiography, X-ray prod. from local plasma regions in high-current punch 2−107480
mirror device to plot topometric schemes for preradiation preparation of patients *(Russian)* 2−62739
movement observation in the presence of X-ray quantum noise 2−73356
NDT, X-ray applics. of self-scanned photodiode arrays 2−72935
neuroradiology, magnification technique and additional oblique projections using Angioskop A and Koordinat 3D 2−78414

radiography continued
neutron radiographic film imaging system, modulation transfer function 2−57562
noise Wiener spectra, energy-dependent behaviour in LF limits 2−105832
nuclear track detectors appl. in biology and medicine 2−68217
object representation as boundary circuits in image, principles, visual interpretation appl. 2−94159
paediatric radiography, dosimetry *(German)* 2−78455
penetrating radiation field shaping for inspection 2−116672
periapical bone lesions, dental radiographs, colour conversion for improved diagnosis 2−68142
periodontal bone, pathologic changes detect. by digital subtraction of radiographs 2−111792
photoelectronic-digital diagnostic radiology department 2−105822
photoelectronic-digital radiology, image acquisition components and system design 2−105824
photoelectronic-digital vs. film-based system for radiology, cost anal. 2−105823
photofluorographic camera coupled with image intensifier, MTF meas., performance for clinical appl. 2−73346
photogrammetry using multi-parallel projections, least squares locating method 2−113020
piecewise linear detection of small thin objects in radiographs 2−57903
prefiltration for patient dose reduction in diagnostic radiology 2−100126
pulmonary oedema, lung density imaging, chest X-rays vs. Compton scatt. tomography 2−83654
quality-assurance test films, optical density comparator 2−94184
radioactive minerals from SW England, CR-39 α-particle autoradiographs 2−68524
rare-earth intensifying screens, significance for dose reduction in X-ray diagnosis 2−78448
relative operating characteristic theory, appls. 2−100103
reliability evaluation by transmitted information 2−94168
review of medical imaging technology *(Japanese)* 2−105825
roentgenothermographic correlations in unaltered breast *(Russian)* 2−62734
scanning X-ray radiography in electron spectrometer 2−74581
scatter reduction, design of rot. aperture cones 2−83644
screen resolution, significance in treatment verification 2−100108
screen-film systems, Wiener spectrum evaluation, entropy method 2−57894
sensitometry methods for low energy radiography 2−62758
shadow image distortion analytic eval. 2−57583
signal and graininess interrelationship 2−69308
Simtrac angiography high-press. injector, functional evaluation 2−78413
soft tissue image latitude of radiographic imaging systems 2−94179
soft tissue masses within adipose tissue, optimal photon energies rel. to absorbed dose for visualisation 2−94175
soft tissues pathology, xerography and ultrasonography comparison *(French)* 2−68119
spent fuel disposal container, shrinkage void detection, autoradiography appl. 2−105438
spine, intact human lumbar, three-dimens. stiffness props. determ. using biplane radiographic system 2−62872
steel, Cr-Mo, pressure vessel, autoradiography of H trapping rel. to hydrogen embrittlement *(French)* 2−62213
steel, stainless, welds, radiography mottling theory 2−88294
steel, structural and tool, stress distribution in specimens with fatigue cracks, X-ray diffr. determ. 2−67697
stereo X-ray photogrammetry, appl. to determ. of body outline 2−73350
stereology, quantitative, and radiologic image anal.: transmission (projection) radiography 2−83643
stereoradiographic measurement system for human body 3D position and mobility description 2−105821
stereoscopic magnification radiography: magnification factor, position and true size of an object 2−78422
stereoscopic radiation images, methods of production 2−67706
thick section radiography using microfocus X-ray unit, low temp. and film-screen combination advantages 2−111389
tube focal spots alignment for spectral meas. 2−68132
tumour detection by computer 2−111790
twelfth congress of International Commission for Optics, Graz, Austria (Sept. 1981) 2−68956
two-channel diffractometer system, for rapid X-ray phase anal. 2−93696
two-dimensional electro-optical X-ray detectors survey 2−85474
ultrathin window production for X-ray microradiography 2−107479
visual acuity testing with aid of chart 2−73226
X-ray diagnositc set with image intensifier, electronic brightness stabiliser 2−78411
X-ray diagnostic equipment, radiation quality improvement 2−78412
X-ray film for autoradiography, eval. using ^{14}C β-radiation 2−100105
X-ray image recognition, automatic systems, comparative analysis 2−78410
X-ray imaging method using $CaSO_4$ thermoluminescent films 2−89878
Xeroradiographic imaging systems, modulation transfer function calc. *(German)* 2−89838
xeroradiography, medical diagnostic appls. *(Japanese)* 2−105817
CdS DRM-2 semiconductor sensor for use in clinical radiometry *(Russian)* 2−62738
Ge, high-purity single crystals, C content and distrib. 2−70052
Mo alloy weld, B impurity distrib. *(Russian)* 2−92017
Na, liq., dissoln. of Au and Ag wires, dynamic X-radiography 2−111398
Si(Li) multi-element detector for coronary arteries non-invasive imaging 2−70061
Si_3N_4, reaction bonded, hot pressed, comparison of US and radiographic methods of crack detection 2−67673

radioisotope scanning and imaging
see also computerised tomography; scanning radiography
adrenal gland uptakes, computer program for determination 2−117057
Anger tomographic scanner, computerised, development for positron imaging 2−78445
Anger-camera, linearity meas., results with and without a corrector 2−62751
angiocardiographic approaches to shunt assessment, simulation-based sensitivity study 2−73317
angiocardiography, digital computer methods for anal. 2−100118
angiocardiography, left ventricular ejection fraction determ., background counts correction 2−88655
autofluorography of labelled macromols. on 2D gels, rapid electronic method 2−78515

radioisotope scanning and imaging continued
automatic left ventricular outlining 2−117055
autoradiograms, grain density quantitation, 2D fibre optic densitometer 2−105870
autoradiography, collection of large cryo-sections without using adhesive tape 2−105876
biliary terminal portion, scintigraphic dynamic anal. using a collimated camera *(Japanese)* 2−57898
blood flow and metabolism, regional tissue, 3D quantitative meas. using ^{15}O and positron emission tomograph 2−94201
book on radioisotope techniques in clinical investigation 2−89486
brain, proton irradiation injuries, study in expt. animals by ^{99m}Tc penetration techniques *(Russian)* 2−111813
brain, regional blood flow, non-invasive meas. using ^{133}Xe *(German)* 2−88648
brain, regional blood flow determ. by ^{133}Xe-inhalation and γ-camera 2−62745
CAMAC gamma-ray scanning system, for nuclear safeguards 2−53906
camera, Ge rot. laminar emission system 2−78433
cardiac blood pool scintigrams, ^{99m}Tc gated, minimum cost contour detect. 2−88658
cardiac blood pool studies, gated, time-domain anal. 2−78417
cardiac blood-pool scintigraphy, équilib., detect. of 1 mm motion 2−83638
cardiac haemodynamic values assessment from single-probe radioisotope dilution curves 2−100121
cardiac nuclear medicine, acute myocardial infarction and other appls., review 2−57897
cardioangiography by in vivo labelling of red blood cells, effective radiation protection *(Japanese)* 2−57899
cardiology, EGC gated, image enhancements by Karhunen-Loeve transformation 2−68145
cardiovascular nuclear medicine, auxiliary moving image system, multiphase dynamic colour display 2−94197
cerebral blood flow, total and regional, quantitative non-invasive method for cerebrovascular disease 2−94200
cerebral blood flow determ. using positron emission meas. of fluoromethane kinetics 2−62753
coded-aperture imaging with rotating slit apertures and rotating collimators 2−83641
collimator, rot. slant-hole, performance in myocardial perfusion abnormalities detect. 2−83637
collimator for regional cerebral blood flow meas. using ^{133}Xe inhalation 2−68139
collimators, multi-slit focused, design and construction for opposite detect. arrangement 2−73349
computer applications, meeting, Paris, France (Sept. 1982) 2−94895
computer interface for several cameras and two computers using differential analogue transmission 2−117065
computerised tomography, longitudinal and transverse digital image reconstruction 2−78444
computerised tomography, quantitative multi-detector, using iterative attenuation compensation 2−117061
computerised tomography, reconstruction algorithm *(French)* 2−94170
computerised tomography, single photon emission, comparison of 180° and 360° data collection in Tl^{201} imaging 2−117059
computerised tomography with an Anger camera, field-flood requirements 2−78419
computerized tomography images, 3D display *(Japanese)* 2−117066
conference, Heidelberg, Germany (Sep. 1980) 2−74164
conference, optical instrumentation appl. in medicine, San Francisco, CA, USA (March 1981) 2−94888
conference of ^{67}Ga and related elements, Ranff, Canada (Sep. 80) 2−53413
conference on medical phys., Varenna, Italy (Jun.-Jul. 79) 2−89448
conference on phys. and engng. in medical imaging, Pacific Grove, USA (Mar. 82) 2−107017
conference on radioisotope prod. and appls., Pelindaba, South Africa (March 1981) 2−89452
contrast measurement and quality control, phantom design 2−94192
CT, single photon, reconstruction algorithms 2−100101
data acquisition and processing unit *(French)* 2−68122
data for medical phys., book 2−112665
deconvolution program for processing radiotracer dilution curves 2−117056
developments in medical imaging techniques 2−100094
digital filtering in nuclear medicine 2−83640
digital scintillation camera for single photon computerised tomography appl., concepts and design 2−73343
dynamic sequence handling 2−100100
dynamic studies, practical appl. of deconvolution techniques 2−94189
edge detection algorithm, performance evaluation 2−100110
edge tracing for determination of left ventricular projection *(Japanese)* 2−68140
electronic image processing device, continuously selectable 2D bipolar filter functions 2−94188
electronically collimated gamma camera, reconstruction algorithms comparison 2−73320
embryo, chick, technique for improved resolution in [^{3}H]thymidine autoradiography 2−62859
emission computed tomographic images using single rotating head gamma camera, performance charcts. 2−100107
emission tomography, max. entropy reconstructions 2−78443
emission tomography, pot. and limits of quantitative studies 2−78439
emission tomography reconstruction techniques, deterministic verses statistical methods 2−100112
factorial phase imaging, first-pass cardiac studies anal. 2−117070
freshwater mussel tissue, α-emitter distrib. meas. by α-track autoradiography 2−68219
functional imaging future in radionuclide studies 2−94190
gamma camera, gated computer-aided, evaluation using dynamic phantom 2−94193
gamma cameras, Anger-type, routine quality control testing 2−94196
gamma emission CT, attenuation correction 2−94162
gamma-emitting extended objects, 3D imaging with complex coded apertures 2−78434
gamma-ray camera nonidealities, computer correction 2−96405
GAMMATOM-1, single photon tomographic system performance 2−73328
gated digital tomography with focal plane scanner 2−73341

radioisotope scanning and imaging continued
head fixation device for reproducible position alignment in transmission CT and positron emission tomography 2−94164
HEADTOME, hybrid emission tomograph for brain 2−78435
HEADTOME II, hybrid emission computerised tomography for brain 2−73334
heart, normal and abnormal elec. activation, phase analysis of equilib. cardiac imaging patterns 2−94198
heart, ventricular function meas., data processing 2−100102
histological sections, fissionable elements microanatomical localisation using Lexan replicas 2−68218
hotspot artifacts prod. by a magnification/ID control module 2−62755
information processing techniques, review of new developments 2−78442
instrumentation performance and quality control including gamma cameras 2−94194
integrated image diagnosis method using scintigrams and echograms *(Japanese)* 2−105826
jugular venous reflux, simulation by Compton scatt. image 2−83639
laminar emission camera, Ge 2−73324
left ventricle delineation, edge detect. algorithms performance 2−100120
left ventricular boundary automated extraction from ^{99m}Tc gated blood pool scintigrams 2−68144
left ventricular function monitoring, evaluation of a miniature CdTe detector 2−105818
left ventricular press.-vol. relationships, assessment using a computerised nonimaging nuclear probe 2−83653
limited angle tomography, image sharpening by including orthogonal projection set 2−57893
limited-angle positron tomography, contrib. of time-of-flight information 2−73333
liver scintigraphy using ^{169}Yb phytate radiopharmaceutical 2−117085
lung, ^{133}Xe clearance parameter estimate variability 2−117054
lung, absolute quantitation of radioisotope uptake using gamma camera 2−117064
lung cancer diagnosis, use of ^{67}Ga citrate *(Russian)* 2−62733
lung sections, fissionable radionuclides spatial distrib. determ. using Lexan 2−68220
lung tissue, human, α-active nuclei microdistribution using autoradiography technique 2−68223
lymphoscintigraphy using $^{99m}TcSb_2S_3$ colloid, dosimetry 2−117092
marker system using ^{57}Co for central venous press. line localisation 2−62761
medical imaging techniques survey 2−78400
microprocessor techniques for radioisotope image processing *(Japanese)* 2−62754
multienergy γ-ray scanner, CAMAC-based, attenuator transmission meas. 2−54729
multigated Fourier functional images, interpretation 2−117062
multilayer positron emission computed tomographs, slice shield collimators evaluation 2−73344
multiplane positron tomographs designed for brain imaging, performance evaluation 2−73325
myocardial ^{201}Tl emission tomography with 180° and 360° data collection comparisons 2−117060
myocardial flow and metabolism, imaging using multitracer autoradiographic technique 2−88711
myocardial infarct size, quantification with multipinhole and rotating-slanthole tomography 2−62851
myocardial perfusion scintigraphy using ^{201}Tl, lesion detectability using math. model 2−73358
myocardial scintigrams using ^{201}Tl, computer processing 2−73355
myocardial scintigraphy, problems with ^{201}Tl 2−94199
neurotransmitter receptors, quantitative densitometry, autoradiographs procedure 2−62862
oral Zn absorption, simple blood sample method 2−68114
organ system functional mapping, computer methodology, symposium, New Orleans, LA, USA (1981) 2−63742
organ volume visualisation using emission-computerised tomography 2−94187
PETT VI, positron computed tomograph with CsF detectors, performance study 2−73336
PETT VI multislice positron emission tomograph, engineering aspects 2−73326
picture processing, computer appls. 2−100099
pixel size, rel. to image quality 2−94182
pixel size rel. to image quality, lesion detectability 2−73357
point source scatt. contribs. from finite size objects, Monte Carlo simulation 2−111782
Positologica, positron computerised tomography dedicated to head studies, electronic system 2−100091
positron camera, large-area stationary, using wire chambers 2−78430
positron computed tomographs, rotational 2−78436
positron computed tomography: present and future design alternatives 2−78438
positron computerised tomography, dual rectangular photomultiplier tube 2−117081
positron emission computed tomography, time-of-flight meas. incorporation 2−100106
positron emission CT, quantitation, effect of accidental coincidences 2−88651
positron emission tomography: instrumentation perspectives 2−111780
positron emission tomography, coincidence time window, ring sampling, attenuation 2−57892
positron emission tomography, procedure for calibration and correcting data 2−73342
positron emission tomography, props. of statistical noise 2−117073
positron emission tomography and NMR, new medical imaging modalities 2−88656
positron emission tomography having time-of-flight meas., noise performance 2−88654
positron emission tomography of brain, four ring camera system 2−73338
positron imaging, hybrid scanner 2−78429
positron scanner, hybrid, preliminary biodistrib. studies 2−73318
positron scanning, multicryst., for quantitative studies with positron-emitting radioisotopes 2−78428
positron tomograph, dynamic, for heart studies, medical criteria for desing 2−73329
positron tomographic ring detector, one-dimensional scintillation camera appl. 2−73323
positron tomography, technique for providing pseudo-continuous detector ring 2−73321

radioisotope scanning and imaging continued
positron tomography and NMR imaging, review 2−78425
positron-emitting radionuclides, planar imaging with multicrystal camera 2−117063
pulmonary imaging advances, review 2−94202
pulmonary scintigrams, ventilation and perfusion, automatic anal. *(French)* 2−68121
radiation dose to the patient in radionuclide studies, review 2−94213
radiopharmaceutical developments for imaging, review 2−94204
receiver operating characteristics anal. of scintigraphic-like images 2−111679
relative operating characteristic theory, appls. 2−100103
renal blood flow, determ. by math. interpretation of radionephrograms *(Russian)* 2−73316
review, new perspectives in nuclear imaging 2−78427
review of medical imaging technology *(Japanese)* 2−105825
ROC analysis based method for observer performance quantification in scintigraphy 2−111778
saliva samples, use in total body water determ. by ^{3}H dilution 2−100093
scanner, developing countries appl. 2−78431
scanner display assessment for scanner performance quality control, wedge-shaped phantom evaluation 2−94191
scanning electron microscopy autoradiography using emission and polymer track detectors 2−68222
scintigram images, resolution degradation due to respiratory movement *(Japanese)* 2−68141
scintillation camera charact. and test conditions, performance standards 2−94195
scintillation camera imaging with low-energy isotopes: ^{125}I, ^{131}Cs 2−78441
scintillation counter appls. to CT 2−80395
semiconductor counter appls. 2−80394
single photon emission computed tomography, image noise, resolution and lesion detectability 2−73330
single photon emission computed tomography anal. using Monte Carlo simulation 2−73331
single photon emission CT system, camera-based 2−94171
single photon imaging: new instrumentation and techniques 2−78437
single-photon emission tomography with a 12-pinhole collimator 2−105820
SPECT, anal. using Monte Carlo simulation 2−111783
steel, ingot prod., radioisotope inspection of technological process 2−62353
Super-PETT, positron emission transaxial tomograph, data acquisition aspects 2−73339
thrombi, in vivo scintigraphy with ^{111}In-labelled platelets 2−83635
tightness of small parts determ. by radioactive ^{85}Kr gas 2−62354
time patterns visualisation in dynamic scintigraphic imaging 2−73244
time-of-flight positron emission tomography, real-time image reconstruction 2−73335
time-of-flight positron emission tomography, sensitivity improvement utilising interslice coincidence 2−73327
tissues, inhaled Rn decay product microdistribution determ. with autoradiography using CR-39 2−68221
tomographic instruments, single photon: figures of merit obs. 2−78440
tomography systems, interface requirements, networking strategies 2−100098
tracer distribution patterns, long-term, investigation using an ultra-high-sensitivity scanning system 2−78432
UNICON, a universal nuclear imaging construct 2−111781
ventilation images, quantitative comparison of $^{99}Tc^{m}$-aerosol and $^{81}Kr^{m}$ 2−83632
ventriculography, regional wall motion disturbances quantification 2−100119
visual analysis of images, data comparison using receiver operating characteristic indices 2−105819
visual cortex activation recorded by dynamic emission computerised tomography of inhaled ^{133}Xe 2−62746
^{128}Cs, positron emitter for medical applic., cyclotron prod. 2−117084
HgI_2 detector unit, implantable and externally powered, for radioisotope studies in small animals 2−57936
PuO_2 fuel tubes, uniformity testing, γ-ray monitor appl. 2−54491
^{99m}Tc labelling of glass fibres 2−117086
^{123}Xe, carrierfree, prod. by photonucl. reactions on ^{124}Xe using 40 MeV electron beam 2−88665

radioisotope separation *see isotope separation*

radioisotopes
see also radioisotope scanning and imaging
^{129}I in Missouri thyroids 2−68172
^{137}Cs concentrations in northern Alaskan eskimos, 1962-79: effects of ecological, cultural and political factors 2−68173
air impurities: radioactive carbon dating and computerization 2−57747
animal progeny, intake of radioisotopes through maternal milk *(Russian)* 2−83663
C Rn, low-level environmental dosimetry with a passive track etch detector device 2−62536
conference on radioisotope prod. and appls., Pelindaba, South Africa (March 1981) 2−89452
direct reading radioisotope equipment *(Bulgarian)* 2−85433
environmental contamination with radionuclides: levels and population exposures in the UK in 1980 2−78262
environmental migration of long-lived radionuclides, international symposium, Knoxville, Tennessee, (1981 July 27 to 31) 2−89446
environmental movement, sensitivity anal. of model 2−73173
fallout radionuclides in fluvial-marine systems, transport mechanism for ^{210}Pb, ^{137}Cs, and Pu 2−99856
gamma probe design for root activity meas. in situ 2−88483
gamma-(X)ray emitting radioisotopes, produce for monitoring contaminated low level water *(Japanese)* 2−67924
ICRP dose limitation system rel. to internal emitters 2−68155
ICRP Task Group Lung Model for radioisotope pollution dosimetry, modifications rel. to age-dependence 2−117088
ionising radiation, metrological assurance, standards and instrumentation *(Rumanian)* 2−75133
lung dose commitments from radioisotope inhalation, age effects 2−62776
Mono Lake, California, chemistry of elevated concs. of actinides 2−94408
Mono Lake, California, radionuclides concs. 2−94407
nuclear detonation, offside fallout, calc. of conc. of any radionuclide deposited on ground 2−69993

radioisotopes continued
nuclear fuel waste disposal vault, nuclide inventory for post-closure phase 2−113667
nuclear medicine departments, surface contamination evaluation, least square method appl. 2−68170
organ dose from inhaled radionuclides taking lull period into account 2−68150
preparation, medical and biol. appl., cooperation between Philips and IKO 2−62765
production and use in clinical investigation, book 2−89486
production from gas target, opt. obs. of intense particle beam influence on high-press. gas targets 2−113794
production reactions, dose rates calc. 2−75059
radioiodine control in power reactors, evolution and current state 2−85401
radionuclides standard specimens certification 2−85449
radiopharmaceutical developments for imaging, review 2−94204
review of radioisotope researches and appls., 30 years progress 2−58554
transport in the human intestine, math. model, dosimetric considerations *(Russian)* 2−88490
γ-emitting fission products in surface sediments of Ravenglass estuary 2−83528
^{241}Am metabolism in beagles and humans, models 2−73379
^{241}Am, retention and translocation by beagles after $^{241}AmO_2$ inhalation, influence of aerosol size 2−73378
^{212}Bi, isotopic generator, medical appl. 2−78446
^{14}C concentration measurement in multichannel scintillation system, data processing method 2−102325
^{14}C content in terrestrial food chain 2−117096
^{14}C meas. of C combustion sources contrib. to urban air particulate levels 2−62523
$^{14}CO_2$ monitoring, determ. in air 2−85398
^{45}Ca, thyroid morphofunctional changes after administration of ^{131}I alone or in combination with ^{45}Ca *(Russian)* 2−116997
^{144}Ce, specific activity determ. by 4πβ-γ coincidence method *(Chinese)* 2−59654
^{252}Cf irrad. effects, dyshormonal processes, pathogenetic role in rats *(Russian)* 2−57859
^{A}Cm, A=242, 244, production in a nuclear reactor 2−113803
^{60}Co and stable Co, concs. in migratory marine organisms *(Japanese)* 2−78459
^{60}Co and stable Co, concs. in coastal marine organisms *(Japanese)* 2−78460
^{60}Co irradiation unit, dose distrib., calc. and meas. comparison 2−78449
Cs, radioactive, release from ion-exchange wastes, during solidification 2−64502
^{128}Cs, positron emitter for medical applic., cyclotron prod. 2−117084
^{137}Cs body burden from radioactive fallout, long term study 2−73377
^{137}Cs, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
^{137}Cs, half life calc. on basis of human metabolism 2−101848
^{254}Es, production using hard neutron spectrum 2−113805
^{3}H, glove box air clean-up process 2−75070
^{3}H, glove box air cleanup, removal system 2−75069
^{3}H, natural production in permeable rocks rel. to groundwater ^{3}H contents 2−100381
^{A}I, A=129, 131, UV photodecomposition from organic iodides in nuclear facility off-gas beams 2−74839
^{125}I, airborne levels during protein labelling 2−62777
^{125}I volume implants, dose table describing peripheral vol. fractions 2−94212
^{129}I, radioecology problems 2−93977
^{131}I, BWR nuclear power station, monitoring of critical radiation exposure pathways 2−90306
^{131}I in Cumbrian milk due to release from nuclear fuel reprocessing plant 2−62778
^{131}I therapy of thyroid cancer, effective focal doses and radiation loads *(Russian)* 2−62767
^{131}I, thyroid morphofunctional changes after administration of ^{131}I alone or in combination with ^{45}Ca *(Russian)* 2−116997
^{131}I uptake in organic resin, rel. to activated charcoal 2−85397
^{192}Ir, insoluble, committed dose equivs. from accidental inhalation 2−68154
^{192}Ir interstitial implants, localised current field hyperthermia system 2−83700
^{192}Ir seed implants, effect of geometric errors in reconstruction 2−68126
^{77}Kr, prod. using ^{3}He induced reactions on Se 2−74766
^{81}Kr, conc. meas. rel. to groundwater dating 2−105525
^{85}Kr detection, evaluation of radiation monitor effectiveness 2−90307
^{85}Kr, fixation on KrF_2 with zeolites 2−102085
^{85}Kr storage cylinder, adsorption, heat transfer 2−64694
^{237}Np dosimeter worn on the body, neutron response 2−64688
^{237}Np, effects of gonads of rats and their progeny *(Russian)* 2−105782
^{237}Np, production in a nuclear reactor 2−113803
^{15}O, prod. of clinically useful quantities via $^{16}O(\gamma,n)^{15}O$ 2−94203
^{32}p, lethal effect of transmutation on E. coli, importance of uvrA gene *(French)* 2−117004
Pb in soil near Adelaide, S Australia, sources 2−73171
^{203}Pb, carrier-free, prod. and separation method 2−100125
^{210}Pb, conc. in foodstuffs 2−57909
^{210}Pb in rain at tropical oceanic sites 2−63037
^{212}Pb ions and insoluble particles, differential retention in rat nasal mucosa 2−83664
^{212}Pb, isotopic generator, medical appl. 2−78446
^{210}Po, assay using background rejecting extractive liq. scintillation 2−54678
^{210}Po in rain at tropical oceanic sites 2−63037
Pu, isotopic composition, γ-ray spectroscopy appl. 2−54711
^{A}Pu, A=238, 239, 240, importance of contamination on vegetation surfaces at Rocky Flats, Colorado 2−78458
^{238}Pu, production in a nuclear reactor 2−113803
^{239}Pu and γ-radiation, combined effect on rat thymus nucleic acid metabolism *(Russian)* 2−88597
^{239}Pu decay, γ transition emission probabilities and energies 2−74744
^{239}Pu, dominant lethal and ovarian effects in female mice 2−117001
^{239}Pu, monomeric, effects on foetal rabbit 2−111747
$^{239}PuO_2$, inhaled into rat and hamster lungs, distrib. 2−73380
^{226}Ra, conc. in foodstuffs 2−57909
^{226}Ra, γ-radiation source, anal. *(French)* 2−80366
^{226}Ra in water, development of a continuous monitor 2−67911

radioisotopes continued
^{226}Ra, incorporation in mice, temporal and spatial response of marrow colony-forming cells 2−62692
^{226}Ra injected into mice, method to determ. dose delivered to bone and marrow sites 2−105784
^{226}Ra, retention in human soft tissue and bone, rel. to ICRP 20 alkaline earth model 2−73381
Rn and Rn daughters, working level meter for meas. inside houses 2−62537
Rn and Tn, decay products, optimised scheme for concs. meas. 2−93970
Rn and Tn daughters, unattached, evaluation of meas. techniques 2−93969
Rn emissions from U mill tailings, health effects 2−73303
Rn monitors, continuous flow-through, simple procedure for calibration 2−62535
^{A}Rn, A=220, 222, and decay products in German dwellings: activity concs., dose calcs. and risk estimates 2−117097
^{222}Rn daughter alpha dose factors, environmental, in 5-lobed human lung 2−94205
^{222}Rn in air, meas. using liq. scintillation techniques 2−57759
^{106}Ru migration in NTS aquifer 2−83525
^{35}S production from ^{35}Cl 2−111795
^{75}Se-selenomethionine, effect on endocrine system of female rats *(Russian)* 2−62688
^{89}Sr decay, probability for 909 keV γ emission 2−74745
^{90}Sr, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
^{90}Sr, half life calc. on basis of human metabolism 2−101848
^{90}Sr, low activities assay by early counting of Chenkov radiation induced by ^{90}Y 2−67782
^{90}Sr-^{90}Y toxicity, haematological studies, femoral CFUs kinetics and spleen cells mitogen response 2−117017
T_2 compatible vacuum mechnical pump for fusion reactors 2−84645
^{182}Ta, specific γ-ray constant and exposure rate constant 2−68162
^{99m}Tc, external radiation exposure of medical personnel 2−105837
^{99m}Tc-MDP dose and distrib. in various bones and tissues 2−94214
^{234}U, α-particle recoil damage, preferential solution effects 2−108256
^{123}Xe, carrierfree, prod. by photonucl. reactions on ^{124}Xe using 40 MeV electron beam 2−88665
^{133}Xe, airborne in medical clinics, instrument for survey monitoring 2−83662
^{133}Xe radiation exposure dosimetry for workers in nuclear medicine laboratories 2−94206
^{133}Xe radiations, evaluation of TLDs response in the Three Mile Island accident 2−64691
^{90}Y beta-rays, toxicity on inhalation of relatively insoluble fused aluminosilicate particles by mice 2−68071
^{169}Yb phytate radiopharmaceutical for liver scintigraphy 2−117085

radiology
see also patient diagnosis; patient treatment; radiation therapy; radiography; radioisotope scanning and imaging
eye quantum efficiency determ. method, radiology appl. 2−73312
historical survey of radioactivity appls. *(German)* 2−84431
k-edge filtered spectra, utility of calc. model 2−83646
mean stochastic dose, rel. to risks from diagnostic radiology and nuclear medicine 2−88666
medical diagnostic data transmission via standard telephones 2−68191
units, SI system 2−53715

radiolysis
alpha radiolysis of FUETAP concrete, rad. waste containment material 2−80141
amines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
aromatic cpds. in cyclohexane soln., triplet state form., picosec. pulse radiolysis 2−108532
bromobenzene cations, matrix isolated, formed by radiolysis, EPR spectra 2−96630
sec-butyl chloride, γ-irrad., long-range hole transfer, Franck-Condon factors 2−82272
n-buytl chloride, pulse irrad. liq. charge transfer from solvent radical to solutes 2−90682
DNA, γ-irrad., radiolytic pathways: influence of chem. and conformational factors 2−88624
ethylene glycol-water glasses, electron transfer, 10-160K, pulse radiolysis obs. 2−111499
fusion reactor, radiolytic conversion systems, fuel synthesis 2−54640
graphite, corrosion in gas-cooled reactors, by H_2O, O_2, CO_2, H_2, temp. depend. *(German)* 2−102025
graphite moderator bricks, radiolytic corrosion in commercial AGR, model 2−64484
hydrogenated species at surface of solid material, chemical effects induced by MeV ion beams 2−93852
insulating crystals, defects, conf., Riga, USSR (May 1981) 2−68967
labelled compounds, in-beam prod., review 2−100124
liquids, radiolysis, o- and p-H_2 prod., spin correl. effects 2−99697
nitroimidazoles, halogenated, aq. soln., formation of halide ion on one-electron reduction 2−83395
poly(1-vinyl naphthalene) solid, time-resolved spectra following electron beam pulse radiolysis 2−72995
polyamines, spin-trapped radicals, reactions, radiolysis, ESR 2−110644
polyethylene fibres, influence of low-temp. radiolysis on strength *(Russian)* 2−57402
purine 2'-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
pyrimidine 2'-deoxyribonucleosides in aq. soln., radiation chemistry data 2−99898
rhamnose single cryst., X-irrad. at 4K, absorpt. spectrum of trapped electrons 2−87824
trioxalatoferrate ions in aqueous soln., radiolysis, effect of initial conc. of solute and dose rate 2−57625
TTF-TCNQ, vol. of electron irradiation defect 2−67758
CO_2 radiolysis, H_2 production potential 2−99844
KCl, prod. and decay of hole centres, pulse radiolysis study 2−71444
NO_2, radiolysis kinetics in low press. range *(Russian)* 2−54521
$NaCl:O^{2-}$, γ-irrad., annealing, radiolysis products studied by mass spectrometry *(Russian)* 2−78167
PuO_2^{2+}, reduction by γ-radiolysis in aqueous HNO_3 2−96125

radiometers
see also infrared detectors; microwave detectors
90 GHz radiometer system for sensitive high resolution airborne meas. 2−64111

radiometers continued
absorption cell for 10 cm wavelength band design and calibration 2−53836
airborne spectroradiometer system, appl. to high spectral resolution remote sensing 2−112157
atmospheric temperature profile meas., design of mm wave radiometer *(Chinese)* 2−78860
automatic all sky scanning radiometer 2−94516
Common Module imaging spectral radiometer 2−109074
dielectrics, instrum. for meas. of EM radiation parameters *(Polish)* 2−107409
directional emissivity meas., IR spectrometer 2−79694
dual input radiometer, background optical suppression system MTF, preliminary laboratory meas. 2−107400
frequency response of heat fluxmeters, influence of convection, conduction and radiation 2−53756
graphite/epoxy materials appl. to airborne instruments, performance enhancement 2−74478
ground-mapping systems, high-sensitivity accurate MM-wave radiometers, 10-220 GHz 2−117508
IR radiometer meas. errors caused by background radiation, minimization 2−84683
Meteosat-1 radiometer response adjustment by ground processing 2−68590
microwave radiometry of the Earth's surface with a cryogenic 90 GHz receiver *(German)* 2−83966
millimetre-wave radiometer, appl. to atmospheric moisture sounding at high altitudes 2−117480
mm waveband radiometer with Josephson detector *(Russian)* 2−73842
mm wavelength, with Josephson detector, on RT25×2 radio telescope 2−73844
mm-wave radiometric target signatures at frequencies up to 150 GHz, black body radiation meas. 2−58191
modulation-type radiometers, appl. for centimetre band sky survey work with RATAN-600 radio telescope 2−94608
oceanographic appls., multispectral optical radiometer for sea-surface temp. and chlorophyll content mapping *(French)* 2−94523
oceanographic equipment, noise injection Dicke Microwave Radiometer, digital signal processing, flight test 2−117507
power density meter for holography 2−95434
pyroelectric sensors using $NaNO_2$ layers, for EM radiation 2−95472
radioastronomical, bandwidth, integration period and noise factor *(German)* 2−89421
RF-switched radiometer with IF attenuation, noise source calibration appl. 2−112990
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
satellite remote sensing technology development, Japanese Marine Observation Satellite program 2−73820
solar constant, rocket-borne meas. using absolute radiometers 2−79072
solar spectroradiometer, design and development 2−63112
standard for IR radiation detector and radiometer, 220 to 900K range 2−53721
standard sources certification, based on absolutely black body 2−95439
standardisation problems in optical instrumentation 2−112991
temperature detection limits derivation for thermal imagers under field conditions 2−79672
test chamber *(Japanese)* 2−79645
TGS pyroelectric detector, electrically balanced 2−58903
Thematic Mapper on Landsat-D satellite, spectral band registration overview 2−112302
thermopile for absolute radiation meas., based on thin film technology *(German)* 2−112982
AgCl(Br), optical fibre, middle IR, heterodyne detection and radiometry appl. 2−65381
Si photodiode radiometers, use of diffusers 2−58901

radiometry
see also radiometers
aerosol particle light absorpt. meas., photometric and calorimetric techniques 2−53812
atmosphere, extraction of layer relative humidity, geopotential thickness and stability from satellite radiometer data 2−63101
atmosphere remote sensing, radiometric obs. of microwave thermal radiation *(Russian)* 2−94472
atmosphere temperature profile by thermomicrowave imaging, fundamental integral eqn. linearization 2−73652
attenuation and radiometer meas. along OTS slant-path at Martlesham 2−100535
cancer detection and treatment enhancement using passive microwave thermography and microwave heating 2−105813
coherence and radiometry for qausi-homogeneous scalar wavefields 2−90804
contact radiometric meas. of internal temps. of bodies 2−89814
density and moisture meas. appl., using functional equation of radiation flux 2−58836
fibres optical power output meas. 2−102953
foam-covered sea, empirical microwave emissivity model 2−100393
focal plane development for terrestrial resource obs. 2−112162
GRIN fibre lens arrays, optical imaging and radiometric props., fibre length depend. 2−102935
hemispherical integral radiation capacity of materials meas., by modulation method 2−58817
metal shells with variable thickness and local inhomogeneities, multilayer, neutron absorption radiometric inspection 2−67707
microwave radiometric method for living tissue semiconductor props. meas., tumour location appl. 2−111818
microwave remote sensing, active and passive, book 2−89497
moisture content one-channel meas. using self-emission 1.35 cm H_2O line 2−68465
oil pollutants effect on remote radiometric results of water temp. meas. 2−62513
opaque materials, monochromatic directional reflectivity and emissivity determ. *(French)* 2−64045
optical radiation magnitudes, progress in measurements calibration and standards *(Rumanian)* 2−74480
passive microwave remote sensing of Earth from space, review 2−106362
photothermal radiometry, generalised model 2−101439
random surfaces, perfectly conductive, slightly rough, radiometric props. 2−89788

radiometry continued
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
sea foam, electrodynamic description of densely packed dispersed systems, thermal radioemission 2−73019
sea surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
shocked translucent materials, temp. meas. by time-resolved IR radiometry 2−69227
snow cover global distrib. measurement by satellite radiometry 2−58189
snow water equiv. estimation, microwave radiometry 2−106336
snow-covered Earth surfaces, microwave emission characts., satellite radiometry 2−58190
solar spectral irradiance and atmospheric transmission at Mauna Loa Observatory 2−89217
spectroradiometry, benefits, hardware and appls. 2−79646
statistical modeling of scene variability 2−112980
submillimetre laser with off-axis pump beam injection for heterodyne radiometry/spectroscopy 2−90928
synchrotron radiation at close distances to the orbital ring 2−96815
synchrotron radiation for radiometric calibration 2−107378
H_2O, lab. jet simulation of rocket plume, radiometric obs. of 752.033 GHz rot. absorpt. line 2−90520

radiometry, ultraviolet *see photometry*

radionavigation
GPS appl. to mapping, charting and geodesy 2−78881
ionospheric effects on the SARSAT system 2−94550
Loran-C system, time scales synchronisation appl. 2−69144
OMEGA Hawaii 13.6 kHz signals, cycle slippings as received at Kagoshima 2−84014

radios *see radio receivers*

radiosondes
see also meteorological instruments
air pollution measurement with new tethered radiosonde design 2−67904

radiosources (astronomical)
see also BL Lacertae-type objects; pulsars; quasars; radiogalaxies
0104-408, extragalactic radio source, optical identification and precise position 2−106943
0125+628, point source in SNR G127+40.5, H I absorpt. spectra 2−106945
{Sagittarius A-West, H110α recomb. line, SHF obs. 2−112602
Abell 2241E and W, galaxy clusters, radio and X-ray obs. 2−94846
Abell 779 and 1314, detect. of 110 radiosources, positrons, UHF obs. 2−63693
Abell clusters of galaxies, 1400 MHz survey of 1478 clusters 2−106932
Abell galaxy clusters, radio halo emission search at 430 MHz 2−101081
active extragalactic objects, complete sample from 1411 MHz VLA survey in Virgo 2−78978
active galaxies, rot. compact radiosources and ang. momentum transfer from nucleus to outlying gas 2−89359
V1343 Aqilae (SS 433), review of models 2−63472
R Aquarii, symbiotic star, jet and assoc. radio source nature 2−94732
V1343 Aquilae, (SS 433), non-stability of precession period from spectroscopic obs. *(Russian)* 2−112468
V1343 Aquilae, relativistic jets nature, role of mass transfer between components 2−79128
V1343 Aquilae (SS 433), 164 day period secular change 2−58354
V1343 Aquilae (SS 433), conf., Rome, Italy (October 1980) 2−58539
V1343 Aquilae (SS 433), disc motions/binary orbital period from theoretical anal. 2−117676
V1343 Aquilae (SS 433), law of variation of precession period, (1978 to 1981) *(Russian)* 2−112469
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), photometric behaviour in 1979 and (1980) 2−68782
V1343 Aquilae (SS 433), relativistic models 2−63475
V1343 Aquilae (SS 433), X-ray and radio intensity var. correl., X-ray obs. 2−63470
V1343 Aquilae (SS 433) neutron star with accretion disc+B-type star, model 2−63473
background extended sources, line of sight H I distrib., UHF obs. 2−89338
bright extragalactic sources, UHF/SHF obs. 2−63694
3C 10, supernova remnants, expansion speeds implications for young remnants models 2−101085
3C 120 and 273, extended structures in SHF *(Russian)* 2−74116
5C 12 catalogue, deep radio optical survey near North Galactic Pole 2−106558
3C 345, obs. of quasar candidates in nearby field 2−106955
3C 58, supernova remnant spectra and emission props., X-ray obs. 2−79185
VY Canis Majoris, main line OH masers in VY, VLBI obs. 2−63419
RS Canum Venaticorum stars, Hα profile, surface phenomena 2−106777
RS Canum Venaticorum stars, photometric obs. 2−100990
RS Canum Venaticorum stars, tidal coupling with differentially rot. convective envelopes 2−58382
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
Cassiopeia A, compact source obs. at 20 and 25 MHz 2−84342
Cassiopeia A, multiwavelength comparison with Tycho's SNR 2−89325
Cassiopeia A, N/H ratio rel. to progenitor star mass and supergiant stars mass loss 2−63417
Cassiopeia A, SNR, fast moving condensations radial vel. catalogue 2−106948
Cassiopeia A, supernova remnant, fast moving knots, search for hot dust 2−79184
Cassiopeia A, supernova remnant, HF obs. 2−58427
Cassiopeia A, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
catalogue of extragalactic sources from 5 GHz survey 2−112350
Cepheus A, catalogue of radio sources within 30′ of Cepheus A 2−106551
Cepheus A, H_2 2 micron emission obs. 2−89327
circumstellar shells, obs. of new cyanoacetylene sources 2−68736
clusters of galaxies, scatt. and polarisation of radio galaxy emission by intergalactic gas *(Russian)* 2−106923
cometary nebulae, UHF obs. 2−112528
compact double radio sources, relativistic beam model rel. to symmetric struct. 2−63692

radiosources (astronomical) continued
compact extragalactic radio sources, inverse Compton radiation spectra from relativistic flows 2−74114
compact extragalactic radio sources, synchrotron radiation from relativistic flows 2−74113
compact extragalactic sources, effects of induced Compton scattering in radiative transfer 2−112319
compact extragalactic sources, struct. polarisation and astrometry, UHF/SHF obs. 2−112601
compact flat spectrum sources, variability and polarisation depend. on spectral shape, obs. 2−68913
compact radiosource H II regions survey SHF/EHF obs. 2−79237
compact source at galactic centre, UHF/SHF variability 2−63614
compact sources, precise positions from SHF/UHF interferometric obs. 2−79233
compact sources, radiowave scattering in envelopes 2−74119
Crab Nebula, obs. of polarised radio emission through Sun's supercorona 2−94815
Crab Nebula, supernova remnant, emission spectrum and brightness distrib. model 2−84305
Crab Nebula, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
CTB 80, directed jets source, nature and possible link with SN 1408, model 2−63696
CTB 80, supernova remnant, spectra and emission props. X-ray obs. 2−79185
CTB 80 (AD 1408 SNR), beam nature for present morphology 2−63594
NML Cygni, assoc. H II region and radiosource, spectrum and nature 2−74053
P Cygni, radio star, comparison of precise optical and radio positions 2−89319
Cygnus OB2 association, comparison of precise optical and radio positions for member stars 2−89319
Cygnus X-3, star model with pulsar component 2−106781
data aperture synthesis processing by CLEAN and least squares fitting 2−100751
discoveries of radio sources during fifty years 1932-1982, review *(French)* 2−68995
double extragalactic radio sources evolution, fluid dynamics of relativistic beams flowing through channels 2−84337
double extragalactic radiosources, plasma physics appls. 2−63243
double extragalactic sources, hotspot parameters determ. from spectra anal. 2−63265
double radiosources, properties from Spearman partial rank correlation 2−84341
DR21(OH), formaldehyde emission obs. 2−68863
EHF/SHF observations limited by atm. noise, fluctuation suppression methods 2−73848
evolved stars, mass loss meas. from obs. in CO (2-1) line 2−58320
expanding double radio sources, possible meas. of time delay between gravit. images 2−63691
extragalactic, jets relativistic vel. due to radiation press. 2−84339
extragalactic double sources, model involving black hole accretion disc producing particle beams 2−63699
extragalactic radio sources, highlight model as possible explanation for ultrarelativistic expansion vels. 2−94851
extragalactic radio sources, list of 315 stars for meridian obs. in FK4 system *(Russian)* 2−94581
extragalactic radio sources, radio obs. of complete sample at 1 Jy at 408 MHz 2−78984
extragalactic radio sources, radio two-colour spectral distributions 2−79235
extragalactic radiosources cosmological evolution, effect of gravit. lensing 2−89397
extragalactic sources, jets production mechanism 2−89141
extragalactic sources, milliarcsecond VLBI nuclei, arcsecond position, UHF obs. 2−79231
extragalactic sources, SHF flux densities 2−84340
extragalactic variable sources, quenching and outbursts, EHF data comparison with SHF data 2−79229
flare stars, radio and X-ray emission in fast electron hypothesis, book 2−68984
G109.1−1.0, similar object to SS 433, X-ray and SHF/UHF obs. 2−63710
G127.11+0.54, VLBI obs. of source in supernova remnant 2−117787
G127+40.5, SNR, continuum obs. at 608.5 MHz 2−106945
G127+40.5, SNR field point sources 2−106945
G134.2+0.8 H II region, B0.5 star form. at shock front, SHF obs. 2−74046
G206.9+2.3, SNR, radio props. and spectra, continuum UHF obs. 2−89395
G292.0+1.8, X-ray morphology rel. to asymmetric SN explosion 2−117732
G33.2−0.6, SNR with spectral break, UHF/SHF obs. 2−63572
G43.2−0.1, new OH maser source, 1612 MHz obs. *(Russian)* 2−106946
G45.5+0.1, H II region complex and assoc. OB star cluster, CO mapping obs. 2−79179
galactic centre, apparent variability of 'point' radio source rel. to ionised gas clouds *(Russian)* 2−101074
galactic nucleus, mass density, radio emission, IR sources and motions 2−117766
gamma ray burst source of 1978 November 19, IR scans of nearby radio sources 2−68932
gamma ray burst sources, attempts at correl. with radio pulses 2−58489
GF 2.4+1.4, ring nebula assoc. with Wolf-Rayet star, identification as supernova remnant 2−63562
globular star clusters, no association at 2.7 and 5 GHz with nearby radio sources 2−100997
GT 0236+610 (=LS I +61°303), X-ray binary, periodic radio emission, SHF obs. 2−68915
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, simplified expressions 2−106494
AM Herculis, multiwavelength obs. during low state 2−89299
HH 24-27, HH 1-2, Herbig-Haro objects, obs. of nearby high-vel. mol. gas 2−112526
high velocity H I stream (Weaver jet) in galactic anticentre, obs. of assoc. colliding H I shells 2−106856
IC 5146, emission nebula, CO obs. of nearby mol. cloud complex 2−74044
IC 5146 (S125), emission nebula, atomic and ionised H obs. 2−74043
radiosources (astronomical) continued
intermediate-strength radio sources from GB/GB2 1400 MHz surveys, radio spectra and optical identifications GB/GB2 1400 MHz survey, radio spectra and optical identification 2−106939
intermediate-strength radio sources from GB/GB2 surveys, radio maps and optical identifications of steep spectrum sources 2−106940
interplanetary scintillation, appl. to ground-based obs. of interplanetary disturbances 2−68585
interstellar C I radio recombination lines, influence of low temp. dielectronic-like recomb. 2−112314
interstellar dark dust clouds, NH_3 obs. of cold cloud cores 2−106857
interstellar molecular clouds, formaldehyde absorpt. meas. 2−112532
interstellar molecular clouds, search for FeO 2−74045
interstellar NH_3, obs. of (1,1) transition in southern hemisphere mol. clouds 2−106839
interstellar OH, widespread galactic emission at 1720 MHz as new tracer of spiral arms 2−68865
interstellar OH masers, cooling by OH IR line emission 2−106874
far-IR sources in galactic plane, IR and radio obs. and nature of sources 2−58413
IRC+10216 (CW Leonis), circumstellar molecular emission and mass loss rate 2−68928
IRC+10216 (CW Leonis), rot. temps. of cyanodiacetylene 2−63559
IRC+10°216, circumstellar shell NH_3 inversion lines, SHF obs. 2−63428
Khavtasi 141, interstellar dark cloud complex, H I self-absorpt. obs. rel. to H I content 2−68874
late-type stars, search for FeO 2−74045
M16, evolved H II region, obs. of compact far-IR source assoc. with H_2O maser 2−63561
M17, H II region, formaldehyde distribution at 4.8 GHz 2−106875
in M31, central extended radiosource size and nature, UHF obs. 2−84325
M31, high resolution H I obs. 2−112559
M33 supernova remnants, radio map at 21 cm, UHF obs. 2−58438
maser source of water vapour line, interplanetary oscillations 2−100829
MC2 pulsars, distance and luminosity function 2−117698
Monoceros Nebulosity, SNR, radio props. and spectra, continuum UHF obs. 2−89395
MSH 15−32, radio pulsar observed in UHF 2−84256
MSH 15−52, SNR, X-ray pulsar discovery in SNR shell, obs. 2−84255
N49, supernova remnant in LMC, possible association with anomalous gamma-ray transient, (1979 March 5) 2−68934
nebulae in galactic plane, distrib. and kinematic anal. 2−63597
NGC 1365, Seyfert galaxy 1, nucleus sources, radio struct., SHF, UHF obs. 2−94825
NGC 2071, reflection nebula, obs. of broad wings and self-reversals in CO lines 2−58425
NGC 2071 reflection nebula region, nearby molecular cloud, assoc. H II region and radiosource 2−84298
NGC 3359, barred spiral galaxy, H I kinematics and struct. 2−79206
NGC 5548, Seyfert 1.5 galaxy, nucleus radiosources detect. and astrometry, UHF/SHF obs. 2−117740
NGC 5905, NCG 5908, double spiral galaxy, H I obs. 2−68894
NGC 6334, H II region, IR photometry of ultracompact radio source 2−68866
NGC 6334, H II region, star form. ridge, radiosources discovery and nature, SHF/UHF obs. 2−68857
NGC 6334 interstellar complex, struct. and dynamics of 3.5 pc diameter filamentary shell 2−112535
NGC 6334/I(NORTH), 400 μm source detect., star form. region anal. 2−101018
nonlinear spectra of radio sources with hard injection 2−94853
NRA 140, quasar, apparent superluminal motion obs. 2−68925
NRAO 584, H II region, RATAN-600 obs. 2−117737
O-type and related stars, radio and IR emission from stellar winds and circumstellar shells 2−63415
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
OH 205.1−14.1, unusual OH maser, intensity vars. of left circularly polarised component (1980 to 1982) 2−79238
OH 351.78−0.54, interstellar OH maser source, radio and IR obs. 2−112600
OH/IR maser stars, type II, search for IR counterparts, luminosities, IR obs. 2−58349
ON 1, large-scale density distrib. in thermal radio source 2−117738
optical identifications for 5 GHz sources 2−112603
optical posns., Herstmonceux-Cambridge program 2−58479
Orion A, anal. of VLBI obs. of H_2O masers using CS-type computer software 2−68634
Orion A, detect. of N=3−2 transition of CCH (ethynyl radical) rel. to mol. rot. consts. 2−63556
Orion A, detection of torsionally excited state of methanol 2−63551
Orion A cloud, HCN spectral data 2−106870
Orion B, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850
Orion B (NGC 2024), compact H II region, recomb. line and continuum map 2−101084
Orion Molecular Cloud, high spectral and spatial resolution obs. of H_2 12.28 μm emission 2−63576
Orion Nebula, large-scale density distrib. in thermal radio source 2−117738
Orion SiO maser, time var. of vel. struct. of maser emission envelope 2−68875
Parkes 2700 MHz resurvey of ±4° declination zone, optical identification 2−89394
Parkes 2700 MHz survey, resurvey of ±4° declination zone 2−89168
Parkes radio sources, 2.3 GHz accurate positions and optical identifications 2−79234
EQ Pegasi, red dwarf binary flare star, detect. of microwave emission from both components 2−68775
β Persei, precise optical posns. of radiosource *(French)* 2−58410
planetary nebulae, radio emission evolution rel. to radio distance scale 2−106873
positions in FK4 system, Hamburg program 2−58230
pre-main-sequence stars, radio obs., results and interpretations 2−73966
ζ Puppis (O4 If), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
Rosette Nebula (NGC 2237-46), H II region, radio props. and UHF continuum obs. 2−89395
Sagittarius A, B2, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850

radiosources (astronomical) continued
Sagittarius A, far IR obs., luminosity and dust density 2−101034
Sagittarius A, search for short term variability, SHF obs. 2−79232
Sagittarius A, Westerbork obs. of foreground interstellar H I absorpt. 2−89336
Sagittarius A at galactic centre, apparent proper motion from SHF obs. 2−117610
Sagittarius B2, H II regions/mol. cloud, OH maser source, UHF ob s. 2−74047
Sagittarius B2, radiosource dynamical model 2−74118
Sagittarius B2, rot. temps. of cyanodiacetylene 2−63559
Sagittarius-B2, mol. cloud, struct. and component spectra from brightness at SHF, UHF 2−106941
scintillating sources, detection at 102.5 MHz using two-frequency correlation technique 2−117788
scintillation of extragalactic radiosources, suppression by galactic fountain MHD instabilities 2−63587
semiregular variable stars, short period, different type of maser star 2−63420
Sharpless 106, bipolar H II region, internal motion rel. to expanding mol. cloud 2−74071
Sharpless 106 (AFGL 2584), single O-type star model for IR images 2−68724
Sharpless 308, ring nebula assoc. with Wolf-Rayet star, study of interstellar environment 2−68852
SN 1572, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
SNR associated with radio loop II, mag. field meas. 2−106868
SNR structure in four objects at 1.4 GHz 2−112538
spectral index behaviour of low frequency variable radiosources, SHF obs. 2−94864
spectroscopy *(Japanese)* 2−73854
SS 433, nature and model *(Russian)* 2−68792
star formation regions in galactic plane, identification from IR and radio obs. 2−112421
stellar radio bursts, electron-cyclotron maser model 2−112312
Stockert 21 cm radio continuum survey of northern sky (first part) 2−68916
supernova remnant associated compact radio sources, X-ray/UHF/SHF obs. 2−63690
supernova remnant candidates in SMC, 843 MHz obs. 2−112537
supernova remnant search from radio brightness distrib. 2−106947
supernova remnants, radio emission-diameter relation rel. to cosmic ray accel. 2−106432
supernova remnants, space distrib. and radio emission evolution of plerions and shell remnants *(Russian)* 2−101026
supernova remnants in cloudy interstellar medium, emission 2−117729
supernovae, Type II, theory of radio and X-ray emission 2−106756
synchrotron polarisation properties of radiosources in relativistic motion 2−117786
synchrotron radiation, optically thin, spectral polarisation props. 2−112309
T Tauri, discrepancy between optical and radio positions 2−89258
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
V711 Tauri (HR 1099), RS Canum Venaticorum star, BV photometry and light curve, January and February, (1982) 2−112499
V711 Tauri (HR 1099), RS CVn star, correl. between Hα emission flux and radio flux 2−63511
Taurus MC 1, cyanoacetylene (HC_3N) obs. and model 2−63560
Taurus MC-1, detect. of N=1→0 transition of butadiynyl (C_4H) 2−68867
Taurus MC-1, rot. temps. of cyanodiacetylene 2−63559
thermal sources, large-scale density distrib. 2−117738
Tycho's SNR, multiwavelength comparison with Cassiopeia A 2−89325
variable extragalactic radio sources, obs. with RATAN-600 radio telescope 2−101083
very high velocity clouds, 21 cm obs. rel. to clouds collision with Milky Way in anticentre 2−74083
γ Vetorum (WC8+09 I), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
W33 continuum source, NH_3 ortho/para ratios from spectral obs. 2−101013
W3(OH), H II region OH maser sources, UHF obs. 2−74047
W3-IRS 5, double struct. from IR obs. 2−63704
W3-IRS 5, molecular cloud source, speckle interferometry, IR obs. 2−63705
W40, energy exchange in molecular cloud 2−101022
W44, H I clouds, RATAN-600 obs. of SNR 2−117737
W49, giant H II region, obs. of new OH maser source (G43.2−0.1) *(Russian)* 2−106946
W49A, large-scale density distrib. in thermal radio source 2−117738
W49N, distrib. of $^2\pi_{3/2}$ J=3/2 OH maser emission 2−79188
W49N, H_2O maser maps, obs. 2−68914
W50, possible origin from beams of V1343 Aquilae (SS 433) 2−63471
W50, SNR, association with V1343 Aquilae (SS 433) 2−63473
W50 SNR, high N abundance, evidence for form. from Wolf-Rayet star supernova 2−63594
W51, H II region/mol. cloud, J=4→3 HCN transition obs. 2−63588
W51, W53, isotope ratios in interstellar formaldehyde from 6 cm obs. 2−68850
W51 components props., and spectra anal., IR/SHF obs. 2−79227
W51 NORTH, IR and H_2O maser sources, H_2 emission, IR obs. 2−79228
W51A, far IR polarimetry 2−112539
W63, supernova remnant, radial vel. field of optical filaments 2−74073
X-ray clusters of galaxies, obs. at 102.5 MHz 2−112599
young stars, radio emission obs. 2−73965
Zelenchukskaya 8.7 and 14.4 GHz survey in 0°-4° decl. zone 2−74117
H II regions, high-velocity, obs. rel. to Galaxy central bar 2−63640
H_2O maser emission in southern galaxies, obs. of NGC 4945, NGC 253 and LMC 2−94852
H_2O masers, high velocity, search in regions of star form. 2−74072
NH_3 sources, OH emission and maser detect., UHF obs. 2−106944
OH-IR stars near galactic centre, appl. to delineation of Galaxy central bar struct. 2−63640

radiotelescopes
see also radioastronomy
30 m millimetre wave, Spanish Sierra Nevada, design *(German)* 2−73845

radiotelescopes continued
Arecibo incoherent backscatter meas., effect of antenna near field effects 2−84095
circular-periscope antenna for radio telescopes, description 2−94610
digital multichannel solar radiospectrograph for Nancay Radio Astronomy Station *(French)* 2−117598
disk based observing system for a radio telescope 2−117589
global phase-stable radiointerferometric systems, review 2−117600
high-sensitivity aerial systems, signal processing methods in receivers *(German)* 2−89421
history of radio telescopes during fifty years 1932-1982, progress and prospects *(French)* 2−68995
interferometric system, specialised complex using three very long baseline interferometers *(Russian)* 2−100737
Itapetinga large mm-wave antenna, appl. in high sensitivity solar research 2−100744
microwave coaxial structure for packaged MESFET operation at top noise and gain performance at 24 GHz 2−100734
Miyun Solar Radio Compound Interferometer, 460 MHz operation 2−63249
mm waveband radiometer with Josephson detector *(Russian)* 2−73842
mm wavelength radio telescopes, gain and pointing charcts. 2−100741
Molonglo Observatory Synthesis Telescope, performance 2−106531
Moscow higher technical school RT-7.5 MM band radio telescope 2−94604
Nobeyama Radio Observatory 45 m telescope *(Japanese)* 2−112324
NRAO 300 ft antenna pattern, beam charcts. and temp. scale 2−106526
observatory (MM wave) site testing in India, atmos. humidity obs. 2−88977
performance limitations and design tolerances of synthesis arrays 2−68618
radiation cones from feed-support struts of symmetric paraboloidal antennas 2−106530
radioastronomy review, history, development and state of art *(German)* 2−89148
RATAN-600, exact time and frequency service 2−94611
RATAN-600, radioastronomical adjustment of variable profile antenna using radio emission from Moon 2−94596
RATAN-600, receiving apparatus for centimetre band sky survey work 2−94608
RATAN-600 radio telescope, acousto-optical spectrometer 2−94607
RATAN-600 radio telescope, design features and anal. of acousto-optical spectrograph 2−94606
RATAN-600 radio telescope, plane-mirror operation 2−94595
RATAN-600 radiotelescope, azimuth aperture synthesis algorithm 2−94620
RT25×2, mm wavelength radiometer with Josephson detector 2−73844
Tidbinbilla two-element interferometer 2−112321
Torun interferometer meas. of total solar flux at 127 MHz, instrumental errors *(Polish)* 2−78958
Very Large Array telescope in New Mexico, USA 2−106532
VLBI 10^6 km ground to space construction principles and props. 2−100739
VLBI system for observation of Jupiter's decametric emissions *(Japanese)* 2−117599
VLBI systems, principles and operation *(German)* 2−89165

radiotherapy *see radiation therapy*

radiowave propagation
see also electromagnetic wave propagation
4 and 6 GHz depolarisation correlation on satellite to ground slant paths 2−63024
12 GHz communication satellite beacon, rain attenuation meas. 2−112033
13 GHz line-of-sight link rainfall and attenuation statistics 2−117426
14/11 GHz rain attenuation characteristics on the Earth-space paths *(Japanese)* 2−68435
, COMSTAR beacon appl. 2−106214
artificial ionospheric disturbances by powerful beams 2−68558
atmosphere, instrumentation for millimetre wave turbulence measurement 2−117395
atmosphere, model for resonant transmittance in millimetre wave region 2−117394
atmospheric microwave propag., fluctuations, scintillation theory 2−58100
atmospheric-induced fading on 23 km links at 9.6, 11.4, 28.8 GHz 2−112034
auditory perception of radio-frequency electromagnetic fields 2−88553
auroral kilometric radiation emission cone at low freq. 2−63174
coherent properties and focusing of wave beams reflected in a turbulent medium 2−90783
COMSTAR satellite propagation experiments, 19 and 28 GHz 2−94471
D-region, physics and forecasting radiowave propag. 2−94559
decameter radio waves at high altitudes, space-time dependences of propag. parameters 2−94557
decameter radiowave propagation on transpolar paths during auroral substorms 2−106415
diffraction by edge of waves diffracted by previous edge 2−65136
diffraction of a horizontally polarized plane wave by a conducting rectangular cylinder on a plane conductor 2−102699
digital AM channel bandwidth, effect of interferential ionospheric propag. 2−83989
Doppler shift of transionospheric satellite signals due to irregularities 2−73767
ducting conditions at Poona, diurnal and seasonal variations up to 33.5 m height 2−68434
ducting of auroral kilometric radiation obs. out to 4 Earth radii 2−78918
E_s layer, refl. of radiowaves 2−73753
electric breakdown of air due to intersecting pulsed radio beams 2−112023
ELF wave generation in ionosphere by use of HF waves radiated from ground 2−68552
fires, IR, radar and visible radiation 2−117386
forward scattering in random media, moment eqn. theory 2−65137
frequency averaging for beam waves in atmospheric turbulence 2−106213
ground wave propagation, appl. to CCIR reference exponential atmosphere 2−94468
HF band horizon, effects of ionosphere on Earth-space paths 2−58197
HF fadings close to MUF on subauroral radiopath 2−73755
HF propagation between mag. conjugate points, ionosphere effects 2−117524

radiowave propagation continued
HF sky-wave field strengths and max. usable freqs., calc. using programmable pocket calculator *(German)* 2−78912
HF sky-wave paths, factors influencing use of spread spectrum 2−94562
HF waves propagation on mid-latitude round-the-world hop path 2−73754
ionosphere, cosmic radio noise absorption due to electron precipitation 2−83988
ionosphere, eclipse time absorption of radio waves, gravity wave effects 2−78893
ionosphere, F_2-layer, critical frequency prediction technique 2−112184
ionosphere, plasma ohmic heating by microwave beam from Solar Power Satellite 2−71186
ionosphere, VHF Faraday polarisation fluctuations and L-band amplitude scintillations near Appleton anomaly crests 2−100647
ionosphere absorption in MF/HF, depend. on solar zenith angle and solar cycle 2−100641
ionosphere Doppler shifts after refl. from parabolic and quasiparabolic layers 2−73765
ionosphere doubly reflected echoes, distrib. and auto correlation coeff. *(Chinese)* 2−100623
ionosphere ELF hiss at auroral geomag. field equator rel. to auroral electron precipitation 2−100646
ionosphere equatorial scintillation at 327 MHz comparison with global nocturnal scintillation model 2−100639
ionosphere LF emission mechanism, cyclotron theory 2−106398
ionosphere similar fading method for close-spaced receivers data anal. *(Chinese)* 2−83952
ionosphere UHF emission associated with solar UV/X-ray radiation pulsed component 2−73756
ionospheric, ray theory of radiowave propagation using magneto-ionic formula 2−73769
ionospheric effects on the SARSAT system 2−94550
ionospheric HF waves effect on Earth VLF elec. field wavetilt changes 2−73428
ionospheric infl. on geostationary satellite radio, Japan *(Japanese)* 2−94561
ionospheric propagation inside ergodic layer 2−106416
ionospheric radiowave polar scatt., diagram with anisomeric inhomogeneities, param. freq. depend. 2−84011
ionospheric scintillations, global morphology, review 2−73772
ionospheric waveguide channel, RF signals Doppler freq. shift 2−89070
Japan area, prediction of max. usable freqs. of ionospheric mode propagation *(Japanese)* 2−58201
joint distribution estimation attenuation, cross-polarisation discrimination, satellite-Earth radio paths 2−106215
Jupiter HF radiation, interplanetary scintillations used to analyse solar wind plasma irregularities 2−73816
Jupiter magnetosphere, VLF and LF emission, review 2−106430
large scale artificial rainfall, rain attenuation of mm waves meas. using FM/CW radar *(Japanese)* 2−94539
lightning Sferics, measured spectral amplitude in HF, VHF and UHF bands 2−117398
line-of-sight radio link, 160 km, received signal level measurements 2−117404
long-range tropospheric propag., effect of Earth's surface 2−63071
Lucknow-Allahabad TV link, India, VHF signal propag. 2−117406
magneto-active collisional plasma, attenuation and refr. coeffs. 2−109520
magnetosphere low frequency waves three dimensional trajectories 2−106419
magnetosphere VLF and LF emission review 2−106430
magnetosphere VLF waveguide formation near plasmapause? 2−117525
Mars-Earth propagation, effect of solar gravity 2−94592
meteoric propagation of radio waves, chromometer scales comparison errors reduction 2−69146
microwave attenuation, relation to rainfall rate statistical distribution in equatorial and tropical climates 2−100414
microwave attenuation beyond 10 GHz, rain profile characterisation using 2nd order approx. 2−94435
microwave communication, sodar-derived boundary layer information appl. 2−78790
microwave mode conversion in troposphere due to lateral inhomogeneity 2−68462
microwave radio meteorology, fading by beam focusing 2−106295
microwave scattering by ocean wind, sensor performance simulator 2−117509
microwave scattering from 1st-year sea ice, theory for near-normal incidence 2−58084
mid-latitude lower ionosphere, anisotropic scatt. of short radio waves, 25 MHz 2−89069
mm wave propagation in troposphere, 'propagation experiment program' *(Japanese)* 2−58113
NASA 30/20 GHz experimental satellite, effects of rain on system performance 2−106292
nocturnal D-region, characts. from VLF waves 2−84010
non-Gaussian parametric systems, stochastic stability 2−89629
outage rates of earth-space RF satellite links, based on attenuation and depolarisation meas. 2−106294
path length and attenuation relationship of radiowaves transmitted in uniform rain-filled med. 2−83887
Pedersen ray arrived angles and skip distance determ. in horizontally inhomogeneous atm. 2−94560
planetary atmospheres, radiowave propagation, inverse refraction problem soln. 2−78815
plasmasphere ELF hiss during magnetic storm variations 2−84048
radar backscatter obs. of equatorial mesosphere, tides 2−63045
radar scattering from solar corona, type III components and source height 2−117658
radio signals transmitted between orbiting satellites, Doppler shift 2−89061
rain attenuation prediction methods for microwave paths in Greece 2−100533
rain attenuation statistics for slant path at 11.6 GHz using Italian Sirio satellite expts. 2−78749
rain fade duration on Earth-space paths, calc. of statistics 2−117432
rain reflectivity for 34.8 GHz signal 2−58109
rain-scatter coupling between space-earch radio paths, measured bounds 2−94436
rainfall reflectivity factor distrib. from attenuated wave radar 2−83864
random rain drop size, effect on atmospheric EM wave propagation, comments 2−106217
radiowave propagation continued
ray tracing on tropospheric radio paths 2−78717
raypath parameters in tropospheric multipath propagation 2−106212
reflection from ionosphere, estimation of the mean power of signals in the presence of m-fades 2−63170
reflection of radio waves from a meteor trail containing two kinds of ions 2−117634
resonant transmittance model for mm-wave propagation, IR modelling techniques appl. 2−112035
route diversity systems at freqs. above 10 GHz, performance analysis 2−83886
satellite telecommunication, link availability subject to correlated rain attenuation at ground terminals 2−106293
Saturn ring features, microwave edge diffraction obs. (from Voyager 1) 2−106609
scatter interference dependence on polarisation and positions of terrestrial and Earth stations 2−94477
scattering in envelopes of compact astronomical sources 2−74119
scintillation meas. at 4 and 6 GHz during sunspot cycle 21 peak using INTELSAT earth stations 2−78898
scintillation of radiowaves propagating through ionosphere, review 2−73771
scintillation of transionospheric VHF and UHF signals at midlatitude 2−106412
semiconductor, SHF wave scatt., mathematical model *(Russian)* 2−82959
SHF attenuation and phase shift due to rain in communication bands 2−58103
SHF scattering at sea surface at small grazing angles, characts. 2−73653
SHF/UHF propagation through troposphere/ionosphere, effect on radio-source positions 2−79233
short radiowaves scattering on artificial magnetically oriented inhomogeneities excited in ionosphere 2−94558
signal enhancement of UHF TV signals to occurrence of inversion layers *(Japanese)* 2−58200
skywave field strength estimation, HF, in tropical region, AIR method appl., E-mode propagation 2−106413
snow, near-millimetre wave propag. characts. 2−117396
spread-F, simultaneous obs. on oblique and vertical incidence records, anal. 2−78904
thermal radiowave radiation of a plane surface with small sloping irregularities, brightness temps. 2−85867
transequatorial VHF wave propagation, sunspot correlation, long term exp. results *(Japanese)* 2−73780
transionospheric radio signals, characterization using intensity scintillation data 2−58198
transionospheric VHF depolarisation near equatorial anomaly crest 2−68556
transmission loss prediction in troposcatter communication systems 2−100532
troposphere, millimetre-wave propag. meas. at Ballistic Research Laboratory 2−117392
troposphere Bay of Bengal region, radio refractivity during monsoon season 2−112079
tropospheric duct excitation by EM field of groundbased source scattered by acoustic wave 2−94473
tropospheric scatter radio links, propag. delay distortions 2−73621
tropospheric wet path-delay meas. 2−94437
unbalanced site diversity data, rain rate propagation statistics, Japan 2−106216
Venus atmosphere, MF wave propag. from Venera 9 and 10 bistatic radiolocation 2−58280
Venus middle atmosphere, UHF/SHF absorpt. by SO_2 and SO_3 in CO_2 atm. 2−58279
vertical attenuation of 4.1 mm wave radiation in Earth's atmosphere, meas. 2−63072
VHF vertical incidence backscattered power profiles from stratosphere, turbulence effects 2−63027
VLF amplitude changes due to D-region ionisation irregularities 2−100627
VLF long distance propagation during SID phenomena *(French)* 2−68547
VLF propagation phase velocity meas., time scale synchronisation effect 2−58774
VLF signals phase variations at sunrise in Earth-ionosphere waveguide 2−73778
VLF wave propagation in magnetosphere 2−73787
wave tilt of ground wave (geophys. prospecting method) 2−58155
wave tilt of TE and TM mode waves over homogeneous Earth model 2−100206
whistler ducts in magnetosphere, mag. and elec. fields, models *(Chinese)* 2−84015

radium
see also nuclei with .....
^{226}Ra and ^{210}Pb concs. in foodstuffs 2−57909
Caribbean Sea, Ra distrib. in surface layers 2−106145
Red Sea, ^{226}Ra, ^{210}Pb, ^{210}Po profiles and residence times 2−68387
RaA atoms, attached and unattached, deposition in human respiratory tract *(Japanese)* 2−68157
^{226}Ra concentration in water, monitoring system 2−67925
^{226}Ra, high concs. meas. in W Florida coastal waters 2−78704
^{226}Ra in water, development of a continuous monitor 2−67911
^{226}Ra, incorporation in mice, temporal and spatial response of marrow colony-forming cells 2−62692
^{226}Ra injected into mice, method to determ. dose delivered to bone and marrow sites 2−105784
^{226}Ra, retention in human soft tissue and bone, rel. to ICRP 20 alkaline earth model 2−73381
^{226}Ra standard source for Ge(Li) detectors efficiency calibration 2−113792

radium compounds
No entries

radium emanation *see radon*

radius measurement *see diameter measurement*

radius of curvature measurement *see curvature measurement*

radon
see also nuclei with .....
activity meas. inside houses using plastic track detectors 2−67901
activity meas. of geophysical significance 2−68293
activity meas. using automatic device 2−64827
atomic closed-shells ions, radial electron density moments and X-ray scatt. factors 2−75184

radon continued
concentration meas. in air and water using Kodak LR-115 track detector 2−67914
concentration meas. in indoor air using LR-115 and CR-39 detectors 2−67900
concentration meas. using CR-39 detector in Orkney islands and Kinver caves 2−67897
concentration meas. using solid state track detector 2−67916
daughters, unattached, evaluation of meas. techniques 2−93969
decay products, optimised scheme for concs. meas. 2−93970
diffusion chamber with plastic track detectors, props. determ. 2−64828
dosimetry, α-particles in plastic detector, track density distrib. 2−64695
emanation from rock under ultrasonic vibr., through fissured traces *(Chinese)* 2−62954
environmental Rn dosemetry, low-level, passive track etch detector device 2−62536
flux measurement, Environmental Protection reg. 40 CFR 192, compliance achievability 2−57908
gas, and progeny, diffusion in parallel plate mobility spectrometer 2−109443
gas passive dosimeters using electrochemically etched tracks in CR-39 2−67918
geology, ^{222}Rn transport through fractured rock 2−88828
health effects of Rn emissions from U mill tailings 2−73303
hot springs in India, search for correl. between Rn anomaly and local seismicity 2−111886
ionisation chamber monitor which eliminates effect of decay products 2−59643
monitors, continuous flow-through, simple procedure for calibration 2−62535
passive dosimeter using polycarbonate track etch detector 2−67919
personal dosimeter using mica track microfilters 2−64830
San Andreas fault area, Rn and CO_2 variations in groundwater 2−100300
transport in Earth, U exploration and earthquake prediction 2−73725
working level meter for meas. inside houses of Rn and Rn daughters 2−62537
α and γ-activity meas. with LR-115, CR-39 and thermolum. detectors 2−67913
Ra traces in aqs. soln. containing chlorides, sulphates and carbonates, isotope separation 2−78120
^{226}Ra, γ-radiation source, anal. *(French)* 2−80366
^{A}Rn, A=220, 222, and decay products in German dwellings: activity concs., dose calcs. and risk estimates 2−117097
^{222}Rn and daughters, indoor exposures, concentrations and standards 2−57906
^{222}Rn daughter alpha dose factors, environmental, in 5-lobed human lung 2−94205
^{222}Rn, high concs. meas. in W Florida coastal waters rel. to atmospheric degassing 2−78704
^{222}Rn in air, meas. using liq. scintillation techniques 2−57759
^{222}Rn, meas., national needs, NBS role 2−57907
^{222}Rn, natural and technologically enhanced sources, health effects 2−57910
^{222}Rn, releases from the Geysers geothermal power plant 2−57750

radon compounds
No entries

rail traffic
see also railways
annoyance/noise level relationships for rail, air and road traffic 2−97284

railroads *see railways*

railways
see also traction
Emsland Transrapid test facility (TVE) for high speed maglev system, goal, requirements and design *(German)* 2−70474
maglev train development status in German Federal Republic *(German)* 2−70473
smoke density meter using photometric detectors, railways appl. 2−64092

rain
4 and 6 GHz depolarisation correlation on satellite to ground slant paths 2−63024
13 GHz line-of-sight link rainfall and attenuation statistics 2−117426
14/11 GHz rain attenuation characteristics on the Earth-space paths *(Japanese)* 2−68435
, COMSTAR beacon appl. 2−106214
acid rain effect on environment 2−107081
acid rain regional scale model 2−112067
acidity of Nanjing (China) urban area rain *(Chinese)* 2−78741
acidity of Scotland and England's rain 2−83923
area-perimeter relation for rain and cloud areas, appl. of fractals theory 2−88987
attenuation of microwaves, FM/CW radar method, artificial rainfall facilities *(Japanese)* 2−94539
attenuation over earth-space path at 12 GHz, CTS beacon exp. 2−112033
attenuation prediction methods for microwave paths in Greece 2−100533
attenuation statistics for slant path at 11.6 GHz using Italian Sirio satellite expts. 2−78749
Australian wet season onset prediction from Darwin rainfall anal. 2−106181
Bay of Bengal cyclones, rainfall and latent heat release from radar obs. 2−68439
Belgium, weather (during 1981 AD) *(French)* 2−106203
Belgium, weather during 1980 AD *(French)* 2−68447
Bermuda, acid rain due to N.America pollution 2−78270
Bhopal, India, monsoon rainwater chem. comp. obs. 2−68437
Bihar wet and dry spells occurrence, importance for agriculture 2−68394
Bombay, SW monsoon precipitation patterns from 70 yrs pentad rainfall data 2−68391
NE Brazil rainfall climate rel. to Atlantic trade winds 2−88996
chemical composition difference of hilltop and valley rain 2−83867
chemistry in summit area of Kilauea Volcano, Hawaii 2−63036
chemistry of raindrops, review 2−58111
climatic change effect on earthquakes in China 2−88804
cloud seeding of stratiform cloud with AgI or CO_2, microphys. study 2−112068
cloud seeding over last 35 years 2−106202
cloud-seeding expt. using automatic recording raingauge network 2−89046
clouds, rain water effect on thermodynamic eqn. for deep convection 2−100422
cold front heavy rain over N.China in summer, analysis *(Chinese)* 2−88995
COMSTAR satellite propagation experiments, 19 and 28 GHz 2−94471
convective rain volume estimation over large area 2−68534
cumulonimbus rainfall, mountain-generated, on northern Great Plains, USA, seasonal vars. and areal extent 2−100483
cumulus cloud ensemble, theory 2−83905
cumulus convective activity of GATE modulated by large scale flow 2−117411
daily rainfall occurrence described by Markov chain model 2−112056
double polarisation radar for detection of rain and good weather *(French)* 2−100597
droplet coalescence and breakup model 2−117415
droplet multiplication by breakup during fall, theory 2−112059
droplet spectra variations from stratiform clouds *(French)* 2−100487
drops, coalescence efficiencies and fragment size distrib. in breakup 2−112042
drops, fragment size distrib. parameterization 2−112043
earthquake prediction, use of abnormal strain response to rainfall 2−68296
England-Wales rainfall rel. to UK isobaric patterns 2−68468
enhancement by modification of cumulus clouds 2−73708
evaporation beneath cloud causing temp. gradient, frontal line devel. *(German)* 2−73650
fade duration on Earth-space paths, calc. of statistics 2−117432
Florida Area Cumulus Experiment 1970-6, rainfall results 2−88961
fluoride in rain, study showing pollution and not sea spray as source 2−63013
fluoride in rainwater, ion-selective electrode measurement methodology 2−62534
frontal heavy rain, boundary layer structure *(Chinese)* 2−88993
frontal rain, forecasting using weather radar network 2−112018
mesoscale frontal rainband occurrence prediction, theory 2−100505
severe frontal rainband over Central Valley, California 2−94443
giant aerosol particles as warm rain initiators 2−94453
Great Britain, heavy rain and snowstorms of April 1981 2−83933
heavy rain correlation with lunar phase, through modulation of meteoric dust 2−88971
heavy rainfall and severe convective weather, occurrence conditions 2−78819
hurricane, radar reflectivity depend. on rainfall rate 2−94464
hurricane prediction using remotely-sensed rainfall rates 2−112019
India, greatest one-day rainfall records 2−106272
NW India, low rainfall and drought conditions, climatological anal. 2−68392
India, monsoon rainwater, pH rel. to atm. CO_2 chemistry and content 2−68438
Indian monsoon, southwest sector, high rainfall occurrence anal. 2−68436
Indian monsoons rainfall controlled by Indian Ocean-atm. interaction 2−68372
Indian rainwater chem. comp. 2−112081
Indian summer monsoon, coarse-mesh GCM studies 2−106176
Indian summer monsoon regime, drought foreshadowed by solar activity 2−68477
intertropical convergence zone, conditions for rain and cloud development 2−100523
isotopic composition of European precipitation 2−83929
lightning influence on localised precipitation 2−106211
measurement of drop size and elec. charge with disdrometer 2−63125
measurement of raindrop size by mm wave propagation method *(Japanese)* 2−58113
microwave attenuation, relation to rainfall rate statistical distribution in equatorial and tropical climates 2−100414
microwave attenuation beyond 10 GHz, rain profile characterisation using 2nd order approx. 2−94435
modification of rainfall by effects of Power Station 2−78802
monitoring by satellite (book) 2−58568
summer monsoon over India, precipitable water and dew point relations 2−106271
narrow cold frontal rainband substructure 2−94444
NASA 30/20 GHz experimental satellite, effects of rain on system performance 2−106292
nitrate content of rain, increase since 1850 AD 2−99866
central North America, drought of 1804 to 1805 AD 2−68471
North America acid rain monitoring, review 2−105616
Northamptonshire, heavy rain forecasting methods 2−78879
ocean surface layer thermohaline struct. rel. to precipitation events 2−78690
orographic rain, differential advection model 2−106201
orographic rain dynamics and stratified airstream heat addition 2−88982
palaeoclimate, temp. and rainfall 2−100564
prediction of rainfall using five-level primitive eqn. model with unequal interval of vertical levels *(Chinese)* 2−73613
radar reflectivity at 34.8 GHz, calc. for non-spherical drops 2−58109
radiowaves transmitted in uniform rain-filled med., path length and attenuation 2−83887
raindrop size meas. with microphone device *(Japanese)* 2−58170
rainfall rate distribution, empirical model derived from meas. in Congo 2−78748
raingauges used in mm wave propagation experiment program *(Japanese)* 2−58169
random rain drop size, effect on atmospheric EM wave propagation, comments 2−106217
rate over oceans from scanning multichannel microwave radiometric meas. 2−73558
reflectivity factor distrib. from attenuated wave radar 2−83864
runoff model for catchment utilising weather radar data 2−100411
Samoa windward coast, marine rain pH and Na conc. 2−112030
sampler for subsequent chem. analysis 2−106327
satellite telecommunication, link availability subject to correlated rain attenuation at ground terminals 2−106293
scatter coupling between space-earth radio paths, measured bounds 2−94436
scatter interference dependence on polarisation and positions of terrestrial and Earth stations 2−94477
sedimentary record of rainfall variations in a sub-humid lake 2−73602
seeding of clouds, statistical anal. of Climax obs. 2−112063

rain continued
seeding of stratiform and cumuliform clouds with AgI and metaldehyde *(Chinese)* 2−78742
seismic wave velocity at Uji campus, Kyoto University, rain effects 2−68299
severe isolated rainstorms over Illinois, hydroclimatology 2−68472
SHF attenuation and phase shift due to rain in communication bands 2−58103
South Africa, intra-annual rainfall variation since 1921 AD 2−88997
spaceborne microwave radiometers, use for rainfall rate determ. 2−100596
squall line genesis over China rel. to heavy rainfall *(Chinese)* 2−88990
storm rainfall rate, comparison of radar differential refl. and disdrometer meas. 2−73707
subcloud layer energetics of precipitating convection 2−106187
subtropical desert margins, rainfall trends, comparison of northern hemisphere regions 2−78713
sunspot numbers correl. with weather of United States 2−63068
severe thunderstorms of Great Plains, USA 2−63016
Tokyo and Tiba areas of Japan, rainwater chem. composition (1978 to 1979) *(Japanese)* 2−73654
tropical cyclones over Arabian Sea and Bay of Bengal, coastal rainfall distrib. 2−88972
unbalanced site diversity data, rain rate propagation statistics, satellite grand stations appl. 2−106216
upper-level troughs of N China, with and without heavy rain *(Chinese)* 2−112097
western USA, acid rain occurrence 2−105618
vertical attenuation of 4.1 mm wave radiation in Earth's atmosphere, meas. 2−63072
S Wales, heavy rainfall occurrence and assoc. meteorology 2−106164
Worthing area, Sussex, 1980/1 heavy rainfalls anal. and synoptic situation 2−106163
Yamuna River, India, floods, rainfall and assoc. synoptic situations anal. 2−111979
Yangtze region, plum rains season abnormal precipitation (1163-1977) 2−78715
Yangzi-Hwai valley, China, rain from mesoscale system *(Chinese)* 2−112098
^{210}Pb and ^{210}Po fluxes at tropical oceanic sites 2−63037
rainfall *see rain*
RAM *see random-access storage*
Raman effect *see Raman spectra*
Raman-induced Kerr effect *see optical Kerr effect*
Raman lasers
gain coefficients for higher order Hermite Gaussian modes 2−108858
I tunable anti-Stokes Raman laser, 178 nm 2−75560
methane gas scalable visible 630 Raman laser source, Nd:YAG pumped 2−102778
methane Raman laser, Nd:YAG based, eyesafe, cloud height ranging appls. 2−97058
pump spatial variations transfer to Stokes phase in Raman amplifiers 2−108958
ruby, electronic Raman transition and phosphorescence, zero phonon lines, pure dephasing 2−93251
single-mode optical fibre, min. dispersion spectra of short lengths, interferometric meas. 2−86138
Cs vapour tunable electronic Raman laser at 16 μm 2−75557
H_2 gas, higher-Stokes-order Raman conversion of XeCl laser 2−60161
H_2 in solid SiO_2 optical fibres, new Raman-gain medium 2−90861
H_2 pure rotational Raman lasers 2−97118
NH_3, 12 μm, CW optically pumped, Raman processes 2−65203
NH_3 12 μm Raman laser, pumped by low-power CO_2 laser pulses 2−55121
Pb vapour, high-efficiency joule-level Raman generation 2−60160
Tl anti-Stokes Raman laser, efficiency studies 2−80990
Raman scattering *see Raman spectra*
Raman spectra
see also molecular rotation; molecular vibration; Raman spectra of diatomic inorganic molecules; Raman spectra of inorganic liquids and solutions; Raman spectra of inorganic solids; Raman spectra of organic molecules and substances; Raman spectra of polyatomic inorganic molecules; Raman spectroscopy; stimulated Raman scattering
adsorbate on metal surface, surface enhanced Raman spectroscopy 2−99133
adsorbed molecule on metal, spontaneous Raman processes, cross section growth *(Russian)* 2−59810
anharmonic Raman intensities of overtone, combination and difference bands 2−90556
atom, two-photon-induced spin-orbit transitions 2−64924
atomic Raman tensors, intensity sum rule, MO calcs. 2−90432
composite materials, two-component, upper bounds to avarage field enhancement factors 2−82854
condensed systems vibr. spectra, intermol. pot. effects 2−72493
conformational studies by IR and Raman spectra 2−80633
diatomics, two-photon processes, δ-approx. (reflection) method 2−102560
EM study of grating enhanced nonlinear surface polariton excitation 2−61372
exciton-phonon system, optical response, reson. Raman scatt. and luminesc. 2−67099
ferroelectrics, incommensurate phase Raman scatt. 2−116197
fluorescence quantum yield determ. using solvent spontaneous Raman scatt. as internal standard 2−96626
gas molecules, vibr. Q branch, Raman scatt., review 2−108527
gaseous system, stimulated Raman effect quantum statistics 2−102872
inverse, scatt. efficiency, laser mode effects, for breakdown-limited intensity *(German)* 2−60132
inverse Raman scatt. spectra regularities 2−70608
laser cooled-stored ions, dilute population, model for computing temp. 2−65112
laser plasma, Raman scatt. resulting from parametric turbulence 2−86481
laser-ray scattering apparatus, non-intrusive meas. of flowing gas appl. *(German)* 2−81420
linear molecule gas, double light scatt. spectra *(French)* 2−102480
metal surface, adsorbed mols. giant Raman scatt., review 2−110966
metal surface, randomly rough, elec. field enhancement, surface enhanced Raman scatt. 2−87790
molecular monolayers, surface enhanced Raman scatt., long and short range effects 2−102483
molecules, Raman and IR intensity anal., first order approx. 2−59804
Raman spectra continued
molecules in small particles, fluoresc. and Raman scatt., double reson. 2−104878
multilayer structure morphology, surface enhanced Raman scatt. 2−110178
nematic cpds., orientational order, Raman microprobe investig. 2−60871
Ni (111), adsorbed nitrobenzene, surface Raman spectra without surface enhancement obs. 2−77504
nonlinear impurity electron-phonon oscills. excitation, Raman scatt. 2−77536
nonliner spectroscopy, steady-state, third-order, in inhomogeneous media 2−60167
Peierls dimerized condensate, IR activity 2−61910
Raman frequencies, isotropic and anisotropic, dielec. const. effects on non-coincidence 2−108525
small metal atom clusters, electrochem. props., rel. to surface enhanced Raman scatt. 2−116173
smectic-A cpds., orientational order, Raman microprobe investig. 2−60871
SOS, laser annealed, electron Hall mobility and residual stresses, heat treatment effects, Raman study 2−98745
surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
surface enhanced Raman scatt., surface-plasmon-polariton resonances, classical calc. 2−77529
surface polariton scatt. under transition layer reson. conditions 2−77539
surface polaritons, Raman scatt., surface roughness effect 2−110844
surface science, conference, Liverpool, England (April 1981) 2−58538
surface-enhanced, theory 2−61911
surface-enhanced Raman scattering, radiation damping effects calcs. 2−57094
three-level system, reson. Raman line shapes in radiation fields, nonimpact theory 2−90482
two-level quantum system, luminesc. and scatt. in reson. secondary radiation 2−93255
vibronic reduction factors of Jahn-Teller impurity centres, determ. from Raman scatt., theory 2−93208
Ag (100) surface, adsorbed Cl^-, fractional coverage, dipole sum calcs., appl. to enhanced Raman spectra 2−87004
Al-Al_2O_3-Ag tunnel junction, adsorbed mol. monolayers, surface enhanced Raman spectra obs. 2−82867
Al-GaAs Schottky barriers, influence of interface composition 2−82432
CN adsorbed layer, picosecond surface Raman spectroscopy, surface damage effects obs. 2−93170
$H+H+h\nu_0 \rightarrow H_2^*+h\nu'$, recombination via free-to-bound Raman transitions 2−72984
I, $^2P_{1/2}$-$^2P_{3/2}$ Raman transition, cross-section and hyperfine struct. 2−96487
NHDT, vibrational intensities, dichroism, Raman, IR spectra, orbital polarisability model 2−108451
SiO_2 gel to glass transform., Raman and IR spectra study 2−77506
Tl, noble gas collisional broadening, Raman echo meas. 2−85574

Raman spectra of diatomic inorganic molecules
anions in aq. soln., isotropic Raman scatt., vibr. dynamics 2−82848
gases, Rayleigh scattering, weak depolarization ratio meas. using Raman spectroscopy 2−70262
inert gas diatoms, polarisabilities, SCF computations, collision induced Raman spectra 2−70441
resonance electronic Raman effect theory 2−80634
rotational Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
Ar, dimers, Raman scatt., rot. and vibr. spectra, polarisability 2−70265
$^{79}Br_2$, two-photon processes, δ-approx. (reflection) method 2−102560
CO, matrix isolated, high-resolution coherent Raman spectrosc. 2−75297
CO pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
CO+N_2 mixture, Raman scatt., rot. and vibr. relax. *(Russian)* 2−54856
$^{19}F_2$ improved rotational constants using coherent anti-Stokes Raman spectroscopy of vibr. Q branch 2−85671
H_2, gaseous, Dicke narrowing determ. by direct meas. of dephasing time 2−58919
H_2, ortho and para, Raman scatt., effects of energy level degeneration *(Russian)* 2−54857
H_2, surface enhanced Raman intensities, Hartree-Fock calcs. 2−80626
HCl, high-density fluid, vibr. energy relax., 150 to 345K 2−80786
HD compressed by Ar, rotation and rot.-vibr. Raman spectra, collisional effects 2−108526
I_2, transition strengths, visible and IR obs. 2−70244
N_2, gaseous, CARS spectra, rot. diffusion model appl. 2−59808
N_2, matrix isolated in Ar, N_2, mol. vibr., Raman obs. 2−70250
N_2, microwave-excited, CARS meas. of vibr. temp. at low press. 2−102481
N_2, molecular vibration levels population, plasma neutrals temp. meas. in microwave discharge, CARS 2−114006
N_2, optical Stark splitting of rotational Raman transitions 2−59837
N_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
O_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
O_2, rot. quantum number, vibr.-rot. Raman spectrum, spin multiplicity effect 2−102488
XeCl laser radiation, long pulse, Raman conversion via second Stokes shift in H_2 2−60154

Raman spectra of inorganic liquids and solutions
molten salts, Raman spectroscopy of oxyanions, symm. stretching freq. and polarisability 2−72487
polyatomic molecular liquids, vibr. dephasing and freq. shifts, isotropic Raman line broadening 2−61891
solutions, Raman spectra using high temp. high press. furnace technique 2−89820
water, Raman spectra, Fermi reson. band, association model 2−99120
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
water, supercooled, Raman spectra, H-bonds 2−61890
CO liquid and plastic cryst. phase, LF Raman spectra 2−116164
ClF, cryogenic solns., vibr., IR and Raman obs. 2−70240
Co(111) complex, vibronic lifetimes, red shift, Raman spectra 2−75294
$CuCl_2$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
D_2O, Raman spectra in temp. range 75-295K 2−87773
HCl, aq. soln., Raman spectra using high temp. high press. furnace technique 2−89820
HCl, high-density fluid, vibr. energy relax., 150 to 345K 2−80786

Raman spectra of inorganic liquids and solutions continued
$HClO_4.2H_2O$, IR and Raman spectra of glassy and liq. states *(French)* 2−87776
H_2O, Raman spectra in temp. range 75-295K 2−87773
H_2O, supercooled, mol. vibr., H bond enthalpy, Raman obs. 2−110839
$Hg(ClO_4)_2$-$HClO_4$-H_2O, vibr., IR and Raman study *(Russian)* 2−87801
MoO_4^{2-} in aq. soln., precision Raman meas. 2−87764
N_2, liq., induced Raman scatt., restoration of amplitude and phase of laser signal liquid, Raman scattering 2−87807
N_2 liquid and plastic cryst. phase, LF Raman spectra 2−116164
O_2, liquid and plastic cryst. phase, LF Raman spectra 2−116164
SO_4^{2-} in aq. soln., precision Raman meas. 2−87764
$SbCl_3$, normal and supercooled liqs., depolarised Raman scatt. 2−72476
$SrBr_2(Cl_2)$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
WO_4^{2-} in aq. soln., precision Raman meas. 2−87764
$ZnCl_2$ aq. solns. and melts, vibr. dynamics, Raman scatt. study 2−57085
$Zn(NO_3)_2$, aq. soln., Raman spectra using high temp. high press. furnace technique 2−89820

Raman spectra of inorganic solids
active four-photon Raman spectroscopy 2−114369
alkali halides:$BH_4^-(BD_4^-)$, vibr. studies by IR and Raman spectra 2−82841
alkali halides:FHF^-, IR spectra 2−82843
alkali halides:SbF_6^-, IR spectra 2−82842
alkaline earth orthosilicates, vibr., isotope shift, IR and Raman study 2−77507
amorphous materials, phonon spectra 2−56138
antiferromagnetic thin films, guided polariton dispersion relations *(French)* 2−104263
aragonite struct. crystals, internal vibr., spectral intensities 2−76606
diamond particles, vapour deposition from methane-H_2 mixture 2−77744
fluorindates, struct. modifications, IR and Raman investig. 2−87771
fluorohafnate glass, comparative study of vibrational charact. with fluorozirconate glass 2−57076
fluorozirconate glass, comparative study of vibrational charact. with fluorohafnate glass 2−57076
graphite intercalation compounds, phonon Raman spectroscopy 2−57087
graphite ion implantation damage, impurity profile, Raman, Auger and electron microscopy study 2−81834
graphite-Br_2 intercalation cpd., struct. phase transitions, Raman scatt. study 2−86863
hydroxides, OH stretching vibr. freq., IR and Raman study 2−82846
ice, crystal phase II and IX, translational and rot. vibrs., Raman study 2−93176
ice, high pressure phases, Raman spectra in stability region 2−87763
ice, lattice parameters, Raman and X-ray study 2−104872
ice I_h 2−87795
ice Ih, Raman spectrum, OH stretching region, vibr. anal., anharmonic pot. energy functions 2−104867
inorganic carbonyls and cyanides, high press. phase transitions, Raman study 2−76650
intermediate valence compounds, electron-phonon coupling 2−56133
KCNS, λ-type order-disorder phase transition, Raman study 2−103984
metal carbonyls, IR reflectance and Raman spectra, lattice modes 2−110851
metal oxides, depth profiling using Raman spectroscopy with ion bombardment 2−57646
metal surface, sinusoidal, surface plasmon polariton modes, contrib. of surface enhanced Raman scatt. 2−110845
metal surface enhanced Raman spectra, surface roughness effect 2−82837
metals, surface enhanced Raman scatt. 2−104885
mixed valence compounds, phonon anomalies rel. to electronic struct. 2−56115
optical fibre waveguides, defects detect. by Raman spectroscopy 2−86117
pCC /5/$CaO.3Al_2O_3$ cryst., vibr. Raman spectra 2−116187
pentacarbonyl bromides and decacarbonyls, IR reflectance and transmittance and Raman spectra 2−110852
perovskites, oxydic, ferroelec. transitions, IR and Raman spectra and dielec. const. data anal. 2−67008
polydiacetylene, electronic excited state, Raman study 2−72484
polynuclear uranyl fluoride complexes, luminesc. and vibr. spectra 2−99123
pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
pyrogermanates, struct., IR and Raman vibr. spectroscopy 2−87759
pyrosilicates, struct., IR and Raman vibr. spectroscopy 2−87759
rare earth orthophosphates, vibr. props. of PO_4^{3-} *(German)* 2−81907
semiconductor, direct band gap, electronic Raman scatt. on donor levels, Coulomb interactioneffects 2−57096
semiconductor, interband electron Raman scatt. of light, Coulomb interaction effects 2−87798
semiconductor, wurtzite type donor electronic Raman scatt., band struct. perturbation calc. 2−82862
semiconductors, electronic Raman scatt., review *(Japanese)* 2−72508
silicate glasses, Raman spectra, curve fitting 2−116161
SOS device structures, Raman meas. of stress 2−77499
steel, stainless, oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
steel, stainless 304, Raman spectroscopy combined with ion bombardment to depth profile oxide films 2−77505
transition metal compounds, Raman scatt. from anomalous phonons 2−57089
transition metal dichalcogenides, Raman scatt. from charge density wave phonons 2−104881
transition metal hexacarbonyls, mixed, Raman spectra, vol. modulated freq. changes 2−77519
unresolved Raman excitation profiles, anal., totally symmetric vibrs. 2−116185
uranyl fluoride complexes, binuclear, vibr. and electronic spectra meas. 2−72488
volcanic ash from Mount St. Helens 1980 May 18 eruption, laser Raman spectroscopic anal. 2−100343
trans-$[(NH_3)_4(CN)_2]^+$, vibr. fine struct. of polarised absorpt. band 2−72471
Ag, adsorbed pyridine, surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
Ag electrode, adsorbed pyridine, thiourea, H_2O, photochemical activation effect on surface enhanced Raman scatt. 2−110828
Ag island films, surface-enhanced Raman scatt. excitation spectra 2−61898

Raman spectra of inorganic solids continued
Ag, lithographically prepared microstruct., surface enhanced Raman scatt. 2−67067
Ag with adsorbed pyridine, coadsorbed CO, effect on surface enhanced Raman spectra 2−87031
Ag-Au, surface enhanced Raman effect, role of electron scatt. 2−61907
Ag_3AsS_3, proustite, phase transition, Raman and Brillouin scatt. study 2−103986
AgBr:Rh^{3+}, Raman spectroscopy study of Rh defect centre 2−99118
Ag_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
Ag_2HgI_4 solid electrolyte, attempt freq. for ion hopping, Raman spectra 2−116176
α-AgI, Raman scatt. temp. depend. 2−110860
$Ag_2X_2O_6$ (X=Ta, Nb, Sb), vibr., force fields, IR and Raman study, normal coordinate anal. *(French)* 2−110869
Al_2O_3:Cr^{3+}, multiple reson. spin-phonon Raman scatt. by acoustic phonons in mag. field 2−116198
β-Al_2O_3-Li_2O, Li^+ distrib. and motion, NMR and Raman study 2−66284
Ar-O_2 $(N_2)(CO)$, liquid and plastic cryst. phase, LF Raman spectra 2−116164
As-S glasses, Raman inelastic light scatt. 2−104887
As_2S_3, amorphous, hot photoluminescence 2−93261
As_4S_3, Raman spectrum, effect of temp. and press. 2−67040
Au-Si:H, amorphous, interface reactions, interference enhanced Raman spectra study 2−110176
B fibre encapsulation, in situ investig. in CVD reactor 2−77782
BD_4^- ion isolated in alkali halides, Raman spectra at 80K 2−116186
BH_4^- ion isolated in alakli halides, Raman spectra at 80K 2−116186
B_2O_3 glasses, isotopically substituted, Raman spectra study 2−87756
B_2O_3 vitreous films, mol. orientation, Raman spectra study 2−87757
B_2O_3-Na_2O-Na_2SO_4 system, synthesis and cond. of glasses *(French)* 2−56248
BaF_2, Raman scattering efficiencies for Γ-phonons 2−57100
BaF_2, rare earth doped and hydrolyzed, mol. centres, Raman spectra study 2−104873
BaF_2:La, Raman spectra between 300 and 1400K 2−99129
$BaGeO_3$-Al_2O_3-CaF_2-MgF_2:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
$BaMnF_4$, incommensurate transition, phason light scatt. 2−76660
$Ba_{0.4}Sr_{0.6}Nb_2O_6$:Pr^{3+}, inverse Raman spectra 2−104877
$BaTiO_3$, tetragonal, oblique phonons, polarised Raman scatt. meas. 2−56123
$BeSO_4.4H_2O$, and $BeSO_4.4D_2O$, Raman and IR activity *(French)* 2−116184
Bi_{12} $[A^{+III}_{1/2}B^{+V}_{1/2}]O_{20}$ (A=Fe, Co, Ga, B=P, As, V, Bi), sillenite struct., tetrahedral environment of cations A and B *(French)* 2−91913
$Bi_{12}GeO_{20}$, Raman spectra meas. 2−116199
$Bi_{12}Ge_3O_9$, phonon spectra, Raman scatt. study 2−77526
$Bi_{12}SiO_{20}$, Raman spectra meas. 2−116199
$BiVO_4$, Raman scatt. spectra *(Russian)* 2−61914
CO, absorbed on Ag, surface enhanced Raman scatt., role of direct surface interaction 2−77537
CO liquid and plastic cryst. phase, LF Raman spectra 2−116164
CS_2, solid, intermol. modes, neutron and Raman scatt. studies 2−98211
$CaCO_3$, calcite, phonons and mixed polaritons, hyper-Raman scatt. study 2−61900
$CaCO_3$, high order CARS and CSRS spectroscopy 2−60169
CaF_2, Raman scattering efficiencies for Γ-phonons 2−57100
CaF_2, rare earth doped and hydrolyzed mol. centres, Raman spectra study 2−104873
$12CaO.7Al_2O_3$, cryst., vibr. Raman spectra 2−116187
Cd complex, di(ethylammonium) cadmium tetrachloride, D_{2h}^{18}-D_{2h}^{15} struct. transition, Raman obs. 2−104870
$CdCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
Cd(II) complex, 2-aminobenzothiazole cadmium, conductometric, IR and Raman study 2−110867
$Cd_{1-x}Mn_xSe$, exciton and phonon spectra, photoluminesc. and Raman scatt. study 2−110942
$Cd_{1-x}Mn_xTe$, semimagnetic, Raman scatt. by phonons and magnons 2−77531
$Cd_{1-x}Mn_xTe$, spin-flip Raman scatt. 2−110870
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
CdP_2:As, impurity vibr., Raman scatt. study *(Russian)* 2−77540
CdS, excitonic polariton and excitonic mol. dispersion curves, two-photon Raman scatt. 2−87159
CdS, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
n-CdS, field-induced exchange stiffness and dispersion, spin-flip Raman spectra 2−93194
CdS, solid particles, excitons, luminesc. and Raman excitation study 2−77570
$Cd_2X_2O_7$ (X=Ta, Nb, Sb), vibr., force fields, IR and Raman study, normal coordinate anal. *(French)* 2−110869
$CeAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957
CeF_3:Gd^{3+} single crysts., temp. variation anal. of EPR linewidths 2−98957
CeO_2, first-order Raman spectrum linewidth, temp. depend. 2−110861
$Ce_2(SO_4)_3.(H_2O)$, polarised Raman spectra. vibr. modes, temp. depend. *(French)* 2−72501
$Ce_2(SO_4)_3.5(H,D)_2O$, crystal synthesis and struct., X-ray, Raman spectra and thermal anal. 2−67205
$CoAl_2O_4$, single cryst. Raman spectra 2−57074
$Co^{II}Co^{III}_2O_4$, single cryst. Raman spectra 2−57074
Cr_3Si, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
$CsAl_2I_7$, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
CsD_2PO_4, para, ferro, and antiferroelectric phases, vibr. Raman and IR study 2−77508
CsH_2PO_4, paraelectric, -OHO-vibrs. in Raman spectra 2−93207
$Cs_3La(N_3)_6$, IR and Raman spectra, mag. susceptibility 2−87767
$CsMg_{1-x}Co_xCl_3$, disordered 1D antiferromag., Raman scatt. from Co^{2+} excitations 2−67039
$CsNO_3$, single cryst., Raman scatt. study 2−77511
$Cs_2NaBi_xY_{1-x}Cl_6$, optical centre conc. effects on electron lattice coupling, optical props. study 2−57151
$Cs_3Nd(N_3)_5$, IR and Raman spectra, mag. susceptibility 2−87767
$Cs_4Nd(N_3)_7$, IR and Raman spectra, mag. susceptibility 2−87767
Cu halides, optical deform. potentials, absolute Raman scatt. efficiency 2−104835

Raman spectra of inorganic solids continued
CuBr, Raman study of exciton-polariton dispersion relation 2−93180
Cu_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
Cu_2HgI_4 solid electrolyte, attempt. freq. for ion hopping, Raman spectra 2−116176
Cu_2Te hexagonal, lattice vibrs. symmetry, Raman scatt. selection rules 2−115374
$DyFeO_3$, Raman scatt. from mag. excitations 2−77528
$ErFeO_3$, Raman scatt. from mag. excitations 2−77528
Fe foil, oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
Fe-Cr, oxide scale form. in air at elev. temp., Raman obs. 2−62264
$Fe_{1-x}Cd_xCl_2$, dilute antiferromagnet, Raman scatt. from magnons, Ising cluster model 2−61893
$FeCl_2$ aq. solns., in glassy state, Raman spectra 2−87774
$FeCl_3$ aq. solns., in glassy state, Raman spectra 2−87774
$Fe_{1-x}Co_xCl_2$, Raman study of excitations 2−72483
FeF_2, one-magnon Raman spectrum, effects of quadratic magneto-optical coupling 2−72482
$Fe(NO_3)_3$ aq. solns., in glassy state, Raman spectra 2−87774
Fe_2O_3 crystal, depth profiling using Raman spectroscopy with ion bombardment 2−57646
Fe_3O_4 on steel and Fe surfaces, oxidation, IR and Raman spectroscopy study 2−116563
$Fe_xV_{3-x}S_4$, Raman study 2−87793
$Ga_{1-x}Al_xAs$, anharmonicity and disorder-induced effects, Raman study 2−57083
$Ga_{1-x}Al_xAs$ epitaxial layers and single crysts., anharmonicity and disorder-induced effects, Raman study 2−67052
p-GaAs, heavily doped, coupled LO phonon-plasmon modes and forbidden TO modes, Raman scatt. study 2−57101
GaAs, one phonon density of states determ. by disorder-activated first-order Raman scatt. 2−66151
GaAs, Raman spectrum, phonon modes, ion implantation and annealing effects 2−82833
GaAs:Si(Sn), ion implanted, Raman spectra study 2−110837
GaAs-$Al_xGa_{1-x}As$ multilayer struct., electron-LO phonon modes, Raman scatt., theory 2−110825
$(GaAs)_{1-x}Ge_x$ single-crystal metastable alloys, growth and optical props. 2−116360
$GaAs_{0.2}P_{0.8}$, resonant Raman scatt. 2−87754
$Ga_{1-x}In_xAs$ epitaxial layers, Raman spectra 2−82934
β-Ga_2O_3, single cryst., valence force field, Raman study 2−77514
GaP, Raman scattering efficiencies for Γ-phonons 2−57100
$GaP_{1-x}As_x$, phonon line shape and disorder correl. 2−56127
$Gd_3Ga_5O_{12}:Nd^{3+}$ garnet films prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
Ge, Raman phonon press. depend. 2−67054
Ge-Si:H, amorphous sputtered alloys, elec., optical and struct. props. 2−98644
GeO_2, vitreous, vibr. selection rules in Raman and IR spectra 2−57082
$GeSe_2$ glass, reversible quasicrystn., Raman scatt. study 2−81685
$HClO_4.2H_2O$, IR and Raman spectra of glassy and liq. states *(French)* 2−87776
HfF_4-BaF_2-LaF_3(ThF_4) glasses, polarised Raman scatt. study 2−57086
HfS_2, lattice dynamical anisotropy, two phonon reson. Raman scatt. study 2−98220
$Hg_2(Cl,Br_{1-x})_2$, Raman scatt. on acoustic soft mode from Brillouin zone boundary *(Russian)* 2−57097
$Hg_2Cl_2(Br_2)(I_2)$, Raman study of soft modes at high press. 2−93202
$HgCr_2Se_4$, hot carrier influence on Raman spectra *(Russian)* 2−72498
Hg(II) complex, 2-aminobenzothiazole mercury, conductometric, IR and Raman study 2−110867
$HoFeO_3$, Raman scatt. from mag. excitations 2−77528
I_2 coadsorbed with I_3^- on Pt and Pd, surface enhanced Raman spectra 2−99132
InBr(l), lattice dynamics, IR and Raman spectra 2−116194
$In_{1-x-y}Ga_xAl_yAs$ lattice matched to InP, band-gap energy and electron effective mass, comp. depend. 2−115650
$In_{1-x}Ga_xP$ mixed crysts., light scatt. by phonon polaritons 2−104891
InP, Raman spectrum, phonon modes, ion implantation and annealing effects 2−82833
$InPO_4$ film on InP, IR and Raman data 2−72854
InS, Gruneisen mode parameters, structural phase transition, high press. Raman study 2−104889
InSe, cryst. struct. and Raman spectra 2−98036
InSe, exciton selection rules in polarised reson. Raman scatt. by LO phonons 2−67034
KAl_2Br_7, cryst., vibr., normal coord. anal. IR and Raman obs. 2−57102
KBr, Raman scatt. induced by V-centres 2−67037
KC_{120} intercalation cpd., Raman scatt. studies of folded shearing phonons 2−57088
$K_2CO_{1-x}Fe_xF_4$, magnons, Raman study 2−104596
K_4CdCl_6 crystal, vibr. spectra, factor group anal. 2−99107
KCl, F-centre excitation, reson. Raman scatt. study 2−116232
$KClO_4:MnO_4^-$, reson. Raman profile line shapes from optical absorpt. data 2−93233
$K_3Co(CN)_6$, struct. phase transition, Raman study 2−99116
KD_2PO_4, ferroelec., dynamics of proton sublattice, Raman scatt. study 2−86814
$K_4Fe(CN)_6.3H_2O$, vibrational spectrum and water of crystn. sublattice struct. in ferroelec. phase 2−72506
K_3FeF_4, two-magnon Raman scatt., spin wave anal. 2−82865
KH_2PO_4, ferroelec., dynamics of proton sublattice, Raman scatt. study 2−86814
KH_2PO_4, paraelectric, very low freq. Raman spectra near ferroelec. phase transition 2−67059
KH_2PO_4:$NH_4H_2PO_4$, soft mode spectra and ferroelec. phase transition 2−57029
KN_3, variable temp. and pressure Raman spectra 2−87782
$KSc(MoO_4)_2$, ferroelastic, Raman and IR refl. spectra, 4 to 300K *(Russian)* 2−116170
K_2SeO_4, incommensurate phase transition, uniaxial stress depend., Raman scatt. study 2−71638
K_2SeO_4, phase transform. Raman study 2−72481
K_2TaF_7, cryst., vibr., Raman study 2−77510
K_2TiF_6 crystal, vibr. spectra, factor group anal. 2−99107
K_2ZnCl_4, phase transform. Raman study 2−72481
K_2ZnF_4, optically active phonons, interionic pot. calc. and vibr. spectra 2−66148

Raman spectra of inorganic solids continued
$K_2Zn(SO_4)_2.6H_2O$, IR and Raman spectra, phonon modes 2−87787
$LaAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957
$La_2(MoO_4)_3$, Raman and IR spectra, vibr. assignment 2−82850
La_2O_3, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
La_2O_2S, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
La_2S_3, ceramic, opt. props., IR transparency and spectra 2−57080
$La_2(SO_4)_3.9(H,D)_2O$ single cryst., polarized Raman spectra, external vibr. modes, temp. effect *(French)* 2−72491
$LiAlSiO_4$, β-eucryptite crystallisation from glass, laser Raman spectra 2−71366
$Li_2B_4O_7$, Raman spectrum, 100 to 400K 2−67038
LiF film, on $LiNbO_3$, Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
LiH, crystal with self-trapping excitons, exciton luminesc. and multiphonon Raman spectrum 2−82922
$LiIO_3$ crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
$LiIO_3$, Raman scatt. from three phases 2−57107
$LiIO_3$, uniaxial stress induced changes in Raman spectrum 2−110858
$LiNH_4SO_4$, Raman scatt. internal and external vibrs., soft modes 2−82834
$LiNbO_3$, A_1 polariton dispersion characts., low temp. 2−67046
Li_2O-Al_2O_3-SiO_2-TiO_2 glass ceramic, phase anal., Raman and X-ray obs. 2−110853
Li_2O-SiO_2 glass, phase separation, Raman spectroscopy study 2−92212
$Li_4P_2S_6$, synthesis, cryst. struct. and vibr. anal., X-ray diffr. study *(French)* 2−103714
$LiTaO_3$, A_1 polariton dispersion characts., low temp. 2−67046
$LiTaO_3$, ferroelectric phase transition, Raman spectra *(Chinese)* 2−77456
MnO_4^- ion, ^{18}O enriched, in RbBr matrix, reson. Raman spectrum 2−116183
$MnPS_3$-$Na^+(K^+)(Rb^+)(Cs^+)$ intercalated, IR and Raman vibr. study 2−87769
Mo_2S_3, electronic props., phase transitions 2−110354
N_2 liquid and plastic cryst. phase, LF Raman spectra 2−116164
N_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
N_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
NH_4Cl, Raman scatt. from nonfundamental states 2−93195
NH_4Cl, single cryst., tricritical point, Raman study 2−82845
NH_4NO_3, phase transformations, Raman study 2−87768
NH_4NO_3, polycryst., phase II Raman spectral consequences of struct. disorder 2−116168
NH_4ReO_4, Raman spectrum at high press. 2−116182
NH_3SO_3, internal modes, normal coordinate anal., Raman study 2−116178
$(NH_4)_2ZnCl_4$, ferroelec. phase transitions, light scatt. study 2−110830
$Na_3AsS_4.8D_2O$, H-bonds, neutron diffr., X-ray diffr. and vibr. spectroscopic studies 2−55933
$Na_3H_6[PMo_6V_6O_{40}].16H_2O$, cryst. struct. and vibr. spectra 2−98030
NaI crystal with self-trapping excitons, exciton luminesc. and multiphonon Raman spectrum 2−82922
NaI, resonance Raman scatt. induced by F-centres, electron-phonon coupling 2−87788
Na_2O-SiO_2 glass, phase separation, Raman spectroscopy study 2−92212
Na_2O-SiO_2-B_2O_3 glass, phase separation, Raman spectroscopy study 2−92212
$Na_5PMo_{10}V_2O_{40}.15H_2O$, cryst. struct. and vibr. spectra 2−98029
$NaPO_3$-NaF(AlF_3)(AlF_3-CaF_2) glasses, Raman spectra, struct. models 2−87758
$Na_3SbS_4.8(D,H)_2O$, Raman spectra in temp. range 75-295K 2−87773
$Na_3SbS_4.9(D,H)_2O$, Raman spectra in temp. range 75-295K 2−87773
Nb_2O_5, high temp. form, room temp. Raman spectrum and vibr. assignments 2−116163
NbS_2-2H and intercalated, Raman scatt. spectra 2−87792
Nb_3Sb, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
$NbSe_2$-2H, normal state phonon prop. anal. 2−103919
$NdAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957
NdO_3, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
NiO, occluded gases within microscopic cavities, Raman spectra and gas-phase chromatography 2−61013
O_2 absorption on porous glass, bimolecular radiative processes, luminescence and Raman scatt. 2−82913
O_2, liquid and plastic cryst. phase, LF Raman spectra 2−116164
O_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
O_2 pure vibr. Raman struct. of mol. crysts. in Ar matrix 2−113995
$O_2^-AsF_6^-$, phase transitions and ionic motions, Raman obs. 2−104868
O_2PF_6, phase transition at −67°C, temp. depend. Raman study 2−110840
OsF_6, energy levels, vibronic coupling, IR and visible study 2−116189
P, amorphous, intermediate range order, X-ray diffr. and Raman scatt. study 2−91779
P_2O_5 glasses, Gd^{3+} doped, vibronic spectra comparison with Raman and IR spectra 2−72499
$Pb_xCd_{1-x}I_2$ crystal, interlayer interactions, Raman phonon spectra *(Russian)* 2−104893
$Pb_5Ge_3O_{11}$, soft mode, neutron and Raman scatt. study 2−93125
PbI_2 (6H), high press. Raman study 2−104864
6H-PbI_2, Raman spectrum, phonon dispersion curve 2−87765
$Pb(MoO_4)_x(WO_4)_{1-x}$ mixed cryst., lattice dynamics, Raman scatt. study 2−67050
Pb_3O_4, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$Pb_3(PO_4)_2$-$Pb_3(AsO_4)_2$, stepwise ferroelastic transition, Raman X-ray, neutron and stress birefringence study 2−115402
$PbTiO_3$, amorphous state and crystn. process, Raman scatt., SEM, and dielec. meas. 2−81677
$PbTiO_3$, ferroelec., Raman scatt. from amorphous state, rel. to crystallisation process 2−57091
Pd complex, near IR, IR transmission and unpolarised Raman spectra, vibr. anal. 2−104863
Pd linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
$PrAsO_4$, cryst. struct., IR and Raman vibr. spectra, X-ray diffr. study 2−65957

Raman spectra of inorganic solids continued
Pr_2O_3, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
Pt linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
$Pt(NH_3)_4PtCl_4(HSO_4)_x$, synthesis, optical props., and cond. 2−93190
Rb_2CoF_4, magnon Raman scatt., AFMR 2−72356
$RbFeCl_{3-x}B_x$, magnetically disordered, optical, Raman and MCD study 2−77544
$RbHSeO_4$, Raman spectra, 20-300K 2−99134
$RbNO_3$, single cryst., Raman scatt. study 2−77511
Rb_2ZnBr incommensurate struct., Raman spectra, superspace selection rules 2−61909
Rb_2ZnBr_4, incommensurate struct., far IR and Raman spectra meas. 2−104882
$Rb_2ZnBr_4(Cl_4)$, phase transform. Raman study 2−72481
Rb_2ZnCl_4, ferroelectrics, incommensurate phase Raman scatt. 2−116197
Rb_2ZnCl_4, phase transitions, Raman scatt., dielec. const. and spontaneous polarisation study 2−72510
Sb_2O_3, vitreous, IR and Raman spectra, valence force field calcs. 2−72503
SbSI, phonon spectrum, soft modes and order parameter near ferroelec. transition 2−103936
Sb_2Te_3 single cryst. growth by hot wall epitaxy 2−93418
Se, amorphous, second-order Raman scatt. 2−61904
Se glass, dye laser Raman scatt. 2−99130
Si, amorphous, anneal stable, Raman scatt. study 2−57084
a-Si CVD films, anneal-stable, struct. order, Raman scatt. study 2−81679
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
p-Si, interband electronic Raman scatt. calcs. 2−104883
Si, ion implanted, pulsed laser annealing dynamics, plasma annealing model 2−56013
Si, ion implanted, pulsed laser annealing, melting model and Raman scatt. 2−98155
Si, phonon population, time-reversal invariance and Raman meas. 2−103920
Si, Raman and time-resolved transmission meas. 2−57073
Si surface, laser annealed, residual strain, surface treatment effects, Raman spectra study 2−81821
Si:As, ion implanted, laser annealed, bonding defects, Roman scatt. study 2−67066
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
a-Si:H films, Raman scatt. under high press. 2−72505
Si:H microcrystalline glow discharge films, phys. props., substrate bias effect 2−87109
SiC (3C), optical phonons and transverse effective charge, temp. depend., 77 to 750K, Raman study 2−82861
SiC-3C, Raman phonon press. depend. 2−67054
SiC(3C), optical phonons and transverse effective charge, press. depend., Raman study 2−82860
SiO_2, fused silica optical fibres, modal analysis of Raman spectrum 2−55333
SiO_2 gel to glass transform., Raman and IR spectra study 2−77506
SiO_2, silica fibres, LF and low temp. Raman scatt. 2−67047
SiO_2, vitreous, planar rings, energy minimisation argument and Raman spectra 2−91790
SiO_2:F, vitreous silica optical fibre preform, Raman spectra anal. 2−65382
SiO_2-$NaAlO_2(CaAl_2O_4)(MgAl_2O_4)$ glasses, three-dimens. network struct. 2−115142
SiO_2-P_2O_5, gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SiO_2-TiO_2 gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SmB_6, intermediate valent, phonon softening, Raman spectra study 2−57081
$SmFeO_3$, Raman scatt. from mag. excitations 2−77528
$SnGeS_3$, cryst., vibr. props., Raman and far-IR study 2−67030
$Sn_2P_2S_6$, lattice vibrs. in ferroelec. phase, Raman spectra anisotropy 2−104888
$Sn(Pb_2O_4)$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$SnPb(Pb_2O_4)_2$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$SrCl_2:O_3^-$, EPR and Raman spectroscopy investig. 2−56928
SrF_2, Raman scattering efficiencies for Γ-phonons 2−57100
SrF_2, rare earth doped and hydrolyzed mol. centres, Raman spectra study 2−104873
SrF_2:La, Raman spectra between 300 and 1400K 2−99129
$SrTiO_3$, non-adsorption of carbonate ions, Raman spectra study 2−66347
$SrTiO_3$, Raman spectra 2−82840
β-Ta_2O_5, vibr. spectra and X-ray diffr. obs. of cryst. struct. 2−98012
$TaSe_2$ (2H), Raman scatt. from CDW state, commensurate-incommensurate transition 2−66468
$TaSe_2$-2H, normal state phonon prop. anal. 2−103919
$TaSe_2$-2H, Raman scatt. from orthorhombic commensurate phase 2−116192
$TaSe_2$(2H), electronic susceptibility, CDW and lattice vibr., Raman scatt. study 2−77530
TiO_2, Raman spectra in anatase and rutile 2−82851
$TlInSe_2$, Raman spectrum, first order, hydrostatic press. effect 2−87794
TlS, Raman spectrum, first order, hydrostatic press. effect 2−87794
$Tl_2X_2O_6$ (X=Ta, Nb, Sb), vibr., force fields, IR and Raman study, normal coordinate anal. *(French)* 2−110869
Tl_2ZnI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
Tm_xSe and $TmSe_{1-y}Te_y$, intermediate valent, phonon and elastic anomalies 2−56116
Tm_xSe, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
$TmSe_{1-x}Te_x$, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
V_3Si, anomalous E_g phonon and electronic Raman scatt. 2−57089
$V_3Si(Ge)$, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
Xe, cryocrystals, exciton spectra, polariton and spatial dispersion effects 2−82904
$YFeO_3$, Raman scatt. from mag. excitations 2−77528
Yb_2O_2S, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781

Raman spectra of inorganic solids continued
Zn(II) complex, 2-aminobenzothiazole zinc, conductometric, IR and Raman study 2−110867
ZnO, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
ZnP_2:As, impurity vibr., Raman scatt. study *(Russian)* 2−77540
ZnS, lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnSe, lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnSe, phonon anomalies, Raman spectra study 2−98221
ZnSe, Raman intensity press. depend. 2−93182
ZnSe, reson. electronic Raman scatt. and electronic structs. of bound exciton complex 2−67036
ZnTe lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnTe(Se)(S), Raman scattering efficiencies for Γ-phonons 2−57100
ZrF_4-BaF_2-$LaF_3(ThF_4)$ glasses, polarised Raman scatt. study 2−57086
ZrO_2 ceramics, meas. of crystallographically transformed zone produced by fracture 2−99531
ZrO_2, polymorphism, high press. transitions, Raman spectra study 2−91859
ZrO_2-$Gd_2O_3(Eu_2O_3)$ single crystals of tetragonal struct., Raman scatt., domain struct. existence 2−93191
ZrS_2, lattice dynamical anisotropy, two phonon reson. Raman scatt. study 2−98220
ZrS_3, depend. of phonon spectrum on hydrostatic press., Raman scatt. data 2−109922

Raman spectra of organic molecules and substances
acetone, liq., isotropic line shapes and freq., press. effects, Raman spectra 2−72474
acetonitrile, crysts., vibr., phase transitions, Raman and Raman study 2−77513
acetylene, crysts., vibr., phase transitions, Raman and Raman study 2−77513
actinomycin, vibr. struct., Raman obs. 2−57781
actinomycin-DNA, vibr. struct., Raman obs. 2−57781
adriamycin, absorpt., fluoresc. and Raman obs. 2−57780
adrimycin-DNA, absorpt., fluoresc. and Raman obs. 2−57780
alanine ($-d_n$), CH stretching vibr. circular dichroism, localised MO calcs. 2−108448
alanine ($-d_n$), CH stretching vibr. circular dichroism and fixed partial charge calcs. 2−108447
alanine ($-d_n$), IR vibr. circular dichroism, vibr. anal. and Raman spectra 2−108446
L-alanine crystal, Raman spectroscopic temp. study of NH_3^+ torsional motion rel. to H-bonding 2−87779
n-alkanes, low freq. Raman spectra, struct. of chain mols. 2−72475
alkene-halogen complexes studied by matrix isolation vibrational spectroscopy 2−70260
amines, primary long-chain systems, Raman spectroscopic study of mol. interaction 2−114003
p-aminophenoxyl radical, time resolved resonance Raman scatt. 2−70253
anilinium halides, torsional and librational modes, inelastic neutron scatt., IR and Raman spectra 2−109923
anions in aq. soln., isotropic Raman scatt., vibr. dynamics 2−82848
1,4-anthraquinone single cryst., polarised IR absorpt. and Raman spectra, oriented-gas model 2−93192
aromatic mols. adsorbed on Ag (110) surface, enhanced photofragmentation, Raman study 2−116725
trans-azobenzene, Raman excitation profiles, 361 to 494 nm 2−113999
bacteriorhodopsin, Schiff base group, struct. of retinylidene chromophores, Raman spectra 2−88502
bacteriorhodopsin's primary photoproduct, resonance Raman spectra, distorted 13-cis retinal chromophore 2−88508
benzene, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
benzene, inverse Raman scatt. spectra regularities 2−70608
benzene, liq., ν_1 band, Raman amplification spectra study 2−74511
benzene, Raman scatt. tensor invariants, active Raman scatt., spectroscopy meas. 2−113994
benzene, sorption on Ag electrodes, surface-enhanced Raman spectra 2−61276
benzene 2−80631
benzene and benzene-d_6 on vapour deposited Na, surface enhanced Raman spectra 2−96576
benzene chromium tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene molybdenum tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
benzene radical anion, vibrational spectra and freq. shifts, IR and Raman 2−108455
benzene tungsten tricarbonyl, LF motions, Raman and quasielastic neutron scatt. 2−82849
1,2-benzoanthracene electronic-vibr. Raman spectra, Shpol'skii effect 2−70264
p-benzosemiquinone free-radical anions, reson. Raman spectra 2−80619
para-benzosemiquinone radical anion, halogen derivatives, radiolytically prepared, reson. Raman spectra 2−59807
benzotriazole, corrosion inhibitor on Cu, surface enhanced Raman scatt. study 2−111367
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2−75276
biphenyl crystals, torsionally induced bands in Raman spectrum 2−87777
biphenyl dianion, vibrational spectra and freq. shifts, IR and Raman 2−108455
p,p′-biphenylsemiquinone free-radical anions, reson. Raman spectra 2−80619
(R)−(+)bromochlorofluoromethane, Raman optical activity, bond polarisability theory 2−96580
bromocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
3-bromothiophene, liq. and solid, vibr., Raman and IR study 2−93204
cadmium arachidate in contact with rough metal surfaces, monolayers, surface IR and Raman vibr. spectra 2−96562
d-camphor, carbonyl stretching mode, Raman and IR spectra, high press. and temp. effects 2−67057
carbon tetrachloride, liquid, hyper Raman light scatt. *(Russian)* 2−82856
carbon tetrachloride, Raman scatt. tensor invariants, active Raman scatt., spectroscopy meas. 2−113994
o-carborane, low temp. phase transitions 2−61887
carotenoids, excited states, time-resolved reson. Raman spectrosc. 2−59805

Raman spectra of organic molecules and substances continued
chloranil, phase transition, soft mode behaviour, press. depend. Raman scatt. study 2−66205
3-chloro-2-methylpropene, vibr. spectra, normal coordinate anal. and conformational equilib. 2−114001
4-chloro-2-nitrotoluene, laser Raman and IR spectra, vibr. anal. 2−102482
p-chlorobenzyl cyanide, Raman and IR spectra, vibr. assignment 2−90533
chlorocyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
chlorodifluoromethane in liq. Ar, IR and Raman spectra, vibr. anal., overtone and combination bands 2−90546
chloroethane-2-d_1, IR and Raman spectra, vibr. anal. 2−75285
chloroform, ang. vel. correl. functions obtained from far IR absorpt. and Raman band shape 2−110829
chloroform-d, in aq. solns., Raman linewidth study of rotational motion 2−85673
chloromethylphenols, vibr., laser Raman obs. 2−108523
3-chlorothiophene, liq. and solid, vibr., Raman and IR study 2−93204
chrysene, vibrs., IR and Raman obs. 2−64984
cis-polyacetylene, resonant Raman scatt., theoretical anal. 2−77524
citrate ions adsorbed on Au sol particles, surface enhanced Raman scatt. 2−116195
18-crown-6-$K_2C_2O_4$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$K_2Cr_2O_7$, IR and Raman vibr. spectroscopy 2−75282
18-crown-6-$KMnO_4$, IR and Raman vibr. spectroscopy 2−75282
crystal violet, adsorbed on Ag electrodes, surface enhanced Raman scatt. 2−99104
cyclohexane, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
cyclohexane, liq., degenerate vibrs., rot.-vibr. relax. 2−93173
cyclohexane, liq., light scattering and far-IR absorpt. spectra 2−77515
cyclohexane, liq., Raman-active vibr. modes, coherent excitation, spectrosc. technique 2−79681
cyclohexane, superposed Raman lines, coherent ellipsometric obs. 2−102489
cyclohexane, vapour, solid and liq. phase, IR and Raman study 2−75271
cyclohexane in aqs. soln., rot. motion, isotropic and anisotropic Raman bands 2−80630
cyclopropane, Raman intensities, CNDO calcs. 2−85549
cyclopropyldimethylborane, vibrational spectra and conformation 2−70257
1-decyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
di-potassium tartrate hemi-hydrate cryst., laser Raman and IR spectra 2−116181
dibenzenetitanium, struct., spectra, chem. props. 2−67045
dibromomethane, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
dichlorobenzoylchlorides, Fermi resonance, Raman and IR obs. 2−54849
dichloromethane, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
dichloromethane, liq., light scattering and far-IR absorpt. spectra 2−77515
2,6-dichloropyrazine, IR and Raman vibr. spectra 2−96558
2,6-dichloropyridine, solid, vibr., Raman and IR study 2−61888
diethyl phosphate phospholipid head group stretching vibr., Raman bands, conformation depend. 2−70261
difebarbamate, H bonds, IR and Raman study 2−54850
5,10-dihydrophenazine, free radical cation, reson. Raman spectra 2−114004
1,4-dihydroxyanthraquinone-$d_0(d_2)$, electronic states, vibr. Raman and IR study 2−57070
diiodoethylarsine mols. conformations by vibr. spectroscopy 2−90727
1,2-diisocyanoethane, conformation, vibr., INDO calcs., Raman and IR obs. 2−75274
1,4-dimethoxybutane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,5-dimethoxypentane, Raman and IR spectra, model cpds. of polyethers 2−70258
1,3-dimethoxypropane, Raman and IR spectra, model cpds. of polyethers 2−70258
dimethyl 3,4 phosphacymantrene, phase transition, calorimetric and LF Raman study *(French)* 2−110846
dimethyl ether-HI, mol. interactions in N_2 matrices, IR and Raman spectra 2−96567
dimethyl formamides, Raman and IR spectra, vibr. freq. calc. using force field base ab initio calcs. 2−85650
dimethyl sulphide, config., IR and Raman spectra anal. 2−113990
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
dimethylmalonic acid and its salts, Raman and IR spectra *(French)* 2−113997
2,6-dimethylpyrazine, IR and Raman vibr. spectra 2−96558
dimyristoyl phosophatidylcholine water dispersions, press. induced phase transitions, Raman spectra 2−82839
dimyristoyl phosphatidylcholine-d_{54} liposome, Raman linewidth, 2103 cm^{-1}, membrane bilayer reorganization 2−73206
x-(2′,4′-dinitrobenzyl)pyridine (x=2,4), resonance Raman spectra of short-lived species 2−72489
1,1-diphenylethylene adsorbed layer, reaction intermediates, resonance Raman spectra 2−73014
diphenylhexatriene, on Ag surface, spectra, intense quadrupole transitions 2−108524
diphenyloctatetraene, on Ag surface, spectra, intense quadrupole transitions 2−108524
dipropenyl ether isomers, IR, Raman and ^{13}C NMR spectra, vibr. coupling 2−96569
1,3-disilacyclobutane, pot. energy surface, vibr., IR and Raman obs. 2−70252
ditetramethylammonium uranyl tetrabromide, vibr., luminescence, IR and Raman study 2−61895
DODCI, solutions, anti-Stokes Raman scatt. 2−61894
ethane-d_3, ν_5 vibr. band Raman anal. 2−85675
ethyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
ethyl halides, Raman intensities for torsional vibr. calc. 2−70255
ethylene, Q-switched spin-flip Raman laser rovibrational lines in 2000 cm^{-1} region 2−102487
ethylene-Ar clusters, in supersonic mol. beam, CARS 2−80861
febarbamate, H bonds, IR and Raman study 2−54850
ferrocytochrome C, mag. resonance-Raman optical activity 2−85674

Raman spectra of organic molecules and substances continued
gases, Rayleigh scattering, weak depolarization ratio meas. using Raman spectroscopy 2−70262
haemoglobin, R-state Fe-imidazole freq., time-resolved resonance Raman spectroscopy obs. 2−73197
haloalkanes, vibr. dephasing, Raman obs. 2−102486
n-hexadecane, liq. and soln., conformational order, Raman study 2−67033
hexafluoroazomethane, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexafluorobenzene-benzene (mesitylene) mixtures, Raman linewidth study of mol. interactions 2−87780
hexafluorobut-2-ene-$d_0(d_2)$, stuct., vibr., normal coordinate anal., electron diffr., IR and Raman obs. 2−113981
hexaziridinocyclotriphosphazene, solid state and aq. soln., Raman and IR studies 2−87772
1-hexyne, solns., vibr., relax., bandwidths, IR and Raman obs. 2−64989
1-hexyne in soln., IR and isotropic Raman spectra, vibr. and rot. relax. 2−80615
L-histidine and related cpds., aq. solns., Raman studies 2−70259
2-hydroxycyclohexane, aq. soln.-and solid vibr., IR and Raman study 2−116177
imidazole, cryst., lattice vibr., isotope shifts, Raman study 2−67032
inosylyl (3′→5′) inosine, dinucleoside monophosphate, D exchange rates 2−72983
3-iodothiophene, liq. and solid, vibr., Raman and IR study 2−93204
light scattering and far-IR absorpt. spectra 2−77515
lithium formate crystals, Raman light scatt. by polaritons, intensity dispersion 2−72509
lycopene, reson. Raman excitation profile, inhomogeneous broadening effects 2−102484
mercaptoacetaldehyde, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
mercaptoacetone, cryst. and soln., mol. struct., PMR, Raman and IR study 2−93205
metallophthalocyanine, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2−54855
metalloporphyrins, electronic and vibronic perturbation, depolarisation dispersion curves, Raman fundamentals 2−54854
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2−54855
methane, collision induced light scatt., three body correl. spectrum 2−80636
methane, pulsed and CW mol. beam CARS spectroscopy 2−59812
methane, solid, Raman spectra under high press., Gruneisen parameters 2−77502
methane (-d_4), IR and Raman spectra, vibr. freq. and intensities, CNDO calc. 2−80632
methane diffusion flame, comparison between CARS and corrected thermocouple temp. meas. 2−107322
methane dissolved in liquid freon, Raman spectrum, isotropic scatt. band profile, intermol. interactions effect 2−59809
methane in underexpanded supersonic jet, high-resolution CW CARS 2−108530
methanes, halogen substituted liq. state, Raman band widths of totally symmetric vibr. bands 2−113998
methanol, liq. and solns., Fermi reson. solvent and temp. depend., Raman study 2−75296
methanol-water (organic solvent) mixtures 2−96579
methotrexate, reson. Raman spectra obs. of peteridine moiety 2−114005
3-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
p-methoxy benzyl alcohol, Raman and IR spectra, vibr. assignment 2−90533
methoxyflurane, internal rot., vibr., microwave, IR and Raman obs. 2−75252
methyl dimethylsilyl sulphide and its deuterated analogues, Raman spectra, conformational anal. 2−90557
methyl dithioacetate, IR, aman and reson. Raman spectra, normal coordinate anal. 2−64967
methyl germyl sulphide, config., IR and Raman spectra anal. 2−113990
methyl iodide, photodissoc., exact time-dependent wave packet propagation technique appl., Raman scatt. 2−70356
4-methyl pyrimidine, IR and Raman vibr. spectra 2−108511
5-methyl-10-hydrophenazine free radical cation, reson. Raman spectra 2−114004
N-methylacetamide, deuteration kinetics by stopped-flow multidetector Raman spectrophotometry 2−72490
methylcyclopropane, torsional vibrs., Raman intensity calcs. 2−96577
methylmercury complexes of adenine, Raman and IR spectra 2−72504
2-methylpyrazine, IR and Raman vibr. spectra 2−96558
N-methylpyridinium ion, on Ag electrode, IR and Raman surface enhanced spectrum 2−85667
molecular crystals, Raman scatt. by intermolecular vibrs., effective field method 2−110854
monolayer assemblies on Ag gratings, plasmon surface polariton field enhanced Raman spectra 2−110838
monomethyl fumarate and its Na salts, IR and Raman spectra, vibr. anal., struct., conjugative effects 2−90547
naphthalene: 2(1,4-diiodotetrafluorobenzene), exciton-phonon coupling, triplet energy transfer, Raman spectrosc. obs. 2−104869
nematic liq. crystals, order parameter fluctuations and mol. anisometry 2−103619
neopentane, plastic, rot. motion studied by Raman spectroscopy 2−110841
neopentane, plastic cryst., macroscopic anisotropy, Raman light scatt. 2−93177
m-nitroaniline crystal, polarised IR and Raman spectroscopic study, lattice vibrs. 2−87775
nitrobenzene, adsorbed on Ni (111), surface Raman spectra without surface enhancement obs. 2−77504
nitrobenzene on Ni(111), surface Raman spectroscopy without enhancement 2−67061
nitromethane, CH stretching IR and Raman spectra, internal rot. 2−80616
nucleic acid bases adsorbed on Ag electrode, surface enhanced Raman spectra 2−72485
organolead amines, vibr., isotope effects IR and Raman obs. *(German)* 2−54847
oxalyl chlorofluoride, cryst. and fluid states, vibr., conformation, Raman and IR study 2−75275

Raman spectra of organic molecules and substances continued
oxamide, Raman active internal and external modes, vibr. 2—82847
oxo-2-pyrimidinium chloride, cryst. and aq. soln., IR and Raman spectra *(French)* 2—77533
oxo-hexa-acetato-tetraberyllium (II)-d_0 (d_{18}), vibr., Raman and IR obs. 2—54845
oxo-hexa-acetato-tetrazinc (II), vibr., Raman and IR obs. 2—54845
oxo-hexa-formato-tetraberyllium (II), vibr., Raman and IR obs. 2—54845
oxo-hexa-propionato-tetrazinc (II), vibr., Raman and IR obs. 2—54845
pentacene in naphthalene mixed crysts. reson. Raman scatt. study of vibr. dephasing 2—77500
pentaziridinocyclodiphosphathiazene $(NPAz_2)_2NSOAz$, $(Az=NC_2H_4)$, Raman and IR studies 2—114002
4-n-pentyloxybenzylidene-4-ethylaniline, conformational changes, Raman scatt. study 2—109985
perfluoro-n-alkanes, low freq. Raman spectra, struct. of chain mols. 2—72475
(perylene)$_3$TCNQ, single cryst. Raman spectra, temp. depend., isotope effects 2—72470
phenobarbital, H bonds, IR and Raman study 2—54850
phenoxy, radical, resonance Raman spectra 2—70263
phenoxy monosubstituted radicals, resonance Raman spectra 2—70263
phenoxy-d_0(d_5); aq. radicals, solvent effects, resonance Raman obs. 2—70254
phenoxyl radical, Raman spectrum in stopped-flow expts. 2—80627
phospholipid multilayer, oriented monodomains, polarized Raman spectra 2—73207
phthalocyanine, metal-free, films, Raman spectra study 2—99119
phthalocyanine films, on Ag, enhanced Raman scattering 2—87778
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2—54855
poly(ethylene terephthalate) flowing melts, Raman spectroscopy 2—72497
poly(tertiary butyl acrylate), laser-Raman spectrum and normal coord. anal. 2—86582
polyacetylene:Li, n-type doping, isomerisation, EPR and Raman spectra 2—65878
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2—93184
polyacetylene, Br substituted, synthesis and EPR, dynamic nucl. polarisation and Raman study 2—76474
polyacetylene, isomerisation and disorder induced by doping 2—99670
polyacetylene, partially reson. Raman scatt. meas. 2—77523
polyacetylene, quantum corrections to solitons 2—103929
polyacetylene, resonance Raman scatt. and photoluminescence props., review 2—77522
polyacetylene, vibrational props., dynamical model 2—76607
polydiacetylene conjugated solution, Raman photoselection 2—82864
polyethylene, highly drawn linear, gauche defects, accordion-type laser Raman scatt. obs. 2—67041
polyethylene, unannealed and annealed soln.-crystallised, straight chain length distrib. by Raman spectroscopy 2—109699
polyiodide chains, resonant Raman scatt., theoretical anal. 2—77524
polymethylene, cryst. and amorphous, chains Fermi reson. and vibr. spectra 2—116172
polynuclear uranyl fluoride complexes, luminesc. and vibr. spectra 2—99123
polyoxymethylene hexagonal cryst., IR and Raman vibr. spectra 2—77501
potassium deuterium furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2—67056
potassium hydrogen furan 2,5-dicarboxylate, cryst., vibr. spectra and H bonding *(French)* 2—67056
propane-d_6, Fermi resonance, intermolecular interactions, Raman obs. 2—64988
propylene oxide, torsional vibrs., Raman intensity calcs. 2—96577
propyne-acetone, vibr. relax., Raman band shapes 2—90555
pTS, monomer diacetylene, incommensurate-commensurate phase transition, Raman study 2—71631
pyridene molecules adsorbed on Ag surface, giant Raman effect 2—67062
pyridine, absorbed on Ag, surface enhanced Raman scatt., role of direct surface interaction 2—77537
pyridine, adsorbed mols. on Ag-Cu electrode, surface enhanced Raman scatt. 2—99131
pyridine, adsorbed on Ag, surface enhanced Raman scatt. 2—82859
pyridine, adsorbed on Ag particles, vibr., enhanced Raman effect study 2—80631
pyridine, adsorbed on Ag-Au, surface enhanced Raman effect, role of electron scatt. 2—61907
pyridine, adsorbed on Pt, surface enhanced Raman scatt. induced by Ag adatoms 2—110871
pyridine, on Ag electrode, photochemical activation effect on surface enhanced Raman scatt. 2—110828
pyridine adsorbed on Ag, surface enhanced Raman scatt., chemisorpt. and charge transfer role 2—110872
pyridine adsorbed on Ag surface, surface enhanced Raman scatt. 2—82838
2-pyrimidone, cryst. and aq. soln., IR and Raman spectra *(French)* 2—77533
Raman and far IR spectra, vibr. bands assignment 2—72480
resonance electronic Raman effect theory 2—80634
trans-retinal, laser photochem. evolution, Raman and visible spectrosc. obs. 2—62410
trans-N-retinylidene n-butylamine, laser photochem. evolution, Raman and visible spectrosc. obs. 2—62410
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2—73190
silver hydrozole, adsorbed perylene, giant Raman scatt. *(Russian)* 2—57099
solid, gas, liq., cyclobutane-d_0(d_1), vibr., Raman and IR obs. 2—108487
squaric acid, low dimensional H bonded material, neutron and Raman spectroscopic studies 2—93199
stearic acid, 1-C form, lattice vibrs., low freq. Raman active mode mixing 2—72494
styrene, depolarisation ratios and low temp. Raman spectra 2—108747
styrene-β-D_2 vapour, single vibronic level fluoresc. and Raman spectra, torsional pot. function determ. 2—108613
TCNQ salt, Cu TCNQ, Raman study of electrical switching 2—87791
TCNQ salt, KTCNQ, single cryst., Raman spectra 2—110826
TCNQ salt, KTCNQ, single cryst. Raman spectra of phase transition 2—87785
TCNQ salt, TMTTF-TCNQ, charge transfer, Raman shift, XPS and elec. cond. meas. 2—87237
Raman spectra of organic molecules and substances continued
terephthalaldehyde, Raman and IR spectra 2—80624
terephthalic acid cryst., phase transition, Raman spectrosc. obs. 2—57079
tetrabamate, H bonds, IR and Raman study 2—54850
tetrachloroethylene, liq., light scattering and far-IR absorpt. spectra 2—77515
tetrachloromethane, liq., light scattering and far-IR absorpt. spectra 2—77515
tetracontane, high press. intermediate phase, optical microscopy and Raman study 2—86838
tetraethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2—57102
tetrafluoromethane, collision induced light scatt., three body correl. spectrum 2—80636
tetramethylammonium aluminium chloride, cryst., vibr., normal coord. anal. IR and Raman obs. 2—57102
tetramethylammonium tetrachloro dimethylantimonates(V), low freq. IR and Raman spectra 2—72500
tetramethylammonium tetrafluoro-dimethylantimonates, low freq. IR and Raman spectra 2—72500
tetraphenyldithiapyranylidene polyiodides, Raman study, low temp. 2—93183
tetraphenylmethane, Raman and far IR spectra, vibr. bands assignment 2—72480
thiourea, adsorbed on Ag electrode, surface enhanced Raman scatt. 2—99200
thiourea, on Ag electrode, photochemical activation effect on surface enhanced Raman scatt. 2—110828
thiourea, phase transition under high press., SHG, pyroelec., and Raman scatt. meas. 2—66202
thiourea complexes, chemisorbed on Cu and Ag electrodes, surface enhanced Raman spectroscopy 2—93811
thiourea-ferrocene channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2—56180
thioureas, di- and tri-substituted, IR and Raman spectra, conformational anal. 2—90545
TMTSF-salts, Raman scatt. meas. 2—57093
toluene, CH stretching IR and Raman spectra, effect of internat. rot. of CHD_2 group 2—85654
toluene, CH stretching IR and Raman spectra, internal rot. 2—80616
toluene (-d_2) (-d_7) in solid crystalline phases, IR and Raman spectra, effect of internal rot. of CHD_2 group 2—80587
toulene(-d_3), IR and Raman spectra, asymmetric stretching vibr. of $CH_3(D_3)$, torsional struct. anal. 2—70242
tri(halovinyl)antimony, NMR and vibr. spectra *(German)* 2—65019
tri(halovinyl)arsenic, NMR and vibr. spectra *(German)* 2—65019
tribromomethane, crysts., vibr., phase transitions, Raman and Raman study 2—77513
1,1,2-trichloro-3,3-difluoro-1-propene, vapour, liq. and cryst., vibr., IR and Raman study 2—108518
trichloroacetamide, IR and Raman vibr. spectra and normal vibr. 2—80564
trichloromethane, IR and Raman vibr. spectra in low temp. matrices 2—80599
trifluoromethane, IR and Raman vibr. spectra in low temp. matrices 2—80599
trifluoromethylgermanes(-d_n), IR and Raman spectra, force consts., normal coordinate anal., bonds 2—70266
trimethylphosphinegallium trichloride, cryst. vibr., force consts., IR and Raman study 2—77516
trioxane, piezoelectric cryst., lattice modes, Raman and IR study 2—72478
trivinylantimony, NMR and vibr. spectra *(German)* 2—65019
trivinylarsenic NMR and vibr. spectra *(German)* 2—65019
TTF-chloranil, neutral-ionic phase transition, IR and Raman studies 2—93188
TTF-chloranil, vibronic effects in Raman and IR spectra 2—110862
zinc formate dihydrate, librational modes of water, IR and Raman spectrosc. obs. 2—99101
Ag surface, pyridine derivative adsorption, effects on electronic struct., surface enhanced Raman spectra study 2—92357
Ag with ethylene submonolayers, Raman scatt. spectra line intensities *(Russian)* 2—110857
CN^- molecules adsorbed on Ag surface, giant Raman effect 2—67062
Re(0001), adsorption of benzene studied by thermal desorpt., Auger spectra and LEED between 100 to 300K *(French)* 2—110141

Raman spectra of polyatomic inorganic molecules
anions in aq. soln., isotropic Raman scatt., vibr. dynamics 2—82848
CARS effect of inhomogeneous broadening on absorpt. spectra and excitation profiles 2—85672
computational formulas for intensities of combination freqs. and overtones 2—96581
gases, Rayleigh scattering, weak depolarization ratio meas. using Raman spectroscopy 2—70262
Hofmann type complexes of pyridine derivatives, IR and Raman spectra 2—85664
methane-d_0(-d_4) rotationally-resolved ultrahigh resolution stimulated Raman spectra 2—108522
polyatomic molecules with harmonic pot. surfaces, Raman excitation profiles 2—96578
resonance electronic Raman effect theory 2—80634
resonance Raman scattering, effect of inhomogeneous broadening on absorpt. spectra and excitation profiles 2—85672
SF_6, stimulated Raman study of CO_2-laser excited mol. 2—59811
transition metal α-diimine complexes 2—75291
ArI_2, mol. interactions, struct., mol. complex theory, Raman spectra 2—108656
Ar_2I_2, mol. interactions, struct., mol. complex theory, Raman spectra 2—108656
Au complex, bipyridyl gold(III) chloro complex, vibrs., Raman study 2—90558
$AuBr_4^-$, bond order from Raman intensity data 2—59962
Au(III) complex, 1,10-phenanthroline-$AuCl_3$, vibr. props., IR and Raman obs. 2—54851
Au(III) complex, bipyridyl-$AuCl_3$, vibr. props., IR and Raman obs. 2—54851
CO_2, $\nu_1/2\nu_2$ Fermi reson., motional narrowing, Raman spectrum 2—80635
CO_2, polarisability vibr. matrix elements calc. from Raman intensity 2—113992
CO_2, Q branch study, CW Raman amplification spectra 2—75295

Raman spectra of polyatomic inorganic molecules continued
CS_2, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
Cd complex, 2-amino- and 2-ethylamino-1,3,4-thiadiazole complexes, IR and Raman obs. 2−54848
D_2S, rot. Raman spectra and principal optical polarisabilities *(French)* 2−75290
Fe(II) complex, imine complex ions, vibr., resonance Raman spectra 2−75293
$(GeH_3)_2S$, config., IR and Raman spectra anal. 2−113990
HDO in solid hydrates, Raman and IR intensity features of vibr. modes 2−108513
H_2O, D_2O and HDO adsorbed on Ag electrodes, surface enhanced Raman spectra 2−90554
H_2O, on Ag electrode, photochemical activation effect on surface enhanced Raman scatt. 2−110828
H_2O scattering in radiative transfer model for airborne laser fluorosensors 2−112122
H_2O vapour, CARS spectrum, temp. depend. meas. 2−85676
$(H_2O)_2$, H bonds, vibr. intensity, ab initio calcs. 2−85528
$(H_2O)_2$-Li^+, vibr. intensity, ab initio calcs. 2−85528
H_3O^+, aqueous acid solns., Raman spectrum 2−113996
H_2S, polarisabiity variation, D-isotope effect, rot. Raman and Rayleigh scatt. study 2−75292
H_2S, rot. Raman spectra and principal optical polarisabilities *(French)* 2−75290
Hg complex, 2-amino- and 2-ethylamino-1,3,4-thiadiazole complexes, IR and Raman obs. 2−54848
ICN, photodissoc. and Raman scatt., semiclassical theory of radiation interaction 2−70357
ICl_4^-, bond order from Raman intensity data 2−59962
$IrBr_6^{2-}$, Zeeman levels, mag. optical activity-reson. Raman spectra 2−85668
MnO_4^- in RbBr matrix, reson. Raman spectra of vibr. 2−85670
MoO_4^{2-} in aq. soln., precision Raman meas. 2−87764
$NH_2SO_3^-$, normal coordinate anal. using Urey-Bradley force field and laser Raman freq. 2−113993
N_2O, Raman spectrum, vibr. relax. manifestations 2−108529
OCS, n-alkane solns., ν_1 mode, Raman scatt. 2−64987
Os complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
$PO_2F_2^-$, local symmetric force field, IR and Raman 2−90559
Pd complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
$PdBr_4^{2-}$, bond order from Raman intensity data 2−59962
$PdCl_4^{2-}$, bond order from Raman intensity data 2−59962
Pt complexes, ethylene-Pt cpds., inelastic neutron scatt. and spectrosc. obs. 2−108682
Pt complexes, mixed valence linear chain complexes, electronic, reson. Raman and force const. studies 2−70256
$PtBr_4^{2-}$, bond order from Raman intensity data 2−59962
$PtCl_4^{2-}$, bond order from Raman intensity data 2−59962
Ru complex clusters, vibr., resonance Raman obs. 2−75488
Ru complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
$Ru(CN)_6^{4-}$, adsorpt. on Ag(Cu), surface enhanced Raman spectrosc. obs. 2−61889
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2−80637
SF_6, coherent active Raman scatt. spectra *(Russian)* 2−54858
SF_6, collision induced light scatt., three body correl. spectrum 2−80636
SF_6, ν_1 band, high resolution stimulated Raman gain spectrum 2−85669
SF_6, rotationally-resolved ultrahigh resolution stimulated Raman spectra 2−108522
$(S^{15}NH)_4$ and $(S^{15}ND)_4$, IR and Raman spectra, vibr. assignments and force consts. isotope shifts 2−59796
SO_4^{2-} in aq. soln., precision Raman meas. 2−87764
Sb_4 in inert gas matrices, Raman and fluoresc. spectra, vibr. modes 2−108521
Se halides, Raman spectra, vibr. assignments, force consts. 2−70267
SiH_3SiH_2CN, struct., vibr. assignment, microwave, IR and Raman spectra, normal coordinate anal. 2−59788
WO_4^{2-} in aq. soln., precision Raman meas. 2−87764
Zn complex, 2-amino- and 2-ethylamino-1,3,4-thiadiazole complexes, IR and Raman obs. 2−54848

Raman spectroscopy
see also Raman lasers; Raman spectra
active four-photon Raman spectroscopy 2−114369
active Raman scattering spectroscopy, Raman scatt. tensor invariants meas. 2−113994
adsorption effects at liquid-solid interfaces, Raman spectrosc. obs. 2−98428
amplification spectroscopy, CW, appl. to Raman band of CO_2 2−75295
amplification spectroscopy using picosecond lasers 2−74511
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
combustion media diagnostics, thermometry and conc. meas., CARS appl. 2−88359
combustion processes, using 1-pps 2-μsec pulse freq.-doubled Nd:YAG/glas s laser 2−75586
combustion Raman scatt. expts., using 5 J 1.8 μsec pulse 10 pps dye laser 2−75587
condensed media, freq. dispersion of nonlinear susceptibilities near single-, multi-quantum resons. 2−114362
conference, Norwich, England (Sept. 1981) 2−74152
gas-particle system temp. and concentration determ., combustion processes obs. appl. *(German)* 2−81421
high spectral resolution technique 2−79681
high-resolution CW coherent anti-Stokes Raman spectroscopy in a supersonic jet 2−108530
hyper-Raman scattering in systems with electronic degeneracy 2−89823
instrumental line distortion 2−95479
instrumentation for identification of scales on metal surfaces 2−62264
IRS- and CARS-spectroscopic Raman detect. limit comparison, excitation near mol. one-photon reson. 2−74513
Langmuir-Blodgett monolayers, and thin polymer films, molecular orientation meas. using integrated optics and Raman scatt. 2−74508
laser, development and industrial appl. 2−69253
laser cooled-stored ions, dilute population, model for computing temp. 2−65112
laser diagnostic probes for flames, combustion products and sprays 2−89824

Raman spectroscopy continued
laser Raman spectroscopic anal., appl. to Mount St. Helens ash from 1980 May 18 eruption 2−100343
laser Raman spectroscopy, time and/or space resolved, appls. 2−74510
linear solid state array detectors in Raman spectroscopy 2−112993
liquids, comparison of schemes for four-photon spectroscopy with high spectra resolution 2−114363
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
microprocessor-based spectrometer control and data acquisition system for Raman spectroscopy 2−84601
molecular gases, coherent anti-Stokes Raman spectroscopy, saturation and secondary Stokeseffects 2−60153
multiphoton Raman scattering of light, active spectroscopy 2−108954
noncoherent-active Raman spectroscopy for o-H_2 rot. relax. time determ. 2−96701
optically reflecting bulb for efficient collection of Raman-scattered light 2−84711
picosecond surface Raman spectroscopy, surface damage effects obs. 2−93170
scanning CARS microscope construction 2−97111
sequence generator for periodic sampling of transient phenomena 2−107412
solid-liquid interfaces, spectroscopic techniques 2−82127
spectrometer device, spectral transmission coeff. determ. by two accurate methods 2−84709
stimulated resonance Raman transitions, appln. to high resolution spectroscopy and freq. standards 2−58909
surface Raman ellipsometry 2−79684
surface Raman spectroscopy without enhancement 2−67061
transient coherent active Raman spectroscopy for Dicke narrowing determ. in H_2, dephasing time meas. 2−58919
ultrahigh resolution Raman spectroscopy using free-expansion jet 2−108522
vibrational spectroscopy methods, appl. to structure anal. of chemisorbed species on metal surfaces 2−79692
Fe corrosion testing appl. 2−93689

ramp generators
light ion beam time-compression, tapered transmission-line accelerator 2−96307
linear voltage ramp generator for three-stage bunching system 2−75089

Ramsauer effect *see collision processes*

random-access storage
CMOS RAMs, LSI, radiation resistance for Jupiter radiation belt 2−68595
microcomputer system for acquisition and processing of video data 2−79548
MOS LSI static RAM, passivated, meas. of internal signal waveforms using stroboscopic SEM 2−58970
Si n^+-p junction leakage behaviour, O precip. effects, double poly-Si gate FET DRAM technology 2−61568

random functions
see also random processes
No entries

random noise
see also thermal noise
1/f noise, transform theorem, counting statistics appl. 2−101324
1/f noise and diffraction, unified treatment 2−101494
accelerometers, signal derivation, effect of noise 2−79542
Bayard-Alpert gauge, three-grid modulated, static characteristics *(Japanese)* 2−79604
bunch diffusion due to RF noise 2−113799
Burgess' variance theorem, extension to autocorrelation functions and spectra 2−61532
chaotic systems noise, appl. to transitional fluid flow 2−97489
correlation time expansion for multidimensional weakly non-Markovian gaussian processes 2−89621
damped oscillator, with quantum noise, canonicity 2−69040
digital fibre-optic system error rate evaluation using a normalising transform 2−109060
dissipative dynamical system, intermittency 2−70928
flicker, burst, and generation-recombination noises, unified model 2−56652
flicker noise, diffusion, mobility fluctuation, and island models 2−115838
flicker noise in semicond. field emission cathodes 2−93385
heartbeat period, 1/f fluctuation 2−78321
Hooge's α for 1/f noise, physical background 2−104445
inversion layers, noise near metal-insulator transition, power spectra meas. 2−66649
IR detectors, photon bunching and photon-noise-limited performance 2−79671
isobutyric acid-water binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
Langevin eqns. with multiplicative coloured noise 2−89620
LMFBR, nonmultiplying media, neutron noise transmission, wave propag. anal. 2−54539
2,6-lutidine-H_2O binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
magneto-optical measurement using polarisation modulation method, S/N ratio calc. 2−112956
measurement, in electrical contacts, MIS structure, thick films and thin films *(Japanese)* 2−58840
mesa structures, mobility-fluctuation 1/f noise 2−104443
noise calculation, binary operators, Green's functions 2−85117
nonlinear systems, 1/f noise prod., hopping mechanism 2−89627
nonuniform nonlinear samples, mobility-fluctuation 1/f noise 2−104443
one-dimensional system, CDW, domain struct. and $1/f^2$ noise *(French)* 2−115675
photomultiplier cathode radioheterodyning operating regime, threshold characts. 2−59644
piezoelectric semiconductors, electro-acoustic effect theory 2−72032
positron emission tomography, props. of statistical noise 2−117073
pulsars timing noise, contrib. of stochastic background of gravit. radiation 2−79249
resistivity shunted Josephson junction, quantum noise meas. 2−98822
ring gas laser, emission fluctuations, active medium excitation shot noise effect 2−114228
Rochelle salt, nonlinear resonator, period multiplication, chaotic behaviour 2−99062
screw dislocation random motion, transient waves 2−65993

random noise continued
seismic sounding, correl. noise suppression using encoded sweep technique for Vibroseis 2−89011
semiconductor counters, signal processing, pulse shaping for resolution optimisation 2−80401
semiconductors, compensated, generation-recombination noise during injection breakdown 2−82414
semiconductors, fluctuation instability in case of negative differential cond. 2−87290
semiconductors, hot carrier noise 2−87352
semiconductors, illuminated, fluctuation phenomena 2−87353
semiconductors, microwave cond., velocity autocovariance and hot carrier noise calcs. 2−104404
spectroscopy, instrumental spread function and 1/f noise, theory 2−89749
SQUID low freq. noise and parameter fluctuations 2−92824
two-channel noise-corrupted obs., determ. class of random processes *(Russian)* 2−53488
unstable state dynamics, master equation evaluation 2−58714
Ag point contacts, low freq. elec. fluctuations 2−110449
Au film; nonscalar 1/f cond. fluctuations 2−82413
Au point contacts, low freq. elec. fluctuations 2−110449
C granular film, nonscalar 1/f cond. fluctuations 2−82413
CdS, electro-acoustic current fluctuations 2−98702
Cu point contacts, low freq. elec. fluctuations 2−110449
Fe film, O adsorpt., excess current noise obs. 2−77137
Ge, galvanomagnetocombinational elements, fluctuation processes 2−87351
$Hg_{1-x}Cd_xTe$, deep level defect traps, DLTS study 2−87175
InP, ionisation coeffs., avalanche photomultiplication and avalanche noise study 2−98700
$NbSe_3$, CDW motion, differential resist. study 2−66540
$NbSe_3$, CDW motion, dynamic props., expt. study 2−66541
$NbSe_3$, charge density wave dynamics and noise, damped kink model 2−104273
or film, nonscalar 1/f cond. fluctuations 2−82413
Si, 1/f noise, temp. depend. 2−110409
Si, 1/f noise correlation expts., absence of temp. fluctuations 2−72039
p-Si, generation-recombination noise spectra meas. 2−87300
n-Si, hot electron 1/f noise 2−72040
Si, microwave cond., velocity autocovariance and hot carrier noise calcs. 2−104404
n-Si polycrystalline semiconductor layers, 1/f noise *(Polish)* 2−82489
Sn films, excess low-freq. noise, effect of substrate 2−61533
Sn, granular superconducting film, vortex mean free path noise meas. 2−104551
ZnO, light scattering spectrum, thermal noise *(Russian)* 2−82872

random phase approximation *see RPA calculations*

random processes
see also Brownian motion; fluctuations; Markov processes; probability; queueing theory; stochastic processes
1/n expansion for weakly random system with impurity correlation 2−53671
aftershock sequence following Friuli earthquake, 1977 September 16, time evolution 2−117221
anisotropic lattice, random walk, asymptotic behaviour 2−84532
anisotropic MHD turbulence, cross-helicity effects 2−76093
atom pair relative displacements for vacancy mechanism from random walk theory 2−56241
baker's transformation and invariant measure 2−58706
binary correlation function of random field, intermediate order influence *(Russian)* 2−53677
bond percolation, randomly directed, position space renormalisation group approach 2−107263
central difference scheme and chaos 2−63906
chaos, quantum recurrences and Anderson localisation 2−101227
chaos in time delayed differential eqns. *(German)* 2−101334
chaotic attractors in crisis 2−79479
chaotic attractors of an infinite-dimensional dynamical system 2−63905
chaotic bands in Brusselator, bifurcation sequences 2−112821
chaotic behaviour of nonlinear evolution equation with fifth order dispersion 2−112715
chaotic dynamical systems, showing strange attractors, statistical props. 2−53673
chaotic ID maps, Lyapunov number approx. 2−112824
chaotic motion, asymptotic soln. 2−101330
chaotic motion onset in terms of generalized Langevin eqns. 2−58712
chaotic region near period three, Liapunov number behaviour 2−69024
chaotic states of almost periodic Schrodinger operators 2−107169
classical diffusion on a random chain 2−53672
classical mechanics, regular and chaotic motions, unified description 2−58702
coal particles, motion in oil droplet, eqns. of motion 2−112848
comets, long-period, perturbation of orbital elements by random stellar encounters 2−106626
cool stars atmospheres, expected broadband linear polarisation from random, distrib. of mag. regions 2−89241
critical mappings, universal scaling laws 2−74329
degeneracy onset in confined systems 2−107174
deterministic mappings relax. rates in two dimens. 2−79481
differential fractal dimension of random walk and its applications to physical systems 2−112818
diffusion in discrete nonlinear dynamical systems 2−112845
diffusion in one-dimensional random systems 2−101360
diffusion mobility of atoms in metal cryst. containing refl. or absorpt. barriers, random walk calc. *(Russian)* 2−61192
diluted lattices, self-avoiding-walks, Monte Carlo anal. 2−84547
directed percolation, Domany-Kinzel model, random walk formulation, exact results 2−63926
directed percolation clusters, random walks, crit. exponents 2−63915
disordered 1-D system, soliton propag., small scale fluctuations 2−84457
disordered chains, inequivalent ensembles 2−84543
disordered media, inhomogeneous transport, binomial random variables, orthogonal polynomial expansion 2−63941
dissipation systems with translational symmetry, diffusive dynamics, 1-dimens. map model 2−101358
dissipative dynamical systems, statistics of turbulent transients 2−101325
EEG signal analysis, appl. of model of N-pole with random processes 2−83542
excitation trapping in crystals, random walk studies 2−74321
external noise, irrational decimations and path integrals 2−101332

random processes continued
false vacuum decay and density of states in random, repulsive pot. 2−84476
fluctuation phenomena and random functions 2−84545
Fokker-Planck eqn., path integrals described by generalised random walks 2−84528
forced Lorenz system, chaos, limit cycles, topology 2−79478
four-dimensional lattice, self-avoiding walks, fractal dimensionality anal. 2−79488
fractal random walks 2−95241
functional analysis, external field effects 2−107241
general relativity, chaotic behaviour, review 2−84494
generating functional method and Gibbs random fields on countable sets 2−58693
Gibbs fields on lattice, compactness and maximal Gibbs state 2−84548
heavy ion-nucleus reactions, random walk model in two dimens. 2−74773
Henon attractor, entropy computation 2−74371
heterogeneous lattices, random walks, diffusion laws 2−79501
Hopf bifurcation with fluctuating control parameter, Fokker-Planck eqn. soln. 2−84541
hopping conductivity, AC, below threshold, random walks on bond percolation clusters 2−87212
impact oscillator resonance, chaos after period-doubling bifurcations 2−101329
interstellar magnetic field, plane-parallel fields in thin gaseous galactic disc in random motion 2−68905
interval dynamics, topological entropy and approaches to chaos 2−89619
Ising model, regular and random, on Cayley tree, higher order susceptibilities 2−77248
Josephson junction(s), Hamiltonian model, cooperative and chaotic behaviour, free-electron laser analogy 2−110543
lagrange functions of a class of dynamical systems with limit-cycle and chaotic behavior 2−90046
large-N lattice group theory, random surface counting 2−53965
lattice, anisotropic dual-medium, random walk, asymptotic behaviour 2−101321
lattice, random walks 2−69095
lattice, symmetric random walks in random environments 2−107234
lattice dynamics, random walks and nonintegral effective dimensionality 2−112830
lattices, random walk, statistical props. 2−53691
lattices, with periodically distributed imperfect traps, random walks with spontaneous emission 2−95270
Lorentz gas and random walks 2−95248
Lorentz model, d-dimensional, diffusion and localisation 2−63901
Lorenz chaos, statistical identification and fractal props., dissipative dynamical systems 2−112826
Malthus-Verhulst model, instability 2−74326
Markov random fields and chains on trees 2−79343
Mattis-Heisenberg model, spin quantum number in ground state 2−77251
metastable state at low noise, lifetime 2−69089
multidegree-of-freedom system with variable coeffs., response to random excitation 2−107088
multiplicative noise stabilisation 2−107245
mutually entangled long flexible molecules, statistical gauge theory of topological entanglements 2−114144
n-step random walk, number of points on lattice subset visited 2−79491
noisy nonlinear maps, spectral anal. 2−89625
non-Gaussian self-similar random field construction 2−95235
nonlinear circuit elements, percolation theory 2−107267
nonlinear dissipative system, flow hysteresis, one-dimens. map anal. 2−84447
nonlinear oscillator, periodically forced, bistability, period doubling bifurcations and chaos 2−101326
nonlinear oscillators, chaotic response review 2−107246
nonlinear oscillators self-synchronisation in presence of fluctuations 2−74330
nonMarkoffian diffusion in 1D disordered lattice 2−95242
nonpotential systems, bifurcations, instabilities and catastrophes 2−94988
one-dimensional maps, symbolic dynamics, entropies finite precision, noise 2−95236
one-dimensional random walk chain, particle random walk 2−58711
order and universality, bifurcation ratio, period doubling 2−84583
particle motion in a droplet, eqns. of motion 2−112848
periodic chaos, correlations and spectra, logistic parabola generated 2−58707
periodicity and the onset of chaos 2−95247
perturbed system, transient moments, Fokker-Planck spectrum 2−74333
phase locking fine structure 2−84539
photon counting statistics, dead time correction, classical theory 2−55103
polymers, conformational space renormalisation, random and self-avoiding walks 2−75481
polymers, self-avoiding walks, critical phenomena approach 2−80857
pulsar magnetospheres, randomly fluctuating elec. current rel. to spectrum of coherent radio emission 2−79132
random flight processes, moments, recursion relation 2−63897
random one-dimensional systems, correlation effect on low-freq. behavior 2−58755
random walk in an inhomogeneous medium with local impurities 2−58708
random walk representation of classical spin systems and correlation inequalities 2−53684
randomly forced two dimens. flow, nonequilib. probability distrib. 2−97511
rate theory, dynamic corrections 2−84544
self-avoiding random walks, persistency 2−84537
sine-Gordon chain, driven damped, coherence and chaos 2−101316
standard specimens metrological characts. evaluation, from interlaboratory expt. data 2−79530
steady states, nonequilib. steady state theory 2−107238
strange attractors, interactions 2−95274
third-order system with folded slow manifold, bifurcation sequences 2−69090
time reversal symmetry of fluctuations *(French)* 2−84529
transitional fluid flow, noise in chaotic systems 2−97489
turbulence, β-model theory, statistics of active regions 2−103152
turbulence, statistical mechanics, max. chaos variational principle 2−55542
turbulent medium, collimated Gaussian light beam propag. 2−70508
two long flexible polymers, interactions, gauge theory of topological entanglements 2−114145

random processes continued
two-channel noise-corrupted obs., determ. class of random processes *(Russian)* 2−53488
two-dimensional discrete properties of random surfaces 2−104126
two-dimensional regular lattice, energy transfer as a random walk 2−74339
two-phase random media, microstructure, n-point probability functions 2−101299
type I intermittency, stat. props. 2−63823
wave beam reflection from randomly inhomogeneous plane-layered medium 2−102721
ϕ^4 model on lattice, bifurcations, chaos 2−74346

range finding *see distance measurement*

range of particles *see energy loss of particles*

ranging, laser *see optical radar*

ranging (sonar) *see sonar*

rapid transit systems
Emsland Transrapid test facility (TVE) for high speed maglev system, goal, requirements and design *(German)* 2−70474
Emsland Transrapid test facility data processing and safety system *(German)* 2−70478
Emsland Transrapid test facility guide for maglev systems testing *(German)* 2−70475
induction machines in heave mode, dynamic behaviour anal. using finite element and Fourier anal. 2−80871
maglev train development status in German Federal Republic *(German)* 2−70473
TRANSRAPID 06−concept of the vehicle *(German)* 2−70476
Transrapid 06 maglev system propulsion by iron-cored long-stator synchronous motor *(German)* 2−70477

rare earth alloys
see also cerium alloys; dysprosium alloys; erbium alloys; europium alloys; gadolinium alloys; holmium alloys; lanthanum alloys; lutetium alloys; neodymium alloys; praseodymium alloys; promethium alloys; rare earth compounds; samarium alloys; terbium alloys; thulium alloys; ytterbium alloys
amorphous, cryst. elec. field and local symm., mag. props. 2−72170
amorphous, induced mag., singlet-singlet model 2−104560
amorphous, mag. props., nonaxial crystal field model 2−77301
amorphous, resistivity and magnetoresist., crystal field and exchange interactions 2−92560
demagnetisation curves determ., in closed magnetic loop 2−58860
dilute, origin of random strains, rel. to ESR of LaS:Er 2−56925
intermetallics, form factor anal., evidence for 5d polarisation and higher order exchange terms 2−72147
magnetic amorphous alloys obtained by high speed cooling 2−105100
mixed valence model 2−104318
noble metal-rare earth alloys, dil., magnetotransport and EPR props. 2−104355
rare earth-Co magnets, demagnetization curves, 300 to 1000K 2−72293
rare earth-Co matrix magnets heated in dry air, thermal stability and temp. coeffs. 2−72292
rare earth-Co permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
transition metal alloys, domain walls, role of the long-range exchange *(Russian)* 2−98905
Ag-R ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
Al-R, granules, resist to deform. 2−116412
CeR_2 (R=Zr, Hf, Th), Laves phases, C15, Ce metallic radius 2−86625
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-R-B metallic glasses, rare earth additives, mag. props. study 2−87498
$(Fe_{0.82}B_{0.18})_{0.9}R_xLa_{1-x}$ (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er), amorphous, exchange interactions 2−72185
$Fe_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
$Gd_{1-x}R_xNi$ (R=rare earth), phase relationships and struct., 2−109744
$Ni_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
R-Co powders, prep. process 2−111108
R-Cu-Ga system, RCu_2-RGa_2 sections, phase form. and crystallographic charcts. *(Ukrainian)* 2−83080
R-Ga-Ni system, phase comp. and crystallographic charcts. *(Ukrainian)* 2−83079
R-Si-Fe self-powdering, X-ray diffr. and electron microscopy invest. *(Chinese)* 2−62249
R-Tl, liq., thermodynamic charcts., intermetallides form., liquidus behaviour 2−67293
RAl_2, (R=La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er), quadrupole interaction at ^{111}Cd probe 2−116100
RAl_2, X-ray L_3 absorpt. edge study 2−62018
RAlGa, mag. props. study 2−72141
RCo_2, (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Tm), anomalous hyperfine field and orbital moment 2−56973
RCo_2, C15 type, ^{59}Co NMR study, hyperfine field anisotropy 2−66934
R_3Co, intermetallic, elec. resist. accompanying metamag. phase transitions *(Russian)* 2−66820
$R_2(Co\text{-}M)_{17}$ (R=rare earth), residual induction, mag. props., permanent magnets appl. 2−82662
$R_2(Co_{1-x}Fe_x)_{17}$, magnetic anisotropy phase diagram 2−98883
RCoSn intermetallics, cryst. struct. and mag. susceptibility, 78 to 800°C *(Russian)* 2−55891
RFe_3, magnetisation meas. and mol. field theory anal. 2−92963
$R_{0.4}Fe_{0.6}$ (R=Pr, Sm, Gd, Tb, Er), melt-spun coercivity, quench rate depend. 2−72285
RGa_2, X-ray absorpt. spectrum study 2−77621
$R_6Ga_{31}Co_7$, (R=Sm,Gd,Tb,Dy,Ho,Er,Tm,Lu,Y), cryst. struct. study 2−115180
RInZn, lattice parameters and struct. charcts., X-ray diffr. study 2−91876
RM_xAl_6, (M=Cu, Mn, Fe), mag. props. 2−61734
$RNiAl_2$ (R=Y, Gd, Tb, Dy, Ho, Er, Tm, Kb, Lu), mag. susceptibility and cryst. struct. *(Russian)* 2−115968
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
RPbCu, lattice parameters and struct. charcts., X-ray diffr. study 2−91876
RPd_3, B addition effects on lattice size 2−71396
RPd_3, R=La, Ce, Pr, Nd, Sm, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006

rare earth alloys continued
Si-R-M (R=Y, Ce, Ti, Zr, Hf, Sc, and M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
$Sm_{1-x}R_xNi$ (R=rare earth), phase relationships and struct., 2−109744
$Y_xR_{1-x}Pd_3$, (R=Pr,Nd,Tb,Dy,Ho,Er,Tm), cryst. field parameters and cryst. field linewidths 2−87204

rare earth compounds
see also under the individual compounds e.g. cerium compounds
see also rare earth alloys
apatites, rare-earth containing, mag. props. 2−92875
chalcogenides, rare earth valence evaluation by X-ray absorption spectroscopy 2−57214
chloro-phosphate apatites, prep., lattice parameters, X-ray diffr. obs. 2−60936
chromites, elec. cond., use as anodes in high-temp. O_2 conc. cell 2−77038
complexes, f-f radiationless transitions 2−90612
DC permanent magnet motors, new high energy permanent magnets props. related to DC motor parameters 2−77319
ethylsulphates, high press. phase transition mechanism 2−76666
f^n electron systems, cryst. field parameters, angular overlap model calcs. 2−92537
fluctuating valence materials, replicate core levels and 4f excitation energies 2−56504
fluorides, cation framework rearrangement in solid-phase reactions 2−98027
garnet epitaxial films, induced mag. anisotropy 2−72308
garnets, magnetooptic anisotropy, many-sublattice model 2−72465
halide laser, high-energy, discharge-pumped, compact, simple 2−85945
intermediate valence systems, core-electron spectroscopy 2−57265
ion activator centers in garnet struct. laser crysts., spectroscopic anal. 2−110893
lanthanide oxybromides, Matlockite-type struct., normal coord. anal. 2−66141
lanthanide oxychlorides, Matlockite-type struct., normal coord. anal. 2−66141
lanthanide shift reagents, IR spectra 2−75288
lanthanide shift reagents, nonlabile coordinated chelate proton spin relax. 2−59823
magnetic garnet epitaxial bubble film, rare earth segregation 2−72633
mixed valence in a periodic Anderson lattice 2−82296
mixed valent cpds., homogeneous, lattice vibrs. 2−76608
orthochromites, high temp. mag. susceptibility 2−110564
orthophosphates, high temp. behaviour, dissoc. 2−67740
orthophosphates, vibr. props. of PO_4^{3-} *(German)* 2−81907
oxide stabilised ZrO_2-MgO (CaO)(Y_2O_3) ceramics, elec. conducting, for MHD generator electrodes 2−88043
oxides, complex, high-resolution electron microscopy 2−97880
oxides, electron beam induced reduction, high resolution electron microscopy study 2−78086
oxides, melting point measurements, in solar furnace in different atms. 2−58830
perovskites $R_{1-x}B_xCoO_3$, R=Y,La,Eu,Dy,Gd, B=Ca,Sr, Mossbauer emission studies 2−87631
$R_2(SO_4)_3$:Gd^{3+}.$8H_2O$ 2−72340
$R(NO_3)_3$:Gd^{3+}.$6H_2O$, EPR spectra, host-lattice effects meas. 2−72340
rare earth oxides, complex, high-resolution electron microscopy 2−97880
RB_2C_2-type layer compounds, elec. plrops. 2−87266
RCl_3:Gd^{3+}.bH_2O, EPR spectra, host-lattice effects meas. 2−72340
sesquioxides, monoclinic, incoherent twin boundaries and isolated wedge microtwins, high resolution study 2−60999
sesquioxides, monoclinic hexagonal cooperative transform., enumeration and rel. position of equiv. domains *(French)* 2−76654
silicides, germanides and gallides, cryst. struct., X-ray diffr. study 2−109760
silicides, Si K_α emission spectra, energy shift, cryst. struct. effects 2−99227
supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
ternary superconductors, mag. and supercond. props. 2−115937
ternary superconductors, magnetism rel. to supercond. props. 2−110517
trichlorides, gas phase, UVPES 2−85739
trichlorides, vapour phase He I and He II photoelectron spectra 2−75226
trifluorides, lattice self-pots., photoelectron spectroscopic determ. 2−62042
BaF_2-$(Y,R)F_3$ (R=rare earth) system, phase diagrams and phase struct. 2−109954
BaF_2-MnF_2-RF_3 (R=Dy, Ho, Er, Tm, Yb, Lu, Y), glass form., quenching, IR study *(French)* 2−91808
$CdRCr_{0.5}Ta_{1.5}O_7$ (R=rare earth), electrophysical props. 2−87645
$CsRHP_3O_{10}$, preparation, composition and stability 2−72644
$CsR(PO_3)_4$, preparation, composition and stability 2−72644
HfO_2-R_2O_3, liquidus curves in region with high HfO_2 content 2−86842
$KCaR(PO_4)_2$, R=rare earth, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
$Li_{6-x}R_{1-x}T_x(BO_3)_3$, (R=rare earth, T=Zr or Th), ionic cond. study *(French)* 2−71714
$Na_2Sr_{3-2x}R_x(PO_4)_2$, R=La to Tb, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
$RBaCuO_x$ (R=Sm, Eu, Gd, Dy, Ho, Er, Kb), crystal structure *(French)* 2−91914
$RCl_3.6H_2O$:Gd^{3+}, (R=Nd,Sm,Eu,Tb,Dy,Ho,Er,Tm), cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
$RCl_3.6H_2O$:Gd^{3+}(R=Nd,Smn,Eu,Tb,Dy,Ho,Er,Tm), spin-Hamiltonian parameter superposition model anal. 2−98600
$RCo_{12}B_6$, new, with rhombohedral $SrNi_{12}B_6$ type struct. *(Ukrainian)* 2−65946
$RFeO_3$, orthoferrites, local and exchange field inhomogeneity, NMR study 2−87209
RFe_5O_{12} garnets (R=Sm, Tm, Gd, Eu, Dy), amorphous, struct. props., Mossbauer study 2−103625
RGO_3(R=La, Pr, Nd, Sm, Eu, Gd), electrical transport 2−92616
R_5Ga_3, mag. props., struct., anal. 2−66763
$R_2GeBe_2O_7$ (R=La,Pr,Sm,Gd,Dy,Er), cryst. struct., prep. and mag. susceptibility meas. 2−103719
RH_3, electronic phase transitions, excitonic insulator model 2−87151
$RMn_2Si_2(Ge_2)$, NMR studies in ferromag. state 2−82730
$R_2(MoO_4)_3$, (R=Gd,Dy,Ho,Er,Tm,Yb), magnetic susceptibility 2−56838
RMo_6S_8, coexistence of mag. order and superconductivity 2−61647
$R_xMo_6S_8$, superconductive props. 2−66689
$RNa(ReO_4)_4$, cryst. chem. and phase diagrams, X-ray study *(French)* 2−109956

rare earth compounds continued
$RNi_{12}B_6$, new, with rhombohedral $SrNi_{12}B_6$ type struct. *(Ukrainian)* 2−65946
R_2O_3, cubic, lattice and binding energies 2−60916
R_2O_3-TiO_2, R_2TiO_5 structural transitions at high temp. obs. 2−86850
R(OH)CO_3, optical and struct. studies 2−116169
$R_2O_3.2TiO_2$, prep. by coprecipitation, crystal struct. 2−72610
RP(RS), band struct., calc. and X-ray emission and absorpt. spectra study 2−110246
RRh_4B_4, coexistence of mag. order and superconductivity 2−61647
RRh_4B_4, cryst. elec. field 2−87207
RRh_4B_4, mag. transition temp., effect of crystalline elec. field 2−104616
RRhSi, cryst. struct. and mag. props. 2−55946
R_2SiO_5, single crystal growth, struct. and optical characteristics 2−87968
$R_2Si_2O_7$, single cryst. growth from $(Bi_2O_3+V_2O_3)$-SiO_2 flux, solubility data applic. 2−105059
$RSnRh_4Sn_{12}$, supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
$R_2(WO_4)_3$, (R=Tb, Dy, Ho, Er, Tm and Yb), mixed cond. 2−72035
$RbRHP_3O_{10}$, preparation, composition and stability 2−72644
$RbR(PO_3)_4$, preparation, composition and stability 2−72644
SiO_2-Na_2O-CaO-MgO-R_2O_3 (R=rare earth) glass struct., diffr. methods anal. 2−55859
$Sm_{1-x}R_xS$, (R=rare earth), solid solns., intermediate valency state, X-ray line shift study 2−87201

rare earth elements *see rare earth metals*

rare earth metals
see also the individual metals e.g. cerium
atom, laser isotope separation by two-step selective photoionisation method 2−64940
atom, photoionisation cross section meas. from excited states rel. to laser isotope separation 2−64939
atoms, incoherent photon scatt. cross sections 2−75220
bond hybrids, and structs. 2−96418
compact inner shell approx. calcs. *(Russian)* 2−87136
complex with 3-methyl-1-phenyl-4-trifluoroacetyl-pyrazole-5-one, elemental anal., NMR, IR, UV-visible study 2−110672
crystal field of lanthanide ions, effect of spin polarisation 2−82301
dilatometer for the study of rare earths at cryogenic temperatures *(French)* 2−64014
electronic specific heats, Coulomb interactions 2−115431
energy-dispersive electron microprobe techniques, for rare-earth element determ. 2−67794
Hund's rule ground states, asphericity of 4f-shells 2−66471
impurities, near valence instability 2−61396
impurities in noble metals, magnetotransport and EPR props. 2−66528
impurity-ion systems, microscopic and microscopic aspects of energy transfer 2−90905
inner-shell electron binding energy calcs. *(Chinese)* 2−108348
isotope ratios determ. by resonance ionisation mass spectrometry 2−116761
lanthanide ions, orbit-lattice interaction, superposition model anal. for arbitrary symmetry 2−87203
multiply charged ions, electron states *(Russian)* 2−90428
narrow bandwidths in model for 5d electrons in heavy rare earth metals 2−56431
optical properties of metals, data collection 2−93138
photoemission studies of surface core-level shifts and their applications 2−87941
relativistic band structure calcs., spin polarized, local density functional theory appl. 2−56423
Rydberg states calc. using model pot. method 2−64891
in seawater, depth distribs. rel. to marine geochemical cycle and water mass tracing 2−63003
spin wave spectrum, effects of ribbon bridge on fermi surface *(Russian)* 2−82584
surface shifts, photoelectron spectra study 2−105046
$LaCl_3$:R, single-electron cryst. field, multipole contrib. 2−71938
$Lu_3Al_5O_{12}$:R^{3+} garnet, multiphonon nonradiative transition probability 2−110936
YAG:R^{3+} garnets, multiphonon nonradiative transition probability 2−110936

rare gases *see inert gases*

rarefied fluid dynamics
see also atomic beams; Knudsen flow; molecular beams
acoustic wave propagation, Gross-Jackson model 2−60268
asymptotic behaviour of gas flow into cylindrical cavity 2−114853
combination in reactive systems, book 2−63766
dissociating gases, transport phenomena calcs. 2−86308
Ekman layer on a porous plate in slip flow 2−97596
free-molecular gas stream, reflection by concave surface, heat transfer calc. 2−60579
gas, perfect, transonic rarefaction flow in neighbourhood of convex corner 2−114838
gasdynamics of detonations and explosions, conf., Gottingen, FRG (Aug. 1979) 2−58549
isothermal self gravitating gas, simulation using Larson's particle method 2−55615
molecular flow, thermal expansion, nonlinear interaction vel. determ. 2−65620
molecular flow inside test dome connected to same diameter diffusion pump 2−109370
multicomponent ionised gas, collision processes, physico-probabilistic analogue model 2−55705
partial indices for a matrix Riemann-Hilbert problem 2−97598
solid particles injected into gas flow, penetration depth 2−60625
spherical particle motion in a rarefied gas, vel. profiles, drag forces 2−109369
stationary gas flows, distrib. function, kinetic eqn. *(Russian)* 2−75999
thermal stress slip flow induced in rarefied gas between noncoaxial circular cylinders 2−86309
two-phase, shock wave, relax. zone, radiation struct. 2−109421
water vapour stream, dimer form. kinetics 2−62395
N_2, free jet, rot. relax. in transition regime 2−114084
N_2O_4, relax., unsteady quasi-1-dimens. flow 2−86262

rarefied gas dynamics *see rarefied fluid dynamics*

rarefied gas flow *see rarefied fluid dynamics*

ray tracing, optical *see geometrical optics*

Rayleigh-Benard instability *see flow instability*

Rayleigh law *see Rayleigh scattering*

Rayleigh scattering
agarose gels, laser light-scattering study of struct. 2−97897
alkanes with picosecond relax. time, depolarised Rayleigh spectroscopy 2−80628
aminosilane coupling agents, in aq. solns. and partially cured solids, struct. 2−97899
atoms in intense laser beam, continuum Rayleigh scatt. 2−70208
backward scatterings in picosecond range, generation and geometrical conditions for wavefront reconstruction 2−55277
binary liquid films, Rayleigh linewidth meas. near crit. point 2−57116
biological objects, Rayleigh spectroscopy, physical principles 2−100179
carbon tetrachloride, liq., central Lorentzian in depolarised Rayleigh spectra 2−80629
collimated beam scattered by an ideally conducting rough surface, intensity fluctuation calcs. 2−102698
critical region, double light scatt. contrib. to Rayleigh line wing intensity 2−116201
depolarised, multilevel description, appl. to HD-He system, collision br eadth 2−80638
diode laser feedback effects due to Rayleigh backscattering from optical fibre 2−75570
dynamic induced Rayleigh effect, pattern drift influence *(French)* 2−97076
epoxy resin monomers, unreacted DGEBA type, local order investig. by light scatt. 2−93212
fibre optic temperature distribution sensor using time-domain reflectometry 2−91076
fluid, nonequilibrium steady state with large temp. gradients, light scatt. 2−104901
fluid, nonequilibrium steady state with small temp. gradient, light scatt. 2−104900
forward Rayleigh scatt., nonrelativistic dipole approx. calcs. 2−102876
gases, Rayleigh scattering, weak depolarization ratio meas. using Raman spectroscopy 2−70262
H matrix, anal. expression 2−55257
HD 122563, metal-poor giant star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
HD 25329, subdwarf star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
ionic crystals, Rayleigh light scatt. by point defects and complexes 2−99139
isotropic solid films, Green functions and fluctuation spectra for thermal modes 2−98213
laser-ray scattering apparatus, non-intrusive meas. of flowing gas appl. *(German)* 2−81420
liquids, transverse motion effect on critical Rayleigh scatt. of Mossbauer radiation 2−72390
molecular structure and fluid dynamics, exptl. study methods *(German)* 2−55826
nematic liq. cryst., tilt bias angle determ. by Rayleigh line intensity ang. distrib. 2−91764
nitrobenzene, liq., depolarised Rayleigh light scatt., translational to rot. coupling parameters 2−72513
organic liquids, weakly assoc., orientational correl., depolarised Rayleigh scatt. 2−99138
organic solvents, sound vel. and liq. struct., laser light scatt. method 2−81895
phase conjugate wavefront generation by forced Rayleigh scattering 2−102877
phase conjugation by stimulated backscatt., reviews 2−70621
polybutadiene, stereoirregular, characteristic ratios 2−99142
polyisoprene, stereoirregular, characteristic ratios 2−99142
ring detector for meas. of Rayleigh scattering of Mossbauer radiation 2−85492
styrene-acrylonitrile random polymer, in ethyl acetate 2−99143
toluene in polyethylene glycol soln., excess thermodynamic quantities determ. by Rayleigh scatt. 2−81989
sym-triazine, ferroelectric phase transition, Brillouin and Rayleigh scatt. 2−61917
Al alloy 2024-T351, biaxial surface stress meas., use of US Rayleigh waves 2−57561
Au, Rayleigh scatt. of photons in vicinity of K-absorpt. edge 2−54787
CO_2 jet, Rayleigh meas. 2−111521
$Ca(NO_3)_2$-KNO_3 mixture, hypersonic relax., Brillouin scatt. study, transverse mode obs. close to Rayleigh line 2−71591
D_2S, rot. Raman spectra and principal optical polarisabilities *(French)* 2−75290
$GeCl_4$, liq., central Lorentzian in depolarised Rayleigh spectra 2−80629
H_2S, polarisabiity variation, D-isotope effect, rot. Raman and Rayleigh scatt. study 2−75292
H_2S, rot. Raman spectra and principal optical polarisabilities *(French)* 2−75290
^3He, thermal conductivity near liquid-vapour critical point 2−56288
N_2, liq., Rayleigh spectra, temp. and density of second moment 2−104898
Pb, Rayleigh scatt. of photons in vicinity of K-absorpt. edge 2−54787

Rayleigh-Taylor instability *see flow instability*

Rayleigh waves
see also surface acoustic waves
acoustoelastic effect of Rayleigh surface wave in isotropic material 2−98420
adhesive interfaces, shear modulus gradients, US Rayleigh wave study 2−66338
adhesive interfaces, shear modulus gradients, US Rayleigh wave meas. 2−105408
adsorbed layer superlattices, hypersound generation through EM excitation 2−56319
atom-surface scattering, Debye-Waller factor, angular and temp. depend. 2−111016
bragg reflection of a Rayleigh wave from a periodic grooved zone of the surface of a solid 2−61275
SE China, seismic surface wave dispersion and Earth struct. 2−68285
condensed matter, US methods, conf., Zilina, Czechoslovakia (Sept. 1980) 2−63733
crack tip acceleration and deceleration, Rayleigh surface wave obs. 2−109255
elastic half-space, surface waves on periodic boundary 2−103072

Rayleigh waves continued
excitation by conc. harmonic force source under elastic half-space surface 2−114506
global Q values of upper mantle from antipodal Rayleigh wave obs. 2−88799
H-waves as Rayleigh waves in viscoelastic medium 2−68284
hexagonal cryst. with overlayer, elastic surface waves anal. 2−56318
isotropic elastic media, low-temperature interface specific heat due to localized modes 2−76704
Italy region, Rayleigh wave dispersion and tectonic evolution 2−62928
Lg waves and coda, statistical models of wave formation 2−62902
mantle Rayleigh waves group velocity, worldwide distrib. from spherical harmonic anal. 2−117207
Massachusetts Mountain earthquake, 1971 August 5, Rayleigh wave anal. 2−117215
metal, laser generation of directional SAW pulses 2−92333
metals, Rayleigh acoustic waves, interaction with electrons, tilt effect acoustic waves, interaction with electrons, tilt effect 2−66595
plane wave, Rayleigh scatt. by a grating 2−91113
plate attached to a half space through a viscous couplant, Rayleigh wave scatt. 2−91313
quartz, XY, with SiO film overlays, Rayleigh wave propag. 2−66335
scattering by edge cracks, numerical simulation and expt. 2−114510
scattering of seismic waves at vertical boundary, theory 2−88803
seismic long-period waves, attenuation and phase vel. *(Japanese)* 2−94285
seismic P, SV and Rayleigh waves diffraction, effect of surface topography 2−117471
seismic Rayleigh wave transmission through vertical contact, calc. via improved version of Alsop's method 2−117237
seismic Rayleigh waves, synthetic seismograms from multi-dimensional simulations of underground explosions 2−88747
seismic study of Tarim Basin layered crustal structure *(Chinese)* 2−106009
seismic surface wave dispersion, appl. to delineation of North Central Italian upper mantle anomaly 2−62924
seismic waves, temporal props. in horizontally inhomogeneous Okhotsk region 2−73475
slit, narrow, shear and normal impact loadings, stress modes 2−75886
soil vibr. characts. for case of variable wave vel. with depth 2−73482
solid with cold worked surface layer, Rayleigh wave propag. 2−62299
Tibet Plateau, Q struct. from seismic attenuation data 2−105987
travelling Rayleigh waves on piezoelectric crystal surface, direct imaging by stroboscopic X-ray topography 2−110124
triangular lattice, surface dynamics and thermodynamic props. anal. 2−76796
velocity measurement *(French)* 2−97417
Vrancea earthquakes, Rumania, 1977 March 4, mechanism from Rayleigh wave anal. 2−78560
Fe-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296
GaAs monolithic SAW device, new SAW modes obs. 2−104134
InP, SAW and surface skimming bulk waves obs. 2−92331
Ni-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296
Se amorphous thin film on $LiNbO_3$, US attenuation and Rayleigh surface waves 2−71588
SiO_2 film, on Si (001) substrate, surface Brillouin scatt., strong interf. effects 2−72518

reactance, electric *see electric reactance*

reaction kinetics
see also catalysis; chemical exchanges; chemical reactions; explosions; potential energy surfaces for collision processes; reaction kinetics theory; reaction rate constants
acetaldehyde+O(^{3}P), prod. distrib., mol. beam-laser induced fluoresc. study 2−116689
ascorbic acid free radicals, kinetics obs. continuous flow method, ESR imaging appls. 2−108587
atom-molecule reactions, distorted wave Born approx. transition amplitude 2−88354
atom-molecule reactions, reaction probability, kinematic effects, trajectory calcs. 2−83363
1,3-benzodioxole radical cations, hyperfine splitting const., ESR, MO calcs., correl. with reactivity *(German)* 2−102511
t-butylhydroperoxide, state-to-state unimol. reaction, kinetics investig. 2−62392
carotenoids, autoxidation kinetics, X-ray diffr. study 2−99667
cation hydrolysis thermodynamics, review 2−68304
chemical kinetics, signal averaging, Varytemp NMR investig. 2−85698
chemical reaction study in crossed at. and mol. beams 2−72949
chemical reactions, molecular dynamics with stochastic boundary conditions 2−101298
chemical reactions, orientational correl., translational and rot. diffusion 2−99664
chemically active plasma with molecular nonequilibrium vibration excitation 2−76071
diamond, micropowder, thermal ovalling, theoretical model 2−88018
diamond micropowder, oxidation rate, dispersity effect 2−105440
diffusion combustion, rates and crit. conditions 2−62401
diffusion couples, planar binary couples, growth kinetics, thin film and bulk cases 2−86943
dissociation, energy partitioning, statistical theory 2−93768
ferrocenyl derivative, bridged, 1st order isomerisation, signal averaging, Varytemp NMR investig. 2−85698
first order reversible reaction, kinetic eqns., time-depend. behaviour 2−116686
gas-surface reactions, diffusion controlled, state depend. reactivity 2−99707
high-pressure stopped-flow apparatus for study of fast reactions in solution 2−101440
interstellar kinetic chemistry of dense clouds 2−117735
ion+molecule reaction dynamics 2−93783
ion-molecule complex form., mech. of remote polar substituents effect 2−88337
ion-molecule equilibria, entropy effects, Langevin model 2−57631
laser role in chemistry problems 2−99694
laser-chemical reactions, influence of rare gases 2−116715
N-methyl 2H,3,4-dihydro 1,3-benzoxazines, retro Diels-Alder reaction, mass spectra 2−57611
methyl radicals, IR absorpt. detection, recombination rate, reaction with O_2 study 2−85647

reaction kinetics continued
multiple pulse FT NMR investig. method 2−89769
nondiffusive fluid, chemically reacting mixtures, acoustic wave kinetic props. meas. 2−99643
phenol-formaldehyde, 2nd order condensation, signal averaging, Varytemp NMR investig. 2−85698
polyethylene, oxidation above melting point, γ-radiation effect on kinetic parameters *(Russian)* 2−67578
polymethine dyes, fast photoisomerisation process, double valley pot. model 2−99654
proton transfer reactions, kinetic isotope effect, interaction pot. influence 2−111467
pseudoisocyanine iodide photoisomers form., picosecond time resolved kinetic studies, quantum yield 2−72991
pseudoisocyanine monomers and J-aggregates in aqs. soln., picosecond kinetics and transient spectra 2−70272
reaction-diffusion system fluctuations *(Chinese)* 2−111450
redox systems appl. to fuel cells 2−62472
Rhodopseudomonas sphaeroides, subpicosec. spectroscopy of primary processes in reaction centres 2−78306
serine proteinases, catalytic rate enhancement, electrostatic effect 2−116864
shear gas flow, diffusion to a particle in arbitrary surface reaction kinetics 2−114926
sol-gel transition, critical behaviour percolation, kinetic model 2−105481
solids, reaction kinetics, jump diffusion rates effect 2−72979
solutions, critical slowing down of chemical reactions *(Russian)* 2−88336
thermal unimolecular reactions, fall-off behaviour models 2−99665
transition metals, solubility of H_2, surface effects, kinetic model 2−76836
transition probability, appl. to arrangement channel approach 2−111451
UVSOR facility at IMS 2−85419
$Al^+ + O_2$, cross section, mass spectroscopy 2−105464
Al_2O_3-Na_2O, β and β″ phases, chem. coloration 2−67767
AsF_5-graphite (polyacetylene)(p-polyphenylene) association reaction, thermodynamics and kinetics meas. 2−93775
$BO + O_2$, reaction kinetics studied by laser induced fluoresc. 2−72952
$Ba^+ + O_2$ (H_2O), cross section, mass spectroscopy 2−105464
$Bi_2O_3 + MoO_3$, solid-state reaction kinetics and mechanism 2−83374
C adsorbed on Ir, oxidation kinetics 2−66373
C steel, OL-32, corrosion kinetics in acid media, radiochem. method investig. *(German)* 2−83290
$C_8KD_{2/3}$, intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
$C_8KH_{2/3}$ intercalation cpd. formation kinetics, neutron diffr. obs. 2−111484
CO, kinetics and mechanisms of oxidation at 600-800°C 2−67646
CO oxidation, oscillations, glow, ignition, in closed gas-phase system 2−78110
$CO + NO_2$, laser-enhanced reaction mechanism 2−88371
Ca+Br, surface reaction, chemical equilib., desorpt. and reaction kinetics *(German)* 2−78123
Ca+Cl, surface reaction, chemical equilib., desorpt. and reaction kinetics *(German)* 2−78123
$CaTiO_3$, kinetics of formation, hydrothermal conditions 2−111453
Cl recombination, prelasing investigations 2−114973
Co sheet, P vapour reaction kinetics and mechanism *(Japanese)* 2−78006
CsI crystal, dissolution mechanism 2−66228
Cu, electroless plating kinetics meas., ligand adsorpt. inhibition effects 2−93451
D+HCl, reaction kinetics, infinite-order-sudden method 2−88348
F+Si surface, reaction, gas phase products anal. 2−83409
F_2+Mu(H)(D)(T), collinear reactions, semi- and quasi-classical probabilities calcs. 2−105473
Fe, in natural waters, corrosion kinetics 2−99586
Fe, sulfidation at high temps. and diffusion kinetics 2−67647
Fe-Cr(-Mo), reaction with Cl_2 gas, kinetics and mechanism 2−67639
$H + H_2$, exchange reactions, cross section, impact parameter bands 2−111480
$H + H_2O$, reaction rate enhancement, quasiclassical trajectory study 2−88338
$H_2 + F$, cross sections, opacity functions, quasiclassical trajectory calcs. 2−83362
$H_2 + O(^1D)$, vibr., rot. distrib., pot. energy surface, quasiclassical trajectory calcs. 2−83361
$H_3^+ + D_2 \rightarrow HD_2^+ + H_2$ reaction dynamics, reactant vibr. excitation effect on product energy and angle distrib. 2−62388
I+I, recombination in liqs., vibr. relax. study 2−105465
$I^+ + H_2O(D_2O)$, recombination, Monte Carlo classical trajectory method 2−111481
InP, dissoc. under vacuum, kinetics 2−116691
$LaNi_5$, hydriding, kinetic model and rate eqns. 2−57608
$LiBH_4$+formaldehyde (acetaldehyde), carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
$LiCl + He \rightarrow LiHe^+ + Cl + e$, chemical exchanges, mechanism, cross-section determ. 2−57604
$Mg + N_2O$, quenching, cross sections, kinetics, chemiluminescence 2−111496
$Mg^* + N_2O(O_2)$, reactions undersingle collision conditions, MgO laser fluoresc. study 2−80714
Mn^{2+}-citric acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mn^{2+}-malic acid-H_2SO_4-$KBrO_3$, chemical system bifurcation diagrams 2−72957
Mo-Si interface, $MoSi_2$ formation kinetics meas. during CW laser scanning 2−92025
Nb_3Sn, form. kinetics by diffusion method *(Russian)* 2−66301
$No + O_3$, transition states, mechanisms, angular distrib. chemiluminescence 2−105466
$O + B_2$, supersonic O beam, reactive scatt. study 2−83376
$O + H_2O \rightarrow 2OH$, energy partitioning, OH rot. relax. 2−57601
$O + H_2S$, supersonic O beam, heat of form., reactive scatt. study 2−83375
O+IBr, supersonic O beam, reactive scatt. study 2−83377
$PbTi(Zr)O_3$, packing pressure and particle size effect on formation reaction kinetics 2−88040
Ru complexes, soln.-polymer film interfaces, outer sphere electron transfer kinetics 2−62385
RuO_2 colloidal redox catalysts, O_2 evolution in aq. systems 2−78141
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
SO_2 electroreduction in nonaqueous media, electrochem. and ESR obs. 2−114017

reaction kinetics continued
SO_3 formation kinetics in oil-fired power station boilers 2−83345
Si, nitriding in NH_3, kinetics study 2−88335
Si, oxidation, laser enhanced, wavelength depend. 2−111343
Si, oxidation kinetics in dry O_2, thermal prehistory influence 2−57499
Si-Co thin film reactions, Co_2Si and CoSi growth kinetics and thermal stability obs. 2−92290
Si+OCS chemiluminesc. reaction, SiS(a Σ^+) formation, dynamic constraints 2−105487
Si_3N_4 CVD film prep., reaction mechanism under kinetically controlled conditions 2−111458
Ti complex, Zregler-Natta catalysts, reaction path SCF-X_α-SW MO study 2−108377
Ti, in 1M Cl solns., anodic oxidation and kinetics 2−105356
Ti, nitriding in RF discharge, effect of H addition to N on nitriding 2−88271
Ti+H_2 self-propag. high-temp reaction, hydride synthesis 2−111112
Ti_5Si_3 coatings on Ti, high-temp. oxidation 2−67592
W, carburisation, effects of trace impurities *(German)* 2−105113

reaction kinetics models and mechanisms *see reaction kinetics theory*

reaction kinetics theory
absorption and diffusion in medium with spherical sinks 2−78067
acetylenene+B_2H_4, reaction paths, MNDO calcs. 2−93777
Belousov-Zhabotinskii closed stirred system, excitability 2−99652
bimolecular reaction kinetics, reagent density fluctuations 2−72956
bridge processes, kinetic theory 2−116681
chemical reactions, intrinsic reaction coordinate, variational principles 2−88334
chemical reactions, kinetic energy, dynamical theory 2−88333
collision induced dissociation, Wigner distrib. trajectory method 2−83367
concentration of chemicals in equilibrium, numerical method 2−62377
conservative dynamical systems, conditions determ. RRKM behaviour 2−99659
decane, cool-flame combustion, mechanism 2−99679
deterministic and stochastic models and applications *(Hungarian)* 2−105439
1,2-dichloropropane, thermal, unsensitized IR laser and laser SiF_4 sensitised decomposition 2−93769
diffusion controlled reactions, conc. depend. among stationary reactive sinks 2−58749
diffusion processes, Debey-Smoluchowski eqn., Coulomb pot. unexpected symmetry 2−116680
diffusion-controlled reactions among stationary sinks, dynamics, scaling expansion approach 2−93751
double Hopf-bifurcation in plane quadratic mass-action systems 2−72948
electron and photon stimulated desorption 2−88377
electron transfer reactions, approx. Franck-Condon exponential disordered wave scaling theory 2−99660
electron transfer reactions, exact quantum no. scaling relationship for semiclassical time-depend. dynamics 2−99661
fast reactions in energetic systems, conf., Preveza, Greece (July 1980) 2−58544
fluctuations, space-time correlation, crit. behaviour of non-linear systems *(Chinese)* 2−111460
fluctuations, space-time correlation *(Chinese)* 2−111459
gelation, nearby critical kinetics 2−78094
geminate reactions, mean recombination time of diffusion controlled processes 2−83342
generalised transition state theory, quantum effects 2−111457
generalized Brownian motion in a double-well potential 2−67727
hydroxy-ellipticine (-olivacines) (-methyl-z-ellipticine), oxidation pathways, CNDO calcs. *(French)* 2−96453
inert gas halogenides, excimer form., kinetics 2−72961
ion+molecule theory association reaction collisional stabilisation step, intermediate coupling approach 2−93763
ion geminate and homogeneous recombination and fluoresc. quenching, Debye-Smoluchowski eqns. 2−83379
isomerisation, probabilistic dynamics, sub master eqn. 2−88352
liquid state chem. reactions dynamics, R-dependent correl. functions modelling 2−99642
methyl ion+methane, gas phase reaction, mechanistic study, ab initio MO calcs. 2−99647
multicomponent chemical reaction, 1-dimens. dynamics 2−99669
nickel malonate in water-glycerine solns., kinetics of complexation 2−105444
non-Markoffian theory of activated rate processes 2−101331
nonergodic systems rate consts., statistical theory 2−83343
nonisothermal chemical reaction at the particle surface in a laminar flow 2−91429
nonlinear reaction-diffusion, generalised Lagrangian equations 2−67728
nucleophilic attack on digonal, trigonal and tetrahedral systems, frontier orbital theory appl. 2−72942
numerical methods for complex reaction kinetics modelling 2−62375
Onsager's reciprocity relations nonlinear generalisations of linear dependent chem. elementary reactions *(German)* 2−83341
piecewise analytical integration of chemical rate eqns., error anal., implementation and appl. 2−111456
piecewise analytical integration of chemical rate eqns. 2−111455
plane wedge ignition by a glowing surface 2−116698
polyatomic mol. systems, unimol. decomposition, semiclassical multichannel branching model 2−62374
polyatomic scatt., system-bath decomposition of reaction path Hamiltonian, quantum perturbative treatment 2−111454
reaction diffusion systems, multivariate master eqn. stochastic derivation 2−93752
reaction-diffusion eqns., Debye limit soln. helical and toroidal waves 2−72947
reaction-diffusion system, rotating spiral waves, symm. props. 2−75984
reaction-diffusion systems, rotating spiral waves, Schrodinger eqn. approach 2−83346
reactive paths in the diffusion limit, frictional coupling effects 2−105443
reactivity, quantum scatt. and mol. orbital theories, Hammond's postulate 2−83344
solid state reactions, thermogravimetric analysis 2−67730
stabilities in chemical system 2−105441
stable quasistationary state, new soln. of time-depend. Schrodinger eqn. 2−101201
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543

reaction kinetics theory continued
1,1,2,2-tetrafluorocyclobutane, competitive processes in multiphoton activation, RRKM behaviour 2−75363
theoretical chemistry, conf., Colorado, USA (June 1981) 2−107002
thermal perturbations, nonlinear theory of fluctuations 2−93754
thermal runaway, modelling and criticality, in systems with diminishing rates, Semenov approx. 2−57609
transition state theory, effect of reaction path curvature and dimensionality 2−72946
unimolecular decay, quantum stochasticity model 2−93750
unimolecular dissociation, first passage times and kinetics, multiphoton dissoc. 2−83366
unimolecular rate constant fall-off using quantum RRK equation, interactive calculation in BASIC E 2−67729
unimolecular reactions with intense radiation 2−83396
vinyl fluoride, chemically energised, decomposition, energy partitioning meas. using IR chemiluminesc. technique 2−88343
Ar^++Kr(Xe), excitation collisions studied by monitoring resulting luminesc. 2−108675
Cl+methyl chloroform, reaction kinetics, time resolved reson. fluoresc. 2−105448
ClF_3, electronic struct. and bonding, reaction energy, extensive RHF ab initio calcs. 2−96433
Fe(III) monochelates with glycolic and lactic acid, form. kinetics studied by temp. jump method 2−105445
H+C_2H, reactive scatt. classical dynamics 2−72982
H+H_2, quasiperiodic trajectories embedded in continuum, adiabatic anal. 2−111466
$H_2S^+ \rightarrow S^+ + H_2$, metastable reaction, mechanism, product energy distrib., mass spectra anal. 2−57597
He discharge afterglow, high press., reaction kinetics theory 2−71281
$MgSO_4$, decomp., kinetics, solar energy storage *(French)* 2−93948
$ND_3^+ \rightarrow ND_2^+ + D$, energy disposal in rot. predissoc. 2−93762
NH_2+O_2, oxidation mechanism, kinetic parameters 2−105450
NO_3^- form. from gaseous ethyl nitrate, reaction mechanism, high press. mass spectrometric meas., 2−72960
O^-+allene, product energy and ang. distrib., crossed-beam studies, reaction mechanism 2−72951
$O(^3P)+H_2$, pot. energy surfaces, quantum and quasiclassical reaction probabilities 2−72975

reaction rate coefficients *see reaction rate constants*

reaction rate constants
N-acetyloxypyridinium salts, fragmentary exchange, reaction rates and mechanism, IR and NMR obs. 2−83372
aggregated systems, chem. rate coeffs. rel. to 2-particle correl. functions 2−93834
air, two- and three-body electron attachment 2−85782
azulene+CO_2, level to level vibr. energy transfer, energy depend. and prod. species obs. 2−102584
binary alloys, effect of supersaturation on parabolic rate constant 2−67731
cyanohexatriyne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
cyanooctatetryne+H_2, classical rigid-ellipsoidal model for collisions 2−68609
diethylsuccinate in dioxane-H_2O mixtures, kinetics of acid-catalysed hydrolysis 2−83382
diffusion controlled chemical reactions, steric factor 2−99655
diffusion controlled reactions among static traps, conc. depend. 2−62391
electron and photon stimulated desorption 2−88377
fast reactions in energetic systems, conf., Preveza, Greece (July 1980) 2−58544
formaldehyde, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
functional analysis, operator solutions 2−107241
graphite moderators, oxidation rate profile, MEDIC model validation 2−64486
Hastelloy X, carburization protection with Ti-Si enriched layers 2−116619
inosylyl (3′→5′) inosine, dinucleoside monophosphate, D exchange rates 2−72983
intermolecular H^+ transfer between equivalent mols., diffusion induced tunnelling 2−88339
interstellar ion-neutral reactions, rate coeffs. 2−79196
low temperature chemical reactions, models 2−83356
low-temperature chemical reactions, enhancement in phase transitions 2−67735
methyl radicals +O_2, reaction rate const. meas. 2−85647
N-methylacetamide, deuteration kinetics by stopped-flow multidetector Raman spectrophotometry 2−72490
methylmercury halides+Xe($^3P_2$)(Xe($^3P_1$)), dissoc. excitation rate consts. meas. 2−116693
photodissociation and photodesorpt. line shapes 2−80744
piecewise analytical integration of chemical rate eqns., error anal., implementation and appl. 2−111456
piecewise analytical integration of chemical rate eqns. 2−111455
polymer melts, diffusion controlled processes, entanglement effects, reaction kinetics 2−67749
polymer soln., nonentangled systems, diffusion-controlled reactions, kinetics study 2−67748
polymethylene chains, ring closure dynamics, reaction rates, Brownian motion 2−59982
propane ion, C skeletal rearrangement, obtained by photoelectron-coincident photoion mass spectrometry 2−72972
solid state reactions, thermogravimetric analysis 2−67730
solution reactions, dynamical polar solvents effect, simple continuum model 2−72970
tetrakis(N,N-dimethylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
tetrakis(N,N-dimethylformamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
tetrakis(N-methylacetamide)beryllium(II), ligand exchange, rate consts., PMR study 2−85691
three-body exchange reactions, classical var. rate calcs. 2−105461
time dependent and equilibrium, stochastic approach appl. 2−111452
transition metal carbonyls, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
unimolecular rate constant fall-off using quantum RRK equation, interactive calculation in BASIC E 2−67729
unimolecular reactions with intense radiation 2−83396

reaction rate constants continued
Al, corrosion, initial dissolution step 2−57525
Ar-H_2 mixtures, H^+ transfer and isotopic exchange reactions 2−93785
$Ar^+ + H_2O$, reaction rate consts. and branching ratios, kinetic energy depend. 2−93788
$Ar^+ + H_2(N_2)(CO)(O_2)(CO_2)(N_2O)(COS)$, energy depend., rate consts. meas. 2−88346
$ArH^+ + H_2(D_2)$(methane)$(N_2)(O_2)(CO)(CO_2)$, proton transfer reactions, rate coeffs. 2−70409
ArH_3^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
As, oxidation kinetics, sublimation, rotating specimens 2−72964
B+epoxide, reaction rate const. meas. 2−57596
$BH_3 + D_2$, UV-laser photochemistry, rate consts. meas., reaction mechanism 2−62413
$BH_2D + B_2H_6$, UV-laser photochemistry, rate consts. meas., reaction mechanism 2−62413
Br+trimethylsilane, kinetics and equilib. in very low press. reactor 2−93757
$C^+ + H_2$ radiative association reaction, rate coeff. reinvestigation 2−58235
$C^+ + O_2$(NO), reaction rate coeffs., energy depend. 2−93787
$C_2 + H_2(O_2)$(methane) reactions, temp. depend. 2−93765
$CH + NO(N_2O)(NO_2)(N_2)$, reaction absolute rate consts. at room temp. 2−99653
$CH^+ + O_2$(NO), reaction rate coeffs., energy depend. 2−93787
$CH_3^+ + O_2$(NO), reaction rate coeffs., energy depend. 2−93787
CO_2^+ ion-molecule reactions, SIFT obs. 2−83355
Ca+Cl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
$Ca + H_2(N_2)(CO)(CO_2)$(methane), collisional relax., rate consts. for quenching meas. by modulated laser induced fluoresc. technique 2−96680
$Cl + HO_2$, rate const. and branching ratio, temp. depend. 2−105459
Cl+methyl chloroform, reaction kinetics, time resolved reson. fluoresc. 2−105448
$Cl_2 + F^-(Cl^-)$ reactions, flowing afterglow study 2−62387
Co-Cu (8.03 wt.%), high temp. oxidation, reaction kinetics 2−62258
Cr, reoxidation with densified Cr_2O_3 scales 2−67648
$D_2 + T_2$, liq. and solid, chem. exchange reactions, IR spectra study 2−96301
DF+DF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2−59909
F_2+Ga(In), product form. rate, excited states, chemiluminescence obs. 2−83359
$Fe^{2+} + Fe^{3+}$ electron exchange in H_2O, theory 2−54954
Fe(III) monochelates with glycolic and lactic acid, form. kinetics studied by temp. jump method 2−105445
Fe_3O_4, magnetite, reduction kinetics to wustite in mixed H_2/H_2O *(French)* 2−78090
H+formaldehyde, rate const., pot. energy surface, transition state theory, ab initio CI calcs. 2−72980
$H + H_2$, kinetic isotope effects, transition state theory, quantum calcs. 2−88347
$H + H_2(I_2)$, exchange reactions, classical var. rate calcs. 2−105461
$H^+ + H_2$, isotope exchanges, reactive cross-sections and rate coeffs. calcs. 2−93789
H_2+ethynyl radical→$H_2 + C_2H_2$ reaction rate const., ab initio determ. 2−83358
H_3^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
$HCO_3^- + H_2O$, O isotope exchange, rate and equilib. factor 2−88350
HCl^+, ground state, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
HCl+quencher molecules, vibr. relax. rate const. meas., dipole and dispersion interactions 2−70397
HF+HF, vibr. relax. studied by 3-D quasiclassical trajectories and cross correl. method 2−59909
HNO_3+OH, temp. depend. of rate const. for stratosphere conditions 2−78794
$HO + HNO_3(H_2O_2)$, reaction rates, flash photolysis and reson. fluoresc. 2−105460
He I, electron excitation rates calc. 2−90718
He^+-Xe, charge transfer reaction, combined drift-tube and beam luminesc. study 2−99671
$He^+ + H_2O$, reaction rate consts. and branching ratios, kinetic energy depend. 2−93788
$HgBr_2$ photolysis, Hg prod., time resolved study 2−93801
$HgX_2 + Xe(^3P_2)$,$(Xe(^3P_1))$, X=Cl, Br, I, dissoc. excitation rate consts. meas. 2−116693
$Kr^+ + F^-$, ion-ion recombination, reaction rates 2−99672
Li+Mg, optically pumped LiMg* excimer chemiluminesc. intensities, form. and decay kinetics 2−83353
$Li^+ + Ar(Kr)(Xe)$, clustering reactions, forward and backward rate coeff., energy depend. 2−83365
$Mu + H_2(D_2)$, kinetic isotope effects, transition state theory, quantum calcs. 2−88347
$N + NO_2$ reaction rate const. determ. using reson. fluoresc. in discharge flow system 2−105452
$N_2^+ + O \rightarrow NO^+ + N$, rate coeff. from auroral ion comp. anal. 2−73746
NH_2^++methylamine (methanol), reaction kinetics, mass spectrosc. investig. 2−93786
N_2H^+, ion-molecule reactions, rate consts., mass spectrometric study 2−72962
NaOH photolysis in upper stratosphere, photodissoc. coeff. 2−100451
$Ne^+ + H_2O$, reaction rate consts. and branching ratios, kinetic energy depend. 2−93788
Ni, high-temp. corrosion in SO_2 at 500-800°C 2−99588
Ni-Cr, aluminide coatings, form. kinetics and microstruct. 2−116620
O recombination rates in lower thermosphere, effect of gravity waves 2−112187
$O + N_2$, reaction rate const. meas. in discharge flow reactor 2−111472
O_2 dissociation rates in lower thermosphere, effect of gravity waves 2−112187
O_3, nonseparable polyatomic pot. energy surfaces, classical density of states, Monte Carlo calcs. 2−85572
$OH + CS_2$, OCS formation, rate const. determ. 2−83350
$OH + HNO_3$, rate consts., product. distrib. discharge flow EPR study 2−99657
$O(^1P) + H_2$, collinear exact quantum transmission coeff. correction to transition state theory 2−72976
reaction rate constants continued
$^{18}O + ^{16}O_2$ (v=0) exchange reaction dynamics on pot. energy surface for ground-state O_3 2−78071
Pb+Pb metastable levels $6p^2\ ^3P_1$ and $6p^2\ ^3P_2$, collisional quenching, rate const. meas. 2−59888
Pd, surface catalytic reactions, H_2 sensitive MOS-struct. and UPS, XPS study 2−88379
SF_6^-, reaction rates and mechanisms, flowing afterglow study 2−99677
$SO + O_2(O_3)(NO_2)$, rate coeffs., chemiluminescence study 2−99651
$Si^+ + H^+$, charge transfer ionisation at thermal energies, reaction rates 2−59923
SiC, thermal oxidation kinetics, expt. study 2−72060
Sr+Cl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
$UO_2 + 4C \rightarrow UC_2 + 2CO$, carbothermic reduction rate determ. 2−102083
WSi_2 diffusion layer, conc. boundaries 2−98331
$Xe^+ + Cl^-$, ion-ion recombination, reaction rates 2−99672
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000
$Xe(^3P_2) + HCl$, $XeCl$ form., vibr. enhancements, rate const. determ., fluoresc., 2−72966
Zr, oxidation rate calc. 2−62266
reactions (chemical) *see chemical reactions*
reactions (nuclear) *see nuclear reactions and scattering*
reactive power
see also power factor correction
trans-Tisza region electrical/thermal energy economy *(Hungarian)* 2−93857
reactive sputtering
biased deposition systems, phys. processes in substrate dark space 2−57308
DC sputtering and cosputtering of elemental targets 2−111074
glass surfaces, ion beam effects, XPS study 2−99252
optical film, microprocessor-controlled magnetron reactive sputtering system 2−57289
polymer film deposition in low press. reactive plasmas, characteris. and applics., review 2−57287
reflection and antireflection coatings for laser optics, reactive sputtering fabrication *(Czech)* 2−70634
stainless steel-C films prepared by reactive magnetron sputtering, optical constants and microstructure 2−99838
transparent cond. film, planar magnetron sputtering 2−105074
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
AlN film, reactive planar magnetron sputtering, voltage controlled 2−77739
AlN film deposition by reactive DC magnetron sputtering 2−110213
AlN, piezoelectric films, high rate deposition using magnetron sputtering 2−93421
CdS/Cu_xS solar cells, reactive sputtering, apparatus surface conditioning effects 2−83020
FeO_x, berthollide type, reactive sputtering prep., struct. and props. 2−82158
NbN films, prep. by magnetron sputtering 2−87977
RuO_2-CdS Schottky barrier photovoltaic device 2−56633
Si, amorphous film solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
Si, ion bombardment with F^+ and CF_n^+, chem. sputtering yields meas. 2−87928
Si surface damage caused by reactive sputter etching *(Japanese)* 2−77965
Si:H, amorphous film, reactive ion beam sputtering, optical props. 2−83041
Si-$In_{2-x}Sn_xO_{3-y}$ p-i-n solar cell, reactive sputtering fabrication 2−57698
SnO_2 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
SnO_2 film, reactive sputtering using microprocessor-controlled magnetron system 2−57289
Ta_2O_5 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913
TiN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
TiO_2 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
WO_3 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
ZnO films, reactive magnetron sputtering prep., transition from insulating to highly cond. state 2−83022
ZnO, piezoelectric films, high rate deposition using magnetron sputtering 2−93421
ZrN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
reactive voltamperes *see reactive power*
reactively sputtered coatings
polymer film deposition in low press. reactive plasmas, characteris. and applics., review 2−57287
stainless steel/C graded index solar selective films reflectance prediction and enhancement by annealing 2−105593
transparent conducting oxides, reactive sputter deposition 2−57292
Au-MgO cermet thin films, cosputtered, reflectivity meas., percolation threshold and grain size effects 2−82942
C-metal sputtered film for solar selective absorbing surfaces, prep. and props. 2−111585
CdS films reactive DC sputtering on glass substrate in Ar and H_2S atmosphere 2−105072
Cu-C reactively sputtered selective surface for evacuated collectors 2−102890
CuO_x sputtered thin films, struct. and elec. props., O_2 pressure effects, X-ray study 2−72093
In_2O_3 RF sputtered films, optical props. 2−57202
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113
Ni-C spectrally selective films produced by reactive sputtering, optical props. 2−97132
Ni-C spectrally selective films produced by reactive sputtering, structural and electrical props. 2−98490

reactively sputtered coatings continued
Pt film, DC reactively sputtered, C detection by $^{12}C(d,p_0)^{13}C$ reaction 2−62447
RuO_2 film, reactively sputtered, ESCA spectra meas. 2−57255
RuO_2 film, reactively sputtered, electronic struct. 2−110515
RuO_2 films, reactive sputtering and electronic struct., AES, photoemission and optical absorpt. study 2−82502
a-Si:H, RF sputtered, elec. and EPR meas. 2−115791
Si:H,As, amorphous RF sputtered film, pulsed laser annealing 2−86726
Si:H amorphous reactively sputtered film, H anal. by IR spectroscopy, nuclear reaction and SIMS 2−76857
Si:H amorphous thin film Schottky barrier diodes, diode characts., film props. 2−82430
Si_xC_{1-x}:H amorphous films, reactively sputtered in propane, photoinduced optical changes obs. 2−60179
$Si_xC_yF_z$ thin film, amorphous, prep. by reactive sputtering in tetrafluoromethane *(Japanese)* 2−115596
Si_3N_4, reactive sputter-coated reaction-bonded 2−99336
SiO_x amorphous films, reactively sputtered, struct. and props., IR spectra study 2−66397
SiO_x, LO-TO mode splittings and dynamic effective charges of O_2 2−99204
SnO_2, reactive high rate sputtering deposition, opt. characteris. 2−57288
Ta_2O_5, reactive high rate sputtering deposition, opt. characteris. 2−57288
Ta_2O_5 sputtered antireflection coating for Si solar cells 2−105564
TiN film deposition by reactive magnetron sputtering, elec. resistivity, comparison with other methods 2−57293
TiN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
TiN:C film, reactivity sputtered, optical consts. and spectral selectivity, IR reflectivity study 2−72445
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
TiNx, thin film, optical props., produced by reactive evaporation and ion-beam sputtering 2−104981
TiO_2, reactive high rate sputtering deposition, opt. characteris. 2−57288
TiO_2 sputtered optical thin film, extinction meas. 2−110967
VO_2 based two-phase films, optical constants determ., use for data recording *(Russian)* 2−61996
WO_3 film, RF reactively sputtered, electrochemichromism meas. 2−93157
WO_3 film, reactively sputtered, prep., elec. and optical props. 2−93420
WO_3 films, reactively sputtered, electrical and optical props. 2−66673
WO_3, reactive high rate sputtering deposition, opt. characteris. 2−57288
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO thin film, c-axis orientation and surface morphology, sputtering gas press. influence *(Japanese)* 2−92402
ZrN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304

reactors (nuclear) *see fission reactors*

Read diodes *see IMPATT diodes*

readout, digital *see digital readout*

readout, nondestructive *see nondestructive readout*

real time computer systems *see real-time systems*

real-time systems
see also online operation
correlation system for US NDT appls. 2−111395
JT-60, real-time plasma control, cascade struct., design concept 2−74969
laser frequency stability, Allan variance real-time processing system 2−63983
micro, mini and maxi processor applications 2−60312
STEM, multiple signals description 2−113056
TMX, heavy ion beam probe control using high speed auxiliary crate controller 2−74965

reboilers *see boilers*

receivers
see also acoustic receivers; radio receivers; transceivers; transponders
timing receiver, satellite, NNSS 2−89679
underwater coil receiver system for studying EM propagation 2−68511

receiving antennas
10-element acoustic antenna, imitation of received signals *(Russian)* 2−114571
circular-periscope antenna for radio telescopes, description 2−94610
modulation-type radiometers, appl. for centimetre band sky survey work with RATAN-600 radio telescope 2−94608
variable profile antenna, radioastronomical adjustment using radio emission from Moon 2−94596
VLF receiving dipole in magnetoplasma, directivity pattern 2−63121

recombination, electron-hole *see electron-hole recombination*

recombination, ion *see ion recombination*

reconnaissance satellites *see artificial satellites*

record players *see gramophones*

recorders
see also recording; tape recorders
data reading recording from several counters on one indicator 2−69160
ferromagnetic hysteresis loop recording of characteristic parameters 2−79562
ferromagnetic resonance spectrometer, digital recording system 2−69215
friction machine recorder, sensitivity improvement 2−62316
laser Doppler system with transient recorder for study of particles in flowing fluid 2−74582
laser recorders using multi-beam acousto-optical modulator, light noise due to three-phonon scatt. 2−90805
microcomputer controlled data acquisition system for lightning strike current recording 2−68538
microwave time-domain measurement using waveform recorder and spectrum analyzer 2−101413
multichannel analog recorders, digital AGC for seismic signals 2−73712
multichannel recorder/display system based on an Apple II microcomputer 2−84618
pH meter and recorder, offset controlling circuit 2−62443
polymer films, creep and life testing apparatus 2−62317
pulmonary arterial pressure monitoring in ambulatory patients, using portable recorder 2−117122
recent trends, exploitation of LSI, review 2−89740
simultaneous recording of the readings of two digital measuring instruments with the Shch68000K printing instrument 2−69159

recording
see also audio recording; magnetic recording; video recording
C-CD based image recording system, for TEM 2−113069
teletypewriter recording equipment for air temp. and wind speed in Rumania *(Rumanian)* 2−68505

recording instruments *see recorders*

recovery
see also recovery-creep
alloys, multistage ageing, elastic stress effect, precipitate stability *(Russian)* 2−105151
bronze, Al, recovery and recrystn. during hot deform. 2−105202
creep, high temp., biaxial stress experiments, constitutive eqn. study 2−105264
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
grain boundary dislocations, spreading, yield stress depend. 2−66011
metal, irradiated, recovery during second stage of annealing *(Russian)* 2−62138
optical fibres, thick core all-glass, radiation sensitivity in reactor radiation fields 2−75692
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2−62160
polyethylene terephthalate, amorphous, conform. changes during vol. recovery, Fourier transform IR spectra obs. 2−61906
polystyrene, atactic, multistage ultradrawing by solid-state coextrusion 2−72725
polystyrene film, biaxially oriented, glassy, gas transport, effect of tensile strain, time and temp. 2−61205
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687
shape memory behaviour 2−88139
shape memory behaviour 2−88140
shock-compressed matter, recovery capsule anal. 2−76582
steel, austenitic stainless, grain boundary structure after annealing 2−67382
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, cold formability *(French)* 2−67383
steel, low C sheets, Mn and N effect on recrystallisation texture *(Japanese)* 2−105181
step-change tests, elastic recovery 2−81305
superconductor, A15 type, for fusion reactor magnets, ion and neutron damage studies 2−110549
thermoplastic, forming by utilisation of recovery induced thermal deform. props. *(Japanese)* 2−88111
Zircaloy-4, recovery and deform. substruct. in high temp. plasticity, stationary and non stationary stress 2−83173
Zircaloy-4, recovery and recrystallisation *(French)* 2−62143
Ag-Pd alloy, equiatomic, metallurgical instabilities, SRO and elec. resist. anomalies 2−93490
Al, deformed, elec. resistivity recovery during isochronous annealing, kinetics *(Russian)* 2−92563
Al, ion implanted, radiation damage and annealing studies 2−76532
Al, pure, wire drawing 2−67364
Al-Co dil. alloys, damage rate and recovery meas. 2−76488
Al_2O_3, anelastic deform. effect on high temp. stress relaxation 2−67410
Au, electron irradiated, damage rates 2−66067
Au, stage III recovery, single vacancies, migration energy 2−91956
Au-Fe, dil., electron irradiated, damage rates 2−66067
CaF_2, single cryst., temp. depend. indentation deform. processes 2−76565
Cu, deformed, isothermal elec. resist. changes rel. to stage III recovery 2−67366
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu, single crysts., plastically deformed, dislocation structures recovery 2−71451
Cu, single crysts., strain hardening at high strains and dynamic recovery 2−116457
Cu, subjected to critical work-hardening, annealing phenomena *(French)* 2−99463
Eu, electron irrad. damage, displacement threshold energy 2−81827
Fe-Al (40 at.%), ordered, recovery after 20K neutron or electron irrad. 2−56043
Fe-Cr(Al), mech. props., effect of fast neutron irrad. 2−103844
Fe-V-C, cold rolled, containing carbides, recrystallisation 2−83137
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
FeS_2, natural marcasite, orthorhombic, obs. of cryst. defects 2−76452
InP, electron irrad., defect form. and annealing 2−98159
p-InSb, radiation damage and recovery effects 2−66066
LiF and ^{6}LiF TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
LiF:Mg, shocked and recovered, dislocations obs. 2−81790
MgO, anelastic deform. effect on high temp. stress relaxation 2−67410
Mo, neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843
Ni, cold rolled, recovery and recrystallisation in magnetic fields 2−62142
Ni, single crysts., plastically deformed, dislocation structures recovery 2−71451
Ni, subjected to critical work-hardening, annealing phenomena *(French)* 2−99463
Ni-WC cermet, electrocodeposition and mech. props. 2−93462
Pd:H, mechanical and elec. props. recovery after phase transitions *(Russian)* 2−116460
Pt alloys, thermal and fast neutron irradiated, interstitial-impurity reactions during stage I 2−61041
Pt, neutron irrad., stage I recovery, effect of impurity atom size 2−103837
Pt, thermal and fast neutron irrad., Stage II recovery 2−103831
Pt-Cu(Au), thermal and fast neutron irrad., Stage II recovery 2−103831
Si:As, ion-implanted, laser and thermal annealing comparison, ion backscatt. and elec. meas. 2−55991
W, neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843

recovery-creep
metal, time-depend. behaviour, self-consistent determ. 2−92089
metals and alloys, creep, influence of stacking fault energy 2−66110
olivine, high-pressure recovery, creep mechanisms and activation volume 2−100375

recovery-creep continued
Al alloy, combined tension and torsion and stress reversal, nonlinear model predictions 2−93577
Al alloy, time-depend. behaviour, self-consistent determ. 2−92089
Al-Be alloys, Be dispersion strengthened, work hardening and recovery in high temp. creep *(Japanese)* 2−77880
NiO, creep and point defects, O diffusion 2−109892

recrystallisation
microstructural processes and features only
see also recrystallisation annealing; recrystallisation texture
brass, grain boundary multiple special contacts *(Russian)* 2−115251
bronze, Al, recovery and recrystn. during hot deform. 2−105202
laser annealing expt., mol. dynamics simulation 2−109828
liquid-phase sintering, recrystn. of C during diffusion-limited process 2−67234
nonequilibrium segregation coefficient, rel. to liq.-solid interface during recrystn., laser-annealing 2−71654
SOS:Si films, characterisation of defect reduction and Al redistrib. 2−91947
steel, 3% Si, role of cold work on secondary recrystn. *(Korean)* 2−83134
steel, austenitic ferritic, with low interstitial level, mech. and corrosion props. *(Italian)* 2−99563
steel, austenitic stainless, grain boundary multiple special contacts *(Russian)* 2−115251
steel, austenitic stainless, grain boundary structure after annealing 2−67382
steel, austenitic stainless, precip. strengthened, flow localisation and shear band form. 2−105252
steel, austenitic stainless, strengthening and weakening of austenite during hot deformation 2−72734
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, Cr-Mo, heat resist., partially recryst. struct. effect 2−67399
steel, electric, grain oriented, core loss, effect of degree of grain orientation alignment *(Japanese)* 2−104652
steel, hypoeutectoid, spheroidising treatment from various initial conditions, struct. form. 2−99451
steel, KhN77TYuR, dynamic recrystallisation and work hardening *(Russian)* 2−105178
steel, low C, austenitization kinetics in intercrit. temp. interval, effect on struct. and props. *(Russian)* 2−62148
steel, low C, deformed lath martensitic struct., recrystn. and form. of austenite 2−111195
steel, low C, sheets, microstruct. and recrysts., influence of second phase particles *(French)* 2−93534
steel, low C, strengthening and weakening of austenite during hot deformation 2−72734
steel, low-alloy, rolling rolls quality, forging and heat treatment influence 2−67392
steel, Ni, hot deform., substruct. effect on austenite strength 2−72735
steel, structural recrystallisation, test method for heating at specified rates 2−116639
steel lath martensite, deformed and undeformed, tempering process, effect of Nb additions 2−99454
two-layer metal-dielectric film growth model 2−61303
Zircaloy, stress corrosion crack propag. in I_2, effects of texture and microstruct. 2−67638
Zircaloy-4, recovery and recrystallisation *(French)* 2−62143
Al, recrystallised, grain vol. distrib. and grain growth, effect of prior cold work 2−99446
Al, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Al-Ce(Gd)(Dy)(Tm) thin films, crystallographic phases following electron beam annealing 2−55888
Al-Cu alloy 1201, superplasticity conditions 2−62179
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al-Li-Cu-Zr-Cd system alloys, microstruct.-prop. rels. 2−111210
Al-Mg, recrystn. after cold rolling, optical and electron microscopy study 2−88098
Al-Mg spinel, LiF doped, compaction and recrystn. kinetics 2−93482
Al-Mn, unhomogenized, recrystn. 2−83138
Al-Mn solid soln., precip. and recrystn., internal friction obs., fine-grained struct. *(French)* 2−77842
Al-Zn-Mg-Cu, recrystallised grain size, effect of heating rate 2−57371
Bi_2Te_3-based alloy, deform. and recrystn., influence of second phase particles Al_2O_3 and ZrO_2 2−83170
$Cd_xHg_{1-x}Te$, growth by pressurised cast-recrystallise-anneal technique 2−111068
CdS powder particle perfection, fused $CdCl_2$ and Na_2S_x solvent effects 2−105066
CdS, recrystallised, stacking faults 2−103784
Cu, grain boundary multiple special contacts *(Russian)* 2−115251
Cu, recrystallisation, twin and grain boundary dislocation movement obs. 2−71474
Cu, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Cu-Al, dispersion hardened, struct. stability and resist. to deform. *(Russian)* 2−77872
Cu-Ni-Fe, superplasticity and form. of microduplex struct. *(Japanese)* 2−72769
Cu-Ni-Sn (9, 6 wt.%), combined recrystn. and precip. 2−77840
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
Cu_3Sb, recrystn. and brittleness threshold temp. 2−99546
Cu_3Si and Cu_5Si, recrystn. and brittleness threshold temp. 2−99546
Fe-Si, high permeability elec. steel, Goss texture, surface energy and primary texture effects 2−83135
Fe-Si (3 wt.%), surface-active Sb influence on recrystn. and texture *(Czech)* 2−67374
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Si-Al, secondary recrystn. kinetics, Al influence *(Russian)* 2−93417
Fe-Si-B, mag. induction, effect of Sb and Sn during secondary recrystn. 2−83244
Fe-V-C, cold rolled, containing carbides, recrystallisation 2−83137
$Hg_{1-x}Cd_xTe$, recrystallised skin junctions, electron beam induced currents study 2−86895
La_2O_2S, hot pressing, accretive recrystallisation 2−77785
MgF_2:CaF_2, recrystallisation pressing, struct. and strength 2−99524

recrystallisation continued
Mo, recrystallised foils, grain boundary migration in presence of Ni 2−83146
Mo-base alloys, Ni-activated recrystn., TEM and optical study *(Russian)* 2−116459
Mo-Ti-Zr (0.5, 0.08 wt.%), dispersion-strengthened, activation energy meas. for creep 2−67426
Mo-W (5 wt.%), creep props., effect of substructure 2−105227
Nb-Zr (1 wt.%) alloy, fatigue failure in various struct. states 2−99547
Ni, cold rolled, recovery and recrystallisation in magnetic fields 2−62142
Ni, fracture initiation and dynamic recrystn. during hot deform. 2−105317
Ni, segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
Ni-Cr-Al-Y_2O_3, dispersion and precip. hardened superalloy, recrystn., influence of hot working 2−111196
Ni-WC cermet, electrocodeposition and mech. props. 2−93462
NiAl, recrystn. and brittleness threshold temp. 2−99546
Sb_2S_3-PbS glass, prep. and props. 2−71367
poly-Si beam recrystallisation for IC fabrication 2−111065
Si, electronically excited, phonon spectrum, rel. to laser induced recrystn. 2−115373
Si film, large grain polycryst., crystallographic orientation, grid-of-etch-pits technique 2−115591
Si film, recrystn. on amorphous substrate by doughnut shaped CW laser beam 2−56377
Si film on Si_3N_4/SiO_2 double insulating layer, CW laser recrystallisation, bipolar transistor fabrication 2−82154
Si films, 3 in. diameter, zone-melting recryst. on SiO_2-coated Si substrate 2−99330
Si, polycrystalline, thin film, CW laser recrystallised material 2−56409
Si, radiation-induced defects, room temp., in HVEM studies 2−92043
Si, vac. deposited amorphous, local anomalous oxidation and recrystn. by laser irradiation 2−77728
Si:BF_2^+ single cryst., pulsed laser irradiated, ion implanted, F conc. profile 2−115263
Si:Bf_2^+, recrystallisation by light-flash annealing 2−98130
Si:P, ion implanted, wavelength modulation spectrum 2−104916
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si-on-sapphire, amorphous, ion implanted, time-resolved optical transmission meas. during pulsed laser annealing 2−61027
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Ti-base alloys, recrystn., struct. changes during thermal cycling 2−83140
W, cross-rolled, tensile and low cycle fatigue meas. 2−72808
W-Ni, solubility of Ni, activated recrystallisation, liq. phase sintering 2−103997
WC, effects of trace impurities on W carburisation *(German)* 2−105113
Y_2O_2S, hot pressing, accretive recrystallisation 2−77785
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846

recrystallisation annealing
steel, austenitic, stainless, annealing twins absence during radiation-induced recrystn. 2−105187
steel, low-alloy, shape and size of plastic deform. zone at blind fatigue crack under tension 2−116549
steel, low-C, decarburisation in intercrit. temp. range, recrystn. of ferrite, grain boundary migration 2−99452
Al-Cu thin films, large grain growth during recrystn. annealing, elec. resist. and TEM study 2−111203
$Cd_xHg_{1-x}Te$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
$CdSe_xTe_{1-x}$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-Si (3 wt.%), primary recrystn. grain size, influence on secondary crystn. and texture *(Russian)* 2−116458
GaAs:Se implanted layer, low temp. annealing, Rutherford backscatt. channelling study 2−71818
GaAs:Zn, ion implanted, laser annealing, expt. study 2−61024
$In_xGa_{1-x}As$, concentrated, laser recrystn., solute redistribution, AES study 2−56014
Mo alloys, mechanical properties and nature of fracture, in ductile-brittle transition temp. range 2−72820
Mo, cold rolled, strain texture formation, dependence on orientations distrib. function *(Russian)* 2−99441
Mo, delayed recrystn. during annealing, O effects, electron microscopy study *(Russian)* 2−88099
Mo, grain misorientation statistics meas. after recrystn. annealing *(Russian)* 2−93526
Mo-HfN (0.36 vol.%), texture changes during recrystn. annealing *(Russian)* 2−93528
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
Nb, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Nb-W, mech. props. and struct., influence of long high-temp. holds 2−88114
Ni-Cr-Al-Ti, ageing and γ' phase precipitation after strong deform., recrystn. processes *(Russian)* 2−99443
$PbTiO_3$, amorphous ferroelec., time depend. dielec. const. during annealing 2−109676
Pd:H, mechanical and elec. props. recovery after phase transitions *(Russian)* 2−116460
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2−92289
Si, amorphous, low temp. high energy heavy ion beam annealing 2−81831
Si amorphous layer, low-temp. recrystallisation by high-energy ion beam annealing 2−65861
Si film, polycryst., amorphized by Si ion implantation, solid phase epitaxial recrystn. 2−115581
Si, implanted wafers, annealing using incoherent light and Si cryst. growth on SiO_2 2−103791
Si, ion implanted, arc annealing, regrowth and impurity diffusion calc. 2−55992

recrystallisation annealing continued
Si, ion implanted, pulsed laser annealing, threshold energy density, backscatt. and channelling meas. 2−92029
Si, ion implanted, secondary defects annealing, electron microscopy study 2−71485
Si:As, amorphous, line-source electron beam annealing 2−66060
Si:As, ion implanted, blink furnace annealing 2−62140
Si:As, ion implanted, laser annealing mechanism 2−61023
Si:As, ion implanted, pulsed X-ray annealing 2−115286
Si:As, ion implanted, solid state phase annealing with CW Nd:YAG laser *(German)* 2−105183
Si:B, laser beam annealing, recrystn. 2−103812

recrystallisation texture
secondary, influence of original diffuse texture and grain size *(Russian)* 2−62137
steel, 3% Si, role of cold work on secondary recrystn. *(Korean)* 2−83134
steel, constructional, fine-grained austenite struct. formed in $\alpha \rightarrow \gamma$ recrystn., stability *(Russian)* 2−67376
steel, low C, cold-rolled sheet, texture form. at initial crystn. 2−99439
steel, low C sheets, Mn and N effect on recrystallisation texture *(Japanese)* 2−105181
steel, low-C, chem. capped, anomalous struct. layers form. 2−105185
steel, low-C, chem. scaled, anomalous interlayers 2−99416
steel, low-C, decarburisation in intercrit. temp. range, recrystn. of ferrite, grain boundary migration 2−99452
transformations, orientational relationships, mathematical model *(Russian)* 2−77837
Al-Mn (1 wt.%) alloy, texture development during continuous grain growth 2−105186
Al-Mn solid soln., precip. and recrystn., internal friction obs., fine-grained struct. *(French)* 2−77842
Cu, flow stress in polycryst., grain size depend., texture hardening concept 2−72780
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu-Si, rolled, microstruct. and texture 2−111204
Fe-C, dil., primary recrystn. textures 2−57372
Fe-Si, high permeability elec. steel, Goss texture, surface energy and primary texture effects 2−83135
Fe-Si, rolling rel. between strain in deform. zone and texture 2−72716
Fe-Si (3 wt.%), primary recrystn. grain size, influence on secondary crystn. and texture *(Russian)* 2−116458
Fe-Si (3 wt.%), recrystn. texture, effect of deform. methods *(Russian)* 2−99442
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
Ni alloy, granular heat resistant, struct. form. 2−105175
Ni-Fe-Co magnetic alloys with stepwise hysteresis loop 2−61738
SiC, self-bonded, reactively sintered, mobility of intracrystallite boundaries, prep. conditions and additives influence 2−67270
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324

rectangular waveguides
EM wave scattering from metal plate in rectangular waveguide 2−59998
multimode rectangular IR waveguides, loss increases due to helical deformations 2−86097
optical waveguide with rectangular cross section, variational analysis 2−55325

rectification
Si-metal diode, ion beam sputtering and etching prep. and elec. props. 2−104488
TiO_{2-x}:Pt ceramics, heat treated, elec. rectification obs. due to $PETi_3$ lamellar microstruct. 2−115748

rectifier tubes
No entries

rectifier valves *see rectifier tubes*

rectifying circuits
see also rectification
angle transducer circuit, anal. and design *(Chinese)* 2−69157
TEXTOR, poloidal field thyristor amplifier with improved power factor 2−69941
TEXTOR toroidal field power supply system commissioning tests 2−69942

red giants *see giant stars*

red shift
see also cosmology; Doppler effect; gravitational red shift
250 absorption systems, red shift distrib., cosmological implications 2−89403
0430.6−6133, 0626.7−5426, X-ray clusters of galaxies, radial vels. from optical investigations 2−89389
2345+007, double quasar, redshifts rel. to gravitational lens model 2−68924
Abell 98, two-component cluster, internal dynamics, redshift obs. 2−89385
Abell clusters, red shift table 2−79224
active galaxies X-ray sources, identification and X-ray/optical luminosity-redshift relations 2−117795
AM 064-741, southern ring galaxy, systematic vel. and kinematics of ring nucleus 2−79216
AO 0235+164, time vars. in redshifted 21 cm absorption spectrum 2−106883
binary galaxies, analysis of Karachentsev sample 2−58472
Bootes void emission line galaxies, velocities and distances from spectra 2−94828
bright galaxies redshift, visible spectral obs. 2−63622
4C radiogalaxies in poor clusters, red shifts, clustering props. and radio parameters 2−79225
chemisorbed Z 2−115526
cluster galaxies, positions and radial vels. rel. to potential-estimation method of cluster mass determ. 2−106929
clusters of galaxies, nearby, galaxy distance correl. with red shift 2−84334
cosmic microwave background, redshift depend. of double Compton process 2−68936
cosmological distance scale, Hubble constant, two approaches 2−117761
cosmological redshift evolution, deceleration parameter determ. 2−106893
cosmological redshift-magnituder relation perturbation in inhomogeneous relativistic model, redshift eqns. 2−89418
deceleration parameter, implications of Dirac large numbers hypothesis 2−106977

red shift continued
Dicke-Brans-Jordan cosmology, cosmological red shift time var. 2−117813
distance scale in extragalactic astronomy 2−106990
double galaxies, quantum effects in red shift intervals 2−89353
faint blue galaxies behind Virgo cluster, radial vel. meas. *(Russian)* 2−63656
galaxies, interacting, radial vels., visible obs. 2−58456
galaxies, redshift distrib., evidence for Universe large scale anisotropy 2−79253
galaxies, redshifts errors corrections rel. to gravitational mechanics of systems of galaxies 2−101055
galaxies, spectroscopic characts. and differential redshifts of companion galaxies 2−74078
galaxies, virialized clusters in complete redshift catalogue, masses 2−106930
galaxies detected in Arecibo 2380 MHz survey, radial vels. meas. 2−101050
galaxies optical spectra and redshifts, visible obs. 2−101069
galaxy clusters with measured redshifts, catalogue 2−117614
galaxy redshifts, statistical anal. of multipole moments in Rubin-Ford data data, statistical anal. 2−106892
galaxy redshifts survey, density field and induced gravity field 2−68881
galaxy redshifts survey, large scale space distrib. 2−58448
galaxy space distribution, hole devel., and galaxy peculiar vel. around it 2−89415
gravitational lens galaxy for triple quasar Q1115+080, mass and redshift for spheroidal lens model 2−112607
homogeneous universe with viscous fluid 2−94874
Hubble constant, global value from Type I SN max. absolute mags. 2−84306
Hubble constant, implications of Dirac large numbers hypothesis 2−106977
Hubble constant, value from supernovae distance determ. methods and new cosmic distance scale 2−63496
Hydra I galaxy cluster, membership from red shifts 2−101082
IC 5174/75, very large interacting galaxy pair, spectra and redshifts rel. to recent encounter 2−63633
intervening galaxies high redshift mol. clouds causing quasar absorpt. line spectra 2−84346
Local Group galaxies and universal isotropy 2−79219
Local Supercluster, vel. field 2−101076
Markarian galaxies in Bootes, redshift distrib. rel. to intergalactic void 2−68898
Markarian galaxies red shift determ., visible obs. 2−74098
4-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2−75464
nearby galaxy groups, density enhancements location in redshift space, determ. methods 2−89157
neutrino-Compton effect, Hubble's law 2−89420
NGC 3504, barred spiral galaxy, internal vel. field, rot. curve and redshift 2−106919
parent galaxies of supernovae, spectrum features and visible obs. 2−101052
PKS 0215+015, BL Lac object at high redshift, spectrophotometry and polarimetry 2−58442
PKS 2000−330, emission redshift from AAT IDS obs. 2−117791
QSO, redshift distrib. of Lyman limit absorpt., cosmological model 2−101102
QSO absorption features at different emission redshifts 2−106950
QSO redshift distrib. rel. to QSO-galaxy assocs. 2−112605
QSO-galaxy assocs. with redshift differences 2−117762
quadratic redshift-distance law, Soneira criticism correction 2−101036
quasar absorption line redshift correl. with emission line redshift due to selection effects 2−58481
quasar candidates near 3C 345, discoveries and redshifts using slitless spectroscopy 2−106955
quasar redshift distribution periodicity rel. to Universe density perturbations and deceleration parameter 2−63721
quasar space density decrease in $z \gtrsim 3.5$ range 2−63700
quasars, anal. of redshifts rel. to isotropy of Hubble modulus (H_0) 2−79240
quasars, anal. of redshifts rel. to isotropy of Hubble modulus (H_0) 2−79241
quasars, Doppler theory involving non cosmological redshift 2−74121
quasars, Lyman α absorption lines, large red shift intergalactic clouds 2−117769
quasars, redshifts from objective-prism survey rel. to clustering 2−79242
quasars at high redshift, redshift upper limit implications and spatial distrib. 2−117793
quasars compact companions, nature and redshifts 2−89399
quasars red shift due to ejection speed from explosion centre 2−117789
quasars redshifts, implications of Poisson statistics of quasars assoc. with companion galaxies 2−106954
quasars X-ray sources, identification and X-ray/optical luminosity-redshift relations 2−117795
radio galaxies, very distant, with strong emission lines, redshifts and spectroscopy 2−106917
radio sources, extragalactic, radio two-colour spectral distributions as function of redshift 2−79235
radiogalaxies, angular diameter-red shift relations 2−117784
radiogalaxies, spectral flux distributions and red shift estimates, IR photometry 2−94850
spatial homogeneity and redshift-distance laws 2−106982
spiral galaxies, local vel. field and luminosity classification calibration 2−106885
triple galaxies in Karachentseva's list, radial vel., absolute magnitude and dimensions, obs. 2−63686
Virgo S cloud of galaxies, distance moduli and vel. struct. 2−58476
X-ray elected quasars, redshift distrib. 2−117792
Co(111) complex, vibronic lifetimes, red shift, Raman spectra 2−75294

reduction (chemical)
see also oxidation
4-carboxybenzophenone, photoreduction, quenching, radical form. and disproportionation 2−67756
coordination compounds, appl. of generalised Forster cycle 2−57623
flavins, reduction, ionisation pot. MINDO/3 calcs. 2−113887
graphite intercalation cpd. with $FeCl_3$, reduction and Fischer-Tropsch reactions, Mossbauer study 2−116692
living tissue oxidation-reduction state meas. using laser fluorescence−absorption measuring device 2−111819

reduction (chemical) continued
methylviologen, adsorbed on colloidal CdS, photochem. 2−83394
nitroimidazoles, halogenated, aq. soln., formation of halide ion on one-electron reduction, radiolytic study 2−83395
PTFE, low-temp. reduction, radial electron density distrib. meas. of C product 2−76308
rare earth oxides, electron beam induced reduction, high resolution electron microscopy study 2−78086
redox systems appl. to fuel cells 2−62472
trioxalatoferrate ions in aqueous soln., radiolysis, effect of initial conc. of solute and dose rate 2−57625
weakly conducting fluid flow instability in oxidation reduction electrode reactions 2−86260
YIG layer, reduction in high freq. H_2 plasma *(Russian)* 2−67738
Ag centres on AgBr, reduction sensitization versus photolysis 2−62418
Ag^+ bis(2,2′-bipyridine)-bis-cyanoruthenium(II) complex form., redox and photochem. behaviour 2−83392
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
α-Al_2O_3, carbothermal reduction in N_2, ALON powder prep. 2−77784
Al_2O_3-Na_2O, β and β'' phases, chem. coloration 2−67767
$CeBO_3$, preparation from CeO_2 and B_2O_3, characterisation 2−72645
Cu (II) ions intercalated in alpha- and gamma-$Zr(HPO_4)_2$ compounds, X-ray induced photoreduction rates 2−93761
Cu whiskers, growth by chemical reduction, elec. field effect 2−87121
CuO-ZnO-Al_2O_3 system, reduction process, rel. to catalysts for methanol synthesis 2−83373
$Cu_{2-\delta}S$ thin films, oxidation-reduction effects on optical absorption, application in solar cells 2−82941
Fe, passivation film, automatic ellipsometry study 2−57524
Fe powders, atomised, pressing behaviour, compressibility and compactibility rel. to sponginess and agglomeration 2−77779
Fe-rich magnetites, $Fe_{3+\delta}O_4$, non-existence 2−83100
Fe_3O_4, magnetite, reduction kinetics to wustite in mixed H_2/H_2O *(French)* 2−78090
α-FeOOH, Fe_3O_4 and γ-Fe_2O_3 acicular particles, prep. and mag. props. 2−72286
$FeTiO_3$ spinel, natural, oxidation-reduction reactions, electron microscopy 2−72986
p-GaAs, reduction of fast surface states 2−66602
$Hg_{0.8}Cd_{0.2}Te$, surface anodic oxide film composition, ion beam effects, XPS study 2−71832
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
HgTe, anodic oxidation and electrochem. surface treatment obs. 2−93641
Ir electrode, film growth and conversion processes, ellipsometric study of electrochromism of IrO_x film 2−77488
$LiBH_4$+formaldehyde (acetaldehyde), carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
Nb_2O_5-WO_3, O vacancies, TEM 2−97879
$2Nb_2O_5.7WO_3$, reduction studied by 1 MV HRTEM 2−83370
Ni-Cr, oxidation and reduction, scanning Auger and XPS study 2−83278
PLZT ceramic, reduced, dark cond. and optical absorpt. 2−104374
PLZT ceramic, transparent ferroelectric, dielec., optical and semicond. props., reduction effect *(Russian)* 2−99668
PbO-SiO_2, reduced surface layers, slow-electron spectroscopic study 2−105017
PbO-SiO_2 glass, reduced surface layers, struct., resist. and electron emission props. 2−105016
$PrBO_3$, preparation from PrO_x and B_2O_3, characterisation 2−72645
PuO_2^{2+}, reduction by γ-radiolysis in aqueous HNO_3 2−96125
RuO_2 colloidal redox catalysts, O_2 evolution in aq. systems 2−78141
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
SO_2 electroreduction in nonaqueous media, electrochem. and ESR obs. 2−114017
Se-binder photoconductive layer, trigonal, formed by in situ reduction and crystallisation, photocond. behaviour 2−87333
Si-metal contacts, fabricated by chemical reduction and electroless methods, barrier heights 2−110471
SiO_2, solid phase reduction in presence of Al layer, diffusion barriers, Auger study 2−82034
SiO_2-Al_2O_3-CaO MgO:Ce, U glass-forming melts, U chem., redox interactions 2−93771
SnO_2 ultrafine particle film, Hall effect meas. and elec. cond. model 2−87425
$TbBO_3$, preparation from TbO_x and B_2O_3, characterisation 2−72645
Ti, anodic soln. in nitrates and nitrate-chloride solns., NO_3-ions reduction *(Russian)* 2−62269
TiO_{2-x}:Pt ceramics, heat treated, elec. rectification obs. due to $PETi_3$ lamellar microstruct. 2−115748
$UO_2+4C \rightarrow UC_2+2CO$, carbothermic reduction rate determ. 2−102083
W, high-purity, prep. scheme 2−105105
W-Ni-Fe, sintering, effects of impurities *(German)* 2−105103
WO_x, effects of foreign element additions, 10 to 200 ppm *(German)* 2−105102

redundancy
see also bandwidth compression; data compression
availability anal. of standby systems 2−74888
nuclear reactor, computerised fault diagnostic via analytical redundancy 2−96215

redundancy theory *see redundancy*

reed relays
Fe-Co-W semihard mag. alloys for remanent reed switch appl. 2−82626

reentrant superconductors *see magnetic superconductors*

references (standards) *see standards*

reflectance *see reflectivity*

reflection
see also acoustic wave reflection; electromagnetic wave reflection; neutron reflection; reflectivity
crystal surface, relativistic particle reflection, reson. effect 2−105021
MHD waves in ionosphere, boundary conditions and refl., transformation and transmission coeffs. 2−112198
ocean waves, reflection of wave energy by undulations on seabed 2−106130
seismic multiple P-wave reflections and P-S conversion in S. Mississippi 2−105944
seismic reflection sounding, appl. to determ. of anisotropy parameters of rocks elastic props. 2−106114
seismic reflection sounding, deep seismic profile over Caledonian granite in central England 2−88805

reflection continued
seismic waves, refl.-refr. of general P- and SV-waves in elastic and inelastic solids 2−105955
seismic waves reflection, dip-moveout and reflector point dispersal 2−100296
shock waves, reflection transition criteria in perfect gas 2−97595

reflection high energy electron diffraction
epitaxial layers, AES, RHEED and TEM characterisation techniques 2−92419
II-VI semiconductor, polishing induced phase transforms. of single crysts. for device applic. 2−72852
micro-probe RHEED technique, appl. to surface crystallographic orientation determ. 2−60843
quartz, surface struct. change on interaction with $NaNO_3$, RHEED study 2−110109
quartz, surface struct. changes on interaction with simple gases, RHEED study, computer simulation 2−92325
surface periodicity, crystallography and structure, book contrib. 2−66334
surface structure, HEED anal., theory 2−82108
Ag, epitaxial growth on mica, previous substrate heat treatment effects, RHEED study 2−93428
Ag film, ion beam epiplantation on Si 2−116389
Ag surface, (001), (110), and (111), RHEED, Bragg peaks 2−115109
Al, epitaxial growth on polycryst. Si surface, micro-probe RHEED study 2−61308
AlSb, MBE growth on GaAs(GaSb)(InAs) and RHEED characterisation 2−87087
n-$Cd_xHg_{1-x}Te$ layers, MBE growth, struct. and elec. props. 2−99340
Cu, epitaxy on muscovite mica, RHEED study 2−115617
GaAs, MBE growth on Ge (100), interface morphology, RHEED study 2−56386
GaAs, step development during MBE growth, RHEED study 2−76860
GaAs substrate for MBE, thermal removal of surface C 2−116572
GaAs surface (001), reconstructed, domain struct., RHEED evidence 2−98408
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaP thin film, vacuum deposited, heteroepitaxial growth, struct., characterisation 2−87985
Ge, amorphous, laser irradiated, struct. change features 2−76493
Ge, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Ge, HCl gas phase etching, surface form. processes, AES, RHEED and electron microscopy obs. 2−99570
Ge, MBE growth on GaAs (100), interface morphology, RHEED study 2−56386
Ge-GaAs, (110) and (111), MBE grown, interface morphology, RHEED study 2−98470
MgO, electron beam evaporated film, optical absorpt., RHEED and cathodoluminesc. study 2−93306
MgO films, electron beam evaporated, RHEED, optical absorpt. and cathodoluminesc. 2−110209
MgO(001), surface rumpling from RHEED Kikuchi pattern changes 2−86984
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
Ni surface, (111) and (211), initial oxidation kinetics, RHEED and X-ray emission study 2−57542
Si (111), cryst. axes identification by Kikuchi patterns in RHEED 2−98398
Si, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Si surface, (111), In adatoms desorpt. and film growth, RHEED study 2−92367
Si surface, crystallographic orientation determ., micro-probe RHEED technique 2−60843
Si surface (111), RHEED, geometrical surface wave resonance 2−76783
Si-SiO_2 struct., Si MBE growth, RHEED study 2−92757
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
TiN (001) cleaved surface, tetragonal struct. on annealing, RHEED study 2−92316
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2−57286

reflection nebulae *see nebulae*

reflection spectra *see reflectivity; spectra*

reflectivity
see also electroreflectance; magnetoreflectance; piezoreflectance; thermoreflectance
absorbing thin film, optical const. and thickness determ., reflectance and transmittance meas. uncertainties *(German)* 2−99203
adhesive interfaces, shear modulus gradients, US Rayleigh wave study 2−66338
adsorbed species, Fourier transform reflection IR spectroscopy, instrumental considerations 2−89831
adsorption studies on stepped crystal surfaces, differential reflectometer use 2−95445
aerosol layers, tropospheric, shortwave radiative props. evaluation uncertainties, expt. and numerical errors 2−94490
alkali halides, ion dynamics, anion-cation mirror symm. 2−81911
alkali metal (110) surface, adsorbate-induced surface states effect on optical props. 2−104452
angle of incidence reflectance spectroscopy, optical props. meas. of solids and liquids 2−53847
antireflection coating, double-layer, V-type heat treatment influence on spectral performance at 1.06 μm 2−91023
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
borosilicate glass, antireflective surfaces for high-energy laser optics formed by neutral soln. processing 2−70641
bounded nonlocal medium, transient optical reflectivity 2−77478
CdS, thin evaporated films, optical and elec. props. 2−61624
cholesteric liq. cryst., monodomain, total light reflection obs. and numerical calc. 2−87727
container glass, optical props. 2−61858
cyclohexane-aniline near crit. binary liq. mixture, short-ranged roughness on the near-critical liquid interface 2−56171
diamond-turned metal optics, surface characterisation 2−109089
dielectric spheres, periodic monolayer, light reflectivity and EM localised states 2−60019
epoxy polymer film, Fourier transform IR spectra using heated ATR for T_g determ. 2−116167

reflectivity continued
EXAFS oscillations, amplitude in absorpt., reflectivity and luminesc. meas., attenuation factors 2−57209
fabrics, colour characts. rel. to fibre characts., struct. factors and type of dye, spectrophotometric obs. 2−107381
ferroelectrics, band structure and VUV optical props., Kramers-Kronig anal. 2−110883
ferromagnetic and antiferromagnetic cryst., reflectivity spectra, permeability tensor, magnons 2−77473
formamide, liq., photoemission and electron mean free paths in vacuum UV, reflectance meas. 2−82997
Fourier transform IR spectra, diffuse reflectance meas. in quantitative analysis, specular component induced problems 2−113013
Fourier transform IR spectroscopy, diffuse reflectance as quantitative analysis tool 2−113014
Fourier transform IR spectroscopy, photoacoustic and diffuse reflective, analytical techniques comparison 2−113012
glass, flat, optical props. 2−61857
glass, float, X-ray mirror reflectivities from 3.8 to 50 keV 2−84755
graded-index layer of arbitrary refr. index profile, reflectance computation, inverse problem approx. soln. 2−114185
graphite, reflectivity at 10.6 microns, laser heating effects 2−72442
graphite acceptor intercalate, stage 1 model, electronic struct., optical and energy loss props., LCAO calc. 2−61346
graphite intercalation compounds, electronic props., review 2−98518
graphite intercalation cpd. with F, chem. synthesis by ion implantation, optical reflectivity 2−92006
half-space, filled with nonlinear medium, one-dimens. problem of wave self-action, reflectance *(Russian)* 2−55250
hessian covered target reflectivity at 1060 nm wavelength 2−96838
IR laser reflector, dielectric-enhanced, wavefront error, interferometric meas. in visible light 2−95455
Kramers-Kronig relation, estimation of calc. accuracy of reflectance phase 2−110803
laminar crystal, X-ray plane wave dynamic reflection 2−60833
laser mirros for far VUV spectral region 2−81046
Martin Black, BRDF values meas. at 10.6 μm 2−108788
Martin Black, scatt. characts. at 118 μm 2−102710
metal carbonyls, IR reflectance and Raman spectra, lattice modes 2−110851
metal-adsorbed mol. system, enhanced IR absorption and reflection spectra study 2−77527
metallic surfaces investigation by ATR and Auger spectroscopy and electrical resistance meas. 2−72078
metallic thin films, polycryst., optical refl. and elec. resist., effect of grain boundary scatt. 2−99205
metals, optical props., data collection 2−93138
microprocessor-controlled magneto-optics apparatus 2−112878
minerals, opaque, identification by reflection spectra 2−87719
mirrors, multilayered, interf., ang. props. 2−81045
moth eye antireflection surfaces, optical props. 2−91012
multi-thin-film array, absorptivity, interference, finite element embedding 2−70492
narrow stripe-geometry DH lasers, mode reflectivity 2−102795
natural and man-made materials differential refl. at CO_2 laser wavelengths 2−99868
opaque materials, monochromatic directional reflectivity and emissivity determ. *(French)* 2−64045
optical films, thick, for conduction of optical and IR radiation, solar cell appls. 2−99763
optical material reflectance and transmittance *(French)* 2−70498
organic coatings on steel, Fourier transform IR spectroscopy, coating chem. interaction and mol. struct. and orientation 2−116603
oxide films, reflectance spectroscopy 2−67135
oxide spinels IR and Raman spectra and lattice vibrs. 2−57074
paint IR reflectance meas. using low cost simple portable reflectometer 2−107390
pentacarbonyl bromides and decacarbonyls, IR reflectance and transmittance and Raman spectra 2−110852
(perylene)$_2$(AsF$_6$)$_{0.75}$(PF$_6$)$_{0.35}$·(dichloroethylene)$_{0.85}$ conductivity, EPR and reflectance 2−92578
(perylene)$_2$(AsF$_6$)$_{1.1}$×0.7 dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
(perylene)$_2$(PF$_6$)$_{1.1}$×0.8 dichloroethene, one-dimensional conductor, spectral reflectance 2−57045
perylene red vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
phthalocyanine molecules, vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
pigment photodecomposition in paint, diffuse refl. FT IR spectrosc. obs. 2−89830
plasma, stimulated Brillouin scatt. reduction by ion acoustic harmonic generation 2−60737
polar semiconductors, complex dielec. const. of free carriers, quantum theory 2−110799
poly(4,4′-biphenylylene) film, elec. cond., IR absorption and reflection study 2−77218
polyacetylene, doped, elec. cond. mechanism, IR absorption and reflection spectra study 2−77520
polycarbonate film on metal, photochem. degradation, Fourier transform IR spectra obs. 2−116709
polyethylene terephthalate, semi-cryst., extrusion-drawn, multiple internal refl. IR obs. 2−67042
polypyrrole film, elec. cond., IR absorption and reflection study 2−77218
polystyrene film, Fourier transform IR techniques comparison for quantitative analysis 2−116749
PTFE films, macromol. orientation, IR investig. *(Russian)* 2−110873
α-quartz, ion irrad., surface polaritons, ATR study 2−57133
SAM reflection density fluctuation measuring equipment, low spatial freq., 0.01-1 mm^{-1} 2−58884
Saturn, spatially resolved reflectivity from 3000 to 6000 Å obs. 2−73900
semiconductor, photoexcited, time-resolved refl., two-wavelength picosecond dye laser appl. 2−57119
semiconductor wafer, carrier concentration profile determination from light refl. spectrum in IR region 2−61484
semiconductors, exciton bound state form. in cryst. microinclusions, reflection spectra *(Russian)* 2−92484
semiconductors, reflectivity, spatially inhomogeneous carrier conc. dependence 2−67015
semiinfinite crystals, Wannier-Mott excitons, wave functions and normal-incidence refl. 2−82244
reflectivity continued
silver sulphamides, cond., photocond., and luminesc. studies 2−77111
steel, stainless 12Kh18N9T, reflectivity at 10.6 microns, laser heating effects 2−72442
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
TCNQ salt, MTPP(TCNQ)$_2$, IR reflectivity 2−67051
TCNQ salts, Cs$_2$(TCNQ)$_3$, TTT(TCNQ)$_2$ and TEA(TCNQ)$_2$, specular refl. spectra, 4.2 to 300K 2−99128
thin crystals with surface heterolayers, exciton optical props. 2−104831
(TMTSF)$_2$ClO$_4$, reflectance spectrum, 30 to 290K, band parameters 2−87815
(TMTSF)$_2$PF$_6$, metallic, IR and visible reflectance meas. 2−57092
transition metals, group III, electron energy absorption spectrometry *(German)* 2−113084
TTF salts, highly conductive, temp. depend. of reflectance spectra 2−87786
TTF-p-chloranil, neutral-to-ionic transition, optical refl. spectra study 2−110889
TTF-TCNQ, low temp. IR studies 2−87783
TTT$_2$I$_3$, reflection spectra *(Russian)* 2−57047
V-coatings, high-quality, production, layer thicknesses correction 2−109083
video disc characterisation 2−91006
X-ray mirror reflectivities from 3.8 to 50 keV 2−84756
Ag film on Al substrate, differential reflectivity, nonlocal electrodynamics 2−87884
Ag, monocryst., adsorpt. of diethyl ether, admittance and reflectance meas. *(French)* 2−76810
Ag, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Ag, surface polaritons, attenuated total refl. 2−116288
Ag$_3$SI superionic conductor, Ag ion dynamics, IR reflectivity study 2−61199
Al evaporated film, absolute refl. meas. using high-precision multipass reflectometer 2−101446
Al films on quartz substrate, optical props., open wove resonator characts. *(Russian)* 2−93312
Al highly reflective coatings for the UV 2−97148
Al mirror specular reflectance standards, prep. and calibration 2−114405
Al, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Al with adsorbed Ar, local-field effect in optical reflectance 2−104834
Al/Al$_2$O$_3$ coated mirrors, reflectance (170-1000 nm) rel. to Al$_2$O$_3$ film thickness 2−81047
Al-Te-SiO coating system, reflectivity, graphical representation 2−75521
Al$_x$Ga$_{1-x}$As, compositionally graded, electron drift vel., time-resolved optical refl. meas. 2−115771
As-Se, amorphous struct. far IR reflection spectra study 2−67029
Au, monocryst., adsorpt. of diethyl ether, admittance and reflectance meas. *(French)* 2−76810
Au-MgO cermet thin films, cosputtered, reflectivity meas., percolation threshold and grain size effects 2−82942
AuAl$_2$, optical props., elec. cond. 2−61861
BaGeO$_3$-Al$_2$O$_3$-CaF$_2$-MgF$_2$:Eu^{3+}, glass, spectral-luminescence, IR and Raman study 2−72553
BaMnF$_4$, submillimeter dielec. spectra, 85 to 300K 2−110744
BaS(BaSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
Ba$_x$Sr$_{1-x}$O$_6$, ferroelectric, dielec. and optical props. in fund. absorption region 2−77481
BaTiO$_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
Bi layer, vapour deposited, photolithography and optical characts. control for photography 2−89846
Bi$_{12}$GeO$_{20}$, single cryst., vac. UV refl. spectra 2−72520
Bi$_2$Se$_3$(Te$_3$):Sn, doping effect on transport and optical props. 2−92015
Bi$_2$(Te$_{1-x}$S$_x$), uniaxial crystal, reflectance meas. of optical consts. 2−57041
C, oxidised, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
CC CdTe high voltage photovoltaic cells composition and structure, modulated reflectance study 2−99786
CO, adsorpt. on Pt, polarisation modulated IR refl.-absorpt. spectrosc. obs. 2−115541
CS$_2$, liquid, shock compressed, time-resolved spectroscopy 2−69266
CS$_2$, liquid, shock loaded, elec. resist. and UV reflectivity meas. 2−71963
CS$_2$/nitromethane binary mixture, crit. anomaly induced by selectively adsorbing wall 2−61120
CaCO$_3$, calcite, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
CaS(CaSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
CdBr$_2$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
CdCO$_3$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
CdGa$_2$S$_4$, semicond., exciton states in optical spectra obs. 2−110890
Cd$_x$Hg$_{1-x}$Te, compositional uniformity, directed crystn. from melt 2−76333
Cd$_3$P$_2$(As$_2$), far IR reflectivity meas. 2−93210
CdS, dipole selection rules, reflection spectra, group representation 2−93226
CdS, electron irrad., exciton reflection spectra and photo EMF, elec. field effects 2−82877
n-CdS, exciton refl. spectrum, inversion layer effect 2−116207
CdS, refl. spectrum, additional boundary conditions, linear response theory 2−77548
CdS sprayed thin film, optical reflectance and transmittance 2−110969
CdS thin film, reflectivity spectra near excitonic transition 2−82878
CdSb, IR reflection spectra meas. 2−57108
CdSe, phase spectra of refl. light in exciton reson. region 2−104911
CeO$_2$, Reststrahlen spectra, transmission and reflection study dielectric constant 2−67049
CePd$_3$, electronic struct. from resonant photoemission and optical reflectivity spectra 2−66498
CePd$_3$, f-states, optical refl. study 2−77550
Co-Cr film, RF sputtered, perpendicular mag. anisotropy, magneto-optical Kerr effect and reflectivity meas. 2−61878
CoF$_2$, far-IR reflectivity of optical magnons 2−98864

reflectivity continued
CoS_2, pyrite-type ferromag., obs. of strong IR magneto-optical effect 2−116157
Cr black, selective solar absorber, optical response, high temp. substrate oxidation 2−99840
Cr film, sputtered, internal stresses, optical reflectance, 2−82181
Cr oxide layers, reflectance spectroscopy 2−67136
Cr, surface, rough, reflectance spectral selectivity meas. 2−67027
Cr_2O_3 plasma sprayed, control of mech. props. using IR specular reflection 2−77607
Cs-Tl molten alloys, reflectances meas. 0.65-4.5 eV 2−67076
Cu, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
$CuGaS_2$, band gap temp. depend., exciton reflection spectra 2−104252
$CuGaS_2$, luminesc. and refl. spectra of free excitons 2−104963
$CuGaSnSe_4$ energy gap values, temp. var., optical refl. study 2−56438
$CuIn/Se_2$, semicond., absorption coeff., impurity effects, IR spectra study 2−77475
$Fe_{2-x}Cr_xO_3$ films, optical props. and chem. resist. 2−93300
FeF_2, far-IR reflectivity of optical magnons 2−98864
$Fe_{0.34}TiSe_2$, cryst. struct., elec., mag., and optical props. 2−81746
$Ga_{1-x}Al_xAs$ LPE layer, refractive index, surface reflection meas., 1.96 eV 2−93296
p-GaAs, inhomogenously doped, IR plasma reflectivity, computer calc. 2−61885
GaAs, ion-plasma treatment influence on structural and recomb. characts. *(Russian)* 2−66079
GaAs, oscillator strength and lifetime broadening of exciton polaritons 2−93141
GaAs:B^+ ion implanted, lattice damage profile, multilayer anal., ellipsometry study 2−92059
GaAs-$Ga_xIn_{1-x}P$ DH, interface recomb. and carrier confinement study 2−77605
$Ga_2S_3(Se_3)(Te_3)$, random defect semicond., electronic props. 2−115653
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
GaSe-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
Gd_2Cl_3, electrical resistivity and reflectivity meas. 2−92630
$Gd_2(MoO_4)_2$, permitt. dispersion, infrared refl. and spontaneous parametric scatt. by polaritons 2−104837
$Gd_2(MoO_4)_3$, band structure and VUV optical props., Kramers-Kronig anal. 2−110883
Ge, IR study of laser generated carriers 2−110859
GeAs, room temp. long wavelength refl. spectra 2−110831
GeS_xSe_{1-x} solid solns., single cryst. lattice refl. spectra 2−72495
$GeSe_2$, optical props., visible spectra study 2−67073
GeTe, cubic and rhombohedral, band struct. 2−92468
α-(γ-)GeTe, hole effective mass, plasma reflectivity study 2−56428
HfC_xN_{1-x}, spectral reflectance, interband absorption and carrier density 2−99152
HfN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
$HfSe_2(Te_2)$, optical transitions, symm. depend., refl. spectra 2−57120
$Hg_{0.8}Cd_{0.2}Te:B^+(Al^+)$, ion implantation, IR reflectivity study 2−116191
$Hg_{1-x}Cd_xTe$, solid soln., plasma reflectance spectra meas., effect of damaged surface layer 2−67064
$Hg_{1-x}Cd_xTe:Mg$, ion implanted, elec. and optical props. from IR refl. spectra 2−116218
$Hg_{1-x}Cd_xTe$-CdTe ion implanted epilayers, elec. and optical props. 2−115927
InAs-AlAs solid soln., plasma edge reflectance, carrier density 2−82855
InBr, direct and indirect exciton spectra, absorption and reflection study 2−56446
InBr(I), lattice dynamics, IR and Raman spectra 2−116194
In_2O_3 RF sputtered films, optical props. 2−57202
n-InP, refractive index at 0.633 (1.15) μm, carrier conc. depend., reflectivity meas. 2−93140
InSb, Auger recombination rate during intense laser pulse, carrier density depend., reflectivity study 2−67158
InSe, two-phonon absorpt. spectra, pol. and temp. depend. 2−57095
$In_{2-x}Sn_xO_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
In_2Te_3, random defect semicond., electronic props. 2−115653
IrO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
$K_3Fe(CN)_6$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
KI microcrysts., surface electronic transitions and adsorbate charge transfer 2−104453
KMF_3, M=Mn, Fe, Co, Ni, Cu, multiplet struct. in reflection spectra 2−110980
K_2MF_4 (M=Zn,Ni,Cu), optically active phonons, interionic pot. calc. and vibr. spectra 2−66148
$K_{0.33}MoO_3$, optical refl. spectra, optical consts. 2−87814
$KNbO_3:Fe^{2+}$, vol. phase hologram form., coherent light amplification, optical phase conjugation 2−65311
K_2PtCl_4, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
$K_{1.75}Pt(CN)_4.1.5H_2O$, electronic props. and Peierls transition, polarised refl. study 2−82858
$KSc(MoO_4)_2$, ferroelastic, Raman and IR refl. spectra, 4 to 300K *(Russian)* 2−116170
La_2S_3, ceramic, opt. props., IR transparency and spectra 2−57080
$LiTaO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$LiTaO_3(LiNbO_3)$, ferroelec. transition, soft modes, IR reflection spectra study 2−67009
$MgIn_2S_4$, partially-inverse spinel, cryst. struct. and far IR absorpt. meas. 2−91906
Mo film, sputtered, internal stresses, optical reflectance, 2−82181
Mo, reflectivity at 10.6 microns, laser heating effects 2−72442
$MoSe_2$ (2H), electrolyte electroreflectance and reflectance studies 2−57060
$(NH_4)_2SO_4$, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
$Na_3Ag_4S_3$, temp. depend. of elec. cond. and self-diffusion of Ag^+ 2−76728
NaI, excitation spectra of exciton luminescence, hot exciton effects 2−66457
$NaNO_2$, lattice mode anharmonicity, order-disorder transition, IR spectra study 2−76614
$NaNO_3$ single crystal, low-freq. reflectance spectrum temp. depend., phase transition, lattice mode parameters 2−99111
$NaNbO_3$, zone-centre soft mode behaviour in cubic 2−56150
$Na_2O-B_2O_3-SiO_2$ gel-derived single layer antireflection films 2−77732
Ni on kieselguhr catalyst, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
Ni, surface, rough, reflectance spectral selectivity meas. 2−67027
$Ni-NO_2$ black foil, optical and thermal props. 2−67139
NiO microcrystal, IR spectra obs. at high temp. 2−61902
$NiPS_3$, electronic states, reflectivity, optical absorpt., XPS 2−57246
$NiSO_4.7H_2O$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
NiSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
$Pb_{1-x}Ge_xSe$, optical and elec. props. *(Russian)* 2−57048
$PbI_2:Ga(In)$, exciton spectra, refl. and photoluminesc. spectra 2−67118
$PbMg_{1/3}Nb_{2/3}O_3$, reflectivity, dielectric const., electrooptic effect., vacuum UV reflection spectra obs. 2−61924
$PbMo_6S_8$, charge transfer and 4d orbital splitting of Mo atom 2−76918
p-PbSnTe, free carrier freq. depend. relax. time, plasma refl. studies 2−110364
p-$p^+Pb_{0.8}Sn_{0.2}Te$ LPE layer, IR plasma refl. spectra *(Chinese)* 2−93295
$Pb_{1-x}Sn_xTe$ epitaxial films, additional long-wavelength absorpt. 2−77610
$Pb_{1-x}Sn_xTe$ LPE inhomogeneous layer, IR plasma reflection spectrum, vapour transport process 2−93314
$PbTiO_3$, reflectivity, dielectric const., electrooptic effect., vacuum UV reflection spectra obs. 2−61924
Pd complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
Pd linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
Pd surface (100), CO absorpt., IR reflection absorpt. study 2−98466
Pt complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
Pt film, sputtered, internal stresses, optical reflectance, 2−82181
Pt linear chain halogen bridged cpds., synthesis, optical props., and cond. 2−93190
$Pt(NH_3)_4PtCl_4(HSO_4)_x$, synthesis, optical props., and cond. 2−93190
PtSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
Rb_2ZnCl_4, incommensurate ferroelec., far IR spectra study 2−116174
Ru (001), adsorption of water, IR study 2−67060
RuO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
SbSI, phonon spectrum, soft modes and order parameter near ferroelec. transition 2−103936
SbSI, soft mode ion paraelec. phase, temp. depend. 2−109943
SbSi, ferroelec. semicond., optical transitions, temp. depend. meas. near phase transitions 2−57109
Sb_2Te_3, anisotropy in optical and elec. props. 2−56587
Se, monoclinic, anisotropy in reflectivity and band struct. 2−61925
Se, reflectivity anisotropy anomalies 2−61862
Si, amorphous, melting temp., time resolved optical refl. meas. 2−56163
Si, amorphous, RF sputtered, optical props., by spectroscopic ellipsometry *(Chinese)* 2−67012
Si, amorphous glow-discharge film, reflectivity, spatially inhomogeneous carrier conc. dependence 2−67015
Si, ion implanted, isothermal annealing, IR refl., refr. index, regrowth rates, and carrier profiles 2−110836
Si, laser annealing by nanosecond pulses, temp. rise and carrier conc., computer model 2−86723
Si, laser-irradiated, reflectivity, transmission and electron-hole plasma, ps time-resolved meas. 2−115281
Si, optical constants, reflectivity, ellipsometry study 2−82811
Si oxides, motive and thermal, UV reflectance study 2−104977
Si structures with dielectric insulation, single cryst. layers thickness determ. 2−112867
Si:As, amorphous film, laser induced solid phase epitaxy kinetics, time resolved reflectivity study 2−56384
Si:As(B), ion implantation damage, optical constants anal., ellipsometry expt. and refractive index model study 2−77469
Si:B, laser beam annealing, recrystn. 2−103812
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
Si:P, ion implanted and annealed, IR reflectivity characterisation, physical model 2−77532
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiC powders, IR photoacoustic spectra, specular and diffuse refl. effects 2−110832
SiC, reflectivity meas. at 4.4 nm 2−93322
SiO_2, vitreous and crystalline, UV reflectance spectrum 2−93224
SiO_x film, semi-insulating polycryst., optical absorpt., depend. on annealing conditions 2−61999
Sn films, granular, optical props., from 0.22 to 1.0 μm 2−104976
SnO_2 films, pyrolitic prep., optical selectivity and crystallisation 2−87887
$SnS_{2-x}Se_x$, far IR reflectance spectra 2−87789
SrS(SrSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
$SrTiO_3$, IR refl. and antidistortive transition 2−67058
TCNQ salts, based on azkapyrido-cyanides, highly conducting, synthesis and phys. props. 2−98633
Ta film, sputtered, internal stresses, optical reflectance, 2−82181
Tb_2Cl_3, electrical resistivity and reflectivity meas. 2−92630
Tb_xFe_{1-x} amorphous RF sputtered films, magneto-optic props. 2−72459
Th/Ba fluoride multicomponent glass, extended IR absorpt 2−61854
$ThPd_3$, f-states, optical refl. study 2−77550
Ti, anodic oxide films, growth and instability, expt. study 2−93674
TiN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
TiN films from N_2^+-implantation of Ti coated Si, elec. and optical props. 2−116286
TiN:C film, reactivity sputtered, optical consts. and spectral selectivity, IR reflectivity study 2−72445
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
TiO_2 powder spectral reflectance and integrated absorptance under simulated solar radiation 2−99082
$TiS_2(Se_2)$, optical transitions, symm. depend., refl. spectra 2−57120
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
UPd_3, f-states, optical refl. study 2−77550
W, reflectivity at 10.6 microns, laser heating effects 2−72442
$Y_3Fe_{5-x}Ga_xO_{12}$, mag. ordering influence on lattice reflection spectra *(Russian)* 2−72467

reflectivity continued
YIG, visible and IR refractive index dispersion *(Chinese)* 2−110794
Y_2S_3, ceramic, opt. props., IR transparency and spectra 2−57080
$ZnCr_2Se_4$ spinel, reflectance spectra, band struct. 2−87811
ZnO, exciton refl. spectra, influence of ion implantation 2−67082
ZnO, excitons exhibiting spatial dispersion, refl. and transmission spectra, additional boundary conditions 2−57122
ZnO, refl. spectrum, additional boundary conditions, linear response theory 2−77548
ZnO, surface exciton polariton, attenuated total refl. meas. 2−115666
ZnS_xSe_{1-x}, elec. and optical props., compositional disorder effects, photoluminescence and excitonic spectra 2−57171
ZnS_xSe_{1-x} solid solns., exciton states, effect of disorder 2−115671
ZnSe, phase spectra of refl. light in exciton reson. region 2−104911
ZnSe surface, reflectivity spectra near excitonic transition 2−82878
ZnTe, exciton reflection, amplitude-phase spectra, Brewster effect 2−77551
ZrN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
ZrS_2, optical transitions, symm. depend., refl. spectra 2−57120

reflectometry
see also microwave reflectometry; time-domain reflectometry
absorbing materials, refractive index and absorpt. coeff., reflectance meas. method 2−89793
adsorption studies on stepped crystal surfaces, differential reflectometer use 2−95445
aerosol light absorpt., diffuse reflectance and diffuse transmission meas. 2−53821
caustics from reflected light rays for dynamic problems of running cracks 2−103123
coated optical surface residual refl. evaluation using microspectrophotometry 2−75739
detection of incipient faults in transmission cables using time domain reflectometry techniques: technical challenges 2−101447
dielectric mirror, refl. or light scatt. meas. using simple single beam device 2−114403
differential reflectometer, use in metallography 2−111421
ferromagnetic thin films, magneto-optical const. meas. using automated system 2−64099
high-precision multipass reflectometer 2−101446
IR reflectometer, low cost simple portable, for paint refl. meas. 2−107390
isotropic material optical property meas. in VUV spectral region 2−89791
microoptic double beam system for reflectance and absorption measurements at high pressure 2−79649
microspectroreflectometry cryostat using microminiature refrigerator 2−107332
Mo oxides, thin film, differential reflectometry 2−101445
resonant frustrated-total-reflection technique for thin film characterisation 2−89792
simple reflectometer for process control in optical fabrication and coating 2−79648
zero-angle reflection coeff. meas. using two-channel apparatus with photometric wedge 2−112960
Al mirror specular reflectance standards, prep. and calibration 2−114405
CaF_2 UV laser window material, low-level losses 2−97161
Cr oxides, thin film, differential reflectometry 2−101445
Cu oxides, thin film, differential reflectometry 2−101445
MgF_2 UV laser window material, low-level losses 2−97161
W oxides, thin film, differential reflectometry 2−101445

reflector antennas
see also antenna reflectors
12 GHz communication satellite beacon, rain attenuation meas. 2−112033
radiation cones from feed-support struts of symmetric paraboloidal antennas, radiotelescopes appl. 2−106530
SHF 10 m dia. steerable Cassegrain, solar radiofrequency observations appl. *(Japanese)* 2−94603

reflex klystrons
No entries

refraction
see also acoustic wave refraction; electromagnetic wave refraction; refractive index
seismic head waves propag. at curvilinear refracting boundary, inverse kinematic problem 2−105992
seismic waves, refl.-refr. of general P- and SV-waves in elastic and inelastic solids 2−105955
shock wave refraction in gas bubble layer in a liq. 2−60575
small-amplitude shock waves, self-refraction 2−86306

refractive index
see also photorefractive effect; refractometers
aerosols, magnetoelectric, disperse content determ. using spectral-transparency method 2−68487
aerosols, volumetric scatt. and absorpt., parametric sensitivity in Mie modelling 2−70506
alkali halide, crystals and aq. solns., optical dispersion and molar refractivities 2−110795
n-alkane liquids, complex permittivity, far IR absorpt. spectra study 2−93098
n-alkene-n-alkyne mixtures, intermol. interactions, thermodynamic and optical props. *(German)* 2−85764
trans-4-alkyl(4-cyanophenyl)-cylohexanes, nematogenic homologous series, orientational order 2−109665
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2−76282
anisotropic photoelectron emission from small particles 2−77697
antireflection coating, double-layer, V-type heat treatment influence on spectral performance at 1.06 μm 2−91023
antireflection coating multilayer broad band, automatic computer design, refractive index optimisation 2−81048
antireflection coatings, achromatic, optimal refr. index calcs. 2−65336
antireflection coatings, two-wave, optimal refr. index calcs. 2−65336
atmosphere, Doppler radar obs. of C_n^2 variability over Poker Flat, Alaska 2−78812
atmosphere, meas. in near water regions *(Russian)* 2−58125
atmospheric light propagation, correction factors calc. for light rangefinder meas. 2−100556
atmospheric turbulence, path-averaged inner scale meas. by spatial filtering of optical scintillation 2−68401
binary solutions, IR bandshapes and dispersion 2−96639
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176

refractive index continued
bubbles and drops, Mie and model predictions, refr. index conditions, glory rays 2−75525
carbon tetrachloride, liq., optical and dielec. parameters meas. in 3 mm to 50 μm range 2−99084
chalcogenide glasses, wavelength depend. for glasses with different linking 2−110801
cholesteryl benzoate (laurate), refr. indices, densities, polarisabilities, and mol. order 2−60876
coatings, low-reflection, synthesis, layer refr.-index optimisation method 2−65335
COC, optical anisotropy in smectic and cholesteric phases 2−77472
composites, two-component, effective dielec. function, bounds on allowed values at finite freqs. 2−82260
container glass, optical props. 2−61858
Cooke triplet design, utility of low-index high-dispersion glasses 2−65331
corrugated grating structures in diffused waveguides, noncollinear Bragg diffr. 2−60237
crystal surfaces, uniaxial, Brewster and pseudo-Brewster angles, optical property determ. appls. 2−75516
cylinders, tilted, light scatt., partial wave coeff. props. 2−75513
cylindrical dielectric waveguides with arbitrary refractive index profile, propag. const. 2−114420
diamond as an optical material for space optics 2−70635
dielectrics, brightening using diffr. grating 2−110806
dielectrics, low-loss, MM wave absorpt. meas. using untuned cavity resonator 2−99030
diffused waveguide, numerical method for refr. index profile reconstruction 2−97174
diffused waveguide with a dielectric film, acoustooptic interaction 2−114425
diffusers, identical, interference, speckle patterns 2−60026
diode laser, feedback noise rel. to carrier-induced index change 2−55162
9,10-diphenylanthracene liquid dye solution electroluminesc. in waveguide cell 2−82924
dispersion relations for finite freq. intervals, generalised Kramers-Kronig relations, spectrum-restoring filter 2−85903
distributed index expression by way of power series expansion 2−75523
electro-optic tunable filter 2−55308
electrooptic light deflection phenomenon 2−82825
elliptical fibres, Gaussian light beam propag. 2−65387
ferroelectric imperfect crystal, order parameter and refractive index, photoinduced changes 2−110798
fibre lenses, gradient-index, of methyl methacrylate-vinyl phenylacetate 2−75687
fibre optic materials, optical props. 2−60190
fibre parameter determ. using immersion liqs. 2−70695
fibre waveguide system, series-connected, with step refr. index profile, transfer function 2−114463
fibres, graded-index, circularly polarised modal skew rays 2−109057
fibres, graded-index, multispliced, bandwidth estimation 2−81084
fibres, monomode, charact. parameters 2−81081
fibres, multimode, scatt. theory 2−91062
fibres, multimode and single-mode, nonlinear propag., coupled-mode theory, envelope solitons and self-confinement 2−109055
fibres, single-mode, bandwidth control using tailored dispersion spectra 2−60250
fibres, single-mode, parameter design consideration 2−86121
fibres, single-mode, profile-independ. characteristic and design 2−91063
fibres, transparent, sizing using light scatt., refractive index, correction factors 2−58781
film, nonuniform, on solid substrate, ellipsometric parameters computation 2−62008
Fresnel lenses, graded-index, for integrated optics 2−86130
garnet layers, refractive index dispersion, dark m-lines method 2−82946
gas supersonic jets, optical quality 2−55697
gases, refr. index determ. in vacuum spectral region using third harmonic generation 2−109454
Gaussian sum rules for optical functions 2−99086
glass composition coefficient phys. meaning, determined by Hartmann's dispersion formula 2−80892
glass exposed to laser radiation, refr. index electrostrictive and thermal change kinetics 2−56018
glass plane optical waveguide fabrication, immersion in molten $AgNO_3$, ion exchange *(Chinese)* 2−65419
graded-index layer of arbitrary refr. index profile, reflectance computation, inverse problem approx. soln. 2−114185
graded-index media, anamorphic, ray tracing 2−75524
graded-index multimode fibre splicing for intermodal dispersion compensation 2−86113
graded-index multimode fibres, measured and predicted bandwidth comparison 2−75706
graded-index polymer rods, polarisation props. 2−114426
graded-index rod, long, imaging capabilities 2−75671
gradient index optics, conf., Honolulu, HI, USA (May 1981) 2−58521
gradient-index rod lens, fabrication by ion exchange 2−65333
gratings, dichromated gelatin, absorpt. and refr. index modulations 2−70520
halide high refractive index low Abbe number glasses 2−91013
N-p-hexyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
holographic vision with pulsed illumination of object, effect of turbulent med. 2−90845
human blood erythrocytes, imaginary refractive index spectrum reconstruction 2−75518
III-V semiconductors, refr. index at energies below direct band edge 2−110800
III-V semiconductors, refractive index dispersion, single effective oscillator model 2−77468
integrated optical system with arbitrary oriented light-guiding elements 2−70708
integrated optics modulators, optimal electrode design 2−55319
isotropic nonconducting medium, absorpt. coeff., upper and lower bounds 2−82813
lamellar lossy gratings in quasistatic limit 2−55064
laser window materials, optical distortion and far field meas. 2−97041
lens, graded-index, performance, axial perturbation effect 2−75645
lens array, graded-index fibre, non-Gaussian imaging props. 2−75686
lens array, gradient-index, luminous intensity 2−75646
lenses, distributed-index, aberration evaluation and reduction, review 2−75648

refractive index continued
lenses, gradient-index rod, wave-front aberration meas. 2−75649
light scattering from rough surfaces, stationary phase method, effect of approximations *(French)* 2−60021
liposome suspensions, optical study of microstruct. 2−111633
liquid refr. index meas. using interf. device, depend. on press. and temp. 2−116143
lithium formate crystal, light scatt. by polaritons in uncoupled two-particle states 2−82251
lithium formate solutions, refr. index, density and elec. cond. meas. near saturation temp. 2−76719
luminescence spectroscopy, refractive index correction 2−74506
media with nonhomogeneous indices of refr., ray tracing anal. 2−114182
metal wedge, refractive index and struct. factor using anomalous X-ray transmission in perfect Si cryst. 2−77467
microlens, distributed-index, planar 2−75721
microlens, gradient-index rod, selfoc, with spherical surface 2−75647
mineral oil processing industry, determination of refractive indexes 2−69239
mirage in the laboratory 2−84411
molecular crystals, nonlinear optical effects and dielec. props. 2−55248
molecular liquids, refractive index, magneto-spatial dispersion, calc. for non-interacting mols. 2−93161
molten salt, thermal expansion and temp. depend. of refractive indices 2−110018
moth eye antireflection surfaces, optical props. 2−91012
multilayer coating system numerical design, refr. index as variable 2−70657
multilevel systems, refr. index, nonperturbative quantum calc. 2−60053
multimode graded-index fibres with index imperfections, minimum pulse broadening 2−75707
multimode optical fibres calc., Helmholtz scalar equation solution *(German)* 2−91056
nematic liq. crystals, order parameter fluctuations and mol. anisometry 2−103619
nonlinear cryst. refractive index, temp. depend. 2−61856
nonlinear refractive index measurement, need to allow for slow nonlinearity 2−97085
N-p-octyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
optical fibre, low mode, four-photon mixing and Stokes-antiStokes pairs *(Russian)* 2−97220
optical fibre, modified CVD preform, central dip reduction by F etching during collapse 2−65384
optical fibres, VAD, refractive-index profile formation mechanism 2−91074
optical fibres or preform, relations between moments of index profile and moments of deflection function 2−114454
optical films, thick, for conduction of optical and IR radiation, solar cell appls. 2−99763
optical glass, optical const., effects of external fields 2−72440
optical glass, optical properties 2−60198
optical glass dispersion approx. 2−93147
optical thin films 2−82944
optical waveguides, planar, graded-index, critical ray-like propag. modes 2−91044
optically induced dipoles, effect on nonlinear refr. index in crysts. 2−116144
organic index-matching fluids, high intensity transmission props., stimulated Raman scatt. thresholds 2−102866
organosilicone films, plasma polymerised optical props. 2−87880
photographic objective, graded-index, design 2−74524
polarization-selective lateral waveguiding in layered dielectric structures 2−86099
poly-arylate-arylensulphonoxide block copolymers, increments of refr. indices, mol. wt. depend. *(Russian)* 2−93137
polymeric index-matching fluids, high intensity transmission props. 2−102866
polystyrene, PVC or polybutadiene coated, ellipsometric meas. of thickness of interfacial layer *(Japanese)* 2−84596
polystyrene film, anionically polymerised, refractive index rel. to glass transition 2−87730
polyvinylidene fluoride-trifluoroethylene copolymer, ferroelec., refractive index and birefringence meas. 2−57038
POPOP liquid dye solution electroluminesc. in waveguide cell 2−82924
prism coupler jig for coupling gap obs. using interf. fringes 2−65416
quartz, crystalline, optical S-waveguides fabricated by ion bombardment 2−109044
radiation dividers for the IR 2−97156
ray tracing in gradient-index media 2−90797
reflection coefficient hysteresis jump at nonlinear medium interface 2−82816
refractive index dispersion, dark m-lines method 2−82946
semiconductor, direct-gap, highly excited, optical dielec. function in moment-conserving approx. 2−57044
semiconductor, Kane, strong EM wave propag. under electron and phonon heating 2−82368
semiconductor laser injection locking props. 2−80969
semiconductor laser waveguiding analysis, effective index method 2−85966
semiconductor thin films with thin film optical waveguides, optical consts. 2−82947
semiconductors, light induced transient grating decay obs. 2−57043
silicogermanate gradient glass, ion exchange diffusion from molten salts, refractive index change 2−111487
single-mode fibres, equivalent-step-index profile determ. 2−97190
single-mode optical waveguide, charact. determ. by changing refractive index of adjacent medium 2−65358
smectic A to C transitions, orientational order, refractive indices meas. 2−86869
soft pigment particles, close-packed, imaginary refractive index spectrum reconstruction 2−75518
spherical particle in fringe pattern, light scatt., Mie calc., appl. to particle sizing 2−60016
spliced graded-index optical fibres; exact analysis of intermodal dispersion compensation 2−75708
step-index circularly symmetric optical waveguide, strong anisotropy, wave propag. 2−75675
sucrose, phase-matched SHG 2−55256
sulphides, optical const. meas. rel. to metallography *(German, English)* 2−111422
refractive index continued
telescope, ground, phase detector wave-front sensing and correction, different wavelength effects 2−78837
thin film, low absorbing, 2-D thickness distrib. determ. using new laser interferometry 2−112961
thin films, optical constants, transmission diffraction meas. 2−82938
thin films, optical consts., ellipsometric determ. precision 2−107384
trichloroethane, cyclohexane solns., refr. index, far-IR study 2−57072
tunable electrooptic filters for IR wavelengths 2−102910
US computer-aided tomography, correction method for refraction effect 2−94134
Voigt profile absorpt. line region, refr. index of medium, approx. calcs. 2−108779
water, dielectric thin film, thickness and refractive index determ. 2−82815
water-droplet aerosol, illumination by laser probe, refractive props. of transparent region 2−55074
waveguide Luneburg lenses, alternate technology proposal 2−55296
waveguides, dielectric, graded-index, planar, optical modes, WKB approx. 2−102923
whistlers in hot anisotropic plasma, propag. at small angle to mag. field, refr. index 2−89084
X-ray refractive index multiple reflection diffractometer study 2−97845
Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Al wedge, refractive index and struct. factor using anomalous X-ray transmission in perfect Si cryst. 2−77467
Al-Si compounds, XPS study of silicates, Auger parameter rel. to refractive index 2−99740
Al_2O_3 anodic oxide film thickness determ. by electrolum. method 2−110961
Ar-trifluorobromomethane, compressibillty factors calc. from refractive index meas. 2−76058
As-Ge-Si glass, refr. index meas. in IR range using modified GS-5 goniometer *(Czech)* 2−58887
As_2S_3 film, refractive index changes, permittivity *(Russian)* 2−61864
As_2S_3 optical fibre investigation for devices used to match planar and cylindrical waveguides 2−97216
As_2S_3-SiO_2-Si graded-index fresnel lenses for integrated optics, electron-beam direct writing technique 2−86130
BaF_2, impurity effects on lattice parameter, microhardness and refractive index 2−98140
BaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
BaF_2 thin film refractive index determ., 1-11 μm wavelength range 2−87879
$Ba_xSr_{1-x}O_6$, ferroelectric, dielec. and optical props. in fund. absorption region 2−77481
$BaTiO_3$, polarisation in cubic phase, temp. depend. of refractive index 2−87734
$Bi_{12}SiO_{20}$ single-crystal film, LPE growth, optically activated planar optical switch appls. 2−116391
i-C, antireflection coating for Si solar cells, SIMS anal. 2−83492
C:H amorphous thin films, hard, optical props. 2−99207
CO_2 pulsed elec. discharge lasers, phase grating effects 2−102765
CO_2 thin cryofilm, IR optical props. 2−87883
CS_2, liq., nonlinear refractive index, femtosecond interferometry study 2−81014
CaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
$CdGaS_2$, nonlinear cryst. refractive index, temp. depend. 2−61856
$CdGa_2S_4$, band struct., linear optical charact., effective carrier masses, pseudopotential calc. 2−61355
CdS, CdSe, modulation of refr. index during excitation on absorpt. edge 2−116142
CdS, thin films, inhomogeneity, optical transmission, refr. index 2−62001
$CdSe_{1-x}S_x$ films, soln. grown, struct. and optical props. 2−56388
$CsNiF_3$, acoustic phonon vel., elastic coeff., refractive index, Brillouin scatt. study 2−86812
$CuGaS_2$ nonlinear cryst. refractive index, temp. depend. 2−61856
Dy, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
$Er_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
$Fe_{2-x}Cr_xO_3$ films, optical props. and chem. resist. 2−93300
(Ga, Al)As diode laser, single frequency CW, output power and temp. depend. of linewidth 2−75568
(GaAl)As diode laser, linewidth broadening due to electron number fluctuations 2−60077
$Ga_{1-x}Al_xAs$ LPE layer, refractive index, surface reflection meas., 1.96 eV 2−93296
GaAs(P), optical props., ellipsometry meas. 2−57200
GaInAsP/InP 1.6 μm BH laser, wavelength var. due to direct modulation 2−55225
Ge Fabry-Perot interferometer heated by laser radiation, thermal hysteresis 2−53829
Ge samples, refr. index meas. 8 to 14 μm 2−57036
Ge-chalcogenide films, optical consts. and photo-optical changes, absorption edge 2−93301
GeO_2-ZnO-K_2O glass cladding for 940 cm^{-1} CO_2 laser transmitting hollow-core fibre waveguide 2−102946
GeS_2, glassy and cryst., pressure-optical studies, network topology analysis 2−67021
H_2O thin cryofilm, IR optical props. 2−87883
HfO_2 interference coating, form. in vacuum, refr. index drift 2−114482
HfO_2-MgO system, struct. and phase props. *(Ukrainian)* 2−57336
Ho, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
InGaAsP, refr. index at energies below direct band edge 2−110800
InGaAsP-InP DH laser structures, effective refr. index and first-order-mode cutoff conditions 2−75576
$In_{1-x}Ga_xP_{1-y}As_y$, optical props., ellipsometry meas. 2−57200
In_2O_3 RF sputtered films, optical props. 2−57202
InP, anodic oxide layer, optical props. and H_2O absorpt. 2−57496
InP, optical props., ellipsometry meas. 2−57200
n-InP, refractive index at 0.633 (1.15) μm, carrier conc. depend., reflectivity meas. 2−93140
InSb, Landau level nonlinear refr. 2−65292
InSb, nonlinear refractive index calcs. *(Chinese)* 2−104832
IrO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
IrO_x film, ellipsometric study of electrochromism 2−77488

refractive index continued
KCl(Br,I) cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
KCl(I)(Br), F-coloured, light induced refractive index change 2−72441
$K_{0.91}Na_{0.03}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
K_2O-B_2O_3-Al_2O_3 glass, Al^{3+} with non-bridging O, density, refr. index and microhardness determ. 2−109684
$Li_2B_4O_7$, Raman spectrum, 100 to 400K 2−67038
LiF cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
$LiNbO_3$ amorphous and polycryst. thin films, RF sputtering, struct., refractive index, X-ray study 2−72624
$LiNbO_3$, high-index waveguides, fabrication by proton exchange 2−114419
$LiNbO_3$ single crysts., optical inhomogeneity, high temp. diffusion annealing effect 2−65322
$LiNbO_3$:Fe electrooptic crystal refractive-index grating, investig. by optical microscopy 2−102916
$LiNbO_3$:Ti, strip waveguides fabricated by combined metal diffusion and ion implantation 2−75731
$LiTaO_3$:Fe electrooptic crystal refractive-index grating, investig. by optical microscopy 2−102916
$Lu_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
N_2, liquefied, hopping transport mech. of excess electrons, optical studies 2−104447
NH_3 thin cryofilm, IR optical props. 2−87883
NaCl cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
NaCl, F-coloured, light induced refractive index change 2−72441
$NaIO_4$ single crysts., growth and characterisation 2−62056
Na_2O-B_2O_3-SiO_2 gel-derived single layer antireflection films 2−77732
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
Na_2O-CaO glass, ion substitution at low temp. by elec. field 2−67277
Nb films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Nb_3Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Ni-Mn (9 at.%), refractive index, UV study, temp. effect 2−67014
$Pb_5Gd_3O_{11}$, refractive index behaviour in high-temp. phase 2−116145
PbS, natural galena, electron beam evaporated film, optical and electronic props. meas. 2−61621
$PbTiO_3$, refractive index behaviour in high-temp. phase 2−116145
Rb_2ZnCl_4, incommensurate state, elastic stiffness const. temp. depend., Brillouin scatt. 2−115360
Rb_2ZnCl_4, optical props. changes at successive phase transitions 2−77476
RuO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
SF_6, self-focusing and self-defocusing of intense reson. IR radiation 2−65316
ScF_3-BaF_2-YF_3(ThF_4)(NaF), glass, phys. props. *(French)* 2−91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2−91809
$Se_{0.75}Ge_{0.25}$ films, obliquely deposited, ion-induced physical and optical densification 2−61042
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si film, glow discharge deposited, optical consts. 2−62006
Si, ion implanted, isothermal annealing, IR refl., refr. index, regrowth rates, and carrier profiles 2−110836
Si, ion implanted or sputter etched, damage depth profile, ellipsometric study 2−56045
Si, modulation of refr. index during excitation on absorpt. edge 2−116142
Si, optical constants, reflectivity, ellipsometry study 2−82811
Si polycrystalline films, thickness meas. by ellipsometry 2−99202
Si:As(B), ion implantation damage, optical constants anal., ellipsometry expt. and refractive index model study 2−77469
Si:B, ion implanted, radiation damage production 2−61009
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945
Si:H amorphous film, DC sputtered, characterization by optical and nuclear methods 2−93308
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
Si:P^+, ion implanted, damaged layer study 2−71480
SiN film, plasma enhanced CVD coating, phys. and elec. props. 2−115629
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4 film in MNOS struct., stoichiometry variation rel. to memory traps 2−82163
Si_3N_4-GaAs interface, sputtered, ellipsometric study, optical props. 2−76841
SiO MBE films on GaAs, deposition conditions, Auger anal., and elec. characts. 2−87116
SiO_2 layers, ellipsometric anal. 2−104979
SiO_x, electronic and optical props., dielec. function 2−56458
SiO_x film, semi-insulating polycryst., optical absorpt., depend. on annealing conditions 2−61999
SiO_x formed by Si ion implantation into fused SiO_2; optical props. 2−93144
SiON material for graded-index optics 2−75640
SnI_2 thin films, refr. index dispersion in transparent region 2−87886
$(Sr,Ba,Ca)Nb_2O_6$, diffuse ferroelec. phase transition, optical and dielec. props. study 2−61844
SrF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
$SrTiO_3$, refractive index temp. depend. and prism coupling to $LiNbO_3$ waveguide meas. 2−91010
Tb, magneto-optical reson. and complex refractive index, polarimetric study 2−72466
$ThBr_4$:U^{4+}, absolute oscill. strength determ. 2−61859
TiF_6 Schott glass, high index gradient, ion exchange technique 2−75726
$Tm_3(Tm,Ga_{2-x})Ga_3O_{12}$, Czhochralski growth, optical and X-ray topography quality obs. 2−93413
WO_3 film, reactively sputtered, prep., elec. and optical props. 2−93420
WO_3 films, reactively sputtered, electrical and optical props. 2−66673
Xe, cryocrystals, exciton spectra, polariton and spatial dispersion effects 2−82904
Xe, solid, optical props. under very high press. 2−87731
YAG:Nd garnet, fluorescence lifetimes, particle size and refractive index effects 2−67114

refractive index continued
$Y_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
YIG, visible and IR refractive index dispersion *(Chinese)* 2−110794
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
Zn thin films, optical props. 2−67137
$ZnGeP_2$, nonlinear cryst. refractive index, temp. depend. 2−61856
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS:Mn thin films, physical and elec. characts. 2−61622
ZnS-Ag-ZnS heat reflecting filter, optimal design 2−81058
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZnSe, light-induced refr. index dispersion in impurity absorpt. region 2−77480
ZrF_4-BaF_2-YbF_3 (GdF_3), fluoride glass, prep., optical and physical props. 2−102891
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304
ZrO_2 interference coating, form. in vacuum, refr. index drift 2−114482

refractive index measurement
see also refractometers
absorbing materials, refractive index and absorpt. coeff., reflectance meas. method 2−89793
aerosol optical absorption, imaginary refr. index, mass conc. and size meas., integrating plate method 2−53806
air, atm. press., refr.-index meas. by moire deflectometry 2−112959
atmosphere refractometer measurement using helicopter *(Russian)* 2−58126
coal, pulverised, complex refractive index, light scatt. meas. technique 2−95443
complex refractive index of gases, meas. as function of wavenumber, temp. and pressure 2−107396
ellipsometric automatic in-line evaluation of thin films *(Japanese)* 2−112957
fibre power-law and wavelength depend. group refr. index determ. *(German)* 2−75711
fibre preform practical three-dimens. profiling, spatial filtering technique 2−65377
fibre preform refractive index profile meas., focusing method, computer simulation, errors 2−91052
fibre transmission characts. diagnostic meas., in single-mode fibres 2−109071
fly rhabdomere, refr. index and dia. meas. 2−78328
gas mixture concentration and temp. meas. using heterodyne holographic interferometry 2−80910
IR precision optics, instruments for testing 2−114475
isotropic material optical property meas. in VUV spectral region 2−89791
lens, simple, liq. immersion method for refr. index meas. 2−55290
lenses, distributed-index, index profiling by shearing interference method 2−74483
liquid refr. index meas. using interf. device, depend. on press. and temp. 2−116143
liquid refractive index meas. using a liq. lens 2−84420
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
mm-wave low-loss materials meas., complex dielectric permittivity determ. 2−101426
moist air in 3 μm region 2−95444
multibeam wedge interferometer for refractive index differences measurement 2−64098
multimode fibres and preforms, transmission props. optimisation *(French)* 2−70688
optic window testing using radial schlieren system 2−81051
optical thin films, wide band meas. of refr. index during deposition 2−95446
physico-chemical magnitudes, metrological assurance *(Rumanian)* 2−74381
planar optical waveguide parameter meas. using refractometer 2−102922
polypropylene fibre, multiple skin, refractive index and birefringence variations, interferometric meas. 2−91048
profile and gradient chromatic var., simultaneous meas. using multiple-wavelength AC interferometry 2−74486
real-time thin film refractive index and thickness monitor 2−114479
ruby laser, refractive index meas. by dynamic optical distortions 2−114335
scanning microellipsometer for spatial characterisation of thin films 2−101443
semiconductor and insulating crystals testing, homogeneity in refractive index meas. methods standardisation 2−96862
solid refractive index meas. in IR spectral range using modifie d GS-5 goniometer *(Czech)* 2−58887
sucrose solutions, refr.-index meas. by moire deflectometry 2−112959
1,1,2,2-tetramethoxydimethyldisilane, dipole moments, struct., refractometry study *(German)* 2−114135
thin film optical constant determ., spectrophotometric (interference) method accuracy 2−112951
thin film waveguide parameters, single-mode, two polarisation meas. 2−102920
transparent materials, technique for determining refractive index 2−74485
triethylamine-I_2 charge transfer complexes and ion pairs, stoichiometry, permittivity effects 2−114063
GaAs, thermally oxidised, Lloyd's mirror interference method for determ. of photoelastic index variation 2−64096
Ge, dispersive and refr. index meas. using diode lasers 2−112958
Ge samples, refr. index meas. 8 to 14 μm 2−57036
KH_2PO_4 isomorphs., refr. index var. with temp. and tuning rate for SHG 2−90979
Pb-acid battery state-of-charge determ. using optical method 2−107389
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285
SiO_2: $GeO_2(P_2O_5)(B_2O_3)$ glass optical fibres, refr. index dispersion 2−81107
ZrO_2, cubic, stabilised with Y_2O_3, refr. index and optical transmission meas. 2−107388

refractivity *see refractive index*

refractometers
atmosphere refractometer measurement using helicopter *(Russian)* 2−58126
differential, effect of liquid optical density on meas. error 2−58888

refractometers continued
interferometric refractometer for measuring the relative refractive index of two liquids 2−53822
mineral oil processing industry, determination of refractive indexes 2−69239
planar optical waveguide parameter meas. using refractometer 2−102922

refractometry *see refractive index measurement*

refractories
see also ceramics; cermets; clay
acoustic emission and deformation-fracture behaviour under three-point bend test 2−62230
alkaline earth metahafnate, thermodynamic stability investig. using EMF method with CaF_2-type electrolyte 2−81983
cemented carbides, obs. using high temp. sintering dilatometer 2−105098
cemented carbides, stereology, review 2−111443
concrete, chamotte, in high-Al_2O_3 cement, rheological props. 2−57425
concrete, silicate ceramic, porosity and mech. props. 2−57424
fibre formation in an acoustic field 2−93483
graphite, fine-grained, oxidation effects on thermal expansion coeff. and thermal shock fracture initiation 2−77896
metals, refractory, trilevel lift-off process 2−93643
mixed oxides, heat of formation 2−105495
nitrides of group IIIA elements, thermodynamic props., at. no. depend., synthesis method selection 2−66259
oxides, melting point measurements, in solar furnace in different atms. 2−58830
oxides, plasma deposited, elec. cond. under reactor irrad. 2−110344
plasma-arc spraying onto preformed cores used as furnace heating elements *(French)* 2−62078
synthetic materials for electronics, conf., Warsaw, Poland (Oct. 1979) 2−68964
technology trends, conf., Reutte, Austria (June 1981) 2−101115
transition metal, surface carbidisation by elec.-spark alloying 2−67658
trap activation model for H retention and isotope exchange 2−69846
viscoelastic stress response of commercial struct. in service at high temp., model 2−83160
wear testing using (γ, n) for industrial furnace lining 2−99609
AlN film, reactive planar magnetron sputtering, voltage controlled 2−77739
AlN:Cr, sintered, dielec. losses, lattice defect types *(French)* 2−77448
Al_2O_3-Mo composite powder, room- and high-temp. thermal cond. 2−66308
Al_2O_3-SiO_2, mullite form. kinetics, grain comp. and component activity effects 2−77786
Al_2O_3-SiO_2 refractory fibre, apparent thermal cond. rel. to phys. props. 2−115475
Al_2O_3-ZrO_2-$Bi_2O_3(CoO_2)(SuO_2)$ refractories, thermal shock resist., $Bi_2O_3(CoO_2)(SuO_2)$ effect 2−93623
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896
Al_2O_3-ZrO_2-SiO_2 refractories, props. with different ZrO_2 and SiO_2 concs. 2−88188
Al_2O_3-ZrO_2-SiO_2, AZS, refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560
B_4C, hot pressed, mech. props., effect of porosity and grain size 2−116543
BN, graphitelike, interlayer reaction energy and relative stability of various cryst. modifications 2−65972
BN, high-temp. stability in O_2, cryst. struct. influence 2−72858
BN, pyrolytic, high press. and high temp. effect 2−105167
C, soft, thermopower, 4.2 to 280K, rel. to phonon drag, heat treatment temp. influence 2−77103
CaO-MgO-Ca_2SiO_4=$Ca_4Al_2Fe_2O_{10}$ magnesia-dolomite refractories, thermal equilib. 2−62111
Fe-B, refractory layer, powder boriding, photoelectron spectra, thermodynamic studies 2−93471
Fe-Cr-Al alloy, wrought, prep. and characts. 2−67249
HfC whiskers, growth by CVD *(Japanese)* 2−105057
HfO_2-R_2O_3, liquidus curves in region with high HfO_2 content 2−86842
Ir-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
MgO, high-purity fusions, sintering, effect of CeO_2, ZrO_2 and Y_2O_3 additives 2−57324
MgO-Al_2O_3-Cr_2O_3, kinetics of soln. in oxide melts 2−88063
MgO.Al_2O_3, high-purity fusions, sintering, effect of Y_2O_3 additive 2−57324
Mo film, As ion implantation, stopping power, SIMS study 2−56053
Mo-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
Mo-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Mo-ZrN composite powder, room- and high-temp. thermal cond. 2−66308
Nb-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
NbC_x, single cryst., prep., struct. and mech. props. 2−98108
NbC_xO_y, elec. resist., conc. and temp. depend., 25-1000°C 2−56579
Ni-Cr based refractory eutectic alloy, electron microscopy study *(Russian)* 2−98298
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Re-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
SiC, anisotropic tribological props. 2−88219
SiC, pressureless sintering 2−99380
SiC-AlN solid solutions, hot pressed, comp. and props. 2−88037
Si_3N_4, defect charact. in short wavelength regime 2−62292
Si_3N_4, densification by high pressure hot-pressing 2−93477
Si_3N_4, effects of oxidation and oxidation under load on strength distribs. 2−99491
Si_3N_4, hot pressed, bending strength *(Japanese)* 2−67436
Si_3N_4, hot pressed, intergranular phase, refinement of elemental composition 2−111158
Si_3N_4, MgO-fluxed, soln.-precipitation creep 2−99492
Si_3N_4, oxidised, hot pressed, microstruct. and subcritical crack growth 2−116530
Si_3N_4 plasma deposition on Si, props. of thin layers *(German)* 2−57309
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Si_3N_4, slip coating for pressureless sintering 2−57322
refractories continued
Si_3N_4 structure form. mechanism 2−103708
Si_3N_4, ultrafine amorphous powder, crystallisation during sintering 2−111132
Si_3N_4:H, plasma deposited, H content 2−103801
Si_3N_4:Y_2O_3, sintering behaviour and microstructural development 2−93480
SiO_2 refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
Ta-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
TaB and TaB_2, low temp. CVD, hardness and corrosion resistance 2−83033
TiB_2, porous, Al penetration and fracture 2−57456
TiC, CVD on cemented WC, growth rate and failure mode 2−116380
TiC, contact reactions with Fe-Ni (Si) (Cr) 2−67597
TiC, densification during heating under high pressure 2−72662
TiC, RF floating zone grown single crystal, high temp. deform. mech. 2−105242
$TiC_{0.96}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
TiC_{1-x}, order-disorder transition, high-temp. neutron diffr. 2−103682
$TiC_{0.51}N_{0.49}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
TiC_xN_y, CVD on cemented WC, growth rate and failure mode 2−116380
TiN, CVD on cemented WC, growth rate and failure mode 2−116380
TiN, fabrication by hot isostatic pressing 2−83075
TiN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
VC_xO_y, elec. resist., conc. and temp. depend., 25-1000°C 2−56579
W, high-purity, prep. scheme 2−105105
W-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
WC, cemented, CVD, of TiN, TiC_xN_y and TiC, growth rate and failure mode 2−116380
WC, densification during heating under high pressure 2−72662
WC, effects of trace impurities on W carburisation *(German)* 2−105113
WC particles, coating by Co electrodeposition 2−83261
WC powders, submicroporosity, milling influence, small-angle X-ray scattering investigation 2−67269
WC-Co, as-milled Co distrib. 2−111118
WC-Ni cemented carbides, prep. and props. 2−111119
WC-TiC-TaC binderless cemented carbides, effect of hot isostatic pressing 2−111120
W_2C, bulk and grain boundary diffusion of ^{14}C 2−82020
ZrC, CVD, microstructs. 2−105169
ZrN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
ZrN-Al_2O_3 composite powder, room- and high-temp. thermal cond. 2−66308
$ZrSiO_4$, refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560

refractory materials *see refractories*

refrigeration
see also cryogenics; freezing; low-temperature production
closed cycle, for millikelvin temps. 2−58832
cryorefrigerator, based on reversed Ericsson cycle 2−58833
dilution refrigerator, thermal grounding of transmission line 2−89722
magnetic refrigeration materials, 2 to 20K 2−64050
nuclear, Helsinki University of Technology, Low Temperature Laboratory 2−89721
review and perspective for future 2−112912
review of developments from O_2 liquefaction to nucl. cooling 2−112910
solar refrigeration, thermal losses *(French)* 2−112908
two-loop gas-liquid refrigerating power plant anal. 2−62487
^{3}He-^{4}He, dilution refrigerator, ^{4}He cycling, Pomeranchuk cooling device 2−64047
^{3}He-^{4}He dilution refrigerators, possibility of operation aboard spacecraft 2−64048
^{3}He-^{4}He dilution refrigerators 2−112911

refrigerators
absorption type chillers, solar-powered, boiling experiments *(Japanese)* 2−116843
domestic solar-driven refrigerator operation principles and performance 2−99825
miniature cryogenic refrigerator for satellite borne IR detector coding 2−89729
modulated solar thermoelectric refrigerator performance 2−83505
small split Stirling coolers for IR detectors 2−89730
solar photovoltaic array powered refrigerator for medicines cooling in developing countries 2−111564
solar refrigerator, absorption diffusion type, for domestic use 2−73141
solar-driven, calculated figure-of-merit 2−99824
Stirling cycle mechanical refrigerators for gamma-ray spectrometers, orbital performance 2−113087
Stirling-cycle cyrocooler, conical, low power, 9K 2−74420
zeolite-water cycle solar refrigerator *(French)* 2−62460

regenerative receivers *see radio receivers*

Regge poles and trajectories
charmonium spectroscopy, Schrodinger eqn. solns. for superposed pot. 2−74656
diffraction in accelerators, colliders and QCD 2−107627
graviton-graviton interactions, multireggeon kinematics *(Russian)* 2−69078
hadron-hadron interaction cross sections and secondary Reggeons residues in quark-gluon model *(Russian)* 2−74660
hadronic mass-relations from topological expansion and string model 2−54126
high energy scattering in complex angular momentum plane 2−101610
inclusive multipomeron corrections in Regge-eikonal model, higher terms calc. 2−84880
independent collisions model for high energy nucleus+nucleus reactions 2−79988
instantons, 1/N expansion, inverse scatt. method 2−84793
Klein-Gordon equation, high-energy asymptotic expansion and Regge trajectories for even power pot. 2−95599
mesons, Regge trajectory, rel. to SU(4) mass relations *(Chinese)* 2−54121

Regge poles and trajectories continued
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
non-Abelian gauge field to string transformation 2−54066
particle scattering in modified Coulomb field 2−74670
pion EM form factor using extended VDM 2−95838
Polyakov string theory, pomeron singularities, saddle point anal. 2−101694
QCD, evolution eqns. approx. soln. *(Russian)* 2−54100
QCD, three-ladder vertex in Reggeon graph technique *(Russian)* 2−74654
quark-confining potentials, Regge trajectories 2−64275
radially excited pseudoscalar states and glueball G(1440) 2−84858
Reggeon field theory with Pomeron and f-pole bare Pomeron intercept and IR behaviour 2−84881
singular interatomic pots., Regge pole positions and residues, energy depend. 2−75367
structure functions, deep inelastic, Regge behavior, in perturbative QCD 2−95769
supersymmetric dual string theory, loops and renormalisation 2−89952
Yang-Mills theories, Abelian dominance and quark confinement 2−84853
H meson and deviations from ideal mixing 2−95805
hh→X, mechanisms, review 2−74659
$K^-p \rightarrow \eta\Lambda(\eta'\Lambda)$, differential cross-section and polarisation study of Regge pole model 2−101766
$K_L^0p \rightarrow K_S^0p$, Regge pole model, ω trajectory 2−54209
NN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
$\bar{p}p \rightarrow \bar{\Delta}^{--}\Delta^{++}$, cross section and density matrices, parameter-free Reggeised absorpt. model 2−84907
πN→X, inclusive spectra, rel. to OPER model *(Russian)* 2−95883
π^-p backward scattering, high energy, Δ-spectrum struct. *(Russian)* 2−59181
$\pi^-p \rightarrow \pi^+(\pi^-)(\pi^0)X$, 5 GeV/c, Regge trajectories factorisation hypothesis test *(Russian)* 2−101765
π^+p backward scatt. at high energy, baryon parity parameters, theory *(Russian)* 2−113300
$^{40}Ca(^{16}O,^{16}O)$, 50 MeV, elastic scatt. cross section, interpretation by Regge formalism 2−113557

Reggeon field theory
bare Pomeron intercept and IR behaviour in Reggeon field theory with Pomeron and f-pole 2−84881
dual chiral models, SU(2) invariant, in low coupling limit 2−101604
Hamiltonian props. of Reggeon field theory 2−95620
inclusive multipomeron corrections in Regge-eikonal model, higher terms calc. 2−84880
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
$\bar{p}p$, cross sections at asymptotic collider energy, reggeon field theory calcs 2−79917
$\bar{p}p$ colliders strong interactions, diffr. and QCD 2−107627
$pp(p\bar{p})$, CMS energies up to 1000 GeV, charged hadron multiplicity 2−79920

region of escape *see exosphere*

regulators *see controllers*

Rehbinder effect *see mechanical properties of substances; surface phenomena*

relative density *see density*

relative humidity *see humidity*

relativistic band structure calculations
finite disordered systems, relativistic electronic states 2−61323
HCP transition metals, nucl. spin-lattice relax., ab initio ASA-SCF-LMTO linear tetrahedron calc. 2−98985
pseudopotentials, relativistic norm-conserving, calc. for heavy atoms 2−76896
rare-earth metals, relativistic 2p excitation energy calcs. 2−115686
spin polarized, local density functional theory appl. 2−56423
surface states, field sustained, existence condition 2−61537
surface with impurity and distortion, relativistic surface states 2−98711
transition metals, cyclotron masses and many-body effects, relativistic APW calc. 2−56426
Ag, electronic struct., non-muffin-tin and relativistic interaction effects 2−61341
Au, electronic struct., non-muffin-tin and relativistic interaction effects 2−61341
$BaPb_{1-x}Bi_xO_3$, superconductivity, electronic and cryst. struct. effects 2−115938
Cu, electronic struct., non-muffin-tin and relativistic interaction effects 2−61341
$Hg_{1-x}Cd_xTe$, disordered, band struct., CPA calc. 2−87138
Ir, band struct. calc. and photoemission anal. 2−82214
Re, electronic struct. and X-ray emission, relativistic calcs. 2−98532
Te, anisotropic semicond., band shapes, effect of relativistic operators 2−92459
$TiSe_2$ (S_2) (1T), p-d gaps, relativistic corrections 2−110240
$ZrSe_2$ (S_2), p-d gaps, relativistic corrections 2−110240

relativistic corrections
see also Lamb shift
alkali metal ions core binding energies from Dirac-Fock calcs. combined with atomic binding energies 2−85832
atom+light ion, L-shell ionis., electronic relativistic effects calcs. 2−59898
atomic potential calc., simplified Thomas-Fermi-Dirac eqn. 2−80478
atomic transitions, relativistic many-body theory, eqn. of motion approach 2−96477
atoms, forbidden lines in X-ray emission spectra, transition rate CF calcs. 2−102424
atoms, spin-orbit splitting, correl. and relativistic effects 2−70151
atoms and ions, non-relativistic energies from relativistic radial integrals 2−102417
binary encounter approx. for ionisation of atoms by collisions with ions, relativistic correction 2−54918
continuum process calc. program, using model pots., Breit-Pauli Hamiltonian, R-matrix 2−90431
Coulomb and atomic wave functions, relativistic recoil and spin corrections 2−85523
Dirac-type eqns., linear expansion method 2−54750
(e,2e) reaction, plane-wave Born approx. calcs. 2−108715
halide ions core binding energies from Dirac-Fock calcs. combined with atomic binding energies 2−85832
Hartree Fock theory 2−75199
relativistic corrections continued
inner shell atomic energy levels, hyperfine splitting, screening corrections 2−70153
inner-shell electron binding energy calcs. *(Chinese)* 2−108348
inner-shell photoelectron spectroscopy, correl. effects 2−96521
internal conversion coeffs., electron exchange effect calcs. 2−90490
light atoms, analysis of fine-structure excitation energies in Dirac-Fock and perturbation theories 2−75455
molecular wave equations, basis set expansions 2−102402
multipole optical transition calcs. by relativistic SCF method 2−80541
pionic atom, second-order shift, Klein-Gordon eqn. calc. 2−64889
polarised targets, photoelectrons, kinematic anal., relativistic and correl. effects 2−85603
statistical theories of large atoms and molecules 2−59877
sum rules and integral props. of Dirac eqn. 2−90436
tetraiodoethylene, He(I) photoelectron spectra, relativistic effects calcs. 2−96632
tetraiodomethane, He(I) photoelectron spectrum, relativistic effects 2−96631
X-ray energy levels, relativistic SCF calcs. 2−113921
(e,e′), quasi-free scatt. in interaction time approx. *(Russian)* 2−90093
Ag, electron impact, K-shell ionisation, relativistic effects, plane wave Born approx. 2−85818
Ag isoelectronic series ionisation potentials, core polarisation, relax., and relativistic effects 2−113896
Au isoelectronic series ionisation potentials, core polarisation, relax., and relativistic effects 2−113896
Au, lattice dynamics, relativistic effects 2−103917
$Au+H^+$, L-shell ionisation cross sections Dirac-Hartree-Slater calcs. 2−114093
Be-like ions, spin-orbit elec. dipole transitions 2−96497
C^{3+}, inelastic scatt., excitation, relativistic Born cross sections 2−114116
Cr atom and ions, valence state structs., electron correl. effects 2−108399
Cs, $3p_{3/2}$ level study by XPS 2−102654
Cu isoelectronic series ionisation potentials, core polarisation, relax., and relativistic effects 2−113896
Eu, screening ratios, pseudo-relativistic Hartree-Fock calcs. 2−75200
F, analysis of fine-structure excitation energies in Dirac-Fock and perturbation theories 2−75455
Fr, hyperfine field trends in isotope series 2−75201
Fr isotopes, nuclear mag. moments, relativistic many-body perturbation theoretic investigation 2−70152
H, average value evaluation 2−84422
H, magnetic Lam shift, relativistic formula and its Z-dependence 2−70192
$H\text{-}H(He^+)$, polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
$H_2+H(He)(Ne)(Kr)(Xe)$, relativistic correction to interaction coeffs. 2−75202
$^2H(\gamma, p)n$, relativistic and mesonic corrections to forward cross section 2−54355
He, relativistic wave functions for non-penetrating Rydberg states 2−80510
$He\text{-}He(Li^+)$, polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
He-like ions, multiply charged, reson. photoabsorpt. characts. 2−113949
$He^+\text{-}He^+(H)$, polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
HeI, term energies, electrostatic intervals, semiclassical formulation 2−85517
$^4He+Au(Bi)$, L-subshell ionisation cross sections meas. 2−54942
Hg, electron coincidence spectra, momentum distrib. calc. using relativistic and nonrelativistic HF wavefunctions 2−85738
Hg, electron impact, K-shell ionisation, relativistic effects, plane wave Born approx. 2−85818
Hg, photoemission of high ang. momentum electrons, relativistic and pot. barrier effects, exchange terms 2−113951
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2−102401
K, g factor correction calc. 2−85565
Li, g factor correction calc. 2−85565
Li, relativistic wave functions for non-penetrating Rydberg states 2−80510
Li-like ions, $1s2p^2$ configuration, multiplet splitting and radiationless transition, relativity effects 2−108419
Li-like ions, radiative transition rates and wavelengths, MCDF-EAL calc. 2−54803
$Li^+\text{-}Li^+(He)$, polarisabilities, oscill. strengths, interaction, coeffs. calcs. 2−80763
Mg sequence, n=3 singlet complex, short range interactions involving plunging configurations 2−65074
$N_2+H(He)(Ne)(Kr)(Xe)$, relativistic correction to interaction coeffs. 2−75202
Na, g factor correction calc. 2−85565
Pb_2 electronic states, relativistic quantum mech. calcs. 2−113866
$PbMo_6S_8$, electronic struct. and charge distrib., CSF MS Xalpha calcs., relativistic effect 2−96451
Pd, correlation energy, relativistic effects, CI calcs. 2−108397
Pr, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
Rb, g factor correction calc. 2−85565
S XII, electron collisional excitation, radiative lifetimes, energy level calcs. 2−108723
Si isoelectronic series, ground config. forbidden lines 2−85592
Sm, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
Sr^{29+}, F-like ions, $2s^22p^5\text{-}2s2p^6$ transitions obs. 2−102403
Ti, $^5F\text{-}^3F$ energy separation, correlation and HF calcs. 2−54776
Ti atom and ions, valence state structs., electron correl. effects 2−108399
Tl, parity nonconservation, relativistic many-body theory 2−85566
TlH, mol. struct., relativistic ab initio CI calcs. 2−85562
$U+H^+$, L-shell ionisation cross sections Dirac-Hartree-Slater calcs. 2−114093
UO_2^{2+}, electron transfer bands, wave numbers, relativistic calcs. 2−96475
$UO(UO_2)$, gaseous, relativistic mol. orbital calcs. 2−90448
V atom and ions, valence state structs., electron correl. effects 2−108399
W^{71+}, inelastic scatt., excitation, relativistic Born cross sections 2−114116
Y^{30+}, F-like ions, $2s^22p^5\text{-}2s2p^6$ transitions obs. 2−102403

relativistic electron beam tubes
free-electron relativistic parametric devices, charge density harmonic generation 2−60003
hybrid electron synchrotron laser, expt. study and computer simulation 2−55172
intense electron beam vacuum transmission through cusp mag. field using dielectric drift tubes 2−55774
ion, collective acceleration by relativistic electron beams *(Russian)* 2−54693
periodic magnetic field, relativistic electron emission 2−75504
relativistic electron beam, cold, intense, generation using magnetised foil-less diodes 2−101493

relativistic fluid dynamics
acceleration waves in thermoconducting fluids, relativistic theory 2−75823
axially symmetric gravitational two-body problem 2−95170
axially symmetric gravitational two-body problem 2−95171
conformally flat space-time with perfect fluid and heat flux, Einstein eqns. solns. 2−84491
detonation waves, rel. to bubble growth in false vacuum decay 2−69073
gasdynamics, rarefaction wave 2−97668
general relativistic gas dynamics, steady axisymm. flows 2−89589
general relativity, axially symmetric two-body problem, boundary conditions, time scales, quadrupole formula 2−95178
general relativity analysis of electrically conducting fluid, differential rotation 2−112766
incompressible fluids, relativistic mechanics *(French)* 2−76041
maximum entropy principle 2−76040
partially self-similar spacetimes and fluid motions, appl. to Bianchi-type cosmologies 2−100730
planar relativistic Brillouin flow, resistive wall effect on stability 2−109422
radiative fluids, transient and transport coeffs., astrophys. appl. 2−94588
radio sources, compact, inverse Compton radiation spectra from relativistic flows 2−74114
radio sources, compact, synchrotron radiation from relativistic flows 2−74113
radio sources, fluid dynamics of relativistic beams flowing through channels rel. to double sources evolution 2−84337
radio sources, relativistic beam model rel. to symmetric struct. in compact double sources 2−63692
Universe, dynamical importance of vorticity and shear 2−117825
Weyssenhoff fluids, spin-coeff. approach, Einstein-Cartan theory 2−107203

relativistic mechanics
see also relativistic fluid dynamics
analytical mechanics in noninertial reference frames 2−101272
centres of mass and clustering 2−89532
classical particle with spin in EM field, relativistic dynamics 2−55054
continuous media, material frame-indifference, response function restrictions 2−60400
direct interactions of particles 2−112745
electrodynamics, rel. to action at a distance, 4-dimensionality and conservation of energy 2−107046
interacting classical particles with invariant world lines 2−53509
Jaumann transport in relativistic continuum mechanics 2−53624
kinetic theory, for variables mass particles, thermodynamic props., transport coeffs. 2−69085
Mercury, perihelion motion, special relativity corrections, rel. to general relativity 2−58227
Minkowski world, in three dimens., boundary-value problem for minimum surface 2−69063
N-body system, relativistic classical mechanics and canonical formalism 2−79347
nearly rigid body, in relativistic gravit. field, torques 2−107183
quantum Hamiltonian models, world line transforms. 2−95048
quasirelativistic interacting particle systems *(Russian)* 2−53558
radio sources, extragalactic, highlight model as possible explanation for ultrarelativistic expansion vels. 2−94851
rigid motion in 1 dimens. 2−95002
spin-nonzero particles, relativistic Newtonian mech. 2−74207
spinning particles, gravitational scatt., linear approx. 2−95183
spinning particles, relativistic Newtonian mech., two-particle forces 2−101164
symplectic theory of two relativistic spinning particles 2−107090
three-particle relativistic harmonic dynamics in the constraint formalism 2−101163
top, EM interaction, classical theory 2−79350
white dwarfs, numerical function values for slowly rotating partially degenerate semirelativistic isothermal spheroids 2−63409

relativistic plasmas
acceleration by radiation press. 2−58250
beam-plasma system stability, linear theory 2−97751
black hole spherically symmetric accretion, electron pair production 2−100720
black holes, constraints on gamma-ray production by spherical accretion with e^+-e^- pair prod. 2−68808
Boltzmann theory, hydromagnetic wave propag. 2−81467
bremsstrahlung spectra in Maxwellian plasma at relativistic temperatures 2−106513
conference, Swansea, Wales (July 1981) 2−94899
dielectric tensor of Maxwellian plasma for electron cyclotron waves at arbitrary propag. angles 2−86469
discontinuity propagation in intense mag. field 2−55726
electron beam, relativistic hollow, filamentation instability 2−71149
electron beam propagating in cylindrical waveguide, space charge waves props. 2−71194
electron fluid, warm relativistic, eqns. of motion determ. 2−76185
electron unstable plasma, fast particle generation theory *(Russian)* 2−76187
electron-electron Bremsstrahlung, QED calc. 2−76090
electron-positron pair equilibria in astrophysical plasma 2−94587
electron-positron plasma, radiative collapse 2−103435
EM wave stability in overdense plasmas 2−65710
EM waves in relativistic plasma stream, fusion instability 2−65752
emission and acceleration mechanisms for astrophysical plasma 2−63245
expanding universe, radiation hydrodynamics of H plasma below 10^{10}K 2−106974
flute instability, appl. to pulsar particle ejection 2−114991
gamma ray amplification through stimulated annihilation radiation, appl. to astronomical γ-ray sources 2−84073

relativistic plasmas continued
gamma-ray emission, high energy production spectrum in comoving plasma system 2−73832
hydromag. waves, energy transport, Boltzmann theory 2−86470
kinetic theory 2−60795
Langmuir waves nonlinear damping in a weakly turbulent relativistic plasma 2−60749
Maxwellian magnetised plasma, electron cyclotron absorpt. 2−86395
nonlinear gravitational waves in plasma, detector theory 2−74309
pair annihilation in relativistic astrophysical plasma 2−94586
pair processes and equilibria in astrophysical relativistic thermal plasma 2−63224
particle kinetic energies Boltzman distrib. establishment and maintenance 2−65751
PSR 0531+21, Crab Nebula pulsar, particle-wave interactions rel. to optical radiation mechanism *(Russian)* 2−63491
radiation of charged plasma in a magnetic field 2−71113
relativistic electron beam in undulator, coherent radiation prod. 2−65144
relativistic plasma, hydromagnetic waves propagation 2−55783
return-current-driven instabilities of propagating electron beams 2−103352
runaway electrons, Fokker-Planck eqn., recursive soln. 2−65689
soliton envelope theory of EM waves *(Russian)* 2−76106
statistical mechanics 2−97778
strong magnetic field effect, covariant Wigner function approach 2−91662
thermalisation by Moller scatt. in relativistic plasma, relaxation time 2−55714
transverse intermediate waves in a relativistic plasma with a finite conductivity 2−65753
H, relativistic electron beam injection 2−71193

relativistic quantum field theory
(2+1)-dimensional Poincare group, unitray irreps., classification 2−101529
ϕ^6 field system, finite temp. behaviour 2−95593
abnormal nuclear matter and pion condensation in σ-models 2−74739
Adler-Weisberger sum rule saturation in quark shell model, general proof 2−69431
asymptotic scaling on the light cone 2−53984
Bethe-Salpeter equations, relativistic confinement 2−69357
bilocal fields, Lorentz invariant, locality 2−69348
bilocal lattice fermion fields, relativistic partial difference eqn. 2−113128
bilocal lattice meson fields, relativistic partial difference eqn. 2−113127
black hole event horizon area, Weyl geometry 2−106770
black holes, general covariance, accelerated frames and particle concept 2−84081
C invariance, rel. to internal space-time symm. 2−101532
canonical commutation relations, time-energy uncertainty 2−79736
Cauchy problem for coupled Yang-Mills and scalar fields in the Lorentz gauge 2−84780
charge conjugation and internal space-time symmetries 2−89587
charged scalar particle in Coulomb field, quadratic Hamiltonians 2−101238
charged spin-1 particle, relativistic wave eqn. *(Russian)* 2−74620
charges and monopoles, quantum field theory regularisation 2−84837
clifford algebra approach to twistors 2−53506
complex quaternions, their connection to twistor theory 2−95145
composite system, state vector at light front, eqn. set *(Russian)* 2−95658
constrained and interacting relativistic quantum fields, asymptotic level density 2−59007
cosmological constant and gauge-covariant theory 2−63727
Coulomb effects in nuclear collisions, relativistic field theory model 2−54438
covariant generalization of Noether's theorems for fields with spin $^1/_2$ 2−89919
covariant Schrodinger eqn. via path integrals 2−53576
critical dimensions for extended multidimensional objects 2−113151
curved Riemann-Cartan background, quantised Dirac field, symmetry props., Green function 2−58991
curved space-time, axiomatic quantum field theory 2−59005
curved space-time, quantum field theory, Riemannian method 2−69324
de Sitter momentum space of const. curvature, QFT 2−101567
dense relativistic matter, variational approach using functional techniques 2−79134
Dirac eqn., generalised, spinor theory, vector struct. and Dirac operators 2−95659
Dirac equation, generalisation to accelerating frames 2−53933
Dirac equation, SL(2,C) invariant representation 2−95598
Dirac equation with Coulomb pot., simplified soln. 2−95630
Dirac monopoles, relativistic quantum field theory, charge quantisation, renormalisation 2−59019
Dirac positive-energy wave eqn. with para-Bose internal variables 2−95621
elementary particle creation by gravit. field of expanding Universe 2−106973
equations of motion of classical particle with spin and Clifford algebra 2−95651
equivalence transformations for systems of equations of scalar and spinor fields 2−95653
Feynman integral for exponential interaction in four dimens. space-time 2−89914
Feynman integrals, class B_γ-function property 2−79738
finite dimensional wave eqns., associated Lie algebras, Lorentz invariance 2−53932
finite temperature QED, mass generation 2−113198
first-order relativistic wave equations, lower bound on minimal degree of matrices 2−101523
free massless scalar theory, two-dimens., indefinite metric formulation, Lorentz generator 2−79754
free-field eqns. of conformal relativity in Riemannian formalism 2−74600
free-field eqns. of conformal relativity in Riemannian formalism 2−74601
gauge theories of gravity, Hamiltonian dynamics 2−84506
gauge theories on four dimensional Riemannian manifolds 2−107494
gauge theory of gravitation and nodal singularity 2−74303
generalised Maxwell eqns. and mass generation gauge mixing 2−53955
generalized effective potential in nonlinear theories of fourth order 2−101568
geometrodynamics in multidimensional unified theory 2−95185
global, non-Abelian charges 2−53937
gravitating Julia-Zee Dyon and the cosmological term 2−84816

relativistic quantum field theory continued
harmonic oscillator quantisation 2−95100
harmonic quark bag model 2−84865
heavy quarks, bound states, light-plane formulation 2−59046
Heisenberg's algebra of theory of fields and vectorial type fibred space *(French)* 2−107482
instantons and solitons in field theory, book 2−94936
interacting fields in curved space time, scaling behaviour 2−53967
jump processes, appl. to quantum theory and relativistic Bose field theory 2−101572
Kerr metric analyzed kinematically *(German)* 2−53913
Klein-Gordon eqn. with cubic nonlinearity, localised excitations study 2−95587
Klein-Gordon equation, high-energy asymptotic expansion and Regge trajectories for even power pot. 2−95599
Komar's solution to factor ordering problem of constraint algebra 2−101260
lattice, Lorentz transform. 2−53929
lattice fermions, equivalence of degeneracy regularisations 2−95616
light cone behaviour, operator product expansion analysis 2−107505
linear deformtion problems for Ernst eqn. 2−95155
linear relativistic wave eqns., non locality, gauge invariance 2−69316
Liouville field theory, conformally invariant quantisation 2−69334
Lorentz invariance of extended objects 2−113113
Lorentz-symmetric solns. of nonlinear eqns. 2−95585
manifold-based, CPT and gravit. induced thermal states 2−107483
massive particle states, localisation props. 2−64212
massive supersymmetric quantum field theory, central charges, Lorentz and internal symmetries 2−84790
massive Thirring model, multi-extended objects excitation 2−84807
massless fields, wave eqns. 2−59044
massless quark, Schrodinger vs. Dirac eqn. 2−64299
meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
meson semileptonic decays, relativistic harmonic oscillator model 2−101705
metric tensor determ. from Riemann tensor, extension to electrovac fields 2−95149
Minkowski space, self-duel Yang-Mills field, spinors *(Russian)* 2−95657
MIT bag, overlap integrals in cavity approx. 2−54112
neutron stars, hyperon composition from relativistic interacting field theory 2−106768
non-abelian gauge fields, space-time symmetries 2−74592
non-Minkowskian space-times, vacuum stability and symmetry breaking 2−84803
nonlinear group representations and applications to nonlinear equations 2−101605
nonlinear relativistic quantum mechanics of extended particles 2−69035
nonlinear relativistic theory, internal symmetries from field theories in higher dimensions 2−95701
nonlinear Schrodinger equation, relativistic generalisation 2−101531
nuclear fluid coupled to classical field, hydrodynamical eqns. derivation 2−54293
off-shell relative momentum definitions in relativistic theory 2−69620
pair production by accelerated charges ρ-meson prod., pulsars 2−64264
parametrised field theories; conditional symmetries 2−112759
path integral of relativistic strings 2−84877
phase relativization in non-Abelian gauge theories 2−53941
photon pairs, correlated, motion, stochastic model 2−59023
pion production and absorpt. in relativistic field theory 2−85012
Poincare group unitary irreducible rep. extension, QFT appl. 2−101574
positive energy theorem, Witten's proof 2−74271
pretty mathematics role 2−107517
QED, bound state energy calc. 1/c expansion 2−59091
quantisation of relativistic systems on phase space 2−95583
quantum gravity, Kahler manifolds, four-dimensional geometry 2−101288
quantum states, observer dependence 2−113139
quantum theory of gravitation 2−95200
quark and meson fields, dynamic theory 2−95789
quarkonia, level struct., relativistic effects 2−95609
radiation planckeon, geometric model 2−95646
radiation processes in quantum systems with boundary, hadron physics 2−101525
Rarita-Schwinger field, consistent interactions 2−95632
Rarita-Schwinger field in non-abelian Klein-Kaluza theories 2−101524
reciprocally invariant electrodynamics on quantum space-time 2−74640
relativistic effects for quarks within hardrons 2−95779
relativistic electron theory, axiomatisation *(Rumanian)* 2−113094
relativistic string, geometric theory, nonlinear eqn. soln. 2−95589
S-matrix, gauge invariance/independence, in quantum theory and relativistic QFT 2−107550
scalar fields, relativistic aspects *(French)* 2−74266
scattering theory in relativistic quantum mechanics 2−101612
sine-Gordon eqn., four-vector generalisation 2−53931
sine-Gordon equation, complex generalisation, separable solns. 2−69330
spinor sources in cosmology 2−95156
string, relativistic, quantisation methods 2−95803
SU(2)×SU(2) symmetry, current algebra sum rules saturation 2−69430
SU(N) gauge field eqns., exclusion of dyon soln. 2−84810
superluminal EM fields polarisation 2−101520
superluminal light propag., in hadronic matter, rel. to curved spacetime gauge symm. 2−101530
superspace, negative dimensions, and quantum field theories 2−95610
supersymmetric constraints and gauge fields on superspace 2−89916
supersymmetric particles with internal symmetries and control charges 2−79770
supersymmetric relativistic spinning particles, scalar interactions 2−113114
tachyons, Lorentz transformations 2−95001
tachyons, spin zero, wavefunction transforming as scalar field imaginary mass system, reduction 2−95591
Thirring model, stability props. of meron-type solns. 2−101552
Tomimatsu-Sato-Yamakazi spacetime, exact dyon soln. 2−113122
trace anomalies and QED in curved space 2−107596
two-variable relativistic tensor harmonics 2−53930
unified field theory in projective theory of relativity 2−95192
unitary spin, rel. to space-time Hamiltonian struct. 2−95631
variation principle, field manifolds and ideals 2−113143
variation principle, symmetry and conservation law, M_f framework 2−113144
Yang-Mills plane wave vs. plane symmetry 2−74602
relativistic quantum field theory continued
Yang-Mills-Higgs fields, flow-dimens. Minkowski space, global existence 2−53924
Yang-Mills-Higgs fields in flow-dimens. Minkowski space, global existence 2−53923
Yukawa$_2$ model, product states for fermions and twisted duality 2−107498
zitterbewegung and the Klein paradox for spin-zero particles 2−84417
np→dγ, field theoretical approach, P invariance, relativistic effects *(Russian)* 2−59175
$(\vec{p},\pi^+)$, relativistic one nucleon model description for reaction mechanism 2−80009
$q\bar{q}$ bound state, annihilation vertex, relativistic Bethe-Salpeter model, renormalisation 2−101539
$qq\bar{q}\bar{q}$ baryonium states, Bethe-Salpeter relativistic theory 2−107487
$S^1\times\Sigma$ topology field theories, expansions 2−53968
relativistic scattering theory
see also elementary particle scattering; quantum field theory of elastic scattering
3π final state interactions, simplified parametrisation 2−95697
broken symmetry discovery from expt. scatt. data 2−69376
Coulomb scattering of fast electrons 2−107608
Cranberg method, for attenuation and multiple scatt. correction, validity test 2−85114
hadron interferometry, dynamics vs. symmetrisation 2−53661
high energy scattering theory with collective coordinate *(Chinese)* 2−107569
high-energy elastic scatt. at fixed angle, multidimensional WKB approach 2−107568
low-frequency approx. for external EM field 2−64245
multi-channel scattering, domain of definition of wave operat ors 2−69382
$\bar{N}N$ bound state widths, rel. to optical pot. 2−59133
pion production and absorpt. in relativistic field theory 2−85012
quantum scatt. theory 2−101612
relativistic eikonal eqn., symmetry and exact solns. 2−107567
small-angle scattering, solns. with radiation reaction 2−101611
spinning particles, gravitational scatt., linear approx. 2−95183
theorem on A-proper mappings and appl. in multichannel scatt. theory 2−74630
three-body scattering, double scatt. waves, O(1) interferences 2−79415
two body systems, relativistic scatt. props. 2−113179
two-body relativistic system, with central interaction, wave operators 2−54019
ultrarelativistic Dirac pot. scatt., partial wave representation 2−85011
(d,d), Dirac phenomenology 2−85061
e^+e^-→hadrons, $q\bar{q}$ bound states, relativistic duality, relativistic and EM corrections 2−74698
NN→NN, 2.15-2.30 GeV, $^3F_3$ partial wave scatt. amplitude, resonance parameters 2−79906
NN→NN, energy dependent single separable pot. models 2−59346
pd backward scatt., polarisation, relativistic effects, Bethe-Salpeter eqn. 2−107681
pd double scattering, rel. to additive quark model 2−54101
pd→π^-X, cumulative prod., differential cross-sections 2−95877
$\vec{p}$d scattering, low energy, few-body approx. soln. 2−59169
pp (pn) forward scatt., amplitude anal. 2−59171
pp→npπ^+, medium energy, spin correl., relativistic 3-body model 2−59170
(π,π), relativistic kinematics 2−107912
πd, 100-300 MeV elastic scatt. cross section calc. using optical pot. 2−85100
πd, double scattering, rel. to additive quark model 2−54101
πd→πpn, breakup near (3,3) resonance, relativistic Fadeev calc. 2−54205
πN, separable Bethe-Salpeter eqn. kernels 2−84911
ππ→ππ, phase curves, Roy eqn. approx. *(Russian)* 2−59179
^{1}H(K^+,K^+), N/D eqn., dispersion methods, partial wave amplitudes 2−59415
^{A}He(K^+,K^+), A=3,4, N/D eqn., dispersion methods, partial wave amplitudes 2−59415
np(pp), 142-800 MeV, phase shift anal. 2−59173
relativity
see also general relativity; light cones; relativistic mechanics; relativistic quantum field theory; relativistic scattering theory; special relativity
No entries
relaxation
for dislocation relaxation see dislocation damping
see also anelastic relaxation; chemical relaxation; dielectric relaxation; magnetic relaxation; stress relaxation; ultrasonic relaxation; viscoelasticity
Brownian particles, classical interacting, relax. 2−63898
charge-dipole interaction, dynamic symm. in scatt. and relax. *(Russian)* 2−70369
elastomers, crystallising, λ-relax. processes and crystallisability *(Russian)* 2−65885
explosive, shocked, vibronic relaxation, press. depend. 2−76605
PMMA, dynamic bulk and shear moduli and relax. 2−93548
polymer, glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
quadratic vibrationally coupled systems, vibr. relaxation and hot luminesc. *(Russian)* 2−99187
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
N_2 gas, rotational relaxation, classical dynamics 2−85790
PbTe thin films, flash deposited, relax. processes 2−87113
relaxation oscillators
geomagnetic flux reversals, dynamo theories, multivibratory dissipative structure 2−100249
Van der Pol systems solution, using hodograph transformation 2−89526
relaxation theory
Laplace transform inversion with noise, singular-value anal. for exponential relax. rates recovery 2−101155
relaxation time, carrier *see carrier relaxation time*
relay systems (radio) *see radio links*
relay systems (satellite) *see satellite relay systems*
relays
see also reed relays; switches
corrosion protection, automatic control of pickling process *(Russian)* 2−72857

relays (repeaters) *see repeaters*
reliability
see also quality control; standards; testing
amorphous Si solar cell stability 2−116817
battery systems, evaluation 2−62471
BIDIPES, conversational computer for reliability anal. 2−102011
clocks, seismological research in India 2−83964
combined wind-electric/conventional generation systems reliability anal. 2−73062
duration testing of MHD anodes 2−93929
fault tree analysis package for design engineers 2−85192
flat-plate photovoltaic modules qualification testing 2−116812
frequency standards, reliability, serviceability and performance 2−89661
fusion reactor maintenance, opportunistic replacement of parts 2−69901
high-level waste repository sites, instrumentation reliability study 2−64472
lasers, commercial, reliability, life testing and field operation experience 2−80980
light source reliability, failure rate statistical evaluation *(Slovak)* 2−55287
mechanical properties from extreme values, reliability based design 2−99511
module control test specifications laid down by Commission of European Communities 2−62479
nuclear plant operator actions, safety related, available data assessment 2−85193
nuclear power plant, signal validation methodology 2−96298
nuclear power plant control and instrumentation system reliability *(Japanese)* 2−74857
nuclear power plant reliability management 2−69810
nuclear power plant safety systems in USSR, reliability criteria 2−90279
nuclear power pressure vessels, reliability estimation 2−96115
optical fibres, long length, failure prediction based on proof testing 2−97242
photovoltaic array reliability optimization 2−116811
photovoltaic module reliability improvement through application testing and failure analysis 2−116809
photovoltaic modules performance and failure analysis in power generating systems 2−116810
power reactor system components 2−108081
single-phase induction electrometers, service reliability, Bulgarian standard BDS-2279-74 *(Bulgarian)* 2−79609
solar irradiance deficits determ., data reduction techniques 2−116789
standby systems, availability anal. 2−74888
strains gauges, resistance, accuracy and reliability *(German)* 2−79565
terrestrial solar cells, accelerated stress testing 2−116813
Three Mile Island nuclear power plant accident 2−74887
Three Mile Island Unit 2 safety philosophy and safety systems performance 2−102194
Al-Cu thin film with polyimide passivation, electromigration 2−98503
Cr-MIS solar cell stability analysis 2−116816
(GaAl)As DH lasers, long-lived, bonded with In, elimination of In solder deterioration 2−85988
GaAlAs Schottky barrier restricted laser 2−96977
H_2 VLG-11 masers, long term performance 2−90858
InGaAsP-InP buried heterostructure laser reliability, degradation modes 2−80946
Mn dry batteries, Japanese development history *(Japanese)* 2−73094
Ni surface (311), LEED structural anal. 2−86993
Ni surface (311), LEED crystallographic studies, methodology and uncertainties 2−86994
Si photovoltaic cell reliability attributes investigation 2−116814
reliability theory
see also statistical analysis
nuclear reactor safety control system, evaluation 2−54636
phased-mission system reliability analysis, PHAMAS computer code 2−59451
standby systems, availability anal. 2−74888
remanence
see also coercive force
basalt, mag. anisotropy and rel. to other mag. characts. 2−62952
ferromagnetic slab, impure, single Bloch wall thermodynamics 2−82636
Grenville anorthosites of French River area, Ontario, isolation of early Palaeohelikian remanence 2−94273
Heisenberg spin glass, spin resonance frequencies 2−92889
mafic and ultramafic rocks of E.Ghats, India, mag. props. 2−88871
random antiferromagnetic Ising chain, remanent magnetisation 2−72249
rock magnetism, gyroremanent magnetisation due to alternating field treatment 2−117293
rocks, Preisach diagram for anal. of domain struct. 2−117296
sediment post-deposition remanence decay due to drying 2−88868
spin glass models with short-range interactions, numerical studies 2−66844
tholeiitic basalts from Gulf of California, Mexico, mag. props. 2−106098
titanomagnetite (Al substituted), thermoremanence of monodomain samples 2−88867
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Ag-Mn spin glasses, time and field depend. of magnetisation 2−72216
Au-Fe, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Au-Fe spin glasses, time and field depend. of magnetisation 2−72216
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
Co-Fe, mag. props., review 2−82652
$CoFe_2O_4$ single cryst., ellipsometric and magneto-optical study 2−61880
Cu-Mn spin glass, LF ESR, lineshape and temp. depend. 2−104692
Cu-Mn(-Au) spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
$(Eu_xSr_{1-x})S$, dilute, possibility of dipolar spin glass 2−66837
Fe, high purity mag. and magnetomechanical props., influence of grain size 2−87565
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-Co-W semihard mag. alloys for remanent reed switch appl. 2−82626
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Ni-NbC, phase equilib., struct., mag. props. and hardness *(Russian)* 2−67291
Fe-Si (3 wt.%), grain orientated sheets, effect of spike closure domains on remanence and magnetisation curve 2−82630
remanence continued
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
Fe_3O_4, natural magnetite, remanent magnetisation, mag. field freq. effect 2−72276
$Fe_2O_3.H_2O$ gel, pure, prep., struct. and mag. props. 2−67769
$Fe_2O_3.xH4d2O$ gel, pure, prep., struct. and mag. props. 2−67770
Mn-Bi, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
NdH_3, ferromagnetism, susceptibility and magnetisation meas. 2−72159
Ni-Fe, mag. props., review 2−82652
$Rb_2Mn_{1-x}Cr_xCl_4$ spin glass, thermoremanent magnetisation 2−110607
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
$Tb_{0.27}Dy_{0.73}Fe_2$, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
Th-Gd spin glasses, time and field depend. of magnetisation 2−72216
$YbFe_2O_{4+x}$, hexagonal cpd., magnetisation 2−116033
remanent magnetism *see remanence*
remote control *see telecontrol*
remote control equipment *see telecontrol equipment*
remote metering *see telemetering*
remote sensing
see also infrared imaging; remote sensing by laser beam
acoustic remote sensing of atmosphere and oceans, international symposium, Calgary, Alberta, Canada, (1981 June 22 to 25) 2−94912
aerosol size distrib. from spectral optical depth obs., linear inversion theory 2−117488
aerosols optical thickness over oceans, satellite meas. 2−117454
agriculture land radar surveillance, Dutch ROVE program 2−58044
airborne IR spectrometry at high spectral resolution, spectroradiometer system 2−112157
airborne reconnaissance, conf., San Diego, CA, USA (Aug. 1981) 2−74146
airborne video image processing 2−63131
Alaska permafrost and annual freeze-up studied by remote sensing 2−112171
albedo evaluation problems in satellite remote sensing 2−94512
Arctic sea ice mapping with radar 2−78667
S Atlantic, Brazil and Falkland currents, remote sensing (1975 to 1978) 2−78666
N Atlantic deep water dumpsite 106, pollutant dispersal obs. 2−106144
atmosphere, extraction of layer relative humidity, geopotential thickness and stability from satellite radiometer data 2−63101
atmosphere, H_2O vapour remote sensing, use of 1.348 cm absorpt. band *(Chinese)* 2−78886
atmosphere aerosol monitoring, soln. of radiative transfer eqn. 2−117461
atmosphere boundary layer, struct. parameters determ. using sodar 2−100432
atmosphere humidity, moisture sounding at millimetre wavelengths (94/183 GHz) at high altitudes 2−117480
atmosphere O_3 variations (1970-74) from backscattered UV obs. 2−106257
atmosphere pollutant concentration estimation 2−73174
atmosphere pollution detection from satellite visible digital data anal. 2−73175
atmosphere remote sensing, appl. of radiometry of atmosphere microwave thermal emission *(Russian)* 2−94472
atmosphere temperature profile by thermomicrowave imaging, fundamental integral eqn. linearization 2−73652
atmosphere temperature profile retrieval from remotely sensed IR data 2−112176
atmospheric light radiation flux and balance determ. by satellite *(Russian)* 2−117463
atmospheric particulates, bistatic lidar appl. 2−106349
atmospheric temperature of tropics, TIROS-N microwave method 2−89050
atmospheric temperature profile reconstruction by remote radiation sensing, basic integral eqn. linearisation 2−68531
California Desert Conservation Area, remote sensing rel. to resource inventory techniques 2−111608
cartographic 3-D display of remote sensing data (computer graphics) 2−94536
cartography, user approach to map classification accuracy 2−112140
cement stack gas conc., remote and cross-stack meas. using mobile FT-IR system 2−57757
cereal crops obs., side-looking airborne radar method 2−58046
China, thunderstorm development and convective activity from IR remote sensing 2−78820
cirrus temp. determ. by far IR spectral emission method 2−94529
closed contour extraction application to meteorological pictures 2−88975
cloud and cloud shadow detection by Landsat digital method 2−94513
cloud classification by METEOSAT statistical imagery method 2−94531
cloud liq. water content determination by microwave radiometry *(Chinese)* 2−112182
clouds, Skylab near-IR obs. indicating supercooled liquid water drops 2−100476
coastal zone colour scanner on Nimbus 7, radiometric calibration 2−68494
computer processing of airborne data for regional level mapping 2−78658
crop classification combining radar remote sensing and Landsat data 2−58047
crustal structures in Massif Central, France, spatial remote sensing and mining research *(French)* 2−68310
cumulonimbus rainfall, mountain-generated, on northern Great Plains, USA, satellite images 2−100483
cumulus optical albedo and extinction coeff. and remote sensing application 2−73685
daytime convective boundary layer, vertical vel. field, acoustic Doppler sodar obs. 2−111993
desert aerosols, Landsat multispectral radiometry 2−63041
digital image processing of remotely sensed phenomena, DIBIAS system use 2−117511
digital interactive image processing system, design and implementation of DIBIAS system 2−117510
disaster management and damage assessment, space technology appl. 2−107083
displacement remote sensing with white light 2−89781

remote sensing continued
double polarisation radar for detection of rain and good weather *(French)* 2−100597
dual spectroradiometer system for measuring spectral reflectances 2−106120
Dynamics Explorer mission, spin-scan auroral imaging photometers 2−58226
Earth background spatial radiance variations obs. using IR, staring sensor 2−117476
Earth exploration using spectral photometer *(German)* 2−107380
Earth resources mapping via imaging spectroscopy, multispectral mapper concept 2−112158
Earth resources remote sensing, spectral band registration by Thematic Mapper 2−112302
Earth Resources Satellite-1 *(Japanese)* 2−89108
Earth surface reflectance meas. at 340 to 2500 nm, portable field spectrometer 2−112143
Earth surface remote sensing, techniques for field meas. of surface reflectance 2−112142
Earth surface temperature variability in central Californian agricultural fields, aircraft remote sensing meas. 2−111928
East China Sea, winter temp. patterns, fronts and surface currents, satellite imagery anal. 2−106141
EM wave sounding of subsurface struct. 2−111857
environmental science methods book 2−101150
evapotranspiration on regional scale, satellite thermal IR data 2−106158
explosion produced dust clouds effect on 3.5-4.2 micron imaging of battlefield 2−117445
Fabry-Perot Interferometer on Dynamics Explorer 2−58176
FGGE satellite observing system during SOP-1, assessment 2−100424
FILE-IB aircraft flight test program [Earth observation] 2−73730
focal plane development for terrestrial resource obs. 2−112162
GPS appl. to mapping, charting and geodesy 2−78881
ground element abundances from airborne gamma ray spectral data inversion 2−73494
ground reflectance in optically thin atmosphere, Landsat digital counts 2−73553
ground-mapping systems, high-sensitivity accurate MM-wave radiometers, 10-220 GHz 2−117508
hemispheric temperature fluctuations of long period from satellite data, energy balance climate model *(Russian)* 2−73628
icy objects, JHK photometry for compositional remote sensing 2−100754
image processing and pattern recognition techniques, review *(Japanese)* 2−102729
image storage and retrieval by BIRP computer system 2−112139
imaging interferometer sounder for remote sensing, design considerations for programmable signal processor 2−112160
imaging spectroscopy, conf., Los Angeles, CA, USA (Feb. 1981) 2−106998
India, cloud mass types and western disturbances from satellite obs. 2−112083
Indian summer monsoon, wave type identification 2−100517
ionosphere characterization using optical remote-sensing techniques 2−94549
IR imaging of surface current distribution 2−112979
IR pushbroom imagery acquisition and processing 2−117475
Kalihari Plateau, Botswana, groundwater resources assessment, Landsat data use 2−100405
Lake Ontario, thermal bars anal. from Heat Capacity Mapping Mission data 2−100404
landcover classification, NOAA-6 AVHRR digital data 2−106154
LANDSAT based operational land remote sensing satellite program 2−73560
Landsat geographic data 2−63110
Landsat MSS and RBV imagery, geometric correction techniques 2−78659
lidar equation for low visibility meteorological conditions *(Chinese)* 2−68484
linear feature detection and interpretation on satellite images, tectonics significance 2−106084
magnetic field meas. from satellite 2−73731
Meteosat data integrated processing, cloud-top height maps 2−78750
Meteosat IR sensors, calibration techniques 2−94522
Meteosat water vapour imagery for troposphere 2−83919
microwave multichannel radiometry, nonlinear depend. of observables on geophys. parameters 2−58166
microwave radiometry of the Earth's surface with a cryogenic 90 GHz receiver *(German)* 2−83966
microwave remote sensing, active and passive, book 2−89497
Minnesota snow cover, use of GOES and TIROS/NOAA data 2−78662
mm-wave radiometric target signatures at frequencies up to 150 GHz, black body radiation meas. 2−58191
moisture in atmos. remote sensing by TIROS-N infrared imagery method 2−88978
Montenegro coastal region, Yugoslavia, tectonic activity from Landsat imagery 2−100346
multichannel microwave radiometric meas. of ocean surface and atm. parameters 2−73558
multidirectional Si photodiode array for solar radiance meas. 2−83973
multispectral and multitemporal image processing 2−58053
multispectral sensor using two dimens. solid state imaging arrays, system design 2−73555
natural and man-made materials differential refl. at CO_2 laser wavelengths 2−99868
Nimbus 7 scanning multichannel microwave radiometer, spatial filtering algorithm for data inversion 2−58167
ocean, spaceborne synthetic aperture radar, conf. at Baltimore, USA, (March 1980) 2−68958
upper ocean heat storage, estimation method using remote sensing data 2−73589
ocean long waves, short-wave modulation, optical determ. 2−106352
ocean surface current, remote meas. via sonar obs. of wave-produced bubbles 2−68375
ocean surface current, synthetic aperture radar obs. 2−111933
ocean surface wind speed and direction, spaceborne scatterometer meas. 2−106351
ocean surveillance, attribute problem, combined probabilistic and fuzzy set technique 2−63147
ocean synoptic surface current meas., remote sensing, use of gravity waves 2−94527
ocean thermohaline struct. meas. 2−112172
remote sensing continued
ocean wave dynamics remote measurement, appl. of CCD camera system 2−58133
ocean wave height determination by satellite SAR imagery 2−94514
ocean wave imagery by synthetic aperture radar 2−106331
ocean wave measurement by radar amplitude method 2−117496
oceanographic appls., multispectral optical radiometer for sea-surface temp. and chlorophyll content mapping *(French)* 2−94523
oceanographic equipment, noise injection Dicke Microwave Radiometer, digital signal processing, flight test 2−117507
oceanographic multisensor surveillance data fusion system architecture 2−63148
optical teledetection instrumentation, atmospheric effects and signal evaluation *(French)* 2−94524
Pacific Ocean cloudiness fluctuations from satellite observed outgoing IR radiation 2−106183
passive microwave remote sensing of Earth from space, review 2−106362
passive optical sounding in homogeneous atm., eqns. *(Russian)* 2−106310
photogrammetry, combination of terrestrial and aerial methods 2−78528
pollution in troposphere and stratosphere, satellite-borne research development 2−73181
precipitable water meas. by Nimbus 7 microwave radiometry method 2−100587
processing of imagery data, label imperfection estimation method 2−58052
prospecting by wave tilt of ground wave radiowave propagation at vertical discontinuity 2−58155
radar cross-section for randomly rough sections 2−58051
radar ground clutter 2−58048
radar obs. of sea surface, discrepancy between ground-based and airborne obs. 2−58156
radar partially coherent backscatt. from irregular surfaces 2−58050
radar remote sensing, angle of incidence considerations 2−111926
radar remote sensing, scatt. from randomly absorbing layers 2−58049
radar remote sensing of Earth *(French)* 2−63136
radar scattering from diffuse vegetation layer over a smooth surface 2−73557
rain attenuation of mm waves, FM/CW radar and artificial rainfall facilities appl. *(Japanese)* 2−94539
rainfall rate detection, use of spaceborne microwave radiometers 2−100596
rainfall rates and hurricane prediction 2−112019
rasterstereography, photogrammetric method for scanning body surfaces 2−78885
reconnaissance by photographic imagery, using code block 2−74532
reconnaissance frame photography analytical techniques 2−78660
remote analysis from space, overview *(Swedish)* 2−100577
resource evaluation, electro-optical instrumentation conf. (Washington, DC, April 1981) 2−89435
rock-type discrimination by radar methods 2−112170
salinity of estuaries, remote sensing multispectral method 2−89051
satellite climatology, ICL distributed array processor appls. 2−100575
satellite cloud detector system to prevent recording of unusable data 2−83818
satellite images in presence of thin clouds, atm. corrections 2−68486
satellite monitoring of rain fall (book) 2−58568
satellite remote sensing, effect of subpixel-sized cloud on target discrimination 2−106307
satellite remote sensing, iterative radiative transfer code for ocean-atmosphere systems 2−100554
satellite remote sensing, vicarious satellite calibration in solar spectral range via calculated radiances 2−112297
satellite remote sensing appl. to climatology, 1980-2000 development trends 2−73821
satellite technology development, Japanese Marine Observation Satellite program 2−73820
satellite temperature retrieval, variance ratio, energy loss and regression 2−106118
satellites orbital and attitude prediction accuracy requirements 2−89107
sea foam, electrodynamic description of densely packed dispersed systems, thermal radioemission 2−73019
sea surface radar backscatter behaviour at UHF and SHF freqs. 2−117489
sea surface stress determ. by Seasat-SASS, case study with JASIN DATA 2−83827
sea surface temp. around British Isles, satellite obs. 2−100385
sea surface temp. remote sensing by aircraft, West Coast Expt. (March 1977) 2−100585
sea surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
sea-surface temperature meas. by satellite IR techniques 2−112173
SEASAT, ocean and atmos. remote sensing system 2−89023
Seasat radar scatterometer, calibration by obs. of Amazon rain forest 2−58148
SEASAT remote sensing synthetic aperture radar data reduction 2−112138
SEASAT synthetic aperture radar studies, review 2−89042
SHF scattering at sea surface at small grazing angles, charcts. 2−73653
snow, remote sensing by microwave radiometry 2−58152
snow cover classification by microwave radiometry method 2−58153
snow cover global distrib. measurement by satellite radiometry 2−58189
snow cover in Northern Hemisphere (winter 1981) 2−106179
snow covered areas in Japan, satellite data 2−111969
snow-covered Earth surfaces, microwave emission charcts., satellite radiometry 2−58190
soil evaporation, active microwave radar meas. 2−68533
soil moisture content, effect on microwave emission 2−106155
soil moisture content meas. by microwave radiometry method 2−58149
soil moisture determination, use of C-band radar 2−106122
soil moisture determination by microwave radiometry (permittivity formulae) 2−58150
soil moisture from thermal IR meas. of vegetation temps. 2−106157
soil moisture information and thermal microwave emission 2−106156
soil moisture remote sensing by radar, land surface roughness effects 2−58151
soil surveys, digital overlay of cartographic information on Landsat MSS data 2−112141
solar radiation at Earth surface from cloud images obs. from satellites 2−100489
soybean canopy light reflectance, solar illum. angle influence 2−73552

remote sensing continued
space technical appl., conf., Pentagon City, VA, USA (March 1981) 2−68972
spectrally agile staring sensor system, design studies 2−112161
spectroscopic remote sensing, geological appls. 2−112156
SPOT remote sensing satellite system, mission objectives and appl. 2−73561
storm rainfall rate, comparison of radar differential refl. and disdrometer meas. 2−73707
suspended sediment concentration in coastal waters, digital Landsat MSS data use for patterns determ. 2−73695
synthetic aperture radar imagery, method for pixel location 2−111923
synthetic aperture radar images of extended targets for level and hilly terrain 2−73556
Tay Estuary, Scotland, Landsat multispectral scanning imagery 2−100386
temperature of Earth surface, by satellite IR radiometry method 2−100586
terrain classification using Landsat multidate imagery method 2−78661
TGS pyroelectric detector for remote sensing of temp., radiant power meas. 2−53771
thematic mapper design specifications 2−111925
thematic mapping, influence of atmos. optical props. 2−111924
thematic mapping, use of anal. of variance method 2−78657
thermal emissivity measurement using imaging radiometer 2−94538
thermal inertia mapping of geological structs., meteorologic effects 2−73728
thermal inertia meter for meas. of rock and soil props. 2−94537
thermal winds determination from horizontal gradients of satellite radiance obs. 2−78877
thunderstorm cloud temp. profile meas. by radar technique 2−112178
TIROS-N moisture data use in numerical weather prediction 2−100457
tornadic storm remote sensing by satellite IR method 2−94515
tornadic thunderstorms, satellite observed cloud top height/temp. changes 2−78808
troposphere upper cold low in western North Pacific, anal. using GMS satellite data 2−100461
tropospheric gaseous pollutants, lidar meas. 2−63132
tropospheric trace species remote meas. 2−94506
UOSAT satellite-borne Earth imaging system, educational applications 2−117498
vegetation cover remote sensing by microwave radiometry, peculiarities 2−58045
VISSR atmospheric sounder simulation experiment involving severe storm environment 2−106334
wind and sea surface temp., meas. by SEASAT microwave instruments 2−89041
wind meas. by SEASAT microwave scatterometry, atm. attenuation corrections 2−89037
wind measurement accuracy of SEASAT microwave instruments 2−89040
wind measurement accuracy of SEASAT microwave scatterometry 2−89038
wind measurement by satellite, SASS wind ambiguity removal by direct minimisation 2−112013
wind measurement by SEASAT microwave scatterometry 2−89039
wind scatterometer sensor for vector meas. over ocean, computer performance simulation program 2−117509
wind speed determination by satellite microwave radiometry method 2−100599
wind vector meas. by SEASAT microwave scatterometry 2−89035
Yellow Sea, winter temp. patterns, fronts and surface currents, satellite imagery anal. 2−106141
CO_2 exchange between atm. and surface, aircraft monitoring 2−100512
O_3 atmos. profile determ. by satellite limb-scan method 2−112145
O_3 vertical distrib. and total content, UV DIAL technique 2−106267

remote sensing by laser beam
air pollution measurement using laser absorpt. computed tomography, model studies 2−73177
atmosphere, gaseous trace component conc. determ., laser sounding method *(Russian)* 2−73729
atmosphere Na layer observation, flashlamp-pumped tunable laser radar system 2−94511
atmospheric convective cell structures revealed by Mie laser radar obs., image data processing 2−112149
atmospheric dimethylhydrazine, unsymmetrical (UDMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
atmospheric hydrazine, laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
atmospheric monomethylhydrazine (MMH), laser remote sensing using differential-absorpt. CO_2 lidar 2−93965
cloud and aerosol sensing using IR lidar, theory 2−94500
cloud top remote sensing by airborne lidar 2−94502
computerised optical-scanning tomography of turbulent wakes and exhaust plumes 2−76050
crosswind velocity measurement using laser-Doppler anemometry 2−106326
fluorescent material remote detection via optical fibre cable 2−91077
lapse-rate sensing, remote, using atm. refr. over complex terrain 2−63085
lidar measurements with photon-count regime reception, energy-freq. balance *(Russian)* 2−102841
meteorological lidar developments, review 2−106335
meteorological variables measurement using spaceborne lidar systems 2−63105
methane eyesafe Raman laser, Nd:YAG based, cloud height ranging appls. 2−97058
Mount St. Helens eruption, lidar meas. of aerosols 2−78622
ocean remote sensing by lidar, underwater light scatt. effects 2−111929
ocean surface tracer dye-patch monitoring by airborne lidar 2−106337
slab target remote characterisation with a pulsed laser 2−85885
stratosphere aerosol, obs. of enhanced lidar backscattering over central Europe during (1981) 2−100450
toxic industrial compound CO_2 laser absorpt. spectra 2−83536
tunable diode laser spectrometer using sweep integration for high-sensitivity trace gas detect. 2−106325
UV LADAR for tracking explosion plumes and ejecta 2−93972
wind speed, three-dimensional meas. technique using laser vector velocimetry 2−58132
HCl remote sensing by lidar, optoacoustic meas. of specific absorpt. coeffs. at DF laser wavelengths 2−112116
H_2O, IR absorpt. lines, intensities, broadening coeffs. and press. shifts 2−59801

remote sensing by laser beam continued
Hg, atmospheric, remote meas. using differential absorpt. lidar 2−78274
NO atmospheric trace level detect. using sequential two-photon-laser-induced fluoresc. technique 2−78884
NO, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629
OH measurements and calibration using tunable dye laser based absorpt. technique 2−117468
SO_2, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629

renormalisation
$\lambda\phi^4$ theory in curved space, trace anomalies 2−74584
ϕ^6 field system, finite temp. behaviour 2−95593
Abelian supergauge supersymm. theory in Wess-Zumino gauge, multiplicative renormalisability 2−101603
Abelian supergauge theory, renormalisation in Wess-Zumino gauge 2−74619
adsorbed layers, order-disorder transitions, phase diagrams, adsorption isotherms 2−98275
Anderson model, localisation and marginal dimensionality 2−61408
Anderson transition, renormalisation group transform. 2−66493
anisotropic bond percolation by position-space renormalization group 2−69104
anisotropic triangular lattice, bond-site percolation, real space renormalisation group study 2−95255
antiferromagnetic three-state Potts model, on square lattice, Monte Carlo renormalisation group anal. 2−77315
antiferromagnets, rhombohedral, with weak spin anisotropy, renormalised field theory 2−104626
antiferromagnets, weakly anisotropic, renormalised field theory for Gaussian random fields 2−104625
Ashkin-Teller five-state model, group theory 2−95250
asymptotic freedom scales for any single plaquette action 2−79744
background field method, gravity and Yang-Mills theory 2−107507
backscattered channelled MeV ions, surface peak intensity, theoretical anal. 2−57236
baryon form factor, non-renormgroup contrib., double log. suppression *(Russian)* 2−95840
Baxter-Wu model, Monte Carlo renormalisation group study 2−101346
black hole space-times with boundaries, stress-energy tensor renormalisation 2−79142
bond percolation, randomly directed, position space renormalisation group approach 2−107263
Bose gas model, dynamic renormalisation group 2−79464
boson system, classical quantum crossover in large n-limit 2−101309
BRS and antiBRS symmetry of Yang-Mills Lagrangian, gauge invariance, renormalisability 2−64217
Callan-Symanzik γ function in $1/N_f$ expansion 2−79829
canonical transformations, renormalisability, gauge depend. of general gauge theories *(Russian)* 2−113149
classical electrodynamic noise, equations of state, Schwinger renormalisation group 2−84533
cluster radius at percolation threshold, position space renormalisation group study 2−84546
concentrated fluctuating-valence model, renormalisation group study 2−98597
conformal gravity quantisation, renormalisation of gravity, phase transitions 2−107214
conformal invariance, spont. symm. breaking, mass generation, model renormalisability 2−69363
CP violation in broken supersymmetric theories 2−101593
critical dynamics, operator expansions 2−101365
critical lattice model, correl. functions, renormalisation group study 2−58996
dangerous irrelevant operators, effects on critical phenomena, renormalisation group treatment 2−95289
decoupling rel. to low-energy BRS invariance 2−74614
deep-inelastic scatt. structure functions, renormalisation-convention in dependence beyond leading order 2−69466
dilute s-state Potts model, Migdal-Kadanoff renormalisation approach anal. 2−95256
dimensional regularisation techniques, rel. to QCD and QED two-point functions 2−89910
Dirac monopoles, relativistic quantum field theory, charge quantisation, renormalisation 2−59019
directed bond percolation, real-space renormalisation techniques 2−58723
directional cylindrical waves, non-linear propag. 2−53530
disordered system, scaling theory of Anderson localisation, renormalisation group approach 2−71930
disordered systems, systematic approx. method 2−98509
dissipative systems, quasiperiodicity to chaos transition, renormalisation group 2−91397
dual BRS identities and renormalisation 2−84782
dysprosium ethylsulphate, Landau eqn. of state near T_c 2−66839
Einstein gravity as a symmetry-breaking effect in quantum field theory 2−95205
energy-momentum tensor regularisation *(Russian)* 2−74306
evolution probabilities, review 2−54056
Fermi gas, quasi-one-dimensional phase transitions, renormalisation group study 2−56760
ferromagnetic superconductor, Lifshitz point behaviour 2−77230
Feynman integrals, class B_n-function property 2−79738
Feynmann integrands, class B_n function property, subtractions convergence 2−53940
Feynmann massless integrals, dimensional regularisation 2−74589
FF gauge-invariant scalar operator in pure QCD, renormalisation 2−59008
field theories, renormalisation scheme depend. problem and soln. 2−53914
finite QED at small distances, Coulomb interaction modification 2−95731
fluctuating valence model, real space renormalisation group study 2−56521
forced MHD turbulence, IR props., renormalisation group approach 2−65652
fractal diagrams for non-integrable hamiltonians 2−89624
gas of topological excitations, real-space renormalisation group 2−79518
gauge theories, background field method, Feynman rules and renormalisation 2−89885
gauge theories, expt. status 2−113153
gauge theories renormalisation in nonlinear gauges 2−59042

renormalisation continued
gauge theory, topological excitations, renormalisation group anal. 2−64215
generalised Villain models, Migdal recursion relations 2−107543
gluonic currents propagators, two-loop calcs. 2−89937
grand unification, renormalisation effects 2−95724
grand unified extension, Yukawa and quartic scalar couplings 2−95706
grand unified theories, effective parameters and renormalisation group 2−84826
grand unified theories 2−113195
group eqns. and renormalisation scheme specification 2−107537
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
Heisenberg ferromagnet, dil. anisotropic, correl. lengths and transition temp., renormalisation group scaling methods 2−66863
Heisenberg O(n) model, long range interactions, renormalisation group theory 2−66745
high-order tadpoles, triangle vertex integrals, dimensional regularisation 2−101527
hydrodynamic turbulence, renormalisation group anal. 2−84448
infinite susceptibility above T_c, in Migdal-Kadanoff scheme 2−72245
interacting fields in curved space time, scaling behaviour 2−53967
interface fluctuations and the Ising model in a random field 2−74362
irrelevant operators and momentum-shell recursion relations in $d=2+\epsilon$ dimensions 2−98891
Ising ferromagnet, two-dimens., with high cond. of imperfections, sp. ht. 2−104648
Ising lattice, quantum, renormalisation group, finite model 2−104635
Ising model, 3-D, partition function, integration by collective variables and linear renormalisation *(Russian)* 2−92852
Ising model, bond dilute, phase diagrams, renormalisation group and replica methods 2−61725
Ising model, frustrated, spin glass behaviour with chaotic renormalisation group trajectories 2−61729
Ising model, frustrated, variational real space renormalisation group 2−101336
Ising model, hierarchical lattice with competing interactions 2−95260
Ising model, kinetic, real-space renormalisation group approach 2−104642
Ising model, on square lattice, exact differential renormalisation group eqns. 2−84535
Ising model, one-dimens. spin exchange model, real space dynamic renormalisation group 2−110597
Ising model, random field d-dimens. hypercubic model, Monte Carlo renormalisation group study 2−72238
Ising model, two-dimens., two-parameter modified Kadanoff lower bound renormalisation group study 2−69099
Ising two-dimensional triangular model, real-space renormalisation group calcs. 2−89633
Jahn-Teller interaction, renormalisation by force constants and impurity mass changes 2−92542
KAM tori, link with nearby cycles renormalisation group technique for three-parameter Hamiltonian system 2−112825
Kondo lattice, one dimensional, renormalisation group study 2−56830
Kondo lattice, Schrieffer-Wolff transform., mag. transition 2−115973
Kondo problem, crossover from asymptotic freedom to infrared slavery 2−77265
Kondo problem, s-d model transform. and renormalisation 2−77264
Kosterlitz-Thouless transition, review *(Japanese)* 2−81933
lattice animals and localisation, renormalised $(1/\sigma)$ expansion 2−101347
lattice fermions, IR regularisation, rel. to θ-vacua 2−69354
lattice gauge theory, Monte Carlo calcs., review 2−53916
lattice theories, truncation algorithms, exact real-space renormalisation group 2−69342
light cone expansion, Altarelli-Parisi equations 2−113148
liquid binary mixtures, isomorphic eqn. of state near liq.-gas crit. point, theoretical anal. *(Russian)* 2−71601
local quantum field theory, analyticity, renormalisation group *(Russian)* 2−95655
low-energy supersymmetric models 2−79783
m-component magnet with correlated impurities, critical behaviour 2−98896
magnetic multicritical points in a system with random single-ion anisotropy 2−104622
majority rule model, real-space renormalisation group soln. and finite size scaling 2−84554
mass dependences in renormalization-group solutions 2−113217
massive three-dimensional O(N) theories, explicit expression for effective pot. 2−84809
massless lattice models, renormalisation group based convergent expansion 2−95664
metallic glasses, commutative model of tunnelling states 2−115646
metallic glasses, commutative model of two-level systems 2−92920
Migdal recursion formula, potential-moving derivation, differential renormalisation, duality 2−79749
Migdal-Kadanoff type, of recursion scheme for 2-D square lattice 2−95272
mixed valence compounds, local density of states, real space renormalisation of Anderson chain, alloy approx. 2−66414
mixed valence spinless model, renormalisation group technique appl. 2−56508
momentum subtraction scheme in the axial gauge 2−113150
Monte Carlo renormalisation group studies of crit. phenomena 2−69119
N=1 supersymmetric Yang-Mills theories, renormalisation, classical theory 2−59017
N=1 supersymmetric Yang-Mills theories, renormalisation, radiative corrections 2−59018
N=8 supergravity, spontaneously broken, renormalisability props. 2−58685
N=8 supergravity with dynamical SU(8) gauge theory, spin-3/2 fields role 2−95209
n-vector model, crit. exponents, Borel resummations behaviour 2−74376
non-Abelian gauge theory, effective theories with broken flavor symmetry 2−101565
non-Stieltjes renormalised series by hypervirial approach 2−107148
nonequilibrium statistical field theory, closed time path Green's function renormalisation 2−53918
nonlinear σ model as effective Lagrangian 2−95629
nonlinear waves and quantum mechanics, book 2−58555
nonrelativistic Feynmann diagrams, with Coulomb interaction, pole amplitude renormalisation 2−58994
one-dimensional conductors, phase diagram, band filling effect 2−98545
renormalisation continued
one-loop instanton determinants calc. using particle propagators 2−101513
ordered spin system, critical dynamics of longit. component 2−56882
percolation, correlated, position-space renormalisation group 2−101339
percolation, directed, cell-to-cell position space renormalisation soln. method 2−63922
percolation problem of discs with distrib. of radii, Monte Carlo renormalisation group study 2−63910
perturbative QCD, conf., Tallahassee, FL, USA (March 81) 2−53409
perturbative QCD, diagrammatric mass factorisation 2−84850
perturbative QCD, optimum renormalisation scheme 2−101538
perturbative QCD, renormalisation scheme depend. problem 2−113105
point defect vibrational behaviour, renormalisation group method 2−81918
point dependence in simple scalar theory 2−89887
polymer chain solns., Lagrangian tricritical theory near θ-point 2−92151
polymer dynamics, appl. of field theoretical renormalisation group method 2−109655
polymer solutions, semidilute, conformation space renormalisation theory 2−81658
polymers, conformational space renormalisation, random and self-avoiding walks 2−75481
potential barriers, periodically modulated array, localisation 2−104285
Potts model, ferromag. and antiferromag. in (1+1) and (2+1) dimensions 2−72231
Potts model, semi-infinite, low temp. phase 2−53679
Potts model, semi-infinite, renormalisation group anal. 2−63916
Potts model, three-state, dynamic crit. exponent, Monte Carlo renormalisation group method 2−74363
propagator for fermion field and quark confinement, spectral representation 2−101669
pseudocoherent state approx., regularisation 2−84787
QCD, effective charges and expansion parameters 2−54058
QCD, higher order corrections, review 2−54059
QCD, minimal subtraction and heavy quark decoupling 2−54062
QCD, principle of minimal sensitivity appl. to higher-order processes 2−95767
QCD, renormalisation and CP violation 2−95754
QCD, renormalization group functions, prescription depend. 2−53971
QCD, summation of nonleading logarithms 2−74645
QCD at nucl. dimensions, book contrib. 2−113221
QCD phenomenology, mass depend. renormalisation group parameters implications 2−54063
QCD renormalisation using momentum-space subtraction scheme 2−84854
quantized Wilson loops with dimensional regularization 2−113108
quantum antiferromagnetic spin waves near one dimension 2−77280
quantum field theory, massless model, effective coupling and propagators, analytic props. 2−107490
quantum field theory, renormalisation logical justification 2−53915
quantum gravity, asymptotic freedom in renormalisable theory 2−101287
quarkonium decay, renormalisation group predictions 2−101710
random resistor networks, threshold behaviour 2−77006
random resistor networks with anomalous distrib. of conductances, non-universal threshold behaviour 2−77007
random resistor-diode networks, elec. cond. and supercond. 2−82307
real-space renormalisation group, thinning high-frequency modes, adiabatic method 2−95637
scalar model, non-renormalizable field theory, high-temp. expansion 2−69320
selective site percolation, prob. renormalisation group study 2−101343
sine-Gordon model, two dimens., discrete translational invariance and mass renormalisation 2−113095
smectic-A-nematic transition, dislocation loop model 2−103991
snoidal kinks in ϕ^4 field system, statistical mechanics, renormalisation effects 2−101566
SO(10) grand unified model, unification constraints on mirror fermion mass scale 2−89923
SO(10) grand unified theory, intermediate mass scale through subgroup $SU(3)\times SU(2)\times U(1)\times U(1)$ 2−84823
spin 1/2 fermion scatt., lowest order electroweak corrections, one loop amplitudes, decays, masses 2−59076
spin glasses, mean field theory in framework of broken replica symm. for Ising spins 2−66855
spin systems, random, critical phenomena, second order ϵ-expansion, renormalisation model 2−116012
spin systems, renormalisation group recursions by mean-field approximations 2−82604
spin systems, topological excitations, renormalisation group anal. 2−64215
spin-$^1/_2$ anisotropic Heisenberg model, Migdal-Kadanoff renormalisation group approach 2−77317
square-lattice three-state Potts model with spin anisotropy 2−63924
strong coupling constant, renormalisation scheme depend. in QCD 2−101654
strong-coupling expansion with fermions, renormalisation 2−74615
$SU(2)_L\times SU(2)_R\times U(1)_{B-L}$, left-right symmetric GUT, proton lifetime, quark-lepton mass ratio 2−95721
$SU(3)_c\times SU(2)_L\times U(1)$ supersymmetric grand unified theories predictions 2−95718
SU(5) model, $\sin^2\theta_W$ and M_X two-loop anal. 2−64259
superconductors, impure, crit. behaviour in 4-ϵ dimensions 2−92823
supersymmetric dual string theory, loops and renormalisation 2−89952
supersymmetric gauge theories, symmetry breaking mechanism 2−79760
supersymmetric Liouville action renormalisation and 3D Ising model critical exponent 2−79762
supersymmetric theories, mass independent renormalisation, soft symm. breaking 2−107588
supersymmetric theories, renormalisation procedure for effective pot. evaluation 2−101545
supersymmetric Yang-Mills theories, quartic mass matrix and renormalisation constants 2−107540
supersymmetric Yang-Mills theories, three-loop beta-function 2−79761
thermoviscous fluid, non-linear propagation of waves induced by general vibrations of plates 2−53531
three-component cubic model, fluctuation induced first-order transitions and symm. breaking fields 2−89645
three-dimensional O(N) theories, vacuum stability 2−84840
trace anomalies and QED in curved space 2−107596
two-dimensional gauge-invariant disordered system, Anderson localisation, numerical treatment 2−71926

renormalisation continued
two-dimensional Glauber model, Monte Carlo renormalisation study 2−79498
two-dimensional kinetic Ising model, real-space dynamic renormalisation group method 2−104647
two-dimensional kinetic Ising model, spin conserving, dynamic correls., renormalisation method 2−92949
two-dimensional sine-Gordon system, commensurate-incommensurate transition, renormalisation-group approach 2−112853
two-dimensional supersonic flow, weak nonlinear waves, reductive perturbation theory 2−75994
two-dimensional system, finite size scaling and phenomenological renormalization 2−63935
uniaxial Heisenberg ferromagnet, exact low temp. renormalisation and uniform mode damping 2−56814
unified gauge theories, renormalisation group constraints, Yukawa and scalar quartic couplings 2−79806
Weinberg model, beta function calc. using background field quantisation 2−53979
Weinberg-Salam theory, one-loop effects in renormalisation scheme *(Russian)* 2−74638
Wigner cryst., electron-phonon interactions, phonon damping and freq. shift, renormalisation *(Russian)* 2−81916
Wilson loop functionals and related eqns. for irregular paths 2−95588
X-Y model, frustration in two dimensions, renormalisation group method 2−74360
Yang-Mills Theory, N=1 supersymm., supercurrent, renormalisation 2−59011
π, wave function and EM form factor, large momentum behaviour, QCD and renormalisation theory 2−59148
$q\bar{q}$ bound state, annihilation vertex, relativistic Bethe-Salpeter model, renormalisation 2−101539
T→gluons, QCD corrections to gluonic width 2−54142
$CoBr_2$, trigonal cpd., mag. excitations 2−87485
$CoCl_2$, trigonal cpd., mag. excitations 2−87485
Dy, first order phase transition study 2−77262
DyC_2, first order phase transition study 2−77262
^4He, liquid, critical dynamics near lambda transition, nonlinear renormalisation group anal. 2−110069
^4He, liquid, superfluid transition, crit. phenomena 2−110066
^4He, liquid, thermal conductivity, nonlinear renormalisation anal. 2−71753
^4He, near lambda transition, crossover behaviour in dynamics 2−86962
Ho, first order phase transition study 2−77262
Kr overlayer on graphite, commensurate-incommensurate phase diagram, helical Potts model 2−82136
$LiTbF_4$, Landau eqn. of state near T_c 2−66839
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2−92938
Pd, surface (100), adsorbed H, phase diagrams for a square lattice with two- and three-body interactions 2−115556
Tb, first order phase transition study 2−77262
$TbAu_2$, first order phase transition study 2−77262

repackaging *see packaging*

repeaters
fibre optic transmission system, 280 Mbit/s, using laser diode source, repeater sp acing 2−55353

replica techniques
steel, alloy type, carbide precipitates, comp. and morphology, STEM and X-ray microanalysis, replica technique 2−67352
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407

replicas
glass microstructure, electron microscopy studies 2−91797
AuGeNi-InP contact, electron microscopy investig. 2−66379

reproduction (copying)
see also photocopying; printing
grey scale compression in reprography 2−58942

research and development management
coal utilisation methods, research and development plans in Hungary *(Hungarian)* 2−111533
Economic European Community energy strategy *(German)* 2−78169
European community solar energy R&D programme 2−73069
fusion reactors, utility requirements for R and D planning, decision-making 2−69900
fusion research and development, ref. to international collaboration 2−93875
geothermal energy developments in Pacific Coast Region of USA 2−105534
Indian photovoltaic programme state-of-art and applications, future possibilities 2−111559
magnetic fusion R&D, international collaboration, US strategy 2−93877
nuclear fusion, European communities possible development and utilisation *(German)* 2−90288
nuclear fusion, international cooperation, organisation, administration, obstacles 2−93878
nuclear fusion development, international cooperation, benefit to USA 2−93876
Three Mile Island Unit 2 safety philosophy and safety systems performance 2−102194
UN perspective of solar technology potential and utilisation in developing countries 2−111557
He-Ne frequency-stabilised laser design and construction project for students 2−94968

residual stresses *see internal stresses*

resins *see polymers*

resistance, electric *see electric resistance*

resistance coupled amplifiers *see d.c. amplifiers*

resistance noise *see thermal noise*

resistance thermometers
cold junction compensator for use with Pt resistance thermometer *(Japanese)* 2−89713
cryogenic resistance thermometer only slightly sensitive to action of magnetic fields 2−74413
cryogenic temperature meas. and data processing system *(Russian)* 2−112909
cryotemperatures measurement using Cu resistance-type sensing element *(Polish)* 2−53760
resistance thermometers continued
digital thermometer based on dual op-amp and PRT-100 Pt resistance thermometer 2−89714
frequency response, influence of dust contamination 2−89710
low-power AC bridge for high resolution remote resistance thermometry 2−64029
Pt thermometers, calibration at fixed points of IPTS-68 using standard resistances *(Polish)* 2−95378
semiconductor, automatic calibration 2−53773
semiconductor cryogenic resistance thermometers for meas. in mag. fields *(Russian)* 2−64036
standardisation, experience with GOST 8.009-72 standard 2−112901
thermal relaxation calorimetry in high mag. fields in 2 to 15K range 2−89716
thin-wire resistance thermometer, spatial and temporal resolution 2−64030
TSKUM carbon and KGG semiconductor thermometers behaviour in magnetic field up to 18 T 2−112898
TVO carbon resistors for temperature measurements in the range 4.2-450K 2−112897
wiring connections 2−95379
C-glass resistors, low-temperature thermometry in high magnetic fields 2−101401
Ge thin film thermometers, for use at low temps., characts. 2−74412
In thin film resistance thermometers for low temps. 2−112896
Ni, temp. characts. linearisation 2−64035
Pt 100 resistance sensors, linearisation through positive feedback at transmitter *(German)* 2−89712
Pt, A/D convertor for microprocessor *(French)* 2−107325
Pt, advantages, appls. improved designs *(French)* 2−84623
Pt, calibration for narrow temp. range 2−64033
Pt resistance thermometer, methods for connecting with electronic convertor circuits *(German)* 2−74415
Pt resistance thermometers, response linearisation 2−84624
Pt standard thermometer, thermodynamic meas. appl. 2−53727
Pt thermometric resistance sensors, ZPA, low-temp. meas. in range 13-80K *(Czech)* 2−89727
Si temperature sensors *(German)* 2−84627
Ta thin-layer resistance thermometer *(German)* 2−84626

resistance welding
butt welding, heat conduction problems, analogue simulation 2−55395
cold pressure spot welding, topography of surfaces being joined 2−93525
dosimeters, fission foils and oxide discs, thin metal encapsulation by resist. welding 2−108139

resistivity *see electrical conductivity*

resistors
see also photoresistors; posistors; thermistors; thick film resistors; thin film resistors; varistors
electrical measurements and standards, progress in instrumentation *(Rumanian)* 2−74382
Josephson junction, quantum tunneling and zero-point motion limit of noise fluctuations 2−61666
low inductance, coaxial shunt resistor for neutral beam injector control system 2−109538
magnetoresistor, higher waiting temp. 2−98671
nonlinear, second and third harmonic generation in presence of a direct current 2−115741
plasma arc sources, water-cooled high-capacity series resistors 2−65739
C-glass resistors, low-temperature thermometry in high magnetic fields 2−101401

resolving power (optical) *see optical resolving power*

resonance
see also atomic beam electric resonance; circuit resonance; cyclotron resonance; dielectric resonance; Fermi resonance; magnetic resonance; magnetoacoustic resonance; molecular beam electric resonance; optical double resonance; vibrations
asteroid orbits, three-dimensional motion at 2/1 resonance 2−106594
atmosphere millimetre wave propagation, model for resonant transmittance 2−117394
bonded joint strength determ. by simulating electroacoustic channel of resonant instrument 2−83332
bounded nonlocal medium, transient optical reflectivity 2−77478
celestial mechanics, general planetary theory extended to case of resonance *(French)* 2−78939
celestial mechanics, motion of Jovian commensurability resons. rel. to asteroid zone kinematics and struct. 2−89170
x-(2',4'-dinitrobenzyl)pyridine (x=2,4), resonance Raman spectra of short-lived species 2−72489
1,1-diphenylethylene adsorbed layer, reaction intermediates, resonance Raman spectra 2−73014
elastic sphere, lowest resonances study *(French)* 2−114715
elastic system combination parametric resonances 2−114713
general lower bounds for reson. in one dimension 2−112722
ionosphere, reson. absorpt. of radio waves, at freqs. close to electron gyrofrequency 2−112199
LEED fine structure anal. 2−109639
light scattering, by spherical particles, partial-wave resonances 2−75528
magnetic films, spin waves, elliptically polarised, resonance spectrum calc. 2−72307
mixed valence cpds., electrical resistivity, impurity contribs. 2−56544
motor vehicle passenger compartment, acoustic resonance anal., boundary-integral equation method 2−81161
multilevel system excitation, superselectivity, adiabatic switching on of resonant radiation *(Russian)* 2−96867
multiphoton ionisation spectra, autoionisation resonance narrowing 2−85600
non-linearly coupled resonant oscillators, regular perturbation technique 2−97275
ocean seiches at Haifa Bay, E.Mediterranean Sea, anal. of eigenfreqs. of resonating water body 2−117307
open-ended tube, gas resonant oscills. 2−60274
planetary ring systems, satellite-ring particles orbital resonances rel. to rings sharp edges 2−112383
plasma acoustic-Langmuir wave resonance interaction, integrability of eqns. 2−76125
sectional piezoelectric transducer with electrically controlled resonance frequency, anal. method 2−114589
tabular icebergs, resonant interaction with ocean waves 2−88906
tibia, human, mech. resonances in vitro 2−116955
two-state model, stochastic resonances 2−79348

resonance continued
variational principles for reson. 2−95088
Al, superconducting, magnetoabsorpt. resonances, 35 GHz 2−57067
Fe, cast, resonance testing 2−62302
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
Hg discharge lamp, high press., fundamental longitudinal acoustic reson. obs. 2−91690
KH_2PO_4 crystal, forced resonance acoustic vibrs. *(Russian)* 2−103909
NaCl, surface (001), H atom beam coherent elastic scatt., bound state resonance, Morse pot. 2−116324
Si surface (001), plasmon excitation enhancement by LEED due to surface resonance 2−77139
Si surface (111), RHEED, geometrical surface wave resonance 2−76783
resonance reactions and scattering, nuclear *see nuclear resonance reactions and scattering*
resonances, baryon *see baryon resonances*
resonances, meson *see meson resonances*
resonant absorption of gamma-rays *see Mossbauer effect*
resonant cavities *see cavity resonators*
resonant gamma-ray interactions in crystals *see Mossbauer effect*
resonators
see also cavity resonators; crystal resonators; resonance
LALAGE program for TM_{010} modes of cylindrically symmetrical multicell structures 2−102290
millimeter-wave spectrometer, sensitivity and response time improvements 2−89825
molecular beam maser employing quasi-optical resonators, oscill. behaviour, spectroscopic appls. 2−108846
optical resonator mirror edge diffr. anal., indeterminate Pade approxs. 2−90809
SAWD, powerful passives 2−97336
unstable ring resonator with self-imaging aperture, modes 2−97157
Al films on quartz substrate, optical props., open wove resonator charact. *(Russian)* 2−93312
$BaTiO_3$ photorefractive crystal based CW phase-conjugate resonator, spatial and temporal props. 2−108971
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
retrieval, information *see information retrieval*
revaporisation *see vaporisation*
reverberation
see also anechoic chambers; architectural acoustics; echo
auditorium reverberation time, subjective preference judgements 2−75775
churches, small and middle-sized, optimum range *(German)* 2−75779
concentric sphere reverberation time analysis 2−70767
dispersion of localised measurements of reverberation time 2−75776
dwellings airborne sound isolation, problems in field meas. *(Chinese)* 2−81162
electronic artificial reverberator, design *(Spanish)* 2−97333
enclosures, effect of finite bandwidth on reverberation times 2−60304
impulse noise, time distrib. in enclosure 2−65430
impulse response and other types of room acoustical responses 2−75778
monaural and binaural speech perception in reverberation for listeners of various ages 2−75793
multihall in Mannheim, acoustics problem *(German)* 2−91158
nomographs, use in acoustic propagation and room acoustic, use of nomographs 2−60273
room acoustics, review of reverberation theories *(French)* 2−70766
sound insulation test, reverberation time assessment 2−75799
sound scattering by cylindrical vortex embedded in fluid at rest, appl. to reverberation studies 2−81143
reverberation chambers
94 m^3 reverberation chamber qualification 2−60328
acoustic test facility development in Zimbabwe 2−109131
aerospace acoustic test facilities in Japan 2−70795
independent sampling of mean square pressure in reverberant sound fields 2−109118
transmitted acoustic intensity measurement of composite panels, single chamber technique 2−60305
reverse martensitic transformations
alpha to gamma transformation, crystallographic parameters, shear effects, computer calc. *(Russian)* 2−88079
steel, Al, high C, struct. changes during tempering *(Russian)* 2−105190
steel, austenitic, Ni-Mo, strength increase by γ-α-γ transition cycles during slow heating *(Russian)* 2−105225
steel, maraging, 00Kh11N10M2T, struct. changes and mech. props. caused by reverse α to γ transition *(Russian)* 2−77819
steels, quenched and thermomechanically hardened, austenite form., struct. and substruct. *(Russian)* 2−99421
Fe-Mn-Si, shape memory effect in $\gamma \rightleftharpoons \epsilon$ martensitic transform. 2−83114
Fe-Ni (31.2 wt.%); direct and reverse martensitic transforms., impulse duration influence *(Russian)* 2−67335
Fe-Ni-Co-Ti, martensite and austenite, disperse γ' particles elastic deform. and $\gamma \rightleftharpoons \alpha$ transitions *(Russian)* 2−88078
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
GeTe, elastic props., room temp. 2−81872
reversible shape memory effect *see shape memory effects*
reviews
see also Bibliography Index (special index bound with Author index)
abrasive wear, of metals 2−105346
acoustic emission testing, principles, review 2−62323
acousto-optical tunable filters 2−55307
acoustoelectronics, and piezoelectricity 2−99055
adaptive optics problems and prospects 2−102834
adsorbed systems, neutron scatt. studies 2−110150
adsorption of halocarbon and halogens on solid surfaces, particularly Fe, review 2−82120
advanced fusion reactors, book contrib. 2−74941
aero-optical phenomena rel. to laser beam quality, overview 2−97036
aerogenerator materials, impact of environment 2−67809
AES, as local probe for solid surfaces, review 2−82963
AES, high resolution studies of solids, theoretical developments, review 2−110991
AES, surface anal., experimental aspects, review 2−110102
aether theories 2−58606
reviews continued
airborne warning systems for natural and aircraft-initiated lightning 2−83894
alkali halides, independ. and coupled vibrs. effect of dislocations on low-temp. thermal conductivity 2−71745
alkali halides, lattice defect creation by electronic excitation, review 2−115218
alkali halides, sputtering, electron and photon induced 2−99232
alkali halides, surface phonon dispersion rel. meas. using He atomic beam 2−66143
alkaline earth salts, cryst. growth from aq. soln., laboratory and industrial studies 2−111042
alloys, amorphous, resist. minimum, review *(Japanese)* 2−115725
alloys, surface composition, review 2−92322
ambulatory monitoring 2−83669
amorphous alloys, positron annihilation expts., review 2−104986
amorphous chalcogenides, AC conduction due to polarons *(Japanese)* 2−104384
amorphous magnetic materials 2−77270
amorphous semiconductors, AC conductivity, freq. depend. loss, review 2−115747
analytical ion microscopy of biological tissue 2−111830
Anderson localization in two dimension *(Japanese)* 2−82294
apnea monitors, 1982 2−105846
applications of γ-ray diffractometry 2−103568
aqueous electrolyte chem. thermodynamics at high press. and temp. 2−78598
V1343 Aquilae (SS 433) models 2−63472
Arctic tundra, surface energy balance 2−106298
arterial baroreceptors *(Japanese)* 2−57832
astrophysical mag. fields, nonlinear problems, review 2−68613
astrophysical magnetic fields in low beta plasma, review 2−89145
astrophysical plasmas 2−63243
asymptotic giant branch stars, evolution, mass loss, nucleosynthesis and convection 2−106708
athermal submm.-microwave biological effects 2−88592
atmospheric chemistry in raindrops and aerosols 2−58111
atmospheric convection during GATE 2−58112
atom-electron scatt., long-range correl. effects 2−70428
atom-ion collisions, asymmetric electron capture theory 2−96714
atom-molecule collisions, angular momentum decoupling approx. survey 2−108678
atomic collisions, inner shell alignment, X-ray polarization 2−90677
atomic parity violation, expt. searches 2−70435
atomic resonance line laser status, appl. to quantitative analysis 2−80942
atoms, high z-systems, Coulomb collisions 2−70391
atoms, multiphoton bound-bound transitions 2−96527
atoms, photoelectron ang. distribs., energy depend. for s subshells 2−80554
atoms and ions, ion accelerator study of props., review 2−96478
atoms and molecules, electron density theory 2−108334
auditory, evoked potential audiometry, fundamentals 2−117027
auroral electrojets rel. to field-aligned currents 2−58202
auroral kilometric radiation, theory 2−58206
baryon number and lepton number conservation laws, book contrib., review 2−54017
baryonic excitation and meson exchange currents in nuclei 2−59252
baryonic excitations in nuclei 2−59254
battery technology, primary and secondary cell development *(Japanese)* 2−73093
Benard effect *(Polish)* 2−81317
benzonitrile liq., motional param. from spectral profiles 2−71317
bi-Hamiltonian systems, algebraic struct., review 2−69033
bio-signals, digital processing, basis, filter design *(Japanese)* 2−111805
bio-signals, digital processing *(Japanese)* 2−62806
biochemical effect of laser radiation 2−100058
biofeedback, history and contemporary systems and uses *(Japanese)* 2−57920
biofeedback techniques in visual and ophthalmologic disorders treatment 2−78481
biological macromols., X-ray studies, review 2−63794
biomass sources, chemical conversion and end fuel products 2−62500
biomedical electronics in Soviet Union 2−78473
biophysics and bioengineering, book 2−93978
biotelemetry, aspects of new systems *(Japanese)* 2−57887
biotelemetry, recent developments *(Japanese)* 2−57886
birefringent tunable filters 2−55306
bistable optical devices 2−97077
bistable systems in nonlinear optics 2−102857
blind mobility and orientation aids, review of new developments 2−57926
bone, biomechanical research 2−88574
α Bootis (Arcturus), anal. of spectroscopic determ. of stellar mass 2−68769
Bordoni relaxation, internal friction due and microdeform. due to intrinsic props. of dislocation 2−77862
boundary element methods, for plasticity and creep, including visco-plastic approach 2−81239
boundary-layer transitions, three dimens. aspects 2−81329
breast imaging methods 2−62703
Brillouin-Mandelstam scatt. 2−67069
bubble chambers, high-resolution charm particle lifetime meas. appl. 2−64788
buildings, solar heating and cooling, expt. projects 2−78255
BWR radiation assessment and control, 1978 to 1980 2−113719
C invariance, symmetry breaking interactions 2−79776
calorimetry, ideas and developments 2−64823
camera, Pentax LX system, data recording facilities, electronic flash unit performance 2−74526
camera, Pentax LX system, lens specifications, system ergonomics, comparison with other systems 2−74528
camera, Pentax LX system, shutter battery power system, power winder, motor drive 2−74525
camera, pentax LX system, SMC Pentax-M lens test reports 2−74527
camera, Pentax LX system, through the lens exposure metering system 2−69270
camera, Pentax LX system, viewing system, focusing screens, viewfinder display, dark chamber exposure modes 2−53859
camera, Pentax LX system general construction, top plate layout, camera front/back, film transport 2−53857
CANDU safety, bibliography of AECL publications 2−89502

reviews continued
α Canis Majoris B (Sirius B), still little-known white dwarf, review *(French)* 2−73972
cardiac examination, non-invasive methods 2−83695
cardiac measurements, noninvasive, and their evaluation: new possibilities 2−83683
cardiac nuclear medicine, acute myocardial infarction and other appls. 2−57897
cardiovascular physiology in space, current views and future programs 2−62783
catastrophe theory in physics 2−69003
cation hydrolysis thermodynamics 2−68304
cell adhesion phys. 2−116894
cell-to-cell communication in heart and other tissues 2−99928
cemented carbides, stereology, review 2−111443
ceramic and organic insulators for fusion appl. 2−80179
ceramics, neutron irrad. damage 2−115301
chalcogenide glasses, optical properties 2−61851
chalcogenide glasses and amorphous semicond., at. defects, review 2−65869
charge collection scanning electron microscopy 2−86526
charged particle and gamma ray activation anal., life sciences appl. 2−57647
charged particle energy losses in condensed matter 2−98172
charged particle propag. in crystalline solids, defect effects 2−81818
charged particle steering by bent single crystals, possible appl. 2−80359
charm particles, lifetime, expt. results 2−101714
chemical lasers, high-power, physical principles, chem.-reaction systems and modelling 2−75564
chemical lasers, population inversion processes 2−75562
chemical reaction kinetics, computer modelling methods 2−62375
chemically active plasma with molecular nonequilibrium vibration excitation 2−76071
chromosome aberration analysis in radiological protection dosimetry 2−62772
claddings, laminar, methods of props. determ., review 2−93700
classical Yang-Mills fields 2−53983
cloud seeding over last 35 years 2−106202
coaxial flashlamps, laser pumping charact., review 2−65239
cochlear prostheses, review of current status 2−57924
coherent structure in turbulent shear flows 2−81327
cohesion parameters applic. to wetting and adhesion 2−104119
collective field accelerator 2−113765
colour centre lasers 2−96956
colour vision, merits of model making, review 2−99971
colour vision defects, historical review of 1st 4 decades of 20th century *(Italian)* 2−53477
colour vision defects, rel. to occupational hazards 2−83566
comet-solar wind interactions 2−117556
comets, physical struct., of nucleus, coma and tail 2−73909
commensurate-incommensurate transition, devil's staircase models 2−92188
commercial thermophysical instruments 2−58816
composite materials, NDT, review 2−62338
computational plasma physics 2−60797
computer displays, review of research on impact on human visual system 2−73227
computerised ECG, diagnostic interpretation and arrhythmia monitoring 2−68189
computerised tomography, design constraints, theoretical review 2−94176
computerised tomography, high-speed multi-slice X-ray technique, CVCT scanner development 2−111793
conceptual physical basis for monitoring external radiation 2−73376
condensed matter, Brillouin scatt. 2−82873
confinement and deconfinement of quarks in nuclear matter 2−95952
conformal gravity and anomalies, de Sitter space, field theories 2−69077
contact lenses, historical review of theory, prescription and fitting 2−100160
container glass, optical props. 2−61858
continuum mechanics, rel. to solid state physics, review *(German)* 2−91232
contrast echocardiography 2−117033
core level photoelectron spectroscopy for surface crystallography 2−77694
coronary care unit ECG monitoring 2−78485
corrosion resistant props. of metals, used in laboratory equipment 2−62278
cortical bone remodelling, rel. to in vivo strains 2−105713
cosmic gamma-ray bursts 2−58217
cosmic ray particle phenomenology at ultrahigh energies, review 2−117550
cosmology, particle physics aspects 2−117841
cosmology and neutrino physics 2−84356
cosmology correlation with particle physics 2−117839
CP symmetry violation 2−101591
cracks propagation, by cavitation 2−103087
creep fracture by void growth 2−77940
cryoelectron microscopy, review 2−113079
cryogenic thermometry, recent developments 2−58820
crystal growth, appl. of holographic interferometry, review 2−81699
cuprous halides, cryst. growth techniques and defect chemistry, re view 2−83015
CVD modified process and performance, optical fibre design and material choices, overview 2−65421
cybernetic artificial limbs 2−105854
damage mechanics, continuum mechanics approach to damage and fracture *(Japanese)* 2−60471
deep inelastic heavy-ion collisions, statistical fluctuations, expt. evidence and theoretical implications 2−85093
deep inelastic scatt., e^+e^- annihilation and high-p_T particle prod., higher twist contrib. 2−64292
defect analysis using dilatometry and self-diffusion, review 2−60972
deformable mirror requirements 2−102900
deformation by moving interfaces 2−77830
deformation mechanism maps, in high temp. creep range 2−83218
deformed state examination, interference optical methods, survey 2−114745
density functional formalism at finite temperatures with some applications 2−112746
diamond turning fabrication for laser design appls., review 2−81132
diffusion and stability of strengthening phases in W 2−104065
diffusion in surface layers 2−104140
reviews continued
digital filters, design for biomedical signal processing 2−117117
digital image processing 2−80906
digital radiography and other imaging techniques, developments 2−100094
dimensional regularisation techniques, rel. to QCD and QED two-point functions 2−89910
Dirac vacuum, stability and decay in external gauge fields 2−84811
disordered solids, acoustic and dielec. low temp. props., review 2−56094
DNA, molecular dynamics investig. by dielec. relax. meas. 2−88497
DNA, new struct. and dynamic aspects as revealed by NMR 2−116871
DNA, topological aspects and biophysical appl., theory 2−96785
DNA-drug interactions rel. to intercalation 2−116861
dry etching, recent trends for VLSI fabrication 2−116582
dust grains in interstellar medium, formation and props. 2−89345
dye lasers, synchronously mode-locked CW, recent advances and appls. 2−114326
early Universe, unified interactions and phase transitions 2−117840
Earth crust, elec. cond. 2−78601
Earth crust electrical resistivity modification by materials stress field time var. 2−78539
Earth Radiation Budget Experiment 2−94367
earthquake magnitude scales for regional application 2−58001
earthquake magnitudes 2−62895
earthquake prediction, worldwide text of three long-term premonitory seismicity patterns 2−94303
ECG, computer assisted evaluation, results and perspective 2−83681
ECG, usefulness of multipoles for representation and estimation of pots. 2−94014
echocardiography, new techniques, book contrib. 2−111764
EDS coal liquefaction, status of development 2−111534
effective dose equivalents, comparison for 3 major internal dose compilations, radioisotope inhalation and ingestion 2−62770
Einstein gravity as a symmetry-breaking effect in quantum field theory 2−95205
Einstein-Cartan-Maxwell-Bianchi type-V cosmological models 2−112618
elastic and inelastic scatt. of p, d, α on nuclei, review 2−54369
elastoplasticity, finite deformation, of crystalline solids 2−115334
electric sensing devices, transducer appls., review of transducer types, use, characts. and evolution of sensors *(French)* 2−53749
electrical properties of materials and their measurement at low temperatures 2−104353
electro-osteo stimulation, techniques and clinical appls. *(German)* 2−117128
electromechanical materials and their appls. review 2−77453
electromedical instrumentation in India 2−117113
electron backscattering from thin films 2−77638
electron beam lithography 2−74183
electron energy loss spectroscopy, electron microscope appl. 2−64193
electron field emission from broad-area electrodes 2−77707
electron microscope cold stage design and operation 2−113082
electron microscope-computer interactions 2−107460
electron microscopy, biological applications, review 2−117177
electron microscopy, high resolution, appl. to microanalysis 2−101497
electron microscopy, high voltage, atomic resolution 2−71308
electron microscopy, high-resolution, application to chem. problems 2−97878
electron microscopy, instrumentation today and tomorrow 2−64168
electron microscopy of biomols., 3D struct. determ. from 2D crysts. 2−100178
electron scatt. from complex nuclei 2−54358
electron spectroscopy development for atoms, mols. and condensed matter 2−95559
electron spectroscopy techniques developed since late 1940s 2−107073
electronic aids for the handicapped, problems and methods used in development *(German)* 2−88689
electronic registration equipment in CAMAC standard, review 2−64813
elementary particle detectors *(French)* 2−59645
elementary particle elec. dipole moments 2−69468
elementary particles, 'New Physics' 2−54049
ellipsometry in thin film analysis 2−53820
ELMO bumpy torus 2−76183
EM aspects of NDT 2−67720
EM interactions on light nuclei, review 2−54359
EM interactions with nuclei at high momentum transfer 2−54353
EM localised wave structs., nonlinear dynamics, geometrical props. 2−80879
EMG-force relationships in skeletal muscle 2−94013
endochronic theory of plasticity 2−97396
energy storage methods 2−78258
energy technology, nondestructive evaluation, workshop summary 2−67687
engineering materials investig. using atom-probe techniques 2−109642
epitaxy 2−76865
EPR in one and two dimensions 2−92993
EPR studies of neutron irrad. Si 2−110638
equivalent Lagrangians, calculus of variations, inverse problem, review *(Spanish)* 2−63818
ergo-optometric topics 2−57800
etching and gas-surface chemistry, ion enhanced, review 2−111517
European Southern Hemisphere Observatory (ESO), equipment and observing facilities *(French)* 2−94594
European Space Agency (ESA), report to 24th COSPAR meeting, Ottawa, Canada (May 1982) 2−74177
evolution of single stars, reviews 2−100910
evolution probabilities 2−54056
exact inverse scattering theory 2−63859
EXAFS studies in materials science 2−93388
excited electron orbit collapse and atomic spectra 2−102400
exlusive processes in QCD 2−54091
exotic atoms, K-nucleus scatt. and hypernuclei 2−59416
Fabry-Perot tunable filters 2−55305
far IR detectors, fast response capability, review *(Japanese)* 2−89811
far-IR fine structure lines in interstellar medium 2−94621
fast reactor appls. of current resonance theory, overview 2−85121
fast-liner−compression fusion systems, book contrib. 2−76182
fatigue evaluation under multiaxial loading, new approach 2−62225
femur, human, crit. review of biomech. stress anal. 2−83587
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
ferromagnetic materials, spin wave excitations, light scatt., review *(Japanese)* 2−93213

reviews continued
ferromagnetic semiconductors, mag. polarons, review 2−87160
fibre optic materials, optical props. 2−60190
fibre optic medical endoscopes, review of evolution 2−94147
fibre optics manufacturing technology, used for optical communication systems 2−55364
fibre reinforced composites, methods of testing in shear 2−93731
fibreoptic industry 1982, progress report and future outlook 2−81104
films, fibrils and interfaces, micromechanics, review 2−82188
films, heterogenous nucleation and growth, review 2−92408
fission reactor fuel, secure automated fabrication 2−108023
fission track dating, current status and problems 2−73719
fissured porous media, voidage and flow nonuniformities, review 2−103205
flavour-changing lepton decay 2−79877
flaw preparations for heavy-section steel fracture mech. testing 2−72929
Florida basement, tectonic history 2−111913
fluid flow measurement, laser Doppler velocimetry 2−91566
fluid mechanics, basic research needs review 2−60518
FM spectroscopy and frequency domain optical memories 2−64123
fog and related EM wave propag. characts., survey 2−112087
foil, energy dispersive X-ray anal. 2−73032
force and weight measurement 2−107303
fracture mechanics, foundations 2−97433
fracture processes in superplastic flow 2−72828
free quark search, magnetic levitation expts. 2−95892
free-electron lasers, electron-EM field interactions 2−108892
friction stress concept applied to engineering alloys 2−62167
frost, condensed gas, ion induced erosion, planetary appls. 2−100781
functional diagnostic instruments, state of the art and future trends 2−62824
functional imaging future in radionuclide studies 2−94190
fusion reactor, radiolytic conversion systems, fuel synthesis 2−54640
fusion reactor first wall material, radiation blistering 2−113735
fusion reactor materials, pulsed irradiation, effects on microstruct., swelling, creep 2−54641
fusion reactors, theory and design, book contrib. 2−69890
fusion-fission fuel factory, book contrib. 2−75053
galactic disc chemical composition variations 2−112581
galactic gamma-ray astronomy, review *(German)* 2−94868
galactic gamma-ray astronomy 2−106964
galaxies, disc and elliptical, evolution 2−101075
galaxies, disc and spheroidal, formation and evolution, composition and struct. 2−63658
galaxies and clusters of galaxies, formation and evolution 2−101070
galaxies surface photometry, bibliography 2−107031
galaxy clustering, two point autocorrelation function and two dimens. angular equivalent 2−117783
Galaxy star formation rate and nucleosynthesis models 2−112569
gamma cameras, Anger-type, routine quality control testing 2−94196
gamma radiation tuning and stimulation 2−96879
gamma ray lasers 2−108847
gamma-ray burst sources, high-precision meas. 2−117796
gamma-ray burst sources *(Polish)* 2−106966
Gamow-Teller reson. 2−54318
garnets, LPE growth and defects, review 2−82168
gas molecules, vibr. Q branch, Raman scatt., review 2−108527
gas scintillation proportional counters 2−90358
gaseous detectors, recent trends in evolution 2−90351
gaseous positronics−past, present, and future 2−75419
general relativity, chaotic behaviour 2−84494
general relativity theory, black holes, review 2−63774
geodesy, planar covariance functions 2−57954
giant Raman scattering of light by molecules adsorbed on the surface of a metal 2−110966
glacier ice flow law 2−58094
glass, decorative, optical design 2−60197
glass, flat, coated, optical props. 2−61850
glass, flat, optical props. 2−61857
glass, ophthalmic and photochromic 2−60199
glass laser, fluorescence in small and large signal gain regimes 2−60200
glass microstructure rel. to processing and props. 2−91802
glass surfaces 2−92318
glasses, nonmetallic, NMR studies of struct., review 2−104713
glasses, oxide, Fe-containing, elec. cond. 2−110406
global phase-stable radiointerferometric systems 2−117600
globular star cluster research developments 2−84290
glueballs theoretical models 2−79833
gluon attributes, overview 2−54094
grand unified theories, monopoles and early Universe 2−79790
grand unified theories, progress 2−79789
graphite, solid-liquid-gas triple point, sublimation and boiling curve 2−61116
graphite, synthetic, methods of mech. testing at 20°C, review 2−72898
graphite intercalation compounds, electronic props., review 2−98518
graphite intercalation compounds, low dimensional conductor, review of phys. props. *(Japanese)* 2−82202
gravity currents in the laboratory, atmosphere, and ocean 2−97617
Great Lakes, sedimentary processes 2−58093
growth spiral morphology, book contrib. 2−115162
hadron interaction mechanisms 2−74659
hadron interactions in cosmic rays at energies above the accelerator range 2−113314
hadron-nucleus interaction dynamics 2−54367
Hamiltonian systems with symmetry 2−53501
hard processes, polarisation asymmetries predicted by QCD and parton model, review 2−69501
head injury criteria, current controversies in stipulation 2−88566
heat pumps, developments *(French)* 2−62488
heavy ion collisions, spin and isospin fluctuations and depend. on dinuclear complex shape 2−64420
heavy ion fusion 2−85082
heavy ion fusion 2−85111
heavy ion reaction mechanisms, from fragment spin pol. 2−80027
heavy ion-nucleus reactions 2−107878
heavy-ion collisions, 250 MeV-2 GeV per nucleon, intranuclear cascade model 2−113455
heavy-ion collisions, fast fission phenomenon 2−113532
heavy-ion collisions, incomplete nucl. fusion 2−113546
heavy-ion collisions, light particle emission 2−85092
heavy-ion collisions at medium energies 2−113530
reviews continued
heavy-ion fusion and nuclear structure 2−64447
heavy-ion large angle scatt., dynamical aspects 2−113556
heavy-ion projectile fragmentation reactions 2−113542
heavy-ion scattering, reson. structures in cross section, mol. configurations theory 2−85084
Heisenberg chains, ferromag., excitation spectrum 2−66741
Helical twist in cholesteric mesophases 2−76306
hemibody and total body irradiators, fixed, single source: review of dosimetry 2−83655
HF ventilation, promising new approach to mech. ventilation 2−88685
Higgs boson phenomenology in standard SU(2)×U(1) electroweak model 2−107572
high energy neutrino interactions, expt. advances 2−64312
high energy physics with polarized proton beams, book contrib. 2−54224
high level waste vitrification, computer thermal anal. for storage canisters, review 2−74823
high speed photography techniques and appls. 2−101483
high-beta stellarator, book contrib. 2−76181
high-energy facilities in Europe 2−80356
high-energy hadrons, photons and leptons interactions with nuclei, quark-parton model 2−95796
high-energy lasers, introduction 2−75553
high-spin states, nuclear states and shapes 2−64349
high-spin states in nuclei and heavy-ion collisions 2−84944
highly ionised atoms, spectra *(Japanese)* 2−113914
histology, analytical, use of SIMS, review *(French)* 2−111825
holography, reassessment of appls. 2−108827
HVEM, phys. principles and materials appls., review 2−113050
hypernuclear spectroscopy techniques, Λ- and Σ-reactions, review 2−59278
IAEA in Vienna, dosimetry programe 2−73360
ideal fluid, analogy with point particle classical mechs. 2−114753
II-IV-V_2 compounds, bond structure of pseudodirect bandgap systems, review 2−66448
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
II-VI semiconductors, bulk and epitaxial growth, impurity role 2−116347
II-VI semiconductors, clean and adatom treated surface props. 2−110115
II-VI semiconductors, optical props. of 3d transition metals 2−110286
III-V compound semiconductor MIS interfaces and their applications *(Japanese)* 2−87400
III-V semiconductors, role of deep states and defect reaction *(Japanese)* 2−92524
imaginary compounds, Kurnakov's concept 2−99394
implantation telemetry *(Japanese)* 2−57941
in-beam production of labelled cpds. 2−100124
incommensurate-commensurate phase transitions in two dimensions, review *(Japanese)* 2−81934
Inconel alloy 600, stress corrosion cracking in PWR boilers 2−80124
indentation hardness, current development review 2−55522
India weather and climate rel. to solar activity 2−88976
inelastic ion-surface collisions, conf., Feldkirchen-Westerham, Fed. Rep. of Germany, (Sept. 1980) 2−74161
information mechanics, overview 2−94985
inhaled aerosols: lung deposition and clinical appls. 2−83588
inorganic chemistry, shock induced 2−78098
inorganic substances, shock compressed, chem. effects 2−78097
inorganic synthesis under shock-wave compression 2−78099
instanton type soln. in chiral models 2−95693
instrument science and technology literature 2−69163
insulating materials, sputtering by fast hevy ions 2−99239
insulator surfaces, electronic struct. of point defects, review 2−61539
integrated optics, organic and amorphous materials, fabrication techniques, review 2−65408
integrated optics, single crystal materials, fabrication techniques, review 2−65409
integrated optics, waveguide fabrication, glass and $LiNbO_3(TaO_3)$, ion exchange and diffusion processes 2−65411
intercalation compounds of semiconductor/dielectric/organic mol., struct. *(Russian)* 2−60966
interface analysis of solar energy conversion technologies, ion etching limitations 2−88413
interface problems in interface problems for quantum and thermal systems, review 2−88456
interface problems in solar energy conversion technologies, solid-liq. interfaces 2−87043
interface problems in solar energy conversion technologies, solid-gas interface meas. techniques 2−87044
interface problems in solar energy conversion technologies, mech. integrity of solid-solid interfaces 2−87077
interface problems in solar energy conversion technologies, surface analytical techniques 2−88412
interfacial phenomena and features in solar materials 2−88458
interferometric strain/displacement gauge appls. 2−86245
intermediate energy nuclear reactions by p, d, α on light ions 2−54371
International Labour Organisation, review of work rel. to protection of workers against ionising radiation 2−73375
internuclei magnetic interactions, anisotropy in condensed matter, review 2−110314
interstellar cloud fragmentation and collapse, protostar form. *(Polish)* 2−106879
ion channeling techniques for defect and surface studies, review 2−71535
ion impact on surfaces, excited state formation, review 2−67177
ion implantation, amorphous processes, review 2−103788
ion mass spectrometer appl. in ion composition meas. in space 2−94612
ion storage for high precision spectroscopy 2−90741
ion-beam surface interaction, radioactive isotope prod. review 2−103859
ion-induced Auger electron emission from solids 2−82990
ion-molecule collisions, internal state distrib., fluorescence and IR spectroscopy study 2−96694
ionic solids, binary, many body interactions, review 2−98209
ionic transport, in amorphous solid electrolytes 2−56250
ionospheric scintillations, global morphology 2−73772
IR fibre losses 2−97181
IR fibre optics, prospective vitreous materials 2−97183
IR image to visible upconversion systems, designs and optimisation 2−102874
ISIS program, contrib. to ionospheric studies 2−84013
ISX-B Tokamak limiters using stainless steel, TiC, TiB_2 and B, operational history 2−74900

reviews continued
Japanese bomb dosimetry 2−78447
jet production, expt. results 2−107648
Josephson junctions, chaotic behaviour 2−110538
Jupiter magnetosphere, VLF and LF emission 2−106430
Jupiter-Io binary magnetosphere 2−79016
kaon-nucleus interactions and hypernuclei, review 2−54444
Kerr-like phase conjugators, transient response 2−70613
kinetic theory of gases *(Spanish)* 2−65678
Kosterlitz-Thouless transition, review *(Japanese)* 2−81933
Kramers-Kronig relations for material optical consts. calc. 2−93146
laminar flow, over hemispherical headforms, separation bubble, cavitation inception 2−60593
laminarescent, relaminarizing and retransitional flows 2−114773
landscape evolution 2−111927
Langmuir-Blodgett films on semiconductors 2−56715
large N limits as classical mechanics 2−79427
laser annealing of implanted semiconductors 2−115282
laser cryst., physics and spectroscopy, stimulated emission, cascade schemes 2−80973
laser Doppler velocimeters 2−114953
laser radiation interaction mechanisms with ocular tissues, human exposure limits implications 2−100059
laser scanning microscopy, basic principles and advantages 2−89803
laser speckle subjective method, appl. to solid mechanics problems 2−91354
laser spectroscopy, parallel detection technology 2−112996
laser surface alloying, state of the art 2−116609
laser window materials for use at 1.3 μm, survey 2−60195
laser-based material processing 2−90913
laser-based photochemical and photothermal processes, review 2−93803
laser-guided electric discharges in the atmosphere 2−103276
lattice defects study by channelling 2−71532
lattice gauge theory, Monte Carlo calcs. 2−53916
lattice gauge theory, Monte Carlo simulation 2−79733
LEED, review of state-of-the-art 2−109640
lenses, distributed-index, aberration evaluation and reduction 2−75648
Lie-admissible algebras, construction 2−74622
Lie-admissible algebras, history and methods 2−74621
light ion bombardment, simulation of neutron-induced mech. prop. changes 2−103864
lightning, electromagnetic interaction with aircraft 2−83896
linear wave equations 2−107122
liquid crystal binary mixtures, thermal props. 2−103605
liquid crystals, thermotropic, diffusion 2−71685
liquid He surface, low-dimensional electron systems *(Russian)* 2−98361
liquid-liquid phase diagrams, D isotope effects 2−66193
liquids, adsorbed solutes, bubble motion, surface activity 2−60617
liquids, microdynamic processes *(German)* 2−55822
liquids, partial struct. factor determ. 2−97889
liquids, US power and cavitation meas. methods, review 2−70791
lore of large numbers, historical and background to Anthropic Principle 2−63793
low dimensional magnets, NMR, review *(Japanese)* 2−82734
low energy ion scatt. from solid surfaces, neutralisation effects 2−77663
low P_T physics from cosmic rays 2−112287
low-dimensional magnetic systems, magneto-optical effects, review *(Japanese)* 2−82831
low-energy electron diffraction for surface structure analysis 2−76793
low-temperature physics near 0K 2−107330
low-temperature refrigeration, review and perspective for future 2−112912
lunar laser ranging, general relativity fourth test 2−89607
macromolecular metals and semiconductors: a comparative study 2−56567
macroparticle accel. for controlled thermonuclear fusion 2−96304
magnetic energy storage and conversion in the solar atmosphere 2−84210
magnetic fusion devices, ionisation gauges for press. meas., review 2−84655
magnetic fusion devices, press. and gas flow meas. techniques 2−55789
magnetic fusion reactors, book contrib. 2−76184
magnetic mirror devices, book contrib. 2−71254
magnetic ordering in solids 2−110586
magnetically confined plasma, atomic-collision data for diagnostics 2−97798
magnetomechanical damping and US attenuation, review 2−56906
magnetosphere, plasma and energy flow theoretical descriptions 2−58205
magnetosphere convection causes, review of developments during International Magnetospheric Study 2−112261
magnetosphere field aligned currents and polar mag. disturbances 2−117532
magnetosphere ion composition 2−112262
magnetosphere ionosphere electrical coupling, IMS satellite obs. 2−112223
magnetosphere micropulsation, correl. of satellite and ground data 2−63181
magnetosphere plasma wave research in International Magnetospheric Study 2−112265
magnetosphere polar cap ULF/lower ELF EM pulsations 2−112260
magnetosphere VLF and LF emission review 2−106430
magnetospheric mag. pulsations of low-freq., generation mechanisms 2−63184
magnetospheric micropulsation control by solar wind 2−63185
magnetospheric micropulsations, review of multisatellite obs. 2−63182
magnetotactic bacteria 2−116941
manned space flights, overview of endocrine and metabolic changes 2−62786
Mars, reference atmos. model 2−94632
massive neutrinos 2−74680
massive stars mass loss and evolution 2−68748
materials, shear stress and spall strength under shock loads 2−83213
mathematical modelling 2−81328
MBE, origin from three temperature method 2−77743
measurement quality assurance and accuracy, Rumanian Inst. of Metrology review *(Rumanian)* 2−74377
medical application of NMR, imaging methods 2−117052
medical applications of NMR 2−111769
medical devices, creation and development prospects 2−78486
medical imaging by NMR, review of Aberdeen phys. and biological programme 2−78409
medical imaging techniques survey 2−78400
reviews continued
medical imaging technology *(Japanese)* 2−105825
medical instruments using microprocessors 2−83686
medical US, Doppler techniques, review of current status, book contrib. 2−111761
medical US, progress, reviews and comments, book 2−107023
medical US, safety and biological effects, book contrib. 2−111729
medical US and its various modes of use 2−88641
medical US echo data, developments in computer processing 2−88634
medical US imaging 2−117038
mesic molecules and muon catalysed fusion 2−108744
meson degrees of freedom in nuclei 2−59253
meson production reaction by p, d, α on nuclei 2−54370
metal, solution composition and electrode potential in pits, crevices and cracks 2−99606
metal film, ion plating on plastic substrate 2−116386
metal films, mol. beam condensed, elec. and supercond. props. *(Russian)* 2−56726
metal layers, amorphous phase form. by mol. beam condensation, prep. and struct. *(Russian)* 2−56381
metal powders, phonon echoes *(Japanese)* 2−115375
metal surface, O_2 adsorpt. and oxide form., photoemission studies 2−116331
metal target, kinetic ion-electron emission 2−77648
metal-insulator transitions 2−92472
metallic epitaxial growth on metals 2−110187
metallic glasses, hyperfine fields, review 2−104324
metallic glasses, preparation, props., struct. and appls. 2−97930
metallic glasses, review of applications *(Hungarian)* 2−104558
metallic glasses, struct. studies by positron annihilation 2−103646
metallic melts, vibration viscometry, review 2−103230
metallomacrocycle cofacial assembly, elec. conductive polymer 2−56569
metalloplastics−high conductivity materials 2−56563
metals, anelastic relax. of point defects 2−56082
metals, electronic props. of point defects, review 2−92519
metals, FCC, dechannelling by defects and on lattice site location of H 2−66097
metals, grain boundary struct. review 2−60997
metals, positive muon probe appls. 2−72397
metals, purity examination, by residual elec. resistivity method, review 2−116638
metals, simple, electron energy loss, review 2−57222
metals and alloys, fatigue crack growth, effect of vacuum, review 2−93600
metals and alloys, yield strength *(Chinese)* 2−62165
metals industries, US applications 2−62321
meteorological lidar developments, review 2−106335
microcrystalline solids, STEM appls. 2−71300
microdosimetry, role in radiobiology 2−105802
micropulsations in International Magnetospheric Study 2−112266
microstructural aspects of superplasticity 2−83182
microwave and radiofrequency applicators thermal effectiveness and safety evaluation 2−62718
mid-latitude ionospheric thermal plasma, dynamic interaction with plasmasphere 2−83987
mirage in the laboratory 2−84411
moire fringes 2−96822
moire interferometry developments, in-plane displacements determ. 2−84694
moire topography, review from birth to practical appl. 2−95448
molecular and atomic beam scattering from surfaces 2−105034
molecular emission spectrometry using heated cell, review 2−73027
molecular mesomorphism, concept of superpositional state 2−76289
molecular structures, calculation methods, review 2−65108
monomode fibre long-wavelength transmission, components and systems review 2−55340
Monte Carlo simulation technique for elementary particle theory 2−79855
multi-exciton complexes 2−110264
multilayer struct., thermal methods for NDT 2−57574
multimode optical fibres *(Spanish)* 2−70683
multiwire proportional chambers, low-pressure, recent progress 2−90352
muonium chemistry 2−65113
muscle fibres, skeletal, intra- and extracellular action potentials, volume conductor model 2−67985
narrow band-gap semiconductors, crystal growth, review 2−93390
narrow gap semiconductors, interfacial and surface energy bands 2−92719
narrow gap semiconductors, state-of-the-art review 2−92432
natural lightning, EM interaction with aircraft, exptl. data and modelling review 2−83892
natural-circulation solar-energy stimulated systems for heating water 2−111583
NDT, nuclear power stations 2−67718
near-Earth UV environment, review of obs. 2−117513
negative muons in matter, at. and mol. aspects 2−59978
nematic liquid crysts. and their mixtures, alignment mechanisms and procedures 2−55832
neonates, thermal management, clinical appraisal 2−105850
nerve active membranes, elec. network modelling 2−105688
neuron membrane models, brief review 2−105692
neutral beam heating on T-11 Tokamak, IV Kurchatov Institute research review 2−81497
neutral-beam injection, book contrib. 2−76147
neutrino, mass and oscillations, exptl. searches 2−74681
neutrino mass in elementary-particle physics and in big bang cosmology 2−101627
neutrino oscillations status 2−79788
neutron detection and monitoring methods and their problems 2−90316
neutron irradiation defects, annealing 2−109840
neutron irradiation effects on alloy superconductors [for fusion reactor magnets] 2−110553
neutron optics, fundamental aspects 2−54700
neutron transport theory, approximation methods 2−74787
neutron weak interactions 2−69460
neutron-nucleus reactions at 14.7 MeV, cross sections 2−64398
Newton-Raphson eqns., MCSCF calcs. 2−108345
NMR, wide-line, and relax. processes in ionic and mol. solids 2−116072
NMR imaging techniques and appls., review 2−117049
NMR medical imaging 2−83625
non-equilibrium thermodynamics, review *(French)* 2−63948

reviews continued
nonequilibrium behaviour of polymer glasses 2−60892
nonlinear optics and spectroscopy techniques, review 2−97083
nonlinear oscillators, chaotic response 2−107246
North Sea, artificial radioactivity 2−58085
nuclear and particle physics, annual review, book 2−53436
nuclear arms race, technical and political aspects 2−107030
nuclear components, structural anal., practical anal. of ratchetting 2−113585
nuclear data sheets, May to Aug. 1981 references 2−89475
nuclear density distrib. 2−59230
Nuclear Energy Agency of the OECD, activities rel. to radiological protection 2−73374
nuclear eqn. of state study in high-energy heavy-ion collisions 2−84988
nuclear fission products, clinical aspects and pathogenesis of acute damage resulting from exposure *(Russian)* 2−62687
nuclear fuel cycle safety 2−102092
nuclear imaging, new perspectives 2−78427
nuclear magnetic substrate populations survey 2−64357
nuclear medicine, picture processing, computer appls. 2−100099
nuclear medicine instrumentation performance and quality control including gamma cameras 2−94194
nuclear medicine pulmonary imaging advances, review 2−94202
nuclear power, plant components, nondestructive evaluation 2−57587
nuclear power reactors, multicycle refuelling, multiplication factors 2−80157
nuclear power stations, seismic deisgn 2−96237
Nuclear Regulatory Commission, research on structures, materials and mech. engineering 2−96100
nuclear track detectors, use in radiation protection 2−108137
nuclear track detectors appl. in biology and medicine 2−68217
nuclear track emulsion methods, short-lived particle study appls. 2−64789
nuclear waste management, scale considerations 2−102056
O-type and related stars, radio and IR emission from stellar winds and circumstellar shells 2−63415
O-type stars, optical review 2−63414
occupational exposure to ionising radiation, low level, epidemiological methods for assessing risks 2−117146
ocean power source, using tropical sea thermal surface differences *(German)* 2−105586
ocean scour, fluid mechanics 2−83840
oceanic acoustic deep-scattering layers, review of obs. 2−78703
oil and gas prospecting by seismic refl. method, review 2−105978
one-dimensional conductors, radiation effects on cond., review 2−71496
one-dimensional disordered system, electron localisation and hopping cond., review 2−98594
one-dimensional disordered systems, theories of electrons, reviews 2−76878
one-dimensional magnetic systems, neutron scatt., review *(Japanese)* 2−82568
one-dimensional systems, exact solns., review *(Japanese)* 2−82554
optical beam phase conjugation by stimulated backscatt. 2−70621
optical biotelemetry *(Japanese)* 2−57888
optical bistability and related devices 2−108941
optical bistability instabilities, transform from CW to pulsed 2−102856
optical coatings, energy related device appl. 2−81037
optical component production line grinding and polishing equipment 2−97248
optical data processing status review, effects of basic research finding cuts 2−60029
optical engineering, coherent approach 2−108993
optical fibre communications fundamentals, book 2−106991
optical fibre development, low and high-birefr., polarisation props. 2−65372
optical fibre fabrication, recent progress waveguide appl. *(Japanese)* 2−91071
optical fibre LED coupling *(French)* 2−97225
optical fibre sensor technology, state of the art 2−81094
optical fibre sensors 2−91075
optical fibres, middle IR, applications, review 2−65381
optical fibres, radiation resistant, recent progress 2−114434
optical generation of sound: nonlinear effects 2−72452
optical glass, optical properties 2−60198
optical guided-wave components, passive 2−75679
optical image assessment methods, introductory survey 2−114199
optical phase conjugation, historical perspective, nonlinear interactions and appls. 2−70612
optical single-mode fibre design, materials, fabrication and performance developments 2−65375
optics, development 2−55059
optoacoustic sources of sound 2−114595
optoelectronic integration in integrated optics, review 2−65410
optometry, role in vision research 2−112633
optothermal IR spectroscopy 2−58922
order-disorder transitions on surfaces, classification, review 2−92323
organic compounds, electron donors and acceptors *(Russian)* 2−59969
organic compounds, shock-induced chemistry 2−78101
organic conductors, librons, review 2−86802
organic conductors, review *(German)* 2−92597
organic conductors and superconductors, review 2−115734
organic materials, cryoprotection, electron microscopy with cold stages 2−113080
organic metal, quasi-one-dimensional, stabilisation of metallic state *(Russian)* 2−61453
organic molecular crystals, mobilities 2−92622
organic substances, shock wave chem. 2−78100
origin of chemical elements, theory of stellar nucleosynthesis *(German)* 2−94877
Palaeogene ocean circulation and climate 2−62993
paramagnetic host, impurity ESR 2−98941
paramagnetic ions doped in paramag. hosts, EPR studies, review 2−116060
partially coherent sources, radiant intensity 2−75519
particle detectors 2−85498
passive microwave remote sensing of Earth from space 2−106362
percolation clusters, scaling props., lattice animal theory 2−63934
personal retrospect and prospect 2−101108
perturbative QCD and parton model 2−59109
perturbative QCD structure 2−54054
phosphorite sedimentation in Cretaceous and Cainozoic oceans 2−62948
reviews continued
photoelastic holography for stress field visualisation, review of techniques 2−86246
photoelastic integrated methods for stress determ. in axisymm. bodies 2−103129
photoelectrochemical photovoltaic solar cells, eval. of various configurations 2−99816
photoelectrochemical solar cells, review 2−116839
photoelectron spectroscopy, angle resolved UV, electronic band struct. determ. 2−111020
photoemission into electrolytes from metals, as solid state and interfacial physics technique, review 2−62041
photoluminescence of crystals with quantum yield greater than unity 2−82887
photorefractive materials, phase conjugation, real time optical processing and dynamic holography appl. 2−65312
photosensitive semiconductor materials, solar photovoltaic conversion and xerography appl., review 2−65326
phototherapy in newborn jaundice, meas. and monitoring 2−105814
photothermal solar energy conversion, thin films appl., review 2−105595
physiological stimulators, from elec. fish to programmable implants 2−57919
picosecond optoelectronics advances, photoelectron switching 2−115808
piezoelectric crystals, for SAW 2−99057
piezoelectric crystals, SAW on cylindrical surfaces 2−98417
piezoelectric relaxation 2−87676
pion prod. models and quark model of physics at short distance 2−79987
pion-nucleus interaction theory 2−54446
pion-nucleus interactions 2−54443
pion-nucleus interactions 2−54445
pionic and Δ(1232) degrees of freedom in nuclei 2−59339
pionic nuclear excitations 2−79956
PIXE sample characterization, review 2−111523
planet atmosphere-solar wind interactions 2−100695
planetary nebulae, bubbles from dying stars, review 2−68878
plasma, theoretical aspects, book contrib. 2−71092
plasma diagnostics, X-ray and particle meas., book contrib. 2−71264
plasma inertial confinement, book contrib. 2−71256
plasma kinetic theory, book contrib. 2−71093
plasma MHD, book contrib. 2−71129
plasma particle orbit theory, book contrib. 2−71071
plasma physics, book contrib. 2−71066
plasma shock waves, ionising, behaviour in mag. field 2−86434
plasma transport processes, book contrib. 2−71100
plasma turbulence, book contrib. 2−71185
plasma waves, book contrib. 2−71173
plasmatron sputtering, high rate, methods and appls. in microelectronics 2−116365
plasticine, mechanics of impact at normal incidence between rods and plates 2−55515
plastics, conductive, appls. as current and heat conductors 2−56546
plate bending studies using reflection moire methods 2−103126
polarisation in heavy ion reactions, review, book contrib. 2−54351
polarised proton ion sources, cold H techniques 2−75081
poly-N-vinyl carbazole, synthesis, physical and elec. props., book 2−53443
polyacetylene, doped, low dimensional conductor, review *(Japanese)* 2−82333
polyacetylene, I_2 doped, elec. cond. and mag. susceptibility props., review 2−71955
polycrystalline materials, ion scatt. spectroscopy 2−111004
polymer amorphous structure 2−91821
polymer blends, phys. and thermodynamic props., review 2−67450
polymer film deposition in low press. reactive plasmas 2−57287
polymer solid state nuclear track detectors in neutron dosimetry 2−59548
polymers, mech. props., influence of mol. wt. and mol. wt. distrib. 2−111306
polymers, scaling theory appl. *(Czech)* 2−85850
polymers, semi-crystalline, ^{13}C NMR relax. param. 2−87617
polymers, surgical, biodegradation, review 2−88243
polymorphism, thermodynamic props., lattice dynamics and polymorphic transitions 2−109731
porous materials, acoustic characts., wave propag., transmission and reflection 2−65423
position and motion sense, role of joint receptors and other afferents 2−94082
positron computed tomography: present and future design alternatives 2−78438
positron emission tomography: instrumentation perspectives 2−111780
positron tomography and NMR imaging 2−78425
positronium and quantum electrodynamics 2−75473
postural control loop, math. modelling and simulation 2−105632
powders and compact materials, particle shape microscopic anal. methods, review 2−72906
power system technology review, USA developments 2−78168
pre-natal radiation exposure, consequences for post-natal development 2−105787
prolyl residues, struct. characts. 2−73189
prompt gamma-ray spectroscopy and its use in elemental analysis 2−57648
protein crystals, electron radiation sensitivity 2−117018
protein-nucleic acid associations, interactions between functional groups, review 2−83546
proton and nuclear microprobe developments 2−95550
proton stability, review of limits and expt. prospects 2−79868
proton-light ion scatt. at intermediate energy 2−54368
proximity effect tunneling 2−115954
pseudoelasticity, review 2−88141
pulsars, mechanisms, life-histories and relationship with supernovae 2−74003
pulsed magnetic fields, generation, magnetometry and appl., review 2−112934
pulsed Xe discharges in quartz tube, reflected radiation effect 2−108987
PWR, coolant, analytical and sampling problems bibliography 2−58579
PWR pressure vessel integrity, flaw assessment 2−96240
pyroelectric IR sensors, review *(Japanese)* 2−89810
pyroelectric materials, props. and appls. 2−82788
QCD, experimental evidence, review, book contrib. 2−54082
QCD, hadronic structure 2−79832
QCD, higher order corrections 2−54059
QCD at nucl. dimensions, book contrib. 2−113221
QCD jets in leading log approx. and beyond 2−54092

reviews continued
QCD perturbative expansion, general props. 2−79816
QED experiments tests using H, Mu and Ps 2−69403
quantum mechanics, of materials 2−95112
quantum well heterostructure lasers 2−55159
quark effects in nuclear physics 2−95933
quark mass matrix eigenvalues 2−113243
quarks and the light hadrons, review 2−95759
quarks in nuclei 2−79840
quasars, review of activity and assoc. nebulous regions *(Russian)* 2−94857
quasifree knockout of nucleons and nucleon clusters 2−107837
quasirelativistic interacting particle systems *(Russian)* 2−53558
radiation belt, International Magnetospheric Study results 2−112263
radiation damage, in electron microscopy 2−66070
radiation dose to the patient in radionuclide studies 2−94213
radiation resistant magnets 2−96356
radiation therapy, phys. and engng. *(Japanese)* 2−111775
radiation uptake by plants 2−116855
radicals in solution studied by ENDOR and triple resonance spectroscopy 2−116091
radioactive waste disposal site methods for meas. of hydrologic charact. 2−78873
radioactivity applications, historical survey *(German)* 2−84431
radioastronomy, progress, discoveries and prospects after fifty years *(French)* 2−68995
radiobiology for radiotherapy *(Japanese)* 2−117011
radioisotope imaging, new developments in information processing techniques 2−78442
radioisotope researches and appls., 30 years progress 2−58554
radionuclide behaviour in aqueous soln., sorption on hydrated oxides 2−57628
radiopharmaceutical developments for imaging 2−94204
radiowave scintillations in ionosphere 2−73771
recording instruments, recent trends, exploitation of LSI, review 2−89740
red-green colour defects, review of new obs. 2−99974
refrigeration, O_2 liquefaction to nucl. cooling 2−112910
relativisitc heavy ion collisions 2−59387
relativistic charged channelled particles, spontaneous and stimulated γ radiation 2−72521
relativistic heavy ion physics expts. 2−85095
relativistic heavy ion reactions 2−59388
residual stress measurement by selected NDT, review 2−57567
residual vision in the low vision patient, review of concepts 2−116905
resonances in coupled channels in nuclear and particle physics 2−59307
resonances in heavy ion collisions 2−101931
resonances in heavy-ion collisions, expt. status 2−85085
resonant lumped geopotential coeffs., comparison methods 2−94509
RF heating in magnetically confined plasmas 2−76148
RF plasma heating experiments, book contrib. 2−71207
RF plasma heating theory, book contrib. 2−71206
world rivers C, N and P transport 2−106148
rock magnetic anisotropy 2−83808
room acoustics, review of reverberation theories *(French)* 2−70766
Rutherford ion backscattering appls. to surface crystallography 2−111001
s-process theory of nucleosynthesis in stars, slow neutron capture 2−100914
Salam-Weinberg theory expt. verification 2−69396
Sandia Shock Thermodynamics Applied Research Facility 2−74185
SAW materials and devices in Japan 2−99056
scattered light method in photoelasticity 2−65542
scattered light speckle metrology development, strain, displacement and velocity meas. 2−91356
scattering integral equations and four-nucleon problem 2−54127
Schmidt telescope at Tautenburg Observatory, review of 21 years of operation *(French)* 2−94597
Schottky barriers, theoretical models, review 2−115894
science, politics and international atmospheric and oceanic programmes, review 2−112136
SEASAT synthetic aperture radar studies, review 2−89042
self-trapped states of positrons and positronium in dense gases in liquids 2−98595
SEM electron channelling patterns 2−115113
semi-elliptic cracks, crack tip stress intensity factors, crit. review 2−91317
semiconducting MBE films, interface microstruct. props. 2−87082
semiconducting transparent oxide films, preparation, elec. and optical props., review 2−87428
semiconductor, streaming motion and population inversion of hot carriers, crossed elec. and mag. fields 2−98668
semiconductor counter, industrial appls. 2−80394
semiconductor counters, radiation damage 2−80390
semiconductor counters, signal processing, pulse shaping for resolution optimisation 2−80401
semiconductor detectors at room temp., present status 2−90366
semiconductor detectors for lifetime measurements and high space resolution 2−64786
semiconductor electrochemistry, electron energy levels, review 2−110468
semiconductor interfaces, physics and chemistry, review 2−115874
semiconductor laser noise and distortion charact. in optical fibre communication systems 2−65226
semiconductor lasers, picosecond pulse generation, active and passive mode locking 2−114329
semiconductor materials nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
semiconductor modulated struct., electronic struct. and growth, review 2−56683
semiconductor multilayer struct., interfacial relax., ion channelling study, review 2−71536
semiconductor spectra, prospects for near state-of-the-art anal. in laboratory 2−58978
semiconductor superlattices, recent advances 2−98737
semiconductor surfaces, struct. and surface states, review 2−98395
semiconductor thin films, optical processes, review 2−93310
semiconductor-insulator-semiconductor solar cells and photovoltaic effect, review *(Polish)* 2−83496
semiconductors, defect characterisation by junction spectroscopy, review 2−71920
semiconductors, degenerate four-wave mixing, phase conjugation and transient carrier dynamics expts. 2−70615
semiconductors, electron energy loss, review 2−57222
semiconductors, EPR of defects, review 2−72349
semiconductors, free and bound exciton alignment in mag. field 2−82236
reviews continued
semiconductors, nonradiative processes, photoacoustic meas., review *(Japanese)* 2−92116
semiconductors, optical bistability, review *(Japanese)* 2−90973
semiconductors, optical characterisation of deep energy levels 2−56478
semiconductors, phonon and struct. energy ab initio calc. methods, review 2−76612
semimetal systems, transport props., comparison 2−98535
shape memory behaviour 2−88139
shape memory behaviour 2−88140
shock loading, metallurgical effects, review 2−76585
Shock Wave Physics Group (M-6) at Ancho Canyon, review 2−74445
shock waves, laser driven, ultrahigh press., review 2−76587
short laser pulse generation 2−108898
silicide-Si interface electronic states and microstruct. 2−87412
simple liquids and mixtures, mol. theory 2−55821
SIMS, quadrupole-based instruments, design and performance 2−84735
single photon imaging: new instrumentation and techniques 2−78437
sliding wear, unlubricated, of dissimilar metals, review of recent literature 2−57494
small polarons, review 2−98559
Snoek-Koster peaks in BCC metals 2−66123
snow, acoustic properties 2−88928
snow, avalanche flow and surface friction 2−88925
snow, data review for near millimetre wave radio extinction 2−117393
snow, metamorphism of snow flakes in fallen snow 2−88927
snow blizzards 2−88926
snow mechanical properties 2−88924
snow optical properties 2−89005
solar cells, polycryst. thin films, prep. and props., review 2−83488
solar cells, terrestrial amorphous thin film, performance and impurity effects 2−83489
solar cells, thin film, review 2−105568
solar energy conversion, interfaces in solar materials, overview 2−62458
solar influence on Earth's atmosphere and interplanetary space, review 2−94474
solar low energy cosmic rays transport coefficients in interplanetary space 2−106446
solar system plasmas 2−89071
solid gases 2−115121
solid solutions, substitutional, order-disorder transitions 2−98245
solid surfaces, atomic geometry determ. and appl. 2−110095
solid-liquid interfaces, spectroscopic techniques 2−82127
solids, compound, sputtering mechanism 2−77734
solids, core level spectra, electronic relax. effects 2−92713
solids and surfaces, charact. by ion beams and mass spectrometry, review 2−93346
solvent extraction chemistry applied to nuclear science 2−57629
Soviet biosatellites, summary of expts. onboard 2−62781
Soviet radiobiology 1966-80, review of developments *(Russian)* 2−74190
spatial orientation and oculomotor control in humans, some contribs. of touch, press. and kinesthesis 2−57831
spectral electro-optically tuned filters 2−55309
spectrophotometry, components and quality control 2−58914
spectroscopy, high resolution time and freq. domain, of solid state laser materials 2−90907
spectroscopy, laser beam applications 2−95486
speech technology, implications for biomedical engng. 2−111806
spin glasses, exptl. techniques 2−66842
spin glasses 2−56866
spiral galaxy gas dynamics 2−107029
sputter deposition of thin films 2−62063
sputtering of single crystals, models, review 2−99270
sputtering with neutrons 2−105008
star formation, fundamental processes 2−100909
Stark broadening in hot dense laser-produced plasmas 2−71105
steam turbine components, corrosion protective coatings, review 2−62288
steel, austenitic stainless, intergranular SCC, below 100°C, review 2−116593
steel, austenitic stainless, swelling and microstruct., fission-fusion correl. 2−85222
steel, low alloy, Ni effect on hydrogen stress cracking resistance, review 2−116598
steel, stainless, alloy development 2−105115
steel, stainless, martensitic, ferritic and duplex, stress corrosion cracking, review 2−72862
steels, development of knowledge about hydrogen embrittlement *(French)* 2−99542
stellar parallaxes, statistical analysis 2−58264
stellar winds, theory of mass loss from hot stars 2−63394
stellar winds in O-type stars, UV view 2−63385
stellarator fusion plasma confinement 2−91649
stellarators, book contrib. 2−71253
stratosphere aerosols, observation and theory 2−106278
stratosphere aerosols, observation and theory review 2−106278
stratosphere current knowledge 2−88979
streamer chambers, high-resolution, heavy quark spectroscopy appl. 2−64787
stress corrosion cracking prevention *(Japanese)* 2−78010
stretch receptors of the heart *(Japanese)* 2−57833
strongly nonlinear waves 2−97578
structural phase transitions, US study 2−92176
structure of neutral currents, review, book contrib. 2−54018
subband physics with real interfaces 2−61610
Sun and giant planets free oscillations 2−100894
superconducting films, thermodynamic fluctuations of order parameter, review 2−98809
superconducting lens design [for electron microscopes] 2−113081
superconducting material fabrication technology 2−67256
superconducting materials, appls. 2−61678
superconducting materials, multifilamentary, for large scale appl. 2−92817
superconducting materials, phase diagrams 2−67304
superconducting materials, practical 2−66685
superconducting materials and miniature cryocoolers, research in the USA 2−66734
superconducting materials development 2−66684
superconductivity, large-scale applications in the USA 2−66735
superconductivity, research activities in China 2−66687
superconductor, thermoelectric effects 2−115946
superconductors, amorphous, review 2−66686

reviews continued
superconductors, high field, developments in Japan 2−66733
superconductors for supercond. magnets, mechanical props. and strain effects 2−67469
superplastic materials, mech. props. 2−83181
superplasticity, rate controlling deform. mechanisms 2−83183
surface and adsorbate structural studies by photoemission in the $h\nu$=50- to 500-eV range 2−104123
surface barrier detectors, fast timing methods 2−80402
surface coatings deposited by CVD and PVD *(German)* 2−83035
surface crystallography, ion scatt. studies 2−110106
surface electronic struct. 2−82425
surface films and metallurgy related to lubrication and wear 2−109902
surface phase mechanics and thermodynamics *(French)* 2−66341
surface spectroscopies review, for semiconductor characterisation 2−78158
surface structure, extended absorption fine struct. anal., review 2−110097
surface structure, extended fine struct. anal. 2−110970
surface structure determination by LEED, review 2−110096
surface studies using slow positron beams 2−110111
surfaces, atomically clean, of selected elements, prep., review 2−83251
surfaces with large unit cell structures 2−110105
symmetry predicted first-order phase transitions 2−71612
synchrotron radiation, uses, special technologies 2−102314
synchrotron radiation in atomic physics past, present and future 2−70449
synchrotron radiation sources and instrumentation 2−108770
TCNQ salt, DEDMTSF-TCNQ, phys. props., review 2−86656
TCNQ salts, one-dimensional Heisenberg antiferromagnets, with random exchange 2−66858
ternary alloys, conc., onset of magnetism, review 2−56853
Thematic Mapper on Landsat-D satellite, spectral band registration overview 2−112302
theoretical advances 2−69401
theoretical physics *(Russian)* 2−89927
thermal fatigue cracking, appl. of low cycle fatigue data 2−88153
thermodynamic approaches to the problem of strength, review 2−76570
thermography instruments, supplying calibrated temp. images *(German)* 2−69251
thermoluminescence dosimetry for environmental monitoring 2−80349
thermonuclear fusion research, book contrib. 2−69889
thermonuclear plasma, ignition by lower hybrid heating 2−76127
thermosiphons 2−65587
thermosphere gravity waves and travelling ionospheric disturbances 2−106379
thermosphere metastable species photochem. processes 2−89059
three-dimensional cracked body problems, optical methods use in stress analysis 2−103130
tides, theory and tidal energy 2−111932
time-dependent HF, present status 2−113383
tissue substitutes and phantoms in 98 USA medical centres 2−83676
TLD and its appls. 2−59555
$(TMTSF)_2X$ family of organic superconductors, survey of low dimensional phenomena 2−56751
TMTSF salts, supercond. props. 2−110522
Tokamak plasma, He injection, α-particle conc., ignition temp. 2−81502
Tokamaks, plasma diagnostics using lasers, book contrib. 2−71263
top quark mass. 2−79839
topology of non-uniform media in condensed matter physics 2−98070
transcutaneous electrical nerve stimulation 2−100155
transient and furnace annealing of ion implanted GaAs 2−56022
transient annealing techniques 2−67400
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
transition metal dichalcogenides, layered, low dimensional conductors, phys. props., review *(Japanese)* 2−82335
transition metal ions 2−116055
transition metal nitrides, phase diagrams and props., review 2−77813
transition metal oxides with anodic coloration, electrochromic materials and displays review 2−77487
transition metal surface, CO hydrogenation, heterogeneous catalysis 2−105507
transition metal trichalcogenides supercond., CDW's and related phenomena, review *(Japanese)* 2−82256
transition metals, electronic states of impurities of non-transitiuon elements, Fano effect *(Japanese)* 2−71916
transition metals and alloys, omega phase formation, effect on mech. props. 2−77806
transitional nuclei, models 2−90030
transmission and reflection gratings for soft X-ray anal. 2−84757
transmission cathodoluminescence 2−87873
TTF-chloranil, neutral-ionic phase transition, review 2−92592
TTF-TCNQ, one-dimensional cond., phys. props., review *(Japanese)* 2−82331
tunable laser electronic spectroscopy 2−74507
tunable lasers 2−108896
Tunguska meteor fall, 1908 June 30; anal. of physical, chemical, optical and historical impacts 2−106629
turbulence laws for ocean and atmos. application *(Russian)* 2−62969
two-dimensional disordered system, Anderson localization, weakly localized regime 2−61413
two-dimensional electro-optical X-ray detectors survey 2−85474
two-dimensional systems, electronic props. 2−82467
two-phase gas-liquid pipe flow *(French)* 2−55665
two-photon molecular spectroscopy 2−108653
United Nations Scientific Committee on the Effects of Atomic Radiation, review of work 2−73301
units and standards of measurement 2−107288
Universe deceleration parameter determination methods 2−112631
upsilon physics at CESR 2−59166
urban heat islands and pollutant dispersion, models 2−106166
Urey, Harold C. (1893-1981), theories on origin of the Moon 2−112678
urodynamics, principles and methods of clinical investigations 2−94244
US determination of fracture toughness 2−72930
US diagnostic and therapeutic technology, status and development trends 2−62705
US in medicine 2−78404
US inspection, contactless methods and facilities, current status survey 2−62345
US scanners, 'small parts', book contrib. 2−111762
US tissue characterisation and quantitative US scatt. imaging, methods and approaches 2−117041
US tissue differentiation, book contrib. 2−111763
reviews continued
USA biological expts. in space 2−62782
USA manned space flight, first 20 years, biomedical status report 2−62779
USSR manned space missions, medical investigations 2−62780
UV erythema in normal human skin, consistency of studies 2−73306
valence fluctuation systems, systematics 2−56498
variational methods for bound-state and scattering problems 2−84479
ventilation and ventilators, historical review 2−117135
ventricular contraction, models based on time-varying elastance 2−94093
Venus, results of Pioneer Venus Orbiter mission 2−68646
Venus 2−117620
viruses, enveloped, freeze fracture, freeze etching, critical point drying 2−57942
visual research, silent substitution method 2−68227
vitrified radioactive waste, effects of radiation on leach rates 2−102044
volcanic landforms of Earth and Moon, comparison 2−100778
warm clouds precipitation modification 2−94428
wavefront sensing and control aspects in a high energy laser optical train 2−102836
waveguide electrooptic modulators 2−109032
wavelength-division-multiplexed system using LEDs and photodetectors 2−81120
weak interaction theory, comparison with expts., review 2−79811
weak interactions and symmetries 2−59097
whole body doses from ionising radiation for occupationally exposed personnel in Switzerland 2−68151
wiggler and undulator magnets for synchrotron radiation, overview 2−85438
wire proportional counters for mag. spectrographs in Japan 2−90378
X-ray analysis of dislocation structures in deformed crystals 2−91718
X-ray fractography *(Japanese)* 2−78034
X-ray laser research, hydrogenic ions inverted in laser-produced plasmas 2−70550
X-ray laser research, progress and trends 2−108855
X-ray spectrometry, energy and wavelength dispersive, current status 2−79727
X-ray-excited Auger and photoelectron spectroscopy 2−99299
zero temperature, parquet diagram alternatives to variational calcs. 2−104092
$D^{\pm}(D^0)$ meson lifetime meas. 2−79865
$e^+e^-\rightarrow$baryons, model survey 2−64335
e^+e^- physics at PETRA 2−79856
$F^{\pm}$ meson lifetime meas. 2−79865
(γ,p), one-nucleon knockout reactions 2−79998
$lN\rightarrow l'X$, deep inelastic leptoproduction, review, book contrib. 2−54172
Λ_c^+ lifetime meas. 2−79865
μN, multimuon prod. 2−79892
(n,n), optical model anal., review 2−107818
NN, baryonium, NN and dibaryons, expts. review 2−54219
NN, pion prod. theory 2−79905
NN($\bar{N}\bar{N}$), dibaryon reson. existence 2−54200
NN($N\bar{N}$), low and medium energy 2−54199
$NN\rightarrow\pi d(N\bar{N}\pi)$, pion prod., expt. results review 2−79904
νN, structure functions, higher twist phenomena 2−79857
(p,d), one-nucleon knockout reactions 2−79998
(p,π), systematics in pion prod. and absorpt., expt. overview 2−80001
(p,π) on nuclei A>3, pion prod. 2−80000
$\bar{p}p$, toponium prod. and decay charact. study 2−107698
$\bar{p}p$ colliders strong interactions, diffr. and QCD 2−107627
$\bar{p}p(pp)$, 53 GeV, multiplicity distrib. and elastic scatt. study at CERN ISR 2−79915
$\bar{p}p(pp)$, ISR physics, present and prospects 2−107689
(π,p) on nuclei A>3, pion absorpt. 2−80000
(π,X), A>2, reaction mechanisms and models, review 2−59406
(π,X) reaction mechanisms, light nuclei struct. 2−90160
Υ spectroscopy 2−54099
Ag alloys, corrosion, anodic dissoln. and O reduction in aq. media 2−111354
Al-Cu (4 wt.%) single crysts., containing θ'' precipitates, cyclic stress/strain response 2−99495
α-Al_2O_3, corundum, neutron irrad. damage 2−115300
β-Al_2O_3 solid electrolytes, review 2−104055
B_2O_3, vitreous, struct. study 2−109679
Bi, charge carrier drift in external fields, sound amplification, I-V non-linearity *(Russian)* 2−115826
C, adventitious, binding energy of C_{1S} electrons, energy ref. in electron spectroscopy 2−92328
C, diamond-like hard films, deposition and characteris. 2−57307
C, stripper foils, recent development work and meas. 2−108176
CO_2 high-power gas-discharge technological lasers, systems and methods for pumping 2−96986
CO_2 high-power short-pulse laser systems for inertial-confinement fusion 2−75599
CO_2 laser fusion systems, phase aberrations and beam cleanup techniques 2−102816
$Cd_xHg_{1-x}Te$ IR detector developments 2−107406
CdS/Cu$_x$S thin film solar cells, fabrication trends and problems review 2−78223
Co-Fe, mag. props. 2−82652
Cr black plating, present status and appls. 2−62286
Cu stabiliser in supercond. magnet, radiation damage 2−80183
Cu vapour lasers 2−96916
Cu, wrought, engng. fatigue props. review 2−88161
Cu-based shape memory alloys, ageing 2−88144
Cu-Zn-Al, shape memory alloys, review 2−88143
D^-, Lamb-shift polarised ion sources 2−75075
Fe carbonyl based high-frequency magnetic powder materials 2−77331
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Si, elec. steel grain-orientated sheets, commercial production, review 2−83243
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
GaAs, semi-insulating, point defect chemistry, paramag. resonance technique review 2−93005
GaAs/GaAsAl solar cells, technology, charact. *(Spanish)* 2−99799
Ge avalanche photodiodes for long wavelength optical fibre systems 2−81117

reviews continued
Ge, detectors, status and problems 2−90365
H polarised ion sources, ground state at. beam stage 2−75077
H, Stark resonance 2−70185
H^-, Lamb-shift polarised ion sources 2−75075
H+highly stripped ions, electron capture theories 2−54959
HD^+, vibr. rot. spectroscopy 2−80840
$H^+(H^-)$ atomic-beam polarised ion sources, ionisation stage 2−75079
^{3}He, solid, mag. props. 2−115488
^{3}He, superfluid, Fermi liq. theory 2−110078
$^4He(\pi,\pi)$, low energy scatt., few-nucleon structure, review 2−59409
$Hg_{8-\delta}AsF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
HgCdTe, electronic props., MIS IR devices 2−87295
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
$Hg_{3-\delta}SbF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
III-V semiconductors, ion beam gettering, review 2−115310
InGaAs-InP avalanche photodiodes for long wavelength optical fibre systems 2−81117
InGaAsP sources and detectors for the 1.0-1.7 μm wavelength range 2−95467
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2−105068
KH_2PO_4 type ferroelec., instabilities in coupled acoustic and optical modes *(Japanese)* 2−86806
Li_3N, Li^+ conductivity, primary cell application 2−92270
Mo chalcogenides, ternary, Chevrel phase high field superconductors, review 2−66708
NH_3, far-IR spectroscopic line param. 2−70245
NaI(Tl) crystal scintillation spectrometers for increased loads 2−85484
Nb-Ti superconducting materials 2−67255
Ni-Fe, mag. props. 2−82652
PH_3, far-IR spectroscopic line param. 2−70245
(Pb,Sn,Ge)Te, dielectric props., defects influence 2−93101
Rn emissions from U mill tailings, health effects 2−73303
Si, amorphous progress in research and photovoltaic appl. in USA 2−88435
Si as mechanical material 2−92072
Si CVD homepitaxial layer doping, book contrib. 2−72632
Si detectors, status and problems 2−90365
Si, diffused dopant conc. profiles, book contrib. 2−71492
Si, double diffusion processes, book contrib. 2−71731
Si, ion beam gettering, review 2−115310
Si, ion implantation, source feed materials in ion beam technology, book contrib. 2−71483
Si, ion implantation processes, book contrib. 2−71482
Si, laser annealing, review 2−98157
Si, MBE of doped layers, book contrib. 2−72628
Si, neutron transmutation doping, book contrib. 2−71484
Si, O diffusion and thermal donor formation 2−82021
Si, oxidation in O discharges, review 2−88353
Si photovoltaic solar power systems, high performance and specific output, three system concepts 2−111567
Si radiation detector, epitaxial crystal growth appl. 2−90367
Si, self-interstials, review 2−71442
Si solar cells, high concentration, present status, design and performance limiting factors 2−93915
Si:As, substitutional impurity clustering, ion channelling study, review 2−71536
Si:C, effect of C on elec. props. of devices, impurity-defect interaction investig. 2−91994
Si:H amorphous film, glow discharge deposited, heterogeneities and surface effects 2−92420
Si:P, neutron transmutation doping, radiation defects and annealing, review 2−71513
Si-SiO_2 interface morphology 2−56371
Si-SiO_2 MOS system, interface state generation 2−87408
Si-silicide interfaces, electronic struct., review 2−115847
SnO_2:F transparent cond. films., prep. and props., review 2−105068
Ti-Ni-(X), shape memory alloys, review 2−88142
TmSe crystals, valence and phase instabilities, review 2−110307
U, isotope separation using high-power 16 μm lasers, UF_6 multiphoton abso:pt. 2−75453
U mill tailings and closed low-level waste disposal sites, long-term monitoring 2−74800
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452
UO_2 and (U, Pu) mixed oxide fuels 2−107952
YAG pumped tunable dye lasers 2−96940
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZrO_2, structural chemistry 2−97977

revolution *see rotation*

revolving *see rotation*

Reynolds number *see flow*

r.f. amplifiers *see radiofrequency amplifiers*

r.f. heating *see radiofrequency heating*

r.f. sputtering *see radiofrequency sputtering*

r.f.i. *see radiofrequency interference*

RHEED *see reflection high energy electron diffraction*

rhenium
see also nuclei with .....
chemisorption of N_2 and H_2 on densely packed cryst. planes 2−115559
diffusion in W *(Russian)* 2−76739
diffusion of Cr(Fe)(Mo), SIMS study 2−110041
diffusion of U, meas. using solid state nuclear track detector 2−66291
electric field gradients at probe nuclei in Re host, comparison with cond. electron charge shift model 2−56533
electron-phonon interaction in single cryst., point-contact spectroscopy 2−56132
electronic struct. and X-ray emission, relativistic calcs. 2−98532
film, elec. and supercond. props. 2−115941
laser mirros for far VUV spectral region 2−81046
oxidised, thermionic emitters of positive ions 2−57242
surface, (0001), adsorption of benzene studied by thermal desorpt., Auger spectra and LEED between 100 to 300K *(French)* 2−110141
surface, nuclear spin relaxation of alkali metal atoms 2−98991
work function and elec. props. of adsorbed Ba film *(Russian)* 2−61560
$CaF_2:Re^{3+}$, point group crystal field and superposition model 2−92538

rhenium continued
Pt growth, on Rh, and evolution of interface under thermal treatment 2−82152
Pt layer growth, on Rh, O_2 adsorpt. and Rh segregation *(French)* 2−83122
Re:U, dopant diffusion, obs. in solid-state nuclear track detector 2−110039
Re-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
ReI, high-lying metastable states, hyperfine structure and isotope shift 2−113904
Re(0001) adsorbed water layer, stability under electron impact *(French)* 2−76808
$SrF_2:Re^{3+}$, point group crystal field and superposition model 2−92538

rhenium alloys
see also rhenium compounds
Cr-Rh-Zr dil. alloy, grain boundary relax., internal friction study *(Russian)* 2−93546
$EuRh_3B_2$, itinerant mag. ordering 2−104578
Mo-RE (0-50.2 wt.%), surface Ar^+ ion irrad. damage 2−74929
Mo-Re, re effect on void swelling, in-situ obs. in HVEM 2−86743
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
Re-Si, phase diagram and supercond. transition temp., expt. study 2−98784
Re_4Ge_7, chimney-ladder structs., formed by high-temp. and pressure treatment 2−88022
$ScRe_2$, density of states and supercond., low temp. sp. hts. 2−61640
Ta-Re(Mo)(Hf)(W)(Zr), athermal solid soln. hardening 2−99437
Ta-W-Re(Mo)(Hf)(Nb), athermal solid soln. hardening 2−99437
Tc_xRe_{1-x}, isoelectronic HCP, supercond. transition temp. 2−56761
W-Re, single crysts., microhardness anisotropy, Re conc. depend. *(Russian)* 2−67529
W-Re cesiated foil targets heated by laser pulse as electron source for high quality electron beams 2−96358

rhenium compounds
see also rhenium alloys
bond length determ. from X-ray absorption spectroscopy 2−77619
X-ray L_{III} absorption discontinuity, chemical shifts 2−99221
$Ba_2Re_6S_{11}$, synthesis, cryst. struct., and mag. props. 2−55940
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−72105
$Hg_5Re_2O_{10}$, cryst. struct. determ. *(French)* 2−103703
$La_3Rh_4Ge_4$, cryst. struct. determ. 2−91895
$Re_2(CO)_{10}$, high press. phase transitions, Raman study 2−76650
$Re(CO)_5Br$, high press. phase transitions, Raman study 2−76650
ReO_3, press. induced Fermi surface changes 2−76901
$ReOF_5$ mol. struct. in gas phase, electron diffr. study 2−90728
ReP_2O_7, isomorph of ZrP_2O_7, synthesis and struct., X-ray study 2−115196
$Sr_2Rd_6S_{11}$, synthesis cryst. struct. 2−55940

rheology
see also biorheology; plasticity; viscoelasticity
adhesive, dielec. monitoring of bonding process, correl. of dielec. props. with curing thermoset resin props. 2−111449
bitumen, Maxwell-Norton rheological model *(French)* 2−60494
carboxymethylcellulose, aq. soln., bubble dynamics, rheological model 2−60610
cellulose derivatives, thermotropic mesomorphic tendencies and rheological characteristics 2−91774
complex media, modelling technique for mechanical behaviour *(Russian)* 2−55426
composite materials, nonisothermal channel flow laws 2−114748
concrete, chamotte, in high-Al_2O_3 cement, rheological props. 2−57425
creep torsiometer, use in thermorheological charact. of struct. adhesive 2−93693
DEER rheometer method with const. stress for rheological meas. *(French)* 2−65543
diallyl phthalate polymer below gel point, rheology 2−65553
disperse systems, rheological props. at low shear stresses 2−91369
dynamic rheological meas., instrument compliance effect 2−91370
Earth crust, physico-rheological model for large Tangshan earthquake 2−94308
elastomer-filler interaction, filler effect on viscosity 2−57390
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
homogeneous interpenetrating polymer networks, thermal and rheological props. 2−55452
hydroxyethylcellulose, aq. soln., bubble dynamics, rheological model 2−60610
ice in glaciers, flow law 2−58094
liquids, flow in capillary tube, rheological props. determ. from response functions of flow struct. 2−60650
metal beam under bending and tension, rheological effects, steady state creep law *(Polish)* 2−81247
methacrylic and epoxy metworks, thermal and rheological props. 2−55452
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
neutron star rheology, crust superfluid vortex line pinning 2−58378
physics data handbook 2−58565
poly(vinyl acetate), temp. depend. of viscoelastic softening and terminal dispersions 2−99475
polyacrylamide, aq. soln., bubble dynamics, rheological model 2−60610
polyacrylonitrile, solns., rheological investig. using high temp. viscometer *(German)* 2−70888
polycarbonate-PMMA resins, blended melts, temp. influence on flow charcts. *(Japanese)* 2−81373
polyesterionomer, melt rheology, ionic content effect 2−91366
polyethylene, cryst. polymer chemorheology and Young modulus meas. 2−111218
polyethylene, low density, stainless steel non-agglomerating spherical powder filled, rheological anal. of melt 2−114749
polyethylene, mol. struct. uniformity 2−80858
polyethylene oxide, aq. soln., bubble dynamics, rheological model 2−60610
polyethylene-polystyrene blended melts, temp. influence on anomalous flow behaviour *(Japanese)* 2−81375
polyethylenes, chlorosulphonated, solns., rheology 2−70886
polyisobutylene in presence of temp. ramps, shear and elongational stress growth 2−55527

rheology continued
polymer blend, mech. strength and flow behaviour, mixing effect *(Japanese)* 2−83179
polymer blend melts, thermodynamic and rheological props. *(Russian)* 2−76711
polymer blends, melt rheological behaviour 2−109260
polymer filler affinity, rheological determ. 2−91371
polymer melt, blended, flow indices, temp. shift factor *(Japanese)* 2−81374
polymer processing, modelling of nonisthermal processes 2−77800
polymer props., meas., automatic unit for US oscillation propagation velocity meas. 2−60325
polymer soln., viscoelastic liq., bubble, surface tension driven oscills. 2−60581
polymer solns., flow around rotating sphere, normal stresses determ. using electrochemical diagnostics 2−97561
polymer solution, rodlike, flow through fine pores, pore size influence on rheological behaviour 2−76018
polymer solution, stress relax. in double-step shear deforms., stress components eval. 2−97482
polymer stream, elongational flow during film drawing, rheological dynamics 2−114747
polymers, tough, rheological installation for testing in liq. media 2−116645
polypropene, dynamic rheological props. influence on calendering ability 2−55453
polypropene, dynamic viscosity determ. 2−55528
polypropylene reinforced with glycerol-treated mica, rheology, tensile props. 2−111216
polystyrene powder, rheological studies on compaction *(Japanese)* 2−83077
polystyrenes, high impact, melt rheology at high shear stresses 2−109261
porous solids, compressible plastic, determining eqns. 2−65492
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, dynamic viscosity determ. 2−55528
PVC, filled, plasticized, rheological and mech. props. 2−67413
PVC, rigid, wall slip processes, capillary rheometer obs. *(German)* 2−71465
PVC cpds., fusion, processing variables effect, rheological obs. 2−81306
PVC cpds. fusion, lubricants effects, rheological obs. 2−81307
PVC melt, elongational flow behaviour 2−75913
rolling, rheological properties of material effect on stress and strain states 2−99450
soft-sphere crystals, shear-induced melting, thermodynamic props. 2−71621
soil, nonlinear incremental model *(French)* 2−60416
steel, low alloy, rheological props. of ShKh15 2−72778
structural transformations in flowing systems 2−114928
styrene-acrylonitrile thermoplastic melts, glass fibre filled, flow behaviour *(German)* 2−70887
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
suspension, dilute, rheological behaviour, shear rate depend. of flow 2−97620
suspension of rigid rods, bimodal and polydisperse, damped oscillations in viscosity 2−75916
suspension of rigid rods, monomodal, damped oscillations in viscosity 2−75915
suspensions, screening effect, freely moving spheres 2−86249
thermorheology, generalised Lagrangian thermodynamics 2−79513
viscoelastic melt-solid particle system in melting chamber, rheological props. 2−109259
viscoelastic-plastic flow in pipes, rheological props. 2−114904
viscosity measurement using Ferranti-Shirley cone and plate viscometer 2−81412
Weissenberg effect, yield stress and viscoelasticity interaction 2−97483
Ag-Mg, equiatomic, rheological behaviour of β' phase 2−57421
Al_2O_3 suspension, high conc., rheology and binding props. 2−88042
C mesophase, in situ obs., 400-500°C *(French)* 2−76304

rho mesons
chiral bag model, ρ-meson coupling 2−64298
mass spectrum and leptonic decay widths in QCD 2−79836
pair production by accelerated charges ρ-meson prod., pulsars 2−64264
e^+e^- annihilation, π, K, ρ and $\bar{p}$ prod., quark combinatorics calc. *(Russian)* 2−95858
ep, ρ^0 mesons electroproduction cross section 2−54178
$\gamma\gamma\rightarrow\rho^0\rho^0$, cross-section, 1.6 GeV bound state 2−59208
$\gamma\gamma\rightarrow\rho^0\rho^0$, threshold enhancement, possible isoscalar $J^{PC}=0^{++}$ exotic state 2−59206
$\gamma\gamma\rightarrow\rho\rho$, 2^+ glueball effects 2−113237
$\gamma\gamma\rightarrow\rho\rho$, near-threshold cross-section, 2^+ glueball interpretation 2−84931
$\gamma\gamma\rightarrow\rho\rho$, threshold enhancement, low energy vector dominance model description 2−113319
K^-p, 110 GeV/c, $K^{*\pm}$, K^{*0} $\bar{K}^{*0}$ and ρ^0 inclusive prod., cross sections 2−84927
μp, 100, 150 GeV, ρ, ρ' and 0 diffractive prod., mass distrib. 2−95850
pn, 19 GeV/c, ρ^0, $\omega(780)$, f^0, g non-strange meson inclusive prod., structure functions 2−107708
$\bar{p}p$, 6, 9 GeV/c, p and f meson prod., narrow exotic mesons 2−101762
$\rho(770)\rightarrow 4\pi$, π,ω,A_1,A_2 contribs., broken SU(6)×O(3) model 2−113268
ρ^0, production in $pp\rightarrow X$ at 63 GeV/c 2−107706
ρ^0 mesons photoproduction study, H-Be target setup 2−108202
$\rho^+\rightarrow\pi^+\pi^0$ in SLAC lattice QCD theory 2−69455
$\rho'(1600)$ parameters, from $e^+e^-\rightarrow 4\pi^\pm$ width, current algebra calc. using $\tau\rightarrow\pi\rho\nu$ 2−74629

rhodium
see also nuclei with .....
abundance in solar photosphere from Rh I lifetime meas 2−112406
adsorption of NO on Al_2O_3-supported particles, IETS study 2−56343
atom, radiative lifetimes, Coulomb approx. 2−113936
chemisorbed CO, dissociation mechanism 2−57638
core-hole lifetimes, electron spectra determ. 2−57256
dielec. function, empirical band calc. 2−66435
electronic energy bands and optical props. KKR calc. 2−66432
film on n-Si, silicide form., AES study 2−86951
neutron threshold detectors, Rh foil activity determ. 2−113814
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
self-powered neutron detectors, reactivity approach to reactor core diagnostics 2−64563

rhodium continued
surface, (111), acetylene chemisorpt., extended-Huckel calcs. 2−66358
surface, (111), adsorbed small hydrocarbon mols., LEED study 2−76825
surface (100), adsorpt. and coadsorpt. of D_2 and CO, LEED and thermal desorpt. study 2−56354
surface (111), oxidation, impurity effects, EELS and AES studies 2−111353
surface electronic struct., density of states, self consistent local orbital calc. 2−61339
trace quantity determ. by atomic absorpt. spectrophotometry 2−116767
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
AgBr:Rh^{3+}, Raman spectroscopy study of Rh defect centre 2−99118
^{100}Rh, elec. quadrupole interaction and its temp. variation in Be metal 2−56987
Si/Rh bilayers, optical storage by laser writing 2−81036

rhodium alloys
see also rhodium compounds
$Ce(Pd_{1-y}Rh_y)_3$, specific heat, susceptibility and resistivity across the entire mixed valence range 2−56212
$Ce(Pd_{1-y}Rh_y)_3$, intermediate valence and Gd^{3+} ESR 2−56927
$CeRh_3$, mixed valency photoemission study 2−87199
$Ce(Rh_xPt_{1-x})_2$, intermediate valence effects in mag. susceptibility and lattice consts. 2−87200
Fe-Rh, mag. transitions press. depend. and bulk modulus, s-d exchange model *(Russian)* 2−92902
Fe-Ti(Cr)(Mn)(Ni)(Rh)(W), in contact with SiC single cryst., adhesion, friction and wear 2−88199
FeRh, electronic band struct., and mag. order, antiferromag.-ferromagnetic transition 2−82595
FeRh, paramag., ferromagnetic and antiferromag., band struct., muffin-tin calc. 2−82216
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
$Ho_xLu_{1-x}Rh_4B_4$, superconductivity and mag. props., μSR meas. 2−72101
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
Nb-Rh system, thermodynamics and phase equilib. 2−56218
$Nb_{55}Rh_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
Pd-Rh, paramagnetostriction anisotropy meas. 2−98929
Pt-Rh (10 wt.%) surface, blister formation by irrad., exposure and temp. depend. 2−74928
Pt-Rh alloys, field evaporation events as Markov chains, time of flight atom probe study 2−93381
Rh-Cr dil. alloys, low temp. nucl. orientation meas. 2−92546
Rh-Pt (10 wt.%), (111) surfaces, stability of C islands 2−87089
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
$Rh_{0.95}Cu_{0.05}$, surface segregation, AES study 2−110108
$Ta_{55}Rh_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
Zr-Rh, amorphous, thermal stability study 2−104029
Zr_3Rh amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

rhodium compounds
see also rhodium alloys
oxides with anodic coloration, electrochromic materials and displays review 2−77487
rare earth compounds, RRh_4B_4, cryst. elec. field 2−87207
rare earth rhodium borides, RRh_4B_4, mag. transition temp., effect of crystalline elec. field 2−104616
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$ErRh_4B_4$ film, pair tunnelling meas. 2−87454
$ErRh_4B_4$, percolation magnetoresistance in ferromagnetic superconductors 2−56774
$GdRh_4B_4$, cryst. elec. field determ., Mossbauer study 2−87207
$Gd(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
LaRhSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
Nb-Rh-O system, thermodynamics and phase equilib. 2−56218
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
RRh_4B_4, coexistence of mag. order and superconductivity 2−61647
Rh complex, 1,3-propanediaminetetraacetatorhodate(III) ion, circular dichroism 2−110810
Rh complex, cis-$[Rhen_2Cl_2]Cl.HgCl_2$, synthesis and cryst. struct. 2−98028
Rh double oxides $MRhO_2$, MRh_2O_4, $RhMO_4$, and Rh_2MO_6, electronic struct., XPS and ESCA data 2−70338
$(Rh_{1-x}Cr_x)_3Te_4$, paramag. susceptibility, elec. resist. and lattice consts. meas. 2−72136
RhF, Rh-F coupling const. and Rh shielding in Rh square planar complex 2−75320
Rh(I) diene complexes, 5-coord., NMR spin-lattice relax. 2−65014
RhMnGe, cryst. struct. distrib. of metallic elements *(French)* 2−55947
RhMnSi, cryst. struct. distrib. of metallic elements *(French)* 2−55947
$SnRh_4Sn_{12}$ R, (R=rare earth), supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
Th-catalysts, interference effects on Rh 3D photoelectron spectra 2−99297
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
$Y(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439

Richardson effect *see thermionic emission*
ridge waveguides *see rectangular waveguides*
Riemann-Cristoffel tensors *see general relativity; tensors*
Righi-Leduc effect *see thermomagnetic effects*
rigidity *see shear modulus*

ring lasers
active medium, gain coeffs. of opposed waves 2−55218
antiresonant ring mode-locking device, compact device 2−97014
dye CW laser, passively mode-locked, transient absorber gratings for pulse shortening 2−108918
dye laser, passively mode locked, stability and astigmatic analysis of six-mirror ring cavity 2−60120
dye lasers, mode-locked CW, travelling-wave and standing-wave operations comparison 2−114328
dye ring laser, optical bistability effects 2−102826
dye ring laser, powerful single-freq., spanning visible spectrum 2−90916

ring lasers continued
dye ring laser, synchronously mode-locked travelling-wave, subpicosecond pulse prod. 2−114327
frequency characteristic, nonreversible component 2−70589
frequency characts. investig., small perturbation method 2−114321
gas laser, emission fluctuations, active medium excitation shot noise effect 2−114228
gas ring laser oppositely travelling wave freq. diffr. splitting 2−81008
gas ring laser unidirectional lasing region control using mag. field 2−81001
gyro, quantised angular momenta 2−94959
gyro of arbitrary shape and rot. axis 2−94958
gyroscopes, quantum noise, spectrum and signal mean beat freq. 2−86011
gyroscopes, quantum noise 2−86010
homogeneously broadened ring laser, mode instabilities 2−97012
misadjusted spatially inhomogeneous medium, ring laser props. 2−97013
multi-aperture optical cavities, transverse mode struct. props. 2−108911
natural modes for the anal. of optical bistability and laser instability 2−108939
opposing-wave frequencies, diffr. splitting, active element extent and transverse inhomogeneity effect 2−81009
orthogonally polarised opposed waves system 2−108909
quantum noise in unlocked region 2−90943
rhodamine 6G infinitesimal thin-film ring laser 2−108913
semiconductor laser of interferometric and ring types scatt. matrix formulation 2−80963
solid-state ring laser, lasing props., intracavity stimulated Raman scatt. 2−70586
stiff mode locking laser theory, ring laser with saturating absorber 2−75607
tetrafluoromethane high-repetition-rate laser, 16 μm 2−75598
threshold gain study of ring optical resonator with flat mirrors *(Russian)* 2−86013
two-mirror laser, high-freq. automodulation of radiation using nonlinear delayed action unit 2−108916
unidirectional, detuning effects on single-mode instabilities 2−108912
unidirectional, population pulsations in single-mode laser instabilities 2−55108
unstable ring resonator with self imaging aperture, mode anal. 2−108907
He-Ne laser, natural fluctuations of difference between opposite wave freqs. 2−70590
He-Ne ring laser, internally loss modulated, mode locked travelling wave oscillations calc. 2−55227
He-Ne ring laser, secondary mode beat stabilisation 2−114236
He-Ne/methane ring laser, freq. stability 2−65278
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
LiF:F_2^+ centre tunable ring laser 2−85998
$^6Li_2$ molecule, optically pumped ring laser operation 2−75556
NH_3, 12 μm, CW optically pumped, Raman processes 2−65203
Nd:garnet CW laser with nonplanar ring resonator, spatial and polarisation characts. 2−70570
Nd:YAG CW laser with nonplanar ring resonator, temporal and spectral characts. 2−70571
Nd^{3+}:YAG ring laser with diffr. acoustooptic mode feedback 2−97015

ringers *see bells*

riometers *see ionospheric measuring apparatus*

ripplons
jellium surface, charge response through ripplons 2−87164
Schrodinger equation, two-dimens. nonlinear, soliton and ripplon superposition 2−101209
two-component fluid, ripplon dispersion relations, hydrodynamic mean-field calc. 2−58699
Wigner crystal, two-dimensional, RMS electron displacement in quantising mag. field *(Russian)* 2−66464
Wigner lattice, two-dimensional, ripplon limited mobility, expt. 2−56297
He film surface, self-trapped electron, temp. depend. effective mass 2−76776
He surface, two-dimens. electron lattice, phonon-ripplon coupled modes 2−110089
^{4}He, liq., surface state electrons escape rate below 1K 2−61226
^{4}He, superfluid, ripplon scatt. from 2D Wigner lattice, electron lattice mobility meas. 2−61231

rivers
see also lakes
L'Adour, France, water quality study *(French)* 2−94415
Agano irrigation water system, centralised monitoring and control system *(Japanese)* 2−73601
bed load grain size grain size distribution model in FORTRAN IV 2−117366
channel flow, jet model 2−76028
Chao Phraya River estuary, Thailand, heavy metal pollution 2−93954
Chinese rivers, major ion chemistry rel. to erosion 2−100409
Churchill River estuary on Hudson bay, freezing record (1680-1977) from tree ring anal. 2−106302
clay catchment in Yorkshire, England, evapotranspiration and water balance 2−106162
Connecticut River plume in Long Island Sound, hydrodynamics 2−94399
cross-section shape, model of asymmetry 2−83852
La Dordogne, France, water quality study *(French)* 2−94415
drainage network with lakes, topological model 2−94410
estuary salinity intrusions, theory 2−68359
flood peaks, stochastic trigger model development 2−94413
Florida, contrib. of streams to high concs. of ^{226}Ra and ^{222}Rn in W Florida coastal waters 2−78704
Fraser River plume extension into Juan de Fuca Strait 2−83823
Ganges, geoelectrical sounding for aquifers in river alluvium of Allahabad region 2−111862
E Germany lowlands, runoff following snowmelt and rain *(German)* 2−117365
Goksu River, Turkey, flood peaks, stochastic trigger model 2−94414
N.Ireland, fertiliser nitrate concs. in rivers 2−67899
Ishikari River, Japan, runoff due to snowmelt, time lag study *(Japanese)* 2−94403
isotope hydrology of shallow alluvial aquifer Han R. Valley, near Seoul 2−58092
Lake Erie, Long Point Bay pollution rel. to watershed land use 2−83854
Magela Creek, N.Territory, Australia, natural trace metal concs. 2−88930
meander downstream migration process 2−58054
methylmercury/Hg ratios in Canada and Japan rivers 2−93955
Niagara River ice boom influence on local climate 2−94482
Ohio River, water quality data, interactive data management system 2−58095
NE Pacific, coastal fresh water discharge 2−68353
Patuxent estuary, Maryland, USA, colloidal material composition 2−62998
Peconic River, anthropogenic radionuclides, behaviour and transport 2−57746
Pecos River, Texas, Holocene and present flood record from archaeological/geomorphological evidence 2−78705
pollutant discharge site, position for optimum dispersal 2−57744
Polomet, Russia, flood model using radar rainfall data 2−100411
Potomac estuary (USA), wind driven circulation 2−73584
Ravenglass estuary, surface sediments, γ-emitting fission products 2−83528
runoff and runoff variations in periglacial river systems in Central Iceland 2−94401
runoff increase during deglaciation, rel. to assessment of global meltwater spike 2−94395
runoff model incorporating radar data on rainfall 2−100411
Saguenay Fjord, Quebec, transport mechanism for ^{210}Pb, ^{137}Cs and Pu fallout radionuclides through fluvial-marine system 2−99856
W Scheldt estuary, Belgium, water quality study 2−105612
Severn Estuary, suspended sediment front 2−58082
Surkhob River, Garm polygon, correl. between water level oscills. and geomag. vars. 2−73481
Takaka Valley, New Zealand, groundwater flow 2−73604
Tama River, chemical study, water temperature, pH value, and redox potential determ. *(Japanese)* 2−117371
Tama River, Japan, water temp., pH and chem. composition obs. (1972-73) *(Japanese)* 2−73606
Tamar Estuary, SW England, sediment transport and chemistry 2−106139
Tay Estuary, Scotland, Landsat multispectral scanning imagery 2−100386
transverse mixing models, parameter identification 2−58096
tree removal influence on streamflow in Oregon, USA 2−117380
SE United States, river discharges rel. to ocean currents along nearshore frontal zone 2−83829
valley topography model 2−73595
volcanic ash pyrolysis of plant material affecting water composition 2−106051
water, real equilib. temp. and instantaneous cooling velocity 2−75844
water quality data, interactive data management system 2−58095
water quality modelling, random differential eqns. 2−78264
Yamuna, India, floods, rainfall and assoc. synoptic situations anal. 2−111979
York River, Virginia, destratification due to estuary-subestuary interaction 2−106143
C, N and P transport by World rivers, review 2−106148

RKKY interaction
alloys, binary, mictomagnets, susceptibility and sp. ht., Monte Carlo calc. 2−92909
Anderson model, two-impurity, thermodynamic scaling theory 2−66408
dilute magnetic alloys, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
ferromagnetic semiconductor, homogeneous state instability 2−92932
magnetic dilute alloy, spin glass behaviour 2−92937
mixed valence compounds, Goldstone diagrammatic approach 2−61416
mixed valence spinless model, renormalisation group technique appl. 2−56508
spin glasses, numerical simulation studies 2−116016
spin glasses, order parameter and static susceptiblity in mean-field theory 2−72237
Ag-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Au-Fe, spin glass alloy, vol. and shape magnetostriction 2−104674
($Au_{1-x}Cu_x$) Mn spin glass alloys, low-field magnetoresist. 2−82323
Ce compounds, magnetic exchange interactions 2−92894
Cu, spontaneous nucl. ordering at nK temps.? 2−115983
Cu-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Mg-Mn, dilute, cryst. field effect on magnetisation 2−82660
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
Zn-Cr, dilute, cryst. field effect on magnetisation 2−82660
Zn-Mn, dilute, cryst. field effect on magnetisation 2−82660
ZnMn, dilute mag. alloy, spin glass behaviour 2−92937

road traffic
annoyance/noise level relationships for rail, air and road traffic 2−97284
community noise impact indicators 2−62530
Guatemala City, effect of traffic density on atmospheric Pb concs. 2−105622
Los Angeles, CO exposure on commuter routes 2−111597
low frequency traffic noise, prediction 2−97278
noie, dynamical estimation method of objective noise under background noise *(Japanese)* 2−97288
noise, annoyance, mathematical modelling and sound proofing of vehicles 2−57756
noise, power levels of vehicles and noise exposure statistics *(Japanese)* 2−97289
noise, time varying meas. and prediction of annoyance 2−111602
noise field analysis 2−109115
noise levels in the year 2000 in an urban environment, prediction models *(French)* 2−70761
Norwegian national traffic noise abatement programme development 2−60296

road vehicles
see also automobiles
compressed natural gas as fuel for fleet vehicles 2−111535
sound proofing, and mathematical modelling of road traffic noise 2−57756

robots
see also artificial intelligence; industrial robots
micromanipulators with high frequency vibratory drive *(Russian)* 2−53744

Rochelle salt
deuterated, optical indicative and birefringence props., 42 to 318K *(Russian)* 2−61869
dielectric const. var. in strong mag. field 2−110743
ferroelectric, acoustic emission, threshold elec. field 2−92701

Rochelle salt continued
ferroelectric, Curie points, temp. variation of thermocurrents study 2−72436
ferroelectric, dynamic study 2−56104
nonlinear resonator, period multiplication, chaotic behaviour 2−99062
$Gd_2(MoO_4)_3$, electromechanical resonances for phase transition studies 2−87702

rock magnetism
see also palaeomagnetism
anorthosite, magnetic anisotropy and other mag. characts. 2−62952
Armenian porphyrites, thermomag. remanence rel to geomag. field strength in Late Jurassic 2−117196
basalt, mag. anisotropy and rel. to other mag. characts. 2−62952
blocking temps., field depend., coercive force data 2−58039
charnockites of Palni Hills, NRM study 2−105928
country rock magnetisation effect on mag. anomalies 2−111922
crustal xenoliths, mag. props. rel. to long wavelength mag. anomalies sources requirements 2−100370
deep-sea basalts containing large titanomagnetite grains, low temp. mag. hysteresis 2−78642
dolerite, magnetic anisotropy and other mag. characts. 2−62952
Georgia Piedmont, USA, magnetisation of Austell gneiss 2−88740
Grenville anorthosites of French River area, Ontario, isolation of early Palaeohelikian rermanence 2−94273
gyroremanent magnetisation due to alternating field treatment 2−117293
haematite diagenetic growth in pelagic limestones, rock magnetism study 2−68311
NW Indian Ocean, rock magnetic nature of geomag. anomaly zones 2−117298
Ivrea Zone, Italy, mag. anomaly due to deep rock magnetisation 2−100241
limestones, marine, magnetic props. 2−106110
mafic and ultramafic rocks of E.Ghats, India, mag. props. 2−88871
magnetic anisotropy of rocks, review 2−83808
magnetite, ferri-paramagnetic transition at high-press. at Curie point 2−106108
multi-component magnetisations, linearity spectrum anal. technique rel. to SE Australia igneous rocks 2−105913
norite, magnetic anisotropy and other mag. characts. 2−62952
partial rotational remanent magnetisation, low rot. speed expts. 2−68334
peridotite, magnetic anisotropy and other mag. characts. 2−62952
piezomagnetic effects in high- and low-fields 2−106109
piezomagnetic effects represented using Preisach diagram 2−106099
post-depositional detrital remanent magnetisation of sediments 2−68335
Preisach diagram for anal. of domain struct. 2−117296
remanence acquisition by Green River, Wyoming, Eocene sediments 2−105917
remanent magnetisation formation and breakdown, effect of mechanical stress 2−106101
sediment post-deposition remanence decay due to drying 2−88868
submarine intrusive rocks, magnetic props. and opaque mineralogy 2−78644
tholeiitic basalts from Gulf of California, Mexico, mag. props. 2−106098
titanomagnetite (Al substituted), thermoremanence of monodomain samples 2−88867
titanomagnetite grains in deep-sea basalts, low temp. mag. hysteresis rel. to domain state and coercivity 2−78642

rocket vehicles *see rockets*

rockets
see also missiles; space vehicles; weapons
environmental effects of space systems 2−88487
gasdynamics of detonations and explosions, conf., Gottingen, FRG (Aug. 1979) 2−58549
plume, lab. H_2O jet simulation radiometric obs. of 752.033 GHz rot. absorpt. line 2−90520
plume detection using satellite-borne submillimetre wave radiometry at thermospheric altitudes 2−94575
re-entry drag deceleration, maximum value calc. 2−112303

rocks
see also geology; minerals; rock magnetism
acoustic emission freq. characts. and microcracking process 2−100371
alkalic olivine basalt, compressional wave attenuation and vel., ultrasonic anal. 2−73543
N Atlantic basaltic magma, hydromagmaphile elements and mantle implications 2−117265
banded Fe formations, Hammersley Basin, NW Australia, rel. to isostasy and struct. of lower crust and upper mantle 2−117256
basalt, mag. anisotropy and rel. to other mag. characts. 2−62952
basalt (submarine), thermoremanence props. 2−88867
basalt from mid ocean ridges, genesis 2−78648
basalt genesis and mantle structure studied through Th-isotopic geochemistry 2−111902
basaltic rocks, weathering stages determ. using thermoluminescence 2−62953
basalts, oceanic Sr and Nd isotope geochemistry 2−73551
borehole rock properties from acoustic modes of propag. 2−111873
Caledonian granite in central England, deep seismic refl. profile 2−88805
carbonaceous siltstone induced polarisation response 2−73542
chalk, elec. cond. rel. to pore aspect ratios 2−117294
chlorides (NaCl, CsCl, AgCl), compressibility and Moelwyn-Hughes parameters at high-press. 2−58040
Columbia River basalts, magma evolution and eruptions 2−83784
Cretaceous-Tertiary boundary, Ir content of red clay rel. to traces of cosmic catastrophe *(Russian)* 2−83820
crustal xenoliths, mag. props. rel. to long wavelength mag. anomalies sources requirements 2−100370
crystalline basement composition determ. from seismic wave boundary vel. 2−106347
deep-sea basalts containing large titanomagnetite grains, low temp. mag. hysteresis 2−78642
S Denison Trough, Queensland, stratigraphic units mapping from seismic survey (1978 to 1979) 2−117302
dielectric constant of brine saturated rock 2−58036
dilatancy and cracking of brittle rock, model 2−88870
eclogite, seismic characts. at 20 kbars 2−117243
elastic models of rock masses with one, two and three sets of joints 2−73546
elastic properties of rocks, anisotropy parameters determ. according to materials from nonlongitudinal obs. 2−106114
electrical resistivity at high temp. and press. 2−106111

rocks continued
electrical spectroscopy at high temp. *(German)* 2−88869
EM emission due to piezoelectric fields during fracture 2−88800
equations of state from ultrasonic wave vels. press. depend. 2−106100
failure along jointed surfaces *(Polish)* 2−83814
failure modes, exptl. studies rel. to finite element anal. of seismicity of N China Plain 2−94305
fault asperities and Borrego Mtn. 1968 earthquake 2−88761
Fife Hills, Enderby Land, Antarctica, crust age and form. from granulite facies rocks dating 2−106034
fluid saturated porous rock, EM wave propag. appl. to dielectric borehole logging 2−78656
fracture, scaling rules appl. to earthquake prediction 2−78580
gabbroic dykelets setting in ophiolitic complex by hydraulic fracturing 2−62955
Gamitagama greenstone belt, southern Superior Province, precise U-Pb zircon ages 2−94316
geologic materials, laboratory meas. of ultralow permeability 2−106364
geological materials identification, appl. of spectroscopic remote sensing 2−112156
geological provinces of India along 18°N parallel, rel. to geomag. anomalies 2−111864
geological samples, apparatus for meas. thermal properties at pressures to 0.2 GPa and temp. to 750K 2−84620
geothermal reservoir, rock-brine interactions 2−67821
granite, acoustic emission due to microcrack generation 2−62907
granite, elec. cond. rel. to pore aspect ratios 2−117294
granite, EM emission due to microfracture 2−88800
granite, mechanical failure precursors 2−106113
granite, thermal diffusivity at mantle and crust condition 2−106107
granites, biotite samples age estimation by Rb-Sr method *(Japanese)* 2−94366
granites, radioactive minerals from SW England, CR-39 α-particle autoradiographs 2−68524
granulite, thermal diffusivity at mantle and crust condition 2−106107
Green Tuff, Isle of Ischia, K-Ar dating rel. to age of volcano-tectonic horst 2−111903
Grenville anorthosites of French River area, Ontario, isolation of early Palaeohelikian rermanence 2−94273
Hadar Formation (Ethiopia), 1.2 Myr record of ^{18}O and ^{13}C changes in late Pliocene Rift Lake 2−68338
Hadar Formation volcanic units, Ethiopia, K/Ar ages 2−62922
high pressure phases, finite strain eqn. of state 2−73544
hydraulic fracture near Earth surface, size limit 2−68336
hydraulic fracturing at New Mexico Hot Dry Rock geothermal site, seismic data 2−57995
hydraulic fracturing microearthquakes, magnitude-seismic moment relationship 2−100304
impactites from El'gygytgyn crater, element abundances rel. to probable comp. of meteorite *(Russian)* 2−63327
impulsive strain effects correl. with detonation parameters of strain-generating explosive charges shock wave effects [-] 2−73541
in-situ fracture mapping using geotomography and brine tracers 2−74798
irreversible magnetic props. in variable field, magnetometer investig. 2−95414
Kilauea Iki Lava Lake melt zone, seismic vel. and thermal convective expts. 2−73520
lamprophyric magma spherulitic crystallisation and ocelli origin 2−88874
Lappajarvi meteorite crater, Finland, geochemistry of impact melt and basement rocks 2−106119
macroscopic props. of disordered media, conf., New York, USA (June '81) 2−94915
mafic, magnetic blocking temps., field depend., coercive force data 2−58039
magmatic rocks, X-ray fluorescence for Sr and Rb determ. 2−83972
mantle properties from oceanic expansion domain hygromagmaphile elements anal. by neutron activation 2−117266
mass meas. instrumentation for Basalt Waste Isolation Project 2−74797
mechanical properties constitutive model 2−106102
Mendip Hills, England, groundwater circulation in Carboniferous Limestone rel. to thermal springs of Bath 2−100407
Mesozoic igneous rocks 2−105913
mid-ocean ridges, rock density distribs. and crustal struct. in tropical zone 2−117263
Mio-Pliocene series of Hellenic sedimentary arc, palaeomag. results rel. to tectonic rot. 2−94278
olivine, grain boundary migration expts. 2−117299
ophiolites, kinematics of oceanic thrusting and subduction from basal sections 2−73530
ophiolites, oceanic crust on-land fragments 2−117284
ophiolitic volcanogenic sulphide deposits, Troodos Complex, Cyprus, Pb isotopic comp. 2−62925
orthorhombic layered rock mass, equivalent elastic moduli 2−73545
Oshima granite, strength and time depend. microfracturing 2−78646
Ozernoe ore node, W Transbaikal, gravity field morphology and structural-metallogenic features 2−57955
Palaeozoic rocks of Caucasus Mountains, palaeomag. investigations 2−117195
permeability meas., transient method, parametric analyses 2−58160
permeable rocks, natural ^3H production 2−100381
petrofabric of rock, correl. with dielectric anisotropy 2−78641
phosphate rocks in Florida, contrib. to high concs. of ^{226}Ra and ^{222}Rn in W Florida coastal waters 2−78704
porphyry Mo deposit, recognition using artificial intelligence program 2−117501
pyroclastic surge deposits from May 18, 1980 eruption of Mount St., Helens, weighted vector anal. 2−94332
pyroclastics, SEM investigations of surface structs. and comparison with irghizites 2−88875
pyrophillite, seismic velocity variations prior to fracture 2−117242
quartz bearing basalts and magma mixing in Diamant-Burgos volcanic system in SW Martinique *(French)* 2−111905
quartz-bearing rocks, mechanical props. rel. to fault zone models and earthquake depth distrib. in United States 2−88751
radioactive waste, geological disposal in Canadian Shield, drill core material, radionuclide sorption 2−90230
Random Formation, SE Newfoundland, age and relation to bounding formations 2−73549
rheology of seismic source zone, appl. to shear stress in Friuli seismic area 2−78557

rocks continued
salt diapirs, discovery on continental margin of N Kenya and S Somalia 2−78653
sandstone, 2−72791
sandstones, thermal conductivity determ. by variable state approach 2−106342
Sardinia, Oligo-Miocene rift sediments rel. to early history of W Mediterranean Basin 2−106079
E Savant Lake-Crow Lake metavolcanic-metasedimentary belt, NW Ontario, U-Pb zircon ages 2−94317
sedimentary, microgeometric modelling, quantitative methods 2−94364
sedimentary, pore fluid, NMR, proton desorption rate 2−117297
sedimentary rock, electrical props., effect of grain anisotropy 2−78643
sedimentary rock lithology correl. with V_p/V_s 2−78571
sedimentary rocks, radioactive minerals from SW England, CR-39 α-particle autoradiographs 2−68524
sedimentary rocks of NW Siberia, prospects of natural gas hydrates 2−58041
seismic attenuation, effect of pore fluids and frictional sliding 2−73459
seismic pulses, rise time meas. 2−105949
shale, simulated by cement mixture, for nucl. waste dumping, thermal diffusivity meas. by Angstrom's method 2−68333
Sioux quartzite fracture energy and compressive stress 2−83809
sphene sample from pegmatite, fission track temp. ages meas. 2−73721
Surat Basin, Australia, sedimentary cycles rel. to global changes of sea level 2−117301
Tahoe-Tioga interglaciation, Sawmill Canyon, Sierra Nevada, USA, intermixed basalt flow dating 2−78830
The Geysers-Clear Lake geothermal field, California, rock fracturing rel. to seismic wave vels. 2−88778
thermal convection above crustal large shallow magma bodies 2−78620
thermal inertia meter for meas. of rock and soil props. 2−94537
tholeiitic basalts from Gulf of California, Mexico, mag. props. 2−106098
tholeiitic basalts on Walvis Ridge, isotope geochemistry rel. to mantle source 2−106015
transmagmatic fluids nature *(Russian)* 2−111908
transversely isotropic rocks, computed seismic waveforms 2−88776
Tudor Gabbro, Ontario, ^{40}Ar-^{39}Ar incremental heating studies rel. to N America Proterozoic polar wander path 2−106022
ultrabasic rocks, thermal diffusivity at mantle and crust condition 2−106107
ultrasonic vibration leading to fissured traces, method for Rn emanation *(Chinese)* 2−62954
underground energy storage in hard rock, geotechnical data base 2−99841
US attenuation in Massilon sandstone and Vycor porous glass, effects of partial water saturation 2−86163
US radiation from crack in strained rock specimen, seismological implications 2−117295
volcanic ash from Mount St. Helens, COS and CS_2 contents 2−78623
volcanic ash from Mount St. Helens 1980 May 18 eruption, laser Raman spectroscopic anal. 2−100343
volcanic rocks from Mount St. Helens, rel. to chemical changes in lake within blast zone 2−88929
Warramunga Group rocks, Tennant Creek Block, Northern Territory, seismic vels. 2−117223
West Siberian Plate, pre Jurassic rocks of different tectonic zones, density variation with comp. 2−83810
Westerly granite, shear fracture energy from post-failure behaviour 2−58037
White Hills Peridotite, Newfoundland, tectonic structs. related to thrusting of ophiolitic complex 2−94365
zeolitic conglomerate, induced polarisation response 2−73542
B mapping using CR-39 polycarbonate plastic detector 2−68522
Pb retention by zircon in granite at elevated temp. and press. 2−93976

Roentgen ray *see X-rays*

rolling
see also cold rolling; hot rolling
austenite, quantitative determ. of mechanisms proceeding during controlled rolling *(German)* 2−57376
cylinder, elastic, supersonic rolling with friction on plane, closed form soln. 2−109253
plane-strain strip rolling simulation by rigid-plastic finite element method 2−114737
polyacetylene, cis-trans isomerisation induced by mech. rolling, report 2−72746
powder, coeff. of external friction calc. 2−116402
pure rolling fatigue conditions, anal. of effect of microstruct. and internal stresses 2−57485
section rolling, shape change parameters analysis method 2−67402
steel, low-alloy, low-pearlite, V addition effect on struct., phase comp., and mech. props. 2−72818
steel, tensile, hot hardness and fatigue props. of type E36 in as-rolled condition *(French)* 2−62214
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
texture development at low-strain and significance 2−67380
texture heterogeneity, modelling and predictions 2−93531
Zircaloy-4, recovery and recrystallisation *(French)* 2−62143
Ag-Cu eutectic alloys, elec. contact performance, effects of microstruct. *(Korean)* 2−62239
Al, commercial purity, microstruct. development during rolling 2−83136
Al, conventionally and shock-wave-deformed, correlation between texture and substruct. 2−99445
Al-Mg, microstruct. development during rolling 2−83136
Al-Zn-Mg, slatiness of fracture after rolling 2−111303
Co-Fe, induced mag. anisotropy, role of stacking faults, expt. study *(Russian)* 2−92897
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu-Be (2 wt.%) alloy strips, residual stress profiles along rolling direction, X-ray diffr. obs. 2−67367
Cu-Si, rolled, microstruct. and texture 2−111204
α-Fe, rolled or hydroextruded, dislocation struct., brittleness and impact toughness meas. *(Russian)* 2−93560
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Ta, wrought, physical-mechanical props., thermal processing effect *(Czech)* 2−57407

rolling continued
Ti-Al-V (6, 4 wt.%), texture hardening in dentate rolling *(Japanese)* 2−77838
W, cross-rolled, tensile and low cycle fatigue meas. 2−72808
W rod, sintered, section rolling analysis 2−67402

rolling mills
contact stress distribution meas., roll load during cold strip rolling 2−64016
temperature control, heat transfer dimensional analysis model applic. 2−99449

root loci
see also poles and zeros
heat conduction problem, multivariable meas. and control strategies appl. 2−60355

roots of polynomials *see polynomials*

rotamers *see rotational isomerism*

rotating bodies
see also angular velocity measurement; centrifuges; gyroscopes; rotation
accreting planetesimals rot. rates 2−84118
artificial satellite rotation at libration points, appl. of circular restricted three-body problems 2−94584
asteroid, three axis ellipsoidal, light curve calc. method *(Chinese)* 2−78973
asteroids, rotation rates rel. to diameter and type 2−73890
asymmetrical solids, damping nutations 2−91227
36 Atalante, rotation period, UBV photometry and lightcurve 2−73887
axisymmetric galaxy, dynamical instability rel. to bar deform. 2−84323
barred galaxies, bulge components rot characts. 2−89349
beam, effects of shear flexibility and rotary inertia on dynamic stiffness and vibrations 2−86219
beam, rotating Timoshenko, transverse buckling 2−86218
beams, centrifugally stiffened, vibr. modes 2−103078
beams, rotating, nonlinear planar bending, theoretical and expt. investigation 2−70850
black hole, charged rotating, classical electron self force determ. 2−79444
313 Chaldaea, synodic rot. period, colour indices and light curve obs. 2−68647
cometary nuclei, prospects for radar obs. 2−94648
cylinder, rotating, non-steady-state thermoelastic stresses 2−55442
cylinder, rotating hollow, finite elastic-plastic deform. 2−55459
cylinders, elastic, at finite deform., wave speeds 2−70842
cylinders, elastic membrane, rot., vibr. anal. 2−63809
discs, membrane-like, anisotropic, spinning, non-linear wave propag. and stability 2−75847
discs, orthotropic, stress distrib., axisymm. computation 2−63808
48 Doris, rotation period, UBV photometry and lightcurve 2−73887
dyon, rotating, Kerr-Newman metric, black hole soln. 2−79447
elements of moving systems, rotation uniformity monitoring 2−91101
ellipsoids of rotation, unclosed, pot. theory, boundary-value problem soln. *(Ukrainian)* 2−58593
164 Eva, rotation period and light curve, UBV obs. 2−58286
fibre reinforced composite discs, rotating, stress state, refined calc. 2−81236
fragments produced by catastrophic impacts into basalt targets, asteroid appl. 2−58287
galaxies, bulge component rotation 2−84315
galaxies, differential rot. and ang. rot. curves 2−74095
galaxies, gravitational radiation effect on secular stability 2−84317
galaxies, rotation, implication of obs. for struct., form. and origin 2−117777
galaxies, rotation curves at large galactocentric distances, interpretation 2−94829
galaxies, rotational standard of rest 2−63648
Galaxy rotation curve 2−63664
giant planets, differential rotation, effect on natural oscills. 2−117628
giant planets, natural oscillations, rot. and ellipticity effects 2−106578
gravitating cylinder, rotation effect on stability 2−84080
gyroinertial measuring systems, reverse problems 2−63819
gyrostat, heavy, steady rot. stability about its principal axis 2−63806
gyrostat, programmed ang. motions in connection with orientation determ. using quaternions 2−63820
Kerr black hole, gravit. radiation theory 2−107201
Kerr black hole, nearby massless fields, low-frequency solns., analytic props. 2−79144
light vertical rot. column with end mass, stability 2−94986
M32 and M81 early type galaxies, vel. dispersion and radial vel., visible obs. 2−63635
macroscopic rotors and gravitational effects 2−63885
magnetised natural satellite with 2:1 resonance, set of steady-state rots. 2−58232
massive objects, rotating fluid discs., struct. and stability, Newtonium formalism 2−100906
metric outside rotating charged object in vector graviton field *(Chinese)* 2−84083
Moon, librations due to Earth's polar and equatorial flattenings 2−106566
NGC 1947, elliptical galaxy, dust lane rot., spectral obs. 2−68895
NGC 2685, 'prolate' galaxy, implications of stellar rotation rate 2−106912
NGC 3504, barred spiral galaxy, rot. curve and circular motions obs. 2−106919
NGC 3992, barred spiral galaxy, disc mass from rot. vel. from H I UHF obs. 2−117741
NGC 4736, spheroidal galaxy, vel. dispersion and radial vel. 2−63635
NGC 6503, spiral galaxy, mass and vel. fields from Hα obs. 2−112560
NGC 6643, rotation and mass distrib. in spiral galaxy 2−117772
nonautonomous system, periodic rotary motions *(Ukrainian)* 2−103014
nonuniform rotating blades, flexibly attached, torsional vibration analysis 2−91298
planetary rigid satellite, rot., gravit. and dissipative forces effects *(Polish)* 2−78990
planets, inclination of rotation axes *(Chinese)* 2−84123
planets rotational motion origin in accumulation model, correl. with solar nebula gravit. instability 2−84120
16 Psyche, pole coords., rot. direction and period *(Chinese)* 2−79002
quasars, rotation of gaseous discs, assoc. spectral line calcs. 2−101087
resonant structural response, analysis using image derotated hologram interferometry and moire techniques 2−86243
rigid body, ang. momentum balance law, Lagrangian formalism 2−58597
rigid body, heavy, fast rot. about fixed point 2−63807

rotating bodies continued
rigid body, heavy, with fixed point, motion, bifurcation set 2−112695
rigid body, permanent rots. about nonprincipal axes in a Newtonian force field, stability 2−114632
ring, rotating, nonlinear harmonic oscills. of gyroscopic structural systems 2−55492
rod, free, elastic, rotating in space, equilib. configs. 2−103018
rotating flexible shaft with end mass, equilib. shapes and stability 2−95000
saw, rotating circular, vibr. mode recording using CRT display 2−103120
Seyfert galaxies, rotation of gaseous discs, assoc. spectral line calcs. 2−101087
shaft, rotating axially loaded homogeneous, stability behaviour 2−75874
shafts, elastic, rotating, stability principles including variational principles 2−103069
shells of revolution, linear node and transitional shell finite element 2−86208
space vehicles, high resolution imaging systems for spin-stabilised Probe spacecraft 2−112301
spiral galaxies, inertial frames determined from rot. laws 2−94582
spiral galaxies of high luminosity, rot. curve 2−63664
top, relativistic, EM interaction, classical theory 2−79350
translational-rotational motion in two axisymmetric bodies, semiregular motion 2−106492
triaxial body influenced by gravitational attraction of sphere, regular translation-rot. motion *(Russian)* 2−84072
Venus, possible irregularities of rot. rate assoc. with struct. of atmospheric circulation *(Russian)* 2−100792
53 Kalypso, synodic rot. period, colour indices and light curve obs. 2−68647

rotation
see also angular velocity measurement; Earth rotation; molecular rotation; optical rotation; rotating bodies; rotational flow; stellar rotation
1982 DV, fast-moving asteroid, UBV photometry rel. to rot. period and light var. amplitude 2−68654
AM 064-741, southern ring galaxy, rot. vels. of nucleus and ring H II regions 2−79216
astronomical objects, density scaling of angular momentum versus mass universal relationship 2−63235
Brownian motion, 2-D, rotation in cosine potential, angular vel., orientational correlation functions 2−58715
elliptical galaxies, stability of periodic orbits in triaxial galactic models 2−79210
fluid cylinder, effect of rotation and twisted mag. field on equilib. struct. 2−106497
galactic discs, differential rot. rel. to spiral density waves generation by central bars 2−101044
galactic spiral structure rotation speed, surface density in plane effect 2−112593
galaxies, depend. of Tully-Fisher relation on Hubble type rel. to use of 21 cm line width as distance indicator 2−63615
galaxies, effect of interstellar gas rot. on shapes of radio sources 2−68883
galaxies, gravitational interactions rel. to origin of angular momenta 2−89384
galaxies, rel. distrib. functions for axisymmetric self-similar model with flat rot. 2−63620
galaxies, two-parameter scheme for evolution and rot. of symmetrical galaxies 2−106896
IC 1727 and NGC 672, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
interstellar clouds, ang. momentum changes due to cloud collisions 2−63567
interstellar clouds, mag. braking of cloud rot. rel. to star form. 2−100909
interstellar clouds cores, evidence for rot. from NH_3 obs. 2−106857
interstellar molecular cloud complex in vicinity of IC 5146, vel. struct. rel. to rot. 2−74044
interstellar molecular clouds, rot. rel. to gas dynamics of assoc. H II regions 2−79190
Jupiter, rot., energy loss scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
M31 (Andromeda Galaxy), corotation radius rel. to struct. to S6 spiral arm *(Russian)* 2−106926
Markaryan 744, Seyfert galaxy, rot. curve, mass and internal vel. field 2−101041
Mars, obliquity vars. rel. to regolith-atmosphere exchange of H_2O and CO_2 and climate change 2−112367
Moon, determ. of mean inclination of lunar equator to ecliptic via position angles method *(Russian)* 2−73867
NGC 2685, 'prolate' galaxy, implications of stellar rotation rate 2−106912
NGC 3504, barred spiral galaxy, rot. curve and circular motions obs. 2−106919
NGC 5905, NCG 5908, double spiral galaxy, rot. curves and masses from H I obs. 2−68894
NGC 672 and IC 1727, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
nutation synchronous motion of a free gyroscope with an annular damper *(Chinese)* 2−79346
optical heterodyne fibre gyro for rot. detect. 2−97208
Periodic Comet Schwassmann-Wachmann 1, rot. of nucleus rel. to vaporisation and outbursts 2−106624
planets, soln. of rot. problem in statistical accumulation theory 2−68642
plates, orthotropic, elliptical, vibr., large amplitude transverse shear and rotatory inertia effects 2−70861
plates, thick, rectangular, laminated, composite, non-linear bending 2−70849
rigid body displacement anal. from initial and final position data, linear algebra approach 2−101172
Saturn, mag. field rotation rel. to periodic var. of spoke activity in ring system 2−79018
shell approximation via finite quadrilateral elements 2−103026
spiral galaxies, IR form of Tully-Fisher relation rel. to mass and luminosity distribs. 2−58450
spiral galaxies, rotation curve rel. to massive halo suggestion 2−112555
telescope rotational speed control using 24 V synchronous motors 2−106529
translatory-rotatory motion of two rigid bodies, necessary conditions for existence of plane motions *(Russian)* 2−100718

rotation continued
UGC 12423, giant cluster spiral galaxy, rot. curve from 21-cm VLA obs. 2−106890
Venus, possible irregularities of rot. rate assoc. with struct. of atmospheric circulation *(Russian)* 2−100792

rotation by magnetisation *see Einstein-de Haas effect*

rotational flow
see also vortices
autooscillations derived from loss of stability of nonisothermal Couette flow 2−81316
axial pump impellers, flow field 2−70958
axisymmetric flow between counter-rotating cylinder, symmetry to disturbance 2−97559
axisymmetric swirling and nonswirling turbulent recirculating flows in wide angle diffusers 2−97518
baroclinic instability of source-sink driven flow, theory for two-layer rotating fluid 2−103145
barotropic fluid, twisted potential streams motion, extremal formulation and nomogram *(Russian)* 2−65594
boundary layer flow over a disc sector 2−103180
boundary layer thickness, flow near rotating disc, variational calc. 2−75968
bubble migration in rot. liq. filled sphere 2−97637
capillary liquid jets in parallel airstream, instability and breakup 2−81379
cholesteric liquid crystals, helical flow between hot cylinders 2−60584
cohesionless granular materials, rapid Couette-flow between rotating cylinders 2−103173
compressible fluid, rot. movement eqn. *(French)* 2−60556
compressible inviscid flow, 3-D, in annular diffusers 2−91485
compressible swirling stagnation-point boundary layer for a rotating sphere 2−65563
conducting viscous liquid, relative motion in rot. in a mag. field 2−86288
convection rolls, instability, mean flow generation 2−109324
Couette flow, stability of a hollow vortex 2−75977
Couette system 2−70959
cup like cavity rotating about its own axis, heat transfer coeff. 2−109327
cyclonic convection, theory of flux ejection dynamo effect 2−100722
cylindrical container with rotating cover, laminar flow 2−86256
deep flow over cross-stream ridges, obstacle shape and viscosity effects 2−97558
differential rot. driven by convection in rotating annulus 2−106517
discussion for student understanding 2−79309
dusty gas, effect of uniform motion of circular cylinder 2−86324
dusty gas with suspended particles, flow in rot. frame 2−86323
elastico-viscous fluid rotating unsteady flow past an infinite plate with const. suction or injection 2−81377
equilibrium figures for rotating fluids 2−95022
flow between misaligned rotating disks, inertia effect 2−65599
flow between stationary and rotating discs *(French)* 2−103176
flow betwen rotating disc and porous disc, Navier-Stokes eqns. 2−114815
flow of two immiscible liquids between rotating discs *(French)* 2−109386
flow past infinite porous plate in rotating fluid, effects of mass transfer and free-convection currents 2−106498
fluctuating flow of viscoelastic fluid past porous plate in rot. medium with applied mag. field 2−114856
fluid motions influenced by Coriolis and Lorentz forces 2−94498
garnet melt, simulated, fluid flow patterns 2−97953
geophysical flows, nonlinear hydrodynamic stability of planetary vortices 2−100563
Gerstner edge wave discontinuities 2−70963
Hall effect in free and forced convective flow in rot. channel 2−97664
heat transfer from a rotating cylinder under forced convection 2−103162
helicoidal laminar flow, drag reducing polymer study 2−60560
homogeneous turbulent field within a rotating frame 2−114775
hydromagnetic free convection flow past porous plate in rot. fluid 2−75949
ideal fluid, rot. movement eqn. *(French)* 2−60556
ideal incompressible fluid, rotating flow, stability to disturbances 2−75976
incompressible flow between finite parallel discs 2−103141
incompressible non-viscous flows through multiply connected domains 2−60547
incompressible rotating viscous fluid, translation of a sphere, Navier-Stokes eqns. 2−70961
inertial waves above an obstacle in an unbounded, rapidly rotating fluid, theory 2−103182
jet, swirling, confined, turbulent mixing *(Russian)* 2−81331
laminar vortex flow, mass transfer, forced convection *(French)* 2−55561
laser Doppler meter, investig. of transition to turbulence in hydrodynamic flows *(Russian)* 2−114929
linear inviscid stability of rotating Poiseuille flow 2−109412
liquid rotating in vertical plane, disperse phase distrib. *(Russian)* 2−81345
Lorenz equations, real and complex, with weak dissipation 2−97564
macromolecules, dil. solns., Couette flow, embryo cells and overstability 2−91466
magnetofluid, ferromagnetic particle microrotations, surface instability 2−86264
MHD flow between two concentric rot. cylinders under influence of uniform mag. field, porous lining effect 2−114915
micropolar flow due to a rotating disc with suction and injection 2−55618
mixed-layer entrainment, depend. on shear stress and velocity jump 2−55594
Navier-Stokes fluids, steady rectilinear complex-lamellar universal motions 2−114820
Newtonian fluid, flow between rollers, coating process models 2−70962
nonisothermal compressible stratified atmosphere, Alfven wave propag., WKB approx. 2−109346
ocean, ageostrophic instability of ocean currents 2−73577
oceans and lakes rotational normal modes calc. with general orthogonal coords. 2−53528
polymer solns., flow around rotating sphere, normal stresses determ. using electrochemical diagnostics 2−97561
potential flow, vortex filament motion and decay, Navier-Stokes eqns. 2−70965
Rossby soliton stability in rotating shallow liquid *(Russian)* 2−109347
rotating coaxial cylinder rheometer, dynamic viscosity unsteady meas. 2−103228
rotating curved channel flow, friction resist. study *(German)* 2−103172
rotating disc and parallel stationary plate, flow between, perturbation soln. 2−55592

rotational flow continued
rotating disk, combined free and forced convection, internal heat effects 2−60562
rotating hydromagnetic flow between concentric cylinders, current induced instabilities 2−70912
rotating stall in blade rows, shear flow with linear velocity profile 2−75971
rotor geometry, skewed, shrouded, rot. flow, finite element anal. 2−60549
secondary flow induced by wave motion in rot. fluid 2−78670
shear stresses determ. on outlet and inlet sides of rot. channel using turbulence energy eqn. 2−114779
simple medium, rot. motion, vortex, EM radiation, geometric optic formulation 2−109336
slender bodies rotation at 90 degrees incidence, aerodynamic coeffs. approx. calc. 2−86287
slender body spinning, Magnus forces, vortex model 2−70955
solid body moving in compressible fluid, rot. movement eqn. *(French)* 2−60556
sound scattering by cylindrical vortex embedded in fluid at rest, appl. to reverberation studies 2−81143
sphere rotating in fluid, boundary layer eqn. solns. 2−81342
sphere rotating in viscous fluid in cylindrical tube 2−97556
spinup from rest of immiscible fluids 2−60558
spiral flow between rot. cylinders, linear stability calc. 2−91396
spiral flow in circular channel, travelling mag. field, MHD 2−86351
stabilised flow of viscous liq. through rot. cylindrical channel, low Rossby numbers 2−114905
steady MHD Couette flow, effect of Coriolis force and Hall effect 2−86286
steady viscous flow of two differentially rotating immiscible fluids 2−114821
stratified fluid between rot. coaxial cylinders, instability of MHD flow 2−114768
stratified rotating fluid, hydromagnetic Rayleigh-Taylor instability 2−75933
swirling von Karman flow, asymptotic anal. 2−109337
Taylor vortices, form. between heated rot. cylinders 2−114819
Taylor vortices between two concentric rotating spheres 2−91463
thermal convection in slowly rotating, weakly magnetic fluid shells 2−103170
thermally stratified fluid in cylinder, spin-up numerical solns. 2−71005
torus, axisymmetric motion at low Reynolds number, drag meas. 2−109334
tropical storm Agnes, cyclonic vorticity advection rel. to transform. into extratropical cyclone 2−112011
tropical storm Agnes transformation into extratropical cyclone, moisture, vorticity and kinetic energy budgets 2−112012
two dimensional flow between eccentric rotating cylinders 2−70956
two-dimensional airfoils, unsteady pressure by aerodynamic periodic interface 2−114833
two-dimensional flow of gas through turbomachine cascades 2−97563
two-layer rotating fluid, source-sink driven flow, linearised spin-up process 2−109329
unsteady boundary layer on rotating disk in counter rotating fluid 2−109331
unsteady hydromagnetic Couette flow in a rotating system 2−91554
viscoelastic fluid, entrainment by rotating drum 2−60551
viscoelastic fluid flow between eccentric rotating cylinders, linear stability 2−97506
viscoelastic fluid flow past rigid spheres and spherical bubbles 2−60553
viscous fluid, steady motion due to rot. tori 2−81341
viscous frictional torque in the flow between two concentric rotating rough cylinders 2−91464
viscous rotating fluid flow past a sphere, vorticity, differential eqns. 2−103177
viscous rotations, non linear MHD eqn.-soln. *(Italian)* 2−114916
vortex solitary waves in a rotating, turbulent flow 2−55595
vortices, longitudinal, in boundary layer 2−114818
wave-amplitude vacillation investigation using light-speckle velocity meas. technique 2−109428
^{3}He, superfluid, broken relative symm. and hydrodynamics 2−110082
^{3}He, superfluid, rotating, equilib. order parameters and chem. pots. 2−71759
^{3}He, superfluid, rotating, equilib. order parameters and chem. pots. 2−71760

rotational isomerism
AB_n molecules, torsional freq. and pot. barrier height 2−96538
acetic acid, microwave spectrum, internal rot. 2−108477
adamantanethione-d_2, ^{1}npi* excited state inversion barrier and optical activity 2−96610
adamantanone-d_2 ^{1}npi* excited state inversion barrier and optical activity 2−96610
aliphatic molecules, rot. isomerism, PCILO calcs. 2−54983
amines, in polyethylene matrix, dielectric relax. by inversion and internal relax. 2−57014
2-aminoethanethiol, rot. isomerism and consts., H bonds, microwave obs. 2−75248
aziridines, N inversion barriers, hyperconjugation effects calcs. 2−96440
azomethane, rotation round double bond, multiconfig. SCF-INDO study 2−70141
N-benzylamide, o-substituted, conformations, PCILO and PMR investig. *(German)* 2−85700
2,2′-bipyridine, fluoresc. spectrum, role of associate form. and rot. isomerism, ab initio SCF calcs. 2−90604
bis(trifluoromethyl)disulphide mol. struct. by gas electron diffr. 2−70416
chlorocyclopentane, struct. and pseudorot. pot. function determ. by gas phase electron diffr. 2−90698
2-chloroethanethiol, rot. isomerism and consts., microwave obs. 2−75248
condensed phases, hindered mol. rot., IR spectra 2−110875
conformational studies by IR and Raman spectra 2−80633
conjugated nonrigid mols., ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
cyclohexanols, saturated, OH rotamers, γ-alkyl substituent effects 2−90513
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
1,2-difluoroethylene, cis-trans energy difference, electron correl. and polarisation functions 2−113867
1,2-difluoroethylene, rotation round double bond, multiconfig. SCF-INDO study 2−70141

rotational isomerism continued
diiodoethylarsine mols. conformations by vibr. spectroscopy 2−90727
1,2-diisocyanoethane, conformation, vibr., INDO calcs., Raman and IR obs. 2−75274
dimethyl diselenide, torsional barrier heights, MO calcs. 2−102375
p-dioxane in liq. crystalline solvents, ring inversion, D NMR spectra 2−102502
dithioglyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2−70320
ethane, external force field, mol. dynamics simulation 2−81656
ethane, internal rot., barrier height CNDOC *(German)* 2−85554
ethane, rot. barrier calc. using perturbative configuration interaction method 2−102399
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2−108469
ethaneselenol, internal rot. and mol. struct. by microwave spectroscopy 2−108482
ethyl fluoroacetate, chloroacetate, rot. isomerism obs. using cryostat for low temp. IR spectroscopy *(Spanish)* 2−84720
ethyl haloacetates, IR carbonyl band and rot. isomerism 2−80610
3-fluoro-1-propanol, microwave spectra, rot., conformational study, weakness of O-H...F hydrogen bond 2−85639
m-fluoroanisole, anti rotamer, microwave spectrum and methoxy torsional freq., rot. consts. 2−96547
formamide, internal rot., solvent effect, ab initio study using polarisable continuum model 2−80835
furanose ring conformers in nucleic acids, pseudorot. interconversion, PCILO computations 2−102385
glyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
2,4-hexadiyne, methyl group rotation, classical and quantum dynamics 2−80751
isoelectronic molecules and ions, equilib. geometries, inversion barriers and force const. calc. by MNDO method 2−70146
ketenimine, struct., electronic props., force consts., inversion barrier, non-empirical calcs. 2−64858
methanol, $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methanol-d_3, torsion levels, Fermi reson., internal rot., Doppler limited IR obs. 2−85660
methyl cation, triplet state, struct., inversion barrier, ab initio MO theory 2−108354
methyl dimethylsilyl sulphide and its deuterated analogues, Raman spectra, conformational anal. 2−90557
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2−75247
methyl glycolate, barrier to internal rot. 2−96769
trans-methyl nitrite, force field parameters, vibr.-internal rot. interaction model 2−102660
methyl nitrite-d_0(d_3), vibr., force consts., IR obs. 2−85659
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methyl silane, internal rot. studied by avoided-crossing mol. beam spectroscopy 2−108732
methylamine, internal rot., far-IR spectrum 2−85653
methylamine $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
methylpentachlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
nitritomethane, rotational isomers, ab initio mol. orbital calc. 2−75177
nitromethane, CH stretching IR and Raman spectra, internal rot. 2−80616
organic compounds, ideal gas thermodynamic props., data tables 2−94922
organic compounds, struct., rot. barriers, STO-3G MO calcs. 2−108350
20-oxopregnase hormones, configs., PCILO calcs. 2−102387
pentamethylchlorobenzene, polycryst., mol. dynamics investig., using dielec. relax. meas. 2−99034
phosphine-boranes and its derivatives, vibr., mean amplitudes, internal rots. 2−114129
PMMA-polymethyl acrylate copolymers, benzene soln., chain motion, elementary processes 2−93107
podacarpic acid derivatives, mol. motion. rot. barriers, ^{13}C NMR relax. 2−96595
polyatomic molecule, arbitrary internal motion problem, variation method soln., internal rot., anharmonic vibrs. 2−108461
polyatomic molecules, internal rot. and harmonic vibr. calcs. 2−90511
polyethylene, solid and molten, rotational isomers distrib., IR spectra study 2−108753
polyprenol homologues struct. charact., ^{13}C NMR spectroscopy 2−90752
porphine, free base, isomer ground and excited state calcs. 2−113890
propane-like molecules, external force field, mol. dynamics simulation 2−81656
propylene, potential-energy and dipole moment surfaces 2−102410
pyruvic acid, rot. transitions in first excited state, methyl group internal rot. 2−108456
sirohydrochlorin, isomer ground and excited state calcs. 2−113890
styrylpyridines, conformational equilib., absorpt. and fluoresc. spectra in soln. 2−108614
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
thioureas, di- and tri-substituted, IR and Raman spectra, conformational anal. 2−90545
toluene, CH stretching IR and Raman spectra, effect of internat. rot. of CHD_2 group 2−85654
toluene, CH stretching IR and Raman spectra, internal rot. 2−80616
toluene ($-d_2$) ($-d_3$) in solid crystalline phases, IR and Raman spectra, effect of internal rot. of CHD_2 group 2−80587
transition metal carbene complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
transition metal carbyne complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
trifluoroacetylfluoride, mol. struct., torsional barrier, gas phase electron diffr. 2−75432
trifluoromethyl ion, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962

rotational isomerism continued
tunnel effect on molecular states under permutation inversion groups 2−85542
vinylcyclopropane, rot. isomerism, pot. energy curves, ab initio SCF calcs. 2−108352
$BF(OH)_2$, conformations, stabilities, STO calcs. 2−113857
Ge_2H_6, internal rot., barrier height CNDOC *(German)* 2−85554
HNO_2, rotational isomers, ab initio mol. orbital calc. 2−75177
HNO_3(-d_1) internal rot., IR spectrum 2−75460
H_2O_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
H_2S_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
li-o-dimesitoylbenzene radical complexes, soln., KEPR, ELDOR and ENDOR 2−59832
N_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
NH_2D, vibr.-rot., hyperfine struct., microwave obs. 2−85644
Na-o-dimestoylbenzene radical complexes, soln., KEPR, ELDOR and ENDOR 2−59832
NiH_4^{2-}, rot. barrier, core pot. calcs. 2−64860
P_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
SiF_3^-, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
Si_2H_6, internal rot., barrier height CNDOC *(German)* 2−85554
XeF_6, mol. level splitting, Longuet-Higgins groups 2−102415
rotator phase in solids *see nuclear magnetic resonance; plastic crystals*
rotatory dispersion power *see optical rotation*
rotons
phonon emission, quasiparticle gas relax. *(Russian)* 2−86967
H_2, ordered solid, IR absorpt. spectra, theory 2−104112
^{3}He-He II dilute mixture, density fluctuation spectra, rotons 2−104104
^{4}He, superfluid, group representations, spectrum of states 2−98370
^{4}He, superfluid, neutron-roton scattering *(Russian)* 2−98372
^{4}He, superfluid, roton liquid theory 2−110063
^{4}He, superfluid, two-particle excitations, rel. to loss of spatial order at T_λ 2−110072
rotors
amorphous structure, geometrical nature and elementary excitations, theory 2−115139
endwall boundary layer flows and losses in an axial turbine stage 2−86274
four-pole cylindrical synchronous machine solid rotor temp. distribution measurement *(French)* 2−84628
gas turbine in marine environment operation, state-of-the art review of factor contributing to hot corrosion 2−72869
noise emission mechanisms of a rotor in a perturbed flow *(French)* 2−75763
steam turbine steel rotors, temper embrittlement rel. to heat treatment 2−83232
turbine rotor bore ultrasonic waveforms, advanced signal processing 2−57588
turbogenerator superconducting windings bonding material requirements and development 2−62097
roughness measurement *see surface topography measurement*
rovibronic levels *see molecular rotation-vibration*
RPA calculations
alkali metals, liq., optimised RPA for struct. 2−91760
Anderson lattice, electrical cond., freq. depend. 2−56629
diamond, impurity screening many-body effects 2−110295
dipole polarisability and nuclear symmetry energies 2−85022
dynamical plane rotator model, dynamical correlation function expanded from high temp. limit 2−58720
electrolyte solns., surface struct., thermodynamic props., calcs. 2−76262
electron Fermi sea, positron self-energy, RPA calc. 2−92488
electron gas, correlation energy, Ferrell's validity criterion, exchange and correl. contribs. 2−82262
electron gas, dynamic correlations, RPA and kinetic eqn. approach 2−61381
electron gas, homogeneous, exp. S approx., electron liquid in collective description 2−71888
electron gas, two-dimensional, in strong mag. field 2−56454
exciton Bose condensation, electron-hole gas ground state, spin states, screening, and band struct. effects 2−92476
extension to strongly interacting systems, nuclear and neutron star matter, liquid ^{3}He 2−84987
Fourier-Bessel random phase approx. for decay width of higher multipole giant resonances 2−113441
Gamow-Teller and M1 states including Δ-hole excitation, RPA calc. 2−79979
heavy ion reactions, isovector mode inelastic excitation, microscopic form factors, giant dipole resonances 2−59232
Heisenberg ferromagnet, magnons at the Curie temperature 2−66793
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
Heisenberg model, free energy and Green's function, functional integration method 2−98835
Heisenberg-Ising ferromagnet, with uniaxial anisotropy, Curie temp. calcs. 2−66806
high-spin RPA, quantisation 2−84983
homogeneous nuclear matter, density fluctuations 2−95951
intrinsic RPA HF state, approximate ang. momentum projection 2−74738
ion straggling and energy loss in dense plasmas 2−103392
Ising model, quenched dilute random-bond, crit. curve 2−56877
liquid metals, static struct. factor rel. to effective pair pot. 2−60868
liquids, interatomic pair pot., combined WCA and RPA calc. 2−60857
magic nuclei, muonic conversion, microscopic description *(Russian)* 2−90745
metal, surface Bernstein modes 2−82420
metal film, surface magnetoplasmons, quantum theory, RPA approx. 2−82259
metals, liq., struct. in improved RPA 2−76276
metals, simple, electron energy loss, review 2−57222
metals, stopping power for slow ions, electron exchange and correl. effects 2−86767
microscopic model for nuclear dissipation as collective motion damping in time-dependent RPA 2−74723
mixed valence cpds., electrical resistivity, impurity contribs. 2−56544
mixed valence cpds., electrical resistivity, valence fluctuation scatt. 2−56543
molecules, correlation energy, electron propagator calcs. 2−102359
molecules, rotational strength calc., perturbative soln. of RPA eqn. 2−108466
molten salts, current fluctuations, mode-coupling theory 2−71328
RPA calculations continued
nonuniform fluid with long-range attractions, statistical mechanics 2−65833
nuclear isovector dipole mode, sum rule approach 2−107753
nuclear matter, quenching and hardening in transverse quasi-elastic peak 2−74740
one-dimensional electron-phonon system, CDW dielec. response in precrit. region 2−110251
open-shell atoms, RPA to one-body transition matrix elements 2−70125
pairing correlation, canonical theory, rel. to BCS+RPA approach 2−95944
Rochelle salt, ferroelec., dynamic study 2−56104
semiconductor, biexcitons and intermediate-binding excitons 2−56448
semiconductors, electron energy loss, review 2−57222
small metallic particles, quantum size effect in optical props. 2−87721
spin-isospin sum rules based on the quark model 2−107750
sum rules and collective variables 2−101828
two-dimensional metals, effects of mag. field on dielec. const. and cond. 2−56451
μ^- inclusive capture rate calc. in heavy nuclei 2−101881
^{40}Ca(α,α), 31, 100 MeV, second-order imaginary optical pot. microscopic calc. 2−54418
^{48}Ca(p,p'), 44.4 MeV, 10.212 MeV 1^+ state excitation 2−69658
Cr, incommensurate spin density wave, phase and amplitude fluctuations, RPA calc. 2−98565
Cr, longitudinal acoustic phonon vel. in spin density wave state, temp. depend. 2−98219
^{164}Er, giant dipole resonance, linear response theory, cranked RPA eqns. 2−90071
^{164}Er, γ-band and rot. alignment, high-spin anomaly, shell model+RPA calc. 2−101793
^{164}Er, γ-vibration, pairing pot., rot. frequency depend., shell model+RPA calc. 2−101792
^{168}Er, macroscopic and microscopic anal. of gamma motion 2−95896
Fz, valence shell dipole excitation, electron energy-loss meas., RPA exchange calcs. 2−65088
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
^{24}Mg, quadrupole excitations in rotating two-centre shell model 2−79950
^{208}Pb, giant Gamow-Teller states, spin-isospin sound 2−113438
^{208}Pb, low-lying vibr. states, phonon renormalisation study 2−74720
^{208}Pb(e,e'), inelastic scatt., low-lying natural parity levels excitation 2−85032
^{208}Pb(p, p'), 201 MeV, giant reson. excitation, macroscopic and microscopic anal. 2−90103
Rb, liq., model, phonon spectrum 2−66155
Si, impurity screening many-body effects 2−110295
rubber
ABS compounds, microstruct. and deform., effect of graft freq. and rubber particle size 2−99489
ABS compounds, microstruct. and deform., effect of matrix mol.wt. and rubber content 2−99488
acoustic props., anomalous elec. field effects 2−103906
chloroprene, structure, phase transforms., NQR study 2−93051
elastic and loss moduli meas. of rubber and rubberlike materials 2−83314
elasticity at very large elongation 2−88126
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
filled vulcanizates of natural rubber, equilib. swelling *(Russian)* 2−71379
highly filled polymeric rubber composites, struct. changes under stretching, acoustic obs. *(Russian)* 2−109703
liquid, one-component, for elec. insulation, prep. and charact. *(Japanese)* 2−83076
mixes and elastic products, mech. props. determ. using penetrometer *(German)* 2−67691
natural, for artificial heart valves, props. in biaxial stretching 2−83155
natural, molten, radiation effects on struct. 2−71374
natural, sound vel. and free retraction vel., strain effects meas. 2−115361
natural, tensile rupture, SEM obs., vulcanisation and filler effects 2−116533
natural rubber, tear fracture, SEM study 2−93622
nitrile rubber/phenolic filled polymeric system, Charpy impact testing, ductile-brittle transition temp. meas. 2−83326
particle toughened high-impact polystyrene, internal struct. of rubber particles and craze breakdown 2−105297
particle toughened polypropylene, creep kinetics, effect of rubber particles 2−67360
polychloroprene-nairite p vulcanizates, link disposition, thiourea derivatives effect, NQR study 2−93052
polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
reinforced thermoplastics structure and mech. props. 2−81689
rotational sliding, second order stresses, seizure and buckling, frictional torque meas. 2−99565
silicone rubber, improved thermal stability by Si-N compound additions 2−88112
siloxane polymer based, Rayleigh scatt. of Mossbauer γ-rays 2−104772
solution, temp. transitions, mech. losses, vibr. freq., effective viscosity, struct. development *(Russian)* 2−65837
styrene-butadiene, tensile rupture, SEM obs., vulcanisation and filler effects 2−116533
rubbing (abrasion) *see abrasion*
rubidium
see also nuclei with .....
abundance in magmatic rocks and sediments, X-ray fluorescence determ. 2−83972
atom, absorpt. data using tunable dye lasers 2−113919
atom, D_2 line broadening and shift by inert gases, const. meas. 2−64922
atom, electron impact excitation 2−70427
atom, induced three-photon light scatt. upon excitation near resonant transitions 2−75229
atom, spin exchange with ^{129}Xe, nucl. polarisation study 2−85575
atom, Stark states, field-induced stabilisation 2−80535
atomic clock, satellite-borne, sapphire lamp development and appl. 2−89685
atomic frequency standard, optically pumped 2−89684
atomic radiative-collisional lasers, high power 2−108863
atoms, D_2 line, 780.0 nm, broadening and shift const. meas. by foreign gases, mag.-scanning method 2−59752
atoms, g factor correction calc. 2−85565

rubidium continued
atoms, optical Ramsey resonance investigation using ultrahigh spectral resolution dye laser spectrometer 2−79677
atoms, spin polarisation by laser driven two photon and excimer transitions 2−64946
Debye-Waller factor calc. method 2−81923
excitation transfer, atomic fluoresc., two-photon absorpt., quenching 2−70389
frequency standard, miniature, design and performance 2−89686
frequency standards, progress and prospects 2−58794
liquid, internal energy and entropy, Gibbs-Bogolyubov variational technique 2−56221
liquid, model, phonon spectrum 2−66155
liquid, phonon-like collective oscillation modes and related props. calc. *(Russian)* 2−65843
liquid, structure factors, X-ray study 2−60870
liquid, structure factors calc., accuracy of liq. theory approx. methods 2−65842
liquid, transport props. meas. using automated equipment 2−115722
martensitic transform. obs., de Haas-van Alphen meas. 2−93507
phason anomaly rel. to heat capacity data 2−76698
phonon dispersion curves 2−76610
pseudopotential elastic const. calcs. *(Chinese)* 2−109880
seawater chemical composition (U, K, Rb, Cs) alteration due to hydrothermal circulation 2−68386
thermodynamic and transport properties of crystals in anharmonic approx., effect of temp. and press. 2−76706
vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
work function by Thomas-Fermi-Dirac method 2−82429
K-Rb pumping lamps, expt. study *(Chinese)* 2−91014
KCl:Rb, pulsed CO_2 laser damage threshold meas. 2−60140
Rb I, 3d subshell absorpt., spectra, multiconfig. anal. 2−54785
Rb, Rydberg levels, rare gas atom quenching cross sections 2−102426
Rb^-, photodetachment, cross section meas., multichannel quantum defect anal. 2−54821
^{87}Rb D_1 and D_2 lines, consts. for broadening and shift by inert gases 2−64920
Rb-RbBr solution, ionic struct. study 2−103589
$Rb+H_2(N_2)$, fine struct. transitions meas. 2−54922
$Rb+H^+$, double K-shell ionisation, single photon emission probability 2−85794
$Rb+H^+$, single electron capture, attenuation cross sections meas. 2−114077
Rb+He(Ar)(Xe), impact broadening and shift of nS and nD levels 2−102581
Rb+inert gas atoms, inelastic scatt. theory, higher-order corrections to impulse approx. 2−54920
$Rb+N_2$, quenching, depolarisation, electronic and nuclear spin polarisation 2−90660
Rb+Rb, excitation transfer, atomic fluoresc., two-photon absorpt., quenching 2−70389
Rb+Rb(5p)(Rb(5s)), ion form. from (8s) state 2−80795
Rb_2, laser induced IR fluorescence 2−70329
^{87}Rb hyperfine transitions meas., frequency standard appl. 2−107306
^{87}Rb, hyperfine-structure resonances, line shapes, phase and freq. shifts 2−80516
^{87}Rb optically pumped passive freq. standard, hyperfine freq. shifts caused by buffer gases 2−101380
Rb^*+Rb, collisional ionis. 2−90681
Se:Rb, amorphous, elec. cond. and EPR studies, dopant effects 2−77083
Tb+K laser induced collisional energy transfer obs., K fluoresc. meas. 2−90656

rubidium alloys
Cs-Rb solid solns., elastic-stiffness constants under pressure 2−98182
$Cs_{1-x}Rb_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946
KRb, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
$K_xRb_{1-x}Au$, indirect small gap semiconductor, electronic props. 2−92473
Rb-K solid solns., elastic-stiffness constants under pressure 2−98182
RbCs, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
$Rb_{1-x}K_x$ solid solns., eqn. of state, pseudopot. scheme calc. 2−109946

rubidium compounds
see also rubidium alloys
intercalation compound with graphite, phonon branches, neutron spectra study 2−76618
intercalation compounds with graphite, σ-electron energy bands, secondary electron spectroscopy study 2−93337
AgI-RbI, eutectic mixture, impurity behaviour during crystn. refining 2−111064
C_8Rb, graphite intercalation cpd., vibr. density of states 2−81909
C_xRb (x=8,24), stage and CESR line breadth, temp. depend. 2−87595
C_8RbHg, intercalate, superconductivity study 2−82512
C_8RbHg, intercalate, superconductivity study 2−82512
CsCl-RbBr film, secondary ion emission as function of primary ion velocity 2−99245
Cu, $Rb_4Cu_{16}I_7Cl_{13}/Rb_4Cu_{16}I_7Cl_{13}/Cu_{1.75}Se$ solid electrolyte cell electrochemical behaviour 2−78198
GeI$_2$-RbI system, cryst. structs., DTA and X-ray diffr. study *(French)* 2−109766
$K_{0.4}Rb_{0.6}Cl$, phonon dispersion, inelastic neutron scatt. study 2−115372
K_2WO_4-Rb_2WO_4, solid solutions, phase diagram, X-ray and DTA study 2−88064
$MnPS_3$-Rb^+ intercalated, IR and Raman vibr. study 2−87769
Rb-RbBr solution, ionic struct. study 2−103589
$RbAg_4I_5$ crystal, superionic conductor, cubic-trigonal phase transition, order-disorder theory 2−55876
$RbAg_4I_5$, ice-nucleating behaviour 2−86829
RbBr:Mg^+, optical absorption, thermolum. and emission studies 2−61986
RbBr(I), UV two-photon absorpt. 2−104908
RbC_x (x=2,3,5,8), intercalation compound, Shubnikov-de Haas oscill. freqs., expt. meas. methods 2−82210
$RbCaF_3$, lattice dynamics, Debye-Waller factor near 195K phase transition 2−76609
$RbCaF_3$ lattice parameters and thermal expansion coeffs., precise determ. 2−92237
$RbCdCl_3$, cubic, lattice parameters, temp. variation, thermal expansion coeff. 2−98310
$RbCdF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181

rubidium compounds continued
$RbCdF_3$:Gd, EPR of Gd^{3+} centres 2−110635
$RbCeF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181
$RbCe(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193
RbCl, F centre pairs, exchange effects in ODESR 2−56981
$^{85}RbCl$ ($^{87}RbCl$), F-centres, relaxed excited states, ODMR study 2−61790
RbCl:Ag, ligand relax., isotropic superhyperfine const. anal. 2−109816
RbCl:$CoCl_2$, heavily doped crystals, Co precip., elec. cond. studies 2−56201
RbCl:Eu, photoconductivity, thermoluminescence and TSC 2−82404
RbCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
RbCl:H, I, relaxed excited state of atomic H centres, ODMR study 2−99000
RbCl:Li colour centre laser pumped with a DCM dye laser 2−102803
Rb_2CoF_4, magnon Raman scatt., AFMR 2−72356
Rb_2CoF_4, two-dimensional Ising system, dynamic crit. neutron scatt. study 2−104643
$Rb_2Cr_{1-x}Cd_xCl_4$, mag. props. study 2−87505
Rb_2CrCl_4, linear birefringence and spin correlations 2−93148
Rb_2CrCl_4, optical and magneto-optical study 2−93220
Rb_2CrCl_4:Mn^{2+}, ionic ferromag., impurity induced absorpt. bands 2−110896
$Rb_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$Rb_2Cr_{1-x}Mn_xCl_4$, mag. props. study 2−87505
$Rb_7Cs_{11}O_3$, low temp. specific heat 2−92227
$Rb_2CuBr_4.2H_2O$, spin dynamics study 2−66860
$Rb_2CuBr_4.2H_2O$, three-dimensional Heisenberg ferromagnet, spin dynamics 2−98903
$RbCuCl_3$, Jahn-Teller phase transitions and phase struct., X-ray diffr. study 2−98266
$Rb_4Cu_{16}I_7Cl_{13}$ thin film preparation and electrical conductivity 2−77216
$RbCu_3M_2O_{21}$ (M=Nb, Ta), intergrowth of hexagonal and perovskite-like structs. 2−65962
$Rb(D_{1-x}H_x)_2PO_4$, phase transitions, isotope effects, dielec. const. meas. 2−86853
$RbDSeO_4$, cryst. struct., X-ray diffr. study 2−98003
$Rb_3Eu(NH_2)_6$, $Rb_3Y(NH_2)_6$ and $Rb_3Yb(NH_2)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2−98022
$RbFeCl_3$, incommensurate mag. struct., role of dipole-dipole interaction 2−66778
$RbFeCl_3$, triangular XY-like antiferromag., incommensurate mag. phase transition 2−116004
$RbFeCl_{3-x}B_x$, magnetically disordered, optical, Raman and MCD study 2−77544
$RbFeCl_3.2H_2O$, Mossbauer study of critical fluctuations 2−99011
$RbFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
$RbFeF_4$, elec. field gradient, polarisable point charge model and Mossbauer spectra 2−115721
β-$Rb_2FeF_5.H_2O$, 1-D antiferromag., cryst. struct., mag. and Mossbauer study 2−92879
$RbFeS_2$, Bridgman growth, Mossbauer hyperfine fields and Fe^{57} resonant fraction 2−77002
$RbGeI_3$, semicond., cryst. struct. DTA and X-ray diffr. study *(French)* 2−109766
Rb_2GeO_3, cryst. struct., lattice energy, X-ray diffr. study *(German)* 2−86643
$RbH(D)SO_4$, ferroelec., dielec. susceptibility dispersion, high freq., dipole ordering 2−87666
$Rb_3(H_3O)_{0.5}[Pt(CN)_4](O_3SO.HOSO_3)_{0.5}.0.8H_2O$, cryst. struct., elec. cond. 2−91929
RbH_2PO_4, crysts., amplitude depend. of dielec. characts. 2−57008
$Rb(H_{0.45}SD_{0.55})_2PO_4$, cryst. struct., bond lengths, neutron diffr. study 2−91908
$RbHSO_4$ cryst., near ferroelec. phase transition point, elastic and nonlinear dielec. props. 2−57007
$RbHSeO_4$, deuterated, ferroelec. transitions, isotope effects, DTA and dielec. study 2−87707
$RbHSeO_4$, ferroelec. transitions, dielec. const., dielec. loss and DTA study 2−93121
$RbHSeO_4$, polycrystalline, ^1H NMR chem. shift 2−104725
$RbHSeO_4$, Raman spectra, 20-300K 2−99134
$RbH_3(SeO)_2$:Cr^{3+}, ferroelec.-ferroelastic, domain struct., EPR study 2−116135
$RbH_3(SeO_3)_2$ crystals, Cr^{3+} doped, ESR study 2−66903
$RbH_3(SeO_3)_2$, ferroelec. and incommensurate transitions, US study 2−66137
RbI:Ag^+, ionic thermal currents under uniaxial stress, determ. of elec. and elastic dipole props. 2−110751
RbI:Eu^{2+}, thermoluminescence and optical absorpt., effect of γ-irrad. 2−57192
$RbInF_4$, struct. modifications, IR and Raman investig. 2−87771
Rb_3InF_6, struct. modifications, IR and Raman investig. 2−87771
Rb_2IrCl_6, antiferromagnetism and crit. relax., NMR study 2−56961
$(Rb_{1-x}K_x)_2ZnCl_4$, thermal hysteresis of modulation wavevector, X-ray study 2−109975
$RbLa(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193
β-$RbLu_3F_{10}$, cryst. struct. determ. *(French)* 2−55915
T-$RbMnBr_3$, cryst. struct. determ. *(German)* 2−76369
$Rb_3Mn_2Br_7$, X-ray cryst. struct. determ. 2−55936
Rb_2MnCl_4, photoluminescence lifetime and intensity 2−110940
$RbMnCl_3(Br_3)$, photoluminescence lifetime and intensity 2−110940
$Rb_2Mn_{1-x}Cr_xCl_4$ spin glass, thermoremanent magnetisation 2−110607
$Rb_2Mn_xCr_{1-x}Cl_4$, insulating spin glass, mag. reson. study 2−56868
$RbMnF_3$:Er^{3+} (Ni^{2+}), optical props. of impurity ions 2−93276
$Rb_xMo_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
$Rb_{1-x}(NH_4)_xH_2PO_4$, mixed crysts., competing structural orderings and transitions to glass 2−56192
$RbNO_2$, mol. struct. by gas phase electron diffr. 2−90705
$RbNO_3$, gamma-irradiation effect on cryst. struct. 2−115288
$RbNO_3$, single cryst., Raman scatt. study 2−77511
Rb_2NaHoF_6, phase transition and low temp. struct. 2−66209
Rb_2NaHoF_6, struct. phase transition study 2−98273
$RbNd(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193
$RbNiF_3$, Heisenberg ferrimagnet, mag. susceptibility, optimal transformation method 2−77277
Rb_2O-SiO_2 glasses, conc. fluctuations and ionic cond. props. 2−92261
$RbOsO_3N$, crystal struct. 2−91912
$RbPr(SeO_4)_2$, lattice parameters, X-ray powder diffr. data 2−115193

rubidium compounds continued
$RbRHP_3O_{10}$ (R=rare earth), preparation, composition and stability 2−72644
$RbR(PO_3)_4$ (R=rare earth), preparation, composition and stability 2−72644
$RbReO_4$, temp. and enthalpies of melting 2−103950
$RbSbF_2SO_4$, synthesis and cryst. struct. *(French)* 2−91915
Rb_2SiO_3, cryst. struct., lattice energy, X-ray diffr. study *(German)* 2−86643
β'-$RbSm(PO_3)_4$, X-ray structural investigation 2−76384
Rb_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
Rb_3UF_6, tetragonal cryolite-type lattices 2−71419
Rb_4UF_9, thermochemical investigation, heat of form. 2−73006
$Rb_2(UO_2)_2F_6(OH_2)_2$, vibr. and electronic spectra meas. 2−72488
$Rb_4(UO_2)_2F_6.2H_2O$, vibr. and electronic spectra meas. 2−72488
$Rb_2UO_2P_2O_7$, prep. and struct. 2−86632
$RbVF_4$, structural phase transitions, sp. ht., optical and X-ray diffr. studies 2−115403
$RbVO_3$, X-ray emission spectra, second coord. sphere effects 2−90567
$Rb_{0.68}WO_3$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
$Rb_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
Rb_2ZnBr incommensurate struct., Raman spectra, superspace selection rules 2−61909
Rb_2ZnBr_4, ferroelectricity and antiferroelectricity coexistence obs. 2−61838
Rb_2ZnBr_4, incommensurate struct., far IR and Raman spectra meas. 2−104882
Rb_2ZnBr_4, phase transition, thermodynamic props. 2−71635
$Rb_2ZnBr_4(Cl_4)$, phase transform. Raman study 2−72481
$Rb_2ZnBr_4(Cl_4)$, superstructure selection rules 2−103739
Rb_2ZnCl_4, commensurate and incommensurate phases, ^{87}Rb NMR satellite transitions 2−77388
Rb_2ZnCl_4, elastic behaviour, temp. depend., commensurate-incommensurate transition, Brillouin spectra study 2−61053
Rb_2ZnCl_4, ferroelectrics, incommensurate phase Raman scatt. 2−116197
Rb_2ZnCl_4, incommensurate, NMR lineshape and phase soliton effects 2−56971
Rb_2ZnCl_4, incommensurate-commensurate phase transition, dielec. meas. 2−71637
Rb_2ZnCl_4, incommensurate state, elastic stiffness const. temp. depend., Brillouin scatt. 2−115360
Rb_2ZnCl_4, incommensurate ferroelec., far IR spectra study 2−116174
Rb_2ZnCl_4, intermediate phase, average structure, X-ray determ. 2−98007
Rb_2ZnCl_4, optical props. changes at successive phase transitions 2−77476
Rb_2ZnCl_4, paraelectric-incommensurate transition, fluctuations, NMR study 2−87710
Rb_2ZnCl_4, phase transitions, Raman scatt., dielec. const. and spontaneous polarisation study 2−72510
Rb_2ZnCl_4, sp. ht. in incommensurate phase 2−66247
Rb_2ZnCl_4:Mn^{2+}, slow soliton motion inferred from EPR meas. at $T=T_c+\varepsilon$ 2−72337
$Rb_2[UO_2(MoO_4)_2]$, solid-phase synthesis, composition determ. 2−72618
UO_2WO_4-$Na_2(K_2)(Rb_2)(Cs_2)WO_4$, solid-phase synthesis, struct., IR and luminesc. spectra 2−87752
$ZnRb_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755

ruby
additional absorpt. spectra irrad. with fast electrons and γ-rays *(Russian)* 2−82880
Anderson localisation and transition, off-diagonal dipolar interactions 2−87148
Anderson transition study 2−104254
dilute three-dimensional systems, energy levels, eigenfunction localisation 2−66420
doping by Fe, laser rod damage threshold increase 2−55990
electronic Raman transition and phosphorescence, zero phonon lines, pure dephasing 2−93251
fracture induced photon emission, appl. to fracture mechanics 2−93293
laser, double pulse Q-switched TEM_{00}, for holography, SHG in KD_2PO_4 2−114337
laser, free-running, passive Q-switching and self-mode-locking regime study at 100K 2−108890
laser, internal parameters determ. from output radiation characts. 2−96957
laser, Q-switched, mode-locked and cavity-dumped 2−114292
laser, refractive index meas. by dynamic optical distortions 2−114335
laser cavity, Q-switched, self-induced ellipse rot. and self-focusing effects 2−102798
laser material, resonant energy transfer, high resolution time and freq. domain spectroscopy 2−90907
laser radiation intensity, two-freq. acoustic modulation 2−97022
luminescence, nonequilib. relax. phonon effects 2−82886
maser, single crystal, travelling-wave, symmetrically pumped, 4 cm 2−70535
multiple resonant combination scatt. with spin flip and trapping of phonons *(Russian)* 2−92129
NMR laser, bistability and phase transitions of nuclear spin systems 2−104719
optical hole-burning and ground state energy transfer 2−65314
optical phase conjugation generation using CW mode-locked lasers 2−60177
optical properties, high press. effects, theoretical studies 2−87739
photon echo, three-pulsed, of R_1-line, forced determ. 2−75638
picosec. laser pulse train scatt. on randomly distrib. inclusions *(Russian)* 2−93211
quantum paramagnetic travelling-wave amp. with constant slow wave w.r.t. group velocity in tuning band 2−60057
resonant phonon assisted energy transfer from 29 cm^{-1} phonon dynamics 2−71594
ruby:Cr^{3+}, generation, detect. and reson. trapping of very high freq. acoustic phonons 2−93277
ruby:Cr^{3+} effect of ^{27}Al nuclei on hypersound intensification *(Russian)* 2−77422
ruby:Fe, thermoluminescence props., Fe ions absence effects 2−110957
thermoactivation spectroscopy relaxation oscillator 2−82931
UV absorption induced by ionising radiation 2−67077
visible absorpt. spectrum, shock wave effects 2−72449
Al_2O_3:Cr^{3+}, heavily doped, fluoresc. spectra and decay times 2−110925

ruby continued
Al_2O_3:Cr^{3+}, multiple reson. spin-phonon Raman scatt. by acoustic phonons in mag. field 2−116198
Al_2O_3:Cr^{3+}, single-ion-pair fluoresc. ratios and Anderson localisation 2−57176
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896

Rudermann-Kittel-Kasuya-Yosida interaction *see RKKY interaction*

Runge-Kutta methods
orthotropic shallow spherical shells, dynamic buckling 2−109211
plates, orthotropic, elliptical, vibr., large amplitude transverse shear and rotatory inertia effects 2−70861
CS_2 gasdynamic laser, mol. vibr. rot. anal. 2−70549

rupture (solid) *see fracture*

Russell-Saunders coupling
phase conventions, quasi-spin and jj-LS transformation coeffs. 2−75158
reson. photoionisation in vicinity of $2p^{-2}3s3p^1P$ reson. in close-coupling approx. 2−96519
Al sequence isoelectronic ions, oscillator strengths, potential model calc. 2−80538
Ar, electron impact excitation near-threshold 2−96738
He-like multicharged ions, self-ionisation states, intermediate-coupling approx. 2−75152
Kr, $4s4p^65p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203
Ne, electron impact excitation, electron-photon ang. correls. 2−75445
$PuSb_2$, magnetic props. 2−92872
Xe, $5s5p^66p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203

rust prevention *see corrosion protection*

ruthenium
see also nuclei with .....
(001) surface, adsorbed N_2, sticking coeff. coverage depend. 2−76837
adsorption of CO on (001) surface, island form. and dissolution at low coverages 2−82126
adsorption of cyclopropane on Ru (001), orientation and symmetry, EELS and photoelectron spectroscopy 2−78130
adsorption of N_2O on (001) surface, XPS, UPS, and thermal desorption study 2−61296
adsorption of water on (001) surface, IR study 2−67060
catalyst for methanation reaction, use of single crysts. 2−83412
coadsorption, of H_2O and O_2, vibr. and struct. props. 2−104150
film, on Si substrate, formation of silicides, thin film reactions, diffusion, nucleation and stability 2−104077
polystyrene-Ru catalyst, EXAFS studies with synchrotron radiation 2−104998
surface, (001), NO thermal desorpt., state selected vel. meas. 2−87019
surface (0001), adsorbed C layer, adsorbate band dispersions, photoelectron spectra study 2−66446
surface (001), CO adsorbate struct., SIMS study 2−98448
surface (001), coadsorption of H_2 and CO, work function, XPS, UPS and thermal desorption study 2−71805
trace quantity determ. by atomic absorpt. spectrophotometry 2−116767
Ru-Si contact, Schottky barrier height, effect of silicide form. 2−104466
Ru(001), adsorpt. of N_2O, XPS and UPS mes., horizontal and vertical configurations 2−73009
^{97}Ru, NMR in soln. 2−70289
^{101}Ru, NMR in soln. 2−70289
^{106}Ru migration in NTS aquifer 2−83525

ruthenium alloys
see also ruthenium compounds
Al-Ru (10-15 wt.%), rapidly quenched, phase transform 2−77823
$CeRu_2$, superconductor with 4f electrons, photoemission study 2−104525
Fe-Ru, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
$(Mo_{0.60}Ru_{0.40})_{100-x}B_x$ metallic glasses, low temp. sp.ht. 2−104019
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., characts. 2−87104
Ru-Al-Co system, phase diagram and corrosion resist. props. of various phases 2−99397
Ru-Cr, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
Ru-Re, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$Th(Ir,Ru)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
W-Ru matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244

ruthenium compounds
see also ruthenium alloys
complexes, soln.-polymer film interfaces, outer sphere electron transfer kinetics 2−62385
$Gd(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
$Gd_2Ru_2O_7$, IR spectra and elec. cond. 2−110835
KCl:$Ru(I)(CN)_5^{4-}$, EPR superhyperfine interactions 2−104699
$Lu_2Ru_2O_7$, IR spectra and elec. cond. 2−110835
$Nd_2Ru_2O_7$, IR spectra and elec. cond. 2−110835
Ru complex, $H_3Ru_3(\mu_3\text{-}CH)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex, $H_3Ru_3(\mu\text{-}CU)(CO)_9$, cluster complex, vibr. spectra 2−55004
Ru complex, Ru red, unresolved Raman excitation profiles, totally symmetric vibrs. 2−116185
Ru complex, $Ru(bipyridyl)_3^{2+}$ electronic struct. of metal-to-ligand CT states 2−92535
Ru complex, $Ru(bipyridyl)_3^{2+}$ in host lattice, circular dichroism of CT bands 2−93162
Ru complex, tris(2,2'-dipyridine)ruthenium(II), photoinduced electron transfer with organic quenchers, temp. depend. 2−99648
Ru complex clusters, vibr., resonance Raman obs. 2−75488
Ru complexes, $(Ru(bpy)_3)^{2+}$, $(Ru(bpy)(py)_4)^{2+}$ and $(Ru(phen)_3)^{2+}$, symmetry reduction in excited states, photoselection data 2−93241
Ru complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
$Ru(CN)_6^{4-}$, adsorpt. on Ag(Cu), surface enhanced Raman spectrosc. obs. 2−61889
$Ru_3(CO)_{12}$, Coulomb and exchange-correlation pots., local density models, expansion methods 2−54740
$RuCl_3$, ESCA spectra meas. 2−57255
$RuCl_3$, ESCA spectrum and band struct. 2−99298

ruthenium compounds continued
$RuCl_3$ in aq. soln., far IR spectra 2−87760
RuF_5, magnetic interactions of intra-and interclusters, neutron diffr. study *(French)* 2−66805
RuF_6^- complex, charge-transfer electronic spectrum calc. using scatt.-wave method 2−108372
RuF_6^-, total electron density model, Xα scatt.-wave method 2−80466
Ru(II) complex, $Ru(2,2'\text{-bis-isoquinoline})_3^{2+}$, ligand centred luminesc. 2−90599
Ru(II) complex, tris(2,2'-bipyridine)Ru(II), electron transfer quenching, radical yield 2−80794
$Ru_{1-x}Ir_xO_2$, single cryst. growth from vapour 2−62054
RuO_2 colloidal redox catalysts, O_2 evolution in aq. systems 2−78141
RuO_2 film, reactively sputtered, ESCA spectra meas. 2−57255
RuO_2 film, reactively sputtered, electronic struct. 2−110515
RuO_2 films, reactive sputtering and electronic struct., AES, photoemission and optical absorpt. study 2−82502
RuO_2 layers, resistivity and temp. coeff. of resistivity, morphology effects 2−66659
RuO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
RuO_2, single cryst. growth from vapour 2−62054
RuO_2, single cryst. growth by open flow chemical vapour transport technique 2−99310
RuO_2 sputtered film, struct. and metallic cond. props. meas. 2−110493
RuO_2 sputtered overlayers on CdS electrodes, photoelectrochem. behaviour 2−111571
RuO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
RuO_2-CdS Schottky barrier photovoltaic device 2−56633
RuO_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
Ru_2Si_3, formation, thin film reactions, diffusion 2−104077
$Ru(bipyridyl)_3^{2+}$ excited states, cage escape yields in photoredox quenching, added salts effect 2−78115
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
$Y(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
$Y_2Ru_2O_7$, IR spectra and elec. cond. 2−110835

rutile *see titanium compounds*

S-matrix theory
see also dispersion relations
't Hooft's consistency condition for confining field theory from analytic S-matrix theory 2−107638
average nuclear cross-section elastic enhancement and eigenphases condensation 2−69641
baryon-baryon and pion-deuteron scatt., reson. 2−69481
collisions and umbilic catastrophes, control parameters for uniform S-matrix approx. 2−101215
completely X-symm. factorisable, corresponding to theta functions 2−113154
dissipative heavy-ion collisions, quantum dynamical semigroup theory 2−113560
dyon, Julia-Zee, fermion emission, S-matrix 2−69350
factorised S-matrices in elleptic functions, properties *(Russian)* 2−113156
gauge field theory, generalised BRST quantisation 2−79763
gauge invariance/independence, in quantum theory and relativistic QFT 2−107550
Gross-Neveu model, dynamical mass generation, S-matrix extraction 2−113146
hadronic multijet prod., hadron structure functions, S-matrix approach 2−95880
heavy-ion collisions, multiple Coulomb excitation, in classic S-matrix theory 2−96029
isobaric analogue reson., analogue spin purity 2−95980
m-particle threshold, S-matrix unitarity and struct., m→m interaction effect 2−107551
many-particle system, Glauber model cluster scatt. theory *(Chinese)* 2−54343
massive and massless Yang-Mills Lagrangians with quartic coupling of Faddeev-Popov ghosts 2−79773
massless scalar fields with trivial S-matrix 2−113097
multiparticle prod. in dual fragmentation models 2−107637
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
N≥3 extended supergravity, one loop, four particle S-matrix 2−53647
tri-neutron system, dominant resonance pole of S-matrix 2−59303
nonlinear σ model as effective Lagrangian 2−95629
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
nonrelativistic quantum electrodynamics, scatt. matrix elements 2−84838
one-meson sector in static models 2−53974
partial wave S matrix singularity parameters 2−79774
positive energy Weinberg states for scatt. problem soln. 2−85010
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
quantum gravity in 1+1 dimensions with zero cosmological constant, exact soln. 2−79457
regular holonomic character, microlocal anal., unitary type integrals 2−54006
relativistic strings path integral 2−84877
resonances in coupled channels in nuclear and particle physics 2−59307
S_n symmetric model, solutions to triangle equations with variables on faces 2−107510
scattering theory in relativistic quantum mechanics 2−101612
Schrodinger equation, repulsive nonlinear, with left-right boundary conditions, spectral transform 2−95097
spin-1/2 Heisenberg XYZ model, Lax pair, Yang-Baxter relation, quantum inverse scatt. method 2−116023
spinor electrodynamics, generalised commutation relations S-matrix unitarity 2−79737
statistical reactions, polarisation fluctuations, from S-matrix *(Russian)* 2−59321
three-particle equations with Coulomb interaction, bound-state soln. in momentum space 2−59305
transition metals, ionic potentials calc. from resonance model, S-matrix theory appl. 2−76879
two-loop quantum gravity, absence of leading divergences 2−112785
unitarity bound for three-particle scattering amplitude 2−101580
Weyl's theory and complex rot. method applied to phenomena associated with continuous spectra 2−113155

S-matrix theory continued
Weyl theory appl. to N-coupled second order differential eqns. 2−113956
(d,np) breakup reactions, coupled discretised continuum channel method based on three-body model 2−101901
f(1270)-glueball mixture phenomenology 2−69416
NN scattering matrix parametrisation above inelastic threshold 2−69486
$^{12}C(^{12}C, ^{12}C)$, elastic ang. distrib., intermediate structure 2−85079
$^{40}Ca(^{16}O,^{16}O)$, 50 MeV, elastic scatt. cross section, interpretation by Regge formalism 2−113557
$F+H_2$ collinear reactions, S-matrix propag. along Delves' radial coordinate 2−62382
^2H, neutron-proton system, $^3S_1$-$^3D_1$ state, effective range theory appl. 2−95937
Na^+ KLL Auger transition rate, S matrix calcs. 2−85604
Ne, KLL Auger transition rate, S matrix calcs. 2−85604

S-parameters
dielectric-conductor mixtures, permeability meas. in microwave range *(Polish)* 2−53781

safety
see also accidents; alarm systems; fission reactor safety; health hazards; protection
American National Standard for nuclear criticality safety in operations with fissionable materials outside reactors 2−96116
battery, energy storage systems, safety assessments 2−57693
borosilicate-glass raschig rings as neutron absorbers−ANS-8.5 2−96323
colour vision defects, rel. to occupational hazards, review 2−83566
criticality accident alarm system, function and characteristics 2−96327
criticality control, subcritical mass limits for ^{237}Np, $^{238,240,241}Pu$ and $^{241,244}Cm$ 2−96118
criticality safety, solid angle method use 2−96325
criticality safety of LWR fuel elements and components 2−96133
criticality safety pipe intersection standard, review 2−96131
critically safety in shielded facilities 2−96324
electric shocks, scientific and clinical aspects, human body physiology *(German)* 2−94012
electrosurgery: concepts, operation theory, appls. and safety 2−83699
electrosurgical equipment development and problems 2−78480
Emsland Transrapid test facility data processing and safety system *(German)* 2−70478
fission materials, hazard pot. anal. *(German)* 2−85152
fusion reactor, safety analysis code, ATHENA-FK 2−85300
fusion reactor, safety systems, cost optimisation 2−75002
harmonisation and standardisation in nucl. safeguards, symp., Ispara, Italy (April 1982) 2−112658
HF surgical instruments, technical scope and safety problems *(German)* 2−88683
inspector-instrument interface in portable NDA instrumentation 2−74856
lightning formation and discharge process, discharge parameters and safety measures *(French)* 2−78719
liquid natural gas, spills, vapour dispersion simulation 2−99865
mechanical energy storage schemes, safety, socio-economic legal and environmental aspects 2−73152
medical electrical equipment safety and BS5724 2−100140
medical instrumentation safety 2−117107
medical US, biological effects, review, book contrib. 2−111729
MFTF sustaining neutral beam power supply safety procedures 2−74960
MHD power generation, system safety analysis 2−76210
microwave heating principles, applications and safety aspects *(Dutch)* 2−95372
microwave safety standards, biological effects of low level RF energy 2−57850
modular analogue isolator for signal isolation in nuclear power plants 2−85177
neutron absorber solutions for criticality control 2−96132
nuclear fuel casks, cooldown testing 2−75063
nuclear power reactors, safeguard instrumentation status 2−74854
nuclear power technical risks and constitutional law *(German)* 2−64448
programmable controllers for MFTF personnel safety interlocks 2−74968
PVC, chlorinated, use a neutron absorber in fissile material solns. 2−96134
radiation safety standards for space flights 2−59565
radiological safety, standardisation problems *(German)* 2−57904
reactor waste, symp., Kungalv, Sweden (Sept. 1981) 2−112656
RF surgical equipment: appls., technical possibilities and safety problems *(German)* 2−73392
smoke density meter using photometric detectors, railways appl. 2−64092
solid state track detectors appl. in nuclear safeguards 2−69768
special nuclear material, vault inventory systems, hardware options 2−69721
spent nuclear fuel storage under water, natural convection 2−74818
spent reactor fuel monitoring, safeguard instrument 2−74802
subcritical neutron multiplication meas. safety standard 2−96117
Three Mile Island, environmental radiation doses using TLDs *(Spanish)* 2−70001
transportation of radioactive materials, safety aspects *(Spanish)* 2−70002
windmills in Netherlands, planning *(Dutch)* 2−116775
Ca-Ca$(AlCl_4)_2$-$SOCl_2$ cell, performance and safety meas. 2−78195
H isotope release with fire or explosion, at tritium recovery plant, hot gas rise 2−54689
Pu in storage vaults, movement monitoring and detection 2−74803
Pu measurement for nuclear safeguards, automated analytical instrumentation appl. 2−74804
Pu processing, criticality alarm system 2−96135
RaA atoms, attached and unattached, deposition in human respiratory tract *(Japanese)* 2−68157
U measurement for nuclear safeguards, automated analytical instrumentation appl. 2−74804

safety systems
see also alarm systems
BWR solid state safety system self-testing 2−85200
nuclear facilities, inspection methods for safeguard systems 2−74805
nuclear reactor digital protection system 2−102195
nuclear safeguard system effectiveness, framework for evaluation 2−74806
standby systems, availability anal. 2−74888
telecommunication aids for elderly disabled population 2−68193

salt water conversion *see desalination*

samarium
see also nuclei with ....:
adsorption on W, displacement of Cs 2−104164

samarium continued
atom, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
atom, laser isotope separation by two-step selective photoionisation method 2−64940
atom, oscillator strengths and electron excitation cross sections 2−85593
atom, oscillator strengths and electron impact excitation cross section *(Russian)* 2−102435
atom, photoionisation cross section meas. from excited states rel. to laser isotope separation 2−64939
atom, tensor polarisability determ. by quantum beat spectroscopy 2−59744
atoms, anomalous isotope shifts theory 2−64916
electronic struct., X-ray emission spectra 2−87910
fluctuating valence materials, replicated core levels and 4f excitation energies 2−56504
fusion reactor blankets, neutron multiplication calc. 2−54643
relativistic 2p excitation energy calcs. 2−115686
spectral lines, electron-impact excitation effective cross sections, 3700-6000 Å 2−59943
surface divalency from electron energy loss spectra 2−66610
thin film, elec. props., effects of pressure, ageing and in situ annealing 2−87422
vacuum UV absorpt. spectra 2−93217
X-ray emission, and absorpt. spectra, $M_{4,5}$ 2−57210
$Bi_{2-x}La_xWO_6$:Sm, luminesc. props. 2−82900
CaF_2:Sm^{2+}, acoustic phonon-impurity interaction, luminesc. study 2−93269
CaS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
CaS:Sm, phosphors, phosphorescence decay, trapping parameters 2−61941
GaP:Sm epitaxial films, photoluminesc., effect of γ-irrad. 2−93267
LiLaSm-phosphate glass:Sm^{3+}, luminesc. selective laser excitation study 2−67109
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
Si:Sm, IR absorpt. spectra, 1.8 μm absorpt. band, annealing effects 2−57137
Sm:Ar film, ion implanted, impurity depth distrib. 2−110215
Sm-Nd mixture, isotope ratios determ. by resonance ionisation mass spectrometry 2−116761
$_{62}$Sm, probabilities of KMM Auger transitions 2−59767
SrS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
Y_2O_3:Sm^{3+}, energy levels, cryst. field anal., fluoresc. and IR study 2−72534
ZnS:Cu, Sm, electrolum. and photolum., quantum yield meas. 2−110943

samarium alloys
$Sm_x(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
transition metal alloys, domain struct. characts. appl. to phase anal. 2−72253
Co-Fe-Cu-Hf-Sm, permanent magnet, microstruct., SEM study 2−92224
Co-Fe-Cu-Zr-Sm(-Ti), permanent magnet, microstruct., SEM study 2−92224
Dy-Sm, mag. and elec. props. 2−72201
Mg-Sm, supersaturated solid soln., precipitation study *(Russian)* 2−116443
$Nd_xSm_{1-x}Co_5$, magnetisation curve anomalies meas., 4.2 to 100K *(Russian)* 2−92960
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
Sm-Co-Cu-Fe-Zr, permanent mag., struct., sintering and annealing effects *(Russian)* 2−88226
Sm-In system, phase diagrams and lattice spacings of cpds. 2−111141
Sm-In system, phase equilibria, cryst. struct., DTA, X-ray and metallographic study 2−92156
$(Sm-R)_2(Co-M)_{17}$, residual induction, mag. props., permanent magnets appl. 2−82662
SmAg, core level EELS and XPS spectra 2−72588
$SmAl_2$, quadrupole interaction at ^{111}Cd probe 2−116100
SmAlGa, mag. props. study 2−72141
$Sm(Co, Cu, Fe, Zr)_{7.4}$ permanent magnet, precip. hardened, microstruct. 2−71657
$Sm(Co, Cu, Fe)_{6.8-7.2}$ cast hard mag. alloys, fine struct. after heat treatment 2−99465
$Sm_2(Co,Fe,Cu,Zr)_{17}$ sintered permanent magnets, coercive force and struct., Sm content effect 2−72278
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2−72284
$Sm_2(Co,Mn)_{17}$, domain struct. parameters 2−72252
$SmCo_2$, anomalous hyperfine field and orbital moment 2−56973
$SmCo_5$, abrupt magnetisation switching anisotropy *(Russian)* 2−104658
$SmCo_5$ permanent magnet, coercivity 2−72284
$SmCo_5$ permanent magnet, sintered, particle alignment factor, mag. determ. 2−72287
$SmCo_5$ sintered permanent magnets, fine struct. and mag. props. *(Russian)* 2−104664
$SmCo_5$-Sn(Fe), alloying addition effect on X-ray diffr. relative intensity *(Chinese)* 2−97993
Sm_2Co_{17}, abrupt magnetisation switching anisotropy *(Russian)* 2−104658
Sm_2Co_{17}, mag. props., effect of heat treatment and addition of Fe, Mn, V and Sn *(German)* 2−67575
Sm_2Co_{17}, NMR study of hyperfine interactions 2−56974
Sm_2Co_{17-x}, struct. and mag. props. 2−61741
Sm_5Co_{19}, intergrowth and stacking faults, electron microscope obs. 2−115255
$Sm(Co_{0.65}Cu_{0.35})_x$ (x=4.5, 5.6, 6), coercive force, precipitation effects *(Russian)* 2−92961
$Sm(Co_{0.86}Cu_{0.14})_7$, struct. and coercivity, heat treatment effects *(Russian)* 2−88227
$Sm_2(Co_{1-x}Fe_x)_{17}$, magnetisation reversal and coercive force, comp. depend. 2−72279
$Sm(Co_{0.66}Fe_{0.21}Cu_{0.10}Zr_{0.06})_{7.4}$, struct. transformations and coercive force meas. *(Russian)* 2−98913
$Sm(Co_{0.69}Fe_{0.22}Cu_{0.07}Zr_{0.02})_{7.22}$, magnetic hardening 2−72283
$Sm_2(Co_{1-x}M_x)_{17}$, M=Mn, Zr, struct. and mag. props. 2−72280
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2−72171
$Sm_xDy_{1-x}Fe_2$, magnetostriction, temp. depend. meas. 2−77351
$Sm_x(Er,Gd)_{1-x}Co_5$, mag. props. and mag. induction temp. depend. meas. *(Russian)* 2−98914

samarium alloys continued
$SmFe_2$, Laves phase cpds., correlation of ^{57}Fe hyperfine interactions with Fe-Fe distance 2−56985
Sm_5Ni_{19} polytypes, cryst. struct., electron diffr. and microscopy study 2−91877
$SmPd_3$, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006
SmPtSi, cryst. struct. 2−65922
$Sm_{1-x}R_xNi$ (R=rare earth), phase relationships and struct., 2−109744
$SmSn_3$, monocryst., thermopower 2−71952
$SnCo_5$, mag. anisotropy due to strong J-mixing 2−56847
$Y_{1-x}Sm_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2−61706

samarium compounds
see also samarium alloys
$Ba_xSm_{1-x}CoO_3$, mag. clusters, hysteresis and susceptibility study 2−61739
$BaTiO_3$-Sm_2O_3.$3TiO_2$, formation of $BaSm_2TiO_4O_{12}$, dielec. props. 2−71417
CaF_2-SmF_3, radiation induced F^- interstitials, TDPAC study 2−98163
$Eu_{1-x}Sm_xO$, mag. semicond., s-d exchange interaction, current carriers effect, expt. study 2−92895
Fe-garnet films, hard-stripe domains, investig. 2−104673
LiLaSm-phosphate glass:Sm^{3+}, luminesc. selective laser excitation study 2−67109
β″-RbSm$(PO_3)_4$, X-ray structural investigation 2−76384
$(Sm,Y)_3Fe_5O_{12}$, epitaxial bubble film, rare earth segregation 2−72633
Sm-Co permanent magnets, prep. by liq. phase sintering *(Chinese)* 2−62088
SmB_6, compressibility, valency and intermediate valence effects 2−56072
SmB_6, core level EELS and XPS spectra 2−72588
SmB_6, electronic struct., X-ray emission spectra 2−87910
SmB_6, intermediate valent, phonon softening, Raman spectra study 2−57081
SmB_6, K emission and absorpt. spectra, band struct. 2−87900
SmB_6, mixed valence cpd., small energy gap, electron tunnelling and IR spectrum 2−56442
SmB_6 mixed valence cpd., anomalous props. 2−56511
SmB_6, mixed-valent, dynamic mag. response 2−72132
SmB_6, point contact spectroscopy of dynamic resistance 2−56591
SmB_6, Sm $M_{4,5}$ emission of absorpt. spectra 2−57210
SmB_6:Eu^{2+}, local cryst. fields, EPR study 2−92999
$SmCe_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$SmCl_3.6H_2O$:Gd^{3+}, cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
$SmCl_3.6H_2O$:Gd^{3+}, spin-Hamiltonian parameter superposition model anal. 2−98600
SmD_{2+x}, antiferromagnetic ordering study 2−72160
SmD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
$SmFe_2$, hyperfine fields, Mossbauer spectra obs. 2−99005
$SmFeO_3$, Raman scatt. from mag. excitations 2−77528
$SmFe_xO_{12}$ garnet, amorphous, struct. props., Mossbauer study 2−103625
$Sm_3Fe_5O_{12}$, mag. phase transitions, Ising ordering hypothesis *(Russian)* 2−56860
$Sm_{1-x}La_xB_6$, valence instabilities and elec. props. 2−56595
$Sm_xLa_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
Sm_3NiSi_2, cryst. struct., Gd_3NiSi_2 type, X-ray diffr. study 2−65961
SmO_2, upper Laue zones influence an electron diffr. patterns and electron images 2−97867
Sm_2O_3, cubic, lattice and binding energies 2−60916
Sm_2O_3, electronic struct., X-ray emission spectra 2−87910
Sm_2O_3-BeO, phase equilibrium study 2−66168
Sm_2O_3-$SmPO_4$, phase diagram 2−67740
$Sm_2(Pt(CN)_4)_3.18H_2O$, radiationless energy transfer, donor and acceptor state selectivity 2−59849
$Sm_{1-x}R_xB_6$ (R=La, Gd, Dy), solid solns., valence states, X-ray absorption spectra study 2−87202
$Sm_{1-x}R_xS$, (R=rare earth), solid solns., intermediate valency state, X-ray line shift study 2−87201
SmS, bulk and surface valence states 2−104247
SmS collapsed phase, Hall effect and elec. resist., press. and temp. depend. 2−56625
SmS, core level EELS and XPS spectra 2−72588
SmS, electron-phonon coupling in intermediate-valence compounds 2−56133
SmS, electronic struct., X-ray emission spectra 2−87910
SmS, eqn. of state of intermediate valence solids, theory based on metallic H_2 2−56520
SmS, intermediate valence materials, press. expts. 2−56502
SmS, mixed valence, lattice dynamics 2−76621
SmS, mixed valence cpd., quasi-insulating to Fermi liq. regime change under press. 2−56518
SmS, press. induced change of valence, phonon coupling, extended Falicov-Kimball model 2−56183
SmS, pressure-induced elastic softening, elastic const. meas. 2−92075
$SmS_{1-x}O_x$, local electronic struct. 2−56488
SmSe, electronic struct., X-ray emission spectra 2−87910
SmSe intermediate valence materials, press. expts. 2−56502
$Sm_{2-x}Sr_{1+x}Cu_2O_{6-x/2}$, cryst. struct. and elec. props., O vacancies *(French)* 2−91917
SmTmCaGe garnet (100) films, Neel walls and line transitions 2−110614
$Sm_{0.85}Tm_{2.15}Fe_5O_{12}$, epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
$Sm_{1-x}U_yO_{2\pm x}$, mixed oxide lattice parameters 2−59462
$SmVO_4$, ratio of nucl. elec. quadrupole moments of ^{50}V and ^{51}V, NMR meas. 2−77411
$Sm_{0.45}Y_{2.55}Fe_{3.85}Ga_{1.15}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2−61745
$Sm_{0.75}Y_{0.25}S$, electron-phonon coupling in intermediate-valence compounds 2−56133
$Sm_{0.75}Y_{0.25}S$, intermediate valence cpd., lattice dynamics 2−56111
$Sm_{1-x}Y_xS$, mixed valent, X-ray absorption studies 2−57215
$Sm_{1-x}Y_xS$, surface core-level shift calcs. 2−104457
$Sm_xY_{1-x}S$, EXAFS theory, valence fluctuation 2−82956
$Sm_{1-x}Yb_xB_6$, valence instabilities and elec. props. 2−56595
$SnNbO_4$, cryst. struct. refinement 2−103726
$(Y,Sm,Lu,Ca)_3(Fe,Ge)_5O_{12}$ films, H^+ implanted; laser annealing 2−76492
$(YSmCa)_3(FeGe)_5O_{12}$ epitaxial film, cylindrical mag. domain behavior in ion implantation advancement channel 2−77347

samarium compounds continued
$(YSm)_3(FeGa)_5O_{12}$ epitaxial films, bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2−104669
$Y_{3-x}Sm_xFe_5O_{12}$, exchange interaction and mag. anisotropy 2−72187
$Y_{2.6}Sm_{0.4}Ga_{1.1}Fe_{3.9}O_{12}$ epitaxial bubble garnet film, mag. props. 2−87561
$(YSmLuCa)_3(FeGe)_5O_{12}$ films, ion implanted, cubic anisotropy meas. 2−77340
$(YSmLuCa)_3(GeFe)_5O_{12}$-metal interface, mag. parameters, bubble memories 2−72318
YSmLuCaGeIG:Ne(H), ion implanted bubble garnet film, mag. and cryst. props. 2−82644
sample and hold circuits
integrated amplifier and sample-and-hold analogue multiplexer module for proportional chamber 2−64802
multidetector systems appls., sample-hold cct. with analogue multiplexer 2−108304
potential locking unit for cell membrane *(Russian)* 2−83703
sand
Long Island (New York), inner shelf sediment transport 2−117289
motar, sand-cement, acoustic emission and longevity under steady load 2−93619
E Sahara Desert, playa sediments and sand dunes in Great Sand Sea and Selima Sand Sheet 2−117269
SH-waves in a dry sandy layer 2−105959
singing sand, freq. measurements 2−70753
sapphire
anisotropic phonon propag., SEM study 2−115369
chemical etching in H_2 stream and in H_3PO_4-H_2SO_4 mixture 2−88232
cylinders, torsional vibrs., electrostatic method investig. 2−103076
dislocation climb dissoc., dislocation dipoles 2−60989
electron beam evaporated films for tunnel barrier appls. 2−115912
far IR performance 2−60187
fracture induced photon emission, appl. to fracture mechanics 2−93293
leucosapphire, ^{27}Al quadrupole and hexadecapole transitions, ANMR 2−110659
leucosapphire, block struct. and disorientation, X-ray and optical polarisation study 2−103733
microstrength meas. 2−93743
phonons, shell model investigations 2−61090
plastic flow dynamics, along c-axis 2−99490
single cryst., fracture toughness, room temp. *(Japanese)* 2−67507
SOS:B, ion implanted, doping profile, thermal distribution, computer simulation 2−66033
SOS:Si films, characterisation of defect reduction and Al redistrib. 2−91947
SOS, laser annealed, electron Hall mobility and residual stresses, heat treatment effects, Raman study 2−98745
SOS, two-layer structure, scanning electron or laser beam irrad., temp. distrib. calc. 2−92027
SOS electrical transport props., thermoelectric power appl. *(French)* 2−61594
SOS epitaxial film, fault-free Si at Si-Al_2O_3 interface 2−115575
SOS films, and interfaces, chem. aspects 2−91847
SOS films, effect of high-temp. H_2 annealing 2−93543
SOS films, model for X-ray rocking curve half-widths interpretation 2−91977
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
SOS films, non-homogeneous elec. transport, galvanomag. expts., internal stress influence 2−115904
SOS films, optical characterisation of Si and sapphire surfaces rel. to discrete device performance 2−93219
SOS films, rel. between crystallinity and electronic props. 2−92514
SOS films, sapphire substrate orientation influence on crystn. quality and SOS/MOS mobility 2−91948
SOS films, struct.-props. rels. associated with haze 2−91907
SOS structures, CVD growth, surface defect and strain reduction by ion implantation and solid phase epitaxy 2−66384
SOS structures, Hall mobility and capacitance meas., internal stresses and pot. fluctuations influence 2−82470
substrate, Ti/Pt/Au thin film cct., RF deposition 2−99338
substrate for AlN film, appl. in zero temp. coeff. SAW delay lines 2−86185
substrate for heteroepitaxy of VN *(Russian)* 2−71814
substrate for Si SOS, heteroepitaxial, hydrogenation induced improvement in electronic props. 2−66669
substrate with Au thin film, surface phonon scatt. 2−82114
Al implanted, variable range hopping conductivity 2−66546
Au-Al_2O_3-Au(Al) tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
$LiNbO_3$-sapphire waveguide, phase-matched freq. doubling obs. 2−65303
Ni-Al_2O_3-Al tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Si-on-sapphire, cryst. defects reduction by room temp. ion implantation 2−92012
Si-sapphire interface, high resolution TEM study 2−66380
satellite atmospheres *see planetary satellite atmospheres*
satellite ground stations
link availability subject to correlated rain attenuation at ground terminals 2−106293
precise time transfer techniques, satellite laser ranging, Indian contribution 2−89671
T/F comparisons, precise international, ground and satellite TV systems 2−89674
unbalanced site diversity data, rain rate propagation statistics, Japan 2−106216
satellite links
see also artificial satellites
, COMSTAR beacon appl. 2−106214
COMSTAR satellite propagation experiments, 19 and 28 GHz 2−94471
emergency communication system, use of 1980 November 23 Italian earthquake as design basis 2−117199
fibre optics systems for space applications 2−91061
geosynchronous satellite location program in TRS-80 BASIC 2−117564
ionospheric effects on the SARSAT system 2−94550
ionospheric infl. on geostationary satellite radio, Japan *(Japanese)* 2−94561
ionospheric scintillation meas. at 4 and 6 GHz during sunspot cycle 21 peak using INTELSAT earth stations 2−78898
joint distribution estimation attenuation, cross-polarisation discrimination, satellite-Earth radio paths 2−106215
satellite links continued
outage rates of earth-space RF satellite links, based on attenuation and depolarisation meas. 2−106294
radio signals transmitted between orbiting satellites, Doppler shift 2−89061
rain attenuation meas., earth-space path at 12 GHz, CTS beacon appl. 2−112033
rain-scatter coupling between space-earch radio paths, measured bounds 2−94436
time meas. standardisation, BCR-project on time comparison via OTS-2 2−112874
satellite relay systems
see also satellite ground stations
airborne meteorological data acquisition and communications system ASDAR 2−68527
link availability subject to correlated rain attenuation at ground terminals 2−106293
NASA 30/20 GHz experimental satellite, effects of rain on system performance 2−106292
optimum redundant satellite orbit system formulae *(Japanese)* 2−73818
space technical appl., conf., Pentagon City, VA, USA (March 1981) 2−68972
time and frequency meas., recent activities at Radio Research Laboratories 2−89657
satellite vehicles *see artificial satellites*
satellites, artificial *see artificial satellites*
satellites, planetary *see planetary satellites*
saturable absorption, optical *see optical saturable absorption*
saturable core reactors
magnetic pulse modulator and compressor for injector triggering 2−90319
stripline magnetic modulators for lasers and accelerators 2−97024
transducer design, combined semiconductor and magnetic transductor technology appl. *(German)* 2−74405
saturable reactors *see saturable core reactors*
saturation control *see chemical variables control*
saturation effects, optical *see optical saturation*
saturation measurement *see chemical variables measurement*
Saturn
1980 S 13, 25, Tethys Lagrangian satellites, longitude differences from Tethys (May 1982) 2−89192
1980 S 6, photographic obs. and longitude separation from Dione 2−68656
1980 S 6 ('Dione B'), positional obs. and longitude difference from Dione (May 1982) 2−89192
A-ring, Keeler gap 2−106610
atmosphere, aerosol struct. model from polarisation obs. 2−73902
atmosphere, albedo, absorption model and airglow, UV obs. 2−79006
atmosphere, disk and rings, physics, book *(Russian)* 2−84392
atmosphere, electron precipitation and EUV emission 2−94638
atmosphere, HCN IR obs. 2−58298
atmosphere, methane and NH_3 bands longitudinal variability, IR obs. 2−73901
atmosphere dynamical features, Voyager I obs. 2−84150
atmosphere motion, summary of pre-Voyager obs. 2−79022
atmospheric non-biological organic molecules existence 2−100812
Cassini division, clearing by satellite resonances 2−58301
comet families, orbits and origin and evolution in planet eruption theory 2−84171
disk and rings, far IR brightness temp. 2−100821
E-ring photometry (1979-80) 2−100820
electrostatic discharges source, relation to narrow gap in Saturn B-ring 2−112384
excess thermal flux due to accretion of material from explosion in Titan atm. 2−84147
F-ring features, model and appl. to Jupiter and Uranus 2−68664
free oscillations, review 2−100894
Hyperion, surface comp. and radius from IR spectrophotometry 2−106606
Hyperion orbital motion anomalies *(Chinese)* 2−112380
Iapetus, IR obs. of dark side 2−100823
Iapetus (Saturn VIII), precise positions (1981 March 1 to 12) 2−89193
Iapetus (Saturn VIII), precise posns. (1982 April) 2−100825
icy satellites, ice phase transitions as resurfacing mechanism 2−112382
icy satellites, volcanism and igneous processes 2−94643
magnetic field and magnetopause studies by Voyager 2 obs. 2−84157
magnetic field dynamo model 2−106605
magnetic field structure determination from charge particle absorpt. signatures 2−106548
magnetic field zonal harmonic model 2−94642
magnetosphere, low energy hot plasma and particles 2−84159
magnetosphere, Voyager 2 obs. of energetic charged particles 2−84160
magnetosphere plasma characts. from Voyager 2 obs. 2−84158
magnetosphere radioemissions due to Titan's wake 2−68662
magnetosphere stagnation point, influence of solar wind 2−63308
magnetosphere trapped particles affected by Titan 2−68663
magnetospheric charged dust grain motion, theory 2−89175
origin and initial temp. 2−100809
Phoebe (Saturn IX), literal theory *(French)* 2−79021
photopolarimetry from Voyager 2, results 2−84153
radio emission controlled by solar wind variations 2−94639
radio emission maps, VLA obs. at 1.3, 2 and 6 cm 2−106607
radio studies by Voyager 2−58303
results and summary after Pioneer and Voyager 2−73903
ring features, microwave edge diffraction obs. (from Voyager 1) 2−106609
ring structure viscous origin 2−89191
ring system, collisions affecting ring struct. 2−89194
ring system, electrodynamics of non-circular ringlets 2−89195
ring system, periodic variation of spoke activity 2−79018
ring system, resonance features and mass of rings 2−84149
ring system, satellite-ring particles orbital resonances rel. to sharp edges of rings 2−112383
ring system and satellite ice sputtering by magnetospheric ions 2−94641
ringlets' structure, role of mag. field acting on plasma 2−84148
rings, cosmogonic shadow effect 2−63309
rings, delay-Doppler radar obs. at 12.6 cm (1976 Jan.-Feb.) 2−100822
rings, major resonances locations and strengths with known moons 2−100814
rings, radio occultation theory 2−100819

Saturn continued
rings, thickness and scatt. props. from March 1980 obs. 2−79019
rings photometric function 2−112381
satellite mutual events (in April 1980) 2−106604
satellite system origin, unified formation theory 2−106608
satellites, general 2−79020
satellites, geological evolution 2−58302
satellites, orbits and formation, hydrodynamic theory appl. to Solar System 2−94637
satellites astrometry from Leander McCormick Observatory for 1978-9, 1980, 1981 oppositions, obs. 2−73891
spatially resolved reflectivity from 3000 to 6000 Å obs. 2−73900
spoke particle size 2−100818
spokes in B-ring, field-aligned currents 2−100817
Titan, atmosphere, H_2CN^+-N_2 production *(French)* 2−100816
Titan, atmosphere formation, chemistry and models 2−79023
Titan, brightness temperature from 415 μm obs. 2−100815
Titan, EUV spectral emission from upper atmos. 2−68658
Titan, H_2CN^+-N_2 production, model expt. 2−100826
Titan, magnetosphere induced by passage through Saturn's magnetosphere 2−68659
Titan, methane red bands obs. 2−90560
Titan, non-biological organic molecules existence 2−100812
Titan, plasma wake in Saturn's magnetosphere 2−68660
Titan, upper atmos. temp. and chem. composition 2−68657
Titan's wake in Saturn's magnetosphere, Voyager radionoise obs. 2−68661
Titan atmosphere, chemistry and evolution 2−112386
Titan atmosphere, comp. and origin 2−112385
VLF radio emission source regions 2−94640
voyager 1 Saturn targeting strategy 2−89111
Voyager 2 encounter, trajectory, obs. and results 2−84151
Voyager 2 IR obs. of Saturnian system 2−84154
Voyager 2 photographic results 2−84152
Voyager 2 plasma wave obs. 2−84162
Voyager 2 radio astronomical obs. 2−84161
Voyager 2 radio occultation data for atmosphere and satellites 2−84156
Voyager 2 UV obs. of atmosphere 2−84155
Voyager observations *(Japanese)* 2−117629
o-H_2→p-H_2 conversion in Jovian planetary atmospheres 2−100782

SAW *see surface acoustic waves*

SC (sudden commencement) *see magnetic storms*

scale invariance *see scaling phenomena*

scalers (circuits) *see scaling circuits*

scales *see balances*

scaling circuits
multiple input multichannel scaling selector with IC components *(Chinese)* 2−59647

scaling phenomena
see also elementary particle theory; renormalisation
boson system, classical quantum crossover in large n-limit 2−101309
branching model asymptotic precocious KNO scaling 2−113115
cluster model for multiplicity distribs., KNO scaling 2−89982
cosmic ray air shower subcore, TeV interactions high-p_T scaling test 2−84055
cosmic-ray showers, elongation rate theorem 2−89096
deep inelastic scatt., higher twist contribs., corrections to QCD, scaling violations, struct. functions 2−95757
deep inelastic scatt., power corrections in QCD, Q^{-2} effects 2−101643
deep inelastic scatt. in QCD, power corrections theory 2−101730
dilation invariance, local approach, spontaneous scale breaking 2−59021
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
Feenberg scaling and higher-order invariants in Rayleigh-Schrodinger perturbation theory 2−79399
fragmentation functions, higher order QCD corrections for scaling violation 2−64290
hadronic interactions and gigantic γ-ray family events with $\Sigma E_\gamma \geq 1000$ TeV 2−63198
hard processes, inclusive spectra, scaling violation anal. in QCD 2−59192
high energy cosmic ray interaction props. and comparison with accelerator expt. results 2−112288
high energy neutrino interactions, expt. advances 2−64312
hyperscaling and crossover exponents near the percolation threshold 2−107261
infrared properties of a quark gas 2−64284
infrared sensitive quantities and the structure of final states in QCD 2−54102
interacting fields in curved space time, scaling behaviour 2−53967
IR singularity cancellation through unitarity relation 2−59025
minimal subtraction method, percolation scaling amplitude ratio correction 2−107262
nuclear interactions and primary cosmic-ray components around 10^{15} eV, γ-ray families cluster anal. 2−100687
nuclear structure function at large x and Λ_{QCD} 2−107634
photon-photon elastic scatt. amplitude study at high energy 2−107720
Potts three-state model, scaling corrections 2−95259
QCD, fragmentation functions, scaling, timelike cut vertices 2−79751
QCD, scaling violations beyond the leading order 2−54087
QCD and dual topological unitarisation, gluons in hadronic S-matrix 2−101666
QCD scale parameter Λ, analytical continuation effects influence from ψ,ϒ decay 2−113211
QFT, asymptotic scaling on the light cone 2−53984
scale parameter in QCD, effect of quark mass 2−101656
SU(2) lattice gauge theories, asymptotically free scaling onset 2−107544
two dimensional frustrated x-y model, phase transition, scaling eqns. 2−63923
two-dimensional percolation and lattice animals, phenomenological renormalisation appl. 2−63912
violations in deep inelastic phenomena, massive quark model description 2−59186
Z_3 symmetric spin system application 2−107513
e^+e^-→X, 12-36.7 GeV, inclusive charged particle prod., scale breaking 2−89972
e^-N deep inelastic scatt., gluon and quark jets, theory 2−101732
ep, scaling violations and gluon distrib. of nucleon 2−79882
γγ, elastic scattering at high energy and fixed angle in QED 2−107603
γp, large p_T photoproduction in hard scatt. expansion 2−101734

scaling phenomena continued
hh, high energy scatt., massive lepton pair prod. in perturbative QCD 2−54220
hh→X, production cross-sections, phenomenological constraints, KNO scaling 2−74712
hN, exlusive descript. of multiple prod., inclusive spectra, scaling *(Russian)* 2−113311
μN, deep inelastic scatt., single hadron prod., Q^2, x and W^2 depend. meas. 2−107669
μN, nucleon structure function meas. 2−64329
νN, struct. functions, strong non-asymptotically-free theories, QCD test, scaling violation 2−84897
νN deep inelastic scatt., nucleon gluon distrib., QCD, struct. function scaling violation 2−84887
$\bar{\nu}_\mu$N, 10-200 GeV, inclusive charged current interactions, struct. functions, scaling, quark-parton anal. 2−101700
pN (NN), inclusive γ-ray and charged-meson prod. study at greater than 10 TeV 2−73811
pN→X, shower prong distributions, semi-inclusive KND scaling in emulsion 2−113470
$\bar{p}p$, 32 GeV/c, inclusive prod. of $\pi^\pm$ and protons 2−79924
pp→$\bar{p}$X, invariant cross section parametrisation using scaling variable 2−113307
pp(pp̄), CMS energies up to 1000 GeV, charged hadron multiplicity 2−79920
$\bar{p}p(pp)$→Z^0X→l^+l^-X, scaling, nonleading QCD corrections 2−113305
π^-p, interaction at 5 and 40 GeV/c, KNO scaling *(Russian)* 2−84926
π^-p, slope parameter and zero trajectories 2−54207

scaling tubes *see counting tubes*

scandium
see also nuclei with .....
adsorption on W(011) props. calcs. 2−104165
determination in air (Tehran) by neutron activation anal. 2−78162
high pressure phase transition 2−81953
molecule, binding calc. 2−54737
nuclear spin-lattice relax., ab initio semi-relativistic ASA-SCF-LMTO linear tetrahedron calc. 2−98985
optical properties of metals, data collection 2−93138
spin fluctuation quenching, specific heat 2−77304
surface (0001), atomic struct. 2−56312
$CsMgI_3$:Sc^{3+}, thermoluminescence and energy storage 2−99198
Sc II hyperfine struct. obs. 2−59953
Sc V, electron impact ionisation cross sections 2−80826

scandium alloys
see also scandium compounds
Al-Mg-Sc alloy, elastic strain caused by $ScAl_3$ precipitates, electron microscopy study *(Russian)* 2−105207
$Ce_{1-x}Sc_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Sc_xAl_2$, volume collapse and spin fluctuation behaviour 2−55892
$Ce_{1-x}Sc_xPd_3$, intermediate valence and Gd^{3+} ESR 2−56927
Dy-Sc, spin glass and antiferromag. transitions, bulk magnetisation study 2−72222
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
Sc-H, phase boundaries at 295K, film resist. study 2−86880
Sc-Si-M (M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
$Sc_{1-x}Ce_xAl_2$:Gd, EPR, intermediate valence 2−56926
$ScFe_2$, hydrogenated, ^{57}Fe Mossbauer spectroscopy 2−72388
$ScRe_2$, density of states and supercond., low temp. sp. hts. 2−61640
$ScTc_2$, density of states and supercond., low temp. sp. hts. 2−61640

scandium compounds
see also scandium alloys
trihalides, vibr. freq. force consts. calcs. 2−108443
BaO-CaO-Sc_2O_3, system, cryst. struct. and phase diagrams, X-ray diffr. study 2−91921
$CaScSi_3O_8(OH)$, cascandite, cryst. struct., X-ray diffr. study 2−98009
$KSc(MoO_4)_2$, soft phonon modes at ferroelastic phase transition *(Russian)* 2−56148
$KSc(MoO_4)_2$:Cr monocrystals, ferroelastic phase transitions, Cr^{3+} EPR 2−115404
Na_2O-Sc_2O_3-SiO_2, glass transition temp., relation to glass comp. 2−66219
$ScCo_2H_{3.4}$, Laves phase, thermal stability, H sorption effects of U and Ti doping 2−87014
$Sc_2Cr_4Si_6$, cryst. struct., Laue rotating and precession study 2−65960
ScF_3-BaF_2-YF_3(ThF_4)(NaF), glass, phys. props. *(French)* 2−91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2−91809
$ScFe_2H_{3.4}$, Laves phase, thermal stability, H sorption, effects of Y and Ti doping 2−87014
ScH, effective core pot. calcs., pseudopotential method 2−64861
ScH, electronic states, d bond, multiconfigurational SCF/CI calcs. 2−80497
ScH_2, electronic energy bands and optical props. 2−82224
$Sc_3Ni_4Ge_4$, with $Gd_6Cu_8Ge_8$ type struct., cryst. struct. study 2−76371
$ScNi_2H_{3.4}$, Laves phase, thermal stability, H sorption 2−87014
ScO, basis sets and basis set superposition error investigated using frozen core and frozen orbital techniques 2−96412
ScO, effective core pot. calcs., pseudopotential method 2−64861
Sc_2O_3 emission material for matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244
$Sc_3Sb_5O_{12}$, cryst. struct. and dielec. props. 2−109755
SrO-Sc_2O_3-CaO(BaO), system, cryst. struct. and phase diagrams, X-ray diffr. study 2−91921
ZrF_4-ThF_4-ScF_3, glass forming area, thermal expansion and UV absorption edge *(French)* 2−115146
ZrO_2-Sc_2O_3, electron beam induced reduction, high resolution electron microscope study 2−78086

scanning electron microscope applications
see also scanning electron microscope examination of materials
CW electron beam annealing of polycryst. Si film, grain growth *(Japanese)* 2−115597
new high performance microscope, features and capabilities 2−107459
SAW propag. investigation 2−113048
SAW visualisation 2−86190
seed photography using SEM 2−107455
STEM, projection electron lithography, uses of contamination 2−64171
stereophotogrammetry with SEM 2−88320
weak super HF signal meas. by electron probe 2−69306

scanning electron microscope applications continued
GaAs, minority carrier lifetime meas. using SEM with intensity modulated electron beam 2−87301
$GaAs_{1-x}P_x$, minority carrier lifetime meas. using SEM with intensity modulated electron beam 2−87301

scanning electron microscope examination of materials
see also scanning electron microscopy
aero gas turbines, corrosion prevention by organometallic cpd. additives 2−116623
atmospheric corrosion, initiation by SO_2 and particulate matter, test-cell apparatus 2−111355
atmospheric corrosion, initiation by SO_2 and particulate matter, corrosivity of individual pollutants 2−111356
biological implants, ion beam sputter modification of surface topography, SEM obs. 2−116570
brass, diffusion-induced grain boundary migration 2−103783
brass, wear expts. in SEM 2−67571
carbide directional γ/γ' eutectic, struct. defects after long-term strength tests *(Russian)* 2−98092
cast Fe, abrasion-resist., transition wear behaviour 2−88215
ceramic particle-PMMA composite, optimum strength 2−105280
ceramic polycrystals, struct. reliability, processing-depend. phenomenon 2−77908
ceramic-like body, process design, prod. from recycled waste glass, microstruct. and devitrification 2−111127
ceramics, fibrous, low-density, fracture behaviour 2−77910
ceramics, fibrous, low-density, mech. props., micromech. model 2−77909
epoxide resin adhesives, having different network structs., fatigue behaviour *(Japanese)* 2−62202
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
fatigue, fretting, finite element anal. and electron microscopy study 2−88193
fibre reinforced composites, coated, raindrop impact, indirect damage 2−62229
fibres, carbide coating produced by liquid metal transfer agent method 2−88245
fly ash particulates, insulating, micron size, electron beam effects in AES studies 2−92034
foils, electrodeposited, ESCA signal intensity dependence on surface area (roughness) 2−110098
glass bead-filled Nylon 6, fatigue crack growth and fracture energy 2−105279
glass fibre reinforced epoxy, fully and partially loaded, rate sensitive tensile impact props., test system 2−67684
glass fibre reinforced polyethyleneterephthalate, plates, struct. invest. 2−62217
glass fibre reinforced rubber, short glass fibre failure surfaces, SEM study 2−67499
glass microstructure, electron microscopy studies 2−91797
graphite fibre reinforced epoxy, fully and partially loaded, rate sensitive tensile impact props., test system 2−67684
graphite ion implantation damage, impurity profile, Raman, Auger and electron microscopy study 2−81834
Hastelloy C-276, heterogeneous precipitates, electron microscopic anal. 2−99432
inner ear of bullfrog, SEM study 2−57829
irghizites, SEM investigations of surface structs. and comparison with pyroclastics 2−88875
Kevlar fibre reinforced polymer, matrix-induced compression effect on morphology and tensile props. 2−105224
lignosulphonate fibre reinforced polyethylene, fibre form. in hydrostatic extrusion 2−67356
metal/Si systems, electron beam induced reactions 2−86955
metallic subsurface zones, characts. in sliding and impact wear 2−88208
metallic thin film deposition methods using ion beam technology 2−57304
metals, abrasion, SEM obs. of worn surfaces 2−67568
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
microwire surface monitoring, electron microscopy obs. 2−93736
MIM electroformed struct., forming process and memory states obs. 2−104503
multilayer structure morphology, surface enhanced Raman scatt. 2−110178
nuclear track filters, electron microscope studies 2−64832
nylon monofilaments, oriental, tensile failure obs. by quantitative fractography 2−93723
optical fibres, factors affecting low strength breaks, fractographic an alysis 2−75688
phosphor powders, anal. using SEM cathdoluminescence 2−67126
PMMA, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polycarbonate, crazing and fracture, SEM obs. 2−116517
polycarbonate, weathered, tensile failure 2−116511
polyethylene, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polyethylene resins, phosphorylated, surface area, SEM meas. 2−101386
polyethylene terephthalate films, ethylamine soln. treated, biaxially stretched, fine struct. *(Japanese)* 2−86590
polymer blends, use of chem. contrast in SEM anal. 2−97944
polymer fibre, oriental, tensile failure obs. by quantitative fractography 2−93723
polymeric powders, cold compaction, SEM study 2−111134
polypyrrole films, electrochemical and cond. props., chem. modification, SEM and voltammetric study 2−77217
polystyrene, atactic, propag. of shear bands through obstacles 2−67427
PVC, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
pyroclastics, SEM investigations of surface structs. and comparison with irghizites 2−88875
quartz, anisotropic phonon propag., SEM study 2−115369
quartz, ballistic phonon propag. imaging by electron beam scanning 2−56124
reactor fuel behaviour, fracture mech. props. influence 2−85145
roll coatings formed during Al hot rolling with different material rolls 2−111385
rubber, natural, tear fracture, SEM study 2−93622
rubber, natural and styrene butadiene, tensile rupture, SEM obs., vulcanisation and filler effects 2−116533
sapphire, anisotropic phonon propag., SEM study 2−115369
sapphire, dynamics of flow of c-axis 2−99490

scanning electron microscope examination of materials continued
selected area electron channelling patterns, elastic strains effect 2−91733
semiconductor ion-implanted layer, SEM with secondary-electron collector 2−86998
semiconductors, defect characterisation by SEM charge collection microscopy 2−71920
silicates, sol-gel transition, gel-to-glass conversion 2−76315
sintered materials, brittle fracture microstruct., comparative investig. by SEM and replica TEM 2−67695
solid state detectors, etched track profiles, SEM studies 2−70091
spark gap insulator surface damage, ellipsometry and SEM obs. 2−92330
sputtering with O_2^+, etch patterns surface struct. and SIMS 2−99283
steel, 1020, hydrogen damage obs. 2−57480
steel, 304 stainless, sputter deposited, oxide and sulphide scales, AES and SEM studies 2−88272
steel, 316 plates, effects of C and N on corrosion resist. to liq. Li 2−105370
steel, A572, hot rolled, const. and variable amplitude fatigue and fracture at 25 and −45°C 2−93597
steel, alloy, high strength, H stress cracking, effect of P conc. 2−77938
steel, austenitic, fatigue, low-cycle, 800°C, dislocation configuration, TEM and SEM study *(French)* 2−88190
steel, austenitic stainless, crack tips prod. by SCC and hydrogen embrittlement, HVEM obs. 2−77978
steel, austenitic stainless, depend. on thermomech. pretreatments 2−93607
steel, austenitic stainless, fretting wear, from 20 to 650°C in air 2−88211
steel, austenitic stainless, sensitised, corrosion fatigue, crack growth and AE behaviour, SEM obs. *(Japanese)* 2−83281
steel, austenitic stainless, stress corrosion cracking, intergranular, in Nas_2SO_4 soln., affect of dissolved O 2−88258
steel, austenitic stainless, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
steel, austenitic stainless *(Japanese)* 2−105376
steel, austenitic stainless 316, fatigue crack propag. in vacuum and air 2−72803
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, C, pearlitic, H cracking 2−105321
steel, C, stress corrosion cracking in nitrate soln., minor element effects *(Japanese)* 2−67634
steel, C, type 1040, corrosion rates in aqu. soln. pH and S^2 conc. effect 2−62254
steel, C(0.45%), fretting wear, from 20 to 650°C in air 2−88211
steel, Cr-Ni-Mu (1.9, 0.85, 0.76 wt.%) original struct. and heating rate i nfluence on props. after hardening from intercrit. range 2−72736
steel, crack initiation, stable crack growth resist., rel. to inclusion distrib. 2−57436
steel, dual-phase, deform. characts., effect of martensite vol. fraction 2−67443
steel, dual-phase, struct.-prop. relationships 2−105253
steel, eutectoid, thermomechanically treated, fatigue initiation study 2−77934
steel, fracture toughness tests, J_{1c} meas. in transition region *(Japanese)* 2−111400
steel, high strength low alloy, fatigue crack initiation and strain-controlled fatigue 2−67520
steel, high-speed, tempered carbides, precip. sequence interpret. 2−105150
steel, low alloy, fatigue failure at inclusions, influence of vacant lattice sites 2−83199
steel, low C sheets, Mn and N effect on recrystallisation texture *(Japanese)* 2−105181
steel, mild, cold worked, caustic SCC 2−99596
steel, mild, electrodissoln. and passivation in alkaline sulphide solns. 2−116588
steel, mild, plastic deform. in metal cutting 2−105267
steel, mild, wear expts. in SEM 2−67571
steel, Si-Al bearing electrical, internal oxidation and mag. props., annealing conditions influence 2−72724
steel, stainless, high-strength, delayed fracture, fractographic investig. 2−111308
steel, stainless, Type 304, Te implantation effect on creep rate and oxidation resist. 2−93576
steel, stainless, types 304 and 316, He^+ irrad., surface roughness, form Xe adsorpt. 2−76525
steel, stainless 2−72824
steel, stainless 304, hydrogen damage obs. 2−57480
steel, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
stomatopod smashing limb, calcified cuticle, comp. and struct. features 2−100025
TGS crystal, ferroelec. domains, SEM obs. 2−116133
transition metal nitride surface films, prep. and characterisation 2−82165
tribological behaviour of materials in contact with Na, O_2 effects 2−99566
zeolite, VSZ-4 crystals, hydrothermal growth and characteris. 2−99311
Zircaloy, irrad., rapid stress corrosion crack growth 2−93676
Zircaloy, stress corrosion crack propag. in I_2, effects of texture and microstruct. 2−67638
Ag dendrites and single crysts., electrolytic growth in gel media, surface morphology, SEM study 2−87962
Ag film, sputter deposition, angular factors, SEM and EPMA study 2−87936
Ag MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Ag-GaAs (001), Ag MBE growth and interfacial diffusion, AES, LEED and SEM study 2−93432
AgI-Al_2O_3(SiO_2)(AgBr)(fly ash), enhanced ionic cond., AC elec. cond. meas. 2−82011
$AgNO_3$-$NaNO_3$, molten, current-induced comp. gradients 2−57654
Al alloys, corrosion-preventing coatings, surface studies 2−83266
Al, electrical breakdown during anodisation in borate soln., TEM and SEM study 2−110771
Al electrolytic capacitor, anodic oxide layer obs. using TEM and SEM 2−99580
Al, erosion by WC-Co sphere impingement at oblique incidence 2−111324
Al, fatigue crack behaviour at low stress intensities 2−62191
Al MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396

scanning electron microscope examination of materials continued
Al, surface erosion under the ion bombardment, mech. loading effects, SEM study 2−78021
Al, wear expts. in SEM 2−67571
Al:He thin film, He ion bombardment, TEM, SEM and α-particle backscatt. study 2−115319
Al-(Zn)-Mg, fatigue crack behaviour at low stress intensities 2−62191
Al-$Al_{21}Pt_5$, unidirectionally solidified eutectic, microstruct. and mech. props. 2−116434
Al-Cr(Ni)-Al layer system anal. by Rutherford backscatt. spectrometry 2−105177
Al-Cu (10 wt.%), rheocast, microstruct. and mech. props. 2−99420
Al-Fe alloys, Fe profile meas. using SIMS and SEM 2−109999
Al-Li-Mn(Zr)(Mg)(Cu), corrosion behaviour, correl. with microstruct. 2−88253
Al-Mg, oxide formation, Mg diffusion, Auger and SEM study 2−82009
Al-Mg, SCC in saline water, protection by anodic coating 2−111358
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
Al-Si, as-cast and age-hardening, wear, friction and surface topography in dry sliding 2−83237
Al-Si (Mg)(Zu), thermal cycling influence on alloying elements soln. 2−72738
Al-Ti-Be, grain refinement, Be-enhanced 2−83086
Al-Zn (15 and 25 wt.%), intercryst. precipitation *(French)* 2−116448
Al-Zn (15-25 wt.%), grain boundary migration mechanism *(French)* 2−86684
Al-Zn-Mg-Cu (6.2, 2.5, 1.7 wt.%), fatigue crack growth, micromechanisms 2−105273
$Al_2Mg(OH)_2(Si_4O_{10})(Ca,Na)_x.4H_2O$, bentonite, texture changes during vibr. grinding and after ageing *(Czech)* 2−88101
Al_2O_3, dense, steam-enhanced impurity segregation 2−111116
Al_2O_3 fibre, prep. and changes of microstruct. by heat treatment *(Japanese)* 2−116417
Al_2O_3 fibre reinforced Al-Mg, fabrication method 2−67259
β''-Al_2O_3, wetting by liq. Na 2−66325
As_2S_3 amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
Au, evaporated film, tensile fracture *(Japanese)* 2−82182
Au evaporated film, tensile fracture, SEM and TEM obs. *(Japanese)* 2−115631
Au, film, tensile fracture mechanism *(Japanese)* 2−92428
Au film on glass microballoons, thickness meas. using X-ray peak rationing in SEM 2−87119
Au, ruptured, final separation, role of glide and twinning 2−83200
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
AuGeNi-InP contact, electron microscopy investig. 2−66379
$BaTiO_3$, ferroelec., domains and grain boundaries, SEM EBIC imaging technique 2−116132
$BaTiO_3$-$Bi_4Ti_3O_{12}$ low temp. sintered ceramics, microstruct. and elec. props. 2−88035
Bi_2WO_6 powders, obtained in prescence of fused salts, morphology 2−97971
C fibre reinforced Al, chopped fibres, prod. by powder metallurgy, dry wear *(Japanese)* 2−105344
C fibres, surface structure effect on strength, in appl. of carbide coating in metal melt 2−83067
CaO, surface area and morphologies of samples produced from decomp. of $CaCO_3$ crysts. 2−76353
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
Cd laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
CdS single crystals grown from vapour phase, impurities and hexagonal spiral pits 2−76342
CdS thin film, single source evaporation, characterisation 2−83042
CdSe, heteroepitaxial films, struct. charact. 2−92381
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-Fe (20 at.%), grain boundary precip., TEM, STEM, SEM and electron channelling study 2−72708
Co-Fe-Cu-Hf-Sm, permanent magnet, microstruct., SEM study 2−92224
Co-Fe-Cu-Zr-Sm(-Ti), permanent magnet, microstruct., SEM study 2−92224
Cr, electron beam evap. thin film, struct. and props. *(Korean)* 2−57301
Cr-La (0.3 wt.%), films, dislocations, struct. and composition 2−115600
Cu, corrosion, interfacial, effect of boundary struct. 2−93657
Cu, erosion wear mechanism, solid particle, 90° impact 2−88209
Cu, internally oxidised, elec. and mag. props. 2−98620
Cu, line profiling, of Kossel X-ray diffraction lines in SEM using energy-dispersive X-ray detector 2−64177
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu single crystal, ion bombardment induced surface topography, incidence angle effect 2−76471
Cu single crystals, erosion at 30° incidence of glass spheres 2−111329
Cu/Si system, diffusion of Cu 2−61210
Cu-Cr, failure anal., impurity segregation, Auger spectra study 2−83205
Cu-Cr sputtered thin film, precipitate morphologies, annealing effects, electron microscope and EDX study 2−67353
Cu-Fe dil. alloys, internally oxidised, elec. and mag. props. 2−98620
Cu-Ni, failure anal., impurity segregation, Auger spectra study 2−83205
Cu-Ni, high temp. sputtering, ion-enhanced diffusion, grain boundary erosion *(Japanese)* 2−116317
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
Cu-Ni alloys, friction and wear 2−88217
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
$Cu_xMo_6S_8$, sputtered film, surface topography, SEM study 2−92321
$Cu_2S/(Cd,Zn)S$ solar cells, fabrication and characterisation, SEM study 2−73122
$ErSi_2$, surface morphology, pitting, SEM study 2−92313
Fe, erosion wear mechanism, solid particle, 90° impact 2−88209
Fe, intergranular fracture, cathodic pots., effect of S and Sb 2−57469
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe, oxidation, high temp., stress effects, SEM obs. 2−99592
Fe, pure, H_2 effect on deform. and fracture microprocess *(Chinese)* 2−62188
scanning electron microscope examination of materials continued
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe, thin film, crosstie walls, mag. field effects, electrostatic TEM study 2−82682
Fe-Cu binary alloy, selective oxidation, optical, X-ray and SEM obs. 2−99605
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Si, grain oriented, domain struct. obs. using high voltage SEM 2−87527
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, amorphous and polycryst., He ion bombardment 2−103856
FeO_x, berthollide type, reactive sputtering prep., struct. and props. 2−82158
FeS_2, natural marcasite, orthorhombic, obs. of cryst. defects 2−76452
GaAs film, laser CVD deposition and charcts. 2−82162
GaAs, minority carrier lifetime and diffusion length, EBIC method in SEM 2−98667
GaAs polycrystalline, scanning cathodolum. microscopy 2−71313
GaAs-$Ga_{1-x}Al_xAs_{1-y}P_y$ heterostructure lattice matching rel. to laser fabrication *(Chinese)* 2−66375
$GaAs_{1-x}P_x$ epilayer, minority carrier lifetime and diffusion length, EBIC method in SEM 2−98667
GaP, grain boundaries, elec. and EBIC studies 2−115252
Ge film, laser-crystallised, crystallite morphology and defect struct; TEM and SEM study 2−66402
Ge, surface topography, self-ion bombardment effects, 30 to 500 keV 2−71516
$GeSe_2$ amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
HPO_3, hydrated microdrop, normal-super liq. transform., SEM study 2−98258
$Hg_{1-x}Cd_xTe$, recrystallised skin junctions, electron beam induced currents study 2−86895
Hg_2Cl_2, growth-induced inhomogeneities, electron optical investigation 2−109710
InGaAsP-InP DH 1.3 μm laser, doping effects exam. by SEM and V-I charcts. *(Chinese)* 2−90885
$In_{1-x}Ga_xAs_{1-y}P_y$:Cd(Zn) LPE junction laser, SEM EBIC study 2−102821
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
InP, inclusions 2−71433
Ir-W-Th, DOP-26, Th-doped, weld metal grain struct. and mech. props. 2−99499
IrO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
Li/SO_2 battery anodes, surface struct., electrode chemistry, SEM and XPS study 2−82095
Li_nCrO_8 cathodes in Li/organic electrolyte batteries, props. 2−93889
LiF and ^{6}Lif TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
$Li_{0.5}Fe_{2.5}O_4$, for ferrimagnetic pastes, prep. and props., effect of additions of glass and Bi_2O_3 2−88034
Li_nMoO_3 cathodes in Li/organic electrolyte batteries, props. 2−93889
$LiNbO_3$, Czochralski-grown single crystals, growth striations and ferroelectric domain struct. 2−93129
$LiNbO_3$ film, plasma assisted deposition and struct. *(Japanese)* 2−115595
$LiNbO_3$:Ti integrated optical device fabrication, Ti oxidation process, $(Ti_xNb_{1-x})O_2$ phase form. 2−75735
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
MgO, cathodoluminesc. emission in SEM 2−110954
MgO crystal, cathodolum., from dislocations, purity influence 2−77599
MgO, plastic deform., cathodoluminescence and photoluminesc. of slip bands, SEM study 2−67125
MnZn ferrite, monocrystalline 2−87530
Mo alloys, mechanical properties and nature of fracture, in ductile-brittle transition temp. range 2−72820
Mo, recrystallised foils, grain boundary migration in presence of Ni 2−83146
Mo single crystals, fatigue failure features 2−77944
Mo, sintered sheet, electron beam welded, bend props. 2−116509
$(NH_4)_2BeF_4$ crystal, ferroelec. domains, SEM obs. 2−116133
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Na_2O-SiO_2 glass, abrasive wear, scale effect 2−67563
Nb, behaviour of H, optical microscopy, SEM and ion microprobe anal. 2−83130
Nb, magnetic struct., hydride precipitation pinning centres 2−61700
Nb, surface erosion under the ion bombardment, mech. loading effects, SEM study 2−78021
Nb-V alloys, sputtered clusters 2−93341
Nb-Zr-C, embrittlement during ageing, X-ray, SEM and TEM study *(Russian)* 2−93585
Ni:S, intragranular S segregation, SEM and AES study *(French)* 2−109998
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-Al-Co(Cr)(Fe)(Mn)(Si) Ll_2 cpds., melt quenching, improved mech. props. 2−116472
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-base superalloy, Incoloy-800, fatigue crack growth, elevated temps., sulphidising environments 2−67526
Ni-base superalloy, Inconel 600, ultra-pure, H embrittlement, effect of C, P, Sn and Sb additions 2−67525
Ni-base superalloy, Inconel X-750, fatigue and creep crack growth at elevated temps., effect of environment 2−99536
Ni-base superalloys, P/M, fatigue crack initiation, effect of defects 2−67518
Ni-Cr-Co, Mar M002, superalloy, fracture processes during creep in conventionally cast and directionally solidified material 2−88185
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-Si couple, lateral diffusion and Ni_2Si growth, SEM study 2−115471

scanning electron microscope examination of materials continued
$(Ni_{0.6}Fe_{0.4})_{0.89}V_{0.11}$, substruct. develop. during cold working, neutron diffr. and microscopical obs. 2−83133
$NiO-Y_2O_3$, directionally solidified eutectic, crystallography 2−109762
PLZT, chemically prepared powders, grain size of mixed oxides 2−72660
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
Pb-Cd-Zn ternary system, microstructures of eutectic and near-eutectic specimens 2−111162
Pb-In films, thermal cycling between room and liq. He temps., microstruct. changes 2−111214
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
$PbO-B_2O_3$ glasses, microstruct. characts. by phys. prop. meas. 2−91800
$PbO-V_2O_5$, equimolar system, new phases 2−93496
$PbS-GeS-GeS_2$ chalcogenide glass, struct. and photoelectronic props., DTA and SEM study 2−92681
$PbTiO_3$, amorphous state and crystn. process, Raman scatt., SEM, and dielec. meas. 2−81677
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Rh-Pt (10 wt.%), (111) surfaces, stability of C islands 2−87089
RuO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Se-Ge-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Sn-As glass, microstruct., fracture surface study by SEM 2−91796
Si, dendritic web grown, dislocation struct., TEM and SEM study 2−91975
Si diode structure, EBIC as function of angle of incidence of electron beams in SEM 2−97874
Si film, polycryst., grain growth under CW electron beam annealing, modified SEM study *(Japanese)* 2−115597
Si film, produced by field emission deposition, props. 2−71836
Si films over SiO_2 patterns, laser-induced lateral vertically-seeded epitaxial regrowth 2−87091
Si, laser annealed, surface topography study 2−104129
Si, laser pulse processing, heterogeneous nucleation of spatially coherent damage struct. 2−56020
Si, p-n junction, local parameter determ. by SEM EBIV mode 2−92737
Si, Sb diffusion, anomalous conc. profiles due to local precipitation 2−76741
Si solar cells, grain boundaries, SEM charge-collection images 2−66012
Si, thermal oxidation in Cl_2 atm., microstruct. develop. 2−93645
Si:Bf_2^+, recrystallisation by light-flash annealing 2−98130
Si:Gd, crystal microstruct., Gd accumulations, electron radiation-induced defects 2−86891
a-Si:H films, growth and characterisation 2−83031
a-Si:H films, SAW attenuation, paramag. defects, IR, ESR and SEM studies 2−110123
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si-Fe, domain structs. and stress distrib. due to ball-point scratching 2−82629
$Si_{6-x}Al_xO_xN_{8-x}$, hot-pressed β-sialon, oxidation effect on room temp. strength 2−93629
SiC, polycryst., containing excess Si, neutron irradiated, microstruct. study 2−71514
SiC, residual stresses and CNTD process scaling to larger specimen sizes 2−72657
SiC, single cryst., friction damage, surface and subsurface, SEM and TEM study 2−67566
Si_3N_4, hot pressed, bending strength *(Japanese)* 2−67436
Si_3N_4, reaction bonded, mech. props., creep and thermal shock behaviour, influence of microstruct. variables 2−116541
Si_3N_4-TiC composites, fracture toughness and strength 2−83202
SiO_2 film, sputter deposition, angular factors, SEM and EPMA study 2−87936
Sn film, graphoepitaxial electrodeposition, expt. study 2−87083
Sn film, struct. rel. to elec. and optical props. 2−115623
Sn-Pb (38 wt.%) eutectic alloy, fracture in superplastic flow Region III 2−105300
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
Ta protective coatings on Al, Cu, AISI 316L, Inconel 600 for fusion reactor appl. 2−74911
$TaSi_2$ layers, coverage on Si/SiO_2, surface struct., ion-implant profiles surface anal. study 2−82094
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
ThF_4/ZnS coated Si and SiO_2 substrates, small-scale laser induced damage obs. and morphology 2−81819
Ti, cavitation erosion behaviour, nitriding effects 2−111331
Ti coatings, vapour-deposited, exposed in MACROTOR and MICROTOR 2−92392
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-V (6, 4 wt.%), cavitation erosion behaviour, nitriding effects 2−111331
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
TiC coatings deposited onto graphite and Mo by electron beam evaporation, charact. 2−71825
TiN powder, shock treatment effect, microstrain increase 2−105112
TiN, TiC layers, CVD, nucleation and kinetics 2−83034
TiO_2 film, laser CVD deposition and charcts. 2−82162
TiO_2/SnO_2 ceramic moisture sensor, elec. resistance stability, SEM, powder X-ray diffr. exam. 2−74398
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
U, electrochemically marked, residual contamination and corrosion, SEM and ion microprobe anal. 2−83269
UO_2 fuels, qualitative approach for characterisation 2−85160
V thin films, on oxidised Si wafers, scanning Auger microscopy studies on high-temp. annealing 2−76863
γ-$VD_{0.75}$, incommensurate density modulations, electron diffr. and TEM study 2−91878
W, coated by LaB_6 film, by ion beam sputter deposition electron optical characteristics *(Japanese)* 2−82996
W wire, splitting, knife-edge compression test 2−116536
W-Ni-Fe, sintered alloy, fatigue crack growth 2−99521
WC-Co, as-milled Co distrib. 2−111118

scanning electron microscope examination of materials continued
WC-Co (6 wt.%), substoichiometric, η-phase particles 2−105290
p-WSe_2 film, polycryst. semiconductor electrode, photoelectrochem. 2−72987
Zn laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
$Zn_xCd_{1-x}S$-Cu_2S single crystal photovoltaic cell, optimum performance 2−116822
ZnO (000$\bar{1}$) surfaces, chem. etched, topography study 2−98401
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO varistor, influence of SiO_2 inclusions 2−66241
$ZnO.Al_2O_3$, gahnite, behaviour of Cr^{3+} and Fe^{3+} ions 2−98296
ZnTe, heteroepitaxial films, struct. charact. 2−92381
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846
β-Zr(Fe) phase, effect of Ti in stabilisation 2−105166

scanning electron microscopes
see also scanning electron microscopy
Auger, high spatial or high energy resolution 2−101504
Auger scanning electron microscope, computer-controlled, program suite 2−64192
EBIC analysis of defects using controlled low temps. 2−65823
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
miniature pneumatic tensile stage for scanning electron microscopes 2−95561
new high performance microscope, features and capabilities 2−107459
Philips' SEM 505, multi-function detector operating modes 2−79720
REM-200, improved electron-optical system 2−95554
stroboscopic, meas. of internal signal waveforms on passivated MOS LSI ccts. 2−58970
transmission stage, for Cambridge Stereoscan 600, X-ray microanalysis 2−57943
Wehnelt modulation beam blanking, in SEM 2−64170

scanning electron microscopy
see also scanning electron microscope applications; scanning electron microscope examination of materials; scanning electron microscopes
Auger electron microscopy high resolution scanning, backscatt. effects, expt. study 2−73043
Auger microscopy, software 2−113061
autoradiography using emission and polymer track detectors 2−68222
backscattered electron imaging, using a Robinson-type detector, appls. 2−64176
biliary and urinary calculi anal., PIXE and other methods comparison 2−68203
ceramics, comparison with TEM *(German)* 2−113047
channelling patterns, computer estimation 2−115112
charge collection scanning electron microscopy, review 2−86526
computer-controlled cathodoluminescence system, measuring efficiency 2−64173
conference, Karlsruhe, Germany (June 1981) 2−68955
conference, Kyoto, Japan (May 1981) 2−68953
EBIC, lock-in detection, contrast meas. from individual dislocations 2−65824
EBIC analysis of defects using controlled low temps. 2−65823
electron bombardment induced conductivity mode, book 2−63758
electron channelling patterns 2−115113
electron-beam induced current evaluation in SEM, stage with two independent probes 2−79719
freeze-dryer for SEM study of human colon 2−73401
hot stage UHV SEM, appl. to dynamic studies of surface processes 2−71311
hybrid scanning modes, materials science appl. 2−64178
line profiling, of Kossel X-ray diffraction lines in SEM using energy-dispersive X-ray detector 2−64177
magnetic fields, AC, LF, system for reducing, in vicinity of scanning electron microscope 2−74575
metallurgical and materials engineering applic., electron optical techniques 2−60847
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
miniature pneumatic tensile stage for scanning electron microscopes 2−95561
Permalloy-type materials, soft mag. props., appls. in electronic ultravacuum equipment 2−69299
polymer blends, use of chem. contrast in SEM anal. 2−97944
powders and compact materials, particle shape microscopic anal. methods, review 2−72906
replica production for SEM, test of materials suitable for use in field settings 2−84747
selected area electron channelling patterns, elastic strains effect 2−91733
semiconductor materials, electron backscattering patterns 2−65825
solar energy conversion technologies, surface analytical techniques, review 2−88412
surface, bulk samples, resolution 2−97883
surface analysis, with secondary-electron collector, of ion-implanted semiconductors 2−86998
thin film, electron backscattering, review 2−77638
thin film thickness meas. using X-ray peak rationing in SEM 2−87119
thin films, X-ray spectra optimisation for quantitative anal. 2−69303
topographical analysis, automatic focusing technique use 2−113060
transmission cathodoluminescence 2−87873
ultramicrohardness tester in SEM and X-ray topography study of deformation zone 2−83339
voltage contrast, quantitative 2−64197
Wehnelt modulation beam blanking, in SEM 2−64170
X-ray photoelectron microscopy techniques 2−73041

scanning radiography
see also computerised tomography; radioisotope scanning and imaging
artifact patterns in multiple scanning beam radiography 2−83645
digital radiography, conf., Stanford, CA, USA (Sept. 1981) 2−94891
dynamic radiography: a new technique for epicardial imaging using microprocessor controlled system 2−111788
ectomography, computer-simulated object for testing principles for radiographic reproduction of slices 2−83648
exposure, computer assistance in scanned film radiography 2−111787

scanning radiography continued
flashing tomosynthesis: Beer's Law of exponential attenuation and coded aperture image formation 2−73353
reactor fuels, radial fission product distrib. reconstruction using nondestructive γ scanning 2−85143
review of medical imaging technology *(Japanese)* 2−105825
rotational panoramic radiography, distortion effects in sliding systems 2−94158
rotational panoramic radiography, image distortion, object morphology, outer contours 2−88650
rotational panoramic radiography, image distortion, vertical distances 2−68109
scattered radiation in fan beam imaging systems 2−68128
scattering tomography, expt. technique 2−62750
tomosynthesis image improvement using digital computer *(French)* 2−62740
X-ray radiography 2−73041

scanning-transmission electron microscope examination of materials
see also scanning-transmission electron microscopy
Au_{11} cluster compound, CC Au_{11} cluster compound, STEM obs. 2−114146
biological cryosection preparation for analytical electron microscopy 2−117176
catalyst particles, bright and dark field imaging methods 2−97884
glass, multiphase microstruct., STEM and EELS anal. 2−91798
graphite ion implantation damage, impurity profile, Raman, Auger and electron microscopy study 2−81834
Hastelloy C-276, heterogeneous precipitates, electron microscopic anal. 2−99432
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
nucleic acids, localisation of bound proteins, heavy atom imaging 2−100185
RNA molecules, single- and double-stranded, improved visualisation by STEM 2−73193
steel, alloy type, carbide precipitates, comp. and morphology, STEM and X-ray microanalysis, replica technique 2−67352
steel, austenitic stainless, fuel pin cladding, neutron irradiated, energy dispersive X-ray spectrometry, STEM anal. 2−69709
steel, Cr-Mo, segregation of embrittling elements to prior austenite grain boundaries 2−93517
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, ferritic, monolayer grain boundary segregation using STEM-EDS X-ray microanal. 2−111412
steels, monolayer grain boundary segregations, detection using STEM-EDS X-ray microanal. 2−67351
surface, ion bombardment self-decoration, cryst. microstructure study 2−111337
thin film, low loss surface imaging STEM studies 2−110181
thin films, diffusion-induced grain boundary migration 2−71735
Al alloy conversion coatings, corrosion protection, adhesive bond durability, cracking 2−83270
Al, anodic films, porous, cell walls, STEM/energy-dispersive X-ray anal. 2−86988
Al film thickness meas., Grigson microdiffraction in STEM, systematic errors 2−63980
Al-Cu films, amorphous, crystallisation 2−71837
Al-Cu films, X-ray microanalysis using STEM *(German)* 2−97876
Al-Fe(4wt.%), STEM-EDS X-ray microanal. of rod-shaped precipitator 2−67795
Al-Mg (8wt.%), grain boundary segregation 2−88087
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Au/Ag thin films, diffusion-induced grain boundary migration 2−71735
Co-based alloy, foil thickness meas. from convergent-beam diffr. patterns, error assessment 2−95557
Co-Fe (20 at.%), grain boundary precip., TEM, STEM, SEM and electron channelling study 2−72708
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu-Cr sputtered thin film, precipitate morphologies, annealing effects, electron microscope and EDX study 2−67353
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
$Cu_{60}Zr_{40}O_x$ alloy, polyphased microcryst.-amorphous, high resolution imaging 2−71356
Fe:C, O, min. detectable atomic fractions, STEM study, EELS technique 2−67165
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous films, STEM obs. of crystn. 2−109688
GaAs epitaxial layers, MBE and LPE, luminesc. props. 2−72564
$In_xGa_{1-x}As_yP_{1-y}$ LPE layers, lattice matched to InP, comp. modulation, expt. study 2−87084
$(LaO)_2S$-$(YO_2)S[(LuO)_2S]$:Eu, STEM analytical and cathodolum. studies 2−72560
Li_2O-Al_2O_3-SiO_2-TiO_2 glass ceramics, cryst. props., grain growth, electron and X-ray study 2−66244
MgO, small crystal, surface energy and struct., STEM study 2−56327
MgO smoke cryst. surfaces, energy losses of fast electrons 2−62028
MgO smoke crystal surfaces, electron microdiffr. studies of potential field 2−71296
MgO surface, image force for fast electrons 2−111000
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
NiO, small crystal, surface energy and struct., STEM study 2−56327
Si:H amorphous sputtered films struct. correlation with prep. cond., STEM study 2−66400
SiC:Al, sintered and hot pressed, grain boundary segregation, STEM study 2−111180
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
ZrO_2-Y_2O_3, partially stabilised, anal. using STEM 2−77827

scanning-transmission electron microscopes
see also scanning-transmission electron microscopy
cathodoluminescence detector, for STEM 2−64175
computer control, EELS acquisition 2−107466
computer-STEM interfacing 2−107468
data acquisition and display system 2−107469
electron detectors, detective quantum efficiency meas. 2−89872
energy filtered images, simultaneous collection and processing 2−107470
microcomputer control 2−107467
post specimen lenses for use in STEM, EELS technique 2−64196

scanning-transmission electron microscopes continued
scanning X-ray radiography in electron spectrometer 2−74581
superconducting shielding lens, asymmetric, for TEM and STEM 2−64180

scanning-transmission electron microscopy
see also scanning-transmission electron microscope examination of materials; scanning-transmission electron microscopes
applications in solid state chemistry, cathodoluminescence, EELS, XES techniques 2−65821
biological structure, heavy atom imaging 2−100185
bright-field imaging of strong scatterers, optimum contrast 2−115118
coherent convergent-beam electron microdiffraction technique 2−65812
computer control for X-ray and energy loss line profiles and images 2−107472
conference, Karlsruhe, Germany (June 1981) 2−68955
cryogenic STEM, integrated approach to data acquisition 2−113057
CTEM/STEM, conventional, chemical anal. data online processing 2−113062
detector configurations, optimisation, numerical calc. 2−74577
diffraction information collection, sampling scheme 2−64167
digital image processing 2−107464
digital image recording, image display and characterisation 2−107471
EELS, microanalysis in STEM *(French)* 2−71299
electron spectrometer for STEM free of second- and third-order aberrations, EELS technique 2−64195
foil, electron scattering physics 2−72586
high-resolution imaging 2−76258
hybrid scanning modes, materials science appl. 2−64178
image acquisition and processing, direct digitisation 2−113071
image processing for addition of surface information 2−53903
image processing system, stand alone, for STEM images 2−113075
imaging, with quadrant detector 2−74579
imaging methods for catalyst particles 2−97884
magnetic field spectrometer for EELS, STEM appl. 2−64194
mammalian tissue, cryoprep. for X-ray microanal. in STEM 2−83714
metallurgical and materials engineering applic., electron optical techniques 2−60847
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
microcrystalline solids, STEM appls. 2−71300
multiple images, the Karhunen-Loeve transform and data compression 2−76257
multiple signals description 2−113056
point defects, detection in crysts. using high-angle diffuse scattering 2−76436
projection electron lithography, uses of contamination in STEM 2−64171
ptychographic principle appl. to STEM 2−113072
semiconductors, STEM spectroscopy 2−65822
specimen support for high-resolution transmission and surface image form. 2−53896
subcellular macromolecular arrays, model, periodic struct. anal. 2−78507
thin films, low-loss surface imaging 2−71310
X-ray yield, correlation between specimen current, beam current, 75-200 keV 2−67151

scattering
see also acoustic wave scattering; backscatter; electromagnetic wave scattering; potential scattering
Aharonov-Bohm scattering, Schrodinger eqn., diffraction 2−58639
asymptotics of the scattering phase for the Schrodinger operator with potential *(French)* 2−69030
Bragg scattering from point interactions, reflection coeff. 2−95120
canonical structure of soliton eqns. 2−95109
charge-dipole interaction, dynamic symm. in scatt. and relax. *(Russian)* 2−70369
electron continuum capture in the three-body problem 2−70413
elementary Backlund transformations, nonlinear superposition principle and solutions of the integrable equations 2−53599
exact inverse scattering theory, review 2−63859
finite element method analysis with Lagrange multipliers 2−107176
frequencies of elastic body interacting with air *(French)* 2−69017
Froissart-Martin bound for complex scatt. angles 2−95137
general relativity, inverse scattering techniques 2−63866
grating, particle scatt., relation between general relativity and quantum theory 2−58636
Hamiltonian systems, isospectral eigenvalue problems use obtaining hereditary symmetries 2−95080
inhomogeneous scattering equations, variational principles 2−95142
inverse problems theory, ill-posedness, regularisation and no. of degrees of freedom 2−75509
inverse scattering, transition matrix commutation relations 2−89581
inverse scattering and transfer matrices for fields of systems 2−63861
inverse scattering inverse source theory 2−63860
inverse scattering method, Lax representation for nonlinear evolution eqn. 2−95138
inverse scattering method for a new integrable nonlinear evolution equation under nonvanishing boundary conditions 2−95139
Kaup-Newell system, canonical struct. of soliton eqns. 2−95110
Korteweg de Vries equations, coupled, integrability 2−74268
Korteweg-de Vries eqn., inverse scatt. transform., alternative representations 2−107115
Lie-admissible spin algebra and neutrons interaction with elec. field 2−95678
linearizable evolutional systems of equations, symmetries *(Russian)* 2−74267
Lippmann-Schwinger eqn., uniqueness of scatt. wavefunction 2−95107
multiple scattering medium, intensity fluctuations, fourth moment eqn. soln. 2−53600
multiple surface mol. motion, t-matrix approach 2−85614
N-body problem, related combinatoric result 2−53569
nonlinear long wave eqn., inverse scatt. method appl. 2−65601
nonlinear two-dimensional models, quantum inverse scattering method *(Russian)* 2−74587
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
operator functions, variational principles 2−89580
oscillator representation, Schrodinger eqn. soln. *(Russian)* 2−89582
periodic sine-Gordon eqn., spectral theory 2−95600
persistent scattering models, nonlinear Boltzmann eqn. 2−84567
quantum field theory, instantons, 1/N expansion, inverse scatt. method 2−84793

scattering continued
quantum scatt. theory, discrete variable representations and sudden models 2−95044
quantum scattering theory, Numerov method for coupled differential eqn. solns. 2−53555
quantum scattering theory, Numerov method for coupled differential eqn. soln. 2−53556
quantum virial expansions in bound state kinetics *(Russian)* 2−58659
quantum-mechanical scatt. by periodic surfaces 2−95089
random elastic scatt., long-range correlation and localisation 2−66518
resonant scatt. theory, generalised completeness relations 2−74249
scalar diffraction inverse problem 2−58660
scattering theory and automorphic functions 2−101250
scattering theory for obstacles with infinite boundaries 2−95143
scattering theory for time-dependent Hamiltonians 2−95123
Schrodinger driven eqn. soln. by R-matrix propag. method 2−95062
seismic waves scattering in central Asia, results from estimation of Q as function of freq. and depth 2−88750
spin-flip cross-section, maximum, from unitarity and equality constraints 2−63858
static axially symmetric self-dual gauge fields, algebraic construction 2−84796
SU(N) monopole solutions with spherical symm., inverse scatt. method 2−54015
T-matrix approach convergence scatt. theory 2−95141
three body, impact parameter approx., asymptotic completeness 2−84482
three particle system with short-range interaction, long-range interaction effect *(Ukrainian)* 2−53597
three-body scattering, cross-section, Hilbert space Faddeev method calc. 2−69044
three-body scattering, double scatt. waves, O(1) interferences 2−79415
time-dependent scatt. theory for identical particles 2−53578
time-dependent scattering by a bounded obstacle in three dimensions 2−101248
Toda lattice, QR algorithm, scattering 2−53601
unitary formalism for scattering from a hard corrugated wall 2−101249
Van Hove two-time resonent method, particle interaction through delta shell potential 2−112809
variational methods for bound-state and scattering problems 2−84479
variational principles for reson. 2−95088

scattering matrix *see S-matrix theory*

scattering parameters *see S-parameters*

SCF calculations
for MS SCF (MS Xalpha) calculations see Xalpha method
see also HF calculations; Xalpha calculations
ab initio SCF calcs., convergence props. 2−80441
acetylene-derived radical, lowest-lying doublet states, MCSCF CI wavefunctions calcs. 2−96465
alcohol-water mixtures, H-bonding, ab initio MO calcs. 2−80469
aldoximes, electronic props., struct., ab initio SCF calcs. 2−85531
alkali halides, hydrogen centres, interatomic pot., vibr. modes, and diffusion, pseudopot. cluster calc. 2−65992
alkali metal ions core binding energies from Dirac-Fock calcs. combined with atomic binding energies 2−85832
alloys, BCC, disordered, electronic density of states, self-consistent cluster CPA calc. 2−115639
amino acids, H^+ transfer energies and electrostatic lattice energies, CNDO/2 and ab initio SCF calcs. 2−78079
aminoalkyl radicals, ionisation pots., stabilisation energies, MO-SCF calcs. 2−96437
aromatic heterocyclic compounds, S-containing, proton, ^{13}C and ^{15}N chemical shifts, MO LCAO SCF method 2−75321
atoms, forbidden lines in X-ray emission spectra, transition rate CF calcs. 2−102424
atoms, spin-orbit splitting, correl. and relativistic effects 2−70151
average Fock operator technique of approx. open-shell LCAO MO SCF calcs. 2−90437
aziridines, N inversion barriers, hyperconjugation effects calcs. 2−96440
azomethane, rotation round double bond, multiconfig. SCF-INDO study 2−70141
benzene, ring current model, CHF approx. 2−108368
2,2′-bipyridine, fluoresc. spectrum, role of associate form. and rot. isomerism, ab initio SCF calcs. 2−90604
bullvalene, ab initio SCF MO calcs. 2−75181
butadiene, polar twisted minima in ionic singlet excited surfaces 2−108362
carbonyl compounds, tetraatomic, lowest triplet state pot. surfaces, ab initio SCF MO calcs. 2−64872
chloromethanes, photoelectron spectra by SCF Xα scatt. wave calcs. 2−64873
compounds containing heteroatoms P, N and O, orbital energies calc. using MNDO SCF MO calc., UPS spectra 2−59704
conjugated nonrigid mols., ground state conformations and barriers to internal rot., INDO SCF method appl. 2−108386
convergence rates in HF and Xalpha methods 2−70133
convergence tests of coupling operators 2−75169
cyanogen-HF(HCl), H-bonded complex, dissoc. energies, ab initio SCF MO calcs. 2−64859
cyclopentyl cation, non-empirical LCAO MO SCF investig. of ground and core-hole states 2−96445
cyclopropane-HF(HCl), H bonding, ab initio SCF-MO calcs. 2−96432
decamethylferrocene, equilib. geometry, Hartree-Fock model, LCAO SCF calcs. 2−108374
density matrix energy functional, approx. 2−80427
di- and triatomic mols., geometry, force consts., test of new SCF method 2−108367
diacetylene, vibr. freq., pot. energy functions, IR intensities, SCF calcs. 2−113872
diamond, ground state, electron correlation and binding energy calc. 2−61380
diatomic first and second row mols., SCF-Xα-SW electron densities with overlapping sphere approx. 2−90451
diatomic molecules, restricted and multiconfiguration HF eqns. soln. 2−108332
diatomic molecules, vibrational smearing of deform. density, Hartree-Fock-Slater SCF calc. 2−80559
1,6-dicarba-closo-hexaborane electronic struct., CNDO approx. 2−90456
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2−90461
SCF calculations continued
1,2-difluoroethylene, rotation round double bond, multiconfig. SCF-INDO study 2−70141
dimers, H-bonded, ^2H and ^{14}N quadrupolar coupling consts., SCF MO calcs. 2−96449
dimethyl ether-BF_3, electron donor acceptor complex, He I photoelectron spectra 2−90625
dioxodiazacycloalkanes, singlet-triplet transition, CNDO/S-CI SCF MO calcs. 2−64879
Dirac-Fock SCF method for generalised configurational average energy 2−96471
doped semiconductors, diagonal and off-diagonal disorder 2−98521
electron gas in mag. field, distrib. function 2−87163
electronic excitations in solids 2−115681
electronic struct. and magnetism 2−104241
ethyl acetate, cation radical, equilib. struct., SCF MO LCAO CNDO calcs. 2−96456
ethylene chloride radical molecular SCF calcs. *(French)* 2−85534
ferrocene, equilib. geometry, Hartree-Fock model, LCAO SCF calcs. 2−108374
formaldehyde, hydration, intermolecular interactions, SCF MO calcs. 2−85526
formic acid, cis-trans isomerism, HF and MCSCF calcs. 2−96436
$(H_8Si_2Al_2O_4)^{2-}$, zeolite model systems, nonempirical SCF MO studies 2−70142
halide ions core binding energies from Dirac-Fock calcs. combined with atomic binding energies 2−85832
$(HCl)_2$, geometry, force consts., moments, ab initio SCF calcs. 2−80454
HCP transition metals, nucl. spin-lattice relax., ab initio ASA-SCF-LMTO linear tetrahedron calc. 2−98985
hexakis(2,6-di-tert-butyl-4-biphenyl)ethane, central bond length calcs. 2−59703
hexaphenylethane, central bond length calcs. 2−59703
hexatriene, polar twisted minima in ionic singlet excited surfaces 2−108362
inert gas diatoms, polarisabilities, SCF computations, collision induced Raman spectra 2−70441
intrinsic convergence in close-shell SCF calcs. 2−96427
iterations, convergence methods, appl. to CNDO, INDO and STO-3G calcs. 2−64852
K-electron capture shakeoff probabilities calc. using Dirac-Fock-Slater wave functions 2−85003
ketene imine, electronic struct., ab initio SCF and CI calcs. 2−75180
linear molecules, elec. field gradients, semi-empirical SCF MO calcs. 2−108387
MCSCF convergence methods 2−108331
metallic elements, density functional calcs. of Auger and XPS shifts 2−93370
metallic thin films, electrodynamic props., cyclotron reson. *(Russian)* 2−56945
metals, Auger and X-ray photoemission shifts, embedded-atom calcs. 2−54822
methane, double ionisation threshold, ion lifetime, MCSCF and CI calcs. 2−64888
11-(methoxycarbonyl)-cyclohept[a]azulenylium tetrafluoroborate, MCD and IR absorpt. spectra 2−75337
methyl magnesium chloride, Grignard reagent, struct., vibr. freqs., ab initio calcs. 2−108449
methyl-phosphine (-difluoro phosphine), force field calcs., IR obs. 2−64856
methyl-phosphonic difluoride (-phosphine oxide), force field calcs., IR obs. 2−64856
methylene, 2^1A_1 state, Newton-Raphson eqns., MCSCF calcs. 2−108345
methylene, excited singlet state, pot. energy hypersurface, CI-SCF-HF calcs. 2−96469
methyllithium clusters, binding energies, geometry, ab initio SCF STO calcs. 2−96787
methylsulphuryl radical, electronic struct. ab initio SCF-MO calcs. 2−85533
molecular vibr. reson. energies, complex coordinate rot. method at SCF level 2−80455
molecules, elec. field effects, mol. geometry model 2−59723
molecules, electronic wavefunctions calc., MCSCF, CI and numerical SCF method 2−80420
momentum density maps for molecules 2−108347
MSXALPHA program, adaptation ACQI for numerical atomic orbitals data 2−54767
MSXALPHA program, modification to accommodate twenty-six asymmetry point groups 2−54768
multiconfiguration reference state functions, self-consistent electron pairs method 2−59712
multiconfigurational SCF calcs., cubic contribs. 2−96426
multipole optical transition calcs. by relativistic SCF method 2−80541
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
Newton-Raphson eqns., MCSCF calcs. 2−108345
nitrobenzene, photoelectron angular distrib. and PES assignments 2−102531
nitromethane, photoelectron angular distrib. and PES assignments 2−102531
nitrosoacetylene, struct. calc. by ab initio SCF and GVB calcs., consts. rel to IR, microwave and visible spectra 2−59698
$O_2(E^3\Sigma_u^-)$, Newton-Raphson eqns., MCSCF calcs. 2−108345
olefins, catalytic hydrogenation by Pd complex, MO calcs. 2−83378
one-dimensional metal, phonon drag effects on cond., SCF model, soft mode role *(Russian)* 2−56561
open shell systems, average occupation number in SCF process 2−102368
open-shell LCAO-MO-SCFC calcs., scaled one-electron Hamiltonian model, comparison with Roothaan restricted open-shell method 2−80483
organic compounds, ionisation pot., susceptibilities, moments ab initio SCF calcs. 2−113871
organic molecules, /1,3/dipolar cycloadditions, LCAO-SCF-MO ab initio calcs. 2−111462
3-oxetanone equilibr. geometry, ab initio SCF calcs. 2−85527
pentacyclic mols., one-electron props., ab initio calcs. 2−64866
pentatriacontane, adsorpt. on 100 face of alkali halides, SCF Mo simulation *(French)* 2−76809
peptides, H^+ transfer energies and electrostatic lattice energies, CNDO/2 and ab initio SCF calcs. 2−78079
polyacenes, linear, electronic struct. calc. using SCF-RPA method 2−108375

SCF calculations continued
polyatomics, intramolecular dynamics, TDHF 2−113955
polyenes, induced moments, polarisabilities and second hyperpolarisabilities calcs. 2−108402
polymers, one-dimens. cond., electronic struct., ab initio SCF LCAO calc. 2−76892
potential energy hypersurface, second derivative rel. to force in SCF theories 2−108360
potential energy hypersurfaces, HF and multiconfigurational SCF soln., CI gradient techniques 2−96469
quantum theory, application to mol. problems 2−95119
random alloys, electronic states, SCF-KKR-CPA method 2−76904
rare earth elements, inner-shell electron binding energy calcs. *(Chinese)* 2−108348
second-order perturbation energy, calc. from external double excitations, CASSCF calcs 2−64887
semiconductor superlattices, collective excitations study 2−104473
short-range repulsions, first-order SCF theory 2−108662
standard basis sets with polarisation functions 2−80429
theoretical chemistry, conf., Colorado, USA (June 1981) 2−107002
thioacrolein, mol. struct., electronic props., ab initio SCF calcs. 2−64869
thioformaldehyde-$d_0(d_1)(d_2)$, ground and triplet states, vibr., SCF MO calcs. 2−85539
thioglyoxal, mol. struct., electronic props., ab initio SCF calcs. 2−64869
total mol. energy, HF-SCF calcs. 2−102373
transition metal binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
d^1-transition metal oxohalo complexes, electronic struct., SCF-MS-Xalpha study 2−70145
transition metal-H_2O complex, ab initio SCF MO study, Solomon-Bloembergen eqn. appl. 2−70137
transition metals sulphides, first and second row, electronic struct., SCF-SW-Xalpha cluster calcs. 2−70143
trifluoromethyl ion, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
two-electron repulsion integrals, calc. from supermatrix elements, FORTRAN program 2−108341
valence bond method, effective spin Hamiltonian 2−108392
vinyl formate radical, γ-CH formyl-H^+ coupling, INDO-MO-SCF calcs. 2−90455
vinylguanidinium ion, ab initio MF-SCF-MO calcs. 2−113865
X-ray energy levels, relativistic SCF calcs. 2−113921
Al_{13} clusters, cubo-octahedral, electronic struct. calc. 2−82269
Al_2O_3, localised states, XPS, SCF Xα SW calcs. 2−111035
$Al_{12}V$ clusters, cubo-octahedral, electronic struct. calc. 2−82269
Ar dimer, exchange repulsion, ab initio calcs. 2−80463
B, self-consistent field equations based on the variation principle using the square of the Hamiltonian 2−75182
BH_4^-, nucl. spin-spin coupling tensors calcs. 2−108361
BO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
BO^- ion, pot. energy curves, CAS SCF calcs. 2−80513
Be, electronic and struct. props., HF ab initio calc. 2−82218
Be, metallic, core expansion calcs. 2−81709
Be, second order correl. energies, variational SCF calcs. 2−113860
Be, self-consistent field equations based on the variation principle using the square of the Hamiltonian 2−75182
BeN, low-lying electronic states, ab initio calcs. 2−80505
BeN^-, low-lying electronic states, ab initio calcs. 2−80505
Br_2^{2-}, ab initio interaction polarisability and pair pot. 2−75179
C ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
C, self-consistent field equations based on the variation principle using the square of the Hamiltonian 2−75182
C-Li, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
C_2, $^1\Sigma_g^+$ state, Newton-Raphson eqns., MCSCF calcs. 2−108345
C_2, MC SCF calulation of energy hypersurface, infinite order contrib. 2−80456
CCl, $A^2\Delta$ state predissoc. investig. 2−80747
CH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
C_2N_2, stretching vibrs., freq. and IR intensities, anharmonic pot. energy functions, geometry and rot. consts. 2−96554
$(CO)_n^{m-}$, SCF minimal basis set calcs., HF instabilities 2−80470
CO, MC SCF calulation of energy hypersurface, infinite order contrib. 2−80456
CO+He(Ne), vibr. relax. rate coeff., ab initio calcs. 2−59906
C_2O^+, isomers, bond lengths, ab initio SCF calcs. 2−113862
CO_2...HCl, ab initio SCF MO study, H-bond energies 2−54766
CO_2...HF, ab initio SCF MO study, H-bond energies 2−54766
$Ca^{2+}+H_2O$ interactions pseudopotentials representation 2−75366
Cl^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
$Cr_2Cl_8^{4-}$, binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
$(CrOCl_4)^-$, electronic struct., SCF-MS-Xalpha calc., EPR spectra, EHT calcs. 2−70144
Cu clusters, electronic struct., SCF calcs. 2−85855
Cu clusters, symmetry breaking and ionis. from 3d and 4s shells 2−59985
Cu_2, nature of bonding, SCF calcs. 2−96413
Cu_3 mol. stability, ab initio SCF mol. orbital calc. 2−102380
$CuFeS_2$, electronic struct., X-ray emission and XPS study and Xα calc. 2−92455
F, electron affinity, electron correl. SCF, GTO, CI calcs. 2−113895
F ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
F^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
FCl molecule, quadrupole moments of F nuclei 2−70442
FH_2^+ ground state, near Hartree-Fock calcs. 2−80460
Fe(II), porphyrin complexes, electronic struct., Mossbauer spectra, ab initio LCAO SCF calcs. 2−108596
Ge, self-consistent pseudopotential calc. for electronic struct. 2−71859
H^+ solvation by methanol and diethyl ether, SCF calcs. 2−62379
$H+H_2$ pot. energy surface, near Hartree-Fock calc. 2−59891
H_{14}, metallic and mol. rings, SCF and CI calcs. 2−108405
H_2, intermolecular forces via hybrid HF SCF plus damped dispersion energy calcs., spherical model 2−70372
H_2, magnetic shielding, dipole magnetisability tensor, LCAO-SCF calcs. 2−80464
SCF calculations continued
H_2, second order correl. energies, variational SCF calcs. 2−113860
H_2^-, potential energy function for $^2\Sigma_u^+$ shape reson. state at SCF level 2−70374
H_n^+ clusters, even- and odd-numbered, ab initio SCF and SD-CI calcs. 2−108759
HCN, isotope effects, dipole moments, vibr., SCF, MRD-CI calcs. 2−85563
HCl, electronic struct. and photodissoc. 2−102376
H_2O, pot. energy of ground state, MCSCF and MR-CI calcs. 2−102396
H_2O, vibr. struct., SCF calcs. 2−108365
H_2O, vibr.-rot., quadrupole moment, g-factor, spin-rot., ab initio SCF calcs. 2−64867
$(H_2O)_2$, environmental effects, self-consistent reaction field, CNDO/INDO calcs. 2−108384
$(H_2O)_2$, H bonds, vibr. intensity, ab initio calcs. 2−85528
$(H_2O)_2$-Li^+, vibr. intensity, ab initio calcs. 2−85528
$H_2PO_4^-+Mg^{2+}(Be^{2+})(Na^+)(Li^+)$ interactions, ab initio SCF study, model of cation binding to nucleic acid 2−88344
HS^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
$(H_8Si_3AlO_4)^-$, zeolite model systems, nonempirical SCF MO studies 2−70142
$H_8Si_4O_4$, zeolite model systems, nonempirical SCF MO studies 2−70142
H_2SiSi and its isomers, stability and bonding, generalised valence bond pot. study, SCF MO calc. 2−64884
He, second order correl. energies, variational SCF calcs. 2−113860
$HeNe^+$, spin splitting, spin-orbit coupling, SCF calcs. 2−96442
IF_7, struct, vibr. assignment, and intramol. forces, pseudopot. SCF-MO studies 2−75171
I_2Ne, intramolecular energy transfer, dissoc., time depend. SCF approx. 2−108452
KBr, ab initio interaction polarisability and pair pot. 2−75179
KCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
$KMgF_3$, electronic energy band struct. 2−82225
Kr_2, pair polarisabilities, SCF calcs. 2−113870
Li-like ions, radiative transition rates and wavelengths, MCDF-EAL calc. 2−54803
$LiBH_4$+formaldehyde (acetaldehyde), carbonyl reduction mechanism, ab initio SCF calcs. 2−67732
LiBr, ab initio interaction polarisability and pair pot. 2−75179
LiC_6, electron states, cluster model *(Chinese)* 2−66415
Li_2C, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
LiCN, ab initio SCF pot. energy surface 2−96482
LiH, second order correl. energies, variational SCF calcs. 2−113860
LiH, $X^1\Sigma^+$ state, dipole polarisability function, complete active space SCF study 2−80458
LiON, struct., isomerisation, ab initio CI SCF calcs. *(French)* 2−108395
Mg (0001) surface, interatomic pot. considerations in low energy Ar^+ scatt. 2−77666
$Mg^{2+}+H_2O$ interactions pseudopotentials representation 2−75366
MgO (001), chemisorption of H_2 and CO, ab initio SCF calc. 2−104158
Mo-Mo quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
$Mo_2Cl_8^{4-}$, binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
N_2, vibrational excitation, effect of ground state mols. 2−108693
N_2-type crysts., libration motion dynamics, SCF and harmonic approx. *(Russian)* 2−56103
N_3, Jahn-Teller distortion, struct., SCF and CI calcs. 2−108396
NH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
NH_2^-, nucl. spin-spin coupling tensors calcs. 2−108361
NH_4 radical, ground state, electronic struct., Rydberg spectra, SCF-Xα-SW calcs. 2−64874
NH_4^+, nucl. spin-spin coupling tensors calcs. 2−108361
NO, β and δ systems, IR band intensities and electronic transition moments calcs. 2−59715
NO, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
NO, valence and Rydberg states, SCF and CI calcs. 2−96470
NO_2^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
NO_3^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
N_2O_4, cryst. struct., neutron diffr. study, ab initio calcs. 2−76386
N_2O_5, struct., ab initio restricted HF SCF MO calcs. 2−59685
NaBr, ab initio interaction polarisability and pair pot. 2−75179
NaCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
NaCl, equation of state, lattice const. and bulk modulus, SCF calc. 2−71604
$Nb_3S_4(Se_4)(Te_4)$, Fermi surface, band struct. and elec. cond., LCAO calc. 2−115658
Ne ionisation pot., electron correl. SCF, GTO, CI calcs. 2−113895
Ni, adsorption of N_2, HF cluster model calc. 2−56334
Ni surface, chemisorbed $CO(N_2)$, SCF-Xα SW model cluster calcs. 2−61278
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
NiO, anion-anion interionic pot., covalency influence 2−54782
NiO, O-O interactions, covalency effects 2−59686
O ions, electron affinity calc. using MCSCF wave function, CI calcs. 2−96759
O_2, open-shell orbital optimization, coupled perturbed HF and quadratically, convergent SCF calcs. 2−54773
O_3+He, vibr. relax., ab initio quantum mech. calcs. 2−59905
OH, bond functions for ab initio calcs., MCSCF calcs. 2−96438
OH^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2−85530
P_3, Jahn-Teller distortion, struct., SCF and CI calcs. 2−108396
POF_3, force field calcs., IR obs. 2−64856
$PbMo_6S_8$, electronic struct. and charge distrib., CSF MS Xalpha calcs., relativistic effect 2−96451
Pd, correlation energy, relativistic effects, CI calcs. 2−108397
Pd_3Fe and Pd_3FeH_x, electronic struct. and mag. props. in ordered and disordered phases 2−76917
Pt (100), catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
Pt complex, cis-diamino dichloro platinum(II) analogs, antitumour activity, INDO-SCF calcs. 2−80485
$Pt(PH_3)_4$, catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546

SCF calculations continued
SCO...HCl, ab initio SCF MO study, H-bond energies 2−54766
SCO...HF, ab initio SCF MO study, H-bond energies 2−54766
SF_3, ground electronic state and geometry, ab initio LCAO MO SCF calcs. 2−102381
$(SN)_x$ chain, ab initio struct. calcs. 2−104282
ScH, electronic states, d bond, multiconfigurational SCF/CI calcs. 2−80497
Si:$P_2(P_2^+)$, multiple scatt. Xα mol. cluster model of complex defects 2−76977
SiF_3^-, struct., inversion barrier, CI, ab initio SCF calcs. 2−64885
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
SnO, $(X^1\Sigma)$ state, gas phase high temp. photoelectron spectroscopy 2−80724
Ti complex, Zregler-Natta catalysts, reaction path SCF-X_α-SW MO study 2−108377
W-W quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
$WOBr_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
$WSCl_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
Xe_2, pair polarisabilities, SCF calcs. 2−113870
ZnO:Cu, deep Cu centre, lattice distortion effects, SCF-LCAO cluster calc. 2−104297

scheduling
He-Ne frequency-stabilised laser design and construction project for students 2−94968

schizons *see elementary particle weak interactions*

schlieren systems
hydrocarbons, liquid, elec. breakdown, dynamic meas. using laser schlieren photography 2−87668
large-scale jet-mixing struct., coherence with press. field 2−65625
long air gap discharges, schlieren techniques to study leader phase 2−103546
optical system utilising Schmidt-Cassegrain telescopes 2−107055
phase-relief recording using schlieren optics, optical charact. 2−114208
radial schlieren for detecting small index gradients 2−81051
shapes travelling at 6.85 Mach number, large amplitude oscillatory motions, schlieren photography 2−114951
shock reflection from concave wedge-shaped wall obs. 2−91484
turbine blade trailing-edge flow meas. using intensity correl. meas. on schlieren imager 2−109432
US wave propag., stroboscopic visualization methods 2−102993

Schottky anomaly
kink-induced sp. ht. anomaly in sine-Gordon and ϕ^4 chains 2−66252
La compounds lattice heat capacities resolution 2−56214
$LaNI_x$, heat cap., Schottky contribution, nucl. mag. ordering 2−98304
NdH_x, low temp. sp. ht., mag. transition, mag. susceptibility 2−61164
$PrNi_x$, heat cap., Schottky contribution, nucl. mag. ordering 2−98304

Schottky-barrier diodes
see also semiconductor-metal boundaries
barrier heights, contactless meas. using secondary electrons 2−115855
interfacial layer thermionic diffusion theory 2−115859
IR frequency measurement with Schottky diodes, extension to 4 THz range 2−74389
metal-semiconductor interfaces Schottky barrier form. mechanism study 2−104481
point-contact zero-biased diodes for thermoelectric detection of 10 μm radiation 2−89807
polyacetylene photovoltaic devices 2−57708
thermal filling effects on const. capacitance transient spectroscopy 2−66483
Ag-GaAs Schottky diodes formation on Kelvin, AES and LEED characterised surfaces cleaned by ion bombard. 2−87391
Al-InAlAs-InGaAs heterostructure, current transport 2−104486
Al-Si Schottky diode with surface layer, current-voltage charact. *(Rumanian)* 2−66621
Au/n-Si Schottky diode, elec. props., effect of regular surface relief 2−77158
Au-Cds, physical and structural parameters 2−78220
Au-GaAs Schottky barrier solar cell, conversion efficiency 2−99793
Au-n-$GaAs_{1-x}Sb_x$ Schottky diode, barrier height 2−115854
CdS epitaxially grown layers, deep level transient spectroscopy of carrier traps 2−115692
CdS-Au Schottky diode, $C^{-2}=f(V)$ charact., deep electron trap and interface states effect 2−115860
CdTe epitaxially grown layers, deep level transient spectroscopy of carrier traps 2−115692
CdTe-metal interface, Schottky barrier form., XPS, UPS, AES, LEED, I-V and C-V meas. 2−115861
Cu_2O/Cu thin film photovoltaic cells, possible appl. as solar cells 2−93896
GaAs IC, pulse annealing techniques optimisation 2−56693
GaAs Schottky barrier solar cells, grain boundary recombustion anal. 2−93907
GaAs sputtered films, substrate-epitaxial interface effect on C-V charact. of Schottky barriers 2−77156
GaAs, VPE and Czochralski grown, pulsed Nd:YAG laser annealing of defects, implanted sample obs. 2−56026
n-GaAs-metal interfaces, physical charact. *(Chinese)* 2−66634
GaAs-Pd Schottky barrier diodes, electron irrad., piezoelec. phenomena, deep level effects 2−115893
n-$GaAs_{1-x}P_x$/Au Schottky diodes, barrier height depend. on energy gap 2−61551
n-$Ga_{0.47}In_{0.53}As$, quasi-Schottky barrier diode using fully depleted p^+-$Ga_{0.47}In_{0.53}As$ layer, MBE growth 2−56668
$Ga_xIn_{1-x}As$-GaAs n-n^+ heterojunction, Schottky diode and photodetector appl. 2−115869
In/trans-$(CH)_x$/Electrodag Schottky barrier solar cells, photovoltaic and rectification props. 2−78216
InP MIS Schottky diodes, plasma oxidation prep. and charact. 2−61591
p-InP Schottky diodes, photoluminesc. dead layer 2−104932
InSe-Au Schottky barrier diode, elec. and optical props. 2−77157
Pd/a-Si:H Schottky barriers, heat treatment effect 2−77183
Pd/n-Si Schottky diodes, H_2 gas induced DLTS signal, gas detector appl. 2−77178
Pd-InP Schottky diode H_2 sensors, sensitivity transient response and detection mechanism 2−89700
Pd_2Si Schottky-barrier IR-CCD for short wave IR appls. at intermediate temps. 2−74501
Pt/n-GaAs Schottky interface, effects of surface treatments 2−98743
Si film, produced by field emission deposition, props. 2−71836

Schottky-barrier diodes continued
Si metal p-n Schottky barrier solar cell, barrier height calc. 2−116830
Si, n- and p-type, Schottky barrier of nonuniform contacts 2−92723
Si, p-n junction, local parameter determ. by SEM EBIV mode 2−92737
a-Si, photoelectronic effects, surface and bulk contribs. 2−98687
Si:H, amorphous, post-hydrogenated CVD Schottky diode solar cell 2−99796
Si:H, amorphous, Schottky diode spectral response, gap states effect 2−87753
Si:H, amorphous Schottky diodes, capacitance-voltage charact. calc. 2−66667
Si:H amorphous thin film Schottky barrier diodes, diode charact., film props. 2−82430
Si:O^{4+} (C^{4+}), MOS capacitors and Schottky diodes, ion implantation, elec. props. 2−86696
Si-AlSi, Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-polypyrrole photovoltaic devices, photoelectrochemical and Schottky cells 2−78217
Si-PtSi Schottky barrier diodes, implanted P distrib., barrier height 2−82457
W-GaAs Schottky diode mixer for visible laser light and microwave harmonics up to 0.43 THz 2−112972
ZnSe, heteroepitaxial, deep defects 2−92512
p-$ZnSnP_2$, current-voltage charact., photosensitivity and recomb. radiation spectra 2−115863

Schottky barriers *see Schottky effect*

Schottky defects
alkali halides, Schottky defect formation entropy and vacancy pair formation enthalpy calc. 2−109786
ionic crystal having Frenkel or Schottky disorder, finite length effects in lattice gas treatment 2−60973
α-Al_2O_3, native disorder, determ. of parameters 2−76432
KCl:Cu, Schottky defects, energy of form., ion mobility and cond. study 2−71441
Mg_2SiO_4, forsterite, defect struct., graphical representation 2−81780
NaCl, Schottky defect volume formation 2−71436
NaCl:Cu(Ag), Schottky defects, energy of form., ion mobility and cond. study 2−71441

Schottky effect
see also work function
barrier metallisations, interdiffusion of metal films on GaAs and InP, book contrib. 2−61215
cathode thermionic emission, core-emission layer boundary, Schottky barrier effect 2−57243
charge relaxation and instability in barrier layers 2−61582
electroreflectance spectra, of Schottky barrier, pseudo-exciton effect 2−99091
II-VI semiconductors, deep levels, junction space-charge techniques 2−110285
III-V semiconductor-metal interface, Schottky barrier form. due to surface antisite defects 2−61556
III-V semiconductors, Schottky barrier form. and MOS interface states, unified model 2−87372
insulating thin films, conduction mechanisms *(Spanish)* 2−72091
metal film on semiconductor, interface chem. reaction and diffusion 2−86954
metal-n-type semicond. Schottky barrier contacts, exptl. study 2−72057
metal-semiconductor contact, effective work function model 2−110440
metal-semiconductor contact, Schottky barrier heights rel. to interface states 2−98719
metal-semiconductor interface interactions, similarity to metal-metal interfaces 2−115578
metal-semiconductor interfaces Schottky barrier form. mechanism study 2−104481
metal-SiO_2-n-Si structure Schottky barriers tunnelling exponent 2−82441
MIS amorphous solar cells, theory of Schottky barrier heights 2−116827
mixed phase contacts, barrier height, size dependence calc. 2−110439
mixed phase Schottky contacts, barrier height, size effects 2−66619
organic energy conversion, ionised impurity induced photocarrier generation 2−99797
organic semiconductors, Schottky emission meas., excitonic effects 2−72048
photoelectrochemical cells, electrical power and H_2 generating, carrier recomb. at grain boundaries and liq. interfaces, chem. control 2−111573
photoelectrochemical Schottky barrier cell, I-V characteristics, recombination effects, theory 2−93926
polyacetylene, appl. in Schottky barrier solar cells, charact. 2−57707
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2−77212
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
semiconductor Schottky barriers, space charge region, dynamic response, gap states 2−87182
semiconductors, deep centres concentration, determ. by rapid capacitance relax. meas. of p-n junctions and Schottky barriers 2−69201
semiconductors, internal Schottky barriers 2−66620
n-Si/acetonitrile interface, Fermi level pinning and surface states investig. 2−61584
silicide-Si interface electronic states and microstruct. 2−87412
solar cell charge transfer one-dimensional boundary value problem numerical solution 2−116805
surface science, conference, Liverpool, England (April 1981) 2−58538
theoretical models of Schottky barriers, review 2−115894
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
Ag-GaAs (100), interface struct. and electronic props. meas. 2−110171
Al/GaAs Schottky barriers, elec. field in depletion layer 2−98043
Al/W/NiSi structure, use of thin W barrier to inhibit Al+NiSi reaction 2−98472
Al-GaAs and Al-$Al_{1-x}Ga_xAs$-GaAs MBE contacts, Schottky barriers, stability props. meas. 2−98723
Al-GaAs MBE Schottky barrier height, O stabilization 2−87367
Al-GaAs Schottky barriers, influence of interface composition 2−82432
Al-GaAs(110) interface, possibility of adatom cluster formation 2−61555
Al-phthalocyanine interface, surface photovoltage, XPS and I-V characterisation 2−56691
AlAs (110) surface, deep defect levels and Schottky barrier calc. 2−110413

Schottky effect continued
AlAs interfaces, dissoc. surface reactions 2−57250
Al_2O_3:Cu porous anodic film, elec. props. meas. 2−82501
Au/n-CdTe Schottky diode, elec. props. meas. 2−77184
Au-CdS Schottky structure, deep levels obs., anal. of admittance spectroscopy method 2−115701
Au-GaAs (110) interface, Schottky barrier, thermal effects, XPS and UPS study 2−110441
Au-Si:H, amorphous semiconductors interface reactions and Schottky barrier formation, expt. study 2−110176
n-CdS, exciton refl. spectrum, inversion layer effect 2−116207
CdS photoelectrochem. cell, effect of sputtered RuO_2 overlayers on CdS electrode 2−111571
CdS-Cu, interface form., Schottky barriers, interdiffusion and chem. processes, XPS study 2−77182
CdS(Se)-Al-Au interface, Schottky barrier modulation, soft XPS study 2−110442
CdSe, photocond., struct. and defect levels 2−115811
p-CdTe Schottky diode, carrier traps, TSC study 2−66478
CdTe-metal interfaces, Fermi level pinning 2−66618
Co-Si contact, barrier height 2−92752
Cu oxidised crossed bars, contact resistance in terms of Schottky effect *(Hungarian)* 2−98762
Cu-Cu_2O photovoltaic cells, prep. by high temp. reduction and props. meas. 2−88459
Er-$ErSi_2$-Si, Schottky barrier diodes, $ErSi_2$ surface morphology, SEM study 2−92313
Fe_2O_3 semiconductor electrodes with deep impurity level *(Japanese)* 2−115690
GaAlAs Schottky barrier restricted laser 2−96977
GaAs (110), adsorption state of Al, rel. to Schottky barrier form. 2−115546
GaAs interfaces, dissoc. surface reactions 2−57250
GaAs, n^+-n-n^+ Schottky device, ballistic and quasiballistic electron spectroscopy, numerical simulation 2−56669
GaAs n-type Schottky barrier, deep level and shallow impurity profile simultaneous meas. with C-V method *(Chinese)* 2−92505
GaAs overlaid by Ag, surface and contact props. 2−92751
n-GaAs, photocurrent determ. of hole diffusion lengths 2−82396
GaAs, Schottky barrier form., MOS interface states 2−82428
GaAs, Schottky barrier formation, defect states model 2−98722
GaAs Schottky structures, surface defect model 2−98724
GaAs Schottky-barrier cells, I-V characts. including recomb. effects 2−82459
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
GaAs-W(Ta)(Re)(Ir)(Mo), refractory contacts, interface reactions and Schottky barrier form. 2−110444
GaP Schottky barrier, struct. model and elec. characteristics and AES study 2−110170
GaSb, Schottky barrier form., MOS interface states 2−82428
GaSb, Schottky barrier formation, defect states model 2−98722
GaSe-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
GaSe-metal interfaces, Fermi level pinning, Schottky limit, photoelectron spectra study 2−56670
GaSe-metal Schottky barriers, optical band rectification and photomemory 2−115892
$Hg_{1-x}Cd_xTe$, surface and interface electronic props. derived from III-V cpds. theory 2−87355
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2−87366
InP MIS Schottky barrier solar cells, instability obs. 2−88447
InP, Schottky barrier form., MOS interface states 2−82428
InP, Schottky barrier formation, defect states model 2−98722
InP, Schottky contacts on chem. etched surfaces, chem. effects obs. 2−61550
InP, surface defects and Fermi-level pinning 2−82431
n-InP-Al Schottky barrier, prep., photocurrent, I-V and C-V characts. study 2−61552
n-InP-Au Schottky contacts with increased barrier height due to oxide layer 2−77185
InP-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
InP-metal interface, Fermi level pinning and chem. struct., XPS study 2−110475
Mo-$CuInSe_2$ interface, capacitance-voltage and EBK study 2−87385
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
Ni-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
NiSi, Al contact using thin W barrier 2−87393
Pd-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
Pd_2Si-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
PtSi-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Ru-Si contact, Schottky barrier height, effect of silicide form. 2−104466
RuO_2-CdS Schottky barrier photovoltaic device 2−56633
Si (111)-Pd (V), Schottky barrier formation, soft XPS study 2−110445
Si, amorphous, Schottky barriers, theory of capacitance-voltage meas. 2−61554
n-Si photoelectrochemical cells with Pt-polypyrrole protected electrodes 2−111572
p-Si Schottky diode, deep level determ., deep level Fourier spectroscopy method 2−66479
Si solar cells, degradation due to formation of Schottky barrier contact 2−93923
Si solar cells, Schottky barrier, intermediate layer effect on characts. 2−116806
Si:F, H amorphous films, photoelec., and optical props. Schottky barrier solar cell form. 2−83480
Si:H, amorphous, DLTS response due to localized states 2−56492
Si:H, amorphous, hole collection length, surface photovoltage study using liq. Schottky barrier 2−56631
Si:H, amorphous, Schottky barrier and MOS structs., barrier heights, photoemission study 2−82465
Schottky effect continued
Si:H, amorphous Schottky barrier solar cells; CVD prep., electronic props. 2−83484
p-i-nSi:H, amorphous solar cell struct., deep electron traps 2−56493
a-Si:H, potential distribs. in Schottky and p-i-n structs. by capacitive techniques 2−92749
a-Si:H RF sputtered films, elec. props. rel. to threshold and memory switching appls. 2−87347
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si-Au, amorphous Schottky solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
Si-metal Schottky barriers, photovoltaic props. implications for grating solar cells 2−116828
Si-Pd(Ag) on Si (111)7×7, struct. studies of Schottky barrier formation by surface EXAFS 2−110174
Si-silicide interfaces, electronic struct., review 2−115847
Ta-Si Schottky barrier structures, effect of interfacial impurities 2−82435
TiO_2 electrode behaviour anal., photoelectron cell appls. 2−73126
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
$TiSi_2$-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
V/Si interface, Schottky barrier formation 2−82433
W-GaAs Schottky barrier, elec. props. and interface chem., XPS study 2−115853

Schottky gate field effect transistors
coaxial structure for packaged MESFET operation at top noise and gain performance at 24 GHz 2−100734
III-V semicond. epitaxial growth, appl. to compound semiconductor device technology 2−77741
$Ga_{1-x}Al_xAs$ laser FET monolithic IC, very high freq. operation 2−96969
GaAs MESFET, normally-off, deep levels, photoinduced current spectroscopy study 2−110281
GaAs MESFET fabrication using Au-Si focused ion beam 2−91999
GaAs MESFETs, deep level impurities, effects on small signal and LF noise props. 2−98586
GaAs:Cr, horizontal Bridgman-grown for ion implantation, elec. characts. 2−115756
GaAs:Si, ion implantation, elec. props., for dual gate MESFET *(Chinese)* 2−109817
GaAs-insulating film interface, MESFET struct., elec. and optical props. 2−110486

Schottky noise *see random noise*

Schrodinger equation
accidental degeneracies in quantum mechanics and the symmetries of the classical Hamiltonian 2−58651
affine mechanical systems, Schrodinger quantisation 2−107127
Aharonov-Bohm scattering, Schrodinger eqn., diffraction 2−58639
Alfven solitons props. in finite-beta plasma 2−65709
alkali metal atoms ground and excited states, Schrodinger eqn. soln. by cubic spline method 2−64854
alkalike atom+inert gas atom, collisions, van der Waals forces, excited state lifetimes 2−75369
almost periodic Schrodinger operator, density of states, frequency module 2−107135
almost periodic Schrodinger operators: a review 2−95126
analytical solution for m=0 case for angular eqn. of the dipolar potential 2−107156
analyticity of energy levels for confining pots. 2−95070
angular momentum-angle commutation relations and minimum uncertainty states 2−95104
anharmonic oscillator, Schrodinger eqn., piecewise perturbation treatment 2−74265
anharmonic oscillators, two-coupled, Schrodinger operators 2−58654
anisotropic Heisenberg ferromagnet, quantum inverse problem 2−87471
asymptotics of the scattering phase for the Schrodinger operator with potential *(French)* 2−69030
axisymmetric solitary waves in Bose condensate 2−101180
bound state, Schrondinger eqn. soln. by cone spline method *(Russian)* 2−95117
bound states, Schrodinger eqn. closed form soln. 2−101230
CAI, Schrodinger eqn. study program 2−107072
central potentials, off-shell Jost solns., explicit forms 2−84465
chaotic states of almost periodic Schrodinger operators 2−107169
charged particle bound states, theory in resonance media 2−95116
charmonium, interquark potential with oscillator asymptotics *(Russian)* 2−101655
charmonium spectroscopy, Schrodinger eqn. solns. for superposed pot. 2−74656
complex Schrodinger config. plane, rel. to one-dimens. quantum theory representations 2−112724
composite particles with highly relativistic components, potential models 2−64303
conservation laws associated with Lax equations 2−74251
constraints in quantum mechanics 2−89568
coupled equations, theory 2−107152
coupled nonlinear Schrodinger eqns., intgrability 2−53583
coupled quantum system, factorisation, damped nonlinear Schrodinger eqns. 2−53582
coupled quantum system, separation yielding nonlinear Schrodinger eqn. 2−112723
covariant Schrodinger eqn. via path integrals 2−53576
density of states with random pot. 2−95066
derivation from statistics and Hamilton-Jacobi theory 2−107158
deuteron quark model 2−107632
diffusion dynamics and related general EM pot. 2−95240
discontinuity in Schrodinger's wave function first derivative 2−84419
double well potential, level splitting, eigensolns. 2−74264
driven eqn. soln. by R-matrix propag. method 2−95062
eigenfunction decay in N-body quantum systems 2−95124
electron gas, asymptotic freedom, cusp theorem 2−82255
exact solutions for potential $x^2+\lambda x^2/(1+gx^2)$ 2−63844
Feenberg scaling and higher-order invariants in Rayleigh-Schrodinger perturbation theory 2−79399
few-body nuclei, exact ground states with and without three-body forces 2−59260
Feynman path integrals and the trace formula for the Schrodinger operators 2−53550

Schrodinger equation continued
finite-difference solutions of a non-linear Schrodinger equation 2−53562
first order relativistic corrections, spectral concentration in the nonrelativistic limit 2−112737
free charged particle in nonuniform mag. field and laser field, quantum mechanical states 2−58644
gauge invariant periodic quantisation method, periodicity condition investigation 2−107171
general lower bounds for reson. in one dimension 2−112722
general time-depend. solvable Schrodinger eqn., path integral 2−107160
generalised coherent states and uncertainty principle 2−95105
geometric methods in quantum many-body problems 2−95125
Green's functions for the rapid computation of nonrelativistic wave functions 2−112738
Hamiltonian systems, integrable, canonical coords. 2−74261
heavy ion collisions, Schrodinger time evolution in truncated subspace, nonlinear approx. 2−90128
heavy-ion collisions, mass and charge fragmentation, quantum-mechanical treatment 2−85088
Heisenberg eqns. of motion in Caldirola-Montaldi procedure 2−58646
Heisenberg spin chain and nonlinear Schrodinger eqn., Miura transformation technique 2−61686
high bit rate communication systems using non-linear effects 2−102951
high-energy elastic scatt. at fixed angle, multidimensional WKB approach 2−107568
highly negative ions, existence, quantum many-body problem, geom. methods appl. 2−107136
Hulthen potential, non-zero ang. momentum states, analytic approx. 2−95099
hydrogenic system, homeomorphism with free-particle system 2−101231
infinite dimensional Jacobi matrix, upper bound on number of eigenvalues 2−95072
inhomogeneous Schrodinger equation, soln. with model pseudopotential 2−89576
integrals involving Bessel functions, hypervirial calc. 2−53563
invariant imbedding solution of driven and homogeneous Schrodinger eqns. 2−107145
inverse problem of reconstructing a confining potential for the radial Schrodinger equation 2−89573
inverse scatt. problem nonuniqueness and presence of E=0 bound states 2−84478
inverse scattering inverse source theory 2−63860
ion motion in Kingdon trap, classical and quantum theory 2−90789
ion plasma waves, nonlinear wave modulation, Lagrangian representation 2−55718
isolated system, Josephson phase coherence, amplitude superposition 2−79421
isotopic spin chain, nonlinear Schrodinger eqn. linearisation 2−69098
Kaup-Newell system, canonical struct. of soliton eqns. 2−95110
KdV and nonlinear Schrodinger eqns., exact soliton solns. 2−107119
lattice solitons, nonlinear LC circuit method, dark solitons, Schrodinger eqn. 2−58721
lepton spectrum inducing pot., elementary construction 2−84870
level shifts and inelastic electron scattering in dense plasmas 2−71111
low energy scattering for slowly decreasing potentials 2−107134
many electron system, Schrodinger fluid dynamics, density-functional framework 2−95221
mass dependence of wave functions for exponential pot. 2−112734
massless quark, Schrodinger vs. Dirac eqn. 2−64299
microscopic collective states dynamical group 2−74734
microscopic model for nuclear dissipation as collective motion damping in time-dependent RPA 2−74723
microscopic stress tensors, dynamical derivation 2−79393
minimum-uncertainty coherent states for time depend. systems 2−95106
multilevel systems driven by exponential or semiexponential pulse, Schrodinger eqn. soln. 2−108845
multiquark hadrons in nonrelativistic quark-potential models 2−54067
N-dimensional time dependent Schrodinger equations, solns. 2−58649
near-integrable systems with damping, adiabatic invariants theory 2−101184
nonadiabatic scatt. problems, generalisation of geometric optical series approach 2−69038
nonlinear, classical and quantum lattice models 2−63931
nonlinear, dissipative, master eqn. derivation 2−79466
nonlinear, in two dimens. 2−101209
nonlinear, pseudopotentials and Lie symm. 2−63848
nonlinear and potential nonlinear, soliton solns. 2−74231
nonlinear coupled equations, integrable model of QFT in state space with indefinite matrix 2−69057
nonlinear equation, repulsive, with left-right boundary conditions, spectral transform 2−95097
nonlinear equations, Galerkin method of approx. soln. 2−107111
nonlinear lattice relaxation by a regional virial theorem 2−56480
nonlinear modified, almost periodic solns. 2−58658
nonlinear Schrodinger eqn., as Galilean-invariant dynamical system 2−101212
nonlinear Schrodinger eqn., two-dimens., 2−53568
nonlinear Schrodinger equation, relativistic generalisation 2−101531
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
nuclear collective props. depend. on potential energy and inertia tensor 2−101788
nuclear fragmentation theory, Schrodinger eqn. with time depend. mass parameter 2−54342
nucleus-nucleus pot., various exchange contrib. degree of nonlocality 2−54270
numerical determ. of eigenvalues 2−63785
numerical integration, finite difference methods 2−79409
numerical integration in finite difference schemes 2−79408
one-dimensional Heisenberg ferromagnets with single site anisotropy, and nonlinear Schrodinger eqns., gauge equivalence 2−110560
one-dimensional operator, absence of proper numbers *(Russian)* 2−74241
one-dimensional operator, with potential, upper estimations for soln. *(Russian)* 2−74240
one-dimensional Schrodinger eqn., perturbation theory for shape resonances and large barrier potentials 2−53552
operator method and perturbational soln. 2−112736
operator method of approx. soln. of Schrodinger eqn. 2−58650
operators with almost periodic potential 2−101245
optical resonator, derivation of transverse mode struct. by Schrodinger eqn. 2−102825
Schrodinger equation continued
orbital stability of standing waves for some nonlinear Schrodinger equations 2−107140
particle in mag. field, classically equivalent Hamiltonians and ambiguities of quantisation 2−96818
particle in tetrahedral box, exact soln. 2−95065
perturbation expansion coeffs., recurrence relations 2−53565
perturbation theory series higher orders, calc. for screened Coulomb pot. *(Russian)* 2−69056
piecewise analytical perturbation series method, PAPSM, radial Schrodinger equation 2−95039
plasma duct, whistler wave self-focusing *(Russian)* 2−97737
polynomial potentials, exact soln. *(Russian)* 2−89579
potential bag dynamics and tunnelling 2−101680
propagating whistler waves in inhomogeneous plasma, Schrodinger eqn. 2−91624
propagation properties, algebraic approach 2−95122
QED, bound state energy calc. 1/c expansion 2−59091
quantum dynamics, recurrence phenomena 2−58653
quantum mechanics, book 2−84404
quantum mechanics, probability rule derivation 2−95103
quantum mechanics test by neutron interferometers 2−95050
quantum theory, application to mol. problems 2−95119
quantum theory of scatt. at fixed energy level *(Russian)* 2−89578
quantum-mechanical scatt. theory for pot. $V(r)=(\sin r)/r^{\beta}$ 2−74248
quark confining potential in relativistic eqns. 2−84418
quasiperiodic potentials, spectral behaviour 2−84467
radial, elementary bound states for the power-law potentials 2−95064
radial Schrodinger eqn., eigenvalue calcs. 2−63854
random potential, spectrum of Schrodinger operators calc. 2−107138
Rayleigh-Schrodinger perturbation theory generating eqns. 2−107133
reaction-diffusion systems, rotating spiral waves, Schrodinger eqn. approach 2−83346
relativistic effects for quarks within hardrons 2−95779
resonance tunneling through a three-dimensional asymmetric potential with a barrier *(Russian)* 2−101240
rotating-harmonic-oscillator equation, comments on Flessas' paper 2−107168
rotation number for almost periodic Schrodinger operator 2−84468
scattering, oscillator representation, Schrodinger eqn. soln. *(Russian)* 2−89582
Schrodinger inverse scatt. problem soln. with polynomial spectral depend. in pot. 2−53564
Schrodinger wave eqn., strange bound states, scalar pots. 2−63782
semi-classical WKB method *(French)* 2−69031
semiclassical limit of quantum mechanics in terms of diffusion process 2−95121
semiclassical phase integrals, higher order, Chebyshev series approx. and Taylor series expansion calcs. 2−101204
sigma hypernuclei, microscopic model 2−95953
solutions for $x^2+\lambda x^2/(1+gx^2)$ interaction 2−69041
spectrum of Schrodinger operators with a random potential 2−101246
spin relaxation, microscopic model, dissipative Schrodinger-like evolution eqns. 2−59820
spurious centre-of-mass problem in dynamically determined basis, comment 2−59306
stability of Schrodinger eigenvalue problems 2−53554
stable quasistationary state, new soln. of time-depend. Schrodinger eqn. 2−101201
stochastic optimal control and quantum mechanics 2−95239
stochastic phase space formulation and non-potential interactions 2−95051
symmetric double square well, quantum solns. 2−53458
symmetric operators in Krein space, exponential map 2−95078
symmetry algebra of Heisenberg model and nonlinear Schrodinger eqn. 2−113168
three-dimensional, inverse scattering, Marchenko construction, Gel'fand-Levitan eqns. 2−63850
three-heavy-quark system spectroscopy 2−64297
three-particle relativistic harmonic dynamics in the constraint formalism 2−101163
time depend. Hartree approx. and harmonic oscillator model 2−54290
time dependent, faster-than-power decrease in time of solns. 2−53584
time-dependent, exact solns. 2−95101
time-dependent eqn. soln., extension for a Ermakov system 2−84477
time-dependent quantal oscillators, linear invariants 2−95095
time-varying external field effects *(Russian)* 2−53589
total interaction as perturbation 2−58652
trace formulas for the quantum nonlinear Schrodinger equation 2−95113
transitionally singular pot. for quark-antiquark interaction 2−101696
two Heavisidean monopole system energies 2−63882
two-step methods for the numerical solution of the Schrodinger equation 2−95043
variational principle, unified, for statistical and quantum mechanics 2−89610
variational quantum mechanical principle for statistical mechanics 2−89611
variational solutions of first order perturbation eqn. 2−63836
vortex filaments, stability, nonlinear Schrodinger eqn. anal. 2−75973
WKB approach to the Schrodinger equation with relativistic kinematics 2−112742
Yang-Mills theory, tunnelling, winding number, Schrodinger eqn. 2−74605
Yukawa potential bound states upper limits 2−69045
zeroth order Coulombic hyperangular interaction integrals, upper and laser bounds 2−112733
GaP, exciton electroabsorption spectrum, Schrodinger eqn. calc. 2−116154
H, atom, ground-state energy with polynomial perturbation 2−64864
H atom, one-dimensional, in infinite square well, theory 2−79328
H bounded atom, hypervirial-perturbational treatment 2−95087
H ionisation probability calc. based on quadratically integrable functions 2−70202
H metallic, asymptotic freedom, cusp theorem 2−82255
$H+H^+$, Coulomb interaction, time-depend. Schrodinger eqn. soln. 2−85772
$H+H^+$ scattering appl. of soln. of time depend. Schrodinger eqn. with trajectory method 2−54944
H_2 solid, asymptotic freedom, cusp theorem 2−82255
He, ground state, struct., exact 1-electron model 2−80445

Schrodinger equation continued
He I and isoelectronic sequence, Fock expansion for S-states, first terms *(French)* 2−54762
He, isoelectronic series, S state, eigenvalues of two-dimensional Schrodinger eqn. 2−54749
$LiTaO_3$, F^+ centre, pot. energy of point ion lattice, Schrodinger eqn. 2−76973
^6Li, alpha-deuteron structure prediction by three-body models 2−84982
$UO(UO_2)$, gaseous, relativistic mol. orbital calcs. 2−90448
$^{238}U(^{40}Ar,^{40}Ar')$, 340 MeV, coupled channels and nuclear deexcitation 2−54429

Schroedinger equation *see Schrodinger equation*

Schwarz-Hora effect
No entries

Schwarzschild metric
see also cosmology
γ-law equation of state leading to interior Schwarzschild metric 2−89584
charged particle bunch, gravit. expts., Schwarzschild space-time theory 2−63883
conformally flat, anisotropic spheres in general relativity 2−95153
conformally invariant Brans-Dicke theory, mass spectrum 2−84500
energy content of gravitational field, energy-momentum density pseudotensor formalism 2−63862
geodesic motion validity near black holes 2−58248
gravitational field eqns., Schwarzschild-like solns., time depend. embeddings 2−112779
gravitational repulsion in Schwarzschild field 2−95168
heuristic extension 2−84409
point charge self-force determ. *(French)* 2−107177
radiating field, slow motion expansion on Schwarzschild background, nonanalytic terms 2−69064
relativistic Keplerian ring line profiles *(Chinese)* 2−112430
scalar wave scattering in static space-times 2−69066
space-time, vacuum polarisation by massive scalar field 2−117706
sphere, local effect 2−117704
spontaneously broken conformal gauge theory of gravitation 2−58679
tangential metric coefficient problems 2−58236
test particle trajectory 2−63868
third order Killing tensors 2−101252
transverse Schwarzschild external field 2−95201
Yang eqn. generalisation, gravitational gauge field eqns. *(Chinese)* 2−69314
H spectrum gravitational perturbation 2−95167

Schwarzschild space *see Schwarzschild metric*

Schwinger source theory
$(^{\lambda}/_{N}|\Phi_N|^4)_2$ model, analytic interpolation and Borel summability, finite vol. approx. 2−74586
baryons, loop average in large N limit 2−69420
Bohr-Mottelson model and interacting boson model equivalence 2−84977
confining Schwinger model, West's proof of confinement 2−84852
equivalence with SU(n) QCD 2−101641
Euclidean $(QED)_2$ construction via lattice gauge theory, boundary conditions, vol. depend. 2−59089
extreme Reissner-Nordstrom black holes, spin-3/2 perturbations anal. using O(2) supergravity theory 2−100972
fermion confinement and nonexistence of physical multiple vacua 2−59029
generalised Rarita-Schwinger spinor tensors, conformal covariant Schwinger functions 2−59006
Kubo-Martin-Schwinger condition, group duality 2−101199
lattice Schwinger model and anomalies 2−101562
Lippmann-Schwinger eqn., uniqueness of scatt. wavefunction 2−95107
massive three-dimensional O(N) theories, explicit expression for effective pot. 2−84809
massless Schwinger model on lattice, via local Monte Carlo algorithm 2−107508
modified Eguchi-Kawai model 2−107535
QCD, generalised gap eqn. derivation 2−107620
QED, Schwinger-Dyson eqn. anal. for finite electron propagator 2−107601
Rarita-Schwinger field, consistent interactions 2−95632
Rarita-Schwinger field in non-abelian Klein-Kaluza theories 2−101524
spontaneous pair creation, constant electric field 2−107606
two-dimensional Ising model, scaling limit and Osterwalder-Schrader axioms 2−74338
unrenormalised Schwinger-Dyson eqns. and dynamical mass generation 2−74591
vacuum struct., external field model., rel. to two-dimens. QED 2−58999
W(3) group, boson representations, mass formula 2−69360

science education *see education*

scientific societies *see societies*

scintillation
see also phosphorescence; phosphors
atmospheric laser beam propagation, ang. scatt. and intensity scintillation meas. 2−117460
atmospheric microwave propag., fluctuations, scintillation theory 2−58100
atmospheric turbulence, path-averaged inner scale meas. by spatial filtering of optical scintillation 2−68401
autoradiography of plant cells, scintillator effect on exposure time 2−57945
interplanetary, cross-correlation skewness 2−117558
interplanetary scintillation, appl. to ground-based obs. of interplanetary disturbances 2−68585
interplanetary scintillation, correl. of solar wind streams out of ecliptic with high latitude coronal holes 2−100879
interplanetary scintillation and its astrophysical significance 2−89103
ionosphere, VHF Faraday polarisation fluctuations and L-band amplitude scintillations near Appleton anomaly crests 2−100647
ionospheric scintillation meas. at 4 and 6 GHz during sunspot cycle 21 peak using INTELSAT earth stations 2−78898
ionospheric scintillation meas. using Global Positioning System 2−78913
ionospheric scintillations, global morphology 2−73772
IR laser beam reflected through atm. folded paths, scintillations 2−58124
irradiance moments, high-order, of light wave obs. in turbulent air 2−89001
Jupiter HF radiation, interplanetary scintillations used to analyse solar wind plasma irregularities 2−73816
laser beam atmospheric scintillation space correl. in Shanghai *(Chinese)* 2−68485

scintillation continued
laser beam propagation in turbulent atmosphere, correl. of shifts of optical images 2−117464
laser irradiance scintillation suppression in nonlinear defocusing medium 2−78838
line-of-sight optical link at 8.5 km range, atm.-induced beam extinction and scintillation influence 2−94489
liquid scintillation counting of tritiated compounds, determ. of accurate counting efficiency 2−54733
magnetic storm-associated ionsoperhic scintillations 2−58196
optical glass, optical properties 2−60198
optical pulsed ranging accuracy, effect of atm. turbulence 2−112132
PPO-POPOP scintillator multicomponent soln., tuning range enlargement *(Chinese)* 2−60072
radiowave scintillations in ionosphere, review 2−73771
random medium, two-dimens., plane wave propag., multiple foci in intensity fluctuation range depend. 2−59996
salicylate organic scintillators, relative scintillation efficiencies for alpha particles 2−85489
saturation of optical scintillation by strong turbulence, plane-wave variance, covariance and spherical-wave covariance 2−55069
stellar scintillation wavelength dependence meas. at Mauna Kea, Hawaii 2−73681
telescope, ground, phase detector wave-front sensing and correction, different wavelength effects 2−78837
Triton-X-100 wavelength shifter in Cherenkov counting system, scintillant behaviour 2−85482
turbulent atmosphere, flux scintillations of incoherent radiation 2−68490
Ar, liquid and solid scintillators, UV emission time depend. meas. 2−90364
CO_2 laser-target interaction diagnostics, optical fibre appls. 2−115043
$CaMoO_4$ and $CaWO_4$ scintillators, γ-ray absorpt. data 2−104983
Kr, liquid and solid scintillators, UV emission time depend. meas. 2−90364
$PbWO_4$ scintillators, γ-ray absorpt. data 2−104983
^{222}Rn in air, meas. using liq. scintillation techniques 2−57759
Xe, liquid and solid scintillators, UV emission time depend. meas. 2−90364
$ZnWO_4$, cryst. growth and scintillation props. 2−57282

scintillation chambers
see also scintillation counters
Kr, liquid and solid scintillators, UV emission time depend. meas. 2−90364
Xe, liquid and solid scintillators, UV emission time depend. meas. 2−90364

scintillation counters
see also photomultipliers; position sensitive particle detectors
acrylic scintillator based on PMMA 2−75100
acrylic scintillator particle counters, performance testing 2−108243
alpha radiation pressure detector 2−113828
antinucleus detection in cosmic rays 2−100749
camera, planar images, spatial resolution recovery 2−54717
Cerenkov interaction, stimulated, experimental system for study 2−90402
characteristic amplitudes of beta-ray spectra measured using scintillation detectors 2−85486
clusters, small, scattered electron counting system for nozzle beam studies 2−90405
composite crystal γ-ray scintillometer, for environmental meas. 2−54669
computerised tomography appls. 2−80395
cosmic ray isotope expt. using Cherenkov range detector technique 2−68625
cosmic ray trigger cct. for large solenoidal particle detectors 2−68621
detectors and appls. of photomultipliers in expts. at CERN *(French)* 2−113829
detectors for high-energy neutrino interactions 2−70105
digital scintillation camera for single photon computerised tomography appl., concepts and design 2−73343
dual parameter discriminator for gas scintillation proportional counters 2−64808
electron-positron pair angular distribution meas. in bremsstrahlung beam 2−85504
encapsulated plastic scintillator for monitoring ^3H-solute conc. 2−73400
fine-grain marble calorimeter, response and resolution for hadronic and EM showers 2−108239
FLYSPEC, neutron spectra measured by NE213 and stilbene spectrometers, unfolding method 2−102318
forward calorimeters, small-angle particle detection in pp collisions 2−108240
gamma probe design for root activity meas. in situ 2−88483
gamma-ray scintillation counter with a recording efficiency proportional to the energy of γ radiation 2−85488
gamma-ray scintillation detectors, dependence of spectrometric props. on energy of radiation 2−85487
gas multiplication counters, UV light convertors 2−75113
gas proportional scintillation counter, light output in rare gases and mixtures, press. depend. 2−102340
gas scintillation nuclear particle detectors 2−90360
gas scintillation proportional counter camera for X-ray astronomy appl. 2−78951
gas scintillation proportional counters 2−90358
gas scintillation proportional counters for Japanese astron. satellite 2−94609
gas-filled luminescent neutron detector 2−108269
glass shower detector performance for low energy electrons 2−96373
Hamamatsu photomultipliers for nuclear radiation detectors 2−90374
HERMES, high energy gamma radiation measuring system 2−102332
high count rate performance 2−108249
hodoscope for 10 MHz beams 2−108244
hodoscope-spectrometer for studying low-energy pion reactions 2−108221
Hornyak-button detector optimisation for fast-neutron detection 2−70048
hybrid sum-coincidence spectrometer with Ge(Li) and NaI(Tl) detectors *(French)* 2−102317
image intensifier scintillation detector coupled to television system, use for determ. mol. struct. 2−54980
imaging gas scintillation proportional counter for X-ray detection 2−78950
imaging gas scintillation proportional counter props. 2−90359
ion-electron convertor detector for low-energy protons 2−96401
laser neutron generator use in detector calibration for pulsed neutron fluxes 2−64732

scintillation counters continued
latched constant fraction discriminator and appl. in time resolution studies 2−108302
linear position sensitive scintillator 2−113824
liquid scintillation cosmic ray veto detector with BBQ shifter, design optimisation 2−68622
liquid scintillation counter, alternative uses in lab. anal., biological research appl. 2−105875
liquid scintillation counter connected to multichannel pulse-height analyser, quantitative α-emitter meas. method *(Japanese)* 2−54732
liquid scintillation counting, automatic quenching compensation sample channels ratio method abnormalities *(Chinese)* 2−59648
liquid scintillation detector to study underground cosmic radiation 2−58260
liquid scintillator, rise time spectrum meas. using dynamic range expander 2−90412
liquid scintillators for optical fibre appl. 2−64753
low-background hard X-ray spectrometer, APACHE, 10.6 μm laser fusion expts. appl. 2−101508
Mark-J detector counter monitor system *(Chinese)* 2−80403
multiple event 2D image intensifier scintillation detector 2−54715
NE213 scintillator response to electrons and protons, size depend. 2−108234
NE 110 plastic scintillation counters, detection efficiency for 10-40 MeV neutrons 2−108245
NE 213 scintillation detector, gamma-calibration 2−64749
neutrino scintillation detector response to supernova neutrino pulse 2−58370
neutron scintillation detectors, threshold determ. with thin ^{252}Cf source 2−102333
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
one-dimensional scintillation camera appl. in positron tomographic ring detector 2−73323
optical crosstalk discrimination of liquid scintillation counter *(Chinese)* 2−59603
optical fibre scintillator for fine grained hodoscopes 2−70041
organic scintillator neutron spectrometer suitable for in-phantom studies, dosimetry appl. 2−68228
phoswich detector for beta-gated gamma coincidence counting 2−75116
photofraction correction for voluminous sources and mean photon path 2−113827
photomultiplier, square tube type S83003E, photocathode response uniformity 2−75112
photomultipliers with reflector output, anode sensitivity control 2−64773
photon detector response functions, Monte Carlo calcs. 2−108233
plasma diagnostics using fibre optics, with scintillators, system sensitivity and bandwidth as function of fibre length 2−115042
plastic cylindrical scintillator, light collection time study 2−108266
plastic scintillation probe, automatic gain control stabilisation *(Spanish)* 2−64791
plastic scintillator, channeltron system for air shower core obs. 2−94613
plastic scintillator for time determ. in mag. spectrometer 2−90396
plastic scintillator response to relativistic Ne, Ar, Fe ions and cosmic ray muons 2−80385
plastic scintillator-photomultiplier combinations, heavily shielded, response to ns neutron pulses 2−70062
plastic scintillators for single pulse transmission Mossbauer spectroscopy 2−102342
portable photon-electron rejection Alpha liquid scintillation spectrometer 2−54714
position sensitive photomultipliers 2−90375
position sensitive scintillation detector for thermal neutrons 2−90385
position sensitive scintillation detectors for gamma-ray imaging telescope 2−100738
positron lifetimes in metals, meas. apparatus 2−111396
prompt and delayed gamma distrib. anal. 2−59655
radiation detectors for X-ray and γ-ray spectroscopy, needs and prospects 2−58974
rectangular parallelepiped counter, counting rates in partially vetoed mode 2−113832
rectangular parallelepiped counter, path length distrib. 2−113831
resolution of meas. with square root metric. for detectors with photomultipliers 2−108316
scintillation detection units for nuclear-physical investigations in deep boreholes 2−113835
secondary electron detector for irradiated nuclear fuel 2−70064
shower detectors, high-resolution photon detectors for large assemblies 2−64746
spectrometer, neutron flux density meas. methods analysis, using D(d, n) ^3He reaction 2−80407
SST 511 p-terphenyl scintillator, thickness effect on β/γ ratio meas. *(Chinese)* 2−59607
STEM, electron detectors, detective quantum efficiency meas. 2−89872
stilbene scintillators, light efficiency determ. and appl. to fast neutron in-core spectrometry 2−113815
telescope for light charged particles 2−90399
thin film scintillation detector response to ^{236}U fission fragments 2−64752
three-arm scintillation spectrometer for nucl. reaction studies at medium energies 2−96363
time-of-flight scintillation telescope with logic sampling circuit 2−64769
Triton-X-100 wavelength shifter in Cherenkov counting system, scintillant behaviour 2−85482
two-level trigger selector for high mass di-muon expt. 2−70107
Ar, liquid, luminescence yield, LET depend. 2−90363
Ar, liquid and solid scintillators, UV emission time depend. meas. 2−90364
Ar-N gas scintillation proportional counter performance 2−102336
Ar-Xe (Kr) photoionisation proportional scintillation chamber, energy transfer 2−64760
BGO scintillator based gamma ray detector, characts. 2−108276
$Bi_4Ge_3O_{12}$ crystal and photomultiplier tube optical coupling, Monte Carlo calcs. 2−75110
$Bi_4Ge_3O_{12}$ crystal response to 150-700 MeV electrons 2−96381
$Bi_4Ge_3O_{12}$ detector array for coded aperture X-ray telescope 2−78954
$Bi_4Ge_3O_{12}$ detector for positron tomogrpahy 2−73321
$Bi_4Ge_3O_{12}$ detector for continuously rotating positron computed tomograph, basic characts. 2−73337
$Bi_4Ge_3O_{12}$ detectors for positron emission tomography 2−73338
$Bi_4Ge_3O_{12}$ detectors for positron emission tomograph 2−73340
$Bi_4Ge_3O_{12}$ scintillation detector, time resolution 2−96386

scintillation counters continued
$Bi_4Ge_3O_{12}$ single crystal, energy resolution meas. from 1 to 50 MeV 2−64764
^{14}C concentration measurement in multichannel scintillation system, data processing method 2−102325
CdS single crystal deep red emitters, as radiation-to-light convertors for nucl. environments 2−113826
CdSe single crystal deep red emitters, as radiation-to-light convertors for nucl. environments 2−113826
CdTe near-IR emitters as radiation-to-light convertors for nucl. environments 2−113825
CsF scintillation detector for multislice positron emission tomograph 2−73326
CsF scintillation detectors for PETT VI positron computed tomograph 2−73336
Fe-scintillator modular electron/hadron calorimeter, response to electrons 2−108231
Fe-scintillator segmented hadron calorimeter performance 2−64759
GaAs near-IR emitters as radiation-to-light convertors for nucl. environments 2−113825
He, liquid, VUV scintillation detection using Ge photodiode 2−113813
NaI detector, analytical approach to efficiency in uniform isotropic flux 2−96374
NaI scintillation counter, spectrum anal. program 2−54734
NaI(Tl) coincidence method for $^{57,60}Co$ stock standardisation 2−59646
NaI(Tl), cosmic component of background counting rate 2−113834
NaI(Tl) counter, calibration 2−90407
NaI(Tl) crystal scintillation spectrometers for increased loads, review 2−85484
NaI(Tl) detector, high temp. performance characts. 2−80388
NaI(Tl) detector for single photon tomographic system GAMMATOM-1 2−73328
NaI(Tl), γ-ray spectrometer, appl. to environmental radiation meas. *(Japanese)* 2−85472
NaI(Tl) multicrystal low-background gamma-spectrometer 2−96364
NaI(Tl), phosphorescence generated by betatron bremsstrahlung 2−67095
NaI(Tl) scintillation camera for triggerable vertex detector 2−70045
NaI(Tl) scintillation detector system using microchannel plate photomultiplier 2−75111
NaI(Tl) scintillation detector with current-stabilised photomultiplier, characts. study 2−108267
NaI(Tl), solid angles and intrinsic efficiencies for photon emission, Monte Carlo code 2−75119
Pb-scintillator sampling shower counter characts. for electron and photon detection 2−75099
U rocks, simultaneous U, Ra determ. using scintillation detectors *(Chinese)* 2−63109
U/scintillator, multicell hadron calorimeter in AFS expt. at CERN ISR, test results 2−70035
U-scintillator hadron calorimeter in axial field spectrometer at CERN ISR 2−90348
Xe gas excited by ^{252}Cf fission fragments, recombination luminesc. time delay 2−90361
Xe, liquid, γ-ray detectors, present status and future plans 2−90362
Xe, liquid, luminescence yield, LET depend. 2−90363
^{133}Xe, lung clearance parameter estimate variability 2−117054

scintillation detectors *see scintillation counters*
scintillation spectrometers *see particle spectrometers; scintillation counters*
scintillators *see scintillation; scintillation counters*
scintillometers *see scintillation counters*
scorching *see combustion*
Scott effect
No entries
s.c.r. *see thyristors*
screening *see shielding*
screening, nuclear *see nuclear screening*
screens, fluorescent *see fluorescent screens*
screens, phosphorescent *see fluorescent screens*
screens (display)
see also fluorescent screens
light-diffusing AK-5192 varnishes for translucent silicate-glass screens 2−77969
CdS laser screen radiation characts. at 300K 2−70573
screw dislocations
alloys, $L1_2$ ordered, screw dislocation dissociation and core struct. in applied shear stress 2−76441
alloys, $L1_2$ ordered, screw dislocations, dissociation and core struct., computer simulation 2−76440
BCC metals, mech. props., effects of low-temp. neutron irrad. 2−103845
α-brass, single cryst. 2−116495
CC/n-/$MoS_2(Se_2)$, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
corundum crystals grown from cryolite flux, surface microtopographs, spiral growth mechanism 2−76343
crack tip, under anti-plane shear deform., slip band development *(Japanese)* 2−103880
epitaxial monolayers, Misfit accommodation, dislocations, transition to 1-D coherence 2−115625
f.c.c. crystal, deform. pot. and operator associated with ⟨110⟩ screw dislocation 2−76569
film, two-phase isotropic, screw dislocation stress field 2−91965
III-V compounds, dislocation deep levels, occupation statistics 2−104289
Lennard Jones amorphous solid, screw dislocations, energy and displacement vector 2−91966
martensitic transformations, dynamic effects, plate impingement at an obstacle *(Czech)* 2−116440
metals, FCC, struct. of (001) twist boundaries, screw dislocations 2−91986
nonlinear elastic continuum, screw dislocation problem 2−115232
rectilinear dislocation interaction with low angle dislocation boundary 2−81816
strain due to a continuous, isotropic distribution of screw dislocations 2−115244
superconducting transition and electronic current in crystal containing screw dislocation *(Russian)* 2−66704
TEM obs., Burgers vector characterisation when invisibility criterion invalid 2−60990
transient waves due to randomly moving dislocations 2−65993

screw dislocations continued
Al, isoaxial bicrystals, fatigue crack initiation along primary slip bands in grain boundary affected region *(Japanese)* 2−105302
Al-Zn (9.87 at.%), defect struct., vacancy migration, effect of H_2O in annealing atmosphere 2−76451
Bi bicrystal dislocation struct., compressibility anisotropy influence 2−103768
Bi_2Te_3, dislocation-induced US absorpt. and elec. props. 2−92115
$CaSO_4.2H_2O$, gypsum, cryst. growth at low supersaturation, screw dislocation controlled 2−109717
α-Fe, rolled or hydroextruded, dislocation struct., brittleness and impact toughness meas. *(Russian)* 2−93560
Fe-Al, pseudoelasticity and slip reversibility, optical and electron microscopy obs. 2−111221
Fe-C, high purity, softening and hardening, H-induced 2−88096
Fe-Ni(Ti)(Ga)(Al)(Co)(Pt), flow stress at low temp., influence substitutional elements 2−105213
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499
Fe-Ti alloy, dil., dislocation relax. peaks and solid solu. softening 2−111224
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107
GaP, doped homoepitaxial layers, dislocations, TEM study 2−103773
InSb, dislocated, elec. cond. 2−104364
KCl, press. effect on dislocation mobility 2−60986
KCl, small pore migration due to temp. gradient 2−56266
LiF crystals, deform., dislocations, parameters of paired distrib. 2−66002
LiF, mechanical props. and dislocation struct. under creep conditions 2−81880
LiF, plastic deformation under tension and compression, density changes, dislocation form. 2−61057
MgO, intrinsic secondary grain boundary screw dislocations, TEM study 2−91979
MgO:Au dislocation loops, decoration obs. 2−71452
Mg_2SiO_4, forsterite, deformed at high temp., dislocation study *(French)* 2−60995
Mo, deformed, single cryst. foils, anomalous slip induced by surface effect, HVEM study 2−86671
Mo, dislocation relax. peaks, internal friction study 2−60994
NaCl, glide band formation, simulation 2−103761
NaCl, mechanical props. and dislocation struct. under creep conditions 2−81880
Nb, plastic deformation, low temp., slip, surface orientation and oxide effects 2−86677
Sb bicrystal dislocation struct., compressibility anisotropy influence 2−103768
Si, dislocation EBIC contrast 2−60988
Si, screw and 60° dislocations, core struct. and core energy, tight-binding calc. 2−81786
SiC, 6H-type, double spiral interpretation 2−109714
SnI_4 single cryst., {111} faces, microstruct. 2−66327
Ta, deformed, low temp. internal friction 2−72751
α-Ti, dislocations, contrast calc. in TEM 2−60984
Ti-Al, helical dislocations by low temp. thermocycling, TEM study 2−115237
TiC, stacking fault energy, TEM weak-beam technique 2−55986
V, slip plane choice at deform. temps. $T \leq 0.15\ T_m$ 2−86673
W, screw dislocation dynamics, irrad. softening, HVEM obs. 2−98104
n-WSe_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
Zn bicrystal dislocation struct., compressibility anisotropy influence 2−103768
ZnS, form of Cu_xS and Zn secondary phases, dislocation and stacking fault decoration 2−115240
ZnS, revealing of defects by chem. etching 2−115239

scrubbing (abrasion) *see abrasion*

scuffing *see abrasion*

sea ice
Arctic Ocean, salinity of upper layer and sea ice 2−68368
Arctic Ocean, sea ice and water circulation model 2−100397
Barrow Strait, water drag coeff. of first-year ice 2−58074
Bering Sea, oxidised sediment layer due to Holocene ice cover 2−111921
Bering Sea cyclone climatology rel. to sea ice extent 2−106180
climatic predictability, sea ice role, coupled atmosphere-sea ice model 2−112113
Cook Inlet, meteorologic and ocean factors affecting ice growth 2−68355
dielectric constant, 0.1 to 40 GHz 2−57002
electrical properties rel. to stage of growth of sea ice *(Russian)* 2−78674
heat flux through surface of ocean with ice cover 2−68356
Lake Saroma, Japan (inlet of Sea of Okhotsk) wind stress study *(Japanese)* 2−94392
Lake Saruru, Japan (inlet of Sea of Okhotsk) wind stress study *(Japanese)* 2−94392
longitudinally compressed elastic plate influence on stream wave perturbation development 2−61258
mapping in Arctic with radar 2−78667
melting season differences for Arctic and Antarctic sea ice 2−94371
melting surface, laminar buoyancy-driven flow transport meas. 2−70901
melting surface, laminar buoyancy-induced flows in saline water 2−70900
microwave scattering from 1st-year sea ice, theory for near-normal incidence 2−58084
Okhotsk coast of Japan, nonsteady ice motion *(Japanese)* 2−94391
oscillations of drifting ice due to atmos. disturbance *(Russian)* 2−62981
pack ice movement in Arctic Marginal Ice Zone 2−62968
polar ice-edge, water column structure determ. and wind-generated upwelling search 2−94390
pressure sensor, inclusion factors 2−63141
Puck Bay (Baltic Sea), thermal ice pile-up model 2−73562
salinity profile of Antarctic fast ice *(Japanese)* 2−94393
solar radiation transmission through Okhotsk Sea ice *(Japanese)* 2−94394
tabular icebergs, interaction with ocean waves 2−88906
thermal ice pile-up model 2−73562

sealing *see seals (stoppers)*

seals (stoppers)
see also glass-metal seals
cryostat, demountable vacuum seal appl. 2−89720
elastic metal gasket, Helicoflex, sealing performance 2−84641
polymeric compositions, wear behaviour in dry reciprocating sliding 2−83236
seals (stoppers) continued
PTFE, wear behaviour in dry reciprocating sliding 2−83236
vacuum seal materials and dielectric breaks for fusion reactor appl. 2−80190

seawater
Atlantic Ocean, distrib. of anthropogenic CO_2 2−88910
attenuation coefficients, in 414-662 nm range, dual beam pulse laser method *(French)* 2−64126
Baffin Bay and Canadian Arctic Archipelago, metal abundances 2−83850
Black Sea, suspended material distrib. 2−73564
Caribbean Sea, isotopic palaeo-oceanography rel. to Late Neogene Panama uplift 2−111968
Chesapeake Bay, longitudinal salinity gradient rel. to York River destratification events 2−106143
chlorinated waters distribution patterns in coastal areas, appl. of halocarbons as tracer substances 2−111604
desalination plant using low grade geothermal heat 2−93868
development of a marine osmotic solar still for sea water desalination 2−67834
drag and heat transfer in thermal desalination 2−75958
engineering design of a 6000 m^3/day seawater hybrid RO-ED helio desalting plant 2−67833
W Florida coastal waters, high concs. of ^{226}Ra and ^{222}Rn rel. to Rn degassing 2−78704
foam, electrodynamic description of densely packed dispersed systems, thermal radioemission 2−73019
global meltwater spike from deglaciation, assessment 2−94395
irradiance levels, in-water, solar zenith angle depend., scatt. phenomena influence 2−58086
light scattering, Monte Carlo description of time and space resolved multiple forward scatter 2−58056
light scattering, quantum mechanical approach for coherent light *(Russian)* 2−62989
light scattering spectral dependence *(Russian)* 2−73572
marine primary productivity inhibition by atmospheric particulates 2−62524
Mediterranean Sea, atmospheric moisture transport and water balance 2−78695
multiple-effect solar distiller for fresh water supply, design features 2−67831
N./Atlantic Ocean, obs. of small-scale shear and density struct. 2−88879
ophiolitic volcanogenic sulphide deposits, isotropic evidence for seawater component of Pb in Troodos Complex 2−62925
E Pacific Ocean, equatorial, effect of sea surface temp. on freq. of typhoons in W Pacific *(Chinese)* 2−88941
E Pacific Ocean, isotopic palaeo-oceanography rel. to Late Neogene Panama uplift 2−111968
Pacific Ocean, vars. in tropical sea surface temp. and surface wind fields assoc. with El Nino 2−111931
E Pacific Rise, heat flux effect on mid-depth waters 2−100329
pH temp. depend. 2−83837
photovoltaic/electrodialysis power desalination system, investigation 2−67835
rare earth elements, depth distribs. rel. to marine geochemical cycle and water mass tracing 2−63003
Red Sea, ^{226}Ra, ^{210}Pb, ^{210}Po profiles and residence times 2−68387
salinity calc. from seawater temp., sound vel. and pressure data *(Russian)* 2−117343
sea surface films study, appl. of mobile platform 2−89019
seawater anal. by nucl. physics methods 2−100600
solar energy as a source for production of power and desalinated water 2−93874
Southern Ocean, distrib. of anthropogenic CO_2 2−88910
steels, austenitic stainless, Al-, Mo-containing, corrosion fatigue props. at 20 kHz 2−57510
surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
suspended sediment concentration in coastal waters, digital Landsat MSS data use for patterns determ. 2−73695
Taoyuan-Chupei, NW Taiwan, seawater contamination of coastal aquifer 2−100402
temperature, air-water difference rel. to marine air humidity 2−106289
SE United States, water density profiles rel. to ocean currents along near-shore frontal zone 2−83829
warm saline bottom water in ancient ocean, convection model 2−68374
Al-(alloys), corrosion testing in flowing hot sea-water 2−57547
Al-Mg (3 wt.%) alloy, corrosion and corrosion inhibition in seawater 2−57512
Ca distribution in World Ocean 2−73594
Cu-Ni alloy, in seawater, AES study of corrosion mechanism 2−93662
Hg content around Japanese archipelago 2−62510
S input from atmosphere 2−94400
U, K, Rb and Cs composition affected by hydrothermal circulation 2−68386
U, recovery from seawater, ion exchange method 2−64555

second-order optical susceptibility *see nonlinear optical susceptibility*

second sound
see also liquid helium sound propagation
dielectric, thermal wave propag., high freq., dispersion relation, second sound, diffusive flow 2−56113
hexagonal crysts., second sound vel. calc. 2−103904
Landau theory, possible verification 2−66312
XY model, three-dimens., collective modes, rel. to quantum lattice 2−110058
^4H liquid, vortex generation, second sound damping by thermal pulses *(Russian)* 2−71748
^3He, superfluid, oscillating-superleak transducer of second sound 2−86965
^3He, superfluid, second sound vel. and attenuation meas. 2−110079
^3He-^4He dil. solns., second sound attenuation below 1K 2−61239
^3He-^4He solutions, dil., spin polarised, second sound vel. meas. 2−110083
^3He-^4He solutions, spin polarised, transport phenomena and sound propag. 2−76767
^4He, critical dynamics at superfluid phase transition *(German)* 2−71746
^4He, HCP, second sound vel. calc. 2−103904
^4He, liquid, critical dynamics near lambda transition, nonlinear renormalisation group anal. 2−110069
^4He, liquid, superfluid transition, crit. phenomena 2−110066
^4He, near lambda transition, crossover behaviour in dynamics 2−86962
^4He, superfluid, Landau theory, possible verification 2−66312

second sound continued
^{4}He, superfluid, oscillating superleak transducer of second sound 2−86965
^{4}He, superfluid, rotating, mutual friction, freq. depend. 2−104096

secondary cells
advanced battery energy storage system *(Japanese)* 2−88479
alkaline accumulator ventilator for capturing gases given off during charging *(Russian)* 2−99780
alkaline alcoholic electrolyte cell fabrication 2−111546
alkaline battery electrodes, temp. limitations 2−88423
automotive battery electrodes, potential distrib., math. model and expt. study 2−93884
battery systems, reliability evaluation 2−62471
battery technology, primary and secondary cell development *(Japanese)* 2−73093
beta alumina electrolytes with improved properties for storage batteries 2−73106
Beta cell batteries development and appl., with 80% storage efficiency 2−57689
calorimetry appl. design modifications and developments 2−53765
charge regimes for nickel-cadmium and lead-acid stationary batteries 2−99778
discharge indicators for commercial batteries, evaluation and new approach based on dynamic impedance meas. 2−111547
electrochemical energy sources for microelectronics appls. *(German)* 2−83467
electrodes, plastic-bonded, microstructure 2−116704
graphite intercalation compounds, electrochemical appl. 2−57688
graphite intercalation compounds in electrode materials in batteries 2−57692
heat evolution in batteries with aqueous electrolytes, calcs. 2−111545
miniature batteries, long life, present trends for electronic appls. *(Japanese)* 2−99776
polyacetylene, $(CH)_x$, cathode and anode active materials, appl. to lightweight rechargable batteries 2−78203
polyacetylene, cathode-active material for rechargeable batteries 2−57694
porous insertion electrodes with liq. electrolyte, math. model 2−116794
scrap Pb recovery from batteries, electrolytic method 2−62406
small batteries, secondary cells, book 2−89485
solar energy system with 13 days reserve power, appl. *(German)* 2−99766
solid state batteries for commercial production, Anglo-Danish cooperative research programme, report 2−99782
Cd electrodes, plastic-bonded with active C catalyst O_2 recombination rate 2−116795
Co complexes, Co(III)/Co(II) complexes with o-phenanthroline and related ligands, redox couples for electrochem. energy storage 2−57620
CoO electrodes for high temp. cells, electrochemical behaviour 2−67849
Co_3O_4 electrodes for high temp. cells, electrochemical behaviour 2−67849
K-TiS_2 ambient temp. cell using organic electrolyte 2−62468
Li batteries, technology, charcts. *(Japanese)* 2−73097
Li intercalated dichalcogenides, props. and electrode appls. 2−57691
Li, phthalocyanine cathodes, charge and discharge charcts. 2−57690
Li/organic electrolyte batteries, charcts. of MoO_3 and CrO_x cathodes 2−93889
Li-Al cells, phase relationships in positive electrodes 2−88422
β-Li-Al electrode pot. and Li diffusivity meas. at ambient temp. 2−116793
Li-Al/FeS cell, Ni positive electrode components, corrosion resist. meas. 2−78201
Li-Al/FeS cells optimisation for electric vehicle propulsion applications 2−93887
Li-Al/FeS high temp. battery calorimeter 2−58827
Li-Ge alloys, thermodynamic studies, appl. to negative electrodes for molten salt batteries 2−76709
Li-metal sulphide, battery, energy storage systems, safety assessments 2−57693
Li_xNbS_2 organic electrolyte rechargeable cell, electrochemical study 2−99781
Na intercalated dichalcogenides, props. and electrode appls. 2−57691
Na-S, battery, energy storage systems, safety assessments 2−57693
Na-S, superbattery−power for the 80s 2−99777
Na-S-Al chloride cells, performance 2−93888
Ni/Cd cells, active material for positive electrodes, optimisation 2−116796
Ni/Cd cells, plastic bonded high rate Ni electrodes, internal resistance 2−116798
Ni/Zn batteries, vibrating Zn electrodes, mass transfer enhancement 2−88421
Ni-Cd alkaline storage batteries, technology charcts. *(Japanese)* 2−73103
Ni-Cd batteries, hermetically sealed, data, maintenance and use *(Croatian)* 2−88424
Ni-Cd battery power supply pack 2−62470
Ni-Cd cells, impedance and mass transport kinetics 2−78199
Ni-Cd secondary cells, charcts. guide 2−62469
Ni-Fe cell, sintered Fe electrode struct. obs. 2−93886
Ni-Fe electric vehicle batteries, technology, charcts. *(Japanese)* 2−73104
Ni-H_2 battery technology development and stations for spacecraft applications 2−83468
Ni-Zn cylindrical batteries, technology, charcts. *(Japanese)* 2−73105
Ni-Zn traction battery, operational charcts. during traction applications *(Russian)* 2−116799
Pb -acid, battery, energy storage systems, safety assessments 2−57693
Pb-acid, mass transfer in electrode cells, mathematical modelling *(Russian)* 2−105552
Pb-acid batteries, acid-starved, self-discharge obs. 2−116792
Pb-acid batteries, active material electronic conductivity, capacity limiting role during discharge 2−105553
Pb-acid batteries, determ. of state of charge *(German)* 2−88420
Pb-acid batteries, discharge charact. 2−116797
Pb-acid batteries for electric vehicles, power and energy charcts. and test results 2−78204
Pb-acid battery, Al_2O_3 Fibre FP reinforced pure Pb composite electrodes 2−111544
Pb-acid battery, forced electrolyte circulation charcts., equiv. cct. *(German)* 2−99779
Pb-acid battery, self-discharge and passivation obs. during storage 2−78200
Pb-acid battery electrodes, dry-charged, positive, influence of drying on thermo-passivation and its causes 2−105377
Pb-acid battery state-of-charge determ. using optical method 2−107389

secondary cells continued
Pb-acid SLI battery manuf. using expanding method *(Japanese)* 2−73102
PbO_2-Zn battery performance charcts., comparison with conventional Pb-acid cell 2−78202
Zn-Br, battery, energy storage systems, safety assessments 2−57693
Zn-Cl, battery, energy storage systems, safety assessments 2−57693

secondary electron emission
alkali graphite intercalation cpds., σ-electron energy bands, secondary electron spectroscopy study 2−93337
detector for irradiated nuclear fuel 2−70064
energy distribution meas. of secondary, Auger and reflected electrons with cylindrical mirror analyser *(German)* 2−101499
fast response Faraday cup for low-energy, nanosecond-pulse ion beams 2−54703
field emission in γ irradiated material 2−99303
graphite, electronic and struct. props., EELS and secondary electron emission study 2−110999
heavy ion-solid collision, convoy electron 2−77647
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
insulators, electron affinity in secondary electron emission 2−105015
Malter emission, Yelinson-Zernov theory development 2−77636
metal target, kinetic ion-electron emission, review 2−77648
metals, heavy ion bombarded, secondary electron emission coeff. meas. 2−72591
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
plasma, multidipole, secondary electron detection 2−103448
plasma layer, secondary electron emission effect 2−103394
prebreakdown conduction measurements in vacuum gaps with Al_2O_3 insulators 2−91705
quasielastic electron knockout in atoms, molecules and solids, wave functions 2−102630
RF cavities, electron emission reduction by electron, photon or He impact 2−116306
scanning ion microscope, ion probe forming and secondary electron images *(Japanese)* 2−113051
Schottky barrier heights, contactless meas. using secondary electrons 2−115855
semiconductor, ang. depend. changes due to work function red. 2−62026
semiconductor ion-implanted layer, SEM with secondary-electron collector 2−86998
semiconductors, electron affinity in secondary electron emission 2−105015
surface and ultrathin film structural characterization by secondary electron emission 2−87923
surface disorder, secondary electron emission and elastic electron reflection study 2−110994
TGS, secondary electron emission 2−72582
Ag, electron emission under heavy at. and mol. ion bombardment 2−77649
Ag, fast secondary electron emission by X-ray irrad. 2−57262
Ag, secondary electron emission coeff. under ion bombardment 2−111007
Ag-Mg polycryst. target, detection of low energy ion-induced secondary electron emission 2−82975
Al (111), ion bombarded, secondary electron energy resolved angular distrib. 2−93349
Al, electron emission under molecular H ion bombardment 2−72592
Al, fast secondary electron emission by X-ray irrad. 2−57262
Al, secondary electron emission coeff. under ion bombardment 2−111007
Al, secondary electron emission spectrum, ion induced 2−116320
Au, fast secondary electron emission by X-ray irrad. 2−57262
Au foil, secondary electron emission coeff. under ion bombardment 2−111007
Au, ion-electron emission depend. on projectile incidence angle 2−62031
Au, secondary electron emission for H^+, H_2^+, H_3^+, He^+, HeH^+ bombardment 2−77650
Au, secondary electron spin polarisation meas., scatt. mech. study 2−116307
Au, spin-exchange collisions of electrons, secondary electron emission expt. 2−87922
C coated and polished stainless steel, secondary electron yields 2−80214
Cr film, evaporated, scanning ion microscope study, ion probe forming and secondary electron images *(Japanese)* 2−113051
Cr, surface (110), chemisorpt. of O and initial oxidation 2−115567
Cu, fast secondary electron emission by X-ray irrad. 2−57262
Cu, ion-electron emission depend. on projectile incidence angle 2−62031
Cu, secondary electron emission enhancement by adsorbed Pb and Sn monolayers 2−62025
D_2 solid, electron emission by bombardment with 1-3 keV electrons 2−105014
$Fe_{81.5}B_{14.5}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
H_2 solid, electron emission by bombardment with 1-3 keV electrons 2−105014
$In_{2-x}Sn_xO_{3-y}$ coating on Kapton substrate, electron beam damage, Auger and secondary emission study 2−81826
MgO detector based on controlled secondary electron emission 2−108270
NO_2, adsorbed on Cu surface, reaction, UHV ESR obs. 2−67765
Ni (110), N_2^+ implantation, AES, LEED, EELS and secondary electron spectra study 2−92014
PbO-SiO_2, reduced surface layers, slow-electron spectroscopic study 2−105017
PbO-SiO_2 glass, reduced surface layers, struct., resist. and electron emission props. 2−105016
Pt, adsorbed CO, oxidation, photocatalytic effect 2−111519
Si (111), electron bombard., yield of electrons with fixed energy losses 2−116308
SiO, ion bombardment induced electronic states *(Japanese)* 2−93345
Ti, adsorption on Si(111), secondary electron spectroscopy 2−87015

secondary emission
see also secondary electron emission; secondary ion emission
No entries

secondary ion emission
see also secondary ion mass spectra; secondary ion mass spectroscopy
alanine, secondary ion emission, time of flight mass spectra 2−99241
alkali metal salts, polyatomic secondary ion form. and emission 2−77680
amino acid overlayers, UHV deposited on clean metal surfaces, secondary ion emission 2−105032
bond breaking model, rule of variation of chemical emission of secondary ions with composition 2−111013

secondary ion emission continued
copper acetate, Cu negative ion emission by mol. sputtering 2—57229
desorption by fission fragments, energy spectra, time-of-flight method 2—99243
dielectric thin film, secondary ion emission, fission fragment induced 2—99244
isotope effects 2—99276
metal, sputtering and secondary ion yields under O_2^+ ion bombardment 2—99268
metallic thin film, secondary ion emission, fission fragment induced 2—99244
metals, secondary ion emission, pseudo-atom calc. 2—82971
multicomponent target, secondary ion emission, current density effects 2—99275
organic compounds, SIMS, fast evaporation model 2—105033
organic solid, ion impact, mol. ion form. mechanism 2—99247
positive secondary ions, energy distrib. meas., 0 to 500 eV 2—99273
silver acetate, Ag negative ion emission by mol. sputtering 2—57229
single cryst., secondary ion emission, anisotropy, orientation effect 2—82986
solids and surfaces, charact. by ion beams and mass spectrometry, review 2—93346
steel, stainless, type 316, secondary ions ejected by D^+, He^+ ion bombardment, energy anal. 2—93355
valine, energetic ^{16}O ion bombardment, desorbed secondary ion yield as function of ionic charge state 2—99242
valine film, secondary ion emission as function of primary ion velocity 2—99245
Al, secondary ion emission enhancement during low press. oxidation 2—67178
CsCl-RbBr film, secondary ion emission as function of primary ion velocity 2—99245
Cu, caesiated surfaces and negative ion emission 2—99277
Cu surface, Auger neutralisation mechanism in secondary ion emission 2—67179
Fe-B metallic glasses, secondary ion emission, sensitivity by factors, matrix effect 2—99289
Fe-Ni, secondary ion emission under O_2^+ bombardment, oxidation 2—82980
Nb, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2—77679
NbV alloys, secondary ion emission, target morphology effects 2—99279
Ni, seconary ions ejected by D^+, He^+ ion bombardment, energy anal. 2—93355
Ti, seconary ions ejected by D^+, He^+ ion bombardment, energy anal. 2—93355
V, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2—77679

secondary ion mass spectra
alanine, secondary ion emission, time of flight mass spectra 2—99241
alkali iodide clusters stability, secondary ion mass spectrometry 2—70468
amino acid overlayers, UHV deposited on clean metal surfaces, secondary ion emission 2—105032
biomolecule desorption yields for high and low energy primary ions 2—98430
borosilicate glasses, composition profile, near surface, SIMS study 2—115144
cationization in laser desorption mass spectrometry 2—98433
conference, Budapest, Hungary (Aug.-Sept. 1981) 2—94910
conference on SIMS and its appl., Paris, France (Mar. 1982) 2—107007
dielectric thin films, composition depth profiling, SIMS, IIR and AES comparisons 2—99287
ergosterol, desorption, fast heavy ion induced 2—98429
glass thin films, sol/gel prep. and characterisation, SIMS study 2—82093
glycylglycine, desorption, fast heavy ion induced 2—98429
histology, analytical, use of SIMS, review *(French)* 2—111825
inorganic salts, ion-beam induced effects in SIMS 2—116760
isotope effects 2—99276
isotopic ratio meas. in SIMS/ion microprobe technique 2—95533
metals and oxides, ionic implantation for SIMS quantification, corrosion study 2—99744
meteorites, Fe, ion microprobe mass anal. of Ni, Co, Ga and Cu distrib. 2—106637
MIS layer structs., secondary ion energy distribution during sputtering 2—99285
MoN film, As ion implantation, stopping power, SIMS study 2—56053
organic compounds, SIMS, comparison with other ionization methods 2—99278
polyethylene and polydeuteroethylene blends, composition determ. by SIMS *(Russian)* 2—73038
polyethylene coated C-black, secondary ion mass spectroscopy 2—93843
polymer surfaces, SIMS anal., ion beam damage charge neutralisation, surface pot. 2—93353
positive secondary ions, energy distrib. meas., 0 to 500 eV 2—99273
scanning ion microprobe equipped with EHD type In ion source, expt. results 2—95564
slag, Fe-making, diffusion of water and H-bonding species 2—104072
solid state track autoradiography study of B distrib. 2—92016
solids and surfaces, charact. by ion beams and mass spectrometry, review 2—93346
sputtering, rate meas. using laser optical technique, SIMS and AES correlations 2—93354
sputtering with O_2^+, etch patterns surface struct. and SIMS 2—99283
steel, austenitic stainless, Cr-Mn, low-Ni, intergranular Li penetration 2—111371
steel, local thermal equilibrium model for SIMS 2—99288
steel, stainless, diffusion and trapping of D, SIMS study 2—76745
steel, stainless, passive anodic oxide film, composition, ESCA and SIMS study 2—82090
surface science, conference, Liverpool, England (April 1981) 2—58538
surface topography development in SIMS anal. grain boundary struct. 2—98412
tetrasaccharide stachyose, ion bombardment ionisation, SIMS 2—102599
thiophene reactive adlayer on Ag foil, molecular SIMS 2—87056
valine film, secondary ion emission as function of primary ion velocity 2—99245
vitamin D-metabolites from human plasma and mass spectrometric analysis by fast heavy ion induced desorption 2—100171
VSLI, and VHSIC materials development, SIMS anal. of thin surface layers and low kV ion implants 2—78156

secondary ion mass spectra continued
Al, adsorption of O_2, SIMS studies 2—104169
Al films, vacuum deposited, effects of impurities on emittance 2—98317
Al Mg, adsorption of O_2, SIMS studies 2—104169
Al, oxide film chem. composition, influence on surface props., SIMS, XPS, AES 2—104209
Al/AlN coatings, sputter deposition prep. using pulsed gas processes, characterisation and mech. props. 2—83021
Al-Cu alloys, study with quadrupole mass spectrometer *(French)* 2—111012
Al-Fe alloys, Fe profile meas. using SIMS and SEM 2—109999
Al-Si/Si ohmic contacts to shallow junctions 2—98741
Al-Zn, adsorption of O_2, SIMS studies 2—104169
AlGaAs, organometallic VPE growth, O_2 gettering by graphite and SiC baffles 2—67220
AuGe/GaAs, ohmic contacts, interface struct., SIMS study 2—82150
i-C, antireflection coating for Si solar cells, SIMS anal. 2—83492
C, H isotope exchange, depth resolved meas. 2—69847
CO_2, mol. solid at cryogenic temps., SIMS 2—99734
COS, mol. solid at cryogenic temps., SIMS 2—99734
CS_2, mol. solid at cryogenic temps., SIMS 2—99734
$Cd_{0.2}Hg_{0.8}Te$, anodic oxide layers, interface struct., SIMS-AES XPS investig. 2—104208
CdS single crystals grown from vapour phase, impurities and hexagonal spiral pits 2—76342
CdS-$CuInSe_2$ solar cells, annealing and interface effects, EELS, AES, SIMS and XPS study 2—83491
CdSe:Cr thin film transistor, SIMS depth profiling, high spatial resolution 2—104207
Cr, metallic target, isotope discrimination, secondary ion mass spectrometry 2—57652
Cr, SIMS, very small clusters study 2—77683
Cr-Cr_2O_3, black chrome solar selective films, surface comp., SIMS study 2—57724
Cr_5Al_8, SIMS, very small clusters study 2—77683
CsCl-RbBr film, secondary ion emission as function of primary ion velocity 2—99245
CsI, desorption, fast heavy ion induced 2—98429
Cu, caesiated surfaces and negative ion emission 2—99277
Cu, metallic target, isotope discrimination, secondary ion mass spectrometry 2—57652
Cu, SIMS, very small clusters study 2—77683
Cu-Cr(Al) alloys, SIMS, very small clusters study 2—77683
Cu_2S film, SIMS, matrix effects, ion yield enhancement 2—76856
Fe alloys, quantitative chem. anal. by SIMS 2—99743
Fe-Cr, passive film, ESCA, AES and SIMS study 2—111366
Fe-Ni-Mo alloy, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2—67198
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2—66957
GaAs, electrical defect, Hall effect, SIMS and mass spectra meas. 2—76984
GaAs film, amorphous, plasma deposition and characterisation 2—111094
GaAs, ion implanted, pulsed ruby laser annealing, SIMS and elec. obs. 2—56023
GaAs, MBE, Mn incorporation behavior 2—104191
p-GaAs MBE film, lightly doped, dynamic SIMS study 2—87097
GaAs, MBE grown (100) autoepitaxial films and substrates, struct. and comp. and surfaces 2—56383
GaAs, metalorganic VPE layers, impurity redistribution, SIMS study 2—115582
GaAs, surface oxide phase form. by H_2O or O_2 adsorpt., UPS, XPS and SIMS study 2—115544
GaAs surface state reduction by plasma growth of oxyfluorides 2—110427
GaAs:Be(Mg)(Zn)(Cd), ion channelling, electronic stopping power, SIMS study 2—103867
GaAs:Cr, Fe liquid encapsulated Czochralski cryst., SIMS 2—115270
GaAs:Cr, ion implanted, annealing, Cr redistrib., SIMS study 2—76484
GaAs:Cr, Se, hot implanted, effects of damage-impurity interaction on elec. props. 2—71990
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2—86699
GaAs:Fe, Cr, LEC grown, impurity densities and Fe(Cr) redistrib. 2—98146
GaAs:O, deep electron traps, elec. and optical props. 2—98585
GaAs:S, ion implanted, elec. carrier and atomic profiles correlation 2—72000
GaAs:S, ion implanted, elec. props. and impurity distrib. 2—98141
GaAs:Se^+, ion implanted, transient annealing using graphite strip heater, elec. cond. study 2—82348
GaAs:Si, Ar, ^{40}Ar implant pretreatment, ^{28}Si implanted n layer, carrier mobility and activation efficiency 2—91995
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2—77568
GaAs:Sn, nucleation effects during MBE growth 2—76845
GaAs:Sn, Te MBE layer, doping using SnTe source 2—92004
GaAs:Zn, ion implanted, depth distrib., annealing, SIMS and Rutherford backscattering obs. 2—56000
GaP:Cu, ion damaged, depth profiling of gettered Cu, SIMS study 2—98150
p-GaP-Au, ion beam contacting by Be implantation 2—115889
GaS:Cr, impurity redistribution after implantation with Ga,As,O, SIMS and TEM study 2—115276
Gd:Ar film, ion implanted, impurity depth distrib. 2—110215
Ge:Al, vol. diffusion of Al, SIMS invest. *(German)* 2—66274
Ge:In, impurity diffusion, SIMS invest. *(German)* 2—82031
HgCdTe, implantation induced damage, effects of implantation and annealing temps. 2—86695
$Hg_{1-x}Cd_xTe$:B, ion implantation, elec. cond., annealing effects, SIMS study 2—66026
InP, annealing encapsulants, AES and SIMS study 2—116584
InP:^{9}Be, ion implanted, migration during annealing, SIMS study 2—98143
InP:Be, Zn, Cr, Se, doping profiles, SIMS anal. 2—103806
InP:Mg(Si), implanted, impurity redistrib. during annealing, SIMS study 2—98144
InSb, anodic oxidation mechanism 2—67594
InSb-InBi solid solns., grown by MBE, charact. 2—104190
Mo film, As ion implantation, stopping power, SIMS study 2—56053
Mo, metallic target, isotope discrimination, secondary ion mass spectrometry 2—57652
Mo sheet, SIMS analysis of oxygen on brittle fracture surface 2—99581

secondary ion mass spectra continued
Na_2O-ZnO-B_2O_3-SiO_2 glasses, chem. durability, effect of Zn^{2+} adsorption 2−93648
Nb surface (110), adsorption of S, static SIMS, ion dose effects 2−99274
$NbSi_2$ film, phys. and elec. props. 2−104193
Ni (111), chemisorption of CO, cluster formation, SIMS study 2−71800
Ni, adsorption of ethylene and acetylene, chem. modification, SIMS investig. 2−105515
Ni, grain boundary segregation of S and Cl, high resolution scanning AES and SIMS obs. 2−93518
Ni, metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
Ni surface, adsorbed ethylene, SIMS and thermal desorpt. study 2−56353
Ni surfaces (001) and (111), O_2 interaction, SIMS investig., residual hydrogenated cpds. intervention 2−73015
Ni surfaces (111) and (100), CO adsorbate struct., SIMS study 2−98448
Ni-Mo, Ni-Mo-W and Ni-Nb alloys, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-O surface, interaction with H_2 and H_2O, SIMS study 2−99708
Ni+ethylene surface reaction, SIMS and thermal desorpt. mass spectra 2−105514
NiO, O self-diffusion, SIMS study 2−110037
NiPd, depth resolution in ion bombardment SIMS 2−99284
NiPt, depth resolution in ion bombardment SIMS 2−99284
O adsorption on Ru(001), Ni(111) and Ni(100), SIMS study 2−98448
Pb, metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
Pt_3Pb, polycrystalline, O_2 adsorpt. at high temps., SIMS study 2−104170
PtPd, depth resolution in ion bombardment SIMS 2−99284
Re, diffusion of Cr(Fe)(Mo), SIMS study 2−110041
Ru surface (001), CO adsorbate struct., SIMS study 2−98448
Si adsorption of F_2, SIMS and quartz cryst. microbalance obs. 2−82125
Si, diffusion of $^{69-71}$Ga isotopes, SIMS studies 2−104070
Si epitaxial layer on SOC, contaminant reduction during CVD growth, SIMS study 2−77750
Si, impurity diffusion coeffs., CW laser annealing and SIMS *(French)* 2−110040
Si, metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
Si p-n junction, ion implanted, CW laser annealed, elec. and struct. props. 2−115872
Si, polycrystalline, grain boundaries, chem., compositional and elec. props. 2−76458
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si thin films, D passivation of grain boundary dangling bonds 2−76478
Si:B, SIMS depth profiling, physico-chemical state 2−99286
Si:B(As)(P), elemental distrib. anal., SIMS and neutron activation anal. 2−98151
Si:Bi, range profile, Rutherford backscattering and SIMS meas. 2−98138
Si:Ge, Ge diffusion coeff., SIMS study 2−115465
Si:H amorphous reactively sputtered film, H anal. by IR spectroscopy, nuclear reaction and SIMS 2−76857
Si:O, diffusion and gettering studies by Cs/SIMS 2−104071
Si:O, secondary ion yield enhancement, implanted O conc. depend. 2−62036
Si:P, and other implants, SIMS studies of anomalous behaviour 2−92013
Si-C-Al-O film on Mo, D^+ irradiation effect 2−66081
SiC, D^+ ion irrad., secondary ion sputtering, energy anal. 2−77675
SiC film on Mo, D^+ irradiation effect 2−66081
SiC_n clusters ($n \leq 7$), electronic struct. and relative stabilities, mass spectrometry *(French)* 2−111011
SiO_2, anodised surface layers 2−105352
SiO_2, fused, diffusion of water and H-bonding species 2−104072
SiO_2:Ge, Ge diffusion coeff., SIMS study 2−115465
Sm:Ar film, ion implanted, impurity depth distrib. 2−110215
Ta oxide and nitride layers, quantitative anal. by sputtered neutral mass spectrometry 2−105031
$TaSi_2$ layers, coverage on Si/SiO_2, surface struct., ion-implant profiles surface anal. study 2−82094
Th(111) chemisorption of O_2, CO and CO_2, electron spectroscopic studies 2−56337
Ti, metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
TiO_2, adsorption of H_2O, SIMS study 2−104168
TiO_2:H electrodes, SIMS and AES anal. 2−57655
α-U, chemisorption of O_2, CO_2 and CO, electron spectroscopic studies 2−56337
WO_3 thin films, electrochromic colouring and bleaching, SIMS and ESCA studies 2−57055
$Y_{3-x-y}La_xPb_yFe_{5-y}Ga_yO_{12}$, epitaxial layers, interface anal. 2−82171
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515

secondary ion mass spectroscopy
apparatus for use on accelerator beam lines 2−107445
atom beam source for SIMS anal. *(German)* 2−95519
biochemistry, ion induced mass spectrometry role 2−100169
biological application, tissue localisation of stable and radioactive nuclides 2−83709
CAMECA IMS-300 secondary ion mass spectrometer system, with microcomputer system 2−95333
computer peak identification, isotopic currents 2−95534
conference, Budapest, Hungary (Aug.-Sept. 1981) 2−94910
depth profiling, resolution, dynamic range and sensitivity 2−89850
depth profiling, resolution, dynamic range and sensitivity 2−99280
dissector ion microanalyser, performance and use 2−95566
DNA, molecular modification, fast heavy ion induced desorpt. mass spectrometry 2−100170
double channel instrument 2−95523
equipment for use in iron and steel anal. 2−95525
fast atom and ion bombardment of organic samples using mercury 2−105524
instrumentation construction problems 2−95522
ion beam-target interactions in ion microprobe analysis 2−78151
ion etching instrument for depth profiling with SIMS or ion-impact induced radiation 2−95528
ion microprobe mass analyser, distortion of secondary ion extraction due to sample surface irregularities 2−95567
secondary ion mass spectroscopy continued
ion microprobe mass analyser using positive primary ions and electron gun, insulator anal. 2−95565
ion optics system for use with quadrupole mass spectrometer 2−95526
ion probes A-DIDA, advances 2−95568
ionic microscopy, metallurgical appls. 2−101505
ionization yield, elemental composition depend., isotopic variations 2−99272
isotope fractionation effects obs. 2−67784
matrix ion species indexed sensitivity factors for calibration 2−95531
microanalyser, dual primary ion source and mass filter 2−95540
microanalysis, theoretical detection capabilities comparison between SIMS and AES 2−83432
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
molecular, principle and capabilities review 2−79704
molecular ion sputtering from surfaces 2−111002
molecular secondary ion mass spectrometry, high performance 2−79708
multicomponent target, secondary ion emission, current density effects 2−99275
organic compounds, secondary ion mass spectroscopy 2−113030
organic compounds, SIMS, comparison with other ionization methods 2−99278
organic compounds, SIMS, fast evaporation model 2−105033
oxides, sputtering, mol. form. mechanisms 2−99271
quadrupole mass spectrometer with energy filtering 2−95524
quadrupole-based SIMS instruments, design and performance, review 2−84735
reactive ion bombardment for secondary ion yield enhancement in SIMS 2−82973
residual gas analysis by DIDA ion microprobe using SIMS instrument 2−78150
scanning ion microprobe equipped with EHD type In ion source, expt. results 2−95564
secondary ion extraction in a quadrupole based ion microprobe 2−95553
semiconductors, impurity distrib., SIMS meas. technique, sensitivity and precision 2−95535
silicate minerals, SIMS anal., expt. procedures 2−95532
solar energy conversion technologies, solid-gas interface meas. techniques, review 2−87044
solar energy conversion technologies, surface analytical techniques, review 2−88412
solids and surfaces, ion beam spectroscopy 2−93853
spatially three-dimensional instrumental aspects 2−95521
spectrometer Riber MIQ 156, improvements and appls. 2−95529
spectrometer with direct imaging laser ionization 2−95527
surface spectroscopies review, for semiconductor characterisation 2−78158
Al-Zn (45 wt.%), corrosion protection coating 2−93683
Cs^+ ion source on COALA ion microprobe for negative ion SIMS 2−95538
$^{63}Cu^+$, energy distrib. meas. in energy range from 0 to about 500 eV *(German)* 2−93847
In ion source, EHD type microfocus gun, for scanning ion microprobe 2−95539
Li, SIMS analysis involving Li^+ implantation and matrix effects 2−78152
Si, amorphous and crystalline, low energy range distrib. of ^{10}B and ^{11}B 2−66090
Si, reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
SiO_2, reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
Th^+, energy distrib. meas. in energy range from 0 to about 500 eV *(German)* 2−93847
WO_3^+, energy distrib. meas. in energy range from 0 to about 500 eV *(German)* 2−93847

sedimentation
see also disperse systems; sediments; water treatment
Atlantic Ocean Holocene sediment map 2−117292
Atlantic Ocean nepheloid layer, particle chem. composition and origin 2−68332
Bay of Biscay, sedimentation on Aquitaine continental shelf *(French)* 2−73539
clay sediments in ocean, Jurassic-Quaternary sedimentation environments 2−62949
continental margin sedimentary rock layer accumulation process 2−117268
East Pacific Rise, sediment chemistry and sedimentation 2−83805
erosion and sediment yield from soil, laboratory expts. 2−83853
Great Lakes, sedimentary processes, review 2−58093
Hudson Submarine Canyon, internal waves and sediment transport 2−83824
N Labrador Shelf, glacial chronology and sediment depositional environments 2−78640
Long Island (New York), inner shelf sediment transport 2−117289
Lough Neagh, Northern Ireland, anthropogenic changes in sedimentary flux of Mg, Cr, Ni, Cu, Zn, Hg, Pb, and P 2−105609
marine hydrothermal vent sulphide deposits, radioactive dating obs. *(French)* 2−100366
marine sediment resuspensions due to storms over continental shelves 2−68347
marine sediment suspended in bottom layer, acoutic profiling expt. 2−83806
Mono Lake, California, effects of sedimentation in concs. of radionuclides 2−94407
particle size determination, rapid method 2−58780
poly(2,6-dimethyl-1,4-phenylene oxide) in soln., conformational behaviour, sedimentation and permeabilities 2−75479
poly-n-nonyloxyphenol poly-p-methacryloyl oxybenzoate, hydrodynamic and conform. props. *(Russian)* 2−108755
polydisperse system of interacting spheres, dil., sedimentation 2−91519
Tamar Estuary, SW England, sediment transport and chemistry 2−106139
Winona Basin off Vancouver Island, history of sedimentation rel. to struct. and tectonics 2−94361
^{10}Be deposition rate in oceans, evidence for constancy from Mn crusts 2−111920

sediments
see also rocks; sedimentation
acoustic profiling of lake sediments using magnitude and phase anal. 2−112169

sediments continued
acoustic reflection response for normal incidence probing of vertically non-homogeneous media 2−100307
age determination method based on Thu^{230} content 2−117494
Atlantic Ocean Holocene sediment map 2−117292
SE Australia, geomag. secular field var. from 1000 yrs BP from lake sediments 2−105904
azaarene conc. in Puget Sound sediments 2−111966
Barbados Ridge complex, sedimentary and tectonic processes in accretionary wedge 2−94355
Bering Sea, oxidised sediment layer due to Holocene ice cover 2−111921
Black Sea, suspended material distrib. 2−73564
clay sediments in ocean, Jurassic-Quaternary sedimentation environments 2−62949
climate record in sediments, conf., Nov. 1979, Miami, USA 2−79278
conference on sedimentary basin evolution of London, England (June 1981) 2−74156
continental margin sedimentary rock layer accumulation process 2−117268
continental slope and rise sediments off NE Newfoundland, significance of geotechnical props. 2−78639
cosmic dust retrieval from Pacific Ocean sediment 2−89206
craters, formation from 10 ton explosive events, slumping and ejecta sliding 2−73554
Cretaceous-Tertiary boundary event, and extinction of marine plankton 2−94368
deep-sea core sediments, Brunhes-Matuyama mag. reversal by marine-astron. correls. 2−94277
diagenesis due to thermal expansion effects 2−117290
diagenetic reactions in deep-sea sediments, geochem. significance 2−62950
East Pacific Rise, sediment chemistry and sedimentation 2−83805
electrical charact. of marine sediments, determ. from oceanic EM wave fields 2−111847
W Florida coastal waters sediments contrib. to high concs. of ^{226}Ra and ^{222}Rn 2−78704
force meas. exerted on sediment grain, piezoresistive gauge rel. to laser Doppler meas. 2−68539
Fuxian Lake, Yunnan Province, turbidity current deposits 2−63007
Gangetic alluvium of Allahabad region, India, geoelectrical soundings for aquifers 2−111862
geomagnetic secular variation, Australian lake sediment record 2−68248
Gilliss Seamount (NW Atlantic), seafloor photographs 2−100368
Goa coast of India, sediment types and distrib. 2−94362
Great Lakes, sedimentary processes, review 2−58093
Gulf of Aqaba, phosphate pollution of sediments studied by U concs. 2−68390
Gulf of Venice, Italy, surface sediments heavy metal pollution 2−63099
hedero sediments, acoustic props. rel. to density and thickness meas. 2−75752
Hellenic trench, sedimentary cover tectonics from Sea-Beam and submersible obs. 2−94350
early Holocene moraine in Enchantment Lakes Basin, North Cascade Range, Washington, regional significance 2−94406
Hudson River, PCBs in tidal sediments 2−62509
interstitial water motion due to density convection 2−117370
N Labrador Shelf, sedimentary units rel. to glacial chronology and depositional environments 2−78640
Lake Erie, sediment types of Long Point Bay 2−83854
lake sediment used to test method for magnetite grain size determ. 2−106341
lake sediments as rainfall var. record in Morocco 2−73602
Lake Valencia, Venezuela, Quaternary climate from sediment record 2−63084
Ligurian Sea, Italian coast, trace metals in sediments 2−83527
Long Island (New York), inner shelf sediment transport 2−117289
Lough Neagh, Northern Ireland, anthropogenic changes in sedimentary flux of Mg, Cr, Ni, Cu, Zn, Hg, Pb, and P 2−105609
marine, acoustic impedance, vel. and attenuation 2−58034
marine sediment resuspensions due to storms over continental shelves 2−68347
E Mediterranean, climate from sediment cores anal. of planktonic foraminiferal populations 2−106299
E Mediterranean ridge, distrib. of folding and faulting of sediments from Sea-Beam obs. 2−100369
E Mediterranean Sea, sediments deform. rel. to compressional tectonics 2−94354
methane hydrate, acoustic vel. from Brillouin spectra obs. 2−109909
Mono Lake, California, effects of sedimentation in concs. of radionuclides 2−94407
Neoglacial Lake Alsek, SW Yukon Territory, sediments rel. to recent history 2−78707
North America lake sediment dating, use of geomag. secular var. type curves 2−100325
Norwegian-Greenland Sea history from sediment foraminifera record 2−111964
ocean bottom acoustic refl. resonances 2−111884
ocean bottom reflectivity, effect of near surface sediment layering 2−109102
ocean scour, fluid mechanics review 2−83840
oceanic sediments, elec. cond. rel. to EM fields induced by synoptic scale oceanic movements 2−112133
Old Crow, NW Yukon Territory, Pleistocene sediments mag. reversal history 2−100207
One Tree Reef, southern Great Barrier Reef, suspended sediment transport and water movement 2−117286
organic matter chem. changes in compacting sediment 2−63009
Pacific Ocean, eastern equatorial region, pore fluids advection through sediments 2−106097
East Pacific Rise sediments, chem. variation due to hydrothermal activity 2−62947
Panama Basin, deep advective transport of lithogenic particles 2−94396
Pangaea breakup influences on ocean sediments and chemistry 2−62951
Peconic River, anthropogenic radionuclides, behaviour and transport 2−57746
phosphorite sedimentation in Cretaceous and Cainozoic oceans 2−62948
post-deposition remanence decay due to drying 2−88868
radionuclides conc. in sediments, influence of mixing and compaction 2−58089
Ravenglass estuary, surface sediments, γ-emitting fission products 2−83528
sediments continued
recessional moraines beneath Lake Superior, seismic refl. study and relation to regional deglaciation 2−94405
remanent magnetization acquisition 2−68335
Rockall Trough, Eocene volcanic ash deposits 2−117291
Saguenay Fjord, Quebec, Hg pollution, 1940-76 pollution 2−62511
Saguenay Fjord, Quebec, sediment-depth profiles of fallout radionuclides rel. to transport mechanism 2−99856
E Sahara Desert, playa sediments and sand dunes in Great Sand Sea and Selima Sand Sheet 2−117269
Schofield Reservoir, Utah, USA, lake sediments; ^{210}Pb dating, sedimentation rate 2−58087
seabed materials, compressional-wave vel. meas. 2−73575
seafloor longitudinal triangular ripples on continental rise 2−73538
seismic vibr. characts. for case of variable wave vel. with depth 2−73482
Severn Estuary, suspended sediment front 2−58082
shallow-water transmission loss prediction using the Biot sediment model 2−86157
suspended sediment concentration in coastal waters, digital Landsat MSS data use for patterns determ. 2−73695
Taoyuan-Chupei, NW Taiwan, saline water invasion of water-bearing sediments in coastal area 2−100402
Tasmania, palaeoclimate from swamp and marl pollen record 2−112115
Texas river flood recurrences from sediment record 2−78714
Timor region, sediments stratigraphy and deform. rel. to Pliocene to Recent continent-island arc collision 2−117276
turbidity currents off S Australia, rel. to submarine valleys on Ceduna Terrace 2−117287
Vienna Basin, sediment thickness determ. by vertical deflections *(German)* 2−105900
Winona Basin off Vancouver Island, history of sedimentation rel. to struct. and tectonics 2−94361
X-ray fluorescence for Sr and Rb determ. 2−83972
$CaCO_3.6H_2O$ in organic sediment of Antarctic shelf 2−106096
Mn crusts, evidence for constancy of oceanic ^{10}Be deposition rate 2−111920
^{18}O abundances in oceanic sediments, appl. to assessment of global meltwater spike 2−94395
Pb and Cd content, at. absorpt. spectrometer determin. method 2−68536
^{210}Pb distribution in sediments, influence of radon diffusion 2−58012
Xe hydrate, acoustic vel. from Brillouin spectra obs. 2−109909

Seebeck effect
fusion reactor, CC Li blanket, heat flow, thermoelectric MHD effect 2−85304
one-dimensional metals, thermopower calc. 2−71951
p-n junctions, thermoelec. EMF of hot carriers, lattice heating effects, theoretical anal. 2−61581
rare earth cpds., $R_{2-x}Sr_{2+x}Cu_2O_{6-x/2}$ (R=Sm, Eu, Gd), cryst. struct. and elec. props., O vacancies *(French)* 2−91917
rare earth orthochromites, electrical transport 2−92616
semiconductor, polycryst., Seebeck effect, intergrain electron states 2−110375
semiconductor material props. meas., tester prototype design *(Polish)* 2−99608
TCNQ complex salts, with methyl derivatives of pyridinium, electronic transport props. 2−66537
TCNQ salts, thermopower and conductivity anisotropies 2−92580
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
$AgTlTe_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
Bi_2Se_3:(Cd), transport props. and plasma resonance 2−98646
Cr_2WO_6, elec. transport props., Seebeck coeff. 2−71978
Fe_2WO_6, prep. and characterisation, struct., mag., elec. and photoelectronic props. 2−76390
$FeWO_4$, prep., elec., mag. and structural props. 2−92682
$Ga_{1-x}Sn_xSe$, solid solns., elec. cond., thermo-EMF and Hall coeff. meas. 2−87259
In-Se, melt, elec. cond. and thermo-EMF, temp. depend. 2−87307
$LaFeO_3$, electronic cond., Seebeck coeff. and defect struct. 2−110349
Nb-Ti (48 wt.%), supercond. thermoelectric power, 5 to 25K 2−66706
PbTe:In, thermal cond., elec. cond., Hall and Seebeck coeffs. 2−115479
Sb films, thermoelec. power, theoretical models 2−82495
Sb_2Te_3, anisotropy in optical and elec. props. 2−56587
Si-Ge-B amorphous film, glow discharge deposited, elec. cond., optical absorpt. and EPR study 2−71965
α-Sn, n-type, electron irrad., acceptor point defects, elec. resist., thermoelec. power and Hall effect study 2−61394
$SrTiO_3$:La, quenched, highly reduced, electronic cond. 2−56583
Tl-Se, melt, elec. cond. and thermo-EMF, temp. depend. 2−87307
Tl_9BiTe_6, thermoelec. props. and cryst. struct. 2−110374
$TlSbSe_2$-PbSe, phase diagram and physicochemical and electrophysical props. determ. 2−88067
UO_2, high temp. data on Seebeck coeff., elec. cond., thermal cond., specific heat 2−115796
VO_2:Nb, elec. and Seebeck effect meas. 2−66553
V_7O_{13} single cryst., physical, elec. and mag. props. 2−66251
ZnSe:Tl, p-type layer, elec. cond., photocurrent decay 2−115926

segregation
microstructural processes and features only
see also Guinier-Preston zones; spinodal decomposition
adatom diffusion activation energy, ion beam microtexturing determ. 2−56330
adsorption, kinetic models with bulk dissolution 2−110134
alkali silicate glasses, mixed alkali effect in phase separation 2−86882
alloy, binary, FCC and BCC, electron irrad., rad. induced segregation at internal sinks 2−86731
alloy, dilute, oxidation, parabolic growth of nonuniformly doped oxides containing aliovalent impurities 2−72865
alloys, binary, FCC struct., phase separation, phase diagram, cluster variation calc. 2−92220
alloys, binary, ordering and segregation, density of states, electronic theory 2−76888
alloys, binary, phase separation and mag. ordering in case of one mag. component 2−115421
alloys, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
alloys, segregation kinetics under irradiation *(Russian)* 2−104003
alloys, surface segregation due to chemisorption and absorpt. 2−56345
BCC alloys, Peierls-Nabarro plastic deformation, in the presence of solute clusters 2−111235

segregation continued
brittle crack propagation, debonding of two linear chains of atoms 2−86787
CB15-E9 liq. cryst. mixtures, blue phase IIB, possible non-existence 2−76674
diamond, N aggregation kinetics 2−81809
edge-defined film-fed growth, heat transfer effect on interface shape and solute segregation 2−97955
eutectic alloys, coupled growth, enhancement in off-eutectic alloys by 'stop-and-go' technique 2−99411
eutectic alloys, homogeneity time estimating based on segregation model *(Polish)* 2−66226
FCC (111) face, segregation of interacting atoms 2−76692
film, ferromag., elastic strains in crystallite boundaries, segregated pt. defects effect on induced anisotropy *(Russian)* 2−66877
first-order phase transitions, sealing function for structure factor 2−98244
fusion reactor alloys, candidate, radiation-induced segregation 2−85227
fusion reactor materials, pulsed irradiation, effects on microstruct., swelling, creep 2−54641
glass microstructure, electron microscopy studies 2−91797
glass microstructure rel. to processing and props., review 2−91802
glasses, Fe doped, impurity clustering, relax. Mossbauer studies 2−104753
grain boundary embrittlement, role of chem. bonding 2−56073
Hastelloy alloy G, roles of ordering and impurity segregation as H-assisted crack propag. 2−57481
III-V solid solutions, heteroepitaxial film crystalisation, orientation effects *(Russian)* 2−61302
intergranular cracking, hydrogen-induced, dynamic model and impurity segregation effect 2−72832
laser annealing expt., mol. dynamics simulation 2−109828
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
multicomponent target, secondary ion emission, current density effects 2−99275
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
nonequilibrium segregation coefficient, rel. to liq.-solid interface during recrystn., laser-annealing 2−71654
perfluorosulfonate ionomer membranes, phase separation 2−86881
polydimethylsiloxane-diethyl carbonate crit. mixt., phase separation 2−81967
polyether-polyurethane zwitterionomers, phys. props. and phase segregation 2−67451
polymers, Fe doped, impurity clustering, relax. Mossbauer studies 2−104753
pulsed laser beam annealing, impurity redistrib. 2−103995
rare earth magnetic garnet epitaxial bubble film, rare earth segregation 2−72633
real crystals, equilib. distrib. of impurity atoms 2−66035
semiconductors, pulse laser and electron beam annealing, electron microscope characterisation 2−66051
Si:Sn, metastable alloy form., by electron beam annealing 2−56041
solar cell efficiency reduction by bulk defects across back-surface field junction 2−78209
solids, surface free energies and surface segregation 2−98426
stainless steel, SUS 304, Ti-coated surface, Auger anal. *(Japanese)* 2−92320
steel, alloy, fracture behaviour, effects of comp. variations and ageing treatments in air and H_2 2−67522
steel, alloy, high strength, H stress cracking, effect of P conc. 2−77938
steel, austenitic, Ni-Cr-(Mn), P segregation during austenitisation, effect on cracking and embrittlement 2−57357
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, austenitic stainless, surface activity, co-segregation behaviour of non-metallic elements with metallic elements, AES study *(Japanese)* 2−83126
steel, austenitic stainless, surface segregation, AES obs. 2−83288
steel, austenitic stainless, void nucleation, during HVEM irrad., effect of implanted He 2−109834
steel, C, type ASTM A533-B, fracture surfaces, solute segregation distrib., Auger anal. 2−80120
steel, Cr-Mo, creep, effect of P 2−105217
steel, Cr-Mo, segregation of embrittling elements to prior austenite grain boundaries 2−93517
steel, Cr-Mo, surface segregation of impurities *(Czech)* 2−116447
steel, Cr-Mo, temper embrittlement, atom probe anal. 2−67471
steel, CrMoV, temper embrittlement rel. to heat treatment 2−83232
steel, ferritic, ion irradiation, void swelling and solute segregation 2−85212
steel, ferritic, monolayer grain boundary segregation using STEM-EDS X-ray microanal. 2−111412
steel, grain boundary P segregation during tempering, stress effects, XPS study *(Russian)* 2−116444
steel, high-C, segregation of Si on austenite grain boundaries and austenite/carbide interfaces 2−105161
steel, low alloy, grain boundary segregation and embrittling effect of P 2−62187
steel, low C, C atom segregation, thermoelectric power and elec. cond. study *(Japanese)* 2−105155
steel, melt comp. effect on solidification cracking rel. to continuous casting 2−83107
steel, Ni-Mo-Co, age-hardening, weld struct., hot stage microscopic invest. 2−111190
steel, stainless, austenitic, grain boundary segregation of B, atom probe microanalysis 2−72701
steel, stainless, weld solidification struct. and transform. behaviour, effect of quenching 2−99412
steel, supercooled austenite, decomp. products morphology changes during continuous cooling, HTTMT influence 2−105159
steels, monolayer grain boundary segregations, detection using STEM-EDS X-ray microanal. 2−67351
surface and interface diffusion and segregation 2−104128
surface and ultrathin film, structural characterization by secondary electron emission 2−87923
surface segregation in binary alloys, temp. depend. calc. *(Russian)* 2−76691
tilt grain boundaries with substitutional impurities, atomistic study 2−115247
transition metal cluster chemistry and implications for hydrogen embrittlement, alloy behaviour and metal catalysts 2−91832
Type 304, sensitised, low-temp., intergranular fracture and grain boundary chem. 2−105328
unsteady Czochralski growth, test of boundary layer model 2−91848
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al, electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
Al, quenched, clustering process of vacancies 2−55964
Al-Cr dilute alloy, irrad., self interstitial trap and clustering at impurities 2−76689
Al-Cu alloys solidified under high press., Cu segregation *(Japanese)* 2−116449
Al-Cu unidirectionally solidified ingots, inverse segregation *(Japanese)* 2−77816
Al-Fe, solid solns., secondary quenching defects features 2−62153
Al-Fe alloys, Fe profile meas. using SIMS and SEM 2−109999
Al-Fe and Al-Mg, twin-rolling casting, centreline segregation 2−116435
Al-Mg (8wt.%), grain boundary segregation 2−88087
Al-Pb, hyper-monotectic alloys, solidified by rapid cooling, struct. *(Japanese)* 2−105136
Al-Sn(Ni), metastable alloy form., by electron beam annealing 2−56041
Al-Zn alloys, cellular decomp. 2−83120
Al_2O_3, dense, steam-enhanced impurity segregation 2−111116
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
Au-Cu, surface comp. ion scattering spectra study by Ar^+ and He^+ ion bombardment 2−71781
Au-Fe spin glasses, at. short-range order, X-ray determ. 2−92941
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
BaF_2, impurity and interstitial clustering 2−86884
CC Li_2O_3-SiO_2-TiO_2, glass, isothermal cross-section, phase decomposition 2−72706
CaF_2, impurity and interstitial clustering 2−86884
$Cd_xHg_{1-x}Te$, compositional uniformity, directed crystn. from melt 2−76333
Co Nb (0.96 at.%) alloy, solute segregation to stacking faults, atom probe FIM obs. 2−105163
Co surface, competitive accumulation of S and graphite 2−82121
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-Cr alloy, incipient melting phenomena, morphological obs. 2−93501
Co-Si film, laser melted, lamellar eutectic solidification 2−116431
CoB amorphous alloys, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
CoO, undoped and Cr doped, segregation and near surface diffusion 2−76682
CoP amorphous alloy, hyperfine field, mag. anisotropy, domain walls, NMR study 2−104714
Cr-Rh-Zr dil. alloy, grain boundary relax., internal friction study *(Russian)* 2−93546
Cu-Be, TEM obs. of microstruct. evol. in simulated ion irrad. alloys 2−86745
Cu-Bi (0.1 at.%), grain boundary embrittlement as function of boundary struct. 2−115246
Cu-Cr, failure anal., impurity segregation, Auger spectra study 2−83205
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
Cu-Ni, failure anal., impurity segregation, Auger spectra study 2−83205
Cu-Pb, microstruct., mech., elec., and mag. props., depend on synthesis conditions 2−56748
α-Cu-Su-Al, anneal hardening *(Korean)* 2−116464
Cu_xNi_{1-x}, surface segregation, electronic theory, local density of states 2−61152
Eu-Au, surface segregation study using surface shifted core levels 2−105047
Fe alloys, grain boundary segregation and embrittling effect of P 2−62187
Fe, fracture mode and ductility on testing at cathodic potentials, P and S segregation effects 2−93679
Fe, ion irradiation, void swelling and solute segregation 2−85212
Fe surface, P covered, segregation, XPS, AES and EELS study 2−92221
Fe-C, ferrite, C cluster formation, critical cluster size, computer calc. 2−67340
Fe-Cr-Ni alloys, electron-irrad., swelling and Ni segregation 2−111182
Fe-Cr-Ti(Si), ion irradiation, void swelling and solute segregation 2−85212
Fe-Ni-Mo-B, metallic glasses, annealed, phase transforms 2−67302
Fe-P, struct. change of grain boundaries due to P segregation 2−67349
Fe-P alloys, fracture mode and toughness, C effects 2−57484
Fe-Sb(-Ni), ultra-high purity, interactive co-segregation of Sb and Ni at grain boundaries 2−93512
Fe-Si, surface segregation temp. depend. *(Russian)* 2−86999
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
FeTi, surface anal. by magnetisation meas. 2−73012
GaAs bulk crystals soln. grown by slow cooling, const. temp. steady-state processing macrosegregation 2−91845
GaAs:Sn, ion implanted, surface accumulation after laser beam annealing, Rutherford backscattering study 2−61006
GaAs:Te, implanted, laser annealed, metastable Te donor conc., expt. study 2−56025
$GaSe_{1-x}Sx$, polytype phase transition X-ray diffr. obs. 2−60912
Gd:Ar film, ion implanted, impurity depth distrib. 2−110215
Ge, ⟨111⟩-stressed, binary electron-hole liq., phase separation, surface struct. role 2−71882
Ge:B, Al, Ga, residual acceptor impurity distrib., photothermal ionisation spectroscopy study 2−81807
GeTe solid solutions, polymorphic phase transitions kinetics, elec. cond. and Hall coeff. study 2−86851
^{3}He BCC cryst., sound vel. and defects, temp. depend. 2−98380
^{3}He-^{4}He liq. mixtures, anisotropic decomposition below tricritical pt., light scatt. study 2−104106
^{3}He-^{4}He phase separation boundary, charged particle systems, collective aspects, theoretical anal. 2−61230
^{3}He-^{4}He solid mixtures, dil., impurity interactions, press. depend. 2−71765

segregation continued
$Hg_{1-x}Cd_xTe$ wafers, metallographic obs. of compositional inhomogeneities 2−111411
In-Te, molten, liq. struct., X-ray diffr. study 2−115131
LiF:Mg, impurity-vacancy pair clustering, trimer form., dielec. losses and TSC meas. 2−115419
LiF:Mg, TLD-100, clustering and precip., dielec. loss study 2−92213
LiF:Mg, TLD-100, thermoluminesc. meas., clustering and precip. effects 2−93291
Li_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
Li_2O-Na_2O-SiO_2 system, immiscibility isotherm 2−86882
Li_2O-SiO_2 glass, phase separation, Raman spectroscopy study 2−92212
NaCl bicrystals, microhardness 2−57454
NaCl:Ca, aggregation phenomena during isothermal annealing 2−76486
NaCl:Sr(Ca)(Cd), Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
Na_2O-B_2O_3 phase-separated glasses, fracture toughness to Young's modulus relationship 2−93609
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Na_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
Na_2O-SiO_2 glass, phase separation, Raman spectroscopy study 2−92212
Na_2O-SiO_2-B_2O_3 glass, phase separation, Raman spectroscopy study 2−92212
Nb/Al overlayer struct., surface oxidation, grain boundary diffusion, XPS study 2−67601
Ni alloy, heat-resisting, directional solidification, B influence on fine struct., diffusion and creep 2−67321
Ni alloy, heat-resisting cast, directed change of comp. and morphology of primary carbide phases 2−67320
Ni and alloys, air embrittlement, role of S 2−99541
Ni, chemisorption of O_2 under equilib. conditions, 850°C, AES study 2−61289
Ni, grain boundary segregation of S and Cl, high resolution scanning AES and SIMS obs. 2−93518
Ni, segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
Ni-Al-Cr dendritic monocrystals, solidification, coarsening and microsegregation 2−99413
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cu, Monel 400, liq. metal and H embrittlement, influence of grain boundary P conc. 2−77930
Ni-Fe, surface (100), oxidation 2−116612
Ni-Ge(Si) alloys, radiation-induced segregation, defect prod. rate effect 2−92055
Ni-Pt interaction with Si 2−86953
Ni-Si, radiation-induced segregation, in situ Rutherford backscattering anal. 2−76679
Ni-Si films, compositional change induced by Ar^+ ion bombardment 2−86753
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
$Ni_3(Al, M)$, (M=Ti, Nb, Hf, Mo, W), heat-resistant, dendritic segregation 2−72698
$Ni_{1-x}Fe_x$ (100), spin polarised photoemission probing of magnetism 2−67184
NiO, diffusion of ^{57}Co along grain boundaries 2−76747
NiPt/Si interface, NiSi formation at silicide/Si interface 2−104078
Ni_3Si, ion and electron irrad., near-surface segregation, TEM and electron diffr. study 2−86883
PbO-B_2O_3 glasses, microstruct. characts. by phys. prop. meas. 2−91800
PbO-B_2O_3 phase-separated glasses, fracture toughness to Young's modulus relationship 2−93609
Pd, chemisorption of CO, segregated P effect 2−115557
Pd_xZr_{1-x}, surface segregation due to H absorpt. 2−56345
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
$Pt_{0.98}Cu_{0.02}$, surface segregation and surface electronic interactions, UPS and AES study 2−66612
Rh, layer by layer growth of Pt, O_2 adsorpt. and Rh segregation *(French)* 2−83122
$Rh_{0.95}Cu_{0.05}$, surface segregation, AES study 2−110108
Ru (001) coadsorption of H_2 and CO, work function, XPS, UPS and thermal desorption study 2−71805
Se-Ge-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Sn-As glass, microstruct., fracture surface study by SEM 2−91796
Si (111), surface segregation of H by photon stimulated desorption at Si K edge 2−110154
Si, amorphous, ion implanted, ultrarapid cryst. growth and impurity segregation during laser annealing 2−86722
Si, Czochralski growth, dynamic O equilib. in melts 2−60895
Si, epitaxial layer, boundary segregation of impurities, under action of γ-radiation, or quenching 2−87095
Si, polycrystalline, grain boundaries, chem., compositional and elec. props. 2−76458
n-Si substrate for Ir and Rh films, silicide form., AES study 2−86951
Si thin polycryst. rod growth by pulling from melt on pedestal, impurity distrib. 2−76347
Si, with C impurity, β-SiC particles segregation mechanism and kinetics 2−57354
Si:As, dopant clustering, generalized model 2−115417
Si:As, substitutional impurity clustering, ion channelling study, review 2−71536
Si:As(P), CVD film, elec. characts., grain size, effects of impurity conc. and heat treatment 2−82487
Si:Au, cluster centres, EPR study 2−56923
Si:B, ion implanted, B diffusion and segregation obs. in dry O_2 ambient 2−92281
Si:Bi, ion implanted, impurity redistrib. after Nd laser pulse irrad. 2−115265
Si:O, C, Czochralski grown, O related donors, 700 to 800°C, expt. study 2−56469
Si:O, Mg influence of Mg on IR absorpt. and elec. cond. props. 2−87258
Si:P, Au, redistribution of Au impurities by P diffusion, theory 2−109822
SiC, diffusion annealing in B vapour, surface distrib. of B 2−56305
SiC:Al, sintered and hot pressed, grain boundary segregation, STEM study 2−111180
Sm:Ar film, ion implanted, impurity depth distrib. 2−110215
Sn_xPb_{1-x} (x=0.998, 0.03), equilibrium surface composition 2−115516
SrF_2, impurity and interstitial clustering 2−86884

segregation continued
Ti-Al-(V)(V-Mo), ion irradiated, segregation 2−109859
Ti-V (3 wt.%), ion irradiated, segregation 2−109859
TiO_2 varistors, prep. and props. 2−57320
Tm_xSe, local prop. variation, Mossbauer study 2−87633
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
V-Zr-O, phase equilibria, penetration of Li at 670K 2−72681
W bicrystals, grain boundary fracture 2−83198
Yb-Au, surface segregation study using surface shifted core levels 2−105047
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934

Seidel theory *see aberrations*

Seignette salt *see Rochelle salt*

Seignettoelectric materials *see ferroelectric materials*

seismic waves
see also seismology
3-D particle motion, approximate estimation model 2−62906
650 km depth discontinuity and S to P conversion of seismic waves 2−68289
acoustic logging, formulation and soln. of problem for direct transverse and longit. waves 2−58185
acoustic propagation modes and borehole rock props. 2−111873
airgun-OBS seismic refraction profiling expt., airgun signal waveform anal. 2−117225
amplitude of wave scatt. by salient point on diffracting edge 2−78591
amplitudes, linear formulation of inverse problem 2−78575
analysis using feature extraction, appl. of bounded variation quantity 2−63133
analysis using SWAN *(Japanese)* 2−78875
arrival times, automatic meas. and appl. to on-line processing system *(Japanese)* 2−83756
attenuation in Friuli region, strong motion accelerograms 2−68276
attenuation of short-period waves due to scattering 2−78576
attenuation relations for strong seismic ground motion in Canada 2−68274
axially symmetric waves source, model 2−58003
body wave attenuation for heterogeneous media 2−105950
body wave generalised reflection coeff. for layered media *(Chinese)* 2−83751
body waves, apparent propag. vel. 2−83761
book, waves and sources 2−101148
boundary velocities used to find crystalline basement composition 2−106347
Budapest, Hungary, microtremor props. of ground 2−78553
characteristic impedance deduced from step response 2−111885
SE China, inefficient teleseismic S_n propagation below crust 2−117230
SE China, seismic surface wave dispersion and Earth struct. 2−68285
coda of central Asian earthquakes, appl. to estimation of Q as function of freq. and depth 2−88750
coda wave spectra, source and scattering effects for small local earthquakes 2−68266
Columbia-Peru tsunamis observed along Japan coast (1960 to 1979) *(Japanese)* 2−83757
complete synthesis of crustal waves at regional differences from earthquakes 2−73483
complex body wave inversion, numerical method 2−89015
complex signal and scatt. in multilayered media 2−78565
complex waves and sampling theory 2−78566
constant-Q behaviour of some solids 2−73464
crack effects on elastic moduli of rocks, thermal shock role, correl. with earthquake magnitude 2−73548
damage at Asaba-Cho due to 1944 Tonankai earthquake *(Japanese)* 2−94289
diffraction, effect of surface topography 2−117471
diffraction from ribbed interface, theory 2−78589
dispersion of teleseismic P-waves in crust 2−105969
dissipation estimation from data on vertical seismic profiles 2−73460
earthquake initiation model, seismic radiation for rigid inclusion model 2−117236
earthquake intensity attenuation pattern for United States 2−88780
earthquakes strong ground motion, statistical model for prediction of quasi-realistic motion 2−100316
elastic radiation from source in medium with almost freq.-independent Q, theory for underground explosion 2−100314
elastic wave propag. rel to 1944 Tonankai earthquake damage *(Japanese)* 2−94289
elastic wave velocities calculation method in gas saturated periodic microstructures 2−100604
EM fields induced by seafloor seismic waves 2−100313
central England, deep seismic refl. profile over Caledonian granite 2−88805
excitation of long period waves by source spanning a structural discontinuity 2−62899
explosion strength determin. from shock wave data 2−73486
explosion-generated pulse in rock, expts. and rise time law 2−100308
explosive energy coupling to geologic materials 2−105976
far-field displacements of circular dislocation source *(Chinese)* 2−68262
fault generated seismic waves, invariant formulae 2−100298
Gazli earthquake, Uzbekistan, 1976 May 17, magnitude, ground motions and focal mechanism 2−73473
global Q values of upper mantle from antipodal Rayleigh wave obs. 2−88799
global scale surface waves in a regionalised Earth model 2−68232
ground motion spatial averaging, anal. of El Centro differential array for 1979 Imperial Valley earthquake 2−88756
ground motions, effects on cliffs *(Japanese)* 2−94288
H-waves as Rayleigh waves in viscoelastic medium 2−68284
head waves propagation at curvilinear refracting boundary, inverse kinematic problem 2−105992
identification of seismic sources, earthquake or underground explosion, conference, Oslo, Norway (1980 September 8 to 18) 2−89460
instantaneous velocities and reflection times for transversely isotropic solids 2−78569
interface refraction and refl. of waves, algorithm for 3-D problems 2−78588
interstation phase and group velocities and Q-factor, meas. using Wiener filtering 2−88748
inversion of normal incidence seismograms, algorithm 2−88775

seismic waves continued
inversion of travel-time curves for waves in or near low vel. layer 2−62911
Italy region, Rayleigh wave dispersion and tectonic evolution 2−62928
NE Japan, vel. and azimuth anomalies obs. at Kitakami seismic array rel. to crust and upper mantle struct. 2−111892
Kodiak continental shelf, Alaska, wave vel. models rel. to earthquake activity location 2−88754
north Kurile earthquake of Feb. 28 1973, focal mechanism and seismic waves 2−57991
layered acoustic medium, vel. and density profiles from common source point data 2−100291
Lg waves and coda, statistical models of wave formation 2−62902
linear pseudo-velocity logs, vel. distrib. statistical charact. *(Chinese)* 2−100257
lithosphere scattering model for seismic Q obs. in 1-30 Hz range 2−62898
Livermore Valley region, California, P-vel. models and earthquake locations 2−117210
Love channel waves, refl. and transmission at coal seam discontinuities 2−100318
Love waves, propag. through nonhorizontal structures *(Japanese)* 2−94290
Love waves attenuation in soil layers and Q_s-structure estimation in Kyoto basin 2−106003
Love waves in dry sandy layer 2−73470
Love waves scattering from groove or step 2−100299
upper mantle, worldwide variations of seismic attenuation 2−117251
mantle and deep crust propagation velocity 2−105984
mantle attenuation of short-period waves in SW Pacific region 2−100310
mantle global seismic vel. anisotropy of oceanic areas 2−83781
mantle Q value freq. depend. by absorpt. band model 2−100309
mantle Rayleigh waves group velocity, worldwide distrib. from spherical harmonic anal. 2−117207
mantle rock seismic props. meas. in laboratory expts. 2−105985
Mariana basin, high-freq. P- and S-wave propagation 2−83764
marine seismic reflection records processing 2−68513
Massachusetts Mountain earthquake, 1971 August 5, Rayleigh wave anal. 2−117215
E Mediterranean tsunami waves, coastal amplification 2−94297
modeling in the domain of intercept time and ray parameter 2−78579
multiple P-wave reflections and P-S conversion in S Mississippi 2−105944
multiple scattering at low freq., Biot's theory for elastic media 2−78574
Nankaido earthquake, Japan, 1946 December 21, fault model from tsunami data 2−105983
Nankaido tsunamis (1707 and 1854) along SW Shikoku coast *(Japanese)* 2−83758
near field free surface displacements due to tensile fracture 2−94295
nonlongitudinal travel times, appl. to determ. of anisotropy parameters of rocks elastic props. 2−106114
ocean bottom high freq. waves off Izu Peninsula *(Japanese)* 2−94286
onset identification, seismograph and Gaussian noise effects *(Russian)* 2−105962
P_n-wave velocities from normal faulting microearthquakes in NE Kinki district, Japan 2−100315
P-wave arrivals in Garm region, USSR, rel. to seismo-tectonic deform. of Peter I Ridge 2−73499
P-wave complexity of Borrego Mtn. 1968 earthquake 2−88761
P-wave first motion data sorting method for focal mechanism solns. 2−89014
P-wave spectra of deep focus earthquakes of Fiji-Tonga region, rel. to seismic moments 2−73478
P-wave travel-time anomalies E of Davie Ridge *(French)* 2−83771
P-wave vel. anisotropy in NW Pacific oceanic crust 2−78583
P-wave velocities in Precambrian terrains of NW Australia from seismic refr. sounding 2−117255
P-waves, first motions rel. to focal mechanisms of Izu Peninsula, Japan, 1980 earthquake swarm *(Japanese)* 2−94311
P-waves, non-stationary model and complexity definition 2−105981
P-waves, reflection-refraction in elastic and anelastic solids 2−105955
P-waves, travel time residuals in Shillong region, NE India, rel. to dilatancy stage precursory to large earthquake 2−94301
P-waves from underground nucl. explosions, non-stationary model 2−105982
pattern recognition, syntactic approach 2−62903
peak ground acceleration scaling studies 2−100277
phase unwrapping, possibilities and limitations 2−100294
phase vel. estimation for microtremors *(Japanese)* 2−94314
plane SH waves in half space, diffraction 2−100286
Pn and Pg propag. at regional distances 2−88763
porous media seismic velocity (gas filled pore case) 2−106001
pressure depend. on seismic vel. in fractured rock 2−57992
propagation, effect of anisotropy, recognition in exploration surveys 2−78570
propagation, method of Richardson extrapolation in ray problem 2−73476
propagation in wet granular media *(Chinese)* 2−105936
propagation inhomogeneous media, Gaussian beam theory 2−88782
PS converted wave recognition using polarization filtration *(Chinese)* 2−105939
quadratic wavefront and traveltime approximations in homogeneous layered media with curved interfaces 2−105946
ray approximation of wave eqn. *(Chinese)* 2−100255
Rayleigh long-period waves, attenuation and phase vel. *(Japanese)* 2−94285
Rayleigh wave phase velocities in Nevada from nuclear explosions 2−117215
Rayleigh wave scatt. 2−88803
Rayleigh wave study of Tarim Basin layered crustal structure *(Chinese)* 2−106009
Rayleigh wave transmission through vertical contact, calc. via improved version of Alsop's method 2−117237
Rayleigh waves, synthetic seismograms from multi-dimensional simulations of underground explosions 2−88747
Rayleigh waves, temporal props. in horizontally inhomogeneous Okhotsk region 2−73475
reflected and refracted waves, kinematic interpretation programs, use of optimisation method 2−100321
reflected-diffracted waves in crustal fracture zone model 2−83750
reflection at free surface of initially stressed sandy medium 2−109097
reflection point residuals of PP and SS waves 2−88773
reflection profiles, computing 2−58193
reflection seismology, dip-moveout and reflector point dispersal 2−100296
seismic waves continued
reflection seismology, encoded sweep technique for Vibroseis 2−89011
reflection seismology, frequency domain mapping approximation of moveout filters with appls. 2−100295
reflection seismology, time-to-depth migration using wavefront curvature 2−100293
reflection sounding, solution of inverse problem 2−88785
reflection sounding of randomly rough surfaces, theory 2−111874
refracted wave phase in S. Mexico, direct evidence for subducted oceanic plate 2−62923
refracted wave travel-time curve inversion theory *(Russian)* 2−105960
refraction data inversion, wave field continuation appl. 2−58159
rise time meas. for seismic pulses in rock 2−105949
rock seismic attenuation, effect of pore fluids and frictional sliding 2−73459
rocky-permafrost soils, response to earthquake waves 2−105994
S-wave obs in Franciscan terrain, central California 2−68269
S-wave propagation along a non-rigid boundary 2−105972
S-wave spectra, source and scattering effects for small local earthquakes 2−68266
S-wave vels. in deep soil deposits at Fuchu, Japan *(Japanese)* 2−94310
S-waves, axially symm. inversion sources direction charact. 2−58005
S-waves from Meloy earthquake sequence, N.Norway, spectral anal. rel. to source parameters and scaling relations 2−88753
seismograms interpretation using, operator-machine interactive method, computer system development 2−100306
SH motion in two-layer half-space, hybrid ray-mode formulation 2−68268
SH time histories in 4-layer central US model 2−68275
SH wave scattering by surface irregularities, boundary method appl. 2−88764
SH waves in coal seams, recompressing model and technique 2−111875
SH-wave propagation, finite-difference model 2−100266
SH-waves, effect of underground struct. of seismic motions of ground surface 2−105954
SH-waves in a dry sandy layer 2−105959
Sharpsburg, Kentucky, earthquake, 1980 July 27, P-wave first motions rel. to main shock parameters 2−88755
shear waves, potential in prospecting 2−105952
very deep soil amplification of long-period microtremors 2−100279
soil vibr. charact. for case of variable wave vel. with depth 2−73482
sP_MP phases at E.Kii Peninsula, nature 2−68298
steady-state oscillations of elastic media, external boundary problem for spherical cavity in halfspace 2−73479
strong earthquake high-freq. radiation charact. 2−105968
strong ground motions, statistical characterisation using power spectral density function 2−88757
strong motion due to slip of rectangular fault 2−100261
strong shaking in hypocentral areas, calc. of peak accelerations 2−73455
surface wave analysis, polarisation filter, statistical approach 2−100567
surface wave dispersion, appl. to delineation of North Central Italian upper mantle anomaly 2−62924
surface wave dispersion for layered media *(Chinese)* 2−83751
SV-waves, reflection-refraction in elastic and inelastic solids 2−105955
SV/P wave amplitude ratio for earthquake focal mechanism calc. 2−68500
symmetric and antisymmetric waves (wave-twins) in layered media 2−117240
synthetic seismograms, Cagniard de-Hoop method for Haskell type vertical fault 2−105956
teleseismic body waves, broadband study of Santa Barbara, 1978 August 13 earthquake 2−68267
teleseismic delay times, 3-D raytracing for forward modelling and direct inversion 2−78866
teleseismic p-wave residuals at New Zealand stations, long-term changes 2−94302
teleseismic P-waves, data processing by microearthquake networks *(Japanese)* 2−94510
Tennant Creek Block, Northern Territory, Australia, reconnaissance of upper crustal seismic vels. 2−117223
theoretical seismogram of wavefront refl. from convex layer 2−105970
three-dimensional seismic modelling, interpretative lessons 2−88777
Tibet Plateau, Q struct. from seismic attenuation data 2−105987
transient SH-waves in wedge-shaped layer 2−117228
transverse waves in wet soils, excitation and propagation processes 2−78585
travel-time anomalies from events in western Soviet Union, anal. 2−88749
travel-time monitoring with VIBROSEIS 2−68272
tsunami, generation off Pacific coast in Nankaido district *(Japanese)* 2−94287
tsunami directional generation in offshore region *(Russian)* 2−88786
tsunami generation by Oct. 1963 Kurile earthquake 2−100264
tsunami generation from instantaneous modulated line source 2−57999
tsunami generation mechanism in New Zealand coastal waters 2−88811
tsunami impact on coasts of Tokai District, Kii Peninsula and Shikoku Island (1703) 2−68301
tsunami propagation at depth discontinuity in ocean 2−73487
tsunami propagation theory 2−117250
tsunami recorded in open Pacific Ocean 1000 km from source area 2−78578
tsunami recorders at Enoshima and Izu-Oshima tsunami observatories *(Japanese)* 2−83957
tsunami regionalisation for Pacific region 2−117247
tsunami run up on beach, linear theory *(Russian)* 2−73472
tsunami sources in Sanriku region, NE Japan, seismic gap 2−94284
tsunamis, energy rel. to earthquake fault model parameters *(Japanese)* 2−83755
tsunamis in E. Mediterranean, catalogue from antiquity to present 2−100252
tsunamis of Italian coasts 2−57994
tsunamis of Japan (Honshu) Pacific coast, numerical calcs. *(Japanese)* 2−57984
United States, seismic attenuation struct. of mantle 2−68286
upper mantle of Pacific, S-wave anisotropy study 2−78577
upsweep signals with HF attenuation, use in Vibroseis synthetic seismogram construction 2−105953
US radiation from crack in strained rock specimen, seismological implications 2−117295
V_R/V_s correlation with sedimentary rock lithology 2−78571
velocities information anal. with information retrieval system 2−106367
velocity estimation in laterally varying media 2−100290

seismic waves continued
velocity investigation at The Geysers-Clear Lake geothermal field, California, Poisson ratio meas. 2−88778
velocity models of Earth upper mantle, appl. to Indian upper mantle regions struct. 2−111904
velocity of refr. and refl. waves at Uji campus of Kyoto University 2−68299
Vrancea, Rumania, microearthquakes waves Fourier anal. *(Rumanian)* 2−117254
wave-equation migration in the presence of lateral velocity variations 2−105945
waveform inversion technique for attenuation and dispersion in mantle 2−100297
waveforms, computed, in transversely isotropic media, results from numerical Fourier inversion 2−88776
White Mountains, New Hampshire, USA, seismic vel. anisotropy 2−88801
WWSSN stations in India and S Asia, crust struct. from seismic wave characts. 2−117274
zero-phase wavelets, resolution limits 2−105948

seismographs *see seismometers*

seismology
see also earthquakes; lunar seismology; seismic waves; seismometers
650 km depth discontinuity and S to P conversion of seismic waves 2−68289
Acapulco-San Marcos region of Mexican subduction zone, seismic potential 2−111881
accelerometer data integration 2−100287
acoustic emission freq. characts. and microcracking process 2−100371
acoustic logging, formulation and soln. of problem for direct transverse and longit. waves 2−58185
N.Africa, earthquake at Jijeli, Algeria, (1856 August 22) 2−117220
E Africa, focal mechanism of major earthquakes in Western Rift Valley 2−117224
African continental margin and Davie Ridge, P-wave travel time study *(French)* 2−73491
aftershock activity separable into two stages *(Chinese)* 2−73450
airgun-OBS seismic refraction profiling expt., airgun signal waveform anal. 2−117225
central Aleutians, teleseismic relocation of thrust zone events 2−68307
Alexandria area of Egypt, earthquake activity since 2200 BC 2−62892
algorithm for solution of Lamb's problem for vertically heterogeneous media 2−111888
algorithms for processing seismic data, with rapid convergence 2−58143
alluvial valley, interface depth effect on strong ground motion 2−88768
Southern Alps, crust and upper mantle seismic struct. 2−105940
Western Alps region, seismicity rel. to tectonic processes 2−73458
Central America, crust struct. from seismic data 2−100275
animal behaviour prior to quakes due to acoustic emission *(Chinese)* 2−57981
Argos system for data collection and location by satellite 2−112153
Artic mid-ocean ridge area, seismic sounding obs. 2−73501
central Asia, estimation of seismic Q as function of freq. and depth using coda of local earthquakes 2−88750
SE.Asia, seismicity patterns 2−62894
N Atlantic ocean basin and continental margin, seismic refr. and refl. profiles 2−58035
NW Australia, crustal struct. of Precambrian terrains from seismic refr. data 2−117255
Australia, differences between lithosphere Phanerozoic and Precambrian, seismic and elec. cond. meas. 2−78621
NW Australia, seismic discontinuity 200 km below continental margin 2−88781
Australia, seismic study of crust thickness and isostasy 2−106080
axially symmetric waves source, model 2−58003
Baffin Bay, seismicity obs. (during 1978 AD) 2−111869
Baikal region, earthquake focal depths determ. 2−83769
Barbados Ridge complex, bathymetric and seismic survey rel. to interpretation of accretionary wedge 2−94355
Basin and Range Province, USA, crust and mantle struct. 2−100274
Beijing-Tianjin district, quality factor and average stress drop *(Chinese)* 2−105938
Bohemia, seismic hazard estimation for low seismicity area 2−105989
Brittany and Limousin, seismic vel. struct. and Hercynian tectonics 2−88779
Budapest, Hungary, microtremor props. of ground 2−78553
building structure seismic inputs for deep soil sites 2−100279
Bungo channel, earthquake focal distrib. and seismicity 2−68302
Burma-Szechwan region, premonitory swarms to large quakes 2−88812
Cagniard de-Hoop method for Haskell type vertical fault 2−105956
Calabrian Arc, seismotectonics 2−78638
California, ground acceleration, high freq. strong motions 2−68280
central California, S-wave obs. in Franciscan terrain 2−68269
California, travel-time monitoring with VIBROSEIS 2−68272
southern California, upper mantle lateral vel. 2−73485
Canada, strong ground motion, attenuation relations 2−68274
NE Caribbean, microearthquakes spectra, effect of attenuation and site response 2−117217
Carpathian region seismotectonic lines *(Russian)* 2−94294
characteristic impedance deduced from step response 2−111885
SE China, inefficient teleseismic S_n propagation below crust 2−117230
N China, occurrence of major earthquakes in groups 2−94304
China, regional crust struct. from seismic data *(Chinese)* 2−58007
NE China, seismic activity and continental rift valley system form. *(Chinese)* 2−62933
SE China, seismic surface wave dispersion and Earth struct. 2−68285
China, seismological data rel. to neotectonic stress 2−62944
NE China, stress field from minor earthquakes study *(Chinese)* 2−105937
N China Plain, exptl. studies and finite element anal. of seismicity 2−94305
N China Plain, mantle seismic struct. beneath earthquake region *(Chinese)* 2−68263
clock reliability in earthquake research, India 2−83964
clustering property of earthquakes, statistical analysis method 2−88798
Colorado Plateau crustal hydration constraints from crust xenoliths Vp meas. 2−78596
common depth point, method using high-speed algorithm 2−105995
common depth point method, traveltime curve theory 2−106002
multiple common depth point method 2−106369
common depth point method applied to W Siberian Plate 2−88810

seismology continued
common reference point method, efficiency *(Hungarian)* 2−94534
Comoro Basin, P-wave travel time anomalies *(French)* 2−73491
complete synthesis of seismic waves at regional distances from earthquakes 2−73483
conference, Oct. 1980, Atlanta, USA 2−94893
conference on earthquake quantification at Canberra, Australia (December 1979) 2−74158
constant-Q behaviour of some solids 2−73464
continental crust, struct. probing by seismic refl. profiling and drilling 2−100336
core radius from PcP wave data 2−117264
core-mantle transition zone struct. 2−117264
cracked rock mapping by seismic method 2−100265
Crimea, earthquake epicentre distrib. and migration *(Russian)* 2−105961
crust movement monitoring by satellite methods 2−68592
crustal structure from seismic phases in a three layer crustal model *(Chinese)* 2−100324
data automatic processing in Japan Meteorological Agency *(Japanese)* 2−94282
data deconvolution, algorithm for ICL DAP 2−100283
data processing, use of max. entropy with χ^2 constraint as stacking technique 2−73702
data telemetering, collection, processing and storage system 2−106324
Davie Ridge, P-wave travel-time anomalies *(French)* 2−83771
Dead-Sea rift, 1500 year cycle of earthquakes occurrence 2−105942
Deccan syneclise, India, seismic vel. and crust struct. *(Russian)* 2−57988
deconvolution problem where source wavelet is unknown, appl. of Poperian geophysics 2−83762
S Denison Trough, Queensland, results of seismic survey (1978 to 1979) 2−117302
depositional sequences and lithological facies determ. from seismic section anal. *(Rumanian)* 2−117503
diffraction in inverse problems of explosion seismology 2−78587
diffraction migration, calc. on ICL distributed array processor 2−100282
drag cables for marine seismic exploration, comparison of solid and kerosene filled types 2−81174
Earth radial oscillations, eqns. 2−73477
earth sciences computer appls. conf. Syracuse, NJ, USA (Oct. 1979) 2−58192
Earth surface, quasi-static strains and tilts due to faulting in layered half-space with viscoelastic layer 2−100205
earthquake energy determination influenced by local soil conditions 2−105999
earthquake initiation, rigid inclusion model 2−117236
earthquake intensity attenuation pattern for United States 2−88780
earthquake precursors, anomalous land uplift and aseismic creep before 1976 Tangshan earthquake 2−94307
earthquake prediction, anal. of precursors of Shikotan earthquake, Kuril Islands, (1978 December 7) 2−73480
earthquake prediction, current research, book 2−94919
earthquake prediction, implications of long-term changes in teleseismic p-wave residuals at New Zealand stations 2−94302
earthquake prediction, implications of relation between geomag. vars. and hydrologic regime in Garm polygon 2−73481
earthquake prediction, investigations of long-term forerunners of series of strong earthquakes 2−117234
earthquake prediction, search for correl. beween seismicity and Rn anomaly in hot springs 2−111886
earthquake prediction, workshop, Canberra, Australia (1979 December 13 to 14) 2−89442
earthquake prediction, worldwide text of three long-term premonitory seismicity patterns 2−94303
earthquake source parameters, seismic moment, stress drop, source dimens. and displacement 2−78556
earthquake swarm activity, stochastic model of freq. of occurrence 2−88784
earthquake/explosion data at Tonto Forest Observatory, discrimination 2−117472
earthquakes focal mechanisms, meas. of US radiation from crack in strained rock specimen 2−117295
earthquakes in Taiwan, strong motions recorded by large near source array of digital seismographs 2−100288
earthquakes on plate margins, slow fracture propag. on fault surface with embedded viscous layer 2−117219
earthquakes prediction, appl. of foreshock sequence of Haicheng, China, earthquake and earthquake swarm 2−94306
earthquakes strong ground motion, statistical model for prediction of quasi-realistic motion 2−100316
earthquakes strong ground motions, statistical characterisation using power spectral density function 2−88757
East African Rift system, deep struct. model from simultaneous inversion of teleseismic data 2−78619
East Pacific Rise, seismic refl. obs. of lava flow layer 2−78602
Ecuador-Colombia coast subduction zone, variable rupture mode from earthquake anal. 2−117275
Egypt, seismic risk evaluation *(Japanese)* 2−94312
eigenvibrations from ground motion time series anal. 2−68294
eigenvibrations of Earth normal modes 2−88783
El Asnam earthquake, Algeria, 1980 October 10, multiple source mechanism and moment 2−117204
elastic radiation from source in medium with almost freq.-independent Q, theory for underground explosion 2−100314
elastic wave radiation by extended shallow sources 2−83767
energy interaction with fluid-filled cavities 2−117206
central England, deep seismic refl. profile over Caledonian granite 2−88805
evolutionary dynamics of seismic lull regions and strong earthquake prediction 2−111883
exploration seismology, inverse kinematic problem for seismic head waves at curvilinear refracting boundary 2−105992
exploration systems vertical resolving power quantification 2−111871
explosion seismic sounding, mag. tape recording system *(Chinese)* 2−83752
explosion seismology, Rayleigh wave synthetic seismograms of underground explosions 2−88747
explosion strength determin. from shock wave data 2−73486
explosion-generated pulse in rock, expts. and rise time law 2−100308
explosive energy coupling to geologic materials 2−105976
non-explosive seismic energy source coupling to ground, theory 2−111876
Falkland tough (S Atlantic) crust struct. and tectonic origin 2−94322

seismology continued
far field acceleration radiated by incoherent rupture, model 2−117200
far-field displacements of circular dislocation source *(Chinese)* 2−68262
fault plane solutions by single station data method 2−100262
Fiji-Tonga region, seismic moments of foci of deep-focus earthquakes 2−73478
fluid saturant nature from seismic refl. anal. 2−105951
forearc marginal wedge seismicity 2−94340
forensic seismology, equipment and explosion yield data 2−78584
France, seismotectonic map *(French)* 2−100285
free oscillation of Earth indicating anisotropy of upper mantle 2−73495
free oscillation parameter estimation, effect of data window 2−73468
free oscillations, freq. and damping, effect of young oceanic regions 2−105977
free oscillations (book) 2−63764
free oscillations and core modes of rotating elliptical Earth 2−73465
free oscillations in a regionalised Earth model 2−68232
free oscillations in laterally heterogeneous body, normal modes determ. by iterative method 2−73701
free oscillations of Earth, ray theory of spheroidal oscills. 2−57982
free oscillations of elastic rotating Earth 2−62900
free oscillations of spheroidal viscoelastic Earth 2−62891
Friuli area, Italy, space-time evolution of 1977-1980 seismicity and seismotectonic implications 2−117222
Friuli earthquake, 1976 May 6, P_n waves time-distance curves 2−100250
Friuli earthquake, 1977 September 16, aftershock sequence time evolution 2−117221
Friuli earthquake of Sept. 1977, aftershock sequence 2−105941
Friuli earthquakes tectonic discrimination from seismic activity anal. 2−78558
Friuli seismic area shear stress, from rock rheology anal. 2−78557
Galeota basin near Trinidad, field appraisal using three dimens. seismic surveys 2−78563
Garm region, USSR, seismic jointing, erosion patterns and Earth crust stress-strain state 2−73474
Gazli earthquake, Uzbekistan, 1976 May 17, magnitude, ground motions and focal mechanism 2−73473
Gazli earthquakes, USSR, seismotectonic conditions of earthquake occurrence 2−117233
GDSN data, broad-band deconvolution 2−78867
Geysers geothermal area, California, induced seismicity mechanism 2−111880
The Geysers geothermal area, California, seismicity obs. 2−100269
Geysers steam reservoir, N California, induced seismicity nature 2−117214
S Ghana, intensity attenuation from major earthquake anal. 2−111891
Gharian seismological observatory site in Egypt, seismic noise obs. 2−62893
global map of clustering of earthquakes 2−88798
global Q values of upper mantle from antipodal Rayleigh wave obs. 2−88799
granite, acoustic emission due to microcrack generation 2−62907
gravitational effect of a seismic source with volume change 2−57998
Great Barrier Reef, seismology showing old erosional surfaces 2−58043
N Greece, premonitory pattern of earthquakes (May to June 1978) 2−62910
Greece, seismic events rel. to Holocene movements of crustal blocks in Crete and Antikythira 2−94349
ground surface seismic motions, effect of underground struct. 2−105954
Gulf of Cadiz, gas discovery and sedimentology, use of seismic refl. 2−68507
Gulf of Thailand, gas field devel. with three dimens. seismic methods 2−78562
Hardeman County, Texas, USA, seismic study of crust struct. 2−57986
Haskell fault model, displacement field determ. method 2−117201
Hellenic Arc, seismicity and earthquake magnitudes 2−105943
Hellenic arc and trench, international symposium, Athens, Greece, (1981 April 8 to 10) 2−89443
Hellenic trench-arc system, long-term earthquake prediction 2−94309
Himalaya region crustal movement, slip from seismic moment data *(Chinese)* 2−62913
Hindukush region, seismotectonics and earthquakes 2−68328
Hong Kong, geological factors influencing seismicity 2−68292
Honshu, active tectonic zone, seismic activity *(Japanese)* 2−94333
Honshu, Japan, crust struct. by seismic sounding 2−62908
Hungarian seismograph stations, sensitivity and detection thresholds 2−78858
E Hungary, Pannonian lithostratigraphic and lithogenetic units *(Hungarian)* 2−105979
hypocentre determ. from seismic wave obs. of explosions off Tohoku, Japan *(Japanese)* 2−94313
hypocentre location of local earthquakes, effect of crack anisotropy 2−68288
identification of seismic sources, earthquake or underground explosion, conference, Oslo, Norway (1980 September 8 to 18) 2−89460
Imperial Valley, California, earthquake, 1979 October 15, anal. of El Centro differential array 2−88756
Imperial Valley, California, local seismic vel. vars. 2−68309
NE India region, probabilistic earthquake expectancy 2−100280
Indian upper mantle regions, seismic struct. 2−111904
intermediate depth activity double planed struct., stress generation model 2−102972
intraplate stress buildup and intraplate seismicity 2−73531
intrinsic Q and its freq. depend. 2−58000
inverse kinematic problem for lead seismic waves 2−78590
inversion of normal incidence seismograms, algorithm 2−88775
inversion of travel-time curves for waves in or near low vel. layer 2−62911
Iranian Plateau, meas. of seismic waves phase and group vels. and Q using Wiener filtering 2−88748
Iraq, seismic risk anal. 2−100289
Italy, seismic delineation of North Central Italian upper mantle anomaly 2−62924
S.Italy, seismotectonics of Calabrian arc 2−88864
Italy region, Rayleigh wave dispersion and tectonic evolution 2−62928
Italy region, seismic velocity lateral heterogeneity 2−73457
N Italy seismicity 2−88772
Iyonada Channel, earthquake focal distrib. and seismicity 2−68302
Izu Peninsula, Japan, 1980 earthquake swarm, focal mechanisms *(Japanese)* 2−94311
seismology continued
Izu Peninsula, Japan, upper crust struct., explosion seismic obs. in Mishima-Shimoda profile *(Japanese)* 2−83776
Japan, anal. of stress field in semi-infinite elastic medium due to internal stress sources 2−100332
NE Japan, crust and upper mantle struct. from seismic vel. and azimuth anomolies at Kitakami array 2−111892
Japan, ground uplift rel. to seismic activity in Izu Peninsula *(Japanese)* 2−94360
Japan, multiple earthquake events in 1926 to 1979 period 2−83765
Japan, Pacific Coast, seismicity temporal variation 2−68297
NE Japan area, upper mantle regional struct. 2−62905
Japan Meteorological Agency system for telemetering and processing seismic data *(Japanese)* 2−94283
Japan Trench-Honshu area, crust and upper mantle struct. 2−83782
Jiangsu Province, precursory seismic gaps for intra-plate earthquakes 2−62909
Kanto district, Japan, regional variation of struct., P_n residuals study 2−57983
Kanto region, Japan, source and scattering effects on spectra of small local events 2−68266
W Kentucky, New Madrid seismic zone, vertical fault displacement 2−68324
Kilauea Iki Lava Lake melt zone, seismic vel. and thermal convective expts. 2−73520
kinematic source parameters, moment tensor description 2−68291
NE Kinki district, Japan, obs. of normal faulting microearthquakes near Mohorovicic discontinuity 2−100315
Kodiak continental shelf, Alaska, earthquake activity determ. by land and ocean bottom seismograph networks 2−88754
Koyna, India, seismic energy release in 13 years following 1967 'quake 2−78594
Kozo-Matsuda fault, seismic activity, assoc. gravity survey and tilt meas. *(Japanese)* 2−83734
Kremasta reservoir earthquake sequence induced by filling (N.Greece) 2−88774
north Kurile earthquake of Feb. 28 1973, focal mechanism and seismic waves 2−57991
Kurile Islands earthquakes, temporal props. of Rayleigh waves in horizontally inhomogeneous Okhotsk region 2−73475
lake sediment acoustic profiling using magnitude and phase anal. 2−112169
Laos, seismicity and seismotectonics *(French)* 2−73445
layered acoustic medium, vel. and density profiles from common source point data 2−100291
Le Piton de la Fournaise, Reunion, Feb. 1981 eruption 2−83790
Lewis Hills Massif seismic vel. structure rel. to oceanic fracture zones 2−58014
linear filter coefficients accuracy determined by iteration of least squares method, geophysics appl. 2−78567
Livermore Valley, California, seismic velocity model 2−100267
Livermore Valley region, California, P-vel. models and earthquake locations 2−117210
local magnitude estimation using strong motion data 2−100276
magnetometer high-press. cell for obs. of rocks subject to large stresses 2−68518
magnitude scales for application to eastern USA earthquakes 2−58001
major global earthquakes, random occurrence statistics 2−73488
major seismic events rel. to interplanetary mag. field sector struct. and photosphere mag. field *(Chinese)* 2−100259
Mammoth Lakes May 1980 earthquake sequence, source mechanisms and seismic moments 2−117203
upper mantle, worldwide variations of seismic attenuation 2−117251
mantle eclogite elastic characts. at 20 kbars 2−117243
mantle global seismic vel. anisotropy of oceanic areas 2−83781
mantle Q value freq. depend. by absorpt. band model 2−100309
mantle structure from free oscill. data 2−106033
Mariana Trough, seismic vel. struct. 2−100330
marine seismic reflection records processing, compensation for source heave by use of a Kalman filter [underwater sound] 2−68513
marine seismology, array length magnification using multiple sources and receiving arrays 2−78568
Mediterranean region, regularity patterns and seismic potential zones for future large earthquakes 2−94300
Mediterranean Sea, earthquakes hypocentres anal. *(Italian)* 2−100254
Meloy earthquake sequence, N.Norway, 1978-79, source parameters and scaling relations 2−88753
Memphis area of Tennessee, USA, microzonation of seismic hazard 2−100281
Messina Straits, Italy, crust struct. from seismic and elec. dipole soundings 2−100323
Messina Straits crustal model from seismic obs. 2−100322
methane hydrate, acoustic vel. from Brillouin spectra obs. 2−109909
S. Mexico, direct evidence from seismic phases of subducted oceanic plate 2−62923
microearthquake networks data anal., appl. of Automated Seismic Processor (ASP) 2−89013
microtremors, phase vel. estimation *(Japanese)* 2−94314
Middle America Trench, seismic strain release 2−83791
migration methods using wave field extrapolation techniques 2−57985
migration of seismic interfaces algorithm 2−68282
mineral paragenesis temp. determin. by explosion seismology method 2−62927
minimum phase Vibroseis deconvolution, noise effects 2−111872
Mississippi, major earthquake zone 2−88806
S Mississippi, vertical seismic profiling 2−105944
modeling in the domain of intercept time and ray parameter 2−78579
Mohorovicic discontinuity depth in Beijing (Peking) area, from seismic data *(Chinese)* 2−58008
Molucca Sea arc-arc tectonics and seismicity 2−94339
moment tensor inversion of complex earthquakes 2−68283
Mt. Fuji, Japan, seismicity obs. and possible future eruptions 2−58025
Mt. Hood region, Oregon, USA, seismicity and crust struct. 2−88797
Mud Volcano, Yellowstone, USA, hydrothermal changes rel. to seismicity 2−88845
multichannel appraisal deconvolution method 2−73463
multichannel seismic data processing software 2−100593
multiparametric physical model of regional seismicity 2−105975
multiple wave field subtraction in reflected wave method 2−111889
multiwave exploration, dev. of transverse wave method 2−58186

seismology continued
Nankaido district, tsunami generation off Pacific coast *(Japanese)* 2—94287
Nankaido earthquake, Japan, 1946 December 21, fault model from tsunami data 2—105983
Nansen Ridge (Arctic Ocean), seismicity and crustal struct. 2—73513
National Seismic Catalogue, information criterion *(Italian)* 2—100251
near field free surface displacements due to tensile fracture 2—94295
near field ground motions, use of accelerograms recursive filter method 2—68537
Nevada northern Great Basin, seismic shear wave struct. 2—88794
New Mexico Hot Dry Rock geothermal site, seismic data rel. to hydraulic fracturing 2—57995
Newfoundland, seismic vel. struct. of Bay of Islands ophiolite 2—68314
Nocera Umbra region, Italy, May-June 1979 seismicity 2—100253
non-stationary data analysis and prediction *(Japanese)* 2—94541
normal incidence seismograms, fast algorithm 2—78564
normal modes of viscoelastic Earth 2—73466
W North America, seismotectonic domains 2—100311
North Scotia ridge (S Atlantic) crust struct. and tectonic origin 2—94322
Norway, 3-D lithosphere model at Norwegian seismic array 2—117226
Nova Scotia continental shelf, low frequency ambient seafloor noise, sources 2—117205
ocean bottom hydrophone recorder for seismic refr. expts. 2—58165
ocean bottom interacting acoustics, conf., La Spezia, Italy (June 1980) 2—53433
ocean bottom seismograph recordings, effect of biological activity 2—57996
ocean crust thickening over long time periods, evidence from Pacific seismic data 2—73496
ocean crust thickness correlation with spreading rate, seismic refr. data anal. 2—58019
oil and gas prospecting techniques, review 2—105978
Oregon and Idaho Volcanic Plateau, seismic shear wave struct. 2—88794
Palmdale, California, crustal structure from borehole-determ. ray parameters 2—68306
parameterisation of model of seismic medium containing pinchout strata and adjoining boundaries, theory 2—58004
pattern recognition, syntactic approach 2—62903
pattern recognition techniques for earthquake and nuclear detonation discrimination 2—63145
peninsular ranges, California, reversed refraction profile, crust vel. and thickness 2—117208
Peter I Range, USSR, ground motion from geodetic/seismic data 2—106073
Peter I Ridge, Garm region, USSR, detailed investigation of seismic-tectonic deform. 2—73499
Po river area, Friuli region, strong motion accelerograms, attenuation 2—68276
polarisation method using earthquakes 2—112167
pre-earthquake asymmetric loading and seismicity 2—73484
precursory anomalous seismicity before large and medium quakes *(Chinese)* 2—73449
precursory behaviour of earthquake fault regions 2—117239
precursory crustal level change obs. method for earthquake prediction 2—88802
precursory fault behaviour prior to dynamic rupture 2—100260
precursory seismic vel. changes prior to fracture (pyrophillite) 2—117242
prediction of quakes using obs. of unreliable precursors 2—100271
prediction of strong quakes in Garm area of USSR 2—57989
Priamur'e and Primor'e regions of far Eastern USSR, major seismic zones map 2—58002
probabilistic representation of seismic effects 2—105971
prospecting, system for automatic testing of PROGRESS digital stations *(Russian)* 2—94535
pseudo velocity logging and relation to sonic log 2—111877
pulse problems, differential transform method 2—73696
Pyrenees, modelling of interactions between Earth tides and earthquakes and appl. to aftershock sequence 2—88752
pyrophillite, seismic velocity variations prior to fracture 2—117242
radiation of seismic waves from growing spherical source 2—68287
ray-reflectivity method for SH-waves in layered media 2—73467
Rayleigh wave transmission through vertical contact, calc. via improved version of Alsop's method 2—117237
raytracing in three dimens. 2—78866
recessional moraines beneath Lake Superior, seismic refl. study and relation to regional deglaciation 2—94405
recurrence rate relation for earthquakes 2—117238
redigitisation of seismic history at smaller time increments 2—94292
reflection profiling by controlled directed reception method 2—106000
reflection profiling method, signal summation and amplifier arrangement 2—117495
reflection prospecting computing 2—58193
reflection records, wave field anal., decomposition approach 2—100578
reflection response for normal incidence probing of vertically nonhomogeneous media 2—100307
reflection seismogram deconvolution, stacking and migration techniques 2—63144
reflection seismology, dip-moveout and reflector point dispersal 2—100296
reflection seismology, encoded sweep technique for Vibroseis 2—89011
reflection seismology, frequency domain mapping approximation of moveout filters with appls. 2—100295
reflection seismology, possibilities and limitations of phase unwrapping 2—100294
reflection seismology, time-to-depth migration using wavefront curvature 2—100293
reflection seismology for oil and gas exploration, appl. of state variable technology 2—117506
reflection sounding, data processing of time fields 2—105998
reflection sounding, solution of inverse problem 2—88785
reflection sounding for absorpt. and Q factor props. *(Russian)* 2—105965
reflection sounding method for thin layered media *(Russian)* 2—105964
reflection sounding of layered media, determination of attenuation 2—111878
reflection sounding of layered media, use of Marchenko inversion 2—73469
reflection sounding of marine sediments using isochrone method 2—117249
reflection sounding of randomly rough surfaces, theory 2—111874
reflection sounding using both S- and P-waves 2—88808
refracted wave travel-time curve inversion theory *(Russian)* 2—94293
seismology continued
refraction method theory for vertical and steep boundaries *(Russian)* 2—105966
refraction profiling, filter theory for normalisation of seismogram data 2—88789
refraction profiling with low-vel. zone refl. in shadows 2—117231
refraction sounding methods for study of Siberian Platform 2—105993
reservoir-induced seismicity, statistical examination 2—88766
resolution of seismic methods, improvement 2—83975
risk at a site, definition and bounds 2—117218
rocks elastic properties, anisotropy parameters determ. from nonlongitudinal travel times 2—106114
Rocky Mountain House earthquake swarm, shallow events source parameters 2—100284
Rub Al-Khali desert, refl. prospecting technique 2—112164
S-waves, axially symm. inversion sources direction characts. 2—58005
San Andreas fault area, Rn and Co_2 variations in groundwater 2—100300
San Andreas fault zone, crustal structure from borehole-determ. ray parameters 2—68306
Santa Clara Valley, crust seismic vel. struct. 2—100273
Santa Cruz Mountains, crust seismic vel. struct. 2—100273
scalar seismic moment, optimal estimation technique 2—105958
scaling laws for large earthquakes, consequences for physical models 2—88746
Scottish Caledonides, seismic study of crustal struct. 2—117246
sea surface backscatter of sonar signals 2—117489
seafloor sediment acoustic refl. resonances 2—111884
seafloor seismic sounding by interferometric method *(Dutch)* 2—78581
seismic profile identification, parameter estimation appl. 2—117505
seismic profiling methods and applications, conf., Dec. 1980, Trieste, Italy 2—101111
seismic velocity discontinuity 200 km below continental margin 2—88781
seismic wave analysis using feature extraction, appl. of bounded variation quantity 2—63133
seismograms interpretation, FORTRAN program 2—100306
seismomagnetic effect, numerical fault model 2—100319
SH waves in coal seams, recompressing model and technique 2—111875
Sharpsburg, Kentucky, 1980 July 27, earthquake characts. 2—117209
Sharpsburg, Kentucky, earthquake, 1980 July 27, main shock parameters and isoseismal maps 2—88755
Shillong region, NE India, evidence for dilatancy stage precursory to large earthquake 2—94301
NW Siberia oil and gas stratigraphic traps, seismic refl. prospecting 2—78586
W Siberian Plate, refl. seismic sounding of crust struct. 2—105997
Siberian Platform, seismic refl. sounding method for oil deposits 2—88809
Sierra Nevada, California, seismic profile of crust 2—100272
sign-bit seismic recording, amplitude recovery *(Chinese)* 2—83753
signal quantification 2—58006
slip fault dislocation induced waves, dip angle and azimuthal orientation effects 2—117253
Snake River Plain, Idaho, USA, crust struct. by seismic refr. study 2—88790
E Snake River Plain, Idaho, USA, seismic study of crust struct. 2—88791
E Snake River Plain, Idaho, USA, seismic vel. struct. 2—88793
E Snake River Plain, Idaho, USA, seismic velocity struct. 2—88788
Snake River Plain, Idaho, USA, seismic vol. and crust struct. 2—88795
E Snake River Plain, Idaho, USA, shear wave velocity struct. 2—88792
Songpan-Pingwu earthquakes, 1976 August, tectonic stress field and seismicity *(Chinese)* 2—62896
NE Sonora, Mexico, seismicity in epicentral area of 1887 earthquake 2—88815
sounding using acoustic source, max. likelihood stacking method 2—57993
source finiteness and rupture propag., moment tensors appl. 2—78573
source for P, SV and SH waves in crystalline rock 2—68508
source mechanisms, spatiotemporal characts. of strong earthquakes with different types of movements 2—117232
source wavelet deconvolution within Backus Gilbert inverse theory 2—111870
South Carolina, seismic regimes and seismicity 2—68271
spectral range of elastic waves in the Earth *(Dutch)* 2—78582
spheroidal vibration of Earth, eqns. derivation 2—117241
N Staffordshire, mining-induced seismicity 2—106007
Stanovoi Range, Siberi, seismotectonic study 2—105996
steady-state oscillations of elastic media, external boundary problem for spherical cavity in halfspace 2—73479
stochastic models 2—78572
strain changes, coseismic, in South Africa, results from Sacks-Evertson strainmeters in deep mine 2—105957
stratigraphic interpretation, appl. to Hungary neogenequaternary depressions *(Hungarian)* 2—94299
strong shaking in hypocentral areas, calc. of peak accelerations 2—73455
subducted slab seismicity and rheology 2—73529
subduction zone earthquake cycle, model 2—78626
subsurface fracture zone properties, use of vertical seismic profiling 2—63118
suspended sediment inocean bottom layer, acoustic profiling method 2—83806
Svalbard, conc. earthquake zones 2—83770
Svalbard (Spitsbergen), seismicity zones and intraplate tectonics 2—73490
symmetric and antisymmetric waves (wave-twins) in layered media 2—117240
synthetic common depth point gathers for single anisotropic layer, interpretation 2—78570
synthetic seismograms for refl. sounding, in freq. domain *(Chinese)* 2—68264
synthetic seismograms for thin layered periodic struct. 2—111868
synthetic seismograms in laterally varying media, WKBJ theory 2—117227
synthetic seismograms in laterally varying media 2—73461
N Taiwan, seismicity rel. to geomag. variations 2—94296
Tangshan, China, aftershock parameters and crust props. *(Chinese)* 2—73452
Tangshan earthquake, 1976 July 28, physico-rheological model 2—94308
Tanzania region, seismicity map 2—73456
telemetry network of Hungarian seismic stations 2—78850
teleseismic SH body-wave train modelling 2—117252
Tennant Creek Block, Northern Territory, Australia, reconnaissance of upper crustal seismic vels. 2—117223
The Geysers-Clear Lake geothermal field, California, seismic wave vel. investigations 2—88778

seismology continued
theoretical seismogram of wavefront refl. from convex layer 2−105970
three-dimensional inhomogeneities, evidence for lithosphere decoupling and asthenosphere flow 2−105991
three-dimensional seismic modelling, interpretative lessons 2−88777
time section quality, effects with greatest importance *(Hungarian)* 2−57997
topological approach to remote sensing 2−117229
toroidal modes of simple laterally heterogeneous sphere 2−117470
torsional Earth oscillations 2−105973
Tras os Montes, Spain, seismic vel. struct. and Hercynian tectonics 2−88779
travel-time anomalies from events in western Soviet Union, anal. 2−88749
tsunami generation from instantaneous modulated line source 2−57999
tsunami generation mechanism in New Zealand coastal waters 2−88811
tsunami regionalisation for Pacific region 2−117247
tsunamis of Japan (Honshu) Pacific coast, numerical calcs. *(Japanese)* 2−57984
Turkey, large strike slip earthquakes rupture complexity 2−68295
Turkey, recurrence of particular types of earthquakes 2−105988
Turkey, seismicity mapping using moving-block method 2−73489
Ukraine, deep crust struct. *(Russian)* 2−105963
NE United States, fault plane solns. from 8 earthquakes 2−68270
United States, fault zone models and heat flow rel. to depth distrib. of earthquakes in continental crust 2−88751
central United States, peak ground motion scaling 2−68275
United States, seismic attenuation struct. of mantle 2−68286
upper mantle 400 km discontinuity beneath Italy area 2−88771
upper mantle of Pacific, S-wave anisotropy study 2−78577
Ural Mountains, deep seismic sounding data rel. to horizontal movements of Earth crust 2−117278
SE USA, regional crustal vel. model 2−68308
USSR, upper mantle seismic velocity struct. 2−88807
Utah, seismic moment rates 2−88765
velocity estimation in laterally varying media 2−100290
vertical seismic profiles, use in seismic exploration 2−100292
vertical seismic profiling methods, numerical simulations 2−100591
Vietnam, seismicity characteristics 2−62894
Virgin Islands earthquake, 1980 February 14, precursory seismic activity 2−117211
volcanic earthquakes at Nyiragongo and Nyamuragira in Western Rift Valley, E Africa, obs. 2−111906
Vrancea earthquake, Rumania, 1977 March 4, focal model and moment determ. 2−100317
Vrancea region, Rumania, seismo-tectonic deform. of lithosphere 2−117235
wave field of very strong earthquakes, focus dynamics and energy balance 2−105974
wave fields for multidimensional media taking absorpt. and sphericity into account 2−78888
wave propagation, method of Richardson extrapolation in ray problem 2−73476
waveform inversion technique for attenuation and dispersion in mantle 2−100297
waveforms, computed, in transversely isotropic media, results from numerical Fourier inversion 2−88776
West Siberian Plate, pre Jurassic basement struct., features from areal seismic sounding 2−78592
West Siberian Plate, sedimentary cross section, seismoacoustic model 2−83768
White Mountains, New Hampshire, USA, seismic vel. anisotropy 2−88801
wide aperture seismic data, velocity anal. 2−68281
Wind River range, Wyoming, USA, crust struct from seismic refl. data 2−57987
windowing and estimation variance in deconvolution 2−105947
Xinfengjiang Reservoir area, China, 23 September 1964 earthquake focal parameters modelling 2−117202
Yamasaki Fault, resistivity along active Japanese fault 2−111859
Yanshan region fault structures, movement and seismicity *(Chinese)* 2−62934
Yellowstone, Wyoming, USA, crust struct. by seismic profiling 2−88787
Yellowstone Caldera, USA, anomalous seismic vel. struct. 2−88796
Yellowstone caldera area, USA, seismic vel. struct. 2−88826
Yellowstone Park area, USA, crust seismic rel. struct. 2−88824
Zelezna Studnicka seismic station, Czechoslovakia, geology and microseismic noise 2−83760
Rn emissions and fault struct. and volcanic activity 2−68293
Xe hydrate, acoustic vel. from Brillouin spectra obs. 2−109909

seismometers
see also seismology
acoustic imaging, recent developments, theory and practice 2−65437
ASP, Automated Seismic Processor for microearthquake networks 2−89013
bore-hole strain meter for meas. of seismic waves and Earth tides *(Chinese)* 2−73694
broad-band strong vibrograph for recording large displacements *(Chinese)* 2−100569
coherent-light system for opto-electronic processing of seismic information 2−117469
dynamic modelling of in-hole mounts for seismic detectors 2−78868
earthquake prediction and sensors *(Japanese)* 2−94298
El Centro differential array, California anal. for Imperial Valley earthquake, (1979 October 15) 2−88756
free-fall ocean bottom seismograph in-situ deep water observation 2−78880
gravimeter base line calibration for seismological purposes *(Chinese)* 2−58134
ground accel. meas. using EM seismometer 2−94519
Hungarian seismograph stations, sensitivity and detection thresholds 2−78858
microearthquake networks, book 2−84400
microprocessor controlled time-decoder and printer to aid seismic event detection 2−58157
multichannel analog recorders, digital AGC for seismic signals 2−73712
ocean bottom seismograph network, appl. to determ. of earthquake activity at Kodiak continental shelf, Alaska 2−88754
ocean bottom seismograph recordings, effect of biological activity 2−57996
seafloor seismometry by detection of induced EM fields 2−100313

seismometers continued
seismic effects on structures, research using high performance large vibration table system *(Japanese)* 2−89022
sonic well logging equipment for study of coal mine overburdens 2−78891
SWAN (seismic wave analysis system) general outline and usefulness *(Japanese)* 2−78875
transient response and rise times of various seismographs *(Chinese)* 2−58135
Vibroseis, design of vibrator built by Conoco Inc. 2−58142

selenium
see also nuclei with .....
adsorbed on Ni(110), angle resolved UPS study 2−77699
adsorbed overlayers on Ni(011) and (111), photoelectron diffr. study 2−116335
adsorption on W (100), AES, LEED, work function, and thermal desorption meas. 2−66362
amorphous, crystallisation, scanning calorimetry and X-ray diffr. study 2−91780
amorphous, electronic density of states, cluster model, CPA calc. *(Russian)* 2−104220
amorphous, liq. and solid, struct. and phys. props., uniaxial compression effects 2−71352
amorphous, nonlinear acoustical effects near glass forming temp. 2−66132
amorphous, photogeneration, geminate recombination model, expt. and theoretical study 2−87315
amorphous, second-order Raman scatt. 2−61904
amorphous, struct. factor and collective excitations, neutron scatt. study 2−98232
amorphous film, photo-induced stress relax. obs. 2−66044
amorphous film, photocond. stabilisation and evolution, thermal history effects *(French)* 2−72030
amorphous film, residual voltage, carrier trapping and release parameters 2−110280
amorphous film, stress effects on crystallisation 2−86569
amorphous film, surface relief form. by laser bombardment 2−86728
amorphous thin film, photoconduction spectral response, annealing near glass transition temp. 2−87330
amorphous thin film, photodependence of structural relax. 2−81678
amorphous thin film on $LiNbO_3$, US attenuation and Rayleigh surface waves 2−71588
amorphous vacuum condensates, cryst. 2−104181
CCSi:Se^+, impurity states, charge densities and wave functions 2−115700
chemisorbed on Ni surfaces, electronic struct. calc. 2−77150
determination in air (Tehran) by neutron activation anal. 2−78162
diffusion couple Ag-Se, struct. and elec. cond. meas. 2−82033
diffusion in Be, layer-by-layer radiometric anal. *(Russian)* 2−61202
diffusion kinetics and correl. factors, random-walk method 2−61196
electronic struct., correlation with isoelectronic molecules, c.f with As and graphite 2−54772
film, thin, low absorbing, 2-D thickness distrib. determ. using new laser interferometry 2−112961
fission products, short-lived, isolation and obs. by organometallic reactions 2−75449
glass, dye laser Raman scatt. 2−99130
glass formation, defects, viscosimetry study in elec. and mag. fields 2−91782
glassy, bonding coord. defect, positive-U system 2−110303
glassy, piezoelec. effects, expt. study 2−57021
ion plated on α-brass, adhesion and interface chemistry 2−66405
liquid, steady-state photocond., *(French)* 2−77115
magnetic susceptibility constants meas. for amorphous, cryst. and powders 2−87474
molecule, $B^3\Sigma_u^-$ state, Lande factors and perturbations, pulsed dye-laser studies 2−75462
monoclinic, anisotropy in reflectivity and band struct. 2−61925
photoconductive generation layer, trigonal Se binder, carrier photoinjection into organic carrier transport layers 2−87334
photoconductive layer, trigonal Se binder, formed by in situ reduction and crystallisation, photocond. behaviour 2−87333
piezoelectric layers, props. 2−99058
reflectivity anisotropy anomalies 2−61862
spectrochemical analysis using automated hydride generator 2−78148
surface, corrugated, surface flattening kinetics under heating, light scatt. study 2−82089
thin film, prep. by photodissociation of organometallic gases 2−83036
trigonal, monoclinic and amorphous, Compton profiles and autocorrelation functions, HF and OPW calcs. 2−87892
vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
vitreous, thermal crystn., DTA study 2−115143
Ag_2Se-Se-Au(Cr)(Ag)(Ag_2Se) thin film sandwich, polarised memory switching obs. 2−104468
Al/amorphous Se/Al struct., capacitance and photocapacitance, time depend. meas. 2−56724
$Ga_{1-x}Al_xAs$:Se, MOCVD grown, elec. props. of Se 2−98774
GaAs:Cr, Se, hot implanted, effects of damage-impurity interaction on elec. props. 2−71990
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2−86699
GaAs:Se, comparison of H_2S and H_2Se n-type doping by MOCVD 2−103800
GaAs:Se, depth profiling using spectroscopic ellipsometry 2−79647
GaAs:Se, doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2−98129
GaAs:Se, implanted, pulsed ruby laser annealing, SIMS and elec. obs. 2−56023
GaAs:Se, ion implanted, pulse diffused n^+ layers form. using As_2Se_3 diffusion source 2−55998
GaAs:Se, ion implanted, carrier props. and photolum. meas. *(Korean)* 2−56585
GaAs:Se, ion implanted and annealed, defect conc. distribs. study 2−71923
GaAs:Se, neutron transmutation doped, elec. props., metal-nonmetal transition 2−87284
GaAs:Se implanted, dose depend. of epitaxial regrowth 2−56378
GaAs:Se implanted layer, low temp. annealing, Rutherford backscatt. channelling study 2−71818
GaAs:Se^+, ion implanted, transient annealing using graphite strip heater, elec. cond. study 2−82348

selenium continued
GaAs:Se^+, ion implanted, high temp. annealed, damage, defects and elec. props. 2−98097
He-Se ion laser, electron beam pumped, CW laser action on 15 Se II transitions 2−90874
He-Se ion lasers with transverse RF discharge excitation 2−86002
He-Se^+ cataphoretic lasers, origin of laser-output noise 2−96905
$In_{1-x}Ga_xP$:Se, epitaxial film, photo-, electro-and cathodoluminescence involving deep levels 2−116258
$InGaPAs_{0.01}$:Se LPE layer on GaAs, doping effect on physical, elec. and optical props. 2−110501
InP:Be, Zn, Cr, Se, doping profiles, SIMS anal. 2−103806
Se IV, V and VI, energy levels, lifetimes, f-values, beam-foil spectra 2−102596
^{77}Se NMR of organoselenium cpds. 2−65006
Se:Cl(K)(Rb), amorphous, carrier generation and EPR studies, dopant effects 2−77083
Se:I, vitreous, thermal crystn., DTA study 2−115143
Se/polystyrene-hexylmethacrylate copolymer interface, charge transfer 2−56722
Se-Al junction rectifier, current creep phenomena, temp. depend. meas. 2−98740
Se-He, HF discharge, laser levels excitation 2−65786
Se-Te bilayers, struct. changes by laser writing, TEM study 2−91009
Se+Zn, mechanochem. reaction, positron annihilation study 2−105446
Se^++Ag, secondary electron emission yields 2−77649
Se_2 optically pumped multiline laser, continuous oscill. in 387 to 709 nm range 2−85944
Se_2^++Ag, secondary electron emission yields 2−77649
$Se_{1-x}As_x$-Se glassy semicond. based heterostructs., electron transport 2−92742
^{75}Se labelled conjugated bile salt, absorbed dose to man 2−78454
^{75}Se-selenomethionine, effect on endocrine system of female rats *(Russian)* 2−62688
^{76}Se targets, C coated, prep. by evaporation 2−108181
^{77}Se, NMR chem. shift meas. of organic selenenyl sulphides 2−65011
Si:Se, deep levels, quantitative criterion 2−87183
Si:Se, donor level photoionisation cross-sections, IR spectra and photocond. study 2−56484
Si:Se^+, multivalley spin splitting of $1s(T_2)$ states 2−77000
W-GaAs:Se^+ Schottky barrier, high temp. elec. and interdiffusion stability meas. 2−87365

selenium alloys
see also selenium compounds
No entries

selenium compounds
see also selenium alloys
complexes, thermodynamic stability, free energy of form., solvent effects 2−83405
mordenite, optical absorpt. anisotropy by Se chains 2−87816
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687
As-Se, amorphous struct. far IR reflection spectra study 2−67029
BiSeI(Br), band struct., pseudopotential calcs. 2−71860
Cu-Fe-Se system, phase equilibria and stability field, X-ray, electron microprobe and DTA study 2−116429
Ge-As-Se glass, ion beam deposited, use as optical coating 1 to 16 μm laser damage 2−65324
Ge-As-Se glass, optical fibres, plastic clad 2−65385
Ge-Se, amorphous, EXAFS spectrometer and detector system 2−116299
Ge-Se, amorphous, valence and inner shells, XPS study 2−116332
Ge_xSe_{1-x}:Ag amorphous films, Ag photodoping, XPS study 2−57245
$Mo_6(Se_{1-x}Te_x)_8$, Chevrel phase cpds., ^{125}Te Mossbauer effect 2−77436
Sb_xSe_{1-x} amorphous film, energy gap, composition depend. 2−61337
$SbSe_xS_{1-x}I$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
Se halides, Raman spectra, vibr. assignments, force consts. 2−70267
Se-As alloy film, amorphous, capacitance changes during struct. relax. 2−91785
Se-Ge, vitrification capacity estimation from phase diagram 2−86570
Se-Ge-As chalcogenide glasses, microhardness 2−57446
Se-Ge-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Ge-As glass melt, solubility of He 2−98292
Se-Sn-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Te, liquid, thermodynamic and elec. props., inhomogeneous struct. model 2−98314
Se-Te chalcogenide amorphous semiconductors, nonisothermal crystallisation kinetics 2−103651
Se-Te liq. and cryst. semicond., elec. transport and struct. props. 2−115746
Se-Te liq. mixtures, NMR 2−98970
$Se_{1-x}As_x$-Se glassy semicond. based heterostructs., electron transport 2−92742
$Se_{0.99}Bi_{0.01}$, amorphous, crystn., elec. cond. meas. 2−55860
$Se(CN)_2$, HeI valence PES, broken symm. effects 2−90627
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023
$Se_{0.75}Ge_{0.25}$ films, obliquely deposited, ion-induced physical and optical densification 2−61042
SeO_2-TeO_2-M_nO_m (M_nO_m=V_2O_5, MoO_3, Nb_2O_5, Sb_2O_3, La_2O_3), glass formation at high pressure 2−86576
SeO_2-V_2O_5-MoO_3, glass formation at high pressure 2−86576
$SeOF_2$, microwave rot. spectrum, centrifugal distortion effects 2−75241
$Se_{1-x}Te_x$, amorphous and liq., short range order, thermal neutron scatt. study 2−103623
$Se_{1-x}Te_x$, energy gap, photoacoustic study 2−76603
Si-Se-In film, photo-induced memory effects obs. 2−56636
Zn-Sn-Se phase diagram and electronic props., LPE 2−116428

self-consistent field calculations *see SCF calculations*

self-diffusion
see also self-diffusion in gases; self-diffusion in liquids; self-diffusion in solids
Brownian particles, strongly interacting, self-diffusion coeff. 2−58753
fluid of Brownian spheres, self-diffusion, hard-core interaction 2−79506
fluids, Fick's law, microscopic basis 2−107275
interacting Brownian particles, diffusion coeffs. calcs. 2−101355
linearity, computer simulation 2−69113
Zn (II) in agar gel 2−61223

self-diffusion in gases
dilute hard-sphere gas, self-diffusion, shear viscosity and heat cond. calcs. 2−81432
square-well fluid, self-diffusion coeff. analytical expression 2−81995
SF_6, transport and elec. props. calc. 2−114964

self-diffusion in liquids
alloy melts, binary, contact melting study for interdiffusion coeff. determ. 2−71700
almost spherical molecules, self-diffusion in athermal liq. mixtures 2−56228
cholesteric phase, self-diffusion, spatial modulation, mag. field distortion 2−103618
4-cyano-4′-n-pentylbiphenyl nematic film, diffusion coeffs. meas. by dynamic approach 2−103596
dilute hard core suspensions, scatt. and memory functions, transport coeff., light scatt. 2−60851
hard sphere suspension, self diffusion of interacting Brownian particles 2−92246
lipid bilayers, molecular motions, lateral and transverse diffusion 2−78303
liquid crystals, thermotropic, self-diffusion, review 2−71685
metal with purely repulsive interatomic pot., thermodynamic props. and self-diffusion 2−103585
metals, liq., self-diffusion and viscosity *(Russian)* 2−66268
microemulsions, struct., dynamics and self-diffusion 2−93831
molecular diffusion in anisotropic liqs., equilib. props., mol. dynamics simulation 2−86531
6OCB-8OCB, reentrant nematic phase, ^{1}H spin relax., freq. depend. 2−93033
polyelectrolyte solutions, counterion binding, FT NMR self-diffusion investig. 2−82729
polyelectrolytes solution, counterion self-diffusion coeff. 2−104036
polymer melts, diffusion controlled processes, entanglement effects, reaction kinetics 2−67749
propylene, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
propylene-Kr liquid mixture, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
semiconductor melts, method for intrinsic diffusion coeff. determ. of components 2−92244
square-well fluid, self-diffusion coeff. analytical expression 2−81995
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
water, supercooled liq. permittivity meas., dielectric relax. time 2−66981
$AgNO_3$-$NaNO_3$, molten, current-induced comp. gradients 2−57654
Al-Ga-As, LPE film growth, interdiffusion coeff. of components in solns., temp. depend. 2−76717
$Au_{0.81}Si_{0.19}$, liquid ^{195}Au diffusion coeff., shear cell meas. 2−81997
CS_2 liquid, self-diffusion under press. 2−66267
H_2O in conc. aq. ZnCl solns., NMR and H^+ spin-lattice relax. 2−110674
Sn, isotope self-diffusion effect, radiotracer method 2−66270
Tl_2Se_3:^{204}Tl, fused, diffusion of impurities 2−81996

self-diffusion in solids
see also diffusion creep
alloys, binary substitutional, vacancy wind effect in diffusion, Monte Carlo calc. 2−92255
aluminosilicate glass, electron irrad., composition changes, XPS and nucl. anal. 2−92319
BCC ternary ordering alloys, interstitial diffusion, vacancies effect, theoretical anal. *(Russian)* 2−98338
correlation factors calc. by modified Bardeen-Herring simulation method 2−66277
defect analysis using dilatometry and self-diffusion, review 2−60972
divacancy random walk on FCC lattice, Markovian master eqn. formalism 2−71698
eutectic alloys, homogeneity time estimating based on segregation model *(Polish)* 2−66226
FCC (111) Lennard-Jones system, surface self-diffusion theory 2−98327
glass, Auger signal decay due to Na desorpt. and diffusion, theory 2−77634
glass structure and diffusion, mol. dynamics calc. 2−91789
III-V semiconductors, antistructure defect form. kinetics and migration rel. to self-diffusion 2−104056
inhomogeneously stressed cryst., dislocation and vacancy kinetics *(Russian)* 2−76439
ion implanted paramagnetic 2−76731
ions, NMR relaxation by impurity centres, variational calc. 2−66945
metal, amorphous, vacancy migration *(Russian)* 2−98330
metal silicide formation, ^{31}Si radioactive marker studies, computer simulation 2−98334
metals, self-diffusion entropies and activation volumes 2−71701
metals, self-diffusion subthreshold processes under irradiation 2−61195
oxides, non-stoichiometric doped, O^- ion cond. 2−92267
plastic crystals, rotational diffusion, correl. function calcs. for neutron scatt. law 2−115156
semiconductor ternary compounds, heteroepitaxy, diffusion phenomena 2−92378
silicate glass, thermally stimulated currents and alkali-ion motion 2−57012
steel, C, plastic flow, elevated temps., effect of C content 2−67524
steel, low-C, ^{59}Fe self-diffusion, US treatment influence *(Russian)* 2−66281
strained crystal, point-defect diffusion, theory 2−104050
transition metals and alloys, magnetic and structural transformations, H influence 2−67329
Ag, self-diffusion rate, hydrostatic press. and temp. depend. 2−61194
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
AgCl, non-stoichiometry and chem. diffusion coeff., electronic cond. meas. 2−56594
α-Ag_2S, nonstoichiometry investig. 2−86932
Al-Co-Fe, electron irrad., ^{57}Fe diffusion, Mossbauer study 2−92254
Al-Mg, oxide formation, Mg diffusion, Auger and SEM study 2−82009
Al-Mg (5 wt.%), steady state creep, pre-strain effects, dislocation slip 2−77867
β-Al_2O_3-Li_2O, Li^+ distrib. and motion, NMR and Raman study 2−66284
Au, self-diffusion rate, hydrostatic press. and temp. depend. 2−61194
Au thin films, diffusion and reactions 2−71702
$BaMo(W)O_4$, scheelite struct., cation diffusional mobility, solid phase synthesis appl. 2−86923
$Ba_{4-x}Zr_{2+x/2}F_{16}$, diffusion and rotation of F, NMR study *(French)* 2−66925

self-diffusion in solids continued
$CaMo(W)O_4$, scheelite struct., cation diffusional mobility, solid phase synthesis appl. 2−86923
$Cd_xHg_{1-x}Te$ and related materials, self-diffusion and impurity diffusion 2−110033
$CdS_{1-x}Se_x$, diffusion of chalcogen 2−61201
CeO_2-CaO, O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096
Co-H(D), based alloy, mag. relax., isotope effects and diffusion 2−77382
CoO, ^{18}O, tracer diffusivity 2−82018
CoO, creep and point defects, O diffusion 2−109893
Cr_2O_3 scale, Cr transport, scale morphology change during high vacuum treatment 2−86927
Cr_2O_3 scales, Cr lattice diffusion 2−86926
$CrSi_2$, formation, radioactive ^{31}Si marker study 2−115472
Cu/Si system, diffusion of Cu 2−61210
Cu-Ni, high temp. sputtering, ion-enhanced diffusion, grain boundary erosion *(Japanese)* 2−116317
Cu-Zn, interdiffusion, ultrasound influence *(Russian)* 2−66302
β-Cu-Zn, quenched, elec. resist. and hardness recovery on annealing 2−92568
Cu-Zn-Al, diffusivity of Zn, effects of Al 2−61193
Fe-V, σ-phase and solid soln., V self diffusion coeff. meas. 2−98328
$Fe_{1-x}O$, ^{18}O, tracer diffusivity 2−82018
GaAs, amorphous and cryst., melting point, laser and electron beam annealing 2−109829
HgISCN powder, ^{203}Hg, ^{35}S or ^{131}I labelled, thermal effect on photolysis 2−78118
(K, Bi^{3+}, Bi^{5+}) pyrochlore, thermally induced cation migration, structural study 2−66285
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
LaH_x, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
Li intercalated dichalcogenides, props. and electrode appls. 2−57691
β-Li-Al electrode pot. and Li diffusivity meas. at ambient temp. 2−116793
Li_2O-B_2O_3 glasses, non-classical Li diffusion, elec. cond. meas. 2−98333
$Li_{3+x}(P_{1-x}Si_x)O_4$, Li^+ ion diffusion, NMR spin-lattice relax. study 2−115455
Li_xTiS_2, elec. field gradient, anisotropic shift, tetrahedral site occupation and atomic motion NMR study 2−66943
Mg, vacancy props., positron annihilation, thermal expansion studies 2−103753
MgO-Fe_2O_3, solid-phase interaction, ESR investig. 2−87579
Na intercalated dichalcogenides, props. and electrode appls. 2−57691
$Na_2Ag_4S_3$, temp. depend. of elec. cond. and self-diffusion of Ag^+ 2−76728
$Na_2O.3SiO_2$ glass, water content effect on transport 2−56246
$Na_2Si_2O_5$ glass, CC Na self-diffusion, correl. factors calc. 2−110036
Nb:Fe(Co)(Cr), electromigration and self diffusion, effective valence, radioactive tracer method *(French)* 2−76756
NbH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
NdH_3, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
Ni, oxidation rate consts., grain boundary diffusion mechanism 2−78020
Ni-Cr, quenched, short range order form. and vacancy annihilation on annealing, elec. cond. study 2−115723
Ni-Cu, diffusion coeff., conc. dependence, X-ray study *(Russian)* 2−98329
Ni-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
$Ni_xCu_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib . of Mg^{2+} ions, magnetisation meas. 2−60938
NiGa, vacancy conc. and mobility 2−103751
$Ni_xMg_{1-x}Fe_2O_4$, spinel ferrite, influence of Ni^{2+} ions on distrib. of Mg^{2+} ions, magnetisation meas. 2−60938
NiO, creep and point defects, O diffusion 2−109892
NiO, O self-diffusion, SIMS study 2−110037
$NiSi_2$ film formation, diffusion, Xe marker study 2−104079
Pb-Sb, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
Pb-Sn, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
$(Pb_{1-x}Sn_x)_{1-\Delta}Te_{1+\Delta}$/PbTe, diffusion phenomena, during heteroepitaxy 2−92378
Pd-H(D) based alloy, mag. relax., isotope effects and diffusion 2−77382
Pt, surface (997), double step form. and destruction dynamics, O_2 induced, He beam scatt. study 2−115513
Se, diffusion kinetics and correl. factors, random-walk method 2−61196
Si, amorphous and cryst., melting point, laser and electron beam annealing 2−109829
Si, diffused dopant conc. profiles, book contrib. 2−71492
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si, self-interstials, review 2−71442
SiO_2, vitreous, mech. of O diffusion 2−76732
Sn-Sb, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
So_2Si, formation, radioactive ^{31}Si marker study 2−115472
$SrMo(W)O_4$, scheelite struct., cation diffusional mobility, solid phase synthesis appl. 2−86923
TaH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
Te, diffusion kinetics and correl. factors, random-walk method 2−61196
$TiCr_{1.85}H_x(D_x)$, H position and diffusion, NMR studies 2−93025
$TiSi_2$, formation, radioactive ^{31}Si marker study 2−115472
β-$VH_{0.59}$, H superstruct. and diffusion, ^{1}H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
β-$VH_{0.77}$, H diffusion, superstructure, ^{1}H NMR study 2−104731
VH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
W, diffusion of ^{185}W, via grain boundaries and defects 2−71718
WSi_2 diffusion layer, conc. boundaries 2−98331
ZrO_2-CaO (Y_2O_3) solid solns., O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096
$ZrSi_2$, formation, radioactive ^{31}Si marker study 2−115472

self-focusing
see also electrostriction; optical self-focusing
plasma, inhomogeneous, intense wave beam self-focusing and energy absorpt. *(Russian)* 2−97736
plasma duct, whistler wave self-focusing *(Russian)* 2−97737

self-focusing continued
thermal self-focusing of EM waves in completely ionised plasma 2−109521
α-Al_2O_3:Ni^{2+}, US self-focusing 2−66134
self-induced transparency
Burnham-Chiao ringing and superfluorescence, transverse effects 2−96868
frequency mixing for obs. of optical nutations and self-induced transparency 2−114385
gaseous media, radiative pulse evolution in degenerate transitions , multipole formalism 2−65682
liquid solutions, conc. mechanism for self-action *(Russian)* 2−70630
phototropic valves, opening by standing light wave 2−75637
pulse train propagation, self-induced transparency, pulse breakup and peaking 2−81032
$CdS_{0.4}Se_{0.6}$, coherent excitation of excitons 2−108972
self inductance *see inductance*
self-trapping
Kerr media, artificial, laser beam CW self-focusing and self-trapping 2−91004
light wave self-trapping and quanta, towards wave-photon duality explanation 2−108984
SEM *see scanning electron microscopy*
semi-insulating materials *see semiconductor materials*
semiconductor alloys *see semiconductor materials; semiconductors*
semiconductor counters
see also position sensitive particle detectors
application of lifetime meas. and high spatial resolution 2−64786
atomic-oxygen analyzer with semiconductor sensors for researching the upper atmosphere of the Earth 2−100584
charged particles meas. from fast neutron induced reactions in close geometry 2−108309
collecting character meas. in current mode surface barrier detectors *(Chinese)* 2−59604
counter telescope with Si(SB) dE/dn plus Si(Li) E-detector, internal conversion electron meas. 2−96370
detector suitability for imaging appl. 2−59598
digital bias voltage controller for semiconductor detectors 2−108258
gamma spectrometer, photopeaks parameters determ., errors analysis 2−96368
gamma-ray detection, sensitivity calc. 2−64792
hybrid sum-coincidence spectrometer with Ge(Li) and NaI(Tl) detectors *(French)* 2−102317
industrial applications of the semiconductor counter 2−80394
multidetector system for electron spectrometers 2−113812
multielectrode radiation detectors, signal evaluation using time depend. weighting factor 2−64754
nuclear radiation detectors, Int. Symp., Tokyo, Japan (March 1981) 2−89434
p-i-n diodes, ionising radiation detection by charge storage in shallow levels 2−70049
p-n junction for X-ray beam pulse spectral quality determ. *(French)* 2−96349
photon detector response functions, Monte Carlo calcs. 2−108233
prompt and delayed gamma distrib. anal. 2−59655
radiation damage, review 2−80390
radiation detectors for X-ray and γ-ray spectroscopy, needs and prospects 2−58974
reversal biased p-n junction with semicond. target for electron beam investigation 2−102304
room temperature semicond. detectors, present status 2−90366
semiconductor device physics, book 2−53437
p-Si(Li) parameter meas. during drift compensation 2−74465
signal processing, pulse shaping for resolution optimisation 2−80401
soft X-ray energy spectrum, carrier out-diffusion effects calc. 2−80397
spacecraft multichannel analyser for multidetector solid state detector array 2−75124
spectral anal., prospects for near state-of-the-art anal. in laboratory 2−58978
spectrometry using sampling ADC 2−59651
surface barrier detector for heavy ion reactions study 2−90345
surface barrier detectors, fast timing methods 2−80402
surface-barrier, energy-loss and checkerboard detectors, reliability 2−59642
tissue equivalent spherical counter calibration, for linear energy transfer 2−113844
tutorial short courses at nuclear science conf., San Francisco, CA, USA (Oct. 1981) 2−79264
π^- energy meas. using multilayer semiconductor spectrometer 2−64825
CdTe, appl. to pulsed X ray detection in medical tomography 2−83652
CdTe detector, miniature, evaluation in left ventricular function monitoring 2−105818
CdTe detectors, α-particle polarisation effects obs. 2−85497
Ge camera, planar images, spatial resolution recovery 2−54717
Ge detector, efficiency calibration for 30-2800 keV γ-rays 2−59599
Ge detector, efficiency calibration for 30-2800 keV γ-rays 2−108232
Ge, detector materials, radiation effects 2−80392
Ge detector telescopes, appls., radiation damage, annealing 2−80391
Ge detectors, α-emitting nuclides as absolute efficiency calibration source 2−59580
Ge, detectors, status and problems 2−90365
Ge detectors, timing props. 2−113823
Ge detectors for high X-ray and γ-ray dose-rates systems 2−59595
Ge gamma spectrometers, convection between temporal and amplitude characts. 2−85473
Ge gamma-ray spectrometer system using closed-cycle cryogenic refrigerator, performance study 2−70030
Ge, high purity, detectors, correl. between DLTS meas. and performance 2−70060
Ge, high-purity, planar diodes for Compton polarimeter 2−89876
Ge high-purity coaxial detectors, pulse shape and risetime distrib. calc. 2−70055
Ge high-purity crystals, H conc. and distrib. 2−70051
Ge high-purity detector, single open-ended, internal potential distrib. 2−96389
Ge, high-purity single crystals, C content and distrib. 2−70052
Ge, hyperpure detector, energy resolution, count-rate depend. 2−70032
Ge, intrinsic, X-ray fluorescence spectrometer, fundamental parameter-based calibration model 2−58976
Ge intrinsic planar crystal, balloon-borne solid state cosmic X-ray detector 2−100748

semiconductor counters continued
Ge laminar emission camera 2−73324
Ge planar detectors array for in-situ gamma spectroscopy 2−85481
Ge radiation detector, low-energy background formation, role of edge dead zones 2−108272
Ge spectroscopy, peak-fitting using 80 keV doublet of ^{133}Ba 2−113811
Ge well counter for blood flow meas. by microsphere technique 2−62847
Ge(Li) coaxial detectors, time resolution improvement by time walk correction 2−64750
Ge(Li) coaxial detectors arrangement for Compton linear polarimeter 2−90395
Ge(Li) detector, energy resolution, count-rate depend. 2−70032
Ge(Li) detector, use for meas. of scattered photon energy spectra in a bremsstrahlung beam 2−85493
Ge(Li) detector response for ^{72}Ge ions 2−59669
Ge(Li) detectors, ^{226}Ra standard source for efficiency calibration 2−113792
Ge(Li) detectors for γ-ray spectrum anal., analytical approx. to peaks 2−102320
Ge(Li) detectors for sum-coincidence spectrometers *(French)* 2−108219
Ge(Li) detectors for two-crystal Compton polarimeter 2−64814
Ge(Li), energy and efficiency calibration using ^{166m}Ho sources 2−75121
Ge(Li) gamma-ray detector, relative efficiency in 0.8 to 6.1 MeV energy range 2−85490
Ge(Li) γ-ray polarimeter, fast counting system 2−64797
HgI_2 counters, purification, crystal growth, device fabrication 2−80393
HgI_2, detector production and props. *(Chinese)* 2−59605
HgI_2, Fano factor meas. rel. to X-ray detector appl. 2−79731
HgI_2 gamma-radiation detectors development, appl. in nuclear medicine for blood flow meas. 2−73322
HgI_2 position sensitive detector, operating charact. 2−70059
HgI_2 solid state detector for X-ray astronomy 2−78953
HgI_2 spectrometry for low-energy X-rays 2−58975
ionising radiation, 2D detection using Si diode matrix array *(German)* 2−90398
Pd_2Si, contact material for semicond. detection 2−70100
Si detector, plasma effects influence on energy spectra 2−90372
Si, detector materials, radiation effects 2−80392
Si detector telescope as active target for charm particles lifetime meas. 2−90337
Si detector telescope on pulsed accelerator, periodically stabilised amplifier system 2−64809
Si detectors, bipolar transistor head amplifiers for high energy appl. 2−64795
Si detectors, passivated and ion implanted, performance and appl. 2−70050
Si detectors, status and problems 2−90365
Si detectors for X-ray, ion and electron spectrometers, low temp. charact. 2−75108
Si diffused junction X-ray detectors 2−70054
Si diffused p-n junction X-ray and γ-ray detector, design, fabrication and charact. 2−59596
Si diode linearity measuring instrumentation 2−85440
Si, epitaxial integrated E-dE position sensitive detectors 2−70057
Si microstrip detectors for fast high resolution beam hodoscope 2−70042
Si multichannel semicond. detectors for high energy X-ray and electron beams 2−96371
Si, neutron transmutation doped detectors with improved carrier lifetime 2−59597
Si p-i-n position sensitive detectors fabrication using ion-laser method 2−108271
Si radiation detector, epitaxial crystal growth appl. 2−90367
Si radiation detectors prod. using neutron transmutation doping 2−90369
Si strip detector with 12 μm resolution 2−90370
Si surface barrier, devices appl. in radial position sensitive charged particle det. 2−64776
Si surface barrier detector, pulse height defect 2−90371
Si surface barrier detectors, plasma decay times for fission fragments and α-particles 2−102338
Si surface barrier detector, plasma delay expt. investigation 2−102339
Si surface barrier detector, response to 100-600 keV monoenergetic electrons 2−108252
Si, ultra-high purity p-type crystals, totally depleted surface barrier detectors 2−70056
Si, ultra-high purity p-type surface barrier detectors fabrication and study 2−90368
Si:B radial position sensitive detectors fabrication and charact. 2−70058
Si-Li, exposure dose rate meters, metrological charact. checking appl. 2−85404
Si(Li) detector and data processing system for energy-dispersive X-ray microanalysis 2−90373
Si(Li) detector array, multielement detector system for synchrotron X-ray source 2−85476
Si(Li) detector block design features 2−64770
Si(Li) detector efficiency curve for X-ray parallel beam 2−59600
Si(Li) detector low energy efficiency using M-shell X-rays 2−59592
Si(Li) detector parameters, electron and X-ray large doses effect, expt. study 2−85496
Si(Li) detector response treatment as probability density function 2−102335
Si(Li) multi-element detector for X-ray flux meas. 2−70061
Si(Li) multichannel X-ray detector, for crystal struct. determ. 2−54719
Si(Li) p-i-n diodes, large diameter Si characterisation by low-bias charge collection anal. 2−108236
Si(Li) p-i-n semiconductor detectors, optical method for surface channel study 2−70053
Si(Li) photon detector calibration for microbeam PIXE anal. 2−59601

semiconductor defects *see crystal defects*

semiconductor device manufacture
Used for commercial manufacture only
microchips and solid state devices manufacture, fault location *(French)* 2−53904
MOSFET, refractory gate, sputter etch-oxidation process 2−88249

semiconductor device models
current flow, generalised stream function representation 2−115770
graded crystalline or amorphous heterojunctions, models for ohmic contacts 2−98742
heterojunction, equilibrium electrostatic potential and energy band diagram calc. model 2−92739

semiconductor device models continued
MNOS structures in region of punchthrough current, conductance and noise 2−104498
MOS, accurate Si-SiO_2 interface handling for mathematical simulation 2−115905
p-n asymmetrical diffused junctions, numerical method for space-charge region anal. 2−92740
planar diode struct., negative S-type resistance due to a change in the surface recombination velocity 2−77077
SAMOS structures, charge retention, thermionic electron emission model 2−56696
solar cell, back-surface-field, efficiency reduction by edge defects, developed perimeter model 2−116826
solar cell, liquid-junction, illuminated semiconductor-electrolyte interface, steady-state model 2−116802
solar cells, distributed series resistance effects investig. by perturbation theory and numerical methods 2−93899
time-dependent models, stability problem 2−77068
transport equations, 3-D transient finite element model 2−71962
transport equations, linearization methods, decoupled and coupled approaches 2−77035
two-dimensional problems, continuation method for calc. of potentials and currents 2−72008
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V charact. calc., model 2−92775
InGaAsP buried heterostruct. laser, elec. derivative characteristics and equivalent circuit model 2−65227
Si diode structure, EBIC as function of angle of incidence of electron beams in SEM 2−97874
p-Si MIS inversion layer solar cell, two-dimensional model 2−73125
Si, nondegenerate, physical model for depend. of carrier lifetime on doping density 2−92654
Si, numerical simulation of two dimensional impurity diffusion, finite element technique 2−71732
Si p^+-i-n^+ solar cells, high injection phenomena, theoretical model 2−93911
Si solar cells, computer simulation 2−88461
Si solar cells, degradation due to formation of Schottky barrier contact 2−93923
Si solar cells, high-low emitter back surface field, anal. of efficiency limitations 2−116808

semiconductor device testing
see also integrated circuit testing
semiautomatic system for measuring the nonequilibrium capacitance of semiconductor structures 2−112921
AlGaAs narrow stripe proton isolated DH lasers for optical communication, HF intensity noise behaviour during accel. life testing 2−65223
Si solar cells, degradation due to formation of Schottky barrier contact 2−93923

semiconductor devices
see also field effect devices; Gunn devices; integrated circuits; semiconductor counters; semiconductor diodes; semiconductor junction lasers; space-charge limited devices; thermistors; thyristors; transistors; transit time devices; varistors
cryogenic resistance thermometers for meas. in mag. fields *(Russian)* 2−64036
development, NBS conf., Gaithersburg, MD, May 1979 2−86463
device physics, book 2−53437
electron bombardment induced conductivity and its appl., book 2−63758
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
magnetoresistor, graphite artificial single crystal 2−98671
MOS devices, fast neutron irrad. effects *(Rumanian)* 2−87402
noise, fluctuation, Burgess' variance theorem, extension to autocorrelation functions and spectra 2−61532
p-n junction, diffused, breakdown voltage, conc. and junction depth relation 2−104471
power device struct., chemical Ni plating, nondestructive control *(Russian)* 2−83049
sensor for meas. low temp. in bridge cct. *(Polish)* 2−95376
strain gauge transducers used in remotely operated pressure gauges *(Russian)* 2−64060
surface passivation, hydrogenation/nitridisation mechanism 2−77961
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
CdTe-PbTe heterojunctions, epitaxial growth fabrication by close-spaced technique 2−88001
Ge, carrier conc. effect based devices, sensitivity increase 2−87430
InSb, carrier conc. effect based devices, sensitivity increase 2−87430
Si, neutron transmutation doping, conf., Copenhagen, Denmark (Aug. 1980) 2−74166
Si power device struct., Ni contact coatings, burn-in process control by electroinductive method *(Russian)* 2−83050
Si:C, effect of C on elec. props. of devices, impurity-defect interaction investig. 2−91994

semiconductor diode light emitters *see light emitting diodes*

semiconductor diodes
see also avalanche diodes; charge storage diodes; light emitting diodes; photodiodes; Schottky-barrier diodes; solid-state rectifiers; tunnel diodes; varactors; Zener diodes
digital thermometer using semiconductor diode temp. sensor 2−101400
glass passivation charact., rel. to avalanche breakdown voltage 2−57501
heterojunction, equilibrium electrostatic potential and energy band diagram calc. model 2−92739
long-base diodes, spin-dependent effects associated with passage of current 2−77173
negative S-type resistance due to a change in the surface recombination velocity 2−77077
noise sources, fundamental theory 2−104442
p^+-n-n^+, props. of Au related acceptor level 2−71910
p-i-n diodes, ionising radiation detection by charge storage in shallow levels 2−70049
GaAs-Al_xGa_{1-x}As-GaAs double heterojunction, p^+-n-n^+ diode, for high temp. electronic appl. 2−77163
Ge, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Ge, use as cryogenic temp. sensors 2−58821
InGaAs MIS diode, C-V charact., composition depend. 2−77188
InGaAsP MIS diode, C-V charact., composition depend. 2−77188
InP MIS diode, C-V charact., composition depend. 2−77188

semiconductor diodes continued
InSb:Si, p-n junction diodes, hole traps, DLTS study 2−110452
Si diode, neutron transmission doped, avalanche breakdown 2−115887
Si diode structure, EBIC as function of angle of incidence of electron beams in SEM 2−97874
Si, LPE, minority carrier lifetime 2−72637
Si n^+p diodes, Be-doped, isothermal capacitance transient spectro scopy 2−84660
Si p^+-p-n^+ multilayer structure, multilayer carriers conc. meas. in base region 2−115886
Si, p-n junction diode, minority carrier lifetime variation with injection level 2−66627
Si, use as cryogenic temp. sensors 2−58821
Si(Li) p-i-n diodes, large diameter Si characterisation by low-bias charge collection anal. 2−108236

semiconductor doping
see also doping profiles; ion implantation
film growth and doping, computer simulation 2−66390
focused ion beams for ion implantation doping of semiconductors 2−91999
heterostructures, reduced Hamiltonian method with evanescent states and transfer matrices 2−110462
III-V semiconductors, acceptor impurity diffusion, self-induced field-effects, theory 2−115466
III-V semiconductors, open tube method of Zn diffusion 2−92278
ion-beam technology appls. 2−61008
ion-implanted layers, SEM with secondary-electron collector 2−86998
isolation processing, impurity doping, high-energy electron bombardment *(Japanese)* 2−66029
LC3 ion implanter, development and appl. *(Chinese)* 2−91996
LPCVD A-Si post-hydrogenation and ion-implantation doping 2−71960
MBE growth using Pb flux and elec. characterisation 2−87987
MOS minority carrier lifetime improvement by F ion implantation in Si 2−66651
polyacetylene:$FeCl_3(AlCl_3)(ZrCl_4)$, metallic elec. cond. and EPR spectrum meas. 2−77027
polyacetylene, $(CH)_x$, cathode and anode active materials, appl. to light-weight rechargable batteries 2−78203
polyacetylene, acceptor and donor doping, IR and Raman spectra study 2−93184
polyacetylene, AsF_5 and HF doping, ^{13}C NMR study 2−76473
polyacetylene, AsF_5 doping, Fourier transform IR spectra study 2−93185
polyacetylene, Br substituted, synthesis and EPR, dynamic nucl. polarisation and Raman study 2−76474
polyacetylene, cis-trans isomerisation on doping and heat treatment, MINDO/3 calc. 2−93791
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
polyacetylene-AsF_5, association reaction, thermodynamics and kinetics meas. 2−93775
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2−77212
p-polyphenylene association reaction, thermodynamics and kinetics meas. 2−93775
recoil implantation, Monte Carlo code, RITA 2−76476
solid electrochemical cell used as doping source 2−115261
striations, laterally advancing terraces, feathering 2−115277
AlAs-GaAs superlattice, Zn diffusion and disordering along its layers, expt. study 2−56253
AlAs-GaAs superlattice, disorder by Si implantation 2−76465
$Al_xGa_{1-x}As:Mg^+$, ion implantation study, rel. to elec. activation 2−86692
$Al_{0.48}In_{0.52}As$, MBE grown, Si doping and elec. props. meas. 2−92005
As_2S_3/Ag system, photodoping mechanisms, ESCA studies 2−115147
As_2Se_3:Ag, diffusion and photodoping, optical edge tracing study 2−71722
$Bi_2Se_3(Te_3)$:Sn, doping effect on transport and optical props. 2−92015
$CaTiO_3:La^{3+}$, self-compensation, gravimetric meas. 2−98127
$CdCr_2Se_4$:In, Ag defect single cryst. growth, elec. and mag. characts., dopant influence 2−91842
CdTe, modified solvent evaporation cryst. growth and characterisation 2−111050
p-CdTe, ohmic contacts with Au or Cd_3P_2 layers by pulsed laser heating 2−115890
CdTe:In, MBE growth, effects of doping on electron conc. and photolum. 2−76846
GaAlAs layers, localised transmutation doping by $^{27}Al(p,\gamma)\ ^{28}Si$ reaction 2−103792
$Ga_{1-x}Al_xAs$:Be-GaAs p-p-n solar cells, Be diffusioned doping and elec. props. meas. 2−105557
$Ga_{1-x}Al_xAs$:Si, Ge, LPE growth and doping, elec. and photolum. props. 2−116393
GaAs, bulk Bridgman crystals, O related gettering of Si during growth 2−61005
GaAs dislocation-free crystal prod. by doping, necking procedure in LEC growth 2−76337
GaAs, i-n heterostruct., low temp. diffusion, laser plasma pulse stimulated 2−56263
GaAs, ion implanted, Zn diffusion profiles meas. 2−92285
GaAs:Be, p-type doping in metalorganic VPE, hole conc. and cond. 2−105089
GaAs:Cr, semi-insulating, ion implanted, photoelectrochem. etching and defect characterisation 2−98072
GaAs:Cr, Si, damage and Si lattice location studies 2−76479
GaAs:Cr, Si, ion implanted, Hall effect, depth profiles *(Slovak)* 2−98669
GaAs:Cr, Sn, Cr and Sn migration obs. during open tube diffusion 2−98343
GaAs:Cr,Si^+, ion implanted semi-insulating substrate, carrier conc. uniformities meas. 2−98134
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2−86699
GaAs:Cr (Cr_2O_3), supersaturated soln., precipitation processes, TEM study 2−92203
GaAs:Cr; semi-insulating, bulk growth by LEC 2−57283
GaAs:Cr(Si), semi-insulating, incorporation of anomalously large amounts of Si 2−98133
p-GaAs:Ge LPE layer, electron diffusion length determ. by EBIC method 2−56736
GaAs:Ge(Se), neutron transmutation doped, elec. props., metal-nonmetal transition 2−87284

semiconductor doping continued
GaAs:Ge(Sn)(Se)(Zn), doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2−98129
GaAs:Mg, organometallic-VPE growth, doping control 2−87991
GaAs:Mg(Ca), MBE, doping behaviour, reflection electron diffr. and AES study 2−92386
GaAs:Se, ion implanted, pulse diffused n^+ layers form. using As_2Se_3 diffusion source 2−55998
GaAs:Si, ion implantation, elec. props., for dual gate MESFET *(Chinese)* 2−109817
GaAs:Si, Sn epitaxial films, double doping effect on defects 2−76867
GaAs:Si epitaxial layers, multilevel doping using single $AsCl_3$:$SiCl_4$ doping source 2−55994
GaAs:Si(B)(O), unintentional and intentional doping 2−98132
GaAs:Si(Be) artificial doping superlattices, MBE growth, elec. and optical props. 2−92735
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
GaAs:Te, defect struct. after Cd diffusion 2−103762
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
GaAs:Zn, Zn diffusional doping, open-tube method 2−104060
GaAs-Se(S), comparison of H_2S and H_2Se n-type doping by MOCVD 2−103800
$Ga_{0.47}In_{0.53}As$, MBE grown, Si doping and elec. props. meas. 2−92005
GaN heteroepitaxial layer, growth and doping kinetics, cathode luminesc., elec. props. 2−104185
Ge:P, ion implanted, elec. props. 2−77089
Ge_xSe_{1-x}:Ag amorphous films, Ag photodoping, XPS study 2−57245
$Ge_{1-x}Si_x$:Ga(In), solid solubility, regular soln. model 2−61150
InAs, donor impurities solubility, Fermi level position effect 2−61153
InGaAs:Te, VPE growth for photodetectors 2−111086
InGaAs-InP p^+-n heterojunctions, fabrication and charact. 2−99362
$In_{0.53}Ga_{0.47}As$, Be^+ ion implantation 2−55989
$In_{0.53}Ga_{0.47}As$:Si, n-layer formation by Si implantation 2−92001
InGaAsP LPE on InP, growth temp. and impurity doping effect on comp. 2−98482
InGaAsP relationship between struct. and props. 2−71486
InGaAsP-InP DH 1.3 μm laser, doping effects exam. by SEM and V-I characts. *(Chinese)* 2−90885
p-$In_xGa_{1-x}As_yP_{1-y}$:Mn epitaxial layers, doping characts., elec. and luminesc. props. 2−76866
$In_{0.53}Gd_{0.47}As$:Te degenerate LPE layers, electron mobility 2−61620
InP, LPE grown, surface morphology, doping impurities and cooling rates effects 2−92390
InP, open tube method of Zn diffusion 2−92278
InP relationship between struct. and props. 2−71486
InP:Be(C)(Si)(Ge)(Sn), ion implanted, annealing behaviour obs. 2−98135
InP:Cd, VPE growth and photolum. characterisation 2−88002
InP:Sb, LEC single crystal growth, Sb dopant distrib. coeff. 2−93412
InP:Te, VPE growth for photodetectors 2−111086
p-InSe:Zn, annealing behaviour, photoluminesc. study 2−92276
NiO-Mn_2O_3, CuO doped, NTC thermistor material, CuO impurity influence on elec. props. 2−66545
P ion implantation from solid ion source, non-mass-analysed technique, solar cell appl. 2−84737
$Pb_{1-x}Mn_xTe$, influence of In and Ga on kinetic props. 2−87261
$PbSe_{0.08}Te_{0.92}$ 2−92796
$Pb_{1-x}Sn_xTe$ LPE layer, Hall and resistivity meas., impurity doping influence 2−92796
PbTe and PbTe-SnTe solid solns., Ga doping effect on electrophys. props., doping mechanism 2−56578
PbTe single crystals grown by vertical Bridgman technique, micro-size defects 2−97958
PbTe:Sn(Ge), donor and acceptor props., elec. and thermal cond. meas. 2−66480
PbTe:Tl, In single cryst. p-n junction, tunnel cond. characts. 2−77174
predeposition process and profile simulation Si:B 2−98136
$Sb_{1.5}Bi_{0.5}Te_3$:Pb solid soln., doping, carrier density 2−71997
$Sb_{1.425}Bi_{0.575}Te_{2.85}Se_{0.15}$:Ge(Cu), solid soln., impurity effects on thermoelectric props. 2−82385
Si, by As diffusion, spin-on source for deep junction formation 2−76746
Si, CVD, amorphous, post-hydrogenated, doping effects, cond. and EPR meas. 2−66679
Si CVD homepitaxial layer doping, book contrib. 2−72632
n-Si, diffusion profile of As(Sb), sheet conductance and tracer studies 2−71730
Si diode, neutron transmission doped, avalanche breakdown 2−115887
Si, doping by neutron transmutation, electron traps anal. by DLTS *(Chinese)* 2−92643
Si, double diffusion processes, book contrib. 2−71731
Si, epitaxial layer, gas phase autodoping profile 2−115268
Si, formation of buried SiO_2 layers, optimisation of implantation conditions 2−61004
Si, heavily implantation with BF_2^+ (BCl_2^+) and carrier density meas. 2−81803
Si, implanted ion impurity profile, book contrib. 2−71493
Si, impurity doping processes, book 2−68985
Si, ion implantation processes, book contrib. 2−71482
Si, laser beam annealing technology, appl. to device fabrication *(Japanese)* 2−103813
Si, low energy BF_2^+ ion doping during MBE 2−92003
Si, MBE apparatus, high rate deposition on standard format wafers 2−57299
Si, MBE of doped layers, book contrib. 2−72628
Si, neutron bombardment doping, reactor design, theory 2−86697
Si, neutron doping in channel U-graphite reactor 2−86739
Si, neutron transmutation doped detectors with improved carrier lifetime 2−59597
Si, neutron transmutation doping, book contrib. 2−71484
Si, neutron transmutation doping, conf., Copenhagen, Denmark (Aug. 1980) 2−74166
Si, neutron transmutation doped, floating zone grown in H_2 and Ar, annealing behaviour *(Chinese)* 2−109820
Si, nondegenerate, physical model for depend. of carrier lifetime on doping density 2−92654
Si, polycrystalline, grain growth mechanisms 2−115424
Si radiation detectors prod. using neutron transmutation doping 2−90369
Si, semiconductor materials and devices, processing by neutron irrad. 2−115305
Si solar cell, (cryst. p)-(amorphous i-n) struct. 2−116801

semiconductor doping continued
Si solar cell, high efficiency, laser processing 2−57702
Si solar cells, effect of back-surface B implantation 2−88433
Si solar cells, fabrication by laser induced diffusion from dopant gas 2−57697
Si solar cells, optimised low-high junctions ineffectiveness 2−78225
Si solar cells fabricated by ion implantation 2−88440
Si surface, tetrahedrally textured, charact. of ion implanted n^+ layers 2−76475
Si, transmutation doping, review of EPR obs. of neutron irrad. defects 2−110638
Si:As, doping during Pd_2Si form: at low temp. 2−86698
Si:As, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062
Si:As implanted 4 in wafers, fast annealing using imaging furnace with 6.5 kW Xe arc lamp 2−98123
Si:Au, Au diffusion, expt. study 2−104061
Si:B, B deposition from BBr_3 source, expt. and computer simulation 2−103794
Si:B, ion implanted, B diffusion and segregation obs. in dry O_2 ambient 2−92281
Si:B, polycrystalline, quantitative doping using ion implantation process 2−92002
Si:B, submicrometer-linewidth doping and relief definition by laser-controlled diffusion 2−98122
Si:B films, plasma deposition using laser microreaction 2−56375
Si:B(P)(As), supersaturated, ion implanted and laser annealed, heat treatment effects 2−92000
Si:B(P)(As)(Sb)(Ga), ion implanted, electron beam annealing by multiple-scan method 2−92036
Si:Bf_2^+, recrystallisation by light-flash annealing 2−98130
Si:C, crystn. by zone melting, contamination with C 2−87972
Si:C, polycrystn., C influence in resistivity and grain size 2−66547
Si:Ga, doping during MBE, AES and isothermal desorpt. spectra study 2−109819
Si:Gd, crystal microstruct., Gd accumulations, electron radiation-induced defects 2−86891
Si:Ge, ion implantation, high fluence, contrib. of atomic mixing, theoretical and exptl. study 2−98131
Si:H, amorphous, gap-state absorpt. meas. 2−87827
Si:H, amorphous film, laser induced crystn. 2−55849
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945
Si:H, FZ cryst., anomalous defect form. by H doping 2−71476
Si:H, N(Ga), amorphous film, ion implanted, photocond. and energy spectrum 2−92698
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture and elec. resist. and IR absorpt. meas. 2−93444
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
p-Si:$Mn^+Al^-(B^-)$, DTA and electron beam anal., doping effects *(German)* 2−92010
Si:N, low energy implantation, material composition, oxidation resist. and elec. characts. 2−86694
Si:N, low energy N implantation, room temp. formation of Si-nitride films 2−86693
Si:O, Mg influence of Mg on IR absorpt. and elec. cond. props. 2−87258
Si:O_2 polycrystalline films, prep. and props. 2−72629
Si:$O^{4+}(C^{4+})$, MOS capacitors and Schottky diodes, ion implantation, elec. props. 2−86696
Si:O(B), ion implantation in 100 MeV range 2−81805
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers 2−86688
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si:P, amorphous, ion implantation doping and surface conductivity 2−115262
Si:P, and other implants, SIMS studies of anomalous behaviour 2−92013
Si:P, CVD epitaxial growth, P doping process obs. 2−93439
Si:P, neutron transmutation doping, radiation defects and annealing, review 2−71513
Si:P, neutron transmutation doping, radiation defects, electrical activity, annealing 2−86738
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
Si:P, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062
Si:P, radiation doped, recombinational props. and elec. cond., thermal treatment effect *(Russian)* 2−71995
Si:P, redistribution of heavy metal impurities, by P diffusion, theory 2−109822
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si:$P^+(As^+)$ layers, ion implanted, electron beam annealing, elec. props. 2−92039
Si:P(As), CVD VPE grown, doping element incorporation, total press. depend. calc. 2−91998
Si:Sb(In)(Ga)(Bi)(As), ion implanted, metastable supersaturated solid solns. formation during solid phase epitaxy 2−98283
Si:Zn,Co, epitaxial layers, doping laws and electrophysical props. 2−66025
Si-SiO_2 layers in MOS n-p junctions, electrochemical doping with As^+, diffusion coeff., C-V plots 2−66287
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
$Si_{1-x}Ge_x$, neutron doped, compensation, composition depend. 2−76477
SiO_2:B(Al)(Ga), variation of surface conc. with oxide content 2−82098
SiO_2/Si thermal, F ion implantation and distrib. *(Chinese)* 2−109821
SnO_2 thin-film gas sensors, improved performance due to Au diffusion 2−64009
SnTe, soln. of impurities, behaviour of group IV elements 2−71650
$TiSi_2$, appls. in MOS technology 2−104501
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691
ZnO:CoO, enhancement of elec. cond. by doping 2−98643
ZnS:Ag, photolum. and elec. props. study of Ag doping 2−110944
ZnS:Fe, CVD polycrystalline films, incorporation of Fe impurities 2−116379
ZnSe, ZnS_xSe_{1-x}, growth and doping by organometallic CVD 2−111087
ZnSe:Ga diffused single cryst., elec. props. and impurity profile 2−61014
ZnTe, O diffusion during laser annealing, photolum. obs. 2−115463

semiconductor-electrolyte boundaries
electrochemical transfer via surface states 2−87384
electrodes and semiconductor surfaces, macroscopic dynamic models of partial charge transfer processes *(German)* 2−61586
electron energy levels in semiconductor electrochemistry, review 2−110468
EOS structure, single electrode pots. related to flat-band voltage meas. 2−82454
flat band pot., correlation with electronegativity scales *(French)* 2−115888
impedance response of semicond./electrolyte/counterelectrode cell, equivalent circuit anal. 2−78231
impurity profile determ. for semiconductor-electrolyte contacts, electrochem. C-V method *(Chinese)* 2−92745
organic semiconductors, Schottky emission meas., excitonic effects 2−72048
photoelectrochemical cells, use as economical solar energy convertors 2−78235
photoelectrochemical devices, charge transfer via interface states 2−88463
photoelectrochemical Schottky barrier cell, I-V characteristics, recombination effects, theory 2−93926
photoelectrochemical solar cells, review 2−111574
photoelectrochemical solar cells, review 2−116839
photoelectrochemical spectroscopy, stress modulated 2−84707
phthalocyanine polycrystalline film, photoelectrochem. solar energy conversion 2−99815
trans-polyacetylene, electrochem. voltage spectroscopy 2−110227
regenerative liquid junction solar cell using group VI transition metal dichalcogenides 2−67862
n-Si/acetonitrile interface, Fermi level pinning and surface states investig. 2−61584
solar cell, liquid-junction, illuminated semiconductor-electrolyte interface, steady-state model 2−116802
solar cells, photocurrent, theoretical anal. 2−73117
surface barrier devices, I-V characts. including recomb. effects 2−82459
Bi_2S_3 thin film, semicond. liq. junction solar cell and chalcogenide props. 2−78212
n-$CdIn_2Se_4$/aqueous polysulphide photoelectrochem. cell, expt. study 2−116838
CdS photoelectrochem. cell, effect of sputtered RuO_2 overlayers on CdS electrode 2−111571
CdS-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
n-CdS_xSe_{1-x} electrodes in photoelectrochem. cells, photoluminesc. and electroluminesc. props. meas. 2−93925
n-CdSe, electrodeposited, Fermi level pinning, low-field electrolyte electrorefl. spectra 2−57059
n-CdSe, etched and anodised electrochem. electrode, capacitance-voltage studies 2−66633
n-CdSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
CdSe, spray-pyrolysed thin film, photoelectrochem. solar cell performance meas. 2−93924
CdSe-electrolyte contacts, surface-sensitive photoelectric effects 2−61585
CdTe, n- and p-type, photoelectrochem. determ. of minority carrier diffusion length 2−115777
n-CdTe-electrolyte interfaces behaviour modification by surface etching 2−77177
n-$CuInSe_2$/polysulfide, photoelectrochem. solar cells 2−67854
Cu_2O/I^- photoelectrochemical cell, photocorrosion mechanism 2−62415
α-Fe_2O_3 electrodes in aqueous electrolytes, photoactivity, effects of chemical doping, photoelectrochem. cell appls. 2−67866
Fe_2O_3 semiconductor electrodes with deep impurity level *(Japanese)* 2−115690
Fe_2O_3:Ge electrodes, photoassisted electrolysis of water 2−61146
n-Fe_2O_3-TiO_2/NaOH/Pt cell, and expt. study 2−78231
n-GaAs, electrochem. photovoltaic cell using I_3^-/I^- redox couple in acetonitrile 2−111570
p-GaAs electrochemical electrode, cathodic photocurrent meas., surface recombination and trapping effects 2−92746
GaAs photoelectrochem. cell, real time IR imaging appl. 2−58902
n-GaAs:Au, impurity profile, electroetching meas. 2−56001
n-GaP photoelectrochemical electrode, stabilisation and surface recombination, expt. study 2−77176
p-GaP, photoelectrode, photocurrent onset pot. and flatband pot., expt. study 2−62480
p-GaP-electrolyte junctions, hot electron injection, Mott Schottky plots 2−92744
H_2O photolysis, effect of surface recombination on efficiency 2−99811
HgTe, anodic oxidation and electrochem. surface treatment obs. 2−93641
p-InP surface modified photocathodes for photoelectrochem. cell 2−99813
$In_{2/3}PSe_3$, radiative transitions, hole diffusion length, photoelectrochemical study 2−92647
n-$MoSe_2$ photoelectrochem. cell, local spectral response meas. 2−93928
n-$MoSe_2$/KI, I_2, formamide/Pt photoelectrochem. solar cell with layered anode and nonaq. electrolyte 2−93927
Nb_2O_5, photoelectrochem. and solid-state props. 2−72016
Sb_2Se_3 photoelectrochemical cells chemically deposited thin film electrode deposition and behaviour affecting parameters 2−67865
p-Si electrodes, siloxane-coated, ion selective photoelectrochemistry and stabilisation 2−83502
n-Si photoelectrochem. cell, electrode stabilisation in aq. soln. using PtSi layer 2−105574
n-Si photoelectrochemical cells with Pt-polypyrrole protected electrodes 2−111572
Si:H, amorphous, hole collection length, surface photovoltage study using liq. Schottky barrier 2−56631
p-Si:H, amorphous, photoelectrochem. solar cell, expt. study 2−105573
p-Si-acetonitrile soln. interface with different redox couples, Fermi level pinning obs. 2−110467
Si-SiO_2-electrolyte, SiO_2 thin films, conduct. and electroluminescence study *(Russian)* 2−87872
n-Si; hole injection from ions in soln. 2−56690
TiO_2 electrode, relaxation effects of surface and interface states 2−61583
TiO_2 electrode behaviour anal., photoelectron cell appls. 2−73126
n-TiO_2-aqueous electrolyte interface, photoinduced and dark charge transfer obs. 2−92747
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
n-WS_2 photoelectrochem. cell with aqueous and nonaqueous electrolyte solns. 2−116836
n-WSe_2 photoelectrochem. cell, local spectral response meas. 2−93928

semiconductor-electrolyte boundaries continued
n-ZnSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
ZnSe-CdSe thin film electrodes, photoelectrochem. performance meas. in aq. polysulphide electrolyte 2−78230
p-ZnTe, photoelectrochem. determ. of minority carrier diffusion length 2−115777

semiconductor electron states *see band structure of crystalline semiconductors and insulators; electron energy states of amorphous solids; electron energy states of liquid semiconductors*

semiconductor epitaxial layers
bromanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
carrier concentration profile determination from light refl. spectrum in IR region 2−61484
CVD homepitaxial layer doping, book contrib. 2−72632
epitaxial film, elec. cond. and Hall effect 2−115922
group III arsenide MBE layers, composition, substrate temp. effect 2−87098
heterojunction, defect form. 2−92374
II-VI semiconductors, film deposition on mica, effect of island sublayers of Ag 2−88005
III-V antimonides, phase diagrams 2−116427
III-V semiconductor epitaxal layers, chem. interface width and struct., Auger meas. technique 2−87086
III-V solid solutions, heteroepitaxial film crystalisation, orientation effects *(Russian)* 2−61302
injection lasers, coating effect obs. using intracavity spectroscopy 2−108880
iodanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
lateral double-barrier BH laser, lateral selective-area LPE growth technique 2−88006
local resistivity meas. over small regions, capacitively-coupled time-domain reflectometry 2−53783
LPE layer, Hall and resistivity meas., impurity doping influence 2−92796
MBE and plasma-enhanced CVD growth, ion-surface interactions, review 2−110201
MBE binary and pseudobinary model systems, growth and struct., Monte Carlo simulation 2−110206
MBE films, interface microstruct. props. 2−87082
MBE growth and elec. characterisation 2−93431
modulated struct., electronic struct. and growth, review 2−56683
multilayer struct., interfacial relax., ion channelling study, review 2−71536
photoelectric convertors based on epitaxial Si structures, production and props. 2−99790
SOS:Si films, characterisation of defect reduction and Al redistrib. 2−91947
SOS epitaxial film, fault-free Si at Si-Al_2O_3 interface 2−115575
SOS epitaxial films, defects and strain after CW laser annealing, Rutherford backscatt./channelling and TEM study 2−81799
SOS films, and interfaces, chem. aspects 2−91847
SOS films, effect of high-temp. H_2 annealing 2−93543
SOS films, model for X-ray rocking curve half-widths interpretation 2−91977
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
SOS films, optical characterisation of Si and sapphire surfaces rel. to discrete device performance 2−93219
SOS films, rel. between crystallinity and electronic props. 2−92514
SOS films, sapphire substrate orientation influence on crystn. quality and SOS/MOS mobility 2−91948
SOS films, struct.-props. rels. associated with haze 2−91907
ternary compounds, heteroepitaxy, diffusion phenomena 2−92378
X-ray composition anal., electron beam excited, with high spatial resolution 2−66401
(Al,Ga)As/GaAs heterostruct., MBE grown, interface quality and electron mobility, substrate temp. effects 2−56385
(Al,Ga)As/GaAs heterostruct., single and multiple period modulation doped, electron mobility meas. 2−56676
Al-Ga-As, LPE film growth, interdiffusion coeff. of components in solns., temp. depend. 2−76717
Al-GaAs MBE Schottky barrier height, O stabilization 2−87367
AlAs thin film, MBE growth, oxidation, XPS study 2−83257
AlAs-GaAs superlattices, exciton associated optical absorption spectra at 300K 2−104913
AlGaAs-GaAs, tunnel heterojunction, MBE growth and elec. props., multigap cascade solar cell interconnect appl. 2−57701
$Al_{0.35}Ga_{0.65}As$:Si MBE layer, donor activation energy determ. from elec. transport props. meas. 2−98769
$Al_{0.35}Ga_{0.65}As$-GaAs heterostruct., modulation doped, photocond. effects 2−56679
p-$Al_{0.7}Ga_{0.3}As$-pGaAs-nGaAs, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
$Al_xGa_{1-x}As$, MBE layers, spin polarised photoelectron emission meas. 2−93365
$Al_xGa_{1-x}As$, metalorganic VPE grown, residual shallow acceptors, photoluminescence study 2−93245
$Al_xGa_{1-x}As$, composition control and superlattice fabrication by pulsed MBE 2−99342
$Al_xGa_{1-x}As$, compositionally graded, electron drift vel., time-resolved optical refl. meas. 2−115771
$Al_xGa_{1-x}As$ epitaxial films with variable composition gradient, production 2−87115
$Al_xGa_{1-x}As$ epitaxial film, homogeneous, high resistivity, synthesis 2−116397
$Al_xGa_{1-x}As$ epitaxial layers, MBE growth, substrate temp. influence on morphology 2−76853
$Al_xGa_{1-x}As$ epitaxial layer, graded band gap, dopant impurity effects on carrier lifetime, dislocation density and internal stresses *(Russian)* 2−77215
$Al_xGa_{1-x}As$ epitaxial solid soln., graded band-gap, photolum. *(Russian)* 2−104965
$Al_xGa_{1-x}As$, growth of variance epitaxial layers, by isothermal mixing of melts 2−88009
$Al_xGa_{1-x}As$ heteroepitaxial struct., graded-index, current controlled thickness composition profile 2−88013
$Al_xGa_{1-x}As$, LPE short-time growth, anal. 2−61306
$Al_xGa_{1-x}As$ solid soln., electroliq. epitaxy distinctive features 2−88012
p-$Al_xGa_{1-x}As$:Ge, LPE grown, photolum. spectrum 2−57143

semiconductor epitaxial layers continued
$Al_xGa_{1-x}As$:Si(Sn), epitaxial films, doping effects on elec. props. 2−110502
n-$Al_xGa_{1-x}As$:Te solid soln. LPE layers, carrier diffusion length, conc. depend., 77-300K *(Russian)* 2−56741
$Al_xGa_{1-x}As$-Al-$Al_yGa_{1-y}As$ struct., instabilities in MBE growth 2−66395
$Al_xGa_{1-x}As$-GaAs heterostruct., modulation doped, MBE grown, carrier mobility, substrate temp. effect 2−61567
$Al_xGa_{1-x}As$-GaAs heterostructure grown by LPE, Auger electron spectra *(Chinese)* 2−66388
$Al_xGa_{1-x}As$-GaAs heterojunction, single period, mobility enhancement 2−77165
$Al_xGa_{1-x}As$-GaAs heterostruct. photovoltaic converters, fabrication by VPE 2−105562
$Al_xGa_{1-x}As$-GaAs heterojunction, single period modulation doped, normal and inverted, electron mobility, substrate temp. influence 2−115876
$Al_xGa_{1-x}As$-GaAs interface, extrinsic layer, photolum. study 2−115576
$Al_xGa_{1-x}As$ DH laser, rake lines, influence of cooling rate and melt config. in LPE 2−77760
$Al_xGa_{1-x}As$(100) epitaxial surface, photoemission study 2−93371
$(Al_xGa_{1-x})_yIn_{1-y}As$ lattice matched to InP substrate, MBE growth 2−105080
AlGaInSb semiconductor system, LPE growth 2−83045
$Al_{0.48}In_{0.52}As$, LPE growth lattice matched to InP 2−99355
AlN epitaxial films, cathodoluminescence and optical absorption 2−99195
AlSb, MBE growth on GaAs(GaSb)(InAs) and RHEED characterisation 2−87087
$Cd_xHg_{1-x}Te$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
p-$Cd_xHg_{1-x}Te$, characterisation of MBE grown layers 2−110198
$Cd_xHg_{1-x}Te$ high quality epitaxial films, growth by sputter deposition 2−116362
n-$Cd_xHg_{1-x}Te$ layers, MBE growth, struct. and elec. props. 2−99340
$Cd_xHg_{1-x}Te$, MBE growth 2−93433
$Cd_xHg_{1-x}Te$ sputtered epitaxial layers, structural and elec. props. 2−92424
CdS epitaxial layer preparation in $Cd(CH_3)_2$-$(CH_3)_2S$-H_2 system 2−87996
CdS epitaxially grown layers, deep level transient spectroscopy of carrier traps 2−115692
CdS, hot wall epitaxial growth, elec. props. 2−93430
$CdS_{1-y}Se_y$ epitaxial layers grown by H_2 transport from elements, photolum. props. 2−99172
CdSe, heteroepitaxial films, struct. charact. 2−92381
$CdSe_xTe_{1-x}$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
$CdSnAs_2$, prep. by LPE 2−72634
CdTe, bulk grown and epitaxial samples, minority carrier diffusion length 2−115776
CdTe, epitaxial growth on PbTe, by close-spaced technique 2−88001
CdTe epitaxial layers, charact. and annealing behaviour of deep levels 2−104288
CdTe epitaxially grown layers, deep level transient spectroscopy of carrier traps 2−115692
CdTe film, heteroepitaxial, MBE growth on InSb (001) 2−56374
CdTe films, large grained (111)-orientated, quasi-rheotaxy growth and solar cell appl. 2−105079
CdTe, hot wall epitaxial growth, elec. props. 2−93430
CdTe, LPE growth on CdS polar face from Cd soln. 2−57311
CdTe, MBE growth 2−93433
CdTe, MBE growth and elec. characterisation 2−93431
CdTe:In, MBE growth, effects of doping on electron conc. and photolum. 2−76846
$CuGaTe_2$, LPE growth on ZnSe from Bi soln. and heterostruct. elec. props. 2−62084
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
$CuInSe_2$, LPE heteroepitaxial growth on ZnSe from In soln. 2−57310
(Ga,In)As, equilib. consts. derivation from LPE, VPE growth data, solid activity coeffs. determ. 2−98481
GaAlAs, metalorganic CVD, electronic defect levels study 2−71922
GaAlAs-GaAs, channeled substrate narrow stripe laser, LPE growth, computer model 2−96982
n-GaAlAs-GaAs heterojunction interface, MBE grown, 2-D electron gas, tangential magnetoresist. study 2−77162
$Ga_{0.85}Al_{0.15}As$, growth by temp. gradient LPE with convective flow *(Chinese)* 2−111097
$Ga_{1-x}Al_xAs$, anharmonicity and disorder-induced effects, Raman study 2−67052
$Ga_{1-x}Al_xAs$, epitaxial layers, Hall mobility-drift mobility ratio, press. depend. 2−87431
$Ga_{1-x}Al_xAs$ LPE layer, refractive index, surface reflection meas., 1.96 eV 2−93296
$Ga_{1-x}Al_xAs$:Be-GaAs p-p-n solar cells, Be diffusioned doping and elec. props. meas. 2−105557
$Ga_{1-x}Al_xAs$:Si, Ge, LPE growth and doping, elec. and photolum. props. 2−116393
$Ga_{1-x}Al_xAs$:Si, LPE layers, photon recycling, photoluminescence study 2−82897
$Ga_xAl_{1-x}As$, MBE grown, persistent photocond. centres, capacitance spectroscopy meas. 2−98688
$Ga_{1-x}Al_xSb$, LPE layers, photolum. study, cond. bond minimum determ. 2−98540
GaAs (001)-2×4 reconstructed surface band struct. 2−72042
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs, CVD from trimethyl gallium-AsH_3 flowing vapour 2−116381
GaAs, doped with conducting inclusions, negative geometric magnetoresistance *(Russian)* 2−104517
GaAs, epitaxial, electron mobility, temp. depend., impurity and phonon scatt. *(Russian)* 2−104513
n-GaAs, epitaxial, far IR photocond. saturation 2−87319
n-GaAs, epitaxial film, magnetoresistance, electric field effect 2−77100
GaAs, epitaxial film, residual donor impurity conc., photothermal ionization study 2−98148
GaAs, epitaxial film growth on amorphous substrate, CLEFT process, TEM and cathodoluminescence study 2−77749
GaAs epitaxial films, activated, photoemission, surface purity and perfection effect 2−72608
n-GaAs epitaxial layer on semi-insulating GaAs:Cr, current limitation due to IR radiation obs. 2−66626

semiconductor epitaxial layers continued
GaAs, epitaxial layers, donors contaminants study far-IR photoconducivity method 2−56732
GaAs epitaxial layers, MBE and LPE, luminesc. props. 2−72564
GaAs, epitaxial layers, biexcitons in quantum wells 2−92479
GaAs, heavily doped, electron pulsed annealed, elec. quality meas. 2−98161
GaAs, high purity, electron-phonon coupling associated with BA and DA transitions *(Chinese)* 2−93239
GaAs, high purity, MBE grown, residual donor conc., photothermal ionisation spectroscopy study 2−66032
n-GaAs, high-purity, epitaxial, H_2 passivation of deep donor centres obs. by DLTS 2−98570
GaAs, i-n heterostruct., low temp. diffusion, laser plasma pulse stimulated 2−56263
n-GaAs impact ionisation induced negative far IR photocond. 2−115805
GaAs, implanted, transient and furnace annealing behaviour 2−56022
GaAs, impurity band transport in large mag. fields 2−61487
GaAs, ion-plasma treatment influence on structural and recomb. charact. *(Russian)* 2−66079
GaAs LPE layers, dislocations as growth step sources, rel. to interface struct. 2−115615
GaAs LPE layers, high-purity, residual impurity photoluminesc. studies 2−99164
GaAs, lateral expitaxial CVD, growth on Ge-Si substrates with low dislocation density 2−116371
p-GaAs MBE film, lightly doped, dynamic SIMS study 2−87097
GaAs, MBE grown (100) autoepitaxial films and substrates, struct. and comp. and surfaces 2−56383
GaAs MBE grown epitaxial layers, charact. of AuGeNi ohmic contacts 2−66637
GaAs, MBE growth on Ge (100), interface morphology, RHEED study 2−56386
GaAs MOCVD layers, low temp. growth at atm. pressure 2−93441
GaAs, metalorganic VPE layers, impurity redistribution, SIMS study 2−115582
GaAs NIPI superlattice, tunable optical absorpt. coeff. 2−77477
GaAs photoconductive detectors, thin film, ultrafast operation 2−101463
GaAs, planar doped barrier design and growth by MBE 2−93425
GaAs, proton irradiated, profiles interpretation obtained by C(V) technique 2−98663
GaAs, quantum well, exciton resonance, hole burning 2−76934
p-GaAs, quantum wells, bound excitons, photoluminescence 2−104956
GaAs, selective epitaxial growth by liquid phase electroepitaxy 2−62082
GaAs sputtered films, substrate-epitaxial interface effect on C-V charact. of Schottky barriers 2−77156
GaAs, step development during MBE growth, RHEED study 2−76860
GaAs surface (001), reconstructed, domain struct., RHEED evidence 2−98408
GaAs, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
GaAs, tunnel junctions for multigap cascade solar cells 2−57701
GaAs undoped epitaxial layers grown by CVD, residual impurity depend. on growth time 2−56404
GaAs VPE, transition region width between active and buffer layers *(Chinese)* 2−67222
GaAs, VPE and Czochralski grown, pulsed Nd:YAG laser annealing of defects, implanted sample obs. 2−56026
GaAs vapour-phase transport on V-shape grooved GaAs substrate 2−99347
GaAs, whisker growth during MBE 2−76876
GaAs:Be, MBE layers, photoluminescence, excitonic features 2−116229
GaAs:Be, p-type doping in metalorganic VPE, hole conc. and cond. 2−105089
GaAs:Be MBE layers, photoluminescence, bound exciton lines 2−116228
GaAs:C(Ge) VPE layers, impurity characterisation, photoluminesc. study 2−93264
GaAs:Cr, deep level optical spectroscopy 2−71902
p-GaAs:Ge LPE layer, electron diffusion length determ. by EBIC method 2−56736
GaAs:Ge(Sn)(Se)(Zn), doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2−98129
GaAs:In, crystals and films, elec. props., isovalent impurities effect 2−82286
GaAs:Mg, organometallic-VPE growth, doping control 2−87991
GaAs:Mg(Ca), MBE, doping behaviour 2−92386
GaAs:Mg(Cr)(Mn)(Fe), epitaxial layers, impurity redistrib., SIMS study 2−98344
GaAs:S, MOCVD epitaxial layer, S donors, photothermal ionisation study 2−98569
GaAs:S, VPE *(Chinese)* 2−93435
GaAs:Sb, crystals and films, elec. props., isovalent impurities effect 2−82286
GaAs:Sb, LPE, Sb distrib. 2÷104182
GaAs:Se implanted, dose depend. of epitaxial regrowth 2−56378
GaAs:Se implanted layer, low temp. annealing, Rutherford backscatt. channelling study 2−71818
GaAs:Si, donor states, photothermal ionisation spectra study 2−98767
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2−77568
GaAs:Si, Sn epitaxial films, double doping effect on defects 2−76867
GaAs:Si epitaxial layers, multilevel doping using single $AsCl_3$:$SiCl_4$ doping source 2−55994
GaAs:Si LPE layer, photolum. and carrier conc. *(Russian)* 2−99174
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
GaAs:Sn LPE layer, deep level free-to-bound fluorescence line shapes 2−77564
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
GaAs/$Al_xGa_{1-x}As$ interface, MBE grain, deep levels obs. 2−56463
GaAs-Al single crystal microjunctions by MBE 2−82456
GaAs-$Al_xGa_{1-x}As$ heterostructure, cyclotron and plasmon emission from two-dimens. electrons 2−61770
GaAs-$Al_xGa_{1-x}As$ quantum well structs., extrinsic photoluminesc. 2−82912
GaAs-$Ga_{1-x}Al_xAs$ multiquantum well struct., band edge absorpt. and gain spectra after short pulse excitation 2−62003
GaAs-$Ga_{1-x}Al_xAs_{1-y}P_y$ heterostructure lattice matching rel. to laser fabrication *(Chinese)* 2−66375
semiconductor epitaxial layers continued
GaAs-GaAlAs graded refractive index separate confinement heterostructure laser grown by organometallic VPE 2−96975
GaAs-GaAlAs-GaAs rectifying structures fabricated by metalorganic CVD composition grading 2−115871
GaAs-InAs(100) heterojunction, MBE grown, lattice disorder, Rutherford backscatt. and channelling study 2−110202
GaAs-Se(S), comparison of H_2S and H_2Se n-type doping by MOCVD 2−103800
GaAs(:Ge), MBE grown, deep levels and photoluminesc., MBE As_2/As_4 flux ratio effects 2−99341
GaAs(P), optical props., ellipsometry meas. 2−57200
$GaAs_{0.35}P_{0.65}$:N VPE LEDs, deep centre studies by photocapacitance method 2−56637
$GaAs_{1-x}P_x$ epilayer, minority carrier lifetime and diffusion length, EBIC method in SEM 2−98667
$GaAs_{1-x}Sb_x$ LPE layer, carrier mobility and photolum., composition depend. 2−77214
$GaAs_xSb_{1-x}$, LPE growth on InAs substrates 2−88010
GaInAs epitaxial layer device type structures, defects 2−71461
$Ga_{0.47}In_{0.53}As$ high mobility thin epitaxial layers grown by MBE 2−115585
$Ga_{0.47}In_{0.53}As$, MBE grown, Si doping and elec. props. meas. 2−92005
n-$Ga_{0.47}In_{0.53}As$, quasi-Schottky barrier diode using fully depleted p^+-$Ga_{0.47}In_{0.53}As$ layer, MBE growth 2−56668
$Ga_{0.47}In_{0.53}As$, VPE growth and charact. for microwave device appls. 2−83043
$Ga_{0.47}In_{0.53}As$-$Al_{0.48}In_{0.52}As$ modulation doped heterostruct., current transport meas. at moderate elec. fields 2−82446
$Ga_{1-x}In_xAs$ epitaxial layers, Raman spectra 2−82934
$Ga_{1-x}In_xAs$:Ge LPE layers, doping profiles, atomic absorpt. spectra meas. 2−109823
GaInAsP epitaxial layer device type structures, defects 2−71461
GaInAsP-InP 1.3 μm DH, LPE *(Chinese)* 2−93449
GaInAsP-InP DH laser on semi-insulating InP substrate with terrace struct. 2−75591
$Ga_xIn_{1-x}As_{1-y}P_y$, charact. of electron-pumped lasers 2−75577
$Ga_xIn_{1-x}As_yP_{1-y}$, VPE growth and charact. for microwave device appls. 2−83043
$Ga_xIn_{1-x}P$, LPE growth on GaAs (100) and (111)B, orientation dependence meas. 2−93450
$Ga_xIn_{1-x}P$:Be(Sn), MBE growth using Pb flux and elec. characterisation 2−87987
GaN CVD growth on sapphire, growth kinetics and surface morphology meas. 2−111081
GaN epitaxial layer, optimized growth conditions 2−66391
GaN epitaxial layers, highly excited, photolum. and gain spectroscopy 2−77561
GaN, heteroepitaxial layers, characterisation by Kossel effect technique 2−92380
GaN heteroepitaxial layer, growth and doping kinetics, cathode luminesc., elec. props. 2−104185
GaP, doped homoepitaxial layers, dislocations, TEM study 2−103773
GaP, heteroepitaxial MBE growth on Si (100), elec. props., heterojunction form. 2−57297
GaP LED, deep level, luminesc. study 2−110949
GaP LEDs, LPE growth on LEC and synthesis solute diffusion substrates 2−111098
GaP layer, liq. phase electroepitaxy from limited and unlimited sources, growth kinetics 2−56380
GaP, MBE growth, P_2 beam source technique 2−57300
GaP p-n junction, LED, thermally stimulated noise 2−104444
GaP polar-on-nonpolar MBE on Si(211), nucleation and growth, sublattice ordering 2−110204
GaP thin film, vacuum deposited, heteroepitaxial growth, struct., characterisation 2−87985
GaP:Mg, LPE growth, minority carrier lifetime, photoluminescence study 2−82488
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
GaP:N,Te, epitaxial layers, photoluminescence study 2−61968
GaP:N epitaxial films, excitation transfer mechanism to NN_1 complexes 2−77589
GaP:N LED degradation, surface corrosion 2−116559
GaP:Nd(Sm)(Eu)(Yb) epitaxial films, photoluminesc., effect of γ-irrad. 2−93267
GaP:S, homoepitaxial layers, influence of microdefects on dislocation generation 2−92377
GaP:S LEC epitaxial layer, microdefects and dislocation generation, TEM study 2−115236
GaSb-AlSb superlattices, MBE growth, photoluminescence 2−99188
$(GaSb)_{1-x}Ge_x$ epitaxial film, ion mixing during RF sputtering deposition 2−82161
Ge, epitaxial growth from Ge-In solution, radiation effects *(Russian)* 2−76869
Ge, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Ge epitaxial layers, LPE growth in γ-radiation field, struct. and electrophysical parameters 2−115599
Ge ion beam deposition, epitaxial growth 2−116388
Ge, MBE growth on GaAs (100), interface morphology, RHEED study 2−56386
Ge on GaAs for refractory ohmic contacts, laser and thermal anneal 2−87386
Ge on Si(100), RF sputter deposition, struct. and elec. meas. 2−66386
Ge, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Ge-GaAs, (110) and (111), MBE grown, interface morphology, RHEED study 2−98470
Ge-GaAs (100) heterojunction, MBE growth, surface processes, LEED and photoemission study 2−110203
Ge-GaAs (110) heterostructures, electronic props. and chem. comp., low-energy EELS study 2−93339
Ge-Si (111) epitaxial system, interface struct., high energy ion scatt. study 2−76840
HgCdTe epitaxial layers, Shubnikov-de Haas effect *(French)* 2−61486
HgCdTe epitaxial layers, implantation-induced defects behaviour 2−87379
$Hg_{1-x}Cd_xTe$, annealing and ion implantation damage, Rutherford backscatt. and channelling study 2−86763

semiconductor epitaxial layers continued
$Hg_{1-x}Cd_xTe$, isothermal epitaxial growth, elec. props. optimisation 2−93452
$Hg_{1-x}Cd_xTe$, metalorganic CVD epitaxial growth 2−88000
$Hg_{1-x}Cd_xTe$-CdTe ion implanted epilayers, elec. and optical props. 2−115927
$Hg_{1-x}Cd_xTe$-CdTe LPE layers, electron mobility near zero band-gap crossing 2−87426
HgTe, epitaxial growth by MOVPE process, props. 2−62071
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2−87366
III-V semiconductors, LPE, substrate orientation and surface morphology 2−67229
In-Ga-As-P/InP system, improved LPE techniques for low threshold lasers at 1.55 μm 2−99357
p-$In_{0.53}Ga_{0.47}As$ epitaxial layers, minority carrier high field transport meas. 2−82493
InAs-GaSb superlattices, semimetallic, far IR magnetoabsorpt. 2−61881
$InAs_{1-x-x}Sb_xP_y$ epitaxial films, photoluminesc. and optical transmission 2−93303
$In_{1-x-y}Ga_xAl_yAs$ lattice matched to InP, band-gap energy and electron effective mass, comp. depend. 2−115650
InGaAlP DH layers, MBE growth on (100) GaAs substrates, laser appls. 2−104206
InGaAs MBE layers, energy gap, dielec. model calc. and pho toluminesc. expt. study 2−61939
InGaAs, metalorganic VPE growth on InP substrate 2−61309
$In_{0.53}Ga_{0.47}As$, LPE growth on structured InP substrates 2−105093
$In_{0.53}Ga_{0.47}As$, lattice defects detection using selective photoetching 2−103763
$In_{0.53}Ga_{0.47}As$:Si, n-layer formation by Si implantation 2−92001
$In_{0.53}Ga_{0.47}As$/InP heterostruct. avalanche photodiodes, deep levels 2−110284
$In_{0.53}Ga_{0.47}As$-$In_{0.48}Al_{0.52}As$ interface, MBE grown, two-dimens. electron gas 2−98730
$In_{0.53}Ga_{0.47}As$-InP undoped VPE layers, photoluminesc. meas. 2−99167
$In_{0.77}Ga_{0.23}As$, lattice-mismatched MBE growth on InP 2−57296
InGaAsP ($E_g \geq 1.15$ eV) layers, growth by LPE under P overpressure 2−67226
InGaAsP (InGaAs) LPE layers, room temp. electron diffusion lengths 2−56730
InGaAsP LPE layers, melt-carry-over 2−98473
InGaAsP LPE on InP, growth temp. and impurity doping effect on comp. 2−98482
InGaAsP low threshold channelled substrate buried crescent DH lasers for 1.55 μm communication 2−102822
InGaAsP relationship between struct. and props. 2−71486
InGaAsP/InP DH wafer, chem. etching characts. 2−88242
InGaAsP/InP double heterostructs. on InP, large area LPE growth 2−99358
InGaAsP-InP LPE grown wavelength division solar cells, fabrication and characts. 2−105572
InGaAsP-InP V-grooved substrate BH laser, fabrication by one-step epitaxy 2−80995
$In_{0.48}Ga_{0.52}As_{0.01}P_{0.99}$ lattice matched to GaAs, LPE from In melt rich in P, photoluminesc. obs. 2−88008
$In_{1-x}Ga_xAs_{1-y}P_y$ epitaxial layer, X-ray rocking curve in symm. Bragg case 2−115584
$In_{1-x}Ga_xAs_{1-y}P_y$:Cd(Zn) LPE junction laser, SEM EBIC study 2−102821
$In_{1-x}Ga_xAs_yP_{1-y}$ LPE system, alloy scattering mobility and energy gap evaluation by dielectric model 2−82485
$In_{1-x}Ga_xAs_yP_{1-y}$ LPE layer, energy gap and alloy scatt. mobility, meas. and dielec. model 2−98542
$In_{1-x}Ga_xAs_yP_{1-y}$-InP LPE layers, strain anal. and optical props. meas. 2−66392
$In_{1-x}Ga_xAs_yP_{1-y}$-$GaAs_{1-y}P_y$ (100), LPE growth and pulsed room temp. laser operation 2−90926
$In_xGa_{1-x}As_yP_{1-y}$ LPE layers, lattice matched to InP, comp. modulation, expt. study 2−87084
p-$In_xGa_{1-x}As_yP_{1-y}$:Mn epitaxial layers, doping characts., elec. and luminesc. props. 2−76866
$In_{1-x}Ga_xAs_{1-y}Sb_y$ solid soln., LPE growth, unstable comp. regions, regular soln. approx. 2−92204
$In_{1-x}Ga_xP$, LPE growth on GaAs, composition self-modulation obs. 2−116395
$In_{1-x}Ga_xP$:Te(Se)(Cd)(Zn)(Si)(O), epitaxial film, photo-, electro- and cathodoluminescence involving deep levels 2−116258
$In_xGa_{1-x}P$ LPE layer, N conc. and In content, correlation 2−71819
$In_{1-x}GaP_{1-y}As_y$, high purity, LPE growth 2−93459
$In_{1-x}Ga_xP_{1-x}As_y$, optical props., ellipsometry meas. 2−57200
$In_{1-x}Ga_xP_{1-y}As_y$-GaAs, reproducible LPE growth by P vapour control on substrate 2−88007
$In_{0.53}Gd_{0.47}As$:Te degenerate LPE layers, electron mobility 2−61620
InP, high purity, LPE growth 2−93459
InP, high quality, MBE growth 2−116367
InP, impact ionization coeffs. for electrons and holes, photomultiplication meas. 2−61472
InP, LPE, detection and prevention of S contamination 2−93458
InP, LPE grown, surface morphology, doping impurities and cooling rates effects 2−92390
InP, LPE growth on $In_{0.53}Ga_{0.47}As$ (111)A without dissolution 2−77757
InP LPE layers, dislocation density, intermittent growth procedures effects 2−116392
InP LPE layers, melt-carry-over 2−98473
InP, lattice defects detection using selective photoetching 2−103763
InP layers, growth by LPE under P overpressure 2−67226
InP, optical props., ellipsometry meas. 2−57200
InP relationship between struct. and props. 2−71486
InP:Cd, VPE growth and photolum. characterisation 2−88002
InP:Mg VPE layers, implanted and unimplanted, near-edge emission 2−57157
InP:Zn(C)(Mg) epitaxial layers, shallow acceptor excited states, luminesc. study 2−57156
InP/InGaAsP double heterogeneous epitaxial wafers, stress induced defect migration 2−92287
InP-$Ga_{0.47}In_{0.53}As$-InP DH epitaxial layers, chem. interface width and struct., Auger meas. technique 2−87086
InP-InGaAsP DH with 40% external luminesc. quantum efficiency 2−77591
InP-InGaAsP-InP DH wafer, LPE grown, misfit dislocations 2−98096
semiconductor epitaxial layers continued
InSb, LPE regrowth by CW laser annealing, expt. study 2−56029
InSb:Bi epitaxial layer, Bi distrib., temp. depend. 2−104183
InSb:Bi solid soln., Bi donor level form., X-ray struct. study 2−115702
InSb-InBi solid solns., grown by MBE, charact. 2−104190
Pb-Sn-Se, LPE, comp. depend., 770 to 1020K 2−99356
$Pb_{1-x}Sn_xSe$ epitaxial layers, equilib. compositions and cond. type 2−66398
$Pb_{1-x}Sn_xSe$, grown by 'hot wall' method 2−72627
PbSnSeTe-PbSeTe DH lasers, lattice-matched, LPE grown 2−55194
$Pb_{0.7}Sn_{0.3}Te$ film, struct. and elec. props., Ar^+ bombard. and annealing effect 2−56731
$Pb_{0.8}Sn_{0.2}Te$ epitaxial films produced by vacuum evaporation, high mobility produced by annealing 2−82486
p-$p^+Pb_{0.8}Sn_{0.2}Te$ LPE layer, IR plasma refl. spectra *(Chinese)* 2−93295
$Pb_{0.83}Sn_{0.17}Te$ solid soln. epitaxial films, absorpt. edge obs., 100 to 300K, band struct. model *(Russian)* 2−61913
$Pb_{1-x}Sn_xTe$ epitaxial films, additional long-wavelength absorpt. 2−77610
$Pb_{1-x}Sn_xTe$ epitaxial film, surface recombination, photoconductivity study 2−104393
$Pb_{1-x}Sn_xTe$ LPE inhomogeneous layer, IR plasma reflection spectrum, vapour transport process 2−93314
$Pb_{1-x}Sn_xTe$ LPE layer, Hall and resistivity meas., impurity doping influence 2−92796
$Pb_{1-x}Sn_xTe$ MBE film struct. 2−104184
$Pb_{1-x}Sn_xTe$:In epitaxial film, photolum. 2−77590
$Pb_{1-x}Sn_xTe$:In epitaxial film, elec. and struct. props. 2−110506
$(Pb_{1-x}Sn_x)_{1-\Delta}Te_{1+\Delta}$/PbTe, diffusion phenomena, during heteroepitaxy 2−92378
PbTe epilayers, LPE growth from supercooled solns., improved morphology 2−110192
n-PbTe epitaxial (111) layer, weak and strong field magnetoresist. meas., 1.8 to 300K 2−87424
PbTe epitaxial film, misfit strain 2−92423
PbTe epitaxial layer, dielec. const. at 4.2K 2−99017
PbTe epitaxial layer, optical four-wave mixing 2−93315
n-PbTe epitaxial layers, ionised defect scatt. mobility 2−92671
PbTe epitaxial layers on BaF_2, misfit and thermal strains, magneto-optical and X-ray study 2−82175
PbTe:H epitaxial film, elec. transport props., p-type to n-type conversion 2−66676
p-PbTe:Tl epitaxial films, Hall mobility, doping effects 2−110509
PbTe-$Pb_{1-x}Sn_xTe$ superlattices, prepared by hot wall epitaxy, optical props. 2−99208
PbTe-$Pb_{1-x}SnTe$, superlattice, interband optical absorpt. *(Japanese)* 2−116179
Sb overlayers, on GaAs (110), struct. 2−76862
Sb_2Te_3 single cryst. growth by hot wall epitaxy 2−93418
Si (111) wafers, micro-distortion in figure during epitaxial growth *(Chinese)* 2−110188
Si abrupt epitaxial junctions 2−115877
Si, amorphous, solid phase epitaxy, laser-induced 2−56405
Si, amorphous laser crystallisation, rel. to density 2−56407
Si, amorphous UHV deposited film on Si(111), epitaxial regrowth 2−104197
Si, bent crystal, contrast effects in synchrotron X-ray topographs 2−60837
Si, boundary segregation of impurities, under action of γ-radiation, or quenching 2−87095
Si, CVD epitaxial layer, growth rate temp. profile 2−115583
Si, defects anal., ion backscatt. and channelling techniques appls. *(Chinese)* 2−92376
Si, epitaxial, neutron irrad., A and E centre study 2−103756
Si epitaxial and recrystallised films, carrier lifetimes, MOS capacitance study 2−92787
Si, epitaxial growth, ion channelling studies, review 2−71537
Si, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Si epitaxial growth using SiH_2Cl_2, hillocks and stacking faults obs. 2−93437
Si, epitaxial integrated E-dE position sensitive detectors 2−70057
Si epitaxial layer on SOC, contaminant reduction during CVD growth, SIMS study 2−77750
Si epitaxial layer on substrate with buried SiO_2 layer, ion implantation, crystallographic props. 2−92382
Si, epitaxial stacking faults, elec. props., crystallographic struct., interaction with point defects 2−92379
Si film, polycryst., amorphized by Si ion implantation, solid phase epitaxial recrystn. 2−115581
Si films over SiO_2 patterns, laser-induced lateral vertically-seeded epitaxial regrowth 2−87091
Si, gas phase autodoping profile 2−115268
Si ion beam deposition, epitaxial growth 2−116388
Si, ion beam epitaxial growth on Ge and Si at 400K 2−99339
Si, LPE, low-temp. 2−62083
Si, LPE, minority carrier lifetime 2−72637
Si LPE layers, dislocations as growth step sources, rel. to interface struct. 2−115615
Si, low energy BF_2^+ ion doping during MBE 2−92003
Si low pressure epitaxy for bipolar VLSI 2−87993
Si, MBE apparatus, high rate deposition on standard format wafers 2−57299
Si, MBE growth, etching of SiO_2 films 2−67218
Si, MBE of doped layers, book contrib. 2−72628
Si, photoluminesc. anal. for characterisation of shallow impurities 2−93242
Si, recrystn. on amorphous substrate by doughnut shaped CW laser beam 2−56377
Si, solid phase lateral epitaxial growth onto adjacent SiO_2 film from ion implanted amorphous Si 2−77730
Si structures with dielectric insulation, single cryst. layers thickness determ. 2−112867
Si substrate, process for simultaneously making thin and thick epitaxial layers 2−98478
Si surface, (111), thermal epitaxial growth during ion bombardment, LEED study 2−87088
Si surface (111), epitaxy, high resolution LEED study 2−98487
Si: P and compensated Si:P,B, ion implanted, epitaxial regrowth obs. 2−92388
Si:As, amorphous film, laser induced solid phase epitaxy kinetics, time resolved reflectivity study 2−56384

semiconductor epitaxial layers continued
Si:As, thin layers on conducting boundary, spreading resistance profiles 2−86703
Si:B epitaxial layer, lattice parameter determ. by means of asymm. Bragg refls. 2−97851
Si:Ga, doping during MBE, AES and isothermal desorpt. spectra study 2−109819
Si:P, CVD epitaxial growth, P doping process obs. 2−93439
Si:P(As), CVD VPE grown, doping element incorporation, total press. depend. calc. 2−91998
Si:Sb, laser epitaxy over buried layers 2−56406
Si:Sb(In)(Ga)(Bi)(As), ion implanted, metastable supersaturated solid solns. formation during solid phase epitaxy 2−98283
Si:Zn,Co, epitaxial layers, doping laws and electrophysical props. 2−66025
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
Si-sapphire SOS, heteroepitaxial, hydrogenation induced improvement in electronic props. 2−66669
Si-$Si_{1-x}Ge_x$ epitaxial multilayer films, electron mobility enhancement 2−115921
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Si-SiO_2, Si seeded oscillatory epitaxial growth by CW laser irrad. 2−99329
SiC epitaxial layer growth process for gaseous phase, thermodynamic anal. *(Bulgarian)* 2−87992
SiC p-n structure, defect-free, avalanche ionisation and breakdown 2−87383
SiC:B, Al epitaxial layers, lattice deformation and perfection, X-ray study 2−92406
SiC:P, growth kinetics, solubility and polytypy 2−76850
SnTe, effect of thermal treatment on comp. and struct. 2−66399
SnTe:H epitaxial film, elec. cond. and Hall effect on H_2 desorption 2−115923
p-SnTe:In epitaxial thin film, elec. transport props., In effect 2−104514
Te, VPE growth with partially ionised vapour, expt. study 2−116368
ZnS epitaxial growth on Wall and Cu, substrate ion planing effects 2−83048
ZnS, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnS:Mn AC electrolum. thin film device, Mn^{2+} emission saturation 2−116265
ZnS:Mn electrolum. films grown by at. layer epitaxy, ageing process 2−116264
ZnS(Se), Z 2−116235
ZnS(Se):Mn, epitaxial layers grown organometallic CVD 2−116378
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZnSe film on GaAs, elec. props. and impurity profile 2−61014
ZnSe, heteroepitaxial, deep defects 2−92512
ZnSe in Sn, LPE, phase diagram and electronic props. 2−116428
ZnSe, LPE grown, deep electron traps, TSC, photocapacitance and DLTS study 2−56466
ZnSe, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnSe thin films, selective area MBE, electrolum. device appl. 2−92387
ZnSe, VPE grown film on GaAs, optoelectric props. control 2−116382
ZnSe:Ag(Au) LPE layers, luminesc. spectra, acceptor levels 2−116250
ZnSe:Ga, MBE growth and elec. cond. and photoluminesc. props. meas., blue LED appl. 2−87986
ZnSe:Tl, p-type layer, elec. cond., photocurrent decay 2−115926
ZnSe-GaAs heterojunction, photovoltaic props. meas. 2−73121
$ZnSnAs_2$ LPE growth on ZnSe substrate from Sn soln. 2−77756
ZnTe, CVD epitaxial growth, closed tube method, transport rates, expt. and thermodynamic anal. 2−57306
ZnTe, heteroepitaxial films, struct. charact. 2−92381

semiconductor growth
bromanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
$CCAl_xGa_{1-x}Sb$, LPE growth on (111)-B oriented GaSb 2−98495
crystal growth, doping profiles homogeneity, crystal chem. anal. 2−55872
CVD, bibliography (1960-1980) 2−58578
CVD epitaxial reactor, phenomenological model 2−105083
diode laser, CW BH, ultra-low-threshold, graded-index waveguide, separate confinement, MBE growth 2−114310
epitaxy, review 2−76865
film growth and doping, computer simulation 2−66390
films, sputtering, MBE and plasma-enhanced CVD growth, ion-surface interactions, review 2−110201
$Ga_{1-x}Al_xP$, solid soln., variation of comp. gradient during LPE 2−83047
group III arsenide MBE layers, composition, substrate temp. effect 2−87098
II-VI compound crystal growth, characterisation and device appls., conf., Durham, England (April 1982) 2−107003
II-VI semiconductors, bulk and epitaxial growth, impurity role 2−116347
II-VI semiconductors, film deposition on mica, effect of island sublayers of Ag 2−88005
III-V heterostructures, ternary, formed by LPE, growth and dissolution kinetics, temp. programming effects 2−104187
III-V semicond. epitaxial growth, appl. to compound semiconductor device technology 2−77741
iodanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
lateral double-barrier BH laser, lateral selective-area LPE growth technique 2−88006
LPE growth of semicond. heterostructures, melt prep. improvements 2−93456
materials and structs. prod. by high intensity laser and electron beams 2−77729
MBE binary and pseudobinary model systems, growth and struct., Monte Carlo simulation 2−110206
MBE growth and elec. characterisation 2−93431
metal-semiconductor whisker structures, growth model 2−104212
modulated struct., electronic struct. and growth, review 2−56683
narrow band-gap semiconductors, crystal growth, review 2−93390
polycrystalline, CW laser recrystallised material 2−56409
SOS films, and interfaces, chem. aspects 2−91847
ternary compounds, heteroepitaxy, diffusion phenomena 2−92378
V-VI-VII compounds, chem. transport during crystn. from vapour 2−81698
$AgIn_5S_8$, two-temp. synthesis, props. 2−77725
$AgSbSe_2$ film, growth and cryst. 2−115620

semiconductor growth continued
AgTlS(Se)(Te), prep. and semicond. growth, cryst. struct., elec. props. *(French)* 2−87971
(Al,Ga)As/GaAs heterostruct., MBE grown, interface quality and electron mobility, substrate temp. effects 2−56385
Al-Ga-As, LPE film growth, interdiffusion coeff. of components in solns., temp. depend. 2−76717
AlGaAs, organometallic VPE growth, O_2 gettering by graphite and SiC baffles 2−67220
AlGaAs, undoped, MOCVD growth and charact. 2−98497
AlGaAs-GaAs, tunnel heterojunction, MBE growth and elec. props., multigap cascade solar cell interconnect appl. 2−57701
p-$Al_{0.7}Ga_{0.3}As$-pGaAs-nGaAs, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
$Al_{1-x}Ga_xAs$ terraced-heterostruct. large optical cavity diode laser, LPE growth and high-power CW single-mode operation 2−114298
$Al_xGa_{1-x}As$, metalorganic VPE grown, residual shallow acceptors, photoluminescence study 2−93245
$Al_xGa_{1-x}As$, composition control and superlattice fabrication by pulsed MBE 2−99342
$Al_xGa_{1-x}As$ epitaxial films with variable composition gradient, production 2−87115
$Al_xGa_{1-x}As$ epitaxial film, homogeneous, high resistivity, synthesis 2−116397
$Al_xGa_{1-x}As$ epitaxial layers, MBE growth, substrate temp. influence on morphology 2−76853
$Al_xGa_{1-x}As$, growth of variance epitaxial layers, by isothermal mixing of melts 2−88009
$Al_xGa_{1-x}As$ heteroepitaxial struct., graded-index, current controlled thickness composition profile 2−88013
$Al_xGa_{1-x}As$, LPE short-time growth, anal. 2−61306
$Al_xGa_{1-x}As$ proton-isolated narrow stripe visible laser grown by MOCVD 2−80984
$Al_xGa_{1-x}As$, pulse beam technique for composition control of MBE 2−83027
$Al_xGa_{1-x}As$ solid soln., electroliq. epitaxy distinctive features 2−88012
$Al_xGa_{1-x}As$-Al-$Al_yGa_{1-y}As$ struct., instabilities in MBE growth 2−66395
$Al_xGa_{1-x}As$-GaAs heterostruct., modulation doped, MBE grown, carrier mobility, substrate temp. effect 2−61567
$Al_xGa_{1-x}As$ DH laser, rake lines, influence of cooling rate and melt config. in LPE 2−77760
$Al_xGa_{1-x}As_ySb_{1-y}$, LPE growth on (111)-B oriented GaSb 2−98495
$(Al_xGa_{1-x})_yIn_{1-y}As$ lattice matched to InP substrate, MBE growth 2−105080
AlGaInSb semiconductor system, LPE growth 2−83045
$Al_{0.48}In_{0.52}As$, LPE growth lattice matched to InP 2−99355
AlN film, basal orientation, RF diode sputtering, low temp. growth 2−72623
AlSb film growth by laser annealing Al/Sb sandwich 2−92416
AlSb, MBE growth on GaAs(GaSb)(InAs) and RHEED characterisation 2−87087
As_2Se_3, film, photostructural changes, influence of prep. method 2−99353
BN hexagonal film, low temp. deposition by CVD 2−71841
$(Bi_xSb_{1-x})_2(Te_ySe_{1-y})_3$, orientated thermoelec. material, Bridgman method prep. technique 2−105061
$CdCr_2Se_4$, single crystal growth, chemical transport reaction 2−99328
$CdCr_2Se_4$:In, Ag defect single cryst. growth, elec. and mag. characts., dopant influence 2−91842
$CdGeP_2$, prep. and struct., vapour transport method 2−93392
$Cd_xHg_{1-x}Te$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
p-$Cd_xHg_{1-x}Te$, characterisation of MBE grown layers 2−110198
$Cd_xHg_{1-x}Te$, compositional uniformity, directed crystn. from melt 2−76333
$Cd_xHg_{1-x}Te$, growth by pressurised cast-recrystallise-anneal technique 2−111068
$Cd_xHg_{1-x}Te$ high quality epitaxial films, growth by sputter deposition 2−116362
n-$Cd_xHg_{1-x}Te$ layers, MBE growth, struct. and elec. props. 2−99340
$Cd_xHg_{1-x}Te$, MBE growth 2−93433
$Cd_xPb_{1-x}S$, film, growth kinetics, chem. deposition from aq. soln. 2−110190
CdS epitaxial layer preparation in $Cd(CH_3)_2$-$(CH_3)_2S$-H_2 system 2−87996
CdS film, oriented, grown on glass and InP substrates by thermal decomposition of organometallic cpds. 2−67224
CdS films, RF sputtered, struct. and elec. resist., deposition dependence meas. 2−105073
CdS, hot wall epitaxial growth, elec. props. 2−93430
CdS powder particle perfection, fused $CdCl_2$ and Na_2S_x solvent effects 2−105066
CdS, single and bicryst. growth from vapour, polarity influence 2−57279
CdS single crystals grown from vapour phase, impurities and hexagonal spiral pits 2−76342
CdS soln. growth using Te as solvent 2−93398
CdS:In film, low resist., prep. by spray pyrolysis 2−71842
CdS:O, grown from melt, O content, activation anal. 2−86702
n-CdS/n-InP/p-InP heteroface solar cell, growth and evaluation 2−88452
CdS-CuS thin film heterojunction solar cell, fabrication 2−116833
$CdS_{1-y}Se_y$ epitaxial layers grown by H_2 transport from elements, photolum. props. 2−99172
CdS_xSe_{1-x} thin film, growth on CdS substrate by solid-state diffusion, composition control 2−71813
CdSe soln. growth using Te as solvent 2−93398
$CdSe(CdSe_{1-x}Te_2)$ electroplated layers, growth and photoelectrochem. solar cell appl. 2−105580
$CdSe_{1-x}S_x$ films, soln. grown, struct. and optical props. 2−56388
$CdSe_xTe_{1-x}$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
$CdSnAs_2$, films, prop. by LPE 2−72634
$CdSnO_4$ films, dip coatings, prep. technique 2−105096
$CdSnO_4$ transparent cond. film, planar magnetron sputtering 2−105074
CdTe, bulk grown and epitaxial samples, minority carrier diffusion length 2−115776
CdTe, deposition by spray pyrolysis, for solar cell appl. 2−71828
CdTe, epitaxial growth on PbTe, by close-spaced technique 2−88001
CdTe film, heteroepitaxial, MBE growth on InSb (001) 2−56374
CdTe films, large grained (111)-orientated, quasi-rheotaxy growth and solar cell appl. 2−105079
CdTe, hot wall epitaxial growth, elec. props. 2−93430
CdTe, LPE growth on CdS polar face from Cd soln. 2−57311

semiconductor growth continued
CdTe, MBE growth 2−93433
CdTe, MBE growth and elec. characterisation 2−93431
CdTe, modified solvent evaporation cryst. growth and characterisation 2−111050
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
CdTe, single crystals, grown from vapour, X-ray topography study *(German)* 2−60993
$CdTe_xSe_{1-x}$ semiconducting cmpds., laser induced formation 2−115593
$Cd_{1-x}Zn_xS$ films evaporated by electron bombardment, struct. study 2−71834
$Cu_{2-x}B^{VI}$, preparation by solid-phase mass transport, elec. props. 2−111066
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGaTe_2$, LPE growth on ZnSe from Bi soln. and heterostruct. elec. props. 2−62084
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2−105065
$CuIn_5S_8$, two-temp. synthesis, props. 2−77725
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
$CuInSe_2$, LPE heteroepitaxial growth on ZnSe from In soln. 2−57310
$CuInSe_2$, spray pyrolysis and heat treatment, for photovoltaic appl. 2−71843
$(Ga,In)(As,P)$ microwave and optoelectronic heterostruct. growth using multibarrel reactors 2−77747
(Ga,In)As, equilib. consts. derivation from LPE, VPE growth data, solid activity coeffs. determ. 2−98481
GaAlAs DH shallow proton stripe geometry laser grown by MO-CVD 2−55206
GaAlAs heterostructures on GaAs, simultaneous LPE method for multi-layer structures in multislice boat 2−111100
GaAlAs-GaAs, channeled substrate narrow stripe laser, LPE growth, computer model 2−96982
$Ga_{0.85}Al_{0.15}As$, growth by temp. gradient LPE with convective flow *(Chinese)* 2−111097
$Ga_{1-x}Al_xAs$:Si, Ge, LPE growth and doping, elec. and photolum. props. 2−116393
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs, bulk Bridgman crystals, O related gettering of Si during growth 2−61005
GaAs bulk crystals soln. grown by slow cooling, const. temp. steady-state processing macrosegregation 2−91845
GaAs CVD, thermodynamic anal. of $Ga/AsCl_3/H_2$/inert gas system *(Chinese)* 2−111079
GaAs, CVD from trimethyl gallium-AsH_3 flowing vapour 2−116381
GaAs, crystal growth-property relationships, Bridgman-type apparatus for study 2−86612
GaAs dislocation-free crystal prod. by doping, necking procedure in LEC growth 2−76337
GaAs film, amorphous, plasma deposition and characterisation 2−111094
GaAs, grown by Bridgman method, props. 2−98675
GaAs, high purity OMCVD grown using trimethyl and triethyl gallium sources, acceptor incorporation 2−99350
GaAs, in situ etching using $AsCl_3$ in MOVPE 2−99348
GaAs, LEC grown, effect of water content of B_2O_3 encapsulant on purity and stoichiometry 2−103674
GaAs, LEC growth, donor impurities, photoluminescence evaluation 2−116230
GaAs, LEC growth of homogeneous undoped semi-insulating crysts. with in-situ melt purification 2−93408
GaAs, lateral expitaxial CVD, growth on Ge-Si substrates with low dislocation density 2−116371
GaAs layer growth on insulating substrates, ion beam deposition *(Japanese)* 2−116384
GaAs, liquid encapsulated Kyropoulos growth method 2−99323
GaAs, liquid encapsulated Czochralski, compensation mechanism, melt stoichiometry 2−111057
GaAs, MBE, Mn incorporation behavior 2−104191
GaAs, MBE growth on Ge (100), interface morphology, RHEED study 2−56386
GaAs MOCVD layers, low temp. growth at atm. pressure 2−93441
GaAs, metalorganic VPE layers, impurity redistribution, SIMS study 2−115582
GaAs, selective epitaxial growth by liquid phase electroepitaxy 2−62082
GaAs, semi-insulating, bulk growth by LEC 2−57283
GaAs, semi-insulating behaviour and thermal stability, stoichiometry effect 2−110348
GaAs semi-insulating bulk crystal growth by Liquid Encapsulation Czochralski process, Ga inclusion minimization 2−67212
GaAs substrates, cryst., growth from melt *(German)* 2−57281
GaAs, tunnel junctions for multigap cascade solar cells 2−57701
GaAs undoped epitaxial layers grown by CVD, residual impurity depend. on growth time 2−56404
GaAs, undoped semi-insulating LEC grown, growth striation etching 2−76350
GaAs, VPE, interdiffusion coeffs. of growth components 2−56382
GaAs vapour-phase transport on V-shape grooved GaAs substrate 2−99347
GaAs, whisker growth during MBE 2−76876
GaAs:Be, p-type doping in metalorganic VPE, hole conc. and cond. 2−105089
GaAs:Fe, Cr, LEC grown, impurity densities and Fe(Cr) redistrib. 2−98146
GaAs:Mg, organometallic-VPE growth, doping control 2−87991
GaAs:S, VPE *(Chinese)* 2−93435
GaAs:Sb, LPE, Sb distrib. 2−104182
GaAs:Se implanted, dose depend. of epitaxial regrowth 2−56378
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2−77568
GaAs:Si epitaxial layers, multilevel doping using single $AsCl_3$:$SiCl_4$ doping source 2−55994
GaAs:Si(Be) artificial doping superlattices, MBE growth, elec. and optical props. 2−92735
GaAs:Sn, nucleation effects during MBE growth 2−76845
$GaAs/Ga_{1-x}Al_xAs$ solar cell fabrication using VPE, performance evaluation 2−73124
$GaAs-Al_xGa_{1-x}As$:Si, heterojunction barriers, elec. transport and MBE growth 2−82448

semiconductor growth continued
GaAs-AlGaAs heterostructures grown by MBE and their application to devices *(Japanese)* 2−87380
$GaAs-Ga_{1-x}Al_xAs_{1-y}P_y$ heterostructure lattice matching rel. to laser fabrication *(Chinese)* 2−66375
GaAs-GaAlAs graded refractive index separate confinement heterostructure laser grown by organometallic VPE 2−96975
GaAs-GaAlAs multiple quantum well lasers grown by MO-CVD, far-field radiation patterns 2−114271
GaAs-GaAlAs-GaAs rectifying structures fabricated by metalorganic CVD composition grading 2−115871
GaAs-Se(S), comparison of H_2S and H_2Se n-type doping by MOCVD 2−103800
GaAs(:Ge), MBE grown, deep levels and photoluminesc., MBE As_2/As_4 flux ratio effects 2−99341
$(GaAs)_{1-x}Ge_x$ single-crystal metastable alloys, growth and optical props. 2−116360
$GaAs_xP_{1-x}$-GaP strained-layer superlattice, MOCVD growth and photoluminesc. props. 2−110919
$GaAs_xSb_{1-x}$, LPE growth on InAs substrates 2−88010
$Ga_{0.47}In_{0.53}As$ growth on InP substrates using metalorganic process, factors influencing growth 2−87099
$Ga_{0.47}In_{0.53}As$, MBE grown, Si doping and elec. props. meas. 2−92005
n-$Ga_{0.47}In_{0.53}As$, quasi-Schottky barrier diode using fully depleted p^+-$Ga_{0.47}In_{0.53}As$ layer, MBE growth 2−56668
$Ga_{0.47}In_{0.53}As$, VPE growth and charact. for microwave device appls. 2−83043
$Ga_xIn_{1-x}As$ films, vapour growth from In/Ga alloy source, characterisation 2−99351
GaInAsP low press. MOCVD growth, for microwave device and optoelectric device appl. 2−98496
GaInAsP-InP 1.3 μm DH, LPE *(Chinese)* 2−93449
GaInAsP-InP BH 1.5 μm lasers fabricated by hybrid combination of LPE and VPE 2−60101
GaInAsP-InP DH laser with monolithically integrated passive waveguide, LPE regrowth 2−60118
GaInAsP-InP DH lasers, MBE grown, 1.3 micron 2−114273
$Ga_xIn_{1-x}As_{1-y}P_y$, epitaxial layer, charact. of electron-pumped lasers 2−75577
$Ga_xIn_{1-x}As_yP_{1-y}$, VPE growth and charact. for microwave device appls. 2−83043
$Ga_xIn_{1-x}P$, LPE growth on GaAs (100) and (111)B, orientation dependence meas. 2−93450
$Ga_xIn_{1-x}P$:Be(Sn), MBE growth using Pb flux and elec. characterisation 2−87987
GaN CVD growth on sapphire, growth kinetics and surface morphology meas. 2−111081
GaN epitaxial layer, optimized growth conditions 2−66391
GaN, gas phase deposition by pyrolysis of Ga tri-iodide ammine, vel. front 2−72630
GaN heteroepitaxial layer, growth and doping kinetics, cathode luminesc., elec. props. 2−104185
GaP film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
GaP, heteroepitaxial MBE growth on Si (100), elec. props., heterojunction form. 2−57297
GaP LEDs, LPE growth on LEC and synthesis solute diffusion substrates 2−111098
GaP, large diameter single cryst., computer controlled LEC growth 2−99327
GaP layer, liq. phase electroepitaxy from limited and unlimited sources, growth kinetics 2−56380
GaP, MBE growth, P_2 beam source technique 2−57300
GaP polar-on-nonpolar MBE on Si(211), nucleation and growth, sublattice ordering 2−110204
GaP thin film, vacuum deposited, heteroepitaxial growth, struct., characterisation 2−87985
GaP:B grown by LEC technique, IR absorpt. band, resonant and gap modes 2−99157
GaP:S LEC epitaxial layer, microdefects and dislocation generation, TEM study 2−115236
GaSb, Czochralski growth of low dislocation density crystals, X-ray study 2−93407
GaSb, melt-grown single cryst., defect etchant for dislocations and growth striations 2−91972
GaSb, single cryst. Czochralski growth, twinning, seed cryst. polarity effects 2−99319
GaSb single crysts., Czochralski growth under reducing conditions 2−99321
Ge, epitaxial growth from Ge-In solution, radiation effects *(Russian)* 2−76869
Ge, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Ge, graphite crucible for spitting-free high rate e-gun 2−93426
Ge ion beam deposition, epitaxial growth 2−116388
Ge, MBE growth on GaAs (100), interface morphology, RHEED study 2−56386
Ge, thin film growth by laser induced CVD 2−77752
Ge transport by GeI_4, GeI_2, CVD numerical model 2−97956
Ge-GaAs, (110) and (111), MBE grown, interface morphology, RHEED study 2−98470
Ge-GaAs (100) heterojunction, MBE growth, surface processes, LEED and photoemission study 2−110203
GeSe single crystal growth from vapour, phenomenological description 2−91840
$Hg_{1-x}Cd_xTe$ film growth by laser included evaporation and deposition 2−87989
$Hg_{1-x}Cd_xTe$, isothermal epitaxial growth, elec. props. optimisation 2−93452
$Hg_{1-x}Cd_xTe$, metalorganic CVD epitaxial growth 2−88000
HgI_2 counters, purification, crystal growth, device fabrication 2−80393
HgTe, epitaxial growth by MOVPE process, props. 2−62071
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2−87366
III-V semiconductors, LPE, substrate orientation and surface morphology 2−67229
In-Ga-As-P/InP system, improved LPE techniques for low threshold lasers at 1.55 μm 2−99357
InAs-InAsSbP heterostruct. grown by organometallic VPE 2−98498
InGaAlP DH layers, MBE growth on (100) GaAs substrates, laser appls. 2−104206

semiconductor growth continued
InGaAlP on (100)GaAs, MBE growth 2−104189
InGaAs, metalorganic VPE growth on InP substrate 2−61309
InGaAs:Te, VPE growth for photodetectors 2−111086
InGaAs-InP p^+-n heterojunctions, fabrication and charact. 2−99362
$In_{0.53}Ga_{0.47}As$, LPE growth on structured InP substrates 2−105093
$In_{0.77}Ga_{0.23}As$, lattice-mismatched MBE growth on InP 2−57296
InGaAsP ($E_g \geq 1.15$ eV) layers, growth by LPE under P overpressure 2−67226
InGaAsP LPE layers, melt-carry-over 2−98473
InGaAsP LPE on InP, growth temp. and impurity doping effect on comp. 2−98482
InGaAsP/InP DH stripe geometry lasers using proton-defined LPE-grown wafers *(Chinese)* 2−65244
InGaAsP/InP double heterostructs. on InP, large area LPE growth 2−99358
InGaAsP-InP single-mode buried waveguide structures grown on channelled {111}B InP substrates 2−114421
InGaAsP-InP V-grooved substrate BH laser, fabrication by one-step epitaxy 2−80995
$In_{0.48}Ga_{0.52}As_{0.01}P_{0.99}$ lattice matched to GaAs, LPE from In melt rich in P, photoluminesc. obs. 2−88008
$In_{1-x}Ga_xAs_{1-y}P_y$, low temp. LPE on InP, immiscible domain 2−98494
$In_{1-x}Ga_xAs_zP_{1-z}$-$GaAs_{1-y}P_y$ (100), LPE growth and pulsed room temp. laser operation 2−90926
$In_xGa_{1-x}As_yP_{1-y}$ LPE layers, lattice matched to InP, comp. modulation, expt. study 2−87084
$In_{1-x}Ga_xAs_{1-x}Sb_y$ solid soln., LPE growth, unstable comp. regions, regular soln. approx. 2−92204
$In_{1-x}Ga_xP$, LPE growth on GaAs, composition self-modulation obs. 2−116395
$In_{1-X}Ga_XP/Ga_{1-Y}Al_YAs$ on GaAs, LPE growth 2−99361
$In_{1-x}GaP_{1-y}As_y$, high purity, LPE growth 2−93459
$In_{1-x}Ga_xP_{1-y}As_y$-GaAs, reproducible LPE growth by P vapour control on substrate 2−88007
In_2O_3:Sn conducting layers, thermal vacuum deposition technique 2−105076
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
In_2O_{3-x} films, reactive evaporation prep. and elec. resist. meas. 2−105088
InP, agitated gas flow technique for high press. synthesis *(Chinese)* 2−99320
InP, high purity, LPE growth 2−93459
InP, high quality, MBE growth 2−116367
InP, LEC grown semi-insulating, effect of Fe content on thermal stability 2−97966
InP, LPE, detection and prevention of S contamination 2−93458
InP, LPE grown, surface morphology, doping impurities and cooling rates effects 2−92390
InP, LPE growth on $In_{0.53}Ga_{0.47}As$ (111)A without dissolution 2−77757
InP LPE layers, dislocation density, intermittent growth procedures effects 2−116392
InP LPE layers, melt-carry-over 2−98473
InP layers, growth by LPE under P overpressure 2−67226
InP low press. MOCVD growth, for microwave device and optoelectric device appl. 2−98496
InP, semi-insulating single crystals, high quality, grown by automatic diameter control system 2−99326
InP, single crystals, dislocation free, cryst. growth by LEC technique 2−97965
InP structured {100} substrate, fabrication by preferential etching for LPE growth 2−99571
InP thin heteroepitaxial film on CdS, vapour growth 2−71833
InP:Cd, VPE growth and photolum. characterisation 2−88002
InP:Mn, single crystal Czochralski growth and props. 2−93406
InP:Sb, LEC single crystal growth, Sb dopant distrib. coeff. 2−93412
InP:Te, VPE growth for photodetectors 2−111086
InP-InGaAsP-InGaAs struct., LPE grown, lattice defects study 2−71454
InP-InGaAsP-InP DH wafer, LPE grown, misfit dislocations 2−98096
β-In_2S_3, two-temp. synthesis, props. 2−77725
InSb melt, suppression of thermal convection by transverse mag. field 2−86600
InSb, pulled crystals, Czochralski growth, impurity distrib., US vibr. effects 2−116357
InSb-InBi solid solns., grown by MBE, charact. 2−104190
InSe, crystal growth and defect evaluation *(Japanese)* 2−87958
InSe large single crystals grown from stoichiometric, non-stoichiometric melts 2−93411
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2−105068
$In_{2-x}Sn_xO_{3-y}$ transparent cond. film, planar magnetron sputtering 2−105074
In_2Te_3 thin films, growth and props. 2−71840
P, black, single cryst. growth from melt, X-ray structural characterisation 2−111056
Pb-Sn-Se, LPE, comp. depend., 770 to 1020K 2−99356
$Pb_{1-x}Ge_xTe$ thin film structures, growth by MBE 2−92393
$Pb_xHg_{1-x}Te$, single crystal growth by Czochralski method 2−99322
PbS film, spectrally selective, produced by ion beam sputtering 2−71824
PbS, growth of single crystals from natural galena 2−116356
PbS_xSe_{1-x} thin film deposition, soln. growth technique 2−93461
$Pb_{1-x}Sn_xSe$, thin layers, grown by 'hot wall' method 2−72627
PbSnSeTe-PbSeTe DH lasers, lattice-matched, LPE grown 2−55194
$Pb_{0.8}Sn_{0.2}Te$ epitaxial films produced by vacuum evaporation, high mobility produced by annealing 2−82486
$Pb_{0.81}Sn_{0.19}Te$ DH laser, LPE grown, operation at 10.6 μm, 85K 2−80955
$Pb_{1-x}Sn_xTe$ hetero-layers for IR diode lasers, hot-wall epitaxial growth 2−60103
$Pb_{1-x}Sn_xTe$, horizontal vapour transport in closed tube *(Chinese)* 2−111078
$Pb_{1-x}Sn_xTe$ single cryst. growth, by vapour-melt-solid mechanism 2−62060
$(Pb_{1-x}Sn_x)_{1-\Delta}Te_{1+\Delta}$/PbTe, diffusion phenomena, during heteroepitaxy 2−92378
PbTe, bulk crystal, synthesis by iodide method, elec. and struct. characterisation 2−67210
PbTe cryst. growth from soln., travelling heater method, gravitation effects 2−111044
PbTe, cryst. growth from soln. by travelling heater method, gravitation effects 2−111045
semiconductor growth continued
PbTe crystal growth by travelling heater method 2−93404
PbTe epilayers, LPE growth from supercooled solns., improved morphology 2−110192
PbTe, heterogeneous nucleation, statistical thermal anal. 2−65892
PbTe single crystals grown by vertical Bridgman technique, micro-size defects 2−97958
Sb_2O_3 film, chem. deposition from soln. 2−105094
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Sb_2Se_3 film, chem. deposition from soln. 2−105094
Sb_2Te_3 single cryst. growth by hot wall epitaxy 2−93418
Si 3 inch solar cells, fabricated in fluidised-bed reactor, charact. 2−88438
Si (111) wafers, micro-distortion in figure during epitaxial growth *(Chinese)* 2−110188
Si abrupt epitaxial junctions 2−115877
Si, amorphous film, laser crystallisation, rel. to density 2−56407
Si, amorphous film, laser induced controlled nucleation and growth process 2−56408
Si, amorphous film, solid phase epitaxy, laser-induced 2−56405
Si, Ar^+ laser induced CVD from SiH_4 2−83030
Si as-grown Czochralski crystal, nucleation temperature of large oxide precipitates 2−91841
Si, CVD growth, decomposition prob., expt. determ. 2−105087
Si, CVD growth rate from SiH_4 atm., temp. depend. meas. 2−99345
Si CVD homepitaxial layer doping, book contrib. 2−72632
Si, cryst. growth from melt., temp. field control by IR television technique 2−111052
Si cryst. growth on insulator, poly Si, graphoepitaxy and bridging epitaxy methods *(Japanese)* 2−103813
Si crystal growth by Czochralski method, SiO conc. control by US vibration of immersed plate 2−111059
Si, Czochralski crystal growing furnace, quality considerations 2−99324
Si, Czochralski grown, thermally induced microdefects, nucleation and growth obs. 2−57379
Si, Czochralski growth, dynamic O equilib. in melts 2−60895
Si, Czochralski growth system, melt temp. effects on crystallisation rate 2−87964
Si, Czochralski growth system, mech. instability effects on crystallisation rate 2−87965
Si, edge-defined film-fed growth, heat transfer effect on interface shape and solute segregation 2−97955
Si, epitaxial growth, ion channelling studies, review 2−71537
Si, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Si epitaxial growth using SiH_2Cl_2, hillocks and stacking faults obs. 2−93437
Si, epitaxial layer, gas phase autodoping profile 2−115268
Si film, CVD in capillary layers, mol. decomp. probability determ. method 2−111088
Si film, on SiN layer, stripe shaped cryst. growth by scanning electron beam annealing 2−87092
Si film, polycryst., low temp. mol. beam deposition 2−57295
Si film, produced by field emission deposition, props. 2−71836
Si film, recrystn. on amorphous substrate by doughnut shaped CW laser beam 2−56377
Si films, 3 in. diameter, zone-melting recryst. on SiO_2-coated Si substrate 2−99330
Si films over SiO_2 patterns, laser-induced lateral vertically-seeded epitaxial regrowth 2−87091
Si, implanted wafers, annealing using incoherent light and Si cryst. growth on SiO_2 2−103791
Si ion beam deposition, epitaxial growth 2−116388
Si, ion beam epitaxial growth on Ge and Si at 400K 2−99339
Si, LPE, low-temp. 2−62083
Si, LPE, minority carrier lifetime 2−72637
Si, large grain growth on SiO_2 by selective laser annealing 2−116358
Si, low energy BF_2^+ ion doping during MBE 2−92003
Si low pressure epitaxy for bipolar VLSI 2−87993
Si, MBE apparatus, high rate deposition on standard format wafers 2−57299
Si, MBE growth, etching of SiO_2 films 2−67218
Si, MBE growth kinetics 2−82153
Si, MBE of doped layers, book contrib. 2−72628
Si, micro-zone melted, cellular growth 2−93414
Si, plasma deposition from $SiCl_4$ in inductive RF low. press. plasma 2−105091
Si, polycryst. and amorphous, deposition from silane in low-pressure hot-wall system 2−77746
Si, polycrystalline, growth on Mo(Ta)(W) and disilicide formation 2−71817
Si polycrystalline layer growth kinetics at reduced press. *(Bulgarian)* 2−83032
Si production by SiH_4 heterogeneous decomposition in fixed bed reactor 2−116376
Si radiation detector, epitaxial crystal growth appl. 2−90367
Si ribbon, edge-defined film-fed growth, ambient-meniscus melt interactions associated with impurity transport 2−97950
Si ribbon growth, using electron bombardment 2−66387
Si seed crystal fabrication for use with Czochralski method 2−99325
Si single crystal, pedestal grown, resistivity radial distrib. 2−104365
Si solar cells, fabrication and props. using squarely shaped crystals 2−88439
Si, solid phase lateral epitaxial growth onto adjacent SiO_2 film from ion implanted amorphous Si 2−77730
Si substrate, process for simultaneously making thin and thick epitaxial layers 2−98478
Si substrates, cryst. growth from melt *(German)* 2−57281
Si surface, (111), thermal epitaxial growth during ion bombardment, LEED study 2−87088
Si surface (111), epitaxy, high resolution LEED study 2−98487
Si, temperature fields, calc. using heat flow potential 2−65896
Si, thin film growth by laser induced CVD 2−77752
Si thin polycryst. rod growth by pulling from melt on pedestal, impurity distrib. 2−76347
Si: P and compensated Si:P,B, ion implanted, epitaxial regrowth obs. 2−92388
Si:As, amorphous film, laser induced solid phase epitaxy kinetics, time resolved reflectivity study 2−56384
Si:B, codeposition from Si and B, influence of traces of water vapour 2−111080

semiconductor growth continued
Si:Ga, doping during MBE, AES and isothermal desorpt. spectra study 2−109819
Si:H, amorphous film, RF planar-magnetron sputtering, IR and photoelec. props. *(Japanese)* 2−99332
Si:H amorphous film, growth by silane laser photodissociation, X-ray and IR spectra study 2−116375
Si:H amorphous film, multipole DC discharge growth, ellipsometric study 2−92422
Si:H amorphous film prep., evaporation method 2−62069
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
a-Si:H films, growth and characterisation 2−83031
Si:O, polycrystalline films, prep. and props. 2−72629
Si:P, CVD epitaxial growth, P doping process obs. 2−93439
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
Si:P(As), CVD VPE grown, doping element incorporation, total press. depend. calc. 2−91998
Si:Sb, laser epitaxy over buried layers 2−56406
Si:Sb(In)(Ga)(Bi)(As), ion implanted, metastable supersaturated solid solns. formation during solid phase epitaxy 2−98283
Si-CaF_2-Si heteroepitaxial struct., prep. by vac. deposition and charact. 2−115612
Si-$In_{2-x}Sn_xO_{3-y}$ p-i-n solar cell, reactive sputtering fabrication 2−57698
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Si-SiO_2, Si seeded oscillatory epitaxial growth by CW laser irrad. 2−99329
SiC epitaxial layer growth process for gaseous phase, thermodynamic anal. *(Bulgarian)* 2−87992
β-SiC layers formation on heated Si wafers exposed to sublimed C 2−93443
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
SnO_2 film deposited by oxidation of $SnCl_2$, transparency and resistivity 2−111092
SnO_2 film on Si, solar cell appl., CVD low-temp. process 2−57713
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F transparent cond. films., prep. and props., review 2−105068
Te, VPE growth with partially ionised vapour, expt. study 2−116368
$TlPbI_3$, Tl_3PbI_5, Tl_3PbBr_5, crystal growth, elec. and optical props. 2−87967
$TlSbSe_2$ layer cryst., electrophys. parameters, growth conditions depend. 2−104375
$TlSnI_3$,$TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
$Zn_{1-x}Cd_xS$, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
$Zn_xCd_{1-x}S$-Cu_2S single crystal photovoltaic cell, optimum performance 2−116822
ZnO film, c-axis orientation, energetic atom bombardment influence 2−98476
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2−86194
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO soln. growth using Te as solvent 2−93398
ZnO thin films, c-axis oriented growth on Si, CVD method 2−62072
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
ZnS film, electron beam evaporated, growth and struct., expt. study 2−111076
ZnS, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnS, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
ZnS soln. growth using Te as solvent 2−93398
ZnS:Mn electrolum. films grown by at. layer epitaxy, ageing process 2−116264
ZnS:O, grown from melt, O content, activation anal. 2−86702
ZnS(Se), Z 2−116235
ZnS(Se):Mn, epitaxial layers grown organometallic CVD 2−116378
$Zn_{1+x}(S_xSe_{1-x})$ single crysts., vapour growth and stoichiometry control 2−93393
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZnSe crystal vapour phase growth, longit. stress during fabrication cooling time 2−91844
ZnSe crystals stoichiometry when obtained from melt 2−104006
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZnSe in Sn, LPE, phase diagram and electronic props. 2−116428
ZnSe, LPE, by temp. difference method 2−116394
ZnSe, LPE growth on ZnS and ZnTe using Te and Te-Se as solvents 2−93398
ZnSe, low temp. single crystal growth, chemical vapour transport 2−116348
ZnSe, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnSe soln. growth using Te, Se and As_2Se_3 as solvents 2−93398
ZnSe thin films, selective area MBE, electrolum. device appl. 2−92387
ZnSe, VPE grown film on GaAs, optoelectric props. control 2−116382
ZnSe, ZnS_xSe_{1-x}, growth and doping by organometallic CVD 2−111087
ZnSe:Ga, MBE growth and elec. cond. and photoluminesc. props. meas., blue LED appl. 2−87986
ZnSe:O, grown from melt, O content, activation anal. 2−86702
$ZnSnAs_2$, LPE growth on ZnSe substrate from Sn soln. 2−77756
ZnTe, CVD epitaxial growth, closed tube method, transport rates, expt. and thermodynamic anal. 2−57306

semiconductor-insulator boundaries
see also semiconductor-insulator-semiconductor structures
DLTS studies of interface states by const. capacitance technique, review 2−110484
insulating films on semiconductor substrates, conf., Erlangen, Germany (April 1981) 2−53429
interface states, const. capacitance DLTS method 2−77141
MOS, accurate Si-SiO_2 interface handling for mathematical simulation 2−115905
native oxide form., atomic struct., interface electronic struct. 2−76788

semiconductor-insulator boundaries continued
nematic liq. cryst.-semicond. system, electroreflection, dielec. polarisation 2−104854
piezoelectric-semicond. layered system, acoustic quantization in case of tight binding 2−87002
silicide-Si interface electronic states and microstruct. 2−87412
SOS:B, ion implanted, doping profile, thermal distribution, computer simulation 2−66033
SOS, electrical transport props., thermoelectric power appl. *(French)* 2−61594
SOS, laser annealed, electron Hall mobility and residual stresses, heat treatment effects, Raman study 2−98745
SOS, two-layer structure, scanning electron or laser beam irrad., temp. distrib. calc. 2−92027
SOS device structures, Raman meas. of stress 2−77499
SOS epitaxial film, fault-free Si at Si-Al_2O_3 interface 2−115575
SOS films, non-homogeneous elec. transport, galvanomag. expts., internal stress influence 2−115904
SOS structures, Hall mobility and capacitance meas., internal stresses and pot. fluctuations influence 2−82470
subband physics with real interfaces, review 2−61610
two-dimensional systems, electronic props., review 2−82467
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
CdTe-TeO_2 epitaxial layer, interface struct., high resolution TEM study 2−56367
GaAs surface state reduction by plasma growth of oxyfluorides 2−110427
GaAs-$Cre_3N_4(Si_3N_4)$, interface polar exciton, variational calc. *(Russian)* 2−76940
GaAs-insulating film interface, MESFET struct., elec. and optical props. 2−110486
GaAs-oxide interface electronic struct. 2−87409
GaAs-oxide interface states, two-beam transverse acoustoelec. spectroscopy study 2−82463
GaAs-Si_3N_4 interface quality improvement by surface treatment and annealing 2−110487
p-$Ga_{0.47}In_{0.53}As$:Zn-SiO_2 MIS struct., interface states and field effects meas. 2−98758
Ge-GeO_2, charge carrier transport in dielectric, photo-injection method obs. 2−104493
heterostructure photoanode, energy diag. and photoelectrochem. props. 2−98747
$Hg_{0.7}Cd_{0.3}Te$-anodic oxide interface, photoelec. and field effect props. 2−87398
$Hg_{1-x}Cd_xTe$, plasma anodised, interface study 2−104489
InAs, thermal oxidation, oxide film characterisation 2−111348
InP-Al_2O_3 anodic interface formation, enhancement MISFET appl. 2−82461
InP-oxidized film interfaces, phys. props. *(Chinese)* 2−92763
InP-Si_3N_4 interface, I-V, C-V and MISFET charact., CVD, surface pot. var. 2−56710
InP-SiO_2 interface, I-V, C-V and MISFET charact., CVD, surface pot. var. 2−56710
InP-SiO_2 interface, plasma-enhanced CVD growth, XPS and TEM study 2−110169
$LiNbO_3$-CdSe multilayer struct. with periodic-array contacts, freq. doubling 2−92705
PbTe-$LiNbO_3$ system, ferroelec. polarisation effect on elec. cond. of semicond. layer 2−110503
$PbTiO_3$-Si, RF sputtered, ferroelec.-semicond. interface states, DLTS and capacitance study 2−98746
Se/polystyrene-hexylmethacrylate copolymer interface, charge transfer 2−56722
Si film on Si_3N_4/SiO_2 double insulating layer, CW laser recrystallisation, bipolar transistor fabrication 2−82154
Si, zone-melting-recrystallised films on SiO_2-coated Si substrate, subgrain boundaries effect on carrier transport 2−77207
Si:H, amorphous film, density of states, field effect determ. technique, annealing and illumination effects 2−61593
Si-3,4,9,10-perylenetetracarboxylic dianhydride contact barrier devices, elec. charact. 2−92758
Si-CaF_2-Si heteroepitaxial structs. formation by vacuum deposition, etching charact. 2−83026
Si-$NiSi_2$ interface, lattice imaging and defects 2−66378
Si-Pd_2Si interface, lattice imaging and defects 2−66378
Si-sapphire, SOS, heteroepitaxial, hydrogenation induced improvement in electronic props. 2−66669
Si-sapphire interface, high resolution TEM study 2−66380
Si-Si_3N_4, interface anal. using spectroscopic ellipsometry 2−79647
Si-Si_3N_4, nitride thickness meas. by IR absorption 2−112870
Si-Si_3N_4 interface, defect evolution, synchrotron X-ray topographic obs. 2−98471
Si-$Si_3N_4(SiO_2)$, diffusion of B(P), Si_3N_4 directly masked film effect 2−56260
Si-SiO_2, electron irrad., carrier fluctuations and trapping, capacitance study 2−115898
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Si-SiO_2, MOS capacitance, surface pot. and surface states 2−72059
Si-SiO_2, oxide thickness meas. by IR absorption 2−112870
Si-SiO_2, Si seeded oscillatory epitaxial growth by CW laser irrad. 2−99329
Si-SiO_2, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
Si-SiO_2 charge coupled struct., surface charge transport, losses, temp. depend. 2−115851
Si-SiO_2 dielec. props., built-in charge, pulsed annealing effects 2−72066
Si-SiO_2 interface, atomic roughness, oxidation parameters influence 2−56372
Si-SiO_2 interface, atomic struct., ion backscatt. channelling study 2−104172
Si-SiO_2 interface, Au doped, chemical bond model for Au surface states 2−110480
Si-SiO_2 interface, built-in charge, localisation depth, double elec. layer 2−115908
Si-SiO_2 interface, elec. props., negative bias-temp. test influence 2−77190
Si-SiO_2 interface, elec. charact. 2−92770
Si-SiO_2 interface, fixed charge density meas. for thin oxides 2−110481
Si-SiO_2 interface, Si ion implantation, defects, deep levels, annealing, C-V charact. study 2−61403

semiconductor-insulator boundaries continued
$Si-SiO_2$ interface, slow and fast states induced by hot electrons, expt. study 2−87395
$Si-SiO_2$ interface electronic struct. 2−56711
$Si-SiO_2$ interface morphology 2−56371
$Si-SiO_2$ interface props. studied by constant capacitance DLTS method 2−61606
$Si-SiO_2$ interface recombination velocity 2−56713
$Si-SiO_2$ interface state density determ., single HF approx. 2−115906
$Si-SiO_2$ interface states, H_2 annealed, stress behaviour 2−56712
$Si-SiO_2$ interface states determ. by thermally-stimulated current method *(Chinese)* 2−66642
$Si-SiO_2$ interface states, effect of trichloroethylene, C-V measurement techniques 2−72065
$Si-SiO_2$ interface states, AC field effect study 2−115897
$Si-SiO_2$ junction, interface electronic struct. 2−110485
$Si-SiO_2$ MOS interface states, optical excitation by IR light 2−56714
$Si-SiO_2$ photoelectrochemical solar cell performance, surface film effect 2−111568
$Si-SiO_2$ struct., Si MBE growth, RHEED study 2−92757
$Si-SiO_2$ structures, traps in transition region, TSCR study 2−98754
$Si-SiO_2$ system, interface state generation by photoinjecting electrons from Al field plate 2−66603
$Si-SiO_2$ system, photoinjection, carrier trapping 2−77198
$Si-SiO_2$-Si structures 2−72062
$Si-SiO_2$-electrolyte, SiO_2 thin films, conduct. and electroluminescence study *(Russian)* 2−87872
$Si-SiO_2$-metal system, trapping energy distrib. of mobile ions at interfaces, various metal gates *(Chinese)* 2−92765
$Si-Sio_2$ interface, localised intrinsic Si gap states 2−92714
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
Si_3N_4 film on Si, very high charge densities for inversion layer solar cells 2−61608
SiO_2 interface degradation and minority carrier lifetime effects of laser beam processing 2−61609
SiO_2 ultrathin layers on Si, grown by DC plasma anodization, elec. props. 2−56745
SiO_2-Si interface, H ion elec. behaviour 2−61634
SiO_2-Si interface effects in avalanche injection of electrons 2−56719
SiO_2-Si interface states and charge generation by electron tunnelling 2−56720
Si(100) surface inversion layer, electron mobility, memory function and Boltzmann eqn. approaches 2−56699
$Si(100)-SiO_2$ inversion layers, final-state interaction and intersubband spectroscopy 2−56698

semiconductor-insulator-semiconductor structures
solar cells, current flow mechanisms, theory and calcs. 2−62477
solar cells and photovoltaic effect, review *(Polish)* 2−83496
Si, CC amorphous p-i-n junction struct., photovoltaic effects, photo-carrier generation and recombination 2−82442
$Si-CaF_2-Si$ heteroepitaxial struct., prep. by vac. deposition and charact. 2−115612
SnO_2/In_2O_3-Si structure with tunnel-transparent insulating layer, elec., photoelec. and luminesc. props. 2−77159
$SnO_2/In_2O_3-SiO_x$-nSi, role of tunnel-thin dielectrics 2−99787
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
SnO_2-SiO_x-nSi solar cells, diode charact. and open-circuit voltage 2−99809

semiconductor integrated circuits *see monolithic integrated circuits*

semiconductor junction lasers
1.5 μm, linewidth reduction to <1.5 MHz by HeNe laser injection locking 2−65222
actively mode locked laser diode, transient behaviour obs. 2−97018
bistable injection laser, interaction with external optical cavity 2−55210
Brewster-angled semiconductor laser mode locking 2−80952
butt coupling of single-mode diode lasers to $LiNbO_3$ optical waveguides 2−55326
cleaving tool to form facet mirrors, new design 2−65418
combiner, laser beam, appls. to space-borne laser communications 2−109077
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268
coupled multiple stripe quantum well injection laser array, high power CW operation 2−96968
coupler to single mode fibre, ball lens aberration effect anal. 2−102936
CQL type, AEG-Telefunken product with 10 mW continuous output *(German)* 2−80988
CSP lasers, directly current-modulated, spectral behaviour 2−80970
DBR injection heterolaser, spatial, spectral and power charact. of radiation 2−108883
devices for advanced fibre systems 2−97229
DH laser, highly efficient coupling with fibre *(Chinese)* 2−65220
DH lasers, electro-optical delay time depend. on injection pulse current *(Chinese)* 2−90886
diffusion induced instability in injection lasers 2−70563
diode laser, freq. charcts. of self-sustained intensity oscill. using delayed elec. feedback 2−85964
diode laser butt coupling to $LiNbO_3$ waveguides, coupling efficiencies >65% 2−65359
diode laser feedback effects due to Rayleigh backscattering from optical fibre 2−75570
diode lasers, current-induced freq. modulation meas. technique 2−65265
dispersive extra cavity, mode selection and tuning *(Chinese)* 2−60123
external cavity controlled operation of semiconductor diode gain element in series with optical fibre 2−55221
external grating loaded semicond. lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation charcts. 2−85961
feedback noise rel. to carrier-induced index change 2−55162
fibre-optic transmitter/receiver modules, mounting and bonding of optical components 2−97234
gain saturation, theory and expt. 2−85965
Gaussian approximation of the emission from a semiconductor laser 2−55152
harmonic characteristics of laser diodes 2−108875
heterojunction laser driver for optical communications, bipolar IC 2−70706
III-V lasers, rapid and gradual degradation, dangling bonds and antisite defects role, theory 2−114270

semiconductor junction lasers continued
III-V semiconductor lasers, band-to-band Auger recombination, theory 2−96951
injection appls. in 0.8 μm to 1.6 μm range locked, for optical communications 2−97232
injection laser, twin stripe, diffusion and waveguiding effects 2−55149
injection laser, twin-stripe, optically induced spatial instability 2−55150
injection lasers, coating effect obs. using intracavity spectroscopy 2−108880
injection lasers, relation between transverse mode control and longitudinal mode behaviour 2−55153
injection lasers, spontaneous emission factor meas. 2−102793
injection locked and resonant type laser amplifiers, optical FM signal amplification 2−80959
injection locking properties of a semicond. laser 2−80969
instantaneous spectra, statistical anal. 2−75574
integrated and guided-wave optics, conf., Pacific Grove, CA, USA (Jan. 1982) 2−58550
interferometric and ring types laser analysis using scatt. matrix formulation 2−80963
interferometric laser, mode selection and tuning props. meas. 2−97000
interferometric laser, monolithically integrated cavity struct. 2−60127
internal reflection interference laser 2−60096
large-optical-cavity and nonplanar double-heterojunction laser structs., mode charcts. 2−80968
laser-to-fibre coupling technique characterisation by optical feedback 2−81072
lateral double-barrier BH laser, lateral selective-area LPE growth technique 2−88006
LED and laser diode luminance law $L(P,\theta)$ determ., near field technique *(French)* 2−107382
light sources for multimode fibre transmission lines, characterization method 2−55342
long-wavelength diode lasers, 1.2 to 1.7 μm, struct., operating principles and performance 2−102818
longitudinal mode lasing spectrum, theory 2−80945
longitudinal mode self-stabilisation 2−96950
longitudinal mode spectra of diode lasers, spontaneous emission coupling 2−55163
microwave signal generation using an optical self-heterodyne technique with evanescent-field fibre coupler 2−75611
mode partition noise meas. of laser diodes 2−85967
modulation characteristics of semiconductor laser devices 2−60081
modulation of semiconductor laser diodes *(German)* 2−80954
modulation response, effect of superluminesc. 2−65214
module for single-mode fibre transmission system using confocal lenses 2−86129
monolithic optical integration prospects 2−86132
multidimensional quantum well laser, threshold current temp. depend., theory and expt. 2−85957
multinary III-V alloy semiconductor lasers, long wavelength, band-to-band Auger effect 2−55146
multiple longitudinal mode control, feedback system using diffr. grating 2−60105
narrow stripe-geometry DH lasers, mode reflectivity 2−102795
narrow-stripe gain-guided diode lasers, spontaneous emission factor 2−65221
noise and distortion charcts. in optical fibre communication systems 2−65226
nonplanar double-heterojunction and large-optical-cavity laser structs., mode charcts. 2−80968
nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
ocean wave height meas. using laser techniques 2−68385
optical communication appls., book 2−101147
optical communication appls. *(Danish)* 2−70564
optical fibre heterodyne communication systems−an electronic automatic frequency control system 2−81115
optical fibre technology, comparison of uses of lasers and LEDs 2−97228
optical phase noise reduction 2−65225
optical transmission techniques, emitters and detectors *(German)* 2−97231
optically pumped buried heterostruct. lasers, picosecond carrier dynamics meas. 2−90884
phased array, lateral beam collimation 2−114307
photodisplacement microscope using modulated semiconductor laser 2−114568
picosecond high power pulse generation by direct modulation 2−114323
picosecond lasers and appls., conf., Los Angeles, CA, USA (Jan. 1982) 2−112642
picosecond pulse generation, active and passive mode locking 2−114329
picosecond pulse generation by combined DC and microwave current injection 2−108878
picosecond semiconductor laser triple synchronisation with two mode-locked dye lasers 2−70580
planar stripe lasers with deep Zn diffusion, horizontal transverse mode stability *(Chinese)* 2−60078
quantum intensity noise of directly modulated laser diode 2−75578
quantum well heterostructure laser, carrier collection dynamics, Monte Carlo simulation and photoluminesc. study 2−114282
quantum well heterostructure lasers, review 2−55159
real time spectral characteristic technique 2−114344
repeater spacing of 280 Mbit/s fibre optic transmission system using 1.55 μm laser diode source 2−55353
self-coupled laser diode, spatially-uneven optical feedback 2−102839
semiconductor device physics, book 2−53437
single longitudinal mode control by rectangular conical diffractor system, wavelength-division-multiplexing transmission 2−55190
single-mode constricted DH large optical cavity lasers 2−55208
single-mode semiconductor laser, linewidth theory 2−55145
spectral characteristics of laser diodes with optical feedback 2−55161
spontaneous emission effects on power-current characteristics of diode lasers, theory 2−90888
stable single-mode laser diode for fiber-optic communication 2−86126
strip geometry lasers, theory for self-sustained pulsations 2−96949
stripe geometry diode laser, waveguided, modal propag. const. and field intensity calc. 2−55148
stripe geometry injection lasers, optical scatt. at lateral waveguide boundaries 2−85969
stripe geometry injection lasers, theoretical anal. of current spreading 2−90891
stripe geometry oxide isolated diode laser, waveguided, emission profile meas. 2−55147

semiconductor junction lasers continued
stripe heterojunction lasers, output charact., preliminary pump pulse influence 2−90895
stripe-geometry, emission freq. thermal drift charact. 2−86029
stripe-geometry injection lasers, transverse mode oscills. at GHz freqs. 2−108882
three-mirror laser, active-passive design 2−90931
threshold condition rel. to transverse mode *(Chinese)* 2−60079
transmission characteristics, classical control theory 2−80962
transmission characteristics, theoretical anal. *(Chinese)* 2−65218
transmission system, mode partition noise analysis 2−75719
transverse DFB cavity laser, stable two-dimensional oscillation 2−80949
true time resolved spectra meas. technique using multiple fibre array 2−75571
tunable injection lasers with external resonator, asymm. of some charact. 2−55155
twin-stripe injection laser bistable operation with an adjustable trigger 2−90894
ultra-low-threshold, graded-index waveguide, separate confinement, CW BH lasers 2−114310
waveguiding analysis, effective index method 2−85966
wide-stripe DH laser, picosecond pulse generation using reson. oscill. phenomenon 2−86033
(Al,Ga)As DH lasers, reliability, substrate dislocation density and GaAs:Sb active layer effects 2−55193
(Al,Ga)As lasers with Ga(As,Sb) active layers, device charact. 2−90890
AlAs-GaAs heterojunction laser with distributed Bragg mirror, CW operation at 50°C 2−85996
(AlGa)As buried convex waveguide struct. laser with truncated convex active region 2−65258
AlGaAs buried-heterojunction/broad-stripe laser diodes, microwave two-port cct. models 2−114285
AlGaAs CHD-LOC laser diodes for optical fibre data transmission 2−55355
AlGaAs CQL10 semiconductor laser for information readout 2−60102
AlGaAs CSP, BH and TJS lasers, direct FM charact. 2−80960
AlGaAs CW DH nearly single mode laser, intensity fluctuations in longitudinal modes 2−65224
AlGaAs CW injection laser with external resonator, emitted radiation mode beats and fluctuations 2−65228
AlGaAs crank structure high power TJS laser, 15 mW single mode CW operation at high temp. 2−80982
AlGaAs DH laser, injection locked and resonant type modes, optical FM signal amplification 2−80959
AlGaAs DH laser, short-term freq. stability 2−65256
AlGaAs DH laser diodes aged under pulsed operating conditions, degradation behaviour 2−80966
AlGaAs DH undoped injection lasers, anal. of longitudinal mode behavior 2−65229
AlGaAs external grating loaded lasers, oscill. centre freq. tuning, quantum FM noise, direct freq. modulation charact. 2−85961
AlGaAs injection lasers, acoustooptic modulation resonances 2−55226
AlGaAs inverted strip buried heterostructure lasers 2−114302
AlGaAs large optical cavity BH window laser, fabrication and props. 2−96967
AlGaAs laser, freq. stabilisation to H_2O vapour absorpt. line 2−60129
AlGaAs laser amplifier, Fabry-Perot cavity type, noise charact. 2−80958
AlGaAs laser diode, spontaneous and stimulated emission, picosecond. meas. 2−65216
AlGaAs laser diode, multipurpose *(Danish)* 2−70565
AlGaAs laser diode *(German)* 2−90927
AlGaAs lasers, frequency stabilization based on H_2O and Rb-D_2 lines 2−65267
AlGaAs lasers, high injection region luminesc. decay and injected carrier lifetime 2−85962
AlGaAs lasers with micro-cleaved mirrors suitable for monolithic integration 2−65259
AlGaAs narrow stripe proton isolated DH lasers for optical communication, HF intensity noise behaviour during accel. life testing 2−65223
AlGaAs narrow stripe gain-guided DH lasers, far field asymm. 2−108877
AlGaAs, progress review 2−55156
(AlGa)As strip BH lasers prepared by hybrid crystal growth 2−80951
AlGaAs travelling-wave-type semiconductor laser, polarisation charact., gain sensitivity 2−75572
AlGaAs-GaAs injection laser with external dispersive cavity, bistable operation and spectral tuning 2−70566
AlGaAs-GaAs laser, use of plated heat sink 2−55192
AlGaAs-GaAs zigzag mesastripe heterostruct. injection laser, radiative charact. 2−55154
$Al_{1-x}Ga_xAs$ laser, single-mode picosecond pulse generation by injection locking 2−90949
$Al_{1-x}Ga_xAs$ oxide-defined, narrow-stripe, large-optical-cavity laser, thermal waveguiding obs. 2−97001
$Al_{1-x}Ga_xAs$ terraced-heterostruct. large optical cavity diode laser, LPE growth and high-power CW single-mode operation 2−114298
$Al_xGa_{1-x}As$ BH high quantum efficiency low threshold microcleaved laser fabrication 2−96976
$Al_xGa_{1-x}As$ heterostructure lasers, visible 300K operation, high press. measurements 2−114300
$Al_xGa_{1-x}As$ laser, longitudinal mode self-stabilisation 2−96950
$Al_xGa_{1-x}As$ MOCVD quantum well heterostruct. laser, visible operation 2−114268
$Al_xGa_{1-x}As$ proton-isolated narrow stripe visible laser grown by MOCVD 2−80984
$Al_xGa_{1-x}As$-GaAs DH long lifetime lasers *(Chinese)* 2−65270
$Al_xGa_{1-x}As$ DH laser, rake lines, influence of cooling rate and melt config. in LPE 2−77760
CaAlAs BH laser and bipolar phototransistor, monolithic integration 2−55360
(Ga, Al)As diode laser, single frequency CW, output power and temp. depend. of linewidth 2−75568
(Ga,In)(As,P) microwave and optoelectronic heterostruct. growth using multibarrel reactors 2−77747
GaAlAs buried heterostruct. laser, monolithic integration with bipolar phototransistor 2−60259
GaAlAs buried multiheterostructure laser 2−80983
(GaAl)As DH lasers, long-lived, bonded with In, elimination of In solder deterioration 2−85988
GaAlAs DH separated multiclad-layer stripe geometry laser mode calcs. 2−85963

semiconductor junction lasers continued
GaAlAs DH shallow proton stripe geometry laser grown by MO-CVD 2−55206
(GaAl)As DH visible lasers on p-GaAs substrate, reliable and mode-stabilised 2−55207
(GaAl)As diode laser, linewidth broadening due to electron number fluctuations 2−60077
GaAlAs double heterojunction sub-nanosec. laser *(Chinese)* 2−65245
(GaAl)As gain guided lasers, analysis at threshold 2−75575
(GaAl)As heterostructure laser formed by LPE, growth and dissolution kinetics, temp. programming effects 2−104187
GaAlAs laser operating at 0.83 μm, optical feedback-induced changes in output spectra 2−80957
GaAlAs Schottky barrier restricted laser 2−96977
(GaAl)As semiconductor diode lasers, linewidth charact. 2−65230
GaAlAs semicylindrical Zn-diffused stripe laser diodes 2−114278
GaAlAs short-cavity laser fabricated by wet chemical etching 2−114279
GaAlAs single-mode laser, dynamic wavelength tuning 2−55144
GaAlAs transverse junction stripe lasers for 20 Gbit/s optical time multiplexing 2−81118
GaAlAs visible laser, V-channeled substrate inner stripe, stabilised mode operation 2−55183
GaAlAs visible wavelength terraced-substrate lasers 2−55157
GaAlAs/GaAs DH lasers, self-sustained pulsation charact. *(Chinese)* 2−108874
GaAlAs-GaAs, channeled substrate narrow stripe laser, expt. characterisation 2−96982
(GaAl)As-GaAs DH lasers, narrow oxide stripe, lateral current spreading and diffusion problem 2−80964
GaAlAs-GaAs DH lasers, large-scale utilisation *(Czech)* 2−114284
GaAlAs-GaAs transverse DFB cavity laser, room temp. operation 2−102817
$Ga_{0.73}AlAs_{0.27}$ CW room-temp. visible single quantum well diode laser grown by MOCVD 2−85960
$Ga_{1-x}Al_xAs$ laser, high CW output power, lateral grating array 2−96974
$Ga_{1-x}Al_xAs$ laser FET monolithic IC, very high freq. operation 2−96969
$Ga_{1-x}Al_xAs$ single quantum well visible laser, MOCVD grown, low threshold and high efficiency obs. 2−96971
$Ga_{1-x}Al_xAs$-GaAs double heterostruct., laser annealed, electrolum. device performance 2−55158
GaAs bistable buried heterostructure laser, static and dynamic charact. 2−65231
GaAs buried heterostructure lasers, individually addressable, 50 μm spaced array 2−90918
GaAs CW DH laser diodes, superhigh differential quantum efficiency and strong self-sustained pulsation 2−80961
GaAs CW lasers with inhomogeneous current injection, bistability and pulsations 2−108879
GaAs DH laser, ultra-short light pulse generation by Nd:YAG laser controlled opto-electronic switch *(Chinese)* 2−90959
GaAs, electrophotography appl. 2−74536
GaAs epitaxial layers, MBE and LPE, luminesc. props. 2−72564
GaAs injection lasers, influence of waveguiding props. on longitudinal spectrum 2−96947
GaAs laser diode emission spectra in pulsed mag. fields up to 26 T 2−85970
GaAs quantum well lasers, temp. depend. of threshold current calc. 2−75573
GaAs stripe injection lasers, regular integrated array 2−80998
GaAs substrates and GaAs-$Al_xGa_{1-x}As$ DH epitaxial wafer, defects meas. by X-ray topography *(Chinese)* 2−67669
GaAs/GaAlAs lasers nonplanar structures fabrication, by metalogranic chemical vapour deposition 2−85958
GaAs/GaAlAs W-shaped diffused stripe DH lasers grown by metal-organic CVD 2−65232
GaAs-(AlGa)As twin-mesa laser integrated with passive waveguide, controllable single mode operation 2−55209
GaAs-$Al_{0.36}Ga_{0.64}As$ DH laser, temp. depend. of lasing charact. 2−80965
GaAs-$Al_{0.3}Gd_{0.7}As$ DH lasers, near field spectrum *(Chinese)* 2−65219
GaAs-$Al_xGa_{1-x}As$ quantum well heterostructure lasers, band struct., high press. effects 2−85971
GaAs-$Al_xGa_{1-x}As$ stripe geometry heterolasers, power-current charact., bleaching effects 2−114283
GaAs-AlGaAs diode laser coupled to external resonator of narrow spectral bandwidth, bistable operation 2−108881
GaAs-AlGaAs injection laser with double strip contact, waveguide props. of active region 2−85972
GaAs-$Ga_{1-x}Al_xAs$ DH laser, deep level luminescence spectra *(Chinese)* 2−65217
GaAs-$Ga_{1-x}Al_xAs$ double heterojunction laser, deep level luminesc. 2−102790
GaAs-$Ga_{1-x}Al_xAs_{1-y}P_y$ heterostructure lattice matching rel. to laser fabrication *(Chinese)* 2−66375
GaAs-$Ga_xIn_{1-x}P$ DH, interface recomb. and carrier confinement study 2−77605
GaAs-GaAlAs DH injection laser, 200 Mb/s modulation expt. *(Chinese)* 2−55223
GaAs-GaAlAs DH laser diode obs. *(Chinese)* 2−90887
GaAs-GaAlAs graded refractive index separate confinement heterostructure laser grown by organometallic VPE 2−96975
GaAs-GaAlAs low-threshold oxide stripe lasers grown by MOCVD 2−85959
GaAs-GaAlAs multiple quantum well lasers grown by MO-CVD, far-field radiation patterns 2−114271
GaInAsP groove laser on semi-insulating InP using laterally diffused junction 2−75595
GaInAsP laser with new gain guiding struct., transverse and longit. mode operation 2−102797
GaInAsP low threshold current CW operation of multiple infil buried heterostruct. 1.3 μm lasers 2−65247
GaInAsP/InP 1.6 μm BH laser, wavelength var. due to direct modulation 2−55225
GaInAsP/InP laser, monolithic integration with InP MISFET, LPE growth 2−65242
GaInAsP-InP 1.3 μm DH, LPE *(Chinese)* 2−93449
GaInAsP-InP 1.5 μm DBR lasers with built-in optical waveguide, room temp. operation 2−75593
GaInAsP-InP 1.55 μm distributed Bragg reflector integrated laser directly coupled to external waveguide 2−60117
GaInAsP-InP BH 1.5 μm lasers fabricated by hybrid combination of LPE and VPE 2−60101

semiconductor junction lasers continued
GaInAsP-InP BH integrated laser with butt-jointed built-in DBR waveguide, 1.6 μm CW operation 2−80987
GaInAsP-InP buried heterostruct. laser fabrication 2−60095
GaInAsP-InP DH lasers, combined dry and wet etching techniques to form planar (011) facets 2−60100
GaInAsP-InP DH laser with monolithically integrated passive waveguide, LPE regrowth 2−60118
GaInAsP-InP DH laser on semi-insulating InP substrate with terrace struct. 2−75591
GaInAsP-InP DH lasers, MBE grown, 1.3 micron 2−114273
GaInAsP-InP integrated twin guide DBR laser emitting at 1.55 μm, low threshold current 2−60119
GaInAsP-InP integrated optical devices, etched mirrors, grooves and surfaces using stop-etch crystal planes 2−60264
GaInAsP-InP mesa lasers, low threshold 2−114272
GaInAsP-InP surface emitting injection laser with short cavity length 2−75594
$Ga_xIn_{1-x}As_{1-y}P_y$, epitaxial layer, charact. of electron-pumped lasers 2−75577
$Ga_xIn_{1-x}As_yP_{1-y}$ lasers, pressure dependence of threshold current 2−90889
GaInPAs-InP mesastripe heterojunction lasers buried in InP or GaAInPAs, radiation mode composition 2−60083
GaInPaS/InP heterojunction lasers, service life, 1.2-1.3 μ range 2−60082
(In, Ga)(As, P) lasers at 1.3 μm, anomalous effect of carriers on dielec. const. 2−102791
In-Ga-As-P/InP system, improved LPE techniques for low threshold lasers at 1.55 μm 2−99357
InGaAlP DH layers, MBE growth on (100) GaAs substrates, laser appls. 2−104206
InGaAsP buried heterostruct. laser, elec. derivative characteristics and equivalent circuit model 2−65227
InGaAsP DH lasers, shunt current and excess temp. sensitivity of I_{th} and η_{ex} 2−96948
InGaAsP DH laser diodes, very short wavelength (621.4 nm) pulsed operation 2−108876
InGaAsP DH RF-modulated diode laser, picosecond optical pulse generation 2−114277
p-InGaAsP diode lasers, radiative and Auger recomb. rates meas. 2−102792
InGaAsP heterostructure lasers coupled to InGaAsP waveguides, monolithic integration 2−55188
InGaAsP injection laser, mode spectra and single-longit.-mode power depend. on cavity length 2−85968
InGaAsP injection laser pulses, ps dispersionless transmission at min. chromatic dispersion wavelength in single-mode 27 km long fibre 2−114457
InGaAsP lasers, Auger recomb. rate 2−114276
InGaAsP lasers, interband Auger recomb. 2−80967
InGaAsP low threshold channelled substrate buried crescent DH lasers for 1.55 μm communication 2−102822
InGaAsP, progress review 2−55156
InGaAsP, semicond. laser for optical transmission appl. *(German)* 2−55151
InGaAsP short-cavity injection lasers with one high-reflectivity mirror 2−114275
InGaAsP sources and detectors for the 1.0-1.7 μm wavelength range 2−95467
InGaAsP/InGaP visible laser diodes, CW operation 2−99352
InGaAsP/InP DFB lasers, 1.5 μm range 2−102794
InGaAsP/InP DH, nature of electron leakage 2−87377
InGaAsP/InP DH laser diodes for 1.3 and 1.55 micron operation 2−55205
InGaAsP/InP DH stripe geometry lasers using proton-defined LPE-grown wafers *(Chinese)* 2−65244
InGaAsP/InP double heterostruct. lasers, aged, TEM obs. of dark defects 2−55143
InGaAsP/InP dual-wavelength BH laser, expt. study 2−75590
InGaAsP/InP lasers, with chemically etched mirrors 2−75596
InGaAsP-InP 1.3 μm laser diodes, loss mechanism characterisation by acoustic and optical meas. 2−80947
InGaAsP-InP 4 Gbit/s multiplexer and laser, 1.3 micron, direct modulation 2−114274
InGaAsP-InP BH distributed feedback laser, 280 Mbits/s single mode fibre transmission 2−60255
InGaAsP-InP BH laser, 1.3 μm., hole-burning at high energy tails in spontaneous emission spectra 2−75569
InGaAsP-InP BH laser under high current operation, output power saturation 2−80953
InGaAsP-InP buried heterostructure laser reliability, degradation modes 2−80946
InGaAsP-InP DH laser structures, effective refr. index and first-order-mode cutoff conditions 2−75576
InGaAsP-InP DH 1.3 μm laser, temp. depend. of lasing charact. 2−80965
InGaAsP-InP DH lasers, rapid degradation obs. due to ⟨110⟩ dark line defects 2−85985
InGaAsP-InP DH 1.3 μm laser, doping effects exam. by SEM and V-I charact. *(Chinese)* 2−90885
InGaAsP-InP DH laser, accelerated facet degradation, obs. in water 2−90893
InGaAsP-InP DH lasers with inhomogeneous excitation, optical bistable-switching operation 2−102796
InGaAsP-InP DH lasers, self-aligned structures 2−114281
InGaAsP-InP dual-wavelength buried heterostruct. laser array emitting at 1.26 and 1.55 μm 2−75592
InGaAsP-InP laser, asymmetric longitudinal mode competition, mechanism 2−60076
InGaAsP-InP laser, intensity noise under influence of reflection and modulation 2−80950
InGaAsP-InP stripe geometry DH laser, bistability and differential gain charact. 2−80948
InGaAsP-InP stripe geometry DH lasers, spatial hole burning, self-consistent soln. 2−90892
InGaAsP-InP V-grooved substrate BH laser with smooth far field pattern and stable ageing charact. 2−80985
InGaAsP-InP V-grooved substrate BH laser, fabrication by one-step epitaxy 2−80995
$In_{1-x}Ga_xAs_{1-y}P_y$ buried crescent laser, internal loss meas. at 1.3 μm 2−114269

semiconductor junction lasers continued
$In_{1-x}Ga_xAs_{1-y}P_y$ double carrier confinement heterojunction laser, high temp. stability operation 2−114299
$In_{1-x}Ga_xAs_{1-y}P_y$:Cd(Zn) LPE junction laser, SEM EBIC study 2−102821
$In_{1-x}Ga_xAs_{1-y}P_y$-InP laser with grooved transverse junction, high-power single-mode operation 2−96970
$In_{1-x}Ga_xAs_{1-y}P_y$-InP V-grooved substrate BH 1.3 μm laser, aging tests 2−114303
$In_{1-x}Ga_xAs_{1-y}P_y$-InP, etched mirror laser fabrication using HBr-acetic acid-$Kr_2Cr_2O_7$ etchant 2−114313
$In_{1-x}Ga_xAs_yP_{1-y}$ lasers and LEDs, Auger recombination 2−55160
$In_{1-x}Ga_xAs_yP_{1-y}$ laser, facet degradation and passivation, AES study 2−90920
$In_{1-x}Ga_xAs_zP_{1-z}$-$GaAs_{1-y}P_y$ (100), LPE growth and pulsed room temp. laser operation 2−90926
$In_{1-x}Ga_xAs_{1-y}Py$ BH laser on mesa substrate, lasing props. meas. 2−114305
InGaAsSb lasers, interband Auger recomb. 2−80967
$In_{1-X}Ga_XP/Ga_{1-Y}Al_YAs$ DH laser struct. on GaAs, LPE growth 2−99361
InGaPAs/InP DHS lasers, selective chemical etchant 2−55201
InP/(Ga,In)(As,P)/InP, optical fibre components for 1.3 micron telecommunication *(French)* 2−97224
$P_{0.93}Sn_{0.07}Se$ long-wavelength laser diode, emission spectra, temp. and mag. field effects 2−81012
Pb salt laser diodes, mid-IR range, optical system integration 2−81121
Pb-salt laser source for potential super-long (2-6 μm) wavelength fibre optics appls. 2−95468
Pb-salt local oscillators for atmospheric heterodyne spectroscopy 2−73726
Pb-Sn-Te diode laser, recombination mechanisms and lasing threshold 2−90896
$PbS_{1-x}Se_x$ laser threshold and recombination 2−90897
$Pb_{1-x}Sn_xSe$, heterostructures, grown by 'hot wall' method, for injection lasers 2−72627
PbSnSeTe-PbSeTe DH lasers, lattice-matched, LPE grown 2−55194
PbSnSeTe-PbSeTe lattice-matched DH lasers, total refl. mode oscill. 2−60080
PbSnTe diode laser, lifetime mechanisms, tunnelling currents and laser threshold 2−80956
PbSnTe laser, gain saturation, theory and expt. 2−85965
PbSnTe, lifetime calcs. for Auger recomb. rel. to laser and IR detector performance 2−77081
$Pb_{0.81}Sn_{0.19}Te$ DH laser, LPE grown, operation at 10.6 μm, 85K 2−80955
$Pb_{1-x}Sn_xTe$ hetero-layers for IR diode lasers, hot-wall epitaxial growth 2−60103
$Pb_{1-x}Sn_xTe$ laser threshold and recombination 2−90897

semiconductor junctions
see also p-n junctions; semiconductor superlattices
capacitance, series and shunt resistance meas. of semiconductor junctions 2−84668
constant capacitance DLTS and ODLTS spectra, junction struct. effects 2−115878
electron bombardment induced conductivity and its appl., book 2−63758
heterojunction between 2 semiconductors with different effective mass, wave function connection rules 2−110463
high resistivity, injection props. of semicond.-semicond. contacts 2−61578
high resistivity, injection props. of semicond.-semicond. contacts, space-charge-limited current 2−61579
interface, electron-hole systems work function and band struct. 2−87382
LPE growth of semicond. heterostructures, melt prep. improvements 2−93456
photovoltaic materials, technology and future developments 2−78207
physical properties, book contrib. 2−56689
physics and chemistry, review 2−115874
spreading-resistance meas., effect of insulating edge near junctions *(Chinese)* 2−92732
triangular barrier structures, onset of diffusion-drift emission regime and current-voltage charact. 2−82444
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
p-$Al_{0.7}Ga_{0.3}As$-p-GaAs-n-GaAs solar cell, minority carrier diffusion length modification 2−92644
p-$Al_{0.7}Ga_{0.3}As$-p-GaAs-n-GaAs, concentrator solar cell, temp. and intensity behaviour 2−93892
$Al_xGa_{1-x}As$-GaAs heterostruct. photovoltaic converters, fabrication by VPE 2−105562
$Al_xGa_{1-x}As$-GaAs heterojunction, single period modulation doped, normal and inverted, electron mobility, substrate temp. influence 2−115876
$Al_xGa_{1-x}As$-GaAs interface, extrinsic layer, photolum. study 2−115576
CdSe-As_2Se_3, amorphous-cryst. heterojunction, interface charge, non-steady state transport 2−92736
n-GaAlAs-GaAs heterojunction interface, MBE grown, 2-D electron gas, tangential magnetoresist. study 2−77162
GaAs, i-n heterostruct., low temp. diffusion, laser plasma pulse stimulated 2−56263
GaAs n^+-n^--n^+ and n^+-p^--n^+ structs., near ballistic transport, intervalley scatt. and nonparabolic conduction band effects 2−92733
$GaAs/Al_xGa_{1-x}As$ interface, MBE grain, deep levels obs. 2−56463
GaInAs epitaxial layer device type structures, defects 2−71461
$Ga_xIn_{1-x}As$-GaAs n-n^+ heterojunction, Schottky diode and photodetector appl. 2−115869
GaInAsP epitaxial layer device type structures, defects 2−71461
n^+GaP-i-$Al_xGa_{1-x}As$:Cr(Fe)-M structs., I-V charact. 2−104477
Ge-GaAs (110) heterostructures, electronic props. and chem. comp., low-energy EELS study 2−93339
Ge-GaAs heterojunction, work function, interface state effect *(French)* 2−61559
In_2O_3-SnO_2/Si transparent conductor films/polycrystalline junction, appl. to solar cells 2−57711
p-InP junctions, LPE grown, abnormalities in elec. and optical charact. 2−98738
InP submicron layer, quasiballistic cond. at 77K, numerical study 2−61569
InSb:Cr, hot electron thermo-EMF 2−104402
$Se_{1-x}As_x$-Se glassy semicond. based heterostructs., electron transport 2−92742
Si abrupt epitaxial junctions 2−115877
Si concentrator solar cell, etched multiple vertical junction 2−93920
Si:H n^+-i-n^+ struct., amorphous, threshold switching 2−82410

semiconductor junctions continued
p-Si-CdSe junction, sputter deposited, elec. props. 2−98736
a-SiC:H/a-Si:H heterojunction solar cells 2−67861
ZnSe-GaAs(110) and ZnSe-Ge(110), heterojunction band discontinuities, XPS study 2−111024

semiconductor materials
see also amorphous semiconductors; degenerate semiconductors; elemental semiconductors; heavily doped semiconductors; II-VI semiconductors; III-V semiconductors; III-VI semiconductors; IV-VI semiconductors; liquid semiconductors; magnetic semiconductors; many-valley semiconductors; narrow band gap semiconductors; organic semiconductors; polar semiconductors; semiconductors; ternary semiconductors
$A^{I}_{2-x}B^{VI}$ semiconducting cpds., nonstoichiometric, physicochem. props. 2−104005
carrier diffusion length meas. 2−101409
CC/n-/$MoS_2(Se_2)$, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
electronic charge density and bonding in NiAs-type solid 2−76921
Group VI dichalcogenides, semicond., photocurrent spectrosc. 2−87321
I-III-IV Se_4 compounds, energy gap, visible-UV absorpt. 2−104904
oxide films, transparent, preparation, elec. and optical props., review 2−87428
photosensitive semiconductor materials, solar photovoltaic conversion and xerography appl., review 2−65326
rare earth tungstates, mixed cond. 2−72035
Ag_3AsS_3 and Ag_3SbS_3 based metal-semiconductor-metal systems, dynamic I-V and transient charact., charge transport mechanism 2−92779
AgCl, non-stoichiometry and chem. diffusion coeff., electronic cond. meas. 2−56594
$AgIn_5S_8$, two-temp. synthesis, props. 2−77725
AgTlS(Se)(Te), prep. and semicond. growth, cryst. struct., elec. props. *(French)* 2−87971
As-Te, homogeneous film, elec. props., optical forbidden band-width 2−110504
As_2S_3 and As_4S_4, optically induced localised states, photolum. and EPR 2−57164
As_2S_3, cryst., X-ray luminesc. and thermoluminesc. meas. 2−61993
As_2S_3, evaporated layer, photoselective solubility rel. to heat treatment *(Russian)* 2−64141
As_4S_3, Raman spectrum, effect of temp. and press. 2−67040
As_2Se_3, cryst. and amorphous, exciton and pair recomb., ODMR study 2−93067
BaB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
$Ba_{1+x}Fe_2S_4$, Mossbauer spectra, mag. and elec. props. 2−66962
$Ba_{1-x}U_xTiO_3$ ceramic, U doping and sintering atmos. effects on elec. and dielec. props. 2−116107
$Bi_{12}GeO_{20}$, drift mobility of photo-induced charge carriers, temp. depend. 2−110396
$Bi_{12}GeO_{20}$, elec. field distrib., space charge density, tranverse electrooptic effect 2−104852
$Bi_{12}GeO_{20}$, energy levels in forbidden zone *(Russian)* 2−61930
$Bi_{12}GeO_{20}$, photoluminescence spectra, effects of annealing, Al doping, X-ray and γ-ray irrad. *(Russian)* 2−61936
Bi_2S_3 thin film, semicond. liq. junction solar cell and chalcogenide props. 2−78212
p-$Bi_{0.9}Sb_{0.1}$ under uniaxial tension, topological electronic transitions 2−66424
$Bi_{1-x}Sb_x$ alloy, electron Fermi surface comp. depend., magnetoplasma wave study 2−76899
$Bi_{1-x}Sb_x$, resonance shock ionisation in mag. field *(Russian)* 2−56618
Bi_2Se_3, semicond., optical absorption spectra meas. 2−78212
$Bi_{12}SiO_{20}$, energy levels in forbidden zone *(Russian)* 2−61930
Bi_2Te_3, dislocation-induced US absorpt. and elec. props. 2−92115
Bi_2Te_3, single crystal, plastic deform., dislocation slip systems obs. 2−86672
Bi_2Te_3-based alloy, deform. and recrystn., influence of second phase particles Al_2O_3 and ZrO_2 2−83170
Bi_2Te_3-Bi_2Se_3(Sb_2Te_3) thermocouple, surface treatment effect 2−110373
Bi_2Te_3-Sb_2Te_3, energy spectrum of solid solutions 2−110239
Bi_2Te_3-Sb_2Te_3-GeTe-PbTe system alloys, thermo-EMF, elec. and thermal cond., thermoelec. efficiency 2−56626
BiTeI, thermophysical props. 2−82386
$Bi_{14}Te_{11}S_{10}$ thin cryst., two-dimens. cond. and magnetocond. 2−71985
CS_2Sn_3, semiconductor, electrophys. props. 2−110346
CaB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
$CaTiO_3$, elec. cond., 800 to 1100°C, defect struct. 2−66554
$CaTiO_3$:La^{3+}, self-compensation, gravimetric meas. 2−98127
Cd_3As_2, sp. ht., 1.7 to 30K 2−86901
n-Cd_3As_2, ultrathin films, effective mass, effect of size quantisation 2−98526
CdI_2, Auger interaction of donor-acceptor pairs with luminesc. centres, photoluminesc. and photocond. study 2−93270
$CdInAlS_4$ single crysts., far-IR absorpt. spectra 2−99126
CdP_2, tetragonal, energy band struct. 2−92463
CdP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
CdP_2:As, impurity vibr., Raman scatt. study *(Russian)* 2−77540
CdS/Cu_2S, anal. of dispersion in the measured capacitance 2−99808
CdSb, γ-irrad., X-ray scatt. near K-absorpt. edge *(Russian)* 2−62015
CdSb, IR reflection spectra meas. 2−57108
CdSb, symm. density of states peaks, photomodulated absorpt. *(Russian)* 2−71851
$CdSnO_4$ transparent cond. film, planar magnetron sputtering 2−105074
Cr_2O_3, adsorption of CO_2, electroconductivity kinetics 2−77036
CsI, elec. cond. behind shock wave front, semicond. props., liq. and solid phases 2−77065
Cs_3Sb, solid compound semiconductor, chemical bonding, ^{133}Cs-NMR spectra 2−56957
$Cu_{2-x}B^{VI}$, preparation by solid-phase mass transport, elec. props. 2−111066
CuBr, excitonic mol. luminesc. at 4.2K, time depend. 2−67101
CuBr(Cl)(I)-Ag system light-sensitivity spectra, correl. with Cu halide absorpt. spectra 2−67079
CuCl, deep impurity level theory 2−66486
CuCl, diffusion coeffs. of exciton and excitonic mol., picosec. transient grating spectroscopy 2−61926
CuCl thin film, probe biexcitons, momentum space condensation, luminesc. study 2−61363
CuCl, two-photon absorpt. study of Γ_3 valence band 2−104909
$CuIn_5S_8$, two-temp. synthesis, props. 2−77725

semiconductor materials continued
$CuInSe_2$, amorphous and crystalline, optical props. 2−87889
$CuInSe_2$ single cryst., fundamental absorpt. band edge 2−77538
p-CuO:Li, conduction and valence band edge positions, photoelectrochem. determ. 2−56440
Cu_2O, 1S exciton two-photon magnetoabsorpt. spectra, polarisation depend. meas. 2−77498
Cu_2O, interband electron Raman scatt. of light, Coulomb interaction effects 2−87798
Cu_2O, relaxed excitons, optical and cyclotron reson. study 2−76938
Cu_2O, third order optical nonlinearity near exciton lines *(Chinese)* 2−99083
Cu_2O/Cu thin film photovoltaic cells, possible appl. as solar cells 2−93896
Cu_2O/I^- photoelectrochemical cell, photocorrosion mechanism 2−62415
Cu_2O-Cu photovoltaic cells, prep. by high temp. reduction and props. meas. 2−88459
Cu_2S film, SIMS, matrix effects, ion yield enhancement 2−76856
Cu_2S/CdS sprayed solar cells photovoltaic performance 2−78221
Cu_2S/CdS thin film solar cell, freq. depend. capacitance studies 2−88430
Cu_2S/CdS thin film solar cells, trapped holes depth depend., photocapacitance study 2−93905
Cu_2S-CdS heterojunction solar cell, Cu diffusion effects, theoretical anal. 2−73115
Cu_2S-CdS heterojunction solar cells, Cd anodic sulphurization and RF sputtering, MIS struct. for interface state determ. 2−78229
Cu_2S-CdS heterojunction solar cell, lateral photovoltaic effect 2−83470
Cu_2S-CdS heterojunctions, elec. and optical props. 2−99354
Cu_2S-CdS thin film solar cells, review 2−105568
Cu_2S-$Zn_xCd_{1-x}S$ film struct., Cd and Zn cross diffusion, AES, ESCA and atomic absorpt. spectra study 2−66299
$Cu_{2-x}S$ thin films, oxidation-reduction effects on optical absorption, application in solar cells 2−82941
Cu_xS film, topotactically grown, chalcocite-djurleite transform., TEM study 2−104195
Cu_xS thin films prep. by Activated Reactive Evaporation, elec. and optical props. 2−99354
$Cu_xS/Cd_{1-y}Zn_yS$/CdS evaporated back-wall bifilm solar cells, growth and conversion efficiency meas. 2−105563
Cu_xS/CdS solar cells, deep trap levels obs. by capacitance meas. 2−88431
Cu_xS-ZnS:Mn p-n heterojunction DC electroluminesc. structs., degradation theory based on donor diffusion 2−57186
Cu_2Se thin-film solar cells, status as emerging materials PV technologies 2−57712
$Cu_{2-x}Se$, electrophysical props., effects of uniaxial deform. at different temps. *(Russian)* 2−82353
$Cu_xZn_{1-x}Fe_2O_4$ system, elec. resistivity and Curie transition 2−87256
$EuGa_2S_4$, semicond., injection and thermoactivation currents, trapping 2−87278
$Fe_2Mo_3O_8$, cryst. growth, morphology, elec. and mag. props. 2−87960
α-Fe_2O_3 electrodes in aqueous electrolytes, photoactivity, effects of chemical doping, photoelectrochem. cell appls. 2−67866
Fe_2O_3 semiconductor electrodes with deep impurity level *(Japanese)* 2−115690
n-Fe_2O_3-TiO_2/NaOH/Pt cell, and expt. study 2−78231
$FePS_3$, photoresponse under photoelectrolysis conditions 2−61513
$Fe_{0.5}V_{5.5}O_{13}$, cryst. growth, elec. resist., Mossbauer spectra, and mag. susceptibility 2−83014
$(GaAs)_{1-x}Ge_x$ single-crystal metastable alloys, growth and optical props. 2−116360
$Ga_{1-x}Mn_xSb$ solid solns., carrier scatt. mechanisms 2−56571
$(GaSb)_{1-x}Ge_x$ epitaxial film, ion mixing during RF sputtering deposition 2−82161
$Ga_{1-x}Sn_xSe$, solid solns., elec. cond., thermo-EMF and Hall coeff. meas. 2−87259
Gd complex, bis(phthalocyaninato)Gd, compressed discs, elec. cond. props. 2−61463
Ge-Si alloys, magnetoresistance and carrier mobility 2−56621
GeAs, room temp. long wavelength refl. spectra 2−110831
GeS_2, crystalline, pressure-optical studies, network topology analysis 2−67021
$GeSe_2$, optical props., visible spectra study 2−67073
$GeSe_2$, thermal quenching of photoluminesc. 2−87848
$Ge_{1-x}Si_x$, carrier heating by elec. field, effect of electron irrad. 2−77076
$Ge_{1-x}Si_x$, spin-orbit splitting, electrorefl. study 2−116155
$Ge_{1-x}Si_x$:Ga(In), solid solubility, regular soln. model 2−61150
Ge_xSi_{1-x}:In, photoluminescence, exciton recombination 2−87857
α-HgI_2, lattice const. thermal expansions 2−98312
HgI_2, photoluminescence, 4.2 to 77K 2−57158
α-HgI_2, single cryst., low temp. heat transport 2−66305
Ho_2O_3, isothermal elec. cond. anomaly 2−92624
InBr(I), lattice dynamics, IR and Raman spectra 2−116194
In_2O_3 (-SnO_2) films, preparation, elec. and optical props., review 2−87428
In_2O_3 film, weak localization, anomalous transport props. 2−61627
In_2O_3, films, magnetoconductive effects, Anderson localisation 2−56740
In_2O_3 RF sputtered films, optical props. 2−57202
In_2O_3:Sn conducting layers, thermal vacuum deposition technique 2−105076
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
In_2O_3:Sn films, annealed, elec. resist. and defect model 2−66671
In_2O_3/SnO_2-GaSe heterojunction, near UV detector 2−53839
In_2O_3-SnO_2/Si transparent conductor films/polycrystalline junction, appl. to solar cells 2−57711
In_2O_{3-x}, disordered conductor, transition to microscopic diffusion regime and dimensional crossover 2−77211
In_2O_{3-x} films, reactive evaporation prep. and elec. resist. meas. 2−105088
$In_{2/3}PSe_3$, radiative transitions, hole diffusion length, photoelectrochemical study 2−92647
β-In_2S_3, two-temp. synthesis, props. 2−77725
InSb-InBi solid solns., grown by MBE, charact. 2−104190
In_xSe_{1-x}, polycryst. and amorphous, elec. cond., switching phenomena and struct. changes obs. 2−87349
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
$In_{2-x}Sn_xO_{3-y}$ interface props., examination 2−66638
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2−105068

semiconductor materials continued
$In_{2-x}Sn_xO_{3-y}$ transparent cond. film, planar magnetron sputtering 2−105074
$In_{2-x}Sn_xO_{3-y}$-GaAs:Be heterojunction solar cell, AES and EBIC evaluation 2−78214
$In_{2-x}Sn_xO_{3-y}$-InP solar cell, comparison with RF sputtered CdS-InP cell 2−57714
$In_{2-x}Sn_xO_{3-y}$-Si solar cell, EBIC response anal. 2−88436
In_2Te_3, evaporation, 725-895K, mass spectroscopic investigation 2−86845
In_2Te_3 thin films, growth and props. 2−71840
In_2Te_3:Sn, elec. inactivity of Sn impurity atoms, Mossbauer and photoelectron spectra 2−115703
$IrSi_{1.75}$, semiconductor thin film, optical and Hall effect meas. 2−77209
$K_{0.33}MoO_3$, optical refl. spectra, optical consts. 2−87814
K_2Sn_3, semiconductor, electrophys. props. 2−110346
$LaIr_3O_{11}$, semicond., elec. and paramag. props., Mossbauer resonance *(French)* 2−92614
β-La_2S_3:Nd, Ce, efficient energy transfer from band excitation to Nd^{3+} 2−67102
$La_{1-x}Sr_xFeO_3$, elec. cond., effect of CO adsorption, appl. to gas sensors 2−71979
$La_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$La_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
$La0.84Sr_{0.16}MnO_3$, cryst. struct. and elec. cond. 2−81748
Li-Fe-S system, elec. cond. and electronic struct., XPS study 2−104371
$Mg_2Si(Ge)$, electron-phonon interaction, phonon cond. 2−66152
$MnNi_2O_4$, struct., elec. cond. and X-ray spectra 2−65954
$MnWO_4$, elec. cond. and thermoelec. power, 300 to 1200K 2−87268
MnZn ferrites, humidity and resistivity 2−87276
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
n-$MoSe_2$ photoelectrochem. cell, local spectral response meas. 2−93928
n-$MoSe_2$ photoelectrochemical halogen storage cell 2−62481
$MoSe_2$ single crystal, etching and dissolution kinetics, PEC solar cell appl. 2−93642
n-$MoSe_2$, transverse photoconductivity, electronic mobility anisotropy 2−104419
n-$MoSe_2$/KI, I_2, formamide/Pt photoelectrochem. solar cell with layered anode and nonaq. electrolyte 2−93927
$MoTe_2$, Hall effect, double AC measurement method *(French)* 2−58846
$(NH_4)P(Mo_3O_{10})_4$, elec. resist. temp. depend. meas. 2−61468
Nb_2O_5, photoelectrochem. and solid-state props. 2−72016
NbS_3, cryst. struct., semicond. elec. props. 2−60954
$NbSe_3$, cryst. struct., semicond. elec. props., X-ray diffr. study 2−60954
Nd complex, bis(phthalocyaninato)Nd, compressed discs, elec. cond. props. 2−61463
$Nd_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Nd_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
$NiMn_2O_4$, elec. cond., cation valencies, thermoelectric power and thermal expansion 2−66559
NiO, creep and point defects, O diffusion 2−109892
NiO, O self-diffusion, SIMS study 2−110037
NiO, spin dependent charge carrier transport, 150 to 400°C 2−87269
$NiPS_3$, photoresponse under photoelectrolysis conditions 2−61513
Np_2S_5, elec. resist. four point direct voltage meas. 2−115755
$NpSe_3$, elec. resist. four point direct voltage meas. 2−115755
PbI_2, cryst. and thin films, electronic absorption spectra meas. 2−67071
PbI_2 film surface layer, band gap illumination effects 2−92368
PbI_2 intercalation compounds with org. donor mols., charge transfer and luminesc. *(Russian)* 2−61975
PbI_2:Ga(In), exciton spectra, refl. and photoluminesc. spectra 2−67118
$Pb_{1-x}Mn_xS$ solid solns., energy band gap temp. and composition depend., photovoltaic effect meas. 2−110450
$Pb_{1-x}Mn_xTe$, influence of In and Ga on kinetic props. 2−87261
Pd complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
$Pr_{2/3}TiO_3$, n-type semicond. electrodes, photocond. 2−77116
$Pr_2Ti_2O_7$, n-type semicond. electrodes, photocond. 2−77116
Pt complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
$RbGeI_3$, semicond., cryst. struct. DTA and X-ray diffr. study *(French)* 2−109766
$Sb_{1.5}Bi_{0.5}Te_3$:Pb solid soln., doping, carrier density 2−71997
$Sb_{1.425}Bi_{0.575}Te_{2.85}Se_{0.15}$, solid soln., thermoelectric props., effects of Ge and Cu impurities 2−82385
Sb_2O_3 film, chem. deposition from soln. 2−105094
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Sb_2S_3, thin film photoelectrodes, studied by spectroellipsometric and photoelectrochemical techniques 2−98689
Sb_2S_3, UV and dielec. props. 2−99148
Sb_2Se_3 film, chem. deposition from soln. 2−105094
Sb_2Te_3, anisotropy in optical and elec. props. 2−56587
Se-Te liq. and cryst. semicond., elec. transport and struct. props. 2−115746
$Se_{1-x}Te_x$, energy gap, photoacoustic study 2−76603
Si-B compounds, high elec. field effect 2−92639
Si-Ge solid solns., pressure-induced covalent-metallic phase transition, pseudopot. calc. 2−87149
Si-Se-In film, photo-induced memory effects obs. 2−56636
SiC, 6H- and 15R-types, two-photon interband absorpt. spectra rel. to band struct. 2−116203
SiC (3C), optical phonons and transverse effective charge, temp. depend., 77 to 750K, Raman study 2−82861
SiC (6H), vacancy deep levels traps, EPR, optical absorpt. and Hall effect study 2−56483
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiC, electron irrad., band gap changes 2−92460
SiC, electron-phonon interaction, phonon cond. 2−66152
SiC epitaxial layer growth process for gaseous phase, thermodynamic anal. *(Bulgarian)* 2−87992
SiC films, formation by ion implantation of Si cryst. and elec., photovoltaic and struct. props. *(French)* 2−72089
β-SiC layers formation on heated Si wafers exposed to sublimed C 2−93443
SiC, mag. susceptibility meas. 2−61692
SiC p-n structure, defect-free, avalanche ionisation and breakdown 2−87383
SiC particles, paramagnetic defects treatment effects, ESR study 2−87593
β-SiC, phonon dispersion, bond-bending force model 2−76617
semiconductor materials continued
SiC, polycryst., containing excess Si, neutron irradiated, microstruct. study 2−71514
SiC, polytypes, band structure, electroreflection meas. 2−104851
SiC, polytypes of $[(44)_n43]_3$ struct., X-ray and electron diffr. study 2−65951
SiC, positron lifetimes, systematic study 2−57207
SiC, single crystal, growth kinetics of oxide films 2−77959
SiC surface, relaxed, atomic and electronic struct. calc. 2−110119
SiC, surface states, rel. to mech. fracture, ESR obs. 2−110639
SiC, thermal oxidation kinetics, expt. study 2−72060
SiC, wavefront conjugation by degenerate four- and six-photon mixing 2−90994
SiC, wavefront reversal during degenerate four-photon interaction 2−108966
p-SiC:Al, Fermi level, Fermi distrib. and activity coeff. calc. 2−92453
SiC:Al,N(Ti), luminescence, cross relax. optical detection 2−99180
SiC:Al polytypes, p-n structs., electrolum. characts. 2−93285
SiC:B, Al epitaxial layers, lattice deformation and perfection, X-ray study 2−92406
SiC:H, amorphous film for a-Si solar cell, props. and struct. 2−104978
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
n-SiC:N (6H), impurity-vacancy pairs, EPR study 2−61766
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
n-SiC:P, Fermi level, Fermi-Dirac distrib. and activity coeff. 2−92452
SiC-3C, Raman phonon press. depend. 2−67054
SiC-SiO_2-Al, MOS struct., elec. props. meas. 2−72060
SiC(3C), optical phonons and transverse effective charge, press. depend., Raman study 2−82860
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
SmB_6, mixed valence cpd., small energy gap, electron tunnelling and IR spectrum 2−56442
SmS, pressure-induced elastic softening, elastic const. meas. 2−92075
α-Sn, fluctuation slot in valence band *(Russian)* 2−61357
$SnGeS_3$, cryst., vibr. props., Raman and far-IR study 2−67030
SnO_2 (110), surface electronic struct., tight-binding calc. 2−110250
SnO_2 film, vapour deposition, Rutherford backscatt. study 2−71812
SnO_2 film deposited by oxidation of $SnCl_2$, transparency and resistivity 2−111092
SnO_2 films, prep. from organic resinate soln. and photoelectrochem. props. meas. 2−116837
SnO_2 films, preparation, elec. and optical props., review 2−87428
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588
SnO_2, substitutional impurities elec. activity 2−110345
SnO_2 ultrafine particle film, Hall effect meas. and elec. cond. model 2−87425
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F transparent cond. films., prep. and props., review 2−105068
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
SnO_2:Sb films, deposition by oxidation of tetramethyltin and trimethylantimony, elec. and optical props. 2−87997
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
SnO_2:Sb thin films, spray pyrolysed, X-ray diffr. and AES study 2−104204
SnO_2/In_2O_3-Si structure with tunnel-transparent insulating layer, elec., photoelec. and luminesc. props. 2−77159
SnO_2/In_2O_3-SiO_x-n-Si solar cell, edge leakage suppression at low illumination levels 2−57706
SnO_2/In_2O_3-SiO_x-nSi, role of tunnel-thin dielectrics 2−99787
SnO_2/n-Si, texturized heterojunction solar cell, spray pyrolysis prep. 2−105567
SnO_2/n-Si solar cell, low-temp. CVD of SnO_2 film on Si, cell efficiency and stability 2−57713
SnO_2-GaSe heterostructure, depth profile, XPS and AES study 2−61299
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
SnO_2-SiO_x-nSi solar cells, diode characts. and open-circuit voltage 2−99809
SnO_x-ZnS(A)-Cu_xS-ZnS(A)-Al, A=Ag,Mn,Sm, thin film struct., electrolum., cathodolum. and photolum. meas. 2−87871
$SnPS_3$, photoresponse under photoelectrolysis conditions 2−61513
SnS_2, electronic props., Phillip's ionicity calc. 2−66440
SnS_2 films, optical absorpt. edge meas. 2−87885
SnS_2, thermoreflectance meas. 2−93168
$SnS_2(Se_2)$, angle-integrated photoemission, band struct. 2−67189
$SnSe_2$, electronic props., Phillip's ionicity calc. 2−66440
$SnSe_2$, thermoreflectance meas. 2−93168
SrB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
$SrTiO_3$:La, elec. cond., 850 to 1050°C 2−87264
$SrTiO_{3-x}$, supercond. transition temp. of overlayered In films 2−66693
$Sr_{1-x}TiO_3$, elec. cond., 850 to 1050°C, comp. depend. 2−87274
TaS_3, cryst. struct., semicond. elec. props. 2−60954
n-TiO_2, Au-film coated, photocatalysts, pot. meas. 2−110469
TiO_2 electrode, relaxation effects of surface and interface states 2−61583
TiO_2 electrode behaviour anal., photoelectron cell appls. 2−73126
TiO_2:H electrodes, SIMS and AES anal. 2−57655
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971
TiO_2:V^{4+}, illumination and oxidation effects on ESR spectra 2−56922
n-TiO_2-aqueous electrolyte interface, photoinduced and dark charge transfer obs. 2−92747
TiS_2 (1T), p-d gaps, relativistic corrections 2−110240
TiS_2, elec. resist., T^2 temp. depend. 2−66550
TiS_2, semicond., Hall coeff., elec. cond., electron-phonon scatt. 2−77041
$TlBiTe_2$-2PbTe cross section, solid soln. form., physicochem. and electrophys. props. 2−57337
$TlPbI_3$, Tl_3PbI_5, Tl_3PbBr_5, crystal growth, elec. and optical props. 2−87967
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808
$TlSnI_3$,$TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
VO_2 thick films, screen printing prep. and elec. cond. thermal switching props. 2−111104
V_2O_5, single cryst., anisotropy of X-ray emission spectra and electronic struct. 2−62019
VS, electronic charge density and bonding in NiAs-type solid 2−76921
WO_3 films, reactively sputtered, electrical and optical props. 2−66673

semiconductor materials continued
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691
n-WS_2 photoelectrochem. cell with aqueous and nonaqueous electrolyte solns. 2−116836
n-WSe_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
n-WSe_2 photoelectrochem. cell, local spectral response meas. 2−93928
WSe_2 photoelectrodes, polycryst., photoelectrochem. cell appls. 2−57716
p-WSe_2, recomb. sites and minority carrier diffusion length, charge collection microscopy 2−87294
WSe_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
Yb_2O_3 film, vacuum deposited, DC elec. props. 2−92793
$Zn_xCd_{1-x}S/Cu_2S$ single crystal photovoltaic solar cell preparation and performance charact. 2−78222
$(Zn_xCd_{1-x})_3P_2$ solid soln., electronic struct., X-ray emission spectra and XPS study 2−110986
β-ZnP_2, galvanoanisotropic effects, quasi-Hall effect 2−77095
ZnP_2, monoclinic, photovoltaic effect 2−87322
ZnP_2 photoelectrochemical cell photocathode, appl. to solar cells 2−116840
ZnP_2, tetragonal, valence band, X-ray emission spectra and pseudopot. study 2−57218
ZnP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
ZnP_2:As, impurity vibr., Raman scatt. study *(Russian)* 2−77540
Zn_3P_2, AC photocond., spectral response 2−77109
Zn_3P_2, band structure model of absorpt. coeff. and photovoltaic props. 2−82222
α-Zn_3P_2 film, optical band gap 2−62004
Zn_3P_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
$ZrS_{3-x}Se_x$, elec. resistivity and thermopower 2−71980
$ZrSe_2$ (S_2), p-d gaps, relativistic corrections 2−110240
$ZrSe_2$, elec. resist., T^2 temp. depend. 2−66550

semiconductor-metal boundaries
see also Schottky-barrier diodes
frequency convertors using metal-semicond. junctions, book 2−112668
heating by laser beam pulses of metal film-semicond. system 2−93332
III-V semiconductor, Schottky barrier form. due to surface antisite defects 2−61556
interaction studied by soft X-ray photoemission spectroscopy 2−110051
interactions of metal films on semiconductors, book contrib. 2−61213
interdiffusion of metal films on GaAs and InP 2−61215
interface interactions, similarity to metal-metal interfaces 2−115578
interfacial intermixing reaction at room temp. 2−56267
internal Schottky barriers 2−66620
metal film on semiconductor, interface chem. reaction and diffusion 2−86954
metal/Si systems, electron beam induced reactions 2−86955
organic semiconductors, Schottky emission meas., excitonic effects 2−72048
physical properties, book contrib. 2−56689
polyacetylene photovoltaic devices 2−57708
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
polythiazyl-metal junction, form. of semiconductive metal sulphide, elec. study 2−110470
Schottky barrier, effective work function model 2−110440
Schottky barrier contacts, metal-n-type, exptl. study 2−72057
Schottky barrier form. mechanism study 2−104481
Schottky barrier heights, contactless meas. using secondary electrons 2−115855
Schottky barrier heights rel. to interface states 2−98719
Schottky barriers, theoretical models, review 2−115894
Schottky barriers of mixed phase contacts, barrier height, size dependence calc. 2−110439
Schottky contacts, mixed phase, barrier height, size effects 2−66619
semiconductor electrodes, photoelectrochemical processes 2−88366
silicide formation, mechanisms and interfacial layers, book contrib. 2−61214
solar cells, parallel- and radial-current stream-line type metal contacts 2−88445
surface barrier devices, I-V charact. including recomb. effects 2−82459
TCNQ salts, Ag-$TCNQF_4$ and Cu-$TCNQF_4$, current-controlled electrically switched memory state 2−66599
Ag-GaAs (001), Ag MBE growth and interfacial diffusion, AES, LEED and SEM study 2−93432
Ag-Si layer struct., B implantation depth profiles 2−103804
Al-GaAs and Al-$Al_{1-x}Ga_xAs$-GaAs MBE contacts, Schottky barriers, stability props. meas. 2−98723
Al-GaAs MBE Schottky barrier height, O stabilization 2−87367
Al-GaAs(110) interface, possibility of adatom cluster formation 2−61555
Al-GeS, work function determ. method 2−61553
Al-InAlAs-InGaAs heterostructure, current transport 2−104486
Al-phthalocyanine interface, surface photovoltage, XPS and I-V characterisation 2−56691
Al-Si Schottky diode with surface layer, current-voltage charact. *(Rumanian)* 2−66621
Al-Si/Si ohmic contacts to shallow junctions 2−98741
Al-Te contacts, needle struct., current-voltage charact. after different types of aging *(French)* 2−61566
AlAs interfaces, dissoc. surface reactions 2−57250
$Al_xGa_{1-x}As$-Al-$Al_yGa_{1-y}As$ struct., instabilities in MBE growth 2−66395
As_2S_3-Ag, diffusion controlled sensitivity to illumination, image formation charact. 2−101484
Au film electroless, on CdTe cryst., characterization 2−87081
Au/n-CdTe Schottky diode, elec. props. meas. 2−77184
Au-CdS Schottky structure, deep levels obs., anal. of admittance spectroscopy method 2−115701
Au-n-$GaAs_{1-x}Sb_x$ Schottky diode, barrier height 2−115854
Au-Si:H, amorphous semiconductors interface reactions and Schottky barrier formation, expt. study 2−110176
AuGeNi-InP contact, electron microscopy investig. 2−66379
$CdCr_2Se_4$ single crystals, production of ohmic contacts 2−77179
CdS-Au Schottky diode, $C^{-2}=f(V)$ charact., deep electron trap and interface states effect 2−115860
CdS-Cu, interface form., Schottky barriers, interdiffusion and chem. processes, XPS study 2−77182

semiconductor-metal boundaries continued
CdS(Se)-Al-Au interface, Schottky barrier modulation, soft XPS study 2−110442
CdTe-Au, ohmic contact form. by pulsed laser heating 2−104483
CdTe-Au electroless contacts, phys. props., Rutherford backscatt. and AES anal. 2−110168
CdTe-metal interface, Schottky barrier form., XPS, UPS, AES, LEED, I-V and C-V meas. 2−115861
CdTe-metal interfaces, Fermi level pinning 2−66618
Co-Si contact, barrier height 2−92752
Cr film interaction with Si, bilayer silicide form. 2−86949
Cr-Si, CC $CrSi_2$ formation, diffusion mechanism, ^{31}Si radioactive marker study 2−61209
Cu-Cu_2O photovoltaic cells, prep. by high temp. reduction and props. meas. 2−88459
CuBr(Cl)(I)-Ag system light-sensitivity spectra, correl. with Cu halide absorpt. spectra 2−67079
GaAs interfaces, dissoc. surface reactions 2−57250
GaAs, metallised, volatile component loss and contact resistance during annealing 2−92753
GaAs overlaid by Ag, surface and contact props. 2−92751
GaAs, Schottky barrier formation, defect states model 2−98722
GaAs Schottky structures, surface defect model 2−98724
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
GaAs surface-barrier structs., reverse current and elec. breakdown 2−92755
GaAs:Cr relaxation semiconductors with thin-film contacts, props. 2−66636
GaAs-Ag interface, formation, struct., electronic states 2−104485
GaAs-Ag on GaAs (100), interface struct. and electronic props. meas. 2−110171
GaAs-Al contact elec. and physical charact., GaAs surface comp. effect *(Ukrainian)* 2−104124
GaAs-Al interface, far IR radiation generation by surface wave difference freq. mixing 2−55252
GaAs-Al single crystal microjunctions by MBE 2−82456
GaAs-Au on GaAs (110) Schottky barrier, thermal effects, XPS and UPS study 2−110441
GaAs-Ga interface formation, electronic props., photoemission LEED and Auger study 2−98744
n-GaAs-metal interfaces, physical charact. *(Chinese)* 2−66634
GaAs-Pd interface reactions, struct. characterisation by X-ray diffr. 2−110172
n-GaAs-Sn(Ag)(Al)(Au) MIS Schottky barriers, electron trapping in oxide layer 2−77196
GaAs-W(Ta)(Re)(Ir)(Mo), refractory contacts, interface reactions and Schottky barrier form. 2−110444
GaP, metallised, volatile component loss and contact resistance during annealing 2−92753
GaP Schottky barrier, struct. model and elec. characteristics and AES study 2−110170
p-GaP-Au, ion beam contacting by Be implantation 2−115889
GaSb, Schottky barrier formation, defect states model 2−98722
GaSe-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
GaSe-metal interfaces, Fermi level pinning, Schottky limit, photoelectron spectra study 2−56670
GaSe-metal Schottky barriers, optical band rectification and photomemory 2−115892
GaSe-Sn layer-barrier-structures, elec. props. *(Russian)* 2−77181
Ge (100) alkali metal adsorption, surface cond. and interface states, EELS study 2−92716
Ge/Ni, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge/Pd, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge-Ag, interface electron struct., XPS study 2−82422
Ge-Au interface cpd. formation, valence band and cone level UPS study 2−110175
GeTe-Co_2Ge eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
Ge(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
p-InP, low resistance ohmic contacts using Au-Zn-Cr-Au metallisation 2−104482
InP, Schottky barrier formation, defect states model 2−98722
InP, Schottky contacts on chem. etched surfaces, chem. effects obs. 2−61550
InP-Ag contacts, interface control by var. of concentration of free In, co-evaporation 2−66638
n-InP-Al Schottky barrier, prep., photocurrent, I-V and C-V charact. study 2−61552
n-InP-Au Schottky contacts with increased barrier height due to oxide layer 2−77185
InP-Au(Ni)(Ag) interface, Schottky barrier formation, UPS study 2−110443
InP-metal interface, Fermi level pinning and chem. struct., XPS study 2−110475
Ir film on n-Si, silicide form., AES study 2−86951
Ir-V film, contact reaction with Si 2−86950
Mo film on Si, ion beam induced interfacial reactions, TEM obs. 2−110050
Mo-$CuInSe_2$ interface, capacitance-voltage and EBK study 2−87385
Mo-Si interface, $MoSi_2$ formation kinetics meas. during CW laser scanning 2−92025
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
Nb-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
Ni film interaction with Si, bilayer silicide form. 2−86949
Ni-Pt interaction with Si 2−86953
Ni-Si, interfacial cpd. form. and electronic struct., photoemission and AES study 2−82036
Ni-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Ni-Si couple, lateral diffusion and Ni_2Si growth, SEM study 2−115471
Ni-Si interface, ion beam mixing, expt. study 2−66376

semiconductor-metal boundaries continued
PbS-NiSb, eutectics, microstructure and mech. props. meas., thermocouples appl. 2−86890
PbTe-NiSb eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
Pd-SiO_2-Si struct., isothermal H_2 desorpt. 2−110135
Pd_2Si film on Si, formation temp. depend. of resist. in Pd_2Si 2−82484
Pd_2Si-Si:Ar interface, contact resist. stabilization due to ion implantation 2−66635
Pt film interaction with Si, bilayer silicide form. 2−86949
Pt/n-GaAs Schottky interface, effects of surface treatments 2−98743
Pt-Si (100), PES study of interface states 2−77152
Pt-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Pt-Si system, mechanisms and interfacial layers, book contrib. 2−61214
Rh film on n-Si, silicide form., AES study 2−86951
Se-Al junction rectifier, current creep phenomena, temp. depend. meas. 2−98740
Si (111)-Pd (V), Schottky barrier formation, soft XPS study 2−110445
Si (111)(2×1)−Au system, interface form., low energy EELS and AES study 2−104174
Si, contact resistance to Pt-Al films 2−87388
Si Mo on Si (111), interface reactions, synchrotron UPS and AES studies 2−110173
n-Si:H, amorphous film, interacton with metal electrodes 2−87389
n-Si:H, amorphous film, interaction with metal electrodes 2−87390
a-Si:H, potential distribs. in Schottky and p-i-n structs. by capacitive techniques 2−92749
a-Si:H-Pd Schottky barriers, heat treatment effects 2−77183
Si/NiPt system, NiSi formation at silicide/Si interface 2−104078
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si/Pt-Si, contact reaction, Auger electron spectroscopy study 2−72058
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si-Ag on Si (111), interface growth, intermixing, UPS study 2−110165
Si-AlSi, Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Co thin film reactions, Co_2Si and CoSi growth kinetics and thermal stability obs. 2−92290
Si-Cr interface morphology and electronic struct., photoemission and band struct., calcs. study 2−82460
Si-Fe contacts, sputter deposited, barrier height meas. 2−110473
Si-InGaSn, contact potential difference *(Chinese)* 2−92748
Si-metal bilayer, laser writing for optical storage, TEM and electron diffr. study 2−91011
Si-metal contacts, fabricated by chemical reduction and electroless methods, barrier heights 2−110471
Si-metal diode, ion beam sputtering and etching prep. and elec. props. 2−104488
Si-metal Schottky barriers, photovoltaic props. implications for grating solar cells 2−116828
Si-Ni interface, Ni_2Si thermal formation, ion irrad. enhancement 2−56369
Si-Ni(Cr) interface, chem. bonding and density of states, UPS and LCAO calc. 2−110476
Si-Pd (Pd-V), physical-chemical interaction, junction layer struct., elec. and phys. props. 2−61211
Si-Pd interface, silicide reactions induced by millisecond laser pulses, Rutherford backscatt. study 2−76495
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
Si-Pd(Ag) on Si (111)7×7, struct. studies of Schottky barrier formation by surface EXAFS 2−110174
Si-Pt, interface states, XPS study 2−82423
Si-PtSi Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Pt(Pd)(Ni) interface bonding, XPS study 2−110477
Si-Ru contact, Schottky barrier height, effect of silicide form. 2−104466
Si-Ti (Ni) interface, laser and electron beam irrad., silicide form. 2−66377
Si-W(Ta)(Mo), polycrystalline Si film growth and disilicide formation 2−71817
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
Si(111)-Pd interface, ion beam crystallography study 2−115613
Sn-GeS, work function determ. method 2−61553
$TaSi_2$/Si composite structs., oxidation kinetics in dry O_2 2−105349
Ti films on Si, processing using multiscanned electron beam, $TiSi_2$ formation 2−104180
n-TiO_2, Au-film coated, photocatalysts, pot. meas. 2−110469
V-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
W-GaAs Schottky barrier, elec. props. and interface chem., XPS study 2−115853
W-GaAs:Se^+ Schottky barrier, high temp. elec. and interdiffusion stability meas. 2−87365
ZnO-metal contacts props. 2−61588
p-$ZnSnP_2$ Schottky diodes, current-voltage characts., photosensitivity and recomb. radiation spectra 2−115863
ZnTe-Cu ohmic contacts, production 2−77180

semiconductor-metal transition *see electrical conductivity transitions; metal-insulator transition*

semiconductor processing *see semiconductor technology*

semiconductor storage
see also integrated memory circuits; PROM
60 MHz oscilloscope, using digital image storage, P^2CCD appl. 2−95353
data acquisition, modular memory subsystems, geophys. instrumentation package 2−100574
MNOS structure, surface state density evaluation 2−61602
SAMOS structures, charge retention, thermionic electron emission model 2−56696
Au-$SrTiO_3$-SiO_2-Si struct., electron beam deposited, nonvolatile memory props. 2−72068

semiconductor storage devices *see semiconductor storage*

semiconductor storage systems *see semiconductor storage*

semiconductor superlattices
asymmetrical semiconductor superlattice type mesostructures 2−72053
band structure, envelope-function approx. 2−104472
collective excitations study 2−104473
conference, Linz, Austria (Sept. 1981) 2−89445
current-voltage characts., carrier relaxation, high freq. EM field effects 2−77169
effective-mass theory for electrons in heterostructures 2−110231
Einstein relation, effect of band non-parabolicity 2−82449
electrical conductivity, electron-phonon scatt. *(Russian)* 2−72070
electron gas, two-dimensional plasma waves, instabilities and amplification, theoretical anal. 2−61501
energy spectrum and zero energy gap condition calc. 2−77168
formation by standing laser wave and const. elec. field *(Russian)* 2−105010
inversion layers, two-dimensional subbands, artificial superlatt ice creation, theory 2−61596
modulated semicond. struct., MBE growth and electronic struct. 2−77167
modulated struct., electronic struct. and growth, review 2−56683
multilayer heterojunctions, carrier conc. and mobility, calc. from Hall effect and hot electron data 2−56678
multilayer struct., interfacial relax., ion channelling study, review 2−71536
narrow band-gap, acoustoelectric effect 2−104437
narrow gap, cond. in strong. mag. field 2−77098
phonon-limited near equilibrium transport in a semiconductor superlattice 2−56680
physics and chemistry, review 2−115874
planar ion channelling, computer simulation 2−109873
reduced Hamiltonian method with evanescent states and transfer matrices 2−110462
review of advances 2−98737
semiconductors, with superlattice, electron heating influence in EM wave reflection and attenuation coeffs. 2−99080
Stark-cyclotron-phonon reson. 2−77107
superlattice alloy, impurity sheet doped, band struct. 2−110242
surface, lateral, transport and scatt., Monte Carlo calc. 2−104454
transferred-electron semiconductor mesostructures for HF cond. 2−72054
two-dimensional lateral superlattices, quantum-well confinement and charge instabilities, tight binding calc. 2−61577
two-dimensional systems, electronic props., review 2−82467
(Al,Ga)As/GaAs heterostruct., MBE grown, interface quality and electron mobility, substrate temp. effects 2−56385
(Al,Ga)As/GaAs heterostruct., single and multiple period modulation doped, electron mobility meas. 2−56676
(Al,Ga)As/GaAs heterostruct., electron mobility meas., AlAs mole fraction influence 2−56677
AlAs-$Al_xGa_{1-x}As$-GaAs superlattices, absorption meas. at high press. 2−82933
AlAs-GaAs superlattice, Zn diffusion and disordering along its layers, expt. study 2−56253
AlAs-GaAs superlattice, disorder by Si implantation 2−76465
AlAs-GaAs superlattice, resonance impact ionisation states 2−92738
AlAs-GaAs superlattices, exciton associated optical absorption spectra at 300K 2−104913
AlGaAs-GaAs superlattice avalanche photodiode, multilayer detector for low noise appls. 2−53841
$Al_xGa_{1-x}As$, composition control and superlattice fabrication by pulsed MBE 2−99342
$Al_xGa_{1-x}As$-GaAs superlattice, energy spectrum and zero energy gap condition calc. 2−77168
$Al_xGs_{1-x}As$ superlattice configuration entropy 2−56216
AlSb-GaSb-InAs, multiheterostructs., two dimens. quantum states and semimetal-semicond. transition, theoretical study 2−61575
GaAs, doped superlattices, quasi-two-dimensional photoexcited carriers 2−110433
GaAs epitaxial layers, MBE and LPE, luminesc. props. 2−72564
GaAs, n-i-p-i cryst., photoexcited electrons quantisation, photoluminesc. and light scatt. study 2−61576
GaAs n-i-p-i superlattices, electron-hole recomb. across tunable effective gap, photoluminesc. study 2−99182
GaAs NIPI superlattice, tunable optical absorpt. coeff. 2−77477
GaAs:Si-GaAs:Be n-i-p-i superlattice, tunable band gap, theory and expt. study 2−110458
GaAs:Si(Be) artificial doping superlattices, MBE growth, elec. and optical props. 2−92735
GaAs-$Al_{1-x}Ga_xAs$ heterojunction, modulation doped, two-dimens. electron gas, intersubband scatt. obs. 2−110457
GaAs-$Al_{1-x}Ga_xAs$ modulation doped heterostruct., 2D electron gas transport props. meas. 2−98739
GaAs-$Al_xGa_{1-x}As$ multilayer struct., electron-LO phonon modes, Raman scatt., theory 2−110825
GaAs-AlAs (001) superlattice, electronic band struct. 2−61572
GaAs-$Ga_{1-x}Al_xAs$, quantum well struct., energy spectrum of donors, effective mass theory 2−56664
GaAs-$Ga_{1-x}Al_xAs$, superlattices, mobility tensor *(French)* 2−104475
GaAs-$Ga_{1-x}Al_xAs$ quantum well struct., donor states, effective mass approx. 2−110459
GaAs-$Ga_{1-x}Al_xAs$ superlattice etalon, room temp. excitonic optical bistability obs. 2−97074
GaAs-GaAlAs, doped quantum wells, wavevector freq. depend. dielec. const. 2−104279
GaAs-$GaAs_{0.2}P_{0.8}$ superlattice, strained layer, lattice mismatched, electronic struct., tight binding calc. 2−66631
$GaAs_xP_{1-x}$-GaP strain-layer superlattice, MOCVD growth and photoluminesc. props. 2−98729
$GaAs_xP_{1-x}$-GaP strained-layer superlattice, electronic struct., tight-bending and effective mass models 2−110454
$GaAs_xP_{1-x}$-GaP strained-layer superlattice, MOCVD growth and photoluminesc. props. 2−110919
$Ga_{0.47}In_{0.53}As$-$Al_{0.48}In_{0.52}As$ modulation doped heterostruct., current transport meas. at moderate elec. fields 2−82446
$Ga_{0.47}In_{0.53}As$-InP LP-MO CVD superlattices, two-dimensional electron gas props. 2−66629
GaP-AlP(100) superlattice band struct. 2−110460
GaSb-AlSb superlattice, spatially extended optical interface modes 2−66339
GaSb-AlSb superlattices, MBE growth, photoluminescence 2−99188
HgTe-CdTe superlattice, band structure, envelope-function approx. 2−104472
InAs-GaSb, semimetallic superlattices, subband widths, cyclotron resonance and far infrared magnetotransmission study 2−56709
InAs-GaSb superlattice, Shubnikov-de Haas oscills. under tilted mag. fields 2−56687

semiconductor superlattices continued
InAs-GaSb superlattice, highly doped, effective mass, carrier density, helicon wave propag. determ. 2−56688
InAs-GaSb superlattices, semimetallic, far IR magnetoabsorpt. 2−61881
InAs-GaSb superlattices, ion dechannelling mechanism 2−66082
n-InAs-GaSb superlattice, cyclotron resonance and Shubnikov de Haas study 2−87131
InAs-GaSb superlattice, band structure, envelope-function approx. 2−104472
InAs-GaSb superlattices, ion beam crystallography 2−116318
InAs-InAsSbP heterostruct. grown by organometallic VPE 2−98498
$In_{0.77}Ga_{0.23}As$, lattice-mismatched MBE growth on InP 2−57296
InGaAsP/GaAs superlattice struct., hydride VPE growth 2−99352
InGaP/GaAs superlattice struct. hydride VPE growth 2−99352
$Pb_{1-x}Ge_xTe$ thin film structures, growth by MBE 2−92393
$PbTe-Pb_{1-x}Sn_xTe$ superlattices, prepared by hot wall epitaxy, optical props. 2−99208
$PbTe-Pb_{1-x}SnTe$, superlattice, interband optical absorpt. *(Japanese)* 2−116179
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360
Te cluster superlattice in NaX zeolite, I-V characts., current peak periodicity 2−77062

semiconductor switches
monolithic optical integration prospects 2−86132
optoelectronic switching, picosecond lasers and appls., conf., Los Angeles, CA, USA (Jan. 1982) 2−112642
photoconductive switches, subpicosecond optoelectronics developments 2−114414
picosecond high-power switching and applications 2−97069
picosecond optoelectronics advances, photoelectron switching 2−115808
picosecond photoconductivity for ultrafast optoelectronic switching 2−115807
$CdS_{0.5}Se_{0.5}$, multikilovolt picosecond optoelectronic switching 2−56651
$CdS_{0.5}Se_{0.5}$, picosecond photocond. for ultrafast optoelectronic switching 2−115807
Cr:GaAs HV sparkgap, laser triggered, with high trigger sensitivity 2−86492
Ge, IR study of laser generated carriers 2−110859
Si:H n^+-i-n^+ struct., amorphous, threshold switching 2−82410

semiconductor technology
See also under specific device headings
see also semiconductor doping; semiconductor growth
CVD, plasma enhanced 2−111082
diffusion, complementary error function approximations by least squares method 2−71724
Electrochemical Society, Incorporated, Spring Meeting, conf., Montreal, Canada (May 1982) 2−101133
electron beam generator for annealing appls. 2−84739
electron pulsed annealed, elec. quality meas. 2−98161
etch selectivity and profile control in CCl_4-O_2 plasma 2−83253
III-V semiconductor optoelectronic devices, physics and technology, conf., Neue Muhle, Germany (April 1981) 2−112635
intrinsic gettering mechanism, precipitation of O_2 2−66239
laser-based material processing, overview 2−90913
laser-based micro-materials processing 2−90914
laser-enhanced chemical etching of solid surfaces 2−77958
laser-enhanced plating and etching, mechanisms and appls. 2−77758
mechanical vacuum pumping, equipment for appls. involving corrosive and aggressive materials 2−79598
metal films, UV laser photodeposition, nucleation mechanism study 2−105067
microwave heat treatment 2−116477
molecular beam epitaxy prep. and processing techniques for semicond. materials 2−53471
nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
oxide growth on Si layers, glow discharges containing O_2 and N_1 appl. 2−103539
pattern laser annealing using pulsed laser 2−81823
plasma deposition, conference, London, England (Mar. 1982) 2−53434
plasma enhanced CVD of thin films 2−72631
plasma etcher, flat bed, RF voltage-current characts. and DC negative bias props. 2−109609
plasma etching using H_2 plasma 2−83256
polymer films, spin coated, associated with semicond. industry, thickness variation 2−62081
power device struct., chemical Ni plating, nondestructive control *(Russian)* 2−83049
power device struct., Ni contact coatings, burn-in process control by electroinductive method *(Russian)* 2−83050
pulse laser and electron beam annealing, electron microscope characterisation 2−66051
sectioning technique for demountable samples 2−86670
SOS, laser annealed, electron Hall mobility and residual stresses, heat treatment effects, Raman study 2−98745
surface cleaning, deionised water rinse impact 2−88240
surface prep. by selective chem. etching 2−83254
surface spectroscopies review, for semiconductor characterisation 2−78158
surface treatment using diffusion columns in coaxial cylindrical glow discharge tube 2−103476
thermal-wave microscopy to image subsurface areas in semicond. manufacturing 2−75811
transducer design, combined semiconductor and magnetic transductor technology appl. *(German)* 2−74405
vertical multijunction solar cells fabrication, using thermal migration doping 2−93897
wafer, single crystal, lapping and polishing damage investig. by X-ray double- and triple-crystal diffr. *(Chinese)* 2−93690
wafer flatness and thin film stress profile meas. using thickness analyzer, fibre-optic appls. 2−63971
wafer wire bonding process, characterisation by X-ray diffr. topography 2−78031
Al(-Si), single wafer plasma etching of Al and Al-Si alloys 2−72878
CdTe thin-film solar cells, status as emerging materials PV technologies 2−57712
Cu_2Se thin-film solar cells, status as emerging materials PV technologies 2−57712
GaAlAs short-cavity laser fabricated by wet chemical etching 2−114279
GaAs LED, shallow-junction, surface-emitting, spectral tuning through gamma radiation 2−115287

semiconductor technology continued
GaAs solar cells, research advances 2−105560
GaAs:Cr, semi-insulating, photoelectrochem. etching and defect characterisation 2−98072
Ge, HCl gas phase etched, surface topography 2−98400
Ge, HCl gas phase etching, surface form. processes 2−99570
(Hg, Cd)Te, carrier lifetime rel. to wafer processing parameters 2−72001
$Hg_{1-x}Cd_xTe$, plasma anodisation, MIS structure fabrication 2−57505
InGaAsP on InP LPE for 1.3 micron high radiance IR LEDs and for photodiodes 2−111101
InGaAsP/InP high radiance IREDs with emission wavelength 1.3 micron and transmission rate 140 Mbit/s 2−109079
$MoSe_2$ single crystal, etching and dissolution kinetics, PEC solar cell appl. 2−93642
$PbSiO_3$ hydrophobic films, CVD prep. and microelectronic appls. 2−62070
Si (110), high depth to width ratio profiles produced by anisotropic photoetching 2−62245
Si dry etching, chemical and physical sputtering yields by fluorocarbon ions 2−93638
Si, gettering of stacking faults and heavy metal impurities, appl. to semiconductor device and IC manuf. *(Russian)* 2−66019
Si, lateral effect of oxidation enhanced diffusion 2−66297
Si layers, implanted, pulsed microwave power annealing 2−71495
Si MIS solar cells, fabrication technology *(Slovak)* 2−67859
Si, neutron transmutation doping, conf., Copenhagen, Denmark (Aug. 1980) 2−74166
Si, profile control with DC bias in plasma etching 2−88235
Si rice hulls, purification for source of solar grade Si 2−77763
Si SIS solar cells, fabrication technology *(Slovak)* 2−67859
Si, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
Si, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
Si wafers, HCl etched {111}, deep etch pits and facet form. obs. 2−76447
Si wafers, surface deform. meas. using interferometric techniques 2−84691
Si:As, ion implanted, solid state phase annealing with CW Nd:YAG laser *(German)* 2−105183
Si:As^+, implanted, pulsed electron beam annealing apparatus and utilisation *(Chinese)* 2−66059
Si:C, effect of C on elec. props. of devices, impurity-defect interaction investig. 2−91994
Si:Cu(Ag)(Au), gettering by Al at low temp., Rutherford backscatt. study 2−115264
Si_3N_4 plasma deposition on Si, props. of thin layers *(German)* 2−57309
SiO_2 thermally grown thin films, electron trapping 2−66683
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588
TiN, formed by evaporation as diffusion barrier between Al and Si 2−83028
$VO_x/V_3Si/Si$, semiconductor-superconductor-semiconductor, Josephson junction fabrication *(Japanese)* 2−82537
WSe_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
Zn_3P_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
$ZnSiAs_2$ thin-film solar cells, status as emerging materials PV technologies 2−57712

semiconductor thin films
for electronic conduction in crystalline and amorphous films, see "electronic conduction in crystalline semiconductor thin films" and "electrical conductivity of amorphous semiconductors and insulators", respectively
see also amorphous semiconductors; semiconductor epitaxial layers
amorphous, pulsed energy beam crystn., struct. features 2−60888
amorphous film, gap states, xerographic spectroscopy 2−77213
CdS, thin evaporated films, optical and elec. props. 2−61624
CdS-Cu_2S solar cells preparation and anal. 2−78220
chalcogenide glass film, photoinduced structural changes *(Russian)* 2−61301
compound semiconductor film, phase transition triggered by laser irrad. 2−98500
deep level conc. from capacitance transient spectroscopy, errors 2−72084
deposited onto metal plates, resistivity measurement, microwave reflection coefficient dependence on film thickness 2−95406
diacetylene, polymerised Langmuir film, electroabsorption spectra, effective masses 2−77491
dielectric function spectra, density and surface roughness 2−82943
direct band-gap semiconductor films, minority carrier diffusion lengths, lateral variation meas. technique. 2−98770
EM wave absorpt. by two-dimens. plasmons 2−115685
EM wave propag. in layers with negative differential cond. 2−98686
growth and doping, computer simulation 2−66390
helicon resonator, high freq. mag. fields, expt. and theoretical study 2−82393
II-VI compound thin films with thin film optical waveguides, optical consts. 2−82947
impurity levels, strong mag. field effect 2−71906
nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
optical processes, review 2−93310
organic, photoelectric pulse current *(Russian)* 2−61625
oxide films, transparent, preparation, elec. and optical props., review 2−87428
pentacene, photoelectric pulse current *(Russian)* 2−61625
pentacene, polycrystalline layer, dispersive transport of charge carriers *(Russian)* 2−61626
photovoltaic materials, technology and future developments 2−78207
phthalocyanine thin films, metal-free, dispersive electron and hole transports 2−66677
piezoelectric film, surface phonon amplification, nonparabolicity effect 2−76795
polyacetylene:Br, amorphous film, elec. and optical props. 2−110511
polycrystalline, photocond. spectral response, diffusion potentials at grain boundaries 2−92685
quantized, light absorpt. by two-photon transitions in neutral deep impurity centres 2−77611
quantized, two-photon interband absorption with participation of deep impurity centres 2−56476

semiconductor thin films continued
Si:H, amorphous oxidised films, valence band spectra 2−104300
size quantisation of holes and carriers, energy spectrum and effective mass *(Russian)* 2−82499
size quantised film, thermoelec. power in mag. field 2−115929
SOS films, and interfaces, chem. aspects 2−91847
SOS films, non-homogeneous elec. transport, galvanomag. expts., internal stress influence 2−115904
sputtering growth, ion-surface interactions, review 2−110201
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
triphenylformazan, semicond. films, photochromic switching 2−61998
TSF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
TTF salts, photoactive semicond., photocond. and Schottky barrier studies 2−87327
zinc dithizonate, thin film, photochromic switching, optical absorpt. and photovoltaic study 2−87882
zinc phthalocyanine films, photocurrent generation, electric field and temp. depend. 2−61512
ZnSe:Li, p-type cond. 2−115925
Ag-organic radical-ion salts, reversible field induced phase transition 2−66597
Ag-Te (Se)(S)(I) diffusion couples, struct. and elec. cond. meas. 2−82033
AlN film, basal orientation, RF diode sputtering, low temp. growth 2−72623
AlSb film, phase transition triggered by laser irrad. 2−98500
AlSb film growth by laser annealing Al/Sb sandwich 2−92416
As-S glassy chalcogenide semiconductor films, reversible optical bleaching 2−67138
As-Te, homogeneous film, elec. props., optical forbidden band-width 2−110504
As_2S_3, evaporated layer, photoselective solubility rel. to heat treatment *(Russian)* 2−64141
As_2S_3 film, refractive index changes, permittivity *(Russian)* 2−61864
As_2S_3 film, vitreous, photodarkening value, press. effect 2−61026
$(As_2S_3)_{1-x}(Tl_2Se)_x$, chalcogenide glass film, photoconductivity 2−110399
AsSe chalcogenide glasses, hole drift mobility near photostructural transformations 2−87280
As_2Se_3, photostructural changes, influence of prep. method 2−99353
As_2Se_3 thin film, vitreous effect of age, photocond. meas. 2−56645
As_xTe_{1-x} amorphous film, energy gap, composition depend. 2−61337
BiI_3, photodecomp., struct. and transmittance, effect of illum. 2−87101
Bi_2S_3 thin film, semicond. liq. junction solar cell and chalcogenide props. 2−78212
$Bi_{90}Sb_{10}$ thin film, band gap and intergrain barrier activation energies 2−72085
Bi_2Te_3 thin film based vacuum thermopile for meas. very weak continuous radiant energy *(French)* 2−95473
BiTeI, thermophysical props. 2−82386
C evaporated films, electron transport, semicond. and hole metal behaviour 2−61461
C:H, amorphous glow discharge film, photoluminescence and ESR spin density 2−93244
CC CdTe high voltage photovoltaic cells composition and structure, modulated reflectance study 2−99786
Cd-Sb amorphous film, memory switching obs. 2−66596
n-Cd_3As_2, ultrathin films, effective mass, effect of size quantisation 2−98526
$CdGa_2Te_4$, amorphous, structural ordering effect of group I metal impurities 2−87114
$CdGa_2Te_4$(:Ag) film, polycryst. and amorphous, elec. cond. and Hall effect meas. 2−82490
$Cd_{0.2}Hg_{0.8}Te$, anodic oxide layers, interface struct., SIMS-AES XPS investig. 2−104208
$Cd_xPb_{1-x}S$, growth kinetics, chem. deposition from aq. soln. 2−110190
CdS, evaporation kinetics of thin crysts. and films on vacuum annealing, comp. changes meas. 2−110157
CdS film, oriented, grown on glass and InP substrates by thermal decomposition of organometallic cpds. 2−67224
CdS films, chemical bath deposited, elec. resist. increase obs. by laser annealing 2−98766
CdS films, chemisorption of O_2, XPS study 2−99292
CdS films, RF sputtered, struct. and elec. resist., deposition dependence meas. 2−105073
CdS films reactive DC sputtering on glass substrate in Ar and H_2S atmosphere 2−105072
CdS polycrystalline film, photoconductivity meas. 2−66674
CdS sintered films, for CdS/CdTe solar cell 2−88016
CdS sprayed thin film, optical reflectance and transmittance 2−110969
CdS thin film, reflectivity spectra near excitonic transition 2−82878
CdS thin film, single source evaporation, characterisation 2−83042
CdS thin film, work function, surface pot., annealing effects *(Russian)* 2−87373
CdS thin films, elec. props., In doping and Ag contact effects 2−66672
CdS, thin films, inhomogeneity, optical transmission, refr. index 2−62001
CdS thin films, radiative and nonradiative recomb. times 2−92789
CdS:Cu, Cl, sintered layers, absorpt. and photoluminescence spectra 2−110928
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
CdS:Te film, vacuum deposited, dark cond. and photocond. meas., doping effects 2−61623
CdS/Cu_xS thin film solar cells, fabrication trends and problems review 2−78223
CdS-CdSe, struct. and phase comp. of precips. and films 2−110191
CdS-CdSe films, impurity photocond. line spectra, donor mol. concept 2−115822
CdS-Cu_2S thin film solar cells, electron affinity difference 2−67858
$CdS_{1-y}Se_y$ mixed crystal photoconductive films for electrophotographic recording *(German)* 2−87342
CdS_xSe_{1-x} sprayed thin films, struct. props. and optical band gap 2−110199
CdS_xSe_{1-x} thin film, growth on CdS substrate by solid-state diffusion, composition control 2−71813
CdS_xTe_{1-x} solid soln. films, vacuum deposited, condensation diagram and phase changes meas. 2−110208
n-CdSe, electrodeposited, Fermi level pinning, low-field electrolyte electrorefl. spectra 2−57059
CdSe, evaporation kinetics of thin crysts. and films on vacuum annealing, comp. changes meas. 2−110157
CdSe polycrystalline thin film transistor, conductivity behaviour 2−56735
semiconductor thin films continued
CdSe, spray-pyrolysed thin film, photoelectrochem. solar cell performance meas. 2−93924
CdSe thin film, electrooptical modulation parameters *(Russian)* 2−61874
CdSe:Cr thin film transistor, SIMS depth profiling, high spatial resolution 2−104207
$CdSe(CdSe_{1-x}Te_2)$ electroplated layers, growth and photoelectrochem. solar cell appl. 2−105580
$CdSe_{1-x}S_x$ films, soln. grown, struct. and optical props. 2−56388
$CdSnO_4$ films, dip coatings, prep. technique 2−105096
$CdSnO_4$ transparent cond. film, planar magnetron sputtering 2−105074
CdTe, deposition by spray pyrolysis, for solar cell appl. 2−71828
CdTe films, DC elec. props. Poole-Frenkel eqn. 2−110510
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
p-CdTe-Te film, mol. beam deposited, props. 2−104192
$CdTe_xSe_{1-x}$ semiconducting cmpds., laser induced formation 2−115593
$Cd_{1-x}Zn_xS$ films, electron bombardment evaporation, visible absorpt. spectra meas. 2−72572
$Cd_{1-x}Zn_xS$ films evaporated by electron bombardment, struct. study 2−71834
$Cd_{1-x}Zn_xS$ mixed crystal photoconductive films for electrophotographic recording *(German)* 2−87342
$Cd_xZn_{1-x}S$ chemically sprayed thin films for solar cells, carrier density depend. on Zn conc. 2−115928
Cu-As-Se glassy films, photoconductivity and optical absorpt. *(Russian)* 2−104516
Cu-TCNQ films, reversible field induced phase transition 2−66597
CuCl thin film, probe biexcitons, momentum space condensation, luminesc. study 2−61363
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
$CuInSe_2$, amorphous and crystalline, optical props. 2−87889
$CuInSe_2$, prep. by RF sputtering, optical props. 2−110962
$CuIn_2Se_{3.5}$, optical props. near fundamental absorpt. edge 2−99151
CuO and Cu_2O, semiconducting oxide films, photoelectrochem. invest. 2−105363
Cu_2S film, SIMS, matrix effects, ion yield enhancement 2−76856
Cu_2S/CdS sprayed solar cells photovoltaic performance 2−78221
$Cu_{2-x}S$ thin films, oxidation-reduction effects on optical absorption, application in solar cells 2−82941
Cu_xS film, topotactically grown, chalcocite-djurleite transform., TEM study 2−104195
Cu_xS thin films prep. by Activated Reactive Evaporation, elec. and optical props. 2−99354
$Fe_x(As_{15}Te_{37}Si_{25}Sb_{77})_{1-x}$ film, sputtered, phys. props. 2−92421
$Ga_{1-x}Al_xAs$:Zn, metalorganic CVD film, elec. cond. 2−56733
GaAs film, amorphous, plasma deposition and characterisation 2−111094
GaAs film, laser CVD deposition and charact. 2−82162
GaAs layers, elec. field effect on growth, in GaAs-AsCl$_3$-H$_2$ system 2−57302
GaAs polycrystalline n-type film, hole diffusion lengths, lateral variation meas. technique 2−98770
$(GaAs)_{1-x}Ge_x$ single-crystal metastable alloys, growth and optical props. 2−116360
GaN, gas phase deposition by pyrolysis of Ga tri-iodide ammine, vel. front 2−72630
GaP film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
GaP, thin film struct., electron beam irrad., current characteristics meas. 2−56738
Ga_2S_3, amorphous film, optical props. *(Russian)* 2−62007
GaSe amorphous film, electroabsorpt. meas. 2−72456
Ge, amorphous, electron beam annealing in TEM 2−71503
Ge, amorphous, evaporated, struct. study by neutron diffr. 2−86566
Ge amorphous film, elec. cond., hopping model, electron-phonon coupling 2−77054
Ge amorphous film, explosive crystallisation, temp. and thickness effects 2−65860
Ge amorphous film, low-energy exictations, sp. ht. meas., 0.08 to 2.5K 2−71662
Ge amorphous films, time-resolved TEM of pulsed crystn. 2−82167
Ge, amorphous solar selective absorber, medium temp. 2−93945
Ge, carrier conc. effect based devices, sensitivity increase 2−87430
Ge, deposition by DC and RF double cathode sputtering *(Japanese)* 2−62065
Ge film, laser induced crystn. 2−61316
Ge film, laser-crystallised, crystallite morphology and defect struct; TEM and SEM study 2−66402
Ge, selective absorber surfaces 2−88477
Ge, thin film growth by laser induced CVD 2−77752
Ge thin film thermometers, for use at low temps., charact. 2−74412
Ge:H amorphous film, AC losses and elec. cond., polarons 2−77055
Ge-GaAs heterojunction, work function, interface state effect *(French)* 2−61559
Ge-Se(S)(-As) amorphous films, obliquely deposited, Urbach tail, photoinduced changes 2−93309
Ge-Si:H, amorphous sputtered alloys, elec., optical and struct. props. 2−98644
$GeSe_2$ amorphous film, optical bistability obs. 2−102853
$GeSe_2$ films, amorphous, laser induced optical anisotropy 2−93313
$GeSe_2$, thermal quenching of photoluminesc. 2−87848
$Ge_{0.25}Se_{0.75}$ amorphous inorganic resist film, ion and electron beam induced struct. changes, TEM study 2−115588
Ge_xSe_{1-x} glasses, photocond. and recomb. processes 2−77112
Ge_xSe_{1-x}:Ag amorphous films, Ag photodoping, XPS study 2−57245
$Ge_{18}Te_{82}$ amorphous film, diffusion of Au, nucl. backscatt. anal. *(French)* 2−104069
HgCdTe, physics and chemistry, workshop, Minneapolis, MN, USA (Oct. 1981) 2−89437
$Hg_{1-x}Cd_xTe$ film growth by laser included evaporation and deposition 2−87989
HgS, sputter-deposited film, comp. determ. by electron microprobe anal. *(Japanese)* 2−92399
InGaAsP-InP layers, catastrophic degradation, laser induced 2−61022
In_2O_3 (-SnO_2) films, preparation, elec. and optical props., review 2−87428
In_2O_3, films, magnetoconductive effects, Anderson localisation 2−56740
In_2O_3 RF sputtered films, optical props. 2−57202
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091

semiconductor thin films continued
In_2O_3:Sn films, annealed, elec. resist. and defect model 2−66671
In_2O_3-SnO_2/Si transparent conductor films/polycrystalline junction, appl. to solar cells 2−57711
In_2O_{3-x} films, reactive evaporation prep. and elec. resist. meas. 2−105088
In_2S_3, amorphous film, optical props. *(Russian)* 2−62007
In_2S_3, crystal growth from amorphous phase, electron-diffraction study *(Russian)* 2−92384
InSb, carrier conc. effect based devices, sensitivity increase 2−87430
n-InSb film, surface phonon amplification, non-parabolic band struct. effect 2−110126
n-InSb, nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2−105068
$In_{2-x}Sn_xO_{3-y}$ transparent cond. film, planar magnetron sputtering 2−105074
$InSi_{1.75}$, semiconductor thin film, optical and Hall effect meas. 2−77209
$LiNbO_3$-CdSe film, alternating field acoustoelectronic effect, CdSe cond. effects 2−72033
$LiNbO_3$-CdSe multilayer struct. with periodic-array contacts, freq. doubling 2−92705
Na_2KSb films, growth for photocathodes 2−83029
PbI_2, cryst. and thin films, electronic absorption spectra meas. 2−67071
PbS film, spectrally selective, produced by ion beam sputtering 2−71824
PbS, natural galena, electron beam evaporated film, optical and electronic props. meas. 2−61621
PbS_xSe_{1-x} thin film deposition, soln. growth technique 2−93461
$PbSe_{1-x}Te_x$ film, IR absorption due to valence state-localised state transitions 2−77608
n-$Pb_{0.85}Sn_{0.15}Se$ films thermoelectric props. for use in thermal radiation convertors 2−99817
$Pb_{1-x}Sn_xTe$ films, ion implantation induced defect levels, Hall meas. 2−92528
$Pb_{1-x}Sn_xTe$:In films, impurity electron-state, elec. cond. study 2−115705
PbTe films, RF sputtered, struct. props. obs. by X-ray asymm. refls. 2−110197
PbTe, frozen cond. study *(Russian)* 2−56739
PbTe, thermo-EMF calc. 2−87423
PbTe thin films, flash deposited, relax. processes 2−87113
Sb_2O_3 film, chem. deposition from soln. 2−105094
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Sb_2S_3, thin film photoelectrodes, studied by spectroellipsometric and photoelectrochemical techniques 2−98689
Sb_2Se_3 film, chem. deposition from soln. 2−105094
Sb_2Se_3 photoelectrochemical cells chemically deposited thin film electrode deposition and behaviour affecting parameters 2−67865
Sb_xSe_{1-x} amorphous film, energy gap, composition depend. 2−61337
Se (layers), piezoelec., props. 2−99058
Se, amorphous film, photo-induced stress relax. obs. 2−66044
Se, amorphous film, photocond. stabilisation and evolution, thermal history effects *(French)* 2−72030
Se amorphous film, residual voltage, carrier trapping and release parameters 2−110280
Se amorphous film, stress effects on crystallisation 2−86569
Se amorphous film, surface relief form. by laser bombardment 2−86728
Se, amorphous thin film, photodependence of structural relax. 2−81678
Se, amorphous thin film, photoconduction spectral response, annealing near glass transition temp. 2−87330
Se amorphous thin film on $LiNbO_3$, US attenuation and Rayleigh surface waves 2−71588
Se thin film, prep. by photodissociation of organometallic gases 2−83036
Se/polystyrene-hexylmethacrylate copolymer interface, charge transfer 2−56722
Se-binder generation layer, trigonal, carrier photoinjection into organic carrier transport layers 2−87334
Se-binder photoconductive layer, trigonal, formed by in situ reduction and crystallisation, photocond. behaviour 2−87333
$Se_{0.99}Bi_{0.01}$, amorphous, crystn., elec. cond. meas. 2−55860
$Se_{0.75}Ge_{0.25}$ films, obliquely deposited, ion-induced physical and optical densification 2−61042
Si, amorphous, laser induced controlled nucleation and growth process 2−56408
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si amorphous CVD film, prep., solar photovoltaic appls. 2−105081
Si, amorphous CVD layer, localized state density meas. by field effect method 2−56737
Si amorphous film, CC sputter and plasma deposited, photoconductive decay, carrier lifetime 2−82398
Si, amorphous film, gap state density, high freq. capacitance-voltage determ. 2−56429
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325
Si, amorphous film, melting threshold energy in laser annealing 2−92026
Si amorphous films, glow discharge and sputter deposited, optical band-gap, absorption coeff. meas. 2−71856
Si amorphous films, localised state investigation using field effect technique 2−104509
Si amorphous films, luminesc. study, interf. effects 2−104968
Si, amorphous films, RF-bias sputtered, elec. cond. photoconductivity, ESR spin density, annealing effects 2−56391
Si amorphous films, time-resolved TEM of pulsed crystn. 2−82167
Si amorphous glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
Si amorphous photovoltaic cells, glow discharge prep., substrate condition effect on cell performance 2−83482
Si amorphous thin film, microwave plasma CVD fabrication 2−111093
Si CVD film, polycryst., threshold and memory switching 2−115830
a-Si CVD films, anneal-stable, struct. order, Raman scatt. study 2−81679
Si, CVD growth, decomposition prob., expt. determ. 2−105087
Si epitaxial and recrystallised films, carrier lifetimes, MOS capacitance study 2−92787
Si film, amorphous, annealing behaviour of spin density and optical gap, effect of O contamination 2−87735
Si film, CVD in capillary layers, mol. decomp. probability determ. method 2−111088
semiconductor thin films continued
Si film, CW laser melting, threshold behaviour 2−56411
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
a-Si film, diffusion of H, ESR study 2−115469
Si film, glow discharge deposited, optical consts. 2−62006
Si film, glow discharge deposited, optical and elec. props. 2−93307
Si film, large grain polycryst., crystallographic orientation, grid-of-etch-pits technique 2−115591
Si film, on SiN layer, stripe shaped cryst. growth by scanning electron beam annealing 2−87092
Si film, patterned and CW laser crystallised on amorphous substrate 2−61315
Si film, polycryst., amorphized by Si ion implantation, solid phase epitaxial recrystn. 2−115581
Si film, polycryst., formation of thin oxide, ellipsometry study 2−105348
Si film, polycryst., grain growth under CW electron beam annealing, modified SEM study *(Japanese)* 2−115597
Si film, sputter deposition 2−62066
Si film for high-damage threshold IR Smartt interferometer 2−101452
Si film on Si_3N_4/SiO_2 double insulating layer, CW laser recrystallisation, bipolar transistor fabrication 2−82154
Si film on SiO_2, zone recrystallized, elec. props. of line defects 2−66668
Si film production by laser dissociation of SiH_4 *(Chinese)* 2−62074
Si films, 3 in. diameter, zone-melting recryst. on SiO_2-coated Si substrate 2−99330
a-Si films, localised states investigation using field effect technique *(Chinese)* 2−66670
Si films, microscopy during laser melting 2−66403
Si films, on glass, laser crystn. 2−66382
Si, plasma deposition from $SiCl_4$ in inductive RF low. press. plasma 2−105091
Si, polycryst., low temp. mol. beam deposition 2−57295
Si, polycrystalline, growth on Mo(Ta)(W) and disilicide formation 2−71817
Si, polycrystalline, plasma sprayed, charge carrier mobility 2−72083
Si polycrystalline films, thickness meas. by ellipsometry 2−99202
n-Si polycrystalline semiconductor layers, 1/f noise *(Polish)* 2−82489
Si, polysilicon, CW laser recrystallised material 2−56409
Si, recrystallised CVD film; laser irrad., surface topography charact. 2−82086
Si ribbon growth, using electron bombardment 2−66387
Si, thin film growth by laser induced CVD 2−77752
Si thin films, D passivation of grain boundary dangling bonds 2−76478
Si, UHV-deposited thin films, laser cleaning of (100), (110) and (111) surfaces 2−83250
Si, zone-melting-recrystallised films on SiO_2-coated Si substrate, subgrain boundaries effect on carrier transport 2−77207
Si:As, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062
Si:B, codeposition from Si and B, influence of traces of water vapour 2−111080
Si:B thin film, polycrystalline, elec. props., use as sensor *(German)* 2−87427
a-Si:C and a-Si:C, B(P) films, cathodic deposition, charact. 2−88011
Si:F, H amorphous films, photoelec., and optical props. Schottky barrier solar cell form. 2−83480
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
Si:F,H amorphous films, solar cell form., film elec. and optical props. 2−83481
a-Si:F and a-Si:F, B(P) films, cathodic deposition, charact. 2−88011
a-Si:F and a-Si:F, H films, motional narrowing effects of NMR spectra 2−77395
Si:H, amorphous, gap states distrib., modulated photocurrent phase-shift anal. 2−92534
Si:H, amorphous, homogeneous CVD prep. and struct., comp. and photocond. props. 2−87085
Si:H, amorphous, laser induced crystn. 2−55849
Si:H, amorphous, obs. of photoinduced changes in gap states bulk density 2−66472
Si:H, amorphous, prep. by RF planar-magnetron sputtering *(Japanese)* 2−99332
Si:H, amorphous, sputtered, time-resolved photolum. spectra 2−77581
Si:H, amorphous, sputtered, time-of-flight and photoinduced mid-gap absorpt., dispersion 2−87432
Si:H, amorphous film, density of states, field effect determ. technique, annealing and illumination effects 2−61593
Si:H, amorphous film, flow discharge deposited at 1 Torr, elec. and struct. props. meas. 2−87277
Si:H, amorphous film, interfacial electronic struct. and density of states 2−66601
n-Si:H, amorphous film, interacton with metal electrodes 2−87389
n-Si:H, amorphous film, interaction with metal electrodes 2−87390
Si:H, amorphous film, magnetoresistance study 2−92790
Si:H, amorphous film, optical props. *(Korean)* 2−57201
Si:H, amorphous film, optically induced pot. fluctuations, elec. cond. and thermpower study 2−77050
Si:H, amorphous film, optical and elec. props. 2−82940
Si:H, amorphous film, RF sputtered, H content, and config., photoconductivity, IR study 2−82397
Si:H, amorphous film, reactive ion beam sputtering, optical props. 2−83041
Si:H, amorphous film, tetrode RF sputtering and optical and elec. props. meas. 2−111072
Si:H, amorphous film, vacuum evaporated, substitutional doping by ion implantation, elec. cond. and EPR study 2−55850
Si:H, amorphous films, field effect density of states, annealing and light exposure effects 2−71850
Si:H, amorphous glow discharge film, photocond. and Fermi level temp. depend., photoinduced changes obs. 2−115810
Si:H, amorphous plasma deposited film, photocond. IR quenching and gap states, exp. study 2−87318
Si:H, amorphous Schottky barrier solar cells; CVD prep., electronic props. 2−83484
Si:H, amorphous solar cells, I-V charact., density of states, and depletion width 2−83483
Si:H, amorphous sputtered film, dispersive transport, carrier mobility, photoconductivity study 2−82357
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945

semiconductor thin films continued
a-Si:H, Ga(As), ion implanted, absorpt. and photocond. spectra 2−115820
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
Si:H, N(Ga), amorphous film, ion implanted, photocond. and energy spectrum 2−92698
a-Si:H, RF sputtered, elec. and EPR meas. 2−115791
Si:H,As, amorphous RF sputtered film, pulsed laser annealing 2−86726
Si:H,B, amorphous film, NMR study 2−110686
Si:H,F, amorphous film, NMR and ESR study 2−93003
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture and elec. resist. and IR absorpt. meas. 2−93444
Si:H,P amorphous glow discharge thin films, elec. props., heat treatment and P ion implantation effects 2−61467
Si:H amorphous, photoconductivity spectrum 2−104430
Si:H amorphous film, DC sputtered, characterization by optical and nuclear methods 2−93308
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
Si:H amorphous film, glow discharge deposited, heterogeneities and surface effects 2−92420
Si:H amorphous film, glow discharge deposited, H content and mech. stress 2−104210
Si:H amorphous film, glow discharge deposition, plasma spectroscopy 2−115605
Si:H amorphous film, growth by silane laser photodissociation, X-ray and IR spectra study 2−116375
Si:H amorphous film, H conc. correlation with low freq. noise 2−92795
Si:H amorphous film, multipole DC discharge growth, ellipsometric study 2−92422
Si:H amorphous film prep., evaporation method 2−62069
Si:H amorphous films, H_2 evolution 2−93950
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
Si:H amorphous glow discharge films, elec. and optical props., elec. and mag. field effects 2−82407
Si:H amorphous layers, refractive index dispersion, dark m-lines method 2−82946
Si:H amorphous MIS struct., Langmuir-Blodgett film 2−87410
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
Si:H amorphous plasma deposited film, photoluminescence, sub-band gap excitation 2−87856
Si:H amorphous reactively sputtered film, H anal. by IR spectroscopy, nuclear reaction and SIMS 2−76857
Si:H amorphous solar cell, photovoltaic performance, film props., plasma deposition optimisation 2−83486
Si:H amorphous sputtered film, microstruct. and H bonding environments 2−76847
Si:H amorphous sputtered thin film, carrier propagation, trapping and mobility 2−87283
Si:H amorphous thin film Schottky barrier diodes, diode characts., film props. 2−82430
Si:H amorphous thin films, ion-plated, photoconductivity and optical band gap 2−87331
a-Si:H film, annealing effects on ESR, elec. and optical props. 2−66588
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
Si:H films, amorphous, dependence of gap on hydrogen content, photoluminesc. and IR spectra study *(Chinese)* 2−110903
a-Si:H films, growth and characterisation 2−83031
a-Si:H films, mol. H_2 presence, proton spin-lattice relax. time meas. 2−61786
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
α-Si:H films, optical absorption and density of states in band gap 2−72571
a-Si:H films, Raman scatt. under high press. 2−72505
a-Si:H films, residual stress elimination 2−61317
a-Si:H films, SAW attenuation, paramag. defects, IR, ESR and SEM studies 2−110123
Si:H microcrystalline glow discharge films, phys. props., substrate bias effect 2−87109
a-Si:H RF sputtered films, elec. props. rel. to threshold and memory switching appls. 2−87347
Si:H(PH_3), amorphous film, density of gap states, space charge spectroscopy study 2−87181
Si:N, amorphous CVD film, elec. cond., field effect and gap state density meas. 2−87193
Si:N, low energy implantation, material composition, oxidation resist. and elec. characts. 2−86694
Si:O, prep. and props. 2−72629
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
Si:P, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si:P^+(As^+) layers, ion implanted, electron beam annealing, elec. props. 2−92039
Si-CdS($Zn_xCd_{1-x}S$) heterojunction solar cell, elec. props. 2−115875
Si-enriched layers on Ni, obtained by CVD, characterisation 2−105084
Si-F amorphous film, grown from SiF_2 disproportionation, F conc. determ. 2−92021
Si-Ge-B amorphous film, glow discharge deposited, elec. cond., optical absorpt. and EPR study 2−71965
Si-Se-In film, photo-induced memory effects obs. 2−56636
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiC films, formation by ion implantation of Si cryst. and elec., photovoltaic and struct. props. *(French)* 2−72089
β-SiC layers formation on heated Si wafers exposed to sublimed C 2−93443
SiC:H, amorphous film for a-Si solar cell, props. and struct. 2−104978
a-SiC:H films, elec. cond., 130 to 350K, hydrogenation effect 2−71986
$Si_{1-x}C_x$ amorphous film, NMR and IR spectra study 2−77389
Si_xC_{1-x}:H amorphous films, reactively sputtered in propane, photoinduced optical changes obs. 2−60179
Si_xGe_{1-x} amorphous film, energy gap, composition depend. 2−61337
SnO_2 film, vapour deposition, Rutherford backscatt. study 2−71812

semiconductor thin films continued
SnO_2 film deposited by oxidation of $SnCl_2$, transparency and resistivity 2−111092
SnO_2 films, prep. from organic resinate soln. and photoelectrochem. props. meas. 2−116837
SnO_2 films, preparation, elec. and optical props., review 2−87428
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588
SnO_2 thin-film gas sensors, improved performance due to Au diffusion 2−64009
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F transparent cond. films., prep. and props., review 2−105068
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
SnO_2:P thin film gas sensor, sensing characteristics meas. 2−79559
SnO_2:Sb thin films, spray pyrolysed, X-ray diffr. and AES study 2−104204
SnS_2 films, optical absorpt. edge meas. 2−87885
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
SnTe vacuum evaporated thin films struct. param. from X-ray studies 2−103707
SnTe:In film, field effect studies, In effect 2−77210
Te, amorphous thin film, crystallisation, electronic structure, UV photoemission study 2−71355
Te layers for optical data storage, hole formation process 2−70640
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
WO_3 films, reactively sputtered, electrical and optical props. 2−66673
p-WSe_2 film, polycryst. semiconductor electrode, photoelectrochem. 2−72987
Yb_2O_3 film, vacuum deposited, DC elec. props. 2−92793
$Zn_xCd_{1-x}S/Cu_2S$ single crystal photovoltaic solar cell preparation and performance characts. 2−78222
$Zn_xCd_{1-x}S$-Cu_2S structure., Cd and Zn cross diffusion, AES, ESCA and atomic absorpt. spectra study 2−66299
ZnO, diode-sputtered films, surface acoustic waves 2−104132
ZnO film, c-axis orientation, energetic atom bombardment influence 2−98476
ZnO film, preferred orientation controlled by RF sputtering 2−61314
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO films, reactive magnetron sputtering prep., transition from insulating to highly cond. state 2−83022
ZnO films, substrate biased RF sputtering of semicond. and insulating films 2−111071
ZnO, obtained by oxidation of ZnSe, for US transducers 2−86194
ZnO on SiO_2 substrate, RF sputtering, TEM anal. 2−56410
ZnO piezoelectric thin films, for SAW appls. 2−97338
ZnO piezoelectric thin films, for SAW devices 2−97339
ZnO RF sputtered films, carrier conc. of function of surface acceptor state density, gas sensor appl. 2−98772
ZnO sputtered films, energy anal. of high-energy neutral atoms 2−87927
ZnO, sputtered thin films, correlation between film quality and photoluminescence 2−87842
ZnO thin film, c-axis orientation and surface morphology, sputtering gas press. influence *(Japanese)* 2−92402
ZnO thin films, bias sputtered, electrical and optical props. 2−104395
ZnO thin films, c-axis oriented growth on Si, CVD method 2−62072
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
α-Zn_3P_2 film, optical band gap 2−62004
ZnS, crystals, powders, films, thermoluminesc., luminesc. temp. depend. and damping 2−77604
ZnS film, electron beam evaporated, growth and struct., expt. study 2−111076
ZnS film on CdS substrate, laser film thickness modulation and small pattern generation 2−66396
ZnS films, struct. and dislocation density, X-ray diffr. study 2−104203
ZnS:Fe, CVD polycrystalline films, incorporation of Fe impurities 2−116379
ZnS:Mg AC thin film electroluminescent devices, luminescence-voltage characts. 2−104967
ZnS:Mn, Cu, Cl DC electrolum. films, field enhanced changes in comp. and struct. 2−116263
ZnS:Mn, RF sputtered thin film, electroluminescence *(Japanese)* 2−61979
ZnS:Mn,Cu,Cl, amorphous and cryst. electrolum. film, elec. cond. props. meas. 2−87429
ZnS:Mn film, sputter deposit, luminesc. and struct. props. variation with annealing 2−93287
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956
ZnS:Mn thin films, physical and elec. characts. 2−61622
ZnS:TbF_3 thin films, electroluminescence quenching obs. 2−99194
ZnS_xSe_{1-x} thin film, high elec. cond. props. meas. and CVD prep. 2−98768
ZnSe Film, DC cond. mechanism and dielectric props. 2−104510
ZnSe, thin film, prep. by photodissociation of organometallic gases 2−83036

semiconductors
Generalities and properties of unspecified materials only. For specific materials see semiconductor materials.
see also amorphous semiconductors; degenerate semiconductors; heavily doped semiconductors; magnetic semiconductors; many-valley semiconductors; narrow band gap semiconductors; polar semiconductors; thermoelectric effects in semiconductors and insulators
AC conductivity, small-signal, and rel. overshoot 2−104388
ambipolar diffusion of high density electrons and holes 2−110367
ambipolar mobility determ. by flying light spot expt., theory 2−89745
amplification of longitudinal electron-density waves in presence of space charge 2−77105
amplification of optical phonons by radiation field under strong mag. field 2−56130
anisotropic, exciton-ionised donor complex energy, var. with anisotropy parameter and effective mass ratio 2−110261
Auger recombination, minority carrier lifetime, impurity and phonon scatt. effects 2−87299
automatic X-Y scanning controller for laser annealing of ion-implanted semiconductors 2−86035

semiconductors continued
band gap, thermal fluctuations effect, calc. 2−56437
band-to-band Auger recombination, Green's function formalism 2−115778
barrier structs., thermally activated carrier motion, charged impurity effect 2−115884
bielectron in an external magnetic field 2−76952
biexcitons and intermediate-binding excitons 2−56448
bounded, galvanomag. and thermomag. effects under mutual electron-phonon drag conditions 2−77094
carrier conc., deep levels effect in case of strong compensation 2−110368
carrier conc. and mobility at low temps. 2−110351
carrier density fluctuations due to trap distrib. 2−98660
carrier generation and recombination lifetimes concept 2−110363
carrier lifetime meas. in semicond. by electron beam technique 2−66570
carrier mobility in presence of edge dislocation well 2−87286
carrier recombination, spin depend., Kaplan-Solomon-Mott model 2−61483
carrier temp.-density selfoscillations, under steady-state optical excitation 2−66467
ceramics, electrotechnical, present and future develop. *(Czech)* 2−111133
chain Frenkel pair annihilation 2−65986
charge collection scanning electron microscopy, appl. to semiconductor characterization, review 2−86526
charge packet drift vel., transport eqn., space charge effects 2−87254
chemical anal. by isotope-spectral method *(Russian)* 2−88394
compensated, generation-recombination noise during injection breakdown 2−82414
compensated, impedance and photoresponse characts. under carrier heating conditions 2−77117
convalent semiconductors, nonequilibrium carriers cascade capture effects on Faraday rotation 2−99093
Corbino disc geometry, acoustic waves amplification and generation 2−77129
correlation effects on hopping cond. and magnetoresistance 2−87265
crystal growth, doping profiles homogeneity, crystal chem. anal. 2−55872
crystal properties, measuring apparatus *(Russian)* 2−98693
crystal with thin disruptive layer, external photoeffect during Bragg diffr. 2−105051
crystalline and amorphous, evidence for common origin of Urbach tails 2−71862
cubic, hot electron scatt. by neutral acceptors, energy and momentum relaxation time calc. 2−82370
cubic, paramagnetic centre relax. with exciton interactions 2−61760
cubic crystals, optical anisotropy induced by spatial dispersion 2−77485
current flow, generalised stream function representation 2−115770
deep centres concentration, determ. by rapid capacitance relax. meas. of p-n junctions and Schottky barriers 2−69201
deep donor binding energy, g-value calc. 2−92517
deep energy levels, optical characterisation 2−56478
deep impurities and complex band struct., Γ_1 states model 2−92515
deep impurities and critical points, photoionisation spectrum 2−76969
deep impurity centre photoionisation for case of photon energy deficit, light absorbtion coeff. 2−61934
deep level determ., deep level Fourier spectroscopy method 2−66479
deep level meas. techniques using precision thermometry 2−69173
deep levels, book 2−89491
deep levels, characterisation by electrochem. photocapacitance spectroscopy 2−76968
deep levels, phonon-assisted tunnel ionisation, quantum theory 2−87185
deep levels, position and capture cross section, thermally stimulated capacitance method 2−61402
deep levels, thermal filling effects in capacitance expts. 2−66481
deep state profiles calc. from transient capacitance data, computer simulation 2−87170
defect characterisation by junction spectroscopy, review 2−71920
defects, conf., Boston, MA, USA (Nov. 1980) 2−68965
degenerate band, bound polaron energy, variational and perturbation calc. 2−115674
degenerate four-wave mixing, phase conjugation and transient carrier dynamics expts. 2−70615
density of localised states, evaluation from field effect data, theory 2−76887
depletion layer determ., using quasi-variational inequality *(French)* 2−87252
diamagnetism of two-electron deep impurity centres 2−104573
dielectric function and exchange correlation potential, energy gap 2−87166
diffusion, vacancy reduction effects, theory 2−115464
diffusion processes, numerical solns. of Fokker-Planck eqn. 2−71733
diffusion-mobility relation, statistical thermodynamics 2−71994
dilute three-dimensional systems, energy levels, eigenfunction localisation 2−66420
direct band gap, electronic Raman scatt. on donor levels, Coulomb interaction effects 2−57096
direct gap, optical absorpt. and refr., complex optical dielec. function 2−93139
direct gap semiconductors, edge luminesc. 2−57185
direct-gap, highly excited, optical dielec. function in moment-conserving approx. 2−57044
direct-gap, radiative transitions between exciton sub-bands 2−99155
dislocation electron energy spectrum, Hubbard correlations 2−104309
dislocation-bound Coulomb impurity center, energy levels calc. 2−104310
dislocations, electronic and mech. props. 2−66488
disorder production, during ion irradiation, composite model, annealing effects 2−66080
disordered, strong-field hopping cond., directed percolation theory 2−77073
disordered, transport props. theory 2−115742
disordered semiconducting alloys, CPA theory 2−87129
disordered semiconductor, smooth random field inception 2−77004
disordered semiconductor under illumination, electron localised state distrib., balance eqn. 2−61411
disordered semiconductors with Coulomb-type random field, interband absorpt., multiphonon transitions effects 2−104840
displacive transition, phonon instability in strong EM wave 2−103935
DLTS and C^2-DLTS, analysis 2−56470
donor-bound exciton complexes, variational calc. 2−61368
doped, impurity band form., multiple scatt. calcs. 2−66482
doped, impurity states, conc.-fluctuation model 2−110293
doped semiconductors, diagonal and off-diagonal disorder 2−98521
doped with 3d metals, light absorption perturbation theory 2−104828

semiconductors continued
dumbbell shaped struct., current oscills., neg. resist., elec. double layer 2−92635
elastic LEED, electron exchange effects and relativistic corrections 2−65815
electroabsorption, nonlinear interband absorpt. prob. calc. 2−82827
electron backscattering patterns 2−65825
electron beam-acoustic microscope appls. to semiconductor characterisation and IC diagnosis 2−81173
electron diffraction structural investigation, principal results 2−86523
electron energy loss in simple metals and semiconductors, review 2−57222
electron Fermi liquid, spontaneous violation of reflection symm. 2−76949
electron mobility, Markovian soln. 2−110366
electron packet vel. and spreading fluctuations 2−115783
electron subsystem entropy changes during melting 2−81990
electron transient response, Boltzmann eqn., Monte Carlo technique 2−61458
electron-hole binary mixtures, phase diagrams 2−87157
electron-hole liquid, exchange-correlation energy behaviour 2−92478
electron-hole plasma stratification, due to long-wavelength radiation heating 2−66579
electron-hole plasmas in semiconductors, thermodiffusion 2−110376
electronic liquid in a strong magnetic field 2−71890
electronic Raman scattering from semiconductors, review *(Japanese)* 2−72508
electronic struct. induced by short-ranged defects, calc. method 2−104296
electronic transitions, chem. pot. of radiation 2−90849
electrostatic charge energy, effects of dielec. function spatial dispersion, field emission current 2−77711
electrostatic potential, planar problem *(Russian)* 2−56570
EM wave, attenuation and reflection, in semiconductors with superlattice, electron heating influence 2−99080
EM wave amplification in quantising elec. field 2−77489
EPR of defects, review 2−72349
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
exciton, diamagnetic, absorpt. spectra in strong mag. field, theoretical anal. *(Russian)* 2−76939
exciton Bose condensation, electron-hole gas ground state, mean field description 2−92475
exciton bound state form. in cryst. microinclusions, reflection spectra *(Russian)* 2−92484
excitons, bound and free, alignment in mag. field, review 2−82236
ferrite-semiconductor struct., cylindrical, azimuthal electron drag by magnetostatic waves 2−92730
ferromagnetic semiconductors, electron-magnum impurity states in energetic spectrum 2−98578
field effect measurement, apparatus used 2−66563
field emission under nonequilibrium conditions pulse generator apparatus, emission current meas. 2−74464
films, quantized, two-photon interband absorption with participation of deep impurity centres 2−56476
fluctuating gap width, optical breakdown 2−116303
fluctuation instability in case of negative differential cond. 2−87290
free carrier, laser generation of acoustic phonons by optical phonon decay 2−109926
free carrier transport, criterion for multi-ion scatt. 2−66552
free carriers kinetics in dislocation wall field *(Russian)* 2−82340
Frenkel defect chain annihilation 2−115223
frequency modulated EM wave absorption coeff., linear field approx. 2−110804
galvanomagnetic and thermomagnetic phenomena in strong mag. field, hot electron-phonon mutual drag effects *(Russian)* 2−77101
gamma and electron irrad., struct. ordering, Frenkel pair annihilation model 2−76500
Gunn instability near threshold, drift current and plasma field description 2−115768
Hall effect, anomalous, under uniaxial stress, theory 2−66575
helicon resonator, high freq. mag. fields, expt. and theoretical study 2−82393
high freq. conductivity, free carrier absorption and electron-phonon interactions 2−115804
high resistivity layers, expt. determ. of defects and charge relaxation 2−62352
high-resistivity semiconductors, microwave power absorpt. in space-charge region 2−115801
homogeneous slab on high-resist. substrate, spreading resistance, mixed boundary value solns. 2−115743
hopping cond., resistance network model, Monte Carlo calc. *(Russian)* 2−82347
hopping conduction in an arbitrary magnetic field 2−92665
hot carrier galvanomag. effects in high mag. fields, Boltzmann eqn. calc. 2−110371
hot carrier noise 2−87352
hot carrier wave excitation by inhomogeeous EM wave, linear approx. *(Russian)* 2−61478
hot electrons, lowest Landau level, distrib. functions, I-V characts. and neg. differential conductance 2−61476
hot electrons, self scatt., Monte Carlo simulation 2−56603
hot luminescence, momentum distrib. anisotropy of photoholes 2−67116
HV semiconducting glazed insulators properties and behaviour *(Italian)* 2−77957
hypersound amplification, band nonparabolicity effects, Kane dispersion law and two band approx. 2−61525
ideal vacancy and surface states 2−104226
II_3-V_2 semiconductors, level ordering calc. 2−71941
illuminated, fluctuation phenomena 2−87353
impure, exciton absorption spectra *(Russian)* 2−92485
impurity central-cell potential, reson. carrier scatt., theory 2−115740
impurity complex formation, theory 2−61017
impurity distrib., SIMS meas. technique, sensitivity and precision 2−95535
impurity doped, electron correlations effect 2−115682
impurity doping, solution processing, high-energy electron bombardment *(Japanese)* 2−66029
impurity photocond. under injection breakdown conditions, freq. depend. 2−77119
impurity profile determ. for semiconductor-electrolyte contacts, electrochem. C-V method *(Chinese)* 2−92745
impurity screening in strong mag. fields and influence on transverse cond. 2−92667

semiconductors continued
indirect-gap, electron-phonon interaction, phonon cond. 2−66152
inhomogeneous, direct current, effective medium theory 2−82360
inhomogeneous, photoadmittance 2−66587
inhomogeneous anisotropic, current-voltage characts. 2−92629
interaction between mag. impurities in strong EM field *(Russian)* 2−61707
interband electron Raman scatt. of light, Coulomb interaction effects 2−87798
intercalation compounds of semiconductor/dielectric/organic mol., struct. *(Russian)* 2−60966
interfaces, physics asnd chemistry, conf., Pacific Grove, CA, USA (Jan. 1982) 2−107004
interzone light absorpt., multiphonon processes, with Coulomb random field 2−72439
intra-collisional field effect, analytic results 2−110360
intraband and transverse relaxation times 2−115672
intrinsic, quantum-limit magnetoresist. 2−82382
ion channeling techniques for defect and surface studies, review 2−71535
ion implanted, photacoustic meas. 2−71586
ion-implanted and single-cryst., pulsed laser annealing 2−56011
Kane, strong EM wave propag. under electron and phonon heating 2−82368
Langmuir-Blodgett films on semiconductors 2−56715
laser annealing of implanted semiconductors 2−115282
laser etching, localised, in aq. soln. 2−57498
laser generated carriers by induced lattice temp. gradients 2−56630
laser-induced chemical etching, of metals and semiconductors 2−78133
layered semiconductor, interband absorpt. with smooth random field 2−104839
layered semiconductors, Brillouin scattering meas. using microprocessor-controlled Fabry-Perot interferometer 2−79655
LCAO calcs. of photoionisation of deep centre 2−104304
light absorpt. by free carriers in presence of light wave 2−77479
light absorption by free semicond. carriers in presence of laser wave 2−72444
light propagation theory, coherent 2−97099
light propagation theory, coherent 2−98546
local resistivity meas. over small regions, capacitively-coupled time-domain reflectometry 2−53783
localised electron states energy spectra *(Russian)* 2−110278
longitudinal sound resonance parametric cyclotron instability 2−104438
low resistance, automated equipment for meas. galvanomagnetic characts. in high electric fields 2−95397
luminescence quenching by non-radiative tunnelling 2−99179
macroscopic permittivity, local field effects, Fermi liq. theory 2−104280
magnetic Γ_8 subbands of diamond-like semicond., Luttinger method, perturbation theory calc. 2−56436
magnetic interaction between local mag. moments 2−115996
magneto-Hall and magnetoresist. coeffs., mixed-carrier effects 2−82378
magnetoactive, helicon wave filamentation instability 2−87311
magnetodiode effect with monopolar injection, space charge limiting effects calc. *(Russian)* 2−77102
magnetoresistance, size effect under conditions of mutual drag of heated electrons and phonons 2−61493
magnetoresistance, transverse, Kondo effect in quantising mag. field, theory *(Russian)* 2−115730
magnetoresistance influence on high mag. field Van der Pauw expts. 2−104396
magnetoresistance of two-carrier semicond., theory 2−92662
metal-insulator transition, localisation and correl. effects 2−115664
metastable alloy form. by ion implantation, impurity lattice location 2−115260
method of measuring thermoelectric characteristics, 300-1300K 2−69200
microplanar structure plasma oscillation waves anal. *(Russian)* 2−98685
microwave cond., velocity autocovariance and hot carrier noise calcs. 2−104404
microwave energy annealing, pulsed 2−71495
microwave magnetoreflection in Faraday configuration *(French)* 2−72462
minority carrier diffusion length meas. using microscopic electron probe 2−71996
mixed valence semiconductors, elec. resist. 2−56574
molecular beam epitaxy prep. and processing techniques 2−53471
Mossbauer isomer shift and band struct. 2−93091
multi-exciton complexes, review 2−110264
multilayer structure, high freq. props. with quasiballistic electron motion 2−115803
multiphonon release of trapped electrons, theory 2−92650
muon states transitions, spin dynamics 2−61808
n-type, dielec. enhancement near metal-nonmetal transition 2−61361
n-type, insulating, mag. susceptibility 2−56821
native oxide form., atomic struct., interface electronic struct. 2−76788
negative differential cond., nonequilibrium phase transitions 2−81954
negative luminescent radiation of intrinsic semiconductors *(German)* 2−93280
neutral defect excited states 2−110287
nondegenerate, quantum limit cyclotron resonance linewidth 2−104705
nonequilibrium current carrier spectrum, relationship to carrier temp. after pulse photoexcitation 2−66590
nonlinear absorption, photacoustic meas. 2−58920
nonlinear collisionless absorpt. of ultrashort light pulses 2−75625
nonradiative multiphonon recomb. at deep level defects, two bands model 2−116233
nonradiative processes, photoacoustic meas., review *(Japanese)* 2−92116
nonuniform current fluctuations in crossed elec. and quantising mag. fields *(Russian)* 2−92603
nonuniform Lorentz force effect on electron-hole plasma density 2−87314
nonuniform semi-infinite grounded grid, finite power soln. 2−77034
nuclear polarisation front appearance during optical spin polarisation *(Russian)* 2−56953
nuclear quadrupole relax., in quantising mag. fields 2−98987
one-dimensional, electron mobility, hot electron effects, and polarons 2−92611
one-dimensional, laser excitation of surface electronic states 2−56665
optic phonon flux amplification by strong elec. field 2−61097
optical absorption by bound excitons, exchange and spin-orbit effects 2−110263
optical bistability in semiconductors *(Japanese)* 2−90973
optical phonon amplification in multiphoton absorpt. 2−87722
optical spectra of interacting donors, localised and delocalised characters 2−67086
semiconductors continued
optical thermal breakdown, switching waves 2−82045
optical transitions between light- and heavy-hole bands and drag effect 2−116138
phonon and struct. energy ab initio calc. methods, review 2−76612
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
phonon-scattering mechanism, at acceptors, dynamic Jahn-Teller effect 2−98599
photoacoustic signal production, carrier diffusion and recomb. influence 2−115359
photoconductivity, nonequilib., external fields influence on surface photo-galvanic effect 2−77118
photoelectric effects from indirect interband and intervalley transitions assisted by acoustic waves 2−61519
photoelectrochemical systems, design, solar energy conversion, appl. of semicond. electrodes 2−78233
photoemission studies of surface core-level shifts and their applications 2−87941
photoexcited, time-resolved refl., two-wavelength picosecond dye laser appl. 2−57119
photogalvanic effect at high illum. intensities 2−115823
photomagnetoelectric effect for any injection level, numerical calc. 2−66583
picosecond optoelectronics advances, photoelectron switching 2−115808
picosecond photoconductivity for ultrafast optoelectronic switching 2−115807
planar acoustomagnetoelectric effect in the long-wave region 2−87344
plasma, inhomogeneous diffusion structs., form. during recomb. processes 2−60732
plasma, magnetically active, surface helicons and Alfven waves 2−104414
plasma layer, thin, reson. of current 2−115800
plates, Hall field of current induced by HF mag. field *(Rumanian)* 2−66573
point defect creation, electronic effects *(Japanese)* 2−115228
point defect energy spectrum calc. for diamond and zinc-blende structs. 2−115709
point defect induced electronic struct., calc. method 2−76981
polar, direct-band, long-wave secondary radiation, temp. depend. 2−57173
polar, hot carrier energy loss, electron-hole plasma screening 2−110357
polycrystalline, photocond. spectral response, diffusion potentials at grain boundaries 2−92685
polycrystalline, Seebeck effect, intergrain electron states 2−110375
polycrystalline struct., formation mechanism 2−66243
positron lifetimes, systematic study 2−57207
potential distrib. of semicond. sample having surface inversion region, simple approx. model 2−87397
pseudopotential theory, total energies, phonon freq., bulk modulus 2−87130
quantum processes, book 2−68982
quantum yield of electron-hole pairs, crazy-carpentry and probability methods 2−82911
quasi variational inequality solution *(French)* 2−98635
radiation stimulated impurity diffusion 2−64730
recombination model, bistability and nonequilib. phase transitions, with impact ionisation of donors 2−61528
rectangular Hall plate, geometrical correction factor 2−104397
RF plasma etching, end point detection using optical emission spectra and mass spectrometers 2−72859
runaway electrons, heating and cooling, effect of inelastic scatt. on mobility *(Russian)* 2−82346
S-shaped elec. cond. characteristics at low temp. 2−77074
Schottky barriers, space charge region, dynamic response, gap states 2−87182
Schottky-barrier electroreflectance, pseudo-exciton effect 2−99091
SCL conduction in semiconductors and insulators, interpretation in terms of traps 2−77071
screening effects on D^- system 2−115699
secondary electron emission, ang. depend. changes due to work function red. 2−62026
secondary electron emission 2−105015
sectioning technique for demountable samples 2−86670
semiconductor model, current layers and filaments, impact ionisation induced instability 2−115766
semiconductor surfaces, general recomb. statistics, effect of extra carriers 2−110438
semiconductors, electron-hole plasma, current or field stratification criteria calc. 2−82392
shallow acceptor energy levels, jj-type coupling theory 2−104311
SHF wave scatt., mathematical model *(Russian)* 2−82959
solid soln., photoconductivity *(Russian)* 2−82400
solid solubility and ion-implantation sites, atomic orbital radii phenomenological model 2−66234
solid-state plasmas, stimulated Raman scatt. and instability 2−93196
space charge layer, collective modes, perturbation theory 2−61383
sphalerite type, SHG const., equivalence of LCHO model and Phillips' theory 2−108959
STEM spectroscopy 2−65822
streaming motion and population inversion of hot carriers, crossed elec. and mag. fields 2−98668
strong EM wave absorption, intraband carrier motion, density matrix approach 2−61853
strongly anisotropic semiconductors, exciton spectrum 2−98554
substitutional impurity vibr., Debye-Waller factors, Green's function calc. 2−56135
superlattice, elec. cond., electron-phonon scatt. *(Russian)* 2−72070
surface, adsorbed layers electronic struct. changes, theory 2−82426
surface, chemisorpt. equilib. and isotherms with partial charge transfer, statistical thermodynamic anal. 2−56358
surface, picosecond laser damage mechanisms 2−115283
surface 2D plasma conductivity tensor components, direct meas. method 2−115850
surface barrier struct., photon-diffusion transport of nonequilib. carriers 2−115864
surface electron states, barrier height determination *(French)* 2−110436
surface electronic properties, modification in gaseous media *(French)* 2−92718
surface electrons, book contrib. 2−66615
surface magnetoplasma wave propag. 2−77108
surface spectroscopies review, for semiconductor characterisation 2−78158

semiconductors continued
surface states spectroscopy, appl. of Tikhonov regularisation method 2−92717
surface waves at interface between two solid-state plasma media 2−115527
temperature depend. cyclotron resonance linewidth, influence of Landau level broadening 2−77378
tester prototype design for n or p materials testing *(Polish)* 2−99608
theory, book 2−112670
thermal and athermal laser annealing 2−110988
thermal defects 2−103746
thermally activated slip parameters, activation volume 2−91981
thermo-EMF measuring instrument using probe method 2−69168
thermoelectric current instabilities, theory 2−82390
thin film semiconductor waveguides, electrooptic modulation by stationary phase gratings 2−109045
thin layers on conducting boundary, spreading resistance profiles 2−86703
thin quantised filaments, charged impurities 2−103787
thin-film covered, work function, interface state effect *(French)* 2−61559
Thomas-Fermi eqn. for negative ion pot. 2−110294
three-proton two exciton absorpt., theory *(Russian)* 2−116137
tight-binding models, for deep defect levels 2−71914
tolerance classes and spaces 2−86604
transition metal doped photoanodes, steady state photoresponse in aq. soln. 2−115815
transport equations, 3-D transient finite element model 2−71962
transverse galvanomagnetic phenomena *(Russian)* 2−61497
TSC curves inflection points, use in determ. of local centres parameters 2−82373
two layer periodic structure, spatially extended optical interface modes 2−66339
two-dimensional problems, continuation method for calc. of potentials and currents 2−72008
two-photon two-exciton light absorpt. 2−87723
vacuum-semicond. interface, transition radiation from passage of nonrelativistic charged particle 2−116294
variable band gap, overemission effects 2−99293
variable gap, photon transport of nonequilib. carriers, photoluminescence 2−116257
variable-band semicond. model, local density of states 2−61329
Wannier-Stark ladder, impurity effects in strong elec. fields 2−76893
wave-vector-dependent dielectric function calcs. 2−104277
wurtzite type, donor electronic Raman scatt., band strut., perturbation calc. 2−82862
GaAs, impurity central-cell potential, reson. carrier scatt., theory 2−115740
InSe, crystal growth and defect evaluation *(Japanese)* 2−87958

semileptonic decays
baryon→baryonμe, in composite quark and lepton model 2−95804
baryon decay in grand unified theories 2−113195
hyperon decay, evidence for SU(3) breaking in Cabibbo-type fits 2−69459
hyperon decays, critical anal. 2−64323
hyperon decays, polarised neutral and charged, EM corrections 2−69457
hyperons, discrimination between pions and electrons 2−101716
meson→mesonμe in composite quark and lepton model 2−95804
meson decays, relativistic harmonic oscillator model 2−101705
neutron beta-decay, review 2−69460
neutron DD β-decay, Goldberger-Treiman relation, chiral symmetry breaking corrections 2−69611
nucleon decay, weak interactions and symmetries, review 2−59097
proton decay, B-L nonconservation in SO(10), E(6) and SU(5) GUTs 2−101715
proton decay, cosmological baryon prod. vs. intermediate mass scales 2−89426
proton decay, fully confined events at Kola Gold Field, mean lifetime estimate 2−107659
proton decay, inclusive decay rate in deuteron, nuclear effects 2−95830
proton decay, lifetime and branching ratio, bag model calc. in SU(5) GUT 2−95827
proton decay and horizontal symmetry 2−54151
proton decay in supersymmetric SU(5) GUT 2−101617
proton decay in supersymmetric SU(5) model 2−79800
proton decay operator anal. in SU(7) grand unified theory 2−84821
proton supersymmetric decay, enhancement factors 2−95829
pseudoscalar mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
SU(3)×SU(2)×U(1) supersymmetric GUT, proton decay 2−64248
super-cosmology, supersymmetric theories, baryon asymmetry, proton decay 2−68945
supersymmetric SU(5) model, ordinary SU(5) predictions, proton decay mode 2−107594
toponium decays, weak tbW coupling meas., neutral current coupling 2−79866
vector mesons, Dalitz decay, nonlocal quark model *(Russian)* 2−59142
B meson decay, high-tranverse-momentum leptons 2−54189
B meson decays at Υ''' 2−95819
B meson semileptonic decay study at CESR 2−79893
D semiletponic and nonleptonic weak decays, branching ratios, quark mass effects 2−64320
D^0 meson lifetime meas. 2−64319
D^0 semileptonic decay branching ratio 2−84923
$e^+e^-\rightarrow\mu\bar{X}$, beauty lifetime, weak mixing angles, standard model anal. 2−89973
$K\rightarrow\pi e\mu$, flavour changing neutral processes suppression 2−113223
$K_L\rightarrow e\mu$, flavour changing neutral processes suppression in technicolour theories 2−113223
$K_L^0\rightarrow\pi^{\pm}l^{\mp}\nu_L$, tagged neutrino beam prod. *(Russian)* 2−84888
$K_L^0\rightarrow\pi\mu\nu$, $\pi\nu$ hydrogen like atoms, formation rate 2−69448
$\Lambda\rightarrow pe\nu$, Cabibbo theory comparison, form factors, radiative corrections 2−113269
$\Lambda_c\rightarrow lX$, obs. in e^+e^- events 2−79872
$\Lambda_c(\Lambda_b)$ decays, lepton spectrum calc. in pp collisions 2−95886
$n\rightarrow pe^+\bar{\nu}$, baryon and lepton number violation by electroweak instantons 2−54027
NN→ex, nucleon decay and neutron oscill. inside nucleus, nuclear effects 2−54150
$p\rightarrow e_L^+(\mu_L^+)+$ mesons in SU(8) model 2−95712
$p\rightarrow e^+\pi^0$, proton stability, review of limits and expt. prospects 2−79868
p→hl, SO(10) grand unified models, symm. breaking 2−79797

semileptonic decays continued
$P\rightarrow K^+\bar{\nu}_\mu$, supersymm. models calc. 2−74684
$p\rightarrow\bar{\nu}_\mu K^+(\mu^+K^0)$, decay in supersymmetric SU(5) model 2−113184
$p\rightarrow\omega e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$p\rightarrow\pi^0e^+$, in nuclei, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
$p\rightarrow\pi^0e^+$, intensity, ang. and energy distrib., nuclear effects *(Russian)* 2−95831
$p\rightarrow\pi^0e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$\psi\rightarrow\gamma p^0\bar{p}^0$, observation, branching fraction 2−101721
$\Sigma\rightarrow ne\nu$, electron asymmetry and second-class currents 2−84891
$\Sigma^-\rightarrow\Lambda e\nu$, deviation from Cabibbo theory, symmetry breaking effects 2−64322
$\Sigma^-\rightarrow ne^-\bar{\nu}$, pol.$\Sigma^-$, beta decay electron asymmetry 2−64321
$\Sigma^-\rightarrow ne\nu$, Cabibbo theory comparison, form factors, radiative corrections 2−113269
$\Sigma^-\Lambda e^-\bar{\nu}$, Λ polarisation and vector/axial vector form factor ratio 2−84892
$\tau^-\rightarrow K\nu_\tau$, branching fraction determ. 2−79878

semimetallic thin films
polycrystalline, thermoelec. power 2−92794
quantum size effect and semimetal-semicond. transition, theory 2−82494
two-dimensional semimetal, electronic phase transitions in strong mag. field, correlation effects *(Russian)* 2−71897
Bi film, elec. cond., grain boundaries effect 2−82491
Bi film, elec. resist., size effects, TCR meas. 2−66678
Bi film, electron concentration and density of states, modelless calc. 2−92780
Bi film, evaporated, elec. resistivity, temp. depend. 2−92792
Bi small particles vapour deposited onto NaCl substrate, height determ. 2−98483
Bi, thin film, as grown, lattice distortion energy spectra, thickness depend. 2−87415
Bi thin film, avalanche crystallisation *(Russian)* 2−61131
Bi thin film, longit. magnetoresist. max. *(Russian)* 2−115788
Bi thin film, resistivity and energy gap variation with film thickness 2−92791
Bi thin films, magnetoresist. anomalies in quantum correction region *(Russian)* 2−66574
Bi thin wires, transverse magnetoresist. in high elec. and quantum mag. fields *(Russian)* 2−56614
a-Bi:H films, elec. and supercond. props. *(Russian)* 2−82506
Bi-Sb thin film, longit. magnetoresist. max. *(Russian)* 2−115788
$Bi_{1-x}Sb_x$ films, semimetal-semicond. transition, thickness depend., resist. and magnetoresist. meas. *(Russian)* 2−82411
Ni-C spectrally selective films produced by reactive sputtering, optical props. 2−97132
Sb amorphous film, crystallisation, film thickness effects 2−97922
Sb, crystn., time-resolved TEM study 2−53898
Sb evaporated thin films, simulation of oriented crystallisation 2−71821
Sb film, amorphous, vacuum deposited, estimation of density changes associated with growth 2−71838
Sb film, crystal structure, electron irradiation effect *(Russian)* 2−66394
Sb films, on W(112) and (110) faces, characteristic electron energy losses 2−67164
Sb films, thermoelec. power, theoretical models 2−82495

semimetals
see also antimony; arsenic; bismuth; semimetallic thin films
electronic liquid in a strong magnetic field 2−71890
galvanomagnetic effects, nonlinear, Kane spectrum of electrons *(Russian)* 2−92660
graphite, pyrolytic, second order phase transition, magnetoacoustic study 2−115828
nuclear quadrupole relax., in quantising mag. fields 2−98987
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
transport coeffs. determ., variational method 2−110337
transport props. of various semimetal systems, comparison 2−98535
two-dimensional, electronic phase transitions in strong mag. field, correlation effects *(Russian)* 2−71897
$Bi_{1-x}Sb_x$ alloy, electron Fermi surface comp. depend., magnetoplasma wave study 2−76899
$Co_{1-x}Fe_xSi$ and $Co_{1-x}Ni_xSi$, elec. props. and thermal cond. 2−82366
CoSi, elec. props. and thermal cond. 2−82366
CoSi-based material, figure of merit determ. 2−98679
$EuAs_3$, elec. cond. and mag. props. 2−92907
$Hg_{1-x}Cd_xSe$, band struct., interband magnetoabsorpt. meas. 2−77494
InAs-GaSb superlattices, semimetallic, far IR magnetoabsorpt. 2−61881
$SrAs_3$, elec. cond. and mag. props. 2−92907
$TiSe_2$ (1T), p-d gaps, relativistic corrections 2−110240
$TiSe_2$, semimetal, elec. cond., high pressure phase transformation, Hall coeff. 2−77041
$(Ti_{1-x}V_x)_2O_3$, semimetallic, elastic moduli, press. depend., slow shear mode softening near x=0.04 2−81874

Senftleben-Beenakker effect
gases, polyatomic, heat transfer, mag. field effect 2−81434

sensing devices *see detectors*

sensing devices, electric *see electric sensing devices*

sensing devices, nonelectric *see nonelectric sensing devices*

sensitivity
dilatometer sensitivity limit 2−60378
friction machine recorder, sensitivity improvement 2−62316
ionization gauges, secondary standard, sensitivity, electrode displacement influence *[Japanese]* 2−112915
MHD velocity pulsation meter, sensitivity depend. on construction parameters 2−103232
millimeter-wave spectrometer, sensitivity and response time improvements 2−89825
monocharge electret headphone, characteristics calculation 2−114590
photodectors, absolute sensitivity determ. 2−107408
photomultipliers with reflector output, anode sensitivity control 2−64773

sensitivity analysis
see also dynamic response; frequency response; transient response
nuclear reactor systems, interactive safety assessment, computational techniques 2−113710

sensors, nonelectric *see nonelectric sensing devices*
sensory aids
see also contact lenses; hearing aids
bioptic low vision aid, variable focus telescopic system 2−105853
blind mobility and orientation aids, review of new developments 2−57926
electrocutaneous stimulation for sensory communication in rehabilitation engineering 2−57929
electronic aids for the handicapped, problems and methods used in development *(German)* 2−88689
electronic human eye, artificial vision system *(Spanish)* 2−68195
engineering aid for the visually disabled 2−62834
heliotrope, optoelectronic aid for the blind 2−100162
intraocular lens edge meas., noncontact profiling with focal spot and fringe projection techniques 2−57922
lens effectivity in terms of dioptric power matrices 2−73394
ophthalmic lenses, oblique astigmatic error, power error and distortion minimisation using aspherical surfaces 2−111812
Optacon-optical to tactile convertor, to help blind people read printed text *(French)* 2−78408
physically handicapped, electronic rehabilitation aids, developments in India 2−78487
prosthesis devices, electronically controlled, for the physically handicapped *(Japanese)* 2−94251
sensorics, basic functions in nature and technology *(German)* 2−88697
spectacle lenses, wt. rel. to density, shape and power 2−117130
tactile artificial sight: segmentation of images for scene simplification 2−57928
US mobility aid for the blind 2−68097
vibrotactile hearing substitution device for the very deaf 2−68199
separation
see also desalination; distillation; drying; filtration; isotope separation; magnetic separation
binary Lennard-Jones fluid mixture, liquid-vapour interface, surface segregation and tension 2−115495
dipeptides, polycryst., γ-irrad. ESR and chromatographic separation of radicals 2−110643
gas mixtures, gasdynamic separation, theory 2−75998
nuclear wastes, structural influences on the lanthanide-actinide selectivity of some aminocarboxylates 2−113619
thermal turbulent boundary layer under strong adverse press. gradient near separation 2−114782
transport processes and unit operations (book) 2−63767
series (mathematics)
Fourier series, biorthogonal, theoretical framework 2−74211
Konhauser biorthogonal polynomials, dual series eqns. 2−53484
Korteweg-de Vries eqn., and functions, Gaussian series, periodic solns. 2−53533
modified Zeipel's series convergence and resonant quasi-periodic solns. in celestial mechanics *(French)* 2−106487
regularization method for Fourier series of discontinuous functions 2−107085
semiclassical phase integrals, higher order, Chebyshev series approx. and Taylor series expansion calcs. 2−101204
structural vibration anal., freq. depend. damping, transfer functions and numerical Fourier transform. 2−75888
superconducting crit. temp., series formula coeffs., numerical soln. *(Chinese)* 2−92797
superconducting T_c series soln., convergence radius problem 2−56746
serrated yielding
plastic flow, low temp. instability, computer simulation 2−56068
steel, deform., process development with temp., acoustic emission study of A508 and A533B 2−57423
steel, low-C, plastic deform. features at elevated temps. 2−99503
Al-Fe-Mg (0.25, 0.11 wt.%) alloy, alternating periodic serrations in tensile curves 2−99497
Al-Mg(Cu)(Ag), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Cu-Sn(Al)(Zn), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
Ni-Cr, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Ni-Cr-Co, age-hardened, delayed discontinuous plastic flow, mechanism 2−93553
Ni-Fe base superalloys, serrated yielding of 700°C 2−57428
Ti alloy, deform. and failure in low-cycle fatigue region, severe cooling effect 2−57479
services, information *see information services*
servo systems *see servomechanisms*
servomechanisms
camera automatic shutter operation using Moving Image Detector and servo unit 2−95511
myoelectric hand controller with proportional control 2−68200
satellite platform for solar activity research, automated and stabilised *(Czech)* 2−63205
set theory
see also fuzzy set theory
flow-invariant sets for autonomous second order differential equations and applications in mechanics 2−84438
lexicographic sorting of k-tuples in Cartesian product of k totally ordered sets 2−84433
linear manifolds intersection, projector operator 2−79387
quantum sets, rel. to Clifford algebras 2−95057
sets (mathematics) *see set theory*
Seyfert galaxies
see also Markarian galaxies
3C 84, structure at 18 cm, UHF obs. *(Russian)* 2−68917
α-model accretion disk for load emission-line region 2−84310
3A 0557−383, identification as extreme Seyfert galaxy, luminosity, visible spectral obs. 2−58504
Abell 566, cluster of galaxies, X-ray obs. of background Seyfert galaxy 2−106934
black holes, theory of steady accretion disks 2−100913
central activity, review *(Polish)* 2−94844
cluster member galaxies, number distrib. rel. to normal galaxies *(Russian)* 2−68911
early-type Seyfert galaxies, multiaperture UBVJHK photometry of inner (bulge) regions 2−106891
emission line regions, reverberation mapping technique 2−78966
Seyfert galaxies continued
emission-line profiles in Seyfert 1 galaxies, results for H I, He I and He II lines 2−101056
evolution from Hβ luminosity calcs. 2−106894
Fairall 9, Seyfert 1 galaxy, spectra, superimposed Galaxy halo lines, obs. 2−79200
IC 4329A, optical polarisation due to disc dust grains, visible obs. 2−68890
IR polarimetry at 2.3 μm for nine objects 2−63609
luminosities correlation with quasars 2−89402
M81(=NGC 3031), nucleus X-ray source detect. and Seyfert activity, obs. 2−94827
M81 nucleus, stellar population from UV continuum spectra 2−117747
Markarian 1066, Seyfert 2 galaxy, visible spectral obs. 2−117750
Markarian 1400, 1447, 1457, 1485, Seyfert features, visible obs. 2−117613
Markarian 290, Seyfert 1 galaxy, central region struct., visible spectral obs. 2−63627
Markarian 298(=IC 1182-4), Seyfert 1 galaxy, centre struct., visible obs. 2−117749
Markarian 348, giant H I envelope, radio mapping 2−74092
Markarian 376, optical polarisation obs. 2−68890
Markarian 509, emission line profiles anal. 2−89354
Markarian 509, Seyfert 1 galaxy, spectra, superimposed Galaxy halo lines, obs. 2−79200
Markarian galaxies, IR photometry obs. 2−74084
Markaryan 686, possible Seyfert 2 galaxy, spectrophotometric and isodensitometric obs. *(Russian)* 2−101073
Markaryan 744, intermediate Seyfert galaxy, internal vel. field determ. 2−101041
master list of nonstellar optical astronomical objects 2−58563
MCG 8-11-11, γ-ray source emission similarity to background radiation 2−58506
narrow emission line galaxies, X-ray spectrum and time variability 2−74081
NGC 1068, CO emission mapping, EHF obs. 2−74086
NGC 1068, nucleus IR speckle interferometry obs. 2−84324
NGC 1068, rotation curve rel. to massive halo suggestion 2−112555
NGC 1068, Seyfert galaxy size and power, speckle obs. 2−63655
NGC 1275, multifreq. VLBI obs. of galactic nucleus 2−74080
NGC 1275 and 4151, γ-ray sources, emission similarity to background radiation 2−58506
NGC 1365, Seyfert galaxy 1 nucleus radio struct., SHF, UHF obs. 2−94825
NGC 1365, Seyfert like nucleus surrounded by H II regions, visible obs. 2−58470
NGC 3783, emission line profiles anal., visible obs. 2−89354
NGC 4151, new brightening, approximate B-magnitudes (1982 June 9 to August 19) 2−112561
NGC 4151, nucleus struct. and jets, UHF obs. 2−63651
NGC 4151, UV continuum vars., 1978 February to 1980 May, from IUE obs. and comparison with X-ray and optical obs. 2−101063
NGC 4388 in Virgo cluster, nature and emission props., obs. 2−89374
NGC 5548, Seyfert 1.5 galaxy, radiostructure of nucleus, UHF/SHF/visible obs. 2−117740
NGC 6814 and 4151, maximum electron temperature attainable 2−63709
NGC 7582 (2A 2315−428), narrow-line X-ray galaxy, Einstein Observatory obs. 2−94866
nonthermal radiation, optical spectrum shape and variability 2−79207
nuclear continua in mid-IR for Seyfert 1 galaxies 2−79209
nuclei, spectral line radiation press. effect on gas and dust 2−63232
obscuration and the various kinds of Seyfert galaxies 2−84312
properties in radio and IR bands *(Polish)* 2−106922
radio sources shapes, effect of galaxy gas 2−68883
radioemission, model involving star burst 2−112548
rotation of gaseous discs, assoc. spectral line calcs. 2−101087
Seyfert 1 galaxies, clouds vel. fields and physical conditions from spectra anal. 2−112544
spectra, search for redshifted formaldehyde, water, NH_3 and O_2, intervening galaxy constraints 2−74100
two-colour diagram analysis from JHK obs. 2−89375
type 1 Seyferts, spectra nature and obs. 2−89355
UBVR observations of 34 galaxies 2−117751
UV excess of Seyfert 1 galaxies and quasars, anal. of components of spectrum 2−63616
variability of emission-line spectra and optical continua of Seyfert galaxies, obs. 2−106906
X-ray emission, log N-log S relation from medium-sensitivity survey by Einstein Observatory 2−58271
X-ray obs. from Einstein Observatory 2−84311
H line emission from Seyfert galaxies, IR, optical and UV obs. 2−74079
H spectra, model of emitting regions 2−63701
SF_6 insulation *see gaseous insulation*
sferics *see atmospherics*
shadow universe *see cosmology*
shape memory effects
deformation by moving interfaces 2−77830
martensitic transformation, creep and strain hardening model 2−83115
misfit dislocation form. during twinning or martensitic transforms. *(Russian)* 2−76438
pseudo-elasticity, temp. and force criteria *(Russian)* 2−92081
pseudoelasticity, review 2−88141
review, shape memory behaviour 2−88139
review, shape memory behaviour 2−88140
Cu-Al-Ni, shape memory alloys, ageing effects 2−77852
Cu-Al-Ni (14, 3.4 wt.%), shape memory alloy, shape strains assoc. with thermally-induced and stress-induced martensite 2−57350
Cu-Al-Ni β-phase shape memory alloys, intergranular fracture origin 2−72838
Cu-based shape memory alloys, ageing 2−88144
Cu-Zn-Al, shape memory alloys, ageing effects 2−77852
Cu-Zn-Al, shape memory alloys, review 2−88143
Cu-Zn-Al (32.23, 1.84 wt.%), martensitic transform. and shape memory effect *(Chinese)* 2−62122
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
CuZnAl, martensitic, high resolution electron microscopy of boundaries 2−71473
Fe-Al, pseudoelasticity and slip reversibility, optical and electron microscopy obs. 2−111221

shape memory effects continued
Fe-Mn, shape memory and plasticity transform., superelasticity *(Russian)* 2−67332
Fe-Mn-Si, shape memory effect in $\gamma \rightleftharpoons \epsilon$ martensitic transform. 2−83114
In-Cd(Tl), shape memory behaviour and FCC to FCT transform. 2−93502
Ni-Ti, close to equiatomic, hardening and shape memory effect 2−72737
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
Ni-Ti (45 wt.%) plate, shape-memory effect, thermomechanical treatment influence *(Russian)* 2−72761
Ni-Ti porous material, shape memory and vol. memory effects *(Ukrainian)* 2−67425
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
Ti-Ni-(X), shape memory alloys, review 2−88142
Ti-V-Fe-Al alloy, shape memory with large temp. hysteresis 2−111249
TiNi, phys. props. temp. depend., martensitic transform. rel. to phase diagram 2−111176
TiNi, porous sintered, shape memory effect features 2−99505
$Ti_{50}Ni_{40}Cu_{10}$, first-order martensitic transforms., and contrib. to shape memory effect *(Russian)* 2−67336

shear *see crystallographic shear*

shear flow
see also shear turbulence
atmosphere, finite-amplitude baroclinic waves at min. critical shear 2−100471
compressible stratified shear flow, Brunt-Vaisala freq. induced instability 2−109392
contaminant dispersion in turbulent shear channel flow, estuary modeling 2−81396
ellipsoidal particle in shear flow, model for red blood cell motion 2−100026
equatorial waves in steady zonal shear flow, appl. to stratosphere 2−88980
flow separation in shear-layer driven cavities 2−97484
fluids far from equilibrium, nonlinear reson. coupling of shear and heat fluctuations 2−114797
gas flow, diffusion to a particle in arbitrary surface reaction kinetics 2−114926
geophysical flows, nonlinear hydrodynamic stability of shear flows and planetary vortices 2−100563
hydromagnetic planetary-gravity waves in vertically sheared zonal flow and zonal magnetic field 2−60668
impinging jets, dynamics, noise generation 2−65627
internal gravity wave incident on hyperbolic tangent shear layer, reflection props. 2−97574
internal gravity waves in stratified shear flow, instabilities 2−114767
inviscid shear flows, finite amplitude waves, Couette-Poiseuille channel flow 2−97575
isobutyric acid-water binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
Kelvin Helmholtz instabilities in supersonic flow with shear layers, astrophysical appl. 2−58249
laterally confined flow, non-uniform discharge of contaminants 2−97653
liquid layers instability 2−109283
2,6-lutidine-H_2O binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
mass transport for Couette flow in a flat conduit 2−114912
mean flow induced by internal gravity-wave packets, dissipative processes effect 2−55603
mixing-layer-wedge system, self oscillating vortex form., nonlinear stability theory 2−70910
N./Atlantic Ocean, obs. of small-scale shear and density struct. 2−88879
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
nematic liquid cryst., homeotropic, cusp-shaped hydrodynamic instability 2−91766
nonisothermal chemical reaction at the particle surface in a laminar flow 2−91429
nonlinear internal waves in stratified and sheared medium 2−60567
nonlinear viscoelasticity theory based on temporarily cross-linked network model 2−75912
polycarbonate-PMMA resins, blended melts, temp. influence on flow charcts. *(Japanese)* 2−81373
polyesterionomer, melt rheology, ionic content effect 2−91366
polyethylene-polystyrene blended melts, temp. influence on anomalous flow behaviour *(Japanese)* 2−81375
polymer melt, blended, flow indices, temp. shift factor *(Japanese)* 2−81374
polymer melts and solutions, complex shear modulus during periodic shear flow 2−81308
polymer solution, rodlike, flow through fine pores, pure size influence on rheological behaviour 2−76018
polymeric fluids, transient shear flow behaviour according to Leonov model, viscoelasticity 2−55526
polymers, linear and filled, flow, eqns. of motion of nonlinear viscoelastic liq. appl. 2−81250
polymers, nonlinear viscoelastic fluid, inhomogeneous shear flow 2−103193
polypropylene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
polystyrene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
rotating stall in blade rows, shear flow with linear velocity profile 2−75971
self-sustained low-freq. components in impinging shear layer 2−65595
smectic A liquid crystals, undulation instability under shear 2−97915
sound wave-vorticity wave resonant interaction in shear flows 2−70743
stratified shear flow, Couette and Garcia flows, unstable modes, evolution eqn. 2−71006
stratified shear flow, steady state relations between disturbances above and below critical level 2−55636
suspension, dilute, rheological behaviour, shear rate depend. of flow 2−97620
symmetric instability due to horizontal shear on equatorial beta plane 2−109282
thermal fluctuations in the presence of two dissipative steady-state currents 2−65561
3-Dturbulent boundary layers, Reynolds stresses and mean flow field meas. 2−91404

shear flow continued
turbulent flows, acoustics, Euromech 142 report 2−114784
turbulent shear flows, fully developed, struct. of large eddies, hot-wire anemometers meas. 2−75937
unstable flow charcts. over rectangular cavity and effect on mass exchange 2−91551
unsteady turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
viscous flows, boundary and free shear layers, Navier Stokes eqns., computation technique 2−65557
vortex shedding cell lengths behind circular cylinder, roughness and shear effects 2−86289
vortex shedding patterns and pressure around low aspect ratio cylinder at transitional Reynolds numbers 2−65600
vortices generation in axisymm. shear flow 2−86283
wall shear stress determ. from velocity profile meas. in outer part of boundary layer 2−60504
Ar, Lennard-Jones fluid, Couette flow, shear rate depend. viscosity function *(French)* 2−97497

shear modulus
adhesive interfaces, shear modulus gradients, US Rayleigh wave study 2−66338
adhesive interfaces, shear modulus gradients, US Rayleigh wave meas. 2−105408
alkali metals, lattice dynamics, compression effect 2−92120
alloys, coherent particle precipitation hardening, anisotropic eleasticity theory 2−116454
bar, straight cantilever, nonlinear bending, Cauchy-type problem 2−114650
bimaterial body, notched, out of plane shear 2−91243
bone, human, single osteons and cortical microsamples, strain and freq. dependence of shear storage modulus 2−62650
bone, mech. behaviour, effect of moisture 2−83593
brass, creep rheological study in single and two phase alloys near stoichiometric composition 2−62174
composite shell, cylindrical, glued with stiffeners, optimum design w.r.t. dynamic restrictions 2−60453
crystals, two dimensional, defect motion and stress relaxation, shear modulus 2−61208
cylinder, circular, hollow, with laminated periodic struct., free torsional vibrs. 2−60446
electron lattice, two dimensional, shear modulus calc., anharmonic effects 2−61378
fish, lateral line stimulation patterns rel. to rigidity 2−88573
gels, cylindrical, shear waves and internal viscosity, theory and light scatt. study 2−103135
ice, mech. props. 2−115349
interface elastic props., US study 2−83340
nonuniform elasticity theory with variable Poisson ratio, axisymm. problem *(Ukrainian)* 2−103039
PMMA, rigidity modulus near a running crack tip, US method 2−77928
PMMA double torsion specimens, geometrical obs. on crack front profiles 2−116529
polydimethylsiloxanes, performance as damping fluids 2−115323
polyepoxides, crosslinked, additive moduli, US meas., rel. to mol. struct. 2−109881
polyester resin, styrene-crosslinked unsaturated, dynamic mech. relax., styrene ring substituents effect 2−109989
polyethylene, linear, oriented, shear and tensile relax. behaviour 2−77890
polyethylene, low density, stainless steel non-agglomerating spherical powder filled, rheological anal. of melt 2−114749
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polymer, glassy, deform. props. prediction using dislocation analogy 2−62183
polymer, glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
polymer, nonlinear stress in oscillatory shear fields, reptative motions 2−109904
polymer melts and solutions, complex shear modulus during periodic shear flow 2−81308
polymer solution, stress relax. in double-step shear deforms., stress components eval. 2−97482
polymeric foam, compressive deform. 2−116510
polystyrene, monodisperse colloids, Wigner cryst. and glasses, shear modulus meas. 2−78142
rubber, natural and polydimethylsiloxane, for artificial heart valves, props. in biaxial stretching 2−83155
rubber reinforced thermoplastics, structure and mech. props. 2−81689
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687
shaft, elastic axisymm. hollow, optimisation of torsional rigidity 2−114648
sheet moulding compounds, fracture behaviour, influence of constituents on mech. props. 2−67481
Solithane 113 elastomer, shear wave propagation and compression 2−71565
steel, high strength, fatigue crack initiation at inclusions, theory 2−67523
stress distribution due to crack determ. using dislocation layers 2−55497
styrene-acrylonitrile thermoplastic melts, glass fibre filled, flow behaviour *(German)* 2−70887
thin rhombic plate, flexural stiffness determ., optical holography meas. 2−55521
torsion pendulum for studying phase transitions in ferroelastic crysts. 2−107319
transition metal alloys, magnetic contributions in elastic moduli 2−92077
transition metals, cubic, tetragonal shear moduli calcs. 2−115328
transition metals, magnetic contributions in elastic moduli 2−92077
Ag-Mg, equiatomic, rheological behaviour of β' phase 2−57421
Ag_3Mg, ordered and disordered, cold-worked, internal friction and shear modulus meas. 2−116484
Ag_2O internal friction, neutron irrad. effect 2−81889
Al-Mg (3 at.%), solid soln., correl. between creep and dislocation substruct. 2−105249
C fibre reinforced Al-Si, TiC barrier coating effect on reaction between components 2−99373
C fibre reinforced epoxide, kinking and compressive failure under superposed hydrostatic press. 2−67501
C-C composite with hybrid C-SiC and C-TiC matrices, synthesis and charcts. for high temp. applic. 2−77765
Co-Pt (50 at.%), shear modulus, magnetomech. effects 2−56908

shear modulus continued
Cs-K solid solns., elastic-stiffness constants under pressure 2−98182
Cs-Rb solid solns., elastic-stiffness constants under pressure 2−98182
^{4}He, liq. surface, fluctuations and shear modulus 2−92302
$KH_3(SeO_3)_2$ ferroelastic, internal friction and shear modulus 2−103899
Li_2O-P_2O_5 glass fibres, mech. props. and struct. aspects rel. to drawing process 2−93608
Mo, electropulse compacted, porosity influence on elastic moduli 2−111223
$PdH_x(D_x)$, elastic moduli, optical phonon contrib. 2−115329
Rb-K solid solns., elastic-stiffness constants under pressure 2−98182
Si-Ge solid solns. elastic consts., compression effects 2−76562
TiN-Al_2O_3 composites, hot pressed, props. rel. to TiN conc. 2−72753
UO_2, polycryst., creep behaviour 2−86779
W, electropulse compacted, porosity influence on elastic moduli 2−111223

shear strength
beam, effects of shear flexibility and rotary inertia on dynamic stiffness and vibrations 2−86219
biological tissue bending and shearing deform. anal. 2−105739
borosilicate glass, shock wave compression up to 170 kbar 2−71559
carbon and glass fibre reinforced plastics, shear crack propag., acoustic emission monitoring 2−88317
carboxylic acid Langmuir-Blodgett films, frictional force, shear strength 2−61318
composite, spatially reinforced, elastoplastic props. determ. by averaging method 2−62182
conforming axisymmetric shell element 2−109216
elastic plates theories via orthogonal polynomials 2−91253
fibrous composite medium, shear problem 2−55457
glass fibre reinforced epoxy, E and S type fibres manufactured by drawing in different environments, loss of load transfer, direct comparison 2−88131
glass fibre unidirectionally reinforced terephthalate-polyester filled resin, laminate, filament wound tubes, resin flexibility effects on props. 2−116497
metal-metal adhesive bonds, interfacial failure, short beam shear test method use 2−105414
multihole circular cylinders, shear stresses and torsional rigidities 2−103065
plastic body, shear strength, plastic deform. 2−81878
PMMA thin films, time dependence effects in shear 2−67554
polystyrene, tensile stress-strain behaviour in inert and gaseous environments 2−88130
polyvinyl alcohol thin films, time dependence effects in shear 2−67554
sediments of continental slope and rise off NE Newfoundland, significance of shear strength meas. 2−78639
sheet materials, testing under shearing load 2−116636
shock loading, metallurgical effects, review 2−76585
steel types 1018, 1020, thermo-plastic shear instability 2−72757
steels, shear stress and spall strength under shock loads, review 2−83213
Al alloys, shear stress and spall strength under shock loads, review 2−83213
Al, quasi-elastic high press. waves 2−71557
B fibre reinforced Al-epoxyphthalate matrix composite, mech. props. 2−116488
C fibre reinforced Al-Si, TiC barrier coating effect on reaction between components 2−99373
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Cu, quasi-elastic high press. waves 2−71557
Cu, shear stress and spall strength under shock loads, review 2−83213
Cu, shear stress and stored energy, high purity samples, influence of strain rate *(German)* 2−77893
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Si, rolled, microstruct. and texture 2−111204
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Pb, shear stress and spall strength under shock loads, review 2−83213
Si, shock loaded, struct. transition, dynamic yielding and shear strength reduction obs. 2−86792
ZnS(Se), shock induced phase transition stresses 2−98200

shear turbulence
channel flow, shear turbulence, coherent struct., pattern recognition 2−70929
coherent structure in turbulent shear flow, research prospects 2−81326
coherent structure in turbulent shear flows 2−81327
compressible turbulent flow, free shear layer reattachment, Navier-Stokes eqns. 2−65576
compressible turbulent flow, free shear layer reattachment 2−65575
compressible vortical flow Hamiltonian formulations in computer simulations 2−114835
conference, Aachen, Germany (March 1980) 2−68969
dilute liquid-liquid dispersions, droplet breakup in turbulent shear flow 2−114886
energy dissipation transport eqn. 2−86270
high frequency sound emission from moving point multipole sources embedded in arbitrary transversely sheared mean flows 2−86276
homogeneous turbulent field within a rotating frame 2−114775
incompressible turbulent flows, micropolar fluid model 2−75942
intermittent generation, statistical eqn. reformulation 2−103158
jet in still air, axisymmetric 2−91500
large-eddy simulation of turbulence, subgrid model 2−109304
mathematical modelling 2−81328
pressure-strain rate, diagonal elements calcs. 2−65578
stratified flow, turbulence enhancement by shear field 2−109302
stresses determ. on outlet and inlet sides of rot. channel using turbulence energy eqn. 2−114779
transonic turbulent separated flow, Navier-Stokes eqn. 2−109355
triple velocity and press. vel. correl. in shear turbulence, statistical evaluation 2−97524
turbulent diffusion flame in 2-D shear layer, probability density function 2−109306
turbulent plane jet, acoustic interaction effects on mean flow 2−109300
turbulent wall jets in rectangular diffuser, vel. profile, press. distrib. 2−71002
two-dimensional, vorticity and scaling laws calc. 2−65580
unstably-stratified open-channel shear flow, turbulence struct., buoyancy effects 2−109305

shear turbulence continued
unsteady turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
β-FeOOH, rodlike crysts., dil. aqueous dispersions, light scatt. obs. of laminar, vortical and turbulent flow 2−76015

shear turbulent flow *see shear turbulence*

sheathing, cable *see cable sheathing*

sheaths, plasma *see plasma sheaths*

shell model (nuclear) *see nuclear shell model*

shielding
see also magnetic shielding; radiation protection
440 MW unit commissioning at Paks Nuclear Power Plant *(Hungarian)* 2−94215
absorbed dose meas. external to shielding at proton accelerator, comparison with Monte Carlo calc. 2−96317
borosilicate-glass raschig rings as neutron absorbers−ANS-8.5 2−96323
build-up factors and scalar flux spectra for 6.2 MeV photon penetration through two-layered shielding slabs 2−96310
bulk media, gamma-ray spectra and energy loss, fluoresc., bremsstrahlung and annihilation effects 2−90311
cavity-duct system, neutron and γ-ray streaming, albedo Monte Carlo method calc. 2−90310
concrete, lightweight and heavyweight, secondary γ-dose distribs. 2−96319
concrete moisture retention, curing effect, inplication for shielding 2−85330
concrete shields, weakening anal. using 6.2 MeV γ-ray source 2−96311
containment pipe penetrations, laminated shield collars, neutron dose reduction factors 2−108142
critically safety in shielded facilities 2−96324
electrostatic screening, charge induction by thermal radiation 2−112924
electrostatic shielding of a test charge in an anisotropic plasma 2−103282
Engineering Test Facility, neutron beam injectors, neutron and γ-ray streaming calcs. 2−54650
enhanced radiation weapon, protection calcs. from ANISN code 2−113749
FED shielding anal. and design 2−80315
FEU-130 photomultiplier, effect of external electrostatic shield on performance 2−108263
FMIT radiation shielding issues 2−85332
fusion engineering device, FED, bulk shield design, materials considerations 2−69862
fusion materials irradiation test facility, shield design, neutron streaming anal. 2−54647
fusion materials irradiation testing facility, neutron shielding design 2−108145
fusion neutron environment, nuclear heat deposition 2−108127
fusion reaction, W shielding calculations improvement 2−108131
fusion reactor, graphite stack, 14.7 MeV neutron bombardment, neutron spectra meas. 2−108128
fusion reactor, HIBALL, beam line penetrations, radiation shielding anal. 2−108123
fusion reactor, tandem mirror design, SATYR, radioactivity, biological hazard, afterheat levels 2−108134
fusion reactor Engineering Test Facility, vacuum pumping duct, shielding nucleonics 2−54645
gamma-ray shielding, calc. program, RASH 2−96313
gamma-ray transport calcs., Monte Carlo method 2−54663
heliotron fusion reactor, neutronics anal. 2−85307
hot cell, FFTF, shielding examination 2−108149
industrial radiography, test room shielding calcs. *(German)* 2−85400
inertial confinement fusion reactor, laser ducts, neutron attenuation 2−108124
integral transport eqn., direct integration method 2−75061
internuclear nucleonic cascade in shields, approx. anal. calc. procedure 2−54672
INTOR, shielding system design 2−108126
INTOR radiation shielding for personnel access 2−80257
LMFBR, in-vessel shielding design, Monte Carlo calcs. 2−108143
LOFT, neutron shielding, B_4C and $TiH_{1.6}$ appls. 2−108148
neutron shielding of a medical linac room *(Japanese)* 2−68169
neutron streaming through Fe duct, neutron and gamma-ray spectra, calcs. 2−75062
New Waste Calcining Facility, shield integrity study 2−75068
nuclear criticality accidents, shield neutron and gamma attenuation 2−90317
proton accelerators, transverse shielding, determ. using Moyer model 2−108140
radiation field calculation errors 2−59564
radiation shielding for uncooled detectors 2−58904
reactor shielding, computational methods book 2−53442
research reactor, concrete biological shielding, demolition and removal 2−108155
RIKEN SSC, neutron shielding, dose rate *(Japanese)* 2−64722
secondary neutrons, penetration in graphite, Fe, H_2O and concrete 2−54668
secondary photons, penetration in graphite, Fe, H_2O and concrete 2−54668
space fission reactor, shielding optimisation 2−108141
spent fuel storage racks, neutron shielding materials, irrad. effects 2−80116
TFTR, cylindrical ducts, 14 MeV neutron streaming 2−108122
TFTR neutral beam test cell concrete shielding structure design 2−80325
ZEPHYR D-T ignition expt., prompt and delayed radiation calcs. 2−54648
^{252}Cf neutron source, shielding expts. with acrylic resin for neutrons and γ-rays *(Japanese)* 2−54671
Pb shielded plastic scintillator-photomultiplier combinations, response to ns neutron pulse 2−70062
Pu transport casks shielding calc. code comparison 2−108159

shielding, magnetic *see magnetic shielding*

shift registers
see also logic circuits
neutron counting, shift register coincidence unit 2−102351
photodiode arrays for spectrometry using ultraviolet light 2−95488

ships
see also navigation
structure-borne sound transfer to cabins 2−60295

ships continued
USS Lexington, preliminary shipboard meas. of atmospheric optical turbulence 2−117456
warship's master clock system for time/frequency reference 2−95305
welded steel plates fracture mechanics research, lowering ships construction costs 2−72895
shock, thermal *see thermal shock*
shock measurement
accelerometer appl., calibration and standards 2−53717
transducer calibration, comparison and direct methods 2−58806
shock tubes
see also shock waves
benzene excitation in shock tube investig. 2−57616
dusty gas shock tube, flow struct. 2−97593
ionising shock waves in EM shock tubes 2−86304
laser windows, pulsed aerodynamic shock tube generated, optical quality 2−102831
Navier-Stokes and Euler eqns., shock-capturing algorithm 2−114752
normal shock reflection from concave wedge-shaped wall, stability obs. 2−91484
rarefaction wave, conservation law, numerical soln. 2−70994
single pulse shock tube, high-temp. processes investig. *(German)* 2−60569
surface, liq. and solid, nonequilibrium condensation, shock tube study 2−60379
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
CO_2-Ar pulsed 18.4 μm gasdynamic laser, shock-tube driven 2−96896
shock wave effects
acrylamide, chemical reactivity under shock loading 2−78102
adamantane, chemical reactivity under shock loading 2−78102
benzene, shock wave heating, band-shape, UV obs. 2−59816
benzene excitation in shock tube investig. 2−57616
benzene liq., shocked, temp. meas. by time-resolved IR radiometry 2−69227
borosilicate glass, shock wave compression up to 170 kbar 2−71559
choked jets, shock associated noise meas. 2−60293
clamped circular plates, shock-wave loading 2−71572
condensed matter, conf., Menlo Park, CA, USA (June 1981) 2−74143
conference, Aachen, Germany (March 1980) 2−68969
contact boundary mixing, stationary shock wave effects 2−60707
continuum constitutive modelling, shock waves 2−69015
cosmic ray acceleration, struct. of cosmic ray shocks 2−106431
cosmic ray acceleration 2−117534
cosmic ray acceleration in supernova remnants, anal. of Bell's mechanism 2−106432
cyclohexane, liq., shocked, temp. meas. by time-resolved IR radiometry 2−69227
cylindrical charge, detonation initiation shock wave effects 2−114848
dense fluids, shock wave effect, heat conduction, irreversible thermodynamic theory 2−86305
detonation propag. in fuel layer vaporisation heat and mass transfer 2−114849
dielectrics, shock-compressed, high elec. cond. meas. 2−61464
1,6-diphenyl-2,4-hexadiyne, chemical reactivity under shock loading 2−78102
disk target, laser generated shock waves, one- and two-dimensional hydrocode calcs. 2−76589
dynamic deformation of different materials, EM phenomena 2−114180
elastic media of finite electrical cond., one-dimensional shock waves 2−75877
electric gun, 100 kV, 78 kJ, high press. eqn. of state appl. 2−74456
epoxy mixture, Al_2O_3 filled, shock-loading response 2−71570
equation of state meas., railgun accelerators appl. 2−69191
equations of state, nuclear-explosive-driven experiments 2−76592
explosion chamber wall, dynamic loading calcs. 2−61064
explosive, polymer bonded, high explosive detonation products in varying O_2 atmospheres 2−78105
explosive, polymer bonded, impact on steel plate, radiographic study 2−78107
explosive, polymer bonded, thin pulse initiation 2−78104
explosive, shocked, vibronic relaxation, press. depend. 2−76605
explosive, solid, detonation, crit. conditions 2−57617
explosives, shock induced decomposition, expt. techniques 2−74453
finite samples 2−71629
flashing liquids, two-phase channel flow, flow crisis anal. 2−71009
fragment size prediction in dynamic fragmentation 2−70866
fusion reactor, inertial confinement, shock attenuation, first wall protection by liquid Li blanket 2−69812
fusion targets, particle beam, shock effects meas. 2−69811
galaxy formation, evolution of cold shells at shock fronts from quasar explosions 2−68902
gaseous mixtures, mol. nonequilib. vibr. excitation behind shock wave front 2−108692
glycerine, liq. fracture strength, temp. depend. 2−61051
glycerol, shaped charge jet penetration, compressibility related effects 2−86794
graphite-diamond dynamic phase transition due to shock wave propagation 2−71629
hexamethylenetetramine, chemical reactivity under shock loading 2−78102
homogeneous medium, MHD wave propag. numerical anal. 2−76033
Hugoniot expts. using exploding foil electric gun 2−69190
ideal gas with applied magnetic field 2−109419
inorganic chemistry, shock induced 2−78098
inorganic substances, shock compressed, chem. effects 2−78097
inorganic synthesis under shock-wave compression 2−78099
interaction with wall cavity 2−114852
inviscid supersonic flow, three-dimens., shock wave effect, floating fitting technique 2−65615
ionising shock waves in EM shock tubes 2−86304
isotropic elastic medium, synchronous shock wave collisions 2−71571
laser driven shock waves, ultrahigh press., review 2−76587
laser fusion target dynamics, time and space resolved radiography 2−74893
laser-generated shock waves, appl. to equations of state, Lawrence Livermore National Laboratories facilities, review 2−75620
Madiun (Indonesia) meteorite, shock veins obs. 2−89208
metal, void nucleation, stress and temp. driven 2−76429
metal rods, elastic wave propag., elec. signal generation 2−61833
metallic plates, collision surface, stability tangential discontinuity 2−115354
shock wave effects continued
metallurgical effects of shock loading, review 2−76585
metals, shock wave and high strain rate deform., conf., Alburquerque, USA (June 1980) 2−84381
meteorite impact, shock wave apparatus for studying at high press. 2−78852
methane, liquid, equation of state, appl. to models of major planets 2−73878
methanol, shaped charge jet penetration, compressibility related effects 2−86794
microstructural features, computational models 2−76694
minerals, shock wave apparatus for studying at high press. 2−78852
mullite powders, effect of explosive shock waves 2−98199
naphthalene, chemical reactivity under shock loading 2−78102
Nilpena ureilite, unusual polymict breccia, evidence of shock phenomena 2−100847
non-metallic media, fracture resulting from spherical and plane waves 2−66112
optical pyrometry, technique at high shock press. 2−69171
organic compounds, shock-induced chemistry 2−78101
organic crystals, dynamic compaction under shock 2−72648
organic substances, shock wave chem. 2−78100
Orion MC-2, shock wave excitation model for near IR spectra of IRS 3 and (IRS 4) 2−68851
pentaerythritol tetranitrate cryst., γ-irradiated, plane shock initiation 2−78108
piezoceramic rod discharge in shock loading 2−82787
PKS 2152−69, radio galaxy, shock heating model for optical spectrum 2−79211
plexiglas, shaped charge jet penetration, compressibility related effects 2−86794
PMMA, shock wave attenuation induced by contact detonation 2−71567
PMMA, shock-compression temperature rise determined from resistivity of embedded metal foils 2−69196
polyatomic dipole mols., vibr. level population inversion behind shock wave front 2−108860
polypyromellitimide, Hugoniot cusp, low press. 2−76581
polypyromellitimide, shock induced elec. polarization, mol. struct. effect 2−77444
polystyrene, shock induced elec. polarization, mol. struct. effect 2−77444
polysulphone, Hugoniot cusp, low press. 2−76581
polysulphone, shock induced elec. polarization, mol. struct. effect 2−77444
polyvinylidene fluoride, mechanoelec. energy conversion and eqn. of state under shock loading 2−72423
porous materials, shock Hugoniot diag., analytic model 2−56089
pre-knock-on concept in electron microscopy 2−115297
pressure cell bodies, anal. of dynamic stresses and motion in alluvium 2−95392
propellant, solid, shock-induced instability due to crack-like defects 2−78106
quartz, fused, shock compressed, elec. resist. and emission spectra meas. 2−71964
quartz, shock compression measurements at pressures >1 TPa 2−76590
quartz, shock-metamorphosed, defects study 2−115227
quartz, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
rail gun for eqn. of state research 2−74455
rigid cavity, fluid filled, action of internal acoustic shock waves emitted by variable boundary surface 2−91305
rocks, impulsive strain effects correl. with detonation parameters of strain-generating explosive charges shock wave effects [-] 2−73541
ruby, visible absorpt. spectrum, shock wave effects 2−72449
Sandia Shock Thermodynamics Applied Research Facility 2−74185
shell, elastic cylindrical, effect of nonstationary internal wave 2−81283
shock layer flow around general bodies, boundary layers, Navier-Stokes eqn. soln. 2−70923
shock tube problem, rarefaction wave, conservation law, numerical soln. 2−70994
shock-compressed matter, recovery capsule anal. 2−76582
shocked translucent materials, temp. meas. by time-resolved IR radiometry 2−69227
solar spectrum, profiles of emission lines produced in wake of shock wave 2−89221
solids 2−55520
spalling rupture under shock deformation, modelling 2−81885
steel, high-speed, powder prod. by pneumoacoustic atomisation, mech. characts. 2−67250
steel, mild, shaped charge jet penetration, compressibility related effects 2−86794
steel, stainless, austenitic Cr-Ni, combined shock loading and high-speed deform. effects 2−99560
steel, stainless, Type 304, shock-loaded, transform. mechanism and α'-martensite morphology 2−93509
steels, shear stress and spall strength under shock loads, review 2−83213
stellar atmospheres, shock heating theory and appl. to stellar coronae 2−89239
stellar chromospheres heating, role of slow mode shock waves when mag. fields are present 2−63366
stellar collapse, postshock neutrino transport and electron capture 2−106669
supersonic jets, convergent nozzles, broadband shock noise, acoustic meas. 2−65617
temperature meas. of shocked translucent materials by time-resolved IR radiometry 2−69227
TH 50/50, explosion initiation by short duration shocks 2−114847
thermal inhomogeneity, density gradient, shock wave effect 2−70987
thermocouple temperature meas. in shock compressed solid, longitudinal strain 2−112899
thermocouple temperature meas. in shock compressed solid, shock enhanced thermal equilibration 2−112900
thermoviscoplastic medium, 1-D shock waves and coupling acceleration 2−75878
TNT, explosion initiation by short duration shocks 2−114847
TNT, high explosive detonation products in varying O_2 atmospheres 2−78105
toluene, shock wave heating, band-shape, UV obs. 2−59816
transonic flow, boundary layer shock-wave interaction at high Reynolds number 2−70982
two-dimensional gas flows, shock wave interaction calcs. *(Russian)* 2−97594

shock wave effects continued
two-dimensional struct., shock-induced signals, microscopic constraints 2−76584
upstream boundary-layer state effect on shock interaction at compression corners 2−114851
water, cavitation induced by shock wave refl. 2−70999
water, equation of state and elec. cond. in 100 GPa shock press. range 2−92143
water, liquid, equation of state, appl. to models of major planets 2−73878
water, shock waves generated by detonation of pentolite spheres 2−76558
water, shock-compressed, temp. meas. using pyrometer 2−89719
Al alloys, shear stress and spall strength under shock loads, review 2−83213
Al, conventionally and shock-wave-deformed, correlation between texture and substruct. 2−99445
Al, shock compression measurements at pressures >1 TPa 2−76590
Al, shock wave attenuation induced by contact detonation 2−71567
Al, thermal viscous model for yielding due to shock waves 2−71561
AlN, phase transition and shock compression 2−71627
Al_2O_3 2−57406
Al_2O_3 particles/epoxy matrix composite, pressure-shear loading, dynamical response meas. 2−57405
BN with C impurity, ESR signals after high-temp. shock compression, reverse phase transitions, paramag. centres form. 2−56931
BP, phase transition and shock compression 2−71627
Be, equations of states derived from shock wave expts., theoretical anal. 2−71602
Be, reshock and release behaviour 2−71563
Be, shock compressed, strain rate effects 2−71541
Be, shock compression study 2−71562
Be, shock wave data interpretation with elastic viscoplastic model 2−71556
Be, shock wave propagation at small impact stresses 2−71564
C_2, electronic excitation behind shock front 2−59918
CN, electronic excitation behind shock front 2−59918
CO, liquid, shock compression 2−78103
CO, shock heated, emission absorption technique for meas. vibrational temp. 2−64985
CS_2, liquid, shock compressed, time-resolved spectroscopy 2−69266
CS_2, liquid, shock loaded, elec. resist. and UV reflectivity meas. 2−71963
CdS, lattice attenuation meas. by acoustic domains 2−98218
CdS, shock induced defects and transition 2−71555
Co-Al eutectic, lamellar, shock-induced incipient fracture 2−72788
CsI, elec. cond. behind shock wave front, semicond. props., liq. and solid phases 2−77065
Cu plate, accelerated by reacting and detonating explosives, free surface vel. meas. 2−76591
Cu, shear stress and spall strength under shock loads, review 2−83213
Cu, shock wave attenuation induced by contact detonation 2−71567
Cu thin plates, cleavage strength 2−83228
Cu-Al, impedance-match experiments using high intensity lasers 2−76588
Cu-Ge (8.7 at.%), shock-loaded, deform. twinning, time depend. and assoc. strengthening 2−88138
Fe, equations of states derived from shock wave expts., theoretical anal. 2−71602
Fe, shock compression measurements at pressures >1 TPa 2−76590
Fe, twinning by laser generated shock waves 2−76456
Fe-Si (3.25 wt.%) plate, fast crack development mechanism in parallel twin system 2−57482
Fe_2O_3, hematite, shock compressed, point defect generation, positron annihilation study 2−86795
Ge, shock loaded, phase transitions obs. 2−56186
H_2, liquid, equation of state, appl. to models of major planets 2−73878
H_2, liquid, Hugoniot diagram meas. up to 10 GPa 2−71605
KBr, polycryst., shocked, temp. meas. by time-resolved IR radiometry 2−69227
KCNO, electric gun induced reactions, EPR study 2−116697
LiF:Mg, shocked and recovered, dislocations obs. 2−81790
LiF/epoxy alternating layers, shock wave attenuation, effect of thin glue bonds 2−71568
$LiNbO_3$, shock loaded, crystallographic props. 2−71413
$LiNbO_3$, shock loaded, microwave dielec. const. meas. 2−72398
MgF_2, phase transitions in shock-compressed samples, X-ray study 2−76667
MgO, periclase, shock-loaded, struct. deform. 2−76586
MnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
Mo, Hugoniot diagram, meas. using two-stage light-gas gun 2−69192
Mo, shock compression measurements at pressures >1 TPa 2−76590
NH_3, equation of state and elec. cond. in 100 GPa shock press. range 2−92143
NH_3, liquid, equation of state, appl. to models of major planets 2−73878
Nb-Si, shock synthesis by gun method 2−77769
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
Pb, shear stress and spall strength under shock loads, review 2−83213
PbO(-ZrO_2) powder, shock-induced chem. and struct. modifications 2−76583
$PbZr_{1-x}Ti_xO_3$, ferroelec. ceramic, mechanoelec. energy conversion under shock loading 2−72423
Si cylinder, mag. flux cumulation by shock-compressed conductive region propag. 2−92984
n-Si, laser irrad., shock wave defects, photocond. and annealing study 2−56017
Si, shock loaded, phase transitions obs. 2−56186
Si, shock loaded, struct. transition, dynamic yielding and shear strength reduction obs. 2−86792
SiO_2, eqn. of state at high shock pressures, optical pyrometry study 2−69171
SiO_2, fused, shock temp. determ. by radiance intensity meas. 2−86793
Sn and Sn-Pb, material ejection from shocked surfaces 2−71569
SnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
Ta, material ejection from shocked surfaces 2−71569
Ti, $\alpha \rightleftarrows \omega$ phase transform., press. induced, kinetics 2−56174
Ti-Al-V (6,4 wt.%), high temp. phase transformations and thermal and mechanical props. meas. 2−71625
TiN powder, shock treatment effect, microstrain increase 2−105112
TiO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
TiO_2 powder, shock loaded, paramagnetic defects, ESR study 2−77370

shock wave effects continued
TiO_2 powder, shock loaded, catalytic activity 2−78125
U, shock wave data interpretation with elastic viscoplastic model 2−71556
UO_2, shock-compression parameters from 5 to 330 GPa 2−103901
Xe,liq., shock compression to 130 GPa 2−66130
Xe, equations of states derived from shock wave expts., theoretical anal. 2−71602
ZnS(Se), shock induced phase transition stresses 2−98200
ZrO_2(-PbO) powder, shock-induced chem. and struct. modifications 2−76583

shock waves
see also detonation; explosions; plasma shock waves; shock tubes; shock wave effects; supersonic flow
acoustic turbulence, 1-D, asymptotic props., shock fronts 2−65619
aerofoil, two dimens., turbulent boundary layer development with supercrit. flow at low Reynolds number 2−103157
airfoils in transonic flowfield, shock waves, finite difference scheme calcs. 2−70980
anomalous relax. and instability in gases 2−103189
astrophysical plasma, charge particle accel. by plasma motion with randomly distributed shock waves 2−100672
attached shock wave curvature, vibr. relax. effects in supersonic flow 2−114850
axisymmetric supersonic blunt body problem, steady shock tracking method 2−97585
bar, reinforced composite material, cylindrical non-stationary wave propag. *(Russian)* 2−75887
Becklin-Neugebauer Kleinmann-Low region, line intensities, shock wave modelling 2−106865
binary star, supergiant+main sequence stars, winds interactions, shock fronts anal. 2−112489
blast wave phenomena, point source model 2−86303
blast wave with frozen in magnetic field, approx. treatment 2−58239
Boeing Shock Physics Laboratory, review 2−74447
boiling discontinuity theory 2−60380
Boltzmann eqn., shock profile soln. 2−114846
bow shock, upstream, fluctuation interaction with MHD shock 2−78927
bubbly liquid motion, hydrodynamic effects in shock wave propag. 2−60611
cable effect in shock-wave metrology 2−97476
cavitation bubble collapse, study of light emission and shock waves produced 2−70740
charged particle acceleration, diffusive theory, effect of ambient mag. field and MHD shock 2−78925
chromosphere switch on shocks form., role in coronal heating 2−68688
collision cascade induced shock waves 2−56091
collision of shock waves from two point cylindrical source explosions, initial stage *(Russian)* 2−109227
compressible inviscid flow, 3-D, in annular diffusers 2−91485
compressible non-Newtonian fluid, transient 2-D problem of hydrodynamics, numerical soln. 2−60585
compression measurement at 1 to 7 TPa of shock wave vels. and Hugoniot diagrams 2−81892
compressive supersonic ramp, near-field analysis 2−97587
condensed matter, conf., Menlo Park, CA, USA (June 1981) 2−74143
convergence from spherical or cylindrical piston 2−97591
cosmic ray acceleration in cosmic ray modified shock 2−63193
cosmic ray acceleration in lossy media and γ-ray prod. 2−106433
cosmic ray shocks, struct. 2−106431
cosmic rays acceleration 2−63194
Cygnus Loop, shock waves rel. to UV spectra and heavy elements depletion 2−106848
Cygnus Loop, supernova remnant, shock wave theory rel. to monochromatic photographs *(Russian)* 2−101027
cylinder moving with supersonic velocity, shock wave interaction 2−60577
cylindrical weak shocks, magnetogasdynamics 2−109419
decay at a perforated baffle 2−81359
detonation, relativistic waves, rel. to bubble growth in false vacuum decay 2−69073
detonation wave entry into expanding channel 2−81357
directional cylindrical waves, non-linear propag. 2−53530
divergent quasistationary detonation wave 2−75996
dusty gas shock tube, flow struct. 2−97593
Earth bow shock, anal. of surface elec. currents 2−100652
Earth bow shock, simulation of high Mach number magnetosonic shock wave 2−73790
Egg Nebula, planetary nebula precursor, shock excitation of near IR H_2 emission lines 2−106840
elastoplastic bodies, stress-strain state in high-power pulsed laser heating 2−114718
experiments using explosives and light-gas gun facilities 2−74446
explosive, aluminized melt cast, axial longitudinal sound vel. US and weak shock techniques 2−76601
explosive, aquarium test, shock press. anal. 2−74442
explosive detonation press. meas. by aquarium technique, charge diameter effect 2−74443
fast reactions in energetic systems, conf., Preveza, Greece (July 1980) 2−58544
ferromagnetic chain, soliton dynamics 2−77296
foreshock/bowshock quasi parallel shocks, large amplitude mag. variations 2−112236
G134.2+0.8 H II region, B0.5 star form. at shock front, SHF obs. 2−74046
galactic central region, post-explosion shock propag. 2−84318
galactic cosmic rays acceleration in interstellar medium by shock waves 2−89088
galactic shock wave evolution, density wave theory 2−79172
galactic shock waves and corrugation waves, numerical simulation 2−101071
galactic shocks and star formation and molecule form. 2−107029
galacto-detonation waves and spiral galaxy sequential star form. 2−117748
gamma-ray burst source, neutron star accreted layer thermonuclear model, shock wave 2−94862
gas, 3-D unsteady flow, shock wave interaction 2−60578
gas, shock wave diffraction at normal incidence on liq. free surface containing a wedge 2−114845
gas flows with vibr. relax., behaviour of discontinuities 2−60564
gas laser, pulsed, flow conditioning and pressure damping of shock waves 2−55195

shock waves continued
gas stream, two-dimens. nonstationary, interaction with free cylindrical body in channel 2−60646
general relativistic gas dynamics, steady axisymm. flows 2−89589
glancing shock wave-turbulent boundary layer interaction 2−65618
glass-ceramics, ramp-wave generation 2−71566
Glimm's method applied to underwater explosions 2−55599
AM Herculis stars, 2-second period, standoff accretion shock height instability, model predictions 2−94777
hot stars, shock wave propag. 2−117582
hydromagnetic cylindrical variable energy blast wave through self-gravitating gas 2−86344
hypersonic shock-layer flow numerical solution, laminar, transitional and/or turbulent speeds 2−86301
interplanetary flare-generated streams rel. to Earth's position 2−117557
interplanetary magnetic piston, kinetic theory of galactic cosmic ray modulation 2−112275
interplanetary shock wave causing fluctuations in cosmic ray neutrons 2−73803
interplanetary shock waves correl. with type II solar radio events observed in interplanetary medium 2−94572
interplanetary shocks from flares of near zone, effect on surface geomag. field 2−73434
interstellar acceleration of cosmic rays after prod. near Ap stars 2−100673
interstellar cloud medium motion behind large scale galactic shocks 2−58417
interstellar diffuse gas, evidence for shock wave from obs. towards Pleiades 2−58426
interstellar extended adiabatic blast wave and soft X-ray background model 2−58424
interstellar shock heated regions H_2 and CO collision induced dissociation 2−68861
interstellar shock waves, rel. to element depletions 2−106849
interstellar shock waves, rel. to kinematics of local interstellar medium 2−63554
interstellar shocks, cooling by OH IR line emission 2−106874
ISL shock wave facilities, review 2−74452
isothermal atmosphere weak shock wave damping, determ. from dispersional correction *(Russian)* 2−117400
Kepler's supernova remnant, model and shock propag. from visible spectra 2−112530
laser breakdown mechanism in bombardment of water targets with CO_2 laser pulses 2−60367
laser double focus method appl. to turbomachine complex flow processes obs. *(German)* 2−81415
laser shock wave expts., out-of-focus intensity distrib., focal number and aberration effects 2−97030
laser-produced bubble collapse, shock waves, shadowgrams and holographic interferometric study 2−91521
Laval nozzles, shock wave form. 2−114867
Lawrence Livermore National Laboratory single-stage 101 mm gun 2−74454
light-gas gun, two-stage, at Lawrence Livermore Nat. Lab. 2−74444
longitudinal shock wave study based on generalised thermodynamics 2−97423
low strength material, shaped charge jet interactions 2−92070
magnetised white dwarfs, time depend. accretion, shock height oscills., hydrodynamic solns. 2−94773
magnetogasdynamical spherical shock wave propag. in exponential medium 2−106508
magnetogasdynamics, self-similar flows behind shock wave 2−106511
magnetogasdynamics, self-similar isothermal flows of increasing energy 2−84078
magnetoradiative gas, self-similar strong shocks 2−70989
magnetosphere, energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
metals, spherically converging shock wave propag. study 2−81280
MHD flow, 2-D nonplane transient 2−81399
molecular cloud inhomogeneity, interaction with ionisation/shock fronts, 2-dimens. radiation hydrodynamic calc. 2−117721
motion in a channel in presence of steady flow regime 2−86302
non-relativistic charged particles in MHD shock wave, adiabatic invariant 2−102704
non-uniform medium, overtaking wave effect on shock wave 2−97592
nonequilibrium gas dynamics, sonic discontinuity behaviour, waves shocks 2−71039
nonstationary disturbances in the boundless liquid under explosion of linear finite-length source *(Ukrainian)* 2−75987
normal shock reflection from concave wedge-shaped wall, stability obs. 2−91484
NSWC/WO light gas gun and explosive facility, shock wave expts. appl. 2−74451
ocean shock formed by strong sound wave energy and amplitude evolution 2−117357
Orion Molecular Cloud, shock-induced grain alignment rel. to polarimetry of H_2 IR emission 2−106872
particle acceleration at shock front including preshock scatt., appl. to supernova remnants 2−73801
γ Pegasi, β Canis Majoris star, shock wave model for Si III and Mg II line profiles vars. 2−73982
pentolite sphere detonation, shock wave generation in water 2−76558
photosphere, propagation role in spicule form. 2−89211
planar, interferometric obs. 2−70993
plane shock wave refraction in gas bubble layer in a liq. 2−60575
plane weak shocks, magnetodynamics 2−109419
plastic wave, 1-dimens., propag. in medium with linear and discontinuous unloadings 2−81276
plate impact at Brown University, review 2−74450
plate with backward facing step, flow charact. of shock tunnel and heat transfer *(Japanese)* 2−55614
Poulter Laboratory of SRI International, shock wave facilities, review 2−74448
propagation in expanding symmetric channels 2−70992
pseudo-shock waves, with upstream boundary layers, modified diffusion model 2−70986
pseudospectral scheme for the numerical calculation of shocks 2−109366
quasar explosions, shock waves evolution rel. to triggering of galaxy form. 2−68902
radiation magnetogasdynamics, sonic discontinuity propag., singular surface theory 2−76039
shock waves continued
radio galaxies, very distant, with strong emission lines, shock excitation model 2−106917
radio sources, fluid dynamics of relativistic beams flowing through channels rel. to double sources evolution 2−84337
rarefied media, two-phase, shock wave, relax. zone, radiation struct. 2−109421
reflected interaction with boundary layer in the high enthalpy reservoir 2−60576
reflected shocks, density discontinuities near regular to Mach reflection transition 2−65502
reflection of weak shock wave from an inclined plane isothermal wall 2−75997
reflection transition criteria in perfect gas 2−97595
relaxing gas, flow past notched objects 2−81361
Reynolds stress tensor in shock wave-turbulence interaction 2−97589
rigid conductor, heat propag. hyperbolic model *(Italian)* 2−114601
rod, non-linear, inelastic, complete exceptionality, constitutive laws and symmetric form 2−75884
rod, viscoelastic, impulsive loading method, isochromatic fringe pattern obs. of shock waves 2−60492
Sandia 25-meter compressed helium/air gun, shock wave expts. appl. 2−74449
secondary flow, ejector performance examined using one-dimensional solns. as well as Fabri theory 2−114841
self-similar blast waves, internal heat transfer effect on struct. 2−70988
self-similar converging flows, one dimens. stability 2−97508
self-similar flows behind spherical radiation-driven shock 2−106512
shape in nondisperse medium with third-order nonlinearity 2−70991
shapes travelling at 6.85 Mach number, large amplitude oscillatory motions, schlieren photography 2−114951
shell, spherical, effect of weak shock waves 2−114714
Shock Wave Physics Group (M-6) at Ancho Canyon, review 2−74445
small-amplitude shock waves, self-refraction 2−86306
SN 1979c, shock wave emission and progenitor star 2−100964
solar atmosphere, profiles of emission lines produced in wake of shock wave 2−89221
solar chromospheric spicules, MHD slow mode shocks rel. to absence over plages and great length under coronal holes 2−100876
solar wind, flare generated structures, correl. with sunspot groups mag. axis near originating solar flares 2−117554
solids, shock loaded, mean and deviatoric stress determ. 2−71560
spherical compression waves, appl. to ICF 2−109368
spiral density wave shocks causing interstellar clouds compression and star form. 2−63661
sputtering yields, non-linear, $S_n^{3/2}$ depend., shock wave model 2−77693
stability conditions, eqn. of state 2−70859
star of 15 $M_\odot$, inner core bounce and shock propag. 2−89234
stationary, refl. from solid partition by deformable damping systems 2−70990
stellar atmosphere, spherical magnetogasdynamic shock waves vel. 2−73950
stellar core collapse and adiabatic shock energetics 2−100900
stellar envelope, law of motion of strong shock wave 2−100899
stellar envelopes, parameters of ionisation-dissociation shock waves *(Russian)* 2−73956
stellar model, blast wave propag. 2−106676
Sun, corona, electron shock acceleration producing shock accel. radio events 2−73928
Sun, type II radio burst, assoc. shock wave deccel., VHF obs. 2−94680
supernova blast waves, generation of hot plasma 2−63605
supernova remnant, O-rich ejecta, shock wave model for optical emission from precursor region 2−74065
supernova remnants, cosmic rays accel. in shock fronts (Bell's mechanism) 2−106432
supernova remnants in cloudy interstellar medium, shock front particle accel. and radioemission 2−117729
supernova shocks propagation in NGC 9646, effect of mag. field 2−68897
supernova-driven interstellar shock waves, numerical gas dynamics theory 2−100729
supersonic air gap sensor, static charact. *(Japanese)* 2−91568
supersonic flow over ducted body in detached shock wave regime 2−70983
supersonic flows, new specific point on shock polar 2−86299
supersonic inviscid flow past blunt bodies, shock waves, compression, analytical soln. 2−81356
supersonic nonlinear potential flow with implicit isentropic shock fitting 2−97584
supersonic two-phase flow around obstacles, wave struct. variation 2−114844
swept up massive shell, axisymmetric hypersonic MHD flow, time depend. eqns. system 2−84074
thermo-viscoelastic rods, acceleration and shock wave propag. and decay 2−81268
thermonuclear detonation waves 2−54662
time-dependent, numerical calcs., starting error 2−75988
Tohoku University, shock wave facilities for high press. expts. 2−74458
Tokyo Institute of Technology, shock wave facilities, review 2−74457
turbulence amplification in shock-wave boundary-layer interaction 2−97588
turbulent boundary layer interaction, scaling at compression corners 2−109365
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
two-dimensional supersonic flow, weak nonlinear waves, reductive perturbation theory 2−75994
two-dimensional transonic diffuses channel flow, hot-film probe and optical study of shock waves 2−109358
unsteady transonic flows with shocks, field panel method calcs. 2−109356
Venus bow shock, position and three-dimens. shape 2−84131
W63, supernova remnant, pre-shock interstellar density from radial vel. field of optical filaments 2−74073
water, shock front, laser-generated optical signal reflection 2−70491
water, weak plane shock wave regular refl. from free surface *(Russian)* 2−109367
wavefront breakdown in ideal dissoc. gas, characteristics method calcs. 2−55613
weak discontinuity wave-blast wave interaction, critical times 2−81360
weak shock wave propagation in materials with memory 2−97590
Al plate, penetration process dynamics, exptl. and numerical study 2−70876

shock waves continued
Al, quasi-elastic high press. waves 2−71557
Al, shock release in 10 GPa range 2−71558
CO_2 laser irradiated target, phenomena study *(Chinese)* 2−109548
Cu, quasi-elastic high press. waves 2−71557
H-He shock layer, radiating, convective heat flux, opaque admixture blowing effects 2−81358
KCl, b1⇄b2 dynamic transition, stress gauge meas. 2−66129
NH_4NO_3-fuel oil(-Al) explosive, aquarium test, shock press. anal. 2−74442
N_2O, vibr. relax., shock tube study 2−90666
N_2O+Ar(^{4}He)(^{3}He)(D)(HD)(n-H), vibr. relax., shock tube study 2−90666
Th, shock Hugoniot eqn. of state 2−66161
Ti, two-wave shock wave configuration obs. *(Russian)* 2−61065
TiO_2-SiO_2 glass, ramp-wave generation 2−71566

shocks, electric *see electric shocks*

short-circuit currents
arcs, high current, lower temp. limit determ. with double wire probes 2−103470
solar cell parameters, meas. methods using spectrum response of short-circuit current 2−88444
solar cells short-circuit currents sensitivity to selected irradiance distributions 2−99805
SF_6-Ar, recombining arc discharge, decay and re-ignition, appl. to circuit breakers 2−60818
Si n^+-p solar cell, physical behaviour in concentrated sunlight 2−93910
Si p^+-i-n^+ solar cells, high injection phenomena, theoretical model 2−93911

short-range order
see also order-disorder transformations
alkali metal-graphite intercalation cpds., disordered, decorated-latticed struct. factors 2−81764
alloys, clustering and transport props., influence of short-range ordering 2−116558
alloys, molten, regular and cpd. forming, short range order and conc. fluctuations 2−91757
amorphous structure, geometrical nature and elementary excitations, theory 2−115139
azobenzene monomers and azobenzene-base polymers, struct. features of liq. cryst. state *(Russian)* 2−60885
binary alloys, short-range order, cluster model, coherent pot. approx. calcs. 2−115378
coupled stereo-irregular chains, local antiferromagnetic ordering 2−116013
dicalcium barium propionate, short-range order, optical transform study 2−98044
homogeneous short-range order, kinetics 2−81929
linear chain of δ-scatterers, local density of states, disorder effect 2−61409
liquid structure rel. to crystallography and struct. of disordered systems 2−97892
MBBA, disorder-cryst. transition in frozen liq. cryst. state, X-ray diffr. obs. 2−60891
metallic glass, binary, diffuse X-ray and neutron scatt., chem. short range order 2−55858
mixed magnetic systems, susceptibility in presence of chem. short range order 2−77256
nematic-smectic A phase transition, microscopic theory, short-range order effects 2−103992
polymers, coupled stereo-irregular chains, local antiferromagnetic ordering 2−116013
solid solution, binary substitutional solvent, nonrandom, thermodynamics of interstitial solute atoms 2−92236
solid solution, inhomogeneous, scatt. of X-rays, thermal neutrons and electrons *(Russian)* 2−91716
solid solutions, short-range order parameter calc. *(Russian)* 2−98297
spin glasses, anisotropic interactions, atomic short range order 2−104631
spin glasses, susceptibility in presence of chem. short range order 2−77256
tetracene films, vapour-deposited, struct., electron diffr. 2−81674
transition metal alloys, ferromagnetism and spin glass ordering 2−72197
transition metal intermetallics, short range order above T_c, paramag. neutron scatt. study 2−72139
transition metals, ferromag., strong short range mag. order above Curie temp. 2−110594
Ag-In melt, X-ray investigation, hard sphere model *(Russian)* 2−86541
Ag-Pd alloy, equiatomic, metallurgical instabilities, SRO and elec. resist. anomalies 2−93490
α-AgI, state of order, diffuse X-ray and neutron scatt. study 2−71425
Al-Ag (15 at.%), residual elec. resist. and struct., isochronous annealing effects *(Russian)* 2−98613
Al-Li alloys, cyclic and monotonic ductility, effect of slip distrib. 2−67419
Al-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
Al_2O_3, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
Au-Fe spin glasses, at. short-range order, X-ray determ. 2−92941
Au_4Mn disordered alloy, short-range order and ferromag. props., X-ray diffr. study 2−97990
$Ba_{1+x}Fe_2S_4$, Mossbauer spectra, mag. and elec. props. 2−66962
CO adsorbed on Ni (001), core level angle resolved XPS, single scatt. theory, mol. vibr. effects 2−111034
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$CsNiFeF_6$, spin glass props. 2−87515
Cu-Al, short-range order and coherent precipitation in α-phase *(French)* 2−57358
Cu-Mn spin glasses, spin struct., neutron polarisation anal. 2−110593
Cu_2NiZn, ordering alloy, mech. props. 2−105216
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
$Cu_{60}Zr_{40}$ glass, electronic struct. 2−104236
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
Fe, short range order above T_c, paramag. neutron scatt. study 2−72139
Fe-Al, Mossbauer spectra hyperfine struct. and ordering anal., density function reconstruction 2−87643
Fe-Ni-Mo-B amorphous alloys, struct. relax., permeability aftereffect and elec. resist. meas. 2−87550
Fe-Ti, enthalpy of form., short-range order effect *(Russian)* 2−97982

short-range order continued
Fe-V, mag. moment distrib., diffuse neutron scatt. study 2−72151
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
$Fe_8B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
$Fe_{83}B_{14}Si_{1.5}C_{1.5}$, metallic glass, crystn. kinetics study using thermoelec. power meas. 2−86575
$Fe_{40}Ni_{40}B_{20}$, metallic glass, short-range ordering during structural relax. 2−71359
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous, mag. anisotropy and atomic short-range order, Mossbauer study 2−104607
$Fe(Pd_{1-x}Au_x)_3$, atomic ordering, quadrupole splitting in Mossbauer spectra 2−104783
Ga-Te, vitreous and crystalline materials, short range order, Mossbauer and electron spectra 2−103657
Gd-Co, amorphous alloy films, changes in struct., mag. anisotropy and mag. domains *(Chinese)* 2−62238
K-KCl solution, ionic struct. study 2−103589
Li-Pb, liq. alloy, chem. short-range order, neutron and X-ray diffr. study 2−97906
Mg-Cd alloys, ordering energy, pseudopot. calc. 2−103687
Mg-In alloys, ordering energy, pseudopot. calc. 2−103687
$Mg_{1-x}Fe_x$, amorphous, Mossbauer effect and mag. props. 2−66965
$(Mo_{0.60}Ru_{0.40})_{100-x}B_x$ metallic glasses, low temp. sp.ht. 2−104019
$Na_2Si_2O_5$ glass, CC Na self-diffusion, correl. factors calc. 2−110036
$NbO_{2\pm x}$, vaporisation study by mass-spectrometric method 2−77810
NdD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
Ni, short-range mag. order above Curie temp., photoelectron spectra study 2−87945
Ni-Mo, irrad.-induced Mo_2C precip. 2−57356
Ni-Ta solid solns., short-range order, conc. and temp. depend., X-ray diffr. study 2−115178
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$Pb(Mg_{1/2}W_{1/2})O_3(PbTiO_3)$ ceramics, electrostriction rel. to phase transition diffuseness 2−87694
α' Pd-D system, approx. to lattice gas, Monte Carlo simulation study 2−67307
Pd-Ge, liq., thermodynamic props. rel. to bonding and short-range order 2−91756
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
$PdD_{0.74}$, optical phonons, short range order effect 2−56125
$(PrRd_{80}Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
Pt-Ge, liq., thermodynamic props. rel. to bonding and short-range order 2−91756
Rb-RbBr solution, ionic struct. study 2−103589
$Rb_{1-x}(NH_4)_xH_2PO_4$, mixed crysts., competing structural orderings and transitions to glass 2−56192
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Se-Ge-As glass melt, solubility of He 2−98292
Si, amorphous, anneal stable, Raman scatt. study 2−57084
a-Si CVD films, anneal-stable, struct. order, Raman scatt. study 2−81679
Si_3N_4, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
SiO_2, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
SiO_2, vitreous and crystalline, UV reflectance spectrum 2−93224
SmD_{2+x}, PMR of paramag. and ferromag. phases 2−66935
Tb-Fe amorphous films, struct., decomposition, crystallisation *(Chinese)* 2−104176
Te-Tl melt, short range order struct. 2−103590
UAs, order-incommensurate disorder mag. transitions *(Russian)* 2−56859
V_2O_5 amorphous phase, hydrated 2−55847
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
$ZrCr_2D_4$, phase transition, X-ray and neutron diffr. studies 2−103686

shot noise *see random noise*

showers, cosmic ray *see cosmic ray showers and bursts*

Shpolskii spectra
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
1,2-benzanthracene, secondary luminesc. during higher electronic states excitation 2−116246
1,2-benzoanthracene electronic-vibr. Raman spectra, Shpol'skii effect 2−70264
polyatomic molecules containing OH groups, πl and π^*-fluoresc., electronic transition, electronic-vibr. spectrum vibr. struct. 2−70215
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
xanthone, in n-hexane matrix, phosphoresc., optical detect. of sublevel splitting 2−80705

shrinkage
ceramic-like body, process design, prod. from recycled waste glass, phys. props. 2−111126
glass fibre reinforced cement, dimensional stability 2−67725
Kevlar fibre reinforced polymer, matrix-induced compression effect on morphology and tensile props. 2−105224
polyethylene, low-density, drawn, shrinkage and retractive forces during annealing 2−111194
powder compacts, densification during sintering, dislocation multiplication 2−116399
powder compacts, sintering, one-component, dislocation-activated shrinkage rates *(German)* 2−93470
PTFE, stretched, unidirectional invar-effect, α-β transform. contrib. 2−71672
sintering, shrinkage process, method for determ. activation energies 2−116401
spherical powders, densification, influence of increasing particle coordination 2−116398
steatite ceramics, extruded, texture effects, glass phase influence 2−111117
steel, stainless, powder metallurgical, mech. props., sintering environment influence 2−72782
steel castings, directional solidification *(Rumanian)* 2−99368
Bi_3TiNbO_9 piezoceramic, form. and props. 2−111122
Cu coated W spheres, liq. phase sintering, rearrangement of large particles 2−88028

shrinkage continued
Cu/W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Fe, cast, spheroidal graphite, fatigue strength of machined and as-cast surfaces 2−93602
Fe, lattice dilation by dissolved D 2−104066
Fe-P-Ni(Mo), powder premixes, sintered props., effect of Cu 2−88026
W-Cu, liq. phase sintering, W particles rearrangement mechanism *(Korean)* 2−116406
WC-TiC-TaC binderless cemented carbides, effect of hot isostatic pressing 2−111120
Shubnikov-de Haas effect *see magnetoresistance*
Si-Ge alloys *see Ge-Si alloys*
SIC *see monolithic integrated circuits*
signal acquisition *see signal detection*
signal coding *see encoding*
signal delay lines *see delay lines*
signal detection
acoustic probe insensitive to pseudo-sound, design *(French)* 2−75815
adaptive nulling technique for signal reception 2−97300
complex-signal coherent detection, nonparametric tests 2−60309
EMG signal frequency spectrum anal., clinical diagnosis appls. *(Italian)* 2−73389
line-of-sight radio link, 160 km, received signal level measurements 2−117404
NMR spectrometer, switched receiver and transducer for 0.5 to 10 MHz range 2−69213
optimal signal detection in ECG 2−62811
ORing loss data for square law detectors followed by an ORing device and an accumulator 2−109123
passive sonar fluctuating signals, averaged short time periodogram processor performance 2−60281
spatial filtering for clutter rejection in (moving) point-target detection 2−108800
signal processing
see also acoustic signal processing; bandwidth compression; correlation theory; data compression; filtering and prediction theory; picture processing; signal detection; signal synthesis; Walsh functions
acoustic beams, fold and focused, BAW delay line improvement 2−97304
auditory brainstem responses, distorted, digital inverse filtering 2−68184
auditory evoked response, middle latency, distortion prod. by analogue filtering 2−94229
bio-signals, basis of digital processing *(Japanese)* 2−83670
bio-signals, digital processing, basis, filter design *(Japanese)* 2−111805
bio-signals, digital processing *(Japanese)* 2−62806
biomedical multichannel signal processing based on logic averaging 2−88672
body surface isopotential maps, extraction of diagnostic information by spatial filtering *(Japanese)* 2−57918
body surface potentials, cardiac electromap semi-automatic processing rel. to LV time intervals 2−88682
circuits for eddy current transducers 2−67705
complex sampled coded signals used in incoherent scattering ionospheric meas. method, spectral/correl. processing *(Russian)* 2−63137
cross-correlation flowmeter, technique development using signal processing 2−114958
digital high frequency radiocommunications, applications of microprocessors 2−73781
Doppler ultrasound and its use in clinical meas., book 2−89494
Doppler US, principal component factor anal. in carotid artery disease detect. 2−68086
Doppler US human foetal heart rate records, improvement by signal correl. 2−68087
ECG, adaptive QRS detect. based on max. a posteriori estimation 2−78464
EMG signal frequency spectrum anal., clinical diagnosis appls. *(Italian)* 2−73389
EMG to force processing, eccentric-concentric contractions on a spring-flywheel set up 2−62585
EMG to force processing, elec. analogue of Hill muscle model 2−62854
EMG to force processing, estimation of model parameters for human triceps surae muscle 2−62584
EMG to force processing, Hill muscle model parameters estimation 2−62583
epileptic seizures, EEG recording, removal of EMG artefact by digital filtering 2−94220
external generation of gate delays in boxcar integrator, deep level transient spectroscopy appl. 2−53792
foetal ECG enhancement by time-sequenced adaptive filtering 2−78467
ground accel. meas. using EM seismometer 2−94519
insect eye, signal processing 2−88543
laser Doppler anemometer signals, digital processing accounting for non-uniform discretisation *(Russian)* 2−114936
least square predictors, enhancement of sinusoids in coloured noise and whitening performance 2−75785
line-of-sight radio link, 160 km, received signal level measurements 2−117404
multichannel time resolution *(Japanese)* 2−104858
myoelectric hand controller with proportional control 2−68200
non-stationarity and nonlinearity in data analysis 2−91144
opticoelectronic method of NDT, appl. of complex signals 2−62366
photoelectric microscope, output signal linearisation *(German)* 2−84698
Raman spectra processing, Fe corrosion testing appl. 2−93689
reflection seismology for oil and gas exploration, appl. of state variable technology 2−117506
seismic signal quantification 2−58006
semiconductor counters, signal processing, pulse shaping for resolution optimisation 2−80401
spectroscopy, DLTS, design and construction of measuring instrument *(Japanese)* 2−89821
speech vocoding, frequency weighted Itakura-Saito spectral distance measure 2−97308
SPRITE−a TED infra-red detector for high performance thermal imaging systems 2−91090
stereotactic neurosurgery, 3-D digital signal processing 2−62744
Time Projection Chamber, analogue signal processing system 2−59649
time-domain signal processing via four-wave mixing in nonlinear delay lines 2−70618
tissue, small displacements and deformations, US meas. 2−68096
signal processing continued
two-dimensional Walsh transforming device using integrated optic device 2−65413
VLBI, broadband synthesis 2−68632
signal processing, computerised *see computerised signal processing*
signal synthesis
acoustic parametric array, synthesis of arbitrary broadband signals 2−109099
piecewise interpolation technique for audio signal synthesis 2−86177
signal transformers *see pulse transformers*
silica minerals *see minerals*
silicate glasses *see glass*
silicate minerals *see minerals*
silicon
see also nuclei with .....
1/f noise correlation expts., absence of temp. fluctuations 2−72039
(100), inversion layers, freq.-depend. cond. 2−82427
(100) inversion layer, temp. depend. cond. 2−110483
(100) with adsorbed H, stimulated H^+ desorption correlation with localised state 2−115551
(111) surface, chemisorbed H, Cl, Ag, vacancy and chemisorptive bond elec. struct. 2−82417
(111) surface, chemisorption of Al *(Chinese)* 2−104139
(111) surface, H adsorption, departure from stable SiH_3 phase 2−76838
(111) surface, stepwise oxidation and nitridation study 2−88246
ab initio calcs. of phonon dispersion relations 2−76620
abrupt epitaxial junctions 2−115877
absorption coefficient, electron-phonon and hole-phonon interactions 2−67016
accelerated electrons, intense beam, device for cooling thin samples irradiated by beam 2−112880
adatoms on W surfaces, atomic processes, direct obs. by FIM 2−115570
adsorbed Ag on (111) surface, struct. anal. by LEED/const. momentum transfer averaging technique 2−56347
adsorbed Br on (111) surface, surface registration, X-ray standing waves determ. 2−104151
adsorption of F_2, SIMS and quartz cryst. microbalance obs. 2−82125
adsorption of H on (111) and (100) surfaces, UPS study 2−116338
adsorption of O_2, pulsed laser atom-probe study 2−110129
adsorption of O_2 and H_2, influence on surface cond. *(Russian)* 2−72047
adsorption of Ti, secondary electron spectroscopy 2−87015
ambipolar diffusion of high density electrons and holes 2−110367
amorphous, anneal stable, Raman scatt. study 2−57084
amorphous, dangling bond centres energy level, ODMR study 2−110732
amorphous, defect vibrs., Green function-CPA calc. 2−98233
amorphous, density of localised states and carrier mobility, elec. cond. study 2−115640
amorphous, distortion energy distribs. in random network model 2−109678
amorphous, effective charges 2−86568
amorphous, electroabsorption spectra, effective masses 2−77491
amorphous, hopping cond., ion implantation 2−56592
amorphous, ion implanted, ultrarapid cryst. growth and impurity segregation during laser annealing 2−86722
amorphous, ion irrad., hopping cond., prep. condition effects 2−92605
amorphous, low temp. high energy heavy ion beam annealing 2−81831
amorphous, melting temp., time resolved optical refl. meas. 2−56163
amorphous, MIS solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
amorphous, Mossbauer study 2−99004
amorphous, p-i-n solar cell, energy conversion calc. 2−57704
amorphous, phonon spectra 2−56138
amorphous, photoelectronic effects, surface and bulk contribs. 2−98687
amorphous, photovoltaic detectors for guided-wave optics 2−64105
amorphous, progress in research and photovoltaic appl. in USA 2−88435
amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
amorphous, Schottky barriers, theory of capacitance-voltage meas. 2−61554
amorphous, Schottky solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
amorphous, solar cells, use of amorphous SiC:H as window material 2−67861
amorphous, tetrahedrally bonded, simple model of hydrogenation 2−56418
amorphous, vac. deposited, local anomalous oxidation and recrystn. by laser irradiation 2−77728
amorphous and cryst., melting point, laser and electron beam annealing 2−109829
amorphous and crystalline, low energy range distrib. of ^{10}B and ^{11}B 2−66090
amorphous CVD film, prep., solar photovoltaic appls. 2−105081
amorphous CVD layer, localized state density meas. by field effect method 2−56737
amorphous film, CC sputter and plasma deposited, photoconductive decay, carrier lifetime 2−82398
amorphous film, diffusion of H, ESR study 2−115469
amorphous film, gap state density, high freq. capacitance-voltage determ. 2−56429
amorphous film, laser beam induced crystn., optical recording appl. 2−65325
amorphous film, laser crystallisation, rel. to density 2−56407
amorphous film, laser induced controlled nucleation and growth process 2−56408
amorphous film, melting threshold energy in laser annealing 2−92026
amorphous film, solid phase epitaxy, laser-induced 2−56405
amorphous films, glow discharge and sputter deposited, optical bandgap, absorption coeff. meas. 2−71856
amorphous films, localised state investigation using field effect technique 2−104509
amorphous films, localised states investigation using field effect technique *(Chinese)* 2−66670
amorphous films, RF-bias sputtered, elec. cond. photoconductivity, ESR spin density, annealing effects 2−56391
amorphous films, time-resolved TEM of pulsed crystn. 2−82167
amorphous glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
amorphous glow-discharge film, reflectivity, spatially inhomogeneous carrier conc. dependence 2−67015

silicon continued
amorphous layer, low-temp. recrystallisation by high-energy ion beam annealing 2−65861
amorphous layers, deposition and etching by means of beam plasma discharge with tube like electron beam 2−116372
amorphous MIS struct., theory of photocapacitance 2−98755
amorphous p-i-n junction, electroluminescence 2−82927
amorphous p-i-n junction, photoenhanced electroluminescence 2−82928
amorphous photovoltaic cells, glow discharge prep., substrate condition effect on cell performance 2−83482
amorphous solar cell, built-in pot., electroabsorption determination 2−111549
amorphous solar cell, integrated struct., conversion efficiency 2−83485
amorphous solar cells, electroluminescence, quantum efficiency 2−111550
amorphous solar cells as power source of future 2−105558
amorphous thin film, microwave plasma CVD fabrication 2−111093
anisotropic size effect with plasma injected in mag. field 2−92677
annealing, by pulsed microwave power 2−71495
anodic oxidation, SIMS investigation of surface layers 2−105352
anomalous magnetoresistance in two-dimensional hole gas *(Russian)* 2−72012
atom, valence electron calcs. using effective core pot. 2−96411
atomic images in electron microscopy 2−71393
atomic step height on clean vicinal faces 2−86997
Auger line chemical shifts, $KL_{23}L_{23}$ transition 2−90491
average neutron displacement kerma factor at 1 MeV 2−86732
axial channelling radiation from MeV electrons 2−81846
back-surface damage regions, gettering of mobile O, defect stability, annealing and water vapour effect 2−56255
back-surface damage regions, gettering of mobile O, defect stability, O diffusion 2−56256
band structure, tight binding calc. 2−66443
bent, strain conc. factors around holes and inclusions, X-ray topography study 2−98189
bent cryst., dynamic diffr. focusing of X-rays 2−60836
bent crystal, contrast effects in synchrotron X-ray topographs 2−60837
beveled substrate, relationship between carrier distrib. and dopant atomic cluster 2−66034
bilayer metallic antireflection mirror, appl. 2−114406
brittle fracture crit. stress, ion implantation and surface treatments effect 2−81882
buried SiO_2 layers formation in Si, optimisation of implantation conditions 2−61004
carrier and lattice temps. induced by picosecond laser pulses 2−67155
carrier relax. time, optically determined 2−56609
channeling radiation from 5-55 GeV $e^+(e^-)$ 2−56057
channelled electrons and positrons, radiation characts. 2−109868
channelling radiation Monte Carlo calcs. and comparison with expt. 2−81848
channelling radiation of 10 GeV positrons 2−56055
charged impurity conc., carrier mobility, electroreflection study 2−115273
chemical vapour codeposition with B, thermodynamic calc. 2−87990
chemisorbed Br, on Si surface, X-ray standing wave anal. 2−82128
chemisorption of H and Cl on (111) 7×7 surface, electronic struct., DV-XX cluster calc. 2−66613
chemisorption of NH_3 and NO on (111) surfaces, UPS study 2−87949
chemisorption of water on (100) and (111) surfaces, EELS study 2−87051
circular-diaphragm pressure sensor, design considerations 2−95336
cladding for planar dielectric, waveguide, mode coupling 2−70670
cohesion, polymorphic transition, elastic and dielec. props. 2−60919
complex band struct., surface states, Green's function, eigenvalue method 2−82206
concentrator solar cell, etched multiple vertical junction 2−93920
concentrator solar cells, high efficiency, technological development and status 2−93918
contact reaction with Ir-V film 2−86950
contact resistance to Pt-Al films 2−87388
corrosion resistance high temperature coatings, Si role 2−116586
cryst. growth from melt., temp., field control by IR television technique 2−111052
crystal, laser quenching induced transition to defective cryst. and amorphous state 2−92030
crystal, perfect, oxidation-induced anisotropic deforms., dynamical X-ray diffr. 2−86517
crystal defects in single cryst. grown by floating zone method *(Chinese)* 2−109796
crystal growth, from melt, temperature fields, calc. using heat flow potential 2−65896
crystal growth, large grain, on SiO_2 by selective laser annealing 2−116358
crystal growth by Czochralski method, SiO conc. control by US vibration of immersed plate 2−111059
crystal growth from melt *(German)* 2−57281
CVD, amorphous, post-hydrogenated, doping effects, cond. and EPR meas. 2−66679
CVD, Ar^+ laser induced, from SiH_4 2−83030
CVD epitaxial layer, growth rate temp. profile 2−115583
CVD film, polycryst., threshold and memory switching 2−115830
CVD growth, decomposition prob., expt. determ. 2−105087
CVD growth rate from SiH_4 atm., temp. depend. meas. 2−99345
CVD homepitaxial layer doping, book contrib. 2−72632
CVD in capillary layers, mol. decomp. probability determ. method 2−111088
cylinder, mag. flux cumulation by shock-compressed conductive region propag. 2−92984
Czochralski and CACRT crystal growth numerical simulation of convective flow in melt 2−105064
Czochralski crystal growing furnace, quality considerations 2−99324
Czochralski crystal growth through axial mag. field fluid flow damping, apparatus 2−72613
Czochralski crystals, intrinsic gettering study 2−76430
Czochralski grown, thermally induced microdefects, nucleation and growth obs. 2−57379
Czochralski grown, yield stress, O precip. and dissolution effects 2−57365
Czochralski grown crystals, microdefects and their appl. as gettering sites 2−91992
Czochralski growth, dynamic O equilib. in melts 2−60895
Czochralski growth system, mech. instability effects on crystallisation rate 2−87965
silicon continued
Czochralski growth system, melt temp. effects on crystallisation rate 2−87964
Czochralski silicon solar cell modules: present cost and future prospects 2−83498
Czochralski wafers, effects of crystal defects on deep levels, TEM and DLTS obs. 2−92507
Czochralski wafers, heat treated, brittle and ductile, fracture and yield stresses meas. 2−92091
Czochralski wafers, photoluminesc. method to characterise in-depth profile of thermally induced defects 2−93243
Czochralski-grown, effect of oxide precipitates on minority-carrier lifetime 2−66568
Debye-Waller factors 2−98235
deep impurity photoionisation, electron-phonon interactions, photoconductivity study 2−61520
deep level determ., deep level Fourier spectroscopy method 2−66479
defect analysis, sectioning technique for demountable samples 2−86670
deformation caused by absorpt. at fundamental band max. 2−77465
deformed, dislocation defect states 2−66489
deformed, stacking faults, dislocations, X-ray moire pattern study *(Russian)* 2−91990
deformed ⟨100⟩ oriented single crysts., single slip deform. and nature 2−92086
dendritic web grown, dislocation struct., TEM and SEM study 2−91975
deposition from silane in low-pressure hot-wall system, polycryst. and amorphous layers 2−77746
depth profiling in near surface region by low energy PIXE 2−99716
detector, plasma effects influence on energy spectra 2−90372
detector materials, radiation effects 2−80392
detector telescope as active target for charm particles lifetime meas. 2−90337
detectors, passivated and ion implanted, performance and appl. 2−70050
detectors, status and problems 2−90365
detectors for X-ray, ion and electron spectometers, low temp. characts. 2−75108
diffused dopant conc. profiles, book contrib. 2−71492
diffused junction X-ray detectors 2−70054
diffusion of $^{69-71}$Ga isotopes, SIMS studies 2−104070
diffusion of Al, oxidation effects 2−56257
diffusion of As and P enhanced by thermal oxidation 2−71720
diffusion of Au, kick-out mechanism, numerical soln. 2−66288
diffusion of B(P), enhancement by thermal oxidation 2−56258
diffusion of B(P), Si_3N_4 directly masked film effect 2−56260
diffusion of Ni, dissociative mechanism, expt. study 2−56259
diffusion of P, nonequilibrium vacancies influence 2−92252
diffusion of P from CVD phosphosilicate glass 2−66295
diffusion of Sb along dislocations 2−61207
diffusion profile of As(Sb), sheet conductance and tracer studies 2−71730
diode, neutron transmission doped, avalanche breakdown 2−115887
diode linearity measuring instrumentation 2−85440
diode structure, EBIC as function of angle of incidence of electron beams in SEM 2−97874
n^+p diodes, Be-doped isothermal capacitance transient spectroscopy 2−84660
direct energy conversion devices and new technology *(French)* 2−111555
dislocation crystal, X-ray Laue diffr., dynamical oscillations obs. 2−115241
dislocation EBIC contrast 2−60988
dislocation free, formation of self-order agglomerates during cryst. growth 2−81782
dislocation free *(Russian)* 2−92045
dislocation generation by ion implantation during manuf. of p-n junctions for ICs *(Russian)* 2−66030
dislocation lines, elec. props. 2−92521
dislocation mechanisms, X-ray synchrotron topography study 2−97852
dislocation nucleation, point defect condensation model 2−71450
dislocation study by X-ray plane wave images 2−103774
dislocations, and stacking faults HV high-resolution electron microscopy study 2−91970
dislocations, interpretation of EBIC contrast 2−71453
dislocations, screw and 60°, core struct. and core energy, tight-binding calc. 2−81786
dislocations and interface characterisation, high resolution TEM study 2−66005
disorder production, during ion implantation 2−81806
dissolution in glass under press., nuclear waste disposal 2−104001
donor-bound excitons, fine struct. splittings 2−82246
donor-bound multiexciton complexes, density-functional method 2−82245
doping by As diffusion, spin-on source for deep junction formation 2−76746
doping by neutron transmutation, electron traps anal. by DLTS *(Chinese)* 2−92643
double diffusion processes, book contrib. 2−71731
dry etching, chemical and physical sputtering yields by fluorocarbon ions 2−93638
edge-defined film-fed growth, heat transfer effect on interface shape and solute segregation 2−97955
effective mass of electrons and holes, and intrinsic conc., temp. depend. 2−98528
electrochemical solar cells electro hole recombination translation into chemical terms 2−111574
electrodeposited on graphite and silver, characterisation for fabrication into solar cells 2−105095
electrodeposition from molten salt and organic solutions for solar cells 2−72638
electron and γ-irrad., defect prod. and lifetime control 2−109833
electron backscattering, Monte Carlo calcs. 2−82966
electron backscattering, secondary channelling and double-focusing effect 2−87926
electron beam annealing using pulsed generator 2−84739
electron beam irrad., radiation efficiency, photocond. and carrier lifetime study 2−115293
electron bombard., yield of electrons with fixed energy losses 2−116308
electron channelling radiation, temp. and crystal defect effects 2−81849
electron dechannelling lengths, and diffusion coeffs. *(Russian)* 2−56063
electron gas inertia, radioelectric effect 2−104415
electron heating time in HF field, effect on diffusion 2−87291
electron inelastic mean free path, 200 eV≤E≤10 keV 2−92656
electron inversion layers, magnetoplasmon interaction with cyclotron reson. harmonics 2−110482

silicon continued
electron irrad., low-lying electron trap, transient capacitance studies 2−71921
electron irradiated, uniaxial stress anal. of 0.79 eV vibronic band 2−67019
electron mobility, Markovian soln. 2−110366
electron symmetric Laue diffraction, contrast calc. errors using dynamical theory, expt. study 2−115108
electron-hole drops, stress depend. kinetics, luminesc. study 2−76936
electron-hole liq., phase separation into two components 2−56447
electron-hole liq. condensation, in Si with varying uniaxial stress 2−71883
electron-hole plasma instability 2−87161
electronic bands, critical points in first Brillouin zone 2−56435
electronic dilation during pulsed laser annealing, lattice constants 2−56224
electronic struct. of chemisorbed O 2−87053
electronically excited, phonon spectrum, rel. to laser induced recrystn. 2−115373
elliptically polarised X-rays from linearly polarised X-ray diffr. 2−86510
energy and stress depend. hole masses 2−66426
energy depend. of electron angular distrib. during channelling *(Russian)* 2−71530
energy struct. changes after As ion bombard. 2−92057
epitaxial, neutron irrad., A and E centre study 2−103756
epitaxial and recrystallised films, carrier lifetimes, MOS capacitance study 2−92787
epitaxial growth, ion channelling studies, review 2−71537
epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
epitaxial growth using SiH_2Cl_2, hillocks and stacking faults obs. 2−93437
epitaxial integrated E-dE position sensitive detectors 2−70057
epitaxial layer, boundary segregation of impurities, under action of γ-radiation, or quenching 2−87095
epitaxial layer, gas phase autodoping profile 2−115268
epitaxial layer, photoluminesc. anal. for characterisation of shallow impurities 2−93242
epitaxial layer characterisation using a reson. frustrated-total-refl. technique 2−89792
epitaxial layer on SOC, contaminant reduction during CVD growth, SIMS study 2−77750
epitaxial layer on substrate with buried SiO_2 layer, ion implantation, crystallographic props. 2−92382
epitaxial layers, defects anal., ion backscatt. and channelling techniques appls. *(Chinese)* 2−92376
epitaxial stacking faults, elec. props., crystallographic struct., interaction with point defects 2−92379
etch rate thin film monitor for in-situ meas. using light interferometry 2−79654
etching, influence of surface films on pits development 2−60982
etching by F and F_2, chemiluminescent reaction 2−88361
excess minority carrier transient decay, surface recomb. effects, laser pulse sample heating 2−77086
exciton thermodynamics 2−71881
excitonic system, equilib. consts., recombination luminescence 2−87860
Faraday rot., nonreson. interband transitions, expt. and Kramers-Kronig anal. 2−57065
field emission cathodes, flicker noise 2−93385
field-emission energy distribs., multiple peaks 2−67199
film, amorphous, annealing behaviour of spin density and optical gap, effect of O contamination 2−87735
film, amorphous, luminesc. study, interf. effects 2−104968
film, CW laser melting, threshold behaviour 2−56411
film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
film, glow discharge deposited, optical and elec. props. 2−93307
film, glow discharge deposited, optical consts. 2−62006
film, large grain polycryst., crystallographic orientation, grid-of-etch-pits technique 2−115591
film, on SiN layer, stripe shaped cryst. growth by scanning electron beam annealing 2−87092
film, patterned and CW laser crystallised on amorphous substrate 2−61315
film, plasma hydrogenation effects on elec. props. and ESR 2−104511
film, polycryst., amorphized by Si ion implantation, solid phase epitaxial recrystn. 2−115581
film, polycryst., formation of thin oxide, ellipsometry study 2−105348
film, polycryst., grain growth under CW electron beam annealing, modified SEM study *(Japanese)* 2−115597
film, polycryst., low temp. mol. beam deposition 2−57295
film, produced by field emission deposition, props. 2−71836
film, recrystn. on amorphous substrate by doughnut shaped CW laser beam 2−56377
film, sputter deposition 2−62066
film for high-damage threshold IR Smartt interferometer 2−101452
film on Si_3N_4/SiO_2 double insulating layer, CW laser recrystallisation, bipolar transistor fabrication 2−82154
film on SiO_2, zone recrystallised, elec. props. of line defects 2−66668
film production by laser dissociation of SiH_4 *(Chinese)* 2−62074
films, 3 in. diameter, zone-melting recryst. on SiO_2-coated Si substrate 2−99330
films, evaporated and sputtered, multithreshold HF/DF pulsed laser damage meas. 2−65286
films, microscopy during laser melting 2−66403
films, on glass, laser crystn. 2−66382
films over SiO_2 patterns, laser-induced lateral vertically-seeded epitaxial regrowth 2−87091
floating zone growth, in double-ellipsoid mirror furnace 2−62062
Fourier transform IR spectra obs. of temp. depend. of O impurity 2−116215
fracture and crack propagation, dislocation generation, X-ray study 2−115346
free-carrier gratings, diffr. efficiency and decay times meas. 2−86087
gamma and proton radiation defects formation, dislocation effects, elec. cond. and Hall coeff. study 2−86729
gamma-ray irrad., metastable Frenkel pair form., elec. props. 2−115289
generation kinetics of oxide charges and surface states during oxidation 2−66611
gettering of stacking faults and heavy metal impurities, appl. to semiconductor device and IC manuf. *(Russian)* 2−66019
grain boundary density of states, photocapacitance meas. 2−87187

silicon continued
growth from vapour phase, orientation dependent desorption energy 2−109718
growth kinetics of plastically deformed regions at crack tips, X-ray synchrotron topography 2−86788
heat pulse propag. study by supercond. bolometer 2−92298
heat treated wafers, metal decorated haze microdefects, TEM and energy dispersive X-ray anal. 2−91946
heat treatment centres, g-values 2−66918
heat-treated, Czochralski grown, compression tests, dislocation study, TEM and etch pit obs. 2−60985
heavily doped, band gap narrowing calc. 2−115649
heavily doped, electron light scatt., theory 2−110880
heavily doped, electronic struct. and photoluminesc. spectra 2−104290
heavily doped, recombination mechanism 2−98666
heavily implantation with BF_2^+(BCl_2^+) and carrier density meas. 2−81803
hole capture by charged acceptors 2−115779
hot hole diffusion and mobility, thermal noise and cond. meas. 2−56604
IC pressure transducers using piezoresistor bridge 2−74400
imaging detectors, coronene, liumogen and acrylic UV sensitive phosphors 2−116224
implantation annealing by thermal imaging of incoherent light sources 2−66037
implanted ion impurity profile, book contrib. 2−71493
implanted wafers, annealing using incoherent light and Si cryst. growth on SiO_2 2−103791
impurity analysis, quantitative, by photolum. technique 2−57180
impurity defect struct. form. by ion implantation, amorphous and cryst. comparison 2−103790
impurity doping processes, book 2−68985
impurity scattering within electron-hole liq., far IR and millimetre wave studies 2−99110
impurity screening many-body effects 2−110295
indirect gap absorpt., invariants method appl. 2−77474
intense pulsed H^+, B^+, Ba^+ beam irradiation effects 2−76513
interaction with Ni-Pt 2−86953
interaction with thin Cr, Ni and Pt films, bilayer silicide form. 2−86949
interband Auger recomb. rate, carrier density depend. 2−77088
interfacial reaction with Mo film, ion beam induced, TEM obs. 2−110050
internal friction meas. in intrinsic and n-type crysts. 2−81890
internal strain in diamond struct. elements, survey of theoretical approaches 2−61087
internal strain study 2−92084
internal strain tensor, energy dispersive X-ray study using 006 forbidden reflection 2−66102
intervalley Γ-Δ scattering, electron-phonon and hole-phonon matrix elements 2−71598
inversion channels on high-index surfaces, energy spectrum, lower minigap obs. 2−115910
inversion layer, conductance, logarithmic corrections, localisation and interaction effects 2−61598
inversion layer, inelastic electron-electron scatt. time 2−61599
inversion layer, intervalley and intersubband scatt., phonon electron interactions 2−87401
inversion layer, two-dimens. electron gas, localisation and interaction effects 2−72071
inversion layers, cyclotron effective mass and electron relax. time 2−56454
inversion layers, dielec. const. and cond. of 2D electron gas, mag. field effects 2−56451
inversion layers, logarithmic and power law corrections 2−72064
inversion layers, minigaps, effects of one-dimens. periodic staircases 2−56700
inversion layers, subband splitting uniaxial stress and substrate bias effects 2−56701
inversion layers, two-dimens. plasmon anisotropy, expt. study 2−61545
inversion layers, valley degeneracy and intersubband spectroscopy 2−61542
inversion layers, valley occupancy transition 2−87356
inversion layers, valley splitting and degeneracy, Shubnikov-de Haas oscills. 2−56706
inversion layers, Wigner glass and cond. oscills. 2−98753
ion beam deposition, epitaxial growth 2−116388
ion beam epitaxial growth on Ge and Si at 400K 2−99339
ion beam gettering, review 2−115310
ion bombarded and annealed, UPS and RBS investig. 2−103857
ion bombardment, surface layer amorphisation, ellipsometry and channelling investig. 2−103855
ion bombardment with F^+ and CF_n^+, chem. sputtering yields meas. 2−87928
ion implant activation using multiple-scan electron beam annealing 2−56040
ion implant. amorphisation optical and EPR studies 2−103789
ion implantation, amorphous phase and point defect generation, generalised overlap-damage model 2−115315
ion implantation, in 100 MeV range 2−81805
ion implantation, source feed materials in ion beam technology, book contrib. 2−71483
ion implantation disorder, ion channelling studies, review 2−71537
ion implantation in AlAs-GaAs superlattice, disorder study 2−76465
ion implantation processes, book contrib. 2−71482
ion implanted, arc annealing, regrowth and impurity diffusion calc. 2−55992
ion implanted, CW laser annealing, dislocation nucleation, growth and suppression 2−56021
ion implanted, dechannelling by dislocations 2−76545
ion implanted, hyperfine interaction study after thermal and laser annealing 2−99008
ion implanted, isothermal annealing, IR refl., refr. index, regrowth rates, and carrier profiles 2−110836
ion implanted, photoacoustic determ. of thermal cond. 2−86959
ion implanted, pulse laser annealed, defect-induced photolum. 2−57181
ion implanted, pulsed laser annealing, melting model and Raman scatt. 2−98155
ion implanted, pulsed laser annealing, threshold energy density, backscatt. and channelling meas. 2−92029
ion implanted, pulsed laser annealing dynamics, plasma annealing model 2−56013
ion implanted, rad. damage, X-ray rocking curve study 2−66075
ion implanted, residual defects after pulsed laser annealing 2−71502

silicon continued
ion implanted, secondary defects annealing, electron microscopy study 2−71485
ion implanted sputter etched, damage depth profile, ellipsometric study 2−56045
ion implanted wafers, high dose rate, laser annealing effects, TEM, backscatt. and channelling obs. 2−56019
ion irrad., radiation damage, thermal and laser annealing, electron microscopy study 2−71512
ion irrad. by intense pulse, defect production, proton backscatt. study 2−109865
ion-implanted layer annealing by high current electron beams 2−62154
IR detector arrays, line spread function, crosstalk, and modulation transfer function 2−89809
isoelectronic series, ground config. up to $3p^2$, forbidden lines radiative transition probabilities 2−85592
laser annealed, quenched-in defect levels, DLTS study 2−61389
laser annealed, surface topography study 2−104129
laser annealing, review 2−98157
laser annealing by nanosecond pulses, temp. rise and carrier conc., computer model 2−86723
laser beam annealing technology, appl. to device fabrication *(Japanese)* 2−103813
laser excited, electronic struct. dynamic response, photoemission study 2−72606
laser pulse irrad., damage depths 2−66043
laser pulse processing, heterogeneous nucleation of spatially coherent damage struct. 2−56020
laser scanned, temp. profile calc. 2−92028
laser-enhanced chemical etching of solid surfaces 2−77958
laser-induced acceptor defects, H_2 passivation, DLTS study 2−115697
laser-induced epitaxial growth on SiO_2 with locally varied encapsulation 2−93448
laser-irradiated, reflectivity, transmission and electron-hole plasma, ps time-resolved meas. 2−115281
lattice consts., and internal X-ray diffractometer with uniaxial stress apparatus study 2−65797
lattice consts. and bulk moduli, self-consistent pseudopot. calc. 2−109741
lattice damage due to low energy deuterium bombardment, plasma edge studies 2−81832
lattice deformation meas. using X-ray multiple refraction 2−60835
lattice parameter of highly pure Si single crystals 2−109740
lattice response near vacancy, Green's function calc. 2−81905
layers, high rate vacuum deposition for solar cells 2−105086
light induced transient grating decay obs. 2−57043
longitudinal range distrib. for 3 MeV protons 2−64821
low energy BF_2^+ ion doping during MBE 2−92003
low pressure epitaxy for bipolar VLSI 2−87993
LPCVD A-Si post-hydrogenation and ion-implantation doping 2−71960
LPE, low-temp. 2−62083
LPE, minority carrier lifetime 2−72637
LPE layers, dislocations as growth step sources, rel. to interface struct. 2−115615
lung phantom, Si meas. by neutron inelastic scatt. 2−94178
many valley semicond., non-equilibrium electrons, natural oscills. and current, elec. field depend. 2−61475
many-valley semicond., single donor impurities, core excitons shallow-deep instability 2−82282
many-valley semicond. single-donor impurities and core excitons, real-space eqn. 2−82281
material properties relevant to modern semiconductor elements *(German)* 2−98533
materials with Z_2=23-30, electronic stopping cross section for 30-300 keV protons 2−66086
MBE apparatus, high rate deposition on standard format wafers 2−57299
MBE growth, etching of SiO_2 films 2−67218
MBE growth kinetics 2−82153
MBE of doped layers, book contrib. 2−72628
mechanical material, review 2−92072
melting and cryst. growth, X-ray topographic obs. 2−65900
melting and laser annealing using pulsed lasers 2−66052
melting point, press. depend., Lindeman law calc. 2−56165
melting point, press. derivatives 2−61117
melting temp., vol. depend., Debye model 2−86825
metal p-n Schottky barrier solar cell, barrier height calc. 2−116830
metal-SiO_2-n-Si structure Schottky barriers tunnelling exponent 2−82441
metal-SiO_2-Si structures, voltage and freq. depend. of simulated RF plasma annealing 2−66639
metal/Si systems, electron beam induced reactions 2−86955
metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
metals and oxides, ionic implantation for SIMS quantification, corrosion study 2−99744
micro-zone melted, cellular growth 2−93414
microcrack and work damage detect. using ultrasonic sonoprobe 2−57589
microcrystalline, plasma deposited, charact. 2−92405
microstrength meas. 2−93743
microstrip detectors for fast high resolution beam hodoscope 2−70042
microwave cond., velocity autocovariance and hot carrier noise calcs. 2−104404
minority carrier diffusion length, electron beam induced current meas., cryst. imperfections effect 2−71998
MIS inversion layer solar cell, two-dimensional model 2−73125
MIS structure, Faraday rotation for inversion layer electrons, Appel-Overhauser model 2−87746
monolithic hot electron structures, current transport meas. 2−82371
MOS devices, n-type and p-type Si, non-equilib. generation lifetime meas. 2−110491
MOS inversion layer, Anderson localization, neg. magnetoresist. 2−61597
MOS inversion layers, Hall effect in strong mag. fields 2−61489
MOS inversion layers as two-dimensional conductor *(Japanese)* 2−82469
MOS solar cells, high efficiency, by anodic oxidation processes 2−88448
MOS struct., charge motion, TSC meas. 2−115911
MOS struct., fast surface states, photovoltage spectra study 2−56697
MOS structures, Fowler-Nordheim tunnelling data anal. 2−98749
MOS structures, interface-state density investigation 2−66653
MOSFET, impact ionization at very low voltages 2−56602
MOSFET, magnetoresistance study 2−115900
MOSFET, n-channel, quantized Hall steps meas. at ppm level 2−61488
MOSFET, photoresponse of electron inversion layer, mag. field depend. 2−61518
silicon continued
MOSFET, tilted inversion layer, tunnelling 2−77193
multi-exciton complexes 2−110264
multicrystalline, directionally solidified, fracture 2−81884
multilayer structure, multilayer carriers conc. meas. in base region 2−115886
multistereo synchrotron X-ray topography, defects depth determ. 2−91722
muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
muonium quadrupole moment and hyperfine struct. of muonium levels in Si 2−61806
n^+-p junction leakage behaviour, O precip. effects 2−61568
n^+-p solar cell, minority carrier lifetime and diffusion length determ. by selfbiased capacitance meas. 2−116818
n^+/ρ, solar cells formed by partially ionised MBE, I-V characts. 2−116834
n-type, 1/f noise, temp. depend. 2−110409
n-type, electron irrad., A-centre introduction rate, rate eqn. calc. 2−56037
n-type, heat treated, γ-irradiated, photoelec. props. 2−77120
n-type, hole injection from ions in soln. 2−56690
n-type, laser irrad., shock wave defects, photocond. and annealing study 2−56017
n-type, magnetoelectric effect, spin dependent electrical polarisabilities 2−82375
n-type, neutron irrad., photoexcitation props. of IR active defects 2−115694
n-type, polycrystal, grain boundary photocurrent, diffusion length, recomb. speed 2−61482
n-type, proton-irradiated, radiation defect clusters, struct. and props. 2−81833
n-type, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
n-type 2−72040
n-type polycrystalline semiconductor layers, 1/f noise *(Polish)* 2−82489
n-type substrate for Ir and Rh film, silicide form., AES study 2−86951
negative electron affinity, cathodes, thickness of Cs_2O activation layers 2−57270
negative ion chemistry in mesosphere 2−100612
neutral divacancy, EPR spectrum, extended Huckel calc. 2−91957
neutron and electron irrad., divacancy charge state, IR study 2−76431
neutron bombardment doping, reactor design, theory 2−86697
neutron diffr., asymmetric dynamic, Laue to Bragg transition 2−91728
neutron doping in channel U-graphite reactor 2−86739
neutron irrad., deep defect levels with continuous energy spectrum, electron capture coeffs., isothermal capacitance relax. study 2−61405
neutron irrad., dislocation loops, X-ray diffuse scatt. study 2−71458
neutron irrad., radiation damage, thermal and laser annealing, electron microscopy study 2−71512
neutron irrad., radiation defects due to Si transmutation into P, elec. cond. study 2−115308
neutron irrad., vacancies, mag. susceptibility study 2−115309
neutron irradiated, deep level transient spectroscopy 2−115695
neutron irradiated, diffuse X-ray scatt. obs. of defects 2−109849
neutron irradiated, electronic and vibr. spectra of defects 2−115299
neutron irradiated, EPR obs., review 2−110638
neutron transmutation doped, floating zone grown in H_2 and Ar, annealing behaviour *(Chinese)* 2−109820
neutron transmutation doped detectors with improved carrier lifetime 2−59597
neutron transmutation doping, book contrib. 2−71484
neutron transmutation doping, conf., Copenhagen, Denmark (Aug. 1980) 2−74166
nitridation in N_2/H_2 atm., Si_3N_4 prep. 2−105110
nitridation of high purity single crystal 2−72661
nitriding, in NH_3, kinetics study 2−88335
nondegenerate, physical model for depend. of carrier lifetime on doping density 2−92654
nonlinear screening of negative point charges 2−82261
nonradiative processes and defects, obs. by acoustic spectroscopy 2−53446
nuclear stopping regime, evidence for insulator-metal effect on Z_1 range oscills. 2−103869
nucleation temperature of large oxide precipitates in as-grown Czochralski Si crystal 2−91841
numerical simulation of two dimensional impurity diffusion, finite element technique 2−71732
optical absorpt. coeff., 1.6 to 4.7 eV, meas. at high temp. 2−99146
optical absorpt. const. meas. at 1.152 μm at high temp. 2−116141
optical constants, reflectivity, ellipsometry study 2−82811
optimised Si solar cells low-high junctions ineffectiveness 2−78225
oxidation, EELS and AES of ultrathin oxide films 2−83252
oxidation, laser enhanced, wavelength depend. 2−111343
oxidation, thermal, X-ray spectra 2−77960
oxidation, transport mechanism 2−57504
oxidation enhanced diffusion, lateral effect 2−66297
oxidation enhanced dopant diffusion and growth or shrinkage of oxidation-induced stacking faults 2−66015
oxidation in O discharges, review 2−88353
oxidation induced point defects, stacking faults and dopant diffusion, theory 2−91951
oxidation kinetics in dry O_2, thermal prehistory influence 2−57499
oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
oxidation studies, oxidant diffusion meas. in SiO_2 films 2−88238
oxidation-induced positive charges effect on oxidation kinetics 2−93654
oxide film growth, plasma anodization as dry low temp. technique 2−116581
oxide film growth on Si, procedure and reaction kinetics, application in solar cells 2−99791
p^+ implanted damaged layers, ellipsometric study *(Chinese)* 2−66024
p^+-i-n^+ solar cells, high injection phenomena, theoretical model 2−93911
p^+-n-n^+ high efficiency concentrator solar cells, fabrication and performance 2−93917
p^+n and n^+p junctions, multiplication functions in avalanche *(Rumanian)* 2−66630
p-π-n diodes, current controlled negative resist obs. 2−56681
p-n junction, diffused, secondary breakdown region, artificial movement *(Russian)* 2−98735
p-n junction, dislocation energy levels, determ. using photoelectret and thermoelectret states 2−61580
p-n junction, graded dislocation, capacitance-voltage meas. 2−104293

silicon continued
p-n junction, ion implanted, CW laser annealed, elec. and struct. props. 2−115872
p-n junction, ion implanted, CW laser annealed, junction quality, SIMS study 2−104480
p-n junction, local parameter determ. by SEM EBIV mode 2−92737
p-n junction, nonequilib. lattice defects, effect on current-voltage charact. 2−115879
p-n junction devices, impurity distrib. profiles of diffused layers determ. 2−115272
p-n junction diode, minority carrier lifetime variation with injection level 2−66627
p-n junction diodes, use as cryogenic temp. sensors 2−58821
p-n junction X-ray and γ-ray detector, design, fabrication and charact. 2−59596
p-n photovoltaic junction formation by pulse implantation doping 2−115259
p-type, 1/f noise, temp. depend. 2−110409
p-type, cond. and Hall mobility calc. for dopant densities of 10^{14} to 10^{18} cm^{-3} 2−98678
p-type, cond. due to direct interband transitions, temp. depend. 2−92609
p-type, electron irradiated, elec. level of vacancy 2−115696
p-type, generation-recombination noise spectra meas. 2−87300
p-type, hole-acoustic phonon transition rate angular depend. 2−110237
p-type, interband electronic Raman scatt. calcs. 2−104883
p-type, minority carrier diffusion length meas., computer modelling of surface photovoltage method 2−72007
p-type, polycrystal, grain boundary photocurrent, diffusion length, recomb. speed 2−61482
p-type electrodes, siloxane-coated, ion selective photoelectrochemistry and stabilisation 2−83502
paramagnetic susceptibility obs., dislocations effect 2−56823
particle reinforced Al, SAS1-50 composite, internal stresses and dimens. stability under cyclic thermal load 2−62210
pattern laser annealing using pulsed laser 2−81823
phase stability, ab initio pseudopot. and linear-muffin-tin-orbitals calcs. 2−55883
phonon focusing effect on thermal cond., theory 2−98359
phonon freq. calcs., lattice const. 2−76619
phonon population, time-reversal invariance and Raman meas. 2−103920
phonon-phonon scattering cross-sections from crossed phonon beams 2−76623
photoacoustic effect in laser annealing 2−81824
photoacoustic IR spectroscopy 2−99108
photocathodes, p-type, surface modification, use in photoelectrochemical generation of H_2 2−73167
photoconvertors, HV, under high intensity solar radiation temp. dependence investigation 2−73111
photodetector for linearly polarised radiation direct analysis 2−107387
photodetector for photometry, metrological charact. 2−112953
photodiode, absolute spectral response self-calibration using filtered W source 2−89804
photodiode, planar, photon-flux meas., quantum efficiency model 2−101461
photodiode radiometers, use of diffusers 2−58901
photoelectric convertors based on epitaxial Si structures, production and props. 2−99790
photoelectrochem. cell, electrode stabilisation in aq. soln. using PtSi layer 2−105574
photoelectrochemical cells with Pt-polypyrrole protected electrodes 2−111572
photoetching, anisotropic, of (110) Si, high depth to width ratio profiles 2−62245
photosensitive field-emission cathodes with atomically clean surface, I-V charact. 2−77702
photovoltaic effect due to EM wave heating, expt. study *(Russian)* 2−77123
photovoltaic materials, technology and future developments 2−78207
photovoltaic solar power systems, high performance and specific output, three system concepts 2−111567
pipe diffusion and dislocation density 2−110043
planar channelling temp. charact. 2−92063
plasma chemical etching, electron stimulated 2−116580
plasma deposition from $SiCl_4$ in inductive RF low. press. plasma 2−105091
plasma etching, etch rate rel. to optical emission intensity 2−99569
plasma etching, poly-Si multi-chamber dry etching system 2−69184
plasma etching with HF mixtures 2−116567
plastically deformed, elec. cond. meas., dislocation levels effect 2−82364
plastically deformed, photoluminescence polarisation, stress effects 2−110907
point defects, dark-field lattice phase imaging obs. technique 2−86527
point defects, diffusion mechanisms and shrinkage and growth of extended defects, theoretical anal. 2−71443
point defects, negative-U props., expt. study 2−71918
polarisation-dependent photocond. and surface photocurrent 2−115821
polcrystalline, quasi-grain-boundary-free solar cell struct., elec. perform. 2−93904
polycrystalline, back surface field solar cells investig. using scanning spectral response technique 2−111551
polycrystalline, conduction mechanism, diffusion theory and extended state mobility model 2−92608
polycrystalline, CW laser recrystallised material 2−56409
polycrystalline, etch selectivity and profile control in CCl_4-O_2 plasma 2−83253
polycrystalline, grain boundaries, chem., compositional and elec. props. 2−76458
polycrystalline, grain boundary passivation by H_2 2−76459
polycrystalline, grain boundary recomb. vel. determ., laser spot technique for photoconductance meas. 2−77087
polycrystalline, grain boundary recombination rate determ. by scanned spot excitation methods 2−115774
polycrystalline, grain growth mechanisms 2−115424
polycrystalline, growth on Mo(Ta)(W) and disilicide formation 2−71817
polycrystalline, photoconductivity, temperature dependence 2−98697
polycrystalline, plasma sprayed, charge carrier mobility 2−72083
polycrystalline films, thickness meas. by ellipsometry 2−99202
polycrystalline for solar cell appl., photolum. charact. 2−87843
polycrystalline layer growth kinetics at reduced press. *(Bulgarian)* 2−83032
silicon continued
polycrystalline under optical illum., phenomenological model of grain boundary trapping states 2−92653
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
polysilicon MOS tunnel devices with internal gain, use as photodetectors 2−64106
positron interaction, annihilation photon angular correlation spectra 2−77617
positron lifetimes, systematic study 2−57207
positron mass absorpt. coeff. *(Russian)* 2−57208
powder wetting and dispersion without deflocculants 2−115491
power device struct., chemical Ni plating, nondestructive control *(Russian)* 2−83049
power device struct., Ni contact coatings, burn-in process control by electroinductive method *(Russian)* 2−83050
precipitation of O, effect of C impurities 2−66240
precipitation of O and intrinsic gettering 2−66239
pressure transducers, semiconductor, recent trends and developments in charact. and applications 2−79557
production by SiH_4 heterogeneous decomposition in fixed bed reactor 2−116376
profile control with DC bias in plasma etching 2−88235
proton and γ-irrad., defect clusters, Hall effect study 2−115225
proton bombard., radiation defect parameters 2−92056
proton damage by channelling, depth profiling *(Japanese)* 2−109864
proton irrad., defect centre form., electrophys. props. 2−76534
proton irrad., rearrangement of intrinsic defects during annealing, Hall coeff. meas. 2−109863
pseudopotential theory, total energies, phonon freq., bulk modulus 2−87130
pulsed laser annealing, energy absorption, melting 2−81820
radiation damage, defect study 2−66068
radiation damaged self-interstitial struct., double alignment channelling study 2−76433
radiation defect laser annealing 2−103814
radiation detector, epitaxial crystal growth appl. 2−90367
radiation detectors prod. using neutron transmutation doping 2−90369
radiation from 10 GeV positron channelling 2−81850
radiation from axially channelled electrons at low energies 2−81851
radiation-induced defects, room temp., in HVEM studies 2−92043
Raman and time-resolved transmission meas. 2−57073
ranges of 0.3-2 Mev H^+ and 0.7-2 MeV H_2^+ ions 2−76547
reactive DC sputtering and cosputtering of elemental targets 2−111074
reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
reactive ion beam etching of poly-Si employing hexafluoroethane, SiF_4 and BF_3 gases 2−88233
reactive ion etching, contamination of blanket etched surfaces, MOS VLSI appls. 2−116568
recrystallised CVD film; laser irrad., surface topography charact. 2−82086
refractive index modulation during excitation on absorpt. edge 2−116142
ribbon, edge-defined film-fed growth, ambient-meniscus melt interactions associated with impurity transport 2−97950
ribbon, H passivated struct. defects, EBIC study 2−66006
ribbon growth, using electron bombardment 2−66387
ribbon growth under electron bombardment, thermal gradients and stresses induced, application in solar cells 2−83016
ribbons, defects, elec. charact. and crystallography, EBIC and HVEM study 2−66014
rice hulls, purification for source of solar grade Zi 2−77763
rod, thin polycryst., growth by pulling from melt on pedestal, impurity distrib. 2−76347
screening effects on Auger lineshapes 2−87918
seed crystal fabrication for use with Czochralski method 2−99325
self ion implanted, residual lattice disorder after pulsed laser irrad. 2−76494
self-interstials, review 2−71442
self-interstitials, transform. under electronic and thermal stimulation 2−103752
SEM EBIC, lock-in detection, contrast meas. from individual dislocations 2−65824
semiconductor materials and devices, processing by neutron irrad. 2−115305
semiconductor-metal interfacial reaction at room temp. 2−56267
shock loaded, phase transitions obs. 2−56186
shock loaded, struct. transition, dynamic yielding and shear strength reduction obs. 2−86792
Shottky barrier of nonuniform contacts to n- and p-type Si 2−92723
Si:H, amorphous oxidised films, valence band spectra 2−104300
Si:Sn, metastable alloy form., by electron beam annealing 2−56041
p-Si(Li) parameter meas. during drift compensation 2−74465
n-Si/acetonitrile interface, Fermi level pinning and surface states investig. 2−61584
p-Si/methanol interface photoelectrochemical cell characterisation using capacitance-voltage measurements and cyclic-voltammetric measurements 2−105578
n-Si/methanol interface photoelectrochemical cells characterisation using capacitance-voltage and cyclic-voltammetric measurements 2−105577
silicide formation, mechanisms and interfacial layers, book contrib. 2−61214
silicide-Si interface electronic states and microstruct. 2−87412
silicon solar satellite power system: a net energy analysis 2−57700
single crystal, pedestal grown, resistivity radial distrib. 2−104365
single crystal, treatment by ion flows *(Russian)* 2−66077
single crystal, X-ray interference by wavefront division 2−58972
single crystals, fast neutron irrad., gradual damage 2−115303
sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
slip line free, large-area multiple scan annealing with line focused electron beam, elec. study 2−71505
solar batteries with radiative cooling concentrating systems optimal parameters determ. 2−99785
solar cell, (cryst. p)-(amorphous i-n) struct. 2−116801
solar cell, effect of thickness on efficiency 2−93900
solar cell, flat-spot power loss phenomenon at low temp. and low intensity 2−116819
solar cell, high efficiency, laser processing 2−57702
solar cell, n^+-p, physical behaviour in concentrated sunlight 2−93910

silicon continued
solar cell, polycrystalline · vacuum deposited, on foreign substrate 2−105571
solar cell, thickness of Ag and Pd layers, Z 2−88396
solar cell fabrication using high speed junction processor 2−83473
solar cell I_{sc}-V_{oc} charact., correction of temp. effect, thermal resistance determ. 2−93912
solar cell maximum power point and fill factor determining analytical expressions 2−83501
solar cell optimisation for operation under medium range solar concentration *(French)* 2−67864
solar cell wafer annealing electron accelerator with solid dielectric energy storage 2−90325
solar cell with novel low-resist. emitter struct. 2−116803
solar cells, 3 inch, fabricated from granular Si obtained in fluidised-bed reactor, charact. 2−88438
solar cells, antireflection coatings design criteria for optimising plasma-assisted CVD nitride films 2−105085
solar cells, computer simulation 2−88461
solar cells, current status, efficiency improvement prospects 2−116804
solar cells, degradation due to formation of Schottky barrier contact 2−93923
solar cells, diamond like i-C antireflection coating, SIMS anal. 2−83492
solar cells, effect of back-surface B implantation 2−88433
solar cells, fabricated by ion implantation 2−88440
solar cells, fabrication and props. using squarely shaped crystals 2−88439
solar cells, fabrication by laser induced diffusion from dopant gas 2−57697
solar cells, grain boundaries, SEM charge-collection images 2−66012
solar cells, graphical method for evaluation of series resist. 2−93901
solar cells, high concentration, present status, design and performance limiting factors 2−93915
solar cells, high-low emitter back surface field, anal. of efficiency limitations 2−116808
solar cells, laser annealed, function and bulk region charcts. 2−88441
solar cells, Mexican research and development, current status and applications 2−111562
solar cells, p-n^+ junction, n-type heavily doped emitter region effective drift current densities 2−83500
solar cells, p-n junction, temperature dependence of charcts. 2−73120
solar cells, performance degradation after proton irrad. *(Japanese)* 2−109864
solar cells, production of large area polycryst. sheets from melt 2−99783
solar cells, Schottky barrier, intermediate layer effect on charcts. 2−116806
solar cells, single cryst., offer energy for future 2−105559
solar grade silicon as a potential candidate material for low-cost terrestrial solar cells 2−67860
solid phase lateral epitaxial growth onto adjacent SiO_2 film from ion implanted amorphous Si 2−77730
SOS:B, ion implanted, doping profile, thermal distribution, computer simulation 2−66033
SOS:Si films, characterisation of defect reduction and Al redistrib. 2−91947
SOS, laser annealed, electron Hall mobility and residual stresses, heat treatment effects, Raman study 2−98745
SOS, two-layer structure, scanning electron or laser beam irrad., temp. distrib. calc. 2−92027
SOS device structures, Raman meas. of stress 2−77499
SOS electrical transport props., thermoelectric power appl. *(French)* 2−61594
SOS epitaxial film, fault-free Si at Si-Al_2O_3 interface 2−115575
SOS epitaxial films, defects and strain after CW laser annealing, Rutherford backscatt./channelling and TEM study 2−81799
SOS films, and interfaces, chem. aspects 2−91847
SOS films, effect of high-temp. H_2 annealing 2−93543
SOS films, model for X-ray rocking curve half-widths interpretation 2−91977
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
SOS films, non-homogeneous elec. transport, galvanomag. expts., internal stress influence 2−115904
SOS films, optical characterisation of Si and sapphire surfaces rel. to discrete device performance 2−93219
SOS films, rel. between crystallinity and electronic props. 2−92514
SOS films, sapphire substrate orientation influence on crystn. quality and SOS/MOS mobility 2−91948
SOS films, struct.-props. rels. associated with haze 2−91907
SOS structures, CVD growth, surface defect and strain reduction by ion implantation and solid phase epitaxy 2−66384
SOS structures, Hall mobility and capacitance meas., internal stresses and pot. fluctuations influence 2−82470
spherical solar cells, development 2−88462
stacking fault annihilation, surface orientation depend. 2−55985
stacking fault growth and shrinkage kinetics in oxidizing ambient containing a Cl cpd. 2−98117
stacking fault morphology, annealing temp. effect 2−66021
stacking faults, {113}, atomic model and electron microscopy study 2−71478
stacking faults for specimen surface crystal orientation deviation from (111) plane *(Chinese)* 2−91988
strain gauges for mechanical variables meas. in biomedicine, stability problems *(Czech)* 2−62803
stress relaxation deform. at edge dislocation 2−76580
strip detector with 12 μm resolution 2−90370
structures with dielectric insulation, single cryst. layers thickness determ. 2−112867
substrate, diffusion barrier between Al and Si formed by evaporated TiN 2−92394
substrate, physical-chemical interaction with thin films of Pd and its alloys 2−61211
substrate, process for simultaneously making thin and thick epitaxial layers 2−98478
substrate (100), Ge epitaxial film, RF sputter deposition, RF sputter deposition, struct. and elec. meas. 2−66386
substrate (111), $CoSi_2$ MBE growth, Rutherford backscattering, TEM and LEED studies 2−66385
substrate for $CoSi_2$ film, epitaxy, effects of nucleation and growth 2−115610
substrate for Mo film, $MoSi_2$ formation, impurity effects 2−115580
substrate for SiO_2 layer, selective reactive ion beam etching 2−88236
substrate for ZrO_2 film, Z *(Chinese)* 2−110179

silicon continued
Sun, UV spectral redshift indicating downflow of material 2−73945
surface, (001), adsorbed H, 2×1 and 1×1 structs., inelastic LEED study 2−92710
surface, (100), electronic correlation and buckling props. calc. 2−110421
surface, (100), interaction with AH_3 UPS study 2−77144
surface, (100), O_2 adsorption, Auger and ionisation electron spectra study 2−92365
surface, (100) 2×1, Cs overlayer, plasmon excitation obs., AES, EELS, LEED and UPS 2−115542
surface, (100) and (111)2×7, electron state investig. by transfer matrix Green function method *(Chinese)* 2−110415
surface, (100) and (111), Ag film growth, LEED, AES and angle-resolved UPS study 2−92413
surface, (111)7×7, CO electron stimulated adsorpt. *(Russian)* 2−115573
surface, (111), (1×1) struct., strongly correlated surface state band model 2−110418
surface, (111), (2×1) struct., Mott insulator model 2−110419
surface, (111), adsorbed Cl(I)(Te), surface EXAFS study 2−110977
surface, (111), charge density calc. for low energy atom diffr. 2−111010
surface, (111), electronic and atomic struct., spin polarisation effects, theory 2−110417
surface, (111), electronic struct., π-bonded chain model and nonbuckled antiferromag. insulator model 2−110420
surface, (111), In adatoms desorpt., and film growth, RHEED study 2−92367
surface, (111), laser induced oxidation 2−99568
surface, (111), relax. and reconstruction, CNDO/2 calcs. 2−82097
surface, (111), thermal epitaxial growth during ion bombardment, LEED study 2−87088
surface, (111), tunnelling spectroscopy of electron space charge layers in M/S struct. 2−87403
surface, crystallographic orientation determ., micro-probe RHEED technique 2−60843
surface, elastic and inelastic backscattering of slow electrons 2−105018
surface, high dose N^+ ion implanted layer *(Chinese)* 2−91997
surface, laser annealed, residual strain, surface treatment effects, Raman spectra study 2−81821
surface, passivation by Au and Ag monolayers, LEED, Auger and photoemission anal. 2−83259
surface, recombination channels 2−72002
surface, Si_3N_4 film form. by low energy ion implantation, characterisation 2−92375
surface, struct. and electron states 2−98395
surface, tetrahedrally textured, charact. of ion implanted n^+ layers 2−76475
surface (001), 2×1 struct. reconstruction, LEED anal. 2−110121
surface (001), appl. to Ne^+ beam bending, computer simulation 2−79717
surface (001), low-energy ion scatt. study 2−104127
surface (001), plasmon excitation enhancement by LEED due to surface resonance 2−77139
surface (100), Ag film growth, LEED and AES study 2−56397
surface (100) inversion layer, electron mobility, memory function and Boltzmann eqn. approaches 2−56699
surface (111)2×1, dangling-bond surface states, photoemission study 2−110430
surface (111), 1×1 struct., antiferromag. ground state, dangling bond states 2−66790
surface (111), Ag adsorption, struct. and electronic props., LEED and AES study 2−82092
surface (111), buried oxide layers by O_2 implantation for use in dielectrically isolated ICs 2−61011
surface (111), Cl chemisorption, charge density self-consistent-extended Huckel calc. 2−66344
surface (111), cryst. axes identification by Kikuchi patterns in RHEED 2−98398
surface (111), electron-photon interaction and metal-insulator transition 2−87358
surface (111), epitaxy, high resolution LEED study 2−98487
surface (111), field evaporation in presence of H_2, chemisorption, field ion microscope study 2−71799
surface (111), Mott insulator model 2−115839
surface (111), reconstructed, electronic struct. in vacancy model 2−87360
surface (111), RHEED, geometrical surface wave resonance 2−76783
surface (111), struct. of density of states studied by total current electron spectroscopy 2−87361
surface (111), surface pot. low temp. baking effect, photo-EMF study 2−77971
surface (111) 2×1, highly dispersive dangling bond band, angle-resolved photoemission study 2−66607
surface (111) inversion layers, subband separations, effects of exchange-correl. and surface strain 2−61543
surface (111) laser annealed and impurity induced metastable surfaces, UPS and LEED study 2−76789
surface (111) transitions, unified description 2−82106
surface (111)-(7×7), D adsorption, nuclear microanal., LEED and ion scatt. study 2−76821
surface (112), clean and H and Ga covered, surface struct., LEED study 2−71784
surface (211), polar-on-nonpolar MBE of GaP, nucleation and growth, sublattice ordering 2−110204
surface barrier, devices appl. in radial position sensitive charged particle det. 2−64776
surface barrier detector, plasma delay expt. investigation 2−102339
surface barrier detector, pulse height defect 2−90371
surface barrier detectors, plasma decay times for fission fragments and α-particles 2−102338
surface cleaning, deionised water rinse impact 2−88240
surface cleanness control by TEM *(Russian)* 2−99573
surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
surface electronic struct. of 1×1 and 7×7 reconstructions, UPS study 2−98715
surface layer struct., action of directed flow of ionised halogen containing gas *(Russian)* 2−71515
surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
surface metallisation, Ni electroless deposition 2−62080
surface modification by H ion erosion 2−93655
surface oxide thin film, carrier photoinjection 2−92699
surface picosec.-laser-induced phase transform. 2−75616

silicon continued
surface prep. by selective chem. etching 2−83254
surface reconstruction, buckling, ionicity and π-bonded chains 2−92337
surface ripples under picosecond laser illumination 2−81822
surface segregation of H on (111) surface by photon stimulated desorption at Si K edge 2−110154
surface state bands of 2×1 reconstruction, angle-resolved photoemission study 2−98714
surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
surfaces (100), reconstructed, LEED studies 2−92324
surfaces (100) and (111), electronic struct. changes induced by ion bombard., LEED and AES study 2−82983
surfaces (111) and (100), ionization and desorpt. kinetics, atomic beam interaction study 2−115566
swirl defect form. during melt growth 2−65984
synchrotron X-ray topography, multistereoscopic imaging technique 2−81624
temperature rise induced by continuous Xe arc lamp radiation 2−56009
temperature sensor elements developments *(German)* 2−64039
temperature sensor type KTY 84 by Philips *(German)* 2−64108
temperature sensors *(German)* 2−84627
textured surface, optical storage medium, reflectance changes 2−81038
thermal expansion, 80 to 280K, polarisation interferometer study 2−115439
thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
thermal oxidation in Cl_2 atm., microstruct. develop. 2−93645
thermally induced defects, charact. by room temp. photolum. 2−87837
thermoelec. power, Hall effect and density of states meas. 2−98674
thermoelectric effects, X-ray interferometry study 2−98682
thin film growth by laser induced CVD 2−77752
thin films, D passivation of grain boundary dangling bonds 2−76478
thin films, UHV-deposited, laser cleaning of (100), (110) and (111) surfaces 2−83250
third order nonlinear optical susceptibility, meas. using surface plasmons 2−114353
tilt boundary, Σ=27, high resolution electron microscopy obs. 2−71468
tipped inversion layers, tunnelling, Shubnikov-de Haas data 2−56705
total energy calcs. 2−66470
transition metal interstitials, impurity levels, many electron effects, SCF Xα cluster calc. 2−82284
transition metal interstitials, impurity states, many electron effects, SCF Xα cluster calc. 2−82283
transverse oscills. of He and Li nuclei in planar channels 2−81863
transverse photo-emf *(Russian)* 2−77126
transverse photovoltaic effect, intervalley relax. time 2−115819
twin interface, X-ray topography exam. of struct. and defects *(Chinese)* 2−109810
ultra-high purity p-type crystals, totally depleted surface barrier detectors 2−70056
ultra-high purity p-type surface barrier detection fabrication and study 2−90368
uniaxially stressed, electron-hole liquid props. 2−104259
uniaxially stressed, free carrier absorpt. 2−87736
vacancy and chemisorptive bond elec. struct. 2−82417
velocity/field characteristic meas. using HF modulated solid-state laser diode 2−82350
wafer, microscopic defects, positron annihilation study 2−82951
wafer, X-ray mirror reflectivities from 3.8 to 50 keV 2−84756
wafer shape, double-crystal topographical investigation after oxidation 2−115243
wafers, (111), micro-distortion in figure during epitaxial growth *(Chinese)* 2−110188
wafers, C content determ. by IR absorpt. spectrometry 2−93840
wafers, surface deform. meas. using interferometric techniques 2−84691
water/Si boundary, leaky SAW rel. meas., by reflection acoustic microscope using line focus beam 2−104133
X-ray forbidden refls., spectral depend. 2−60838
X-ray K_β and $L_{2,3}$ emission bands 2−57217
X-ray mode selection and intensity enhancement in crysts., appl. to X-ray sources 2−81622
zone-melting-recrystallised films on SiO_2-coated Si substrate, subgrain boundaries effect on carrier transport 2−77207
Ag-Si (111), interface growth, intermixing, UPS study 2−110165
Ag-Si layer struct., B implantation depth profiles 2−103804
Al- amorphous Si-Ni(Au) struct., tunnelling characteristics meas. 2−66657
Al-Si Schottky diode with surface layer, current-voltage charact. *(Rumanian)* 2−66621
Al-Si/Si ohmic contacts to shallow junctions 2−98741
Al-Si_3N_4-SiO_2-Si structure, AES and internal photoelec. effect technique meas. 2−82163
Al-Si-Ti structure, use of Ti thin layers to retard reaction of Al with Si 2−71737
Al-SiO_2-Si, B-ion implanted MOS structure, radiation defect spectra study by TSC method 2−66646
Al-SiO_2-Si, MOS capacitor, electron irrad., interface state spectrum, gate bias effect, DLTS study 2−66640
Al-SiO_2-Si, MOS structure, surface state density determ. based on Hill-Coleman technique 2−77192
Al-SiO_2-Si, MOS struct., low temp. var. of oxide change and surface state density conc. under γ-irrad. 2−104496
Al-SiO_2-Si capacitors, avalanche injected, positive charge effects on flat-band voltage shift meas. 2−87394
Al-SiO_2-Si MIS capacitor, DLTS study 2−115896
Al-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Al-SiO_2-Si structure, prep. under UHV conditions 2−56716
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V charact. 2−105555
$Al_{0.35}Ga_{0.65}As$:Si MBE layer, donor activation energy determ. from elec. transport props. meas. 2−98769
$Al_xGa_{1-x}As$:Si, acceptor states, photoluminesc. study 2−104931
$Al_xGa_{1-x}As$:Si epitaxial films, doping effects on elec. props. 2−110502
$Al_xGa_{1-x}As$:Si MBE layers, deep electron traps, annealing charact. DLTS study 2−98589
$Al_{0.48}In_{0.52}As$, MBE grown, Si doping and elec. props. meas. 2−92005
silicon continued
amorphous p-i-n junction struct., photovoltaic effects, photo-carrier generation and recombination 2−82442
Au/Co/Si thin film condensate, electrophys. props., heat treatment influence 2−104505
Au/n-Si Schottky diode, elec. props., effect of regular surface relief 2−77158
Au-Si:H, amorphous semiconductors interface reactions and Schottky barrier formation, expt. study 2−110176
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V charact. calc., model 2−92775
Au-SrTiO_3-SiO_2-Si struct., electron beam deposited, nonvolatile memory props. 2−72068
B diffusion by laser pulse irrad. *(Chinese)* 2−71717
B predeposition process and profile simulation 2−98136
CdSe-p^+-n-Si tunnel junction solar cell photoanode props. meas. 2−88427
Co/Si thin film condensate, electrophys. props., heat treatment influence 2−104505
Co-Si contact, barrier height 2−92752
Cu/Si system, diffusion of Cu 2−61210
Fe-C-Si melts, thermodynamic study 2−71668
Fe_2O_3:Si, solid solubility, elec. and photoelectric behaviour 2−61146
$Ga_{1-x}Al_xAs$:Si, Ge, LPE growth and doping, elec. and photolum. props. 2−116393
$Ga_{1-x}Al_xAs$:Si, LPE layers, photon recycling, photoluminescence study 2−82897
GaAs:Be(Si), channelling depth distribs. as function of implant energy and fluence 2−98125
GaAs:Cr, Si, damage and Si lattice location studies 2−76479
GaAs:Cr, Si, ion implanted, AlN capped annealing, carrier profiles 2−66023
GaAs:Cr, Si, ion implanted, Hall effect, depth profiles *(Slovak)* 2−98669
GaAs:Cr, Si implanted, thermally annealed, semi-insulating, deep levels 2−76966
GaAs:Cr,Si^+, ion implanted semi-insulating substrate, carrier conc. uniformities meas. 2−98134
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2−86699
GaAs:Cr(Si), semi-insulating, incorporation of anomalously large amounts of Si 2−98133
GaAs:Si, Ar, ^{40}Ar implant pretreatment, ^{28}Si implanted n layer, carrier mobility and activation efficiency 2−91995
GaAs:Si, disordered, optical detection of multiple trapping relax. 2−72005
GaAs:Si, donor states, photothermal ionisation spectra study 2−98767
GaAs:Si, heavily doped, electron scatt. 2−92652
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2−77568
GaAs:Si, implanted, pulsed ruby laser annealing, SIMS and elec. obs. 2−56023
GaAs:Si, interface struct. between Ga facet grown region and normal region *(Chinese)* 2−110167
GaAs:Si, ion implantation, elec. props., for dual gate MESFET *(Chinese)* 2−109817
GaAs:Si, ion implanted, surface polaritons, frustrated internal refl. spectra study 2−71886
GaAs:Si, ion implanted, Raman spectra study 2−110837
GaAs:Si, ion implanted rad. damage, X-ray rocking curve study 2−66075
GaAs:Si, ion implanted and proton irrad., deep levels, laser beam annealing 2−98587
GaAs:Si, ion-implanted, laser annealing effects 2−103811
GaAs:Si, LEC grown semi-insulating, charact. for integrated circuit appl. 2−98654
GaAs:Si, low dose implants, CW laser annealing 2−56028
GaAs:Si, positron annihilation at low temp. 2−62009
GaAs:Si, Sn epitaxial films, double doping effect on defects 2−76867
GaAs:Si, study of encapsulation for annealing 2−77082
GaAs:Si, thermally stimulated optical absorpt., impurity level spectroscopy 2−104292
GaAs:Si, unintentional and intentional doping 2−98132
GaAs:Si bulk Bridgman crystals, O related gettering of Si during growth 2−61005
GaAs:Si epitaxial layers, multilevel doping using single $AsCl_3$:$SiCl_4$ doping source 2−55994
GaAs:Si LPE layer, photolum. and carrier conc. *(Russian)* 2−99174
GaAs:Si quantum well, degenerately doped, stimulated emission, luminescence 2−65215
GaAs:Si-GaAs:Be n-i-p-i superlattice, tunable band gap, theory and expt. study 2−110458
GaAs-$Al_xGa_{1-x}As$:Si, heterojunction barriers, elec. transport and MBE growth 2−82448
GaAs-Si-Ge split spectrum triple solar cell system, design and performance 2−83477
$GaAs_{1-x}P_x$:Si, donor states, impurity optical absorpt. spectra study 2−82287
$Ga_{0.47}In_{0.53}As$, MBE grown, Si doping and elec. props. meas. 2−92005
n-GaP/p-Si (100) heterojunction, MBE growth, struct. and rectifying props., RHEED obs. 2−57297
Ge, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
Ge:Si, ion implanted, rad. damage, X-ray rocking curve study 2−66075
Ge:Si, solid solubility, diffusion, decomposition, X-ray diffr. study 2−66232
Ge-Si (111) epitaxial system, interface struct., high energy ion scatt. study 2−76840
I adsorption, SEXAFS studies 2−83417
$In_{0.53}Ga_{0.47}As$:Be, Si, ion implanted, n^+ layers, sheet resist., electron mobility and conc. 2−66022
$In_{0.53}Ga_{0.47}As$:Si, n-layer formation by Si implantation 2−92001
$In_{1-x}Ga_xP$:Si, epitaxial film, photo-, electro-and cathodoluminescence involving deep levels 2−116258
InP:Si, implanted, impurity redistrib. during annealing, SIMS study 2−98144
InP:Si, ion implanted, annealing behaviour obs. 2−98135
InSb:Si, p-n junction diodes, hole traps, DLTS study 2−110452
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
Mg-SiO_2-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
Mo-Si (111) interface reactions, synchrotron UPS and AES studies 2−110173
Mo-Si interface, $MoSi_2$ formation kinetics meas. during CW laser scanning 2−92025

silicon continued
Mo-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Ni/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Ni-Co-S melt, associated solution model extension, thermodynamic props. 2−71669
Ni-Si, atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Ni-Si, interfacial cpd. form. and electronic struct., photoemission and AES study 2−82036
Ni-Si couple, lateral diffusion and Ni_2Si growth, SEM study 2−115471
Ni-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
Ni-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
NiPt/Si interface, NiSi formation at silicide/Si interface 2−104078
$Pb_{1-x}Sn_xGe$-Si, heterojunction, open-circuit EMF meas. 2−87378
PbTe-Si, heterojunction, open-circuit EMF meas. 2−87378
$PbTiO_3$-Si, RF sputtered, ferroelec.-semicond. interface states, DLTS and capacitance study 2−98746
Pd/a-Si:H Schottky barriers, heat treatment effect 2−77183
Pd/n-Si Schottky diodes, H_2 gas induced DLTS signal, gas detector appl. 2−77178
Pd/Si (111)7×7 system, transmission channelling studies 2−81858
Pd/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pd-Si interfaces, X-ray study of domain struct. and stress in Pd_2Si films 2−115614
Pd-Si/Si interfaces, Schottky barrier height correlation with phase stoichiometry/structure 2−82434
Pd-SiO_2-Si struct., isothermal H_2 desorpt. 2−110135
Pd_2Si-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Pd_2Si-Si:Ar interface, contact resist. stabilization due to ion implantation 2−66635
Pt/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pt-Si (100), PES study of interface states 2−77152
Pt-Si atomic mixing, Xe^+ induced, depth depend., backscatt. spectra 2−103865
Pt-Si system, mechanisms and interfacial layers, book contrib. 2−61214
PtSi-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Sb diffusion, anomalous conc. profiles due to local precipitation 2−76741
n-Si (100) MOSFET inversion layers, zeros of transverse magneto-resist. 2−66650
Si (111)-Pd (V), Schottky barrier formation, soft XPS study 2−110445
Si (111)(2×1)−Au system, interface form., low energy EELS and AES study 2−104174
Si {111}7×7 reconstructed semicond., Te and I adsorbate struct. 2−66360
Si, amorphous UHV deposited film on Si(111), epitaxial regrowth 2−104197
poly-Si beam recrystallisation for IC fabrication 2−111065
a-Si CVD films, anneal-stable, struct. order, Raman scatt. study 2−81679
Si crystals growth for use in solar cells, methods and economics *(Italian)* 2−93409
n-Si, dielectric enhancement near metal-nonmetal transition 2−61361
Si I, collisional excitation cross sections 2−114117
Si III, spin-forbidden lines, oscillator strength calcs. 2−85590
Si IV, photoionisation from $\nu \rightarrow \gamma$ decay, in galactic haloes 2−74066
Si IV in 1980 April 8 solar flare, transition zone plasma characts. 2−58312
Si ions, Born-approx. electron ionisation cross section, oscillator strengths, proton stopping power calc. 2−96644
Si MIS solar cells, fabrication technology *(Slovak)* 2−67859
Si metal Schottky barrier contacts, exptl. study 2−72057
Si surface damage caused by reactive sputter etching *(Japanese)* 2−77965
Si VI to Si X ion lines, extreme UV emission spectra from plasma focus 2−59735
Si, valence states, QDMBPT, ab initio treatment 2−108369
Si wafers, HCl etched {111}, deep etch pits and facet form. obs. 2−76447
Si^{11+}, dielectronic recombination cross sections 2−59944
Si^{12+} plasma, line intensity ratio, model depend. 2−81444
Si^{2+}, valence states, QDMBPT, ab initio treatment 2−108369
Si^{9+}, electron impact excitation cross sections determ., fine struct. transitions, oscillator strengths 2−65094
Si^{n+}, transition energies, lifetimes and fluoresc. yields 2−59738
Si:^{119}Sn, impurity atom vibrs., adiabatic bond-charge model 2−81917
Si:Al, neutron irrad., IR absorption by radiation defects 2−116217
Si:As, amorphous, line-source electron beam annealing 2−66060
Si:As, amorphous film, laser induced solid phase epitaxy kinetics, time resolved reflectivity study 2−56384
Si:As, D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:As, dopant clustering, generalized model 2−115417
Si:As, doping during Pd_2Si form. at low temp. 2−86698
Si:As, implanted, CO laser annealing 2−86727
Si:As, implanted and laser annealed, electronic states, IR optical props. 2−57112
Si:As, ion damaged, undissociated dislocation dipoles and intermediate defects, TEM study 2−71459
Si:As, ion implantation profiles, 10 keV to 2.56 MeV, Rutherford backscatt. study 2−115269
Si:As, ion implanted, blink furnace annealing 2−62140
Si:As, ion implanted, laser annealing mechanism 2−61023
Si:As, ion implanted, laser annealed, bonding defects, Roman scatt. study 2−67066
Si:As, ion implanted, pulsed X-ray annealing 2−115286
Si:As, ion implanted, solid state phase annealing with CW Nd:YAG laser *(German)* 2−105183
Si:As, ion irradiated, point defect chains, high resolution TEM study 2−71479
Si:As, ion-implanted, laser and thermal annealing comparison, ion backscatt. and elec. meas. 2−55991
Si:As, laser beam annealed, defects and elec. props., TEM study 2−109799
Si:As, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062

silicon continued
Si:As, range distrib. and thermal annealing props. of low-energy implants 2−115258
Si:As, substitutional impurity clustering, ion channelling study, review 2−71536
Si:As, surface layer struct., influence of non-uniformity of laser beam intensity 2−92314
Si:As, thin layers on conducting boundary, spreading resistance profiles 2−86703
Si:As diffusion and impurity concentration profiles, Rutherford backscatt. study 2−82019
Si:As films, heavily doped, thermally and laser annealed, elec. props. 2−115924
Si:As implanted 4 in wafers, fast annealing using imaging furnace with 6.5 kW Xe arc lamp 2−98123
Si:As ion implantation and pulsed electron beam annealing, supersaturated Si-As alloy formation 2−81801
Si:As^+, implanted, pulsed electron beam annealing apparatus and utilisation *(Chinese)* 2−66059
Si:As^+ layer, ion implanted, Q switched Nd:YAG laser annealing 2−56015
Si:$As^+(P^+)$, ion implanted, cryst. damage, spectroscopic ellipsometry study 2−92049
Si:As(B), ion implantation damage, optical constants anal., ellipsometry expt. and refractive index model study 2−77469
Si:As(P), CVD film, elec. characts., grain size, effects of impurity conc. and heat treatment 2−82487
Si:As(W), ion implanted, defect features 2−103796
Si:Au, acceptor level electron cross-section, DLTs study 2−115772
Si:Au, Au diffusion, expt. study 2−104061
Si:Au, B, counterdoped, anal. of transient photocond. 2−66584
Si:Au, cluster centres, EPR study 2−56923
Si:Au, deep Au impurity centre, donor and acceptor levels 2−104306
Si:Au, depth distrib. determ. using elastic backscatt. 2−77671
Si:Au, mid-gap level investigation by DLTS and transient capacitance meas. 2−104286
Si:Au, mid-gap levels investigation by DLTS and transient capacitance meas. *(Chinese)* 2−66473
Si:Au, minority carrier capture cross section meas. 2−66569
Si:Au, n-type Czochralski, capture cross section of donor and acceptor states 2−98665
Si:Au, props. of Au related acceptor level 2−71910
Si:Au, thermal capture of acceptor deep level, Huang-Rhys factor 2−82276
Si:Au n^+-p junction, deep level and shallow impurity profile simultaneous meas. with C-V method *(Chinese)* 2−92505
Si:Au p^+-n diode, DLTS and C^2-DLTS, analysis 2−56470
Si:Au-SiO_2 MOS struct., Au related. interface states, quasi-static capacitance study 2−72069
Si:Au(Pt), deep levels obs., anal. of admittance spectroscopy method 2−115701
Si:B, B deposition from BBr_3 source, expt. and computer simulation 2−103794
Si:B, bulk and SOS struct., ion implanted, doping profile, thermal distribution, computer simulation 2−66033
Si:B, codeposition from Si and B, influence of traces of water vapour 2−111080
Si:B, defect-impurity complexes, ion channelling study 2−71534
Si:B, diffusion doped, CW CO_2 laser irrad., sheet resistance depend. on power density and scanning vel. *(Chinese)* 2−109827
Si:B, electron irrad., B interstitial, capacitance bridge meas. 2−56034
Si:B, IR absorption spectrum 2−77503
Si:B, interstitial B negative-U props., EPR 2−71908
Si:B, ion implanted, B diffusion and segregation obs. in dry O_2 ambient 2−92281
Si:B, ion implanted, radiation damage production 2−61009
Si:B, laser beam annealing, recrystn. 2−103812
Si:B, measurement of sheet resistivity of shallow diffused layers for profiling by four-point probe technique 2−98650
Si:B, polycrystalline, B^+ ion implantation, heat treatment effects 2−103795
Si:B, polycrystalline, on SiO_2, elec. resist., CW laser and furnace annealing effects 2−61025
Si:B, polycrystalline, quantitative doping using ion implantation process 2−92002
Si:B, proton irrad., impurity distrib. and diffusion 2−61203
Si:B, SIMS anal., matrix ion species indexed sensitivity factors for calibration 2−95531
Si:B, SIMS depth profiling, physico-chemical state 2−99286
Si:B, strain-split two-level acceptor ground state, US relax. study 2−71592
Si:B, submicrometer-linewidth doping and relief definition by laser-controlled diffusion 2−98122
Si:B, thermally evaporated, near-surface layer impurity distrib., photoluminesc. study 2−110902
Si:B, trap levels, DLTS study 2−56472
Si:B, US investigation of acceptor ground state, distrib. of splittings 2−98577
Si:B,Fe, quenched-in trap level at E_v+0.45 eV 2−104291
Si:B epitaxial layer, lattice parameter determ. by means of asymm. Bragg refls. 2−97851
Si:B films, plasma deposition using laser microreaction 2−56375
Si:B p-n junction, BN non-cond. layer, photovoltaic obs. 2−77164
Si:B radial position sensitive detectors fabrication and characts. 2−70058
Si:B thin film, polycrystalline, elec. props., use as sensor *(German)* 2−87427
Si:B^+, inhomogeneous implanted surface layers studied by X-ray rocking curves meas. 2−92315
Si:BF_2^+, ion implanted, wafer bending and stress, thermal annealing effect, X-ray topography 2−115311
Si:BF_2^+ single cryst., pulsed laser irradiated, ion implanted, F conc. profile 2−115263
Si:B(As), high-dose implanted, CO_2 laser annealing characts. 2−57219
Si:B(As)(P), elemental distrib. anal., SIMS and neutron activation anal. 2−98151
Si:B(C), electron irrad. defect accumulation kinetics and point defect annihilation 2−98153
Si:B(P)(As), supersaturated, ion implanted and laser annealed, heat treatment effects 2−92000
Si:B(P)(As)(Sb)(Ga), ion implanted, electron beam annealing by multiple-scan method 2−92036

silicon continued
Si:Be, atom and carrier depth distrib. 2−92018
Si:BF_2^+, recrystallisation by light-flash annealing 2−98130
Si:Bi, ion implanted, impurity redistrib. after Nd laser pulse irrad. 2−115265
Si:Bi, range profile, Rutherford backscattering and SIMS meas. 2−98138
Si:Bi(As), scanning electron-beam annealing 2−103818
Si:C, crystn. by zone melting, contamination with C 2−87972
Si:C, effect of C on elec. props. of devices, impurity-defect interaction investig. 2−91994
Si:C, ion implanted, defect states, DLTS study 2−56471
Si:C, O, reactor neutron irrad. effect on C impurities 2−109839
Si:C, polycrystn., C influence in resistivity and grain size 2−66547
Si:C,O, Czochralski grown, donor form. by annealing at 700°C 2−110283
a-Si:C and a-Si:C, B(P) films, cathodic deposition, charact. 2−88011
Si:Co, impurity lattice location, Mossbauer study 2−103785
Si:Co, Mossbauer study of implanted ^{57}Co below full amorphisation limit 2−77441
n-Si:Cr, donor levels, photocapacitance and photocond. spectra 2−115707
Si:Cu, deep centre long lifetime photoluminescence 2−110938
Si:Cu, luminescence, excitons and impurity states 2−104946
Si:Cu(Ag)(Au), gettering by Al at low temp., Rutherford backscatt. study 2−115264
Si:F, H, amorphous, density of localised states, DLTS study 2−98591
Si:F, H amorphous films, photoelec., and optical props. Schottky barrier solar cell form. 2−83480
Si:F,H,P films, critical vol. fraction of crystallinity for conductivity percolation 2−56379
Si:F,H amorphous films, solar cell form., film elec. and optical props. 2−83481
a-Si:F and a-Si:F, B(P) films, cathodic deposition, charact. 2−88011
a-Si:F and a-Si:F, H films, motional narrowing effects of NMR spectra 2−77395
Si:Fe, electron beam irrad., EPR spectra 2−56920
Si:Fe, heat treated, interstitial impurity, EPR study 2−71439
Si:Fe, impurity diffusion coeffs., CW laser annealing and SIMS *(French)* 2−110040
p-Si:Fe, interstitial Fe and Fe-acceptor pairs, DLTS and Hall effect study 2−66476
Si:Fe, ion implantation study by conversion electron Mossbauer spectroscopy 2−77427
Si:Fe, local electronic struct., molecular cluster method based on HF approx. 2−92533
Si:Fe, Tl (In), photoluminescence lines, Fe-Tl complexes 2−104948
Si:Fe,B, Fe donor activity on heat treatment, elec., DLTS and EPR meas. 2−71911
Si:Fe(V)(Ti)(Mn), deep levels under hydrostatic press., isothermal capacitance study 2−66477
Si:Ga, doping during MBE, AES and isothermal desorpt. spectra study 2−109819
Si:Ga, electron irrad., luminesc. of traps 2−61969
Si:Ga, float zone cryst., neutron irrad., X-centre formation, expt. study 2−98162
Si:Ga, heavily doped, free electron zero-phonon transition, luminescence 2−61954
Si:Ga (In)(Sb), ion implanted, dopant redistrib. after flash lamp annealing, He^+ backscatt. study 2−86936
Si:Ga(In), impurity IR excited-state lines 2−82883
Si:Gd, crystal microstruct., Gd accumulations, electron radiation-induced defects 2−86891
Si:Ge, atomic mixing effects on high fluence 40 keV Ge^+ implantation 2−76466
Si:Ge, Ge diffusion coeff., SIMS study 2−115465
Si:Ge, ion implantation, high fluence, contrib. of atomic mixing, theoretical and exptl. study 2−98131
Si:Ge, Ne ion beam induced atomic distrib. of implanted range profiles 2−56002
Si:H, amorphous, 1.4 eV luminescence lifetime distrib. 2−72540
Si:H, amorphous, DLTS response due to localized states 2−56492
n-Si:H, amorphous, deep levels, electron capture cross section 2−76979
Si:H, amorphous, elec. cond., effects of H_2O and NH_3 adsorbates, oxidation and light exposure 2−71984
Si:H, amorphous, electronic states and total energies 2−66429
Si:H, amorphous, electronic struct. by soft X-ray spectroscopy 2−104301
Si:H, amorphous, electronic states *(Japanese)* 2−115645
Si:H, amorphous, excitation wavelength depend. of luminesc. spectra 2−77586
Si:H, amorphous, field effect conductance, annealing and light induced changes meas. 2−98750
Si:H, amorphous, gap states distrib., modulated photocurrent phase-shift anal. 2−92534
Si:H, amorphous, gap-state absorpt. meas. 2−87827
Si:H, amorphous, H determ., IR absorption meas. *(Japanese)* 2−71490
Si:H, amorphous, H_2 evolution 2−66280
Si:H, amorphous, hole collection length, surface photovoltage study using liq. Schottky barrier 2−56631
Si:H, amorphous, homogeneous CVD prep. and struct., comp. and photocond. props. 2−87085
Si:H, amorphous, ODMR obs. of luminescence fatigue 2−104954
Si:H, amorphous, obs. of photoinduced changes in gap states bulk density 2−66472
Si:H, amorphous, order and disorder, curved space description 2−76311
p-Si:H, amorphous, photoelectrochem. solar cell, expt. study 2−105573
Si:H, amorphous, photogeneration, geminate recombination model, expt. and theoretical study 2−87315
Si:H, amorphous, photoluminescence fatigue and photo-annealing 2−110905
Si:H, amorphous, post-hydrogenated CVD Schottky diode solar cell 2−99796
Si:H, amorphous, RF glow discharge deposition rate, crossed elec. and mag. fields effect 2−93447
Si:H, amorphous, Schottky barrier and MOS structs., barrier heights, photoemission study 2−82465
Si:H, amorphous, Schottky diode spectral response, gap states effect 2−87753
Si:H, amorphous, spin-depend. recombination at dangling bonds 2−77424
Si:H, amorphous, sputtered, time-resolved photolum. spectra 2−77581
Si:H, amorphous, sputtered, time-of-flight and photoinduced mid-gap absorpt., dispersion 2−87432
Si:H, amorphous, sputtering and glow discharge prep., photoluminescence and midgap state density 2−87855
silicon continued
Si:H, amorphous, temp. depend. of room temp. ODMR signals 2−104749
Si:H, amorphous, time resolved photoluminescence, quenching and carrier mobility 2−104949
Si:H, amorphous, undoped, diffusion of holes 2−92651
Si:H, amorphous film, density of states, field effect determ. technique, annealing and illumination effects 2−61593
Si:H, amorphous film, flow discharge deposited at 1 Torr, elec. and struct. props. meas. 2−87277
Si:H, amorphous film, interfacial electronic struct. and density of states 2−66601
n-Si:H, amorphous film, interacton with metal electrodes 2−87389
n-Si:H, amorphous film, interaction with metal electrodes 2−87390
Si:H, amorphous film, laser induced crystn. 2−55849
Si:H, amorphous film, magnetoresistance study 2−92790
Si:H, amorphous film, optical props. *(Korean)* 2−57201
Si:H, amorphous film, optically induced pot. fluctuations, elec. cond. and thermpower study 2−77050
Si:H, amorphous film, optical and elec. props. 2−82940
Si:H, amorphous film, RF sputtered, H content, and config., photoconductivity, IR study 2−82397
Si:H, amorphous film, RF planar-magnetron sputtering, IR and photoelec. props. *(Japanese)* 2−99332
Si:H, amorphous film, reactive ion beam sputtering, optical props. 2−83041
Si:H, amorphous film, tetrode RF sputtering and optical and elec. props. meas. 2−111072
Si:H, amorphous film, vacuum evaporated, substitutional doping by ion implantation, elec. cond. and EPR study 2−55850
Si:H, amorphous films, field effect density of states, annealing and light exposure effects 2−71850
Si:H, amorphous glow discharge film, photocond. and Fermi level temp. depend., photoinduced changes obs. 2−115810
Si:H, amorphous plasma deposited film, photocond. IR quenching and gap states, exp. study 2−87318
Si:H, amorphous Schottky barrier solar cells; CVD prep., electronic props. 2−83484
Si:H, amorphous Schottky diodes, capacitance-voltage characts. calc. 2−66667
p-i-nSi:H, amorphous solar cell struct., deep electron traps 2−56493
Si:H, amorphous solar cells, hot carrier effects on collection efficiency 2−67852
Si:H, amorphous solar cells, I-V characts., density of states, and depletion width 2−83483
Si:H, amorphous sputtered film, dispersive transport, carrier mobility, photoconductivity study 2−82357
Si:H, amorphous thin film, pure and hydrogenated, adsorbed O_2 layer, electronic struct., XPS and UPS study 2−57254
Si:H, amorphous thin film solar cells, review 2−105568
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945
a-Si:H, density of states determ., field effect method *(Korean)* 2−56419
Si:H, dislocation donor and acceptor states *(Russian)* 2−92525
a-Si:H, electronic props., CPA calc. 2−56430
Si:H, F, amorphous, ODMR study 2−93065
Si:H, FZ cryst., anomalous defect form. by H doping 2−71476
a-Si:H, Ga(As), ion implanted, absorpt. and photocond. spectra 2−115820
a-Si:H, glow discharge, oxidation investig., optical consts. determ. by ellipsometry meas. 2−116578
Si:H, implanted, radiation defects study by DLTS 2−92522
Si:H, impurity lattice location, ion channelling studies, review 2−71537
Si:H, ion implanted, metastable cond. and shallow donor conc. meas. 2−115764
Si:H, N, amorphous film, elec. and photocond. variation with N doping 2−110339
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
a-Si:H, n-type, energy depend. of capture cross section at trap levels, determ. by isothermal capacitance transient spectroscopy 2−82273
Si:H, N(Ga), amorphous film, ion implanted, photocond. and energy spectrum 2−92698
a-Si:H, P, photoinduced absorpt. in picosec. range due to deep hole traps 2−72527
a-Si:H, photoluminesc. emission broadening 2−110920
a-Si:H, potential distribs. in Schottky and p-i-n structs. by capacitive techniques 2−92749
a-Si:H, RF sputtered, elec. and EPR meas. 2−115791
a−Si:H, reassessment of vibr. spectrum 2−57136
Si:H, three-dimensional H conc. profiles 2−115266
a-Si:H, time resolved ODMR by frequency response spectroscopy 2−82745
Si:H, vacancy vibrational behaviour, renormalisation group method 2−81918
Si:H,As, amorphous RF sputtered film, pulsed laser annealing 2−86726
Si:H,B, amorphous, ESR lineshape, g-factors, temp. depend. 2−77373
Si:H,B, amorphous film, NMR study 2−110686
a-Si:H,B(P) IR absorption spectra, effects of annealing 2−99156
Si:H,F, amorphous film, NMR and ESR study 2−93003
Si:H,N, amorphous, prep. from SiH_4-N_2-H_2 mixture and elec. resist. and IR absorpt. meas. 2−93444
Si:H,O,N, amorphous, ESR of impurity associated defects 2−82699
Si:H,P amorphous glow discharge thin films, elec. props., heat treatment and P ion implantation effects 2−61467
Si:H amorphous, oxidation, UPS and Auger study 2−83260
Si:H amorphous, photoconductivity spectrum 2−104430
Si:H amorphous, photoluminescence, band gap fluctuation 2−98530
Si:H amorphous film, DC sputtered, characterization by optical and nuclear methods 2−93308
Si:H amorphous film, glow discharge deposited, refractive index, 95 to 723K *(French)* 2−62005
Si:H amorphous film, glow discharge deposited, heterogeneities and surface effects 2−92420
Si:H amorphous film, glow discharge deposited, H content and mech. stress 2−104210
Si:H amorphous film, glow discharge deposition, plasma spectroscopy 2−115605
Si:H amorphous film, growth by silane laser photodissociation, X-ray and IR spectra study 2−116375
Si:H amorphous film, H conc. correlation with low freq. noise 2−92795
Si:H amorphous film, multipole DC discharge growth, ellipsometric study 2−92422

silicon continued
Si:H amorphous film prep., evaporation method 2−62069
Si:H amorphous films, H_2 evolution 2−93950
Si:H amorphous films for electrophotography, photosensitivity, glow discharge deposition and doping 2−107435
Si:H amorphous glow discharge films, elec. and optical props., elec. and mag. field effects 2−82407
Si:H amorphous layers, refractive index dispersion, dark m-lines method 2−82946
Si:H amorphous MIS struct., Langmuir-Blodgett film 2−87410
Si:H amorphous p-i-n solar cell, photocurrent, voltage depend. 2−78211
Si:H amorphous p-i-n solar cell, expt. study 2−105569
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
Si:H amorphous plasma deposited film, photoluminescence, sub-band gap excitation 2−87856
Si:H amorphous reactively sputtered film, H anal. by IR spectroscopy, nuclear reaction and SIMS 2−76857
Si:H amorphous solar cell, photovoltaic performance, film props., plasma deposition optimisation 2−83486
Si:H amorphous sputtered films struct. correlation with prep. cond., STEM study 2−66400
Si:H amorphous sputtered film, microstruct. and H bonding environments 2−76847
Si:H amorphous sputtered thin film, carrier propagation, trapping and mobility 2−87283
Si:H amorphous thin film Schottky barrier diodes, diode characts., film props. 2−82430
Si:H amorphous thin films, ion-plated, photoconductivity and optical band gap 2−87331
a-Si:H and a-Si:H,F, dangling bond centres energy level, ODMR study 2−110732
a-Si:H film, annealing effects on ESR, elec. and optical props. 2−66588
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
Si:H films, amorphous, dependence of gap on hydrogen content, photoluminesc. and IR spectra study *(Chinese)* 2−110903
a-Si:H films, growth and characterisation 2−83031
a-Si:H films, mol. H_2 presence, proton spin-lattice relax. time meas. 2−61786
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
α-Si:H films, optical absorption and density of states in band gap 2−72571
a-Si:H films, Raman scatt. under high press. 2−72505
a-Si:H films, residual stress elimination 2−61317
a-Si:H films, SAW attenuation, paramag. defects, IR, ESR and SEM studies 2−110123
Si:H microcrystalline glow discharge films, phys. props., substrate bias effect 2−87109
Si:H n^+-i-n^+ struct., amorphous, threshold switching 2−82410
a-Si:H n-i-p large area solar cells conversion efficiency anal. 2−83471
a-Si:H n-i-p solar cells, built-in potential determ. 2−93903
a-Si:H p-i-n high efficiency solar cell using SnO_2/glass substrate 2−93902
a-Si:H p-i-n solar cell, window effects of a-SiC:H layer 2−83472
a-Si:H RF sputtered films, elec. props. rel. to threshold and memory switching appls. 2−87347
$Si:H_2$, neutron irrad., defect states from IR absort. *(Chinese)* 2−110279
Si:H(F), amorphous, dangling bond ESR, effect of H or F, Huckel mol. orbital calc. 2−56933
Si:H(F), amorphous, ESR study relation between defects and incorporated H(F) *(Japanese)* 2−87588
Si:H(O), interaction between dislocations and H or O, elec. and luminesc. props. *(Russian)* 2−56487
$Si:H(PH_3)$, amorphous film, density of gap states, space charge spectroscopy study 2−87181
Si:In, elec. resist. and mobility, hole scatt. by impurities 2−115750
Si:In, ion implanted, laser annealed, convection and constitutional supercooling cells 2−66054
Si:In, luminescence intensity enhancement by thermal treatment 2−57153
Si:In, P, electron capture coeff. of neutral In and pair recomb., photoluminesc. spectra 2−77569
Si:In, range distrib. and thermal annealing props. of low-energy implants 2−115258
Si:In, vibronic spectrum of U_2 isoelectronic centre 2−61953
Si:In,Li, In X-centre donor-acceptor pair photoluminescence 2−57139
Si:In amorphous layers, thermal redistrib. of In 2−56003
Si:In(Sb), laser annealed, all formation and interfacial instability, expt. study and perturbation theory 2−56012
Si:Li, D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:Li, D^- states, electronic struct. and binding energies 2−82280
Si:Li, neutron transmutation doped, heat treatment effects 2−115304
Si:Li,In(Ga)(Al)(B), sharp line donor-acceptor pair recombination luminesc. 2−104928
Si:Mn, B, $Mn^{2+}B^-$ pairs, EPR study 2−110628
α-Si:Mn^+, doping by ion implantation, dark cond. meas. 2−98128
p-Si:$Mn^+Al^-(B^-)$, DTA and electron beam anal., doping effects *(German)* 2−92010
Si:N, amorphous CVD film, elec. cond., field effect and gap state density meas. 2−87193
Si:N, deep levels meas. 2−92511
Si:N, excited states of sputtered mol. N_2 2−77657
Si:N, ion implanted, oxidation inhibition 2−115271
Si:N, low energy implantation, material composition, oxidation resist. and elec. characts. 2−86694
Si:N, low energy N implantation, room temp. formation of Si-nitride films 2−86693
Si:N, photoluminesc. anal. for characterisation of shallow impurities 2−93242
Si:Ne, Ar, amorphous, ion implanted, localised defect states and impurity distrib., photocond. spectra study 2−61414
Si:Ni, γ-irrad., elec. cond., photocond. and galvomag. props. 2−115761
Si:O, C, Czochralski grown, O related donors, 700 to 800°C, expt. study 2−56469
Si:O, Czochralski grown, defect obs. after high temp. treatment 2−76427
Si:O, Czochralski grown, precipitated and total O conc., meas. technique 2−103802
Si:O, diffusion and gettering studies by Cs/SIMS 2−104071
Si:O, electron irrad., carrier removal and recombination by interstitial complexes 2−115781
silicon continued
Si:O, incorporation of O impurities in CVD 2−86700
Si:O, induced recombination centres, struct. and formation kinetics, expt. study 2−86707
Si:O, ion implanted, conductivity mode conversion, dielec. isolation technique appl. 2−61003
Si:O, Mg influence of Mg on IR absorpt. and elec. cond. props. 2−87258
Si:O, minority carrier lifetime, heating effects 2−104394
Si:O, O diffusion and thermal donor formation, review 2−82021
Si:O, O donor developed around dislocations, expt. study 2−92510
Si:O, O precip., IR absorpt. and TEM study 2−92208
Si:O, polycrystalline films, prep. and props. 2−72629
Si:O, secondary ion yield enhancement, implanted O conc. depend. 2−62036
Si:O, Si-O-Si complex new absorpt. band 2−72496
Si:O,H,F, amorphous, photoluminescence, localised states, temp. depend. 2−87854
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
Si:O crystals, indentation rosettes and dislocation locking by O 2−98111
Si:O donor centres, heat treatment effects, Hall meas. and ESR study 2−61401
Si:O^+, implanted, deep level defects study by DLTS *(Chinese)* 2−92506
Si:$O^{4+}(C^{4+})$, MOS capacitors and Schottky diodes, ion implantation, elec. props. 2−86696
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers 2−86688
Si:O(N) films, amorphous, effect of O_2 and N_2 introduction on dark conductivity/photoconductivity *(Chinese)* 2−92788
Si:P, amorphous, ion implantation doping and surface conductivity 2−115262
Si:P, and other implants, SIMS studies of anomalous behaviour 2−92013
Si:P, Anderson localised system, interstate interaction effect on specific heat 2−77303
Si:P, As, Sb, ion implanted, multiphase electron beam annealed, impurity profiles 2−103803
n-Si:P, B ion implanted, deep level profiles 2−98571
Si:P, CVD epitaxial growth, P doping process obs. 2−93439
Si:P, D^-, centres, far IR photocond., uniaxial stress and mag. field effects meas. 2−98691
Si:P, dislocation clusters and P diffusion, TEM and X-ray topography study 2−91973
Si:P, donor state line-broadening mechanisms, photoluminesc. study 2−99181
Si:P, electrically inactive impurities, precipitation explanation, TEM study 2−67341
Si:P, electron irrad., electron trap study by transient capacitance 2−110282
Si:P, electron irrad. damage, capacitance and dielec. loss meas. 2−92037
Si:P, giant dielectric const. near metal-insulator transition 2−87650
Si:P, heavily doped, as amorphous antiferromagnet 2−77283
Si:P, high conc. diffusion, vacancy percolation 2−82028
Si:P, highly doped, metal-insulator transition, optical and precursive props. 2−72038
Si:P, implanted and laser annealed, electronic states, IR optical props. 2−57112
Si:P, ion implanted, depth profiles, channelling and nuclear resonance studies 2−98142
Si:P, ion implanted, distrib. profiles, elec. props. 2−103797
Si:P, ion implanted, wavelength modulation spectrum 2−104916
Si:P, ion implanted and annealed, IR reflectivity characterisation, physical model 2−77532
Si:P, measurement of sheet resistivity of shallow diffused layers for profiling by four-point probe technique 2−98650
Si:P, metal-insulator transition stress tuning at mK temperatures 2−71868
Si:P, metal-insulator transition, minimum metallic cond. 2−98544
Si:P, multivalued Sasaki effect, I-V characts., current saturation 2−56605
Si:P, neutron transmutation doping, radiation defects and annealing, review 2−71513
Si:P, neutron transmutation doping, radiation defects, electrical activity, annealing 2−86738
Si:P, O, electron and neutron irrad., point defects and colour centres, DLTS study 2−103754
Si:P, polycryst., grain boundary diffusion of P 2−92283
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
Si:P, polycrystalline film, impurity lateral diffusion lengths meas. technique 2−104062
Si:P, radiation doped, recombinational props. and elec. cond., thermal treatment effect *(Russian)* 2−71995
Si:P, redistribution of heavy metal impurities, by P diffusion, theory 2−109822
Si:P, specific heat, effects of electron and impurity correlations 2−104016
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si:P and compensated Si:P,B, ion implanted, epitaxial regrowth obs. 2−92388
Si:P crystal, γ-induced point defects, H passivation 2−103758
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si:P shallow radiation induced defect levels, annealing, AC conductance study 2−76970
Si:P Z 2−115924
$Si:P_3(P_2^+)$, multiple scatt. Xα mol. cluster model of complex defects 2−76977
Si:P^+, ion implanted, damaged layer study 2−71480
Si:$P^+(As^+)$ layers, ion implanted, electron beam annealing, elec. props. 2−92039
Si:P; ion implanted, electrolyte electroreflectance spectra study *(Chinese)* 2−93156
Si:P(As), CVD VPE grown, doping element incorporation, total press. depend. calc. 2−91998
Si:P(As), dechannelling by dislocations and stacking faults 2−81845
Si:Pt, minority carrier capture cross section meas. 2−66569
Si:S, deep donor binding energy, g-value calc. 2−92517
Si:S, impurity related defect centres, DLTS and optical absorpt. study 2−71919
Si:$S^+(Se^+)(Te^+)$, impurity states, charge densities and wave functions 2−115700
Si:$S^+(Se^+)(Te^+)$, multivalley spin splitting of $1s(T_2)$ states 2−77000
Si:S(Se), deep levels, quantitative criterion 2−87183
Si:Sb, laser epitaxy over buried layers 2−56406

silicon continued
Si:Sb amorphous, sputter depth profiling, mass redistrib. by atomic mixing 2−82974
Si:Sb(In)(Ga)(Bi)(As), ion implanted, metastable supersaturated solid solns. formation during solid phase epitaxy 2−98283
Si:Se, donor level photoionisation cross-sections, IR spectra and photocond. study 2−56484
Si:Sm, IR absorpt. spectra, 1.8 μm absorpt. band, annealing effects 2−57137
Si:Sn, cordency and compression effects on isomer shift of impurities 2−56989
Si:Zn, Cr(Fe)(Mn)(V), donor-acceptor complexes, DLTS and TSC meas. *(German)* 2−98579
Si:Zn,Co, epitaxial layers, doping laws and electrophysical props. 2−66025
Si:Zn junction, pot. distrib. *(Russian)* 2−92734
Si:Zn layers, ion implantation, damage annealing 2−103798
Si:Zn surface, nonuniform depletion relax., expt. study *(Russian)* 2−115849
Si/Fe_2O_3, heterostructure photoanode, energy diag. and photoelectrochem. props. 2−98747
Si/In_2O_3-SnO_2 transparent conductor films/polycrystalline junction, appl. to solar cells 2−57711
Si/$LiNbO_3$ substrate, SAW parametric oscill. 2−65440
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si/Pt-Si, contact reaction, Auger electron spectroscopy study 2−72058
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si/Rh bilayers, optical storage by laser writing 2−81036
Si/Si_3N_4, plasma enhanced thermally grown film, interface struct. and stoichiometry, backscattering-channelling study 2−56392
Si/SiC system, interfacial energy and Si+C reaction rel. to sintering 2−55981
Si/WSi_2($MoSi_2$)-based composite electrodes for MOS-type capacitor structs., elec. props. 2−98752
Si-3,4,9,10-perylenetetracarboxylic dianhydride contact barrier devices, elec. characts. 2−92758
p-Si-acetonitrile soln. interface with different redox couples, Fermi level pinning obs. 2−110467
Si-AlN-Au(Al), interface barrier heights, internal photoemission study 2−82464
Si-AlSi, Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Be MIS solar cell, with textured surface, large active area 2−88443
Si-CaF_2-Si heteroepitaxial structs. formation by vacuum deposition, etching characts. 2−83026
Si-CaF_2-Si heteroepitaxial struct., prep. by vac. deposition and charact. 2−115612
p-Si-CdS solar cell, single source evaporation prep. and efficiency meas. 2−116800
Si-CdS($Zn_xCd_{1-x}S$) heterojunction solar cell, elec. props. 2−115875
p-Si-CdSe junction, sputter deposited, elec. props. 2−98736
Si-Co thin film reactions, Co_2Si and CoSi growth kinetics and thermal stability obs. 2−92290
Si-$CoSi_2$ interface, lattice imaging 2−115609
Si-Cr interface, CC $CrSi_2$ formation, diffusion mechanism, ^{31}Si radioactive marker study 2−61209
Si-Cr interface morphology and electronic struct., photoemission and band struct., calcs. study 2−82460
Si-d metal interface, interface, O_2 interaction, photoemission investig. 2−110474
Si-enriched layers on Ni, obtained by CVD, characterisation 2−105084
Si-F amorphous film, grown from SiF_2 disproportionation, F conc. determ. 2−92021
Si-Fe contacts, sputter deposited, barrier height meas. 2−110473
Si-$In_{2-x}Sn_xO_{3-y}$ p-i-n solar cell, reactive sputtering fabrication 2−57698
Si-$In_{2-x}Sn_xO_{3-y}$ solar cells, EBIC response anal. 2−88436
Si-InGaSn, contact potential difference *(Chinese)* 2−92748
Si-metal bilayer, laser writing for optical storage, TEM and electron diffr. study 2−91011
Si-metal contacts, fabricated by chemical reduction and electroless methods, barrier heights 2−110471
Si-metal diode, ion beam sputtering and etching prep. and elec. props. 2−104488
Si-metal interface, low temp. intermixing reactions 2−115579
Si-metal Schottky barriers, photovoltaic props. implications for grating solar cells 2−116828
p-Si-Mg solar cells, fundamental props. 2−88442
Si-Ni interface, ion beam mixing, expt. study 2−66376
Si-Ni interface, Ni_2Si thermal formation, ion irrad. enhancement 2−56369
Si-$NiSi_2$ interface, lattice imaging and defects 2−66378
Si-Ni(Cr) interface, chem. bonding and density of states, UPS and LCAO calc. 2−110476
Si-on-sapphire, amorphous, ion implanted, time-resolved optical transmission meas. during pulsed laser annealing 2−61027
Si-on-sapphire, cryst. defects reduction by room temp. ion implantation 2−92012
Si-Pd interface, silicide reactions induced by millisecond laser pulses, Rutherford backscatt. study 2−76495
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
Si-Pd_2Si interface, lattice imaging and defects 2−66378
Si-Pd_2Si interface anal. of high resolution electron microscope images 2−115611
Si-Pd(Ag) on Si (111)7×7, struct. studies of Schottky barrier formation by surface EXAFS 2−110174
Si-polypyrrole film photoelectrochemical solar cells, stability against electrode oxidation 2−78218
Si-polypyrrole photovoltaic devices, photoelectrochemical and Schottky cells 2−78217
Si-Pt, interface states, XPS study 2−82423
Si-PtSi Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Pt(Pd)(Ni) interface bonding, XPS study 2−110477
Si-Ru contact, Schottky barrier height, effect of silicide form. 2−104466
Si-sapphire interface, high resolution TEM study 2−66380
Si-sapphire SOS, heteroepitaxial, hydrogenation induced improvement in electronic props. 2−66669
Si-$Si_{1-x}Ge_x$ epitaxial multilayer films, electron mobility enhancement 2−115921
silicon continued
Si-Si_3N_4, interface anal. using spectroscopic ellipsometry 2−79647
Si-Si_3N_4, thin film composition and thickness determ. using elastic backscattering 2−104177
Si-Si_3N_4 interface, defect evolution, synchrotron X-ray topographic obs. 2−98471
Si-SiGe/TiO_x/Pt tandem type amorphous solar cells, spectral response width, plasma anal. 2−83487
Si-SiO_2, electron irrad., carrier fluctuations and trapping, capacitance study 2−115898
Si-SiO_2, interface-state generation during electron avalanche injection 2−82416
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Si-SiO_2, MOS capacitance, surface pot. and surface states 2−72059
Si-SiO_2, MOS inversion layer, stress induced supercond., electron-phonon coupling 2−56702
Si-SiO_2, MOSFET inversion layer, energy loss of warm electrons, Shubnikov-de Haas study 2−56703
Si-SiO_2, patterned surface, planarisation using ion beam erosion 2−67577
Si-SiO_2, Si seeded oscillatory epitaxial growth by CW laser irrad. 2−99329
Si-SiO_2, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
Si-SiO_2 charge coupled struct., surface charge transport, losses, temp. depend. 2−115851
Si-SiO_2 dielec. props., built-in charge, pulsed annealing effects 2−72066
Si-SiO_2 interface, atomic roughness, oxidation parameters influence 2−56372
Si-SiO_2 interface, atomic struct., ion backscatt. channelling study 2−104172
Si-SiO_2 interface, Au doped, chemical bond model for Au surface states 2−110480
Si-SiO_2 interface, built-in charge, localisation depth, double elec. layer 2−115908
Si-SiO_2 interface, elec. props., negative bias-temp. test influence 2−77190
Si-SiO_2 interface, elec. characts. 2−92770
Si-SiO_2 interface, electron irrad., trapped charge sites, XPS study 2−77140
Si-SiO_2 interface, fixed charge density meas. for thin oxides 2−110481
Si-SiO_2 interface, Fowler-Nordheim tunnelling 2−82462
Si-SiO_2 interface, Si ion implantation, defects, deep levels, annealing, C-V characts. study 2−61403
Si-SiO_2 interface, slow and fast states induced by hot electrons, expt. study 2−87395
Si-SiO_2 interface, two-dimensional systems, electronic props., review 2−82467
Si-SiO_2 interface electronic struct. 2−56711
Si-SiO_2 interface in MOS struct. positive state generation during Fowler-Nordheim tunnelling 2−77189
Si-SiO_2 interface morphology 2−56371
Si-SiO_2 interface props. studied by constant capacitance DLTS method 2−61606
Si-SiO_2 interface recombination velocity 2−56713
Si-SiO_2 interface state density determ., single HF approx. 2−115906
Si-SiO_2 interface states, H_2 annealed, stress behaviour 2−56712
Si-SiO_2 interface states determ. by thermally-stimulated current method *(Chinese)* 2−66642
Si-SiO_2 interface states, effect of trichloroethylene, C-V measurement techniques 2−72065
Si-SiO_2 interface states, AC field effect study 2−115897
Si-SiO_2 interfaces, electron trapping, injection mode dependent phenomena 2−66655
Si-SiO_2 junction, interface electronic struct. 2−110485
Si-SiO_2 layers in MOS n-p junctions, electrochemical doping with As^+, diffusion coeff., C-V plots 2−66287
Si-SiO_2 MOS interface states, optical excitation by IR light 2−56714
Si-SiO_2 MOS struct., interface charge inhomogeneities, surface photovoltage meas. 2−115899
Si-SiO_2 MOS struct. etched in chloroform RF discharge, charge props. *(Russian)* 2−61592
Si-SiO_2 MOS struct. with $PbTiO_3$ layer, electronic props., laser annealing effect 2−82792
n-Si-SiO_2 MOS structure, interface minority carrier traps, optical DLTS study 2−77186
Si-SiO_2 MOS system, interface state generation 2−87408
Si-SiO_2 MOSFETs, fabrication in laterally seeded epitaxial Si on SiO_2 2−92756
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
Si-SiO_2 struct., Si MBE growth, RHEED study 2−92757
Si-SiO_2 structures, traps in transition region, TSCR study 2−98754
Si-SiO_2 system, interface state generation by photoinjecting electrons from Al field plate 2−66603
Si-SiO_2 system, origin and elimination of defects in thermally grown SiO_2 2−65982
Si-SiO_2 system, photoinjection, carrier trapping 2−77198
Si-SiO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
Si-SiO_2-Al MOS struct., H_2 anneal effects on metal-semicond. work function difference 2−92771
Si-SiO_2-Al_2O_3 struct., radiation effects *(Chinese)* 2−92761
n-Si-SiO_2-SnO_2, solar cell, photovoltaic and elec. props. 2−62476
Si-SiO_2-electrolyte, SiO_2 thin films, conduct. and electroluminescence study *(Russian)* 2−87872
Si-SiO_2-metal system, trapping energy distrib. of mobile ions at interfaces, various metal gates *(Chinese)* 2−92765
Si-SiO_x, MOS inversion layer high field electron vel., time of flight technique 2−56704
Si-SiO_x-Ag MOS solar cell degradation; TEM and elec. study 2−93908
n-Si-SiO_x-SnO_2/In_2O_3 solar cell, edge leakage suppression at low illumination levels 2−57706
Si-silicide interfaces, electronic struct., review 2−115847
Si-Sio_2 interface, localised intrinsic Si gap states 2−92714
n-Si-SnO_2-n-CdSe electrolyte tandem junction solar cells 2−105556
Si-Ti (Ni) interface, laser and electron beam irrad., silicide form. 2−66377
Si+F reaction, gas phase products anal. 2−83409
Si+OCS chemiluminesc. reaction, SiS(a Σ^+) formation, dynamic constraints 2−105487
Si^++C-foil, absolute L-shell Auger electron yield meas. 2−75393

silicon continued
$Si^+ + H^+$, charge transfer ionisation at thermal energies, reaction rates 2−59923
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
Si(Li) detector block design features 2−64770
Si(Li) detector parameters, electron and X-ray large doses effect, expt. study 2−85496
Si(Li) p-i-n semiconductor detectors, optical method for surface channel study 2−70053
SiO_2 interface degradation and minority carrier lifetime effects of laser beam processing 2−61609
SiO_2/Si, sputtering, high resolution, using focused Ga^+ beam 2−116327
SiO_2-Si interface, H ion elec. behaviour 2−61634
SiO_2-Si interface effects in avalanche injection of electrons 2−56719
SiO_2-Si interface states and charge generation by electron tunnelling 2−56720
SiO_x film, semi-insulating polycryst., optical absorpt., depend. on annealing conditions 2−61999
^{28}Si, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
^{31}Si radioactive marker studies of metal silicide form., computer simulation 2−86940
^{31}Si radioactive marker studies of metal silicide form., computer simulation 2−98334
Si(100)-SiO_2 inversion layers, final-state interaction and intersubband spectroscopy 2−56698
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
Si(111)-Ni interfaces and thin films, valence photoemission study 2−105044
Si(111)-Pd interface, ion beam crystallography study 2−115613
SnO_2/In_2O_3-Si structure with tunnel-transparent insulating layer, elec., photoelec. and luminesc. props. 2−77159
SnO_2/n-Si, texturized heterojunction solar cell, spray pyrolysis prep. 2−105567
SnO_2/n-Si polycrystalline solar cells, spray-deposited, performance parameters 2−83497
SnO_2/n-Si solar cell, low-temp. CVD of SnO_2 film on Si, cell efficiency and stability 2−57713
SnO_2-Si solar cell, barrier height, temp. and voltage depend. 2−78219
SnO_2-SiO_x-nSi solar cells, diode characts. and open-circuit voltage 2−99809
Si:B(P), heavily doped, defect formation under electron irrad. 2−103822
Ta-Si Schottky barrier structures, effect of interfacial impurities 2−82435
$TaSi_2$/Si composite structs., oxidation kinetics in dry O_2 2−105349
Ti/Si system processing using multiscanned electron beam, $TiSi_2$ formation 2−104180
$TiSi_2$-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
V thin films, on oxidised Si wafers, scanning Auger microscopy studies on high-temp. annealing 2−76863
VO_x/V_3Si/Si, semiconductor-superconductor-semiconductor, Josephson junction fabrication *(Japanese)* 2−82537
YIG:Si, mag. domain struct., photoinduced mag. effects 2−104672
YIG:Si, magnetocrystalline anisotropy of Fe^{2+} at zero temp. 2−56848
YIG:Si garnets, rapid diffusion processes 2−71719

silicon alloys
see also Ge-Si alloys
α-particle irrad. effects on supercond. and struct. props. 2−98167
misch metal-Ni-Si alloys, H absorpt.-desorpt. characts. 2−87024
rare earth ternary alloys, RPtSi (R=La, Ce, Pr, Nd, Sm, Gd), cryst. struct. 2−65922
rare earth-Si-Fe alloys, self-powdering, X-ray diffr. and electron microscopy invest. *(Chinese)* 2−62249
silicides, growth kinetics at planar binary diffusion couples, thin film and bulk cases 2−86943
steel, Si, grain orientated, magnetomech. damping and mag. domain struct. 2−56907
steel, Si, grain oriented, laser processing for reducing core loss 2−72255
steel, Si, grain oriented sheets, dynamic magnetostriction meas. 2−56902
steel, Si (3 wt.%), grain oriented, for transformers, mag. losses 2−72272
steel, Si-Al bearing electrical, internal oxidation and mag. props., annealing conditions influence 2−72724
V_3Si, thermal and elec. cond. 2−56548
Ag-Si phase, interdiffusion form., surface struct. anal. by quantitative AES 2−67159
Al-Cu-Mg-Mn-Si-Fe sheet, fracture toughness and crit. crack length, inhibiting layer effect 2−72826
Al-Fe-Si alloys, commercial purity, DC casting, form. of intermetallic cpds. 2−88060
Al-Mg-Si, J_{Ic} evaluation by R-curve and stretched-zone-width methods *(Japanese)* 2−111399
Al-Mg-Si (6000) series alloys, exfoliation corrosion obs. in water 2−93671
Al-Mg-Si-Cu-Cr, quench sensitivity, effects of Cu and Cr 2−105174
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al-Si, as-cast and age-hardening, wear, friction and surface topography in dry sliding 2−83237
Al-Si, bicrystal grown from melt, crystal boundary behaviour *(Japanese)* 2−104173
Al-Si, fracture, fractographic features 2−111302
Al-Si, single wafer plasma etching of Al and Al-Si alloys 2−72878
Al-Si, thermal cycling influence on alloying elements soln. 2−72738
Al-Si (0.9 wt.%) fibres, sintering in presence of liq. phase, capillary-porous struct. prep. 2−67246
Al-Si (11.3 at.%), fast quenched eutectic alloy, effect of heat treatment on supercond. props. 2−61654
Al-Si (2 wt.%), primary dendrite arm spacing, solidification conditions effects *(Japanese)* 2−57342
Al-Si (20 wt.%), hypereutectic alloy, effect on cast struct. of P and Na additions *(Japanese)* 2−55890
Al-Si low-activation alloys, fusion reactor suitability 2−64649
Al-Si/Si ohmic contacts to shallow junctions 2−98741
Al-Si-Ge, amorphous, superconducting transition *(Chinese)* 2−104520
Al-Si-Mg-Sr, hypoeutectic, modified by pure Sr, microstruct. and mech. props. 2−99386
Al-Si-Mg-ZiO_2, dispersion hardening 2−57362

silicon alloys continued
Al-Si-Ni-Mg-Cu, Ni, Mg, and Cu additions effect on tensile strength, hardness, abrasion and thermal expansion *(Korean)* 2−57418
Al-Si-Sb alloys, struct. modification with Sb additions *(Chinese)* 2−62130
Al-Si(Cu) ingots, equiaxed cryst. formation by electromag. stirring *(Japanese)* 2−83105
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
AlSi alloy, liq. quenched, X-ray diffr. line broadening, appl. of Voigt function in single-line method 2−81626
Au-Si, electronic props. 2−98512
Au-Si phase, interdiffusion form., surface struct. anal. by quantitative AES 2−67159
$Au_{0.81}Si_{0.19}$, liquid ^{195}Au diffusion coeff., shear cell meas. 2−81997
C fibre reinforced Al-Si, TiC barrier coating effect on reaction between components 2−99373
Ce-Si, ferromagnetic dense Kondo behaviour 2−104662
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
Ce-Si system, nonmagnetic-magnetic transition 2−61713
$CeCo_2Si_2$, X-ray L_{III} absorpt. spectra of tetravalent Ce *(Russian)* 2−99218
$CeCu_2Si_2$, mixed valence, X-ray absorption spectra 2−76991
$CeCu_2Si_2$, mixed valence state, elec. resist., mag. field and press. effects 2−110329
$CeCu_2Si_2$, superconductivity 2−66691
$Ce_{1-x}La_xMn_2Si_2$, mag. props. and struct. 2−87499
CeM_2Si_2 (M=Fe, Co, Ni, Cu), valence state of Ce rel. to thermoelec. power, X-ray absorpt. spectra meas. 2−61448
$CePd_3Si_x$, Ce valence state, Si addition effect, lattice const. and susceptibility meas. 2−97997
Ci-Si-B, amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co-Fe-Si-B amorphous ribbons, with induced mag. anisotropy, influence of applied tensile stress on power loss 2−82686
Co-Si film, laser melted, lamellar eutectic solidification 2−116431
Co-Si-B with and without group IV-VIII transition metals, amorphous wire prod. by melt spinning into rotating water, mech. props. 2−105104
$Co_{70.3}Fe_{4.7}Si_{15}B_{10}$, amorphous, crystn., Mossbauer and X-ray diffr. study 2−103636
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous, annealing effects and short range ordering 2−82588
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, surface conditions influence in mag. props. 2−82593
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ ribbons, domain pattern annealing effect 2−92978
CoSi (100) and $CoSi_2$ (110), interaction with O_2, LEED, AES, and UPS STUDY 2−104162
Co_2Si_3, chimney-ladder structs., formed by high-temp. and pressure treatment 2−88022
Co_xSi_{1-x} amorphous sputtered films, anomalous Hall effect 2−71950
Cr-Si, mag. first-order transition, susceptibility and latent heat study 2−98880
Cr-Si alloy films, RF sputter deposition 2−99334
Cr-Si alloys, Cr-rich, thermal cond. meas., 3-300K, rel. to antiferromag. transition 2−92567
Cr-Si-Fe (2, 0.5 wt.%), mag. behaviours in commensurate spin density wave state 2−92882
CrSi, dil. alloys, first order phase transition from paramag. to commensurate SDW state 2−116003
Cr_3Si, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
Cr_3Si-type struct., at. dias. in voids rel. to unit-cell dimensions 2−109747
Cu coated shell char particle reinforced Al-Si composites, prep. and props. 2−67258
Cu-Al-Si, β-type alloy, internal friction amplitude dependence meas. *(Russian)* 2−99469
Cu-Al-Si-Co (2.8, 1.8, 0.4 wt.%), fine grained, creep 2−105219
Cu-Si, FCC alloy, partial grain boundary dislocations, periodic arrays 2−91968
Cu-Si, rolled, microstruct. and texture 2−111204
Cu-Si liq. alloy, cpd. forming, configurational entropy and regular associated model 2−97890
Cu-Si solid soln., H_2 solubility, thermodynamic props. *(Russian)* 2−92207
Cu-Si thin films, simultaneous X-ray EDS meas. of thickness and composition *(Chinese)* 2−109630
Cu-V-Si superconducting filament produced by glass-coated melt spinning 2−83066
Cu_3Si and Cu_4Si, recrystn. and brittleness threshold temp. 2−99546
$Er_5Si_3C_x$, solubility of C and its effects on struct., X-ray and hardness study 2−109997
$EuCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
$EuPd_2Si_2$, mixed valence cpd., mag. susceptibility, lattice const., Mossbauer isomer shift 2−56510
Fe, cast fatigue strength, notch sensitivity obs. 2−116534
Fe-Al-Si, sputtered granules, characters, before and after annealing *(Russian)* 2−67368
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-B-Si metallic glass, crystn. kinetics, DSC study 2−71364
Fe-B-Si-C alloy, amorphous, effect of field annealing angle on mag. props 2−82671
Fe-B-Si-C amorphous ribbon, mag. props., deleterious effect of Al 2−87525
Fe-B-Si-C(Co), Metglas 2605, magnetostriction and mag. anisotropy, meas. using magnetisation loops under stress 2−77352
Fe-B-Si-Co(C), Metglas 2605, Mossbauer and magnetoelastic coupling 2−77432
Fe-Bi-Si metallic glass, form. and mag. props. 2−103648
Fe-Cr-Co-Wi-Si-Al, mag. props. and cryst. struct. *(Russian)* 2−92970
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-Cr-Si, ion irradiation, void swelling and solute segregation 2−85212
Fe-Cr-Si (18,2 wt.%), corrosion resist. meas. in coal gasification atm., Si additions' effect 2−93668
Fe-FeSi, hypereutectic films, solidification, lamella to dendritic struct. transition 2−57341
Fe-FeSi, liquid hypoeutectic alloy, solidification, obs. by droplet method 2−67309
Fe-Mn-Si, shape memory effect in $\gamma \rightleftharpoons \epsilon$ martensitic transform. 2−83114
Fe-Mn-Si (30, 1 wt.%), single crysts., hardening due to pre-existing ϵ-martensite 2−116493
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217

silicon alloys continued
Fe-Ni-Co-B-Si-Al, amorphous, initial permeability and long-time stability, freq. depend. 2−72258
Fe-Ni-Si (18,3 at.%), martensite aging, precipitated intermetallic phase struct., electron microscopy study *(Russian)* 2−93514
Fe-Si, corrosion cracking, role of H 2−67653
Fe-Si, dilute alloy, electron irrad., impurity-interstitial trapping sites, mag. aftereffect spectra study 2−56895
Fe-Si, elec. steel grain-orientated sheets, commercial production, review 2−83243
Fe-Si, elec. steel sheets, nonoriented, mag. core losses reduction, review 2−82649
Fe-Si, electric steel sheets, fully processed mag. anisotropy, cutting strains effect 2−82590
Fe-Si, electric steel sheets, semi-processed, mag. anisotropy, cutting strains effect 2−82591
Fe-Si, electric steel sheets, mag. losses with large biasing DC flux density 2−82650
Fe-Si, electrical steel, mag. induction meas. in weak mag. fields 2−89753
Fe-Si, electron irrad., defect cluster nucleation at coherent twin boundaries, electron microscopy study 2−66036
Fe-Si, electrotechnical steel type 2011, mag. induction anisotropy determ. 2−92898
Fe-Si, grain orientated, mag. loss meas. using Epstein square, error anal. 2−79620
Fe-Si, grain orientated elec. steel, decarburization rate related to surface oxidation, math. model 2−83284
Fe-Si, grain orientated laminations, coercivity meas. 2−82647
Fe-Si, grain oriented, domain struct. obs. using high voltage SEM 2−87527
Fe-Si, grain-oriented and amorphous ribbon, power loss, mag. flux harmonics and domain motion meas. 2−82648
Fe-Si, high permeability elec. steel, Goss texture, surface energy and primary texture effects 2−83135
Fe-Si, multistereo synchrotron X-ray topography, defects depth determ. 2−91722
Fe-Si, oxidation, theoretical anal. 2−67618
Fe-Si, oxide layer composition, influence on mag. props. 2−56893
Fe-Si, oxide scale removal, interface exposure 2−105383
Fe-Si, plastically deformed sample, near-surface dislocation sources 2−98088
Fe-Si, rolling rel. between strain in deform. zone and texture 2−72716
Fe-Si, single cryst., domain struct. depend. on freq. of demagnetising fields 2−87526
Fe-Si, surface segregation temp. depend. *(Russian)* 2−86999
Fe-Si, wetting of TiC 2−67597
Fe-Si (1-4 wt.%), simultaneous creep and oxidation, 973-1073K 2−105214
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499
Fe-Si (3 wt.%), cold rolling induced mag. anisotropy use for cryst. defect analysis *(Russian)* 2−67574
Fe-Si (3 wt.%), cryst. defects, neutron diffr. topography study 2−86519
Fe-Si (3 wt.%), domain struct. dynamics and EM losses, relationship to cryst. lattice *(Russian)* 2−87524
Fe-Si (3 wt.%), fatigue crack tip strain loop under single overload 2−77900
Fe-Si (3 wt.%), grain orientated sheets, effect of spike closure domains on remanence and magnetisation curve 2−82630
Fe-Si (3 wt.%), grain oriented, magnetostriction meas. at high stress levels 2−82692
Fe-Si (3 wt.%), grain orientation and core loss relationships in high permeability materials 2−83245
Fe-Si (3 wt.%), mag. loss model 2−82655
Fe-Si (3 wt.%), mag. props. meas. using single strip tester and Epstein frame 2−83308
Fe-Si (3 wt.%), magnetisation reversal propag., Barkhausen expts. 2−82656
Fe-Si (3 wt.%), magnetoelastic hysteresis loop rel. to phase depend. mech. energy of vibrs. *(Russian)* 2−98927
Fe-Si (3 wt.%), on-line, single sheet and Epstein power loss testing 2−83307
Fe-Si (3 wt.%), plastic deform. in micro-and macro-stress regions, 293 to 773K *(Russian)* 2−99484
Fe-Si (3 wt.%), plastic deform. around fatigue crack near threshold 2−105315
Fe-Si (3 wt.%), primary recrystn. grain size, influence on secondary crystn. and texture *(Russian)* 2−116458
Fe-Si (3 wt.%), recrystn. texture, effect of deform. methods *(Russian)* 2−99442
Fe-Si (3 wt.%), rotational power loss meas., 30 to 100 Hz, using torque magnetometer 2−82651
Fe-Si (3 wt.%), ruckling process, surface domain wall obs. 2−82632
Fe-Si (3 wt.%), surface-active Sb influence on recrystn. and texture *(Czech)* 2−67374
Fe-Si (3 wt.%), synchrotron X-ray topography, multistereoscopic imaging technique 2−81624
Fe-Si (3 wt.%), total power loss meas. 2−79621
Fe-Si (3 wt.%) sheets, grain-oriented, magnetisation mechanisms 2−82657
Fe-Si (3$^1/_4$ wt.%), grain oriented, magnetostriction effects at angles to the rolling direction 2−82691
Fe-Si (3$^1/_4$ wt.%) grain-oriented elec. steel strip, magnetostriction, stress and temp. effects meas. 2−82690
Fe-Si (33 at.%) amorphous films, domain struct. characts. 2−82685
Fe-Si (3.25 wt.%), quasibrittle fracture nucleation under strain twinning conditions *(Russian)* 2−62193
Fe-Si (3.25 wt.%) plate, fast crack development mechanism in parallel twin system 2−57482
Fe-Si (3.5 wt.%), grain-oriented, plastic deform. and fatigue crack growth 2−72785
Fe-Si (3wt.%) sheets, grain-oriented, core loss heterogeneity 2−72260
Fe-Si (3wt.%) single crystal, saw tooth domain struct. and charged wall observed in gradient field *(Japanese)* 2−77321
Fe-Si (5 wt.%), supercooled ingots, cryst. struct. features 2−67318
Fe-Si (6 at.%) single crystals, strain rate vs. stress depend. 2−105240
Fe-Si (≤1wt.%), dil. alloy, oxidation in CO_2 2−67617
Fe-Si [110] tilt boundaries and grain boundary dislocations TEM study 2−76461
Fe-Si alloy, single cryst., mag. domain walls, X-ray diffraction contrast obs. 2−87521

silicon alloys continued
Fe-Si alloys, polycrystalline ribbon form, rapid quenching technique *(Japanese)* 2−116475
Fe-Si bicrystalline sample, magnetisation reversal dynamics 2−72259
Fe-Si electric steel, disperse excess phase formation 2−105165
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Si ribbon-form alloys, rapid quenching preparation techniques, soft mag. props. *(Japanese)* 2−67240
Fe-Si sheets, mag. domain struct. and stray field behaviour, grain orientation effects 2−82631
Fe-Si/Zn, diffusion couples, periodic form. of FeSi bands 2−76755
Fe-Si-Al, dil. alloy, mech. props., elec. cond. and mag. losses meas. 2−83217
Fe-Si-Al, electric steel sheets, mag. aftereffects meas. 2−82670
Fe-Si-Al, secondary recrystn. kinetics, Al influence *(Russian)* 2−93417
Fe-Si-Al, Sendust, order-disorder transform. and dislocation configuration, TEM study 2−83108
Fe-Si-Al, Sendust polycrystals, plastic deform. *(Japanese)* 2−57416
Fe-Si-Al, Sendust polycrystals, deformability *(Japanese)* 2−57417
Fe-Si-Al, Sendust single cryst., plastic deform. *(Japanese)* 2−57415
Fe-Si-Al nonoriented electrical sheet, oxide film form. and props., effect on material quality, AES obs. *(German)* 2−105386
Fe-Si-Al Sendust ribbon, rapidly quenched, annealing effect on coercive force 2−72273
Fe-Si-B, mag. induction, effect of Sb and Sn during secondary recrystn. 2−83244
Fe-Si-B amorphous wires, produced by in-rotating-water spinning method, mech. props. 2−111233
Fe-Si-B metallic glasses, substituted, saturation magnetisation 2−87481
Fe-Si-C, grey, microstruct. and abrasive wear mechanism *(French)* 2−116557
Fe-Si-C, melts, crystn. of primary graphite 2−72687
Fe-Si-C, primary stage of bainite reaction, TEM obs. 2−83109
Fe-Si-C, secondary stage of bainite reaction, TEM obs. 2−83110
Fe-Si; mobility transfer loci owing to orientation aftereffect for steadily moving 180° Bloch wall 2−87528
Fe-Si(Mo)(C), liq., density, influence of Si, Mo and C 2−61048
Fe-Si(5 at.%), high temp. phonons, neutron inelastic scatt. meas. 2−56121
Fe-Si(6.5 wt%), ribbon formed by melt spinning technique, mag. props. 2−110603
Fe-V-Si-Mn-C, internal friction meas. *(Russian)* 2−88115
$Fe_{81.5}B_{14.5}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
$Fe_{81.5}B_{14.5}Si_4$, metallic glass, struct. relax., effect of quench rate 2−81683
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
$Fe_{81}B_{13.5}Si_{3.5}C_2$, amorphous, Mossbauer study 2−99013
$Fe_{81}B_{13.5}Si_{3.5}C_2$, Metglas 2605SC, at. rearrangements and cryst. transforms., Mossbauer study 2−103655
$Fe_{83}B_{14}Si_{1.5}C_{1.5}$, metallic glass, crystn. kinetics study using thermoelec. power meas. 2−86575
$Fe_{80}B_{15}Si_{5-x}Ge_x$, amorphous, Curie temp. and crystn. behaviour 2−87496
$Fe_{82}Bi_{12}Si_6$, Metglas, ferromag. reson. absorpt. and ferromag. antireson. transmission meas. 2−72353
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study 2−72376
$Fe_{67}Co_{18}B_{14}Si$, Metglas 2605CO, transverse field annealed, transverse susceptibility and magnetisation 2−72268
$(Fe_{0.063}Co_{0.937})_{75}Si_{15}B_{10}$, amorphous, zero-magnetostriction induced mag. anisotropy, formation kinetics meas. 2−72189
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous struct., X-ray diffr. study 2−65866
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous zero magnetostriction alloy, mag. aftereffect 2−72290
$Fe_5Co_{70}Si_{15}B_{10}$, glassy, free vol., positron annihilation study 2−104987
$(Fe_xCo_{1-x})_{72}Si_2B_{26}$ glasses, ^{57}Fe substitution effects, Mossbauer study 2−110738
$Fe_{74}Cr_6P_{10}C_7Si_3$, amorphous, appearance pot. spectroscopy, electronic struct. effects 2−105005
$Fe_{0.968-x}Mn_xSi_{0.032}$ system, Mossbauer and mag. studies 2−82761
$Fe_{13}Ni_{67}B_{10}Si$, amorphous, critical mag. behaviour, mag. order disorder transition 2−66821
$Fe_{16}Ni_{62}B_{14}Si_8$, amorphous, struct. relax., Mossbauer study 2−72383
$Fe_{47}Ni_{25}B_{15}Si_{10}$ amorphous alloy, ferromag. resonance, neutron effects 2−87597
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{40}Ni_{40}Si_{14}$ $(P_{14})B_6$ metallic glass, positron annihilation, electron irrad. and heat treatment effects 2−104992
$Fe_4Ni_{74}Si_9B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
$Fe_{78-x}R_xSi_{10}B_{12}$, R = Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
FeSi, dilute, mag. relax. on electron irrad. 2−61743
FeSi, mag. susceptibility variation 2−92864
FeSi sheets, effect of stacking on coercivity 2−56887
$FeSi_2$, compositional and chem. state, XPS study 2−77706
Fe_xSi_{1-x} amorphous thin film, mag. anisotropy, Mossbauer and ESR study 2−93087
Fe_xSi_{1-x} ferromag. alloys, amorphous and crystalline, even magneto-optic spectroscopy 2−104857
$Fe_3Si_{1-x}Al_x$, elec. resist. and band struct., density of states at Fermi level 2−61440
$Fe_{75}Si_xB_{25-x}$, glass, crystn., Mossbauer study 2−103637
$Fe_{81.5}Si_4B_{14.5}$ metallic glass ribbon, elec. resist. free volume depend. 2−110322
$Fe_{3-x}V_xSi$, Mossbauer study of Fe hyperfine fields 2−87635
Hf-Nb-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
Hf-V-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
$KbCu_2Si_2$ mixed valence cpd., optical absorpt. signature near 20 meV 2−57111
Mn-Si (25 to 37.5 at.% Si), phase comp. and thermodynamic props. 2−83094
$MnSi_{0.25}$ quenched alloy, cryst. struct., cyclic fourling method, electron diffr. and TEM study 2−91880
Mo-Si amorphous alloy, neutron irrad. effects studied by. positron annihilation 2−103826

silicon alloys continued
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-Si, A15 phase, growth by epitaxy and composition grading 2−71827
Nb-Si, shock synthesis by gun method 2−77769
Nb-Si, supercond., electron beam evaporated, growth morphology, O_2 effects and substrate temp. 2−110207
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Si, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
Nb_3Si, film, production, struct. and Tc 2−110527
Nb_7Si, α-particle irrad. effects on supercond. and struct. props. 2−98167
$Nb_{81}Si_{19}$, amorphous, crystn. under high press. and form. of A15 phase 2−86572
Ni-Al-Si $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-Al(Si), irrad. creep enhancement, 21 MeV deuteron bombardment 2−86750
Ni-Cr-Si-B coatings formed in air, props. of glass-metal coatings *(Russian)* 2−77966
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
$Ni-Ni_2Si_2$ system, microdendritic precipitation 2−111179
Ni-Si, radiation-induced segregation, in situ Rutherford backscattering anal. 2−76679
Ni-Si, radiation-induced segregation, defect prod. rate effect 2−92055
Ni-Si alloy films, RF sputter deposition 2−99334
Ni-Si films, compositional change induced by Ar^+ ion bombardment 2−86753
$NiGa_MSi(Sn)_N$ mixtures, phase diagram invest. 2−67303
$NiIn_MSi(Ge)_N$ mixtures, phase diagram invest. 2−67303
$Ni_{78-x}R_xSi_{10}B_{12}$, R=Re, Ru, Os, Ir, Pd, Pt, metallic glass, thermal stability 2−109681
NiSi, AES depth profiling, ion bombardment effects 2−99234
NiSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
$NiSi_2$ band struct., UPS study and APW calc. 2−105042
$Ni_{1-x}Si_x$, sputtering yield, Rutherford backscatt. study 2−57230
Ni_3Si, ion and electron irrad., near-surface segregation, TEM and electron diffr. study 2−86883
Ni_3Si, self-consistent energy bands and bonding 2−66436
$NiSi_2(NiSi)(Ni_2Si)$, ion bombardment damage and annealing, sheet resist. study 2−56044
Pb-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
$(Pd,Si)Al_2$ metastable phase, cryst. struct. and phase anal. *(German)* 2−103694
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
$Pd_{77.5}Cu_6Si_{16.5}$, H in amorphous alloys 2−81963
$Pd_{77.5}Cu_6Si_{16.5}$, metallic glass, diffusion rates of Au 2−104057
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
Pd_2Si (PdSi) 2−56044
Pd_4Si, metallic glass, multicomponent, Voronoi polyhedra, struct. characterisation 2−109680
$Pd_{80}Si_{20}$ evaporated film, amorphous, radioactive tracer diffusion 2−92429
$Pd_{80}Si_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Pd_{80}Si_{20}$, metallic glass, radiation damage by heavy ions 2−103853
$Pd_{0.775}Si_{0.165}Cu_{0.06}$, amorphous, acoustic wave attenuation and vel. change, 0.05 to 90K 2−56101
$Pd_{80}Si_{14.8}Cu_{5.2}$ eutectic, laser beam interaction 2−99435
PtSi, AES depth profiling, ion bombardment effects 2−99234
PtSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
Pt_2Si(PtSi), ion bombardment damage and annealing, sheet resist. study 2−56044
Re-Si, phase diagram and supercond. transition temp., expt. study 2−98784
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Sc-Si-M (M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. characts. 2−72669
Si/Pt-Si, contact reaction, Auger electron spectroscopy study 2−72058
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si-Al, amorphous thin film, thermopower, elec. cond. and optical absorption 2−72079
Si-AlSi, Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Al(Ga), refinement of boundaries of regions of homogeneity 2−111168
Si-As surface alloy, supersaturated, formation by ion implantation and pulsed electron beam annealing 2−81801
Si-Au-Al, distrib. ratio of Al, zone refining with temp. gradient 2−71487
Si-Fe, domain structs. and stress distrib. due to ball-point scratching 2−82629
Si-Mn, supersaturated solid soln., Mn interstitials, disintegration kinetics *(Russian)* 2−92222
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
Si-PtSi Schottky barrier diodes, implanted P distrib., barrier height 2−82457
Si-Pt(Pd)/Si, shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si-R-M (R=Y, Ce, Ti, Zr, Hf, Sc, and M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. characts. 2−72669
Si-Sn, phase relations and multiphase diffusion 2−99400
Si-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
Si-VSi_2, directional eutectic, structure, comp. dependence, expt. study *(Russian)* 2−99410
SiFe laminations, skew domain wall bowing and shearing, asymmetric roll orientation 2−82680
SiFe, stacked HI-B sheets, domain interactions, eddy current losses 2−82679
$SiFe_xCo_{1-x}$, ferromag., thermal expansion, mag. contribution meas. 2−86910
$SiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
Sn-Si-Ga-As, phase equilibria, calc. of phase diagrams 2−66170
Ti Si, liq., enthalpy of form. 2−105127
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2−99440
Ti-Al-Sn-Zr-Mo-Si (6, 2, 4, 2, 0.1 wt.%), H_2 effect on fatigue crack growth 2−72806

silicon alloys continued
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
Ti-Si enriched layer for carburization protection of Hastelloy X 2−116619
V-Si, liq., enthalpy of form. 2−105127
VSi_2 (V_3Si), band struct., LCAO EHT calc. 2−82219
V_3Si, amorphous supercond. film, crit. temp., thermal annealing effects 2−92801
V_3Si, anomalous E_g phonon and electronic Raman scatt. 2−57089
V_3Si, band struct., photoemission with synchrotron radiation *(Japanese)* 2−93377
V_3Si, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
V_3Si, Debye-Waller factor, temp. depend., 8 to 293K 2−56143
V_3Si, electron phonon spectral function, supercond. thermodynamic props. 2−104540
V_3Si, electron props. and permittivity, optical absorpt. spectra study *(Russian)* 2−93216
V_3Si film, magnetron sputtering and supercond. props. 2−77738
V_3Si, film, production, struct. and Tc 2−110527
V_3Si, for fusion reactor magnets, ion and neutron damage studies 2−110549
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
V_3Si, neutron irrad., normal-state resistivity anal. 2−56550
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2−86736
V_3Si phase, type of formation and homogeneity 2−86894
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
V_3Si, pressure induced electronic changes 2−82513
V_3Si, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
V_3Si, supercond., produced by pulsed laser annealing 2−56766
V_3Si superconducting film, far IR laser thermal spectroscopy 2−98805
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
V_5Si_3, thermal and elec. cond. 2−56548
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101
WSi_x compounds, chem. bonding, XPES and X-ray emission study 2−91862
$Y_3(Ni_{0.5}Si_{0.5})_2Si_2$, Ta_3B_4-type cryst. struct., X-ray diffr. study 2−97991
$YbCu_2Si_2$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$YbCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520

silicon compounds
see also quartz; silicon alloys; silicones
alkoxides, hydrolysis kinetics rel. to glass form. 2−76316
antireflection coatings design criteria for optimising plasma-assisted CVD nitride films, application in solar cells 2−105085
cordierite based crystallised glass, damage resistance of fortified surfaces 2−111339
float glass, effect of 5% hematite on devitrification behaviour, Mossbauer and X-ray study 2−109686
metal-SiO_2-n-Si structure Schottky barriers tunnelling exponent 2−82441
metal-SiO_2-Si structures, voltage and freq. depend. of simulated RF plasma annealing 2−66639
methane formation in hydrogen-implanted graphite and carbides, in fusion reactor 2−80216
mullite powders, effect of explosive shock waves 2−98199
nitride films, room temp. formation by N ion implantation into Si 2−86693
organo-silicon thin films, plasma-polymerised, struct. of energy levels 2−66428
oxides, motive and thermal, UV reflectance study 2−104977
pyrosilicates, struct., IR and Raman vibr. spectroscopy 2−87759
β'- Sialon, density, microstruct. and strength, heating rate effects 2−116467
α-Sialon, stability at high temps. 2−83145
silanes, IR spectra, stretching freq., anharmonicities, and dissoc. energies 2−80588
silica forms, lone pair compounds, charge distrib. determ. 2−81707
silicate classification based on cryst. chem. 2−103730
silicate float glass, ultracold neutrons, specular refl. coeff. *(Russian)* 2−115105
silicate glasses, Raman spectra, curve fitting 2−116161
silicates, bonding, computational quantum chemistry study 2−97980
silicates, sol-gel transition, gel-to-glass conversion 2−76315
SiO maser in Orion, time var. of vel. struct. of maser emission envelope 2−68875
tetraethoxide, sol-gel transition in hydrolysis rel. to form of glass fibre and films 2−77793
AgI-SiO_2, enhanced ionic cond., AC elec. cond. meas. 2−82011
Al/SiO-B_2O_3/Au thin film struct., elec. cond. and field electron emission, theoretical model *(French)* 2−72076
Al-Si_3N_4-SiO_2-Si structure, AES and internal photoelec. effect technique meas. 2−82163
Al-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Al-SiO_2-Si, B-ion implanted MOS structure, radiation defect spectra study by TSC method 2−66646
Al-SiO_2-Si, MOS capacitor, electron irrad., interface state spectrum, gate bias effect, DLTS study 2−66640
Al-SiO_2-Si, MOS structure, surface state density determ. based on Hill-Coleman technique 2−77192
Al-SiO_2-Si, MOS struct., low temp. var. of oxide change and surface state density conc. under γ-irrad. 2−104496
Al-SiO_2-Si capacitors, avalanche injected, positive charge effects on flat-band voltage shift meas. 2−87394
Al-SiO_2-Si MIS capacitor, DLTS study 2−115896
Al-SiO_2-Si MOS struct., H_2 anneal effects on metal-semicond. work function difference 2−92771
Al-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Al-SiO_2-Si structure, prep. under UHV conditions 2−56716
Al-SiO_2-Si structures, resonant tunnel switching 2−98757
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
Al-SiO_2-SiC, MOS struct., elec. props. meas. 2−72060

silicon compounds continued
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V characts. 2−105555
Al-Te-SiO coating system, reflectivity, graphical representation 2−75521
Al_2O_3-SiO_2, mullite form. kinetics, grain comp. and component activity effects 2−77786
α-Al_2O_3-SiO_2 (fused) compacts, sintering 2−99374
Al_2O_3-SiO_2 mat, thermal cond. meas., for fusion blankets 2−69860
Al_2O_3-SiO_2 mixtures, impurity effect on mullite and kaolinite 2−116450
Al_2O_3-SiO_2 refractory fibre, apparent thermal cond. rel. to phys. props. 2−115475
Al_2O_3-SiO_2-Na_2O, ionic conductor, elec. props. and struct. 2−110030
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896
Al_2O_3-ZrO_2-SiO_2 refractories, props. with different ZrO_2 and SiO_2 concs. 2−88188
Al_2O_3-ZrO_2.SiO_2, AZS, refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560
As-Ge-Si glass, refr. index meas. in IR range using modified GS-5 goniometer *(Czech)* 2−58887
Au/Co/SiO_2 thin film condensate, electrophys. props., heat treatment influence 2−104505
Au/$Si_{12}Te_{48}As_{30}Ge_{10}$/$Al_2O_3$/Al structure, current-voltage characts. 2−61589
Au-SiO_2 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
Au-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V characts. calc., model 2−92775
Au-$SrTiO_3$-SiO_2-Si struct., electron beam deposited, nonvolatile memory props. 2−72068
B_2O_3-SiO_2 gels, crystn. rel. to glass prep. 2−76309
Bi-SiO_2 cermet films, elec. and optical props., H addition effects 2−82505
Bi_2O_3-SiO_2, melt, solubility of Pt 2−71652
(Bi_2O_3+V_2O_5)-SiO_2 flux, HoO_3 solubility determ. by thermogravimetric method, applic. to $R_2Si_2O_7$ single cryst. growth 2−105059
C-SiC, structured composite limiters for ablation control in fusion devices 2−74902
CaO-Al_2O_3-SiO_2, liquid-state interdiffusion using multiatomic ion models 2−86914
CaO-MgO-Ca_2SiO_4=$Ca_4Al_2Fe_2O_{10}$ magnesia-dolomite refractories, thermal equilib. 2−62111
CaO-SiO_2, thermodynamic treatments 2−61167
CaO-SiO_2 melt at 1600°C, tracer diffusivity 2−81999
CaO-SiO_2-CoO melt, viscosity and elec. cond. *(Japanese)* 2−76720
CaO-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
$CaScSi_3O_8(OH)$, cascandite, cryst. struct., X-ray diffr. study 2−98009
$Ca_7(Si_6O_{18})(CO_3).2H_2O$, orientational disorder of diatomic or polyatomic ions 2−81723
$Ca_7Si_{16}O_{40}H_2$, K-phase cryst. struct. determ. 2−86651
$Ca_3Si(OH)_6CO_3SO_4.12H_2O$, carbonate group deviation from coplanarity 2−86650
$CdSiP_2$, Hall study of electrically active centres *(Russian)* 2−56623
$CdSiP_2$, intrinsic defect effect on elec. props. 2−61481
Co/SiO_2 thin film condensate, electrophys. props., heat treatment influence 2−104505
Cu-SiO_2 granular films, elec. props., electron localisation in metallic regime 2−72081
FeO-Al_2O_3-SiO_2, amorphous, spin glass, mag. behaviour 2−72226
GaAs-Si_3N_4 interface quality improvement by surface treatment and annealing 2−110487
p-$Ga_{0.47}In_{0.53}As$:Zn-SiO_2 MIS struct., interface states and field effects meas. 2−98758
Ho_2O_3-SiO_2 system, solid state equilib. rels. in temp. range 1100-1600°C 2−88070
InP-SiO_2 MIS struct. and enhancement mode MISFET, expt. study 2−98760
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
La-Si compounds, X-ray K_β and $L_{2,3}$ emission bands of Si 2−57217
$LiAlSiO_4$-SiO_2 solid solns., ionic cond., temp. and crystal orientation effects 2−86930
Li_2O-Al_2O_3-SiO_2 gels, crystn. rel. to glass prep. 2−76309
Li_2O-Na_2O-SiO_2 system, immiscibility isotherm 2−86882
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
Mg-SiO_x-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
$(Mg_{5.58}Fe_{0.08}^{2+}Fe_{0.2}^{3+}Al_{0.14})(Si_{3.66}Al_{0.34})O_{10}(OH)_8$, lizardite, cryst. struct., polymorphism 2−98008
MgO-Cr_2O_3(Fe_xO_y)-(Al_2O_3)-CaO.SiO_2, fused, retrograde stability of periclase rel. to cracking 2−83103
Mo-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Na_2O-B_2O_3-SiO_2 gel-derived single layer antireflection films 2−77732
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
Na_2O-SiO_2 gels, crystn. rel. to glass prep. 2−76309
Na_2O-SiO_2 gels prep. for gel-glass process, action of atmospheric agents 2−76317
Na_2O-SiO_2-CoO melt, viscosity and elec. cond. *(Japanese)* 2−76720
Na_2O-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
Ni-SiO_2 dispersion hardened alloy made by internal oxidation method, high temp. hardness *(Japanese)* 2−105303
Ni-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
$NiSiF_6.6H_2O$, mag. prop. anomalies *(Russian)* 2−82597
Pd/Si system, intrinsic and Si-stabilised oxides, Auger and UPS study 2−67160
Pd-SiO_2:Na MOS device, H_2 induced flat-band voltage shift 2−61607
Pd-SiO_2-Si struct., isothermal H_2 desorpt. 2−110135
Si:Au-SiO_2 MOS struct., Au related. interface states, quasi-static capacitance study 2−72069
Si/Si_3N_4, plasma enhanced thermally grown film, interface struct. and stoichiometry, backscattering-channelling study 2−56392
Si/SiC system, interfacial energy and Si+C reaction rel. to sintering 2−55981
Si-Al-O system compounds, chem. state plots, line energies ESCA study 2−83425
silicon compounds continued
β-Si-Al-O-N ceramics, translucent, effect of impurities and hot pressing temp. 2−57495
Si-B compounds, high elec. field effect 2−92639
Si-C-Al-O film on Mo, D^+ irradiation effect 2−66081
Si-Ge solid solns. elastic consts., compression effects 2−76562
Si-H-P system, complex heterogeneous equilibria 2−97954
Si-O-N systems, quantitative Auger microanal. 2−82164
Si-Se-In film, photo-induced memory effects obs. 2−56636
Si-Si_3N_4, interface anal. using spectroscopic ellipsometry 2−79647
Si-Si_3N_4, thin film composition and thickness determ. using elastic backscattering 2−104177
Si-Si_3N_4 interface, defect evolution, synchrotron X-ray topographic obs. 2−98471
Si-SiO_2, electron irrad., carrier fluctuations and trapping, capacitance study 2−115898
Si-SiO_2, interface-state generation during electron avalanche injection 2−82416
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
Si-SiO_2, MOS capacitance, surface pot. and surface states 2−72059
Si-SiO_2, MOS inversion layer, stress induced supercond., electron-phonon coupling 2−56702
Si-SiO_2, MOSFET inversion layer, energy loss of warm electrons, Shubnikov-de Haas study 2−56703
Si-SiO_2, patterned surface, planarisation using ion beam erosion 2−67577
Si-SiO_2, Si seeded oscillatory epitaxial growth by CW laser irrad. 2−99329
Si-SiO_2, thermal oxide, γ-irrad., defects and impurities, EPR study 2−98158
Si-SiO_2 charge coupled struct., surface charge transport, losses, temp. depend. 2−115851
Si-SiO_2 dielec. props., built-in charge, pulsed annealing effects 2−72066
Si-SiO_2 interface, atomic roughness, oxidation parameters influence 2−56372
Si-SiO_2 interface, atomic struct., ion backscatt. channelling study 2−104172
Si-SiO_2 interface, Au doped, chemical bond model for Au surface states 2−110480
Si-SiO_2 interface, built-in charge, localisation depth, double elec. layer 2−115908
Si-SiO_2 interface, elec. props., negative bias-temp. test influence 2−77190
Si-SiO_2 interface, elec. characts. 2−92770
Si-SiO_2 interface, electron irrad., trapped charge sites, XPS study 2−77140
Si-SiO_2 interface, fixed charge density meas. for thin oxides 2−110481
Si-SiO_2 interface, Fowler-Nordheim tunnelling 2−82462
Si-SiO_2 interface, Si ion implantation, defects, deep levels, annealing, C-V characts. study 2−61403
Si-SiO_2 interface, slow and fast states induced by hot electrons, expt. study 2−87395
Si-SiO_2 interface, two-dimensional systems, electronic props., review 2−82467
Si-SiO_2 interface electronic struct. 2−56711
Si-SiO_2 interface in MOS struct. positive state generation during Fowler-Nordheim tunnelling 2−77189
Si-SiO_2 interface morphology 2−56371
Si-SiO_2 interface props. studied by constant capacitance DLTS method 2−61606
Si-SiO_2 interface recombination velocity 2−56713
Si-SiO_2 interface state density determ., single HF approx. 2−115906
Si-SiO_2 interface states, H_2 annealed, stress behaviour 2−56712
Si-SiO_2 interface states determ. by thermally-stimulated current method *(Chinese)* 2−66642
Si-SiO_2 interface states, effect of trichloroethylene, C-V measurement techniques 2−72065
Si-SiO_2 interface states, AC field effect study 2−115897
Si-SiO_2 interfaces, electron trapping, injection mode dependent phenomena 2−66655
Si-SiO_2 junction, interface electronic struct. 2−110485
Si-SiO_2 layers in MOS n-p junctions, electrochemical doping with As^+, diffusion coeff., C-V plots 2−66287
Si-SiO_2 MOS interface states, optical excitation by IR light 2−56714
Si-SiO_2 MOS struct., interface charge inhomogeneities, surface photovoltage meas. 2−115899
Si-SiO_2 MOS struct. etched in chloroform RF discharge, charge props. *(Russian)* 2−61592
Si-SiO_2 MOS struct. with $PbTiO_3$ layer, electronic props., laser annealing effect 2−82792
n-Si-SiO_2 MOS structure, interface minority carrier traps, optical DLTS study 2−77186
Si-SiO_2 MOS system, interface state generation 2−87408
Si-SiO_2 MOSFETs, fabrication in laterally seeded epitaxial Si on SiO_2 2−92756
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
Si-SiO_2 struct., Si MBE growth, RHEED study 2−92757
Si-SiO_2 structures, traps in transition region, TSCR study 2−98754
Si-SiO_2 system, interface state generation by photoinjecting electrons from Al field plate 2−66603
Si-SiO_2 system, photoinjection, carrier trapping 2−77198
Si-SiO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
Si-SiO_2-Al_2O_3 struct., radiation effects *(Chinese)* 2−92761
Si-SiO_2-electrolyte, SiO_2 thin films, conduct. and electroluminescence study *(Russian)* 2−87872
Si-SiO_2-metal system, trapping energy distrib. of mobile ions at interfaces, various metal gates *(Chinese)* 2−92765
Si-SiO_2, MOS inversion layer high field electron vel., time of flight technique 2−56704
Si-SiO_x-Ag MOS solar cell degradation; TEM and elec. study 2−93908
Si-Si_O interface, localised intrinsic Si gap states 2−92714
$Si_3Al_4N_4C_3$, new compound with wurtzite struct. 2−57321
SiAlON, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
SiAlON, sintered microstruct. and property charact. 2−57323
β-SiAlON solid soln. containing different amounts of amorphous grain boundary phase, TEM obs. 2−92223
$Si_{6-x}Al_xO_xN_{8-x}$, hot-pressed β-sialon, oxidation effect on room temp. strength 2−93629
$Si_{6-x}Al_xO_xN_{8-x}$, hot-pressed β-sialon, fracture strength and Weibull distrib. 2−93631

silicon compounds continued
$Si_{4.68}Al_{13.32}O_{19.68}(OH)_{14.71}F_{3.61}Cl$, X-ray cryst. struct. determ. 2−55932
$Si_{4.95}Al_{13.05}O_{19.95}(OH)_{13.96}F_{4.09}Cl$, X-ray cryst. struct. determ. 2−55932
SiBr, A-X system, emission spectrum 2−75238
SiC 2H crystals, growth by hydrogen reduction of methyltrichlorosilane 2−111038
SiC, 6H- and 15R-types, two-photon interband absorpt. spectra rel. to band struct. 2−116203
SiC, 6H-type, double spiral interpretation 2−109714
SiC 66R polytype, cryst. struct. determ. 2−91885
SiC (3C), optical phonons and transverse effective charge, temp. depend., 77 to 750K, Raman study 2−82861
SiC (45Rb) polytype, synthesis and anal. 2−97999
SiC (6H), graphitisation by electron beam irrad., electron diffr. study 2−76503
SiC (6H), vacancy deep levels traps, EPR, optical absorpt. and Hall effect study 2−56483
α-SiC (6H), Vickers microhardness anisotropy meas. 2−105311
SiC abrasives, 6 to 50 μm, two-body abrasion of some polymers 2−111330
SiC, anisotropic tribological props. 2−88219
SiC baffles, O_2 gettering during organometallic VPE AlGaAs growth 2−67220
SiC buried layer form. in Si, annealing, IR spectra study 2−103799
SiC CVD coatings on Mo surface damage under D^+ irradiations 2−76523
SiC ceramic heat exchanger tubes, assessment of US method of NDT 2−93729
SiC ceramics, neutron irrad. and proof tested, flexural strength 2−115307
SiC, chemical vapour deposited, mirror material evaluation for synchrotron radiation 2−86071
SiC cluster, electronic component of free energy in gas phase 2−59987
SiC coated B fibres, tensile strength as function of coating thickness 2−77950
SiC coated HTGR fuel pellet, corrosion by Pd fission product 2−90229
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiC, D^+ ion irrad., secondary ion sputtering, energy anal. 2−77675
SiC, diffusion annealing in B vapour, surface distrib. of B 2−56305
SiC, electron irrad., band gap changes 2−92460
SiC, electron-phonon interaction, phonon cond. 2−66152
SiC epitaxial layer growth process for gaseous phase, thermodynamic anal. *(Bulgarian)* 2−87992
SiC epitaxial layers, electrodeposition from Li_2CO_3/SiO_2melts 2−93460
SiC fibre, amorphous, thermal transport props. determ. using composite method 2−104088
SiC fibre reinforced Al, elasticity, ultrasonic meas. 2−93552
SiC fibre reinforced Al, tensile props., thermal degradation effects 2−116485
SiC filament reinforced Ti, fibre-matrix chem. interactions at high temp. composite strength 2−77783
SiC film, sputter deposition 2−62066
SiC film on Mo, D^+ irradiation effect 2−66081
SiC films, formation by ion implantation of Si cryst. and elec., photovoltaic and struct. props. *(French)* 2−72089
SiC, first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
SiC, fracture parameters evaluation, controlled flaw method *(French)* 2−88293
SiC, He^+ bombardment, microstruct. changes 2−76524
β-SiC layers formation on heated Si wafers exposed to sublimed C 2−93443
SiC layers on TRISO-coated fuel particles, gaseous fission product release predictions 2−74810
SiC, mag. susceptibility meas. 2−61692
SiC multifilament reinforced Al, prep. and charact. 2−77941
SiC, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
SiC p-n structure, defect-free, avalanche ionisation and breakdown 2−87383
SiC particles, paramagnetic defects treatment effects, ESR study 2−87593
β-SiC particles segregation in Si 2−57354
β-SiC, phonon dispersion, bond-bending force model 2−76617
SiC, phonon dispersion, atomic force consts. 2−86808
SiC plasma enhanced CVD 2−72631
SiC, polycryst., containing excess Si, neutron irradiated, microstruct. study 2−71514
SiC, polycrystalline, long-period polytypism, TEM study 2−115199
SiC, polytypes, band structure, electroreflection meas. 2−104851
SiC, polytypes of $[(44)_n43]_3$ struct., X-ray and electron diffr. study 2−65951
SiC, positron lifetimes, systematic study 2−57207
SiC, pressureless sintering 2−99380
SiC, reflectivity meas. at 4.4 nm 2−93322
SiC, residual stresses and CNTD process scaling to larger specimen sizes 2−72657
SiC rolls, roll coatings formed during Al hot rolling 2−111385
SiC, self-bonded, reactively sintered, mobility of intracrystallite boundaries, prep. conditions and additives influence 2−67270
SiC, siliconised, strengthening and proof testing 2−88168
SiC, single cryst., friction damage, surface and subsurface, SEM and TEM study 2−67566
SiC single cryst., XPS, AES and friction studies 2−93633
SiC, single crystal, growth kinetics of oxide films 2−77959
SiC, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
SiC, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
SiC, sintered, α and β polymorph proportion estimation procedure using X-ray diffr. 2−65943
SiC, sintered and reaction-bonded, radiation response, B isotope effects 2−80191
SiC, sintered microstruct. and property charact. 2−57323
SiC, slow crack growth parameter eval., fatigue theories 2−88166
SiC, solubility of Al, Fermi level, thermodynamic anal. 2−109992
SiC sputtered film, composition and homogeneity, sputter-Auger line shape anal. 2−104202
SiC surface, relaxed, atomic and electronic struct. calc. 2−110119
SiC, surface states, rel. to mech. fracture, ESR obs. 2−110639
SiC, thermal oxidation kinetics, expt. study 2−72060
SiC thin-film thermistor, use as temp. sensor from 30 to 300°C 2−69174

silicon compounds continued
SiC, wavefront conjugation by degenerate four- and six-photon mixing 2−90994
SiC, wavefront reversal during degenerate four-photon interaction 2−108966
SiC whisker reinforced Al alloy composites, deform. behaviour 2−105250
SiC whisker reinforced Al-Li alloys, mech. props. and microstruct., effect of Li 2−111240
SiC yarn reinforced lithium aluminosilicate glass-ceramic, high strength and toughness 2−105298
p-SiC:Al, Fermi level, Fermi distrib. and activity coeff. calc. 2−92453
SiC:Al, implanted ion diffusion, profile anal. by STMS 2−109824
SiC:Al, sintered and hot pressed, grain boundary segregation, STEM study 2−111180
SiC:Al,N(Ti), luminescence, cross relax. optical detection 2−99180
SiC:Al polytypes, p-n structs., electrolum. charcts. 2−93285
SiC:B, Al epitaxial layers, lattice deformation and perfection, X-ray study 2−92406
SiC:B 2−115302
SiC:H, amorphous film for a-Si solar cell, props. and struct. 2−104978
a-SiC:H, window material for a-Si solar cells 2−67861
a-SiC:H films, elec. cond., 130 to 350K, hydrogenation effect 2−71986
a-SiC:H layer, window effect in p-i-n a-Si solar cell 2−83472
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
n-SiC:N (6H), impurity-vacancy pairs, EPR study 2−61766
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
n-SiC:P, Fermi level, Fermi-Dirac distrib. and activity coeff. 2−92452
SiC/B fibre reinforced Ti alloys, heat-resistant, diffusion-affected interaction 2−88029
SiC-3C, Raman phonon press. depend. 2−67054
SiC-AlN solid solutions, hot pressed, comp. and props. 2−88037
SiC-SiO_2-Al, MOS struct., elec. props. meas. 2−72060
SiC_n clusters (n≤7), electronic struct. and relative stabilities, mass spectrometry *(French)* 2−111011
$Si_{1-x}C_x$ amorphous film, NMR and IR spectra study 2−77389
$Si_{1-x}C_x$:H, amorphous glow discharge films, ESR, IR and optical study 2−56934
Si_xC_{1-x}:H amorphous films, reactively sputtered in propane, photoinduced optical changes obs. 2−60179
$Si_xC_yF_z$ thin film, amorphous, prep. by reactive sputtering in tetrafluoromethane *(Japanese)* 2−115596
SiC(3C), optical phonons and transverse effective charge, press. depend., Raman study 2−82860
SiCl, electronic states, rot., mol. consts., UV obs. 2−54866
$SiCl_4$, ammonolysis, prep. by Si_3N_4 amorphous film 2−87995
$SiCl_4$, solubility of HCl, 450K and 1.7 MPa 2−56198
$SiCl_3OH$, reaction product of UV photolysis in solid Ar, IR spectrum 2−88365
SiF, mol. force consts., bond lengths, pot. energy functions, electronegativity anal. 2−75463
SiF, Rydberg electronic states obs. between 42000 and 50000 cm^{-1}, rot. anal. 2−54865
$SiF_2+F(F_2)$ chemiluminescent reaction 2−88361
SiF_3^-, struct., inversion barrier, Cl, ab initio SCF calcs. 2−64885
SiF_4 hot mol., anharmonic shrinkage effects, electron diffr. study 2−102625
SiF_4 hot mol., thermal expansion, electron diffr. study 2−102624
SiF_4, IR multiphoton absorpt. 2−64969
SiF_6, anharmonic shrinkage effect on mol. vibr. on electron diffr. 2−114105
SiF_6^{2-}, back donation effect, Xα calcs. 2−80474
SiF5, anharmonic shrinkage effect on mol. vibr. on electron diffr. 2−114105
$(Si_{2-x}Fe_x^{3+})(Fe_{3-x}^{2+}Fe_x^{3+})O_5(OH)_4$, cronstedtite, thermally-activated charge transfer, electron hopping, Mossbauer spectra 2−66561
Si(H) films, plasma-enhanced deposition by plasmatron discharge *(German)* 2−116359
SiH, Franck-Condon factors, rot. depend. 2−59862
SiH, mol. struct. calcs. using ab initio effective spin-orbit operators 2−75168
SiH^+, Franck-Condon factors, rot. depend. 2−59862
SiH_3, geometries and HFS consts., ab initio calcs. 2−70136
SiH_3 molecules, continuous phase transitions 2−90446
SiH_4 heterogeneous decomposition in fixed bed reactor, Si production appl. 2−116376
SiH_4 in low press. hot cathode glow discharges optical emission spectroscopy in visible and near UV region 2−71072
SiH_4, ionisation energy, XαSW method with universal potential 2−75183
SiH_4 $L_{II,III}$ emission spectra, many-electron effects 2−90568
SiH_4, laser dissociation, Si film prod. *(Chinese)* 2−62074
SiH_4 on W-emitter, surface interaction, field ionisation mass spectra 2−105503
SiH_4 plasma, elec. discharges IR absorpt. and emission obs. 2−71260
SiH_4, rot., stark effect, IR-RF double reson. obs. 2−85710
SiH_4, vibr. relax., laser-induced IR luminesc. 2−114042
SiH_x amorphous solar cells, output volt., band tail recombination limit 2−67851
Si_2H_6, internal rot., barrier height CNDOC *(German)* 2−85554
$SiHCl_3+O_2(O_3)$, UV photolysis in solid Ar, IR spectrum 2−88365
SiH_3I, vibr. excited states, microwave obs. 2−90525
SiH_3NCO, vibr. spectra and normal coord. anal. 2−96572
$SiH_4(SiD_4)$, stretching overtone bonds, local mode model 2−80574
SiH_3SiH_2CN, struct., vibr. assignment, microwave, IR and Raman spectra, normal coordinate anal. 2−59788
SiN film, plasma enhanced CVD coating, phys. and elec. props. 2−115629
SiN plasma film on magnetron sputterd Al film trapped Ar induced deformation 2−82155
SiN thin film, stoichiometry and thickness, elastic backscatt. study 2−104199
SiN_x, plasma CVD, ellipsometric automatic in-line evaluation of thin films *(Japanese)* 2−112957
Si_3N films, CVD deposition, thermodynamic evaluation 2−77753
Si_3N_4, amorphous, explosive compaction 2−83069
Si_3N_4, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
Si_3N_4, amorphous film, prep. by ammonolysis of $SiCl_4$ 2−87995
Si_3N_4, annealing encapsulant for InP, AES and SIMS study 2−116584
Si_3N_4, annealing encapsulant for InP 2−116585

silicon compounds continued
Si_3N_4, α and β phases, Vickers microhardness anisotropy meas. 2−105311
Si_3N_4, α- and β-phases, struct. changes under fast neutron irrad., neutron diffr. study *(French)* 2−103850
Si_3N_4 CVD film prep., reaction mechanism under kinetically controlled conditions 2−111458
Si_3N_4 CVD layers in MNOS struct., depth inhomogeneity, pot. distrib., effective resist. and etch rate exam. 2−92769
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4, defect charact. in short wavelength regime 2−62292
Si_3N_4, densification, $C+N_2$ interaction in sintering furnaces 2−105097
Si_3N_4, densification by high pressure hot-pressing 2−93477
β-Si_3N_4, dissolution kinetics in Ng-Si-O-N glass 2−88071
Si_3N_4, effects of oxidation and oxidation under load on strength distribs. 2−99491
Si_3N_4, fabrication by hot isostatic pressing 2−83070
Si_3N_4 film, CVD deposition and AC dielec. props. meas. 2−82783
Si_3N_4 film, CVD from SiH_2Cl_2-NH_3 in diffusion-controlled regime, mechanism model 2−111089
Si_3N_4 film, plasma deposited, chem. characterisation by Auger signal decomposition 2−110990
Si_3N_4 film, use in biomedical electrodes *(Japanese)* 2−62805
Si_3N_4 film form. on Si(100) by low energy ion implantation, characterisation 2−92375
Si_3N_4 film in MNOS struct., stoichiometry variation rel. to memory traps 2−82163
Si_3N_4 film in MNS struct., carrier conduction, thickness effects 2−66681
Si_3N_4 film on Si; very high charge densities for inversion layer solar cells 2−61608
Si_3N_4 film produced by low energy N implantation in Si, elec. charcts. 2−86694
Si_3N_4 film stability, stoichiometry deviation effect 2−115632
Si_3N_4 films, N-rich, composition and elec. cond., MNOS device appls. 2−56743
Si_3N_4 films on Si, thickness meas. by IR absorption 2−112870
Si_3N_4 formed by plasma enhanced CVD 2−111082
Si_3N_4, fusion materials, radiation damage parameters, neutron and x-ray interactions 2−74898
Si_3N_4, hot press, uniaxial tensile and flexural stress rupture strength 2−57453
Si_3N_4, hot pressed, acoustic charact. of mech. props. *(Japanese)* 2−67511
Si_3N_4, hot pressed, bending strength *(Japanese)* 2−67436
Si_3N_4, hot pressed, grooved by single-point grinding, residual stresses 2−57455
Si_3N_4, hot pressed, intergranular phase, refinement of elemental composition 2−111158
Si_3N_4, hot-pressed, mech. and dielec. props. 2−67268
Si_3N_4, hot-pressed at high press., temp. depend. of stress intensity factor 2−83212
Si_3N_4 layer in NMOS struct., charge density distrib., surface states 2−92773
Si_3N_4 layers grown by plasma enhanced thermal nitridation 2−62076
Si_3N_4 layers on Si, optical consts., multiple angle ellipsometric analysis 2−53818
Si_3N_4, low-pressure CVD layer anal. using Rutherford backscattering spectrometry 2−116314
Si_3N_4 MIM struct., electron beam induced leakage currents meas. 2−56744
Si_3N_4 MNOS struct., charge trapping, oxide thickness effects, capacitance and internal photoelec. effect study 2−98751
Si_3N_4, mech. behaviour, meas. methods *(French)* 2−93691
Si_3N_4, MgO-fluxed, soln.-precipitation creep 2−99492
Si_3N_4, neutron irradiated, X-ray anal. of internal strain 2−93557
Si_3N_4, oxidation resist. improvement using GeO_2-SiO_2 glasses prep. from gels 2−77797
Si_3N_4, oxidised, hot pressed, microstruct. and subcritical crack growth 2−116530
Si_3N_4, plasma deposited, characterisation by AES with N sputtering 2−110185
Si_3N_4 plasma deposition on Si, props. of thin layers *(German)* 2−57309
Si_3N_4 plasma enhanced CVD 2−72631
Si_3N_4, plasma enhanced CVD, microwave and RF N_2 activation methods 2−93442
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Si_3N_4 prep., nitridation of Si in N_2/H_2 atm. 2−105110
Si_3N_4, preparation and props., book 2−112667
Si_3N_4, prod. by nitridation of high purity single crystal Si 2−72661
Si_3N_4, reaction bonded, hot pressed, comparison of US and radiographic methods of crack detection 2−67673
Si_3N_4, reaction bonded, mech. props., creep and thermal shock behaviour, influence of microstruct. variables 2−116541
Si_3N_4, reactive sputter-coated reaction-bonded 2−99336
Si_3N_4 rolls, roll coatings formed during Al hot rolling 2−111385
Si_3N_4, SiC, hot pressed or reaction-bonded, effect of laser radiation 2−83174
Si_3N_4, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
Si_3N_4, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
Si_3N_4, sintered, hot isostatic pressing, effect on mech. props. *(Japanese)* 2−67266
Si_3N_4, sintered microstruct. and property charact. 2−57323
Si_3N_4, slip cast reaction bonded, α/β ratio, effect of α-Si_3N_4 grog additions 2−93493
Si_3N_4, slip coating for pressureless sintering 2−57322
Si_3N_4 structure form. mechanism 2−103708
Si_3N_4, thermal shock stability *(French)* 2−88155
Si_3N_4 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
Si_3N_4 thin films, backscattering anal. and nuclear reaction meas. *(Chinese)* 2−66389
Si_3N_4 thin films, comp. and electron stress effects, X-ray photoelectron spectra study 2−83001
Si_3N_4, thin films, elec. cond. and breakdown props. 2−87435
Si_3N_4 thin films, thermal ionisation of Coulomb centres in strong elec. fields 2−71992
Si_3N_4 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
Si_3N_4, ultrafine amorphous powder, crystallisation during sintering 2−111132

silicon compounds continued
Si_3N_4:H, amorphous plasma deposited film, AES and EELS study 2−71816
Si_3N_4:H, plasma deposited, H content 2−103801
Si_3N_4:H CVD film, chem. bonding changes and elec. effects 2−115930
Si_3N_4:H films, H conc., N-H absorption cross section, nuclear recoil method 2−71491
Si_3N_4:Y_2O_3, sintering behaviour and microstructural development 2−93480
Si_3N_4/SiO_2 double insulating layer, CW laser recrystallisation of Si film for bipolar transistor fabrication 2−82154
$Si_3N_4/SiO_2/Si_3N_4$ sandwich membranes, X-ray lithography masks, optically-transparent 2−87117
Si_3N_4-GaAs, interface polar exciton, variational calc. *(Russian)* 2−76940
Si_3N_4-GaAs interface, sputtered, ellipsometric study, optical props. 2−76841
Si_3N_4-InP interface, I-V, C-V and MISFET charcts., CVD, surface pot. var. 2−56710
Si_3N_4-MgO (1 and 5 wt.%), hot pressed, passive and active oxidation 2−111340
Si_3N_4-refractory compound cutting tool ceramics, mech. props. 2−72842
Si_3N_4-SiO_2-La_2O_3 system, phase relationships 2−105134
Si_3N_4-SiO_2-MgO-Mg_3N_4 rel. to integranular phase of hot pressed Si_3N_4 2−111158
Si_3N_4-TiC composites, fracture toughness and strength 2−83202
Si_3N_4-TiN composites, CVD, prep. and props. 2−87998
Si_3N_4-Y_2O_3 (6 wt.%), density, microstruct. and strength, heating rate effects 2−116467
Si_3N_4-Y_2O_3-SiO_2, strengthening by post-fabrication heat treatment 2−83131
SiO condensation and vapour phase nucleation 2−109947
SiO emission search from planetary nebulae at 86.8 GHz, EHF obs. 2−94818
SiO film, step coverage growth, computer calc. 2−82176
SiO film overlays on XY-quartz, Rayleigh wave propag. 2−66335
SiO, ion bombardment induced electronic states *(Japanese)* 2−93345
SiO MBE films on GaAs, deposition conditions, Auger anal., and elec. charcts. 2−87116
SiO, masing and non-masing emission from evolved stars, EHF obs. 2−89228
SiO, mol. struct. calcs. using ab initio effective spin-orbit operators 2−75168
SiO, obliquely evaporated film, struct. effect on nematic liq. cryst. orientation *(Japanese)* 2−92403
SiO, Si_2O_3, reflection and antireflection coatings for laser optics, reactive sputtering fabrication *(Czech)* 2−70634
SiO vibrationally excited masers in late type stars and Orion, EHF obs. 2−84219
SiO:H, porous antireflection coating for solar cells 2−75659
SiO-GeO_2 film, electroformed MIM struct., elec. cond., temp. effects obs. 2−72074
SiO-H_2-Mg condensed vapours, IR spectra, appl. to O-rich stars 2−94703
SiO_2, ^4He adsorption isotherm 2−104107
SiO_2, addition to Al_2O_3, influence on polymorphic transitions 2−111169
SiO_2, adsorption, Si-H band as surface probe 2−82844
SiO_2, amorphous, diffusion of Ga, neutron activation anal. 2−66289
SiO_2, amorphous, electronic states, theoretical model of disorder 2−71857
SiO_2, amorphous, freq. spectrum, mol. dynamics simulation 2−61100
SiO_2, amorphous, time-depend. specific heat meas. 2−66250
SiO_2, amorphous dielectric film, short-range order struct., change after ion implantation 2−86690
SiO_2, annealing encapsulant for InP, AES and SIMS study 2−116584
SiO_2, annealing encapsulant for InP 2−116585
SiO_2, anodised surface layers, SIMS study 2−105352
SiO_2, Auger induced decomposition/desorption of covalent and ionic systems 2−76834
SiO_2 based matrix for solid state storage of radioactive Kr 2−54494
SiO_2, breakdown statistics and defect densities, theoretical and expt. study 2−110770
SiO_2 buried layers in Si, optimisation of implantation conditions 2−61004
SiO_2, CVD coating, oxidation protection on Nb stabilised stainless steel in CO_2 2−67620
SiO_2 CVD layer on $Hg_{1-x}Cd_xTe$ native oxide, reduction 2−111516
SiO_2 ceramics, synthetic 2−99377
SiO_2, collision with n-octane, vibr. energy transfer, mass spectrosc. obs. 2−114082
SiO_2, columnar etching residue generation in reactive sputter etching 2−93644
SiO_2, dielectric breakdown and wearout phenomena 2−61832
SiO_2 dispersed in cyclohexane, dynamic behaviour, photon correl. spectroscopy 2−109395
SiO_2, E′$_1$ centres, Huckel calc. of ^{17}O, ^{29}Si and ^1H hyperfine splitting 2−76975
SiO_2, elec. breakdown rates and defect densities meas. 2−82781
SiO_2, electron inelastic mean free path, 200 eV≤E≤10 keV 2−92656
SiO_2, electron mobility, hot electrons electronic breakdown, Monte Carlo study 2−61474
SiO_2, energy gap and photoelectric props., effects of blocking electrodes 2−82403
SiO_2, eqn. of state at high shock pressures, optical pyrometry study 2−69171
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
SiO_2 fibres, glass-clad, effects of ionising radiation 2−114440
SiO_2 fibres, plastic clad, γ-irrad., low temp. response 2−114439
SiO_2 fibres, polymer clad, X-ray-induced transient attenuation at low temps. 2−114437
SiO_2 fibres, strength/fatigue expts. 2−116523
SiO_2 film, on Si (001) substrate, surface Brillouin scatt., strong interf. effects 2−72518
SiO_2 film, reaction with Al, AES and EELS study 2−98474
SiO_2 film, sputter deposition, angular factors, SEM and EPMA study 2−87936
SiO_2 film, thermally grown on Si, elec. behaviour of H ions 2−61634
SiO_2 film characterisation using a reson. frustrated-total-refl. technique 2−89792
SiO_2 film with holes, electrostatic withdrawal of Hg *(Russian)* 2−86981
SiO_2 films, diffusion of oxidant meas., Si oxidation studies 2−88238
SiO_2 films, etching by impinging or substrate Si in ultra-high vacuum 2−67218
SiO_2 films, ion implantation, effect on struct. 2−55995

silicon compounds continued
SiO_2 films, on Si substrate, origin and elimination of defects 2−65982
SiO_2 films, plasma-enhanced deposition by plasmatron discharge *(German)* 2−116359
SiO_2 films, study using IR absorption techniques 2−93298
SiO_2 films, thermally nitrided, MOS characts. 2−61590
SiO_2 films on Si, dielec. breakdown, effect of plasma cleaning 2−61831
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285
SiO_2 films on Si, thickness meas. by IR absorption 2−112870
SiO_2 formed by plasma enhanced CVD 2−111082
SiO_2 free films, preparation by etching 2−77731
SiO_2, fused, CO_2 laser polished, 1.06 μm laser-induced breakdown 2−60142
SiO_2, fused, diffusion of water and H-bonding species 2−104072
SiO_2, fused, evidence for struct. contrib. to phonon lifetimes 2−76628
SiO_2, fused, far IR absorpt. coeff. meas. of different types 2−60188
SiO_2, fused, implanted D/H ions trapping and release 2−76467
SiO_2, fused, ion implant. amorphisation optical and EPR studies 2−103789
SiO_2, fused, laser-induced breakdown, pulse-width and focal-volume depend. 2−66055
SiO_2, fused, shock temp. determ. by radiance intensity meas. 2−86793
SiO_2, fused, silicone-coated, light scatt. model for fibre location determ. 2−65362
SiO_2, fused silica, nonbridging O defect center, dynamic Jahn-Teller effect study 2−87194
SiO_2, fused silica optical fibres, modal analysis of Raman spectrum 2−55333
SiO_2 gel to glass transform., Raman and IR spectra study 2−77506
SiO_2 gels, surface characts., effect of inclusion of polyglycol 4000 2−78143
SiO_2 glass, internal friction background, migration model 2−88124
SiO_2 glass, OH ion distrib. profile, laser absorpt. meas. 2−61932
SiO_2 glass, phonon spectra 2−56138
SiO_2 glass, sol-gel process prep. 2−77792
SiO_2 glass, thermodynamic, struct. and dynamical props., mol. dynamics study 2−76321
SiO_2 glass fibres, sol-gel process prep. from silicon tetraethoxide 2−77793
SiO_2 glass film, CVD, step coverage 2−98475
SiO_2 glasses prep. by sol-gel process 2−77795
SiO_2, HF plasma discharge, chemical etching, IR spectroscopy study 2−65772
SiO_2, impurity and defect electron states, tight-binding model 2−82288
SiO_2 in MIS structures with dielectrics prep. at low temps., charge instability mechanism 2−61601
SiO_2 inclusions in ZnO varistor, influence on props. 2−66241
SiO_2 insulated nuclear instrument cable, gamma radiation and temp. effects 2−69765
SiO_2 interface degradation and minority carrier lifetime effects of laser beam processing 2−61609
SiO_2 laser-enhanced chemical etching of solid surfaces 2−77958
SiO_2 laser-induced CVD 2−67221
SiO_2 lattices, correlation factors calc. by modified Bardeen-Herring simulation method 2−66277
SiO_2 layer on polycryst. Si, selective reactive ion beam etching 2−88236
SiO_2 layers, deposition and etching by means of beam plasma discharge with tube like electron beam 2−116372
SiO_2 layers, ellipsometric anal. 2−104979
SiO_2 layers, in water vapour, O^{18} study of cooperative diffusion and chem. reaction 2−76742
SiO_2 layers on Si, optical consts., multiple angle ellipsometric analysis 2−53818
SiO_2 MOS struct., current induced trap generation 2−56694
SiO_2 MOS struct., X-ray induced photocurrent, contact injection effects meas. 2−82395
SiO_2 MOS structs., electron trapping, injection mode depend. phenomena 2−56695
SiO_2, methanol and N_2 adsorpt., porosity charact. 2−62433
SiO_2 monolithic dried gels 2−76310
SiO_2, multi-chamber dry etching system 2−69184
SiO_2 multimode deposited waveguide, fabrication procedure, appl. to optical branching circuit 2−70669
SiO_2, NH_3 annealed films for thin-gate insulator in MOS structs. 2−92766
SiO_2, neutron irradiation effects 2−85209
SiO_2, non-porous, surface lyophobicity and heat of immersion in cyclohexane 2−62434
SiO_2 optical fibre high temperature transmission characts. 2−55347
SiO_2 optical fibres, static fatigue failure probability rel. to localised bending 2−81133
SiO_2 particle deposition in a burner 2−116374
SiO_2 particles in ordered and disordered Cu_3Au, critical shear stress, Orowan stress 2−86778
SiO_2, photoinjection current, electron-phonon scatt. effect 2−56646
SiO_2, plasma chemical etching, electron stimulated 2−116580
SiO_2, plasma deposition, indirect 2−116383
SiO_2 plasma enhanced CVD 2−72631
SiO_2, plasma etching with HF mixtures 2−116567
SiO_2 plastic clad fibre termination 2−86123
SiO_2, RF sputtered, pinhole detection by electron irrad. and cond. studies. 2−82172
SiO_2, reaction products of propanal, weakly adsorbed molecules study by ^{13}C NMR 2−93810
SiO_2, reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
SiO_2, reactive ion beam etching using hexafluoroethane, SiF_4 and BF_3 gases 2−88233
SiO_2, reactive ion etching with NH_3 and trifluoromethane, role of N_2 in discharge 2−88241
SiO_2 reactive sputter etching effect on elec. props. of MOS struct. 2−115903
SiO_2 refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560
SiO_2, scanning Auger electron spectroscopy 2−101504
SiO_2, silica fibres, LF and low temp. Raman scatt. 2−67047
SiO_2 silica optical fibre waveguides, radiation damage at long wavelengths 2−55335
SiO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
SiO_2, solid phase reduction in presence of Al layer, diffusion barriers, Auger study 2−82034
silicon compounds continued
SiO_2 step-index optical fibre production by axial lateral plasma deposition, low loss fibre process 2−81136
SiO_2 stoichiometric film, composition and thickness determ. using elastic backscattering 2−104177
SiO_2 substrate for Si film, zone recrystallised, elec. props. of line defects 2−66668
SiO_2 supported water surfaces, absorpt. of hydrocarbon, meas. using gas chromatographic technique 2−57636
SiO_2 surface, Cu^{2+} and VO^{2+} adsorbed, dispersion modes, ESR study 2−116057
SiO_2 surface, Ni migration, TEM obs. 2−86983
SiO_2, surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
SiO_2, surface electronic struct. tight binding calc., UV photoelectron spectroscopy, and EELS study 2−82226
SiO_2 surfaces, fused, CO_2 laser polishing for increased laser-damage resist. at 1064 nm 2−114342
SiO_2, thermally grown layer, Cl implantation 2−61010
SiO_2 thermally grown thin films, electron trapping 2−66683
SiO_2, thermally stimulated hole current 2−104392
SiO_2 thin film, cathodoluminescence, luminescent centre distrib. *(Russian)* 2−104970
SiO_2 thin film, ion implantation CO_2 form., astrophysical implications 2−92009
SiO_2 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
SiO_2 thin films, effects of humidity on stress 2−92427
SiO_2 thin films, luminesc. study, interf. effects 2−104968
SiO_2 thin films, nonequilib. water permeation 2−92250
SiO_2 thin layers, thickness and effective optical index, ellipsometry study 2−110968
SiO_2, trapping characts., avalanche injection 2−56611
SiO_2 ultra thin film growth kinetics in MOS structs., Auger and EELS study 2−87112
SiO_2 ultra-thin films, high-field generation of electron traps and charge trapping 2−66682
SiO_2 ultrathin layers on Si, grown by DC plasma anodization, elec. props. 2−56745
SiO_2, vitreous, absorpt. band at 242 nm 2−104922
SiO_2, vitreous, free energy of structural models, bond lengths and energies 2−97924
SiO_2, vitreous, large block, elastic props., nonuniform distrib. 2−103898
SiO_2, vitreous, mech. of O diffusion 2−76732
SiO_2 vitreous, near IR absorption of H_2O, OH group vibr. bands 2−99125
SiO_2, vitreous, planar rings, energy minimisation argument and Raman spectra 2−91790
SiO_2, vitreous, struct. in bulk and surface layers, gas probe anal. 2−91801
SiO_2, vitreous, with small OH conc., absorpt. by 3D impurities, thermooptical interferometric study 2−104923
SiO_2, vitreous and crystalline, UV reflectance spectrum 2−93224
SiO_2, Vycor, porous, low temp. thermal cond. 2−56270
α-SiO_2, X-cut surface, defect stability under ion irrad., LEED study 2−92058
SiO_2: $GeO_2(P_2O_5)(B_2O_3)$ glass optical fibres, refr. index dispersion 2−81107
SiO_2:Al, vitreous, radiation colour centres, multiple nature, ESR and optical absorpt. study 2−72348
SiO_2:As, ion implantation profiles, 10 keV to 2.56 MeV, Rutherford backscatt. study 2−115269
SiO_2:As, neutron activation anal. using coprecipitation method 2−98137
SiO_2:B, glass, solid state track autoradiography study of B distrib. 2−92016
SiO_2:B(Al)(Ga), variation of surface conc. with oxide content 2−82098
SiO_2:F, vitreous silica optical fibre preform, Raman spectra anal. 2−65382
SiO_2:Ge, Ge diffusion coeff., SIMS study 2−115465
SiO_2:Ge optical fibres, graded index and polymer clad, γ-ray effect on strength 2−86114
SiO_2:Nd glass, plasma torch CVD and fluorescence props. meas. 2−93436
SiO_2:P(Bi)(Pb), growth on Si, X-ray spectra 2−77960
SiO_2/GeO_2-core step-index multimode fibres, OH-absorption 2−114455
SiO_2/Si, sputtering, high resolution, using focused Ga^+ beam 2−116327
SiO_2/Si thermal, F ion implantation and distrib. *(Chinese)* 2−109821
SiO_2/TiO_2 bichromatic coatings for pulsed laser fusion appls. at 0.53, 1.06 μm, damage thresholds 2−65283
SiO_2/TiO_2 reflective coatings, loss factors, surface scatt., volume scatt. and absorptance *(Chinese)* 2−55061
SiO_2-Al_2O_3 amorphous thin films, coordination and bond character of cations 2−99228
SiO_2-B_2O_3-Al_2O_3-BaO, pyroceramic, low temp. thermal cond. 2−110054
SiO_2-based glass ceramics, neutron irradiation effects 2−85209
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
SiO_2-Ge, recombinative luminescence *(Russian)* 2−61962
SiO_2-GeO_2 optical fibre, drawing depend. transmission loss meas. 2−65383
SiO_2-GeO_2-P_2O_5 fibres, radiation damage, thermoluminesc. anal. 2−114435
SiO_2-InP interface, I-V, C-V and MISFET characts., CVD, surface pot. var. 2−56710
SiO_2-InP interface, plasma-enhanced CVD growth, XPS and TEM study 2−110169
SiO_2-MgO(Y_2O_3)(Ce_2O_3)-Si_3N_4, phase diagrams, computer-based calc. 2−62101
SiO_2-Na_2O (Li_2O)(K_2O) glasses, X-ray irrad.-induced defects, ESR study 2−98960
SiO_2-Na_2O-CoO-V_2O_5 glass, Co^{2+} spin-lattice relax. by V^{4+} EPR study 2−72335
SiO_2-P_2O_5, gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SiO_2-PbO-Bi_2O_3 glass, surface cond. meas. 2−87363
SiO_2-Si interface effects in avalanche injection of electrons 2−56719
SiO_2-Si interface states and charge generation by electron tunnelling 2−56720
SiO_3^- atmospheric chem. 2−94547
SiO_x amorphous films, reactively sputtered, struct. and props., IR spectra study 2−66397

silicon compounds continued
SiO_x, electron Auger spectra for various stoichiometric composition 2−116305
SiO_x, electronic and optical props., dielec. function 2−56458
SiO_x films, phase composition, TEM and EPR studies 2−98491
SiO_x formed by Si ion implantation into fused SiO_2; optical props. 2−93144
SiO_x, LO-TO mode splittings and dynamic effective charges of O_2 2−99204
SiO_x, stress-strain curves and internal stresses, bulge and tensile tests 2−82190
Si_2O_3/Al beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
SiON material for graded-index optics 2−75640
Si_2ON_2 covalent ceramic, vibr. assignment, IR absorption bands 2−87770
Si_2ON_2, neutron irradiated, X-ray anal. of internal strain 2−93557
$Si_xO_yN_z$ film, pyrolytic CVD, chem. characterisation by Auger signal decomposition 2−110990
$Si_xO_yN_z$ layers, synthesized by ion implantation, IR and elec. props. 2−99136
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
$SiS_2(Se_2)_2$ cryst. struct. determ. 2−76378
SiS($a\ ^3\Sigma^+$) formation from Si+OCS chemiluminesc., dynamic constraints 2−105487
Si_xSe_{1-x}-SnO_2 amorphous thin film photovoltaic devices, conversion efficiency 2−83479
Si(100)-SiO_2 inversion layers, final-state interaction and intersubband spectroscopy 2−56698
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
$SiyC_{1-y}$:H, photoinduced midgap absorpt. 2−72528
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
SnO_2-SiO_2-nSi solar cells, diode characts. and open-circuit voltage 2−99809
SrO-BaO-Al_2O_3-TiO_2-SiO_2 system, crystallised-glass materials, isomorphous substitutions, X-ray diffr. study 2−71615
Te-Si-Pb glasses, preheating effect on crystn. kinetics 2−97926
TiO_2SiO_2 multilayer dielectric coatings, damage thresholds in CW lasing 2−86019
Y_2O_3-SiO_2 UV laser mirror deposition and optical characteristics *(Hungarian)* 2−55213
ZnO-SiO_2, struct. and chem. comp. of transition region 2−76851
$ZnSiAs_2$ thin-film solar cells, status as emerging materials PV technologies 2−57712
silicon controlled rectifiers *see thyristors*
silicon integrated circuits *see monolithic integrated circuits*
silicon-on-sapphire integrated circuits *see field effect integrated circuits*
silicon reference diodes *see avalanche diodes; Zener diodes*
silicones
thermally curable resin for high-speed coating of optical fibres using pressurised die 2−97241
silver
see also nuclei with .....
(110) surface with adsorbed H_2O, adsorption and reaction studies 2−87034
(111), NO molecule-surface collision, rot. polarisation obs. 2−77687
(111) surface, adsorbed pyridine,benzene and pyrazine, electron energy loss studies 2−87032
(111) surface, I_2 monolayer, core electron spectroscopy 2−72604
absolute determ. in ancient coins using 14 MeV neutrino 2−116741
adsorbed Ar, Kr, and Xe on (111) surface, two-dimens. gas phases 2−61293
adsorbed CO and pyridine, surface enhanced Raman scatt., role of direct surface inter action 2−77537
adsorbed ethylene submonolayers, Raman scatt. spectra line intensities *(Russian)* 2−110857
adsorbed formaldehyde, oxidation, EELS study 2−116728
adsorbed on Pt, inducement of surface enhanced Raman scatt. from adsorbed pyridine 2−110871
adsorbed pyridine, surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
adsorbed species IR specular reflection spectra 2−116291
adsorption of K on (111) surface, ellipsometry, LEED, and EELS study 2−61295
adsorption on Si (111), struct. anal. by LEED/const. momentum transfer averaging technique 2−56347
adsorption on Si (111), struct. and electronic props., LEED and AES study 2−82092
alkali halide:Ag, ligand relax., isotropic superhyperfine const. anal. 2−109816
atom, electron impact, K-shell ionisation, relativistic effects, plane wave Born approx. 2−85818
atomic weight determ., Faraday constant accuracy improvement, NBS research 2−58776
atoms, inner-shell ionisation by ultra relativistic electron impact, density effect search 2−70426
Auger MNN spectra and electron localisation 2−93334
bicrystal, struct. of large-angle Σ=13 [001] twist grain boundary 2−71470
Black Sea, Cd and Ag concs. in upper water layers 2−117362
BS-12 glasses, Ag-activated luminesc. 2−116240
chemisorbed on Si (111), vacancy and chemisorptive bond elec. struct. 2−82417
chemisorption of thiourea complexes on Ag electrodes, surface enhanced Raman spectroscopy 2−93811
coadsorption of CO and pyridine, effect on surface enhanced Raman spectra 2−87031
colloidal, form. on float glass surface by heat treatment, optical props. 2−92398
colloids, chem. neutron dosimetry appl. 2−80352
core-hole lifetimes, electron spectra determ. 2−57256
current-conducting pastes based on polymer binders and fine Ag and graphite powders, prep. and electrophys. props. 2−99384
Debye-Waller factor calcs. 2−103932
dendrites and single crysts., electrolytic growth in gel media, surface morphology, SEM study 2−87962
developed Ag morphology, influential factors 2−62414
diffusion bonding, to Cu substrate and vice versa 2−72940
diffusion of Pt, 1094 to 1232K 2−61204
discontinuous film, carrier mobility 2−82479
silver continued
electrical resistivity below 9K 2−66526
electrocrystallisation, of single crystal, conc: non-homogeneity 2−91834
electrode, adsorbed thiourea, surface enhanced Raman scatt. 2−99200
electrode, adsorpt. of $Ru(CN)_6^{4-}$, surface enhanced Raman spectrosc. obs. 2−61889
electrode, monocryst., adsorpt. of diethyl ether, admittance and reflectance meas. *(French)* 2−76810
electrodeposited, oriented growth of single crysts. on as-grown crysts. 2−104179
electrodes, adsorbed pyridine, thiourea, H_2O, photochemical activation effect on surface enhanced Raman scatt. 2−110828
electrodes, adsorpt. of benzene, surface-enhanced Raman spectra 2−61276
electrodes, adsorpt. of crystal violet, surface enhanced Raman scatt. 2−99104
electrodes, adsorpt. of nucleic acid bases, surface enhanced Raman spectra 2−72485
electroformed discontinuous film, pot. distrib. and switching phenomena 2−61619
electron energy absorption spectrometry *(German)* 2−113084
electronic energy bands, KKRZ calc. 2−76910
electronic props., one parameter model pot. 2−61331
electronic struct., non-muffin-tin and relativistic interaction effects 2−61341
electroplating with Au and Ag, future trends, substitute materials and cost reduction 2−67667
epitaxial growth on mica, previous substrate heat treatment effects, RHEED study 2−93428
epitaxial layers, inner potential meas. 2−92725
fast secondary electron emission by X-ray irrad. 2−57262
Fermi surface radius, Fourier expansion method 2−104230
film, absorbed mol. charge transfer excitation, EELS obs. 2−62027
film, bicryst., gas bubble growth 2−115607
film, electron transmission and backscattering, Boltzmann eqn. model *(French)* 2−77643
film, evaporated, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
film, Ga liquid layer dispersion on surface *(Russian)* 2−71778
film, growth on Pd, AES and electron microscopy study *(French)* 2−71839
film, inelastic lifetime and spin-orbit coupling of cond. electrons., magneto-conductance study 2−110494
film, ion beam epiplantation on Si 2−116389
film, IR surface plasmon attenuation coeffs. 2−110434
film, sputter deposition, angular factors, SEM and EPMA study 2−87936
film, surface morphology under anodic and cathodic load and during ageing 2−98504
film, surface photoemission in 4d band 2−87952
film, void growth 2−115606
film, volume EM, surface EM and SAWs, three-wave mixing 2−82936
film deposits, on Al(100) substrate, electronic struct. evolution 2−82443
film growth on Si(100) and (111), LEED, AES and angle-resolved UPS study 2−92413
film growth on Si (100), LEED and AES study 2−56397
film on Al(100), electronic structure, XPS study 2−115647
film on Al substrates, differential reflectivity, nonlocal electrodynamics 2−87884
film on GaAs {001}, Auger lineshape variation during epitaxial growth 2−87916
film thickness on Si solar cell, X-ray fluoresc. anal. 2−88396
films, clean and adsorbate-covered, optical spectra 2−87890
films, elec. cond., inductive contactless meas. technique 2−79617
films, struct. and internal stresses in various gases, ultrahigh vacuum measurements 2−82174
films, surface plasmons, light emission efficiency meas. 2−77151
foil, adsorbed thiophene reactive layer, molecular SIMS 2−87056
grating, light emission from surface plasmon modes excited by N atom layer 2−82907
grating, organic monolayer assembly, surface plasmon enhanced Raman spectra obs. 2−110838
grating surface plasmon dispersion relations 2−98708
gratings in air and electrolyte, plasmon surface polaritons, nonresonant excitation, light scatt. 2−104896
in-situ UHV high-resolution TEM surface study 2−98411
intraband optical cond. relax. time, phonon contrib. 2−93143
ion bombarded, secondary electron emission coeff. meas. 2−72591
ion implantation of $H^+(D^+)$, atomic displacements, residual resist. study 2−98121
island films, optical plasma reson. absorpt. half-width, size effect 2−67132
island films, surface-enhanced Raman scatt. excitation spectra 2−61898
island sublayer, effect on epitaxial growth of CdTe, CdSe, CdS and ZnTe films 2−88005
isoelectronic series ionisation potentials, core polarisation, relax., and relativistic effects 2−113896
K shell electron incoherent scatt. functions for 145 keV gamma rays 2−70209
liquid, mag. susceptibility calcs. 2−98843
lithographically prepared microstruct., surface enhanced Raman scatt. 2−67067
Lomer-Cottrell locks by mech. straining, X-ray topography 2−109805
mass absorption coeff. and range of beta particles 2−75135
materials with Z_2=23-30, electronic stopping cross section for 30-300 keV protons 2−66086
MBE layers, epitaxial relationship with GaAs {001} substrate 2−56396
miniature Ag/Zn batteries, construction and mass production technology 2−116791
mirror, laser damage threshold depend. on wavelength, material, pulse length and prep. method. 2−60143
mirror production, comparison of $SnCl_2$, $SnCl_4$ sensitizing agents in electroless deposition 2−72641
molten/Fe system, wetting behaviour 2−82080
monolayer on Si(111), surface passivation, LEED, Auger and photoemission anal. 2−83259
Mossbauer isomer shift of ^{197}Au, calc. from electron capture lifetime meas. 2−93076
multilayer physisorption of Ar, mean-field theory 2−87050
negative ion emission by mol. sputtering 2−57229
optical films, mechanical props. 2−82191

silver continued
overlayer on GaAs, surface and contact props. 2−92751
particles, dissolution in oxygenated aq. NH_3 soln., concentration effects 2−92209
particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
particles, surface plasmon lifetime 2−61382
particles, van der Waals forces enhancement, coagulation rate meas. 2−93822
photoemission, polarisation depend., from (110) and (111) surfaces, dipole selection rules 2−72601
point contacts, low freq. elec. fluctuations 2−110449
point defect props. calcs. based on three-body interactions 2−91962
poly-1-vinyl-1,2,4-triazole-Ag boundary, charge carrier photoinjection 2−61587
polycrystalline, adsorpt. of O_2, H_2O, CO, CO_2, formaldehyde and methanol, SIMS investig. 2−105516
precipitation from waste fixing solutions, photographic processing appl. *(Russian)* 2−64150
proton backscatering below 500 keV, energy depend. 2−116315
proton irrad., In-vacancy interaction, TDPAC study 2−56004
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
reflectance at visible, IR wavelengths, wavelength and temp. depend. 2−67083
secondary electron emission coeff. under ion bombardment 2−111007
self-diffusion rate, hydrostatic press. and temp. depend. 2−61194
small particles vapour deposited onto AgBr, NaCl substrates, height determ. 2−98483
stopping power for slow protons, electron exchange and correl. effects 2−86767
substrate, Zu epitaxial growth, ion scatt., Auger and LEED study 2−82160
substrate for phthalocyanine film, surface enhanced Raman scatt. 2−87778
surface, (001), (110) and (111), RHEED, Bragg peaks 2−115109
surface, (110), (100) and (111), work function, Auger and LEED study 2−77155
surface, (110), SO_2 chemisorption, atomic O effects, UPS, LEED and thermal desorpt. study 2−76824
surface, (111), methanol absorpt., oxidation and decomposition, UPS and XPS study 2−76826
surface, adsorbed CN^- and pyridine mols., giant Raman effect 2−67062
surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
surface, adsorbed pyridine, resonantly stimulated desorption by polarised IR laser radiation 2−104149
surface, adsorbed pyridine, surface enhanced Raman scatt. 2−82838
surface, methyl cyanide oxidation, AgCN and AGOCN surface compounds formation 2−78126
surface, pyridine derivative adsorption, effects on electronic struct., surface enhanced Raman spectra study 2−92357
surface, rough, elec. field enhancement, surface enhanced Raman scatt. 2−87790
surface (001), angular resolved photoemission, 40 to 100 eV 2−57248
surface (100), adsorbed Cl^-, fractional coverage, dipole sum calcs., appl. to enhanced Raman spectra 2−87004
surface (100), electronic struct., photoemission study 2−83002
surface (110), adsorbed aromatic molecules, enhanced photofragmentation, Raman study 2−116725
surface (110), Fe overlayer growth, LEED and AES studies 2−98489
surface (110), LEED surface crystallographic anal. 2−87000
surface (110), NH_3 adsorption, thermal desorption spectroscopy and EELS study 2−66372
surface (110), O precovered, chemisorbed ethylene, EELS cross-section, energy depend. 2−56364
surface (110), O predosed, adsorbed CO_2 and CO_3, EELS study 2−87924
surface (111), interaction with pyrazine, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 Å 2−102523
surface (111), mol. beam scatt., speed distrib. meas. for monatomic, diatomic and polyatomic mols. 2−57240
surface (111), NO scatt., laser induced fluoresc. 2−99256
surface polaritons, attenuated total refl. 2−116288
surface profiles, autocovariance functions, electron microscope and microdensitometer study 2−76792
surfaces, (110), adsorbed O_2, ellipsometric study near Ag plasma freq. 2−92364
surfae (110), O_2 adsorption, spectroscopic ellipsometry study 2−98453
target, stopping power and effective charge of heavy ions 2−76543
thermal cond., plastic deformation effects, dislocation scatt. 2−104349
thermoelectric behaviour of metal powders depending on press. *(German)* 2−77024
thin film, low loss surface imaging STEM studies 2−110181
thin film, resistance, magnetoresistance, weak localisation *(Russian)* 2−87417
thin films, homogeneous, emissivity calc. 2−71677
thin target foils, electron impact, K-shell ionisation, bremsstrahlung and electron-electron bremsstrahlung 2−75404
transparent cond. film, planar magnetron sputtering 2−105074
ultrafine particles, positron annihilation 2−93319
underpotential deposition on Au using rotating ring disc electrode, potentiostatic transient behaviour 2−93454
VPE growth on Ag(Cu), Auger line shape anal. 2−110186
AG-ZnS(Se) Schottky barrier contacts, exptl. study 2−72057
Ag centres on AgBr, reduction sensitization versus photolysis 2−62418
Ag films, dye monolayers, exciton surface plasmon interactions 2−71879
Ag I radiative lifetimes 2−64919
Ag II radiative lifetimes 2−64919
Ag natural and A=107, 109, coherent neutron scatt. length, interferometric meas. 2−71293
Ag^+, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
^{109}Ag HFS optical pumping, ground state 2−70198
Ag/Au epitaxial system, initial stages of growth, LEED study 2−92404
Ag/1Agβ/Te vaporisation cells, printed cct. power supplies appl. *(Spanish)* 2−88419
Ag/zeolite 4A-I_2 solid state cell, electrochemical performance 2−73101
Ag-Ag, prep. of tunnel junctions 2−77234
Ag-Au epitaxial system, LEED spectra, influence of ion-core scatt. 2−86525
Ag-$Bi_{12}TiO_{20}$-Al, local levels in forbidden band of $Bi_{12}TiO_{20}$ 2−71899

silver continued
Ag-CdS-C, switching struct., with potential barrier, elec. characts. 2−87407
Ag-Cu electrode, adsorbed pyridene mols., surface enhanced Raman scatt. 2−99131
Ag-CuBr(Cl)(I), system light-sensitivity spectra, correl. with Cu halide absorpt. spectra 2−67079
Ag-electrolyte interface, surface states, electroreflectance study 2−92754
Ag-GaAs (001), Ag MBE growth and interfacial diffusion, AES, LEED and SEM study 2−93432
Ag-GaAs (100), interface struct. and electronic props. meas. 2−110171
Ag-GaAs Schottky diodes formation on Kelvin, AES and LEED characterised surfaces cleaned by ion bombard. 2−87391
Ag-GaSe interface, Schottky barrier formation, UPS study 2−110443
Ag-glass mirrors durability in moist acid vapours, applications in outdoor environments 2−67843
Ag-In melt, X-ray investigation, hard sphere model *(Russian)* 2−86541
Ag-InP interface, Schottky barrier formation, UPS study 2−110443
Ag-O-Cs, S1 photocathode, surface resist. meas. 2−87940
Ag-Pd-Ag epitaxial junction, superconductivity 2−82545
Ag-pyridine sols, surface enhanced Raman scatt. 2−82859
Ag-Si (111), interface growth, intermixing, UPS study 2−110165
Ag-Si (111)7×7, struct. studies of Schottky barrier formation by surface EXAFS 2−110174
Ag-Si layer struct., B implantation depth profiles 2−103804
$Ag+Cu^{++}$, K-shell vacancy prod. study 2−108694
$Ag+H^+$, double-differential cross sections for delta-electrons 2−75401
Ag+heavy ions, convoy electron prod. 2−77647
$Ag+O_2$ system, catalytic intermediates, evidence for AgO_2 nonsymm. mol. 2−96563
$Ag+Se_2^+$ (Te_2^+), secondary electron emission yields 2−77649
$Ag+Se^+$ (Te^+), secondary electron emission yields 2−77649
Ag_x+pyridine, matrix reactions, vibr., IR spectra relationship to SERS 2−111470
Ag_2Se-Se-Ag thin film sandwich, polarised memory switching obs. 2−104468
^{110}Ag, diffusion in fused Tl_2Se_3 2−81996
^{110}Ag, diffusion in n-InP from vapour 2−86941
Al-Ag granules in complex film, plasma resonance absorpt. bands 2−116289
Al-Ag-Al strip, pressure-welded, interdiffusion layer struct., ultramicrotomed thin section method 2−71738
Al-Al_2O_3-Ag tunnel junction, adsorbed mol. monolayers, surface enhanced Raman spectra obs. 2−82867
Al-Al_2O_3-Ag tunnel junctions, electron energy loss function image in light emission 2−116267
Al-Al_2O_3-Ag tunnel structures, photon emission, expt. study 2−82471
β-Al_2O_3:Ag^+, solid ceramic electrolyte, cells for thermodynamic studies 2−99378
β″-Al_2O_3-Ag_2O, far IR absorpt. 2−116190
As_2S_3/Ag system, photodoping mechanisms, ESCA studies 2−115147
As_2S_3-Ag, diffusion controlled sensitivity to illumination, image formation characts. 2−101484
As_2S_3-Ag and As_2S_5-Ag systems, transmission spectra of interacting products *(Russian)* 2−62423
As_2Se_3:Ag, amorphous, XPS study 2−57249
As_2Se_3:Ag, chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
As_2Se_3:Ag, diffusion and photodoping, optical edge tracing study 2−71722
Au/Ag thin films, diffusion-induced grain boundary migration 2−71735
Au/amorphous Se/Al struct., capacitance and photocapacitance, tune depend. meas. 2−56724
Au-AG two-layer film, grain boundary diffusion investig. by elec. resist. method 2−76874
Au-Ag composite granular films, optical transmittance 2−72570
CaS:Ag phosphors, decay characts. and thermoluminesc. 2−99166
Cd and Ag conc. in Black Sea surface waters 2−117362
$CdCr_2Se_4$:In, Ag defect single cryst. growth, elec. and mag. characts., dopant influence 2−91842
$CdGa_2Te_4$:Ag, amorphous film, structural ordering, affect of impurities 2−87114
$CdGa_2Te_4$:Ag film, polycryst. and amorphous, elec. cond. and Hall effect meas. 2−82490
CdS:Ag, Ag solid solubility meas. 2−56200
CdTe, Ag diffused, degradation of elec. and optical props. 2−115751
CdTe:Ag, acceptor levels, elec. and photoluminescence study 2−110296
CdTe-Ag solid soln., supersaturated, carrier decay process kinetics 2−92649
CsBr(Cl):Ag^+, far UV spectra, fluorescence and optical bleaching studies 2−110901
GaAs:Ag, LEC grown, DLTS study 2−98572
GaAs-Ag interface, formation, struct., electronic states 2−104485
n-GaAs-Sn(Ag)(Al)(Au) MIS Schottky barriers, electron trapping in oxide layer 2−77196
Ge-Ag, interface electron struct., XPS study 2−82422
$GeSe_2$:Ag, amorphous, XPS study 2−57249
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
Ge_xSe_{1-x}:Ag amorphous films, Ag photodoping, XPS study 2−57245
GeSx:Ag 2−56932
Ge(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
InP-Ag contacts, interface control by var. of concentration of free In, co-evaporation 2−66638
KCl:Ag, dielec., sp. ht. and thermal cond. 2−86960
LiCl:Ag^+, luminesc. props. and impurity electronic struct. 2−57161
NaCl:Ag, activator electroluminesc., recomb. and intracentre processes, strong electric field effect 2−72557
NaCl:Ag, Schottky defects, energy of form., ion mobility and cond. study 2−71441
NaCl:Ag^+, luminesc. props. and impurity electronic struct. 2−57161
$NaNO_2$:Ag^+, triplet state, quadrupole interaction, optically detected ESR and ENDOR 2−116093
Nb-Al_2O_3-Ag, electron tunnelling in normal and supercond. states 2−115913
Nb-Nb oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
Ni-Ag two-layer thin films, magnetoresist. *(Russian)* 2−66664
PbTe:Ag, Tl epitaxial film, elec. cond. and Hall effect 2−115922
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2−92289

silver continued
RbI:Ag^+, ionic thermal currents under uniaxial stress, determ. of elec. and elastic dipole props. 2−110751
Si:Ag, gettering by Al at low temp., Rutherford backscatt. study 2−115264
Si-Ag interface, O_2 interaction, photoemission investig. 2−110474
Si-SiO_x-Ag MOS solar cell degradation; TEM and elec. study 2−93908
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
Ta-Ta oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
W:Ag,He, ion implanted, He precipitation at substitutional Ag atoms He desorption study 2−92218
$Zn_{1-x}Cd_xS$:Ag phosphor layer on SiO_2 and Zn_2SiO_4:Mn particles 2−110952
ZnS:Ag, photolum. and elec. props. study of Ag doping 2−110944
ZnS-Ag-ZnS heat reflecting filter, optimal design 2−81058
ZnS_xCdS_{1-x}:Ag, phosphor, visible image formation from IR radiation 2−77563
ZnSe:Ag LPE layers, luminesc. spectra, acceptor levels 2−116250
ZrP_2O_7:Ag^+, solid electrolyte, ionic cond. meas. 2−92256

silver alloys
corrosion, anodic dissoln. and O reduction in aq. media 2−111354
dilute, impurity d-bands and core level binding energy shifts 2−56482
dilute alloys, electric field gradients, point defects, PAC meas. 2−93085
electrical resistivity below 9K of Ag-based alloys 2−66526
Roman, analysis by scatt. and X-ray fluoresc. of monoenergetic gamma-rays 2−116738
AG-Mn, dil., mag. impurity effects studied by tunnelling in supercond. proximity layers 2−61660
Ag-Al, Fermi surface of Hume-Rothery phases, positron annihilation study 2−61335
Ag-Au, oxidized, plastic deform. effect on alloy-oxide layer, TEM study 2−110219
Ag-Au, surface enhanced Raman effect, role of electron scatt. 2−61907
Ag-based solid solns. with group I to VB solutes, at. size and lattice parameters 2−109748
Ag-Co, dil., mag. behaviour of Co impurities 2−115971
Ag-Cu, ion sputtered, surface topography 2−105025
Ag-Cu eutectic alloys, elec. contact performance, effects of microstruct. *(Korean)* 2−62239
Ag-Cu films, plasmon excitation by fast electrons 2−92785
Ag-Cu system, T_0 curve between liquid. and α-phases, calc. and relevance to rapid solidification 2−105128
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Ag-Ge, amorphous film, struct., elec. and optical props. 2−82483
Ag-Ge, rapidly quenched alloys, superconducting investigation *(Chinese)* 2−61672
Ag-La (25 at.%), phase diagram invest., thermal anal. and X-ray meas. 2−67301
Ag-Mg, equiatomic, rheological behaviour of β' phase 2−57421
Ag-Mg, liq. and solid, conc. and temp. depend. of mag. susceptibility 2−56826
Ag-Mg polycryst. target, detection of low energy ion-induced secondary electron emission 2−82975
Ag-Mn, dil., spin glass, temp. depend. of order parameter 2−72214
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Ag-Mn, spin glass, equilib. magnetisation meas., comparison with mean field theory 2−66843
Ag-Mn, spin glass, muon spin relax. studies 2−72395
Ag-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Ag-Mn (10.6 at.%), spin glass, mean field description, comparison of theory and expt. 2−72213
Ag-Mn spin glass, freq. and field depend. of AC susceptibility 2−61721
Ag-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Ag-Mn spin glasses, H-T phase diagram 2−98895
Ag-Mn spin glasses, time and field depend. of magnetisation 2−72216
Ag-Ni, sintering, effect of additions of MgO particles 2−88027
Ag-O liquid alloys, surface tension and adsorption meas. 2−104117
Ag-Pb, system, solid-liq. region of phase diagram, interfacial tensions and adsorption 2−88057
Ag-Pb alloys, rapidly quenched, Ag-rich phase 2−88056
Ag-Pd, AES depth profile anal., peak overlap and electron escape depth influence 2−110992
Ag-Pd, dilute, impurity system electronic struct., pseudopot. study 2−98575
Ag-Pd, electronic struct. atomic approx. 2−104244
Ag-Pd, equiatomic, metallurgical instabilities, SRO and elec. resist. anomalies 2−93490
Ag-Pd (16 wt.%), sputter behaviour, influence of ion energy and incidence angle on Auger depth profiles 2−82972
Ag-Pd alloys, potentiodynamic polarisation anal. in Cl soln. 2−57535
Ag-Pd(Au) alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
Ag-rare earth ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
Ag-Si phase, interdiffusion form., surface struct. anal. by quantitative AES 2−67159
Ag-Sn, peritectic reactions and transforms, mechanisms 2−83087
Ag-Sn (16.5 wt.%), rapidly quenched, residual resist. increase, vacancy form. energy 2−88231
Ag-Sn (1.2 at.%), dislocation band struct. produced by bending stress, X-ray topography study 2−86679
Ag-Tb(Dy)(Ho)(Tm), dilute alloys, magnetostriction, free energy calc., single ion Hamiltonian 2−92987
Ag-Zn, internally oxidised, containing various alloying additions, elec. contact charact. 2−83248
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
Ag-Zn, irradiated, Zener relax. of point defects 2−56082
Ag-Zn(-Au), disordering temp. changes under action of γ-irrad. *(Russian)* 2−61123
AgAl, molten, short range order and conc. fluctuations 2−91757
AgAl, molten, thermodynamic props. in weak interaction approx. 2−91759
AgAu, preferential sputtering 2−77681

silver alloys continued
AgGa, Coulomb pseudopotential from normal-state resistivity and T_c 2−98790
AgIn dilute alloy, internal oxidation, TDPAC study 2−93080
AgMg, electronic energy bands, Fermi surface 2−92448
Ag_3Mg, ordered and disordered, cold-worked, internal friction and shear modulus meas. 2−116484
$Ag_{0.2}Pd_{0.8}$ random alloys, electronic states, SCF-KKR-CPA method 2−76904
$Ag_{48}Zn_{50}Au_2(Cu_2)$, order-disorder transform., metallographic, resistivity, microanal. and X-ray obs. 2−111171
Al-Ag, dilute, Matthiessen's rule deviation at high temp. 2−115729
Al-Ag, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Al-Ag, thermal expansion of inclusions 2−61180
Al-Ag (15 at.%), residual elec. resist. and struct., isochronous annealing effects *(Russian)* 2−98613
Al-Ag (8.2 at.%), single crysts., dechannelling of fast ions by spherical GP zones 2−86762
Au-Ag, oxide formation during corrosion in HNO_3, electron microscopy study 2−72890
Au-Ag, tilt grain boundaries with substitutional impurities, atomistic study 2−115247
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Au-Cu, ^{197}Au Mossbauer isomer shift calc. from electron capture lifetime meas. 2−93076
Cd-Ag, peritectic cooling curves interpret. 2−105118
Cd-Ag, warm deform. and texture strengthening 2−111199
$CeAg_{1-x}In_x$, cryst. field excitations 2−61419
$Ce(Ag_{0.3}Pd_{0.7})_3$, mixed valency photoemission study 2−87199
$CeInAg_2$, mag. struct., neutron diffr. study 2−82565
$Ce(Pd_{1-y}Ag_y)_3$, intermediate valence and Gd^{3+} ESR 2−56927
Cu-Ag, amorphous films with high stability 2−104196
Cu-Ag electron irrad., rad. induced segregation at internal sinks 2−86731
Cu-Bi(Ag), tilt grain boundaries with substitutional impurities, atomistic study 2−115247
CuPbAg, solid-liquid two-phase system, equilib. microstruct. and interface tensions *(French)* 2−61156
DyAg, cryst. and amorphous, electronic relax. and hyperfine fields, Mossbauer study 2−116098
$Gd_{0.52}Ag_{0.48}$, amorphous, random anisotropy props., magnetisation meas. 2−72271
In-Ag liq. binary system, O diffusivity and thermodynamic props. 2−86907
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
Ni-Ag co-evaporated amorphous thin films, thermal evolution 2−71835
Pb-Ag (0.038 at.%), kinetics of Ag precip. 2−111187
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
Pd-Ag, preliminary H impregnation influence on mech. props. 2−99554
Pd-Ag, search for superconductivity 2−77223
$Pd_{1-x}Ag_x$, paramag. and diamag. susceptibility, temp. and Ag mole fraction effects 2−92863
$Pd_{1-x}Ag_xHy$, α-α' phase transition of H, X-ray scatt. study 2−103977
PrAg, magnetisation and susceptibility meas. 2−116032
$PrAg_{1-x}Cu_x$, quadrupole interactions and struct. instabilities, neutron diffr. and magnetisation study 2−71943
SmAg, core level EELS and XPS spectra 2−72588
Ti-Ag layered crystals, VPE synthesis, soft X-ray monochromator appl. 2−83040
$TiBe_{2-x}Ag_x$, magnetisation meas. in low and high fields 2−56839
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
W-Cu(Ag), powder metallurgy factors affecting elec. contact props. 2−116408

silver compounds
acetate, Ag negative ion emission by mol. sputtering 2−57229
$Ag_4P_2S_6$, cryst. struct. determ. *(French)* 2−71400
alkali nitrate-$AgNO_3$ mixtures, nonisothermal, Soret coeffs. and transport props. 2−71678
chalcogenides, collective motion, plasmon-LO phonon coupling and cond. 2−56108
chalcogenides, mechanochemical synthesis, explosions *(German)* 2−62053
chalcogenides, mixed conductors, electronic relax. time, phonon modes 2−115836
halide, wavefront phase modulation in bleached holographic emulsion 2−85918
halide emulsion, microcrystal growth rate and precipitation in emulsification *(Russian)* 2−58958
halide emulsions, influence of polyvalent cations on faces and photographic characts. *(Russian)* 2−53871
halide grain-size analyser, electrolytic 2−112868
halide photographic film, optimal information capturing capabilities 2−88370
halide photographic process based on dye form. at one-equiv. steps, Ag diazotat conversion reaction *(German)* 2−83400
halide photographic process based on dye form. at one-equiv. steps, colour development *(German)* 2−83401
halides, cohesive and surface energy eval. 2−65915
halides, cohesive energy, compressible ion theory 2−71387
halides, streaming motion and population inversion of hot carriers, crossed elec. and mag. fields 2−98668
oxalate, thermal decomposition, mech. pretreatment effects, mass-spectrometric thermoanalysis 2−62397
proustite, structural phase transitions, NQR investig. 2−110720
pyrargyrite, structural phase transitions, NQR investig. 2−110720
space charge characts., EDTA influence 2−93110
sulphamides cond., photocond., and luminesc. studies 2−77111
thermally developed photographic materials, ageing, photosensitivity *(Russian)* 2−58957
(Ag, Tl, K)NO_3-H_2O electrolyte solns., water activities, vapour press. meas. 2−105498
Ag (I) complex, 5-benzythio-1,2,4-triazole, IR obs. 2−113991
Ag halide emulsion layers, effect of volume conc. on attenuation factor of light *(Russian)* 2−53880

silver compounds continued
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2—111502
Ag halide photochromic glasses, darkening kinetics calc. formula 2—75642
Ag halide photographic emulsions, homogeneous theoretical calcs. *(Russian)* 2—74547
Ag halide/emulsion production photographic method for high sensitivity 2—113018
Ag SCN, cryst. struct. and polymorphism, X-ray powder diffr. 2—115191
Ag^+ bis(2,2'-bipyridine)-bis-cyanoruthenium(II) complex form., redox and photochem. behaviour 2—83392
Ag-organic radical-ion salts, reversible field induced phase transition 2—66597
Ag-Sb-Te, ternary system, enthalpy of mixing *(German)* 2—76693
Ag-Te (Se)(S)(I) diffusion couples, struct. and elec. cond. meas. 2—82033
$AgAlFeSe_4$, energy gap, visible-UV absorpt. 2—104904
$Ag_4Al_3Si_3O_{12}I$, synthesis by solution-solid mixing, X-ray diffr. characts. 2—83052
$AgAlSnSe_4$, energy gap, visible-UV absorpt. 2—104904
$AgAsS_2$ crystals, vibr. spectra, Davydov double resonance 2—61897
Ag_3AsS_3 based metal-semiconductor-metal systems, dynamic I-V and transient characts., charge transport mechanism 2—92779
Ag_3AsS_3, electrical conductivity, electronic and ionic components, temp. depend. 2—77136
Ag_3AsS_3, proustite, phase transition, Raman and Brillouin scatt. study 2—103986
Ag_3AsS_3, proustite, piezoelectric and SAW props. meas. 2—93116
Ag_3AsS_3 proustite dye laser system, IR image to visible upconversion systems 2—102874
AgBr (100) single crystal films, vacuum deposition of Au particles 2—110193
AgBr, B-X system, rot. anal. 2—96591
AgBr, elastic consts., 3rd and 4th order 2—76563
AgBr emulsion grains, space charge characts., effect of soln. pAg and pH 2—72418
AgBr emulsions, ionic thermocurrent meas., grain microcryst. struct. depend. 2—88383
AgBr emulsions with varying pH and pAg, primitivities *(French)* 2—58925
AgBr evaporated layers, $Na_2S_2O_3$ breakdown, electron microscopy obs. 2—88367
AgBr, fast ionic conduction concepts applied to latent image form. 2—111503
AgBr, interaction of stabilisers and antifoggants rel. to sensitising effects 2—88369
AgBr microcrystals, in gelatin layers, slow electron mobility, size effect 2—92661
AgBr, optical fibre, middle IR, heterodyne detection and radiometry appl. 2—65381
AgBr, paradox of Ag_2 centres, reduction sensitization versus photolysis 2—62418
AgBr, photochromic glass, flash photolysis, colour centre formation 2—103664
AgBr photographic emulsion microcrystals, luminescence investigations of tunnel relocation of holes *(Russian)* 2—74560
AgBr photographic emulsions, luminescence, photographic process 2—82888
AgBr single crystal films, habit of vacuum-deposited Au particles 2—110194
AgBr single crystal IR fibres 2—99318
AgBr, solid electrolyte thin film battery 2—62466
AgBr, space charge characts., EDTA influence 2—93110
AgBr, surface pot., adsorbed layer effects, expt. study 2—92724
AgBr, surface pot. and Debye length, temp. depend. 2—61536
AgBr:Au photographic grains, role of Au containing surface states, expt. study 2—74538
AgBr:Pb^{2+}, photocond. meas. for sub-bandgap light 2—87325
AgBr:Pb^{2+}, photocond. meas., pre-exposure effects 2—87326
AgBr:Pb^{2+}(Cd^{2+}), photoresponse and photoelectron lifetime 2—56641
AgBr:Rh^{3+}, Raman spectroscopy study of Rh defect centre 2—99118
AgBr-AgCl, microhardness, theory 2—86785
AgBr-AgI, anomalous ionic cond. in mixed cryst. and multiphase systems 2—98332
AgBr(I) emulsion, antifogging substance action mechanism *(Russian)* 2—58960
$AgBrO_3$, phase transition temp. and enthalpy, DSC obs. 2—98261
AgCl, band struct. and density of states, APW-LCAO calc. 2—115663
AgCl, elastic consts., 3rd and 4th order 2—76563
AgCl film, light illumination, modifications induced by ion implantation 2—93311
AgCl, high press. compressibility and Moelwyn-Hughes parameters 2—58040
AgCl in glass rel. to photochromic prop., apparatus for spectral sensitivity determ. *(German)* 2—102892
AgCl, isotopically invariant Dunham coeff. 2—85643
AgCl, microwave photodielec. effect 2—72025
AgCl, non-stoichiometry and chem. diffusion coeff., electronic cond. meas. 2—56594
AgCl, optical fibre, middle IR, heterodyne detection and radiometry appl. 2—65381
AgCl orthorhombic PbO spectral sensitisation, peak photographic response 2—88368
AgCl, photochromic glass, flash photolysis, colour centre formation 2—103664
AgCl, photodecomposition, XPS study 2—111497
AgCl photographic emulsions, luminescence flash of latent image centres *(Russian)* 2—53882
AgCl, photoplastic effect meas., latent image formation appl. 2—115340
AgCl, plastic deformation, wavy slip band form. 2—115337
AgCl, thermal cond. and sp. ht. under press., hot-wire method 2—82040
AgCl, triplet excitons, hyperfine interactions ESR optical registration study 2—87629
AgCl whisker-like crystals grown from vapour phase, light and electron microscopic obs. 2—98507
AgCl:Br^-, pure and doped, band-gap-irrad., luminesc. centres, ODMR and level-anticrossing spectra 2—56980
AgCl:$CdCl_2$, point defects, hypernetted chain eqns. for lattice gas model, solns. 2—61015
AgCl:Mn^{2+}, dielec. relax., ionic thermocurrent method 2—99033
AgCl:S, S centre, ENDOR study 2—93063
silver compounds continued
AgCl-AgBr mixed cryst., interionic pot. and cryst. props. 2—65916
AgCl-LiCl molten soln., surface tension, activity and thermodynamic props. and density meas. 2—76778
AgCl(Br), neutron irrad., Frenkel defects, struct., and annealing, NMR study 2—91952
$AgClO_3$, ^{35}Cl NQR investig. 2—110702
$AgCrS_2$, 2-D superionic conductor, hopping cond., Green function calc. 2—115449
$Ag_{0.37}Cr_{1.21}S_2$, non-stoichiometric layer cpd., cryst. struct. determ. 2—103700
$Ag_{1-x}Cu_xI$, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2—60914
AgF-LaF_3 reversible interface, Auger depth profiling and impedance study 2—71807
AgF(Cl)(Br), electronic struct. calcs. 2—110249
$AgFeCl_4$, cryst. struct., mag., optical, and ionic cond. props. 2—92266
$AgGaGeSe_4$, energy gap, visible-UV absorpt. 2—104904
$AgGaS_2$, cathodoluminescence, excitonic luminesc. and edge emission obs. 2—72559
$AgGaS_2$, piezooptical, electrooptical and birefringence consts., meas. in visible region *(Russian)* 2—77490
$AgGa(Se_{0.75}S_{0.25})_2$, crystal solid soln., impurity photocond. meas. 2—61521
$AgGaSnSe_4$, energy gap, visible-UV absorpt. 2—104904
Ag_2HgI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2—115450
Ag_2HgI_4 solid electrolyte, attempt freq. for ion hopping, Raman spectra 2—116176
$Ag_2HgI_2(NO_3)_2.H_2O$, cryst. struct. determ. 2—71411
AgI, absorption spectra at press. up to 136 kbar 2—110882
AgI, cloud seeding, of stratiform and cumiliform cloud *(Chinese)* 2—78742
AgI, cloud seeding laboratory expts. 2—58105
AgI hexagonal substrate, adsorbed $(H_2O)_n$ monolayer cluster, Monte Carlo studies 2—110140
AgI, ice-nucleating activity, effect of addition of sel. compounds in suspensions 2—86829
β-AgI, phonon spectra, hopping kinetics, IR spectra study 2—76616
AgI, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2—60914
α-AgI, Raman scatt. temp. depend. 2—110860
AgI, solid electrolyte thin film battery 2—62466
α-AgI, state of order, diffuse X-ray and neutron scatt. study 2—71425
AgI, thermal cond. meas., 120-500K 2—56277
AgI:$Ag_2B_4O_7$, vitreous electrolytes, struct. and ion dynamics 2—61197
AgI:Cu, electronic cond., carrier mobility, DC polarisation and charge transfer methods 2—115753
AgI-$Ag_4P_2O_7$ system, phase diagram and elec. characts. 2—82013
AgI-$Al_2O_3(SiO_2)$(AgBr)(fly ash), enhanced ionic cond., AC elec. cond. meas. 2—82011
AgI-CuI solid soln., influence of Cs^+ ion on co-ionic cond. 2—71713
AgI-PbI_2 mixture, elec. and phase behaviour 2—76737
AgI-RbI(KI), eutectic mixture, impurity behaviour during crystn. refining 2—111064
$Ag_2IF.H_2O$, cryst. struct., XPS, X-ray and neutron diffr. study 2—76389
$Ag_2I_2F_5.2.5H_2O$, cryst. struct. 2—65929
$Ag_{16}I_{12}P_2O_7$, fast ion cond. characts. 2—82013
$Ag_{16}I_{12}P_2O_7$, single cryst. growth and struct. determ. 2—81751
$Ag_{19}I_{15}P_2O_7$ solid electrolyte, ionic cond. study 2—61198
$Ag_7I_4VO_4$ superionic conductor, heat of transport 2—92262
$AgInGeSe_4$, energy gap, visible-UV absorpt. 2—104904
$AgIn_5S_8$, two-temp. synthesis, props. 2—77725
$AgInSnSe_4$, energy gap, visible-UV absorpt. 2—104904
$AgInTe_2$, force consts. and phonon freq., spectral moment calc. from sp. ht. data 2—98224
$Ag_3(NH_2SO_3).NH_3.H_2O$, IR vibr. spectra 2—87766
$AgNO_3$ melt and soda-lime glass, multimode opt. waveguides appl. 2—86106
$AgNO_3$-$NaNO_3$, molten, current-induced comp. gradients 2—57654
$AgNO_2.NH_3$, dielec. dispersion, a- and c-axes 2—110755
$AgNa(NO_2)_2$, piezoelec. relax. 2—99050
AgO_2 nonsymm. mol., normal coord. anal. and IR spectrum 2—96563
Ag_2O, high-press. induced phase transition 2—92180
Ag_2O internal friction, neutron irrad. effect 2—81889
Ag_4RbI_5 solid electrolyte, I_2 dissolution meas. 2—110001
Ag_2S, crytallisation from KSCN melts, solubilities 2—111043
α-Ag_2S, nonstoichiometry investig. 2—86932
Ag_2S, semicond., form. at polythiazyl-metal junction, elec. study 2—110470
$Ag_{2+\delta}S$, α to β phase transitions, entropy changes, calorimetric study 2—86847
$Ag_3SBr_{0.5}I_{0.5}$, superionic conductor, cryst. struct. and phase transition study 2—109758
Ag_3SI, anomalies of acoustic attenuation and vel. at β-γ phase transition 2—109910
Ag_3SI superionic conductor, Ag ion dynamics, IR reflectivity study 2—61199
$AgSbS_{33}$, pyrargyrite, phase transition, NQR elec. field effect meas. 2—110724
Ag_3SbS_3 based metal-semiconductor-metal systems, dynamic I-V and transient characts., charge transport mechanism 2—92779
Ag_3SbS_3, pyrargyrite, piezoelectric and SAW props. meas. 2—93116
Ag_3SbS_3, pyrargyrite, cryst., ferroelec. phase transition, elec. field effects on NQR 2—110695
$AgSbSe_2$ film, growth and cryst. 2—115620
Ag_2Se, polymorphic transition and cryst. struct., electron microscopy study 2—86610
α-Ag_2Se, thermodynamic props. of electrons *(German)* 2—76712
Ag_2Se-Se-Au(Cr)(Ag)(Ag_2Se) thin film sandwich, polarised memory switching obs. 2—104468
$Ag_{2+\delta}Se$, α to β phase transitions, entropy changes, calorimetric study 2—86847
Ag_xTaS_2 intercalation cpd., electron diffr. investig. of superlattices, struct. and CDW 2—103720
Ag_xTaS_2, superlattices, electron diffr. study 2—91931
Ag_2Te-In_2Te_3 system, molten, elec. cond. and mag. susceptibility, temp. and comp. depend. 2—61465
Ag_xTiS_2, disordered stage II, c-axis parameters, X-ray study 2—109772
AgTlS(Se)(Te), prep. and semicond. growth, cryst. struct., elec. props. *(French)* 2—87971

silver compounds continued
$AgTlSe_2$, liq. semicond., elec. props. study 2−66576
$AgTlSe_2$ liq. semicond., elec. props. 2−82384
$AgTlSe_2$ semicond., liq. and solid, elec. cond. thermoelec. power and thermal cond. 2−92625
$AgTlSe_2$, semicond., solid and liq. states, dielec. relax. and AC cond. 2−110754
$AgTlTe_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
$Ag_2X_2O_6$ (X=Ta, Nb, Sb), vibr., force fields, IR and Raman study, normal coordinate anal. *(French)* 2−110869
β-Al_2O_3-Ag_2O, cryst. struct., X-ray powder diffr. 2−115190
β''-Al_2O_3-Ag_2O, dehydration reactions, DTA and TGA study 2−78091
Al_2S_3-Ag_2S system, phase diagram *(French)* 2−72675
As-S-Ag system glass, phase separation and struct. changes on Ag addition to As_2S_3, fractured surface obs. 2−103649
$Cd_{1-x}Ag_xCr_2Se_4$, photomagnetisation obs. *(Russian)* 2−56912
$CuAgH_3(AsO_4)_2$, cryst. struct. study *(French)* 2−71401
$K_2Ag_4Se_3$, prep. and cryst. struct. 2−65959
$Li_{1.6}Ag_{0.4}SO_4$, solid electrolyte, cryst. struct. at 565°C 2−91934
$LiNO_3$-$AgNO_3$ molten mixture, diffusion, elec. cond. and phenomenological coeffs. 2−66265
$Na_2Ag_4S_3$, temp. depend. of elec. cond. and self-diffusion of Ag^+ 2−76728
$O_2S(NAg_3)_2$ IR vibr. spectra 2−87766
$O_2S(NHAg)_2$, IR vibr. spectra 2−87766
Tl-$AgTlS_2$, molten system, electronic and mag. props. 2−98647
SIMS *see secondary ion mass spectra; secondary ion mass spectroscopy*
simulation
see also aerospace simulation; analogue simulation; brain models; digital simulation; hybrid simulation; modelling; physiological models; plasma simulation; semiconductor device models
BWR small-break loss-of-coolant accidents, two simulation tests 2−102244
chemical shift, meas. precision 2−59824
computer-generated image visual systems for marine simulator training 2−79334
domestic solar water heating system, collector sizing, computer simulation 2−116848
ECG simulator, portable 2−117114
EMP produced by nuclear explosion, simulation aid by electron pulse direct injection into air 2−96357
estimation of the diffuse radiation fraction for hourly, daily and monthly-average global radiation 2−73657
fluidised beds, gas-solid, particulate removal, simulation 2−81386
focusing/non-focusing solar collector testing using low-cost simulator *(Rumanian)* 2−88475
galactic shock waves and corrugation waves, numerical simulation 2−101071
galaxy systems, Monte-Carlo simulations of static props. of galaxies in supercluster filaments 2−84321
gas dynamics on galactic scales, numerical simulation 2−100729
HDR safety programme in Germany, simulated large scale breakdowns *(German)* 2−80158
heat pumps, air-to-water, house heating performance simulation using computer model 2−78239
heat pumps, electric air source, in single family homes, hourly power demand, Monte Carlo model 2−62493
heat pumps, solar-assisted systems for space and domestic water heating in Canada, comparative study 2−67882
human movement modelling, computerised simulation of whole body dynamics 2−116947
incompressible flows, two- and three-dimensional vortex methods 2−103179
interstellar chemical evolution, laboratory simulation 2−106831
ion selective electrodes, double known addition method, error propag., Monte Carlo simulation 2−116732
keyboard keystroke noise meas., operator simulation using profile robot driver 2−75804
light, partially coherent, photon counting distrib., computer simulation by Monte Carlo methods 2−60015
liquid natural gas, spills, vapour dispersion simulation 2−99865
low energy electrons, interactions with massive gaseous absorbers, simulation 2−60714
magnetic resonance spectra, simulation using stochastic Liouville eqn. with Pade approximants 2−85692
mechanical stresses and bending moments of thin sheets, simulation using biharmonic equation electrical analyser *(German)* 2−70885
optical fibre backscatter signature simulations, computer-generated 2−95447
ordered structures simulation in open turbulent flows 2−86265
radiance simulation and scene discrimination errors 2−79667
relativistic electron beam in metallic drift tube, numerical simulation 2−108773
seismic Rayleigh waves, synthetic seismograms from multi-dimensional simulations of underground explosions 2−88747
SIM80 gamma ray simulator, home defence training appl. 2−100131
solar granulation, basic eqns. and methods for numerical simulations 2−68695
solar type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
SPECT, anal. using Monte Carlo simulation 2−111783
terrestrial electricity, refined finite-difference simulations using local integral forms 2−88732
Trombe wall collector, modified, heat losses anal. and reducing measures for domestic space heating 2−67888
ventricular arrhythmias, computer simulation: ventricular bigeminy 2−88495
vortex methods for numerical simulation of three-dimensional incompressible fluid flow 2−103178
predeposition process and profile simulation Si:B 2−98136
simulation, digital *see digital simulation*
simulators *see simulation*
Sinanoglu's theory *see atomic structure*
sinks, heat *see heat sinks*
sintering
see also densification
borosilicate oxynitride glass form. by ammonolysis of porous borosilicate gels 2−57326
brass, atomised powder prod. and characters. 2−67251
sintering continued
brittle fracture microstructure of sintered materials, comparative investig. by SEM and replica TEM, sintering mechanisms 2−67695
bronze-graphite antifriction material, sintered, struct. and mech. props. 2−67556
cellulose felt, metal-filled, high-porosity material prep., heat treatment and strength props. 2−99383
cemented carbides, obs. using high temp. sintering dilatometer 2−105098
cemented carbides, stereology, review 2−111443
ceramic, densification kinetics during press. sintering, porosity effect 2−116416
ceramic obtained from synthetic SiO_2 2−99377
computer simulation, dynamic, by vol. diffusion 2−88021
contiguity coefficient and elec. cond. importance 2−111106
crystalline particles, active sintering by spontaneous dislocation healing of incomplete crack 2−105099
dilatometer, high-temp., obs. of cemented carbides 2−105098
electric-discharge, solid phase, dislocation mechanism 2−77768
ferrites, microwave sintering 2−83071
furnace, operating at high press. and temp. C+N_2 interaction 2−105097
gel to glass transform. by sintering, densification and crystn. phenomena 2−77794
grain and pore coarsening, microstruct. development during sintering 2−93469
liquid-phase, recrystn. of C during diffusion-limited process 2−67234
metal, surface oxide effect on sintering 2−77774
metallic particles, sintering, appl. of surface oxide model 2−88020
metallic sintered materials, elastic modulus, model 2−105208
mica reinforced cellular soda-lime glass composite, fabrication, mica dehydration effect 2−93485
mullite form. kinetics, grain comp. and component activity effects 2−77271
neck size in solid phase sintered specimens, thermodynamic relationships, morphological method 2−111105
pore/grain boundary separation, microstruct. development during sintering 2−93468
porous solids, sintered, expt. verification of plasticity hypothesis 2−116513
powder coatings produced by elec.-pulse sintering and weld facing for engine valve units, wear resist. 2−67659
powder compacts, densification during sintering, dislocation multiplication 2−116399
powder compacts, sintering, one-component, dislocation-activated shrinkage rates *(German)* 2−93470
refractory metals, hardmetals and special materials, trends, conf., Reutte, Austria (June 1981) 2−101115
shrinkage process during sintering, method for determ. activation energies 2−116401
silicate glass, prep. from colloidal gels by sintering 2−72663
solids, props. 2−116404
Space Shuttle tiles coating, particle size analysis 2−77954
spherical powders, densification, influence of increasing particle coordination 2−116398
steel, Cr, martensitic-ferritic, struct. and props., sintering technology, influence 2−83193
steel, dispersion hardened, 12Kh1MF, grain boundary fracture under creep *(Russian)* 2−105287
steel, stainless, powder metallurgical, mech. props., sintering environment influence 2−72782
steel, stainless, powder metallurgical, struct. condition, effect of different sintering environments 2−67254
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
steel-TiC composite with 10R6M5 high-speed steel, high-density material, processing parameters, struct. and mech. characts. 2−67262
surface diffusion, anal. using morphology model 2−111107
Synroc-B, powder prep. and densification for fabrication 2−93478
synthetic materials for electronics, conf., Warsaw, Poland (Oct. 1979) 2−68964
transition metal silicides, thin films, resistivities, rel. to sintering temp. 2−77203
two-phase sintered materials, microstruct.-field prop. correl. *(French)* 2−77831
viscous solids, sintering parameters calc. 2−83058
water reactor fuel, performance-related characts. 2−85133
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458
Ag-Ni, sintering, effect of additions of MgO particles 2−88027
Al, vacuum condensate, heterogeneous struct. formation 2−105107
Al-Si (0.9 wt.%) alloy fibres, sintering in presence of liq. phase, capillary-porous struct. prep. 2−67246
AlN, effect of $CaCO_3$ addition 2−105109
AlN, multilayer polytypes form. during sintering 2−76404
AlN polytype ceramic formation, mech. props. *(Japanese)* 2−88044
AlN:Cr, sintered, dielec. losses, lattice defect types *(French)* 2−77448
Al_2O_3, dense, steam-enhanced impurity segregation 2−111116
Al_2O_3, effects of Cr_2O_3 additions on sintering and mech. props. 2−99375
Al_2O_3, pressed powder pellets, initial sintering obs. 2−116419
Al_2O_3, sintered, variable microstruct., strength meas. *(French)* 2−88154
α-Al_2O_3 sintering, voids and boundary migration, electron microscope study 2−113046
Al_2O_3, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
βAl_2O_3-NaO_2, densification kinetics 2−62095
Al_2O_3-Ni(Cr)(Ni-Cr) cermet prep. by plasma metallization of Al_2O_3 powder *(Russian)* 2−67272
Al_2O_3-SiO_2, mullite form. kinetics, grain comp. and component activity effects 2−77786
α-Al_2O_3-SiO_2 (fused) compacts, sintering 2−99374
Al_2O_3-ZrO_2-MgO, MgO and ZrO_2 effects on microstruct. and mech. props. 2−88038
$Ba(Nb_xTi_{0.84}Sn_{0.16-x})O_3$, semicond. ceramics, space-charge-limited currents and dopant cond. influence, firing procedure effect *(Russian)* 2−56607
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
$BaTiO_3$ dielectrics, flux sintered 2−88033
$BaTiO_3$:U, ceramic, room temp. elec. resist. and permittivity meas. 2−57003
$BaTiO_3$-$Bi_4Ti_3O_{12}$ low temp. sintered ceramics, microstruct. and elec. props. 2−88035
$Ba_{1-x}U_xTiO_3$ ceramic, U doping and sintering atmos. effects on elec. and dielec. props. 2−116107

sintering continued
Bi_3TiNbO_9 piezoceramic, form. and props. 2−111122
$Bi_4Ti_3O_{12}$, layer struct., grain oriented ferroelec. ceramics, liq. phase sintering 2−77788
Bi_2WO_6 ceramics, grain oriented, fabrication 2−77790
CdO, compacts, annihilation of defects, study by elec. resist. meas. 2−116418
CdS sintered films, for CdS/CdTe solar cell 2−88016
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2−87973
CeO_2 gels for protective coatings, TEM exam. technique 2−105400
Co powder, sintering diagrams, activation energy and mechanisms 2−93473
Co powder, sintering in mag. field 2−116411
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Cr-MgO, sintered, struct. and mech. props. 2−67544
CrCoFe permanent magnet, powder metallurgy processing 2−72652
Cu coated W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu powder sintering kinetics 2−111114
Cu/W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Cu-Sn (10 wt.%), sintered, Cu oxide film influence on dimens. change *(Korean)* 2−116407
$CuFe_2O_4$ ferrite, elec. cond. mechanism, phase transformation, heat treatment effects 2−71981
EuO-Fe cermet, fabrication for reactor control-arm plates 2−107947
Fe carbonyl powder based sintered magnetic material, polyorganosilazane resin bonded 2−67261
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe, cast, grey, degraphitized powder, sintering *(Korean)* 2−57318
Fe powder, sintering diagrams, activation energy and mechanisms 2−93473
Fe powder, sintering in mag. field 2−116411
Fe powders, fine, prod. from ferrous oxalate dihydrate, sintering charact. 2−88024
Fe-Cr-Al alloy, wrought, prep. and charact. 2−67249
Fe-Cu, sintering, liq. phase, grain coarsening kinetics 2−111111
Fe-Mn-Cr-Mo-C-P, metallography rel. to sintering 2−116665
Fe-Ni cell, sintered Fe electrode struct. obs. 2−93886
Fe-P-M (M:Ni, Mo), powder premixes, effect of Cu addition on sintering 2−72650
Fe-P-Ni(Mo), powder premixes, sintered props., effect of Cu 2−88026
Fe-Tribaloy 700 mixture, sintering temp. effect on microstruct. and mech. and tribological props. 2−77775
$Fe_{2-x}Cr_xCa_2O_5$ sintering, mag. transitions, solid soln. composition depend. 2−98875
$KNbO_3$, sintering charact. and dielec. props. 2−105108
LaB_6-Co(Ni) systems, wetting and contact reactions 2−77780
$La_{1-x}CaCrO_3$ electrode material for MHD convertors *(Chinese)* 2−83503
$La_{0.96}Sr_{0.04}CrO_3$ ceramic, sintering and dielectric props. 2−62094
$Li_2Cu_2(MoO_4)_3$, electrical cond., ionic and electronic 2−72034
$Li_{0.5}Fe_{2.5}O_4$, for ferrimagnetic pastes, prep. and props., effect of additions of glass and Bi_2O_3 2−88034
MgO, high-purity fusions, sintering, effect of CeO_2, ZrO_2 and Y_2O_3 additives 2−57324
MgO-Al_2O_3, transparent ceramic, coprecipitation followed by calcination 2−99379
MgO-TiO_2 mixtures, reaction sintering 2−99376
MgO.Al_2O_3, high-purity fusions, sintering, effect of Y_2O_3 additive 2−57324
Mn-Zn ferrous ferrites, raw material and process condition effects on props. 2−83059
MnO-MnS, reactions and sintering, struct. props. variation 2−88015
MnZn ferrite, temp. and time stability 2−82694
Mo powder, fine, sintering 2−116413
Mo, sintered sheet, electron beam welded, bend props. 2−116509
Mo-Cr powder mixtures, alloy form. during sintering 2−83065
NaCl, ultrapure, particle size influence on sintering kinetics 2−99366
Na_2O-CaO-$Ca_3(PO_4)_2$-Na_3PO_4-Na_2SiO_3-$CaSiO_3$, subsolidus struct. 2−111151
$Na_5YSi_4O_{12}$ ceramic superionic cond., sintering prep. and characterisation 2−83056
$NaZr_2(PO_4)_3$, ceramic, sintering prep., appl. to radioactive waste disposal 2−90226
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Ni powder, sintering diagrams, activation energy and mechanisms 2−93473
Ni powder, sintering in mag. field 2−116411
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-C, semiliquid sintered material and melted-solidified material, modular graphite content *(Japanese)* 2−77817
Ni-C, sintered compacts, nodular graphite form. *(German)* 2−77845
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
NiC, sintered, nodular graphite content *(Japanese)* 2−77771
$Ni_{1-x}O$, sintered, grain growth, influence of O_2 partial press. 2−116476
NiZn ferrites physical and technological effects of V_2O_5 or Bi_2O_3 on props. 2−88041
$PbBi_2Nb_2O_9$, layer struct., grain oriented ferroelec. ceramics, liq. phase sintering 2−77788
Pb(Zr,Ti)O_3-polymer composites, preparation and props. 2−88045
Pb(Zr,Ti)O_3-polymer composite, preparation and transducer applications 2−88046
Pt-Al reaction, thermal study, and its effects on contact resistance to Si 2−87388
Si, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
Si, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
Si/SiC system, interfacial energy and Si+C reaction rel. to sintering 2−55981
SiC, pressureless sintering 2−99380
SiC, self-bonded, reactively sintered, mobility of intracrystallite boundaries, prep. conditions and additives influence 2−67270
SiC, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
sintering continued
SiC, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
SiC:Al, sintered and hot pressed, grain boundary segregation, STEM study 2−111180
Si_3N_4, C+N_2 interaction in sintering furnaces 2−105097
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
Si_3N_4, hot-pressed at high press., temp. depend. of stress intensity factor 2−83212
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Si_3N_4, SiC, SiAlON, sintered microstruct. and property charact. 2−57323
Si_3N_4, sinterable ceramic powder prod. from laser driven reactions, process description and modeling 2−111128
Si_3N_4, sinterable ceramic powder prod. from laser driven reactions, powder charact. and process variables 2−111129
Si_3N_4, sintered, hot isostatic pressing, effect on mech. props. *(Japanese)* 2−67266
Si_3N_4, slip cast reaction bonded, α/β ratio, effect of α-Si_3N_4 grog additions 2−93493
Si_3N_4, slip coating for pressureless sintering 2−57322
Si_3N_4, ultrafine amorphous powder, crystallisation during sintering 2−111132
Si_3N_4:Y_2O_3, sintering behaviour and microstructural development 2−93480
Si_3N_4-Y_2O_3-SiO_2, strengthening by post-fabrication heat treatment 2−83131
SiO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
Sm-Co permanent magnets, prep. by liq. phase sintering *(Chinese)* 2−62088
Sm-Co-Cu-Fe-Zr, permanent mag., struct., sintering and annealing effects *(Russian)* 2−88226
$Sm_2(Co,Fe,Cu,Zr)_{17}$ sintered permanent magnets, coercive force and struct., Sm content effect 2−72278
$SmCo_5$ sintered permanent magnets, fine struct. and mag. props. *(Russian)* 2−104664
ThO_2, calcination and sintering, theoretical and expt. studies 2−85165
ThO_2 powder, initial sintering stage study by emanation thermal anal. 2−88032
ThO_2 powders, from hydrothermal denitration, ceramic quality 2−111115
TiB_2-W(Mo)(Cr), sintering and props. 2−111109
TiC, densification during heating under high pressure 2−72662
TiC-Ni, densification during heating under high pressure 2−72662
TiC-W(Mo)(Cr)(Nb), sintering and props. 2−111109
TiN-W(Mo)(Cr)(Ta)(Nb), sintering and props. 2−111109
TiNi, porous sintered, shape memory effect features 2−99505
TiO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
UO_2 fuel, swollen, with nonuniform grain size, interconnected pores stability 2−93481
UO_2 fuel pellets, low-density, fabrication tests 2−93479
UO_2 fuels, qualitative approach for characterisation 2−85160
UO_2, LWR fuels prod. and structural props. characterisation *(German)* 2−85134
UO_2, sintered, retention and release of water 2−90222
UO_2, sintering, low temp., effect of O_2 partial press. *(Korean)* 2−67233
UO_2-PuO_2 pellets, structure development during reduction sintering from granulated powders 2−85161
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162
W powder, activated sintering mechanism, defective struct. influence 2−67253
W powder, fine, sintering 2−116413
W-Cr sintered alloys, prod. and oxidation 2−72655
W-Cu, liq. phase sintering, W particles rearrangement mechanism *(Korean)* 2−116406
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101
W-Ni, solubility of Ni, activated recrystallisation, liq. phase sintering 2−103997
W-Ni-Fe, sintered alloy, fatigue crack growth 2−99521
W-Ni-Fe, sintering, effects of impurities *(German)* 2−105103
WC, densification during heating under high pressure 2−72662
WC-Co, phase comp. determ. and regulation by two-freq. mag. method 2−67241
WC-Co (10%)-hardmetal, prep. and preps. *(German)* 2−105114
WC-Ni, densification during heating under high pressure 2−72662
YIG, microsruct. and grain size, ferromagnetic resonance and ESR study 2−115425
Y_2O_2S:Tb^{3+}, X-ray phosphor prep., luminesc. props. 2−67096
ZnS-MgF_2 dielectric narrow-band interf. filter stabilisation 2−70661
ZrO_2, sintered, struct. and fracture behaviour 2−88187
ZrO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
ZrO_2-Y_2O_3-Bi_2O_3, Bi_2O_3 effect on elec. and mech. props. 2−67265
ZrO_2-zircon ceramics, prep. from plasma dissociated zircon 2−83073

size, particle *see particle size*

size effect
alloys, binary, residual resistivity, size effect correction, partial wave calc. *(Russian)* 2−98615
ferromagnetic metallic film, spontaneous Hall coeff. 2−110331
helicon resonator, high freq. mag. fields, expt. and theoretical study 2−82393
linear chain of δ-scatterers, local density of states, disorder effect 2−61409
liquid crystals, size effects in struct. factor *(Russian)* 2−86562
metal film, Cottey size effect model, limiting values of specularity refl. coeff. 2−92782
metal plate, thin, low-temp. cond., surface scatt., temp. and thickness depend., size effects *(Russian)* 2−66616
metallic conductors, 2-dimens., size effects and low-temp. cond. anomalies 2−87249
metallic films and wires, longitudinal magnetoresist., size effect calc. *(Russian)* 2−98763
metallic thin film, supported Fuchs-Sondheimer expressions for strain gauge coeffs. 2−115917
metallic thin films and wires, TCR, effects of thermal expansion, differential thermal stress and size effect 2−115916
metallic thin plate, Sondheimer effect in multichannel electron reflection by surface 2−104508

size effect continued
molten salts, ionic transport props., mass and size effects 2−56230
Schottky contacts, mixed phase, barrier height, size effects 2−66619
semiconductor, magnetoresistance, size effect under conditions of mutual drag of heated electrons and phonons 2−61493
semiconductor films, quantized, light absorpt. by two-photon transitions in neutral deep impurity centres 2−77611
semiconductor size quantized film, thermoelec. power in mag. field 2−115929
semiconductor thin film, size quantisation of holes and carriers, energy spectrum and effective mass *(Russian)* 2−82499
semiconductors, nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
semimetal alloy films, quantum size effect and semimetal-semicond. transition, theory 2−82494
small metallic particles, quantum size effect in optical props. 2−87721
steady-state injection currents, activation energy, size and field dependence 2−82345
stochastically driven systems, finite size effects, use of Poisson representation 2−101328
superconducting thin film with normal coating, tunnelling size effect *(Russian)* 2−56787
vacancy size effect, Gibbs pot. 2−55967
Ag island films, optical plasma reson. absorpt. half-width, size effect 2−67132
Ag-Cu films, plasmon excitation by fast electrons 2−92785
AgBr microcrystals, in gelatin layers, slow electron mobility, size effect 2−92661
Al, thin film, quantum size effect study by resonant tunnelling *(Rumanian)* 2−87420
Al thin film, size depend. cond., electron density and mean free path 2−110498
Al-Al_2O_3-n-InSb MOS struct., quantum size effects and negative resist. obs. 2−77187
Au foil, elec. cond., 4.2 to 20K, Cl_2 annealing effect 2−104344
Au thin film, size depend. cond., electron density and mean free path 2−110498
$Au_{40}Pd_{60}$ thin wires, Ag coated, elec. resist., length depend. 2−110325
Bi film, elec. resist., size effects, TCR meas. 2−66678
Bi, thin film, as grown, lattice distortion energy spectra, thickness depend. 2−87415
Bi thin film, classical size effect, rel. to surface roughness and struct. *(French)* 2−110507
Bi thin film, resistivity and energy gap variation with film thickness 2−92791
Bi thin wires, size effects, resist., magnetoresist., and thermoelec. power meas. 2−92632
$Bi_{90}Sb_{10}$ thin film, band gap and intergrain barrier activation energies 2−72085
n-Cd_3As_2, ultrathin films, effective mass, effect of size quantisation 2−98526
$Cd_xHg_{1-x}Te$ crystal, size effect, Hall coeff. temp. depend. 2−115802
Cu alloys, dilute, elec. field gradient, valence and size effect contribs. 2−104325
Cu, dilute alloys, electric field gradient 2−115718
Cu thin film, size depend. cond., electron density and mean free path 2−110498
n-InSb, nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
KBr(I), cation size effect on ionic thermocurrents 2−72405
LiF, cation size effect on ionic thermocurrents 2−72405
Mg particles, g-factor quantum size effect, EPR study 2−104693
NaCl, cation size effect on ionic thermocurrents 2−72405
Re film, elec. and supercond. props. 2−115941
Sb thin film, classical size effect, rel. to surface roughness and struct. *(French)* 2−110507
Si, anisotropic size effect with plasma injected in mag. field 2−92677
W thin plates (111), multiple Sondheimer oscillations *(Russian)* 2−104416

skin
beta-irradiation, cutaneous lesions, severity in albino rats *(Russian)* 2−57863
bioengineering, conf., Cardiff, Wales (July 1979) 2−79283
burns, role of contact resistance 2−93991
chest walls, post-mastectomy, late skin changes following twice-weekly electron beam radiation 2−68067
collagen solns., rat skin, dynamic light scatt. studies 2−105654
deformation potentials spread 2−83559
dose determination, LiF dosimeter 2−68152
ear, thermal enhancement of radiation damage in mice, differential effect of prior heat treatment 2−105664
electric shocks, scientific and clinical aspects, human body physiology *(German)* 2−94012
electrocutaneous stimulation for sensory communication in rehabilitation engineering 2−57929
epidermis of human skin, pyroelec. and piezoelec. sensor layer 2−100013
finger skin temperature after a finger-cooling test, rel. to air temp. and smoking 2−116886
foot skin reaction, mouse, dose dependence of pion RBE values rel. to X-rays 2−78391
irradiation, fractionated, with X-rays or accelerated C ions, hamster expts. 2−68073
irradiation by X-rays or accelerated heavy ions, residual damage after 1 year in rats 2−88622
permittivity, complex, of human tissue at microwave freqs. 2−99936
port-wine stain model, temp. behaviour during Ar laser coagulation 2−111628
potential monitor and display system 2−68185
resistivity measurement using an annular tetrapolar electrode 2−83723
steady state temp. distrib., finite element anal. 2−57784
tail, mouse, epidermal kinetics and ultrastruct. of tolerance to radionecrosis 2−94120
temperature and EMG training for primary dysmenorrhea 2−78293
tension, uniaxial tests, in vivo human obs. 2−83592
UV erythema in normal human skin, consistency of studies 2−73306
UV exposures, occupational skin hazards 2−117000
UV induced optical and struct. changes in hairless mice 2−68055
UV irradiation effect on tissue respiration in rats *(Russian)* 2−57861
vibrations of singer's face, neck, larynx and sternum, holographic interferometry meas. 2−57882

skin continued
vitamin D_3 synthesis in human skin rel. to solar UV spectra 2−99897
VLF impedance-meter, cutaneous impedance appl. *(French)* 2−68213
wound healing, skin batteries and natural elec. fields 2−83562
X-irradiation, effect of field size on reaction, pig expts. 2−88610

skin effect
see also anomalous skin effect
cylindrical wire, eddy currents study, undergraduate laboratory expt. 2−79313
eddy current flow around cracks in thin plates, boundary integral method 2−55037
eddy current problems, skin effect in conductors, integral eqns. method of anal. 2−55038
metal, optical characteristics rel. to damping length for surface EM wave 2−87724
metal wire, localization DC skin effect and linear magnetoresistance 2−87228
metallic hydrides, absorpt. and dispersion NMR lineshapes 2−66927
metals, ferromagnetic, exchange cond. shift, ferromagnetic antiresonance study 2−98683
Procopin effect in massive samples, theoretical study 2−85865
RF field distrib. in magnetised bounded plasmas, anomalous skin effect 2−55747
two-dimensional steady-state skin effect, integrodifferential finite element formulation 2−55027
W thin plates, absorbed O_2H_2 and Ag effects on conduction electron diffr. and reflection *(Russian)* 2−82339
W thin plates, adsorbed O_2H_2 and Ag effects on conduction electron diffr. and reflection *(Russian)* 2−71959

skips *see hoists*

sky
see also night sky; sky brightness
radiating hemisphere, simple model for optimal orientation of solar collector 2−73084

sky brightness
see also airglow; twilight
atmospheric radio emission, mm wavelength region meas. apparatus and procedures 2−58099
Bright Night phenomena due to gravity wave nightglow 2−73745
SE Canada and NE USA, insolation 2−100482
W Germany, solar radiation observations 2−117433
Hawaii, solar radiation and thin cloud climatology 2−94461
insolation mesoscale variability determination from satellite data 2−100482
IR spectral radiance 2−117442
rainbow brightness, theory 2−112120

sky surveys *see astronomical catalogues*

Slater-type orbital calculations *see STO calculations*

sliderules *see calculating apparatus*

sliding contacts, electrical *see electrical contacts*

slip
see also kink bands; plastic flow
adamantane, cryst. perfection, slip and hardness, micro-indentation study 2−86781
anthracene, slip planes crystal growth and photodimerisation 2−86598
bicrystal, tilt type, symmetrical deform., model and exptl. confirmation 2−71469
brass, 70/30, mechanism of ductile fracture tensile test *(Japanese)* 2−111282
α-brass, single cryst. 2−116495
α-βbrass, two-phase bicrystal factors affecting interface sliding 2−103776
brittle material, damage theory 2−91335
composite material, elastic, effective constitutive coeffs., effect of slip between components *(French)* 2−55422
composite material, partially cohesive, homogenised constitutive law 2−60396
crack tip, under anti-plane shear deform., slip band development *(Japanese)* 2−103880
creep, dislocation network theory, climb glide, multiplication and pipe diffusion 2−76572
cubic crystals, grain boundary dislocations, step heights 2−55980
damage processes, acoustic emission 2−62290
dislocation cores, Peierls reconstruction 2−65994
dislocation glide loops, ensemble, elastic stress field calcs. 2−98113
dislocation mean free path calc. by computer simulations 2−71448
dislocation model for fatigue crack initiation 2−92100
dislocation vibration entropy 2−55970
drops, close interaction calc. taking into account internal circulation and the slip effect 2−114857
ductile single crystal, nonuniform and localised deform. anal. 2−81875
FCC crystal, multislip, theoretical approach compared with expt. data 2−103775
fracture instability, semibrittle, inclined yield strip, continuum dislocation model 2−86786
fusion reactors, pulsed, irradiation creep by climb controlled glide mech. 2−76573
grain boundary dislocations, spreading, yield stress depend. 2−66011
grain boundary embrittlement, decohesion theory 2−98194
Haasen plots, model and interpret. 2−72781
Harper-Dorn creep, flow process 2−71540
HCP cryst., core struct. of edge dislocations under shear stress, computer calc. 2−76454
interaction with twinning 2−76489
kink-pair formation, on dislocations, diffusion theory 2−98347
metal, FCC, active slip systems, contribution to deform. phenomena by indentation of cube face 2−66009
metals, Orowan mechanism for abrupt localized flow and fracture initiation ahead of yielding notch 2−111266
metals and alloys, creep, influence of stacking fault energy 2−66110
metals and alloys, yield strength, review *(Chinese)* 2−62165
microcrystals, conical, ion irrad., surface stress and plastic deformation 2−86777
orientation dependence of the creep stress for combined dislocation slip and climb 2−66105
persistent slip bands, macro- and micro-, slip offsets development during one fatigue cycle 2−98112
plastic body, shear strength, plastic deform. 2−81878
PMMA, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531

slip continued
polycarbonate, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
polycrystal deformation, intergranular constraint 2−55979
polymers, friction coefficient eqn. 2−111327
prismatic dislocation arrays produced by slip on imperfect glide surface 2−76455
PVC, notched specimens, glassy, plastic deform. and fracture due to bending 2−116531
PVC, rigid, wall slip processes, capillary rheometer obs. *(German)* 2−71465
quartz, single crystal, plastic deform., by indentation, at room temp., TEM 2−56070
ring, thin, elastic, incomplete, impinging on a frictional barrier, stick/slip conditions 2−103114
sapphire, dynamics of flow of c-axis 2−99490
semiconductors, thermally activated slip parameters, activation volume 2−91981
shock loading, metallurgical effects, review 2−76585
smectic A liquid crystals, edge dislocation, core struct., Peierls-Nabarro model 2−91763
spinodally modulated struct., energetics in thermally activated dislocation motion 2−103777
steel, austenitic, fatigue, low-cycle, 800°C, dislocation configuration, TEM and SEM study *(French)* 2−88190
steel, austenitic, rolling in anomalous-plasticity temp. range 2−99464
steel, austenitic stainless, 316, TEM observations of crack tip-cavity interactions 2−71521
steel, austenitic stainless, crack tips prod. by SCC and hydrogen embrittlement, HVEM obs. 2−77978
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
steel, austenitic stainless, surface hardening and microstruct. changes, influence of US vibr. 2−99538
steel, dispersion hardened, 12Kh1MF, grain boundary fracture under creep *(Russian)* 2−105287
steel, high strength, fatigue crack initiation at inclusions, theory 2−67523
steel, high strength low alloy, fatigue crack initiation and strain-controlled fatigue 2−67520
steel, low-C, plastic deform. features at elevated temps. 2−99503
steel, medium-C, track traces on surface of fatigue cracks, nature 2−99548
steel, stainless, Type 316, stress/strain relation, modified Hollomon eqn., grain size depend. 2−67453
steel, structural, microplastic behaviour before fatigue softening 2−99478
strain hardening, Orowan mechanism below the root of yielding crack-like notch 2−111267
strain hardening extrusion, slip-line field analysis using expt. flow patterns 2−116463
strain hardening extrusion, slip-line field construction from expt. flow patterns 2−116462
stress dependence, of activation volume *(Czech)* 2−65995
transient deformation, phenomenological model based on state variables 2−56088
yield loci of single crystals with definite orientation, computer supported description *(German)* 2−111255
Zircaloy-2, cold rolled, stress corrosion failure in methanol-HCl media, texture dependence 2−99579
Zircaloy-2, neutron irrad., evidence of basal or near basal slip 2−86675
Zircaloy-4, O containing duplex, deform. behaviour 2−99501
x-Zr, dislocation motion simulation in an internal stress in creep 2−81791
Ag-Au, oxidized, plastic deform. effect on alloy-oxide layer, TEM study 2−110219
Ag-Sn (1.2 at.%), dislocation band struct. produced by bending stress, X-ray topography study 2−86679
AgCl, plastic deformation, wavy slip band form. 2−115337
Al alloy 7075, dislocation transport of H, rel. to hydrogen embrittlement 2−83220
Al alloys, stress-strain behaviour, large strain deform. 2−111237
Al bicrystals, fatigue cracks initiation along grain boundaries 2−72844
Al, creep, dislocation networks 2−57400
Al, creep deform. characts., effective stress 2−62171
Al, cryst., tensile stress-strain relations, constitutive relations calcs. 2−67407
Al, deformed single crystal, high-angle grain boundaries form. 2−86683
Al, deformed., cyclically and monotonically, stress-substruct. relationships in wavy slip mode metals 2−99498
Al, Harper-Dorn creep, nature and origin 2−116491
Al, in-situ study of subboundary props. during creep, HVEM 2−71462
Al, isoaxial bicrystals, fatigue crack initiation along primary slip bands in grain boundary affected region *(Japanese)* 2−105302
Al-Cu, two-phase, inhomogeneity of plastic deform. and fracture modes 2−105245
Al-Cu (2.8 wt.%) alloy, aged, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Al-Cu (4 wt.%) single crysts., containing θ'' precipitates, cyclic stress/strain response 2−99495
Al-Cu-Mg (4.5, 1.5 wt.%), alloy 2124, H embrittlement 2−57468
Al-Li alloys, cyclic and monotonic ductility, effect of slip distrib. 2−67419
Al-Mg (5 wt.%), steady state creep, pre-strain effects, dislocation slip 2−77867
Al-Mg(3 wt.%), high temp. creep, stress sensitivity parameter 2−77869
Al-Zn (11 wt.%), long range internal back stresses, new evaluation technique 2−105220
Al-Zn (9.5 at.%), high temp. creep mechanism and dissolution process, expt. study 2−88146
Al-Zn-Mg, struct. and strength after duplex ageing 2−72727
Al-Zn-Mg-Cu (6.2, 2.5, 1.7 wt.%), fatigue crack growth, micromechanisms 2−105273
Au, evaporated film, tensile fracture *(Japanese)* 2−82182
Au, ruptured, final separation, role of glide and twinning 2−83200
Au-Cd martensite, TEM lattice imaging study, twinning dislocations 2−71472
Bi_2Te_3, single crystal, plastic deform., dislocation slip systems obs. 2−86672
CaF_2 crystals, etch traces and dislocation motion 2−66003
CaF_2, single cryst., temp. depend. indentation deform. processes 2−76565

slip continued
Cd, bicrystal, grain boundary sliding with and without slip *(Japanese)* 2−103782
CdTe, defect annealing, dynamic obs. at lattice resolution 2−91978
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Cu, deformed single crysts., near surface and bulk dislocations, X-ray line broadening study 2−116490
Cu, glide systems during in situ straining in TEM, Schmid's law deviations 2−98103
Cu, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Cu, neutron irrad., yielding, surface effect 2−103842
Cu, persistent slip bands, macro- and micro-, slip offsets development during one fatigue cycle 2−98112
Cu, polycrystalline, fatigue failure in air and vac., plastic strain inhomogeneity *(Russian)* 2−67528
Cu, rolled single crystals, shear band form., TEM study 2−99455
Cu, single cryst., fatigue, obs. of crack nucleation 2−93588
Cu, single crysts., persistent slip bands, model for crack nucleation 2−93589
Cu, single crysts., strain hardening at high strains and dynamic recovery 2−116457
Cu, strain hardening, monotonic and cyclic deform. 2−62136
Cu, strength controlling processes, temp. and strain rate effects 2−77891
Cu-Al (10 at.%), single crysts., slightly deformed, dislocation multipoles struct., TEM 2−55975
Cu-Al (3 at.%), dislocation struct. effect on flow stress, X-diffr. and electron microscope study 2−91982
Cu-Al-Si-Co (2.8, 1.8, 0.4 wt.%), fine grained, creep 2−105219
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Cu-Fe alloys, solid soln. to precip. hardening transition, mech. props. 2−105172
Cu-Mn alloy, solid soln. hardened, crit. resolved shear stress, low temp. anomaly 2−93523
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Cu_3Au, ordered and disordered, containing SiO_2 particles, critical shear stress, Orowan stress 2−86778
Cu_2NiZn, ordering alloy, mech. props. 2−105216
Dy, deform. modes of HCP single crysts. *(French)* 2−67417
Er, deform. modes of HCP single crysts. *(French)* 2−67417
Fe, fatigue deform., oxygen effect, crack initiation along slip lines 2−105329
Fe foil, stress meas. using slip initiation 2−72792
Fe, pure, H_2 effect on deform. and fracture microprocess *(Chinese)* 2−62188
Fe-Al, pseudoelasticity and slip reversibility, optical and electron microscopy obs. 2−111221
Fe-Al (30.5 at.%), plastically deformed, ordered, antiphase domain boundary tubes, electron microscopy study 2−72784
Fe-Cr-Ni, austenite-ferrite struct., tensile props. and fracture *(Japanese)* 2−105239
Fe-Ni (32 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni-C, substruct. of lenticular martensite 2−72697
Fe-Ni-C (24, 0.5 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499
FeCo, ordered single cryst., slip systems, compression test obs. 2−93573
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107
$Gd_3Ga_5O_{12}$, garnet single crysts., slip systems 2−66007
Ge bicrystal, tilt type, symmetrical deform., exptl. confirm. of model 2−71469
Ge, dislocation mobility, gliding direction inversion effects *(Russian)* 2−82032
InGaAsP-InP DH LED, aged, dark defects 2−91974
Li-Mg, asymmetric slip, thermal activation parameters 2−86676
LiF, plastic deformation under tension and compression, density changes, dislocation form. 2−61057
LiF, slip on {100} planes 2−81792
Mg, dislocation dipole structures formed as result of basal slip *(Russian)* 2−115238
Mg, dislocation motion through flexible and reactionable dislocation forest, computer simulation 2−98090
Mg-Al, solid soln., creep behaviour at elev. temp. 2−83164
$MgAl_2O_4$, work softening, plastic deformation, slip and dislocation climb 2−86678
MgF_2:CaF_2, recrystallisation pressing, struct. and strength 2−99524
MgO, periclase, shock-loaded, struct. deform. 2−76586
MgO, plastic deform., cathodoluminescence and photoluminesc. of slip bands, SEM study 2−67125
MgO:Au dislocation loops, decoration obs. 2−71452
Mg_2SiO_4, forsterite, deformed at high temp., dislocation study *(French)* 2−60995
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435
Mo, cold-worked, deform. and slip behaviour, cryst. orientation effect 2−99502
Mo, deformed, single cryst. foils, anomalous slip induced by surface effect, HVEM study 2−86671
Mo polycrystals, cold-worked, mechanism of work softening at elevated temp. 2−67375
Mo single crystals, fatigue failure features 2−77944
NaCl, dislocation density determ. from NMR quadrupolar linewidth meas. 2−98114
NaCl, dislocation motion through flexible and reactionable dislocation forest, computer simulation 2−98090
NaCl, dislocation slip orientation depend., NMR study 2−109806
NaCl, glide band formation, simulation 2−103761
NaCl, γ-irrad., dislocation multiplication under static load *(Russian)* 2−91983
NaCl:Ni, precipitation-induced dislocation loops and helices 2−98102
Nb, plastic deformation, low temp., slip, surface orientation and oxide effects 2−86677
NbB_2, single crysts., high temp. hardness and slip systems 2−86674
NbC_x, single cryst., prep., struct. and mech. props. 2−98108
Ni alloy, heat-resisting, EP-741P, fracture behaviour investig. by thermal microscopy, P/M alloys 2−67545
Ni, preliminary electron irrad. influence on low-temp. creep, pt. defect control of activated dislocation glide *(Russian)* 2−67448

slip continued
Ni single cryst., plastic deformation, dislocation struct., stress/strain curves 2−109798
Ni single crystal, fatigued, plateau behaviour 2−115344
Ni single crystal, laser irradiated, epitaxial regrowth and defects 2−61031
Ni superalloy, intergranular fracture assoc. with heterogeneous deform. modes during low-cycle fatigue 2−72834
Ni-Al alloy, deform. mechanism at high temp. 2−105230
Ni-base superalloy, powder consolidated, superplastic response, effect of heat treatment 2−93570
Ni-base superalloy, powder-formed, near-threshold crack growth, effects of grain size and microstruct. 2−93616
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
$Ni_3(Al,Nb)$, single crysts., tension/compression flow stress asymm. 2−67418
NiO, single cryst. deformed at room temp., TEM obs. of dislocations, high work hardening rate origin 2−103767
Nimonic AP1, Ni-base superalloy, crystallographic fatigue crack growth 2−93587
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
Pb thin films, on substrate, low-temp. strain behaviour 2−110218
Si, creep fractured, growth kinetics of plastically deformed regions at crack tips, X-ray synchrotron topography 2−86788
Si, deformed, stacking faults, dislocations, X-ray moire pattern study *(Russian)* 2−91990
Si, deformed ⟨100⟩ oriented single crysts., single slip deform. and nature 2−92086
Si, ion implanted, CW laser annealing, dislocation nucleation, growth and suppression 2−56021
Si, wafer shape, double-crystal topographical investigation after oxidation 2−115243
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
SiC, single cryst., friction damage, surface and subsurface, SEM and TEM study 2−67566
Ta, strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
TaB_2, single crysts., high temp. hardness and slip systems 2−86674
TaC single-crystal powders, morphology, hardness, and grinding ability 2−83230
Ti, $\{11\bar{2}2\}\langle\bar{1}\bar{1}23\rangle$ slip behaviour 2−71466
Ti alloy, deform. and failure in low-cycle fatigue region, severe cooling effect 2−57479
Ti-Al (8.6 wt.%), dislocation pile-ups and tensile fracture, influence of grain size and age-hardening 2−105320
Ti-Al-Mo (5,4 wt.%), fatigue and dislocation behaviour, effects of H 2−99520
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407
α-β Ti-Mn alloy, fatigue crack propag., plastic zone sizes and strain partitioning 2−72835
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Ti_3Al, deformed 'C' component dislocations 2−60983
TiC single-crystal powders, morphology, hardness, and grinding ability 2−83230
$TlBiTe_2$ single crysts., defects 2−103766
V, slip plane choice at deform. temps. $T \leq 0.15\ T_m$ 2−86673
W, screw dislocation dynamics, irrad. softening, HVEM obs. 2−98104
WC-Co, deformed, defect struct. of WC 2−83166
Zn, cryst., tensile stress-strain relations, constitutive relations calcs. 2−67407
Zn, plastic deform., supercond. transition effect *(Russian)* 2−116503
Zn-Al (1.1 wt.%), superplastic, ageing influence of deform. behaviour *(Czech)* 2−67438
Zn-Al alloys, thermal cycling effect across eutectoid transformation temp. on superplasticity 2−67440
Zr, deform., mech. eqn. of state and strengthening mechanisms 2−93556
Zr, polycrystalline, fatigue meas., 4.2 to 293K *(Russian)* 2−88159

Small Magellanic Cloud
AB 6, binary WR star in SMC, mass ratio, visible spectral obs. 2−89264
clusters, radii and structural parameters from star counts 2−101051
distance modulus from OB stars obs. 2−74101
field, colour magnitude diagram to V=21.5, stellar population presenc e 2−63381
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
hot stars flux distribution, winds and extinction law, UV spectra obs. 2−68891
interaction with Galaxy and LMC, rel. to dynamics of Magellanic Stream 2−68904
OB stars spectral classification and rot. vel., visible obs. 2−74101
protostar in H II region N76B, nature and IR obs. 2−100928
SMC X−1 X-ray binary with disc, light var. and UV spectral obs. 2−63507
SMC X-1, possible correl. with GB 740723 γ-ray source 2−63707
star clusters luminosity functions, age and comp., B obs. 2−74037
stellar clusters, young, HR diagram comparison between Galaxy, SMC and LMC 2−68842
supergiant stars spectra, equivalent width meas. 2−100926
supernova remnant candidates in SMC, 843 MHz obs. 2−112537
C star in SMC globular cluster Lindsay 102, discovery and spectrum 2−63430
H I 21 cm line survey, UHF obs. 2−58467
H I distribution, UHF obs. 2−106916

small polaron conduction
activation energies from conductivity-temperature measurements 2−56581
amorphous chalcogenides, AC conduction due to polarons *(Japanese)* 2−104384
chalcogenide glasses, AC conduction, temp. depend. 2−98649
chalcogenide glasses, elec. transport props. 2−72345
Green's function, eqns. of motion method 2−71961
review on small polarons 2−98559
$2CaO.K_2O.xFe_2O_3.(5-x)P_2O_5$ glass, elec. cond., temp. depend. anomaly 2−56580
$La0.84Sr_{0.16}MnO_3$, cryst. struct. and elec. cond. 2−81748
$MnWO_4$, elec. cond. and thermoelec. power, 300 to 1200K 2−87268

SMC *see Small Magellanic Cloud*

smectic liquid crystals
A phase, molecular tilt, mean field study 2−71343
A phase, rigid molecule model of phase transitions mol. shape effect 2−66216
A phases, bilayer and partial bilayer *(French)* 2−55841
A to C transitions, orientational order, refractive indices meas. 2−86869
A-C phase transition, calorimetry study 2−81960
A-phase, microscopic unified description of smectic-A, nematic and isotropic phases 2−103614
A-phase, viscosity divergence as $1/\omega$ 2−86558
p-n-alkoxy benzylidene-p-amino benzoic acid, chain ordering, X-ray diffr. study 2−86553
4-n-alkoxy-benzylidene-amino-4′-cyanobiphenyls, smectic liq. cryst., dielec. relax. meas. 2−110753
p-alkoxyazoxybenzene, expt. obs. of growth of mesophase in elec. field 2−55846
4-alkoxybenzoyl esteramides, thermotropic liq. cryst. behaviour 2−60875
alkoxybiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
4-n-alkoxyphenyl 4-nitrobenzoates, liq. cryst. props. 2−103602
alkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2−76294
4-(trans-4′-n-alkylcyclohexyl) benzoic acids, synthesis and liq. cryst. props. 2−103600
4-n-alkyloxybenzylidene-4′-n-hexylanilines, reorientation of long mol. axis, dielec. dispersion study 2−65848
ammonium salts, quaternary organic single chain, exhibiting thermotropic mesomorphism and organisation in water 2−103611
anisotropic US propag. in smectic liquid crystals undergoing polymorphic conversions 2−71584
azobenzene-base polymers, struct. features of liq. cryst. state *(Russian)* 2−60885
azomethyne polymeric films, thermotropic liq. cryst. behaviour 2−60877
p-azoxyanisole, new crystn. form, spectral and calorimetric characts. 2−55843
B phase, local dipolar order induced by steric effects, dielec. correl. factor 2−91768
B phase crystal for 200-1200 eV soft X-ray spectroscopy 2−79721
biaxially ordered smectic phases, magneto-aligned, NMR spectral patterns 2−104716
1,2-bis-[4-n-alkyloxybenzoyl]-hydrazines, thermotropic cubic mesophases, expt. study 2−65849
butoxybenzylidene heptylaniline, smectic-A-smectic-C transition, mag. birefringence determ. of tilt susceptibility 2−115411
4-n-butoxybenzylidene-4′-aminopropiophenone, smectic A to B transition, PMR spin-lattice relax. study 2−93037
4-n-butyl-4′-n-dodecyloxyazobenzene, liq. cryst. phase transitions, dielec. relax. 2−116114
butyloxybenzylidene octylaniline, shear mech. impedance near crystalline-B-smectic-A phase transition, US study 2−56190
C phase, ferroelec., fast electro-optic switching, stroboscopic microscopy obs. 2−93154
C phase, transform, X-ray study 2−55836
CBOOA, elastic light scattering by smectic A focal conic defects 2−91767
CBOOA, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
CBOOA-80CB mixtures, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
chiral, ferroelectricity, props. and appls. 2−82789
chiral, optical second harmonic generation, theory and expt. *(Russian)* 2−60168
chiral smectic C, double dechiralisation wall defects *(French)* 2−55837
chiral smectic C liq. cryst., effect of fluctuation of tilt angle on pitch 2−109668
chiral smectic-C, flexoelectric effect, helicoidal twisting *(Russian)* 2−60887
cholesterol based liq. cryst. polymers, X-ray struct. study 2−103621
cholesterol-1-hexadecanol smectic liquid crystal mixtures, US velocity, adiabatic compressibility and density meas. 2−61066
cholesteryl benzoate (laurate), refr. indices, densities, polarisabilities, and mol. order 2−60876
cholesteryl linoleate, dielec. props. in smectic, cholesteric and isotropic phases 2−99031
cholesteryl n-alkanoates, cholesteric helix pitch behaviour at cholesteric-smectic A phase transition 2−103988
cholesteryl nonanoate-propionate (butyrate) binary mixtures, cholesteric pitch divergence near smectic-A transition 2−98280
cholesteryl pelargonate, homeotropic-planar transition, electrooptical characts. 2−103993
COC, optical anisotropy in smectic and cholesteric phases 2−77472
COC, smectic A-cholesteric transition, press. induced tricritical behaviour, expt. study 2−115409
COC optically determ. transitions at high pressure 2−76669
4-cyano-4′-alkylbiphenyls, orientational order parameter S_2, temp. depend. in smectic A and nematic phase 2−71333
4-cyano-4-n-octyl-diphenyl, smectic A liq. cryst., light diffr. on linear disclination 2−103622
p,p′-cyano-n-pentylbiphenyl/p-p′-dialkylazoxybenzenes, intermol. forces, dielec. meas. 2−76290
4-cyanobenzylidene-4′-(4″-alkoxybenzoyloxy) aniline, homologues, reentrant nematic phase with pentamorphism 2−61138
cyanobiphenyls, nematic, smectic, and reentrant nematic phases 2−66217
4-n-decylphenyl-3′-methyl-4′-(4″-nitrobenzoyloxy)benzoate, liq. cryst. props. 2−76293
1,6-di(p-tolyl)-perfluorohexa-1,3,5-triene, smectic liq. cryst., struct., X-ray diffr. study 2−86554
p,p′-di-n-heptylazoxybenzene, diamag. susceptibility, ^1H NMR, chem. shift 2−98979
dialkyl alkoxy phenyl trans-cyclohexylmethyl ethers, mesomorphic props. 2−76294
diffusion consts. from pulsed field gradient double quantum open echo decays 2−60872
L-DOBACPC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2−77455
DOBAMBC, ferroelectric, dielectric relax. study 2−87662
D-DOBAMBC series, ferroelec. smectic liq. cryst., appl., elec. and optical props. 2−77455

smectic liquid crystals continued
DOBAMBC-MBACAB, smectic C-A mixture, ferroelectricity, phase diagrams 2−99075
dye lasing in a smectic matrix, excitation conditions 2−114266
dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
edge dislocation, core struct., Peierls-Nabarro model 2−91763
ester-ethers, mol. dimensions. rel. to pitch and elastic coeff. 2−115137
films, defect motion and stress relaxation, shear modulus 2−61208
flow alignment, microscopic theory 2−86547
gauge transformations, anharmonic effects 2−81672
N-(4-n-heptoxylbenzylidene)-4-n-hexylaniline, smectic-F to H transition, AC sp. heat and X-ray meas. 2−86868
heptyloxybenzylidene-heptylaniline, smectic B phases, synchrotron X-ray study 2−103617
heptylphenyl cyanobenzoyloxy benzoate, smectic A phases, bilayer and partial bilayer *(French)* 2−55841
hexatic and crystal B phases in a series of liquid crystal compounds 2−103608
hexatic B and crystal B phase, press. study 2−71644
p-n-hexloxy-p′-n-amyl-a-cyanostilbene, second optical harmonic generation *(Russian)* 2−55263
5-hexyl-2-(4-bromophenyl)-1,3-dioxane, smectogenic, cryst. and mol. struct. 2−65847
N-(4-n-hexyloxybenzylidene)-4-n-hexylanaline, smectic G phase, biaxial ordering 2−98973
L-n-hexyloxybenzylidene-n′-amino-2-chloropropylcinnamate, spontaneous polarisation *(Russian)* 2−82773
N-p-hexyloxybenzylidene-p-toluidine, dielec. props. in liq. cryst. 2−104794
N-p-hexyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
p-n-hexyloxybenzylideneamino-p′-chlorobenzene, heat capacity and thermodynamic props. 2−98302
p-n-hexyloxybenzylideneamino-p′-fluorobenzene, heat capacity and thermodynamic props. 2−98303
4-n-hexyloxyphenyl-4-(2″-methylbutyl)biphenyl 4′-carboxylate, ang. depend. of selective reflection from chiral smectic C phase 2−77464
highly ordered orthogonal smectic S_A, S_B and S_E phases, mol. relax. 2−72416
HxBPA, temp. depend. of lattice parameters in S_G^1 and S_G^2 phases 2−86556
IBPBAC, mol. motions in three smectic phases, neutron scatt. 2−81664
imaging device based on photochem. reaction 2−99692
inplane local order of dipoles 2−86549
lipid bilayer, phase transition from an intercalated to nonintercalated struct. 2−115412
lubrication theory using edge dislocation climb 2−81663
MBBA, second optical harmonic generation *(Russian)* 2−55263
memory light valve using smectic-cholesteric liq. cryst. mixture 2−72468
meosphase fluid transitions due to periodicity anomalies *(French)* 2−86870
mesomorphic polymer and monomer liq. cryst. mixture, nematic phases 2−115410
4-methoxybenzylidene-4′-perfluorobutylaniline, smectic liq. cryst., Urbach rule 2−65854
4-(2′-methylbutyl)phenyl 4′-n-nonyloxybiphenyl-4-carboxylate, tilted smectic phases, press.-temp. phase diagram 2−71645
2-methylbutyl p-(p-n-alkoxybenzylideneamino) cinnamates, ferroelec. smectic C* liq. cryst., helical pitches and wall anchoring, optical study 2−55839
near neighbour correlations and the dielectric properties of liquid crystals 2−104795
nematic to smectic-A crit. point, correlations when $\nu_\parallel = 2\nu_\perp$ 2−61132
nematic-smectic A phase transition, microscopic theory, short-range order effects 2−103992
nitrobenzoyloxybenzoate of octylphenyl, thermotropic smectic phase made of ribbons 2−76280
4-nitrophenyl-4′-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2−61136
4-nonanoate 4′-cyanobiphenyl, bilayer S_A phase, tilted monolayer cybotactic groups evidence 2−55842
4-nonanoate-4′-cyanobiphenyl, dielec. relax. meas. in liq. cryst. phases 2−104810
nonlinear elastic theory 2−103876
p-n-nonlyhydroxybenzoic acid, smectic C-phase, elec. cond. and electro-optical effects 2−56234
4-nonyloxylphenyl-4-nitrobenzoyloxybenzoate, reentrant nematic and smectic phases *(French)* 2−92195
16-OCB binary mixtures, smectic A-nematic transition, elastic constant temp. depend. 2−56191
4-n-octyloxy-4′-cyanobiphenyl, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
4′-n-octyloxy-4-cyanobiphenyl, piezothermal studies in vicinity of smectic A-nematic transition 2−61133
N-p-octyloxybenzylidene-p-toluidine, refr. index, density, and order parameter meas. in liq. cryst. phases 2−103601
orientational order, Raman microprobe investig. 2−60871
n-pentyl 4-[4′-n-dodecyloxybenzylideneamino] cinnamate, smectic phase classification, smectic I phases 2−61137
p-n-pentyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
4-n-pentyloxybenzylidene-4-ethylaniline, conformational changes, Raman scatt. study 2−109985
4′-N-p-pentyloxycarbonyloxy-benzylidene amino velerophenone, order parameters and distrib. function in smectic A phase, X-ray diffr. study 2−103606
phase transitions, ordering and modulation of smectic layers, group theoretical anal. 2−66218
p-phenylene di-p-substituted benzoates, esteramide analogues, thermotropic liq. cryst. behaviour 2−60875
polyesters, smectic mesophases, synthesis and mesomorphic props. 2−86548
polymethacrylates, synthesis and props., optical and electron scanning microscopy, X-ray and DSC anal. 2−109664
Rayleigh-Benard convection, phase diffusion 2−70950
review of liq. cryst. phases and phase transitions 2−76297
salicylideneanilines, mol. dimensions. rel. to pitch and elastic coeff. 2−115137
Schiff bases forming room temp. ferroelec. liq. cryst., MORA series, synthesis 2−76296
smectic A liquid crystals, undulation instability under shear 2−97915
smectic liquid crystals continued
smectic B liq. cryst., AC shear elastic const. meas. 2−103875
smectic-A liq. crysts., laser pulse recording of optical information 2−65327
smectic-A order at surface of nematic liq. cryst., synchrotron X-ray diffr. study 2−86564
surface tension measured by vibrating membranes 2−115504
TBBA, plastic cryst., orientationally disordered, static susceptibility calcs. 2−65887
terephthalylidene-bis-[4-n-alkylanilines], liq. cryst., temp. and enthalpy of phase transition, calorimetric studies 2−92193
terminal polar two-ring organic cpds., re-entrant nematic phase, phase diagrams 2−115132
thermotropic, diffusion, review 2−71685
thermotropic smectic phase made of ribbons 2−76280
trans-cyclohexyl trans-cyclohexylmethyl ethers, aliphatic liq. crystals, mesomorphic props. 2−71340
US propagation rel. near nematic-smectic A transition *(Russian)* 2−98202
X-ray diffraction study of A phase struct. 2−65858
p-n-octyl-p′-cyanobiphenyl, second optical harmonic generation *(Russian)* 2−55263
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
smell (physiological) *see chemioception*
smoke
see also air pollution; dust
density meter using photometric detectors, railways appl. 2−64092
forest fire smoke, relation between light scatt. coeff. and particulate matter conc. 2−105617
millimetre-wave propagation through smoke, meas. at Ballistic Research Laboratory 2−117392
pollution in city of Mostar, Yugoslavia 2−106173
Au-Cu alloy particles produced by Au and Cu smoke particles coalescence, electron microscopy study 2−93476
MgO smoke cryst. surfaces, energy losses of fast electrons 2−62028
MgO smoke particles, surface plasmons, low electron energy loss imaging 2−67168
P-derived smoke, IR optical props., 7-14 μm region 2−105613
$SiO-H_2$-Mg condensed vapours, IR spectra, appl. to O-rich stars 2−94703
snap off varactors *see varactors*
Snoek effect
steel, low C, ferrite-martensite dual phase struct., Snoek and Snoek-Koster-like relaxations 2−83159
Fe, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
Fe-Ti, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
Fe-V-Si-Mn-C, internal friction meas. *(Russian)* 2−88115
Nb, neutron irrad. induced defects, detrapping of N and O atoms during post-irrad. annealing 2−103839
Nb, Snoek effect, rel. to O impurity content, cold work and ageing *(French)* 2−67414
Ta, Snoek effect, rel. to O impurity content, cold work and ageing *(French)* 2−67414
Snoek-Koster relaxation *see anelastic relaxation; dislocation damping*
snow
acoustic properties, review 2−88928
Alaska permafrost and annual freeze-up studied by remote sensing 2−112171
Antarctic glazed snow surface, sublimation and condensation study 2−117367
Antarctica, chem. composition of recent snow 2−117369
Antarctica (Dome C), snow accumulation and isotope composition 2−117368
arctic tundra energy balance study 2−88998
avalanche flow and surface friction, review 2−88925
Berlin snowfall, snowpack accumulation and ablation processes, model *(German)* 2−73600
blizzards, flow and transport of snow, review 2−88926
N Cascade Range, Washington, evidence for increased snowfall episode from early Holocene moraine 2−94406
chemical composition (F^-,Cl^-,NO_3^-,SO_4^-) of Greenland and Antarctic snow 2−78792
collimated light beam propagation in layers of ice and snow 2−106161
Cracow, Poland, snow pH and contamination by heavy metals and S 2−83534
drifting, modelling, rel. to saltation flow meas. 2−100406
central England, snowfalls during cold spell of December (1981) 2−100530
extinction in visible/IR in fog and snow 2−117388
flakes, pentagonal symm., role in nonclassical crystallography 2−65904
geometry, porosity and permittivity at high freq. 2−87251
E Germany lowlands, runoff following snowmelt and rain *(German)* 2−117365
Great Britain, heavy rain and snowstorms of April 1981 2−83933
growth in winter storms, airborne obs. technique 2−106353
handbook of snow, principles, processes, management and use 2−89472
Hokkaido, Japan, Ice Age snow ablation due to climate change *(Japanese)* 2−94404
Hokkaido, Japan, melting of winter snow cover *(Japanese)* 2−94402
Japan, remote sensing of snow covered areas from satellites 2−111969
NW Kashmir, India, snow cover density var. with temp. and date 2−68393
Lake Michigan lake-effect snow storm, boundary layer struct. and horizonal roll convection 2−112038
mechanical properties of snow on ground, review 2−88924
melt rate at Paradise, Mt. Rainier, Washington, ashfall effect 2−63006
melt-runoff modelling 2−106153
metamorphism of snow flakes in fallen snow, review 2−88927
methane in freshly fallen snow, implications for past atmos. 2−83885
microwave depolarisation due to snowfall at 34.5 GHz 2−68466
microwave radiometry remote sensing, theory and exptl. study 2−58152
near-millimetre wave propagation in falling snow, charcts. 2−117396
millimetre-wave snow extinction, Atmospheric Sciences Laboratory-MMTRN model 2−117393
Minnesota snow cover, use of GOES and TIROS/NOAA data 2−78662
Mt. St. Helens, eruption effects on future snowpack 2−100328
North Pole, hydrocarbons in snow and ice 2−105628
Northern Hemisphere, winter 1981 snow cover area 2−106179
optical properties, review 2−89005

snow continued
phase functions meas. 2−117447
pond snow slush, unusual convection patterns 2−73596
relocation wind speed, snow concentration and humidity vertical profiles 2−111970
remote sensing of snow by microwave radiometry, sensor specifications 2−58153
remote sensing of snow cover global distrib. by satellite radiometry 2−58189
remote sensing of snow-covered Earth surfaces, microwave emission charcts., satellite radiometry 2−58190
research trends 2−63004
runoff rate due to melting snow, time lag study *(Japanese)* 2−94403
trace pollutants determ. in urban snow using PIXE techniques 2−67910
visible/IR transmission through falling and blowing snow 2−117446
water equiv. estimation, microwave radiometry 2−106336
YETI, hydrological model for snowmelt simulation 2−73609
CO in freshly fallen snow, implications for past atmos. 2−83885

SNR *see supernova remnants*

social and behavioural sciences
see also economic and sociologic effects; psychology; teaching
climate in historical times and influences on human society, book 2−68987
earthquake prediction, sociological aspects, review in book 2−94919
global modelling, conf., Dubrovnik, Yugoslavia, (Sept. 1980) 2−78172

societies
American Vacuum Society short courses for Scientists, engineers and technologies 2−84408

sociologic effects *see economic and sociologic effects*

sociology *see social and behavioural sciences*

sockets (electrical) *see electric connectors*

sodar *see sonar*

sodium
see also nuclei with .....
adsorbed layers on Ge (111) surface, EELS obs. 2−72585
atom, 1s photoabsorption spectrum 2−90468
atom, 4s electron momentum distrib., electron coincidence spectroscopy 2−102641
atom, D_1 line saturation, absorptive and dispersive optical bistability expts. 2−102858
atom, D-line, fluoresc. linewidth as function of spectral irradiance 2−80528
atom, density meas. using radiation trapping 2−102374
atom, Doppler-shift laser spectroscopy, fluoresc. spectra interpretation 2−96502
atom, electron impact excitation of lowest autoionising states 2−80820
atom, excited state lifetimes, optoelectronic cross-correl. determ. 2−90477
atom, five photon nonresonant photoionisation, photoelectron ang. distrib. 2−64938
atom, forward scatt. of reson. radiation in presence of mag. field 2−75456
atom, freq. depend. polarisation of light scatt. near D2 reson. line 2−85595
atom, high lying atomic states, high resolution spectroscopy and collision studies 2−102418
atom, hyperfine struct. of D-lines, forward scatt. of reson. radiation as function of applied mag. field 2−70195
atom, laser absorption spectroscopy, distortion lineshapes 2−64918
atom, Pachen-Back effect of D-lines under high mag. field 2−80531
atom, resonant multiphoton ionisation, time development 2−80548
atom, thermal motion effect on non-pot. instabilities in weakly ionised Na plasma 2−103345
atom, Thomas-Fermi-Dirac energy density functional, shell struct. 2−80476
atom, X-ray photoelectron spectra, shake-up satellites calcs. 2−59765
atom beam, radiative slowing down and velocity monochromatisation in laser beam *(Russian)* 2−85840
atom coherence effects in resonant four-wave mixing spectroscopy 2−59745
atom excited 34*d* state; electric field ionisation 2−90485
atomic beam, optical pumping, alignment and orientation of hyperfine levels 2−54813
atomic beam, Ramsey fringes, stimulated reson. Raman tungsten obs. 2−64897
atomic beam, velocity distrib. deform. by reson. laser radiation press. 2−108429
atomic beam interaction with Si(111) and (100), surface ionization and desorpt. kinetics 2−115566
atomic beam resonant light diffraction 2−96832
atomic clusters, pseudopot. CI calcs. 2−59984
atomic radiative-collisional lasers, high power 2−108863
atomic vapour, laser optical pumping with vel. changing collisions 2−59762
atoms, blackbody photoionisation rate meas. as function of temp. 2−108433
atoms, collision-perturbed with doublet excited states, near reson. scatt. 2−96499
atoms, excited states, photoionisation Stark spectra 2−70183
atoms, g factor correction calc. 2−85565
atoms, laser deceleration and velocity bunching 2−54825
atoms, photoionisation Stark spectrum, Earth mag. field effect 2−59766
atoms optical bistability and reversed switching effect 2−102849
backward photon echoes in nanosec. and picosec. region, in solid and gaseous systems 2−108975
band struct., variational cellular method calcs. 2−110233
chemisorption on Al (111), cluster model 2−66363
comets, intensity and linear polarisation of Na I D_2-line resonantly scattered in cometary atmosphere *(Russian)* 2−73907
concentration in marine rain from Samoa windward coast 2−112030
dissolution in glass under press., nuclear waste disposal 2−104001
electrical resistivity, vol. depend. 2−66525
electron impact, hyperfine struct. and zero-field quantum beats 2−108714
electron-phonon interaction, microcontact function calc., pseudopot. method *(Russian)* 2−98229
electronic surface props., propagation matrix method, Schrodinger eqn. soln. 2−82438
extreme overheating study 2−59469
forced convection, wall heat transfer coeff. for condensation and boiling 2−97635
free atom, theoretical KLL and KLM Auger spectra 2−102449
high pressure structural phase transition, first principles total energy calc. 2−66207
ion scatt. from Cu surface, ion fractions 2−77690
Jupiter magnetosphere, Na emission of Io origin plasma and motion 2−73893
lattice relax. at surface, work function, surface energy 2−87008
liquid, dissoln. of Au and Ag wires, dynamic X-radiography 2−111398
liquid, electronic density of states, Green's function and perturbative calcs. 2−71854
liquid, gaseous cavitation prediction, two-phase flow analogy 2−60590
liquid, influence on strength of nucl. reactor constructional materials, calc. method 2−96112
liquid, internal energy and entropy, Gibbs-Bogolyubov variational technique 2−56221
liquid, low-angle struct. factor away from triple point 2−55827
liquid, radial distrib. function studied using integral equation perturbation theory 2−91762
liquid, small-angle X-ray scatt., collective mode 2−60867
liquid, spectral density of square-well and hard-sphere fluids through correlation function 2−91735
liquid, stability of convection rolls in vertical mag. field 2−91434
liquid, structure factors, pseudopotential and WCA method 2−65844
liquid, structure factors calc., accuracy of liq. theory approx. methods 2−65842
liquid and solid, eqn. of state and struct., mol. dynamics study using model pseudopot. 2−71606
LMFBR, Na+concrete interaction following coolant leak 2−74879
molecular excited state, laser spectroscopy, thermionic detector construction 2−58906
molecule, autoionising Rydberg states, ionisation pot. determ. 2−70352
molecule, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619
molecule, spectra by laser level labelling, two-photon transitions 2−65063
molecule, surface emission from liq. Na, laser diagnostics 2−70444
particle, CESR g-shift, shape depend. 2−116063
phonon dispersion and thermophysical props. 2−56118
phonon dispersion relations model calcs. 2−66145
phosphors, Na effect on luminescence 2−72543
plasma, laser induced, electron density meas., emission spectra 2−65758
plasmon energies, long wavelength, nearly-free-electron pseudopotential calc. 2−98510
point contact spectra, pseudopot. calc. 2−76626
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
pseudopotential elastic const. calcs. *(Chinese)* 2−109880
Rydberg atom, high-resolution field ionisation 2−96479
Rydberg atoms reson. collisions, energy transfer 2−59916
solid, spin density, analytic tetrahedron method 2−87123
surface, interionic interactions, exchange-correlation correction, pseudopot. calc. 2−115680
surfaces (100) and (110) lattice relaxation 2−56311
thermodynamic and transport properties of crystals in anharmonic approx., effect of temp. and press. 2−76706
thermodynamic props. from lattice and mol. dynamics, pseudopot. calc. 2−104028
tribological behaviour of materials in contact with Na, O_2 effects 2−99566
two-level system in gases, Doppler-recoil shift corrections 2−70196
vacancies and self-interstitials 2−103749
vapour, efficient tunable optical freq. tripler at autoionisation-like resonance 2−81025
vapour, freq.-angular diffusion of monochromatic radiation 2−108983
vapour, laser excited, hot electron spectra obs. 2−54818
vapour, near-reson. dye laser excited, conical emission *(Chinese)* 2−96613
vapour, optical second harmonic generation by a single laser beam 2−65309
vapour deposited, adsorpt. of benzene and benzene-d_6, surface enhanced Raman spectra 2−96576
vapour lamp, high press., reson. radiat. on power calc. 2−75643
vapour targets, optical pumping by single-freq. CW ring dye laser, polarisation 2−114054
work function by Thomas-Fermi-Dirac method 2−82429
X-ray absorption edge spectra, spin-orbit and exchange effects 2−105001
As_2Se_3:Na, chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
B_2O_3 glass melt, Na and B vaporisation 2−81939
CsI:Na, tunnelling recomb. luminesc., time evolution 2−72550
CsI:Na^+, exciton-Na^+ interactions, photoluminesc., ODMR and mag. circular pol. study 2−61366
CuCl laser, Na addition effect on operating characts. 2−108862
KBr:Na, fluorescence restoration from lowest singlet state in self-trapped exciton 2−67100
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KCl:Na, dielec., sp. ht. and thermal cond. 2−86960
KCl:Na, fluorescence restoration from lowest singlet state in self-trapped exciton 2−67100
KCl:Na^+, heat capacity, 5 to 40K, effect of impurities 2−98301
Na +Ar^{2+} 2−80808
Na and Na_2 matrix isolated, visible spectra 2−108414
Na I, radiative decay of autoionisation states *(Russian)* 2−80546
Na I in Carina Nebula, motion and densities, spectral obs. 2−68869
Na I lines in Sun, centre to limb intensities 2−68700
Na^+ and Li^+ in H_2/O_2/Ar flame, ionic diffusion, mobility coeff. and flame temp. determ. by dual laser ionisation 2−105484
Na^+ cation solution by organic nitroxide radical, ^{23}Na NMR and ab initio investig. 2−80677
Na^+, electron impact excitation of optical transitions 2−70422
Na^+, intercalation in InSe and GaSe, prep. and elec. props. 2−66549
Na^+ KLL Auger transition rate, S matrix calcs. 2−85604
Na^+ plasma laser, 15.5 nm, CO_2 laser pumped, active medium form., numerical anal. 2−65205
Na^+, radiative transition probabilities and level excitation cross-sections 2−113935
Na:H, lattice relax. and crystallographic distortion around impurity 2−103914
Na/Na_2 free jet expansion, laser induced fluoresc., dimer form. and excitation energy transfer 2−85726
Na-GaSe intercalation cpd., ESR, photocond., and optical meas. 2−77367

sodium continued
Na-Hg vapour, fluorescence quantum efficiency meas. for 253.7 nm radiation 2−85586
Na-K melt, partial enthalpy of form. and heats of mixing 2−73005
Na-like ions, electron impact ionisation rate, ionisation cross section, excitation-autoionisation contrib. 2−102636
Na-Ne, low press. discharge, electron density meas., two-photon spectra 2−60806
Na-Ne discharge tube, optogalvanic spectroscopic expts. *(Chinese)* 2−65775
Na-S-Al chloride cells, performance 2−93888
$Na+H_2$, pot. energy surfaces and nonadiabatic couplings calc. using eight config. diatomics-in-mol. formalism 2−102572
$Na+H^-$, polarised proton and N^- source, target optical orientation *(Russian)* 2−102311
$Na+H^+$, electron capture collisions 2−102615
$Na+H^+$, single electron capture, attenuation cross sections meas. 2−114077
Na+He, collision-induced coherence in four wave light mixing 2−59902
Na+He, collision-induced line shifts 2−108681
Na+He, hyperfine components broadening 2−113913
Na+inert gas atoms, inelastic scatt. theory, higher-order corrections to impulse approx. 2−54920
$Na+N_2(CO)$, $Na(3p^2P)$ quenching at low temps. 2−102597
Na+Na, microwave-assisted reson. collisional energy transfer, Rydberg states 2−90657
Na+Na, resonant collision investigation 2−75409
Na+Ne, model potentials and pseudopotentials 2−59880
Na+Xe, interaction potential determ. from scatt. cross-sectional meas. 2−70390
$Na^++H_2PO_4^-$ interactions, ab initio SCF study, model of cation binding to nucleic acid 2−88344
Na^++isobutene, interaction, semiempirical ab initio calcs. 2−114064
Na^++Na, Rydberg to Rydberg charge transfer 2−65083
Na_2, $a^3\Pi_u \leftarrow X^1\Sigma_g$ transition, 625 nm, hyperfine struct. 2−59814
Na_2, backward photon echoes in nanosec. and picosec. region 2−108975
Na_2 CW two-photon transitions, spectral struct. 2−59876
Na_2 excimer laser, controlled operation, expt. study 2−65251
Na_2, optically pumped dimer laser development, 520 to 560 nm laser lines 2−80939
Na_2^+ ionic quasimolecule prepared by ion-atom crossed beam expt. by laser excitation 2−65080
Na_2+Ar, classical two-dimensional model for rotational-vibrational atom-diatom inelastic scattering 2−108654
Na_2+Na(K), effective cross sections of excitation transfer 2−54925
Na_2+Ne, rotationally inelastic scatt., angularly reduced 2−114085
Na_3 clusters, photoionisation and fragmentation in supersonic mol. beams 2−102547
Na_3, pseudorotating, dynamic freq. shifts, ESR obs. 2−102498
Na_3, supersonic expansion characterisation, laser induced atomic fluoresc. meas. 2−59986
Na_n+Cl(Br)(I), metal cluster oxidation, chemiluminescence study 2−99681
$Na_2(A^1\Sigma_u^+ \rightarrow X^1\Sigma_g^+)$ fluoresc. and continuous spectrum 2−90609
$NaBO_2$-$2SiO_2$ glass melt, Na and B vaporisation 2−81939
$2Na \Leftrightarrow Na_2$, surface catalysed equilib., laser diagnostics 2−57630
$Na_2(^3\Sigma_u^+)$ triplet molecule parameters 2−114067
^{23}Na on Re surface, nuclear spin relaxation 2−98991
Na*+CO, (3^2P) state quenching, stereochem. effects, expt. and calcs. 2−108605
Na*+$H_2(D_2)$, electronic to vibr.-rot. and translational energy transfer process, ang. distrib. 2−85791
Na*+Hg, excited state pots., rainbow scatt., polarisation effects 2−85776
Na*+N_2, energy transfer, mol. bond form., at. alignment and orientation effects 2−105480
Na*+Na^+, molecular states preparation in ion-atom crossed beam expt. laser excitation 2−65080
$Na(3^2P)$, electron impact excitation, density matrix calcs. 2−102647
PbTe:Na, density of states in valence band, sp. ht. and Hall coeff. meas. 2−82515
PbTe:Na epitaxial film, elec. cond. and Hall effect 2−115922
Pd-SiO_2:Na MOS device, H_2 induced flat-band voltage shift 2−61607
$(SN)_x$:Na, elec. cond. and magnetoresist. meas., 0.2 to 4.2K 2−92586
ZrP_2O_7:Na^+, solid electrolyte, ionic cond. meas. 2−92256

sodium alloys
Hg-Na, dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Na liq., elec. and thermodynamic props., mag. susceptibility, compound form. effect 2−82314
LiNa, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
$Li_{1-x}Na_x$, immiscible liq. metals, interfacial tension, pseudopotential theory 2−86980
Na-Bi, molten alloy, chem. pot. and related thermodynamic props. 2−92235
Na-Cd, liquid, conc. fluctuations, press. effect, EMF meas. 2−91758
Na-Cs, Cs 5p absorpt. edge 2−110979
Na-Cs, molten alloy, chem. pot. and related thermodynamic props. 2−92235
Na-Cs liq. alloy, partial struct. factors calc. 2−60869
Na-Cs liquid alloys with atomic size mismatch, conc. fluctuation 2−81965
Na-Ga, liquid, conc. fluctuations, press. effect, EMF meas. 2−91758
Na-Hg, liquid, thermodynamic and struct. props., EMF meas. 2−81986
Na-In, liq., elec. resist., and thermodynamic props., simultaneous meas. 2−82313
Na-In, liq. and solid, mag. susceptibility 2−82577
Na-K, liquid, concentration fluctuations 2−97907
Na-K, liquid, thermodynamic calcs. 2−98308
Na-K, ordering and segregation, density of states, electronic theory 2−76888
Na-K liq. alloys, statistical thermodynamics 2−86540
Na-K liquid alloys with atomic size mismatch, conc. fluctuation 2−81965
Na-Sb, elec. and mag. props., transition to semicond. charcts. 2−92709
Na-Sn, liq., elec. resist., and thermodynamic props., simultaneous meas. 2−82313
Na-Sn, liquid, entropy of mixing 2−103999
Na-Sn liq. alloys, thermodynamic props. 2−92234
NaCs, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221

sodium alloys continued
$Na_{22}Ga_{39}$, cryst. struct. 2−65921
$NaHg_4$, superconducting, Ginzburg-Landau parameter 2−87445
NaK, liq., heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221

sodium compounds
see also Rochelle salt; sodium alloys
acetate, methanol soln., positronium form., temp. effects 2−102671
brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
cancrinite, basic, cryst. struct. study 2−71407
crystals, grinding, damaged layer study 2−97245
halide dimers, equilib. config. and dimerisation energies calc. 2−90726
hydrogen oxalate monohydrate, prep. and morphology, X-ray diffr. 2−115159
intercalated dichalcogenides, props. and electrode appls. 2−57691
KNO_3-$NaNO_3$ matter mixture, thermal cond. meas. 2−115474
magnetoplumbite crystal struct. as radwaste host 2−107954
mica reinforced cellular soda-lime glass composite, fabrication, mica dehydration effect 2−93485
mordenite, optical absorpt. anisotropy by Se chains 2−87816
Na_2SO_4 aq. solns., densities and apparent molar vols. 2−98176
NaCl, activator, influence of diffusion parameters of vacuum siliciding of W 2−83273
octylbenzene sulphonate-pentanol-decane-water, microemulsion struct., mag. and elec. birefr. meas. 2−73018
phthalate, cryst. struct. 2−103741
pyrophosphates, crystalline and glassy, IR spectrum 2−72486
salts, ^{23}Na FT NMR high resolution spectra 2−87601
Sn/Na halide lamps in ceramic envelopes, charcts. features 2−95437
urate crystals, growth morphologies 2−76348
zeolite, VSZ-4 crystals, hydrothermal growth and characteris. 2−99311
zeolites, quantum chemical study of physico-chemical props. 2−65917
Ag/zeolite 4A-I_2 solid state cell, electrochemical performance 2−73101
$AgNO_3$-$NaNO_3$, molten, current-induced comp. gradients 2−57654
AlF_3-CaF_2-NaF (LiF) system, computer anal. of phase diagrams and thermodynamic props. 2−67308
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2−115145
β-Al_2O_3-Na_2O, amorphous-like acoustical props. at low temp. 2−56097
Al_2O_3-Na_2O, β and β'' phases, chem. coloration 2−67767
β-Al_2O_3-Na_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
β-Al_2O_3-Na_2O, cryst. struct., X-ray powder diffr. 2−115190
β-Al_2O_3-Na_2O, hot-pressed polycryst., fracture energy at high temp. 2−93630
β-Al_2O_3-Na_2O, ionic cond., 223 to 573K, effect of Na/S cell cycling 2−92265
β-Al_2O_3-Na_2O, polycrystalline, X-ray obs. of surface layers 2−67587
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
β-Al_2O_3-Na_2O, solid electrolyte degradation in systems with transport number gradients due to internal deposition, theory 2−92257
β-Al_2O_3-Na_2O, ultrafast ceramographic specimen prep. 2−111408
β-Al_2O_3-Na_2O electrolyte, mode I degradation initiation 2−56245
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
β''-Al_2O_3-Na_2O-Li_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
Al_2O_3-Na_2O-Si_2O thin films, X-ray emission spectra, Al coordination 2−110985
β''-Al_2O_3-$Na_2O(Na_2O$-$Li_2O)$, dehydration reactions, DTA and TGA study 2−78091
βAl_2O_3-NaO_2, densification kinetics 2−62095
Al_2O_3-XO_2-Na_2O (X=Si, Te, Ge), ionic conductor, elec. props. and struct. 2−110030
B_2O_3-Na_2O glass/PbO film interaction, UV spectra and cation conc. profile meas. 2−86945
B_2O_3-Na_2O-Na_2SO_4 system, synthesis and cond. of glasses *(French)* 2−56248
B_2O_3-Na_2O-PbO(CdO) glasses, press. induced struct. changes, ESR study 2−110637
B_2O_3-NaF glass systems, optical basicity study 2−82812
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
$Ba_2NaNb_5O_{15}$ crystal growth and characterization, high SH output power *(Chinese)* 2−77717
$Ba_2NaNb_5O_{15}$, photoluminesc. spectra, theoretical interpretation 2−57175
$Ba_2NaNb_5O_{15}$, rotational striations and diffusion 2−115157
$Ba_2NaNb_5O_{15}$, tetragonal-incommensurate ferroelastic transition 2−76659
BaO-SrO-Na_2O-Nb_2O_5 system, cryst. growth and electromech. charcts. 2−87693
CaF_2-LiF-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
$Ca_2NaMg_2V_3O_{12}$, tetrahedral sites and elec. field gradient distrib., ^{51}V NMR study 2−110665
$Co_{0.37}Na_{0.14}Pt_3O_4$, non-stoichiometric, anal. of internal struct. distortions, neutron diffr. study 2−103697
$Cs_2NaLnCl_6$, Ln=Pr, Tb, Tm, enhanced NMR spectra 2−82738
$Cs_2NaYCl_6:Eu^{3+}$, optical emission spectra and cryst. field anal. 2−104934
$Cs_2NaYCl_6:Pr^{3+}$, optical emission spectra and cryst. field anal. 2−104935
$GdNa(ReO_4)_4.4H_2O$, cryst. struct. *(French)* 2−65930
$(K,Na)_{2-x}(H_2O)_x.[UO_2SiO_4].H_2O$, boltwoodite, cryst. struct., symm. twinning 2−86653
$K_{0.01}Na_{0.03}(Mg_{1.91}Fe_{0.09}Mn_{0.01})Al_{3.98}Si_{5.01}O_{18}$, cordierite 2−91829
$(K_{0.94}Na_{0.25}Sr_{0.13}Ba_{0.10})(Mn,Fe,Al)_8(O,OH)_{16}$, cryst. struct., symm. and cation displacements 2−65928
K_2SO_4-Na_2SO_4-$ZnSO_4$ glass, struct., X-ray diffr. study 2−97933
$2\ K_2SO_4.Na_2SO_4$, crystalloluminescence and mechanoluminescence spectra 2−110947
$Li_3Na(NH_2)_4$, LiH_2 related cryst. struct., X-ray study *(German)* 2−98021
$LiNa_2PO_4$, synthesis and props. 2−111102
Li_3NaPO_4, synthesis and props. 2−111102
Li_2O-Na_2O-SiO_2 glass, static load effect on mech. relax. processes 2−62156
Li_2O-Na_2O-SiO_2 glass, polarisation and cond. mechanism 2−87656
Li_2O-Na_2O-SiO_2 system, immiscibility isotherm 2−86882
Li_2O-Na_2O-$2Si_2O$ glasses, thermally stimulated currents 2−104391
Li_2O-ZrO_2-$Na_2O(Al_2O_3)$, subsolidus phase equilibria 2−116430
$MnPS_3$-Na^+ intercalated, IR and Raman vibr. study 2−87769

sodium compounds continued
(Na,K)$AlSi_3O_8$, albite-orthose vitreous system, enthalpy of mixing *(French)* 2−61147
(Na,Li)NbO_3, hot pressed ceramics, internal stresses, Curie temp. 2−88017
Na-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
Na-C-O system, phase equilibria, recomputation, effect of O_2 as gas phase 2−99409
Na-o-dimestoylbenzene radical complexes, soln., KEPR, ELDOR and ENDOR 2−59832
Na_2, autoionising Rydberg states, optical-optical double reson. obs. 2−59829
Na_3+SF_6, mol. beam reaction, triple electron jump mechanism 2−88360
NaA zeolite, cond. during dehydration 2−71966
Na_4AO_4 (A=Si,Ge), low-temp. orthorhombic variety, X-ray diffr. *(French)* 2−55950
$Na_2Ag_4S_3$, temp. depend. of elec. cond. and self-diffusion of Ag^+ 2−76728
Na_2AlF_3, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
Na_3AlF_6-ZnS multi-layer interference filter, temp. effect on peak transmission wavelength *(Korean)* 2−55304
$Na_5Al_3F_{14}$:Fe^{3+}, superposition model for cryst. field parameters, EPR study 2−110632
$NaAl_3(PO_4)_2(OH)_4$, localised hole centres, paramagnetic defect EPR study 2−66919
$NaAl(SO_4)_2.12H_2O$:Cr^{3+}, EPR linewidth anomaly, struct. fluctuations 2−98952
$NaAl(SiGe)_3O_8$ feldspars, glassy and cryst., ideal mixing of Si and Ge, calorimetric study 2−115414
NaAr, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
$Na_3AsS_4.8D_2O$, H-bonds, neutron diffr., X-ray diffr. and vibr. spectroscopic studies 2−55933
$NaBO_2$-CdO(CdB_4O_7), phase diagrams, DTA, X-ray phase anal. and IR spectra study 2−66174
$Na_2B_4O_5(OH)_4.3H_2O$, tincalconite, electrostrictive and electrooptical effects, Michelson interferometer meas. *(German)* 2−93117
$NaBO_2.2SiO_2$ glass melt, Na and B vaporisation 2−81939
$Na_2Be_2Si_3O_9$, cryst. struct. determ. 2−55912
$NaBi(MoO_4)_2$, electrogyration studies 2−67026
$Na_{0.5}Bi_{0.5}TiO_3$, ferroelectric, structural phase transitions, X-ray diffr. study 2−67002
$Na_{0.5}Bi_{0.5}TiO_3$, phase transition props. *(Russian)* 2−61841
$Na_{0.5}Bi_{0.5}TiO_3$, single crysts., birefringence changes during phase transitions 2−57046
NaBr, ab initio interaction polarisability and pair pot. 2−75179
NaBr, aqueous soln., enthalpy of dilution 2−105497
NaBr:Tl, phosphor, complex ion centres 2−61977
NaBr:Tl phosphors, pretreated, dimer centres 2−61937
$NaBrO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
NaCN, pot. energy surface, equilib. geometry electron correl., SCF calcs. 2−96467
$Na_2Ca_4Al_{10}Si_{10}O_{40}$, cryst. struct., X-ray diffr. method 2−115188
$Na_{7.6}Ca_{0.4}Si_6Al_6O_{24}.CO_3.2.2H_2O$, cryst. struct., neutron diffr. refinement 2−103728
$NaCaVO_4$, cryst. struct. refinement by powder neutron diffr. at 300K 2−76374
$NaCd(HCO_2)_3$, cryst. growth and struct. characterisation, etching, X-ray diffr. and IR study 2−91920
NaCl, ad. of fluoromethane, IR laser induced desorption by multiquantum vibr. excitation 2−104136
NaCl, aq. soln., enthalpy of dilution, 348.15 to 472.95K 2−57632
NaCl, aq. soln., volumetric props., data tables 2−94921
NaCl aq. solns., densities and apparent molar vols. 2−98176
NaCl bicrystals, microhardness 2−57454
NaCl, carrier drag by photons 2−104432
NaCl, cation size effect on ionic thermocurrents 2−72405
NaCl, cohesive props., ab initio pseudopot. calc. 2−109738
NaCl, cryst., triboluminesc., localisation and spectral composition 2−116283
NaCl crystal, γ-irradiated, F-stimulated photoplastic effect 2−66108
NaCl crystals, γ irrad. influence on absorpt. coeff. at CO_2 laser radiation wavelength 2−87828
NaCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
NaCl crystals, influence of electrostatic field on photothermal decolouring *(Russian)* 2−74559
NaCl crystals, vacancies and impurity dipoles effect on mech. props. 2−71543
NaCl crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
NaCl cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
NaCl, deformed, dislocation motion 2−60987
NaCl, dislocation density determ. from NMR quadrupolar linewidth meas. 2−98114
NaCl, dislocation motion through flexible and reactionable dislocation forest, computer simulation 2−98090
NaCl, dislocation slip orientation depend., NMR study 2−109806
NaCl doped crystals, hardness anisotropy meas. 2−76579
NaCl, EM emission stimulated by acoustic wave 2−116301
NaCl, electron stimulated desorption of excited alkali atoms 2−87026
NaCl, electron-induced sputtering 2−99236
NaCl, equation of state, lattice const. and bulk modulus, SCF calc. 2−71604
NaCl, F centre pairs, exchange effects in ODESR 2−56981
NaCl, F-coloured, light induced refractive index change 2−72441
NaCl, field-enhanced evaporation direct obs. 2−77709
NaCl, glide band formation, simulation 2−103761
NaCl, γ-irrad., aftereffect and photomemory, F-centres and dislocations 2−71547
NaCl, γ-irrad., dislocation multiplication under static load *(Russian)* 2−91983
NaCl, γ-irrad., radiation induced F-and V-centres, thermal destruction 2−115226
NaCl, γ-irrad. suppression of photoplastic effect by mag. field *(Russian)* 2−86776
sodium compounds continued
NaCl, high press. compressibility and Moelwyn-Hughes parameters 2−58040
NaCl, IR wavelength modulation spectroscopy of laser window materials 2−60191
NaCl, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
NaCl, inert gas metastable atom scatt. from solid surfaces 2−99261
NaCl, intensity depend. absorpt. at 10.6 μm, laser damage process 2−60193
NaCl, intrinsic luminescence under H^+ and He^+ ion bombardments 2−67123
NaCl, laser damage, microdefect characts. determ. from statistical relations 2−70601
NaCl, laser-induced breakdown, pulse-width and focal-volume depend. 2−66055
NaCl, laser-induced primary defect form. role in optical breakdown 2−66057
NaCl lasers based on F_2 centres, lasing action, luminescence 2−80972
NaCl, lattice sums with exact electrostatic pot. 2−55881
NaCl, mechanical props. and dislocation struct. under creep conditions 2−81880
NaCl, molten, struct., neutron scatt. amplitudes 2−76269
NaCl, neutron and γ-ray attenuation props., spent fuel disposal appl. 2−107960
NaCl, optical losses in middle IR band, influence of microinclusions 2−87800
NaCl, optical radiation from photon-stimulated desorption of excited atoms 2−110934
NaCl, piezoluminescence study 2−87870
NaCl, planar channeled positron radiation characts. 2−81852
NaCl powder, compact strength, rel. to shear-normal stress curve obtained from uniaxial compression 2−116400
NaCl, pulsed CO_2 laser damage threshold meas. 2−60140
NaCl, quadrupolar energy relax., reson. acoustic field excitation 2−110680
NaCl, radiation-induced F- and V-centres formation by γ-rays 2−66058
NaCl, rocksalt to CsCl struct. transform., Woodward-Hoffmann orbital correl. diagrams 2−81952
NaCl, rotating dipolar solid, NMR spectra calc. by canonical transform. technique 2−56952
NaCl, Schottky defect volume formation 2−71436
NaCl, semi-infinitive, site-by-site Madelung energies 2−79314
NaCl single crysts., dislocation multiplication during dislocation half-loops expansion 2−66001
NaCl, substrate for Ag film, growth, Ag cluster mobility meas. to 123K 2−92409
NaCl, surface, laser irrad., emission of EM radiation (flashes) study 2−66048
NaCl, surface (001), H atom beam coherent elastic scatt., bound state resonance, Morse pot. 2−116324
NaCl, synthetic single cryst., thermal gradient migration of brine inclusions 2−56264
NaCl, tightly focused intense laser beam deform., multiphoton-polaron and avalanche breakdown models 2−66056
NaCl type crystals, effect of dislocation forest on work hardening *(Russian)* 2−88102
NaCl, ultrapure, particle size influence on sintering kinetics 2−99366
NaCl whiskers, unwinding of the Eshelby twist 2−98505
NaCl, X-ray irrad. dielectric props. study 2−66973
NaCl:(Ca^{2+})(Sr^{2+}), irradiated crysts., IR props. 2−99127
NaCl:Ag(Cu), activator electroluminesc., recomb. and intracentre processes, strong electric field effect 2−72557
NaCl:Ag(Cu), ligand relax., isotropic superhyperfine const. anal. 2−109816
NaCl:Ca, aggregation phenomena during isothermal annealing 2−76486
NaCl:Ca (Sr)(Mn)(Pb)(Cd), mech. strengthening and impurity precip. 2−88093
NaCl:Ca^{2+}, low temp. soln. hardening due to lattice distortion around impurity-vacancy pairs 2−98077
NaCl:Ca^{2+}, MFP of dislocations, NMR study 2−109807
NaCl:Ca^{2+} (Pb^{2+}) single cryst., microindentation and flow limit, doping effect *(Russian)* 2−71552
NaCl:Ca^{2+}(Cd^{2+})(Ni^{2+})(Pb^{2+}), microhardness and bulk density meas., precip. and impurity-dislocation interactions 2−115345
NaCl:Cu^+, Cu^+ electronic struct., multiple scatt. X_α method appl. to $CuCl_6^{5-}$ cluster 2−87192
NaCl:Cu^+(Ag^+), luminesc. props. and impurity electronic struct. 2−57161
NaCl:Cu(Ag) Schottky defects, energy of form., ion mobility and cond. study 2−71441
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaCl:Ni, plastic deform. around precipitates, dislocation microstruct. 2−103770
NaCl:Ni, precipitates, etch pit study of dislocation microstructure 2−91971
NaCl:Ni, precipitation-induced dislocation loops and helices 2−98102
NaCl:O^{2-}, γ-irrad., annealing, radiolysis products studied by mass spectrometry *(Russian)* 2−78167
NaCl:Pb, dielec. relax., impurity-conc. effects 2−104811
NaCl:Pb, Mn, excitation and emission spectra 2−104952
NaCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
NaCl:Pb^{2+}, luminescent centre symmetry, photoluminescence meas. 2−57168
NaCl:Pb^{2+}, yield stress, solid soln. precip. and dissolution effects, IR absorpt. study 2−57366
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
NaCl:Sr, Pb^{2+}, luminescence and absorpt. spectra 2−72547
NaCl:Sr, UV light irrad., thermoluminesc. study 2−57197
NaCl:Sr, X-irrad., thermoluminesc. study 2−57196
NaCl:Sr^{2+}, Eu^{2+}, precipitation of $SrCl_2$, EPR study 2−98956
NaCl:Sr(Ca)(Cd), Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
NaCl:Tl(In), luminescence obs. at high press. 2−72533
NaCl:Tl(T) prep., beta-radiation thermolum. dosimetry 2−102272
NaCl-$CaCl_2$-$SrCl_2$, molten, thermodynamic props. and phase diagram, calc. using computer *(Chinese)* 2−105129

sodium compounds continued
NaCl-KCl crystals, Ca doped, etching studies of non-dislocation pits 2−76482
NaCl-KCl mixed cryst., thermal evaporation study 2−109965
NaCl-KCl powder, thermoluminescence study of colour centre isothermal stability 2−72567
NaCl-KCl thermoluminesc., narrow glow peak obs. 2−104974
NaCl-KCl two-phase mixed cryst., etching obs. of impurity ion defects 2−55988
NaCl-type alkali halides, phenomenological pots., elastic and dielec. data anal. 2−81706
$Na_nCl_{n-2}^{2+}$ cluster, energy surface and stability 2−80863
$NaClO_3$, ^{35}Cl NQR investig. 2−110702
$NaClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
$NaClO_3$, effects of nonresonant RF photon dressing on NQR 2−54879
$NaClO_3$ gyrotropic bounded medium, surface wave dispersion 2−96827
$NaClO_3$ single cryst., Zeeman-split NQR using mag. 4π goniometer 2−80657
$NaClO_3$, UV irrad., librations of O_2 defectsd, ESR study 2−72346
$NaClO_4.H_2O$, IR stretching and bending bands of dil. HDO 2−72479
$Na_2Cl[B(OH)_4]$, cryst. struct. refinement *(German)* 2−55917
$NaCrS_2$, a new mineral from a meteorite (caswellsilverite) 2−68681
$NaD_3(SeO_3)_2$ ordered ferroelec. state, paraelect. and ferroelect. phase struct., neutron diffr. 2−99065
NaF, alkaline earth impurity doped, CW laser operation with F_2^+-type colour centres 2−60085
NaF, core excitons, atomic energy calcs. 2−110259
NaF, core excitons, Na $L_{II,III}$ edge 2−110258
NaF, core excitons, X-ray edges 2−110257
NaF, electron density by γ-ray diffractometry 2−76998
NaF, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
NaF Harshaw crysts., thermoluminesc. γ-ray induced sensitization obs. 2−87878
NaF Harshaw single crysts., γ-ray irrad., thermoluminescence, relationship to colour centres 2−61991
NaF, He atom-surface impact, attractive corrugated hard wall model, convergent perturbative soln. 2−99251
NaF, IR wavelength modulation spectroscopy of laser window materials 2−60191
NaF lasers based on F_2 centres, lasing action, luminescence 2−80972
NaF photochemical hole burning polycrystalline thin film material, vapour deposition 2−111083
NaF, single freq. laser using $(F_2^+)^*$ centres, 1.0 to 1.15 μm range 2−108886
NaF, soft X-ray absorpt. spectra by pot. scanning, numerical inversion 2−93323
NaF, suitability for phaser material, phonon lifetime and scatt. 2−86815
NaF, surface phonon dispersion rel. meas. using He atomic beam 2−66143
NaF, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
$NaF:Ca^{2+}$, γ-ray irrad. $F_{z(1)}$ centres, optical absorption spectra study 2−76976
$NaF:Ca^{2+}$, γ-ray irrad., colour centres and interstitials, luminesc. spectra 2−110960
$NaF:Ce^{3+}$, F-centres, luminescence and optical study 2−77601
$NaF:Cu^+$, single cryst., UV absorpt. and fluoresc. study 2−67084
NaF:Li, single crystal, stability of electronic colour centres 2−91958
NaF:U, fluoresc. and MCD spectra 2−57160
NaF:U, luminesc., EPR of U^{3+} 2−110918
NaF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
NaF(001), surface phonon dispersion relations 2−109929
$Na_3Fe(CN)_6.2H_2O$, ^{57}Fe elec. hyperfine field, polarised Mossbauer study 2−93078
α-$NaFeO_2$, Sternheimer quadrupole factors 2−98603
$NaGdSiO_4.xNaOH$ ($x \simeq 0.2$), cryst. struct. refinement 2−76372
Na_2GeO_3, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
NaH, photodissociation, fine struct., ang. distrib., quantum mech. calcs. 2−108646
NaH^+, low lying interaction energies, pseudopot. mol. struct. calcs. 2−102615
$Na_{0.33}(H_2O)_yTaS_2$ cointercalation cpd., cryst. struct., X-ray diffr. study 2−91909
$Na_{1/3}(H_2O)_yTaS_2$, $O \leq y \leq 2$, ambient temp. phase rels. 2−61155
$Na_{0.5}H_{2.5}PO_3$, cryst. struct. determ. 2−76377
$NaHSeO_3$, cryst. struct. determ. 2−55899
$NaH_3(SeO_3)_2$, cryst., phase transitions under press., NQR-NMR obs. 2−110692
$Na_3H_6[PMo_6V_6O_{40}].16H_2O$, cryst. struct. and vibr. spectra 2−98030
NaI, aqueous soln., enthalpy of dilution 2−105497
NaI crystal with self-trapping excitons, exciton luminesc. and multiphonon Raman spectrum 2−82922
NaI detector suitability for imaging appl. 2−59598
NaI, excitation spectra of exciton luminescence, hot exciton effects 2−66457
NaI, resonance Raman scatt. induced by F-centres, electron-phonon coupling 2−87788
NaI:Ca, thermal depolarisation 2−93104
$NaIO_3$-$LiIO_3$ pseudobinary system, phase diagram and amorphous state crystn. kinetics, expt. study *(Chinese)* 2−91778
$NaIO_4$ single crysts., growth and characterisation 2−62056
NaI(Tl) detector for single photon tomographic system GAMMATOM-1 2−73328
NaI(Tl), phosphorescence generated by betatron bremsstrahlung 2−67095
NaI(Tl) scintillation detector system using microchannel plate photomultiplier 2−75111
NaI(Tl) scintillation detector, high temp. performance characts. 2−80388
$NaInF_4$, struct. modifications, IR and Raman investig. 2−87771
Na_3InF_6, struct. modifications, IR and Raman investig. 2−87771
Na_2KSb films, growth for photocathodes 2−83029
$NaKTeO_3.3H_2O$, cryst. struct. refinement *(French)* 2−71399
$Na_5La(MoO_4)_4$, cryst. struct. and interat. distances 2−103731
$NaLa(SO_4)_2$, X-ray cryst. struct. determ. 2−55953
$Na_{2-x}La_2Tb_x(PO_4)_6Cl_2:Tb^{3+}$, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
$Na_5La(WO_4)_4$, cryst. struct. and interat. distances 2−103731
NaLi, ground and excited states, vibr. and rot. consts., pot. energy curves, laser induced fluoresc. 2−65033
sodium compounds continued
$Na_3Li_3Fe_2F_{12}$, garnet cryst. struct., bond lengths and angles, X-ray diffr. study *(German)* 2−91936
$Na_2LiYSi_6O_{15}$, cryst. struct., X-ray study, block-diagonal least squares method 2−81720
NaMg, laser induced chemiluminesc. 2−57618
Na_2MgAlF_7, weberite, space group, X-ray diffr. study 2−103676
$NaMnCl_3$, mag. phase diagram, paramagnetic-antiferromag. transitions circular birefringence study 2−82596
Na_2MoO_4-Pb_2MoO_5, fusibility diagrams 2−111152
$Na_2MoO_4.2H_2O$, deaquation process, dielectric const., elec. cond. meas. 2−87648
$NaN_3:Mn^{2+}$, EPR study of cation vacancy-Mn^{2+} pairs 2−61752
$NaNH_4SeO_4.2H_2O$, cryst., phase transitions under press., NQR-NMR obs. 2−110692
$NaNO_2$, gamma-irradiation effect on cryst. struct. 2−115288
$NaNO_2$, incommensurate transitions, phenomenological theory 2−57025
$NaNO_2$, incommensurate phase transition near Lifshitz point, thermodynamic theory 2−87712
$NaNO_2$, incommensurate to ferroelec. transition, thermodynamic theory 2−116127
$NaNO_2$, lattice mode anharmonicity, order-disorder transition, IR spectra study 2−76614
$NaNO_2$ microcrystals, ferroelec. phase transition 2−87706
$NaNO_2$, mol. crysts., lattice phonons, tunnel states 2−76329
$NaNO_2$, paraelectric phase critical fluctuations 2−82797
$NaNO_2$, phosphoresc. to fluoresc. quantum yield, energy depend. intersystem crossing and vibr. relax. 2−72536
$NaNO_2$, solid and molten, paraelectric phase, molecular dynamics computer simulations, struct. 2−98035
$NaNO_2$, specific heat at low temp. 2−76701
$NaNO_2$, spin echo, coherent multipulse sequences in NQR study 2−110708
$NaNO_2$, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
$NaNO_2:Ag^+$, triplet state, quadrupole interaction, optically detected ESR and ENDOR 2−116093
$NaNO_2:NO_3^-$, luminescence spectrum fine struct. 2−87841
$NaNO_3$, elastic consts., compressibility, ultrasonic pulse echo superposition technique 2−61055
$NaNO_3$, lattice mechanics, phonon dispersion, rigid mol. ion model 2−109927
$NaNO_3$, N KVV Auger line shapes, XES and photoelectron data 2−59818
$NaNO_3$ near lambda transition, fundamental absorpt. edge 2−99150
$NaNO_3$, single crystals, mag. shielding of ^{23}Na nuclei 2−77387
$NaNO_3$ single crystal, low-freq. reflectance spectrum temp. depend., phase transition, lattice mode parameters 2−99111
$NaNO_3$, struct. of NO_3^- ions in conc. aqueous solns. 2−76270
$Na_{11}(Na,Ca)_2Ca_2Ce_{0.67}[Si_4O_{12}][P\ O_4]_4$, phosinaite, cryst. struct. determ. 2−86649
$NaNbO_3$, antiferrodistortive transition, order parameter crit. behaviour, NMR study 2−92183
$NaNbO_3$, solid solutions, phase transitions 2−87704
$NaNbO_3$, zone-centre soft mode behaviour in cubic 2−56150
$NaNp_2F_9$, cryst. struct. anal. 2−91894
NaO_2-B_2O_3-SiO_2 glass, internal friction *(Japanese)* 2−83161
β-Na_2O-Al_2O_3, AC ionic conductivity, equivalent circuit modelling 2−115457
Na_2O-Al_2O_3-B_2O_3 glass, tetrahedral B, NMR spectra 2−97932
Na_2O-B_2O_3 glass, fluctuation of ionic current induced by mech. stress, rel. to internal friction 2−92274
Na_2O-B_2O_3 phase-separated glasses, fracture toughness to Young's modulus relationship 2−93609
Na_2O-B_2O_3-CeO_2-$3Nb_2O_5$(-Al_2O_3) porous glass ceramic 2−77811
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Na_2O-B_2O_3-SiO_2 gel-derived single layer antireflection films 2−77732
Na_2O-B_2O_3-SiO_2 glass, multiple scatt. in medium where single scatt. has a cooperative character 2−65169
Na_2O-B_2O_3-SiO_2 glass form. kinetics, from alkoxides in soln. 2−76316
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
Na_2O-Ca_2O-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Na_2O-CaO glass, ion substitution at low temp. by elec. field 2−67277
Na_2O-CaO glass, thermally toughened and untoughened, crack initiations at microindentations 2−105285
Na_2O-CaO-$Ca_3(PO_4)_2$-Na_3PO_4-Na_2SiO_3-$CaSiO_3$, subsolidus struct. 2−111151
Na_2O-CaO-SiO_2, proof testing in heptane 2−111280
Na_2O-CaO-SiO_2, scored glass, fracture toughness 2−83208
Na_2O-CaO-SiO_2 glass, test pieces with controlled flaws, uniaxial and biaxial strength comparison 2−57414
Na_2O-CaO-SiO_2 glass, irrad., failure, micromechanical model *(Russian)* 2−77947
Na_2O-CaO-SiO_2 glass, chemically toughened, crack evolution in Vickers indentation 2−88169
Na_2O-CaO-SiO_2 glass, bonding props., XPS study 2−93367
Na_2O-CaO-SiO_2 glass, water content influence on viscosity, T_g, thermal expansion and hardness 2−93632
Na_2O-CaO-SiO_2 glass, leaching characts., surface roughness and surface area effects 2−93650
Na_2O-CaO-SiO_2 glass, electron bombardment, Na atom prod. absence XPS study 2−98160
Na_2O-CaO-SiO_2 glass melts, oxidation state and O activity 2−92233
Na_2O-CaO-SiO_2 glass rods, fatigue props., Vickers indentation flaws 2−99544
Na_2O-CaO-SiO_2 glass:Cu,Cr,Er, energy transfer from Cu and Cr to Er 2−99176
Na_2O-CaO-SiO_2:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
Na_2O-Fe_2O_3-Al_2O_3-SiO_2 glass with decorative cryst. surface film, synthesis 2−67275
Na_2O-Fe_2O_3-SiO_2, glass, surface dealkalisation, role of iron oxides 2−73016
Na_2O-FeO-SiO_2 simulated waste glass, chem. durability, press. effects and surface layer form. 2−93651
Na_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
Na_2O-K_2O-Al_2O_3-SiO_2 glasses, functional form of Arrhenius eqn. for elec. cond. 2−110350
Na_2O-K_2O-SiO_2 system, immiscibility isotherm 2−86882
Na_2O-Li_2O-SiO_2, glass, energetics, from acoustic meas. 2−71590

sodium compounds continued
Na_2O-M_2O_3-SiO_2 (M=Ga, In, Sc, Y, La), glass transition temp., relation to glass comp. 2−66219
Na_2O-PbO-SiO_2:Fe^{3+} glass, spectroscopic behaviour of Fe^{3+} 2−77554
Na_2O-SiO_2, glass, energetics, from acoustic meas. 2−71590
Na_2O-SiO_2, soda glass detector, fission fragment tracks, efficiency calibration and etchant temp. effect 2−96390
Na_2O-SiO_2 and Na_2O-CaO-SiO_2 system glasses, corrosion behaviour in water, ESCA obs. 2−93656
Na_2O-SiO_2 gels, crystn. rel. to glass prep. 2−76309
Na_2O-SiO_2 gels prep. for gel-glass process, action of atmospheric agents 2−76317
Na_2O-SiO_2 glass, abrasive wear, scale effect 2−67563
Na_2O-SiO_2 glass, phase separation, Raman spectroscopy study 2−92212
Na_2O-SiO_2 glasses, conc. fluctuations and ionic cond. props. 2−92261
Na_2O-SiO_2 glasses, mech. props., finite element method calcs. 2−111232
Na_2O-SiO_2-B_2O_3 glass, phase separation, Raman spectroscopy study 2−92212
Na_2O-SiO_2-CoO melt, viscosity and elec. cond. *(Japanese)* 2−76720
Na_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
Na_2O-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
Na_2O-SiO_6 glass, dynamic fatigue study using small scale indentation flaws 2−88186
Na_2O-ZnO-B_2O_3-SiO_2 glasses, chem. durability, effect of Zn^{2+} adsorption 2−93648
$Na_2O+As_2O_5$, heat of form. of arsenates meas. 2−88374
$(Na_2O)_{1.24}Al_2O_3(SiO_2)_{2.01}$, 1.87 H_2O, basic cancrinite, cryst. struct. study 2−71407
NaOD solution, interaction induced light scatt. spectra of amorphous solid and liq. 2−57113
$NaOH_x$-TaS_2 intercalation cpd., supercond. transition temp. and charge transfer 2−92804
NaOH (NaOD), cryst. struct. and struct. transitions, X-ray and neutron diffr. and sp. ht. study 2−97972
NaOH, in upper stratosphere, anal. of photolysis 2−100451
NaOH, mol. crysts., lattice phonons, tunnel states 2−76329
$1.67[(Na_2O)_x(K_2O)_{1-x}].1.33ZnO.10.34Ga_2O_3$, mixed alkali effect, cond. minimum 2−61200
$Na_2O.3SiO_2$ glass, HF-H_2O impregnated, elec. cond. 2−86925
$Na_2O.2SiO_2$ glass, Fe^{3+} coordination number 2−97931
$Na_2O.3SiO_2$ glass, water content effect on transport 2−56246
$Na_2O.3SiO_2$ glass, water content effect on chemical durability 2−77962
$Na_5PMo_{10}V_2O_{40}.15H_2O$, cryst. struct. and vibr. spectra 2−98029
$NaPO_2$, IR spectra isolated in N_2 matrix, bond angles estimation 2−80595
$NaPO_3$-NaF(AlF_3)(AlF_3-CaF_2) glasses, Raman spectra, struct. models 2−87758
Na_3PO_4, ionic cond. *(French)* 2−56247
$Na_4P_2O_7$-$SnCl_2$ aq. solns., complex form., ^{31}P NMR obs. 2−70288
Na_2PO_3F, prep. from mixture of Na_2CO_3, H_3PO_4 and NH_4HF_2 2−72615
$Na_3PO_3S.12H_2O$, disorder in cryst. struct. 2−65938
NaPbF,Cl(Br)(I), $PbBiO_2Cl$ type struct., cryst. struct. and prep. 2−103718
$Na(Pt(CN)_4).yH_2O$, luminesc., mag. field effects 2−82899
$Na_2PtCl_6.6H_2O$, NQR and NMR signals, effects of cryst. H_2O 2−110656
$Na_{0.73}Pt_3O_4$, cryst. struct., neutron powder diffr. study 2−55927
$Na_{1.0}Pt_3O_4$, cryst. struct., neutron powder diffr. study 2−55927
$NaReO_4$, temp. and enthalpies of melting 2−103950
Na_2SO_3-$NaHCO_3$-H_2O system, thermodynamic relations and phase equilib. 2−83406
Na_2SO_4 aqueous solution IR optical constant 2−93179
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
$Na_2S_2O_3$ breakdown on evaporated AgBr layers, electron microscopy obs. 2−88367
$2Na_2SO_4.Hf(SO_4)_2.2H_2O$, crystal struct. determ. 2−76397
$Na_2SO_4.Hf(SO_4)_2.3H_2O$, crystal struct. determ. 2−76398
Na_2SbF_5 crystals, superion phase transition *(Russian)* 2−103987
$Na_3SbS_4.8(9)(D, H)_2O$, Raman spectra in temp. range 75-295K 2−87773
$Na_3Sc_2(PO_4)_3$, ferroelec., ionic cond. meas. 2−92263
$Na_5ScSi_4O_{12}$, cryst. struct. and ionic cond. mechanism 2−91933
Na_2SiF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
$Na_2Si_2O_5$ glass, CC Na self-diffusion, correl. factors calc. 2−110036
α-$Na_2Si_2O_5$, single crystal growth from melt 2−111063
$Na_2Sr_{3-2x}R_x(PO_4)_2$, R=La to Tb, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
$Na_3Tb(WO_4)_4$, cryst. struct. and interat. distances 2−103731
$Na_x(Ti,Mg)_2(O,F)_4$, cryst. struct., cond. channels 2−86652
$Na_x(Ti, Mg)_2(O, F)_4$, solid electrolyte, Na cation distrib. *(Russian)* 2−56249
$Na_2Ti_3O_7$, γ-ray effects investig. 2−76502
$Na_2Ti_9O_{19}$ structure determ. by convergent-beam electron diffr. and 1 MeV struct. imaging 2−60930
Na_4UF_9, thermochemical investigation, heat of form. 2−73006
$NaUO_3$, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
Na_2UO_4, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
$Na_2U_2O_7$, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
$NaVO_3$, X-ray emission spectra, second coord. sphere effects 2−90567
β-$Na_{0.33}V_2O_5$, quasi-1D-conductor, nuclear quadrupole effect and phase transition 2−56970
β-$Na_{0.33}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
β-$Na_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
Na_2WO_4, melt, nucleation mechanism and kinetics of $BaWO_4$ cryst. growth 2−91836
Na_xWO_3, conduction band photoelectron spectroscopy, core holes and Fermi surface 2−105040
Na_xWO_3, electronic struct., photoemission study 2−115656
Na_xWO_3, high resolution electron energy loss spectroscopy, surface plasmons 2−82967
Na_xWO_3, structural phase transitions, neutron scatt. study 2−92182
$Na_2WO_2F_4$, prep. and cryst. struct., X-ray diffr. study *(French)* 2−109771
NaXe, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
NaY zeolite, crystallisation, IR spectroscopy 2−71385
$Na_3YSi_2O_7$, cryst. struct. study 2−115202

sodium compounds continued
$Na_5YSi_4O_{12}$ ceramic superionic cond., sintering prep. and characterisation 2−83056
$Na_5YSi_4O_{12}$, cryst. struct. and ionic cond. mechanism 2−91933
$NaY_9(SiO_4)_6O_2$, cryst. struct., X-ray study, block-diagonal least squares method 2−81738
$Na_2Zn_1[Fe(CN)_6]_2.xH_2O$, cryst. struct., X-ray diffr. study 2−81719
$NaZr_2(PO_4)_3$, ceramic, sintering prep., appl. to radioactive waste disposal 2−90226
$Na_2ZrSi_3O_9.2H_2O$, cryst. struct. study 2−98040
$Na_2ZrSi_3O_9.3H_2O$, cryst. struct. study compounds 2−115201
$Na_3Zr_2Si_2PO_{12}$, wetting by liq. Na 2−66325
$Na_2ZrW_2O_{12}$, cryst. struct., combined wolframite-scheelite character 2−98025
$Na_20.5Al_2O_3$, electron irradiation damage mechanisms 2−66072
$Na_2[BO_2(OH)]$, cryst. struct. determ. 2−76381
$Na_2[Co(NCS)_4].8H_2O$, cryst. struct. 2−65933
$Na_4[H_4As_4Mo_4O_{28}].6H_2O$, cryst. struct. determ. 2−55921
$Na_6[M(CO_3)_5]\ 12H_2O$, M=Ce, Th, cryst., vibr., IR study 2−77512
$Na_6[Th(PO_4)(P_2O_7)]_2$, cryst. struct. determ. 2−55913
$Na_2[UO_2(MoO_4)_2]$, solid-phase synthesis, composition determ. 2−72618
Naβ-alumina surface study using XPS and Auger methods 2−92329
$NbSe_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
Rb_2NaHoF_6, struct. phase transition study 2−98273
ScF_3-BaF_2-NaF, glass, phys. props. *(French)* 2−91809
SiO_2-Al_2O_3-Fe_2O_3-CaO-MgO-Na_2O basalt glass, surface conc. profile, AES study 2−93333
SiO_2-Al_2O_3-Na_2O system, vitreous, support for Pd catalysis o f phenylacetylene half-hydrogenation 2−78138
SiO_2-B_2O_3-K_2O-Na_2O glass, leaching characts., surface roughness and surface area effects 2−93650
SiO_2-B_2O_3-Na_2O microporous glass, swelling in water rel. to heat treatment 2−111209
SiO_2-B_2O_3-Sb_2O_3-Na_2O glasses, electronic and ionic cond. 2−87348
SiO_2-CaO-Na_2O glass surfaces, interdiffusion of H^+ and alkali ions, elec. resist. study 2−110034
SiO_2-Na_2O glass, X-ray irrad.-induced defects, ESR study 2−98960
SiO_2-Na_2O-CaO-BaO(ZnO) glasses, microindentation hardness 2−93582
SiO_2-Na_2O-CaO-MgO-R_2O_3 (R=rare earth) glass struct., diffr. methods anal. 2−55859
SiO_2-Na_2O-CoO-V_2O_5 glass, Co^{2+} spin-lattice relax. by V^{4+} EPR study 2−72335
SiO_2-$NaAlO_2$ glasses, three-dimens. network struct. 2−115142
$SrNaPO_4.9H_2O$, cryst. struct. X-ray diffr. study, full matrix least squares technique 2−81721
T 2−113757
UO_2WO_4-$Na_2(K_2)(Rb_2)(Cs_2)WO_4$, solid-phase synthesis, struct., IR and luminesc. spectra 2−87752

sodium potassium tartrate tetrahydrate *see Rochelle salt*

sofar *see sonar*

soft modes
see also displacive transformations; lattice phonons
A15 superconducting cpds., varying electronic density of states 2−61328
band Jahn-Teller systems with A15 struct., lattice dynamics, thermodynamic model 2−61422
benzil, cryst. phase transition, acoustic phonon mode, Brillouin scatt. study 2−56175
benzil, structural phase transition, proton mag. relax. study 2−116079
bis-propylammonium tetrachloro-zincate, second order ferro-paraelastic phase transition, birefringence 2−61124
chloranil, phase transition, soft mode behaviour, press. depend. Raman scatt. study 2−66205
diamantane, 35K struct. phase transition light scatt. study 2−61918
displacive ferroelectrics, doped, shear viscosity 2−115366
elastic phase transitions, Landau theory appl. 2−98246
ferroelectric, displacive transformations, US attenuation study 2−56095
ferroelectric, elec. cond. temp depend., carrier interaction with soft ferroelec. mode 2−110342
ferroelectric, EPR line broadening, elec. dipole-dipole interaction, spin-spin relax. 2−77360
ferroelectric phase transitions, Jahn-Teller impurities effect, soft mode contrib. 2−61843
ferroelectric soft modes, microscopic polarisability model 2−56149
ferroelectrics, quadrupole-quadrupole interaction, soft phonon modes, NQR line crit. broadening 2−110707
ferromagnetic plate, magnetoelastic states near spin reorientation transition 2−82675
incommensurate cryst. phases, microscopic model 2−81925
incommensurate phases, acoustic anomalies 2−66162
Jahn-Teller impurity centres, quadratic interaction with ferroelec. soft host mode 2−93128
Jahn-Teller nonferroelastic crystals, elastic and dielec. props. 2−115331
lattice dynamics and phase transitions, pseudopot. theory 2−92139
low-temperature chemical reactions, enhancement in phase transitions 2−67735
metallic materials, amorphous, supercond. props. *(Russian)* 2−66695
one-dimensional metal, phonon drag effects on cond., SCF model, soft mode role *(Russian)* 2−56561
one-dimensional solids, structurally unstable, Peierls and spin Peierls transitions 2−98632
orthoferrite plate, magnetoelastic states near spin reorientation transition 2−82675
perovskite related crysts., phase transitions associated with rot. distortions, theoretical study 2−66211
perovskite struct. $ABCl_3$ crysts., phase transition sequence, thermodynamic description 2−103983
perovskites, oxydic, ferroelec. transitions, IR and Raman spectra and dielec. const. data anal. 2−67008
PMMA, thermal phonon softening and crazing under tensile stress, Brillouin scatt. study 2−110877
pTS, monomer diacetylene, incommensurate-commensurate phase transition, Raman study 2−71631
Rochelle salt, dielectric const. var. in strong mag. field 2−110743
semiconductor, ferroelec., Curie point and soft mode freq., mag. field effects 2−110791
semiconductor model, current layers and filaments, impact ionisation induced instability 2−115766
tanane, ferroelec. and ferroelastic phase transition, soft acoustic mode 2−93122

soft modes continued
thiourea, phases I to V, US props. 2−109911
transition metals, HCP, lattice dynamics, dipole fluctuation model 2−81912
transition metals, normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
sym-triazine, ferroelectric phase transition, Brillouin and Rayleigh scatt. 2−61917
s-triazine, high pressure elastic phase transition, neutron diffr. study 2−66210
vibron ferroelectrics, phase transition, Jahn-Teller effect, mag. field effects *(Russian)* 2−82801
(100), soft surface phonons and reconstruction, dispersion relations 2−92128
Al-Zn-Cu, electron diffr. determ. of soft directions in cryst. lattice at premartensite stage 2−60925
$BaTiO_2:Mn^{2+}$, spin-spin relax. study 2−77407
$BaTiO_3$, ferroelec. transition role of polar phonons in chemical bond, Fourier spectroscopy 2−57028
$BaTiO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$Cu_3B_7O_{13}$ CC, improper ferroelectric transition 2−72434
Hg_2Cl_2, ferroelastic transition, soft modes and central peak neutron scatt. study *(French)* 2−66198
$Hg_2(Cl_xBr_{1-x})_2$, Raman scatt. on acoustic soft mode from Brillouin zone boundary *(Russian)* 2−57097
$Hg_2Cl_2(Br_2)(I_2)$, Raman study of soft modes at high press. 2−93202
$(KBr)_{0.5}(KCN)_{0.5}$, permittivity, glass transition 2−72402
$KCN_xBr_{1-x}(Cl_{1-x})$, acoustic soft modes, US vel. meas. 2−81926
$KCdF_3$, cryst. struct. study, condensation of soft phonon modes 2−98016
$K_3Co(CN)_6$, struct. phase transition, Raman study 2−99116
KH_2AsO_4, spin-spin relax. study 2−77407
KH_2PO_4, paraelectric, very low freq. Raman spectra near ferroelec. phase transition 2−67059
KH_2PO_4, soft mode, proton-lattice interaction 2−98222
KH_2PO_4 type ferroelec., instabilities in coupled acoustic and optical modes *(Japanese)* 2−86806
$KH_2PO_4:NH_4H_2PO_4$, soft mode spectra and ferroelec. phase transition 2−57029
$K_3H(SeO_4)_2$, ferroelastic transition and twin structs., X-ray and optical study 2−86854
$KNbO_3$, ferroelec. transition role of polar phonons in chemical bond, Fourier spectroscopy 2−57028
$KNiCl_3$, symmetry modes and distorted phase struct. 2−103685
$KSc(MoO_4)_2$, soft phonon modes at ferroelastic phase transition *(Russian)* 2−56148
K_2SeO_4, incommensurate phase transition, uniaxial stress depend., Raman scatt. study 2−71638
K_2SeO_4, phase transform. Raman study 2−72481
K_2ZnCl_4, phase transform. Raman study 2−72481
$LiCsSO_4$, ferroelastic transition, elastic consts., acoustic softening 2−98188
$LiNH_4SO_4$, Raman scatt. internal and external vibrs., soft modes 2−82834
$LiTaO_3$, ferroelec.-paraelec. transition, displacive-order-disorder crossover 2−104819
$LiTaO_3(LiNbO_3)$, ferroelec. transition, soft modes, IR reflection spectra study 2−67009
$LiYF_4$ and $LiY_{0.5}Tb_{0.5}F_4$, elastic consts., hydrostatic press. derivatives 2−66104
γ-$Mn_{82}Cu_{18}$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
γ-$Mn_{87}Fe_{10}Cu_3$, thermal-excitation phonon spectra near FCC⇄FCT transform. 2−56126
$NH_4Br(Cl)$, light scatt. near order-disorder transition 2−99140
$(NH_4)_2ZnCl_4$, ferroelec. phase transitions, light scatt. study 2−110830
$Na_{0.5}Bi_{0.5}TiO_3$, phase transition props. *(Russian)* 2−61841
$NaNO_2$, incommensurate transitions, phenomenological theory 2−57025
$NaNbO_3$, zone-centre soft mode behaviour in cubic 2−56150
Na_xWO_3, structural phase transitions, neutron scatt. study 2−92182
(Pb,Sn,Ge)Te, dielectric props., defects influence 2−93101
$Pb_5Ge_3O_{11}$, soft mode, neutron and Raman scatt. study 2−93125
$PbTiO_3$, ferroelec., Raman scatt. from amorphous state, rel. to crystallisation process 2−57091
$PrAg_{1-x}Cu_x$, quadrupole interactions and struct. instabilities, neutron diffr. and magnetisation study 2−71943
Pt (100) soft surface phonons and reconstruction, dispersion relations 2−92128
$RbVF_4$, structural phase transitions, sp. ht., optical and X-ray diffr. studies 2−115403
$Rb_2ZnBr_4(Cl_4)$, phase transform. Raman study 2−72481
Rb_2ZnCl_4, elastic behaviour, temp. depend., commensurate-incommensurate transition, Brillouin spectra study 2−61053
Rb_2ZnCl_4, paraelectric-incommensurate transition, fluctuations, NMR study 2−87710
Rb_2ZnCl_4, phase transitions, Raman scatt., dielec. const. and spontaneous polarisation study 2−72510
SbSI, ferroelec. phase transition, Raman scatt. in strong mag. field 2−57027
SbSI, phonon spectrum, soft modes and order parameter near ferroelec. transition 2−103936
SbSI, soft mode ion paraelec. phase, temp. depend. 2−109943
Si, electronically excited, phonon spectrum, rel. to laser induced recrystn. 2−115373
Si surface (111), electron-photon interaction and metal-insulator transition 2−87358
SmB_6, intermediate valent, phonon softening, Raman spectra study 2−57081
SmS, pressure-induced elastic softening, elastic const. meas. 2−92075
$Sm_{0.75}Y_{0.25}S$, intermediate valence cpd., lattice dynamics 2−56111
$Sn_2P_2S_6$, lattice vibrs. in ferroelec. phase, Raman spectra anisotropy 2−104888
$SrTiO_3$, antiferrodistortive phase transition, impurity effect 2−82793
$SrTiO_3$, IR refl. and antidistortive transition 2−67058
$SrTiO_3$, transient photocurrents and DC photocond. study 2−110390
$(Ti_{1-x}V_x)_2O_3$, semimetallic, elastic moduli, press. depend., slow shear mode softening near x=0.04 2−81874
TmSe, intermediate valence cpd., lattice dynamics 2−56111
Tm_xSe and $TmSe_{1-y}Te_y$, intermediate valent, phonon and elastic anomalies 2−56116
soft modes continued
Tm_xSe, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
$TmSe_{1-x}Te_x$, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
V, screening of short range pot. by local field correction 2−56122

software (computers) *see computer software*

sogicons *see semiconductor devices*

soil
clay soil, swelling, infiltration of salt soln. 2−111978
contaminated, fissile particle track size distribs. meas. using particle track anal. 2−113818
effective temp. for microwave emission meas. 2−62957
elemental anal. using neutron-capture γ-ray spectroscopy 2−67777
evaporation, active microwave radar meas. 2−68533
frost penetration into ground, heat balance calc. 2−88921
gamma probe design for root activity meas. in situ 2−88483
N Germany, atm. convection, effect of soil moisture and orography *(German)* 2−100498
heat conduction equation, appl. to ground temp. and atmospheric precip. prediction *(Chinese)* 2−88943
heat flux into ground from atmos. surface layer 2−73511
interstitial water sampling and subsurface meas., probe method 2−68535
Landsat Multispectral Scanner surveys, digital overlay of cartographic information 2−112141
moisture, thermal IR meas. of vegetation temps. 2−106157
moisture and heat transport theory 2−117374
moisture content, effect on microwave emission 2−106155
moisture content meas. by microwave radiometry method 2−58149
moisture determ. by conductor heat loss meas. *(German)* 2−68540
moisture determination, use of C-band radar 2−106122
moisture determination by microwave radiometry (permittivity formulae) 2−58150
moisture information and thermal microwave emission 2−106156
Olympic National Park, Washington, USA, pollutant monitoring results 2−99854
organic halides, in environmental samples, assay by NAA 2−57663
pollution, models and movement (book) 2−53441
remote sensing of moisture by radar, surface roughness effects 2−58151
rheological model, nonlinear incremental *(French)* 2−60416
S-wave vels. in deep soil deposits at Fuchu, Japan *(Japanese)* 2−94310
seismic SH wave excitation and propagation in wet soil 2−78585
seismic vibr. characts. for case of variable wave vel. with depth 2−73482
soil-water, nonlinear diffusion with barrier 2−83863
solute transport, predictive approaches 2−105607
surface temp. in numerical models, EFR-method 2−100576
surface temperature variability in central Californian agricultural fields, aircraft remote sensing meas. 2−111928
toxicity of U, Th, As, on Scots pine 2−64539
trace-element conc. in soils contributing to atmos. aerosol 2−62912
underground ranging using elastic waves, primary expt. *(Japanese)* 2−68265
US monitoring consolidometer for soil testing 2−94517
water diffusivity rel. to bulk density, estimation method 2−78889
water flow and infiltration, theory 2−117373
As, determ. in soil extracts, atomic absorpt. spectroscopy 2−73170
CO_2 evolution from soil, mineralisation process correl. with temp. variation 2−68339
^{137}Cs, particulate transport from buried high level waste 2−64540
Pb contamination near Adelaide, S Australia, sources 2−73171
Rn activity meas. of geophysical significance 2−68293
Rn concentration meas. using CR-39 detector in Orkney islands and Kinver caves 2−67897
Rn concentration meas. using solid state track detector 2−67916
U traces determ. using solid state track detectors 2−67920

solar absorber-convertors
air heater design and performance, space heating and crop drying appls. 2−93872
air heating, plate-type, flow passage geometry optimisation 2−78253
all-glass tubular solar thermal collectors evacuation and deterioration 2−105594
bench model, hot tube to manifold ceramic joint, thermal stresses 2−67892
black chrome selective solar coatings, industrial utilisation *(Portuguese)* 2−99830
black chrome selective surfaces degradation at elevated temps. 2−97131
building heating, cooling and hot water supply system 2−67887
Cardiff Solar Energy Unit activities in solar collector thermal performance and design 2−73148
cavity receivers, with parabolic dish reflector, solar flux distrib. *(German)* 2−73146
chrome, black, electroplated, selective absorber coatings for solar radiation 2−83512
chromophoric materials in heat transfer fluids, thermal and photochemical studies 2−99839
collector systems coupled to well mixed storage, transition time effects 2−99832
collectors, annual insolation, simplified calc. method 2−105589
cylindrical collector, thermal regime, thermoregulator functional diagram *(Rumanian)* 2−88474
cylindrical glass tubes solar collector cover, optical transmittance measurements 2−57725
daily storage system, technical, energy and economic optimisation *(French)* 2−62496
distributed collector solar thermal power plant energy conversion and transport by solar energy dissociation of NH_3 2−78248
domestic solar heating system optimum sizing procedures comparison 2−111589
domestic solar water heating system, collector sizing, computer simulation 2−116848
European community solar energy R&D programme 2−73069
flat panels temp. distribution computing using finite element method 2−116849
flat plate collectors, efficiency with nonuniform irradiance 2−105592
flat plate heat pipe solar panel, water heat appl. 2−62499
flat plate solar air heater transient anal. 2−83510
flat plate solar collectors, operation in variable service conditions *(French)* 2−62497
flat solar water heater numerical model 2−99829

solar absorber-convertors continued
flat-plate, long term performance and utilizability calculation technique 2−57726
flat-plate collector energy output determ., computational methods validation 2−67863
flat-plate solar collector thermal performance 2−62495
flat-plate solar collector with fluid undergoing phase change, anal. 2−111584
focusing/non-focusing solar collector testing using low-cost simulator *(Rumanian)* 2−88475
forced circulation solar water heating system transient analysis 2−83511
Fuji evacuated glass-tube collector construction, specifications and performance 2−67886
ground collector/storage system, constant flow, heat transfer coefficient determ. 2−83507
heat receiving wall with heat storage, thermal insulation props. with variable weather 2−99823
heat transfer coefficients, effect of leeward orientation, adiabatic framing surfaces and eaves 2−99834
heating and cooling in USA, ten years' experience and future prospects for reducing utility costs and consumer bills 2−78244
heating systems performance prediction using Lunde's methods 2−111590
holographic solar concentrator design for concentration onto absorber 2−111538
horizontal coaxial cylinders, heat transfer, thermal performance 2−83508
hybrid double-absorption cooling systems for solar power utilisation, anal. and design 2−78242
interface microstructure and microchemistry, research needs 2−87078
interface phenomena, solid-solid interface and diffusion, researc h needs 2−86948
interface problems, mech. integrity of solid-solid interface, review 2−87077
interface research needs at solid-solid interface, adhesion, abrasion and polymer coatings 2−88247
interfacial phenomena and features in solar materials, review 2−88458
intermittent output, thermal performance testing and anal. 2−78250
latent heat solar walls performance anal. using variable parameter test-cell 2−111587
layered planar luminescence solar collector using organic dye in PMMA, performance evaluation 2−116780
liquid and air flat-plate photovoltaic/thermal collector thermal and electrical performance anal. 2−78227
liquid collector efficiency in solar stills, effect on performance of surface area 2−78247
long-term storage underground during summer for greenhouse heating in winter *(Japanese)* 2−116852
luminescent solar concentrators, quantum yield meas. of dyes in PMMA, thermal lens technique 2−57678
manufacturing industry, current state in UK 2−67885
metal oxides in solar absorbers, optical properties 2−93142
metal-C films, graded index, solar absorbing, prod. by dual cathode sputtering 2−99335
multistorey buildings solar air heating, thermal efficiency of exterior panels 2−99826
open inclined surface solar regenerators, anal. for absorption coding applications by numerical and analytical models comparison 2−67889
optical characteristics anal., effect on collector efficiency 2−99827
optical model for solar collectors, emissivity and selectivity of surfaces and coatings 2−73149
parabolic trough solar collectors fluid control systems frequency response anal. 2−78254
parabolic trough solar collectors mean wind loading anal. by wind tunnel force and moment tests 2−78228
passive solar heat storage in houses, methods comparison 2−93942
passive solar heating systems for house, comparison 2−67884
passive solar homes with off-peak power use, thermal performance assessment 2−62498
performance prediction using simplified nonlinear mathematical model 2−99837
phase-change water heaters, solar-powered, for houses 2−67883
photosensitive semiconductor materials, solar photovoltaic conversion and xerography appl., review 2−65326
planar and nonplanar samples, integrating sphere for solar transmittance meas. 2−107377
polyethylene terephthalate films infrared radiation properties, application as solar collector covers 2−67890
ponds, principle, costs and usefulness 2−88407
power plants, tower-type, system of tolerances 2−99828
power station with mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
Pt-Al_2O_3 selective cermet coatings for high temperature photothermal conversion 2−105598
radiation incident on any flat surface, estimation using simplified relationships 2−105590
receiver for solar gas-turbine plant, test results 2−73139
reflector concentrator system, sunlight shadow and blocking problems 2−88414
refrigerator, absorption diffusion type, for domestic use 2−73141
retrofit solar heating in residential warm air systems 2−73150
rural solar collector utilising heat storage by sand/iron filings mixture, performance anal. 2−78246
second-generation parabolic trough solar energy systems optimization analysis 2−93944
selective absorber coatings for flat-plate solar collectors 2−57722
selective coatings on passive solar energy storage walls, performance prediction 2−99833
selective optical surfaces for solar energy convertors, book 2−112662
Solar Coil Collector design using concept of heat exchanger effectiveness and transfer units 2−111591
solar energy concentrators, conical, portable, design and development 2−78189
solar energy concentrators, trough-type, stationary one- and two-faceted plane side wall configuration with tubular receiver at trough base, optimal geometries 2−78188
solar powerplant steam generator surface incident radiant energy computation 2−116782
solar powerplant tracking system cost considerations 2−116786
solar system for hot water supply delivered to Fujitsu Fanuc Ltd., Fuji factory 2−88476
space heating, solar, for single-storey building in Uzbek SSR, study 2−73145
space radiators design and off-design performance calc. 2−88471
spherical, design of simple and compound paraboloid concentrators 2−111592
spray-deposited black Ni selective absorber coatings on Al and galvanised Fe substrates for solar thermal conversion 2−78243
stainless steel-C films prepared by reactive magnetron sputtering, optical constants and microstructure 2−99838
stainless steel/C graded index solar selective films reflectance prediction and enhancement by annealing 2−105593
stationary reflector-augmented flat-plate collectors geometry optimisation for improved performance 2−99836
still brine regenerator, solar-powered, design and performance 2−105588
subsoil heat accumulator with pebble packing for solar heating appls. 2−73154
swimming pool as a solar energy absorber and store 2−62463
technology for the 80s 2−83513
thermal energy from solar radiation *(Italian)* 2−99831
thermal performance calc. by hand in solar assisted systems 2−83515
thermoelectric generator, tert-butyl alcohol as heat sink substance 2−57729
thin films, review 2−105595
Trombe wall collector, modified, heat losses anal. and reducing measures for domestic space heating 2−67888
tubular collectors, evacuated, solar-selective absorber foils bonding 2−111588
two-pass solar air heaters thermal performance anal. 2−78249
underground solar water heater performance prediction model 2−83509
water heaters, comparative test 2−73142
water heaters system performance prediction 2−78252
water heaters thermal performance in UK 2−73147
water heaters using standard steel panels, in Dagestan ASSR test results 2−73143
water heating system design for residential three storey building in Turkmen SSR 2−73140
water heating system multivariate optimisation using Simplex method 2−111586
zeolite-water cycle solar refrigerator *(French)* 2−62460
α-Al_2O_3 whiskers grown on stainless steels, technique and performance potential 2−57728
C-metal sputtered film for solar selective absorbing surfaces, prep. and props. 2−111585
Co, black, electroplated, selective absorber coatings for solar radiation 2−83512
Co black selective surface growth by spray pyrolysis for optimum photothermal conversion 2−57727
Co_3O_4-CoO, spray pyrolysed Co black, high temp. selective absorber 2−67891
Cr black, selective solar absorber, optical response, high temp. substrate oxidation 2−99840
Cr, surface, rough, reflectance spectral selectivity meas. 2−67027
Cr-Cr_2O_3, black, selective solar film, DC resist. and optical consts. meas., percolation obs. 2−116845
Cr-Cr_2O_3, black chrome solar selective films, surface comp., SIMS study 2−57724
Cr-Cr_2O_3, black chrome selective surfaces, deposit growth mechanisms and optical props. 2−72639
Cr-Cr_2O_3 solar black chrome film, microstruct., comp., plating process variables, thermal ageing effects, performance 2−93943
Cu tubes, cylindrical magnetron co-sputter etching with appl. for solar selective absorbing surfaces 2−93678
Cu-C reactively sputtered selective surface for evacuated collectors 2−102890
Cu_2O, chemically oxidised solar plate absorbers, optical props, and long-term stability 2−105597
Ge, amorphous solar selective absorber, medium temp. 2−93945
Ge, selective absorber surfaces 2−88477
Mo-MoO_3 black solar selective films, XPS, optical and structural props. 2−72640
Ni, surface, rough, reflectance spectral selectivity meas. 2−67027
Ni-C spectrally selective films produced by reactive sputtering, optical props. 2−97132
Ni-C spectrally selective films produced by reactive sputtering, structural and electrical props. 2−98490
Ni-NO_2 black foil, optical and thermal props. 2−67139
PbS film, spectrally selective, produced by ion beam sputtering 2−71824
PbS-CdS composite films, solution-grown, spectral selectivity meas., solar absorber appl. 2−105596
Pt/Al_2O_3 cermet, selective absorber coatings for solar radiation 2−83512
SnO_2/Mo photothermal solar energy convertors, solar absorptance and thermal emittance 2−83514

solar absorbers *see solar absorber-convertors*

solar activity
see also solar flares; solar prominences; solar-terrestrial relationships; sunspots
11-year cycle, magnetodynamic models, seismology 2−73930
22 year solar cycles, interdependence evidence 2−73921
1978 December 10 to 21, solar activity, rel. to ground-based obs. of interplanetary disturbances 2−68585
1980 October 9, Active Region 2717, chromosphere and transition region mass motions 2−100853
bipolar magnetic regions, implications for flux ejection dynamo with small diffusivity 2−106502
corona, Ca and Cr ions used from plasma diagnostics, X-ray obs. 2−63332
corona, struct. and dynamic features on June 30, 1973 from joint Soviet-French investigations 2−68715
coronal active regions, obs. of X-ray lines of He-like O and Ne ions 2−106640
coronal evolution above active region, results from Skylab 2−106638
coronal hole radiospectrum anal. 2−117657
coronal holes, solar wind accel. due to whistler waves *(Chinese)* 2−112411
coronal loop low beta model surrounded by plasma, kink instabilities 2−117655
coronal loop transients, MHD theory 2−100874
coronal loops cooling through conduction driven evaporation in presence of heating source 2−94681
coronal loops observed with VLA in UHF 2−94666
coronal loops thermal struct., implications for coronal models, EUV spectra obs. 2−58310

solar activity continued
coronal magnetic fields above active regions from microwave polarisation reversal 2−106547
cycle, effect on open magnetic fluxes 2−117647
cycle 20, geomagnetic A_p index rel. to coronal radio emission 2−106657
cycle 21, meas. of stability of zodiacal light from min. to max. of cycle (1976 to 1981) 2−89196
cycle 21, nature of solar corona near sunspot maximum 2−106643
cycle 21, obs. of zodiacal light and interplanetary plasma clouds rel. to solar activity 2−89197
diameter variation, possible correl. with luminosity and solar activity 2−79073
double layer theory, relativistic effects, rel. to solar activity *(Russian)* 2−103287
early eigtheenth century sunspot observations 2−73947
eleven-year cycle, effect of mag. field on solar luminosity 2−112401
eleven-year cycle, effect of quasistationary primary magnetic field of Sun on intensity vars. *(Russian)* 2−112418
eleven-year cycle, vars. in solar corona expansion geometry rel. to solar wind plasma characts. 2−112413
Ellerman bombs, morphology and evolution 2−100886
facula models distinguished through Brackett γ-ray line 2−94682
faculae, non-thermal vel. field above faculae from OSO-8 obs. 2−94691
faculae ionized molecules, line equivalent widths, model anal. 2−79067
faculae structure and physics, principles and observational procedures from ground-based instruments and OSO-8 satellite 2−94690
flare-productive active region, vector magnetic field evolution and energy storage 2−100885
gradual rise and fall bursts, source struct. at 17 GHz 2−100871
heliosphere oscillation as cause of 22-year solar cycle 2−63354
heliospheric intensity gradients of anomalous ^{4}He and galactic cosmic rays over solar cycle 2−84049
irradiance variations due to active regions 2−84191
loop coronal transients, electron accel. and radiation signatures 2−94670
magnetic cycle, stability of toroidal flux tubes 2−63369
magnetic fields in active regions, rel. to adiabatic flux tube models for sub-photospheric field struct. 2−63337
Maunder minimum, persistence of solar cycle indicate by Earth weather obs. 2−78753
Maunder minimum, rel. to active picture of solar rotation 2−79082
Maunder Minimum nature from models, comparison with radiocarbon data 2−106655
McMath 13043, burst activity and local radiosources at SHF 2−84205
McMath 13043, sunspot motion from mag. δ config. during flare 2−84202
McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
McMath 14943, sunspot model/physical conditions from spectral obs. 2−84200
McMath 16867, progressive brightenings obs. in wing of Hα line 2−94692
McMath plage 12461, revised temp. and electron density values for flare of (1973 July 29) 2−100873
millimetre-wave emission from active regions, high sensitivity research by Itapetinga large mm-wave antenna 2−100744
modulation of galactic cosmic rays, radial intensity gradient 2−58210
neutrino emission, obs. of variation with period of about 11 years *(Russian)* 2−89226
neutrino flux from solar activity *(Russian)* 2−73808
neutrinos, standard solar models and predicted capture rate uncertainties 2−100865
oscillating dynamo in presence of fossil mag. field, solar cycle appl. 2−58246
oscillators, 160 min period obs. *(French)* 2−89222
photosphere active region magnetic fields, three dimens. struct. 2−117650
photosphere magnetic features hydrodynamics and electrodynamic interactions 2−73932
plages, electron press. determ. in transitions zone from EUV obs. of O IV and N IV 2−106639
plages, reason for absence of spicules in overlying chromosphere 2−100876
radiative emission variations due to solar activity 2−100860
radio blips rel. to soft X-ray emission during weak solar activity 2−63340
radio bursts, obs. of radio echo and sporadic radiation scatt. in corona 2−94698
S-bursts, spectral characts. obs. 2−100872
satellite platform for solar activity research, automated and stabilised *(Czech)* 2−63205
SD 55/1975, active region development rel. to background field 2−73927
spicules, reason for absence over plages and great length under coronal holes 2−100876
spike radio bursts, obs. of spectrum and location of burst sources *(Russian)* 2−63356
sunspot numbers (1634-1975) rel. to winter temps. in Holland 2−58108
transition region, UV spectral lines Doppler shift, obs. 2−68692
transition zone, electron press. determ. from EUV obs. of O IV and N IV 2−106639
two dimensional magnetohydrostatic equilibria blowing up by press./elec. field increase 2−100721
type II solar radio events observed in interplanetary medium, general characts. 2−94572
type III radio burst sources, assoc. with coronal structs. 2−106651
type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
type III radio bursts, stratification of assoc. electron beams *(Russian)* 2−112416
wind velocity between 0.3 and 1.0 AU, solar activity depend. 2−58221
Wolf numbers, trigonometric models for long-period vars. and relation to length of day vars. 2−105881

solar atmosphere
see also chromosphere; photosphere
acoustic radiation pressure effects 2−117653
acoustic-gravity waves, parametric generation in isothermal atmosphere 2−68718
acoustogravity wave refraction 2−117659
active and quiet Sun parameters determined from space 2−63358
Alfven surface waves in low-β plasma, existence and appl. to solar atmosphere 2−100732
collisionless conduction front, interaction with chromosphere rel. to hard X-ray bursts 2−58308

solar atmosphere continued
convective model stellar atmospheres with modified mixing-length theory, comparison with empirical solar models 2−112427
current sheets evolution onset of enhanced resistivity 2−55708
departures from LTE in solar atmosphere, results of investigations *(Russian)* 2−73926
double layer theory, relativistic effects, rel. to solar activity *(Russian)* 2−103287
faculae structure and physics, principles and observational procedures from ground-based instruments and OSO-8 satellite 2−94690
fibril magnetic field equilibrium form in static atmosphere 2−84188
fibril magnetic fields trapping in closed convective rolls 2−84189
flare activity, anisotropy of longit. distrib., (1957 to 1973) *(Russian)* 2−94679
flare energetic particles acceleration, implications of gamma-ray and optical obs., (1979 November 8) 2−106642
flare particles interacting with atmosphere, radioisotope production and decay, γ-ray line emission 2−106654
flares, plasma props. from obs. of impulsive phase in soft X-ray emission 2−94693
flares, spatial struct. of $\gtrsim$100 keV X-ray sources 2−63343
Fraunhofer lines, problem of contrib. functions and line formation optical depth 2−68716
gradual rise and fall bursts, source struct. at 17 GHz 2−100871
heliosphere oscillation as cause of 22-year solar cycle 2−63354
limb flare, 1980 June 29, impulsive and gradual phases obs. from Solar Maximum Mission satellite 2−100867
magnetic energy storage and conversion 2−84210
magnetic field meas. above sunspots, gyroresonance emission 2−100884
magnetic field vectors determ. from Stokes parameters profiles, influence of magneto-optical effects 2−100878
magneto-acoustic-gravity mode-theory 2−106515
magneto-acoustic-gravity oscillations 2−106514
magnetogravity waves, interconversion in solar atmosphere 2−68717
magnetogravity waves transformation to magnetosonic waves 2−106652
McMath 16867, progressive brightenings obs. in wing of Hα line 2−94692
MHD σ-stability 2−58242
MHD equilibrium of helically symmetric fields, theory 2−112310
microturbulent velocity from Fe I lines anal. 2−63351
post-flare loops, 1973 July 29, revised temp. and electron density values 2−100873
shock wave production of solar emission lines, line profiles calc. 2−89221
stability of atmospheres with mag. fields, MHD energy principle 2−94678
sunspot structure, use of five minute oscills. as subsurface probe 2−89224
surges, 1-D numerical calculations 2−68710
Fe I lines and abundance across disc, model atm. test 2−112404
Ti I lines in solar atmosphere, abundance and microturbulence determ. 2−63352

solar batteries *see solar cells*

solar cell arrays
see also solar power
concentrating photovoltaic systems for generating power in satellites 2−93909
concentrating spectrophotovoltaic system for orbital power generation, economic feasibility 2−83494
Czochralski silicon solar cell modules: present cost and future prospects 2−83498
Fresnel lens-DCPC-concentrating solar cell-heat sink type solar module operational characts. *(Japanese)* 2−57703
Indian photovoltaic programme state-of-art and applications, future possibilities 2−111559
model solar power unit using heterophotocells and solar radiation concentrators 2−73110
nonlinear in-plane and out-of-plane vibrations in solar arrays 2−93891
photovoltaic array powered refrigerator for medicines cooling in developing countries 2−111564
photovoltaic array reliability optimization 2−116811
photovoltaic concentrator technology and status, economic motivation for improvements 2−93914
photovoltaic materials, technology and future developments 2−78207
photovoltaic module control test specifications laid down by Commission of European Communities 2−62479
photovoltaic systems with concentrators optimum cost computation 2−99806
photovoltaic technology transfer from terrestrial to space, governing factors 2−83495
photovoltaic water pumps developments and utilisation in developing countries 2−111563
radiation damage, spacecraft power plant design 2−67856
silicon solar satellite power system: a net energy analysis 2−57700
SOPHOCLE photovoltaic concentrator generator producing energy for water electrolysis cell 2−99795
Space Shuttle power extension package solar array design 2−83493
telephone exchange energy requirements supplied by roof-top solar cell arrays *(French German)* 2−57699
UK solar energy installations review 2−73067
AlGaAs/GaAs terrestrial concentrator solar cell array, 1 kWp, performance 2−88451
Cu_2S/CdS unit photocells behaviour simulation using Spice II program 2−78224
GaAlAs solar batteries with radiative cooling concentrating systems optimal parameters determ. 2−99785
GaAs monolithic solar cell array 2−88449
GaAs-$Al_xGa_{1-x}As$ solar cells with various types of concentrating systems 2−99788
Si, photovoltaic solar power systems, high performance and specific output, three system concepts 2−111567
Si solar batteries with radiative cooling concentrating systems optimal parameters determ. 2−99785

solar cells
accelerated stress testing of terrestrial solar cells 2−116813
amorphous Si solar cell stability 2−116817
applications and feasibility *(Italian)* 2−93922
back-surface field, minority carrier lifetime determ. in base by forward current-induced voltage decay and photovoltage decay methods 2−99807
back-surface-field, efficiency reduction by edge defects, developed perimeter model 2−116826
batteries, as power supplies to electronic watches *(Czech)* 2−73119
Beuken thermoelectric model, thermal systems appls. *(French)* 2−70805

solar cells continued
charge transfer one-dimensional boundary value problem numerical solution 2−116805
concentrator photovoltaic cells performance measurement techniques 2−93916
concentrator photovoltaic solar cell system effects of non-uniform illumination 2−78226
concentrator solar cells, high performance, use of ion implantation processing 2−93919
conductor-insulator-semiconductor organic solar cells, development, features and charact. 2−83499
construction and applications *(Afrikaans)* 2−62478
development trends *(Japanese)* 2−78213
direct energy conversion devices and new technology *(French)* 2−111555
distributed series resistance effects investig. by perturbation theory and numerical methods 2−93899
drift field solar cells, continuity eqns. derivation 2−78215
efficiency increase of solar cells operated in dielectric liquid 2−88446
efficiency reduction by bulk defects across back-surface field junction 2−78209
electricity generation, need for improved efficiency 2−78206
electricity supply systems for remote areas of Kenya 2−111561
electrochemical, using small band gap semiconductors, photovoltage, kinetic model 2−83474
electrochemical solar cells electro hole recombination translation into chemical terms 2−111574
energy conversion efficiency improvement 2−99810
European community solar energy R&D programme 2−73069
flat-plate collector energy output determ., computational methods validation 2−67863
hot carrier solar energy convertor, Carnot efficiency 2−83475
I/V charact. automatic meas. 2−99789
induced-junction, flat Fermi level approx. in space charge layer 2−116829
junction solar cell, semiconductor thickness depend. on performance 2−116831
Langmuir-Blodgett films, deposition techniques and technological appls. 2−71820
lead phthalocyanine film solar cells, spectral sensitivity and photocurrent, barrier height 2−88453
liquid and air flat-plate photovoltaic/thermal collector thermal and electrical performance anal. 2−78227
liquid-junction, illuminated semiconductor-electrolyte interface, steady-state model 2−116802
low-high junctions ineffectiveness in optimised solar cell designs 2−78225
metallic films as solar-transmitting heat-reflecting coatings 2−105565
metrology 2−99784
Mexican research and development, current status and applications 2−111562
MIS, I-V characteristics, analytical eqn. derivation 2−57705
MIS amorphous solar cells, theory of Schottky barrier heights 2−116827
MIS solar cell, open circuit voltage modification due to nonuniform insulating layer 2−88434
MIS solar cells, interface states effect on performance 2−99802
MIS solar cells, open circuit voltage, insulator layer thickness depend. 2−99794
mobile solar power system for military applications 2−57710
MOS solar cells, high efficiency, by anodic oxidation processes 2−88448
MOS solar cells, image tone effects, theoretical anal. 2−73116
multigap cascade, GaAs-GaAs tunnel interconnects MBE growth and elec. props. 2−57701
open-circuit voltage decay with drift field in finite base cell, theory 2−88454
operating principles, technology and system applications, book 2−57709
optical films, thick, for conduction of optical and IR radiation, solar cell appls. 2−99763
optimum load for maximum power transfer 2−116820
organic energy conversion, ionised impurity induced photocarrier generation 2−99797
oxide film growth on Si, procedure and reaction kinetics, application in solar cells 2−99791
p-n junction solar cell, temp. coeffs. of open-circuit voltage 2−88432
p-n junction solar cell under illumination, minority carrier life-time determ. from steady-state and transient response 2−78208
p-n junction solar cells, doping and temp. dependences of minority-carrier diffusion length and lifetime 2−99804
parabolic mirror concentrators design and production technology for operation with high-current solar cells 2−114398
parabolic trough solar collectors mean wind loading anal. by wind tunnel force and moment tests 2−78228
parallel- and radial-current stream-line type metal-contacts of solar cell 2−88445
parameters, meas. methods using spectrum response of short-circuit current 2−88444
performance, rapid characterisation 2−88437
photocell heat engine solar power systems, concept, operation and performance 2−93941
photoconvertors based on bulk photovoltaic effect 2−73112
photoelectric convertors based on epitaxial Si structures, production and props. 2−99790
photoelectrochemical cells, generation of H and electricity, interfacial oxide layer mechanisms 2−105576
photoelectrochemical photovoltaic solar cells, eval. of various configurations 2−99816
photoelectrochemical solar cells, review 2−116839
photovoltaic array reliability optimization 2−116811
photovoltaic concentration system for solar cell, linear Fresnel lens 2−99801
photovoltaic concentrator technology and status, economic motivation for improvements 2−93914
photovoltaic generation of electricity−state of the art and prospects *(German)* 2−88428
photovoltaic module reliability improvement through application testing and failure analysis 2−116809
photovoltaic modules performance and failure analysis in power generating systems 2−116810
photovoltaic science and engineering conf., Tokyo, Japan (Dec. 1980) 2−84373
photovoltaic solar technique−a technology for direct use of solar energy 2−73118
photovoltaic system considerations and applications 2−111565
photovoltaic technology: World Bank's attitude and activities 2−111556
solar cells continued
photovoltaics in the Arab world, technical and economic feasibility 2−111558
polyacetylene photovoltaic devices 2−57708
polyacetylene Schottky barrier solar cells, charact. 2−57707
potential uses in Nigeria, other alternative energy resources 2−111560
qualification testing of flat-plate photovoltaic modules 2−116812
rechargeable photoelectrochemical cell with 0.6 V open circuit voltage and 0.12 mA cm^{-2} short circuit current 2−99812
regenerative liquid junction solar cell using group VI transition metal dichalcogenides 2−67862
selective optical surfaces for solar energy convertors, book 2−112662
semiconductor device physics, book 2−53437
semiconductor-electrolyte junctions, use as economical solar energy convertors 2−78235
semiconductor-electrolyte solar cells, photocurrent, theoretical anal. 2−73117
semiconductor-insulator-semiconductor solar cells and photovoltaic effect, review *(Polish)* 2−83496
short circuit current, nonlinear behaviour with light intensity depend. minority carrier lifetime 2−67857
short-circuit currents sensitivity to selected irradiance distributions 2−99805
p-Si/methanol interface photoelectrochemical cell characterisation using capacitance-voltage measurements and cyclic-voltammetric measurements 2−105578
n-Si/methanol interface photoelectrochemical cells characterisation using capacitance-voltage and cyclic-voltammetric measurements 2−105577
SIS solar cells, current flow mechanisms, theory and calcs. 2−62477
solar battery simulators design with improved charact. *(Russian)* 2−116835
solar energy storage as H_2 via water electrolysis, system design and evaluation 2−83523
solar grade silicon as a potential candidate material for low-cost terrestrial solar cells 2−67860
spacecraft (high-voltage), elec. pot. of insulated surfaces 2−94576
spectral matched photovoltaic systems, review *(Spanish)* 2−99800
statistical ray optics appls. 2−90796
technical and economic aspects of electricity generation by solar cell systems *(German)* 2−88429
terrestrial amorphous thin films solar cells, performance and impurity effects, review 2−83489
terrestrial polycryst. thin film solar cells, prep. and props., review 2−83488
terrestrial solar cells, meas., international standards establishment 2−73114
thin film, optimum structs. 2−73123
thin film solar cells, review 2−105568
UN perspective of solar technology potential and utilisation in developing countries 2−111557
vertical, back surface field 2−78210
vertical multijunction solar cells fabrication, using thermal migration doping 2−93897
volume EMF effect on efficiency 2−105561
white painted transparent plate solar radiation concentrator 2−67822
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V charact. 2−105555
AlGaAs-GaAs solar cells, high efficiency and humidity resistant 2−88450
p-$Al_{0.7}Ga_{0.3}As$-p-GaAs-n-GaAs solar cell, minority carrier diffusion length modification 2−92644
p-$Al_{0.7}Ga_{0.3}As$-p-GaAs-n-GaAs, concentrator solar cell, temp. and intensity behaviour 2−93892
p-$Al_{0.7}Ga_{0.3}As$-pGaAs-nGaAs, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
$Al_{1-x}Ga_xAs$-GaAs concentrator solar cell with high conc. ratio and no forced cooling 2−93898
$Al_xGa_{1-x}As$ solar cell, two-element cascade cell design 2−93913
$Al_xGa_{1-x}As$/GaAs concentrator solar cells, organometallic, vapour phase epitaxial, fabrication and performance 2−93921
p-$Al_xGa_{1-x}As$/p-GaAs/n-GaAs concentrator solar cell, design without collection grid 2−93894
p-$Al_xGa_{1-x}As$/p-GaAs/n-GaAs/i-GaAs high volt.-low current solar cells, design 2−93895
$Al_xGa_{1-x}As$-GaAs heterostruct. photovoltaic converters, fabrication by VPE 2−105562
Au-GaAs Schottky barrier solar cell, conversion efficiency 2−99793
Be-Si MIS solar cell, with textured surface, large active area 2−88443
Bi_2S_3 thin film, semicond. liq. junction solar cell and chalcogenide props. 2−78212
n-$CdIn_2Se_4$/aqueous polysulphide photoelectrochem. cell, expt. study 2−116838
CdS films reactive DC sputtering on glass substrate in Ar and H_2S atmosphere 2−105072
CdS photoelectrochem. cell, effect of sputtered RuO_2 overlayers on CdS electrode 2−111571
CdS sintered films, for CdS/CdTe solar cell 2−88016
CdS solar cells, deep trap levels obs. by capacitance meas. 2−88431
CdS/Cu_2S, anal. of dispersion in the measured capacitance 2−99808
CdS/Cu_2S thin film solar cell, freq. depend. capacitance studies 2−88430
CdS/Cu_2S thin film solar cells, trapped holes depth depend., photocapacitance study 2−93905
CdS/Cu_xS solar cells, reactive sputtering, apparatus surface conditioning effects 2−83020
CdS/Cu_xS thin film solar cells, fabrication trends and problems review 2−78223
n-CdS/n-InP/p-InP heteroface solar cell, growth and evaluation 2−88452
CdS-Cu_2S, preparation and anal. 2−78220
CdS-Cu_2S heterojunction solar cells, Cd anodic sulphurization and RF sputtering, MIS struct. for interface state determ. 2−78229
CdS-Cu_2S heterojunction solar cell, lateral photovoltaic effect 2−83470
CdS-Cu_2S solar cell, physics of operation and performance 2−111553
CdS-Cu_2S solar cell, photovoltaic props., cathodolum. spectrum 2−116823
CdS-Cu_2S thin film solar cells, electron affinity difference 2−67858
CdS-Cu_xS thin film solar cells, review 2−105568
CdS-$CuInSe_2$ solar cells, annealing and interface effects, EELS, AES, SIMS and XPS study 2−83491
CdS-$CuInSe_2$ solar cell, interface formation, comp. and stability, XPS, EELS and AES study 2−111554
CdS-CuS thin film heterojunction solar cell, fabrication 2−116833

solar cells continued
CdS-InP RF sputtered solar cell, comparison with $In_{2-x}Sn_xO_{3-y}$-InP cell 2−57714
CdS-InP($CuInSe_2$) solar cells with CdS window layer, high efficiency operation, review 2−105570
CdS-Mg phthalocyanine heterojunction solar cells, photoelec. props. 2−83490
CdSe, spray-pyrolysed thin film, photoelectrochem. solar cell performance meas. 2−93924
CdSe-p^+-n-Si tunnel junction solar cell photoanode props. meas. 2−88427
CdSe($CdSe_{1-x}Te_x$) electroplated layers, growth and photoelectrochem. solar cell appl. 2−105580
n-$CdSe_{0.65}Te_{0.35}$ photoelectrochemical solar cell, expt. study 2−105579
n-$CdSe_{0.65}Te_{0.35}$, photoelectrochemical solar cells, cell performance 2−111566
CdTe films, large grained (111)-orientated, quasi-rheotaxy growth and solar cell appl. 2−105079
CdTe high voltage photovoltaic cells composition and structure 2−99786
CdTe thin-film solar cells, status as emerging materials PV technologies 2−57712
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
$Cd_yZn_{1-y}S$ chemically sprayed thin films for solar cells, carrier density depend. on Zn conc. 2−115928
Cr-MIS solar cell stability analysis 2−116816
Cr_xTe_y-$Zn_xCd_{1-x}S$ heterojunction photoelectronic convertors with improved parameters 2−116807
Cu_{2-x}-CdS photoconvertors, electron microprobe analysis and degradation 2−73113
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
n-$CuInSe_2$/polysulfide, photoelectrochem. solar cells 2−67854
Cu_2O/Cu thin film photovoltaic cells, possible appl. as solar cells 2−93896
Cu_2O-Cu, grown by anodic oxidation, photovoltaic effects 2−88460
Cu_2S/(Cd,Zn)S solar cells, fabrication and characterisation, SEM study 2−73122
Cu_2S/CdS, sprayed, photovoltaic performance 2−78221
Cu_2S/CdS unit photocells behaviour simulation using Spice II program 2−78224
Cu_2S-CdS heterojunction solar cell, Cu diffusion effects, theoreticla anal. 2−73115
Cu_2S-CdS heterojunctions, elec. and optical props. 2−99354
Cu_2S-CdS thin film solar cells, sputter deposited, fabrication and characts. 2−67850
$Cu_{2-x}S$ thin films, oxidation-reduction effects on optical absorption, application in solar cells 2−82941
Cu_xS/$Cd_{1-y}Zn_yS$/CdS evaporated back-wall bifilm solar cells, growth and conversion efficiency meas. 2−105563
Cu_2Se thin-film solar cells, status as emerging materials PV technologies 2−57712
GaAlAs-GaAs MOCVD grown wavelength division solar cells, fabrication and characts. 2−105572
$Ga_{1-x}Al_xAs$:Be-GaAs p-p-n solar cells, Be diffusioned doping and elec. props. meas. 2−105557
n-GaAs, electrochem. photovoltaic cell using I_3^-/I^- redox couple in acetonitrile 2−111570
GaAs, high output, construction for use in space *(French)* 2−99803
GaAs, ion implanted, laser annealing, Fermi level pinning model, solar cell fabrication 2−56027
GaAs, maximum power point and fill factor determining analytical expressions 2−83501
GaAs p-n homojunction solar cell, minority carrier diffusion length modification 2−92644
GaAs, research advances 2−105560
GaAs Schottky barrier solar cells, grain boundary recombustion anal. 2−93907
GaAs solar cells, formed by UV laser chem. doping 2−67853
GaAs thin film solar cells, review 2−105568
GaAs/$Ga_{1-x}Al_xAs$ solar cell fabrication using VPE, performance evaluation 2−73124
GaAs/GaAsAl solar cells, technology, characts. *(Spanish)* 2−99799
GaAs-AlGaAs heterojunctions solar cells at high level of optical excitation 2−116832
GaAs-amorphous substrate system CLEFT growth process 2−77749
GaAs-Si-Ge split spectrum triple solar cell system, design and performance 2−83477
In/trans-$(CH)_x$/Electrodag Schottky barrier solar cells, photovoltaic and rectification props. 2−78216
InGaAsP-InP LPE grown wavelength division solar cells, fabrication and characts. 2−105572
InGaAsP-InP wavelength division solar cells, homojunction and heteroface struct. 2−83476
In_2O_3-SnO_2/Si transparent conductor films/polycrystalline junction, appl. to solar cells 2−57711
p-InP (111)A face, semiconductor interface charact. in photoelectrochem. solar cells 2−111552
InP, ion implanted, laser annealing, Fermi level pinning model, solar cell fabrication 2−56027
InP MIS Schottky barrier solar cells, instability obs. 2−88447
$In_{2-x}Sn_xO_{3-y}$-GaAs:Be heterojunction solar cell, AES and EBIC evaluation 2−78214
$In_{2-x}Sn_xO_{3-y}$-InP solar cell, comparison with RF sputtered CdS-InP cell 2−57714
$In_{2-x}Sn_xO_{3-y}$-Si solar cell, EBIC response anal. 2−88436
n^{++}-$In_{2-x}Sn_xO_{3-y}$p-InP solar cell, electron trap characterisation by DLTS 2−92513
Mg-SiO_x-n-Si negative barrier back contact, minority carrier reflection props., solar cell appls. 2−92768
$MoSe_2$ single crystal, etching and dissolution kinetics, PEC solar cell appl. 2−93642
n-$MoSe_2$ single crystals photocatalytic behaviour in contact with I^-, I_2 redox couple in solar photoelectrochemical cells 2−105575
$MoSe_2$ solar cells, photovoltage, kinetic model 2−83474
n-$MoSe_2$/KI, I_2, formamide/Pt photoelectrochem. solar cell with layered anode and nonaq. electrolyte 2−93927
P ion implantation from solid ion source, non-mass-analysed technique, solar cell appl. 2−84737
Si 3 inch solar cells, fabricated in fluidised-bed reactor, charact. 2−88438
Si, amorphous, a-SiC:H props. and struct. for solar cell appl. 2−104978
solar cells continued
Si, amorphous, MIS solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
Si, amorphous, p-i-n solar cell, energy conversion calc. 2−57704
Si, amorphous, power source of future 2−105558
Si amorphous CVD film, prep., solar photovoltaic appls. 2−105081
Si, amorphous p-i-n glow discharge film, prep. by consecutive separated reaction chamber method and photocond. props. 2−67225
Si, amorphous progress in research and photovoltaic appl. in USA 2−88435
Si amorphous solar cell, built-in pot., electroabsorption determination 2−111549
Si, amorphous solar cell, integrated struct., conversion efficiency 2−83485
Si amorphous solar cells, electroluminescence, quantum efficiency 2−111550
Si, antireflection coatings design criteria for optimising plasma-assisted CVD nitride films 2−105085
Si, computer simulation 2−88461
Si concentrator solar cells, high efficiency, technological development and status 2−93918
Si concentrator solar cell, etched multiple vertical junction 2−93920
Si crystals growth for use in solar cells, methods and economics *(Italian)* 2−93409
Si, current status, efficiency improvement prospects 2−116804
Si, degradation due to formation of Schottky barrier contact 2−93923
Si, effect of thickness on efficiency 2−93900
Si electrodeposited on graphite and silver, characterisation for fabrication into solar cells 2−105095
Si electrodeposition from molten salt and organic solutions for solar cells 2−72638
Si, fabricated by ion implantation 2−88440
Si, high concentration, present status, design and performance limiting factors 2−93915
Si, high-low emitter back surface field, anal. of efficiency limitations 2−116808
Si, I_{sc}-V_{oc} charact., correction of temp. effect, thermal resistance determ. 2−93912
Si junction solar cells, graphical method for evaluation of series resist. 2−93901
Si layers, high rate vacuum deposition 2−105086
p-Si MIS inversion layer solar cell, two-dimensional model 2−73125
Si MIS solar cells, fabrication technology *(Slovak)* 2−67859
Si, maximum power point and fill factor determining analytical expressions 2−83501
Si metal p-n Schottky barrier solar cell, barrier height calc. 2−116830
Si, n^+/ρ, solar cells formed by partially ionised MBE, I-V characts. 2−116834
Si, n^+-p cell, physical behaviour in concentrated sunlight 2−93910
Si n^+-p solar cell, minority carrier lifetime and diffusion length determ. by selfbiased capacitance meas. 2−116818
Si, optimisation for operation under medium range solar concentration *(French)* 2−67864
Si p^+-i-n^+ solar cells, high injection phenomena, theoretical model 2−93911
Si p^+-n-n^+ high efficiency concentrator solar cells, fabrication and performance 2−93917
Si, p-n junction, temperature dependence of characts. 2−73120
Si p-n photovoltaic junction formation by pulse implantation doping 2−115259
Si, p-n^+ junction, n-type heavily doped emitter region effective drift current densities 2−83500
Si, performance degradation after proton irrad. *(Japanese)* 2−109864
Si photoconvertors, HV, under high intensity solar radiation temp. dependence investigation 2−73111
n-Si photoelectrochem. cell, electrode stabilisation in aq. soln. using PtSi layer 2−105574
n-Si photoelectrochemical cells with Pt-polypyrrole protected electrodes 2−111572
Si photovoltaic cell reliability attributes investigation 2−116814
Si, polcrystalline, quasi-grain-boundary-free solar cell struct., elec. perform. 2−93904
Si, polycrystalline, back surface field solar cells investig. using scanning spectral response technique 2−111551
Si, polycrystalline for solar cell appl., photolum. charact. 2−87843
Si ribbon growth under electron bombardment, thermal gradients and stresses induced 2−83016
Si rice hulls, purification for source of solar grade Si 2−77763
Si SIS solar cells, fabrication technology *(Slovak)* 2−67859
Si, Schottky barrier, intermediate layer effect on characts. 2−116806
Si single cryst., offer energy for future 2−105559
Si solar cell, (cryst. p)-(amorphous i-n) struct. 2−116801
Si solar cell, flat-spot power loss phenomenon at low temp. and low intensity 2−116819
Si solar cell, high efficiency, laser processing 2−57702
Si, solar cell, polycrystalline vacuum deposited, on foreign substrate 2−105571
Si solar cell fabrication using high speed junction processor 2−83473
Si solar cell wafer annealing electron accelerator with solid dielectric energy storage 2−90325
Si solar cell with novel low-resist. emitter struct. 2−116803
Si solar cells, diamond like i-C antireflection coating, SIMS anal. 2−83492
Si solar cells, effect of back-surface B implantation 2−88433
Si solar cells, fabrication by laser induced diffusion from dopant gas 2−57697
Si solar cells, grain boundaries, SEM charge-collection images 2−66012
Si solar cells, laser annealed, function and bulk region characts. 2−88441
Si solar cells, production of large area polycryst. sheets from melt 2−99783
Si solar cells with screen-printed Ag contacts, environmental testing 2−116815
Si, spherical, development 2−88462
Si, thickness of Ag and Pd layers, X-ray fluoresc. anal. 2−88396
a-Si, use of amorphous SiC:H as window material 2−67861
Si:F, H amorphous films, photoelec., and optical props. Schottky barrier solar cell form. 2−83480
Si:F,H amorphous films, solar cell form., film elec. and optical props. 2−83481
p-Si:H, amorphous, photoelectrochem. solar cell, expt. study 2−105573
Si:H, amorphous, post-hydrogenated CVD Schottky diode solar cell 2−99796

solar cells continued
Si:H, amorphous Schottky barrier solar cells; CVD prep., electronic props. 2−83484
p-i-nSi:H, amorphous solar cell struct., deep electron traps 2−56493
Si:H, amorphous solar cells, hot carrier effects on collection efficiency 2−67852
Si:H, amorphous solar cells, I-V characts., density of states, and depletion width 2−83483
Si:H, amorphous thin film solar cells, review 2−105568
Si:H amorphous p-i-n solar cell, photocurrent, voltage depend. 2−78211
Si:H amorphous p-i-n solar cell, expt. study 2−105569
Si:H amorphous solar cell, photovoltaic performance, film props., plasma deposition optimisation 2−83486
a-Si:H film, elec. props. optimisation using cross field plasma deposition, photovoltaic device appls. 2−83038
a-Si:H n-i-p large area solar cells conversion efficiency anal. 2−83471
a-Si:H n-i-p solar cells, built-in potential determ. 2−93903
a-Si:H p-i-n high efficiency solar cell using SnO_2/glass substrate 2−93902
a-Si:H p-i-n solar cell, window effects of a-SiC:H layer 2−83472
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si-Au, amorphous, Schottky solar cell fabrication by RF reactive sputtering and RF glow discharges *(Japanese)* 2−88455
p-Si-CdS solar cell, single source evaporation prep. and efficiency meas. 2−116800
Si-CdS($Zn_xCd_{1-x}S$) heterojunction solar cell, elec. props. 2−115875
Si-$In_{2-x}Sn_xO_{3-y}$ p-i-n solar cell, reactive sputtering fabrication 2−57698
Si-metal Schottky barriers, photovoltaic props. implications for grating solar cells 2−116828
p-Si-Mg solar cells, fundamental props. 2−88442
Si-polypyrrole film photoelectrochemical solar cells, stability against electrode oxidation 2−78218
Si-polypyrrole photovoltaic devices, photoelectrochemical and Schottky cells 2−78217
Si-SiGe/TiO_x/Pt tandem type amorphous solar cells, spectral response width, plasma anal. 2−83487
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
Si-SiO_x-Ag MOS solar cell degradation; TEM and elec. study 2−93908
n-Si-SiO_x-SnO_2/In_2O_3 solar cell, edge leakage suppression at low illumination levels 2−57706
n-Si-SnO_2-n-CdSe electrolyte tandem junction solar cells 2−105556
a-SiC:H/a-Si:H heterojunction solar cells 2−67861
SiC:H-Si:H amorphous heterojunction solar cell, high efficiency *(Japanese)* 2−116825
SiH_x amorphous solar cells, output volt., band tail recombination limit 2−67851
Si_3N_4 film on Si, very high charge densities for inversion layer solar cells 2−61608
SiO:H, porous antireflection coating for solar cells 2−75659
SnO_2 films As solar-transmitting heat-reflecting coatings 2−105565
SnO_2/In_2O_3-SiO_x-nSi, role of tunnel-thin dielectrics 2−99787
SnO_2/n-Si, texturized heterojunction solar cell, spray pyrolysis prep. 2−105567
SnO_2/n-Si polycrystalline solar cells, spray-deposited, performance parameters 2−83497
SnO_2/n-Si solar cell, low-temp. CVD of SnO_2 film on Si, cell efficiency and stability 2−57713
SnO_2-Si solar cell, barrier height, temp. and voltage depend. 2−78219
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
SnO_2-SiO_x-nSi solar cells, diode characts. and open-circuit voltage 2−99809
Ta_2O_5 sputtered antireflection coating for Si solar cells 2−105564
WSe_2 2−57712
WSe_2, solar cells, photovoltage, kinetic model 2−83474
$Zn_xCd_{1-x}S$/Cu_2S single crystal photovoltaic solar cell preparation and performance characts. 2−78222
$Zn_xCd_{1-x}S$-Cu_2S single crystal photovoltaic cell, optimum performance 2−116822
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
ZnP_2 photoelectrochemical cell photocathode, appl. to solar cells 2−116840
Zn_3P_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
ZnSe-GaAs heterojunction, photovoltaic props. meas. 2−73121
$ZnSiAs_2$ thin-film solar cells, status as emerging materials PV technologies 2−57712

solar chromosphere *see chromosphere*

solar collectors *see solar absorber-convertors*

solar composition
corona, Cr and Ca abundances, X-ray obs. 2−63332
flare Ne composition from lunar rock anal. 2−63348
photosphere $^{15}N/^{14}N$ composition variations, mechanisms 2−84114
photosphere Pd abundance from Pd I lines anal. 2−64903
photosphere temperature inhomogeneities effect on abundance determ. 2−106648
X, Z, determ. from freqs. of solar low-l five-minute oscillations 2−89220
Co abundance, determ. from new absolute oscillator strengths for Co I lines 2−112315
Eu, photospherical abundance 2−59747
Fe, from Fe I lines anal. 2−63351
Fe I lines and abundance across disc, model atm. test 2−112404
Nb abundance from Nb I lifetime meas. 2−112406
OH, obs. of $^2\Pi$ (2-2) band absorpt. lines in South Pole solar IR spectra 2−106647
Rh in solar photosphere from Rh I lifetime meas. 2−112406
Ti abundance in photosphere from Ti I lines equiv. widths and oscillator strengths *(Russian)* 2−79063
Ti I lines in solar atmosphere, abundance and microturbulence determ. 2−63352

solar constant *see solar radiation*

solar corona
1980 August 5, coronal transient/eruptive prominence, initiation, mag. buoyancy effects 2−63333
Active Region 2717, 1980 October 9, chromosphere and transition region mass motions 2−100853
active region coronal evolution, relation between coronal base pressure and photospheric mag. field 2−106638
active region EUV spectra and hydrodynamic interpretation 2−68707

solar corona continued
active regions, assoc. between coronal structs. and type III radio burst sources 2−106651
active regions, Ca and Cr ions used for plasma diagnostics, X-ray obs. 2−63332
active regions, lower transition region, UV lines Doppler shift, obs. 2−68692
Alfven surface waves in solar corona, conditions for existence 2−100732
Alfven wave heating, influence of mag. fields 2−63350
arcade MHD stability, effect of photospheric line tying 2−117656
behind-limb flare, obs. of rising motion of radio source at 35 GHz 2−94695
bipolar magnetic region, coronal field lines, pot. field model 2−68690
chromosphere-corona transition region, non-thermal vel. field above faculae from OSO-8 obs. 2−94691
closed coronal structures, hydrodynamic stability and response to heating perturbations 2−58307
cool loops 2−112408
cosmic ray ions from flare event, coronal propagation 2−112274
downflow of material indicated by C IV and Si IV spectral redshift 2−73945
eclipse corona, 1973 June 30, structure and dynamic features from joint Soviet-French investigations 2−68715
electron shock acceleration producing shock accel. radio events 2−73928
ellipticity of solar corona, correl. with light deflection by Sun during eclipses 2−100880
emission line corona, obs. via new emission-line coronagraph 2−106528
emission lines produced in wake of shock wave, line profiles calc. 2−89221
enthalpy flux cooling, appl. to closed coronal struct. 2−117654
enthalpy flux cooling model of corona 2−68712
EUV line emission diagnosis 2−89225
EUV lines used for solar wind accel. region plasma diagnostics 2−84182
expansion geometry, rel. to solar wind plasma characts. 2−112413
flare, radiowave heating and electron precipitation 2−100854
flare impulsive phase X-ray/radio emission from mag. loop coronal part 2−89212
flare loops, energetics of two-ribbon solar flares 2−100870
flare of 1980 April 8, transition zone plasma characts. 2−58312
flare particles anomalous abundances and preacceleration in collapsing mag. neutral sheets 2−63346
flare plasma, cooling and condensation 2−63334
flare plasma cooling, use of vertical mag. flux tube model 2−94665
flare spectra, spin-orbit electric dipole transitions for Be-like ions 2−96497
flares, interacting mag. loop model for hard X-ray bursts 2−68693
gradual rise and fall bursts, source struct. at 17 GHz 2−100871
heating by train of switch-on shocks formed in chromosphere 2−68688
heating mechanisms 2−117645
heating processes, role of mag. field 2−63357
high latitude coronal holes, correl. with solar wind streams for above or below ecliptic 2−100879
high-speed stream from coronal hole, accel. mechanism 2−79069
hole radiospectrum anal. 2−117657
holes, 1975-80 magnetic meas. 2−100891
holes, emanating wind, electron heating by fast mode MHD waves 2−58309
holes, high vel. streams energy balance 2−63204
holes, reason for great length of underlying spicules 2−100876
holes, solar wind accel. due to whistler waves *(Chinese)* 2−112411
impulsive solar flares, altitude of hard X-ray emission region *(Russian)* 2−112415
intensities, shapes and polarisation, use of energies camera 2−112405
International Solar Polar Mission 2−63211
International Solar Polar Mission to study corona and interplanetary medium 2−63208
large scale structures, link with X-ray bursts via coronal mag. loops 2−79051
loop coronal transients, electron accel. and radiation signatures 2−94670
loop thermal stability, coupling of plasma with chromosphere 2−79060
loop transients, MHD theory 2−100874
loops, resonant electrodynamic heating, LRC circuit analogy 2−63229
loops cooling through conduction driven evaporation in presence of heating source 2−94681
loops observed with VLA in UHF 2−94666
loops thermal struct., implications for coronal models, EUV spectra obs. 2−58310
low beta coronal loop model surrounded by plasma, kink instabilities 2−117655
magnetic arches, magnetostatic equilibria 2−79056
magnetic field structure model of inner heliosphere 2−73948
magnetic fields, random force-free fields, turbulence effect 2−106509
magnetic fields above active regions from microwave polarisation reversal 2−106547
magnetic fields during type II radio burst 2−94680
magnetic fields structure from polarisation sign change anal. 2−106667
magnetic loops, electron-cyclotron masers as source of radio bursts 2−112312
magnetic reconnection and coronal transients 2−100890
magnetic stability of coronal loops, effect of press. gradients and field line tying 2−100859
mass outflow from base of coronal holes, meas. from EUV emission lines 2−112400
MHD model, coronal disturbance mechanism 2−84193
nature and origin rel. to other stars 2−68737
non-equilibrium ionisation in coronal loops 2−68711
photometers operating at 530.3 nm, comparison of different instruments 2−73837
plasma, rotational mixing of Σ and π symm. 2−59923
plasma condensational instability 2−63230
plasma radiation amplification due to diffuse electron stream component 2−94675
post-flare loops, 1973 July 29, revised temp. and electron density values 2−100873
production and maintenance, role of spicules 2−79053
radar scattering from solar corona, type III components and source height 2−117658
radar studies of non-spherically symmetric solar corona, anal. of solar radar cross sections 2−100875
radial proton temp. gradients in magnetic sector boundaries 2−106646

solar corona continued
radio burst propagation in solar corona, obs. of radio echo and sporadic scatt. 2−94698
radio emission at 29.5 MHz rel. to A_p index (cycle 20) 2−106657
radiobursts, types and observational charact. 2−106662
response to variation in heating rate 2−79057
satellite borne obs. using computerised coronagraph/polarimeter 2−112328
shock waves, rel. to injection onset times of 2 GeV protons, 1 MeV electrons and 100 keV electrons in cosmic ray flares 2−112273
steady global corona structure including holes and streams, MHD anal. 2−79052
steady-state flows in solar corona, energetics 2−100858
sunspot transition region oscillations, C IV line obs. 2−63328
sunspot umbrae, coronal region brightness temps. and mag. field, obs. 2−73924
supercorona, effect on polarised radio emission of Crab Nebula 2−94815
transient, Lagrangian velocity anal. 2−68607
transient associated with limb flare, 1980 June 29, obs. from Solar Maximum Mission satellite 2−100867
transition region, Lyman continuum absorpt. anal. 2−63336
transition region, plasma flow along coronal mag. flux tube 2−94677
transition region, S IV emission line ratios 2−89210
transition region O IV spectrum, calcs. including photoexcitation by Fe IX 171.07 Å 2−73923
transition zone, electron press. determ. from EUV obs. of O IV and N IV 2−106639
transition zone, response to variation in heating rate 2−79057
type II radio emission involving plasma solitons evolving in one dimens. 2−84183
type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
unsteady thermally conductive coronal flow, numerical algorithm for subsonic to supersonic vel. transition 2−112399
wave motion in transition region and low corona, character and parameters from radio obs. *(Russian)* 2−100864
white light corona, struct. struct. near maximum of (cycle 21) 2−106643
X-ray brightening explained by current loops nonlinear coalescence instability 2−94676
X-ray burst emission due to betatron accel. 2−73935
X-ray emission from Mg XI in McMath 14352 active region 2−68714
X-ray lines of He-like O and Ne ions in solar corona, intensity ratios 2−106640
Fe XIII 10747 Å coronal emission line, form. and interpretation 2−79055
Fe XIV 5303 Å coronal line, polarisation, effect of mag. fields 2−79054
Fe XIV 530.3 nm emission line polarization 2−112407
H I Lα line, theoretical investigation of Hanle effect 2−94697
H I Lyman α used to determine kinetic temps. 2−63335
S XII, electron collisional excitation, radiative lifetimes, energy level calcs. 2−108723

solar corpuscular radiation *see solar wind*

solar corpuscular streams *see solar wind*

solar cosmic ray particles
electron streams diffuse component as MF and HF source 2−94675
electrons acceleration in loop coronal transients 2−94670
energetic storm particle enhancement, ionic charge state distrib. for He, O, C, Fe 2−94570
events with abundant heavy nuclei (1971-78) 2−106445
flare cosmic ray protons, energy spectra anal. 2−100676
flare electrons, accel. and energy spectrum 2−63329
flare neutrino production and spectra for various accel. proton spectra 2−106444
flare particles, injection onset times of 2 GeV protons, 1 MeV electrons and 100 keV electrons 2−112273
flare particles anomalous abundances and preacceleration in collapsing mag. neutral sheets 2−63346
flare particles interacting with atmosphere, radioisotope production and decay, γ-ray line emission 2−106654
flare protons, propag. and diffusion coeff. in interplanetary medium 2−100675
flare protons and α particles penetration of polar magnetosphere 2−84016
fossil tracks in lunar silicates 2−63283
heavy ion abundances/energy spectra, use of cellulose triacetate track detectors 2−112335
high-energy H^+ and α particles in Earth's magnetosphere 2−73794
intensity over past 10^6 yrs from lunar specimens cosmogenic nuclides 2−106434
interplanetary acceleration of energetic particles at 1 and 5 AU, theory 2−106443
low energy cosmic rays transport coefficients in interplanetary space, review 2−106446
magnetosphere interaction, diaphragming of particle stream entering magnetospheric clefts 2−112228
neutrino flux calc., use of low-energy $^3He(\alpha,\gamma)^7Be$ cross section 2−85065
neutrino flux from solar activity *(Russian)* 2−73808
neutrino production of ^{97}Tc and ^{98}Tc 2−89227
neutrinos, standard solar models and predicted capture rate uncertainties 2−100865
neutrinos and stellar stopping power via V-A and Weinberg interactions 2−73836
neutrinos capture rates calcs., effect of changes in $^7Li(d,p)^8$ Li cross section 2−85063
nuclei charge abundance comparison with galactic cosmic rays 2−68575
propagation and modulation in solar wind mag. field 2−73806
propagation of protons in interplanetary space 2−100674
proton energies, assoc. type IV radio bursts *(Chinese)* 2−84196
proton event, 1975 September 1, evidence for energetic particle release before optical flare 2−106465
proton shower hazard to Space Shuttle 2−100866
protons from solar flares, interplanetary shock wave effects 2−117538
protons in high-latit. magnetosphere, spectral charact. at initial anisotropic stage of propag. 2−112225
secondary component intensity time-depend. behviour in mag. storm 20 August 1979 *(Russian)* 2−73807
solar activity influence on solar cosmic rays 2−117541
Br solar neutrino detector calibration, implications of ^{81}Kr ground state mass 2−59227

solar cosmic ray particles continued
^{3}He-rich particle events, He and heavy ion spectra rel. to stochastic Fermi accel. model calcs. 2−106442
$^3He(\alpha,\gamma)^7Be$, $E_{c.m.}$ =107-1266 keV, capture reaction and solar neutrino problem 2−59380

solar cosmic ray photons
gas scintillation proportional counters for Japanese astron. satellite 2−94609
soft X-ray emission and relation to particle events 2−100861
X-rays and ions from Nov. 22 1977 flare event 2−112274

solar disturbances *see solar activity*

solar eclipses
1715 to 1925, implications for solar radius vars. and convective energy transport in solar interior 2−112402
1780 October 27, path discrepancies between theory and obs. 2−94583
1869, August 7, totality path in North America 2−112306
1968 September 22, radio obs. at Xinjiang in SHF and VHF *(Chinese)* 2−63345
1970 March 7, photoelectric obs. of limb brightening at extreme solar limb 2−94686
1973 June 30, structure and dynamic features of solar corona from joint Soviet-French investigations 2−68715
1973 June 30, sunspot penumbral filaments width distribs., photographic obs. 2−68706
1978 October 2, partial eclipse used for spicule brightness distrib. meas. 2−117652
1979 February 26, photoelectric obs. of limb brightening at extreme solar limb 2−94686
1980 February 16, effect on ionosphere electron density var. at Gauhati 2−117521
1980 February 16, effect on ionospheric F-layers above Gauhati 2−78907
1980 February 16, ionospheric absorption of radio waves, gravity wave effects 2−78893
1980 February 16, unusual long period HF phase path fluctuation obs. in F-region 2−106386
atmosphere of Earth, elec. field close to ground during eclipse 2−68432
catalogue (1621-1806) 2−100771
Earth surface shadow zones obs. by TIROS-N visible and IR imagery 2−68489
geomagnetic effects over China, analysis of five events 2−100248
light deflection obs. during solar eclipses, correl. with ellipticity of solar corona 2−100880
mesosphere O_3 concentration variations during total eclipse, air glow obs. 2−100613
signal strength fluctuations in two line-of-sight microwave links during the eclipse of February 16, 1980 2−106660

solar-electric power stations *see solar power stations*

solar energy concentrators
absorber-convertors, spherical, design of simple and compound paraboloid concentrators 2−111592
acetylene producing using solar furnace 2−99760
arrays, possible applications in astronomy and astrophysics 2−73843
asymmetric second-stage concentrator design 2−57679
Cassegrain solar furnace concentration 2−99764
Cassegrainian solar furnace, computational investigation 2−73065
collector concentration using reverse illum., optical characterisation method 2−108992
concentrating photovoltaic systems for generating power in satellites 2−93909
concentrating solar steam boiler design *(Rumanian)* 2−99765
concentrating spectrophotovoltaic system for orbital power generation, economic feasibility 2−83494
concentrator photovoltaic cells performance measurement techniques 2−93916
concentrator photovoltaic solar cell system effects of non-uniform illumination 2−78226
concentrator solar cells, high performance, use of ion implantation processing 2−93919
conical, portable, design and development 2−78189
electroforming of metallic facets 2−97138
focusing heliostats for solar power stations, design and development 2−73066
Fresnel lens-DCPC-concentrating solar cell-heat sink type solar module operational charact. *(Japanese)* 2−57703
Fresnel lenses and parabolic mirrors comparison as solar energy concentrators 2−83456
heliostats, tracking error, probabilistic evaluation *(French)* 2−99768
holoconcentrators development 2−111540
holographic solar concentrator design 2−111538
ideal second stages in tandem with parabolic concentrators 2−65330
interface research needs at solid-solid interface, adhesion, abrasion and polymer coatings 2−88247
irradiators computation method, application to 3-panel system with plane mirrors 2−114397
layered planar luminescence solar collector using organic dye in PMMA, performance evaluation 2−116780
line-focus trough-type concentrating solar collectors, optical fibre sensor for tracking 2−102931
luminescent solar concentrators, quantum yield meas. of dyes in PMMA, thermal lens technique 2−57678
mathematical model for astronomic and geometric optimisation problem 2−88415
mirrors with Al reflective layers, back side protection with varnish coatings 2−97147
model solar power unit using heterophotocells and solar radiation concentrators 2−73110
offset-paraboloidal reflector increases solar gathering efficiency 2−62459
parabolic mirror concentrators design and production technology for operation with high-current solar cells 2−114398
parabolic reflectors, defocusing caused by obliquely incident rays 2−65334
parabolic trough concentrator for solar industrial process heat appl., technical and economic performance 2−111541
photocell heat engine solar power systems, concept, operation and performance 2−93941
photoelectrochemical photovoltaic solar cells, eval. of various configurations 2−99816
photovoltaic concentration system for solar cell, linear Fresnel lens 2−99801

solar energy concentrators continued
photovoltaic concentrator technology and status, economic motivation for improvements 2−93914
photovoltaic concentrators for extended light sources, theoretical basis generalisation 2−83461
photovoltaic materials, technology and future developments 2−78207
photovoltaic systems with concentrators optimum cost computation 2−99806
power plants, tower-type, system of tolerances 2−99828
power station with mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
receiver for solar gas-turbine plant, test results 2−73139
reflector concentrator system, sunlight shadow and blocking problems 2−88414
selective optical surfaces for solar energy convertors, book 2−112662
solar absorber convertors, CC /α/-Al_2O_3 whiskers grown on stainless steels, technique and performance potential 2−57728
solar power station optical system operation simulation using numerical model 2−99761
solar powerplant steam generator surface incident radiant energy computation 2−116782
solar powerplant tracking system cost considerations 2−116786
SOPHOCLE photovoltaic concentrator generator producing energy for water electrolysis cell 2−99795
technology for the 80s 2−83513
thermoelectric generator with paraboloid concentrator and heat pipe 2−73131
thick optical films for conduction of optical and IR radiation, solar cell appls. 2−99763
trough-type, stationary one- and two-faceted plane side wall configuration with tubular receiver at trough base, optimal geometries 2−78188
V-trough, linear, natural convection heat transfer coefficients experimental determ. 2−57684
V-trough concentrators geometrical configuration optimisation for improved performance 2−78191
white painted transparent plate solar radiation concentrator 2−67822
Ag-glass mirrors durability in moist acid vapours, applications in outdoor environments 2−67843
p-$Al_{0.7}Ga_{0.3}As$-pGaAs-nGaAs, concentrator solar cell, LPE growth with electrolytic contacts 2−93893
$Al_{1-x}Ga_xAs$-GaAs concentrator solar cell with high conc. ratio and no forced cooling 2−93898
$Al_xGa_{1-x}As$/GaAs concentrator solar cells, organometallic, vapour phase epitaxial, fabrication and performance 2−93921
GaAlAs solar batteries with radiative cooling concentrating systems optimal parameters determ. 2−99785
GaAs-$Al_xGa_{1-x}As$ solar cells with various types of concentrating systems 2−99788
H_2 production using two-step-thermochemical cycles 2−83522
Si concentrator solar cells, high efficiency, technological development and status 2−93918
Si concentrator solar cell, etched multiple vertical junction 2−93920
Si p^+-n-n^+ high efficiency concentrator solar cells, fabrication and performance 2−93917
Si solar batteries with radiative cooling concentrating systems optimal parameters determ. 2−99785

solar energy conversion
see also solar absorber-convertors; solar cells
biomass schemes, present day feasibility 2−78185
blackbody radiation, conversion by quantum systems, thermodynamic limits 2−105547
energy-conserving house simulation, monitoring and data analysis 2−57764
film and coating deposition and characteris., research needs 2−87974
generator, 7 W, performance with load matching to water electrolysis 2−99792
greenhouse heating using underground heat exchange system 2−116788
Group VI dichalcogenides, semicond., photocurrent spectrosc. 2−87321
heating and cooling in USA, ten years' experience and future prospects for reducing utility costs and consumer bills 2−78244
interface analysis, ion etching limitations, review 2−88413
interface microstructure and microchemistry, research needs 2−87078
interface needs and design requirements 2−88457
interface phenomena, solid-solid interface and diffusion, research needs 2−86948
interface problems, exptl. capabilities of surface analytical techniques, review 2−88412
interface problems, mech. integrity of solid-solid interface, review 2−87077
interface problems for quantum and thermal systems, review 2−88456
interface research needs, solid-gas interface reactions 2−88378
interface research needs, solid-liq. interface 2−88464
interface research needs at solid-solid interface, adhesion, abrasion and polymer coatings 2−88247
interface science, comp. and struct. of solid-gas interfaces, meas. techniques, review 2−87044
interface science, solid-liq. interface problems, review 2−87043
interfaces in solar materials, overview 2−62458
interfaces in solar materials, research needs and opportunities, conf., Denver, USA (June-July 80) 2−84374
interfacial phenomena and features in solar materials, review 2−88458
mathematical model for astronomic and geometric optimisation problem 2−88415
matrix type solar air heater 2−111578
mobile solar power system for military applications 2−57710
photochemical energy conversion in chlorophyll-containing lipid bilayer vesicles 2−67869
photoelectric conversion by bacteriorhodopsin 2−67868
photoelectrochemical solar energy conversion by polycrystalline films of phthalocyanine 2−99815
photovoltaic conversion, Spanish national planning *(Spanish)* 2−99798
photovoltaic solar technique−a technology for direct use of solar energy 2−73118
residential building energy audit microprocessor package 2−57765
selective optical surfaces for solar energy convertors, book 2−112662
semiconductor photoelectrochemical systems, design, solar energy conversion 2−78233
solar energy conversion and storage through synthetic light-driven proton pumps 2−78234

solar energy conversion continued
solar heat, direct conversion into electricity using liquid metal MHD generators 2−111575
solar refrigeration, thermal losses *(French)* 2−112908
solar-thermionic generator for radioactive waste disposal space vehicle 2−73132
transition metal complex photo-chemistry for hydrogen production 2−62507
well system, unconfirmed aquifer performance obs. 2−57735
Br_2-CO_2-He solar-pumped electronic-to-vibrational energy transfer lasers 2−80933
CO_2-CH_4 reforming-methanation chemical cycle for solar energy conversion and transportation 2−111577
Si photovoltaic solar power systems, high performance and specific output, three system concepts 2−111567
TiO_2 electrophys. and photoelectrochem. props., uncontrolled impurities effects *(Russian)* 2−93799

solar energy power stations *see solar power stations*

solar evolution
see also solar nebula
cometory research in understanding solar system origin *(German)* 2−68678
UV luminosity over lifetime from analogies with similar stars 2−106666

solar flares
1973 December 22, impulsive EUV event, EUV spectrum anal. 2−94672
1973 July 29, revised temp. and electron density values compared with 1980 May 21 flare 2−100873
1974 June/July proton flare region, large scale mag. field pattern 2−63347
1975 September 1, evidence for energetic particle release before optical flare 2−106465
1976 April 30, spectra anal. 2−63260
1977 September 7 2−94695
1979 November 5, spatial struct. of ≳100 keV X-ray sources ≳100 keV 2−63343
1979 November 8, gamma-ray and optical obs. 2−106642
1980 April 10, SMM obs. in 3-30 keV range, evolution 2−100887
1980 April 13 and May 9, X-ray spectra observed and predicted, comparison 2−94616
1980 April 8, transition zone plasmas, characts. from UV obs. 2−58312
1980 December 17, high time resolution obs. by digital CCD camera 2−100868
1980 October 7, balloon borne gamma ray obs. 2−58252
1981 February 26, origin of pink colour of white light flare 2−100869
γ-ray observations with HEAO-3 high resolution γ-ray spectrometer 2−89151
active region, vector magnetic field evolution and energy storage 2−100885
activity and transionospheric sweepers in Earth's atmosphere 2−78909
anisotropy of solar flare activity, anal. of energy indices, (1957 to 1973) *(Russian)* 2−94679
characteristics explained by current loops nonlinear coalescence instability 2−94676
chromosphere, distribution rel. to interplanetary mag. field sector boundaries extrapolated to Sun 2−84203
chromosphere flare activity rel. to near Earth space UHF emission 2−73756
corona, radiowave heating and electron precipitation 2−100854
coronal active region, flaring and non flaring, plasma diagnostics 2−63332
coronal flare plasma cooling, use of vertical mag. flux tube model 2−94665
coronal flares, obs. of X-ray lines of He-like O and Ne ions 2−106640
coronal loop transients assoc. with solar flares, MHD theory 2−100874
coronal plasma, cooling and condensation 2−63334
cosmic ray electrons, accel. and energy spectrum 2−63329
cosmic ray heavy ion abundances/energy spectra, use of cellulose triacetate track detectors 2−112335
cosmic ray protons, energy spectra anal. 2−100676
cosmic ray protons, propag. and diffusion coeff. in interplanetary medium 2−100675
cosmic rays, injection onset times of 2 GeV protons, 1 MeV electrons and 100 keV electrons 2−112273
current sheets evolution onset of enhanced resistivity 2−55708
electron densities, O V diagnostic line ratios 2−89215
electron-cyclotron maser emission from flaring loops, plasma effects 2−112409
energetic storm particle enhancement, ionic charge state distrib. for He, O, C, Fe 2−94570
energetics of impulsive and gradual emissions 2−63331
gamma ray lines, emission processes 2−58498
gamma-ray emission, role of synthesis of elements 2−68719
gamma-ray line at 2.2 MeV, SN flare obs. 2−100889
gravitational radiation generation 2−106645
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, simplified expressions 2−106494
hard X-ray bursts, interacting mag. loop model 2−68693
hard X-ray bursts, interaction of collisionless conduction front with chromosphere 2−58308
high-energy electrons obs. using satellite-borne X-ray burst spectrometer 2−112329
high-energy proton emission and hazard to Space Shuttle 2−100866
impulsive EUV and X-ray emission, time histories and model tests, obs. 2−79058
impulsive flares, microwave and X-ray emission, multithermal and nonthermal interpretations 2−117643
impulsive phase, soft X-ray emission obs. 2−94693
impulsive phase structure, determ. from microwave obs. 2−68699
impulsive phase X-ray/radio emission from mag. loop coronal part 2−89212
impulsive solar flares, hard X-ray obs. *(Russian)* 2−112415
interplanetary shocks from flares of near zone, effect on surface geomag. field 2−73434
ionospheric effects of solar flares 2−117518
limb flare, 1980 June 29, impulsive and gradual phases obs. from Solar Maximum Mission satellite 2−100867
magnetic fields orientation and geomag. storm occurrence 2−112248
magnetic transients in solar flares, Zeeman splitting of Fe I lines in 1981 July 26 flare *(Russian)* 2−112417

solar flares continued
McMath 13043, sunspot motion from mag. δ config. during flare 2−84202
McMath 16867, progressive brightenings in wing of Hα rel. to small flares or subflares 2−94692
microwave burst correl. with energetic proton flux 2−89223
microwave bursts, VLA obs. interpretation involving mag. fields 2−68697
neutrino production and spectra for various accel. proton spectra 2−106444
neutron capture line (2.223 MeV) in solar flare, high-resolution meas. 2−68698
nucleosynthesis of elements in solar flares, as source of flare gamma-ray emission 2−68719
optical flares, longitudinal distrib. pattern 2−106659
particles anomalous abundances and preacceleration in collapsing mag. neutral sheets 2−63346
photosphere-chromosphere transition layer below flares, ionisation and radiative cooling 2−68720
preferential occurrence in regions of north-to-south mag. field 2−84208
proton flare region of 1974 June-July, magnetic field area 2−106656
quasi-steady state of mag. fields in low beta plasma, review 2−89145
radio burst source structure at 6 cm, evolution 2−94667
radio bursts, electron-cyclotron maser model 2−112312
radio bursts (type II) identified with flares 2−73937
radioemission, mechanisms and models 2−100895
radioisotopes decay generating gamma ray lines 2−106654
reconnection expt. showing double layer formation 2−106420
reconnection of mag. field lines, driven by external forces 2−78917
region producing microwave and X-ray bursts, mag. struct., SHF obs. 2−63330
remote brightnings 2−73939
soft X-ray flare, theoretical model constraints from spectral obs. 2−68691
soft X-ray spectra obs. from Hinotori satellite, Fe line spectra and time vars. of X-class flares 2−100851
spectra, reduction procedure to determine continuum and line emission quantities 2−63260
spectra, spin-orbit electric dipole transitions for Be-like ions 2−96497
spotless regions flares features and pre-flare filaments time var. *(Chinese)* 2−112410
triggering by magnetosonic waves in neutral sheet plasma 2−94671
turbulent nature of Sun, anal. 2−112414
two dimensional magnetohydrostatic equilibria blowing up by press./elec. field increase 2−100721
two-ribbon solar flares, energetics 2−100870
type II radio burst, assoc. shock wave deccel., VHF obs. 2−94680
type II radio events observed in interplanetary medium, initiating flares identification 2−94572
type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
ultraviolet flux from flare (of 15 Feb. 1975) 2−117518
visible spectrum 2−58317
wind structures, flare generated, correl. with sunspot groups mag. axis near originating solar flares 2−117554
X-ray burst emission due to betatron accel. 2−73935
X-ray burst sources, impulsive and gradual components, origin and obs. 2−79062
X-ray emission, anal. in terms of impulsive phase thermal model 2−63331
soft X-ray emission and relation to particle events 2−100861
X-ray flares recorded by Prognoz-6 RGS apparatus, list 2−106527
X-ray flares rel. to SFA type dependence at low freq. 2−58195
X-ray imaging spectrometer appl. to flares location and intensity detection, Solar Maximum Mission 2−100743
X-ray pulsations, origin *(Russian)* 2−73934
X-ray spectra, high resolution obs. with rotating spectrometers on Hinotori satellite 2−63344
X-ray spectra analysis 2−117644
X-ray spectra from flares and non-flaring active regions 2−84192
X-ray spectra non-steady-state appearance 2−68713
X-rays and ions from Nov. 22 1977 flare event 2−112274
XUV radiation, chromospheric effects 2−79059
Ca XIX and Ca XVIII lines in solar flares, comparison of line ratios with current theory 2−94694
Ca XVIII and Ca XIX lines in solar flares, comparison of line ratios with current theory 2−94694
^{3}He-rich solar flares, He and heavy ion spectra rel. to stochastic Fermi accel. model calcs. 2−106442
Ne composition from lunar rock anal. 2−63348

solar furnaces *see furnaces*

solar interior
5-minute, low degree oscillation modes 2−84209
convection due to surface flux tubes in fibril state 2−84185
convection zone, sonic noise spectrum rel. to magnetogravity waves conversion in solar atmosphere 2−68717
convective energy transport, effect of perturbations on solar luminosity and radius 2−112402
convective envelope properties rapid var., effect on solar variability 2−58316
differential rotation and meridional circulation solns. 2−84187
differential rotation by mean field model 2−106516
differential rotation of compressible convection zone 2−106658
energy loss, light pseudoscalar particle role 2−84086
fibril magnetic field dynamics in convective zone, mean field eqns. 2−84186
five-minute oscillation, low-l, implications for solar struct. 2−89220
five-minute oscillation, model of overstability 2−73944
flux ejection dynamo effect in solar convection zone, theory 2−100722
flux ejection dynamo with small diffusivity, implications for bipolar mag. regions 2−106502
magnetic core in Sun, rel. to rigidly rotating solar surface distortion 2−94685
magnetic field configurations, effects on solar luminosity 2−112401
magnetic field structure below photosphere, adiabatic flux tube models 2−63337
magnetic fields, stability of toroidal flux tubes 2−63369
neutrino anomaly and stellar stopping power via V-A and Weinberg interactions 2−73836
neutrino emission, periodic vars. obs. rel. to gravit. oscills. of solar interior *(Russian)* 2−89226
neutrino flux and initial metal rich supersonically turbulent central core 2−106664
solar interior continued
neutrino flux calc., use of low-energy ^{3}He(α,γ)^{7}Be cross section 2−85065
neutrino flux estimates from different models 2−58315
neutrino problem, detect. of low energy neutrinos by coherent scatt. 2−78964
neutrino problem, efects of electron distrib. distortion 2−68694
neutrino production by ^{97}Tc and ^{98}Tc 2−89227
neutrinos capture rates calc., effects of changes in ^{7}Li(d,p)^{8}Li cross section 2−85063
oblique magnetic rotator, evidence from rot. splitting of oscill. modes 2−63353
oscillating dynamo in presence of fossil mag. field, solar cycle appl. 2−58246
oscillation periods of solar models, new programme for solar evolution sequences calc. 2−79070
oscillations evidence from chromosphere Ca II lines phase differences 2−58313
oscillators, 160 min period obs. *(French)* 2−89222
plasma physics appls. 2−63243
quasistationary primary magnetic field of Sun rel. to intensity vars. of solar cycle *(Russian)* 2−112418
rotating spherical shell compressible convection, viscosity, cond., boundary conditions, zone depth effects 2−63239
rotation, active picture including wave-rotation interaction rel. to differential rot. 2−79082
rotation of solar core, evidence for oblique magnetic solar rotator 2−100863
rotation of solar interior, rel. to Sun gravit. quadrupole moment 2−100862
structure, effect of partial ionisation and scatt. states 2−94669
thermal pulsations, oscillatory mech., rel. to solar neutrino counting rate 2−112419
$\nu n \rightarrow pe$, ^{37}Cl detector, solar neutrino time variations, rel. to oscillations 2−74679
^{3}He(α,γ)^{7}Be, $E_{c.m.}$=107-1266 keV, capture reaction and solar neutrino problem 2−59380

solar magnetic fields *see solar magnetism*

solar magnetism
1974 June/July proton flare region, large scale mag. field pattern 2−63347
active region, photosphere magnetic features hydrodynamics and electrodynamic interactions 2−73932
active region, photospheric mag. field strength meas. rel. to active region coronal evolution 2−106638
atmospheric magnetic energy storage and conversion 2−84210
bipolar magnetic region, coronal field lines, pot. field model 2−68690
bipolar magnetic regions, implications for flux ejection dynamo with small diffusivity 2−106502
canopy type models of chromosphere, Ca II scaling-law equilibria 2−117651
chromosphere canopy type magnetic fields, response of magnetographs 2−117649
compression of mag. field in viscous boundary layer 2−68702
convection zone toroidal field rel. to sunspot bipolar field 2−100857
core rotation period and magnetic field, rel. to rigidly rotating solar surface distortion 2−94685
corona, hydrodynamic stability of closed structs. and response to heating perturbations 2−58307
corona, mag. field rel. to Hanle effect in H I Lα line 2−94697
corona, mag. fields rel. to struct. and dynamic features (1973 June 30) 2−68715
corona and heliosphere mag. field struct. model 2−73948
corona heating processes, role of mag. field 2−63357
corona structure model involving streams and holes 2−79052
coronal arcade MHD stability, effect of photospheric line tying 2−117656
coronal fields during type II radio burst 2−94680
coronal holes, 1975-80 magnetic meas. 2−100891
coronal holes, mass outflow meas. rel. to plasma accel. on open mag. field lines 2−112400
coronal large scale structures, link with X-ray bursts via coronal mag. loops 2−79051
coronal loop transients, MHD theory 2−100874
coronal loops, effect of press. gradients and field line tying on mag. stability 2−100859
coronal loops, energetics of steady-state flows 2−100858
coronal magnetic arches, magnetostatic equilibria 2−79056
coronal magnetic fields structure from polarisation sign change anal. 2−106667
coronal magnetic loops, electron-cyclotron masers as source of radio bursts 2−112312
coronal transient/eruptive prominence of 1980 August 5, initiation, mag. buoyancy effect 2−63333
coronal transients and magnetic reconnection 2−100890
current loops nonlinear coalescence instability for flare characts. and coronal X-ray brightening 2−94676
fibril magnetic field dynamics in convective zone, mean field eqns. 2−84186
fibril magnetic field equilibrium form in static atmosphere 2−84188
fibril magnetic fields trapping in closed convective rolls 2−84189
field associated with microwave bursts 2−94683
field meas. above sunspots, gyroresonance emission 2−100884
fields above active regions from microwave polarisation reversal 2−106547
flare impulsive phase X-ray/radio emission from mag. loop coronal part 2−89212
flare magnetic fields orientation and geomag. storm occurrence 2−112248
flare microwave bursts, VLA obs. interpretation involving mag. fields 2−68697
flare particles anomalous abundances and preacceleration in collapsing mag. neutral sheets 2−63346
flare plasma cooling, use of vertical mag. flux tube model 2−94665
flares, interacting mag. loop model for hard X-ray bursts 2−68693
flares, mag. field nonuniformity rel. to electrons transport in fully ionised H plasmas 2−106493
flares, mag. reconnection and field strengths rel. to energetics of two-ribbon solar flares 2−100870
flares, struct. of impulsive phase from microwave obs. 2−68699
flares magnetic transients, Zeeman splitting of Fe I lines in 1981 July 26 flare *(Russian)* 2−112417

solar magnetism continued
flaring region producing microwave and X-ray bursts, mag. struct., SHF obs. 2−63330
flocculi in sunspot groups, brightness variations assoc. with mag. fields 2−84201
flux ejection dynamo effect in solar convection zone, theory 2−100722
flux tube solitons in photosphere and chromosphere 2−58318
flux tube vertical motion evolution, role in spicule form. 2−89211
flux tubes effect of surface response to convective envelope perturbations 2−58316
gradual rise and fall bursts, source struct. and assoc. with mag. loops 2−100871
granular convection retarded by surface magnetism 2−79071
helically symmetric magnetic fields, MHD equilib. 2−112310
interior magnetic field configurations, effects on solar luminosity 2−112401
large scale fields characts. 2−84199
McMath 13043, sunspot motion from mag. δ config. during flare 2−84202
McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
oblique magnetic rotator, evidence from rot. splitting of oscill. modes 2−63353
oblique magnetic solar rotator, evidence from fine struct. of 5-minute oscills. spectrum 2−100863
open magnetic field lines, rel. to injection onset times of 2 GeV protons, 1 MeV electrons and 100 keV electrons in cosmic ray flares 2−112273
open magnetic fluxes, photospheric sources and link with solar cycle 2−117647
oscillating dynamo in presence of fossil mag. field, solar cycle appl. 2−58246
photosphere active region magnetic fields, three dimens. struct. 2−117650
photosphere magnetic field rel. to major seismic events *(Chinese)* 2−100259
photosphere magnetic flux tubes wave propag. 2−79066
polar zone filaments drift and comparison with mag. field evolution over activity cycle 2−117648
polarity intrusion associated with bipolar magnetic region 2−68704
prominence magnetic field vector determination from He D_3 line Stokes profile 2−117612
proton flare region of 1974 June-July, magnetic field area 2−106656
pulse propagation in a magnetic flux tube 2−84190
quasi-steady state of mag. fields in low beta plasma, review 2−89145
quasistationary primary magnetic field of Sun rel. to intensity vars. of solar cycle *(Russian)* 2−112418
random force-free fields, turbulence effect 2−106509
reconnection of mag. field lines, driven by external forces 2−78917
rotation period determination from Ca II mag. flux obs. 2−117642
spicules, MHD slow mode shocks rel. to absence over plages and great length under coronal holes 2−100876
Stokes profiles, theoretical, atlas for solar disc obs. 2−58274
sub-photospheric magnetic field structure, adiabatic flux tube models 2−63337
sunspot bipolar magnetic field rel. to convection zone toroidal field 2−100857
Sunspot group, two components in distrib., mag. field effects 2−100856
sunspot mag. field configuration, magneto-hydrostatic theory 2−68705
sunspot magnetic flux ring, dynamical effects *(Chinese)* 2−84195
sunspot umbrae, mag. field correl. with 6 cm emission, obs. 2−73924
sunspots, angle of inclination of symmetry axes to solar surface 2−94688
sunspots, occurrence freq. distrib. according to mag. fluxes 2−94689
supercorona, effect of mag. field sector struct. on obs. of polarised radio emission of Crab Nebula 2−94815
surface fields and solar luminosity 2−89214
surface flux tubes, fibril state, effect on convection 2−84185
toroidal flux tubes, stability 2−63369
transition region, plasma flow along coronal mag. flux tube 2−94677
unipolar and mixed-polarity fields away from plages 2−68703
unresolved mag. flux tubes, spectral obs. method 2−68633
vector field evolution in flare-productive active region 2−100885
vector magnetic fields determ. from Stokes parameters profiles, influence of magneto-optical effects 2−100878
Fe I 532 nm line formation in magnetic field *(Chinese)* 2−84198
Fe XIV 5303 Å coronal line, polarisation, effect of mag. fields 2−79054

solar nebula
accreting planetesimals rot. rates 2−84118
accretion disk model formed from rotating protostellar cloud 2−73959
asteroids accretion from solar nebula, implications of compositional struct. of asteroid belt 2−106598
carbonaceous chondrites, $(Fe,Cr)_3O_4$ (chromite)+C form. in solar nebula rel. to noble gases sorption 2−100845
Chainpur chondrite, evidence for primitive nebular components in chondrules 2−100849
circumsolar cloud plasma evolution to planetesimal phase 2−63279
condensation, implications of Fe-Co-Ni system activity meas. 2−84115
cooling history of olivine-porphyritic fluid droplet chondrules 2−79049
dissipation of solar nebula, rel. to motion of Jovian commensurability resons. and asteroid zone celestial mechanics 2−89170
early evolution in plasma phase 2−63279
giant gaseous protoplanet in primitive solar nebula, evolution 2−100783
giant planets formation, implications of planetary core masses 2−112358
growth of planets in gaseous solar nebula, theoretical study 2−100775
inner planets accretion history and chemistry 2−63282
Jupiter like protoplanet evolution in absence of solar tidal field, shape and collapse 2−63305
Jupiter like protoplanet evolution in solar tidal field, shape and collapse 2−58300
magnetic fields, growth and decay rel. to effects of mag. and turbulent viscosities on nebula 2−100776
noble gases sorption by sulphides and spinels, rel. to origin of planetary gases 2−100846
origin and evolution of planetary atmospheres, conference, Hamburg, Germany, (1981 August 17 to 18) 2−107010
plane rings of gravitating particles moving round Sun, evolution 2−106565
planet and meteorite growth from solar nebula 2−73865
planetary accretion process appl. to early lunar crust and highland form. 2−63284
planets early evolution, cosmogenic shadow effect 2−63280

solar nebula continued
planets formation, rare gas retention by accreting planets in solar nebula 2−112353
planets formation from solar nebula, rel. to origin and evolution of planetary atmospheres 2−112357
preplanetary disk, stability, numerical expts. 2−73864
preplanetary gas-dust nebula gravit. instability rel. to accumulation model 2−84120
protoplanet, nearby gas flow, in primordial solar nebula 2−100774
protoplanetary gas-dust cloud evolution and planet form. 2−63281
protoplanetary nebula, mass loss and evolution 2−100772
protosun radiation pressure causing dust coagulation leading to comets form. 2−112351
Saturn and satellites formation, hydrodynamic theory 2−94637
Saturn satellite system origin, unified formation theory 2−106608

solar noise *see noise; solar radiofrequency radiation*

solar origin *see solar evolution*

solar power
see also solar energy concentrators
absorption solar cooling system, open-cycle, possibilities of storage of cold 2−99842
absorption type chillers, solar-powered, boiling experiments *(Japanese)* 2−116843
acetylene producing using solar furnace 2−99760
air heater design and performance, space heating and crop drying appls. 2−93872
alternative energy sources, economic impact on electric power systems, analysis method 2−105535
applications and feasibility *(Italian)* 2−93922
assessment of the market potential for small solar powered desalination plants 2−67824
assessment of the solar and wind resource in Northeast Utilities service territory, USA 2−73087
Austrian national economy, significance of unconventional energy sources *(German)* 2−73045
Azerbaidzhan SSR region daily solar radiation distribution characts., aid to practical utilisation 2−100418
Beer Sheva, Israel, monthly average daily fraction of diffuse solar radiation calc. 2−67838
buildings, solar heating and cooling, expt. projects 2−78255
$CaCl_2.6H_2O$ heat storage system for off-peak energy supply and solar heating 2−83519
Cantonal Chemical Laboratory integrated heat supply system component items *(German)* 2−73136
Cantonal Chemical Laboratory integrated heat supply system operation and performance *(German)* 2−73135
Cardiff Solar Energy Unit activities in solar collector thermal performance and design 2−73148
combination solar unit for drying fruit and grapes 2−116785
combined heat and power generation plants utilisation and conditions of utilisation of solar energy *(Rumanian)* 2−73071
commercialisation, utility regulation in USA 2−73079
commercialisation in USA, three policy issues 2−73076
comparison of solar RO and solar thermal desalination systems 2−67829
computer code for designing wind and solar powered desalting plants 2−67832
concentrating solar steam boiler design *(Rumanian)* 2−99765
Dar es Salaam point cloudiness sampling and estimation 2−58114
desalination, solar and wind energy appls. 2−73070
design and operation experience with solar powered multistage desalination plants 2−67830
design methodology for Romanian solar water heating installation *(Rumanian)* 2−99769
design of a commercial solar-powered greenhouse with irrigation water from saline water sources 2−67825
design of a small solar-powered desalination system 2−67827
development of a marine osmotic solar still for sea water desalination 2−67834
domestic heating and hot water systems economic anal. 2−67839
domestic solar heating system optimum sizing procedures comparison 2−111589
domestic solar water heaters, test results 2−78186
domestic solar-driven refrigerator operation principles and performance 2−99825
electric power backup for solar heating systems, marginal costs to electric utilities 2−73077
energy sources, new and renewable, information sources, book 2−58564
engineering design of a 6000 m^3/day seawater hybrid RO-ED helio desalting plant 2−67833
enhanced oil recovery, solar technology appl. 2−57680
estimation of the diffuse radiation fraction for hourly, daily and monthly-average global radiation 2−73657
European community solar energy R&D programme 2−73069
financial incentives in USA for energy production stimulation, historical perspective 2−73075
flat solar water heater numerical model 2−99829
flat-plate collector daily solar radiation computation model anal. 2−67841
flat-plate solar collectors total surface solar irradiance optimisation and calc. at any tilt and azimuth 2−67840
future availability and economics prospects review *(French)* 2−57673
geothermal power economic viability in comparison to other energy sources *(Dutch)* 2−105532
greenhouse, half-cylinder type with film cover, incoming solar radiation characts. 2−116783
greenhouse heating using underground heat exchange system 2−116788
greenhouse with solar energy storage combined with fuel boiler plant, energy saving 2−99762
greenhouse/dryer, double-block, for year-round operation 2−116784
heat pumps, solar-assisted systems for space and domestic water heating in Canada, comparative study 2−67882
heating systems performance prediction using Lunde's methods 2−111590
horizontal storage tanks thermal stratification anal. using one-D numerical model 2−78259
hourly diffuse solar radiation estimation from global solar radiation, methods comparison 2−100513
hybrid double-absorption cooling systems for solar power utilisation, anal. and design 2−78242
Indian photovoltaic programme state-of-art and applications, future possibilities 2−111559

solar power continued
insolation measurements spatial transformations, preliminary results 2−57686
interface with electric utilities, technical issues 2−73074
interface with electric utility and natural gas systems, comparison 2−73073
interface with electric utility systems, citizen pressure groups' attitudes in the USA 2−73082
interface with electric utility systems, legal issues in the USA 2−73081
interface with electric utility systems, technical issues 2−73072
introduction to new energy sources for desalination 2−67823
investment in solar sector *(Italian)* 2−62461
irradiance deficits determ., data reduction techniques 2−116789
La Baronne solar greenhouse using new latent heat storage concept 2−73085
laboratory heating in Srinagar, Kashmir, solar radiation availability and collection area requirements 2−67842
latent heat solar walls performance anal. using variable parameter test-cell 2−111587
liquid collector efficiency in solar stills, effect on performance of surface area 2−78247
liquid desiccant system optimisation for low grade solar/geothermal dehumidification and cooling 2−88406
long-term storage underground during summer for greenhouse heating in winter *(Japanese)* 2−116852
Malaysian Peninsular, solar radiation data statistical presentations for 3 stations 2−83888
mesoscale insolation distribution mapping from GOES data, operational system 2−78190
Mg production process economics projection and impacts on cost of magnesium hydrides 2−73158
modulated solar thermoelectric refrigerator performance 2−83505
multiple-effect solar distiller for fresh water supply, design features 2−67831
multistorey buildings solar air heating, thermal efficiency of exterior panels 2−99826
natural-circulation solar-energy stimulated systems for heating water, review 2−111583
normal direct radiation correlation with global radiation dependence on cloudiness 2−73656
optical fibres appl. possibilities *(French)* 2−83457
optimal transition from oil to alternative fuels 2−73047
optimum glazing combination for solar space heating 2−83460
passive solar architecture 2−57682
passive solar system for residential applications parameters estimation using sequential least squares filter 2−57685
photocell heat engine solar power systems, concept, operation and performance 2−93941
photovoltaic array powered refrigerator for medicines cooling in developing countries 2−111564
photovoltaic conversion, Spanish national planning *(Spanish)* 2−99798
photovoltaic solar technique−a technology for direct use of solar energy 2−73118
photovoltaic system considerations and applications 2−111565
photovoltaic water pumps developments and utilisation in developing countries 2−111563
photovoltaic/electrodialysis power desalination system, investigation 2−67835
photovoltaics in the Arab world, technical and economic feasibility 2−111558
pressurised hydrogen gas transport and storage in a hydrogen economy *(German)* 2−93949
radiation climate of Malta, data anal. using linear regression 2−73659
refrigerator, solar-driven, calculated figure-of-merit 2−99824
regenerative energy sources−potential and limits *(German)* 2−73046
regenerative energy sources−state of the art and development of their applications *(German)* 2−88408
renewable energy sources, Norway 2−57681
residential solar heating system, passive, aerodynamic resistance adjusted coefficient determ. 2−116846
residential solar power-systems, adoption in USA incentives offered by electricity supply industry 2−73080
roof/wall with thermal trap, thermal performance prediction by heat transfer anal. 2−81210
salt-gradient solar ponds development potential, American research 2−57736
second-generation parabolic trough solar energy systems optimization analysis 2−93944
selection methods for production of test reference years 2−62462
sky radiation measurements using simple model for optimal orientation of solar collector 2−73084
small capacity solar-powered distillation plants in Australia 2−67828
small scale energy systems for developing countries: the intermediate technology development group power programme 2−73068
solar absorber convertors thermal performance calc. by hand in solar assisted systems 2−83515
solar electric versus nuclear electric propulsion in geocentric space 2−80166
solar energy as a source for production of power and desalinated water 2−93874
solar energy programs and priorities for the future 2−73086
solar furnaces utilisation for materials thermophysical props. anal. 2−73083
solar powerplant steam generator surface incident radiant energy computation 2−116782
solar radiation distribution in natural waters under field conditions 2−78817
solar radiation total estimation at Karachi, Pakistan 2−88411
solar technologies for the year 2000 and beyond 2−73088
solar thermal technology−outlook for the 80s 2−83513
solar-powered dual absorption system, selection criteria using fuzzy decision anal. 2−111539
space heating options impact on electric power systems demand and supply capabilities 2−99767
Spain's solar chimney, electricity generation from hot air 2−67836
St. Paul, Minnesota, global solar radiation measurements anal. for persistence and variability 2−73655
state-of-the-art, future prospects and technology 2−116787
still brine regenerator, solar-powered, design and performance 2−105588
stratified solar storage for use in domestic scale systems 2−73155
test results from a solar boiler for saline water distillation 2−67826

solar power continued
thermohaline system, double-diffusive, mixed layer development 2−78260
trends in the application of solar energy to water desalination 2−93873
UK solar energy installations review 2−73067
UN perspective of solar technology potential and utilisation in developing countries 2−111557
water heaters thermal performance in UK 2−73147
water heating system multivariate optimisation using Simplex method 2−111586
wind and solar powered reverse osmosis desalination units−design, start up and operating experience 2−67813
CO_2-CH_4 reforming-methanation chemical cycle for solar energy conversion and transportation 2−111577
H_2 production using two-step-thermochemical cycles 2−83522

solar power stations
assessing the solar power satellite: the OTA experience 2−83459
central receiver, quadratic optimal control 2−57687
central tower receivers 2−78187
development, financial inducements for electric utilities in USA 2−73078
European community solar energy R&D programme 2−73069
experimental installation, Italian mountain location, description *(Italian)* 2−67837
focusing heliostats, design and development 2−73066
mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
model solar power unit using heterophotocells and solar radiation concentrators 2−73110
optical system operation simulation using numerical model 2−99761
parabolic dish solar thermal power plants, receiver thermal buffering, digital simulation 2−88409
photovoltaic concentrator technology and status, economic motivation for improvements 2−93914
receiver for solar gas-turbine plant, test results 2−73139
saturated steam generation heat transfer and thermal optimisation 2−116781
solar power satellite−an opportunity for third world development 2−83458
state-of-the-art, future prospects and technology 2−116787
system with 13 days reserve power for radio link *(German)* 2−99766
Themis power station, France *(French)* 2−57683
thermal power stations, commercialisation progress 2−78245
tower-type, system of tolerances 2−99828
Br_2-CO_2-He solar-pumped electronic-to-vibrational energy transfer lasers 2−80933

solar prominences
1980 August 5, coronal transient/eruptive prominence, initiation, mag. buoyancy effects 2−63333
filaments in spotless regions appearing before flares, time var. *(Chinese)* 2−112410
H emission prominences, obs. via new emission-line coronagraph 2−106528
magnetic field vector determination from He D_3 line Stokes profile 2−117612
polar zone filaments drift and comparison with mag. field evolution over activity cycle 2−117648
quiescent prominence, optically thick H I, Mg II and Ca II lines, anal. 2−58311
quiescent prominence of 15 Oct. 1969, spectral obs. 2−68708
quiescent prominence reson. lines, two dimens. nonlocal thermodynamic equilib. transfer comutations 2−68687
quiescent prominences, H lines form. 2−84204
quiescent prominences, oscillatory motions obs. *(Russian)* 2−63355
stationary loop, MHD model, coronal disturbance mechanism 2−84193
surge formation mechanism 2−117646
surges and relation to radio bursts 2−73940
velocity fields in quiescent prominences 2−68709
X-ray studies using Hinotori (ASTRO-A) satellite *(Japanese)* 2−68587

solar radiation
see also solar cosmic ray photons; solar radiofrequency radiation; solar spectra; solar wind; sunlight
Abastumani Forest Aerosol Experiment, (August 1978), weather conditions, solar and atm. radiation *(Russian)* 2−117401
air temp. and solar radiation intensity, daily fluctuations, harmonic analysis 2−73693
atmospheric absorption by O_3 and H_2O, heating, effect on surface press. 2−106255
atmospheric thermal forcing due to incoming solar radiation and outgoing IR flux *(Russian)* 2−73628
Cardiff Solar Energy Unit activities in solar collector thermal performance and design 2−73148
chromosphere network, bright point appearance rel. to spicules 2−100876
climatological models, one and two dimens., comparison, solar radiation effects 2−78827
coronal X-ray brightening explained by current loops nonlinear coalescence instability 2−94676
diffuse, mathematical expression for amount reaching any surface from sky *(Portuguese)* 2−100441
diffuse radiation, effects on artificial spherical balloon satellites 2−117562
dosimeter, miniature personal, accumulated radiation meas. in UV or other region 2−62775
electron-cyclotron maser emission from flaring loops, plasma effects 2−112409
emission lines produced in wake of shock wave, line profiles calc. 2−89221
energy distrib. rel. to HD 44594, solar analogue 2−79093
EUV irradiance over sunspot cycle 21, model, terrestrial atm. implications 2−63349
Explorer 19, orbital perturbations due to solar radiation press. 2−117561
F_2 layer, December anomaly var. throughout solar activity cycle 2−73752
flare, 1973 July 29, hot X-ray loops correl. with bright Hα ribbons 2−100873
flare, 1979 November 8, gamma-ray and optical obs. 2−106642
flare, 1980 December 17, H α obs. with high time resolution by digital CCD camera 2−100868
flare, 1981 February 26, Hα emission model for pink colour 2−100869
flare, 1981 July 26, anal. of flare brightness and magnetic transients *(Russian)* 2−112417
flare, X-ray emission, anal. in terms of impulsive phase thermal model 2−63331

solar radiation continued
flare emission, theory of energetic electrons transport in fully ionised H plasmas 2−106493
flare gamma-ray emission, contrib. of synthesis of elements 2−68719
flare impulsive phase X-ray/radio emission from mag. loop coronal part 2−89212
flare of 1973 December 22, impulsive EUV event, EUV spectrum anal. 2−94672
flare of 1980 October 7, balloon borne gamma ray obs. 2−58252
flare X-ray burst sources, impulsive and gradual components, origin and obs. 2−79062
flare X-ray spectra, high resolution obs. with rotating spectrometers on Hinotori satellite 2−63344
flares, gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons 2−106494
flares, impulsive EUV and X-ray emission, time histories and model tests, obs. 2−79058
flares hard X-ray bursts, interacting mag. loop model 2−68693
flares hard X-ray bursts, interaction of collisionless conduction front with chromosphere 2−58308
flares hard X-ray emission, obs. of impulsive solar flares *(Russian)* 2−112415
flares hard X-ray emission, spatial struct. of ≳100 keV X-ray sources 2−63343
flares XUV radiation, chromospheric effects 2−79059
flaring region producing microwave and X-ray bursts, mag. struct., SHF obs. 2−63330
flat-plate solar collectors total surface solar irradiance optimisation and calc. at any tilt and azimuth 2−67840
flux measurement, extraterrestrial, limitations due to Beer's law assumption and local time uncertainty 2−73922
hard X-ray bursts, positions of assoc. m-dm bursts 2−100888
impulsive flares, microwave and X-ray emission, multithermal and nonthermal interpretations 2−117643
impulsive flares X-ray spectra anal. 2−117644
irradiance deficits determ., data reduction techniques 2−116789
irradiance variations due to active regions 2−84191
laboratory heating in Srinagar, Kashmir, solar radiation availability and collection area requirements 2−67842
limb brightening at extreme solar limb, determ. from photoelectric eclipse obs. 2−94686
limb darkening function, fluctuations rel. to solar internal rot. and gravit. quadrupole moment 2−100862
lower atmosphere brominated methanes and ethanes, solar radiation interaction 2−111600
luminosity and surface magnetic fields 2−89214
luminosity variability, surface magnetism and granular convection 2−79071
luminosity variation correl. with diameter 2−79073
luminosity variations, effect of perturbations of convective energy transport 2−112402
luminosity variations, effects of solar mag. field 2−112401
McMath 16867, progressive brightenings obs. in wing of Hα line 2−94692
Mercury atmosphere top, solar radiation aspects 2−58278
neutrino brightness curve, obs. using Cl-Ar neutrino detector *(Russian)* 2−89226
neutrino detection using laser radiochemical Ga detector 2−78957
neutrino flux and initial metal rich supersonically turbulent central core 2−106664
neutrino flux estimates from different models 2−58315
neutrino problem, detect. of low energy neutrinos by coherent scatt. 2−78964
neutrino problem, efects of electron distrib. distortion 2−68694
Nimbus 7 extraterrestrial solar irradiance measurements anal., sunspot correl. 2−112088
photosphere, limb darkening vars. as diagnostic of changes in solar luminosity 2−63342
photosphere-chromosphere transition layer below flares, ionisation and radiative cooling 2−68720
planets upper atmospheres, neutral components photoionisation rate coeffs., solar activity depend. 2−106570
primitive Sun, UV and X-ray emission influence on biological processes 2−105880
selection methods for production of test reference years 2−62462
selective solar irradiance spectrometer 2−84093
short wave radiation effect on ionosphere ion recomb. coeff. 2−73750
soft X-ray emission during weak solar activity rel. to radio blips 2−63340
soft X-ray flare, theoretical model constraints from spectral obs. 2−68691
solar constant, rocket-borne meas. using absolute radiometers 2−79072
solar constant and Earth surface temp. 2−112108
solar granulation, basic eqns. and methods for numerical simulations 2−68695
spectral irradiance during 1980, Mauna Loa Observatory meas. 2−89217
sunspot, intensity ratios of Ca II K to H spectral line cores 2−100877
Tateno, Japan, abnormally cool 1980 summer, temp., sunshine and solar radiation anal. 2−100459
terrestrial atmosphere CO_2 abundance var. due to solar flux, effect on biosphere 2−73413
ultraviolet flux from flare (of 15 Feb. 1975) 2−117518
UV from young Sun rel. to prebiological palaeoatmosphere composition 2−73929
UV luminosity over lifetime from analogies with similar stars 2−106666
UV variation determination method involving stratosphere tides meas. 2−63266
variability, modeling using effects of rapid variations to convective envelope props. 2−58316
variations in output, calc. from sunspot deficits and facular excesses 2−79068
variations in solar luminosity, influence on Earth's atmosphere and interplanetary space 2−94474
variations of solar constant due to solar activity 2−100860
Venice sea breeze rel. to daily global solar radiation 2−111996
Venus atmosphere top, solar radiation aspects 2−58278
X-ray burst emission due to betatron accel. 2−73935
X-ray bursts link with large scale coronal structures via coronal mag. loops 2−79051
soft X-ray emission and relation to particle events 2−100861
X-ray flares recorded by Prognoz-6 RGS apparatus, list 2−106527
X-ray Mg XI X-ray emission spectra from corona 2−68714
X-ray pulsations, origin *(Russian)* 2−73934

solar radiation continued
X-ray spectra of flares, non-steady-state appearance 2−68713
X-rays and ions from Nov. 22 1977 flare event 2−112274
He I spectroheliograms, anal. of correl. of high latitude coronal holes with solar wind streams 2−100879
Si photoconvertors, HV, under high intensity solar radiation temp. dependence investigation 2−73111

solar radio emission *see solar radiofrequency radiation*

solar radiobursts *see solar radiofrequency radiation*

solar radiofrequency radiation
8.6 mm radiation, detect. of 192 s oscillatory component *(French)* 2−63338
35 GHz radiation flux density absolute calibration method *(Chinese)* 2−112412
behind-limb flare, obs. of rising motion of radio source at 35 GHz 2−94695
blips rel. to soft X-ray emission during weak solar activity 2−63340
broadband emissions of type IV decimetre continuum 2−73938
burst emission (type I) 2−73936
burst source structure at 6 cm, evolution, obs. 2−94667
bursts, aperture synthesis processing by CLEAN and least squares fitting 2−100751
bursts, obs. of radio echo and sporadic radiation scatt. in corona 2−94698
bursts and plasma processes 2−106663
bursts from corona, types and observational charact. 2−106662
bursts relative to near Earth space UHF emission 2−73756
continuum MF and HF, solar electron streams diffuse component as possible source 2−94675
coronal emission at 29.5 MHz rel. to A_p index (cycle 20) 2−106657
coronal hole radiospectrum anal. 2−117657
coronal magnetic fields above active regions from microwave polarisation reversal 2−106547
coronal type III radio emission involving plasma solitons evolving in one dimens. 2−84183
EHF and SHF observations using 10 m dia. steerable Cassegrain antenna, radio maps *(Japanese)* 2−94603
EHF observations with large single dish 2−73931
emissions assoc. with type III electron streams, plasma emission 2−73814
flare microwave burst, 1980 December 17, time relation with Hα flare from digital CCD camera obs. 2−100868
flare microwave bursts, rel. to injection onset times of 2 GeV protons, 1 MeV electrons and 100 keV electrons 2−112273
flare microwave bursts, VLA obs. interpretation involving mag. fields 2−68697
flare radio bursts, theory of energetic electrons transport in fully ionised H plasmas 2−106493
flare remote brightnings and type III radio bursts 2−73939
flares, struct. of impulsive phase from microwave obs. 2−68699
flares, X-ray and microwave emission from common thermal source 2−63331
flaring loop, maser excitation, radiowave heating and electron precipitation 2−100854
flaring region producing microwave and X-ray bursts, mag. struct., SHF obs. 2−63330
gradual rise and fall bursts, source struct. at 17 GHz 2−100871
gyroresonance emission, magnetic field meas. above sunspots 2−100884
impulsive flares, microwave and X-ray emission, multithermal and nonthermal interpretations 2−117643
m-dm bursts assoc. with hard X-ray bursts, positions 2−100888
McMath 13043, burst activity and local radiosources at SHF 2−84205
McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
mechanisms and models 2−100895
metre wavelength solar radio bursts with periodic modulation 2−73920
microwave burst from flares and correl. energetic protons 2−89223
microwave bursts, assoc. mag. field, electron energy and brightness temp. 2−94683
microwave spike bursts, electron-cyclotron maser model 2−112312
millimetre-wave emission, high-sensitivity research by Itapetinga large mm-wave antenna 2−100744
polarized microwave emission, electron-cyclotron maser emission from flaring loops, plasma effects 2−112409
quiet Sun, radio obs. rel. to wave motion in transition region and low corona *(Russian)* 2−100864
radar scattering from solar corona, type III components and source height 2−117658
S-bursts, spectral charact. obs. 2−100872
SHF and UHF obs. of eclipsed Sun on 1968 Sept. 22, Xinjiang data *(Chinese)* 2−63345
shock accelerated events due to electron shock accel. in corona 2−73928
slowly varying component in active region of bipolar sunspot *(Chinese)* 2−84197
spike radio bursts, obs. of spectrum and location of burst sources *(Russian)* 2−63356
sunspots, surrounding polarised horseshoe structures at SHF obs. 2−73924
surges and relation to radio bursts 2−73940
Torun interferometer meas. of total solar flux at 127 MHz, instrumental errors *(Polish)* 2−78958
Type I and III emissions, nearly contemporaneous, source positions 2−106665
type I burst, emission mechanism model 2−73933
type I bursts, harmonic emission 2−63339
type II and III events, VHF/UHF obs. 2−68721
type II burst, assoc. shock wave deccel., VHF obs. 2−94680
type II radiobursts, positions identified with flares 2−73937
type II solar radio events observed in interplanetary medium, general charact. 2−94572
type III bursts, evidence for primary and secondary bursts 2−68696
type III bursts, fine struct. near starting freq. 2−89219
type III bursts in interplanetary medium, fundamental emission 2−100893
type III radio burst sources, assoc. with coronal structs. 2−106651
type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
type III radio bursts, stratification of assoc. electron beams *(Russian)* 2−112416
type IV bursts, assoc. proton energy spectra *(Chinese)* 2−84196

solar radiofrequency radiation continued
type IV radiobursts, assoc. with loop coronal transients 2−94670
UHF obs. using Miyun Solar Radio Compound Interferometer, 460 MHz operation 2−63249
solar radiowaves *see solar radiofrequency radiation*
solar rotation
core rotation period and magnetic field, rel. to rigidly rotating solar surface distortion 2−94685
corona large scale structure, synodic rot. period near maximum of cycle (21) 2−106643
differential rotation, active picture including wave-rotation interaction 2−79082
differential rotation, axisymmetric hydrodynamic model 2−106661
differential rotation and meridional circulation solns. 2−84187
differential rotation by mean field model 2−106516
differential rotation of compressible convection zone 2−106658
equatorial rotation rate, 17th century sunspot records 2−94684
internal rotation and gravit. quadrupole moment of Sun, determ. from rot. splitting of global oscills. 2−100862
internal rotation low, determ. from rot. splitting of solar low-l five-minute oscillations 2−89220
oblique magnetic rotator, evidence from rot. splitting of oscill. modes 2−63353
oblique magnetic solar rotator, evidence from fine struct. of 5-minute oscills. spectrum 2−100863
period determination from Ca II mag. flux obs. 2−117642
radio bursts, intensity-time profile vars. in solar half-rot. rel. to propag. effects in corona 2−94698
sunspot groups, latitude drift and solar rotation 2−100892
sunspots differential rotation and meridional motions (1874 to 1902) 2−106649
supergranulation layer, radial rot. law 2−89216
solar spectra
see also solar activity; solar corona; solar radiation
5-minute, low degree oscillation modes 2−84209
1976 April 30 flare, spectra anal. 2−63260
active region EUV spectra and hydrodynamic interpretation 2−68707
active regions, lower transition region, UV lines Doppler shift, obs. 2−68692
atmosphere supergranular and mesogranular scale vertical flows, spectral obs. 2−94673
chromosphere above sunspot umbra, line spectra 2−100883
chromosphere H$n\alpha$ for $5 \leq n \leq 20$, model strengths 2−112403
chromosphere structure from Ca II K_{2V}/K_{2R} asymmetry 2−68689
Compton effect in chromosphere, evidence from spectral line wavelengths 2−106644
corona activity, Ca and Cr ions used for plasma diagnostics, X-ray obs. 2−63332
corona H I Lα line, theoretical investigation of Hanle effect 2−94697
corona H I Lyman α used to determine kinetic temps. 2−63335
coronal emission lines, obs. via new emission-line coronagraph 2−106528
coronal EUV lines used for solar wind accel. region plasma diagnostics 2−84182
coronal flare plasma cooling, spectra characts. 2−94665
coronal holes base, EUV emission lines blueshift rel. to solar wind outflow 2−112400
coronal loops thermal struct., implications for coronal models, EUV spectra obs. 2−58310
coronal spectrum, spin-orbit electric dipole transitions for Be-like ions 2−96497
damping constants of spectral lines, rel. to turbulence in solar atmosphere 2−94687
emission lines produced in wake of shock wave, line profiles calc. 2−89221
EUV emission lines, radiation intensity and ion prod. rate in Earth upper atmosphere *(Chinese)* 2−100624
EUV line emission diagnosis 2−89225
facula models distinguished through Brackett γ-ray line 2−94682
faculae, spectroscopic obs. with ground-based instruments and OSO-8 satellite 2−94690
flare, 1973 July 29, hot X-ray loops correl. with bright Hα ribbons 2−100873
flare, 1980 December 17, H α obs. with high time resolution by digital CCD camera 2−100868
flare, 1981 February 26, Hα emission model for pink colour 2−100869
flare, high resolution meas. of 2.223 MeV neutron capture line 2−68698
flare γ-ray observations with HEAO-3 high resolution γ-ray spectrometer 2−89151
flare gamma ray lines, emission processes 2−58498
flare gamma-ray emission, contrib. of synthesis of elements 2−68719
flare of 1973 December 22, impulsive EUV event, EUV spectrum anal. 2−94672
flare of 1980 April 8, transition zone plasmas, characts. from UV obs. 2−58312
flare soft X-ray spectra obs. from Hinotori satellite, Fe line spectra and time vars. of X-class flares 2−100851
flare spectra, comparison of observed Ca XIX and Ca XVIII relative line intensities with theory 2−94694
flare spectra, reduction procedure to determine continuum and line emission quantities 2−63260
flare spectra, Zeeman splitting of Fe I lines rel. to flares mag. transients *(Russian)* 2−112417
flare X-ray spectra, high resolution obs. with rotating spectrometers on Hinotori satellite 2−63344
flares, 1980 April 13 and May 9, X-ray spectra observed and predicted, comparison 2−94616
flares, effects of UV line radiation on chromosphere 2−79059
flares, microwave intensity and spectrum vars. rel. to impulsive phase struct. 2−68699
flares, visible spectrum 2−58317
flares impulsive phase, soft X-ray emission spectra 2−94693
Fraunhofer spectrum, investigations of departures from LTE in solar atmosphere *(Russian)* 2−73926
gamma ray lines due to flare cosmic ray generated radioisotopes decay 2−106654
gamma-ray line at 2.2 MeV, SN flare obs. 2−100889
impulsive flares X-ray spectra anal. 2−117644
ionized molecules, line equivalent widths in facular and photospheric models 2−79067
IR solar spectra, atlas from obs. at South Pole 2−106647
solar spectra continued
limb flare, 1980 June 29, X-ray and UV spectra obs. from Solar Maximum Mission satellite 2−100867
line breadth, damping consts. of Fe I photosphere emission 2−73942
magnetic regions, theoretical Stokes profiles atlas for solar disc obs. 2−58274
McMath 14943, sunspot model/physical conditions from spectral obs. 2−84200
multiplet line profiles and non-LTE factors in solar photosphere *(Russian)* 2−79064
O I, form. of resonance triplet and intercombination doublet in solar chromosphere 2−112398
oscillator strengths of Ti, Cr, Fe and Ni lines *(Russian)* 2−79075
photosphere, problem of contrib. functions and optical depths of form. of Fraunhofer lines 2−68716
photosphere C_2 IR bands, oscillator strengths determ. 2−79061
photosphere Fe, Ti, Cr and Ni damping consts. *(Russian)* 2−79074
photosphere granular vertical flow velocity, magnitude and height depend. 2−94674
photosphere nonacoustic 5 minute period vertical traveling waves, detect. from spectral obs. 2−84194
photosphere Pd abundance from Pd I lines anal. 2−64903
photosphere spectrum, multiplet line profiles under LTE conditions rel. to photosphere physical conditions *(Russian)* 2−73925
photosphere temperature inhomogeneities effect on abundance determ. 2−106648
photosphere Ti abundance from Ti I lines equiv. width and oscillator strengths *(Russian)* 2−79063
photosphere vertical structure, small scale vel. field from spectra anal. 2−106650
prominence, quiescent, optically thick H I, Mg II and Ca II lines, anal. 2−58311
prominence magnetic field vector determination from He D_3 line Stokes profile 2−117612
quiescent prominence reson. lines, two dimens. nonlocal thermodynamic equilib. transfer computations 2−68687
quiescent prominences, H lines form. 2−84204
resonance line formation scaling laws used for Ca II ionisation and excitation equilibria 2−117651
S-bursts, spectral characts. obs. 2−100872
soft X-ray flare, theoretical model constraints from spectral obs. 2−68691
spike radio bursts, obs. of spectrum and location of burst sources *(Russian)* 2−63356
Stokes parameters profiles of spectral lines rel. to vector mag. fields determ., influence of magneto-optical effects 2−100878
sunspot, intensity ratios of Ca II K to H spectral line cores 2−100877
sunspot propagating oscillations from photospheric and chromospheric lines obs. 2−58314
sunspot structure, use of five minute oscills. as subsurface probe 2−89224
sunspot transition region oscillations, C IV line obs. 2−63328
transition region, Lyman continuum absorpt. anal. 2−63336
transition region O IV spectrum, calcs. including photoexcitation by Fe IX 171.07 Å 2−73923
transition zone, electron press. determ. from EUV obs. of O IV and N IV 2−106639
type II solar radio events observed in interplanetary medium, general characts. 2−94572
type III radio bursts, numerical simulation of metre and hectometre-wave emission 2−94696
unresolved mag. flux tubes, spectral obs. method 2−68633
UV line profiles, OSO-8 obs. rel. to non-thermal vel. field above faculae 2−94691
X-ray lines of He-like O and Ne ions in solar corona, intensity ratios 2−106640
X-ray Mg XI X-ray emission spectra from corona 2−68714
X-ray spectra from flares and non-flaring active regions 2−84192
X-ray spectra of flares, non-steady-state appearance 2−68713
C IV, UV spectral redshift due to downflow of material 2−73945
CN red system, oscillator strengths, radiative lifetimes and electronic transition moment 2−106641
Ca II in chromosphere, vel. oscills. phase differences between two lines 2−58313
Ca II magnetic flux obs. used for rot. period determ. 2−117642
Co I lines, equivalent widths and solar Co abundance from Co I lines absolute oscillator strengths 2−112315
Cr I, oscillator strengths for Fraunhofer lines *(Russian)* 2−75216
Fe, effective Lande factor of mag. effective line 2−73941
Fe I 532 nm line formation in magnetic field *(Chinese)* 2−84198
Fe I 557.6 nm line shift and asymmetry, centre-limb var. 2−100881
Fe I 6301.5091 Å line, absolute meas. of bisector 2−89218
Fe I 6302 Å magneto-sensitive line and Alfven waves *(Chinese)* 2−63238
Fe I in solar atm., abundance and microturbulent vel. 2−63351
Fe I lines, equivalent widths rel. to internally consistent scale of oscillator strengths 2−58247
Fe I lines and abundance across disc, model atm. test 2−112404
Fe I lines identification 2−106653
Fe XIII 10747 Å coronal emission line, form. and interpretation 2−79055
Fe XIV 5303 Å coronal line, polarisation, effect of mag. fields 2−79054
Fe XIV 530.3 nm emission line polarization in solar corona 2−112407
H I Lyman α profiles and limb darkening 2−84184
Hα line wing, progressive brightenings obs. in active region 2−94692
He atom, 584 angstrom reson. line breadth 2−68701
He I spectroheliograms, anal. of correl. of high latitude coronal holes with solar wind streams 2−100879
K I, non-LTE level populations *(Russian)* 2−79065
MgH, $A\Pi^2$-$X\Sigma^2$ system oscillator strength comparison with theory 2−70186
Na I lines, centre to limb intensities 2−68700
Ni I lines, oscillator strengths from central intensities of Fraunhofer lines *(Russian)* 2−90478
O III, EUV line photoexcitation by He III Lyman α 2−89213
O V, n=3 diagnostic line ratios for flare electron densities 2−89215
S IV emission line ratios for transition region 2−89210
S XII, coronal ion, electron collisional excitation, energy level calcs. 2−108723
Si IV, UV spectral redshift due to downflow of material 2−73945
Ti I lines in solar atmosphere, abundance and microturbulence determ. 2−63352

solar system
see also celestial mechanics; planets; solar nebula; Sun
3rd IUE European Conference in Madrid, Spain (May 1980) 2−101135
asteroid belt, compositional struct. from spectrophotometric obs. 2−106598
atomic model of planetary systems 2−117618
capture into resonance, adiabatic invariant appl. 2−89124
chemical elements differentiation, role of phase transitions latent heat 2−58434
cometory research in understanding solar system origin *(German)* 2−68678
comets, interstellar origin and capture by solar system 2−101149
cosmic chemical memory in chemical processing 2−94630
cosmic ray nuclear track record of events in early solar system 2−68583
early evolution, motion of Jovian commensurability resons. rel. to asteroid zone celestial mechanics 2−89170
exploration, conf., Alpbach, Austria (July-August 1981) 2−58548
formation, origin and evolution of planetary atmospheres 2−112357
formation in OB association, implications for cosmic rays and meteorites 2−89169
giant planets, form. and struct. 2−112358
interstellar comets capture in galactic spiral arms, implications for terrestrial catastrophism 2−79039
magnetic monopole occurrence in solar system 2−106519
motion through interstellar cloud, capture of interstellar comets 2−68669
Oort cloud, effect of star passages on comet orbits 2−106619
orbital resonances and planetary formation sites 2−100784
origin, evidence for primitive nebular components in chondrules from Chainpur chondrite 2−100849
origin, soln. of problem of planetary rot. in statistical accumulation theory 2−68642
origin, struct. of solar nebula and growth and decay of mag. fields 2−100776
origin and evolution of planetary atmospheres, conference, Hamburg, Germany, (1981 August 17 to 18) 2−107010
origin of solar system, theory of planetary growth in gaseous nebula 2−100775
personal retrospect and prospect 2−101108
planetary system formation, new method of numerical simulation of evolution of complex discrete systems *(Russian)* 2−100773
planets formation, rare gas retention by accreting planets in solar nebula 2−112353
stability in terms of gravit. guiding waves 2−84117
Titius-Bode law postulate 2−84119
Titus Bode law and wave formalism 2−112352
two suns and one planet model, BASIC program 2−58275
^{92}Nb use as solar system chronometer 2−84116
Ti isotope ratios of lunar, terrestrial and meteorite samples 2−84113

solar-terrestrial relationships
aerosol conc. in stratosphere, solar activity depend. 2−83921
airglow, EUV, spectral obs. during solar active conditions 2−73744
atmosphere tides, effect on wind and temp. var., solar and lunar semidiurnal components 2−106252
atmosphere tides, model description and solar diurnal component 2−106251
climate change due to solar, volcanic and CO_2 forcing 2−100537
climatic relations 2−106305
cosmic infrasound in the atmosphere *(Russian)* 2−106320
day-length changes rel. to solar wind vel. variations 2−117523
drought in Indian summer monsoon regime, foreshadowed by solar activity 2−68477
Earth diurnal rotation rate, mechanism of effect of solar activity 2−111834
Earth global climate, effects of ice caps on stability in two-dimensional energy balance model *(Chinese)* 2−88999
Earth rotation, trigonometric models for long-period vars. in Wolf numbers and length of day 2−105881
Earth upper atmosphere, solar radiation intensity and ion production rate vars. during solar cycle *(Chinese)* 2−100624
exosphere temperatures rel. to solar activity cycle 2−63153
F_2 layer, December anomaly var. throughout solar activity cycle 2−73752
F_2-layer, f_0 daytime variations depend. on solar activity 2−117517
flooding in India, rel. to sunspot cycle 2−58116
geomagnetic A_p index rel. to coronal radio emission (cycle 20) 2−106657
geomagnetic activity, rel. to solar wind vel. and density during quasiviscous interaction 2−112227
geomagnetic storm occurrence in 1954 to 1976 period 2−73782
geomagnetic storms rel. to photosphere flare magnetic fields orientation and geomag. storm occurrence 2−112248
geomagnetic surface variations due to interplanetary shocks from flares of near zone 2−73434
geomagnetic variation line spectrum at Dourbes, Belgium, rel. to solar rot. period and 11-year cycle 2−105901
India weather and climate rel. to solar activity 2−88976
ionosphere, relationship between Birkeland current densities and interplanetary quantities 2−100663
ionosphere absorption in MF/HF, depend. on solar zenith angle and solar cycle 2−100641
ionosphere F_2-layer, equinoctial anomaly in peak density during high solar activity 2−89068
ionosphere-ground vertical current, polar cap dusk-dawn pot. effect due to solar wind 2−112214
K_p categorisation of geomag. disturbances rel. to solar flare activity *(Chinese)* 2−68563
magnetosphere decimetric emission caused by solar flare events 2−112230
magnetosphere interaction with solar cosmic rays, diaphragming of particle stream entering magnetospheric clefts 2−112228
magnetosphere polar cap region, elec. field and convection patterns depend. on solar wind 2−73789
mesosphere O_3 concentration variations during total eclipse, air glow obs. 2−100613
micropulsations, rel. to solar activity cycle *(Russian)* 2−58203
millisecond light pulses in upper atmos., solar activity depend. occurrence 2−83981
near Earth space UHF emission rel. to chromosphere flare activity and radio bursts 2−73756
nightglow intensity rel. to solar flares and sunspot numbers 2−58194
photosphere magnetic field rel. to major seismic events *(Chinese)* 2−100259
precipitation in Yangtze region, solar cycle effects (1163-1977) 2−78715

solar-terrestrial relationships continued
solar wind mag sector struct. correl. with Vorticity Area Index 2−106269
stratosphere composition and temp. model of depend. on solar UV variability 2−63066
Sun's influence on Earth's atmosphere and interplanetary space, review 2−94474
sunspot numbers correl. with weather of United States 2−63068
surface temp. rel. to solar constant 2−112108
temperature of Earth and solar cycle activity during Maunder minimum 2−78753
thermosphere O/N_2 ratio var. depend. on solar activity 2−73733
thermosphere temp. at mid-latitude, solar and geomag. activity influences 2−73740
transequatorial VHF wave propagation, sunspot correlation, long term exp. results *(Japanese)* 2−73780
troposphere instability, effect of Earth entry into solar corpuscular stream 2−106471
turbopause height and temp. in polar region, depend. of geomag. and solar activity 2−73734
winter temps. in Holland (1634-1975) rel. to solar activity 2−58108
X-ray flares rel. to SFA type dependence at low freq. 2−58195
O_2 density of thermosphere controlled by solar activity 2−100607
O_3 atmospheric total rel. to solar activity 2−63059
O_3, global monthly means rel. to solar activity 2−63042
O_3 variation in stratosphere, depend. on solar activity 2−78751
OH conc. in atmos. rel. to solar activity 2−106210

solar visible radiation *see sunlight*

solar wind
see also solar cosmic ray particles
acceleration due to whistler waves propagating from coronal holes *(Chinese)* 2−112411
acceleration region, plasma diagnostics from EUV coronal lines anal. 2−84182
acceleration region H I Lyman α used to determine kinetic temps. 2−63335
active spaceborne expts., lab. expts. and numerical simulation 2−112294
beam-plasma instability in the presence of low-frequency turbulence 2−91631
bidirectional particle event of Oct. 1977 indicating mag. loop 2−68584
bow shock, anal. of surface elec. currents 2−100652
bow shock, upstream, fluctuation interaction with MHD shock 2−78927
Comet Ikeya-Seki (1965 VIII), ion tail helical structures 2−89203
comet interactions, review 2−117556
comet tail interaction with solar wind plasma, EM instabilities *(Russian)* 2−58304
Comet West (1976 VI), tail structure rel. to solar wind vel. *(Russian)* 2−79032
cometary ion tail Kelvin-Helmholtz instability 2−63320
coronal holes, emanating wind, electron heating by fast mode MHD waves 2−58309
coronal holes high vel. streams energy balance 2−63204
coronal loop transients, MHD theory rel. to blending with ambient solar wind 2−100874
corotating interaction regions, rel. to interplanetary acceleration of energetic particles at 1 and 5 AU 2−106443
corotating solar streams, 3-D model 2−100693
corpuscular stream effect on Earth troposphere 2−106471
cosmic infrasound in the atmosphere *(Russian)* 2−106320
cosmic ray intensities rel. to polarity of solar wind mag. field 2−73805
cosmic ray interactions with solar wind magnetic field 2−106435
cosmic ray modulation 2−89091
cosmic rays interaction, solar wind speed rel. to spherically symmetric transport eqn. 2−106439
Earth bow shock interaction, upstream escape of ions 2−100657
Earth geomag. activity and Earth rot. depend. on solar wind vel. 2−117523
Earth magnetosphere interaction with solar wind, review 2−94474
energy dissipation mechanisms in collisionless shock waves *(Russian)* 2−58204
flare generated protons and simultaneous microwaves 2−89223
flare generated structures correl. with sunspot groups mag. axis near originating solar flares 2−117554
flare-generated streams rel. to Earth's position 2−117557
foreshock/bowshock quasi parallel shocks, large amplitude mag. variations 2−112236
galactic cosmic ray modulation by solar wind and diffusion coeff. energy depend. 2−106437
geomagnetic activity prediction by interplanetary spacecraft *(Japanese)* 2−73444
geomagnetic indices coupling function with solar wind parameters 2−112264
geomagnetic storm prediction method based on solar wind density obs. 2−84047
geomagnetic variation rel. to wind parameters at northern high-latitude 2−94565
GEOS mission to explore magnetosphere-solar wind interaction 2−63212
Giotto experiments on plasma during P/Comet Halley flyby 2−68589
global properties, density and temp. 2−84056
heliopause location from glactic cosmic ray modulation obs. 2−58210
HELIOS mission, objectives, verification and results 2−63210
heliosphere, magnetic field configuration and relation to spiral galaxies 2−58218
high speed stream MHD turbulence 2−89102
high speed streams, vel. meas. out of ecliptic and correl. with high latitude coronal holes 2−100879
high velocity streams effect on geomag. activity indexes 2−73435
high velocity streams modulating cosmic ray electrons 2−106441
high-speed stream from coronal hole, accel. mechanism 2−79069
interaction with magnetosphere of Earth, MHD dynamo process 2−73798
International Solar Polar Mission to study corona and interplanetary medium 2−63208
interplanetary disturbances, ground-based obs. using radio sources scintillation 2−68585
interplanetary magnetic and electric fields, kinematic model 2−117555
interplanetary magnetic field N-S component orientation diagnostics 2−84057
interplanetary magnetic field sector boundaries extrapolated to Sun, correl. with chromospheric flare distrib. 2−84203
interplanetary magnetic field variation correlation with 1970-1972 geomag. storm var. 2−84018

solar wind continued
interplanetary plasma clouds 2−89197
interplanetary plasma density, vars. from min. to max. of solar cycle (1974 to 1981) 2−89196
interplanetary scintillation exp., time synchronisation 2−89155
interplanetary scintillations, cross-correlation skewness 2−117558
interplanetary shocks from flares of near zone, effect on surface geomag. field 2−73434
ionospheric equivalent currents representing IMF sector effects 2−112219
ions, implantation into lunar dust grains, CO_2 form., astrophysical implications 2−92009
Landau damping of steepening magnetosonic wave 2−63178
lunar electromagnetic induction, solar wind induced, core struct. inference 2−112296
lunar rocks $^{15}N/^{14}N$ composition variations, contrib. of solar wind 2−84114
magnetic field and plasma variations, July 1977 obs. 2−112292
magnetic field effect on cosmic ray accel., modulation and drift 2−73806
magnetic field effect on cosmic ray drift 2−106440
magnetic field effect on polar cap magnetosphere convection and elec. fields 2−73789
magnetic field fluctuations between 0.3 and 1 AU 2−84059
magnetic field penetration into comet ionospheres 2−112295
magnetic field sector struct. rel. to major seismic events *(Chinese)* 2−100259
magnetic field structure inside Mars orbit from cosmic ray var. 2−106466
magnetic helicity evaluation in homogeneous turbulence 2−71127
magnetic inhomogeneities, effect on galactic cosmic rays diffusion 2−73804
magnetically closed regions 2−58219
magnetized plasma turbulence, soliton gas model 2−89134
magnetogasdynamics, self-similar flows behind shock wave 2−106511
magnetopause of Earth, role of IMF B_z component in balance of forces 2−117526
magnetosphere, unusual Pc 5 event rel. to solar wind conditions 2−84038
magnetosphere field-aligned current response to IMF changes 2−89075
magnetosphere hydromagnetic impulse generated by interplanetary shock 2−112240
magnetosphere interaction, highlights from International Magnetospheric Study 2−112268
magnetosphere interaction, relation between solar wind density and speed and Birkeland current densities 2−100663
magnetosphere interaction with solar wind, scaling relations 2−73797
magnetosphere interaction with solar wind and mag. storms 2−112253
magnetosphere of Earth, bow shock particle accel. 2−63187
magnetosphere of Earth, transfer of solar wind energy through magnetopause 2−68567
magnetosphere weak identical disturbances due to shock wave arrival 2−117527
magnetosphere-solar wind interaction rel. to ring current 2−112250
magnetospheric energy coupling function 2−100671
magnetospheric micropulsation control by solar wind 2−63185
Mars, electron flux study of solar wind interaction 2−100694
MHD fluctuations assoc. with high speed streams, statistical props. from Helios-2 obs. 2−100697
microturbulence from PSR 0531+21 flux at 74 MHz, interplanetary scintillation obs. 2−84253
minor ions resonant wave accel. 2−58220
nature and origin rel. to other stars 2−68737
northward interplanetary mag. field, effect on geomag. field inside auroral oval 2−112293
outer solar system plasma shocks and energetic particles 2−100691
outflow from base of solar coronal holes, meas. from EUV emission lines blueshift 2−112400
planet atmosphere interactions 2−100695
plasma, ion species bulk speed and particle number density var. 2−68586
plasma, mag. fields and interaction with planets, review 2−89071
plasma acceleration and wave heating by cyclotron reson. 2−106469
plasma Alfven waves propag. accel. and heating 2−103346
plasma characteristics of solar wind, influence of solar corona expansion geometry 2−112413
plasma convective motion due to streams devel. and planets gravity 2−106467
plasma disturbances described by kinetic theory 2−112290
plasma irregularities from obs. of interplanetary scintillation Jupiter HF emission 2−73816
plasma parameters from electron and ion distrib. 2−63204
plasma turbulence, ion acoustic instability 2−100698
plasma velocity between 0.3 and 1.0 AU, solar activity depend. 2−58221
pressure of interplanetary dust 2−63202
proton event probability prediction using soft X-ray data 2−100861
proton temp. in 1-10 AU range, Voyager obs. 2−100689
protons from solar flares, interplanetary shock wave effects 2−117538
quasiviscous interaction with magnetosphere, relation between geomag. activity and solar wind vel. and density 2−112227
radial proton temp. gradients in magnetic sector boundaries 2−106646
radial variation of velocity between 1 and 15 AU 2−84058
radio scintillation due to high speed streams 2−73815
rotating magnetic solar wind, Weber and Davis theory modification for photosphere mass loss 2−63201
Saturn, magnetosphere stagnation point, influence of solar wind 2−63308
Saturn, radio emission controlled by solar wind variations 2−94639
shock event of Jan. 3 1978, plasma, mag. field and particle obs. 2−63203
shock wave disturbances at 1 AU 2−100692
shock waves preceded by enhanced plasma wave noise 2−112291
solar magnetic loop extending beyond 1 AU 2−78926
solar-wind-magnetosphere interaction, rel. to MHD Kelvin-Helmholtz instability 2−109505
stream lines during first STIP interval, 1975 September to October anal. 2−106465
supercorona, effect on polarised radio emission of Crab Nebula 2−94815
switch on shocks, effect on turbulence 2−68688
turbulent solar wind, interaction with cometary plasma tails 2−106615
two-fluid polytropic model 2−89101
unsteady thermally conductive coronal flow, numerical algorithm for subsonic to supersonic vel. transition 2−112399
variations (1976 March to April) related geomag., cosmic ray and interplanetary disturbances 2−58214
velocity and density around interplanetary mag. field sector boundaries 2−100696
solar wind continued
velocity component in radius vector direction from comet tail orientation anal. 2−78974
velocity from interplanetary scintillation and its astrophysical significance 2−89103
Venus, ionosphere interaction with solar wind 2−78992
Venus, ionosphere particle removal by solar wind 2−106468
Venus, solar wind flow effect on interplanetary mag. field 2−84132
Venus bow shock, position and three-dimens. shape 2−84131
Venus dayside ionosphere, solar wind absorpt. due to charge exchange 2−73882
Venus Interaction, O corona 2−100789
Venus ionosphere O^+ contaminated of solar wind 2−117553
X-rays and ions from Nov. 22 1977 flare event 2−112274
soldering
Ni, high-porosity strips, capillary infiltration by Pb-Sn 2−115506
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
solenoids
see also coils; electromagnets
50T pulsed solenoid 2−95409
alternating field demagnetization appl., coil design 2−58161
high-power radio frequency irradiation system with automatic tuning for NQR appls. 2−95416
induced electric fields due to time-varying magnetic field 2−96802
ISX-C superconducting Ohmic heating solenoid 2−69915
low-inductance charge accumulator for superstrong magnetic field pulses 2−69207
magnetic field gradient coils for NMR imaging 2−64078
mechanical and struct. props. anal. in STANSOL program 2−59525
mechanical stresses in transversely isotropic solenoids 2−59524
spherical coil for fluxgate magnetometer using triaxial magnetic field feedback compensation 2−64077
stable magnetic field generator for 1 to 10 microTesla 2−58854
superconducting solenoid for NMR at ultra-low temps. 2−58872
superconducting thin solenoids, design optimisation, energy storage appl. 2−88480
TFTR, Rogowski coil and diamag. loop, design, fabrication and testing 2−80295
toroidal conductors, mag. field calc. 2−65126
winding prestrain for circular solenoid for ELMO Bumpy Torus, anal. 2−69922
solid effect
No entries
solid electrolytes *see superionic conducting materials*
solid helium
Kapitza resistance between liq. and solid ^{4}He 2−110064
lattice defects *(Chinese)* 2−61249
^{3}He, BCC, exchange integrals calc. 2−104111
^{3}He, BCC, isochronic press., nucl. magnetism contrib. 2−92305
^{3}He, BCC, neutron scatt. in paramag. phase, self-consistent phonon theory 2−76773
^{3}He, BCC, nucl. relax. time meas. for large molar vols. 2−110084
^{3}He, BCC, paramag. phase, exchange models, neutron scatt. test 2−71764
^{3}He BCC cryst., sound vel. and defects, temp. depend. 2−98380
^{3}He, mag. props., review 2−115488
^{3}He, magnetic phase transition, mag. ground state 2−76771
^{3}He, nucl. spin ordering 2−110086
^{3}He, nuclear magnetism, order and disorder, book 2−63759
^{3}He, pair potentials, second viral coeff. calcs. *(Russian)* 2−71766
^{3}He, solid, antiferromag., angle depend., free shift 2−76772
^{3}He, solid, mag. transition 2−82070
^{3}He, solid, nucl. mag. ordering 2−66318
^{3}He, solid, spin struct. of 2-D triangular lattice 2−61704
^{3}He, uudd, magnetisation motion in strong mag. field 2−110085
^{3}He, vacancies, spin polaron, variational method 2−61251
^{3}He-^{4}He quantum crysts., quasiparticle collisional diffusion 2−82072
^{3}He-^{4}He solid mixtures, dil., impurity interactions, press. depend. 2−71765
^{3}He-^{4}He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
^{3}He-^{4}He solutions, dilute, liquid-solid interface thermodynamics 2−76766
^{4}He, charge capture by defects appearing during coding below half melting temp. *(Russian)* 2−82068
^{4}He, crystallisation waves 2−104113
^{4}He, epitaxial adsorption on graphite, fourth sound meas. 2−86971
^{4}He, HCP, second sound vel. calc. 2−103904
^{4}He, interface with liq. ^{4}He and ^{3}He-^{4}He solns., equilib. props. 2−115489
^{4}He, liquid-solid interface, phonon transmission, Kapitza resist. 2−98365
^{4}He, nucleation on graphite, thermodynamic and neutron diffr. studies 2−104110
^{4}He, pair potentials, second viral coeff. calcs. *(Russian)* 2−71766
^{4}He solid-liq. interface, quantum state, crystn. waves 2−115490
^{4}He solid-superfluid interface, roughening transition 2−82071
solid hydrogen
asymptotic freedom, cusp theorem 2−82255
Brillouin scattering, meas. under high press. by Fabry-Perot interferometer *(Japanese)* 2−64104
creep at unsteady stage, 1.8 to 12K *(Russian)* 2−56296
electron emission by bombardment with 1-3 keV electrons 2−105014
film, keV light ions stopping power study 2−113837
involving $(H_2)_3$ complexes, lattice energy calc. 2−76769
IR absorption spectra of ordered state, theory 2−104112
IR spectrum, rot. transitions, phonon branches 2−87755
metallic, cohesive energy, theory of eqn. of state of intermediate valence solids 2−56520
metallic, infinite chain correlation energy, perturbation theory calc. 2−97985
metallic, interatomic pot. appl., density functional theory 2−76946
metallic, structure and screening at high press. 2−76961
NMR pulse study, stimulated echoes and slow rot. motions 2−110727
orientational glass, distrib. of local quadrupolarisations, NMR spectra 2−110654
ortho diluted with para, NMR and specific heat calcs. 2−98381
solid, NMR pulse study, solid echoes and orientational ordering 2−110726
stability of impurity H atoms *(Russian)* 2−82069
yield strength, temp. depend. *(Russian)* 2−61250
H atom adsorption temp. depend. 2−82074

solid lasers
see also gamma-ray lasers; Raman lasers; semiconductor junction lasers
alkali halide colour centre lasers, electrical pumping 2−102801
alkali halide colour centre lasers, review 2−96956
amplifiers with wavefront reversal, max. output parameter estimate 2−55109
anisotropic open waveguide, effect of discontinuities on modes 2−60235
broadband tunable source based on lasing at sum, difference freqs., Nd^{3+}:YAG and dye laser mixing 2−75627
channelled electrons, X-ray stimulated emission, theory 2−85979
chaos in a solid-state laser with periodically modulated losses, theory 2−70568
colour centre lasers, possibility of visible oscillation *(Japanese)* 2−70569
colour centre lasers for Doppler-free IR-acoustic spectroscopy, saturated absorpt. results for HCN 2−58916
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268
conference on lasers, New Orleans, LA, USA (Dec. 1980) 2−79281
crystals, physics and spectroscopy, stimulated emission, cascade schemes, review 2−80973
CW solid-state laser in kinematic mode-locking regime 2−75606
Dewar design for optically pumped semiconductor lasers 2−65240
dye lasers, liq. and solid, linearly and circularly polarised pumping, expt. study *(Russian)* 2−114267
emissive props., neutron beam effects 2−102805
four-level lasers, optimised 2−90862
garnet:Ho^{3+}, $^5I_7 \rightarrow {}^5I_8$ laser transition at 2 μm 2−110892
garnet continuous laser with a lightguide resonator 2−60125
garnet structure laser crystals, rare-earth ion activator center spectroscopic anal. 2−110893
geometrical optics in a laser laboratory 2−108895
glass, status and prospect for development *(Japanese)* 2−85977
glass laser, fluorescence in small and large signal gain regimes 2−60200
glass laser system, high-power, light pulse diffr. propag. 2−55072
green solid-state, for laser hydrographic appls. 2−68521
high-energy lasers, introduction 2−75553
industrial uses, of lasers 2−80981
large solid-state laser systems, aberrations and focusability 2−97035
light amplification by evanescent wave coupling in a multimode fiber 2−80971
multi-pass amplifier, high-power, energy gain 2−60084
multi-wavelength fusion laser, beam diagnostics 2−55234
Nd:YAG laser for holography 2−108931
Nova, control system, data acquisition, architecture and system design 2−75023
Nova, high density energy storage capacitor 2−80309
Nova, laser sequencing, synchronization, and safety systems 2−75022
Nova, optical components 2−75014
Nova, power system and energy storage 2−75015
Nova alignment and laser diagnostic systems, data acquisition 2−75019
Nova alignment and laser diagnostics systems 2−75018
Nova frequency conversion system 2−75020
Nova front end subsystem 2−75017
Nova laser pulse power system, hardware current status 2−90937
Nova laser system for inertial confinement fusion 2−75012
Nova mechanical systems 2−75013
Nova power systems and energy storage 2−75016
Nova target systems 2−75021
Novanet, a local computer network, and nova target data acquisition system 2−75024
phosphate glass active and active-passive mode-locked pulsed lasers *(Chinese)* 2−90921
physics and spectroscopy of laser crystals, current trends 2−90902
pulse generator, ultra low jitter synchronised 2−108905
rare earth doped oxide, chalcogenide and fluoride glasses as potential laser materials 2−90903
rare earth systems, microscopic and microscopic aspects of energy transfer 2−90905
resonance energy transfer in incoherent interaction, laser transitions 2−65196
ruby, doping by Fe, laser rod damage threshold increase 2−55990
ruby, internal parameters determ. from output radiation characts. 2−96957
ruby laser, double pulse Q-switched TEM_{00}, for holography, SHG in KD_2PO_4 2−114337
ruby laser, free-running, passive Q-switching and self-mode-locking regime study at 100K 2−108890
ruby laser, Q-switched, mode-locked and cavity-dumped 2−114292
ruby laser, refractive index meas. by dynamic optical distortions 2−114335
ruby laser radiation intensity, two-freq. acoustic modulation 2−97022
ruby multiple laser system for high speed photography 2−103131
ruby NMR laser, bistability and phase transitions of nuclear spin systems 2−104719
ruby Q-switched laser cavity, self-induced ellipse rot. and self-focusing effects 2−102798
self-focusing suppression using circularly polarised optical beams 2−97125
spectroscopy, high resolution time and freq. domain, of solid state laser materials 2−90907
thermal distortion insensitive resonators for TEM_{00} solid state lasers *(Rumanian)* 2−90944
ultrashort pulses generation with strong overlapping of saturation stage of active medium and bleachable filter 2−65234
wavefront distortions in power optics, conf., San Diego, CA, USA (Aug. 1981) 2−94890
Nd:YAG, laser props. 2−90898
Al_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2−96955
$BaEr_2F_8$, self-activated laser crystal, three-micron stimulated emission of Er^{3+} obs. 2−85976
CaF_2-HoF_3 (ErF_3), cryst. growth from melt, laser props. 2−105063
$Cd_{1-x}Mn_xSe$, stimulated spin-flip Raman scatt., laser emission obs. 2−114287
CdS, CdSSe, CdSe, optically pumped semiconductor platelet lasers, tunable CW laser action 2−114290
CdS laser screen radiation characts. at 300K 2−70573
CdS, optically pumped semiconductor platelet lasers 2−65236
CdS platelet laser, optically pumped 2−55191
CdSSe platelet laser, optically pumped 2−55191
CdSe platelet laser, optically pumped 2−55191
Co:MgF_2, lasers, liq. N_2 cooled, pulse-pumped operation 2−102800

solid lasers continued
Cr^{3+},Nd^{3+}:GdScGa-garnet laser at 1.06 μm 2−96953
Cr^{3+}:$Al_{1-x}Cr_x(PO_3)_3$ tunable IR solid-state laser material, spectroscopic and laser props. 2−108884
Cr^{3+}:$BeAl_2O_4$, alexandrite, ground state absorpt. determ. over tunable lasing region, 830 to 690 nm 2−60088
Cr^{3+}:$BeAl_2O_4$, alexandrite, excited-state absorpt. in lasing wavelength region 2−85973
Cr^{3+}:$BeAl_2O_4$, alexandrite, laser, narrowband, tunable, meteorological LIDAR appls. 2−114311
Cr^{3+}:$BeAl_2O_4$ (alexandrite) lasers, physics and performance 2−80974
Cr^{3+}:$BeAl_2O_4$ tunable laser action, theory and expt. results 2−96960
Cr^{3+}:$BeAl_2O_4$; alexandrite, laser freq. tuning 700 to 800 nm, spectroscopic characts. 2−114288
Cr^{3+}:Ge garnets, broad-band emission 2−104914
Cr^{3+}:$K_2NaSc_{1-x}Cr_xF_6$ tunable IR solid-state laser material, spectroscopic and laser props. 2−108884
$CsNdP_4O_{12}$, cryst. and glass, room temp. fluoresc., laser material use 2−93240
Er, Yb:glass, Er^{3+} $^4I_{13/2}$ level population inversion characts. 2−55171
Er:YLF lasers, pump technique comparison 2−96958
Er^{3+}:glass lasers and appls. 2−108887
Er^{3+}:$LiYF_4$, high-efficiency deep-red laser (850 nm), pumped by doubled Nd:YAG laser 2−60087
Er^{3+}:$LiYF_4$ crystals, stimulated emission 2−116210
Er^{3+}:YAG, energy levels of Er^{3+}, absorpt. and fluoresc. spectra 2−116252
Er^{3+}:YAG laser, water and ethanol as bleachable radiation absorbers *(Russian)* 2−108919
Eu^{3+} in germanate glass, energy transfer from Bi^{3+}, pumping range increase 2−90906
GaAs bulk laser, tunable picosecond pulse generation, two-photon absorpt. excitation 2−55164
GaAs bulk laser, two-photon pumped synchronously mode-locked 2−114291
Ga_2S_3-La_2S_3-Nd_2S_3, chalcogenide mini lasers, emission cross section and threshold power 2−96955
GdF_3-CaF_2:Nd^{3+} trigonal crysts., disordered, spectroscopy and laser emission 2−82905
$Gd_3Ga_5O_{12}$:Ho^{3+}, cascade generation of Ho^{3+} ions, solid laser appl. 2−85975
Ho^{3+},Er^{3+}:$LiYF_4$, multifreq. and cascade prod. of induced emission, delayed induced afterglow from Ho^{3+} 2−87819
Ho:YLF lasers, pump technique comparison 2−96958
Ho^{3+}:$LiYF_4$, high-efficiency deep-red laser (750 nm), pumped by doubled Nd:YAG laser 2−60087
InGaAsP laser, optically pumped, tunable CW mode-locked action 2−65233
InGaAsP, optically pumped semiconductor platelet lasers, tunable CW laser action 2−114290
InGaAsP platelet laser, optically pumped 2−55191
InGaAsP tunable thin-film laser, Nd:YAG laser pumped, for high bandwidth fibre spectral meas. 2−65248
KCl $Tl^0(1)$ colour centre laser, mode locking by synchronous pumping using gain medium with microsec. decay times 2−108889
KCl:Li, Li$(F2^+)_A$ centre lasing action 2−85980
KCl:O_2^-, superradiance and high-gain mirrorless laser activity 2−87820
KI$(F_2^+)_A$ centre laser, continuous timing between 2 and 4 μm 2−90900
$La_{0.1}Nd_{0.9}P_5O_{14}$ CW laser at 1.051 and 1.32 μm 2−70567
Li-Nd-La phosphate glass, high conc., use in Q-switched lasers 2−55167
Li-Nd-La phosphate glass laser, high conc., efficiency at low pump energies, free lasing 2−55168
LiF, $F_2(F_2^+)(F_2^-)$ centres, formation and pumping by electron beam bombardment 2−90901
LiF lasers based on F_2 centres, lasing action, luminescence 2−80972
LiF, lasing action and spectra of M-centres 2−75580
LiF:F_2^+ centre tunable ring laser 2−85998
NaCl lasers based on F_2 centres, lasing action, luminescence 2−80972
NaF, alkaline earth impurity doped, CW laser operation with F_2^+-type colour centres 2−60085
NaF lasers based on F_2 centres, lasing action, luminescence 2−80972
NaF, single freq. laser using $(F_2^+)^*$ centres, 1.0 to 1.15 μm range 2−108886
Nd highly concentrated media, lasing characts. of microlasers for pulsed pumping 2−75579
Nd laser, multistage, digital supply system for stable apparatus operation *(Bulgarian)* 2−80989
Nd laser light, stimulated scatt. for high power lasers 2−97118
Nd laser system with homogeneous gain distrib., amplifiers 2−55170
Nd lasers, use of Xe pulsed flash lamps and filter envelopes of quartz tubes *(Chinese)* 2−55177
Nd multistage laser, second and third harmonic generation in KH_2PO_4 2−114360
Nd^{3+} in germanate glass, energy transfer from Bi^{3+}, pumping range increase 2−90906
Nd^{3+} in rare earth pentaphosphates, spectroscopic props. 2−90904
Nd: glass laser radiation ang. characts. after wavefront reversal by three-wave parametric interaction 2−114350
Nd:doped laser materials, gain saturation obs. 2−85974
Nd:garnet CW laser with nonplanar ring resonator, spatial and polarisation characts. 2−70570
Nd:garnet continuous laser, stabilisation of radiated power 2−75581
Nd:$Gd_3Ga_5O_{12}$ crystals grown by Czochralski method, Nd effective distrib. coeff. 2−76481
Nd:glass active-mirror laser amplifier, flashlamp-induced thermal distortion 2−102799
Nd:glass disk amplifier optical distortion of light beams in periodic operation 2−108885
Nd:glass fibre laser, lasing kinetics in periodic giant pulse regime 2−114289
Nd:glass fibre lasers, generation kinetics 2−96959
Nd:glass GILAS laser with plasma mirror 2−114317
Nd:glass laser amplifier efficiency, radiation freq. shift effect 2−65253
Nd:glass laser amplifier with spatial filters and final disc stage, exit-beam brightness restriction 2−86020
Nd:glass laser for expts. an optical discharges 2−86480
Nd:glass laser oscillator with unstable optical resonator 2−114322
Nd:glass laser radiation intensity two-freq. acoustic modulation 2−97022
Nd:glass lasers, temp. influence on lasing spectrum width 2−55166
Nd:glass multipass amplifier 2−60089
Nd:glass picosecond laser system for photolysis 2−96979

solid lasers continued
Nd:glass plate three-pass amplifier characts. 2−97053
Nd:glass six-beam high-power laser, output beam characts. 2−55186
Nd:glass slab-geometry laser performance studies 2−108888
Nd:glass type, total internal reflection theories from amplifying media, possible critical expts. 2−96865
Nd:$LiYF_4$, CW laser operation, comparison with Nd:YAG 2−60086
Nd:phosphate glass laser oscillator-amplifier system, repetitively pulsed mode-locked 2−70578
Nd:phosphate glass superluminescenc. laser with variable radiation pulse length 2−75589
Nd:SiO_2 glass, plasma torch CVD and fluorescence props. meas. 2−93436
Nd:Y_2O_3 laser oscillation props., point defect conc. effects 2−96954
Nd:YAG, absorpt. and stimulated emission cross sections, nonreciprocity due to vibronic interactions 2−82879
Nd:YAG, mode-locked laser developments and appls. 2−114331
Nd:YAG, resonators comparison for airborne depth sounding 2−70603
Nd:YAG active-passive mode-locked oscillator 2−114286
Nd:YAG CW laser, simultaneous mode locking and Q-switching, use as picosecond pump source 2−114330
Nd:YAG CW laser with nonplanar ring resonator, temporal and spectral characts. 2−70571
Nd:YAG crystals, radiation colour centres rel. to growth defects, absorpt. and luminesc. obs. 2−71445
Nd:YAG freq. doubled laser, pumping of high-efficiency deep-red $LiYF_4$:Ho(Er) lasers 2−60087
Nd:YAG laser, CW pumped acousto-optically Q-switched *(Czech)* 2−85987
Nd:YAG laser, Q-switching with continuous pumping by nonlinearly absorbing LiF cryst. with F_2^- colour centres 2−102804
Nd:YAG laser beam, weak, simulation using LEDs 2−70602
Nd:YAG laser cavity, ray tracing program, flashlamp pumping uniformity rel. to component damage 2−55215
Nd:YAG laser efficiency increase using composite technology *(Chinese)* 2−90958
Nd:YAG laser light pulse single-delay meas. by intensity correlation *(Chinese)* 2−102829
Nd:YAG laser output performance, influence of Nd:YAG crystal optical homogeneity *(Chinese)* 2−96952
Nd:YAG laser pumping, multiple flash lamp system demountable design 2−90912
Nd:YAG laser radiation intensity, two-freq. acoustic modulation 2−97022
Nd:YAG laser SHG with $LiIO_3$ single crysts. 2−114371
Nd:YAG laser using radiation from high-freq. electrodeless discharge, pumping system investigation and development 2−114319
Nd:YAG lasers pumped by LEDs, lasing characts. at 1.06, 1.32 μm 2−70572
Nd:YAG lasers radiation freq. doubling using CsD_2AsO_4 crysts. *(Chinese)* 2−65299
Nd:YAG polarisation-coupled stable/unstable-resonator laser oscillator, single-axial-mode operation 2−55165
Nd:YAG pump laser for sum-freq. light generation in optical fibres 2−81019
Nd:YAG self-injected laser with unstable cavity 2−97003
Nd:YAG subMHz frequency-stabilised oscillator 2−108906
Nd:YAG unpolarised electro-optically Q-switched laser, report 2−96990
Nd:YAG unstable high repetition rate resonator *(Chinese)* 2−97005
Nd:YAG/glass 1-pps 2-μsec pulse high-energy freq.-doubled laser, Raman spectroscopy of combustion processes 2−75586
Nd:YLF single-frequency active-passive mode-locked oscillator at 1.053 μm 2−90915
Nd:YLiF active mode-locked/Q-switched oscillator, temporal shape analysis 2−70592
Nd^{3+}:$BiCl_3$ glass, stimulated emission cross-sections meas. 2−90899
Nd^{3+}:$Gd_3Ga_5O_{12}$ garnet film prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
Nd^{3+}:glass laser, time, energy and spectral characts., γ-ray induced defect influence 2−55169
Nd^{3+}:LNP crystal electric dipole transition intensity *(Chinese)* 2−90479
Nd^{3+}:YAG, CW solid-state laser, forced synchronisation of axial modes 2−55230
Nd^{3+}:YAG CW laser radiation, polarisation switching using electrooptic phase modulator 2−114338
Nd^{3+}:YAG CW laser with optical delay line, constrained mode locking 2−75608
Nd^{3+}:YAG laser, passively Q switched by LiF crysts. containing colour centres, characts. 2−85978
Nd^{3+}:YAG laser, Q-switched, intracavity SHG at 0.66 μ wavelength 2−86051
Nd^{3+}:YAG laser simultaneous pumping by CW and pulsed light *(Chinese)* 2−90957
Nd^{3+}:YAG laser; time, energy and spectral characts., γ-ray induced defect influence 2−55169
Nd^{3+}:YAG ring laser with diffr. acoustooptic mode feedback 2−97015
Nd^{4+}:oxide (halide) glasses, stimulated emission cross-sections meas. 2−90899
NdP_5O_{14}, admixtures influence on crystallisation and props. 2−93399
NdP_5O_{14} laser, thermal effects, expt. and theory 2−102802
NdP_5O_{14} laser material, spectroscopic props. 2−90904
Ni:$CaY_2Mg_2Ge_3O_{12}$ lasers, liq. N_2 cooled, pulse-pumped operation 2−102800
Ni:MgF_2 lasers, liq. N_2 cooled, pulse-pumped operation 2−102800
RbCl:Li colour centre laser pumped with a DCM dye laser 2−102803
Ti:YAG, laser props. 2−90898
V^{2+}:MgF_2 solid state laser for fusion appls. 2−97062
YAG CW laser engineering 2−60108
YAG linear CW laser, longit. mode self-locking 2−75609
YAG mode-locked laser, UV tunable picosecond pulse generation down to 197 nm using KH_2PO_4 or $KB_5O_8.4H_2O$ crysts. 2−86047
YAG pumped tunable dye lasers, characts. and appls., review 2−96940
ZnSe, stimulated photoluminescence, lasing mechanism 2−99183
ZnTe, luminesc. and lasing under laser excitation 2−77571

solid-liquid transformations
see also crystallisation; freezing; melting; solidification
FCC crystal-liquid interface, thermodynamic and struct. props., molecular distrib. function anal. 2−56166
glass, multilayer cylindrical struct. for fibres, optical fibres and cables, thermoelastic stress 2−65396

solid-liquid transformations continued
graphite, solid-liquid-gas triple point, sublimation and boiling curve 2−61116
hydroxypropyl cellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
hydroxypropylmethylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
III-V compounds, stability in quaternary liq. phase, thermodynamic anal. 2−71617
lipid monolayers phase transitions theoretical model 2−78300
mesophase, possible universal existence 2−66214
methylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
organic crystals, IR absorpt. bands, width and shape, effect of solid-liq. phase transition 2−110874
phase boundary, direct and pair correl. functions 2−109957
1,2-polybutadiene characterisation above glass transition temp. 2−72774
self-similar diffusional processes of phase transition, front instability 2−61118
Stefan problem with heat flux, exact soln. 2−92168
Stefan problems, math. formulation 2−70810
symmetry anal. 2−66186
transient ablation process of seminfinite solid, theory 2−86835
two-dimensional system, thermodynamic props. 2−81985
two-dimensional system, thermodynamic props. *(Chinese)* 2−110008
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2−105065
Ga-Al-Sb system, saturated melt-solid phase interaction 2−66348
Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
^{3}He-^{4}He solutions, dilute, liquid-solid interface thermodynamics 2−76766
HfO_2-R_2O_3, liquidus curves in region with high HfO_2 content 2−86842
$Hg_{0.8}Cd_{0.2}Te$, mercury vapour press. at liquidus temp. 2−66184
In-As, activity coefficient, regular soln. approach and lattice model 2−93492
In-Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
In-P, activity coefficient, regular soln. approach and lattice model 2−93492
In-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
Ne adsorbed layer on graphite, fluid-solid transition line, phase diagram, lattice constant, LEED study 2−66185
Pb, photon emission from sputtered atoms as function of phase transition 2−77596
Sn, photon emission from sputtered atoms as function of phase transition 2−77596
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354

solid mechanics *see mechanics*

solid solubility
alloys, 2D solid solubility maps, thermochem. and orbital radii coordinates comparison 2−61151
alloys, metastable, prod. by ion implantation, solubility, characterisation 2−76687
alloys, precipitate coarsening, induced by point defect recombination under irrad. 2−83121
atomic orbital radii phenomenological model 2−66234
Hume-Rothery systems, cpd. form and s-d reson. role, terminal solubilities 2−116423
III-V quaternary alloys, miscibility gaps 2−98287
III-V semiconductor based solid solutions, thermodynamic description 2−56194
metals, amorphous, dil., and deformed, solubility, diffusivity and trapping of H 2−81964
polycaprolactone/chlorinated polyethylene blends, miscibility, Cl conc. depend. DSC and light scatt. obs. 2−92215
polystyrene film, atactic, effect of thermal history on gas transport 2−92275
PVC, stearate additive interaction, high temp., differential calorimetric obs. 2−81966
steel, austenitic stainless, precip. reactions, effect of stabilising additions 2−72699
vinyl chloride and vinylidene chloride, solubility in own copolymers *(Russian)* 2−66227
vitrified radioactive waste, effects of radiation on leach rates 2−102044
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Al-$Al_3(Ti_xZr_{1-x})$ alloy, dispersion strengthening and lattice parameters of dipsersed phase w.r.t. x 2−72713
Al-B(C) interstitial solns., interaction parameters anal. 2−98307
Al-Co-Fe system, phase equilibria 2−111138
Al-Mg(Cu)(Ag), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Al-Si (Mg)(Zu), thermal cycling influence on alloying elements soln. 2−72738
Al-Zn, irradiation induced solubility decrease and precipitation 2−71655
Al-Zn (9.5 at.%), high temp. creep mechanism and dissolution process, expt. study 2−88146
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
B fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
BaF_2-$(Y,R)F_3$ (R=rare earth) system, phase diagrams and phase struct. 2−109954
C fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
CdS:Ag, Ag solid solubility meas. 2−56200
Cr-Fe-C alloy with precip. $(Cr,Fe)_{23}C_6$ phases, nonrandom site occupation, parameters 2−72705
Cu-Cd, struct. of alloy obtained on Fe single crysts. by electrolysis *(Polish)* 2−67283
Cu-Cd film on Cu (111), struct., electrolyte effect 2−61312
Cu-Sb alloys, solid, thermodynamic props. *(German)* 2−88059
Cu-Sn(Al)(Zn), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
$CuCr_2Se_4$-$InSe(In_2Se_3)(CuInSe_2)$ solid soln. form., DTA and X-ray phase anal. 2−109993
Er-H, phase boundaries at 295K, film resist. study 2−86880
$Er_5Si_3C_x$, solubility of C and its effects on struct., X-ray and hardness study 2−109997
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe, lattice dilation by dissolved D 2−104066

solid solubility continued
Fe, solubility of H_2, enhanced dissolution uder press. and stabilisation of γ phase 2−86876
Fe-Ni-Mo-B, metallic glasses, annealed, phase transforms 2−67302
Fe_2O_3:Si, (Ge)(Mg), solid solubility, elec. and photoelectric behaviou r 2−61146
GaAs:Cr,Si^+,Se^+,Mn, ion implanted, Mn redistribution after annealing, SIMS study 2−86699
Ge:In(Sb), laser induced enhanced solubility, elec. and Rutherford back-scatt. study 2−115416
Ge:Si, solid solubility, diffusion, decomposition, X-ray diffr. study 2−66232
$Ge_{1-x}Si_x$:Ga(In), solid solubility, regular soln. model 2−61150
GeTe solid solutions, polymorphic phase transitions kinetics, elec. cond. and Hall coeff. study 2−86851
InGaPAs, calc. of miscibility gap with strictly regular solution approx. 2−86875
KF-PrF_3 system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
Li-Al(Zn)(Cd)(Hg)(Sn)(Bi), impurity solubility, dislocation and deforma-tion effects, ESR study *(Russian)* 2−103996
Mg-B interstitial solns., interaction parameters anal. 2−98307
MnO-NiO, anal. phase diagram calculation from expt. activity data 2−99408
Nb:H_2, ultra small angle X-ray and neutron scatt. 2−86521
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-H alloys, low freq. internal friction study 2−116479
Nb-H alloys, low freq. internal friction study 2−116480
Ni-Cr, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
$NiFe_2O_4$-$CaFe_2O_4$, magnetic props. *(Japanese)* 2−82578
$Pb_{1-x}Sn_xTe$:Cd(Bi), narrow band gap semicond., galvanomag. and optical props., Cd solubility and diffusion *(Russian)* 2−92666
PbTe and PbTe-SnTe solid solns., Ga doping effect on electrophys. props., doping mechanism 2−56578
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2−92289
$Pd_{77.5}Cu_6Si_{16.5}$, H in amorphous alloys 2−81963
Ru-Al-Co system, phase diagram and corrosion resist. props. of various phases 2−99397
Sc-H, phase boundaries at 295K, film resist. study 2−86880
Si, Czochralski grown, yield stress, O precip. and dissolution effects 2−57365
Si:B, B deposition from BBr_3 source, expt. and computer simulation 2−103794
Si:Cu(Ag)(Au), gettering by Al at low temp., Rutherford backscatt. study 2−115264
Si:P, electrically inactive impurities, precipitation explanation, TEM study 2−67341
Si:Sb(In)(Ga)(Bi)(As), ion implanted, metastable supersaturated solid solns. formation during solid phase epitaxy 2−98283
SiC, diffusion annealing in B vapour, surface distrib. of B 2−56305
SiO_2:B(Al)(Ga), variation of surface conc. with oxide content 2−82098
SnTe, soln. of impurities, behaviour of group IV elements 2−71650
Ta-H alloys, low freq. internal friction study 2−116479
Ta-H alloys, low freq. internal friction study 2−116480
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2−77874
V:H_2, ultra small angle X-ray and neutron scatt. 2−86521
V-H alloys, low freq. internal friction study 2−116479
V-H alloys, low freq. internal friction study 2−116480
V-Sn-Cu system, phase comp., stoichiometry and homogeneity, micros-truct., X-ray and microhardness study 2−66172
$VH_x(VD_x)$ film, press.-comp. isotherms, vibrating quartz microbalance meas. 2−98501
WSi_2:B,P,As, dopant diffusion 2−92280
Yb-H, phase boundaries at 295K, film resist. study 2−86880
$Zn_{1-x}Cu_xCr_2S_4$, solid soln. with spinel struct., X-ray investigation 2−62107
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846

solid solution hardening
BCC alloys, Peierls-Nabarro plastic deformation, in the presence of solute clusters 2−111235
stress equivalence theory 2−77835
Al-Mg-MgO, oxide dispersion strengthened, high temp. deform. 2−93554
Cu-Fe alloys, solid soln. to precip. hardening transition, mech. props. 2−105172
Cu-Mn alloy, solid soln. hardened, crit. resolved shear stress, low temp. anomaly 2−93523
Fe-C, high purity, softening and hardening, H-induced 2−88096
Fe-Mn-Al-C, nonequilib. ordered austenite wire fabrication by in-rotating-water spinning method, mech. props. 2−93532
NaCl:Ca^{2+}, low temp. soln. hardening due to lattice distortion around impurity-vacancy pairs 2−98077
Nb alloy NV7, solid solution reinforced, creep 2−116514
Ni, solid soln. strengthening and softening, effect of H 2−105173
SiC whisker reinforced Al alloy composites, deform. behaviour 2−105250
Ta alloys, binary and ternary, athermal solid soln. hardening 2−99437
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331

solid solutions
solid solutions such as Au-Cu are indexed under alloys of the named elements i.e. 'gold alloys' and 'copper alloys' in this example see also alloys; solid solubility
BCC solid solutions, ω phase, interference effects among variants, theory 2−97835
benzene-naphthalene solid solns., symm. forbidden transitions, intensity enhancement 2−110888
binary substitutional solvent, nonrandom, thermodynamics of interstitial solute atoms 2−92236
binary-phase comps. meas., by backscattered electron imaging, using a Robinson-type detector, appls. 2−64176
bromobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045

solid solutions continued
bromomethane-iodomethane, ^{81}Br NQR line breadth, concentration depend. 2−93046
clinopyroxenes, sodic, ^{57}Fe Mossbauer spectral anal. 2−93068
cubic solid solns., comp. mag. transitions, mag. struct. symmetries, neutron diffr. study *(Russian)* 2−92867
deformable crystal lattice model *(Russian)* 2−91855
p-dichlorobenzene-p-dibromobenzene, ^{79}Br NQR line breadth, concentra-tion depend. 2−93046
1,4-dihalonapththalene, crystals and solid solns., singlet-triplet transition dynamics, exciton-phonon coupling 2−81904
dilute, wedge disclination anchoring by impurity atmosphere 2−76443
directional crystallisation apparatus for growing complex solid solns. *(Rus-sian)* 2−72609
epitaxial layers with quasiperiodic struct., X-ray diffr. 2−81617
γ-Fe_2O_3-Mn_2O_3, thin epitaxial film, resonance meas. of mag. moment 2−72295
fluoride heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
heterojunction, defect form. 2−92374
$HMTSF(TCNQ)_x(TCNQF_4)_{1-x}$ solid soln., Mott transition 2−92471
Hume-Rothery systems, cpd. form and s-d reson. role, terminal solubilities 2−116423
III-V quaternary solid solns., composition plane, unstable regions, regular soln. approx. 2−92205
III-V semiconductor based solid solutions, thermodynamic description 2−56194
III-V solid solutions, heteroepitaxial film crystalisation, orientation effects *(Russian)* 2−61302
imaginary compounds, Kurnakov's concept 2−99394
inhomogeneous, scatt. of X-rays, thermal neutrons and electrons *(Russian)* 2−91716
interstitial solid solns., thermal transport enthalpy calc. *(Russian)* 2−115461
iodobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
metallic solutions, dilute, empirical estimation of Henrian constants 2−66255
metastable, formation by rapid melt quenching during pulsed laser and electron beam treatment 2−76496
order-disorder transitions, review 2−98245
organic solid solutions, burning out of metastable dips in absorpt. spectra, theory 2−91000
oxide heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
oxide solid soln., elimination of polymorphism *(Chinese)* 2−60932
porphyrin, biogenous, solid solns., luminesc. study 2−67952
precipitation, diffusion theory 2−86885
reactive diffusion in two component solid soln. 2−61191
semiconductor solid soln., photoconductivity *(Russian)* 2−82400
short-range order parameter calc. *(Russian)* 2−98297
$Sm_6(Mn_{1-x}Fe_x)_{23}$, mag. props. study 2−87542
2D-solid solubility maps, thermochem. and orbital radii coordinates com-parison 2−61151
solution, elec. resist., quenching effect *(Russian)* 2−115726
titanomagnetic solid solns., phase and point defect equilibria 2−109792
transition metal hydrides, low-temp. stable states, interstitial sublattices 2−86618
tris-sarcosine calcium $chloride_{1-x}$ $bromide_x$, ferroelectric transition 2−87711
AgBr-AgI, anomalous ionic cond. in mixed cryst. and multiphase systems 2−98332
$AgGa(Se_{0.75}S_{0.25})_2$, crystal solid soln., impurity photocond. meas. 2−61521
AgI-CuI solid soln., influence of Cs^+ ion on co-ionic cond. 2−71713
Al-B(C), interstitial solid solution, energy of mixing 2−92216
Al-B(C) interstitial solns., interaction parameters anal. 2−98307
Al-Li alloys, cyclic and monotonic ductility, effect of slip distrib. 2−67419
Al-Li-Mg, Mg effect on Young's modulus 2−57391
Al-Mg (3 at.%), solid soln., correl. between creep and dislocation sub-struct. 2−105249
Al-Mg (5 wt.%) solid soln., Harper-Dorn creep, mech. and microstruct. characts. 2−72755
Al-Ru (10-15 wt.%), rapidly quenched, phase transform 2−77823
$Al_xGa_{1-x}As$ epitaxial solid soln., graded band-gap, photolum. *(Russian)* 2−104965
$Al_xGa_{1-x}As$, growth of variance epitaxial layers, by isothermal mixing of melts 2−88009
n-$Al_xGa_{1-x}As$:Te solid soln. LPE layers, carrier diffusion length, conc. depend., 77-300K *(Russian)* 2−56741
Al_2O_3-Cr_2O_3 solid solutions, wetting by liq. metals, Cr_2O_3 content influ-ence 2−61261
Al_2O_3-XO_2-Na_2O (X=Si, Te, Ge), ionic conductor, elec. props. and struct. 2−110030
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896
Al_2OC, hexagonal phases, X-ray powder diffr. data 2−76388
Au/Co/Si(SiO_2) thin film condensate, electrophys. props., heat treatment influence 2−104505
B-Fe(Ni), phase comp. and cryst. struct. meas. 2−88055
$BaMoO_4$-$La_2(MoO_4)_3$, phase diagram, structural characteristics of $BaLa_2(MoO_4)_4$ 2−77809
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
$BaTiO_3$:Y_2O_3 (Nb_2O_5), elec. props., phase composition, valence state of cations 2−110347
BiI_3-$BiCl_3$, phase diagram, eutectic point, crystn. range 2−99405
BiP_5O_{14}-NdP_5O_{14}, prep. and props. 2−72611
$Bi_{12}Si_{1-x}Ge_xO_{20}$, single crystal, optical desorpt. 2−110894
Bi_2Te_3:$CdCl_2$(Te) crystal growth using directional crystallisation apparatus for growing complex solid solns. *(Russian)* 2−72609
Bi_2Te_3-Bi_2Se_3(Sb_2Te_3) thermocouple, surface treatment effect 2−110373
Bi_2Te_3-Sb_2Te_3, energy spectrum of solid solutions 2−110239
Ca-Yb-O, bivalent Yb form. 2−111468
$CaCr_2O_4$-$Ca_2Fe_2O_5$, phase equilibria, under reduced partial pressure of O_2 2−88075
$CaLa_{1-x}Y_xCrO_4$ solid solns., struct. and mag. study 2−76391
$CaMgSi_2O_6$-$CaTiAl_2O_6$, diopside, crystal struct., Ti^{4+} role 2−86655
$Ca(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726
Cd-Pb-Se-Te system, liquidus surface 2−105132

solid solutions continued
$CdIn_2S_4$-In_2S_3 solid soln., vaporization chemistry and thermodynamics 2−116720
CdS-CdSe, struct. and phase comp. of precips. and films 2−110191
CdS_xTe_{1-x} solid soln. films, vacuum deposited, condensation diagram and phase changes meas. 2−110208
CdSe-ZnSe-CdS, fusibility diagrams calc. 2−86843
CdTe-Cu(Ag) solid soln., supersaturated, carrier decay process kinetics 2−92649
$CdTl_2Se_4$-$CdTl_2Te_4$, phase equilibria 2−71616
Co/Si(SiO_2) thin film condensate, electrophys. props., heat treatment influence 2−104505
Co-B, phase comp. and cryst. struct. meas. 2−88055
$CoFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
$Co_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
Cr_2O_3-CoO solid soln., segregation and near surface diffusion 2−76682
Cs-K solid solns., elastic-stiffness constants under pressure 2−98182
Cs-Rb solid solns., elastic-stiffness constants under pressure 2−98182
$Cs_{2-x}K_{1+x}BiCl_6$ solid soln., phase transitions and cryst. struct. 2−81948
Cu alloys, oxide particle precipitation, thermodynamic calcs. 2−81969
Cu-P solid solution, density and other props. meas. *(Russian)* 2−92206
$Cu_{2.8}AlMn_{0.2}$, solid soln. containing disperse ferromag. Cu_2MnAl inclusions, martensitic transition obs. *(Russian)* 2−98915
CuBr-CuI system, physicochem. props. 2−111512
$xCuCr_2S_4(1-x)Ga_{0.67}Cr_2S_4$ ($0 \leq x \leq 0.4$) semiconducting spinel, spin-glass state 2−66840
$CuCr_2Se_4$-$InSe(In_2Se_3)(CuInSe_2)$ solid soln. form., DTA and X-ray phase anal. 2−109993
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGa_xIn_{1-x}Se_2$ solid solns., phase diag., cryst. growth and dislocation struct. 2−86836
$CuGaTe_2$-ZnSe heterostruct., LPE growth of $CuGaTe_2$ from Bi soln. and elec. props. 2−62084
$DyO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$ErO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$Eu_xSr_{1-x}S$ alloys, ferromag., magnetisation meas., mag. eqn. of state 2−116001
$(Fe,Mn)_3(PO_4)_2$ graftonite-type solid solns., cation distrib. 2−115186
Fe-based ternary solid solns. containing N and substitutional solute, thermodynamics 2−98289
Fe-Cr-Al alloys, rapidly quenched, microstructs., mech. props., elec. cond. 2−111332
Fe-Cr(Ni)(Mn) solid solns., vol. effects in thermodynamics at high temps. 2−61172
$Fe_{1-x}Co_xGe_2$, $0 \leq x \leq 0.05$, selective etching on dislocations 2−86669
$Fe_{2-x}Cr_xCa_2O_5$ sintering, mag. transitions, solid soln. composition depend. 2−98875
$FeFe_{2-x}In_xO_4$, In^{3+} cation distrib., mag. props. 2−98868
$(Fe_{1.22}Sb)_{1-x}(Fe_{1.68}Sn)_x$ solid solns., magnetisation, Curie temps. and lattice consts. meas. 2−76365
$Fe_xV_{2-x}O_4$, IR spectra, elec. cond. and DTA study 2−87751
$Fe_xV_{3-x}S_4$, Raman study 2−87793
Ga-In-Sb system, quantitative fit to liquidus surface and thermodynamic data, associated soln. model 2−111148
Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
$Ga_{1-x}Al_xP$, variation of comp. gradient during LPE 2−83047
GaAs:Cr (Cr_2O_3), supersaturated soln., precipitation processes, TEM study 2−92203
GaAs-II-III-V-VI semiconductor homogeneous solid solutions, physicochemical props., transfer effects 2−87260
$GaAs_{1-x}Sb_x$, LPE layer, carrier mobility and photolum., composition depend. 2−77214
$GaAs_xSb_{1-x}$, LPE growth on InAs substrates 2−88010
$Ga_{1-x}Sn_xSe$, elec. cond., thermo-EMF and Hall coeff. meas. 2−87259
$Gd_3Fe_5O_{12}$-$Y_3Fe_5O_{12}$, system, cation interdiffusion 2−71736
$Gd_3Ga_5O_{12}$-$Gd_3Fe_5O_{12}$ system, cation interdiffusion 2−71736
$GdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
Ge-In(Mn)-Te, X-ray investigation of GeTe-based solid solutions 2−109756
Ge-Si, solid soln., equation of state, pseudopot. calc. 2−61109
Ge-Si alloys, electron pulse processing, solid soln. synthesis 2−66063
$Ge_{1-x}Pb_xTe$ solid soln., physicochem. investig. 2−104008
GeS_xSe_{1-x} solid solns., single cryst. lattice refl. spectra 2−72495
GeTe solid solutions, polymorphic phase transitions kinetics, elec. cond. and Hall coeff. study 2−86851
GeTe:Cr(Mn)(Fe)(Ni)(Co), solid solutions, thermoelectric props. 2−98680
^3He-^4He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
HfO_2-CaO, phase equilib., 1600 to 2800°C 2−88069
HfO_2-MgO, phase equilibria, 1670 to 3070K 2−72682
HfO_2-MgO system, eutectoid decomp. process influence on physico-chem. props. 2−99404
HfO_2-$PrO_{1.5}$ system, eutectoid decomp. process influence on physico-chem. props. 2−99404
Hg-Cd-Te phase diagram and thermodynamic props. anal. 2−88073
$Hg_{1-x}Cd_xTe$, plasma reflectance spectra meas., effect of damaged surface layer 2−67064
$Hg_{1-x}Fe_xTe$ crystal, Shubnikov-de Haas oscillation amplitude anomalies 2−77099
HgTe:Mg, conduction band struct., Hall effect and magnetoresist. study 2−115662
In-Fe-O system, equilib. phase diagram, solid soln. form., Mossbauer study *(French)* 2−86840
In-Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
In-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
InAs-II-III-V-VI semiconductor homogeneous solid solutions, physicochemical props., transfer effects 2−87260
$In_{1-x}Ga_xAs_{1-x}Sb_x$ solid soln., LPE growth, unstable comp. regions, regular soln. approx. 2−92204
InGaPAs, calc. of miscibility gap with strictly regular solution approx. 2−86875
$(InP)_x(InAs)_{1-x}$ solid soln., sp. ht., temp. depend., 5 to 160K 2−76705
$(InP)_x(InAs)_{1-x}$ solid soln., thermodynamic functions, entropy and enthalpy of mixing 2−86904
InSb:Bi, Bi donor level form., X-ray struct. study 2−115702
$InSb$-In_2GeTe, thermographic, X-ray and microscopic investigation 2−109995
InSb-InBi solid solns., grown by MBE, charact. 2−104190
KBr_xCl_{1-x}, cryst. solid soln., Bragg neutron diffr. studies 2−97864
solid solutions continued
$KCl:Sr^{2+}$ solid solns., solvus, impurity precipitation, density meas., thermodynamic anal. 2−92217
KCl-KBr mixed cryst., colour centres, Mollwo-Ivey relationship 2−61933
K(Nb,Ta)O_3, ceramic, temp., conc. and freq. depend. of dielectric constant 2−111124
K_2WO_4-Rb_2WO_4, phase diagram, X-ray and DTA study 2−88064
$(La_xA_{1-x})(Mn_x^{3+}Mn_{1-x}^{4+})O_3$, A=Ca, Ba, Sr, indirect exchange interactions, and Jahn-Teller distortions, neutron diffr. study 2−66800
$La_xGd_{1-x}TiO_3$ solid solns., mag. behaviour, mean field model 2−104659
La_2O_3-NiO system, phase transitions in air, X-ray anal. 2−109971
$(LaO)_2S$-$(YO_2)S[(LuO)_2S]$:Eu, STEM analytical and cathodolum. studies 2−72560
$LiAlSiO_4$-SiO_2 solid solns., ionic cond., temp. and crystal orientation effects 2−86930
β-$Li_{1-x}AlSi_{1-x}P_xO_4$ ceramic solid soln., ionic cond. meas. 2−104052
LiF-MgF_2, Suzuki phase, nucleation characts. 2−86831
$Li_{0.5x}Fe_{2+0.5x}Mn_{1-x}O_4$, ferrites, struct. and mag. parameters 2−71418
$(Li_{0.5}Fe_2O_4)_{x1}(Cu_{0.5}Fe_{2.5}O_4)_{x2}(CuFe_2O_4)_{1-x1-x2}$, ferrite solid soln., thermodynamic props. 2−66256
$LiNbO_3$-Fe_2O_3 solid soln. single cryst., congruently melting, phase transition 2−98264
Li_2O-ZrO_2-$Na_2O(Al_2O_3)$, subsolidus phase equilibria 2−116430
Li_3PO_4-Li_4SiO_4 solid electrolyte system, phase diagram and cond. 2−71705
$Li_{3+x}(P_{1-x}Si_x)O_4$, Li^+ ion diffusion, NMR spin-lattice relax. study 2−115455
Li_4SiO_4-Li_3AsO_4, Li^+ ion conductivity and phase diagram 2−115452
Mg-Al, solid soln., creep behaviour at elev. temp. 2−83164
Mg-B interstitial solns., interaction parameters anal. 2−98307
$MgLi_{0.5(1-c)}Fe_{2.5-0.5c}O_4$, prep., structural and mag. characteristics 2−77271
MgO-Fe_2O_3, solid-phase interaction, ESR investig. 2−87579
MgO-FeO-$Fe_{2/3}O$, cation interdiffusivity in magnesiowustite solid soln., O_2 press. depend. 2−76753
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
$(Mn_{1-x}M_x)_3(PO_4)_2$ (M=Fe, Mg, Co, Ni, Cu, Zn, Ca), cryst. struct. and homogeneity ranges, X-ray diffr. study 2−115195
MnO-Al_2O_3 system, growth by Verneuil method, phase composition 2−105062
$MnSiO_3$-$MnGeO_3$ system, phase diagram 2−72683
Mo, recrystallised foils, grain boundary migration in presence of Ni 2−83146
Mo-Zr-C, cubic solid soln., prep. and props. 2−71395
$NaCl:Pb^{2+}$, yield stress, solid soln. precip. and dissolution effects, IR absorpt. study 2−57366
$NaNbO_3$, solid solutions, phase transitions 2−87704
(Nb,Pb)(Zr,Ti,Zn)O_3 piezoceramic, influence of static compression on props. 2−72426
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-H, low-temp. stable states, interstitial sublattices 2−86618
Nb-V-O, ternary solid soln., modelling O activities 2−104021
NbH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
NbO_x solid soln., EELS of electronic excitations, expt. study 2−82969
Nb_2O_5-PbO system, pyrochlore phases, cryst. struct. and solid solubility, X-ray diffr. study *(French)* 2−86642
$Nd_xLa_{1-x}B_6$, mag. susceptibility 2−77257
$NdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
Ni-C solid solutions, microhardness, effect of neutron irrad. 2−103847
Ni-Cu-H solid soln., phase equilibria and magnetisation meas. *(Russian)* 2−98906
Ni-Sn system, grain refinement by discontinuous precip. *(German)* 2−99466
$Ni_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
PLZT, regions of homogeneity 2−110003
Pb-Sn-Se, p_{tot}-x-y diagram calc., 973-1353K 2−72677
$Pb_5Ge_3(O,F)_{11}$, ferroelectric crystals, growth, Curie point, dielectric const. 2−72616
$Pb_{1-x}Ge_xTe$ narrow band gap ferroelec. semicond., photostimulated phase transition shift 2−110789
$Pb_{1-x}Mn_xS$ solid solns., energy band gap temp. and composition depend., photovoltaic effect meas. 2−110450
PbO-Ta_2O_5 system, pyrochlore related structs., X-ray diffr. study 2−103712
$Pb_{1-x}Sn_xTe$:In films, impurity electron-state, elec. cond. study 2−115705
$Pb_{1-x}Sn_xTe(Se)$ solid soln., carrier g-factor longitudinal and transverse components, band gap depend. 2−76903
$PbTiO_3$-$PbZrO_3$, solid solutions, phase transitions 2−87704
$PbTiO_3$-$PbZrO_3$-$PbNb_{2/3}Zn_{1/3}O_3$-$PbNb_{2/3}Mn_{1/3}O_3$-$PbSb_{2/3}Mn_{1/3}O_3$, stability of electrophysical props. 2−99059
$0.88Pb(Zn_{1/3}Nb_{2/3})O_3-0.12PbTiO_3$, ferroelec., dielec. const. crit. exponent, diffused-phase-transition 2−110781
$Pb(Zr,Ti)O_3$, piezoceramic fatigue strength, influence of polarisation on cyclic strength 2−72797
$PbZr_xTi_{1-x}O_3$, solid soln., ferroelec.-paraelec. transition, tricritical point 2−93126
$Pb(Zr_xTi_{1-x})O_3$+yMnO_2 solid solution, piezoelectric props. 2−87684
Pr-P system, phase diagram 2−77807
Rb-K solid solns., elastic-stiffness constants under pressure 2−98182
$(Rh_{1-x}Cr_x)_3Te_4$, paramag. susceptibility, elec. resist. and lattice consts. meas. 2−72136
Sb-As, anisotropy of resistivity *(Russian)* 2−77090
$Sb_{1.5}Bi_{0.5}Te_3$:Pb solid soln., doping, carrier density 2−71997
$Sb_{1.425}Bi_{0.575}Te_{2.85}Se_{0.15}$, thermoelectric props., effects of Ge and Cu impurities 2−82385
Sb_2Te_3-Bi_2Te_3, energy spectrum 2−76920
Si-Ge, solid soln., press.-vol. relation, covalent-metallic transition 2−82232
Si-Ge solid solns. elastic consts., compression effects 2−76562
Si-Mn, supersaturated solid soln., Mn interstitials, disintegration kinetics *(Russian)* 2−92222
β-SiAlON solid soln. containing different amounts of amorphous grain boundary phase, TEM obs. 2−92223
$SmCe_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$Sm(Co_{0.66}Fe_{0.21}Cu_{0.10}Zr_{0.06})_7$ 4, struct. transformations and coercive force meas. *(Russian)* 2−98913
$Sm_xLa_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500

solid solutions continued
$Sm_{1-x}R_xB_6$ (R=La, Gd, Dy), solid solns., valence states, X-ray absorption spectra study 2−87202
$Sm_{1-x}R_xS$, (R=rare earth), solid solns., intermediate valency state, X-ray line shift study 2−87201
$SnMn_3C$-$CuMn_3N$, perovskite, local effects and short range magnetic interactions *(French)* 2−72137
$Sn_2P_2(Se_yS_{1-x})_6$ ferroelec. solid soln., phase transition splitting 2−104823
$SrAl_2O_4$-$SrGa_2O_4$, isotructural series, solid solutions of polymorphic modifications 2−109757
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
$SrMO_4$-$Eu_2(MO_4)_3$ (M=Mo, W), defect formation, electrochemical props. 2−109783
$SrMoO_4$-$Eu_2(MoO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
$Sr_xNd_{1-x}FeO_{3-y}$ solid soln., superstructure, microdomains, electron diffr. and microscopy study 2−91925
SrO-BaO-Al_2O_3-TiO_2-SiO_2 system, crystallised-glass materials, isomorphous substitutions, X-ray diffr. study 2−71615
$SrSiO_3$-$BaGeO_3$, phase reactions, IR spectra 2−72693
$SrVO_3$-$EuVO_3$, perovskite struct., prep. and props. of solid solns. 2−72646
$SrWO_4$-$Eu_2(WO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$Sr_{1-x}Yb_xF_{2+x}$, defect parameters ionic cond. study 2−115453
Ta-H, low-temp. stable states, interstitial sublattices 2−86618
TaH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
Ti-Zr solid solns., phase diagram, $\alpha \rightleftarrows \beta$ transition 2−88077
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
$Tl_5As_2Te_3$-Te, intersecting section in Tl-As-Te system 2−111153
$TlGa_xIn_{1-x}Se_2S_{2(1-x)}$ solid solns., IR light scatt. study 2−110856
$TlInTe_2$-$TlEuTe_2$, reactions, microhardness and elec. cond. 2−111167
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808
$TlSbSe_2$-PbSe, phase diagram and physicochemical and electrophysical props. determ. 2−88067
(U, Gd)O_2 solid soln., near stoichiometric, Gd effect on thermal cond. 2−80060
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162
UP-USe system, nature of step-like transition 2−103982
$V_6(C,N)_{0.77\ to\ 0.83}$ trigonal ordering, neutron diffr. study 2−86849
VH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
VO_2-$CrNbO_4$ ($FeNbO_4$), solid solns., phase transitions, ^{51}V 2−110669
Y-H(D) system, solid solutions, resistivity meas., isotope effects 2−66524
Y_2O_3-Nd_2O_3, determ. of mixing enthalpy 2−110002
YbTe-Sb_2Te_3, cross-section of Yb-Sb-Te system, expt. study 2−88062
$Zn_{1-x}Cu_xCr_2S_4$, solid soln. with spinel struct., X-ray investigation 2−62107
ZnS_xSe_{1-x} solid solns., exciton states, effect of disorder 2−115671
Zr-Mo-Al, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Nb, soft X-ray absorpt. spectra and density of states calcs. 2−104999
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
ZrO_2-CaO (Y_2O_3) solid solns., O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096
$(ZrO_2)_x(C_6O_2)_{1-x}$ solid solns., elec. cond., O_2 press. depend. *(French)* 2−98704

solid-state microwave circuits
see also Gunn oscillators; microwave integrated circuits
coaxial structure for packaged MESFET operation at top noise and gain performance at 24 GHz 2−100734

solid-state microwave devices
see also IMPATT diodes
garnets, inhomogeneously magnetised, magnetoelastic and magnetostatic waves, microwave delay line appl. 2−104603
Josephson junction, subharmonic freqs. and chaos, theory, parametric amplifier appl. 2−92833
Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
metal-semiconductor junctions as freq. convertors, book 2−112668
semiconductor device physics, book 2−53437
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2−94906
GaAs hot-electron diffusion const., Monte Carlo calc. 2−98656
InP, hot-electron diffusion const., Monte Carlo calc. 2−98656
Nb-SnO_x-Sn and Nb-Sn, tunnel-and bridge-type Josephson junctions, submm wave response meas. 2−92831
W-GaAs Schottky diode mixer for visible laser light and microwave harmonics up to 0.43 THz 2−112972

solid-state phase transformations
see also ageing; decomposition; ferroelasticity; ferroelectric transitions; glass transition (polymers); high-pressure solid-state phase transformations; martensitic transformations; order-disorder transformations; polymorphic transformations; precipitation; segregation; spinodal decomposition
A15 (O_h^3-Pm3n) struct., symm. changes, Landau approach 2−71609
A15 structure, symm. changes at second-order phase transitions, chain criterion and Landau theory 2−71610
acetonitrile, crysts., vibr., phase transitions, Raman and Raman study 2−77513
acetylene, cryst., lattice dynamics and struct. phase transition 2−92123
acetylene, crysts., vibr., phase transitions, Raman and Raman study 2−77513
ammonium hydrogen oxalate hemihydrate, transition to ferroelastic monoclinic phase, struct. study 2−92191
anomalous fluctuations during structural phase transitions *(Russian)* 2−71636
antimonates, $R_3Sb_5O_{12}$ (R=Sc,In,Ln,Pr,Tb,Yb), cryst. struct. and dielec. props. 2−109755
austenite, baionitic transformation kinetics, US treatment effect *(Russian)* 2−67325
benzil, cryst. phase transition, acoustic phonon mode, Brillouin scatt. study 2−56175
benzil, structural phase transition, proton mag. relax. study 2−116079
bis(methylammonium) manganese tetrachloride, heat capacity, 10 to 300K 2−61159
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
bis-methylammonium iron tetrachloride, struct. transition study 2−103981
bis-tetramethylammonium iron tetrachloride, phase transition X-ray study in modulation wavenumber 2−81945
cellulose hydrate, struct transformations by heat treatment, $AlCl_3$ effects 2−109979
central peak width determ. by EPR method *(Russian)* 2−104687
chalcogenide crystals, relative stability and structural phase transitions 2−98270
chalcogenide glass film, photoinduced structural changes *(Russian)* 2−61301
chloroprene, structure, phase transforms., NQR study 2−93051
cholesteryl 2,2,3,3-tetrafluoropropionate, crystalline, phase transition, dielec. const. and permittivity study 2−72399
compound semiconductor film, phase transition triggered by laser irrad. 2−98500
covalent-ionic bonding transition, octahedral-tetrahedral coordination energy 2−76663
critical dynamics in the presence of relaxing defects 2−76635
crystallographic approaches to solid-state phase transitions 2−86611
crystallography, cryst. struct., book 2−112666
crystals near phase transition points, nucl. mag. relax. 2−110677
diacetylene, solid state polymerisation autocatalytic region, neutron diffr. study 2−67751
diamantane, 35K struct. phase transition light scatt. study 2−61918
1,3-dichloro-2-bromobenzene, polymorphism and phase transformation 2−87622
diffusion controlled ledge growth in a medium of finite extent 2−103976
diffusional transformations, superledge nucleation 2−61128
dimethyl ammonium in tetrachloride, layered cpd., elastic and thermal props. 2−81873
dynamic correlations below structural transitions in weakly anisotropic systems 2−86828
elastic phase transitions, Landau theory appl. 2−98246
electric dipoles in cryst., mol. field distrib. function calc. 2−93132
electrical resistivity, temp. depend. in ferro- and paramag. region, behaviour in phase transition region 2−71944
epitaxial monolayers, Misfit accommodation, dislocations, transition to 1-D coherence 2−115625
epitaxial thin film growth, 2D-3D transition 2−87110
ferromagnets, mag. susceptibility and magnetisation near coupled struct. and mag. transition *(Russian)* 2−82579
fluoroanthenyl radical cation salts−a new family of organic metals 2−92579
galvinoxyl radical, anomalous phase transition, EPR spectra, zero-field splitting 2−104703
grain and phase boundary diffusion, conc. phase transitions, theory *(Russian)* 2−98339
graphite, pyrolytic, second order phase transition, magnetoacoustic study 2−115828
graphite intercalated compounds, phase transitions *(Russian)* 2−86862
graphite intercalated with alkali metals, discommensuration struct. of mass density waves, thermodynamic theory 2−98017
hard cyclic hexamer system, rotary, phase, phase transitions, expt. modelling study 2−115155
2,4-hexadiyne, cryst. struct., dynamics, model calcs. 2−81774
hexamethylbenzene, high temp. phase transition, birefringence and optical path difference study 2−71634
hexamethylbenzene, phase transition, thermal anomaly, heat capacity 2−86899
hexatriacontane, elastic props. and phase transitions 2−92078
II-VI semiconductor, polishing induced phase transforms. of single crysts. for device applic. 2−72852
insulating crystals, defects, conf., Riga, USSR (May 1981) 2−68967
intercalation compounds, conf., Triest, Italy (July 1981) 2−74165
isostructural phase transitions, in crysts. 2−98271
IV-VI semiconductors, lattice dynamics and phase transitions, pseudopot. theory 2−92139
IV-VI semiconductors, lattice dynamics and phase transitions, shell model, 3D highly nonlinear 2−92140
Jahn Teller antiferroelastics, metamagnetoelastic and metamagnetoelectric behaviour, EPR spectra 2−98931
low-temperature chemical reactions, enhancement in phase transitions 2−67735
MANGALIOY, elinvar type alloys, nonferromag., characts. *(Japanese)* 2−77881
maximal equitranslational subgroups of the line groups 2−76356
metals, chemicothermal treatment in glow discharge, ion bombardment effect 2−111376
metals, phase transformation wave excitation by action of square surface heat pulse 2−62120
methane, adsorbed film, orientational transitions 2−98443
methane, adsorbed layer on graphite (0001), phase diagram, specific heat study 2−98248
methane-d_4, phase III, rot. tunnelling levels, inelastic neutron scatt. and heat capacity meas. 2−104012
methane-methane-d_4, phase II struct., stability 2−76648
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
methylammonium iodide, solid, pre-melting phases, ^1H spin-lattice relax. and DTA study 2−77409
microstructural features, computational models 2−76694
Mn complex, $Mn_{0.81}[Pt(C_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
monolayers adsorbed, struct. factor influence on props., dimensional incompatibility 2−76868
narrow gap semiconductors, conference, Linz, Austria (Sept. 1981) 2−89445
4-nitrophenyl-4′-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2−61136
nonferroic phase transitions, order parameters 2−74375
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
NQR line splitting study 2−110706
optically induced change in order parameter near second-order phase transition 2−103946
paraffins, electron irradiated, radiation induced phase transition 2−115290
pentacosan, elastic props. and phase transitions 2−92078

solid-state phase transformations continued
perovskite struct. $ABCl_3$ crysts., phase transition sequence, thermodynamic description 2−103983
perovskites, crit. US attenuation, scaling function 2−71589
phase transitions during heating and isothermal annealing 2−81944
piezoelectric crystals, phase transformations, electromechanical interactions and morphic effects, theory 2−116121
piezoelectric paraelastic phase, intrinsic ferroelastic transition 2−86848
plates, reorientation transitions, phase diagrams, surface energy *(Russian)* 2−81956
PMMA-PVC blends, transition behaviour, tacticity effects, TSDC obs. 2−76657
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polycaproamide, polymorphism and struct. transform. under annealing *(Russian)* 2−66212
polymers, helical crystals, struct. phase transitions, statistical mechanical theory 2−66165
proustite, structural phase transitions, NQR investig. 2−110720
PTFE, helical crystals, struct. phase transitions, statistical mechanical theory 2−66165
PTFE, phase transitions, positron lifetime study 2−104988
PTFE, stretched, unidirectional invar-effect, α-β transform. contrib. 2−71672
PTFE, TSC study of room temp. struct. transitions 2−57011
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, high-temp. struct. changes, X-ray diffractometer investig. 2−76652
pyrargyrite, structural phase transitions, NQR investig. 2−110720
quartz, cryst., struct. phase transitions, neutron-induced, IR spectrosc. obs. 2−82868
quasi-one-dimensional crystals, struct. transition, suppression *(Russian)* 2−56188
random mean spherical model, elec. resistivity, smeared phase transition, spin-electron interactions 2−77005
rare earth fluorides, cation framework rearrangement in solid-phase reactions 2−98027
rare earth sesquioxides, monoclinic hexagonal cooperative transform., enumeration and rel. position of equiv. domains *(French)* 2−76654
s(d)-f model, intermediate valency, phase diag. and transitions, strain effects 2−98596
Saturn icy satellites, ice phase transitions as resurfacing mechanism 2−112382
second order structural phase transition at Γ point of O_h^3-P_{m3n} group *(Chinese)* 2−109968
semiconductors, negative differential cond., nonequilibrium phase transitions 2−81954
$SnCl_2.(H_2O)_2$ and deuterated form, isostructural phase transition, pseudospin model 2−76662
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
solution, elec. resist., quenching effect *(Russian)* 2−115726
steel, alloy, physicomech. props., influence of surface-active substances during plastic deform. 2−83191
steel, austenitic, Cr-Mn 2−82109
steel, austenitic stainless, hydrogen induced phase transform. under X-irrad. *(Japanese)* 2−77821
steel, austenitic stainless, phase transform, H-related 2−111298
steel, austenitic stainless, weld metal, carbide form. at 649°C 2−67345
steel, eutectoid, austenite to pearlite and upper bainite isothermal transform. 2−99422
steel, low alloy, struct. and props. after rolling, rel. to austenite transform. kinetics 2−72745
steel, mild, cold forming suitability 2−72718
steel, Mn-Si-(Nb), low alloy, heat treated, $M_{23}C_6$ type carbides form. 2−116469
steel, phase and struct. transitions caused by laser heating, original struct. effect *(Russian)* 2−77814
steel, Si, bainitic transformation *(Czech)* 2−67326
steel, Si-Mn, bainitic transform. *(German)* 2−116436
steel, stainless, weld solidification struct. and transform. behaviour, effect of quenching 2−99412
steel, supercooled austenite, decomp. products morphology changes during continuous cooling, HTTMT influence 2−105159
steel, V, hot deformed, isothermal austenite-ferrite transform, TEM study 2−111172
steels, low-alloy, dual-phase, computer simulations of austenite/ferrite diffusional transformations 2−72692
steels, phase transform., equilib. props., quasichemical theory 2−57346
structural phase transitions in perfect crystals 2−76637
symmetry predicted first-order phase transitions 2−71612
system with two order parameters, appearance of inhomogeneous states *(Russian)* 2−81932
TCNQ salt, $(NMP)_x(Phen)_{1-x}(TCNQ)$, X-ray obs. of crossover of $2k_F$ to $4k_F$ scatt. 2−86859
TCNQ salt, DBTTF-TCNQF4 charge transfer salt, struct. high temp. phase transition obs. 2−109778
TCNQ salt, KTCNQ, phase transition, ^{14}N NQR study 2−93059
TCNQ salt, MTPP$(TCNQ)_2$, IR reflectivity 2−67051
TCNQ salt, N-n-propylquinolinium$(TCNQ)_2$ powders, pure and irrad., IR spectra 2−93189
TCNQ salt, trimethylammonium iodide-TCNQ, neutron diffr. study of phase transitions at 150K, 90K 2−76653
TCNQ salt, trimethylammonium iodide-TCNQ, struct. transitions, HV electron diffraction *(French)* 2−92173
TCNQ salt, trimethylammonium-iodide (TCNQ), structural transitions study by high voltage electron diffr. 2−71632
terephthalic acid cryst., phase transition, Raman spectrosc. obs. 2−57079
tetrachloro-o-benzoquinone, cryst., phase transitions, ^{35}Cl NQR and X-ray investig. temp. depend. 2−110691
tetramethylammonium cobalt chloride, phase transitions, ESR study 2−98267
tetramethylammonium cobalt tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
tetramethylammonium copper tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
tetramethylammonium tetrachlorocobaltate, phase transitions, deuteration effects, dielec. study 2−98265
tetramethylammonium tetrachlorozincate, incommensurate phase, optical birefringence study 2−82819
tetramethylammonium zinc tetrachloride-d_{12}, dielec. props. and phase transitions 2−109974
thiourea-ferrocene channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
solid-state phase transformations continued
$(TMTSF)_2PF_6$, NMR studies 2−56963
$(TMTSF)_2X$ salts, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
$(TMTTF)_2X$, $(X=BF_4^-, ClO_4^-, PF_6^-)$, phase transition, IR study 2−99113
TMTTF-bromanil complex, phase transition, IR study 2−99113
torsion pendulum for studying phase transitions in ferroelastic crysts. 2−107319
transition metals, normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
transition metals and alloys, magnetic and structural transformations, H influence 2−67329
s-triazine, ferroelastic transition, quasiharmonic theory 2−66204
sym-triazine, ferroelectric phase transition, Brillouin and Rayleigh scatt. 2−61917
s-triazine, struct. phase change, quasiharmonic approx. 2−61126
s-triazine, structural phase transition, quasi-harmonic treatment 2−66203
tribromomethane, crysts., vibr., phase transitions, Raman and Raman study 2−77513
tris-sarcosine calcium chloride, ferroelastic phase transition, US study 2−66194
TTF-chloranil, neutral-ionic phase transition, IR and Raman studies 2−93188
TTF-chloranil, neutral-ionic phase transition, review 2−92592
TTF-TCNQ, nonlinearity and hysteresis, Landau theory for transverse sliding 2−86857
TTF/chloranil, neutral-ionic phase-transition, micro AC calorimetry study 2−86900
US study of struct. phase transitions 2−92176
white cast Fe powders, enhanced densification by cyclic phase transformations under stress 2−111110
X-ray diffuse scatt. study of struct. transitions 2−56181
Ag electroformed discontinuous film, pot. distrib. and switching phenomena 2−61619
Ag_3AsS_3, proustite, phase transition, Raman and Brillouin scatt. study 2−103986
$AgBrO_3$, phase transition temp. and enthalpy, DSC obs. 2−98261
$Ag_{19}I_{15}P_2O_7$ solid electrolyte, ionic cond. study 2−61198
α-Ag_2S, nonstoichiometry investig. 2−86932
$Ag_3SBr_{0.5}I_{0.5}$, superionic conductor, cryst. struct. and phase transition study 2−109758
Al-Ru (10-15 wt.%), rapidly quenched, phase transform 2−77823
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
Al_2S_3-Ag_2S system, phase diagram *(French)* 2−72675
AlSb film, phase transition triggered by laser irrad. 2−98500
^{36}Ar submonolayers on Grafoil, struct. and phase transitions, neutron diffr. study 2−98488
As_4S_3, Raman spectrum, effect of temp. and press. 2−67040
AsSe chalcogenide glasses, hole drift mobility near photostructural transformations 2−87280
$BaAl_2Si_3O_{10}.4H_2O$, Edingtonite, thermal expansion in region of structural phase transformations 2−76714
$BaMnF_4$, incommensurate transition, phason light scatt. 2−76660
$BaMnF_4$, phase transitions, specific heat 2−76661
$Ba_2NaNb_5O_{15}$, tetragonal-incommensurate ferroelastic transition 2−76659
Bi, second order phase transition, magnetoacoustic study 2−115828
$BiVO_4$, ferroelastic phase transition, Brillouin scatt. study 2−116200
$Ca(NH_3)_6$ solution, elec. resist., quenching effect *(Russian)* 2−115726
Cd complex, di(ethylammonium) cadmium tetrachloride, D_{2h}^{18}-D_{2h}^{15} struct. transition, Raman obs. 2−104870
$CdHo_2S_4$, spinel to rocksalt type struct. transition, electron microscopy and diffr. study 2−76651
CdS_xTe_{1-x} solid soln. films, vacuum deposited, condensation diagram and phase changes meas. 2−110208
Ce, α-γ transition, construction of electronic state for γ phase 2−56189
γ-Ce, lattice dynamics, dispersion curves 2−92127
Ce, thermodynamic props. in transcrit. region, theoretical anal. *(Russian)* 2−86905
Co, oxidation rates near $\varepsilon \rightarrow \gamma$ and $\alpha \rightarrow \gamma$ phase transitions, oxide thickness and temp. effects 2−67649
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-Cr-Mo-C alloys, wrought, phase transform. 2−99423
$CoCr_2S_4$:Fe^{2+}, impurity Jahn-Teller effect, phase transition, mol. field theory 2−61418
$Co_xFe_{1-x}S$, electrical resistance, time depend., α-phase transition *(German)* 2−92626
$CoK_2(SO_4)_2.6H_2O$:Mn, phase transition effects in EPR 2−56915
$Co_3U_2O_8$, cryst. struct. and struct. modification, X-ray diffr. study *(French)* 2−115200
Cs, phase transition, press. estimate 2−70155
Cs_3BiCl_6 ceramic, ferroelastic transitions, DTA, X-ray, dielec. and TSC meas. *(French)* 2−109889
$CsCdF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181
$CsHSeO_4$, ferroelastic phase transition 2−86855
$Cs_{2-x}K_{1+x}BiCl_6$ solid soln., phase transitions and cryst. struct. 2−81948
$CsLiSO_4$, phase transitions by quadrupole perturbed ^7Li NMR 2−110661
$CsNO_3$, gamma-irradiation effect on cryst. struct. 2−115288
$CsPbCl_3$, sp. ht. near struct. phase transitions 2−81976
Cu, phase transformation wave excitation by action of square surface heat pulse 2−62120
Cu-Ga (23.7 wt.%), migration kinetics of $\beta \rightarrow \zeta_m$ transformation interface 2−72691
CuBr-CuI system, physicochem. props. 2−111512
$CuFe_2O_4$ ferrite, elec. cond. mechanism, phase transformation, heat treatment effects 2−71981
Cu_2S, chalcocite, Cu vacancy ordering and transition to djurleite, TEM study 2−115222
Cu_xS film, topotactically grown, chalcocite-djurleite transform., TEM study 2−104195
$Cu_2Te_{0.68}S_{0.32}$, phase transitions during heating and isothermal annealing 2−81944
Dy, low temp. phase transition, theoretical study 2−103978
Eu_3S_4, crystallographic study of phase transition at 185K 2−97978
Fe $(ClO_4)_2.6H_2O$: ^{57}Co, Mossbauer emission and absorpt. spectra, study of phase transitions 2−61805
Fe, cast, high strength, $\gamma \rightarrow \gamma$ phase transform., effect of initial struct. and heating rate 2−72695
Fe, oxidation rates near $\varepsilon \rightarrow \gamma$ and $\alpha \rightarrow \gamma$ phase transitions, oxide thickness and temp. effects 2−67649

solid-state phase transformations continued
Fe-B (19.1 wt.%), amorphous, structural transitions under thermomagnetic treatment *(Russian)* 2−61130
Fe-Co-Cr system, phase diagram, thermodynamic evaluation 2−72667
Fe-Co-V, Vicalloy-2, phase and struct. transitions, mag. props. *(Russian)* 2−61714
Fe-Mg, cast, nodular, mech. props. and cryst. struct., effect of heat treatment 2−83113
Fe-Mn alloy, microstruct. and phase transform. mechanism, lenticular struct. origin 2−99424
Fe-Ni-V, σ phase, range of stability 2−62100
Fe-Si-C, primary stage of bainite reaction, TEM obs. 2−83109
Fe-Si-C, secondary stage of bainite reaction, TEM obs. 2−83110
$Fe_{85}B_{15}$, amorphous, struct. and crystn. study by Mossbauer spectroscopy *(Russian)* 2−93075
$Fe(BF_4)_2.6H_2O$:^{57}Co, Mossbauer emission and absorpt. spectra, study of phase transitions 2−61805
$FeCr_2S_4$, cooperative Jahn-Teller effect, phase transition, mol. field theory 2−61418
Fe(II)⇄Fe(III), mol. crysts., cooperative mol. distortive transitions, ligand field theory 2−76649
$Fe_2(MoO_4)_3$, ferroelastic transition, Mossbauer and elec. cond. study 2−116101
α-Fe_2O_3, solid state conversion from α-FeOOH 2−56179
FeS, phase transitions with interactive order parameters *(Russian)* 2−61709
$Fe_xV_{2-x}O_4$, semicond.-metal transition, IR spectra, elec. cond. and DTA study 2−87751
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
Ge surface, high index, struct., order-disorder transitions, LEED study 2−71786
$HNbO_3$, cubic perovskite, ion exchange prep. from $LiNbO_3$, characterisation 2−60953
$HTaO_3$, cubic perovskite, ion exchange prep. from $LiTaO_3$, characterisation 2−60953
^4He, interface with liq. ^4He and ^3He-^4He solns., equilib. props. 2−115489
HfH_2, FCC-FCT phase transition, electronic theory 2−71641
Hg_2Cl_2, ferroelastic transition, soft modes and central peak neutron scatt. study *(French)* 2−66198
In-rich alloys, phenomenological considerations of phase transformations 2−88076
In-Tl, FCC to FCT transition, Landau theory appl. 2−98246
$K_2Ba(NO_2)_4$, ferroelastic phase transition, US study 2−66194
KCl, b1⇄b2 dynamic transition, stress gauge meas. 2−66129
$KCl:OH^-$, elec. dipoles, mol. field distrib. function calc. 2−93132
$KH_3(SeO_3)_2$, ferroelastic phase transition, US study 2−66194
$K_3H(SeO_4)_2$, ferroelastic transition and twin structs., X-ray and optical study 2−86854
K_2HfF_6, phase transitions, TDPAC study 2−92181
$KMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2−103710
$KMnF_3$, struct. phase transition, precursor effect in lattice const., single-wall pot. model 2−92185
KND_2, phase transitions, group theory anal. of symmetry reduction 2−81950
$KNbO_3$ single cryst., struct. props., growth conditions influence *(Russian)* 2−98034
K_2OsCl_6, phase transitions, NQR study 2−110703
K_2PtBr_6, crysts., struct. phase transitions, precursor clusters 2−77410
K_2ReCl_6 crysts., struct. phase transitions, precursor clusters 2−77410
K_2SO_4, arcanite, phase transition, thermodynamic and phenomenological study 2−61129
K_3SO_4, sp. ht. and dielec. const. determ. phase transition 2−109970
$KSc(MoO_4)_2$, ferroelastic, Raman and IR refl. spectra, 4 to 300K *(Russian)* 2−116170
$KSc(MoO_4)_2$, soft phonon modes at ferroelastic phase transition *(Russian)* 2−56148
$KSc(MoO_4)_2$:Cr monocrystals, ferroelastic phase transitions, Cr^{3+} EPR 2−115404
K_2SeO_4, phase transform. Raman study 2−72481
$K_{1-x}Zn_{1-x}Al_xPO_4$, ionic con. and cryst. struct., comp. dependence meas. 2−104053
K_2ZnCl_4, high temp. phase transitions, lattice consts., X-ray diffr. study 2−92186
K_2ZnCl_4, phase transform. Raman study 2−72481
K_2ZnCl_4, thermal expansion coeffs. and phase transitions 2−61181
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
$La_{2-x}R_xCuO_4$ (R=Pr, Nd), struct. transitions, elec. props., semicond.-metal transition 2−81949
$La_2Cu_{1-x}Ni_xO_4$, struct. transitions, elec. props., semicond.-metal transition 2−81949
La_2O_3-NiO system, phase transitions in air, X-ray anal. 2−109971
LaS_x, elec. cond. study 2−82363
LaS_x, heat capacity in superconducting and normal states 2−82521
$La_3Sb_3O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$LiCsSO_4$, ferroelastic transition, elastic consts., acoustic softening 2−98188
$LiIO_3$, Raman scatt. from three phases 2−57107
α-$LiIO_3$ single crystal, thermal study, 195-265K 2−104014
$LiIO_3$-$NaIO_3$ psuedobinary system, phase diagram and amorphous state crystn. kinetics, expt. study *(Chinese)* 2−91778
$LiI.D_2O$ ionic conductor, struct. props., neutron scatt. study 2−86640
$LiKSO_4$, low temp. phase, phase transitions, thermal expansion and twinning 2−86861
$LiNH_4SO_4$, tunnelling, reorientation, PMR study 2−93034
$LiNbO_3$-Fe_2O_3 solid soln. single cryst., congruently melting, phase transition 2−98264
Mg_2SiO_4, forsterite, single cryst., Brillouin scatt. meas. up to 40 kbar 2−57115
MnAs, phase transitions with interactive order parameters *(Russian)* 2−61709
$MnSiO_3$-$MnGeO_3$ system, phase diagram 2−72683
MoO_2, reduced from Mo_4O_{11} and CS oxides 2−92177
Mo_2S_3, electronic props., phase transitions 2−110354
NC_4BeF_3 crystals, phase transitions study 2−109976
NH_4HBeF_4 crystals, phase transitions study 2−109976
$NH_4LiSO_4(-d_4)$, phase transitions by quadrupole perturbed ^7Li NMR 2−110661
NH_4NO_3, phase transformations, Raman study 2−87768

solid-state phase transformations continued
$(NH_4)_2PtBr_6$, phase transitions, NQR study 2−110703
$(NH_4)_2SnBr_6$, US study of phase transition 2−66201
$(NH_4)_2ZnCl_4$, coexistence of lattice superperiods near phase transitions, X-ray diffr. study 2−92184
$(NH_4)_2ZnCl_4$, ferroelec., phase transition sequence, X-ray diffr. and NQR study 2−76360
$(NH_4)_2ZnCl_4$, phase transitions, X-ray structural study 2−65911
$(NH_4)_2ZnCl_4$, X-ray structural study of successive phase transitions 2−65912
$Na_{0.5}Bi_{0.5}TiO_3$, single crysts., birefringence changes during phase transitions 2−57046
$NaNO_2$, gamma-irradiation effect on cryst. struct. 2−115288
$NaNO_3$ single crystal, low-freq. reflectance spectrum temp. depend., phase transition, lattice mode parameters 2−99111
$NaNbO_3$, antiferrodistortive transition, order parameter crit. behaviour, NMR study 2−92183
β-$Na_{0.33}V_2O_5$, quasi-1D-conductor, nuclear quadrupole effect and phase transition 2−56970
Na_xWO_3, structural phase transitions, neutron scatt. study 2−92182
Nb oxides to Nb_2O_5, homogeneous transformations 2−86860
Nb-H system, phase diagram and transitions, mag. susceptibility study 2−92155
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
$NbH_{0.89}$, phase transitions, PMR spin-lattice relax. time temp. depend. study 2−110688
NbO_2, elastic consts., ultrasonic study 2−109883
NbO_2, struct. transition, role of polar phonons Fourier spectroscopy 2−57028
Nb_2O_5-WO_3, O vacancies, TEM 2−97879
$NbSe_2$-2H, charge density wave-periodic struct. distortion transition 2−103980
$NbSe_3$, singularity of thermoelec. power at struct. phase transition *(French)* 2−66199
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Ni complex, $Ni_{0.84}[Pt(C_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
Ni-Cr, aluminide coatings, form. kinetics and microstruct. 2−116620
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Ni-Mo steel, phase transitions during heating and strengthening *(Russian)* 2−116438
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ni-Ti (102wt.%), liquid quenched modulated struct. alloy, ageing *(Japanese)* 2−105193
$Ni(BF_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
$Ni(ClO_4)_2.6NH_3$, cryst. field distortion parameter, EPR linewidth and phase transition temp. meas. 2−61420
$O_2^+AsF_6^-$, phase transitions and ionic motions, Raman obs. 2−104868
O_2PF_6, phase transition at −67°C, temp. depend. Raman study 2−110840
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2−115429
$Pb_{1-x}Ge_xSe$, optical and elec. props. *(Russian)* 2−57048
$Pb_{1-x}Ge_xTe$, band struct., cyclotron reson. study 2−56439
$Pb_{1-x}Ge_xTe$, coupled phase transitions, sp. ht. meas. 2−98277
p-$Pb_{1-x}Ge_xTe$, velocity of sound quantum oscills. 2−92114
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
$Pb_3(PO_4)_2$, ferroelastic domain walls, interaction with struct. transition, TEM obs. 2−76655
$Pb_3(PO_4)_2$, ferroelastic domain wall interactions, structural transition 2−86681
$Pb_3(PO_4)_2$, ferroelastic phase transition, domain walls *(French)* 2−86866
$Pb_3(PO_4)_2$-$Pb_3(AsO_4)_2$, stepwise ferroelastic transition, Raman X-ray, neutron and stress birefringence study 2−115402
$PbTiO_3$, phase transition in low temp. range, lattice consts. meas. 2−81947
$PbTiO_3$-$PbZrO_3$-$PbNb_{2/3}Zn_{1/3}O_3$-$PbNb_{2/3}Mn_{1/3}O_3$-$PbSb_{2/3}Mn_{1/3}O_3$, stability of electrophysical props. 2−99059
Pd single crystal, struct. changes under H-phase hardening 2−77822
Pd:H, mechanical and elec. props. recovery after phase transitions *(Russian)* 2−116460
Pd-Pt-H, strength and plasticity, effect of hydrogenation *(Russian)* 2−99483
$Pd_{1-x}Ag_xH_y$, α-α' phase transition of H, X-ray scatt. study 2−103977
Pr-P system, phase diagram 2−77807
$Pr_3Sb_3O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
Pt surface(100), 1×1→hexagonal transition LEED study 2−115508
$RbCaF_3$, lattice dynamics, Debye-Waller factor near 195K phase transition 2−76609
$RbCdF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181
$RbCeF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181
$RbCuCl_3$, Jahn-Teller phase transitions and phase struct., X-ray diffr. study 2−98266
$Rb(D_{1-x}H_x)_2PO_4$, phase transitions, isotope effects, dielec. const. meas. 2−86853
$RbNO_3$, gamma-irradiation effect on cryst. struct. 2−115288
Rb_2NaHoF_6, phase transition and low temp. struct. 2−66209
Rb_2NaHoF_6, struct. phase transition study 2−98273
$RbVF_4$, structural phase transitions, sp. ht., optical and X-ray diffr. studies 2−115403
Rb_2ZnBr_4, phase transition, thermodynamic props. 2−71635
$Rb_2ZnBr_4(Cl_4)$, phase transform. Raman study 2−72481
Rb_2ZnCl_4, optical props. changes at successive phase transitions 2−77476
Sb, second order phase transition, magnetoacoustic study 2−115828
$Sb_4Ge_3O_{12}$, synthesis, struct. and props. 2−111047
SiC (6H), graphitisation by electron beam irrad., electron diffr. study 2−76503
$SmCo_4$-Sn(Fe), alloying addition effect on X-ray diffr. relative intensity *(Chinese)* 2−97993
$Sm(Co_{0.66}Fe_{0.21}Cu_{0.10}Zr_{0.06})_{7.4}$, struct. transformations and coercive force meas. *(Russian)* 2−98913
$Sn_xEu_{1-x}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$SnRh_4Sn_{12}$ R, (R=rare earth), supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403

solid-state phase transformations continued
SnTRe, epitaxial film, effect of thermal treatment on comp. and struct., Mossbauer and X-ray study 2—66399
$SrTiO_3$, Raman spectra 2—82840
$SrTiO_3$, struct. phase boundary under [111] stress, EPR study 2—61122
Ta-H system, phase diagram and transitions, mag. susceptibility study 2—92155
$TaSe_2$, 2H polytype, low temp. phase change 2—76249
$TaSe_2$-2H, charge density wave-periodic struct. distortion transition 2—103980
$Tb_2(MoO_4)_3$ crystal, heat capacity in phase transition region 2—66253
$Tb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2—115406
β-$ThBr_4$, phase transform., cryst. symmetry, NQR study 2—110704
β-$ThCl_4$, phase transform., cryst. symmetry, NQR study 2—110704
Ti alloys, metastable transformations study, by acoustic characts. meas. 2—105421
Ti halide compounds, NQR frequency, phase transforms., temp. depend. 2—93048
Ti, structural transformations, thermal treatment influence *(French)* 2—72694
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2—77874
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2—99440
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2—57331
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2—67315
Ti-base alloys, recrystn., struct. changes during thermal cycling 2—83140
Ti-Cr_3Cr_2 composite, struct. form. mechanism 2—67260
Ti-Zr solid solns., phase diagram, $\alpha \rightleftarrows \beta$ transition 2—88077
TiH_2, FCC-FCT phase transition, electronic theory 2—71641
TiO_2(B) to anatase transformation, crystallographic shear explanation *(French)* 2—66206
$TiSe_2$ intercalated with hydrazine, transport props. 2—98626
$TlCdF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2—98181
$TlMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2—103710
U_4O_{9-y}, nonstoichiometric, heat capacity and elec. cond., 300 to 1200K 2—110006
UP-USe system, nature of step-like transition 2—103982
V-H and V-D systems, modified phase diagrams, TEM obs. of transforms. 2—72671
V-Ni-P, phase diagram at 1070K, phase anal. 2—83099
$VH_x(VD_x)$ film, press.-comp. isotherms, vibrating quartz microbalance meas. 2—98501
VO_2-$CrNbO_4$ ($FeNbO_4$), solid solns., phase transitions, ^{51}V 2—110669
V_2O_3 crysts., US vel., anomalous temp. depend. 2—66135
$VT_{0.5}$ and $VT_{0.75}$, triton relax. time obs. of phase transitions 2—110684
V_2Zr(Hf), mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2—61693
W, surface (001) struct. transition, LEED fine struct. 2—110104
YMn_2, first-order struct. phase transition, lattice parameter study *(Russian)* 2—103974
$YbAl_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2—104319
$YbNi_{1-x}Cu_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2—104319
$Yb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2—115406
$Zn(ClO_4)_2.6H_2O$:Mn^{2+}, EPR study of phase transition 2—81946
ZnS, 2H to 3C solid state transform, X-ray diffr. study 2—98272
$Zr_{1-x}Co_x$, crystallisation and struct. transition, X-ray and thermal anal. 2—109677
ZrH_2, FCC-FCT phase transition, electronic theory 2—71641
$Zr_{1-x}Hf_xMo_2(W_2)$, high temp. equilib., struct. transformation 2—66177
$Zr_{1-x}Hf_x(Ti_x)Mo_2(W_2)$, high temp. equilib., struct. transformation 2—66177

solid-state plasma
see also helicons; plasmons
electron gas, 2-D, crossover behaviour and quasiplasmon oscill. 2—110270
electron liquid, dynamic structure factor 2—82263
electron liquid, dynamic structure factor 2—82264
electron-hole plasma, magnetostatic mode, anomalous diffusion 2—104407
electron-hole plasma stratification, due to long-wavelength radiation heating 2—66579
electron-hole plasmas in semiconductors, thermodiffusion 2—110376
EM energy flow and material generated by EM wave impinging on surface at oblique incidence 2—110377
exciton Bose condensation, electron-hole gas ground state, spin states, screening, and band struct. effects 2—92476
fermion systems, acoustic plasma modes 2—110071
high density electron-hole plasma cooling 2—87312
inhomogeneous media, electrokinetic wave instability *(Russian)* 2—61503
interaction of elastic waves and surface helicons in conducting solids 2—104410
magnetic semiconductor, electrostatic wave excitation at microwave beam difference freq. 2—104406
magnetoviscosity, kinetic theory 2—92675
metal surfaces, intrinsic and roughness-induced optical absorpt. rel. to surface plasma reson. 2—70632
narrow-gap semiconductors, surface polariton excitation by laser radiation 2—104264
null Faraday rotation, intraband and interband transitions 2—61500
piezoelectric semiconductor, US wave parametric instability 2—104436
piezoelectric semiconductors, solid plasma, Brillouin instability 2—104902
polarisation field of charged relativistic particle 2—104803
quasineutral plasma, electron localisation, ambipolar diffusion *(Russian)* 2—61502
semiconductor, direct-gap, highly excited, optical dielec. function in moment-conserving approx. 2—57044
semiconductor, longitudinally magnetised, acoustohelicon wave excitation by laser beam modulation 2—66578
semiconductor, photoelectric effects from indirect interband and intervalley transitions assisted by acoustic waves 2—61519
semiconductor, picosecond photocond., photoinduced plasma cond. and dielec. props. 2—115807
semiconductor, space charge layer, collective modes, perturbation theory 2—61383
semiconductor, surface magnetoplasma wave propag. 2—77108

solid-state plasma continued
semiconductor, surface waves at interface between two solid-state plasma media 2—115527
semiconductor plasma, inhomogeneous diffusion structs., form. during recomb. processes 2—60732
semiconductor plasma, magnetically active, surface helicons and Alfven waves 2—104414
semiconductor plasmas, stimulated Raman scatt. and instability 2—93196
semiconductor thin plasma layer, reson. of current 2—115800
semiconductor-microplanar structure plasma oscillation waves anal. *(Russian)* 2—98685
semiconductor-semiconductor interface, electron-hole systems work function and band struct. 2—87382
semiconductors, electron-hole plasma, current or field stratification criteria calc. 2—82392
semiconductors, nonuniform Lorentz force effect on electron-hole plasma density 2—87314
semiconductors, polar, hot carrier energy loss, electron-hole plasma screening 2—110357
spot size effects in picosecond luminescence experiments 2—104953
static structure factor, of classical 2-D plasma 2—98684
stopping powers, metallic bond effects on mean excitation energies 2—92064
two-dimensional electron plasma, plasma oscill. excitation *(Russian)* 2—72014
two-dimensional plasma waves, instabilities and amplification, theoretical anal. 2—61501
Al films, granular, reson. absorpt. of light, plasma reson. 2—67134
Al-Ag granules in complex film, plasma resonance absorpt. bands 2—116289
AlGaAs-GaAs heterostructure, modulation doped, reson. light scatt. in strong mag. fields 2—61921
Bi, magnetoplasma wave cross-modulation *(Russian)* 2—56627
$Bi_{1-x}Sb_x$ alloy, electron Fermi surface comp. depend., magnetoplasma wave study 2—76899
Bi_2Se_3:(Cd), transport props. and plasma resonance 2—98646
Cd_3As_2, spin-flip resonances, subMM magnetospectroscopy 2—93167
CdS, exciton luminescence and electron-hole plasma near acoustic instability 2—87865
CdSe, high density electron-hole plasma cooling 2—87312
CdSe, luminescence from electron-hole plasma 2—87868
CdSe, spot size effects in picosecond luminescence experiments 2—104953
$CrCl_3$, $K\beta'$ satellite plasma oscills. theory 2—67152
Cr_2O_3, $K\beta'$ satellite plasma oscills. theory 2—67152
$Cr_2(SO_4)_3$, $K\beta'$ satellite plasma oscills. theory 2—67152
CuCl, electron-hole plasma form. after subpicosec. photoexcitation 2—99175
GaAs, hot-electron plasma, excitation of electrostatic oscillations, calc. 2—66580
p-GaAs, inhomogenously doped, IR plasma reflectivity, computer calc. 2—61885
GaAs-(AlGa)As heterostructures, plasma dispersion in a layered electron gas 2—104276
Ge, diffraction grating, high-density laser-induced transient plasma, picosecond dynamics 2—77628
Ge extrinsic plasma, oscillistor freq., uniaxial deformation effects 2—115799
Ge, hot plasma generation by intense 2.7 μm laser pulse interaction 2—66582
Ge, IR study of laser generated carriers 2—110859
Ge, laser pulse interaction, 2.7 μm 2—77627
Ge, nonuniform Lorentz force effect on electron-hole plasma density 2—87314
Ge, picosec. pulse transmission at various thicknesses 2—77104
Ge, uniaxially stressed, plasma reson. of electron-hole drops, IR study 2—104861
(Hg,Cd)Te, optical phase conjugation, photoexcited plasma mechanism 2—102879
$Hg_{1-x}Cd_xTe$, photo-Hall meas. on laser-generated electron-hole plasmas 2—87323
$Hg_{1-x}Cd_xTe$, photo-Hall meas. of high-density photoexcited electrons 2—92700
$Hg_{1-x}Cd_xTe$, solid soln., plasma reflectance spectra meas., effect of damaged surface layer 2—67064
InSb, Auger recombination rate during intense laser pulse, carrier density depend., reflectivity study 2—67158
n-InSb, highly nonlinear interactions with picosecond CO_2 laser, electron-hole plasma generation 2—55244
n-InSb, pinch effect meas. and calcs. 2—104405
n-InSb, solid plasma, Brillouin instability 2—104902
n-InSb, transverse breakdown study *(Russian)* 2—92642
InSe, stimulated photoluminescence 2—67113
p-PbSnTe, free carrier freq. depend. relax. time, plasma refl. studies 2—110364
PbTe, electron-hole plasma, high density, time resolved spectrum 2—92678
Si, anisotropic size effect with plasma injected in mag. field 2—92677
Si, electron-hole plasma instability 2—87161
Si, laser-irradiated, reflectivity, transmission and electron-hole plasma, ps time-resolved meas. 2—115281
ZnS, radiative recombination of electron-hole drops and nonequilib. electron-hole plasma obs. 2—66459
ZnSe, edge emission, collective phenomena, radiative recombination 2—77579
ZnT, edge emission, collective phenomena, radiative recombination 2—77579

solid-state rectifiers
see also thyristors
power convertor, composite material, heat conduction, air void distrib. *(Russian)* 2—82041
TEXTOR, poloidal field thyristor amplifier with improved power factor 2—69941
Se-Al junction rectifier, current creep phenomena, temp. depend. meas. 2—98740

solid structure
see also crystal structure; long-range order; noncrystalline state structure; short-range order
solid state physicists and crystal chemists 2—84428

solid theory
symmetry and broken symmetry in condensed matter physics, conf., Paris, France (Sept. 1980) 2−68966

solid-vapour transformations
see also sublimation
transient ablation process of seminfinite solid, theory 2−86835

solidification
see also segregation
aligned columnar microstructure, preferential growth in reduced gravity 2−62117
alloy, binary melt, nonequilib. model of two-dimens. cellular solidification 2−67319
alloy, in gravitational field, model 2−99415
alloys, primary dendrite arm spacing 2−105138
amorphous, ribbons, mag. anisotropy distrib., internal stress fields *(Chinese)* 2−110602
aqueous binary soln., solidification, heat and solute transport anal. in dendrite tip region 2−65470
aqueous binary soln., solidification heat and solute transport anal. of basal plane region 2−65469
Bridgman-type crystal growth, thermal modelling, analytical one dimens. analysis 2−109715
Bridgman-type crystal growth, thermal modelling, analytical two dimens. analysis 2−109716
composite, in situ, directed solidification, forced convection influence on microstruct. *(French)* 2−77818
EBBA, melting and crystn. processes, thermal anal. 2−92198
edge-defined film-fed growth, heat transfer effect on interface shape and solute segregation 2−97955
eutectic alloys, coupled growth, enhancement in off-eutectic alloys by 'stop-and-go' technique 2−99411
eutectic alloys, homogeneity time estimating based on segregation model *(Polish)* 2−66226
frontal solidification, formation of stresses and discontinuities 2−103960
fusion reactor materials, pot. for using rapid solidification for improved irrad. performance 2−108107
gas permeability of powders solidified at high and ultrahigh cooling rates 2−67235
gray cast Fe, cooling rate influence on eutectic cell struct. and mech. strength *(Japanese)* 2−62115
n-heptadecane, heat source, melting, solidification, heat transfer, interface motion 2−55404
ingot, solidifying, variable comp. nonmetallic inclusions form. in two-phase zone 2−99414
interface, two dimens. shape, Cauchy integral method 2−92160
interface during continuous casting, Stefan problem 2−93497
interface shape from sinusoidal heating anal. 2−91522
ion-exchange, radioactive spent resins, in situ immobilisation, Dow process 2−64501
ion-exchange waste resins, Cs release during solidification 2−64502
isopropanol, high press. solidification, meas. by manganin press. gauge 2−89735
lamellar eutectic solidification, steady state, at high solidification rates 2−56160
latent heat thermal energy storage in horizontal cylindrical capsule, high Rayleigh no. calcs. 2−116853
liquid metal flow through circular pipe 2−83104
liquid metals, solidification, thermal and hydrodynamic phenomena, mathematical model 2−115395
metal, rapid solidification plasma deposition, struct. of production 2−62114
metal droplets, undercooled, heat flow during solidification 2−56162
metals and alloys, solidification in-situ electron microscopy *(French)* 2−62116
molten metal crystallisation via cooling sheath, variational methods *(French)* 2−71383
morphological thermodynamic stability criteria for a solidification front *(French)* 2−84571
multidimensional solidification, conduction shape factor calcs. 2−91212
paraffin wax solidification fouling from kerosene soln. 2−92163
pentane-isopentane (1:1), high press. solidification, meas. by manganin press. gauge 2−89735
peritectic alloy, thermal analysis, cooling curves interpret. 2−105118
polyethylene-1,3,5-tribomobenzene mixture, eutectic solidification and oriented growth 2−92164
polystyrene isothermal enthalpy, vitrification press. and cooling rate effects 2−110014
prime candidate alloys, path A, rapidly solidified, microstruct. 2−85210
rectangular enclosed region, solidification with natural convection 2−65450
segregation of impurities due to pulsed laser beam annealing 2−103995
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, neutron irrad., microstruct. 2−108112
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, microstruct. after Fe and He ion irrad. 2−108115
steel, austenitic stainless, weldable, hot ductility characts. and solidification behaviour *(Japanese)* 2−77815
steel, austenitic stainless 316, radially solidified, B doped, pre-irrad. spatial distrib. and stability of boride particles 2−85211
steel, austenitic stainless 316, rapidly solidified Al_2O_3 dispersion strengthened, microstruct., path A alloys 2−88094
steel, austenitic-ferritic, solidification, σ-ferrite form., influence of O 2−72690
steel, constructional, 42KhMFA, anomalous grain growth 2−105198
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, liquid, EM stirrer for slab mould *(French)* 2−77766
steel, low C, decarburisation of subcrit. temps., resolidification of ferrite 2−72689
steel, low-C, chem. scaled, anomalous interlayers 2−99416
steel, melt comp. effect on solidification cracking rel. to continuous casting 2−83107
steel, stainless, rapid solidification 2−83106
steel castings, directional solidification *(Rumanian)* 2−99368
steel ingot, hollow cylindrical continuously cast, solidifying, temp. distrib. analysis 2−67317
steel-inclusion boundary, interphase props. and degree of struct. refinement 2−72685
thermal diffusivity determ. of solid materials near melting point 2−115394
two-dimensional, natural convection, vorticity, anal. 2−70947

solidification continued
unidirectional, axial temp. characteristics, numerical calc. 2−66181
warm flowing liquid, planar solidification, boundary conditions effects 2−97551
Ag-Cu system, T_0 curve between liquid. and α-phases, calc. and relevance to rapid solidification 2−105128
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al alloys, ternary and quaternary, solidification, estimate of interdendritic undercooling 2−111163
Al, low-frequency vibration influence obs. 2−116432
Al, pure and commercial, solidifications struct. of ingots, effect of nucleation supercooling 2−99419
Al-$Al_{21}Pt_5$, unidirectionally solidified eutectic, microstruct. and mech. props. 2−116434
Al-Al_3Ni, chill-cast, directionally solidified, effect of hot-rolling 2−83141
Al-Al_3Ni eutectic, high-temp. coarsening 2−57343
Al-Bi alloys, directionally solidified, occurrence of aligned microstructs. 2−111164
Al-Cu (1-6 wt.%), ingots, unidirectionally solidified from bottom, struct. 2−99417
Al-Cu (10 wt.%), rheocast, microstruct. and mech. props. 2−99420
Al-Cu (2-6 wt.%), ingot, unidirectionally solidified from bottom, seeded by single crysts., struct. 2−99418
Al-Cu alloy ingots, columnar equiaxed transition 2−105135
Al-Cu eutectic alloy, substrate temp. effect on rapid solidification 2−93498
Al-Cu unidirectionally solidified ingots, inverse segregation *(Japanese)* 2−77816
Al-Cu-Mg eutectic alloys, unidirectionally solidified, structure, and mech. props. *(Korean)* 2−67312
Al-Cu(Si), primary dendrite arm spacing, solidification conditions effects *(Japanese)* 2−57342
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
Al-Mn (1.2 wt.%), rapid solidification with pulsed laser, microstructural and surface modification 2−67323
Al-Pb, hyper-monotectic alloys, solidified by rapid cooling, struct. *(Japanese)* 2−105136
Al-Si(Cu) ingots, equiaxed cryst. formation by electromag. stirring *(Japanese)* 2−83105
Al-Zn (4-12 wt.%), ingot, unidirectionally solidified from bottom, seeded by single crysts., struct. 2−99418
Al_2O_3-$BaAl_2O_4$ system, phase relations relevant to hexagonal $BaAl_{12}O_{19}$ 2−57338
Co-Cr alloy, incipient melting phenomena, morphological obs. 2−93501
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-Si film, laser melted, lamellar eutectic solidification 2−116431
Co-Sn eutectic alloy, low-frequency vibration influence obs. 2−116432
CsCN, phonons in rotator phase 2−109921
Cu-Be-Co (13.1, 0.2 at.%), rapid solidification effect on ageing *(Japanese)* 2−105137
Cu-Zn Al, martensitic, rapid solidification effects 2−111175
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
D_2, solidification temp., effect of Ne and ^4He impurities *(Russian)* 2−56157
Fe, cast, hypoeutectic, Ce microdistrib. between struct. components, wide solidification range 2−99393
Fe, cast, solidification kinetics, flake and nodular graphite 2−72688
Fe, cast, thermodynamic stimulus to graphitisation, alloying elements influence, chilling action 2−105139
Fe-Bi-Si metallic glass, form. and mag. props. 2−103648
Fe-C system, austenite+liquid phase boundaries, expt. determ. by DTA 2−105125
Fe-Cl-Cu, cast high strength, effect of Al-Cu additions *(Korean)* 2−67311
Fe-FeSi, hypereutectic films, solidification, lamella to dendritic struct. transition 2−57341
Fe-FeSi, liquid hypoeutectic alloy, solidification, obs. by droplet method 2−67309
Fe-Si (5 wt.%) alloy, supercooled ingots, cryst. struct. features 2−67318
Fe-Si-C, melts, crystn. of primary graphite 2−72687
$FeAl_3$, intermetallic, cryst. growth by dissolving Fe alloy in liq. Al bath 2−111165
$Fe_{83}B_{17}$, amorphous struct. formation on laser irrad. 2−82960
GaAs-Au interface, solid state reactions, cryst. struct. and microstruct. correlation 2−115616
H_2, solidification temp., effect of Ne and ^4He impurities *(Russian)* 2−56157
^4He, nucleation on graphite, thermodynamic and neutron diffr. studies 2−104110
$Hg_{1-x}Cd_xTe$ wafers, metallographic obs. of compositional inhomogeneities 2−111411
K_2O-MgO-SiO_2, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
Na, liq., dissoln. of Au and Ag wires, dynamic X-radiography 2−111398
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
Ni alloy, heat-resisting, directional solidification, B influence on fine struct., diffusion and creep 2−67321
Ni alloy, heat-resisting cast, directed change of comp. and morphology of primary carbide phases 2−67320
Ni alloy, molten particles impinging on water-cooled Cu plate, cooling rate calc. 2−67252
Ni-Al-Co(Cr)(Fe)(Mn)(Si) $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-Al-Cr dendritic monocrystals, solidification, coarsening and microsegregation 2−99413
Ni-C, semiliquid sintered material and melted-solidified material, modular graphite content *(Japanese)* 2−77817
Ni-W, directionally crystallised eutectic, crystallographic struct., electron microscopy study *(Russian)* 2−91870
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
Ni_3Sb_2-NiSb eutectic system alloys undercooling *(Japanese)* 2−116433
NiTi refining, solubility and behaviour of gases in melts in vac. induction melting and remelting 2−105106
Pb ternary alloys, supercond. props., influence of US treatment 2−82514

solidification continued
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
Pb-Cd-Zn ternary system, microstructures of eutectic and near-eutectic specimens 2−111162
$PbTiO_3$ ceramics, grain-orientated, prep. by unidirectional solidification of melts 2−62118
Sb-Zn, amorphous, form. and crystn. 2−76322
Si, multicryst., directionally solidified, fracture 2−81884
Si:In, ion implanted, laser annealed, convection and constitutional supercooling cells 2−66054
Si:In(Sb), laser annealed, all formation and interfacial instability, expt. study and perturbation theory 2−56012
Sn, low-frequency vibration influence obs. 2−116432
Sn-Pb (15 wt.%), acceleration forces influence on dendritic growth and grain struct. 2−67316
Ti alloy weldments, dissimilar, solute banding effect on transforms. 2−93503
Zn-Al, casting, mech. props. 2−62113
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520

solids
Generalities only; for specific aspects see appropriate headings
see also crystals; quantum solids; solid hydrogen; solid structure; solid theory
condensed matter physics, conf., Antwerp, Belgium (Apr. 1980) 2−101132

solions *see transducers*

solitons
σ-model construction in two and higher space-dimens., exact soliton solns. 2−74583
afterglow plasma column, microwave injection, upper-hybrid soliton, density cavity 2−60755
Alfven soliton in a low-beta plasma 2−103342
anisotropic Heisenberg chain, solitons and spin complexes 2−72250
axisymmetric solitary waves in Bose condensate 2−101180
Backlund transformation vs. the dressing method 2−74230
bag model study 2−69417
Benjamin-Ono eqn., related algebra to N-soliton soln. 2−112714
Benjamin-Ono equation nonlinear self-modulation problem 2−107117
Bethe-ansatz quantum sine-Gordon thermodynamics, excitation spectrum 2−101367
Bethe-ansatz quantum sine-Gordon thermodynamics, sp.ht. 2−79521
Bianchi II cosmology, soliton gravit. waves, general framework 2−84495
Boussinesq eqn., classical, exact. soln. 2−107116
Boussinesq equation, similarity solns. 2−84453
Burgers eqn. as germ for non integrable eqns. with exponential type bisolitons 2−101183
canonical structure of soliton eqns. 2−95109
CDW and SDW systems, solitons 2−87162
CDW systems, fractional charges and freq. depend. currents 2−56557
cell membranes, orientational waves 2−105684
cetylpyridinium salicylate solns. with rodlike micelles, small angle neutron scatt. 2−71320
charge and momentum carrier role in conjugated polymers *(French)* 2−53540
charge fractionalisation conditions 2−113244
charged soliton stability in scalar electrodynamics 2−58629
charged-soliton excitations in statistical mechanics 2−74618
chiral field model solutions, inverse scattering analysis 2−107504
commensurate one-dimensional conductor, interchain electron hopping influence 2−66539
commensurate-incommensurate transitions, domain wall wandering and dimensionality depend. 2−63953
coupled nonlinear wave equation, symmetries and conservation laws 2−112717
current generation in interaction between Langmuir solitons and a streaming plasma 2−76114
curved space time, wave function in classical gravitational field 2−84487
cyclotron solitons radio emission control by temp. anisotropy 2−71118
Davydov solitons, dynamics 2−105643
disordered 1-D anharmonic chain, soliton dynamics, Korteweg de Vries model 2−107121
disordered 1-D system, soliton propag., small scale fluctuations 2−84457
displacive phase transition, dynamics of 1-D model *(Russian)* 2−98236
dissipative fluids, complementary energy principles 2−53529
Einstein eqn. solution, soliton family *(French)* 2−95144
Einstein equation, multi-soliton solns. rel. to Tomimatsu-Sato metric 2−100728
Einstein equations, stationary axisymm. one-soliton solns. 2−63864
envelope theory of EM waves *(Russian)* 2−76106
exciton-photon interaction, soliton→biexciton transform. 2−61364
ferromagnet, anisotropic, 1-D magnetisation eqns., soliton solns. *(Russian)* 2−82665
ferromagnet, classical one-dimens. easyplane, dynamic struct. factors, computer simulation 2−66796
ferromagnet, magnetisation, nonlinear dynamics, soliton models, review *(Russian)* 2−92914
ferromagnetic chain, easy-plane, solitons 2−66736
ferromagnetic chain, soliton dynamics 2−77296
fibres, multimode and single-mode, nonlinear propag., coupled-mode theory, envelope solitons and self-confinement 2−109055
field model with unit topological charge 2−95592
finitely separatd multimonopoles generated as solitons 2−53959
flow, variable density, dilatation wave and soliton dynamics 2−91480
fractionally charged soliton, quantum fluctuations 2−84480
Frenkel-Kontorova model, props. of solitons 2−76442
glass fibres, optical soliton amplification and reshaping 2−97210
half integral charge solitons 2−113136
Hamiltonian systems, integrable, canonical coords. 2−74261
Heisenberg chain, classical compressible, continuum limit no simple solitary wave solns. 2−98834
Heisenberg chains, ferromag., excitation spectrum 2−66741
Heisenberg ferromagnetic chain, soliton magnetoelastic excitations 2−92887
Heisenberg ferromagnetic chain, with easy-plane anisotropy, magnons, solitons and crit. field 2−110571
Heisenberg ferromagnets, 1-D, thermodynamic props., static domain wall solitons, perturbation calc. 2−116022
Heisenberg one-dimensional ferromagnet, soliton wavenumber cut-off 2−110601

solitons continued
high bit rate communication systems using non-linear effects 2−102951
Hilbert space, ice model, Bethe ansatz eigenstates 2−89542
Hirota's method, appl. to perturbed system 2−84450
incommensurate multisoliton lattice, NMR lineshape anal. 2−66928
incommensurate phase with solitons, states *(Russian)* 2−61112
incommensurate systems, NMR and NQR study, soliton width 2−110721
incommensurate-commensurate phase transition, tricritical point, Landau-type theory 2−66167
instantons and solitons in field theory, book 2−94936
inverse scattering for one-dimens. Stark effect, appl. to KdV eqn. 2−84449
inverse scattering method, relationship betwen Ablowitz-Kamp-Newell-Segur and Wadati-Konno-Ichikawa schemes 2−112727
inverse scattering method for a new integrable nonlinear evolution equation under nonvanishing boundary conditions 2−95139
inverse scattering problem in photon echo theory *(Russian)* 2−55280
ion acoustic waves, three-dimens. propag. in collisionless plasma 2−103347
ion soliton analysis in plasma without mag. field *(Russian)* 2−76108
ion-acoustic solitons expts. in plasmas 2−114995
ion-acoustic solitons with two-temp. electron distrib. function 2−109512
ions in uniform plasma, hydrodynamic eqns. of motion, soliton solns. *(Russian)* 2−103333
Ising-Heisenberg ferromagnetic chain, excitation spectrum at zero field 2−82615
Josephson contacts, connected soliton states *(Russian)* 2−87456
Josephson tunnel junctions, finite, approx. theory for bunched solitons 2−77238
Josephson tunnel junctions, soliton dynamics, zero field steps 2−92838
Josephson tunnel junctions, soliton excitations, sine-Gordon model 2−82543
Kadomtsev-Petviashvili eqn., inverse scatt. 2−107107
Kadomtsev-Petviashvili eqn., similarity solns. 2−97570
Kaup-Newell system, canonical struct. of soliton eqns. 2−95110
KdV and nonlinear Schrodinger eqns., exact soliton solns. 2−107119
Korteweg de Vries eqn., soliton vel. and width, vacuum states 2−84456
Korteweg de Vries equations, coupled, integrability 2−74268
Korteweg de Vries system, recurrence, theoretical and expt. study 2−101175
Korteweg-de Vries eqn., and functions, Gaussian series, periodic solns. 2−53533
Korteweg-de Vries eqn., soliton solns., elec. transmission line expt. study 2−74228
Korteweg-de Vries eqn. and cylindrical eqn., reduction to Painleve eqn. 2−74226
KP-type soliton eqns., hierarchy and transformation groups 2−63826
Langmuir soliton, accelerating, emission of ion-acoustic waves *(Russian)* 2−86424
Langmuir solitons problem, self consistent anal. 2−55723
Langmuir turbulence in magnetoactive plasma, auto-oscillation soliton *(Russian)* 2−109517
lattice boson field theory, soliton doubling 2−79769
lattice sine-Gordon model, quantum and classical *(Russian)* 2−53699
lattice solitons, nonlinear LC circuit method, dark solitons, Schrodinger eqn. 2−58721
layered crystals, one-dimens. nonlinear waves, theory *(Russian)* 2−115367
Liouville's eqn., Backlund generated solns. and graphical representations in three spatial dimensions 2−112716
low dimensional systems, theoretical aspects of solitons, review *(Japanese)* 2−81901
magnetic chains, solitons, functional integration approach 2−66737
magnetization soliton excitation in antiferromagnetic using magnetoacoustic interaction 2−72329
magnetized plasma turbulence, soliton gas model 2−89134
magnetoelastic soliton 2−82687
massive Thirring model thermodynamics for weak sine-Gordon coupling regime 2−74373
mathematical methods, book 2−53439
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
molecular chain, Davydov soliton, acoustic wave dispersion effects, theoretical anal. *(Russian)* 2−59983
molecular chain, soliton characteristics, variational approach *(Russian)* 2−76945
multidimensional bound solitons in nonlinear field equations 2−95030
multiple-pole solutions of the modified Korteweg-de Vries equation 2−84451
N=2 supergravity solitons, Bogomolny bound for general relativity 2−53646
nondispersive evolution eqns. with solitary wave solns. 2−84452
nonlinear field theory, coupling constant depend. in special model with internal symmetry 2−95587
nonlinear fields in plane, infinitude of soliton waves *(French)* 2−69025
nonlinear ion-acoustic waves in weak magnetic fields 2−91610
nonlinear LC circuit simulation of Toda lattice, soliton propag. 2−58722
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
nonlinear relativistic quantum mechanics of extended particles 2−69035
nonlinear waves, theory, Tamm-Dankoff method 2−107123
nucleus-nucleus collisions near speed of sound, soliton soln. for hydrodynamics eqns. 2−107840
one-dimensional interacting electron system, phase Hamiltonian and solitons in dimerized and trimerized systems 2−61095
one-dimensional magnets with solitons, ferromag. reson. 2−104707
one-dimensional molecular crystals, soliton dynamics calc. 2−92598
one-dimensional nonlinear evolution eqn., explode-decay mode and soliton soln. 2−95024
one-dimensional solitons, CDW, SDW, and ion displacement fields 2−115677
one-dimensional system, CDW, domain struct. and $1/f^2$ noise *(French)* 2−115675
optical fibre, soliton propag. and communications applic. 2−97206
optical fibre bit rate optimisation using optical solitons 2−55348
organic conductors, charge density waves, soliton collisions 2−92492
parametric frequency up-conversion, nonlinearly dispersive spreading and quasi-solitons 2−114361
Peierls dimerized condensate, IR activity 2−61910
Peierls system, interchain interaction and fractionally charged solitons 2−104274

solitons continued
Peierls system, nearly half-filled, effects of electron-electron interactions on soliton lattices 2−58719
periodic sine-Gordon eqn., spectral theory 2−95600
piezomagnetic antiferromagnet, solitons *(Russian)* 2−104677
plasma, cylindrical converging ion-sound waves, nonlinear evolution, theory *(Russian)* 2−115008
plasma, ion-acoustic solitons, resonant interaction in 3-dimens. 2−76115
plasma hydrodynamic models, freezing-in integrals and Lagrangian invariants *(Russian)* 2−97720
trans-polyacetylene: I_2 film, elect. cond. and IR absorpt. 2−71969
polyacetylene:AsF_5, solitons, inhomogeneous doping, EPR, DC cond. 2−61531
trans-polyacetylene:Li film, visible spectra 2−116206
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
trans-polyacetylene, electrochem. voltage spectroscopy 2−110227
polyacetylene, f-sum rule for absorpt. spectra, solitons 2−87812
polyacetylene, lightly doped, electron hopping in soliton band 2−82361
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
polyacetylene, optical absorption and boundary conditions in soliton model 2−82814
trans-polyacetylene, optically excited states, UPS study 2−111030
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
polyacetylene, pure and doped, ^1H NMR spin-lattice relax. rate, freq. and temp. depend. meas. 2−77406
polyacetylene, quantum corrections to solitons 2−103929
polyacetylene, resonance Raman scatt. and photoluminescence props., review 2−77522
polyacetylene, semicond. and metallic, electronic props. 2−82327
polyacetylene, soliton diffusion, acoustic phonons 2−115379
polyacetylene, soliton diffusion, optical phonons 2−109935
polyacetylene, soliton excitations and polarons 2−115673
polyacetylene, solitons, optical conductivity 2−56573
polyacetylene film, nonuniform doping effect on resistivity, metal-insulator transition 2−104518
trans-polycetylene, doped, impurity states 2−71905
quantization of bag-like solitons 2−107612
quantum field theory, Lorentz invariance of extended objects 2−113113
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quantum mechanics and nonlinear waves, book 2−58555
quantum numbers in fermion-soliton system 2−107542
quantum solitons, fermion zero modes, supersymm., fractional charges 2−53970
quantum solitons fractional charges and supersymmetry generators 2−95614
quantum XY spin chain, solitons and magnons 2−66797
quasi-one-dimensional disordered systems, eigenvectors calcs. 2−82289
quasi-one-dimensional spinand charge-density wave systems, solitons 2−56558
resonant molecular medium, stationary ultrashort pulses soliton-type soln. *(Russian)* 2−54909
Rossby nonlinear waves in channel of finite width 2−97569
Rossby soliton stability in rotating shallow liquid *(Russian)* 2−109347
running soliton superstructure stability *(Russian)* 2−72121
SAW devices, soliton theory 2−102967
scalar field eqns., solitary-wave solns., stability theory 2−107113
scalar soliton, charge-conserving perturbations, stability 2−95027
Schrodinger equation, nonlinear and potential nonlinear, soliton solns. 2−74231
Schrodinger equation, two-dimens. nonlinear, soliton and ripplon superposition 2−101209
Schrodinger equation, two-dimensional, nonlinear, multiple explode-decay mode solns. 2−53568
self-dual SU(2) gauge fields on Euclidean space, soliton solns. 2−95597
semi-infinite plasma, solitary surface waves 2−91609
sine-Gordon breather gas, thermodynamics, soliton gas phenomenology 2−89642
sine-Gordon eqn., four-vector generalisation 2−53931
sine-Gordon eqn., generalised time-depend., kink product solutions 2−89544
sine-Gordon soliton dynamics 2−79380
sine-Gordon soliton kinks, wave mechanics 2−101186
sine-Gordon theory, effective pot. at finite temp. 2−69331
solitary toroidal vortices in plasma, turbulence *(Russian)* 2−109484
soliton propagation in slowly varying media 2−109503
stability in weakly dispersive media *(Russian)* 2−84461
stability to nonlinear field eqns. in spinor model 2−101537
statistical mechanics, path-integral approach 2−101187
submonolayer film on elastic substrate, incommensurate struct., phase diag., Debye-Waller factor *(Russian)* 2−82178
Sun, magnetic flux tube solitons in photosphere and chromosphere 2−58318
surface, general props. 2−53536
Synge model, with EM field, soliton stability 2−69074
TCNQ salts, alkali-TCNQ, possible origin of S=1/2 ESR lines 2−77359
TCNQ salts, highly correlated 1:2, fractional charge solitons 2−82254
thermalised positron soliton model 2−61415
threefold commensurate Peierls insulator, fractional soliton charges 2−92489
TMMC, mag. solitons contrib. to sp. ht. in external mag. field 2−66824
TMMC, sp. ht. contrib. from mag. solitons 2−72234
TMMC-d_{12}, soliton regime, neutron scatt. study 2−56844
Toda lattice, soliton-gas approx., dynamic correls. 2−79489
Toda lattice, statistical mech. based on soliton dynamics 2−69101
transformation groups, Kadomtsev-Petviashvili eqn. τ function 2−84454
transformation groups for soliton eqns. 2−84455
two-dimensional nonequilibrium structures, melting 2−115392
Volterra equation, extended, soliton solns. 2−74227
vortex filaments, stability, nonlinear Schrodinger eqn. anal. 2−75973
vortex solitary waves in a rotating, turbulent flow 2−55595
warm multielectron plasma, ion-acoustic soliton, Boltzmann distrib. 2−76097
Yang-Mills theory, soliton supermultiplet in 4+1 dimensions 2−53942
$CsCoBr_3$, propagating domain walls, inelastic neutron scatt. study 2−104599
$CsFeCl_3.2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
$CsNiF_3$, ferromag., transverse spin fluctuations, neutron inelastic scatt. study 2−56836

solitons continued
$CsNiF_3$, specific heat meas. rel. to spin solitons 2−92925
H-bonded chain, proton transport, solitonic mechanism 2−110028
^3He, superfluid, A-phase, large mag. perturbation and solitons 2−104101
^4He superfluid film, Korteweg-de Vries solitons 2−71762
$K_2Pt(CN)_4Br_{0.3}(Cl_{0.3})$-$3.2H_2O$, solitary waves and low-temp. cond. 2−87245
$NbSe_3$, commensurate CDW system, fractional changes and freq. depend. currents 2−82328
$RbFeCl_3..2H_2O$, nucl. relax., effect of diffusive solitons 2−110675
Rb_2ZnCl_4, incommensurate, NMR lineshape and phase soliton effects 2−56971
Rb_2ZnCl_4, incommensurate-commensurate phase transition, dielec. meas. 2−71637
Rb_2ZnCl_4:Mn^{2+}, slow soliton motion inferred from EPR meas. at $T=T_c+\epsilon$ 2−72337
TaS_3, thermoelectric power meas. 2−104400
Ti-V, β-ω transform under press., stacking solition model for diffuse omega phase 2−71639

sols
see also colloids; sedimentation
fission reactor fuel claddings, anti-deposition coating, sol-gel method 2−64485
flow birefringence at sol-gel transition 2−57641
PVC, plastisol viscosity and particle size distrib. 2−82005
silicates, sol-gel transition, gel-to-glass conversion 2−76315
silicon tetraethoxide, sol-gel transition in hydrolysis rel. to form of glass fibre and films 2−77793
sol-gel transition, critical behaviour percolation, kinetic model 2−105481
Ag-pyridine sols, surface enhanced Raman scatt. 2−82859
Au sol particles, adsorbed citrate ions, surface enhanced Raman scatt. 2−116195
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795

solubility
see also phase equilibrium; solid solubility; solutions
binary alloys, effect of supersaturation on parabolic rate constant 2−67731
1,2-bis-[4-n-alkyloxybenzoyl]-hydrazines, thermotropic cubic mesophases, expt. study 2−65849
castor oil, thermodynamics props. as a function of temp. and press., using sound vel. and density data 2−61166
ceramic materials in liq. metals, thermodynamic stability 2−80176
gases, in liq. solvents and solvent mixtures, thermodynamics 2−66231
gases in water, reactor appls. 2−113594
glass, multiphase microstruct., STEM and EELS anal. 2−91798
hexatic and crystal B phases in a series of liquid crystal compounds 2−103608
hydrocarbon, infinite-dilution partition coeff., between gas and liq. phases in aq. system 2−98284
ionic solutions, cond. and thermodynamic props., miscibility 2−56215
liquid metal-O_2 system, correlations for thermodynamic and kinetic props. of gas solutes 2−98286
liquids, statistical thermodynamics approach to eqns. of state 2−76707
mesomorphic polymer and monomer liq. cryst. mixture, nematic phases 2−115410
metal hydride systems, hysteresis, regular interstitial soln. approx. 2−56197
non-metallic crystals, dislocation etch pit form. 2−109802
nonmetallic crystal surface energy estimation from hardness and solubility data 2−92336
organic compounds, hydrophobic, Henry's law consts. 2−76683
partition coefficient, meas. a volatile compound between gas and liq. phases in aq. system 2−98284
n-pentyl 4-[4'-n-dodecyloxybenzylideneamino] cinnamate, smectic phase classification, smectic I phases 2−61137
pleochroic dyes, solubility in nematic phases 2−104000
poly(ethylene oxide), solubility parameter determ. at 25°C by gas-liq. chromatography 2−109661
polybutaneamide solns., solubility, viscosity and stability *(Russian)* 2−76725
polyester/chlorinated PVC blends, miscibility study by calorimetric glass transition temp. meas. 2−92219
polyethylene, low density, solubility for volatile hydrocarbons, prediction using UNIFAC-FV model 2−66236
rare earth-thallium alloys, liq., thermodynamic characts., intermetallides form., liquidus behaviour 2−67293
shellac, cohesive energy density 2−76686
solid mixtures, in supercritical fluids 2−98285
solids in supercrit. gases, lattice gas model 2−103998
$SrWO_4$, solubility in metal chloride melts, crystallisation 2−86874
steel, austenitic 304, diffusivity and solubility of H_2, electrochemical determ. *(Japanese)* 2−104064
steel, C, H-trapping phenomena 2−98288
sulphides, crystallisation from KSCN melts, solubilities 2−111043
terminal polar two-ring organic cpds., re-entrant nematic phase, phase diagrams 2−115132
transition metals, of H_2, effects on field evaporation and field ion microscopic imaging *(German)* 2−103569
transition metals, solubility of H_2, surface effects, kinetic model 2−76836
Ag-La (25 at.%), phase diagram invest., thermal anal. and X-ray meas. 2−67301
Al, pure large-grain, diffusion coeffs. and solubility of H 2−71725
Al solubility process in SiC, Fermi level, thermodynamic anal. 2−109992
alkali metal oxide-CaO-Al_2O_3-SiO_2 glass, liq.-liq. phase separation, struct. interpretation, alkali aluminate complex form. 2−103973
As_2S_3, evaporated layer, photoselective solubility rel. to heat treatment *(Russian)* 2−64141
B_2O_3-SiO_2-Na_2O-Fe_2O_3 glasses, phase separation, mixed valence effect 2−92210
Ba-Zn alloys, liq. 2−72670
$BaWO_4$, solubility in metal chloride melts, crystallisation 2−86874
Bi_2O_3-M_xO_y, melt, M=Si, Ti, Ge, Zn, or Cd, solubility of Pt 2−71652
(Bi_2O_3+V_2O_5)-SiO_2 flux, HoO_3 solubility determ. by thermogravimetric method, applic. to $R_2Si_2O_7$ single cryst. growth 2−105059
Bi_2WO_6 powders, obtained in prescence of fused salts, morphology 2−97971
$CaCO_3$, calcite, rhythmic crystn. in agar gel, impurity addition effect 2−55867
CaO-SiO_2, thermodynamic treatments 2−61167

solubility continued
$Ca_{10}(PO_4)_6(OH)_2$, dissoln. kinetics, acidity constant for HPO_4^{2-} surface complex 2−60896
$CaTiO_3$, kinetics of formation, hydrothermal conditions 2−111453
$CaWO_4$, solubility in metal chloride melts, crystallisation 2−86874
Co complexes, Co(III)/Co(II) complexes with o-phenanthroline and related ligands, redox couples for electrochem. energy storage 2−57620
Co-Al-O, liq. solubility of oxides, prediction 2−86889
Co-O-Zr(Ti), liq., solubility of oxides 2−98295
Cr-Al-Y-M (M=Co, Ti, Si, Ni, Mn, Pt, Fe), alloying additions effect 2−116451
Cr-Zr-N alloy system, phase equilibria *(Ukrainian)* 2−67288
Cs-In, phase diagram, cryst. struct., liquid immiscibility, X-ray diffr. study 2−66176
Cu, diffusion and solubility of H_2, electrochem. determ. *(Japanese)* 2−76743
Cu-Al-O, liq. solubility of oxides, prediction 2−86889
Cu-Al(Si)(Sn)(Ga) solid soln., H_2 solubility, thermodynamic props. *(Russian)* 2−92207
D_2-^{4}He system, three-phase vapour-liquid-solid equilib. *(Russian)* 2−56157
Fe based ternary system, liq., N diffusivity estimation 2−115446
Fe-Al-O, liq. solubility of oxides, prediction 2−86889
Fe-base ternary system, liq., H diffusivity estimation 2−115443
Fe-N, thermodynamics, kinetics and props., data collection 2−89474
Fe-O-Zr(Ti), liq., solubility of oxides 2−98295
GaAs, oxide removal from chemically etched surfaces, electron and X-ray diffr. 2−116561
GaP, oxide removal from chemically etched surfaces, electron and X-ray diffr. 2−116561
GaSe-Sb, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
GaSe-Sb_2Se_3, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
$Gd_3Ga_5O_{12}$, solubility and enthalpy in $PbO-B_2O_3-Fe_2O_3(Ga_2O_3)$ high temp. solvent 2−109991
Ge, solubility in liq. In, γ-ray effects, expt. study 2−115423
H in metals, deviations from Sievert's law 2−71656
HCl, in $SiCl_4$, 450K and 1.7 MPa 2−56198
HCl, solubility in GeCl, Henry's law, total press. meas. 2−92214
H_2O-alkaline earth dichloride systems, solid-liq. equilib., liquidus curve *(French)* 2−76643
^{3}He-^{4}He solutions, dilute, liquid-solid interface thermodynamics 2−76766
InAs, donor impurities solubility, Fermi level position effect 2−61153
$In_{0.53}Ga_{0.47}As$ surfaces ⟨100⟩, peroxide etch chemistry 2−111515
InP, LPE growth on $In_{0.53}Ga_{0.47}As$ (111)A without dissolution 2−77757
K_2CO_3, aqueous, activity and osmotic coeffs. 2−93807
La_2O_3-PbO-B_2O_3 fluxed-melt system, solubility and relative supersaturation 2−93400
$LuPO_4$:Nd^{3+}, Eu^{3+}, optical spectra, crystal field interactions 2−67074
$MgHPO_4.3H_2O$, newberyite, crystn. and effect of pH and conc. 2−62055
$MgNH_4PO_4.6H_2O$, struvite, crystn. and effect of pH and conc. 2−62055
$MgO-Al_2O_3-Cr_2O_3$, kinetics of soln. in oxide melts 2−88063
$MgO-Cr_2O_3(Fe_xO_y)(Al_2O_3)$-CaO.$SiO_2$, fused, retrograde stability of periclase rel. to cracking 2−83103
$MgWO_4$, solubility in metal chloride melts, crystallisation 2−86874
$NaIO_4$ single crysts., growth and characterisation 2−62056
Ni-Al-O, liq. solubility of oxides, prediction 2−86889
Ni-Cu liq. alloys, thermodynamic props. and solubility limits of O_2 2−56199
Ni-O-Zr(Ti), liq., solubility of oxides 2−98295
$Ni(NO_3)_2$ aqueous solns., activity and osmotic coeffs. 2−105496
$Ni_{49.9}Pd_{31.8}P_{18.3}$, H in amorphous alloys 2−81963
$(Pu,U)O_2$ fuels, unirradiated, Pu solubility determ. *(German)* 2−85138
Se-Ge-As glass melt, solubility of He 2−98292
Si:As, dopant clustering, generalized model 2−115417
Si-As surface alloy, supersaturated, formation by ion implantation and pulsed electron beam annealing 2−81801
Si-Au-Al, distrib. ratio of Al, zone refining with temp. gradient 2−71487
SiC:P, epitaxial kinetics, solubility and polytypy 2−76850
n-SiC:P, Fermi level, Fermi-Dirac distrib. and activity coeff. 2−92452
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
UMAl (M=Ni,Co,Mn), absorption of H_2, thermodynamic and struct. study 2−56196
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162
W-Ni, solubility of Ni, activated recrystallisation, liq. phase sintering 2−103997
^{133}Xe solubility in liq. n-alkanes, temp. depend. and thermodynamic functions 2−109996
YIG, solubility and enthalpy in $PbO-B_2O_3-Fe_2O_3(Ga_2O_3)$ high temp. solvent 2−109991
ZnO, in ZnSe, grown from melt 2−86702
Zr-Al, H_2, D_2 and T_2 solubility meas., getter appl. 2−86878
ZrO_2-B_2O_3-SiO_2 glasses, leachability, immobilisation of radioactive wastes 2−102046

solute clustering *see segregation*

solution annealing
Inconel X750, age hardenable, stress corrosion cracking in hot water, rel. to prior heat treatment 2−83299
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
polyethylene, lamellar thickening from isothermal soln. annealing 2−67373
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
Co-Fe-Nb semihard mag. alloy, cold working effects on precipitate morphologies rel. to mag. hysteresis 2−92962
Cu-Ni-Sn spinodal alloy, tensile props. improvements by two-phase heat treatment 2−116478
Fe-Cu wire reinforced Cu-Fe alloy, age hardening *(German)* 2−111192
Ni-base Alloy 600, stress corrosion cracking in oxygenerated water at high temp., environemntal effects *(Japanese)* 2−83282
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128

solution energy *see heat of solution*

solutions
see also critical mixtures; Debye-Huckel theory; heat of solution; liquids; polymer solutions; solid solutions; solvation
acetaldehyde in nematic liq. cryst., high-order multiple quantum transition intensities search procedure 2−77393
acetonitrile-d_3 in nematic soln., multiple quantum spin-echo spectra of D relax. 2−77416
adamantane-d, in dilute n-alkane solns., rot. relax., mol. quasi-hydrodynamic free space descriptions 2−76268
adsorption, multimolecular, from soln., modified BET eqn. appl. 2−76816
amines in aq. soln., limiting excess vol., temp. effect 2−66100
analytes in liq. solns., calibration curve prep. using exponential dilution flask 2−93838
anthrasemiquinone radical anions, aq. soln., stability, EPR obs. 2−90585
aqueous acid solns. dissoc. consts., anion effects by PMR spectroscopy 2−65017
aqueous electrolyte soln., ionic contrib. to partial molal vol. 2−66101
aqueous ionic solutions, static permittivities 2−82769
aqueous non-electrolytes, at infinite dilution estimation of solute-solvent interaction from ultrasonic studies 2−76593
aqueous solutions, thermal electron transfer correl., photoelectron emission 2−70408
associated, equilib. const., enthalpy and entropy of association 2−67760
binary solutions, infinitely dilute, Percus-Yevick eqn., new soln. 2−91740
binary solutions, IR bandshapes and dispersion 2−96639
blood protein aqueous solns., Fourier transform IR spectra obs. 2−116883
carbon tetrachloride solution absorpt. meas. using thermooptic-based interferometric technique 2−79652
catylpyridinium chloride soln., small-angle neutron scatt. 2−97863
complex organic compounds, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2−114041
condensed matter physics, topology of non-uniform media 2−98070
conference on high temp. and press. solns., chemistry, Karlskoga, Sweden (Sept. 1979) 2−58523
critical slowing down of chemical reactions *(Russian)* 2−88336
dilute electrolyte solutions, concs., molar vols. and viscosities *(German)* 2−56236
dipolar solutes in decalin, mol. dynamics rel. to dielec. relax. 2−66983
electrolyte solutions, bimorphic lattice theory 2−103574
electrolytes, single ionic drift velocities, NMR meas. 2−71679
electrostatic free energy and internal energy approx. evaluation 2−62424
ethanol, dilute aq. soln., Monte Carlo calcs. 2−60859
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
fluoroalcohol-base complexes, IR studies in gas phase, CCl_4 soln. and Ar matrix 2−80597
gelatin, aqueous soln., study of US vel. and associated parameters 2−71577
geothermal reservoir, rock-brine interactions 2−67821
L-histidine and related cpds., aq. solns., Raman studies 2−70259
hydroxypropyl cellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
hydroxypropylmethylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
ionic, cond. and thermodynamic props., miscibility 2−56215
ionic detergent solns. with rodlike micelles, small angle neutron scatt. 2−71320
lee-wave clouds, solution droplets as source of supercooled liquid water drops 2−100476
liquid-gas soln., bubble stability in closed vol., expt. and theory 2−115399
liquid-liquid phase diagrams, D isotope effects, review 2−66193
magnetism theory, statics and dynamics, book 2−68978
methylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
methylene blue in water and acetonitrile, photoinduced electron ejection 2−75348
multicomponent regular, stat. thermodynamic eqns. 2−89647
multicomponent solution absorpt. on homogeneous solid surfaces 2−76815
multicomponent systems, layered convection and crystal layers rel. to magma chambers 2−106116
Na_2SO_4 aq. solns., densities and apparent molar vols. 2−98176
nematic-phase solns., ^{2}H-{^{1}H} selective spin population transfer 2−54876
o-nitrotoluene-n-paraffin mixtures, critical conc. and points 2−81943
nonpolar surfactant solns., microemulsion concept 2−93825
phenolic H^+ chemical shift, high dilution meas., correl. with electronic charge calc. by CNDO/2 method 2−75326
phenyl nitrenes, spectral and photochem. props. 2−70318
phenylamines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
phenylarsines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
phenylphosphines, and anions in soln., ^{1}H, ^{13}C and ^{31}P NMR study 2−85693
polyelectrolyte solutions, counterion binding, FT NMR self-diffusion investig. 2−82729
potential distribution measurement, rapid method, appl. to corrosion studies *(Japanese)* 2−74392
pyrene in polar solvents, IR intensity enhancement induced by solute-solvent interaction 2−75287
quinine bisulphate in aq. H_2So_4 soln., complex fluoresc. decay 2−75340
Raman spectra using high temp. high press. furnace technique 2−89820
regular solns., supersaturation 2−115415
rhodamine 6G, ethanol soln., assoc., impurities effects. 2−105477
rhodamine 6G, ethanol solns., associate struct., spectrosc. obs. 2−105478
salt solution, infiltration into a swelling soil 2−111978
trans-stilbene, soln., fluoresc. lifetime, temp. depend. 2−70315
testosteronepropionate in soln., circular dichroism and optical rotatory dispersion, Kramers-Kronig transforms 2−70314
tetrafluoro-1,4-benzoquinone in liq. cryst. solns., struct., chem. shift anisotropy and J couplings, NMR study 2−72363
toluene in polyethylene glycol soln., excess thermodynamic quantities determ. by Rayleigh scatt. 2−81989
tri-n-octylammonium halides, benzene solns., viscosity, partial molar vols. and expansibilities 2−110025
1,3,5-triphenylbenzene soln. dynamics, ^{13}C NMR study of phenyl-phenyl bond 2−56962
urea-alcohol aq. solns., interactions, excess enthalpies at 25°C 2−103587
viscosities, microscopic theory 2−86918
AgCl-LiCl molten soln., surface tension, activity and thermodynamic props. and density meas. 2−76778
Al salt solns., IR spectra 2−93169

solutions continued
$Al(ClO_4)_3$, solns. in methanol (ethanol), ligand exchange rates, PMR obs. 2—104712
CN^- in aq. soln., vibr. energy relax. 2—85787
$CuBr_2$ aq. solns., local struct., EXAFS study 2—71331
$CuCl_2$, vibr. dynamics, Raman scatt. study 2—57085
Ga-As, nonstoichiometric solutions, vapour pressure 2—109994
Ga-P solutions, evap. of P and vapour press. of P_2, influence of Sn and In 2—56168
H^+ donor-acceptor system association, solvent effects on intermol. interaction *(French)* 2—111488
H_2O-alkaline earth dichloride systems, solid-liq. equilib., liquidus curve *(French)* 2—76643
H_2O-alkaline earth dichloride systems, solid-liq. equilib., diagrams *(French)* 2—76644
H_3O^+, aqueous acid solns., Raman spectrum 2—113996
In-As, activity coefficient, regular soln. approach and lattice model 2—93492
In-P, activity coefficient, regular soln. approach and lattice model 2—93492
In-P solutions, evap. of P and vapour press. of P_2, influence of Sn and In 2—56168
$InBr_3$, conc. soln., struct., X-ray diffr. study 2—115127
$InBr_3$ in aq. soln., far IR spectra 2—87760
$InCl_3$, conc. soln., struct., X-ray diffr. study 2—115127
K_2CO_3, aqueous, activity and osmotic coeffs. 2—93807
LiCl aq. solns., second zone existence, incoherent neutron scatt. study 2—60865
$MgCl_2$ aq. solns., densities and apparent molar vols. 2—98176
$MgCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2—60865
$MgSO_4$ aq. solns., densities and apparent molar vols. 2—98176
MoO_4^{2-} in aq. soln., precision Raman meas. 2—87764
NaCl aq. solns., densities and apparent molar vols. 2—98176
NiBe, Ni_5Be_{21}, enthalpies of formation, soln. calorimetry 2—83402
$NiCl_2$ aq. solns., second zone existence, incoherent neutron scatt. study 2—60865
$RuCl_3$ in aq. soln., far IR spectra 2—87760
SO_4^{2-} in aq. soln., precision Raman meas. 2—87764
$SrBr_2(Cl_2)$, vibr. dynamics, Raman scatt. study 2—57085
$SrCl_2$ aq. solns., X-ray diffr. study 2—115129
WO_4^{2-} in aq. soln., precision Raman meas. 2—87764
$ZnCl_2$ solutions in D_2O, local order and dynamics, small angle neutron scatt. study 2—55828
$ZnCl_2$, vibr. dynamics, Raman scatt. study 2—57085

solvated electrons
ethanol-water, solvated electrons, ESR and optical absorpt. study 2—66892
H_2O clusters, +ve and −ve, prod. using supersonic mol. beam source with β-emitter 2—90758

solvated protons *see hydroxonium ion*

solvation
see also hydroxonium ion; solvated electrons
alcohol-alkane systems, solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2—108763
alcohols solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2—108763
alkali metal cations, solution, pot. energy function models 2—59886
alkali metal metavanadates, X-ray emission spectra, second coord. sphere effects 2—90567
aqueous ionic solutions, static permittivities 2—82769
atoms and cations, stability anal., rel. to electrogeneration 2—108660
benzene-d_6, solvation sites in mesophases of discotic liquid crystals, D quadrupole splitting meas. 2—97916
cation insertion reactions 2—105526
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2—62557
DNA intercalating mols., comparison between quinacrine and chloroquine ring-ring interaction with adenine and thymine 2—85679
ethanol, dilute aq. soln., Monte Carlo calcs. 2—60859
formaldehyde, hydration, force fields representation 2—83354
ions and atoms encased in rings, cages and crypts, mech. stability anal. 2—102378
methanol-LiBr($ZnBr_2$)(LiBr-$ZnBr_2$), solvation, heat of mixing determ. 2—66238
molecules, discrete electrostatic charge distrib. model, free energy *(French)* 2—78084
nitrate, solvation by HNO_3, IR spectra 2—73007
rhodamine 6G, ethanol soln., assoc., impurities effects. 2—105477
structure, Voronoi polyhedra description 2—83364
$Al(ClO_4)_3$, solns. in methanol (ethanol), ligand exchange rates, PMR obs. 2—104712
$Al_2Mg(OH)_2(Si_4O_{10})(Ca,Na)_x.4H_2O$, bentonite, texture changes during vibr. grinding and after ageing *(Czech)* 2—88101
$BeCl_2$, in acetonitrile, solvation, ^9Be NMR 2—80665
Ca^{2+}, hydration shells, nonadditive effects 2—80457
$Ca^{2+}+H_2O$ interactions pseudopotentials representation 2—75366
Cl^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530
$D^+ + (H_2O)_8$, solvating collisions, trajectories calcs., mechanism 2—90654
F^- aqueous ion, intermol. nuclear spin-spin coupling and scalar relax., quantum and statistical mech. calcs. 2—90641
F^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530
F^-, methanol solvate, IR multiphoton dissoc. 2—85755
$FeCl_3$, hydrolysed soln., coordination., X-ray diffr. study 2—65841
Ge-P-S glass:Mn^{2+}, ESR study 2—104694
H^+ solvation by methanol and diethyl ether, SCF calcs. 2—62379
HS^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530
$InF_3.3H_2O$, solid phase hydrolysis, NMR study 2—72943
$K_3Fe(CN)_6$-$K_4Fe(CN)_6$, rehydration, IR and derivatography studies 2—110833
Li, solvated, far IR spectrum, INDO calcs. 2—108413
Mg^{2+}, hydration shells, nonadditive effects 2—80457
$Mg^{2+}+H_2O$ interactions pseudopotentials representation 2—75366
NH_3, liquid, empirical pot. for conformational, intermol. and solvation studies 2—91747
NO_2^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530

solvation continued
NO_3^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530
Na^+ cation solution by organic nitroxide radical, ^{23}Na NMR and ab initio investig. 2—80677
$NiBr_2$ aq. soln., X-ray diffr. investig. 2—90742
O_2^- in DMSO-d_6, electron spin-echo modulation, Fourier transform appls. 2—59828
OH^-, hydrated, mixed electrostatic quantum chem. approach MO calcs. 2—85530
V_2O_5 amorphous phase, hydrated 2—55847
$WO_3.H_2O$ film, cation insertion reactions 2—105526
ZrO_2, highly dispersed powder, hydrothermal modification 2—99461

solvent effects
acetamide, solvent effect on amidic bond, PMR study 2—70291
aminoanthraquinone dyes, spectra, solvent effects 2—75302
9-aminofluorene, anomalous fluoresc., solvent effects 2—90603
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2—113965
aminophthalimide, solvent effects on absorption and fluoresc. *(German)* 2—54894
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2—108616
anthranilic acid, soln. amplified spontaneous emission 2—96590
N-aryl carbazoles, twisted intramol. charge transfer states, fluoresc. obs. 2—59924
azaphenanthrenes, excited states, nonradiative deactivation by acids in aprotic solvents 2—108618
benzo(a)pyrene and its 9- and 3-hydroxy derivatives, fluoresc. excitation and emission spectra, solvent effects 2—70330
benzophenone, $n\pi^*$ triplet state in glassy matrices, time-resolved ESR detect. 2—59826
3-benzylidene-2,4-pentanediones, substituted, IR spectra, conformation 2—64983
9,9-bis(acridizium-yl)-perchlorate, fluoresc., singlet excitation states geometry, solvent and temp. effect *(German)* 2—90621
n-butane in soln., light scatt., mol. theory, solute-solvent interactions 2—82870
2-butyne, partially oriented, PMR spectra, a_n struct. determ. 2—96599
chlorophyll, in soln., lipid vesicles and liposomes, conc. quenching, fluoresc. study 2—67955
cholesterol, anhydrous, crystal habit, solvent and crystn. effects 2—55868
complex organic compounds, conc. solns., fluoresc. spectra, temp. solvent aggregation effects 2—114041
complex stability, free energy of form., solvent effects 2—83405
4-cyano-2,6,N,N-tetramethylaniline, twisted internal charge transfer state fluoresc. 2—108615
p,p'-di-n-heptylazoxybenzene, diamag. susceptibility, ^1H NMR, chem. shift 2—98979
dibenzo-18-crown-6, solvent effects on PMR spectra 2—108578
dibromomethane, Fermi resonance, intermolecular interactions, Raman obs. 2—64988
dichloromethane, Fermi resonance, intermolecular interactions, Raman obs. 2—64988
7-diethylamino-4-methyl coumarin dye laser, spectral and gain charact., solvent effects 2—108870
3,3'-diethyloxadicarbocyanine iodide, photochemical isomerisations, solvent effects 2—57599
diethylsuccinate in dioxane-H_2O mixtures, kinetics of acid-catalysed hydrolysis 2—83382
dihalogenotoluenes, UV absorpt. spectra, Π-Π^* transition, solvent effect 2—54860
diol salts, intramol. H bonds, IR continuum and NMR obs. 2—59799
diphenyl butadiene, photochemical isomerisation in soln., radiative and nonradiative decay rates 2—73002
diphenyl polymer, dil. solns., behaviour in turbulent flow conditions, Thoms effect *(Russian)* 2—76001
N,N-diphenylthiourea, NMR and IR studies of solvent effect 2—75325
1,5dithiacyclooctane, EPR studies of isomeric monomeric cation radicals and dimers formed on oxidation 2—75331
dye cresyl violet perchlorate, fluoresc. lifetime and orientational relax. times, laser phase fluorimetry *(German)* 2—80707
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2—70320
electrostatic free energy and internal energy approx. evaluation 2—62424
exciplex, formation and relax., solvent effects, vibr., pot. energy curves 2—85570
external heavy atom effect, role of spin-orbit coupling 2—54781
film formation, subbing of glass substrates *(Russian)* 2—67586
flexible molecules in soln., light scatt., mol. theory, solute-solvent interactions 2—82870
fluoranthene, in dielectric liqs., photoionisation, fluoresc. obs. 2—85749
fluorene-Ar_n van der Waals complex, energetics, solvent shifts and decay lifetimes 2—70322
fluoroethylenes, solvent effect on spin coupling consts., FPT-INDO-solvation calcs. 2—113888
formamide, internal rot., solvent effect, ab initio study using polarisable continuum model 2—80835
n-hexadecane, liq. and soln., conformational order, Raman study 2—67033
4'-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2—85719
interatomic dipole moment of two atoms, solvent effects, theory *(Russian)* 2—113908
4-isocyanate-trans-stilbene, donor substituted, excited state, dipole moments, PPP calcs. *(German)* 2—64882
lycopene, reson. Raman excitation profile, inhomogeneous broadening effects 2—102484
malachite green, fluoresc. polarisation anisotropy and kinetics as a function of solvent viscosity 2—70323
metallophthalocyanines, reson. Raman fundamentals, inhomogeneous broadening 2—54855
metalloporphyrins, reson. Raman fundamentals, inhomogeneous broadening 2—54855
methanol, $^1J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2—96598
methanol, liq. and solns., Fermi reson. solvent and temp. depend., Raman study 2—75296
methanol-d_6 polymer, H-bonds, underdamped anharmonic stochastic oscill., IR obs. 2—85646
methoxylated isoflavones, ^1H NMR spectra, solvent effect 2—70292

solvent effects continued
N-methylacetamide, solvent effect on amidic bond, PMR study 2−70291
methylamine $^{1}J_{CH}$ coupling, dielectric const. depend., ^{13}CNMR meas., calc. using FPT-INDO-Solvaton method, internal rot. 2−96598
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
N-methylthiourea, NMR and IR studies of solvent effect 2−75325
molecules, electronic oscill. strengths, solvent effects 2−96640
monobromobenzene in nematic liq. cryst., r_α struct., ^{13}C satellites in PMR spectrum 2−54873
p-nitroaniline, solns. and cryst., Fermi resonance, IR study 2−57103
p-nitrophenol-donor systems, proton transfer and H-bonds, spectroscopic studies 2−70370
nitroxide spin labels, solvent nuclei polarisation at low mag. fields 2−80692
nitroxides, visible spectra, solvent effects and N hyperfine splitting consts. 2−114012
organic prolate mols., rot. motion in soln., luminesc. study 2−104966
organotin cpds. and complexes, IR spectrosc. investig. 2−108505
[2.2]paracyclophanes-electron acceptor, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
pentachlorophenolamine complexes, dipole moments, IR and UV spectra, solvent and temp. effects 2−80589
phenoxy-$d_0(d_5)$, aq. radicals, solvent effects, resonance Raman obs. 2−70254
2-phthalonyl-4H-3, 1-benzoxazin-4-one, IR spectra, solvent effects, mol. struct. 2−54844
platinum-phthalocyanine, reson. Raman fundamentals, inhomogeneous broadening 2−54855
PMMA, stereoregular, unperturbed dimens. meas. by gel permeation chromatography 2−71330
poly-α-methylstyrene, syndiotactic, solns., mol. motion, ^{13}C NMR obs. 2−102676
polyatomic molecular liquids, vibr. dephasing and freq. shifts, isotropic Raman line broadening 2−61891
polyenes, solute electron correlation energy, environment effects, UV spectral shifts calc. 2−90460
polyethylene oxide, critical Weissenberg numbers, solvent effects 2−109371
polymer gels, solvent effects, statistical mechanical model 2−91754
polymethine dyes, vibronic fluoresc. spectra fine struct. 2−114037
polymethylene chains, conform. changes in soln., Monte Carlo calcs. *(Russian)* 2−76267
polystyrene gel, isotactic, extended and threefold helical conforms., solvent geometry effect 2−78144
propane-d_6, Fermi resonance, intermolecular interactions, Raman obs. 2−64988
pyrene in polar solvents, IR intensity enhancement induced by solute-solvent interaction 2−75287
pyridinium N-oxide perchlorates, acetonitrile soln., H bonds, UV obs. 2−80645
4(3H)-quinazolinones, IR spectra, solvent effects, mol. struct. 2−54844
rhodamine 6G, mols. in soln., absorption spectra, environmental effects 2−96481
solute electron correlation energy, environment effects 2−90460
solution reactions, dynamical polar solvents effect, simple continuum model 2−72970
solvent-solute mutual viscosity, influence on relax. time *(German)* 2−104042
trans-stilbenes-donor-acceptor substituted, in nonpolar and low visions solvents, viscosity depend. of fluoresc. quantum yields *(German)* 2−82921
styrene-acrylonitrile copolymer solns., hydrodynamic characts. and light scatt. *(Russian)* 2−108756
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
tetrafluoro-1,4-benzoquinone in liq. cryst. solns., struct., chem. shift anisotropy and J couplings, NMR study 2−72363
thiabendazole homologues, fluoresc., solvent effects 2−59840
$TTFX_n$ (X=halide, NO_3) highly conductive thia adducts, electrocrystn. 2−93402
zinc porphyrin, in micellar soln., fluoresc. intensity oscills. 2−65038
$Al(ClO_4)_3$, solns. in methanol (ethanol), ligand exchange rates, PMR obs. 2−104712
CdS powder particle perfection, fused $CdCl_2$ and Na_2S_x solvent effects 2−105066
Er^{3+}, single-phonon nonradiative transition regularities 2−114035
Fe, passivation in organoaqueous media, solvent effects 2−83293
H^+ donor-acceptor system association, solvent effects on intermol. interaction *(French)* 2−111488
H_2, HD and D in nematic solvents, ^{1}H and ^{2}H NMR meas., environmental effects 2−85699
HCl and DCl in CCl_4, IR spectra, solute-solvent interactions 2−102478
HCl, in ethylene-glycol-water mixtures, thermodynamics, EMF meas. 2−98309
HCl-acetonitrile (olefin) complexes, H-bonds, underdamped anharmonic stochastic oscill., IR obs. 2−85646
O_2, $^{1}\Delta g$ singlet state lifetime, solvent effects 2−70345
$O_2(phen_3)^{2+}$, nonradiative decay rate consts. and emission energies, energy gap 2−114024
^{99}Ru, NMR in soln. 2−70289
^{101}Ru, NMR in soln. 2−70289
^{129}Xe NMR solvent shifts, reaction field model 2−75314

sonar
see also bioacoustics; navigation; underwater sound
acoustic imaging, recent developments, theory and practice 2−65437
atmosphere boundary layer, struct. parameters determ. using sodar 2−100432
atmospheric boundary layer, acoustic sounding with 'video-pulse radar', freq.-energy correls. anal. *(Russian)* 2−63139
combination of SAW analogue and digital processing 2−60288
cylindrical acoustic lens for high power transmitting array in sector scanning sonar 2−109146
lower E-region, neutral temp. and electron density meas. via vertical HF sounding in presence of acoustic wave 2−100636
echo-to-reverberation (clutter) ratio for strongly bistatic systems 2−70776
Fresnel lens, scanning sonar transmitter application 2−102994
holographic sonar 3D underwater ultrasonic imaging 2−75808
hydroacoustic equipment, optimizing Cu spheres for precision calibration 2−60323
lake sediment acoustic profiling using magnitude and phase anal. 2−112169

sonar continued
microprocessor appls. in signal processing and picture generation 2−81194
ocean density field struct. by acoustic tomography technique 2−112168
oceanographic deep-tow side-scan sonar system 2−73727
optical sonar system concept with acoustooptic sensing, fibre optic transmission and opt. signal, processing 2−70752
passive sonar fluctuating signals, averaged short time periodogram processor performance 2−60281
position control for acoustic probe in underwater sound research 2−81193
radial target length estimation from echo duration 2−60282
sea surface backscatter of sonar signals 2−117489
seafloor sediment acoustic refl. resonances 2−111884
side-scan sonar, obs. of wave-produced bubbles 2−68375
sodar-derived boundary layer information appl. in microwave communication 2−78790
sound source position calc. using passive sensor systems 2−114577
submarine detection systems, echo-sounding *(Spanish)* 2−75753
system performance, effects of oceanographic fluctuation power spectra 2−60285
temporal phase stability meas. of the medium 2−91130
tomographic approach to multiarray ocean surveillance 2−68512
tomographic ocean surveillance 2−63146
turbulence effects on scanning with adaptive phased array 2−70773
US echography, resolution analysis, far field directivity improvement method *(Japanese)* 2−114584
volume backscattering coeff. meas. using 87.5 kHz sonar 2−73576
water inhomogeneity meas., sonar scattering 2−83969
waterproofing of sonar hydrophones using elastomeric membranes 2−60280
wind measurement by Doppler sodar, accuracy of method 2−112180

sonic boom *see shock waves*

sonic propagation *see acoustic wave propagation*

sonoluminescence
cavitation bubble collapse, study of light emission and shock waves produced 2−70740
Peridinium depressum, photoregulation of US stimulated bioluminesc. 2−111735
water, cavitating lip, acoustic emission and sonoluminesc., dissolved gases effect 2−55622
$Bi_{12}GeO_{20}$, luminesc. excitation by piezoelec. prod. ultrasound 2−82932
CdS, piezoelec., US luminesc., freq. depend. meas. 2−61994
$LiNbO_3$, luminesc. excitation by piezoelec. prod. ultrasound 2−82932

Soret effect *see thermal diffusion in liquids*

sorption
see also adsorption; chemisorption; desorption; surface diffusion
Brownian particles, steady absorption by a sphere 2−95237
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
equilibrium sorption dynamics, soln. by method of characts. 2−115545
ferrous metals, adsorbed and absorbed H_2 characts. 2−71791
fluid interfaces, surface compositional elasticity and sorption parameters 2−76812
fossil fuels, gas sorption systems for S compounds, NH_3, computer simulation 2−73057
gas absorption into falling laminar non-Newtonian films 2−81369
gas analyzers, sorption, surface acoustic waves appl. 2−73025
gas-solid system, bound states, kinetic eqns. 2−87010
gas-surface scattering distributions according to the hard-spheroid model 2−57237
glass surfaces, water vapour sorption 2−110147
Grafoil, physisorbed Ne near monolayer completion, neutron diffr. and vapour press. study 2−98462
graphite, ^{3}He, ^{4}He multilayer physisorption, mean-field theory 2−87050
graphite, nucl. grade, particulate, kinetics and equil. of Cs sorption and desorption 2−74796
graphite with physisorbed N_2, quadrupole bilayer orientational phases 2−92350
hydrophilic swelling materials, sorption eqn. 2−110092
inert gases and SF_6, solid, physisorption of He, H_2, D_2 and Ne, sorption energy determ. 2−87013
Kapton polyimide film, dual model sorption and transport of SO_2 2−87042
laminar silicates, of pyridine, interaction, optical electronic spectrosc. 2−54868
liquid-gas soln., isothermal bubble evolution, statistical rate theory of interfacial transport 2−86973
metal hydride systems, hysteresis, regular interstitial soln. approx. 2−56197
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
nitrocelulose/nitroglycerine films, sorption of iso-propyl nitrate and acetone 2−71798
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
phosphosilicate glass film, H_2O absorpt. and densification 2−115630
PMMA, glassy state relax. characteris. by low press. CO_2 sorption, preswelling influence 2−65883
st-PMMA, struct. changes on drawing, absorpt. and desorpt., solvent-induced crystallisation, IR spectra 2−109698
PMMA plus water, sorption kinetics and volumetric changes 2−65880
PMMA-methanol system desorption and resorption of methanol, kinetic curves *(Russian)* 2−76800
polyethylene pipe, sorption and diffusion of solvents 2−71797
polyimide and polyamide-imide, stress relax. meas. in T_2 atmos. 2−88134
polymers, gas sorption theory, conformational effects and double-sigmoid shape of sorption isotherm 2−71789
polypropylene, diffusion coeff. of phenyl-β-naphtylamine, conc. depend. *(Russian)* 2−76726
polyvinyl acetate, nonequil. annealing behaviour, water sorption and glass transition, dielec. and thermal meas. 2−66223
porous particles, of O_3, rel. to ball lightning 2−105512
radioactive waste, geological disposal in Canadian Shield, drill core material, radionuclide sorption 2−90230
radionuclide behaviour in aqueous soln., sorption on hydrated oxides 2−57628
steel, austenitic stainless, impregnation of H during friction in H_2SO_4, influence on wear 2−67555
steel, CC H embrittlement and permeability in H_2S media, quaternary ammonium salts influence 2−67541

sorption continued
steel, Cr type, H impregnation behaviour and embrittlement resist., microplastic deform. influence 2−99552
steel, Cr-Ni type, low-cycle fatigue, combined influence of external H atm. and preliminary H impregnation 2−99553
steel, stainless, H recycling simulation, wall temp. effect in type 304 2−74936
steel, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
sulphide minerals in meteorites, sorption of noble gases rel. to origin of planetary gases 2−100846
sulphonaphthalene macronetwork polyelectrolytes, synthesis and props. *(Russian)* 2−78093
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
transition metals, solubility of H_2, surface effects, kinetic model 2−76836
Ag, of Ar, multilayer physisorption, mean-field theory 2−87050
Al_2O_3, emission centre form. by H_2O absorpt., photoluminescence study 2−110930
Al_2O_3 supported Co, sorption of CO monolayers, tunnelling spectra 2−66349
$Bi_{14}Te_{11}S_{10}$ thin cryst., two-dimens. cond. and magnetocond. 2−71985
Cu, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
$ErCo_{2-x}Fe_x$, effect on H_2 absorption on mag. behaviour 2−56855
$(Fe,Cr)_3O_4$ (chromite)+C, in meteorites, noble gases sorption 2−100845
Fe, Armco, electrochem. props. in friction, H absorpt. influence 2−67651
Fe-N, thermodynamics, kinetics and props., data collection 2−89474
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation charact., Mn additive effect, subsurface role 2−76690
Fe_3O_4+C in meteorites, noble gases sorption 2−100844
$FeTi_x$, adsorption of H_2, storage props., XPS, Mossbauer and metallographic study 2−92347
GdCu, absorption of H_2, mag. and crystallographic props., Mossbauer effect 2−82758
H_2 multiplateau absorption isotherms, chem. pot. 2−92348
H_2 physisorbed on flat surface, rotational excitation by low-energy electron scatt. 2−102651
H_2O, desorption and absorption on quartz glass ampoules during Ge chem. transport *(German)* 2−93440
^3H sorption from liq. Li using Y sorbers 2−85382
$HoCo_{2-x}Fe_x$, effect on H_2 absorption on mag. behaviour 2−56855
InP, anodic oxide layer, optical props. and H_2O absorpt. 2−57496
Ir (110), adsorption and reaction of alkanes, mass spectroscopy study 2−67764
$LaNi_5$, Ni microprecipitates produced by cyclic H absorpt. and desorpt., Ni^{61} Mossbauer study 2−66953
MgO of H_2O, emission centre form., photoluminescence study 2−110930
$Na_2Ti_3O_7$, γ-ray effects investig. 2−76502
Ni, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
O_2 absorption on porous glass, bimolecular radiative processes, luminescence and Raman scatt. 2−82913
Pd and Pd-Ag alloy, preliminary H impregnation influence on mech. props. 2−99554
Pd, of H_2, hardness and topology changes 2−93606
Pd_xZr_{1-x}, surface segregation due to H absorpt. 2−56345
$ScCo_2H_{3.4}$, Laves phase, thermal stability, H sorption effects of U and Ti doping 2−87014
$ScFe_2H_{3.4}$, Laves phase, thermal stability, H sorption, effects of Y and Ti doping 2−87014
$ScNi_2H_{3.4}$, Laves phase, thermal stability, H sorption 2−87014
SnO_2 conductance, effect of sorbed O_2 2−77037
T sorption from molten Li using Y metal 2−80175
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
Ti, hybriding in H plasma, embrittlement, sorption, rel. to contamination 2−74935
Ti, neutron-irradiated, H absorption and desorption rate constants 2−76817
Ti-Al-Mo and Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
TiNx, of water, effects on optical props. of thin films 2−104981
UMAl (M=Ni,Co,Mn), absorption of H_2, thermodynamic and struct. study 2−56196
Y_2O_3, emission centre form. by H_2O absorpt., photoluminescence study 2−110930
$Zr(Fe_{1-x}Al_x)_2$, ferromag., mag. props., conversion to superparamagnet and spin glass on H_2 absorption 2−92965
$ZrHNa(PO_4)_2$, γ-ray effects investig. 2−76502

sorting
lexicographic sorting of k-tuples in Cartesian product of k totally ordered sets 2−84433

sorting programs *see sorting*

SOS integrated circuits *see field effect integrated circuits*

sound *see acoustic waves; acoustics*

sound amplification *see acoustic wave amplification*

sound broadcasting *see radio broadcasting*

sound field *see acoustic field*

sound generators *see acoustic generators*

sound intensity *see acoustic intensity*

sound measurement *see acoustic variables measurement*

sound propagation *see acoustic wave propagation*

sound ranging *see sonar*

sound reproduction
see also audio acoustics; audio recording; pick-ups
listening tests, subjective evaluation of sound quality 2−88554
motion pictures, supporting role of sound 2−109132
music sound reproduction for hard of hearing *(German)* 2−68194
Nellie, noise reduction system 2−102978
photographic, principles, system components and implementation 2−109135
subjectively-perceived frequency response in small and medium-sized rooms 2−109156

sound waves *see acoustic waves*

space charge
see also limited space charge accumulation; space-charge-limited conduction; space-charge limited devices
anode glows in glow discharges 2−71277
atmosphere, space charge power spectra rel. to Aitken nucleus concs. 2−63035
charged liquid dielectrics, fluid flow effects on electic field distribution 2−96803

space charge continued
concentric spherical electrodes, bipolar current flow, numerical solution 2−103484
conservation of momentum, space charge problem soln. 2−94954
constant magnetic field effect on electron cloud in equilibrium 2−93362
corona discharge, electric field meas. using Pockels device 2−115071
coronas, space charge dominated, Warburg law and saturation current, approx. theory 2−55802
dielectric layer, pulse photo-response to monopolar injection *(Russian)* 2−61505
discharge voltages of non-corona air gaps of different shape at high frequency *(Russian)* 2−97805
electric field measurement method in space charge by Pockels device 2−79544
electron beams, space charge effect, computer study 2−114178
ferroelectric semicond. p-n junction, capacitance, spontaneous polarisation and pyroelectric current 2−115881
filamentation of space-charge-limited flow 2−97734
flow enchancement in magnetically insulated ion injectors 2−103306
forward biased junction, space-charge-layer boundary modelling 2−104470
free electron laser, space charge effects, normalised nonlinear eqns. formulation 2−55173
free-electron lasers, sideband instability, fluctuating space-charge effects 2−85982
gamma ray induced space-charge distribution in lamellar structures 2−61034
glow discharge electrode design allowing for polarisation and space charge effects 2−91709
high density plasma, space-charge effects 2−109489
high-resistivity semiconductors, microwave power absorpt. in space-charge region 2−115801
II-VI semiconductors, deep levels, junction space-charge techniques 2−110285
inhomogeneous electron fluxes, Landau damping 2−81603
insulating film, ionic space charge distrib. and polarisation 2−116120
insulating film, ionic space-charge distrib. and polarisation 2−57018
interaction between adjacent positive glow corona 2−103515
liquid metal ion sources, space charge effects for different geometries 2−77708
low-energy ion beam transport, periodic focusing structure 2−75088
metal-electrolyte interface, elec. double layer, layered lattice gas model 2−72051
methane gas flow proportional counter, self-induced space charge effect on gas gain 2−90357
MOS structure, min. value of IF space-charge capacitance 2−66654
MOS structure, two-dimensional space-charge layer in a tilted magnetic field 2−82466
MOS structure with buried layers, props. from nonequilib. C-V meas. 2−87396
multichannel spark gap triggering by ruby laser via fibre optics 2−97826
p-n asymmetrical diffused junctions, numerical method for space-charge region anal. 2−92740
p-n junction structures, space-charge regions, electron probe induced current 2−82453
particle beams, space charge forces, finite element anal., PE2D and TOSCA computer programs 2−55055
phthalocyanine thin films, metal-free, photocond. and photovoltaic effects 2−72023
piezoelectric semiconductors, electro-acoustic effect theory 2−72032
PLZT ceramic, domain switching, space charge field effects 2−99074
PMMA, immersed in transformer oil, anomalous breakdown charact. under direct and impulse stresses 2−110766
PMMA, space-charged, elec. discharge propag. 2−93112
PMMA electrets, TSC meas. with needle-plate electrode geometry 2−57010
polyethylene, elec. cond. and space charge phenomena at high elec. fields *(German)* 2−87292
polyethylene films, elec. breakdown, surface roughness and space charge form. 2−110761
polyethylene terephthalate, electroluminescence and space charge layers 2−93282
polyethylene thermoelectret, TSC and space charge 2−110361
polymethylmethacrylate, elec. field induced damage, space charge, light scatt. study 2−87672
polypropylene electret, vapour induced depolarisation currents 2−87658
polystryene, elec. field induced damage, space charge, light scatt. study 2−87672
polyvinylidene fluoride, pyroelectricity and space charge, expt. study 2−116123
positive corona space charge, impulse withstand voltages, humidity effects 2−103509
positive point to plane gaps, corona discharge calc. 2−103504
quartz, X-ray irrad., X-ray topograph under high electrostatic field 2−110112
regularly inhomogeneous media, wave interaction with charged particle flows *(Russian)* 2−87673
relativistic heavy ion beams, space charge wave simulation 2−107453
Schottky barrier diode, interfacial layer thermionic diffusion theory 2−115859
Schottky-barrier diodes, thermal filling effects on const. capacitance transient spectroscopy 2−66483
Schottky-barrier electroreflectance, pseudo-exciton effect 2−99091
semiconductor, charge packet drift vel., transport eqn., space charge effects 2−87254
semiconductor, dumbbell shaped struct., current oscills., neg. resist., elec. double layer 2−92635
semiconductor, high resistivity, injection props. of semicond.-semicond. contacts 2−61578
semiconductor, magnetoactive, helicon wave filamentation instability 2−87311
semiconductor, space charge layer, collective modes, perturbation theory 2−61383
semiconductor, space-charge capacitance, quantum effects 2−77080
semiconductor covered with thin film, work function, interface state effect *(French)* 2−61559
semiconductor electrodes, photoelectrochemical processes 2−88366
semiconductor sample having surface inversion region, simple approx. model for pot. distrib. 2−87397
semiconductor Schottky barriers, space charge region, dynamic response, gap states 2−87182

space charge continued
semiconductor thin film, deep level conc. from capacitance transient spectroscopy, errors 2−72084
semiconductor-microplanar structure plasma oscillation waves anal. *(Russian)* 2−98685
semiconductors with negative differential mobility, amplification of longitudinal electron-density waves in presence of space charge 2−77105
solar cell, induced-junction, flat Fermi level approx. in space charge layer 2−116829
space charge characts., EDTA influence 2−93110
space vehicles, electric charge buildup on surfaces, review 2−58223
surface space charge capacitance, determ. using light probe 2−77449
transition regime from quasiuniform to nonuniform field breakdown obs. 2−103508
Trichel pulses in O_2, theory 2−103503
vapour induced depolarisation currents 2−87657
weakly conducting fluid flow instability in oxidation reduction electrode reactions 2−86260
AgBr emulsion grains, space charge characts., effect of soln. pAg and pH 2−72418
AgBr, space charge characts., EDTA influence 2−93110
AgBr, surface pot., adsorbed layer effects, expt. study 2−92724
AgBr, surface pot. and Debye length, temp. depend. 2−61536
Al/GaAs Schottky barriers, elec. field in depletion layer 2−98043
$Ba_xSr_{1-x}Nb_2O_6$, photorefraction and photoelec. props., ferroelec. polarisation 2−110394
$Bi_{12}GeO_{20}$, elec. field distrib., space charge density, tranverse electrooptic effect 2−104852
CdS, electro-acoustic current fluctuations 2−98702
CdS, high resistivity, semi-insulating, thermoelectric props., influence of deep traps, TSC study 2−66577
$Ga_{1-x}Al_xAs$, Hall electron mobility, scatt. parameters 2−115790
GaAs, electron mobility, space charge and central-cell scatt. contribs. 2−104368
GaAs, electron mobility, space charge and central cell scatt. contribs. 2−104369
GaAs, ion implanted and annealed, defect conc. distribs. study 2−71923
GaAs-AlAs p-n structures, recombination current meas. at fivefold charge centres in space charge layer 2−82450
GaSe-metal Schottky barriers, optical band rectification and photomemory 2−115892
KCl, cryst., electron injection, role of space charge on F centre focus 2−65991
KCl, X-ray irrad. dielectric props. study 2−66973
$LiNbO_3$ waveguide modulators, space-charge effects 2−75684
NH_4Cl crystal, elec. field- and self-induced polarization 2−104802
NaCl, X-ray irrad. dielectric props. study 2−66973
$PbMg_{1/3}Nb_{2/3}O_3$, cubic ferroelec., with diffuse phase transitions, photorefraction mech. 2−110797
$PbTiO_3$:Mn ceramics, Mn doping effect on dielec. and ferroelec. props. *(Chinese)* 2−72431
SF_6, corona stabilisation and critical pressure 2−103260
Si (111), tunneling spectroscopy of electron space charge layers in MIS struct. 2−87403
Si MIS structure, Faraday rotation for inversion layer electrons, Appel-Overhauser model 2−87746
Si:H, amorphous, DLTS response due to localized states 2−56492
Si:H, amorphous, post-hydrogenated CVD Schottky diode solar cell 2−99796
Si-AlN-Au(Al), interface barrier heights, internal photoemission study 2−82464
Si-SiO_2 dielec. props., built-in charge, pulsed annealing effects 2−72066
Si-SiO_2 photoelectrochemical solar cell performance, surface film effect 2−111568
SnO_2-GaSe p-n heterojunctions, I-V characts. and space charge thickness 2−115883
$SrCl_2$:K, space charge relax., thermally stimulated depolarisation currents study *(Russian)* 2−116112
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
ZnS:Mn AC thin film electrolum. devices, UV irrad., current and light generation 2−116266

space-charge-limited conduction
see also limited space charge accumulation
alkali halide colour centre lasers, electrical pumping 2−102801
dielectric liquid, instability due to unipolar ion injection, chaotic regime 2−109420
diode, single-injection current, traps lying above Fermi level, elec. cond. at high fields 2−56601
insulator, interpretation in terms of traps 2−77071
insulators, numerical anal. of electronic conduction using hopping model 2−110340
iodoform, DC photoconductivity space-charge limited currents 2−72020
ionic transient space-charge distribution, numerical anal. by hopping model 2−110027
junction effects, nonequilib., boundary conditions for charge and heat transfer eqns. *(Russian)* 2−61563
MIM structure, single-carrier space-charge controlled conduction 2−104499
poly-1-vinyl-1,2,4-triazole, trapping centres, TSC, thermally stimulated discharge and SCL cond. meas. 2−87298
polydiacetylene, cryst., space, charge limited currents, electron mobility 2−104390
polyethylene film, numerical anal. of SCL cond. with consideration of diffusion and elec. field at electrode 2−110358
polystyrene films, soln. grown, DC electrical props., free and trapped carrier conc., density of states 2−56742
PVC:I_2, photoconductivity, doping effect 2−61629
semiconductor, high resistivity, injection props. of semicond.-semicond. contacts, space-charge-limited current 2−61579
semiconductor, interpretation in terms of traps 2−77071
semiconductors, magnetodiode effect with monopolar injection, space charge limiting effects calc. *(Russian)* 2−77102
thermionic ionisation detectors, characteristics study 2−90403
β-zinc phthalocyanine, bulk trapping states, ohmic and SCL currents meas. 2−98662
Al_2O_3:Cu porous anodic film, elec. props. meas. 2−82501
Au-phthalocyanine-Au struct., current-voltage characteristics with injecting and blocking contacts 2−72077

space-charge-limited conduction continued
$Ba(Nb_xTi_{0.84}Sn_{0.16-x})O_3$, semicond. ceramics, space-charge-limited currents and dopant cond. influence, firing procedure effect *(Russian)* 2−56607
GaP, thin film struct., electron beam irrad., current characteristics meas. 2−56738
GaTe:Sn, strongly compensated, localised state cond., 77 to 289K 2−77079
Si, epitaxial, neutron irrad., A and E centre study 2−103756
$Si_xO_yN_z$ layers, synthesized by ion implantation, IR and elec. props. 2−99136
ZnS layers, TSC investigation of traps *(Russian)* 2−87659

space-charge limited devices
see also limited space charge accumulation
gas-filled diode, electron beam stability in space-charge limited current mode 2−108208
magnetically insulated reflex ion diode, operating characteristics calc. 2−102305
plasma-beam ion source, ion beam extraction with ion space-charge compensation 2−113796
single-injection current, traps lying above Fermi level, elec. cond. at high fields 2−56601

space-charge limited solid state diodes *see space-charge limited devices*

space-charge limited solid state triodes *see space-charge limited devices*

space communication links
see also satellite links; space vehicles; telemetering
European developments in 1980's and beyond, conf., London, England (June 1980) 2−84389
fibre optics systems for space applications 2−91061
microwave, environmental effects of space systems 2−88487

space groups
see also crystal atomic structure
benzaldehyde thiosemicarbazone, lattice parameters, space group, X-ray diffr. 2−109776
9-chloro-2,3-dihydro[1,3]thiazino[3,2-a]benzimidazole-4(3H)-one, preliminary crystallographic study 2−81770
crystal structures, space and Laue group changes 2−65901
crystal structures, special point ordering 2−60905
crystallographic pedigree, origin, theory 2−97967
cubic, symmorphic, Dirichlet domains *(German)* 2−60909
cubic cryst. structs., Archimedean truncated octahedron, rel. to space groups origin 2−115164
diamond structure, continuity chords of bands 2−82205
2-(3′,5′-dimethyl-1′-pyrazolyl)benzothiazole, preliminary crystallographic study 2−81770
double space groups, definition and classification 2−60907
finite crystal symm. 2−103678
2-formyl furan thiosemicarbazone, lattice parameters, space group, X-ray diffr. 2−109776
localised states in solids, selection rules, appl. to band calcs. 2−115687
minerals, space group ambiguity resolution, optical SHG study 2−115187
n-tet phase invariants and embedded semiinvariants 2−81703
normaliser and automorphism groups of symm. groups 2−63933
orthorhombic cryst., symmetry element projections of space group 2−86601
probability density functions, cumulative distrib. functions, normalised struct. amplitude moments, generalised statistics 2−81705
structural phase transition, second order, at Γ point of O_h^3-P_{m3n} group *(Chinese)* 2−109968
symmetry operations derivation from space group symbols, computer program 2−97969
tensor fields on crystals 2−55874
wurtzite derivatives and related dipolar tetrahedral structs. 2−81755
wurtzite derivatives and related dipolar tetrahedral structs. 2−81756
X-ray structure factors calc. from symm. operators 2−97856
$KNiCl_3$, symmetry modes and distorted phase struct. 2−103685
K_2OsCl_6, phase transitions, NQR study 2−110703
Mo_5Si_3, integrated intensities and lattice parameters 2−81747
$(NH_4)_2PtBr_6$; phase transitions, NQR study 2−110703
$(NH_4)_2ZnCl_4$, ferroelec., phase transition sequence, X-ray diffr. and NQR study 2−76360
Na_2MgAlF_7, weberite, space group, X-ray diffr. study 2−103676
Ni-base superalloy, space group of μ-phase, electron diffr. study *(Chinese)* 2−60924
$PbZrO_3$, antiferroelec. phase, space group and O atom coordinates, electron diffr. study 2−109759
Rb_2ZnCl_4, optical props. changes at successive phase transitions 2−77476

space heating
18 kW heatpump installation for new building with ground heat source and warm water underfloor heating *(Dutch)* 2−105585
admin building heating by transformer station waste heat utilisation *(German)* 2−67875
all-electric bus depot with heat pumps for heat recovery *(German)* 2−67876
building solar heating systems optimised design and operation using climatic data stochastic model 2−116847
buildings, energy conservation, EEC model code feasibility 2−73090
buildings, solar heating and cooling, expt. projects 2−78255
Cantonal Chemical Laboratory building structure and thermal behaviour anal. *(German)* 2−70818
Cantonal Chemical Laboratory integrated heat supply system component items *(German)* 2−73136
Cantonal Chemical Laboratory integrated heat supply system operation and performance *(German)* 2−73135
direct electric heating data in Scandinavian countries *(German)* 2−88466
domestic solar heating system optimum sizing procedures comparison 2−111589
Dutch national programme of energy research, low-temp. heat utilisation *(Dutch)* 2−116842
energy-political aspects of the use of electric heat-pumps in Austria *(German)* 2−111580
European community solar energy R&D programme 2−73069
flat plate solar air heater transient anal. 2−83510
forced circulation solar water heating system transient analysis 2−83511
heat pump and heat system−operating experiences transformed into new equipment layout *(German)* 2−93939
heat pump automatic control system guided by computerised integrated heating control system *(German)* 2−93938
heat pump installation operating and investment cost minimisation mathematical model *(German)* 2−67877

space heating continued
heat pump utilising industrial waste heat for district heating *(German)* 2−111582
heat pumps, air-source, outdoor coils frosting and defrosting behaviour 2−62491
heat pumps, air-to-water, house heating performance simulation using computer model 2−78239
heat pumps, electric air source, in single family homes, hourly power demand, Monte Carlo model 2−62493
heat pumps, solar-assisted systems for space and domestic water heating in Canada, comparative study 2−67882
heat pumps appl., rational energy use in Austria *(German)* 2−111579
heat pumps utilising low temp. secondary energy resources or geothermal energy for space heating *(Rumanian)* 2−78238
heat-pumps in industry *(German)* 2−111581
High Temperature Water for transport and distribution of heat 2−67871
laboratory heating in Srinagar, Kashmir, solar radiation availability and collection area requirements 2−67842
low-energy housing experimentation, colloquium, Liege, Belgium (May 1981) 2−57763
multistorey buildings solar air heating, thermal efficiency of exterior panels 2−99826
natural-circulation solar-energy stimulated systems for heating water 2−111583
nuclear reactor waste heat pipeline transportation over long distances using thermochemical closed cycle *(German)* 2−67846
optimum glazing combination for solar space heating 2−83460
optimum thermal isolation for houses with heat-pump-systems−considered under economic aspects *(German)* 2−93940
passive solar architecture 2−57682
passive solar heat storage in houses, methods comparison 2−93942
passive solar heating systems for house, comparison 2−67884
passive solar homes with off-peak power use, thermal performance assessment 2−62498
phase-change water heaters, solar-powered, for houses 2−67883
regenerative energy sources−state of the art and development of their applications *(German)* 2−88408
residential building energy audit microprocessor package 2−57765
retrofit solar heating in residential warm air systems 2−73150
roof/wall with thermal trap, thermal performance prediction by heat transfer anal. 2−81210
selection methods for production of test reference years 2−62462
selective coatings on passive solar energy storage walls, performance prediction 2−99833
single family house heating methods intrmediate study results *(Finnish)* 2−93936
small reactors for low-temperature heating 2−64631
solar, for single-storey building in Uzbek SSR, study 2−73145
solar domestic heating and hot water systems economic anal. 2−67839
solar energy storage as H_2 via water electrolysis, system design and evaluation 2−83523
solar heating and cooling in USA, ten years' experience and future prospects for reducing utility costs and consumer bills 2−78244
solar heating options impact on electric power systems demand and supply capabilities 2−99767
solar heating system, passive, aerodynamic resistance adjusted coefficient determ. 2−116846
solar heating systems performance prediction using Lunde's methods 2−111590
solar pilot test facility, in Belgium, design, construction and first operational experience 2−116850
solar system for hot water supply delivered to Fujitsu Fanuc Ltd., Fuji factory 2−88476
solar water heaters thermal performance in UK 2−73147
space heating by heat receiving wall with heat storage, thermal insulation props. with variable weather 2−99823
stratified solar storage for use in domestic scale systems 2−73155
thermal energy storage, conf., Washington, DC, USA (Sept. 1981) 2−58552
transformer waste heat recovery for heating buildings *(German)* 2−67874
two-pass solar air heaters thermal performance anal. 2−78249
UK solar energy installations review 2−73067
Vuilleumier heat pump for domestic space heating, evaluation 2−62494
water heating system design for residential three storey building in Turkmen SSR 2−73140

space research
see also artificial satellites; astronomy and astrophysics; space vehicles
1981-6 projects survey *(French, English)* 2−68591
advances in astronautical sciences, AAS/AIAA astrodynamics conference, North Lake Tahoe, Nevada (1981 August 3 to 5) 2−89469
American civilian space program revitalisation 2−73819
Apollo missions, siderophile elements deficiency in lunar crust rel. to H.C. Urey's theories of lunar origin 2−112678
consolidated space operations centre 2−94574
Cosmic Background Explorer (COBE) satellite, apl. to meas. of IR and microwave background radiation 2−106478
Dynamics Explorer program, for magnetosphere/ionosphere, general 2−58224
European developments in 1980's and beyond, conf., London, England (June 1980) 2−84389
European Space Agency (ESA), report to 24th COSPAR meeting, Ottawa, Canada (May 1982) 2−74177
Exosat, European X-ray Observatory Satellite, scientific mission 2−94573
Extreme Ultraviolet Explorer Mission, appl. to EUV sky survey 2−117592
Extreme Ultraviolet Explorer Mission, planned EUV sky survey 2−106477
Galileo Mission, spectral mapping of Jupiter and Galilean satellites in near IR 2−112300
GEOS mission to explore magnetosphere-solar wind interaction 2−63212
Giotto mission to Periodic Comet Halley, payload and objectives 2−63215
P/Halley, infrared sounding from flyby Venera Halley probes 2−63216
high energy astronomy, hard X-ray and soft gamma ray telescope spectrometer 2−112326
high-temperature electronics applications in space exploration 2−89106
Hipparcos space astrometry mission, conf. at Strasbourg, France (February 1982) 2−89462
HIPPARCOS space astrometry project, simulation of inertial frame determ. using minor planets 2−89115
space research continued
International Solar Polar Mission, accelerator calibration of COSPIN expt. Low Energy Telescope 2−63251
International Solar Polar Mission to study corona and interplanetary medium 2−63208
Jupiter decametric radio emission, obs. of arc structs. from Earth and from Voyager 2−63303
Mars-Earth propagation, effect of solar gravity 2−94592
materials science and engineering in space 2−57313
NASA space missions development, using advanced automation technologies 2−94579
Pioneer Venus Orbiter mission, review of results 2−68646
planetary surfaces imaging, high resolution imaging systems for spin-stabilised Probe spacecraft 2−112301
satellite-based images, computerised processing, parallel computer appls. 2−100752
Saturn, Voyager 2 encounter 2−84151
Saturn B-ring, narrow gap obs. by Voyager 2 and relation to Saturn electrostatic discharges source 2−112384
SIGNE experiments, log N-log S curve of cosmic gamma-ray bursts 2−89407
simulation, conf., Pasadena, CA, USA (May 1982) 2−94908
solar activity research using stabilised platform on Interkosmos *(Czech)* 2−63205
Solar Maximum Mission, obs. of impulsive and gradual phases of limb flare, (1980 June 29) 2−100867
Solar System, conf., Alpbach, Austria (July-August 1981) 2−58548
solar wind, statistical props. of MHD fluctuations assoc. with high speed streams 2−100697
Space Telescope, progress report on high resolution UV spectrograph 2−117593
Space Telescope research, conf. at Princeton, NJ, USA (August 1979) 2−79284
Spacelab, review of mission objectives 2−89113
technical appl., conf., Pentagon City, VA, USA (March 1981) 2−68972
time and frequency in satellite geodesy 2−88724
UV stellar classification, workshop, Vilspa, Spain (1981 October 26 to 28) 2−84390
Venus, global surface radar reflectivity meas. 2−117621
Venus missions, general 2−63213
Venus Orbital Imaging Radar mission 2−63214
Venus Orbiting Imaging Radar (VOIR) spacecraft, preview 2−68596
Viking Mission, spectral investigations of Mars 2−112365
zodiacal light, Helios space probes meas. from min. to max. of solar cycle (1974 to 1981) 2−89196
Zodiacal light, search for short term vars. by Helios space probes 2−89197
^{3}He-^{4}He dilution refrigerators, possibility of operation aboard spacecraft 2−64048

space science *see space research*

space-time configurations
see also general relativity
ϕ^4 euclidean scalar field theory on four and three dimensional lattice, continuum limit 2−95619
ϕ^6 field system, finite temp. behaviour 2−95593
algebraic field theory, localisation 2−101511
anti-de Sitter background and gauged extended supergravity 2−107224
asymptotic twistor space structure 2−53609
axially symmetric gravitational two-body problem 2−95170
axially symmetric gravitational two-body problem 2−95171
axially symmetric nonstatic Einstein-Rosen space times, Ricci classification 2−95173
Bernoulli-Laplace-Lenz vector, integrals and symmetry 2−107193
Bertotti-Robinson solutions, nonlinear electrodynamics interpretation 2−69071
Bianchi II cosmology, soliton gravit. waves, general framework 2−84495
black hole, evaporation, radiating metric description 2−74009
black hole, orbiting vorticity free rings, metric 2−68807
black hole event horizon area, Weyl geometry 2−106770
black hole space-times with boundaries, stress-energy tensor renormalisation 2−79142
black holes, charged rotating, vacuum polarisation near event horizon 2−112482
black holes, definitions, area theorem 2−112768
black holes, general covariance, accelerated frames and particle concept 2−84081
Born rigid motion in 1+1 dimensions, covariant approach 2−101269
canonical line elements admitting Killing-Yano tensor 2−74281
Cauchy horizons in cosmological spacetimes with one Killing field 2−94870
charge conjugation and internal space-time symmetries 2−89587
charged particle bunch, gravit. expts., Schwarzschild space-time theory 2−63883
clifford algebra approach to twistors 2−53506
closed spatially homogeneous space-times, global props. 2−101256
comformastat vacuum space times 2−53619
complex quaternions, their connection to twistor theory 2−95145
conformal invariance and space-time torsion 2−89586
conformal relativity in Riemannian formalism, free-field eqns. 2−74600
conformally invariant Brans-Dicke theory, mass spectrum 2−84500
conformastat vacuum space-time problem soln. 2−58667
cosmological models, effect of spatial curvature on anisotropy of free-streaming radiation 2−63715
cosmology, metric scales in Dirac large numbers hypothesis 2−106977
covariant generalization of Noether's theorems for fields with spin $^1/_2$ 2−89919
covariant Schrodinger eqn. via path integrals 2−53576
critical dimensions for extended multidimensional objects 2−113151
curved space time, wave function in classical gravitational field 2−84487
curved space-time, axiomatic quantum field theory 2−59005
curved space-time, quantum field theory, Riemannian method 2−69324
cylindrically and axially symmetric spacetimes, linearisation, Einstein vacuum eqn. solns. 2−95147
Dirac positive-energy wave eqn. with para-Bose internal variables 2−95621
direct interparticle gravitational interaction against Riemannian background 2−58669
dynamical symmetry breaking induced by nonconformal coupling in $R^1 \times S^3$ 2−53939
early Universe, curvature effects 2−79258

space-time configurations continued
Einstein equations, cylindrical elastic and empty rot. frame solns. 2−79429
Einstein vacuum field eqns., Nengebauer's N=2 soln., electrovac generalisation 2−95162
Einstein-Yang-Mills equations, absence of stationary solns. 2−84490
Einstein-Yang-Mills monopoles and dyons, stability 2−89883
electromagnetism, four-dimensional formulations, metric depend. 2−95180
EM energy tensors and Lorentz eqn. of motion of fields 2−53612
empty Einstein spaces, Petrov type D, with diverging null geodesic congruences, classification 2−79440
empty space-times, mapping leaving curvature tensor invariant 2−101251
empty spaces and perfect fluids with homothetic transformation 2−107185
evolution and covariance in constraint dynamics 2−84440
fermionic substructure 2−74302
Feynman's path-integral method and Hawking evaporation *(Chinese)* 2−100971
Feynman integral for exponential interaction in four dimens. space-time 2−89914
flat space-time, global isometry approach to accelerating observers 2−53505
flat space-time, gravit. instability 2−53630
flat space-times, stationary coord., systems 2−53613
flattening space-time in self-gravitating object 2−101297
Friedmann-Robertson-Walker space-times, explicit solns. of $\Box u=0$ 2−68938
gauge field interactions from extra dimensional gravity 2−84499
gauge theories of gravity, Hamiltonian dynamics 2−84506
general relativity, Einstein's eqns. self-similar solns. 2−95161
general relativity, space-time admitting vector field 2−95158
general relativity, timelike, null and spatial infinity, unified formulation 2−53611
general relativity, timelike infinity 2−53610
general relativity, two-body problem, relativistic case, phys. distinction between normalised solns. 2−84492
generalised Maxwell eqns. and mass generation gauge mixing 2−53955
geometrodynamics in multidimensional unified theory 2−95185
globally hyperbolic space-times, black hole theory 2−89295
globally non-causal space-times 2−95152
Godel space-time, test particle motion, time travel 2−58665
graded de Sitter space-time, group and algebra 2−74277
gravitation model from quantum mechanics 2−112787
gravitation singularities, foliation anal. 2−112790
gravitational analogue of Aharonov-Bohm effect 2−112784
gravitational energy-momentum pseudotensors, finite region of space-time *(Russian)* 2−58670
hadron interferometry, dynamics vs. symmetrisation 2−53661
Hamilton-Jacobi eqn., intrinsic characterisation of orthogonal separation of one coord. 2−101258
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
Hamiltonian U(N) lattice gauge theory, N=∞ phase transition absence 2−95628
isotropic focusing of light rays in cosmology 2−101100
Kantowski-Sachs cosmological solution with torsion 2−112624
Kerr geometry, gravitational perturbation eqns. 2−69061
Kerr metric analyzed kinematically *(German)* 2−53913
Kerr Newman metric for black hole and naked singularity, photon radial motion 2−63497
Kerr space-time, neutrino perturbative behaviour, in Hertz pot. formalism 2−63872
Kerr space-time, point charge, self-interaction 2−79445
Kerr-Newman dyon space-time, test particle motion 2−107205
Kerr-Newman space-time, Hawking evaporation of Dirac particles 2−79140
Kerr-Newman space-time, off-equatorial circular orbits 2−58666
Kerr-NUT solns., superposition, symm. axis, regularity conditions anal. 2−101267
Lie groups, space-time manifolds and kinematics 2−74270
Lienard-Wiechert field, geometric description 2−63873
light velocity direction depend. 2−107089
linear deformtion problems for Ernst eqn. 2−95155
local extensions in singular space-times 2−84485
Lorentz-symmetric solns. of nonlinear eqns. 2−95585
low differentiability, singularities, geodesics and extension through boundary points 2−89585
$M^{2N,2}$ space, $SO_{2N,2}$ covariant spinor wave equations, conformal covariance, imposition of cone condition 2−113119
Mach's principle and structure of dynamical theories 2−95164
manifestly covariant eqns. of motion for particle in external field 2−112758
massless scalar fields with trivial S-matrix 2−113097
matter fields, cosmology, topology and field theory 2−101101
meron and elliptic solutions in conformally flat space-time 2−101266
metric tensor determ. from Riemann tensor, extension to electrovac fields 2−95149
micro-space-time metric, generation of potential for classical quantum mechanics 2−112743
moving platform experiments, drag of light aberration 2−53607
multiexponent Weyl metrics 2−74285
neutrino fields, space-time isometry effect 2−112756
new theory *(Russian)* 2−101280
non-abelian gauge fields, space-time symmetries 2−74592
non-Minkowskian space-times, vacuum stability and symmetry breaking 2−84803
non-self-dual nonlinear gravitons derived from complex space-times 2−107216
nonexpanding congruences of null strings in algebraically degenerate right-flat spaces 2−112753
nonlinear field theory, coupling constant depend. in special model with internal symmetry 2−95587
nonlinear relativistic theory, internal symmetries from field theories in higher dimensions 2−95701
nonpeeling vacuum space-times, conformal properties 2−107187
numerical relativity, appl. to final struct. of space-time 2−100727
O(N) σ model, dynamical supersymmetry breaking 2−95618
pairing correl. between particles, final-state interaction effect *(Russian)* 2−74675
partially self-similar spacetimes and fluid motions, appl. to Bianchi-type cosmologies 2−100730
space-time configurations continued
particle creation in asymptotically flat space-time containing shell-focusing singularities 2−106521
Planck length, conceptual understanding 2−107191
point-source idealisation in chemical field theories, mech. energy losses from EM radiation reactions 2−84489
point-source idealisation in classical field theories, EM radiation damping 2−84488
Polyakov string theory, pomeron singularities, saddle point anal. 2−101694
quantised scalar field, initial behaviour rel. to pair creation in isotropic closed and open universes 2−101109
quantum dynamical semigroups, path integrals and stationary phase approx. 2−95230
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quantum fields in curved space, book 2−84398
quantum gravity, Kahler manifolds, four-dimensional geometry 2−101288
quantum gravity in 1+1 dimensions with zero cosmological constant, exact soln. 2−79457
quantum mechanics, probability rule derivation 2−95103
quantum radiation of scalar particles by moving mirror 2−84804
quantum stress energy in nearly conformally space-times, correction of formula 2−95202
quantum theory of gravitation 2−95200
quasisingular space-times, stability in two dimens. 2−101255
quaternionic metrics and SU(2) Yang-Mills 2−95196
Rarita-Schwinger field in non-abelian Klein-Kaluza theories 2−101524
reciprocally invariant electrodynamics on quantum space-time 2−74640
relativistic linear stellar model, space-time continuum 2−84089
Riemannian space-time, extended bodies moving along geodesics 2−63870
Robertson-Walker space-time neutrino perturbative behaviour, in Hertz pot. formalism 2−63872
Robertson-Walker universe, gravitational effects on phase transitions 2−112769
scalar particle topological mass generation in Clifford-Klein-Robertson-Walker spacetimes 2−112760
Schwarzchild space-time, vacuum polarisation by massive scalar field 2−117706
second law of thermodynamics, violation by moving mirror in quantum field theory 2−84800
semiclassical expanding discrete space-times 2−112754
semiclassical gravity, flat spacetime instability, quantised matter coupling 2−89603
semiclassical theory of gravity, diagonal matrix element evaluation, recursive formula 2−95197
singular boundaries 2−53614
singularities, Cauchy horizons and extensions of a large class of Einstein-Maxwell spacetimes 2−95193
six-dimensions, operator product expansion of ϕ^3 theory 2−107505
SL(2,C) gauge theory of gravitation and Noether's theorem, conserved vector current 2−95198
spatial topology and Yang-Mills vacua 2−112788
spatially compact space-times that shrink 2−112750
spherically symmetric hypersurfaces, Einstein eqn. solns. 2−58663
spinning test particles in curved space-time with torsion, Lagrangian formulation 2−95166
spontaneous symmetry breaking in noninertial frames and curved space-time 2−74279
static gravitational fields in general class of scalar-tensor theories 2−95187
stationary vacuum fields with conformal flat three space 2−95174
stationary vacuum fields with conformally flat three space 2−53620
stochastic phase space formulation and non-potential interactions 2−95051
SU(2) gauge theory, symmetry breaking 2−79739
supersymmetric dual string theory, loops and renormalisation 2−89952
supersymmetric field theories, quantum superspaces 2−95688
supersymmetric theories, indices, triality and UV divergences 2−89920
symmetry group, representation spaces projections on Minkowski space 2−112730
tangent bundles, second-order, construction 2−53606
Taub-NUT like cosmologies 2−117832
Tomimatsu-Sato metric, rel. to multi-soliton solns. of Einstein eqn. 2−100728
Tomimatsu-Sato-Yamazaki space-time, thermodyamics and dyon black holes 2−106774
topological particle structure probing by period integrals 2−95689
trapped surfaces and the positivity of Bondi mass 2−107194
U(N) lattice gauge theory, planar random surfaces on lattice 2−101550
unification with Weinberg model 2−69384
unified field theory in projective theory of relativity 2−95192
unified gravitational and quantum-mechanical space-time structure and special relativity foundations 2−74296
unitary spin, rel. to space-time Hamiltonian struct. 2−95631
universe model, replacement for Minkowski space 2−113180
vacuum medium props. in non-Abelian gauge theory 2−95730
vacuum viscosity description of quantum processes in the early Universe 2−106981
weak interactions and symmetries 2−59098
Wilson loop functionals and related eqns. for irregular paths, renormalisation 2−95588
Yang-Mills plane wave vs. plane symmetry 2−74602
H spectrum gravitational perturbation 2−95167

space vehicle power plants
dynamic isotope power systems, features and spacecraft applications 2−80165
fission reactor, shielding optimisation 2−108141
radioactive waste disposal vehicle, solar-thermionic generator 2−73132
solar electric versus nuclear electric propulsion in geocentric space 2−80166
solar-array radiation damage 2−67856
Space Shuttle power extension package solar array design 2−83493
Ni-H_2 battery technology development and stations for spacecraft applications 2−83468

space vehicles
see also artificial satellites; rockets; space vehicle power plants
advances in astronautical sciences, AAS/AIAA astrodynamics conference, North Lake Tahoe, Nevada (1981 August 3 to 5) 2−89469
direct flight trajectories to periodic comets, optimisation 2−68588

space vehicles continued
electric charge buildup on surfaces, review 2−58223
electric potential of insulated surfaces of high-voltage vehicles 2−94576
European developments in 1980's and beyond, conf., London, England (June 1980) 2−84389
European Space Agency (ESA), report to 24th COSPAR meeting, Ottawa, Canada (May 1982) 2−74177
Galileo Mission, spectral mapping of Jupiter and Galilean satellites in near IR 2−112300
gasdynamics of detonations and explosions, conf., Gottingen, FRG (Aug. 1979) 2−58549
Giotto, gas and plasma environment, workshops (Noordwijk, 1980-1) 2−84386
Giotto mission to Periodic Comet Halley, payload and objectives 2−63215
Giotto spacecraft and expts. 2−68589
heat rejection in space using liquid drop radiators 2−86204
HELIOS mission, objectives, verification and results 2−63210
Helios probes, search for short term vars. of zodiacal light and optical detect. of interplanetary plasma clouds 2−89197
Helios space probes, meas. of stability of zodiacal light from min. to max. of solar cycle (1974 to 1981) 2−89196
International Solar Polar Mission, accelerator calibration of COSPIN expt. Low Energy Telescope 2−63251
International Solar Polar Mission, CMOS RAMs, LSI, radiation resistance to Jupiter radiation belts 2−68595
International Solar Polar Mission 2−63211
International Solar Polar Mission to study corona and interplanetary medium 2−63208
interplanetary, predictions of geomagnetic activity *(Japanese)* 2−73444
interplanetary spacecraft mission techniques and orbital mechanics 2−63209
manned spacecraft, CO_2 concentration using molten CO_3^{2-} electrochem. cell 2−83469
NASA space probes, use of TV systems and slow-scan vidicons 2−100704
navigation system for interplanetary spacecraft inc. astrometric VLBI source posns. 2−58266
onboard computer development in US civilian spacecraft, historical review 2−100703
Pioneer Venus, multiprobes subsonic drag determ. from flight data 2−94577
Pioneer Venus Orbiter, meas. of Venus global surface radar reflectivity 2−117621
PLANET-A project, P/Comet Halley encounter *(Japanese)* 2−89109
planetary missions, high resolution imaging systems for spin-stabilised Probe spacecraft 2−112301
radiators design and off-design performance calc. 2−88471
Shuttle experiment to demonstrate high-accuracy global time and frequency transfer 2−101387
solar flare proton hazard for Space Shuttle 2−100866
Solar Maximum Mission, instrumentation and mission 2−89114
Solar System exploration missions, conf., Alpbach, Austria (July-August 1981) 2−58548
sondes in planetary atmospheres, positions and vels. from radio techniques 2−84105
Space Shuttle booster rocket contrib. to atmos. aerosol 2−106265
Space Shuttle cryogenic storage of H_2 and O_2 2−79587
Space Shuttle Thermal Protection System file vibration response, analytic and experimental evaluations 2−114536
Space Shuttle tiles coating, particle size analysis 2−77954
Spacelab, NASA-ESA conf. (Washington, DC, April 1981) 2−79269
Spacelab 2, astrophysical objectives of IR telescope 2−63250
Spacelab payload for materials science expts. 2−116346
subsatellite, three-dimensional motion under air drag and oblateness perturbations 2−78940
Venera 13 and 14, lander missions *(Russian)* 2−106479
Venera 13 and 14 Doppler meas. of Venus winds *(Russian)* 2−106583
Venera Halley flyby probes for Periodic Comet Halley IR sounding 2−63216
Venus Orbiting Imaging Radar (VOIR) spacecraft, preview 2−68596
Viking Mission, spectral investigations of Mars 2−112365
visible/IR imaging systems for spacecraft *(Japanese)* 2−89110
Voyager, radio studies of Saturn system 2−58303
voyager 1 Saturn targeting strategy 2−89111
Voyager observations of Saturn and satellites *(Japanese)* 2−117629
Voyager spacecraft, obs. of arc structs. in Jovian decametric radio emission 2−63303

spacecraft *see space vehicles*

spallation (nuclear) *see nuclear spallation*

spark chambers
see also position sensitive particle detectors
efficiency calibration for 5-50 MeV γ-rays 2−112325
time characteristics investigation *(Chinese)* 2−108274

spark counters
cellulose nitrate detector, track spark counting 2−59612
jumping system, modified automatic, for U ore eval. 2−75120
localised discharge spark counter, status and future development 2−90356
nuclear track detection by avalanche-type processes, electrochemical etching and spark counter 2−59638
through-etched tracks, diameter meas. spark chamber appl. 2−108254

spark erosion machining *see spark machining*

spark-gap voltmeters *see voltmeters*

spark gaps
60 kV, 5 cm spark gap, effects on electrodes, insulators, and gas types of number of discharges 2−91714
150 kV, 100 kA spark gap switch for Marx generator 2−97831
air, oscillating lightning impulse voltage, breakdown behaviour of nonuniform electrode arrangements 2−97821
breakdown characteristics, effect of electron-beam-induced space charge 2−97829
cold-cathode switching tube for high-temp. electronic components and cct. designs 2−100605
dielectric recovery time of small pressurized spark gaps 2−103544
flowing gas spark gaps, statistical breakdown times 2−91711
gaseous spark gaps, nanosecond pulsed discharges, current waveforms 2−91713
gasfilled spark gap overvoltage breakdown statistics 2−97827
high-pressure spark gap overvoltage breakdown probability 2−97828
impulse ratios of uniform and nonuniform field gaps in compressed gases 2−97820

spark gaps continued
inception mechanism comparison between positive and negative impulse corona 2−103505
insulator surface damage, ellipsometry and SEM obs. 2−92330
laser-controlled gas-phase switches, optical processes 2−97806
long switching spark between electrode and ground *(Polish)* 2−76211
low pressure spark gap Blumlein switch, testing 2−91715
multichannel spark gap triggering by ruby laser via fibre optics 2−97826
overvolted water spark gap switch, laser initiated conduction 2−97832
positive corona space charge, impulse withstand voltages, humidity effects 2−103509
positive point to plane gaps, corona discharge calc. 2−103504
transition regime from quasiuniform to nonuniform field breakdown obs. 2−103508
triggered multichannel surface spark gaps 2−65780
triggering by KrF UV laser 2−97825
voltage recovery time for small spark gaps 2−91712
Cr:GaAs HV sparkgap, laser triggered, with high trigger sensitivity 2−86492
KrF laser pumped by LC circuit, effect of spark gaps 2−80937
SF_6 breakdown obs., barrier effect in air and SF_6-insulated nonuniform electrode configurations 2−103265
SF_6, oscillating lightning impulse voltage, breakdown behaviour of nonuniform electrode arrangements 2−97821
SF_6, positive glow pulses and sparks in 1 cm point-to-point gaps 2−103521

spark machining
laser fusion targets, fabrication using laser and spark erosion machining 2−80194

sparks
see also electric breakdown; lightning
air, electric breakdown, low threshold, laser spark initiation, plasma waves 2−91702
air, elongated single- and double-channel discharges formation 2−109620
charge transfer meas. technique 2−115080
corona cloud motion in spark discharges, features 2−103547
decomposition studies of dielectric gas mixtures 2−103533
electrode protrusion influence on cylindrical spacer surface flashover voltage in SF_6-N_2 gas mixtures 2−91710
gases, insulating, electronegative, sparking pot. 2−103485
high-voltage spark atomic emission detector for gas chromatography 2−99714
ionisation electric field intensity in long spark channel 2−103549
laser linear sparks, diode array imaging 2−115073
laser linear sparks, striation spacing, press. and luminosity dependence meas. 2−115072
laser spark, scatt. and pulse narrowing 2−97057
laser spark luminosity, spatial distrib. *(Czech)* 2−60808
laser sparks, uniform linear filamentary, production technique 2−55801
leader velocity characteristics in spark discharges 2−103548
long sliding spark, research project *(Polish)* 2−55797
long switching spark between electrode and ground in air *(Polish)* 2−76211
metal surface layers, effect of spark discharge and electrolytic plasma *(Russian)* 2−62267
striated plasma column of a long laser spark, steady-state theory 2−115085
CO_2 TEA laser, preionizing spark arrays, comparison of transverse and linear geometries 2−55111
HF chemical laser, high initiated, surface-spark UV flash initiation 2−65252
N_2 gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529
SF_6, gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529

spatial filters
acoustooptic matched filter correlator performance 2−91028
amplitude spatial-frequency filter design for coherent optical processor *(Russian)* 2−86074
circular, Hankel transform 2−102908
clutter rejection in moving point-target detection, spatial filtering 2−108800
coherent optical spatial filtration use for improving X-ray image quality 2−62742
colour photographic image deblurring using white-light processing technique 2−108808
colour-coded character-recognition expt. with wavelength-triplexed refl.-type holographic filters 2−75536
deformable mirror use as spatial fitler, appl. to circular beams 2−55303
electronic image processing device, continuously selectable 2D bipolar filter functions 2−94188
EM wave spatially polarised filtration 2−75495
fibre preform practical three-dimens. profiling, spatial filtering technique 2−65377
Fourier holograms, volumetric phase, transparency image regeneration and spatial filtering *(Russian)* 2−70518
Gaussian apodisation filter systems, incoherent transfer functions 2−55079
holographic filter for sinusoidal object differentiation 2−108807
holographic interferometer, vibr. proof, phase object obs. appls. 2−90841
holographic optical elements in partially coherent light, behaviour and appls. 2−85913
homomorphic image processing system, all-optical, using halftone technique 2−96850
image processing techniques, fundamentals and applics. 2−114210
industrial drawing optical processing for an archive 2−70512
interference filters for Fourier filtering and freq. coding 2−65339
inverse filters, holographically realised, for image processing 2−65181
laser beams, apodised, spatial filtering 2−81010
laser Doppler anemometry with selection of optical signal coherent component *(Russian)* 2−114931
laser radiation self focusing, spatial filter appl. 2−70629
matching spatial filtering using a reflection-type volume hologram 2−102906
microcomputer-based hybrid processor using two optical processors 2−91026
optical fibre array, for image velocity sensing 2−70676
optical fibres, multimode, graded-index, mode division multiplexing 2−81083

spatial filters continued
parallelogram field-of-view filter, non contact velocity sensor appl. 2−53741
parameter extraction by holographic filtering 2−90818
quasi-interferometry with coded correlation filtering 2−107392
real-time spatial filtering utilizing the piezoelectric-elasto-optic effect 2−86090
sea-background IR imaging, cruciform spatial filter design and appl. 2−60034
space frequency filter encoding for coherent optical processors *(Russian)* 2−114205
speckle interferograms, of displaced and deformed objects, interpretation 2−80919
two dimensional velocity vector, noncontact meas. using optical spatial filter detector *(Japanese)* 2−114410
two-dimensional optical filtering of 1-D signals 2−108798
underwater sound, normal mode spatial filtering 2−70749
unstable ring resonator with self-imaging aperture, modes 2−97157
wavefront coherence depend. on focusable power, optical spatial filter characts. *(Chinese)* 2−60219
LiF spatial filter aperture for laser initiated vacuum plasma shutters 2−97162
Nd:glass laser amplifier with spatial filters and final disc stage, exit-beam brightness restriction 2−86020
spatial orientation control *see attitude control*
spatial variables measurement
see also angular measurement; area measurement; curvature measurement; diameter measurement; displacement measurement; distance measurement; height measurement; length measurement; level measurement; particle size measurement; position measurement; surface topography measurement; thermal expansion measurement; thickness measurement; volume measurement
airborne depth sounding using Nd:YAG laser, resonators comparison 2−70603
cathometer applied to checking geodetic instruments 2−94533
contactless 3-dimens. meas. using holographic-interferometric triangulation *(German)* 2−55093
distortion measurement on high-performance objectives *(German)* 2−69130
fission reactor fuel, destructive analysis, meas. and shearing machine 2−107973
geometrical parameters of objects testing, by annular structure of laser beams 2−58783
Hot Fuel Examination facility, element laser profilometer system 2−107967
Hot Fuel Examination facility, subassembly profilometer 2−107966
human body movements, random, quantification by Doppler radar device 2−117048
imploding hollow plasma liners, surface shape meas. 2−84594
intraocular lens edge meas., noncontact profiling with focal spot and fringe projection techniques 2−57922
LSI structures monitoring, ellipsometry for test diffr. gratings, basic eqn. 2−101444
measuring stage, for track chamber picture meas., microprocessor control 2−85502
motion picture film position in movie cameras, longitudinal non-stability measurement *(Russian)* 2−89843
myocardial infarct size, quantification with multipinhole and rotating-slanthole tomography 2−62851
one mirror photograph method for meas. of spatial motion of body 2−101482
optical finger movement monitor 2−117148
planarity checking of thin transparent plates, resolving power in interference monitoring 2−69136
rectilinearity and planarity deviations meas., metrological support in USSR 2−69134
rectilinearity testing instrument, optical straightedge standardisation 2−53811
Rumanian Institute of Metrology mechanical sector, progress in standards and measurement *(Rumanian)* 2−74408
sea depth measurement with great precision, quartz resonator pressure sensor *(German)* 2−78864
speakers *see loudspeakers*
special relativity
see also Lorentz transformation
aether, theories, historical review 2−58606
antiparticles from special relativity 2−58611
charges driven by elliptically polarised plane vacuum wave, synchro-Compton radiation 2−63225
clifford algebra approach to twistors 2−53506
Clifford algebras, Pauli-Dirac matrix generators 2−89530
clock paradox of accelerated charge mass change *(Russian)* 2−84441
Dirac's light-cone coordinate systm 2−107043
discrete, deterministic computer modelling 2−94989
Earth velocity meas., aberration obs., annihilating absolute effects 2−79354
ether formulations of relativity 2−107190
generalised sub- and super-luminal Lorentz transforms., formal and physical props. 2−101166
gravitation tensorial theory in the framework of special relativity 2−84501
infinitely conducting rotating sphere in a magnetic field 2−112701
introductory book 2−94935
light beacons, use for synchronisation 2−107058
light behaviour in spherically symm. aether field 2−79357
light velocity direction depend. 2−107089
linearity extended special relativity and the radiation of an accelerated charge 2−84439
Lorentz ether theory, rel. to absolute space 2−58603
Lorentz group, causality, Hermitian matrix proof 2−58608
mass energy, Einstein's derivation using photons and Doppler shift 2−84425
mass-energy equivalence, derivation of self-force, self-energy and self-momentum, Moller box 2−112700
mass-energy equivalence, Einstein's first derivation 2−107054
meta-physical interpretation of tachyons 2−58609
one-way speed of light, expt. determ. 2−58604
one-way velocity of light, anisotropic effect meas. 2−53504
para-Lorentzian dynamics, conserved-vector and nonconserved-axial weak currents 2−95735
special relativity continued
phonons, particle-nature, absolute space-time theory 2−79353
Planck length, conceptual understanding 2−107191
Poincare-Cartan integral invariant and canonical transformations for singular Lagrangians 2−53507
radar astronomy and the special theory of relativity 2−74206
scalar tachyon impossibility *(Russian)* 2−69014
simultaneity, inconsistencies in relativity 2−53618
six-dimensional, space-time transforms. 2−79355
sound field transformations, theory formulation 2−75822
stable lasers and optical freq. testing standards 2−69127
superluminal interactions, classical electromagnetic Kepler problem 2−107091
superluminal light propag., in hadronic matter, rel. to curved spacetime gauge symm. 2−101530
superluminal Lorentz transforms and their group theoretical properties 2−89533
tachyons, Cherenkov radiation integrated characts. 2−58610
test at quantum mech. level, parity and time-reversal noninvariance using neutron interference 2−84814
three-dimensional time and quantum mechanics 2−53508
three-particle relativistic harmonic dynamics in the constraint formalism 2−101163
time signals, synchronisation 2−58605
transformation of directions between laboratory and center-of-mass reference frames 2−79311
uniformly accelerated reference frame and twin paradox 2−53457
specific gravity *see density*
specific gravity measurement *see density measurement*
specific heat
see also Debye temperature; Gruneisen coefficient; specific heat of gases; specific heat of liquids; specific heat of solids
Baxter-Wu Ising model, random bond, free energy and specific heat 2−53696
Bethe-ansatz quantum sine-Gordon thermodynamics, sp.ht. 2−79521
calorimeter for heat capacity meas., 0.06 to 3K 2−112904
grease, Wakefield thermal compound, sp. ht. 2 to 40K 2−65468
heat conducting viscous fluids, irreversible thermodynamics, relax. phenomena 2−114620
Heisenberg ferromagnets, 1-D, thermodynamic props., static domain wall solitons, perturbation calc. 2−116022
heterogeneous solid surfaces, low temp. gas adsorption, surface topography effects 2−104146
high-temperature extrapolation, empiric eqn. *(German)* 2−109170
Ising chains, frustrated, ground-state and low temp. props. 2−61726
Ising model, three-dimensional, partition function, closed-form approx. 2−63908
Ising model, three-dimensional, partition function, closed-form approx., Q-approx. limitations 2−63909
Kondo model, thermodynamic eqns. 2−104362
localised electron states, electron glass, Coulomb gap in density of states 2−110276
massive Thirring and quantum sine-Gordon system thermodynamics 2−84581
measurement, pulse adiabatic method 2−58814
measurement of temperature-dependent thermophysical properties *(Hungarian)* 2−79573
monolayer films, phase transitions, energy heterogeneity effect 2−104155
phase transitions, first order, Landau-de Gennes model, Gaussian approx. 2−66163
planar body, initial stage of heating calcs. 2−102997
polarons, statistical props. in mag. field, thermodynamics 2−104268
spin system, O(n) model, peculiarities for $n<1$ in mag. field 2−69107
symmetric Anderson model, electronic specific heat 2−104018
two dimensional system, electronic specific heat anomalies, electron-phonon interaction 2−104015
two-dimensional system, thermodynamic props. 2−81985
two-dimensional system, thermodynamic props. *(Chinese)* 2−110008
van Vleck ions coupled to electron gas, induced mag., calc. in narrow-band limit 2−61681
specific heat at constant pressure *see specific heat*
specific heat at constant volume *see specific heat*
specific heat of gases
acyl halides, thermodynamic properties calcs., 100-1500K 2−109446
air, high temperature, sp. ht. and isentropic exponent, analytical expressions 2−97696
ethylene, fluid, thermodynamic prop. formulation 2−65680
high temperature monatomic and diatomic gases, sp. ht. and isentropic exponent, analytical expressions 2−97695
high-temperature extrapolation, empiric eqn. *(German)* 2−109170
shock wave, spontaneous wave emission in longitudinal mag. field *(Russian)* 2−97740
water, ideal-gas thermodynamic props. 2−114963
Ar, adsorbed on Ag (111), two-dimens. gas phases 2−61293
Kr, adsorbed on Ag (111), two-dimens. gas phases 2−61293
N_2O_4, specific heat at const. volume and dissociation effect *(Russian)* 2−55694
O_2, ideal-gas heat capacity eqn. 2−91577
Xe, adsorbed on Ag (111), two-dimens. gas phases 2−61293
specific heat of liquids
1:1 electrolytes, restricted primitive model, mol. dynamics simulation 2−97886
n-alkanes, transition above melting point, sp. ht. meas. 2−66245
benzene, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
benzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2−115426
benzene-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
benzene-hexa-n-octanoate, heat capacity and IR spectra, 13 to 393K 2−76696
calorimeter appl., differential scanning design, based on heat leak principle 2−53767
carbon tetrachloride-alkane mixtures, excess heat capacities, microcalorimetric determ. 2−104010
β-cyanopropionic aldehyde, sp. heat and sound vel. determ. 2−61158
cyclohexane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
cyclohexane, liq., vibr. relax time, temp. depend., US props., Brillouin scatt. 2−103902
ethylene, fluid, thermodynamic prop. formulation 2−65680

specific heat of liquids continued
N-(4-n-heptoxylbenzylidene)-4-n-hexylaniline, smectic-F to H transition, AC sp. heat and X-ray meas. 2−86868
hexafluorobenzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2−115426
p-n-hexyloxybenzylideneamino-p′-chlorobenzene, heat capacity and thermodynamic props. 2−98302
p-n-hexyloxybenzylideneamino-p′-fluorobenzene, heat capacity and thermodynamic props. 2−98303
measurement, AC heated-wire technique 2−86205
measurement by transient hot-strip method, second-order theory 2−114619
metals, liquid, entropy and specific heat calcs. 2−71660
nematic liq. crysts. with biaxial mols., mean field theory 2−103615
4-nitrophenyl-4′-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2−61136
nonviscous liquid, surface sp. ht., vibr. contrib. 2−56325
polymer chain solns., Lagrangian tricritical theory near θ-point 2−92151
polymer solution, two-dimensional, collapse transition, tricritical behaviour, Monte Carlo study 2−114142
tetrachloromethane, Brillouin spectra, vibr. dynamics, heat capacities meas. 2−72511
water, ideal-gas thermodynamic props. 2−114963
He II, superfluid, vortex line struct. near λ point *(Russian)* 2−61234
He, liquid, specific heat, nonlocal critical, in broken symmetry state, fluctuation/order-parameter hybridisation 2−71755
^{3}He, effective mass, energy depend. 2−104099
^{3}He, liq., single particle spectrum and specific heat 2−66315
^{3}He, liq., sp. ht. under press., 0.5-1.4K 2−61235
^{3}He, normal and superfluid, heat capacity meas. 2−110081
^{3}He, normal phase, specific heat meas., 8 to 500 mK 2−92304
^{4}He adsorbed film on graphite substrate, superfluid transition, colorimetric study rel. to third sound meas. 2−104108
^{4}He, liquid, sound propagation near λ point, specific heat 2−71754
^{4}He, liquid, superfluid transition, crit. phenomena 2−110066
Na-Hg, liquid, thermodynamic and struct. props., EMF meas. 2−81986
Na-Sn liq. alloys, thermodynamic props. 2−92234
NaCl, aq. soln., volumetric props., data tables 2−94921

specific heat of solids
see also Schottky anomaly
A15 compounds, supercond., energy gap determ. from heat capacity meas. 2−110532
AC calorimetry, of solids at high hydrostatic pressures 2−66128
alkali halides, ion dynamics, anion-cation mirror symm. 2−81911
n-alkane mixtures, excess heat capacities meas. 2−81972
alloys, binary, mictomagnets, susceptibility and sp. ht., Monte Carlo calc. 2−92909
Anderson impurities, pair of interacting, Fermi liq. relations 2−56491
Anderson localised system, interstate interaction effect on specific heat 2−77303
Anderson model, asymmetric, specific heat, elec. cond., thermopower, perturbation calc. 2−76963
Anderson model, periodic, specific heat calc. 2−61162
anharmonic crystals, BBGKI eqn. solsn. to fourth approx. in temp. 2−76632
anisotropic antiferromagnet in Ising limit 2−98900
anisotropic solid, fluctuations, and thermodynamic props. 2−115435
benzene, freq. distrib. function calcs. 2−103916
biopolymer denaturing, enthalpy rel. to low temp. heat capacity of helix and coil macromols. 2−67956
bis(methylammonium) manganese tetrachloride, heat capacity, 10 to 300K 2−61159
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
bis-propylammonium tetrachloro-zincate, second order ferro-paraelastic phase transition, birefringence 2−61124
chalcogenides, group IV, low temp. sp. heat anal. using Debye temp. 2−71661
Chevrel phase cpds., supercond., energy gap determ. from heat capacity meas. 2−110532
cyclohexaneammonium copper trichloride and tribromide, mag. behaviour 2−82614
cyclohexanol, glassy cryst. and cryst. phases, sp. ht. and thermal cond., 1.5 to 20K 2−56205
dielec., sp. ht. and thermal cond. 2−86960
dielectric glasses, sp. ht., time depend. 2−115432
dimethyl ammonium in tetrachloride, layered cpd., elastic and thermal props. 2−81873
dimethylammonium manganese chloride, pseudo one-dimensional antiferromag., mag. props. 2−116007
dislocation vibration entropy 2−55970
disordered solids, entropy at low temps. 2−56220
di-/lactide, thermodynamic props. and thermodynamics of polymerisation *(Russian)* 2−111510
doped semiconductors, diagonal and off-diagonal disorder 2−98521
ferroelectric, second order phase transition, phys. props. under elec. and mag. fields 2−110782
ferroelectrics, glasslike props. at low temps. 2−110778
ferroelectrics, thermodynamics near second order phase transition in external fields 2−110783
ferromagnet, simple isotropic compressible, Sak model 2−66827
ferromagnetic semiconductor, critical shift of cond. bound bottom 2−77255
fission reactor, pressure vessel steel and concrete, temp. effects 2−64482
graphite, artificial, thermal and elec. props. in temp. range 500-2800K 2−66304
graphite intercalation compounds, C_{12} M (M=K, Rb, C), charge distrib. among graphite layers 2−56421
graphite intercalation compounds, C_8K(Rb)(Cs), vibr. density of states 2−81909
graphite intercalation compounds, electronic props., review 2−98518
graphite with adsorbed ^{3}He and ^{4}He, multilayer physisorption, mean-field theory 2−110152
graphite-Br intercalation cpds., sp. hts., 1.5 to 6K 2−98305
heterophase ferromagnets, exact solns., critical point effects 2−61718
2,4-hexadiyne, cryst. struct., dynamics, model calcs. 2−81774
hexamethylbenzene, phase transition, thermal anomaly, heat capacity 2−86899
inhomogeneous superconductors, resist. transition, heat capacity transition, upper crit. field 2−110523

specific heat of solids continued
Ising ferromagnet, scaling laws, logarithmic corrections, inner field 2−77312
Ising ferromagnet, two-dimens., with high cond. of imperfections, sp. ht. 2−104648
Ising lattice, triangular mag. props., Monte Carlo simulation 2−87465
Ising spin glass, random anisotropy study 2−72228
Ising three-dimensional ferromagnet, heat capacity critical parameters 2−104637
isotropic elastic media, low-temperature interface specific heat due to localized modes 2−76704
Kondo alloys with rare earth impurities, degenerate exchange model, Bethe ansatz technique 2−66769
Kondo effect, thermodynamics study for spins s=$^1/_2$, 1 and $^3/_2$ *(Russian)* 2−82562
Kondo lattice and mixed valence systems, Fermi surface and Fermi liq. props. 2−66768
latent heat storage materials, effect of impurities on melting temp. heat of fusion and sp. ht. 2−62503
layered cryst., low temp. sp. ht., optical oscill. contrib., Jacobi matrix method *(Russian)* 2−98300
measurement by transient hot-strip method, second-order theory 2−114619
measurement using adiabatic calorimeter, 300-700K 2−53763
metal, mixed-valent impurity, theory 2−115715
metals, phonon heat capacity enhancement at low temp. 2−115433
methane, adsorbed layer on graphite (0001), phase diagram, specific heat study 2−98248
methane-d_4, phase III, rot. tunnelling levels, inelastic neutron scatt. and heat capacity meas. 2−104012
4-methyl-d_1-pyridine, sp. ht., neutron scatt. and dielec. meas. 2−56208
minerals, rock-forming, thermal capacity, rel. to mean at. wt. 2−104013
mixed valence compounds, Anderson model, asymmetric, perturbation treatment in terms of Fermi liq. theory 2−66499
nickel diglycine dihydrate, antiferromag., sp. ht. meas., 0.5 to 10K 2−77294
4-nitrophenyl-4′-octyloxybenzoate, solid state and liq. cryst. phase transitions, calorimetric study 2−61136
normal metal-superconductor bilayer, discontinuity in heat capacity 2−56780
normal metal-superconductor bilayer, heat capacity and density of states 2−82542
normal-zone propagation, influence of temperature 2−98798
one-dimensional crystal, with sinusoidal pot., electronic sp. ht. 2−115427
organic conductors, librons, review 2−86802
paramagnets, strongly exchange enhanced, thermodynamic and transport props., field depend. effects 2−115969
n-perfluorohexane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
n-perfluorooctane, order-disorder transformations, heat capacities meas., vibr. and calorimetric study 2−98263
periodic Gaussian model, helicity modulus, specific heat 2−92936
perovskite struct. $ABCl_3$ crysts., phase transition sequence, thermodynamic description 2−103983
PLZT, glass-like behaviour in specific heat, Debye temp. 2−71664
poly(di-cyclo-octyl itaconate), sub-glass transition events detection using differential scanning calorimetry 2−92200
polycarbonate, thermal expansion and specific heat *(Russian)* 2−104035
polylactide, thermodynamic props. *(Russian)* 2−111510
polymers, helix struct., vibr. spectrum low-freq. branches and low temp. thermal capacity *(Russian)* 2−56137
polymers, interchain sp. ht., calc. from thermo-acoustic data 2−92228
polymers, interchain sp. ht. ratio and US absorpt., calc. from lattice Gruneisen coeff. 2−115382
polymorphism, thermodynamic props., lattice dynamics and polymorphic transitions, review 2−109731
polyoxides, heat capacity and other thermodynamic props. 2−74168
polypropylene, heat capacity and other thermodynamic props. 2−74169
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
PVC glass, vitrified at elevated press., nonequil. processes, conform. and enthalpic changes 2−86873
quartz, neutron irrad., thermal props. 50 mK to 4K 2−66248
quartz, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
radioactive waste, sp. ht., thermal cond. and thermal diffusivity 2−90225
random decorated Ising model 2−72236
random uniaxial dipolar ferromagnet, critical behaviour 2−92935
rare earth alloys, amorphous, induced mag., singlet-singlet model 2−104560
rare earth alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
rare earth metals, electronic specific heats, Coulomb interactions 2−115431
rare gas solids, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922
s-f model with Coulomb repulsion, thermodynamics of two atomic cluster spin $^1/_2$ 2−66822
semiconductors, nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
semimagnetic semiconductors, mag. props. 2−98898
small particle, specific heat and lattice vibr. 2−109920
small-particle superconductor, Monte Carlo simulation, disorder effects 2−82518
$SnCl_2.(H_2O)_2$ and deuterated form, isostructural phase transition, pseudospin model 2−76662
specific heat and mass renormalisation 2−66828
spin glass, Heisenberg, Onsager anisotropies 2−104650
spin glass models with short-range interactions, numerical studies 2−66844
spin glass theory in Bethe approx., thermodynamic props. 2−72235
Stoner model, magnetovolume effects and Gruneisen parameters 2−56817
strain wave velocity in single crystals and polycrystalline media, relation to thermal properties 2−61062
superconducting Kondo alloys, transition temp., sp. ht., and DC Josephson effect 2−98818
superconductor, A15 type, for fusion reactor magnets, ion and neutron damage studies 2−110549
superconductor, granular, charging effects and phase ordering transition, specific heat 2−66699
superconductor, mixed valence impurities effect on transition temp., sp.ht. discontinuity, and crit. field 2−61641

specific heat of solids continued
TCNQ salt, DEM(TCNQ)$_2$, specific heat meas. 2−86903
TCNQ salts, one-dimensional Heisenberg antiferromagnets, with random exchange 2−66858
tetragonal crysts., elastic Debye temp. determination, heat capacity 2−86824
thin films, AC temp. calorimetry at low temp. 2−53762
thiourea-ferrocene channel inclusion cpd., phase transitions, sp. ht., dielec. and spectral study 2−56180
TMMC, mag. solitons contrib. to sp. ht. in external mag. field 2−66824
TMMC, sp. ht. contrib. from mag. solitons 2−72234
(TMTSF)$_2$ClO$_4$, organic supercond., sp. ht. meas. 2−56778
(TMTTF)$_2$X series, phys. props., role of counterion ordering 2−92469
TMTTF salts, struct. and props., exptl. evidence for importance of interchain couplings 2−55959
transition metal (3d)^n ions, sp. ht. contrib. from spin-phonon interaction 2−92232
transition metals and intermetallic cpds., electron-phonon coupling parameter, theoretical determs. 2−104269
triglycine selenate, AC calorimetry at high hydrostatic pressures 2−66128
(TSeT)$_2$Br, 1-D organic metal, low-temp. specific heat *(Russian)* 2−104020
(TTF)(SCN)$_{0.57}$, specific heat meas. 2−86902
(TTF)Br$_{0.72}$, specific heat meas. 2−86902
(TTF)Cl$_{0.67}$, specific heat meas. 2−86902
TTF-chloranil, neutral-ionic phase transition, review 2−92592
TTF/chloranil, neutral-ionic phase-transition, micro AC calorimetry study 2−86900
twin-slope method of measurement of specific heat and coating absorptance of solid materials 2−79577
two dimensional ferromagnetic Heisenberg model, Monte Carlo simulation 2−87520
valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
valence fluctuations between two mag. configurations, exactly solvable Hamiltonian 2−56522
weak coupling superconductor, critical temp., specific heat 2−104521
AgCl, thermal cond. and sp. ht. under press., hot-wire method 2−82040
AgInTe$_2$, force consts. and phonon freq., spectral moment calc. from sp. ht. data 2−98224
Ag$_3$SBr$_{0.5}$I$_{0.5}$, superionic conductor, cryst. struct. and phase transition study 2−109758
Al-Si (11.3 at.%), fast quenched eutectic alloy, effect of heat treatment on supercond. props. 2−61654
Al$_2$SiO$_4$F$_2$, fluor-topaz, thermodynamic props. 2−92226
^{36}Ar submonolayers on Grafoil, struct. and phase transitions, neutron diffr. study 2−98488
As, amorphous, thermal relax., specific heat 2−76702
As, amorphous, time-depend. specific heat meas. 2−66250
As$_2$S$_3$, amorphous, thermal relax., specific heat 2−76702
As$_2$S$_3$, amorphous, time-depend. specific heat meas. 2−66250
Au-Cd(Sn)(Zn), dilute alloys, low-temp. specific heat calcs. 2−61165
BaAs$_3$, elec. cond. and mag. props. 2−92907
BaF$_2$, heat capacity, 3 to 25K, Debye and Einstein model contribs. 2−110007
BaMnF$_4$, phase transitions, specific heat 2−76661
BaPb$_{1-x}$Bi$_x$O$_3$, supercond. ceramics, thermodynamic props. 2−92820
Be$_2$-C -graphite-UC$_2$ reactor fuel material, enthalpy and sp. ht. meas. at 1980K 2−115428
^{249}Bk, metal, vapour press. and thermodynamics 2−104022
CC AsSe, glassy state, high temp. thermal capacity, 300-600K 2−71665
C$_{17}$FeCl$_3$, stage 2 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
C$_{63}$FeCl$_3$ stager 1 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
C$_{11.3}$NiCl$_{2.13}$, stage 2 intercalation cmp., low-temp. specific heat and mag. susceptibility 2−81974
CO$_2$, thermal expansion, X-ray diffr. study, 5 to 195K *(Russian)* 2−81991
CaAs$_3$, elec. cond. and mag. props. 2−92907
Ca(NO$_3$)$_2$-KNO$_3$ glasses, low temp. thermal props. rel. to glass transition temp., water doping effect 2−56271
Ca(NO$_3$)$_2$-KNO$_3$ glasses, sp. ht. and glass transition temp. charges upon doping 2−81979
CaO-AlO$_{1.5}$ system, phase diagram and thermodynamic props. 2−111147
CaO-SiO$_2$, thermodynamic treatments 2−61167
Cd$_3$As$_2$, sp. ht., 1.7 to 30K 2−86901
CdTl$_2$Se$_4$, thermal expansion coeff. thermodynamic props. 2−81973
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
Ce-Si system, nonmagnetic-magnetic transition 2−61713
CeAl$_3$, low temperature sp. ht., thermal expansion and Gruneisen parameter 2−66246
CeAl$_3$, thermal dilatation and sp. heat at very low temp. 2−56213
CeB$_6$ mixed valence cpd., anomalous props. 2−56511
Ce$_{75.5}$Co$_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
CeCu$_2$Si$_2$, superconductivity 2−66691
Ce(Pd$_{1-x}$Rh$_x$)$_3$, specific heat, susceptibility and resistivity across the entire mixed valence range 2−56212
CeS$_x$, heat capacity and mag. ordering 2−104017
CeSn$_3$, mixed valent props. 2−56506
CeSn$_3$, spin fluctuation quenching in heat capacity 2−82611
Ce$_{1-x}$Y$_x$Al$_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
Co complexes [Co(C$_5$H$_5$NO)$_6$][CoCl$_4$] and [Co(C$_5$H$_5$NO)$_6$][ZnCl$_4$], bimetallic, two mag. subsystems, sp. ht. and susceptibility meas. 2−66825
Co$_3$O$_4$, heat capacity and thermodynamic props., 5 to 307K, mag. transition 2−81978
Co$_{90}$Zr$_{10}$ and Co$_{36}$Zr$_{94}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Cr, electronic heat capacity, electron band theory description 2−81977
CrAl$_2$S$_4$, thiospinel, thermodynamic props. 2−86906
Cs$_2$FeCl$_5$.H$_2$O, Heisenberg antiferromag., sp. ht. and mag. susceptibility, 1 to 30K 2−104630
CsNiF$_3$, specific heat meas. rel. to spin solitons 2−92925
Cs$_{11}$O$_3$, low temp. specific heat 2−92227
Cs$_7$O, low temp. specific heat 2−92227
Cu-Co single cryst., magneto specific heat capacity, superparamagnetic clusters 2−92944
CuCl, thermal cond. and sp. ht., temp. and press. depend. 2−115478
CuGaSe$_2$(Te$_2$), specific heat, Debye temp., entropy 2−92231
specific heat of solids continued
CuInS$_2$, force consts. and phonon freq., spectral moment calc. from sp. ht. data 2−98224
CuInTe$_2$, specific heat, Debye temp., entropy 2−92231
CuMn spin glass, magnetisation, calorimetric determ. rel. to Maxwell relation 2−92926
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92927
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92928
Cu$_{1.8}$Mo$_6$S$_8$, sp. ht. in high mag. field, 2 to 15K, thermal relax. calorimetry study 2−89716
Dy$_2$O$_3$, spectral and heat capacity Schottky contribs. 2−81975
Er$_2$O$_3$, spectral and heat capacity Schottky contribs. 2−81975
EuAs$_3$(P$_3$), elec. cond. and mag. props. 2−92907
EuS$_y$Se$_{1-y}$, mictomagnetism, mag. phase diag., specific heat and mag. meas. 2−82607
Fe complex, bis(N,N-diethyldithiocarbamato)-iron chloride, crit. behaviour, theoretical anal. 2−72240
Fe-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Fe-Ni-C, substruct. of lenticular martensite 2−72697
Fe-Ni-Co, phase transitions occurring during heating *(Russian)* 2−62119
Fe-Ni-Cr alloy, sp. ht. and magnetis. near Curie pt., anomalous behaviour *(Russian)* 2−66836
FeCo, heat capacity in range 5-300K, anal. of entropy contribs. 2−56211
Fe$_{3-x}$Cr$_x$O$_4$, heat capacity, 200 to 850K, λ=type anomaly due to ferri-paramag. transition 2−61161
FeF$_2$, elastic constants between 1.5 and 298K 2−115327
Fe$_x$Mn$_{1-x}$F$_2$, random anisotropic antiferromag., crit. behaviour, mag. birefringence study 2−77295
Fe$_{40}$Ni$_{40}$B$_{20}$, metallic glass, rel. between struct. relax. and sp. ht. 2−72750
Fe$_{11}$Ni$_{69}$P$_{14}$B$_6$ amorphous, elec. resist. near ferromag. transition 2−87218
Fe$_{15}$Ni$_{60}$P$_{16}$B$_6$Al$_3$ amorphous, elec. resist. near ferromag. transition 2−87218
Fe$_2$P, ferromag., sp. ht. meas. 2−92930
FeRh, paramag., ferromagnetic and antiferromag., band struct., muffin-tin calc. 2−82216
Fe$_{90}$Zr$_{10}$, amorphous, sp. ht., suceptibility, resist. 2−72224
n-GaAs, heavily doped, electronic heat capacity 2−56207
GaP, temp. depend., thermodynamic props. 2−86898
GdAl$_2$, transport and thermal props., critical behaviour near Curie point 2−116005
Gd$_3$Ga$_5$O$_{12}$, mag. refrigeration material, heat capacity meas. 2−64050
Gd$_3$Ga$_5$O$_{12}$, thermodynamic props., 0.05-25K 2−104623
GdNi$_5$, spin polarised energy band struct. calcs. 2−92449
Ge amorphous film, low-energy exictations, sp. ht. meas., 0.08 to 2.5K 2−71662
H$_2$, ortho diluted with para, NMR and specific heat calcs. 2−98381
3He, adsorbed on thick Ne films, heat capacity 2−98442
Hg filaments in chrysotile-asbestos matrix, heat capacity near supercond. transition 2−66254
Hg$_{3-\delta}$AsF$_6$, resistivity at high temp. and sp. ht. at low temp. 2−92585
In filaments in chrysotile-asbestos matrix, heat capacity near supercond. transition 2−66254
(InP)$_x$(InAs)$_{1-x}$ solid soln., sp. ht., temp. depend., 5 to 160K 2−76705
(InP)$_x$(InAs)$_{1-x}$ solid soln., thermodynamic functions, entropy and enthalpy of mixing 2−86904
n-InSb, nonparabolic, ultrathin films, electronic sp. ht., size quantisation effects 2−61163
K, phason anomaly rel. to heat capacity data 2−76698
K, phason evidence from sp. ht. data 2−76699
KCl:OH$^-$(Na$^+$), heat capacity, 5 to 40K, effect of impurities 2−98301
KH$_2$PO$_4$ small crysts., sp. ht., 1.7 to 25K 2−110005
KMnF$_3$, uniaxially stressed, phase diagrams, sp. ht. meas. 2−56177
K$_2$SO$_4$, arcanite, phase transition, thermodynamic and phenomenological study 2−61129
K$_2$SO$_4$, sp. ht. and dielec. const. determ. phase transition 2−109970
K$_2$SeO$_4$-type crystals, sp. ht. in incommensurate phase 2−66247
La$_{3-x}$Gd$_x$In, EPR study, mag. and superconducting props. *(Russian)* 2−93002
LaNi$_5$, spin polarised energy band struct. calcs. 2−92449
LaS$_x$, heat capacity in superconducting and normal states 2−82521
La$_2$S$_3$, α- and β-phases, heat capacity, 1.2 to 20K 2−56209
La$_{0.78}$Zn$_{0.22}$, amorphous supercond., anomalous heat relax. 2−98801
LiF, heavily deformed, sp. ht. and thermal cond., 0.08 to 4K 2−56210
LiF, neutron irrad., excess sp. ht. and thermal cond. 2−61160
α-LiIO$_3$ single crystal, thermal study, 195-265K 2−104014
LiTb$_{1-p}$Y$_p$F$_4$, random uniaxial dipolar ferromagnet, critical behaviour 2−92935
ε-Lu$_2$S$_3$, heat capacity, 1.2 to 20K 2−56209
MnBr$_2$.4H$_2$O, heat capacity near Neel temp. 2−72229
Mn$_{1-x}$Zn$_x$F$_2$, heat capacity meas. for x<0.1 2−72210
Mn$_x$Zn$_{1-x}$F$_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
(Mo$_{0.60}$Ru$_{0.40}$)$_{100-x}$B$_x$ metallic glasses, low temp. sp.ht. 2−104019
N$_2$-type crystals, libration motion dynamics, anharmonic and correlation effects *(Russian)* 2−61082
N$_2$O, thermal expansion, X-ray diffr. study, 100 to 182K *(Russian)* 2−81991
Na, thermodynamic props. from lattice and mol. dynamics, pseudopot. calc. 2−104028
NaNO$_2$, specific heat at low temp. 2−76701
NaOH (NaOD), cryst. struct. and struct. transitions, X-ray and neutron diffr. and sp. ht. study 2−97972
NaUO$_3$, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
Na$_2$UO$_4$, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
Na$_2$U$_2$O$_7$, sp. ht., heats of soln. and form., thermodynamic functions 2−92229
Nb, electronic sp. ht., electron-phonon interactions effect, expt. study 2−71663
Nb, lattice sp. ht. 10 to 300K *(Russian)* 2−104011
Nb-Ti (38 wt.%), low-temp. heat capacity 2−76697
Nb-Ti (50 wt.%) filaments in Cu matrix, low-temp. heat capacity 2−76697
Nb-Zr, dil. alloy, low temp. sp. ht. meas. *(Russian)* 2−86897
Nb-Zr (79.6 wt.%), low-temp. heat capacity 2−76697

specific heat of solids continued
NbC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
Nb_3Ge, heat capacity meas. using adiabatic calorimetry method 2−115430
$Nb_{4.95}Ir_{2.7}O_{1.35}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
$Nb_{4.04}Pt_{2.97}O_{1.08}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
$NbSe_3$, low temp. specific heat 2−76703
Nb_3SnH_x, heat capacity, supercond. transition temp. electron phonon interaction, H content effects, expt. study 2−56206
Ni, hemispherical specimens, thermal diffusivity, sp. heat and thermal cond. determ., pulse method appl. 2−61219
Ni, sp. ht. and resist. meas. crit. parameters, explanation for rounding 2−92929
$Ni_3B_7O_{13}Br_{1-x}Cl_x$, elec. and thermal props. near ferroelectric transition 2−66555
$NiBr_2$, mag. phase transitions, sp. ht. study 2−61711
P, amorphous and cryst., vibr. spectra, inelastic neutron scatt. meas. 2−56139
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2−115429
$Pb_{1-x}Ge_xTe$, coupled phase transitions, sp. ht. meas. 2−98277
$PbMo_6S_8$, supercond. and electronic props. *(Russian)* 2−98638
PbO-SiO_2 glass, crystn. kinetics, 500° to 725°C 2−86574
PbTe:Tl(Na), density of states in valence band, sp. ht. and Hall coeff. meas. 2−82515
Pd-Al, electronic struct., KKR-CPA calc. with muffin-tin pot. model 2−66431
Pd-Dy, dil. alloy, sp. ht., cryst. elec. field effects 2−76700
Pd-Er dil. alloy, sp. ht., cryst. elec. field effects 2−76700
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
$(Pd_{0.9966}Fe_{0.0034})_{0.95}Mn_{0.05}$, nonlinear mag. susceptibility and sp. ht. meas. 2−87480
$Pd_{48}Ni_{32}P_{20}$ metallic glass, struct. relaxation mechanism 2−55856
$(Pd_xPt_{1-x})_3Fe$, atomic-ordered, sp. ht., 3 to 20K *(Russian)* 2−56204
Pr alloys, amorphous, mag. props., nonaxial crystal field model 2−77301
Pr amorphous alloys, low temp. mag. props. 2−56870
$Pr_cLa_{1-c}Ni_2$, heat capacity meas. 2−92916
$PrNi_2$, heat capacity meas. 2−92916
$PrNi_2$, Laves phase, cryst. field 2−98598
Pt-Mn, spin glass, sp. ht. meas., 0.5 to 20K 2−98887
Rb, phason anomaly rel. to heat capacity data 2−76698
$Rb_7Cs_{11}O_3$, low temp. specific heat 2−92227
$RbVF_4$, structural phase transitions, sp. ht., optical and X-ray diffr. studies 2−115403
Rb_3ZnBr_4, phase transition, thermodynamic props. 2−71635
Sc, spin fluctuation quenching, specific heat 2−77304
$ScRe_2$, density of states and supercond., low temp. sp. hts. 2−61640
$ScTc_2$, density of states and supercond., low temp. sp. hts. 2−61640
Si:P, heavily doped, as amorphous antiferromagnet 2−77283
Si:P, specific heat, effects of electron and impurity correlations 2−104016
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
SiO_2, amorphous, time-depend. specific heat meas. 2−66250
SiO_2 glass, thermodynamic, struct. and dynamical props., mol. dynamics study 2−76321
SmB_6 mixed valence cpd., anomalous props. 2−56511
$Sn_{1-x}Cr_xTe$ degenerate mag. semiconductor, struct. transform.-induced mag. ordering 2−56852
$Sn_xEu_{y-x}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$SrAs_3$, elec. cond. and mag. props. 2−92907
$SrTiO_3$, crossover exponent and struct. phase diagram, sp. ht. meas. 2−76665
TaS_3, elastic anomalies at CDW transition 2−76564
$Tb_2(MoO_4)_3$ crystal, heat capacity in phase transition region 2−66253
Tb_5Si_4, magnetic, thermal, and elec. props. 2−72177
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800
Ti, electronic heat capacity, electron band theory description 2−81977
α-Ti, hexagonal close packed, sp. ht., adiabatic calorimetry study 2−92230
Ti, ω→α transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
$TiBe_2$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$TiBe_{1.94}O_{0.05}$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
TiC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
TiN_x, low temp. specific heat 2−82520
Tl_3AsSe_3, thermal cond. and specific heat 2−115476
TlSe, thermal expansion meas. and sp. ht. and Gruneisen coeff. calc. 2−110019
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
$(Tm_xY_{1-x})_2(SO_4)_3.8H_2O$, effect of dilution on mag. ordering 2−66812
UO_2, high temp. data on Seebeck coeff., elec. cond., thermal cond., specific heat 2−115796
U_4O_{9-y}, nonstoichiometric, heat capacity and elec. cond., 300 to 1200K 2−110006
V, band struct., XPS, NMR and sp. ht. studies 2−104243
V, electronic heat capacity, electron band theory description 2−81977
V-H-D system, isotope effects on thermodynamic functions *(German)* 2−110016
V-Ta, superconducting Tc, specific heat calcs. 2−115935
V_2O_{13} single cryst., physical, elec. and mag. props. 2−66251
VPt system, bandstruct. study 2−104242
V_3Pt, band struct., XPS, NMR and sp. ht. studies 2−104243
V_3S_4, mag. susceptibility, mag. moments and sp. ht. 2−98852
V_3Si, pressure induced electronic changes 2−82513
V_3Zr, specific heat anomalies 2−66249
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
YNi_2, heat capacity meas. 2−92916
δ-YS_x (x=1.491, 1.497), heat capacity, 0.3 to 20K 2−56209
$YbAlB_4$, mixed valence cpd., elec. resist., mag. susceptibility, sp. ht. 2−56517
Yb_2O_3, spectral and heat capacity Schottky contribs. 2−81975
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
$ZnAl_2S_4$, thiospinel, thermodynamic props. 2−86906
$ZnCr_2S_4$, thiospinel, thermodynamic props. 2−86906

specific heat of solids continued
Zr, cryst., supercond. and normal state, very low temp. sp. ht. 2−61656
Zr, ω→α transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
ZrC_x ($0.9 \leq X \leq 1.01$), enthalpy and specific heat, temp. and conc. depend. in region of homogeneity 2−71670
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
$Zr_{0.76}Ni_{0.24}$, amorphous supercond., lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

specific volume *see density*

specimen preparation
see also biological specimen preparation; metallography; replica techniques
airlock system for hoar frost free specimen exchange in freeze-etch vacuum plants 2−84604
alternating field demagnetization appl., coil design 2−58161
AMICA sample preparation system for laboratory automation 2−79549
bone, human compact, creep under various specimen storage and test conditions 2−94099
containerless melting and solidification of materials with an aerodynamic levitation system 2−84607
cryomicroscopy and radiation damage, conf., Schloss Ringberg am Tegernsee, Germany (Nov. 1981) 2−112655
electron diffraction cameras, multiple specimen holder 2−74395
electron microscope specimen prep. by ultramicrotomy 2−64007
electron microscopy, frozen hydrated specimens, thermal and radiation damage 2−83720
fracture toughness testing, thin sheet, scale factor effect 2−72909
jig for orienting and polishing single crystals 2−58803
lunar samples and meteorite mock-ups prep. 2−100747
magnetic fine particles, prep. method for TEM specimens 2−79553
metal filaments, decimicron, prep. and tensile testing 2−62314
metallic powders, TEM, new thinning technique 2−88321
miniature tensile specimen technology for neutron irrad. materials testing 2−88312
miniaturised fatigue crack growth specimen technology and results for irrad. fusion reactor materials 2−88308
organic specimens, electron microscope irrad. at 4K, props. 2−115120
piezoceramics, fracture toughness determ. with kerf specimens 2−116670
replica production for SEM, test of materials suitable for use in field settings 2−84747
small angle mechanical etching device for use with EDWARDS IBMA 1 apparatus 2−53902
solidified gases, low-melting-point, specimen prep. for low temp. powder diffractometry 2−97850
steel, fatigue strength, test method for under biaxial loading 2−67699
steel, ferritic, irrad., fracture toughness testing using electropot. technique, miniature specimen prep. 2−88310
steel, low C, impact strength anisotropy, specimen width and notch tip radii influence 2−93592
steel, stainless, X-ray texture analysis, tube specimens prep. method 2−93717
support films and the visibility of atoms, statistical analysis 2−84745
target preparation by piezoelectric jet device 2−108193
variable-thickness variable-temperature liquid cell for dispersive Fourier transform spectrometry 2−79551
wear debris particles, prep. technique for TEM 2−111446
X-ray texture analysis, tube specimens prep. method 2−93717
Al alloy Δ76chT, thin sheet, fracture toughness, scale factor effect 2−72909
Al alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Al alloys, vacancies generation study during oxidation, electron microscope method 2−72897
Al-Zn-Mg, aged at 20, 80 and 120°C, decomp., quench conditions influence *(French)* 2−72743
β-Al_2O_3-Na_2O, ultrafast ceramographic specimen prep. 2−111408
CO standard samples preparation and assessment, 0 to 500 ppm 2−111530
CeO_2 gels for protective coatings, TEM exam. technique 2−105400
Cu-Sn, sample prep. for TEM 2−69150
Ge-GeO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
Ni alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Si-SiO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
V hydrides, Pd coated, TEM samples preparation 2−84744

speckle
astro speckle interferometry, phase problem, simple resolving modification 2−94622
bibliography of laser speckles (1974-1975) 2−53448
bibliography of laser speckles (1979) 2−53447
binary star speckle interferometry, accuracy 2−58269
binary stars, speckle interferometry at KPNO 2−117709
biomedical sciences, optics appls., conf., Graz, Austria (Sept. 1981) 2−107021
coherent laser radar target statistics, turbulence effects 2−100546
colour image retrieval from coherent speckles by white-light processing 2−90821
colour image retrieval from incoherent speckles with white light processing 2−102737
colour photography by speckle interferometry in white light 2−89841
contrast of monochromatic and white-light speckles, extended detecting aperture effect 2−108789
curved surfaces, strain determ. using far field objective laser speckles 2−91361
cylinder with holes under compression, strain analysis by multiaperture white light speckle method 2−65541
cylinders, circular, with holes under compression, strain anal. using multiaperture white light speckle method *(Chinese)* 2−103117
defocused white light speckle effect 2−80898
deformed state examination, interference optical methods, survey 2−114745
diaphragm NDT using laser speckle photography 2−57545
differential speckle interferometry, astron. appls. 2−73856
differentiated speckle pattern, zero crossing rate exact soln. 2−85895
diffusers, identical, interference, speckle patterns 2−60026
displacement measurement using close range objective speckles 2−91358
double stars, image, reconstruction using Bates' algorithm 2−112344

speckle continued
electronic speckle pattern interferometry for static and dynamic surface displacement meas. 2−91357
flow measurement of viscoelastic fluids using laser speckle photography 2−76043
guided wave system, modal noise as component interaction problem 2−60239
holograms, plane diffr. efficiency calcs. for speckle-inhomogeneous object field 2−55097
holographic interferometry, in-plane and out-of-plane motion separation 2−55088
holographic microscope, image plane holography appls. *(Chinese)* 2−90837
image multiplexing method through internal modulation of speckle patterns 2−65177
in-plane displacement extraction from sandwich holograms using speckle photography 2−108829
intensified video speckle interferometry system, Steward observatory 2−73857
intensity due to strong and weak scatterers in presence of amplitude-correl. multipaths 2−90816
interference from two identical diffusers 2−75522
interferograms, of displaced and deformed objects, interpretation 2−80919
interferometric optical synthesis telescope, imaging 2−58253
interferometry, obs. of R136a, possible supermassive star in LMC 2−94719
interferometry for measuring small rotation 2−94962
laser light scattering off non-homogeneous media, speckle motion 2−60024
laser speckle metrology of surface displacement, digital imaging techniques in stress analysis 2−91359
laser speckle patterns, max, min and saddle points, appl. to percolation threshold 2−102719
laser speckle produced by moving diffuse object under Gaussian beam illum., dynamic statistical props. 2−75526
laser specklegram automatic readout technique *(Chinese)* 2−95453
lens centering on an axis of rot. by speckle photography *(French)* 2−102901
liquid convection, Rayleigh-Benard, flow field meas., speckle velocimetry appl. 2−76051
mathematical relationships used in laser speckle *(French)* 2−108790
metrology techniques, parametric exam. of observed fringes, speckle motion model 2−89796
metrology with $Bi_{12}SiO_{20}$ crystals, real-time 2−85914
moire and speckle pattern fringe smoothing by computer processing 2−114183
multiplicative speckle noise 2−70505
NGC 1068, Seyfert galaxy size and power, speckle obs. 2−63655
pattern interferometry, vibration meas. appl. 2−79657
perspective effect in the white light speckle method 2−74487
photography, error of lateral sinusoidal vibrs., simple analytical soln. 2−74488
photography data processing, diffr. halo intensity variation in Young's fringes 2−95463
plate deformation meas., laser speckle photography as alternative to holographic interferometry 2−86244
pseudocoloring method using two different spatial modulations, image storage appls. 2−90819
scattered light speckle metrology development, strain, displacement and velocity meas. 2−91356
shearing interferometry, a new method 2−107393
shearing interferometry rel. to displacement derivatives, use of glass plate for correlation fringes 2−53826
shells, conical, stringer reinforced, dynamic characts., speckle struct. method 2−114746
shift observation, rigid-body longit. movement induced *(Chinese)* 2−90814
solid mechanics problems, appl. of subjective laser speckle method 2−91354
stars, IR imaging using multiplex encoding techniques 2−63262
stellar interferometry, object reconstruction method, computer simulation 2−112338
stellar speckle interferometry, isoplanatic patch size 2−112343
stellar speckle pattern spatial-temporal statistics meas. at Mauna Kea, Hawaii 2−63267
strain gauge, simplified laser speckle, surface displacement detect. 2−91360
stress intensity factor determ., objective white-light speckles appl. 2−97478
surface roughness meas. by laser speckle method *(Czech)* 2−69132
surface roughness measurement using modified speckle contrast technique, ambiguity removal 2−69137
time-average defocused speckle photography, virtual fringe analysis method 2−53827
time-varying speckle, correlations near focal plane of lens 2−55068
vibration mode anal. using electronic speckle pattern interferometry, instrument 2−83324
vibration mode analysis using electronic speckle pattern interferometry 2−79659
visual evoked response to laser speckle, contrib. of central retina 2−105698
wave-amplitude vacillation investigation using light-speckle velocity meas. technique 2−109428
weak diffuser speckle patterns, off-axis aberration effect 2−55070
white light speckle method for strain analysis, theory and appls. 2−103122
white-light speckle method for flow velocity distrib. meas. 2−103229

spectra
see also alpha-particle spectra; astronomical spectra; atmospheric spectra; atomic spectra; beam-foil spectra; beta-ray spectra; Brillouin spectra; cosmic ray energy spectra; electron spectra; energy level crossing; gamma-ray spectra; light scattering; luminescence; mass spectra; matrix isolation spectra; microwave spectra; molecular spectra; multiphoton spectra; neutron spectra; nonradiative transitions; optical double resonance; oscillator strengths; proton spectra; quantum beat spectra; Raman spectra; spectra of inorganic liquids and solutions; spectra of organic molecules and substances; spectra of solids; spectral line breadth; spectral line shift; spectrochemical analysis; Stark effect; stimulated scattering; time of flight spectra; time resolved spectra; transition moments; tunnelling spectra; X-ray spectra
fluids, classical spectra, detailed balance symmetrisation procedure 2−87720

spectra of diatomic inorganic molecules
see also infrared spectra of diatomic inorganic molecules; radiofrequency and microwave spectra of diatomic inorganic molecules; Raman spectra of diatomic inorganic molecules
molecules, vacuum UV spectra using third harmonic generation in inert gases 2−70275
two-photon processes, δ-approx. (reflection) method 2−102560
AgBr, B-X system, rot. anal. 2−96591
Ar, elec. dipole forbidden inner-shell transitions, electron energy loss obs. 2−75424
Ar-like mols., $L_{II,III}$ emission spectra, many-electron effects 2−90568
BH^+, $A^2\Pi$-$X^2\Sigma^+$ band system, high-resolution obs. 2−114009
BeH^+, pot. energy curves and spectroscopic consts. for $X^1\Sigma^+$ and $A^1\Sigma^+$ states 2−102416
Bz, spin-spin interaction, vibr. and rot. const., UV obs. 2−90565
C_2 absorption bands in C_2 white dwarfs, influence on UBV magnitudes 2−63403
C_2 in interstellar clouds, excitation, radiative lifetimes and rot. levels 2−101009
CH^+, $A^1\Pi$-$X^1\Sigma^+$ system, emission bands, mol. consts. 2−64959
CN, $A^2\Pi$ and $B^2\Sigma^+$ states, transition moments depend. on internuclear distance 2−85746
CN red system in solar spectrum, oscillator strengths, radiative lifetimes and electronic transition moment 2−106641
CO, dipole oscillator strength distrib., sums and dispersion energy coeff. 2−70342
CO gas, resonantly enhanced vacuum UV generation and multiphoton ionisation 2−65298
CO, interstellar, UV absorpt. lines obs. towards ζ Ophiuchi rel. to $^{12}CO/^{13}CO$ ratio 2−63557
CO, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
CO, Rydberg series in 2-electron excited region 2−102491
CO, vibr., radiative lifetimes determ. optical emission functions 2−90722
CO^+, absorpt. spectra, charge exchange 2−54833
CO^+, electronic states, spin-rot. coupling, RKR pot., deperturbation anal. 2−85624
CP molecules, B-A system study 2−54834
CS^+ in comets, oscillator, strengths and radiative lifetimes determ. 2−73905
$^{13}C^{14}N$, red system, rot. anal., mol. consts. 2−64995
Ca_2, transition moments, pot. energy curves, green and red spectra 2−85629
CaO, sub-Doppler spectrum, rot. anal. and deperturbation 2−64996
CaO, triplet system orange arc bands, rot. anal. 2−70221
CdD, arc emission spectrum, $A^2\Pi$-$X^2\Sigma^+$ system, rot. anal., spin splitting, vibr. and rot. depend. 2−64994
Cl_2, electron impact excitation, valence states, pot. energy curves, spectra 2−54974
Cl_2, UV emission, excitation achieved by two-photon absorpt. 2−96588
CsKr satellite bands, semiclassical inversion 2−96678
Cu_2, in inert gas matrix, fluoresc. spectrosc. and photoprocesses 2−85577
DI, visible and UV spectra, electronic struct. 2−85682
FCN, excited vibr. states, rot. spectra, equilib. struct. 2−96543
Fz, valence shell dipole excitation, electron energy-loss meas., RPA exchange calcs. 2−65088
GeH^+, rot. anal., visible spectra 2−85678
GeO, $E^1\Sigma^+$-$^1\Sigma^+$ system, vac. UV spectra, isotope shifts 2−96494
H_2, electron impact, UV emissions, Werner- and Lyman-band system 2−70432
H_2 fluorescence spectrum (1200 to 1700 Å) due to electron impact, rel. to Jovian aurora 2−63237
H_2, radiative transition probability meas. 2−114052
H_2 thyratron, metastable species form. 2−54936
HCN, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
HCl, electronic spectrum assignment, ab initio CI calcs. 2−70211
HD in ground vibr. state, rot. spectrum, dipole moment 2−85634
HD^+ absorpt. spectra, charge exchange, photodissoc. 2−54833
HDO, hyperfine struct., beam maser meas., rot. transition freq. and deuterium quadrupole coupling tensor 2−80578
HF, pot. energy curve, Rydberg-valence mixing, spectra, ab initio CI calcs. 2−54777
HI, visible and UV spectra, electronic struct. 2−85681
Hg vapour, flash photolysis, dimers and timers, absorpt. spectra 2−96589
HgCl, visible laser, tuning charact., laser emission spectra 2−60065
$^{200}Hg\ ^{79}Br$, B→X spectrum, excimer laser 2−75555
I_2, D′ to A′ transition, vibr. anal., Franck-Condon and band profile calcs., weak emission 2−108546
I_2, ion pair states study and assignment in 40000 cm^{-1} region 2−70268
I_2, ion-pair state, two-photon excitation, fluoresc. obs. 2−85721
I_2, transition strengths, visible and IR obs. 2−70244
I_2, visible absorpt. spectra by Stark modulation spectroscopy 2−64997
ICl, supersonic expansion, laser spectrosc. 2−114052
ICl, visible absorpt. spectra by Stark modulation spectroscopy 2−64997
KCl, CN^- radical formation by ion implantation 2−76470
KrF* broad band emission at 400 nm 2−96625
Li_2^+ $^2\Pi_u$ spontaneous emission and predissoc. calcs. 2−59868
LiH, mol. consts., pot. energy curves, isotope shifts 2−96541
LiHe, van der Waals mol., rovibration struct., optical double reson. 2−70308
N_2, elec. dipole forbidden inner-shell transitions, electron energy loss obs. 2−75424
N_2 molecular spectra induced by ion impact on Si:N 2−77657
N_2, second positive system, band intensities, electronic transition moment 2−85632
N_2^+, band spectrum of first negative system 2−70271
N_2^{+2} ions, dissoc. into N^+ ions, kinetic energy spectra 2−72965
NH, $c^1\Pi$-$a^1\Delta$ system, rot. anal. 2−90504
NH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
NH_3, adiabatic rapid passage within Doppler-broadened line, level lifetime meas., Stark effect 2−70311
NO, fine struct. of $C^2\Pi$-$A^2\Sigma^+$ and $D^2\Sigma^+$-$A^2\Sigma^+$ band system, homogeneous and heterogeneous perturbations 2−64960

spectra of diatomic inorganic molecules continued
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2−80566
NO, vacuum UV spectra using third harmonic generation in inert gases 2−70275
NO+NO(N_2)(SF_6)(CO)(Ar)(He), rot. and spin-orbit transitions, IR-UV double reson. 2−75382
Na_2, $a^3\Pi_u \leftarrow X^1\Sigma_g$ transition, 625 nm, hyperfine struct. 2−59814
Na_2, matrix isolated, visible spectra 2−108414
Na_2, spectra by laser level labelling, two-photon transitions 2−65063
$Na_2(A^1\Sigma_u^+ \rightarrow X^1\Sigma_g^+)$ fluoresc. and continuous spectrum 2−90609
NaAr, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
NaMg, laser induced chemiluminesc. 2−57618
NaXe, $B^2\Sigma^+$ pot. and satellite band identification 2−85766
NeAr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeKr, associative ionisation half reactions, photoionisation cross sections 2−72998
NeXe, associative ionisation half reactions, photoionisation cross sections 2−72998
NiBr, H-X and I-X systems, thermal emission spectrum 2−75298
NiCl, thermal emission spectrum obs., new bond systems 2−54859
NiCl, thermal emission spectra in 4730 to 4390 angstrom region 2−108535
NiF, UV thermal emission spectrum of H→X and I→X systems 2−54864
NiH, electronic states, pot. curves, spectra, SCF and CI calcs. 2−113894
NiH, emission spectrum, new transitions obs. 2−65000
O_2, $^1\Delta_g$ dimol emissions, hot band intensities 2−114050
O_2 Herzberg bands, dayglow emissions and backscattered UV spectrum 2−100620
O_2, in stratosphere, Herzberg continuum absorpt. determ. from solar irradiance meas. 2−100550
O_2 molecular spectra induced by ion impact on B with adsorbed O 2−77657
O_2, spectral line parameters, atm. transmission functions calcs. 2−78841
O_2, UV photoabsorpt. cross-section into $^3\Pi_u$ state 2−63155
O_2^+, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
OH radical in flames, $A^2\Sigma^+$-$X^2\Pi$(0-0) trnsition, mag. field effects 2−59813
PH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
PI, $bO^+ - X_1O^+$ band, vibr. anal. 2−113966
Pb_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
PbS, AO^+-$X^1\Sigma^+$ transition, rot. and vibr. struct. studied by sub-Doppler laser spectroscopy, isotope shifts 2−85630
SH^+, high resolution laser study 2−70224
SH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
SO, $^3\Delta$ state, rel. to rot. anal. of $A^3\Pi$-$X^3\Sigma^-$ spectrum 2−113869
SO, ($B^3\Sigma^-$, $A^3\Pi$-$X^3\Sigma^-$) emission in UV and visible spectral range from SO_2 afterglows 2−90561
SO radicals, absolute absorpt. cross-sections, 190 to 235 nm 2−64998
SiBr, A-X system, emission spectrum 2−75238
SiF, Rydberg electronic states obs. between 42000 and 50000 cm^{-1}, rot. anal. 2−54865
SiO vibrationally excited masers in late type stars and Orion, EHF obs. 2−84219
Sn_2, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
SnF, thermal emission spectrum of A to X system 2−102490
SrH, UV spectrum at 2620 Å 2−54863
T_2 gas, optical emission spectrum, 350-800 nm 2−75301
TbO, electronic spectrum vibr. struct. anal. 2−113968

spectra of inorganic liquids and solutions
see also Raman spectra of inorganic liquids and solutions
aqueous solutions, time var. of transmission spectra, correl. with space-physics phenomena 2−77547
benzonitrile liq., motional param. from spectral profiles 2−71317
p-chloroacetophenone, IR spectrum and normal coord. anal. 2−108512
condensed systems vibr. spectra, intermol. pot. effects 2−72493
donor-acceptor charge transfer systems, in soln., charge transfer spectra, photoelectron emission 2−90622
sea-water, dual beam pulse laser method for attenuation coeffs. meas. in 414-662 nm range *(French)* 2−64126
water, distilled, dual beam pulse laser method for attenuation coeffs. meas. in 414-662 nm range *(French)* 2−64126
water, IR spectra, struct., continuous model 2−76273
water, spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
Ar, dense gas and liq., polarisability anisotropy induced light scatt. spectra 2−97701
C mesophase, in situ obs., 400-500°C *(French)* 2−76304
CS_2, liquid, shock compressed, time-resolved spectroscopy 2−69266
CS_2, liquid, shock loaded, elec. resist. and UV reflectivity meas. 2−71963
CaO-SiO_2-MnO melt, viscosity and IR spectra obs. 2−61184
Cl_2, liquid, interaction-induced IR absorpt., molecular dynamics investigation 2−102470
ClF, cryogenic solns., vibr., IR and Raman obs. 2−70240
Cs-Tl molten alloys, reflectances meas. 0.65-4.5 eV 2−67076
Eu(II) cryptate in aqs. soln., absorpt. and emission props. 2−104906
H_2, IR spectrum, rot. double transitions 2−87755
$HClO_4.2H_2O$, IR and Raman spectra of glassy and liq. states *(French)* 2−87776
$Hg(ClO_4)_2$-$HClO_4$-H_2O, vibr., IR and Raman study *(Russian)* 2−87801
$InBr_3$ in aq. soln., far IR spectra 2−87760
MnO-SiO_2-Al_2O_3 melt, viscosity and IR spectra obs. 2−61184
NaOD solution, interaction induced light scatt. spectra of amorphous solid and liq. 2−57113
Na_2SO_4 aqueous solution IR optical constant 2−93179
$Nd_2(SO_4)_3 8H_2O$ complexes in soln., optical absorpt. spectra 2−70270
OsO_4, cryogenic soln., mol. aggregates, IR study 2−67031
$PrCl_3$ complexes in soln., optical absorption spectrum, cryst. field parameters 2−116205
$RuCl_3$ in aq. soln., far IR spectra 2−87760

spectra of inorganic molecules
see also spectra of diatomic inorganic molecules; spectra of polyatomic inorganic molecules
No entries

spectra of inorganic solids
see also impurity and defect absorption spectra of inorganic solids; infrared spectra of inorganic solids; luminescence of inorganic solids; radiofrequency spectra of inorganic solids; Raman spectra of inorganic solids; visible and ultraviolet spectra of inorganic solids
crystals, vibr. spectra, Davydov double resonance 2−61897
IV-VI semiconductor, spectrum in field of reson. light wave 2−77466
minerals, opaque, identification by reflection spectra 2−87719
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874

spectra of organic molecules and substances
see also infrared spectra of organic molecules and substances; luminescence of organic solids; radiofrequency and microwave spectra of organic molecules and substances; Raman spectra of organic molecules and substances; Shpolskii spectra
acetylene($-d_2$), local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
acetylene isotopic molecules, absorpt. spectrum, vibr. and rot. anal., ionisation pot. 2−64999
acridine, heteroatom n-electrons effects on optical props. 2−113907
alkanes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
alkenes, C-H stretching vibrs., overtone spectra obs. using laser photoacoustic spectroscopy 2−102463
cis-amide uracil, and derivaties, sensitivity of amide V band to H bonding 2−90632
amides, out-of-plane hydrogen bonded N-H group, temp. depend. band width 2−80736
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
aniline, heteroatom n-electrons effects on optical props. 2−113907
anthracene, triplet-triplet annihilation, spin-statistical factor 2−64890
aromatic molecules in soln., vacuum UV absorpt. spectra 2−85688
benzaldehyde, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
benzo(a)pyrene and its 9- and 3-hydroxy derivatives, fluoresc. excitation and emission spectra, solvent effects 2−70330
benzonitrile, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
biacetyl($-d_6$), ^1A_u from $^1A_g(\pi^*$ from n) transition, laser excitation spectroscopy; 2−70223
carbodimide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
carbon tetrachloride, Cl L-edge absorpt. spectra, HF calcs. 2−102464
chloroethane, IR multiphoton decomposition and energy depend. absorpt. cross section 2−93770
chloropentafluoroethane, multiple-photon excited, quasicontinuum struct. 2−59783
chlorophyll a, directed energy transfer due to orientational energy level broadening 2−114010
complex molecules, assoc. effect on spectral distortion 2−65053
CT-complexes, electron transfer band profile calc. *(German)* 2−80577
cyanamide, isomerism, force consts. vibr. spectra, CNDO calcs. *(French)* 2−108383
4,4′-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
dichlorodifluoromethane, Cl L-edge absorpt. spectra, HF calcs. 2−102464
ethane, ν_9 band, torsional splittings, diode laser spectra, torsion-vibr.-rot. interactions, internal rot. 2−108469
ethylene cation, mol. spectrosc. and unimol. decay, nonadiabatic effects and conical intersections 2−108468
fluorene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
gadolinium tris(oxydiacetate), electronic absorpt. and circ. dichroism spectra 2−80581
glyoxal, torsional mode, Franck-Condon factors, single vibronic level emission 2−108634
haloaromatics, intersystems crossing and predissoc. 2−102553
8-hydroxyquinoline, heteroatom n-electrons effects on optical props. 2−113907
indene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
lipophilic fluorescein derivatives, prep., spectral props., appl. to plasma LDL 2−67953
matrix isolated, inhomogeneous broadening of spectra 2−75357
mercuric derivatives of amide thiols, vibr. spectra and struct. *(French)* 2−96542
methane, interacting upper states of ν_1, ν_3, $2\nu_2$, $\nu_2+\nu_4$ bands, mol. consts. 2−85621
methane, inverse spectral problem, normal F_2 oscill. modes *(Russian)* 2−85636
methane, optical freq. standards using supernarrow resonances on E-line of P(7) transition of ν_3 band 2−58772
methinophosphide-d_0(-d_1), ν_3 vibr.-rot. band and equilib. struct. 2−64957
methylamine, liq., solvated electron optical absorpt. spectra 2−80639
3-methylsydnone($-d_4$), vibr. spectra, force field and electronic struct. 2−75230
1,5-naphthyridine, absorpt. and MCD spectra, transition energies, oscillator strengths and Faraday B terms 2−102513
p-nitrophenol-donor systems, proton transfer and H-bonds, spectroscopic studies 2−70370
organobimetallic compounds, $(SCN)_2Ni(NCSHgR)_2$, synthesis, elemental anal., IR and electronic spectra, mag. susceptibility 2−96571
1,3,4-oxadiazoline-2-imine, 3,5-distributed, UV, visible and fluoresc. spectra *(German)* 2−90566
pheophytin a, directed energy transfer due to orientational energy level broadening 2−114010
polyenes, solute electron correlation energy, environment effects, UV spectral shifts calc. 2−90460
polyquinocycloalkanes, MCD spectra and electronic spectra 2−80582
porphyrins, energy states, spectroscopy study, mol. biology 2−62560
pyrazine, $^1B_{3u}(n\pi^*)$ state, intermediate level struct., quantum beats, electronic relax. 2−59785
pyrene, excited singlet and excimer states, absorpt. bands 2−102462
pyridine, heteroatom n-electrons effects on optical props. 2−113907
quinoline, heteroatom n-electrons effects on optical props. 2−113907
rhodamine 6G in aqs. soln., aggregate form. const. and absorpt. spectrum, association forces 2−111485

spectra of organic molecules and substances continued
selenophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
silabenzene, electronic states, INDO/S-CI calcs. 2−108382
styrene, electronic transitions, frontier MOs, INDO/S-CI calcs. 2−108380
tellurophthalic anhydride, chemical shift, NMR, IR, Raman UV, visible and PES study 2−54896
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
3,6-tetramethyldiaminophthalinide, moments method in vibronic spectra theory 2−108473
tetrathiafulvalene, electronic structure calc. using ab initio HF Slater procedure, photoemission spectra 2−64863
thioindigo, fluoresc. spectrum, intensity distrib. and emission-absorpt. mirror symmetry 2−114039
trifluoroiodomethane, multiphoton excited, flash spectroscopy, UV and IR spectra, vibr. struct. 2−90538
TTF salts, highly conductive, temp. depend. of reflectance spectra 2−87786
NO_2, mag. field decoupling in optically excited states 2−80695
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000
$ZnCl_2L_2$ tetrahedral complexes, interligand effects, vibr. spectrosc. obs. 2−90517

spectra of polyatomic inorganic molecules
see also infrared spectra of polyatomic inorganic molecules; radiofrequency and microwave spectra of polyatomic inorganic molecules; Raman spectra of polyatomic inorganic molecules
CS radical, band intensity parameters and ground state dissociation energy 2−114045
methane, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
Ar-like mols., L_{II+III} emission spectra, many-electron effects 2−90568
Ar.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766
BeF_2, $^3B_2$ and $^3A_2$ states, electronic splitting 2−85532
C_4 radicals, excited, chemiluminesc. in diffusion flame 2−62400
C_2N_2, VUV absorpt. spectra 2−96592
CO_2, autoionisation reson. studied using triply differential photoelectron spectroscopy 2−96648
CO_2, dipole oscillator strength distrib., sums and dispersion energy coeff. 2−70342
CO_2, π_g^3 3ppi $_u{}^3\Sigma_u^- \leftarrow \tilde{X}^1\Sigma_g^+$ transition, rot.-resolved Rydberg absorpt. 2−114013
CO_2, spectral lines, correl. function model, moment anal. 2−108633
CO_2^+, Fox-Duffendack-Barker system reson. fluoresc. 2−84163
COS, photoabsorption cross sections, extreme-UV obs. 2−65001
CS_2 superbroadening spectrum, 5300 Å, using focused picosecond pulses *(Chinese)* 2−96584
$Cr(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
Cu complex, Cu-olefin co-condensation complex chemistry, optical spectra in Ar matrix 2−80641
D_3, laser spectroscopy, reson. obs. 2−102493
D_3, Rydberg spectra 2−75299
DCP^+, electron impact excited $\tilde{A}^2\Sigma^+ \rightarrow \tilde{X}^2\pi_i$ emission spectra 2−80640
$EuCl_6^{3-}$, solns., symmetry, MCD and visible obs. 2−108600
Fe III complex, Fe III haeme-fluoride, absorpt. and MCD spectra 2−102492
H_3 mol. obs., props. 2−54832
H_3, Rydberg spectra 2−75299
HCN, excited vibr. states, direct overtone spectra, classical chaos and quantum simplicity 2−108536
HCN in Orion A cloud, spectral data interpretation 2−106870
HCN ν_3 R(16) transition investigation using sub-Doppler excited mol. energy transfer spectroscopy 2−54988
HCN, VUV absorpt. spectra 2−96592
HCP^+, electron impact excited $\tilde{A}^2\Sigma^+ \rightarrow \tilde{X}^2\pi_i$ emission spectra 2−80640
$H_3(D_3)$, IR and visible electric emission spectra 2−113974
HNO^+, vibronic and rot. struct., visible spectrum, ab initio study 2−85677
H_2O, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
H_2O superbroadening spectrum, 5300 Å, using focused picosecond pulses *(Chinese)* 2−96584
H_2O, vibr. spectrum, local mode degeneracies in higher overtone states 2−59782
H_2O, weak absorpt. lines meas. by time resolved intracavity laser spectroscopy 2−63091
He-CO mixtures, pressure broadening coeff. for rot.-vibr. lines of J states 2−108472
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
Kr.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
Kr.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766
LiON, struct., isomerisation, ab initio CI SCF calcs. *(French)* 2−108395
$Mn(CO)_5$, radical, CO matrix isolated, IR and visible obs. 2−80600
$Mo(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
$Mo(CO)_6$, photolysis, gain line obs. 2−62422
NH_3, electron impact dissoc., Doppler profile translational spectrosc. 2−80829
NH_3, rotovibrational transitions, self-broadening and self shifting 2−80568
NH_3, traveling wave sub-Doppler excited, energy transfer spectroscopy, line profile anal. 2−70220
NH_4 radical, ground state, electronic struct., Rydberg spectra, SCF-Xα-SW calcs. 2−64874
$NH_3(ND_3)$, Rydberg spectra 2−75299
NO_2, photodissociation, fluoresc. and UV obs. 2−80712
NO_3, radial, line shape, absorpt. cross section, visible obs. 2−64991
N_2O^+, A state, predissociation, bond-breakage mechanism, UV obs. 2−90637
NaOH, UV absorpt. cross sections rel. to photolysis in upper stratosphere 2−100451
$Nd_2(SO_4)_3 8H_2O$ complexes in soln., optical absorpt. spectra 2−70270
Ne.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
Np complexes, UV and visible absorption spectra calcs. 2−96585

spectra of polyatomic inorganic molecules continued
O_3, absorpt. coeff. in Hartley continuum, temp. depend. 2−90564
O_3, vibrationally excited, UV continuum spectroscopy 2−63092
OCS, relax. times, K-entropy, intramolecular dynamics 2−108470
Os complexes, $(\mu_2\text{-}H)_2Os_3(CO)_{10}$, vibr. spectroscopy, normal coordinate calcs., force const. 2−70469
PH_2, ground state, mol. consts., anomalous lifetimes, rot. transitions 2−85633
$(PdCl_4)^{2-}$, symmetry forbidden transitions, oscillator strengths 2−85635
Pu complexes, UV and visible absorption spectra calcs. 2−96585
SF_6, Doppler limited spectrum and anal. of $2\nu_1+\nu_3$ band, rot. consts. 2−85631
SF_6, model of vibr.-vibr. relax., mol. quasicontinuum 2−70210
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
SO_2, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const. 2−108612
$Sm_2(Pt(CN)_4)_3.18H_2O$, radiationless energy transfer, donor and acceptor state selectivity 2−59849
t, extinction coeff. determ. 2−80579
$TiBr_4$, electronic structure and spectra SW Xα calcs. 2−114051
$TiCl_4$, electronic structure and spectra SW Xα calcs. 2−114051
U complexes, UV and visible absorption spectra calcs. 2−96585
UF_6, laser induced fluoresc. and absorpt., temp. controlled vacuum cell and two-stage pumping system 2−84637
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452
V complexes, UV and visible absorption spectra calcs. 2−96585
VCl_4, electronic structure and spectra SW Xα calcs. 2−114051
$W(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
$WOBr_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
$WSCl_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
Xe_2Cl, excimer state, absorpt. and emission transition probabilities 2−96583
Xe.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
Xe.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766

spectra of solids
see also impurity and defect absorption spectra of solids; luminescence of solids; Shpolskii spectra; spectra of inorganic solids; spectra of organic molecules and substances
far IR linear, transient and nonlinear spectroscopy, appls. of tunable free electron laser 2−80978
IR photothermal beam deflection Fourier transform spectrometer appl. 2−84718
Jahn-Teller effect, optical response function, vibronic states 2−61423
molecular cryst., high press. effect on spectra anal. 2−72451
polar crystals, polaron IR optical absorpt. 2−104862
small single crystals, cryostat insert for direct absorbance meas. in far IR 2−58917

spectral analysers
see also spectral analysis; transient analysers
C-CD based hybrid spectrum analyser/colorimeter 2−64094
ECG spectral resonances, computer graphic display 2−94243
electooptic integrated optics spectrum analyzer, weighted discrete Fourier transform 2−55356
integrated-optic spectrum analyser, folded-type, using butt-coupled chirped grating lenses 2−86133
lensless integrated optics spectrum analyser 2−55357
microspectral analyser, ablation of solid samples in laser beam use in spectrometry 2−69263
microwave time-domain measurement using waveform recorder and spectrum analyzer 2−101413
noise spectroscopy, instrumental spread function and 1/f noise, theory 2−89749
optical source emission analysis, microprocessor controlled *(Italian)* 2−101436
solid-state using Bragg cell *(French)* 2−74191
US frequency-tracked gated-pulse spectral analyser 2−78056

spectral analysis
see also spectral analysers
advection equation, stability and convergence of polynomial spectral methods *(French)* 2−75964
analytical approx. to γ-ray spectrum peak obtained with Ge(Li) detectors 2−102320
auditory analyser, steady signal transform., functional model 2−100002
automatic peak search method in gamma-ray spectra 2−108311
biological wave phenomena realtime assessment, algorithms for travelling wave detect. 2−62878
blank noise tests 2−53487
brainstem auditory responses to pure tone stimuli, power spectral anal. 2−94077
climatic fluctuations in central European area, statistical struct. 2−68475
complex sampled coded signals used in incoherent scattering ionospheric meas. method, spectral/correl. processing *(Russian)* 2−63137
cosmology, nonlinear evolution of adiabatic perturbations power spectrum 2−58510
cumulative spectra, tone bursts and apodisation 2−86187
diode laser, real time spectral characteristic technique 2−114344
Doppler US arterial signals, appl. of CCD transversal filters for real-time spectral anal. 2−68093
earthquakes strong ground motions, statistical characterisation using power spectral density function 2−88757
ECG analysis for arrhythmias detect. in isolated guinea pig hearts 2−117163
EEG, digital spectral anal. *(Chinese)* 2−62798
EEG, identification and labelling of short epochs, autoregressive spectral estimates 2−100135
EEG in hepatic encephalopathy treated with levodopa 2−94219
Finnish vowel formants in profoundly hearing-impared children, validity of real-time spectrum anal. 2−94080
FLYSPEC, neutron spectra measured by NE213 and stilbene spectrometers, unfolding method 2−102318
geomagnetic secular variation, identification of 60-year geomag. field vars. in Europe by spectral correl. methods 2−111849
geomagnetic variations, line spectrum at Dourbes, Belgium from Fourier anal. 2−105901

spectral analysis continued
gravitational lenses detection, use of interfering delay signals, cepstral anal. *(Russian)* 2−68630
gravity anomalies due to horizontal slab like bodies with lateral density var., Fourier spectrum interpretation 2−111841
hippocampal theta rhythm of protein deprived developing rats, spectral anal. 2−62592
low energy backscattering spectra anal. for samples implanted with heavy impurities 2−82977
low-frequency eddy in deep western North Pacific, kinetic energy spectrum 2−106142
maximum entropy principle in two-dimensional spectral analysis, astronomical appl. 2−112339
metals, polycrystalline, plastic microstrain autocorrel. functions and spectral densities 2−56071
microprocessor controlled Mossbauer spectroscopy, software package 2−107476
modern German /r/ allophones with long vowels, diphthongs and unaccented vowels *(Japanese)* 2−70783
Mossbauer spectra anal., microcomputer system 2−101389
multicomponent system with equilibria, spectroscopic determ. of no. of components 2−107418
myocardium, hypothermic and ischemic, prearrhythmic state, 2D spectral anal. appl. 2−73387
neutron time-of-flight spectrometry, black and white filter method for background determ. 2−102319
NGC 4254, spiral galaxy, spectral anal. of asymmetric spiral pattern 2−74082
noisy nonlinear maps, spectral anal. 2−89625
ocean seiches at Haifa Bay, E.Mediterranean Sea, anal. of eigenfreqs. of resonating water body 2−117307
optical processing in Radon space 2−90831
peak search algorithm quality, computer study 2−79546
phonopneumography, microcomputer-based analysis of recorded breath sounds 2−62826
pulmonary artery pressure monitoring using spectral analysis and Strand's algorithm 2−88678
quasars clustering, Fourier Power Spectrum Analysis of objective-prism survey 2−79242
quasiperiodic potentials, spectral behaviour 2−84467
raster-scanned signals, power spectrum 2−85904
rock magnetism, linearity spectrum anal. technique for multi-component magnetisations 2−105913
rotation number for almost periodic Schrodinger operator 2−84468
S-waves from Meloy earthquake sequence, N.Norway, spectral anal. rel. to source parameters and scaling relations 2−88753
shell container, elastic, partially filled with inviscid incompressible liq., hydroelasticity, spectral problem 2−55476
sleep-wake patterns characts. rel. to sudden infant death syndrome, spectral analysis 2−62819
smoothing of spectral data in the Fourier domain 2−79678
thin liquid films, surface waves, spectral anal. 2−70969
time-spectra anal. from coincidence meas. with high stop-rates 2−96402
turbulence in the canine ascending aorta *(Japanese)* 2−57842
US signals, broadband, transducer-couplant effects, computer simulation 2−72934
US testing, time-domain pulse analysis feasibility 2−72931
wind velocity fluctuations, power spectrum at 8 km and 86 km 2−100449
$^{137}Cs/^{110m}Ag$ γ-ray peak ratio anal. using Spectran-F and Spectran-III computer program 2−96408
NaI scintillation counter, spectrum anal. program 2−54734
Pu γ-ray spectra anal. using portable microcomputer 2−74394

spectral line breadth
see also atomic spectral line breadth; chemical shift; Davydov splitting; Doppler effect; EPR line breadth; molecular spectral line breadth; NMR line breadth; Stark effect; Zeeman effect
AES, as local probe for solid surfaces, review 2−82963
Algol-type binaries, short-period, circumstellar emission lines widths 2−106813
amides, solid, H-bonded, γ(N-H) mode width, temp. depend. 2−72492
amorphous alloys, study of struct. relax. by ferromag. reson. with spin exchange 2−87598
o Andromedae, Be star, line profiles and radial vel. vars. during new shell phase 2−73988
γ and 56 Arietis, magnetic Ap stars, nature of vars. of H lines 2−94745
Auger line shapes for solids and mols., final state rule 2−105012
RW Aurigae, T Tauri star, obs. of rapid line profile variability 2−73963
SU Aurigae, T Tauri star, rapid and slow vars. in absorpt. lines equivalent widths 2−100920
B and Be stars, Hα and He I line profiles from photographic spectrophotometry 2−68767
benzonitrile liq., motional param. from spectral profiles 2−71317
binary liquid films, Rayleigh linewidth meas. near crit. point 2−57116
borate glass, dye mol. spectral probe, using photochemical hole burning 2−108974
3C 351, quasars, intrinsic intensity ratios of broad and narrow lines 2−68918
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
RS Canum Venaticorum stars and related objects, Hα emission profile vars. 2−112503
η Carinae, high resolution obs. of Hα line profile 2−106724
CARS, correlation functions, band profiles, Laplace transforms 2−69259
CARS line shapes, pump fluctuation effect 2−86048
cavitation noise spectral line breadth study 2−97606
β Cephei, atmospheric velocity field from UV line profiles 2−84240
VV Cephei, Hα line profiles rel. to struct. of Hα emission envelope around early-type component 2−68827
2 Ceti, new Be star, Hα emission line profile obs., (1982 September 5) 2−117683
circumstellar expanding envelopes, ionisation and vel. struct. rel. to line profiles 2−63370
clinopyroxenes, sodic, ^{57}Fe Mossbauer spectral anal. 2−93068
collisional spectral line broadening, quantum mech. theory 2−108635
Comet Bradfield (1979 X), CS (0,0) band profile rel. to CS and S prod. rates 2−73904
comets, Lα line profile from solar Lα radiation scatt. in cometary H I atmosphere *(Russian)* 2−73906
ι Coronae Borealis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431

spectral line breadth continued
β Coronae Borealis, magnetic Ap star, nature of vars. of H lines 2−94745
covalent and ionic systems Auger induced decomposition/dissociation 2−76834
cubic crystals, nucl. mag. relax. induced by lattice defect dynamics 2−104736
59=V832 Cygni, Be star, emission lines and shell lines profiles during shell episode (1974-1975) 2−100940
CH Cygni, symbiotic star, line profiles during (1981) *(Russian)* 2−112470
diamond, electron channelling, sharp-line and broad-continuum radiation 2−81847
diode lasers, spontaneous emission effects on power-current characteristics, theory 2−90888
diode lasers with optical feedback spectral characts. 2−55161
dye laser, flashlamp-pumped, narrow linewidth operation 2−108899
dye laser, Hansch-type, simple linewidth-reducing modification 2−55180
dye pulsed laser, freq. characts. and linewidth of passive cavity *(Chinese)* 2−60121
early type stars, modelling of UV reson. line form. in expanding envelopes 2−63386
λ Eridani, Be star, new emission line phase, Hα emission line profile obs., (1982 September 8) 2−117683
ethanol glass, dye mol. spectral probe, using photochemical hole burning 2−108974
europium tris-thenoyl-trifluoroacetonate, luminesc. spectra, shifts and widths, temp. depend. 2−72551
exciton absorpt. lineshape under lattice vibrs., average oscill. strength per state 2−82807
exciton absorpt. lineshape under lattice vibrs., Monte Carlo calc. 2−82806
exciton absorpt. lineshape under lattice vibrs., Urbach rule 2−82808
Fabry-Perot scanning etalon, spectral line profiles, instrumental effect 2−58908
fluid, nonequilibrium steady state with large temp. gradients, light scatt. 2−104901
fluid, nonequilibrium steady state with small temp. gradient, light scatt. 2−104900
Fourier transform spectra, high-resolution simultaneous line strength and collisional width determ. 2−101470
galaxies, 21 cm line width depend. on Hubble type rel. to use as extragalactic distance indicator 2−63615
galaxies with UV excesses, equivalent widths of emission and absorpt. lines from spectroscopic obs. *(Russian)* 2−112566
gamma-ray sources, possible effects of positronium negative ion on 0.511 MeV line width 2−106500
glasses, fluorescence, anomalous homogeneous linewidths 2−57167
graphite, intercalated, CKVV Auger lineshape, screening effects, cluster model 2−77635
graphite intercalation cpds., C_8Cs and C_6Li, Auger line shape, final state rule 2−105012
HBV 475 (V1329 Cygni), peculiar emisson-line star, line profiles rel. to expanding motions in ionised envelope 2−68781
He 2-131, very low excitation planetary nebula, UV emission line fluxes rel. to C abundance 2−94817
φ Herculis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
HR 7739, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
Hyperion, water ice bands profiles rel. to surface comp. 2−106606
impurity band broadening in crystals with defects 2−67090
inelastic electron tunnelling spectroscopy, optimum meas. conditions calc. 2−61564
inert gas impurities in alkali hosts, absorption, emission and XPS line shapes, model calc. 2−116216
information analysis of spectral doublet distorted by instrumental function 2−112997
intensity distrib., automatic anal. of Voigt profile or linear combination of profiles *(French)* 2−64917
interstellar C_2 towards ζ Ophiuchi, equivalent widths of IR absorpt. lines 2−63558
interstellar diffuse bands, profiles from high-resolution obs. 2−58423
ion impact on surfaces, excited state formation, review 2−67177
ions in high current vacuum arc, spectral line broadening 2−103497
α Leonis, probable new Be star, Hα line profile vars. 2−112442
M42 and M43 (Orion nebula), intensity ratios of forbidden O I, O II and O III lines 2−106878
M51, spiral galaxy, broad emission lines obs. in galaxy nuclear region 2−58451
magnetic resonance linewidth, indirect interaction of effective spins via a phonon field 2−104682
Markaryan 673, 686, emission lines widths and degree of ionisation from spectrophotometry *(Russian)* 2−101073
Mossbauer line shape in presence of spin-phonon relax. effects 2−56995
multiphoton ionisation spectra, autoionisation resonance narrowing 2−85600
MWC 17, BQ[] star, emission lines relative intensities from spectrum obs. in January 1982 2−84245
narrow energy bands, opt. absorpt. in weak mag. fields *(Russian)* 2−61882
NGC 2071, reflection nebula, obs. of broad wings and self-reversals in CO lines 2−58425
nonequilibrium plasma fluctuations theory, spectral line broadening effect 2−76076
NQR dynamic line narrowing 2−107364
NQR line shape broadening by cryst. defects 2−110715
O-type stars, P Cygni profiles in UV spectra rel. to stellar winds 2−63385
O-type stars in open cluster IC 1805, mass loss rates from C IV reson. line profiles 2−68734
OH 205.1−14.1, interstellar OH maser, line width of left circularly polarised emission components 2−79238
optical absorption band shape due to localised $\Gamma_3^+ \rightarrow \Gamma_4^-$ transition 2−61852
YY Orionis stars, Balmer line profiles of infalling envelopes using multilevel H I atom 2−89260
particle size and strain determ. from Fourier X-ray line shape anal. of single reflection 2−97846
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240

spectral line breadth continued
pentacene molecules in crystals, photon echo expts., optical dephasing due to virtual transfer of excitation energy 2−108976
photoelectron spectra, lineshapes, phonon distortion, Gaussian limit 2−62049
PKS 2152−69, radio galaxy, Balmer emission lines profiles 2−79211
planetary atmosphere, spectral absorption, line widths and profiles 2−112355
planetary nebulae, forbidden O III expansion vel. meas. rel. to nebulae internal motions 2−89337
planetary nebulae, line intensities from theoretical models of objects of intermediate-to-high excitation 2−84295
plasma, X-ray bremsstrahlung and characteristic line emission, calc. for Maxwellian electron distrib. 2−76197
plasma, X-ray spectrographs, convex curved cryst., source size line broadening, theory 2−65757
powders, NQR spectrum line narrowing 2−110719
quasars, high redshift, Lyα/Hα ratios obs. 2−94856
radio galaxies, very distant, with strong emission lines, equivalent widths and intensity ratios 2−106917
Raman excitation profiles, unresolved, anal., totally symmetric vibrs. 2−116185
Rayleigh scattering, depolarised, multilevel description, appl. to H D-He system, collision breadth 2−80638
rel. to abundances of interstellar Fe, Ti and H_2 2−106847
resonant photoemission spectra line shapes 2−116337
rotational tunnelling system, three-fold, inelastic neutron scatt. spectrum, temp. depend. 2−86596
ruby, optical hole-burning and ground state energy transfer 2−65314
Sa-type galaxies, H I line profiles obs. rel. to galaxies global props. 2−89366
V4024 Sagittarii (=MWC 311), Be star, H and H emission line vars., (1975 to 1982) 2−94752
screening effects in emission of satellites in L and M X-ray spectra 2−85583
δ Scuti stars, correl. between Mg II emission line widths and pulsation period 2−73981
semiconductor exciton, diamagnetic, absorpt. spectra in strong mag. field, theoretical anal. *(Russian)* 2−76939
semiconductor laser, 1.5 μm, linewidth reduction to $<$1.5 MHz by HeNe laser injection locking 2−65222
semiconductor laser, single-mode, linewidth theory 2−55145
Seyfert galaxies, emission-line profiles 2−101056
Seyfert galaxies, intensity ratios of H emission lines from IR, optical and UV obs. 2−74079
silicate glasses, Raman spectra, curve fitting 2−116161
simple fluids, line broadening, dressed cluster and hydrodynamic expansions 2−104829
slow-motion lineshape divergence 2−72437
solar flare, 1981 February 26, Hα emission line equivalent width rel. to pink colour 2−100869
solar flares, soft X-ray emission line profiles during impulsive phase 2−94693
solar flares, X-ray spectral line widths obs. with rotating spectrometers on Hinotori satellite 2−63344
solar line profiles, problem of contrib. functions and optical depths of form. of Fraunhofer lines 2−68716
solar spectral lines, damping constants rel. to turbulence in solar atmosphere 2−94687
solar spectrum, absolute meas. of bisector of Fe I 6301.5091 Å line 2−89218
solar spectrum, equivalent widths of Fe I lines rel. to internally consistent scale of oscillator strengths 2−58247
solar spectrum, multiplet line profiles under LTE conditions rel. to photosphere physical conditions *(Russian)* 2−73925
solar spectrum, profiles of emission lines produced in wake of shock wave 2−89221
solar UV spectrum, line profiles rel. to non-thermal vel. field above faculae 2−94691
spectral line broadening in plasmas, kinetic theory, Stark profile 2−65698
Stark broadening in hot dense laser-produced plasmas, review 2−71105
stimulated Brillouin scattering, conjugate wave phase instability, spectral width 2−86058
V711 Tauri (HR 1099), RS Canum Venaticorum star, Hα emission line profiles 2−63511
T Tauri stars, obs. of rapid line profile variability 2−73963
di-[tetramethyl ammonium] copper tetrachloride, modulated structs., lattice excitations, Brillouin spectroscopy 2−92121
TGS, ferroelec. transition, depolarisation field, Brillouin spectra line breadth study 2−67068
TGS, ferroelec. transition, polarisation relax. time, high press. Brillouin scatt. study 2−87802
three-level system, reson. Raman line shapes in radiation fields, nonimpact theory 2−90482
time-of-flight neutron powder spectroscopy, Bragg lineshapes 2−103564
transition metal halides, final state interactions of inner core absorption excitation 2−67075
variability of emission-line spectra and optical continua 2−106906
Virgo S galaxy cloud, 21 cm line widths rel. to distance moduli and cluster vel. struct. 2−58476
Voigt and complex probability functions, optimised computation 2−59749
Voigt profile, kernel functions, asymptotic expansions 2−75356
Voigt profiles, automatic anal. for intensity distrib. *(French)* 2−64917
BW Vulpeculae, β Cephei type variable, UV line profiles vars. rel. to pulsations of outer layers 2−73980
ES=2 Vulpeculae, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
zero-phonon line profile in Mossbauer, optical spectra, theory 2−104784
Ag island films, optical plasma reson. absorpt. half-width, size effect 2−67132
a-As_2S_3, obs. of mobility gap in photolum. 2−57166
BeF_2-NdF_3 based glasses, absorpt. and emission spectra of Nd^{3+}, at. struct. computer simulation 2−57149
$Bi_{12}TiO_{20}$, piezoelec., temp. modulated spectroscopy near absorption edge 2−99100
$CdS_{1-x}Se_x$:Te, isoelectronic impurity-exciton interactions, visible spectra study 2−61395
CdS_xSe_{1-x}, fluorescence line narrowing, localised exciton states, and spectral diffusion 2−82909
CeO_2, first-order Raman spectrum linewidth, temp. depend. 2−110861
Co, Auger MVV and $L_{2,3}$VV spectra meas. 2−77633
spectral line breadth continued
CoS_2, pyrite-type ferromag., obs. of strong IR magneto-optical effect 2−116157
Cr, X-ray K series emission spectra 2−57216
CuBr(Cl)(I)-Ag system light-sensitivity spectra, correl. with Cu halide absorpt. spectra 2−67079
CuCl, biexciton reson. linewidth, collision broadening or not? 2−87155
CuCl, excitonic mol. broadening under giant two-photon excitation, circular dichroism and light depolarisation study 2−66454
Cu(110), physisorbed Xe, temp. depend. photoemission line slopes 2−71796
Eu complex, β-diketonates:1,10-phenanthroline, IR and luminesc. spectra 2−113989
Fe distribution in layered silicate minerals of Indian origin, Mossbauer study 2−82754
$Fe_{1-x}Cr_xBO_3$, ferrimagnet, Mossbauer study 2−72381
(GaAl)As diode laser, linewidth broadening due to electron number fluctuations 2−60077
GaAlAs laser operating at 0.83 μm, optical feedback-induced changes in output spectra 2−80957
(GaAl)As semiconductor diode lasers, linewidth charact. 2−65230
$Ga_{1-x}Al_xAs$, anharmonicity and disorder-induced effects, Raman study 2−57083
$Ga_{1-x}Al_xAs$ epitaxial layers and single crysts., anharmonicity and disorder-induced effects, Raman study 2−67052
GaAs, photoexcited electron system, far IR magnetoabsorpt. and cyclotron reson. study 2−87744
GaAs, semi-insulating, anti-Stokes luminesc. and deep centre EL2, expt. study 2−87830
GaAs:Sn LPE layer, deep level free-to-bound fluorescence line shapes 2−77564
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
GaAs-AlGaAs heterojunctions and multiple quantum well heterostructs., doped, reson. inelastic light scatt. 2−61919
$GaP_{1-x}As_x$, phonon line shape and disorder correl. 2−56127
$GdAlO_3$:Cr^{3+}, fluoresc. spectrum, splitting and line shape 2−93262
Ge, amorphous, Mossbauer study 2−99004
n-Ge, far IR obs. of D^- band 2−67035
Ge, uniaxially stressed, plasma reson. of electron-hole drops, IR study 2−104861
H_2 12.28 μm emission in Orion Molecular Cloud, high spatial resolution obs. of line profiles 2−63576
H_2O, IR absorpt. lines, intensities, broadening coeffs. and press. shifts 2−59801
$^1H(n,\gamma)^2H$, natural width of 2.223 MeV capture line from meas. in solar flare 2−68698
Hα line profile in Be stars 2 Vulpeculae and HR 7739, spectroscopic obs., (1982 July 5) 2−94749
He-Ne/methane ring laser, nonlinear absorpt. line, resonant narrowing 2−90946
$Hg_{1-x}Cd_xTe$, photoluminescence spectrum meas. 2−87844
n-InAs, effective g-value determ. by four-wave mixing spectroscopy 2−55260
InAs MOS interfaces, reson. inelastic light scatt. 2−61919
InP, single crystals, liq. encapsulated Czochralski grown, photolum. and IR absorption 2−57144
InSb, nonlinear magneto-optics, CW CO laser pumped, interband magneto-absorption 2−93164
$KAl(SO_4)_2.12H_2O$:Cr^{3+}, SO_4^{2-} dynamics, ESR at high press. 2−77363
KBr:Sn^{2+} cryst., mag. circular dichroism 2−93163
$KClO_4$:MnO_4^-, reson. Raman profile line shapes from optical absorpt. data 2−93233
$KCr(SO_4)_2.12H_2O$:Cr^{3+}, SO_4^{2-} dynamics, ESR at high press. 2−77363
KI:Sn^{2+}, cryst. field effects, visible-UV study 2−72523
KI:Sn^{2+}, spectral line shape, visible-UV study 2−72524
LaF_3:Pr^{3+}, interaction strength of weakly coupled pairs measured by a two laser spectroscopy technique 2−82881
$La_{1-x}P_5O_{14}$:Nd_x^{3+}, resonant fluoresc. line narrowing 2−104943
$La_{1-x}Pr_xF_3$, inhomogeneous broadening, time resolved fluoresc. meas. 2−116251
Li, surface reaction with CO_2, C KVV Auger electron spectrum 2−111511
Mn compounds, X-ray K absorption spectrum, chemical effects on main peak 2−57211
N_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
Ni, EELS, 3p threshold, dependence on momentum transfer, expt. study 2−110996
Ni, UV spectra, fundamental absorpt. band asymmetry meas. *(Russian)* 2−93215
$Ni_xMg_{1-x}Fe_2O_4$, FMR and magnetisation meas. 2−82723
O_2, molecular solid, Raman vibr. band shape, mol. dynamics study 2−104871
Pt, sputter deposition on ZrO_2 ceramic, interfacial reaction, Auger line shape and factor anal. 2−83429
Rb_2CrCl_4, optical and magneto-optical study 2−93220
S III forbidden emission from Jupiter plasma torus, line profiles rel. to S^{2+} temps. 2−112373
$SbCl_3$, normal and supercooled liqs., depolarised Raman scatt. 2−72476
SbSI, thermodulated spectroscopy of band gap region 2−110823
Si, amorphous, Mossbauer study 2−99004
Si, axial channelling radiation from MeV electrons 2−81846
Si, radiation from axially channelled electrons at low energies 2−81851
a-Si:H, photoluminesc. emission broadening 2−110920
Si:P, donor state line-broadening mechanisms, photoluminesc. study 2−99181
SiO_2, silica fibres, LF and low temp. Raman scatt. 2−67047
α-Sn, amorphous, Mossbauer study 2−99004
$ThBr_4$:U^{4+}, incommensurate, optical absorption spectrum, lineshape anal. 2−110899
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
YIG, amorphous, Mossbauer Zeeman spectrum, linewidth asymm. 2−110736
ZnS:Mn^{2+} and ZnCdS:Mn^{2+}, electrolum. and photolum. props. 2−57184

spectral line profiles *see spectral line breadth*

spectral line shift
see also chemical shift; isomer shift; isotope shifts; Lamb shift; radiative shifts; red shift; Stark effect; Zeeman effect
acridine, heteroatom n-electrons effects on optical props. 2−113907
aligned atoms in intense oscillating RF fields, resonance shifts 2−54791
alkane radical cation, spectroscopic identification 2−80735
alkene-halogen complexes studied by matrix isolation vibrational spectroscopy 2−70260
cis-amide uracil, and derivaties, sensitivity of amide V band to H bonding 2−90632
2-aminomethylpyridenes, elec. dipole moment in lowest singlet excited state, solvatochromic study 2−113965
aniline, heteroatom n-electrons effects on optical props. 2−113907
atom and ion resonances, Stark width and shift, periodic depend. on nucl. charge number 2−113927
benzonitriles, alkyl-substituted, struct. elucidation using lanthanide-induced shifts 2−80685
bromobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
carotenoids, excited states, time-resolved reson. Raman spectrosc. 2−59805
chloral hemiacetals, ^{35}Cl NQR 2−70277
chlorin photoisomer, in n-hexane, $S_1 \leftarrow S_0$ transition, Zeeman effect, photochem. hole-burning obs. 2−80697
complex molecules, assoc. effect on spectral distortion 2−65053
4-dimethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2−114034
Doppler-shift laser spectroscopy, fluoresc. spectra interpretation 2−96502
europium tris-thenoyl-trifluoroacetonate, luminesc. spectra, shifts and widths, temp. depend. 2−72551
excited electron orbit collapse and atomic spectra 2−102400
exciton absorption bands, anomalous thermal shift 2−93136
Fabry-perot scanning interferometer for student meas. of spectral line splittings 2−79304
ferroelectrics, quadrupole-quadrupole interaction, soft phonon modes, NQR line crit. broadening 2−110707
gas atoms, laser cooling by optical freq. shifts 2−59754
ζ Geminorum, ten-day Cepheid, vel. shift between Hα and metal lines rel. to radial vel. 2−106745
8-hydroxyquinoline, heteroatom n-electrons effects on optical props. 2−113907
iodobenzenes, para-substituted, solid soln. in paradibromobenzene, NQR spectra, crystal effects 2−93045
lanthanide shift reagents, IR spectra 2−75288
liquid binary mixtures, mol. vibr. linewidth and shift, conc. depend. 2−70222
methyl cyanide, rot. transitions, pressure shift 2−64963
3-monomethylamino-N-methylphthalimide solution, spectral shift and fluoresc. intensity var. up to 40 kbar 2−114034
narrow energy bands, opt. absorpt. in weak mag. fields *(Russian)* 2−61882
neutral red, soln. anti-Stokes fluoresc., shift investig. 2−96620
optical frequency standards, appl. of laser cooling of atoms 2−63998
β Orionis, evidence for Compton red shift in stellar chromosphere 2−106644
phenol-$d_0(d_1)$, isotope effects, H bonds, line shifts, vibr. spectra 2−64952
pionic atom, second-order shift, Klein-Gordon eqn. calc. 2−64889
pionic atoms, anomalous energy shifts 2−80848
plasma perturbations effect, calcs. 2−71106
plasma Stark widths, regularities and similarities 2−97715
polyatomic mols. in soln., intermolecular relax., vibronic spectra kinetics 2−113960
pyridine, heteroatom n-electrons effects on optical props. 2−113907
quinoline, heteroatom n-electrons effects on optical props. 2−113907
rotational tunnelling system, three-fold, inelastic neutron scatt. spectrum, temp. depend. 2−86596
simple systems, higher order correlations 2−75239
solar coronal holes, EUV emission lines blueshift rel. to solar wind outflow 2−112400
solar spectrum, absolute meas. of bisector of Fe I 6301.5091 Å line 2−89218
solar spectrum, evidence for Compton red shift in chromosphere 2−106644
tertiary alcohols, rotamers, OH stretching freqs., solvent effects 2−54831
TMTSF-salts, Raman scatt. meas. 2−57093
transition metal hexacarbonyls, mixed, Raman spectra, vol. modulated freq. changes 2−77519
tumbling mols., ESR parallel-edge line theory 2−90583
two-atom cooperative system, reson. fluoresc. and absorpt. spectrum, dispersion forces effect 2−96500
two-level system energy level shift induced by laser pulse train *(Chinese)* 2−96505
K^-p atom, anomalous Coulomb effect 2−59981
$AlCl_3$, chelation with C-methylated flavonoids, UV spectrosc. obs. 2−75303
Ar II dense plasma, emission rays displacement *(French)* 2−91599
Ar L_3 shell electron impact inner-shell ionisation, post-collision interaction 2−102645
BCl_3 molecule, fluorescence excited by intense IR laser radiation, pulse optical-acoustic-optimal effect *(Chinese)* 2−75338
C(II) plasma, UV Stark widths and shifts, photoelectric meas. 2−75212
CO, coadsorption with H_2 on ZnO, vibr., IR study 2−115540
CO emission near Herbig-Haro objects HH 24-27 and HH 1-2, line shifts rel. to high-vel. mol. gas 2−112526
CO, isotopic mols. in solid α-CO, IR emission and absorpt. spectra 2−70238
CO_2-N_2-He gas mixt., press. shift in atmospheric press. 2−96641
CdS, solid particles, excitons, luminesc. and Raman excitation study 2−77570
Cl containing compounds, Cl atom and orbital population from ^{35}Cl NQR freq. and X-ray emission spectra 2−108565
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
Cu_2, $a^3\Sigma_g^+$ state, Ne matrix isolation, absorpt. and fluoresc. obs. 2−114027
D, excited state from mol. dissoc., translational energy distrib. 2−70429
$Ga_{1-x}Al_xAs$, anharmonicity and disorder-induced effects, Raman study 2−57083
H, excited state from mol. dissoc., translational energy distrib. 2−70429

spectral line shift continued
H_2, coadsorption with CO on ZnO, vibr., IR study 2−115540
H_2, second Stokes shift, Raman conversion of XeCl laser radiation 2−60154
H_K, 1S state, strong interaction shift and width 2−59976
HNO, photochem. complexation in low temp. matrices, IR obs. 2−67737
H_2O, IR absorpt. lines, intensities, broadening coeffs. and press. shifts 2−59801
HSiOH, form., matrix isolation IR spectra, isotope effects 2−108492
He line ion broadening and shift in hot plasma, quasistatic, adiabatic and impact calcs. 2−81445
He neutral lines, electron impact broadening and shift, convergent calcs. 2−80823
K+Ar, 4 p-ns and 4 p-nd lines, collisional broadening and shift 2−59897
K^*+K high Rydberg state, collision effects 2−59904
$LaCrO_3$:Sr(Ti) perovskite, IR spectra assignments and interpret. 2−93231
NH_3 FIR optically pumped lasers, two-photon light shift 2−60069
NO_2, fluorescence, dispersed and time resolved, decay times 2−90607
$^{15}NH_3$ far IR lasers, optically pumped, two-photon light shift and Autler-Townes splitting 2−96908
Na particle, CESR g-shift, shape depend. 2−116063
Na+inert gas atoms, collision-induced line shifts 2−108681
Na_3, pseudorotating, dynamic freq. shifts, ESR obs. 2−102498
$NaClO_3$, effects of nonresonant RF photon dressing on NQR 2−54879
OCS+He(Ar), linewidth and lineshift, unitary S-matrix theory 2−102537
Os complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
Rb, D_2 line broadening and shift by inert gases, const. meas. 2−64922
Rb+He(Ar)(Xe), impact broadening and shift of nS and nD levels 2−102581
^{87}Rb optically pumped passive freq. standard, hyperfine freq. shifts caused by buffer gases 2−101380
Ru complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
SF_6, in liq. O_2, vibr., line shift widths and intensities, IR spectra 2−80604
SiO_2 films, study using IR absorption techniques 2−93298
Tl, line broadening and shift by CO_2 accompanying TlI photodissoc. 2−96503
U(IV) cpds., nephelauxetic effect 2−59860
Xe atom, multiple hole levels and Auger spectra 2−64942
Xe, Rydberg states, optical lines shifts and broadenings, collision effects 2−113933
YIG, amorphous speromag., quadrupole energy shifts of ^{57}Fe Mossbauer lines 2−72386

spectral linewidths *see spectral line breadth*

spectral methods of temperature measurement
see also pyrometers
combustion media diagnostics, thermometry and conc. meas., CARS appl. 2−88359
combustion systems, temp. and species distrib., CARS obs. 2−107413
dust explosion temps. meas., IR optical pyrometers design 2−53772
emission absorption technique for meas. vibrational temp., of shock heated CO 2−64985
laser diagnostic probes for flames, combustion products and sprays 2−89824
methane diffusion flame, comparison between CARS and corrected thermocouple temp. meas. 2−107322
microwave thermography, appl. to estimation of subcutaneous temp. profiles in human body 2−68105
optical pyrometry, technique at high shock press. 2−69171
rotational Raman intensity-correction factors due to vibr. anharmonicity, effect on temp. meas. 2−108531
sighting device for placing a temperature lamp in front of a spectropyrometer 2−64044
surface temp. profiles, using EuTTA fluorescence emission 2−79579
TGS pyroelectric detector for remote sensing of temp., radiant power meas. 2−53771
Si, cryst. growth from melt., temp. field control by IR television technique 2−111052
Si narrow-band radiation thermometer for temp. standard establishment *(Japanese)* 2−107292

spectrochemical analysis
see also atomic absorption spectroscopy; atomic emission spectroscopy; X-ray fluorescence analysis
achromatic proton microbeams 2−95544
acousto-optic tunable filters for high resolution spectral analysis 2−109019
adsorbate, thin, Fourier transform IR emission spectra, surface analytical technique 2−116746
aerosol particulate samples, X-ray powder diffr. system for chem. speciation 2−105630
alkali silicate glass, corrosion behaviour in water, ESCA obs. 2−93656
analytical chemistry and applied spectroscopy, conf., Altantic city, USA (March 1981) 2−112636
analytical derivatisations reactions, fluoresc. polarisation change appls. 2−93755
arc plasma, trace impurities distrib., spectrochemical anal. 2−65764
aromatic compounds, simple, struct. luminesc. in matrices, environmental anal. appls. *(German)* 2−80720
atomic resonance line laser status, appl. to quantitative analysis 2−80942
calibration and anal. functions, const. standard deviation theory *(German)* 2−88390
cation insertion reactions 2−105526
cellulose acetate monolayers on Cu, IR refl.-absorpt. spectroscopy techniques comparison 2−116748
chemical state analysis, using two-crystal vacuum X-ray spectrometer 2−89875
coal, anal. ^{13}C NMR with cross polarisation and magic angle spinning, spin dynamics 2−116736
coal, concentration of Th, U and K, gamma-ray spectra meas. 2−67781
coal liquid and aromatic mixture anal. using computer program AMCLA 2−57650
cobalt salicylato complex, mag. susceptibility, cond., thermal and chemical anal. 2−86639
combustion diagnostics, photothermal deflection technique appl. 2−105522
combustion systems, temp. and species distrib., CARS obs. 2−107413
computer-aided determ. of H_2 in Ti alloys, metrological characts. of standard specimens 2−83435

spectrochemical analysis continued
computerised, HP 8450A for multicomponent analysis 2−57653
electron spectroscopy techniques developed since late 1940s 2−107073
elemental anal. using neutron-capture γ-ray spectroscopy 2−67777
emission spectrochemical analysis, fixed time integration method *(Japanese)* 2−78159
ethylene on Fe(110), adsorbed layers, characterisation by Auger electron spectra, decomposition 2−73029
evaporated and implanted layers characterisation by RBS and PIXE anal. 2−99724
Fecralloy surface, oxide layers nuclear reaction anal. 2−99723
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
flame minority species concentration measurements by photoacoustic technique 2−93793
flame species identification using laser saturation fluoresc. spectrosc. 2−93839
fluorescence, ratio deconvolution, quenching and inner filter effects 2−99715
fluorescent material remote detection via optical fibre cable 2−91077
Fourier transform IR spectra, diffuse reflectance meas. in quantitative analysis, specular component induced problems 2−113013
Fourier transform IR spectroscopy, diffuse reflectance as quantitative analysis tool 2−113014
Fourier transform IR spectroscopy, surface analytical technique, feasibility 2−116745
Fourier transform IR spectroscopy detection in capillary gas chromatography, status report 2−116751
Fourier transform IR spectroscopy detection in gas chromatography, algorithms and techniques 2−116750
Fourier transform IR spectroscopy detection in gas chromatography, systems design requirements 2−116752
Fourier transform IR spectroscopy detection in gas chromatography, interferometer stability, noise sources 2−116753
Fourier transform IR spectroscopy detection in gas chromatography/mass spectroscopy, instrument design and optimisation 2−116755
Fourier transform IR spectroscopy detection in gas chromatography/mass spectroscopy, small FTIR spectrometer system use 2−116756
free radicals, assay by ESR, spectral simulations appls. 2−111528
fungicidal coatings to protect optical surfaces, comparative evaluation of Hg, Sn microelements 2−109092
gas chromatograph/IR spectrometer, light pipe appl. 2−57651
gas target system, quantitative anal. of gases 2−102299
heterogeneous catalyst system in reaction conditions, IR emission spectra 2−111522
high-voltage spark atomic emission detector for gas chromatography 2−99714
hydroxipyrenetrisulphonate, $HClO_4$ soln., dissoc., protonation, rot. diffusion, phasefluorimetric study 2−78119
hygrometry, IR gas analyser, technique in temp. range from −30°C to +180°C 2−79593
ICP system, 50 MHz, optimisation, for anal. using organic solvents 2−84712
inelastic electron tunnelling spectroscopy, surface anal. appls. 2−64163
intensity fluctuating spectroscopic anal. of polymerisation 2−111493
interference reflection filters for fluorometry 2−70662
ionisation gauge tube leak detectors, selective modulation of radiation 2−67711
IR analyser, automated acousto-optic tunable filter 2−109018
IR analysers for gases and vapours meas. in atmosphere 2−111525
IR computerised dispersive spectroscopy procedures *(Spanish)* 2−84721
IR qualitative analysis, computer automation with spectral data file 2−89829
laser absorption sampling probe for temporally and spatially resolved combustion measurements 2−78145
laser diagnostic probes for flames, combustion products and sprays 2−89824
laser fluorescence−absorption measuring device, oxidation-reduction state meas. of living tissue 2−111819
laser fluorimeter for direct cardiac metabolism investigation 2−100177
laser microspectral anal., reproducibility and sensitivity 2−78166
laser role in chemistry problems 2−99694
laser-induced breakdown spectroscopy at. detect. and mol. identification appls. 2−101466
matrix isolation Fourier transform IR spectroscopy detection in gas chromatography, complex sample analysis 2−116754
methane/air flame, in plane OH combustion species visualisation, quantitative 2−116696
microanalysis using charged particle accelerators, conf., Namur, Belgium (Sept. 1981) 2−94883
microanalysis using charged particle accelerators, control and data handling system 2−95546
microcomputer-controlled photodiode array spectrophotometric titrator 2−78149
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
molecular emission spectrometry using heated cell, review 2−73027
monolayer system, IR refl.-absorpt. spectroscopy techniques comparison 2−116748
Mossbauer resonance analyser of cassiterite 2−57658
multidimensional phosphorimetric analysis 2−67773
NMR, high-resolution 2−79629
optical-acoustic gas analysers, single-beam differential, static characts. *(Russian)* 2−99735
organic coatings on steel, Fourier transform IR spectroscopy, coating chem. interaction and mol. struct. and orientation 2−116603
peptides, functional group spectroscopy using Fourier transform IR absorbance subtraction 2−116882
petroleum, UV spectroscopy appl. 2−67912
photoacoustic and diffuse reflectance Fourier transform IR spectroscopy, analytical techniques comparison 2−113012
photoacoustic Fourier transform IR spectroscopy, analytical appls. 2−116747
photoacoustic spectroscopy, transparent ceramic exam., PLZT and BPNN 2−62442
plasma etching endpoint detection in a batch loaded planar etcher 2−71267
polycarbonate film on metal, photochem. degradation, Fourier transform IR spectra obs. 2−116709
polynuclear aromatic hydrocarbons, luminesc. and fluoresc. spectra, pattern recognition appls. 2−90596
spectrochemical analysis continued
polystyrene film, Fourier transform IR techniques comparison for quantitative analysis 2−116749
powder samples, internal standard method in emission spectral anal. 2−67785
prompt γ-ray anal. probes, Monte Carlo model 2−67778
scanning CARS microscope construction, chem. species distrib. imaging 2−97111
semiconductor materials, chemical anal. by isotope-spectral method *(Russian)* 2−88394
semiconductor materials, RF plasma etching, end point detection using optical emission spectra and mass spectrometers 2−72859
silicon alkoxides, hydrolysis kinetics rel. to glass form. 2−76316
single-photon autocorrelation method of investigating scintillation in ns range *(Russian)* 2−79676
software module for IR spectral identification 2−93841
solar energy conversion technologies, solid-gas interface meas. techniques, review 2−87044
solar energy conversion technologies, solid-liq. interface research needs 2−88464
solar energy conversion technologies, surface analytical techniques, review 2−88412
steel, C, type ASTM A533-B, fracture surfaces, solute segregation distrib., Auger anal. 2−80120
steel, constructional, low-temp. oxide film, form. after polishing, Auger spectra obs. 2−57539
steel, galvanised sheet, chromate passivated, ESCA obs. 2−111382
steel, high-strength low-alloy, surface spectrosc. anal., annealing effects 2−99713
steel, mobile spectrometer for mixed grade separation, assessment 2−78039
trace gas measurement at atm. press. using dual-beam second-derivative tunable laser IR spectrometer 2−101471
transient paramagnetic intermediates detection by time-resolved mag. reson. and related techniques 2−93849
vacuum photoelectric device, for metallurgy plant appl. 2−116762
volcanic ash from Mount St. Helens 1980 May 18 eruption, laser Raman spectroscopic anal. 2−100343
Wyoming subbituminous coals, liquefaction yields and product structure, analysis by Fourier transform infrared spectrometry 2−62448
Ag alloys, Roman, analysis by scatt. and X-ray fluoresc. of monoenergetic gamma-rays 2−116738
Au, Auger electron spectroscopy, relative intensity meas. 2−62441
B, determ. in coastal seawater, coulometric method 2−99855
BCl_3 purification using KrF laser, IR spectroscopic analysis 2−88372
C, activated, surface oxide structures, spectral obs. 2−78128
C, determ. in thin Si wafers by IR absorpt. spectrometry 2−93840
$C+N_2$ toxic cpd. form. in sintering furnaces 2−105097
CO_2 jet, Rayleigh meas. 2−111521
CS_2-O_2 mixtures, self-ignition, conditions, spectrosc. investig. 2−62402
Cl, atomic, point detect. using CARS 2−93845
Cr, determ. using coherent forward scatt. spectrometry 2−88391
Cu, Auger electron spectroscopy, relative intensity meas. 2−62441
Cu, thin film, inelastic mean free paths of Auger electrons 2−93335
Fe content, meas. in human body, in-vivo, γ-rays nuclear reson. scatt. appl. 2−68111
Fe corrosion testing using Raman spectroscopy 2−93689
γ-Fe_2O_3 layer on Fe, Mossbauer and ESCA meas. 2−76848
Fe_3P, FeP and FeP_2 powders, Mossbauer spectroscopy 2−116105
GeAs, I_2 chem. vapour transport, thermodynamics and kinetics 2−97949
H, excitation cross sections relevant to neutral beam diagnostics 2−80364
H-air flames, reson. multiphoton optogalvanic detect. of H 2−108435
H_2/O_2 exhaust plumes from Space Shuttle main engine Mach disks 2−111527
HOC^+, microwave spectra obs. 2−70235
H_2SO_4, aerosol, IR laser backscatter spectra, appl. to atm. 2−65166
InSb layer oxidation study after ion implantation by backscattering and nuclear reaction 2−99567
$KClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
Mn content determ. in steels using proton-induced prompt γ-ray emission 2−67779
Mn, determ. using coherent forward scatt. spectrometry 2−88391
NH_3, synthesis, on Fe surface, IR spectrosc. anal. 2−93813
NH_3 synthesis, on Fe surface, IR spectrosc. anal. 2−93814
$(NH_3)_2SO_4$, aerosol, IR laser backscatter spectra, appl. to atm. 2−65166
NO, nascent, detect. in methane-air flame by multiphoton ionis. 2−59863
NO_2 , thermal lensing colorimetry determ. using single laser system 2−89785
NO_2 produced in methane-air flame combustion low conc. detect. by photothermal deflection technique 2−105522
^{15}N concentration determ., microwave cavity improved design 2−78161
$NaClO_3$, cryst., photolysis, defect form., absorpt. and ESR study 2−67757
Nb-V, spectrochemical anal. using photon emission from sputtered atoms, surface O contamination effect 2−77677
Ni, thin film, inelastic mean free paths of Auger electrons 2−93335
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Ni-Fe (25 at.%), ESCA studies, anodic dissolution, passivation effects 2−83296
OH laser-induced fluoresc. in flame, conc. profile, two-dimens. imaging 2−99678
OH radical species identification using laser saturation fluoresc. spectrosc. 2−93839
Pu ionic species, in soln., spectrophotometric meas. at low concs. 2−57664
Si, plasma etching, etch rate rel. to optical emission intensity 2−99569
Si wafers, C content determ. by IR absorpt. spectrometry 2−93840
Si:B, thermally evaporated, near-surface layer impurity distrib., photoluminesc. study 2−110902
SiO_2, HF plasma discharge, chemical etching, IR spectroscopy study 2−65772
U concentration absolute determ. by hyperpure Ge LEPS 2−116742
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
$WO_3.H_2O$ film, cation insertion reactions 2−105526
XeF laser chemical degradation product anal. 2−102780

spectrography *see spectroscopy*

spectrometer components and accessories
see also mass spectrometer components and accessories
acousto-optic tunable filter IR analyser, automated 2−109018

spectrometer components and accessories continued
acousto-optic tunable filters for high resolution spectral analysis 2−109019
acousto-optical modulators, appl. to high-resolution saturation spectroscopy 2−74518
active microwave delay line for reducing the dead time in electron-spin echo spectrometer 2−79639
amplifiers with time-invariant filters, critical parameters regulation and design aspects 2−64810
analog signal processor, for deep level transient spectrosc. system *(Japanese)* 2−89821
angle-resolved electron spectroscopy, cylindrical mirror analyser modification 2−89867
Auger electron spectroscopy system, 0-2 kV/200 μA linearly variable supply design 2−111524
automatic sampler for ICP atomic emission spectrometer 2−64116
automation of Bausch and Lomb Spectronic 20 using Apple computer, use as teaching aid 2−74187
battery-driven high-power pulsed NMR amplifier using commercial broadband transistor amplifier modules 2−84679
beam deflection sensing system for photoacoustic spectrosc. 2−64114
capability enhancing accessories and attachments 2−112992
cathode cell MWPC of modular design 2−96380
Cerenkov interaction, stimulated, experimental system for study 2−90402
cosmic ray trigger cct. for large solenoidal particle detectors 2−68621
CR-39 plastic track detector for high resolution α-particle spectroscopy 2−96366
cryostat for low temp. IR spectroscopy, rot. isomerism obs. of ethyl fluoroacetate, chloroacetate *(Spanish)* 2−84720
cryostat insert for direct absorbance meas. in far IR 2−58917
DC plasma jets, anal. utility, aerosol introduction effects 2−89818
diamond-windowed IR-cell for inorganic vapours 2−84719
digital pulse generator, for deep level transient spectrosc. system *(Japanese)* 2−89821
digital pulse train generator for NMR and NQR spectrometers 2−107357
digital recording system for FMR spectra 2−69215
ESR spectrometer, modification to the heater unit in the Diapazon temperature control 2−112944
Fabry-Perot scanning etalon, spectral line profiles, instrumental effect 2−58908
focal plane drift chambers detector systems for EPICS and HRS spectrometers 2−90382
Fourier spectrometer, rapid-scanning, electrodynamic drive with pneumatic sliding bearing 2−69258
Fourier transform IR, beam condenser-microscope system for high press. studies and general microsampling 2−113006
furnace, for Raman spectroscopy, high press. high temp. techniques, appl. to solns. 2−89820
g-value controlled device, for EPR amplitude meas. 2−64081
gamma-ray space-borne instrument, orbital performance of Stirling cycle mechanical refrigerators 2−113087
gas chromatograph/IR spectrometer, light pipe appl. 2−57651
graphite furnace for electrothermal at. absorpt. spectrometry, TaC coating *(Japanese)* 2−112995
gridless position sensitive time-zero detector for heavy-ion spectrometer 2−102331
heavy ion identification system for mag. spectrometer 2−108217
HERMES, high energy gamma radiation measuring system 2−102332
high frequency generator, effect on spectral characts. of inductively coupled plasma 2−89817
high temperature attachment for broad-band NMR spectrometers 2−69216
high-power radio frequency irradiation system with automatic tuning for NQR appls. 2−95416
high-resolution electron energy loss spectrometers, high-stability low-noise power supply design and construction 2−89868
high-temperature EPR cavity for application of uniaxial stress 2−53804
high-voltage spark atomic emission detector for gas chromatography 2−99714
holographic gratings, aberration corrected, for flat field imaging spectroscopy 2−109026
IR Fourier spectrometers, galvanoplastic manufacturing of aspherical mirrors *(German)* 2−70644
laser absorption sampling probe for temporally and spatially resolved combustion measurements 2−78145
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
lead-glass calorimeters and laser based monitoring system for European Hybrid Spectrometer 2−102327
linear-gate device [spectrometer pulse selection] for selecting input pulses with control signals 2−108305
long focal-plane detector with hybrid structure for spectrograph 2−90380
long-path sample absorption cell *(Chinese)* 2−69254
loop gap resonator, use in microwave lumped circuit ESR 2−84680
low pressure gas detectors for molecular-ion break up studies 2−57595
magnetic 4π goniometer for Zeeman-split NQR 2−80657
magnetic field gradient coil for NMR meas. 2−58868
magnetic field stabilizer for nuclear magnetic resonance pulse spectrometers 2−107356
mass spectrometer drift tube guard ring design, appln. to swarm expts. 2−89849
McPherson-type normal incidence VUV scanning monochromators, focusing cam design 2−102911
microcomputer controlled sample changer system for γ-ray spectroscopy 2−96365
microwave cavities, cm and m ranges, for EPR expts. 2−95420
microwave cavity for ^{15}N spectroscopic analysis 2−78161
monochromators, prism and diffraction, designed for 200 to 750 nm region, radiation scatt. 2−102913
Mossbauer spectrometer, with constant velocities, recording unit 2−107478
multi-pinhole camera for X-ray film spectroscopy 2−58977
multichannel analyser for fusion X-ray spectrometry 2−85500
multidimensional sensor number-code converter with data selection and compression 2−85469
nebulizer, pneumatic, for 50 MHz Ar ICP system, optimisation 2−84712
NMR, linear scan generator for magnetic resonance spectra 2−69212
NMR, switched receiver and transducer for 0.5 to 10 MHz range 2−69213
NMR, video pulse signal simulator with specified envelope form 2−69214
NMR imaging gradient control system 2−112945
NQR spectrometer as a device for meas. T_2^* 2−107365

spectrometer components and accessories continued
Ohio University beam swinger facility 2−102316
operational amplifiers for nuclear spectrometry, phase shift effect on gain stability 2−64812
orientational ordering at high press., NMR 2−89779
photomultiplier, microchannel plate, appl. to time-correlated photon counting technique 2−89828
plasma torch, appl. to laser microspectral anal. 2−78166
polychromator, vacuum, for DFS-40 quantometer, optical schematic and construction 2−102914
position detecting system with single wire proportional counter for electron spectroscopy 2−90383
position sensitive gas proportional counter with induction readout for spectrograph 2−90379
position-sensitive detector system for electrons using CCD 2−85477
pre-amplifier for laser enhanced ionization spectrometry 2−64115
preamplifier for slow-scanning Fourier transform spectroscopy, balloon-borne appls. 2−112334
pulsed NQR spectrometer control and signal processing system 2−107363
pulsed transistor reset preamplifier for high resolution spectroscopy 2−64811
pump generator for a double nuclear-quadrupole resonance spectrometer to irradiate quadrupolar nuclei 2−79630
quasi-optical mixer for efficient sum and difference freq. sideband generation at 1 THz 2−97107
receiver-amplifier circuit characts. of fast-scanning Fourier spectrometers 2−89833
RF coil for ENDOR, cavity, construction 2−107371
RISK spectrometer streamer chamber electrode module 2−108265
sample introduction system for plasma/echelle spectrometer system 2−79679
spectrographic plates, measurement and data processing system 2−64120
spectrophotometry, components and quality control 2−58914
stilbene scintillators, light efficiency determ. and appl. to fast neutron in-core spectrometry 2−113815
superconducting solenoid for NMR at ultra-low temps. 2−58872
superregenerative magnetic-field sensor controlled by nuclear magnetic-resonance signal 2−95410
supersonic jet gas target for γ-ray spectroscopy meas. 2−102297
surface examination using spectrometer, fibre-optic meas. head for optical information extraction 2−89822
thermionic detector for laser spectroscopy of excited states of atoms and molecules 2−58906
thermometer for multinuclear NMR 2−69175
TOKIWA large-aperture spectrometer magnet, computer-controlled field measuring system 2−96362
torch, for 50 MHz Ar ICP system, optimisation 2−84712
tune and match circuit for B_0 shimming in NMR of biological tissues 2−69223
ultra-high vacuum double axis goniometer for electron spectrometer 2−85467
UV spectrograph lens 2−97139
variable-thickness variable-temperature liquid cell for dispersive Fourier transform spectrometry 2−79551
wall-less microwave cavity for optical detection of magnetic resonance 2−79640
wideband voltage amp. for NMR pulse spectrometer 2−107355
windowless cell system for luminescence studies on liquids under excitation in the VUV 2−101468
X-ray diffraction gratings for synchrotron radiation spectroscopy, fabrication method 2−101506
CO_2 optically pumped FIR laser for collision-induced absorption spectroscopy 2−55200
Ge low temperature bolometers for spectroscopy, sensitive in 1 to 50 μm region 2−101462
Ge planar detectors array for in-situ gamma spectroscopy 2−85481
^{125}Sb-^{154}Eu-^{155}Eu, NBS long-lived mixed-radionuclide standards, photon emiss ion rates determ. 2−59579
Si surface barrier detector, response to 100-600 keV monoenergetic electrons 2−108252
TaC, coating for graphite furnaces in electrothermal at. absorpt. spectrometry *(Japanese)* 2−112995
TeO_2 acousto-optic tunable filter, appl. in coherent forward scatt. spectrometry 2−88391

spectrometers
see also interference spectrometers; magnetic resonance spectrometers; mass spectrometers; microwave spectrometers; particle spectrometers; radiofrequency spectrometers; X-ray spectrometers
acousto-optical spectrograph for H I line obs., design features and anal. 2−94606
acousto-optical spectrometer for RATAN-600 radio telescope, appl. to H I 21 cm line obs. 2−94607
acoustooptic laser spectrometer for H_2O 401 vibr. relax. time meas. 2−85789
airborne spectroradiometer system, appl. to high spectral resolution remote sensing 2−112157
astronomical spectrometer for hard X-ray and soft gamma ray telescope, design 2−112326
Cassegrain echelle spectrograph on MMT, image stacker 2−106537
Common Module imaging spectral radiometer 2−109074
coude spectrograph instrumental profiles rel. to dispersion 2−106538
Czerny-Turner type plane grating spectrometer transfer function meas. method 2−90828
directional emissivity meas., IR spectrometer 2−79694
double beam fluorescence lifetime spectrometer with subnanosecond resolution: application to aqueous tryptophan 2−112998
dual-beam second-derivative tunable diode laser IR spectrometer for trace gas meas. appls. 2−101471
dye laser spectrometer for ultrahigh spectral resolution, design and performance 2−79677
Einstein objective grating spectrometer, calibration and efficiency 2−89146
electronic energy transport between excited states in donor-acceptor acceptor systems, examination by laser system 2−74517
EPR spectrometer, microprocessor based data collection and anal. system 2−84676
EUV imaging spectrometer for thermospheric emissions 2−112147
field spectrometer, portable, for Earth surface reflectance meas. at 340 to 2500 nm 2−112143

spectrometers continued
Fourier transform spectrometer, spectral range extension, N_2O and CO_2 wavenumber meas. standards 2−74522
grating spectrometer and Fabry-Perot interferometer for 1-5 μm range 2−106536
Hale telescope, efficient low and moderate resolution spectrograph 2−106539
HEAO-3 high resolution γ-ray spectrometer 2−89151
ICP atomic emission spectrometer, computer controlled automatic sampler 2−64116
image intensifier spectrograph for recording triboluminescent spectra 2−64117
imaging spectrometer with acoustically tunable optical filter, correction of aberrations 2−58911
industrial atmospheres automatic surveillance by computerised centralised IR spectrometer *(French)* 2−62528
injection laser based spectrometer, mol. spectra obs. of supercooled hexafluorides 2−113972
intensified CCD for spaceborne spectrographic image-plane detector 2−112148
IR cooled grating spectrometer using cylindrical optics for astronomy 2−63252
IR spectrometer for expts. with solar occultation using pyroelectric vidicon 2−95493
laser magnet reson., mid-IR, using Faraday and Voigt effects for sensitive detection 2−79637
long-path laser absorpt. spectrometer, scintillation noise reduction by aperture averaging 2−101464
luminescence circular polarisation meas., digital instrument 2−107422
magnetic, aberrations correction by electric multipole lenses 2−113063
mechanoluminescence spectrometer, design and appls. 2−95484
microprocessor-controlled, wavelength reading using gray code technique *(Japanese)* 2−112994
microspectral analyser, ablation of solid samples in laser beam use in spectrometry 2−69263
mobile emission spectrometer for reliable recognition of materials 2−99637
molecular spectroscopy, conf., Albena, Bulgaria, (Oct. 1980) 2−107020
multichannel grazing-incidence spectrometer (SPRED) for plasma impurity diagnosis 2−91663
parallel plate mobility spectrometer, diffusion of Rn gas and progeny 2−109443
plasma/echelle spectrometer system, graphite filament, improved sample introduction 2−79679
reflection grating spectrometer for HCN CW submillimeter wave laser output wavelength meas. 2−102811
scanning spectrometer system for atmospheric extinction studies in 350-1100 nm spectra region 2−53848
selective solar irradiance spectrometer 2−84093
solar spectroradiometer, design and development 2−63112
Space Telescope, progress report on high resolution UV spectrograph 2−117593
spectrohelioscope, design 2−84094
standardisation problems in optical instrumentation 2−112991
steel, mobile spectrometer for mixed grade separation, assessment 2−78039
TEM, cathodoluminescence spectrometer design 2−64174
tunable diode laser spectrometer performance determ. through N_2O line intensity and width meas. at 7.8 μm 2−113001
tunable diode laser spectrometer using sweep integration for high-sensitivity trace gas detect. 2−106325
twin hollow cathode interferometer-spectrometer, low temp., gas kinetic temp. radial distrib. *(German)* 2−84713
UV rocket-borne instrument with photon-counting MCP 2−112322
VMS 1 visible/UV spectrometer, commercial operation and modernisation 2−58915
VUV spectrometers development for synchrotron radiation facilities 2−84716
wavelength modulation spectrometer, modulation depth meas. using laser light 2−53846
CO_2 laser tunable sideband spectrometer for 9-11 μm region 2−101472

spectrophotometers
see also spectrophotometry
0.6 to 2.5 micron device based on DMR-4 monochromator 2−112949
atomic absorption spectrophotometers, recent developments in hardware and software 2−64088
attenuation factor meas. of optical glasses, using photometer and spectrophotometer attachment 2−101441
calibration of photometric scale 2−112952
computerised, HP 8450A for multicomponent analysis 2−57653
controlled amplifier for a modulation spectrophotometer 2−95431
dispersive IR spectrophotometer 2−74520
double-beam telespectrophotometer for field use 2−53815
Earth remote exploration appl. *(German)* 2−107380
Fourier transform IR emission polarisation microspectrophotometer for analysis of thin adsorbates 2−116746
Fourier transform spectrophotometer, high resolution system for Doppler-limited study 2−74509
Hewlett Packard product range review, gas chromatography/mass spectromters *(Italian)* 2−73024
integrating sphere for solar transmittance measurement of planar and non-planar samples 2−107377
microprocessor-controlled, single-beam, Beckman DU-8 and DU-5 models 2−74482
normal incidence micro-reflectance spectrophotometer, visible spectral region 2−79690
optical source, emission spectra analysis, microprocessor controlled *(Italian)* 2−101436
photoelectric transducers for spectrophotometer reference markers 2−101437
photometric trace analysis of Mg and Mo in biological systems 2−69232
solid state logarithmic amplifier for the DU spectrophotometer 2−89786
SPECORD M 40, recording type UV-VIS spectrophotometer 2−69229
SPECORD UV-VIS spectrophotometer, methods and results of testing 2−69231
spectroscan 177 rapid scanning spectrophotometer and its application for investigation of rapid processes 2−107383
thermal chamber for spectral investigations 2−101438
Unicam SP500, conversion to solid-state electronics with digital display of absorbance 2−58885

spectrophotometers continued
UV-visible, with high-speed computing facilities 2−79642
UV-visible spectrophotometers, holographic gratings and microprocessors appl. *(French)* 2−64125
vacuum spectrophotometer with recording in the single-pulse mode 2−69262

spectrophotometry
see also colorimetry; spectrophotometers
absorbing materials, refractive index and absorpt. coeff., reflectance meas. method 2−89793
atomic absorption spectrophotometry, appln. to chemical analysis of minerals and metals 2−64087
coated optical surface residual refl. evaluation using microspectrophotometry 2−75739
components and quality control 2−58914
densitometry, general principles and appls. *(German)* 2−58875
errors due to slit width setting 2−69228
fabrics, colour characts. rel. to fibre characts., struct. factors and type of dye, spectrophotometric obs. 2−107381
free radical-aromatic ligand π complexes, spin density transfer mechanism, struct. effect 2−111491
high-pressure stopped-flow apparatus for study of fast reactions in solution 2−101440
hot stars, Voyager absolute far-UV spectrophotometry 2−89254
hydrocarbon complex, I_2 saturated, contact charge transfer interaction, UV absorpt. spectra 2−108547
inosylyl $(3'\rightarrow5')$ inosine, dinucleoside monophosphate, D exchange rates 2−72983
integrated photometric measurement spectral correction, statistical charact. calc. 2−69236
N-methylacetamide, deuteration kinetics by stopped-flow multidetector Raman spectrophotometry 2−72490
p-nitroaniline, protonation consts., spectrophotometric determ. 2−111489
4-(2-pyridylazo)-resorcinol, protonation consts., spectrophotometric determ. 2−111489
salycilic acid, protonation consts., spectrophotometric determ. 2−111489
spectroradiometry, benefits, hardware and appls. 2−79646
techniques and terminology of spectrophotometry and chromatography in industry *(Spanish)* 2−53813
thickness measurement, of Si structures with dielec. insulation 2−112867
thin film optical constant determ., spectrophotometric (interference) method accuracy 2−112951
Venus atmosphere, Venera 13 and 14 spectrophotometry *(Russian)* 2−106581
Al mirror specular reflectance standards, prep. and calibration 2−114405
Si:H amorphous film, H conc. correlation with low freq. noise 2−92795

spectroscopes *see spectrometers*

spectroscopic light sources
coherent spontaneous molecular radiation, control of direction 2−114224
colour centre lasers for Doppler-free IR-acoustic spectroscopy, saturated absorpt. results for HCN 2−58916
combined-discharge spectral lamps, high intensity, for at. absorpt. spectrosc. 2−79687
dye laser, 5 J 1.8 μsec pulse, 10 pps, Raman scatterig expts. in combusting media 2−75587
free electron laser, tunable far IR, appls. for solid state system spectroscopy 2−80978
hollow cathode lamps, optogalvanic signals induced by at. emission sources 2−71269
hollow cathode lamps, regenerated, appl. in at. absorpt. spectrosc. 2−95480
ICP emission, signal instability due to electrostatic effects in nebuliser spray chamber 2−115057
injection laser based spectrometer, mol. spectra obs. of supercooled hexafluorides 2−113972
laser spectroscopy, parallel detection technology 2−112996
laser torch, atomisation and thermodynamic equilib. of matter 2−107414
mercury discharge lamp noise power absolute meas., above 100 GHz, using untuned cavity 2−75644
reflected Z-pinch pulsed light source, plasma spectrosc. investig. 2−71234
RF electrodeless discharge lamps, high intensity, for at. absorpt. spectrosc. 2−79688
sequence generator for periodic sampling of transient phenomena 2−107412
spectrophotometry, components and quality control 2−58914
square-flash source for time-resolved absorption spectroscopy 2−53853
submillimetre laser with off-axis pump beam injection for heterodyne radiometry/spectroscopy 2−90928
vacuum spectrophotometer with recording in the single-pulse mode 2−69262
XUV radiation source, by anti-Stokes scatt. of atoms 2−69265
Ar ICP torch, low Ar consumption, using external air cooling 2−115056
Ar mini-arc, dispersed source for absolute calibration 2−86066
CO_2 laser IR source 2−81042
Fe arc 2−102893
N-He(Ar) VUV discharge line source, excitation mechanism effect on linewidth parameters 2−108422
N_2 subnanosecond laser construction, use as pulsed fluorometer excitation source 2−75588
Nd:YAG/glass 1-pps 2-μsec pulse high-energy freq.-doubled laser, Raman spectroscopy of combustion processes 2−75586
O-He(Ar) VUV discharge line source, excitation mechanism effect on linewidth parameters 2−108422
U hollow cathode discharge and atlas, optogalvanic effect for pulsed laser wavelength calibration 2−71270
Xe lamp, appl. in coherent forward scatt. spectrometry 2−88391

spectroscopy
see also beam-foil spectroscopy; computerised spectroscopy; electron spectroscopy; Fourier transform spectroscopy; interference spectroscopy; magnetic resonance spectroscopy; mass spectroscopy; matrix isolation spectroscopy; microwave spectroscopy; modulation spectroscopy; optical double resonance; photoacoustic spectroscopy; photon correlation spectroscopy; quantum beat spectroscopy; radiofrequency spectroscopy; Raman spectroscopy; spectroscopy computing; time resolved spectroscopy; tunnelling spectroscopy; two-photon spectroscopy; X-ray spectroscopy
angle of incidence reflectance spectroscopy, optical props. meas. of solids and liquids 2−53847
atomic and surface physics, conf., Salzburg, Austria, Feb. 1982 2−89455

spectroscopy continued
attenuation coefficients of liquids, in 414-662 nm range, dual beam pulse laser method *(French)* 2−64126
biomedical sciences, optics appls., conf., Graz, Austria (Sept. 1981) 2−107021
book, IR and MM waves, systems and components 2−112668
circular dichroism spectroscopy, use in erythrocyte membrane phototoxicity study 2−116999
coherence spectroscopy, ultrahigh-resolution, by means of periodic excitation with picosecond pulses 2−53845
coherent spectroscopy on single atomic system at rest in free space 2−65111
collinear laser spectroscopy for H(D) Balmer α-line, metrological appl. 2−95485
colour centre laser spectroscopy 2−58923
compound spectal lines, resolution to components 2−107415
conference, 12th International Quantum Electronics, Munich, Germany (1982) 2−79268
derivative, resolution enhancement, band width and shape effect 2−64121
derivative IR spectra, meas., calcs. 2−64130
derivative IR spectra, meas. expts. 2−64131
derivative spectrometry, resulting information gain 2−107417
Doppler-free laser spectroscopy via degenerate four-wave mixing 2−75636
Doppler-free spectroscopy in excited He states using color centre laser and electron impact excitation 2−54792
far IR molecular laser, saturation param. and power enhancements, nonlinear Hanle effect 2−60183
fluorescence attenuation curves, pulsed excitation, numerical calcs. 2−53844
fluorescence correlation spectroscopy and total internal refl., determ. of surface binding rates of nonfluoresc. mols. 2−94258
high resolution (book) 2−94929
high-resolution spectroscopy, appl. of GaAs laser with external resonator 2−53854
image spectrogram interpretation in some metrological appls. 2−79685
imaging spectroscopy, conf., Los Angeles, CA, USA (Feb. 1981) 2−106998
inert gas atoms counting by resonance ionisation spectroscopy 2−64899
information analysis of spectral doublet distorted by instrumental function 2−112997
intracavity dye laser detection spectroscopy, parasitic selection 2−55217
intracavity dye laser spectroscopy, multimode generation spectrum, depend. on gain and loss spatial localisation 2−55216
intracavity laser spectroscopy system using dye laser pumped by pulse Ar laser, pulsed, high-sensitivity 2−113000
intracavity spectroscopy using rhodamine 6G CW dye laser 2−114316
IR qualitative analysis, computer automation with spectral data file 2−89829
laser beam applications 2−95486
laser microspectrofluorometry of photopigments in vivo 2−99901
laser molecular spectroscopy for weak absorpt. meas. in gas using thermooptical method 2−113985
laser spectroscopy, conf., Jasper, Alberta, Canada (1981) 2−63748
laser spectroscopy, mono-ion oscillator for ultimate resolution 2−58913
laser spectroscopy, parallel detection technology 2−112996
laser spectroscopy techniques 2−101467
laser system and data analysis techniques for absorbing and non-absorbing excited transients 2−84717
laser-II, conf. proceedings held at Kanpur, India, March 1979 2−58530
laser-induced fluorescence in spectroscopy, dynamics, and diagnostics 2−108417
liquids, fluoresc. highly absorbing, laser meas. of spectral extinction coeffs. 2−74504
localised and cooled ions 2−70450
luminescence spectroscopy, refractive index correction 2−74506
measurement optimisation based on regularisation methods 2−107416
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
molecular, multitube collimators driven at high press. 2−84738
molecular and atmospheric high-resolution IR spectroscopy by high-press. tunable CO_2 laser 2−95494
multicomponent system with equilibria, spectroscopic determ. of no. of components 2−107418
nonlinear optics and spectroscopy techniques, review 2−97083
optical mixing spectroscopy, tuning and control, appl. to vibr. meas. 2−69257
optics, conf., Los Alamos, NM, USA (Apr. 1981) 2−94889
optogalvanic spectroscopy, alignment effects 2−64900
optothermal IR spectroscopy 2−58922
photodiode arrays for spectrometry using ultraviolet light 2−95488
picosecond duration luminescent decay, meas. using three-pulse technique 2−95483
picosecond gain spectroscopy of rhodamine 6G laser dye during mode-locked laser action 2−89827
polarisation intermodulated excitation (POLINEX) spectroscopy of excited atoms 2−59729
polynuclear aromatic hydrocarbons, luminesc. and fluoresc. spectra, pattern recognition appls. 2−90596
precision spectroscopy in gases, effect of collisions 2−64119
primary freq. standards and precision spectroscopy, impact of lasers 2−63994
principal angle spectroscopic ellipsometry utilizing a rotating analyser thin film thickness meas. appls. 2−107385
pyro-spectroscopic technique using TGS type II detector for high resolution IR absorpt. data using FIR laser 2−112977
remote sensing imaging spectroscopy for Earth resources mapping, multispectral mapper concept 2−112158
remote sensing spectroscopy, geological appls. 2−112156
resonant multiphoton optogalvanic spectroscopic detect. of H in H-air flames 2−108435
solid state laser materials, high resolution time and freq. domain spectroscopy 2−90907
spectrum reconstruction from intensity distrib. of diffraction pattern from slit or slit array *(Japanese)* 2−113015
stored ions, laser cooling and double reson. spectroscopy 2−69298
supernarrow spectral line detect. using double-mode laser frequency resonances 2−64127
thin films, optical spectroscopic studies, appl. of surface phonon polaritons and surface plasmons 2−110437
tunable laser absorption spectroscopy, optical fibre probe based, combustion meas. appls. 2−101465
spectroscopy continued
tunable laser electronic spectroscopy 2−74507
tunable laser spectroscopy, appl. of CO_2 isotope lasers 2−108850
two dimensional homonuclear correlated spectra, connectivity information 2−84708
UV, thermodynamic analysis of triarylpyrylium salts poly-N-epoxypropylcarbazole solns. *(Russian)* 2−74551
vacuum UV spectroscopic techniques 2−74515
vibrational spectroscopy methods, appl. to structure anal. of chemisorbed species on metal surfaces 2−79692
zero-THz, predictive theory 2−64129
FeO, laser induced fluoresc., sub-Doppler spectroscopy 2−59854
$^{14}N^{16}O_2$ ν_3 band N_2-broadened lines, width temp. depend., diode laser spectrometer meas. 2−90531
U hollow-cathode discharge, optogalvanic effect, mechanistic study 2−91696
spectroscopy applications of computers *see computerised spectroscopy*
spectroscopy computing
see also computerised spectroscopy
aerosols and waters, analysis by neutron activation and X-ray fluorescence methods 2−93848
atomic absorption, programmable calculator appls. and limitations 2−93855
Auger electron energy distribs. and line scans, smoothing 2−107457
CAMECA IMS-300 secondary ion mass spectrometer system, with microcomputer system 2−95333
coal liquid and aromatic mixture anal. using computer program AMCLA 2−57650
compound spectal lines, resolution to components 2−107415
computer simulation of different designs of pseudo-random time-of-flight velocity analysers for molecular beam scattering experiments 2−84733
CT-complexes, electron transfer band profile calc. *(German)* 2−80577
electrode and mag. pole struct., fringing field integrals calcs. 2−74565
EPR spectrometer, microprocessor based data collection and anal. system 2−84676
ethane-d_6, $\nu_9+\nu_{10}$ parallel band, computer deconvoluted spectra 2−80569
FLYSPEC, neutron spectra measured by NE213 and stilbene spectrometers, unfolding method 2−102318
Fourier spectrometry, numerical data accumulation method 2−64118
Fourier transform IR spectroscopy detection in gas chromatography, algorithms and techniques 2−116750
Fourier transform IR spectroscopy detection in gas chromatography, systems design requirements 2−116752
Fourier transform time-resolved IR, rapid-scanning, spectral anomalies analysis using computer model 2−113004
gamma-ray, SAMPO code, minicomputer realisation on PDP 11/34 *(Hungarian)* 2−102324
IR qualitative analysis, computer automation with spectral data file 2−89829
isotopic ratio meas. in SIMS/ion microprobe technique 2−95533
isotropic ESR spectra simulation, transportable BASIC program 2−108582
laser dyes, fluoresc. quantum yield determ. by computer evaluation 2−65048
laser spectroscopy, LSI-11/2 microcomputer-based data acquisition system 2−79686
LINPOS, and interactive program for stellar line position measurement 2−94623
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
microcomputer system for Mossbauer spectra anal. 2−101389
microcomputer-based apparatus for DLTS and C-V meas. 2−95332
microprocessor-based Mossbauer fitting program 2−84772
microprocessor-based spectrometer control and data acquisition system for Raman spectroscopy 2−84601
molecular vibrational-rotational spectra, anal. calcs. using digital computer 2−113969
molecule, ^{13}C NMR spectra interpretation based on atlas of known spectra 2−65018
monitor program 2−89698
Mossbauer spectra, computerised anal. *(Chinese)* 2−61791
multidimensional phosphorimetric analysis 2−67773
quasimolecular system symmetrisation, compact computer program 2−90434
Raman and IR spectra, computational formulas for intensities of combination freqs. and overtones 2−96581
Raman spectroscopy, gas-particle system temp. and concentration determ. *(German)* 2−81421
semiconductor spectra, prospects for near state-of-the-art anal. in laboratory 2−58978
SIMS, computer peak identification, isotropic currents 2−95534
software module for IR spectral identification 2−93841
Spectran F and III programs for gamma-ray spectra resolution 2−96408
spectrochemical analysis of H_2 in Ti alloys, metrological charact. of standard specimens 2−83435
spectrum anal., peak search algorithm quality, computer study 2−79546
Voigt and complex probability functions, optimised computation 2−59749
X-ray fluorescence spectra obtained with HgI_2 detector, computer anal. 2−58980
X-ray powder spectra calculations, program, PROVA 2−109633
XPS spectra, overlapping, resolution using factor anal. 2−95570
Pu γ-ray spectra anal. using portable microcomputer 2−74394
spectrum *see spectra*
spectrum analysers *see spectral analysers*
speech
see also hearing
auditory reception threshold meas., comparison between two methods 2−117032
combination tones role in second effect of pitch shift perception 2−102981
elements synthesis using acoustic tube mode *(German)* 2−97306
fricative-stop coarticulation, acoustic and perceptual evidence 2−91169
glossometry, tongue-palate distance meas. during speech using LED/phototransistor combination 2−94264
hoarseness, meas. by harmonics-to-noise ratio 2−91167
human and electronic speech generation *(German)* 2−83578
infant vocalic utterances at 3, 6, and 9 months, acoustic features 2−109127
Japanese stops and vowels durational relationships 2−114560
laryngeal cancer, charact. of pitch period and amplitude perturbations in patients' speech 2−100070

speech continued
lip and jaw interaction during speech: responses to perturbation of lower-lip movement prior to bilabial closure 2−78352
masking of noise bursts by an adjacent vowel for hearing-impaired listeners 2−88558
microelectronic visual and tactile devices to aid speech and understanding in the deaf 2−78489
naturally produced stop consonant-vowel syllables, formant transitions meas. 2−109129
obstruent production by hearing-impaired speakers: interarticulator timing and acoustics 2−100012
pitch meas. in speech 2−91170
production, recuitment patterns of motor units 2−88559
skin vibrations of singer's face, neck, larynx and sternum, holographic interferometry meas. 2−57882
speaker accent effect on performance of speaker-independent, isolated-word recogniser 2−91171
stress and rate, differential transformations of articulation 2−91166
subglottal pressure during vowels, validation of indirect meas. 2−117154
sung vowels inside and in front of mouth, pressure wave meas. *(German)* 2−102979
vocal tract parameter estimation, from speech signal processing 2−78353
vocal tract resonance in clarinet and saxophone performance 2−86180
vowels structure and duration, together specify fricative voicing 2−109128
X-ray microbeam, appl. to speech research 2−57938

speech analysis and processing
adaptive filter performance with nonlinearities in the correlation multiplier 2−97311
clustered multiple speech attribute detector 2−60315
deaf speakers, anal. of laryngeal biomechs. using high-speed cinematography 2−117151
elements synthesis using acoustic tube mode *(German)* 2−97306
enhancement, phase unimportance 2−97312
Finnish vowel formants in profoundly hearing-impared children, validity of real-time spectrum anal. 2−94080
fundamental frequency extraction from speech signals 2−60314
laryngeal surgery, perturbation anal. use for objective assessment 2−57879
modern German /r/ allophones with long vowels, diphthongs and unaccented vowels *(Japanese)* 2−70783
natural language man-machine dialogue in TULIPS-2 artificial intelligence system 2−114562
naturally produced stop consonant-vowel syllables, formant transitions meas. 2−109129
Nellie, noise reduction system 2−102978
phonological rules appl. 2−86178
recognition, and feature parameters *(Japanese)* 2−97315
shouted voice, acoustic feature study 2−75787
shouted voice, phonetic structure 2−102980
spectral smoothing technique on generalized logarithmic scale 2−65431
subtractive filtering method in formant analysis of speech 2−86176
vocal cord vibration, automated anal. from ultra high-speed films using angular bend function *(Japanese)* 2−117046
vocal tract parameter estimation 2−78353
vocoding, frequency weighted Itakura-Saito spectral distance measure 2−97308
vowels structure and duration, together specify fricative voicing 2−109128
waveform, system to independently modify excitation and/or spectrum without explicit pitch extraction 2−97310
weight function coefficient determ. for speech spectral patterns 2−70784
X-ray microbeam, appl. to speech research 2−57938

speech compression *see bandwidth compression*

speech intelligibility
see also hearing
architectural acoustics, closed offics, speech privacy study 2−109119
articulation index factor, used to define understandability of speech in auditorium *(German)* 2−97296
automated directory listing retrieval system, based on connected letter strings recognition 2−60316
central cluster design technique for large multipurpose auditoria 2−86172
clustered multiple speech attribute detector 2−60315
cross-language study of perception of the oral-nasal distinction 2−91168
dynamic orometer as aid to profoundly deaf in mastering speech reproduction patterns 2−78483
enhancement, phase unimportance 2−97312
hoarseness, meas. by harmonics-to-noise ratio 2−91167
intelligibility of speech, in noise: effect of fluency and hearing protector type 2−62639
isolated word recognition, modification over Sakoe and Chiba's dynamic time warping algorithm 2−97317
master hearing aid, computer program for fitting aid to residual hearing characteristics of individual patients 2−111706
paired comparison judgements of relative intelligibility in noise 2−100005
phrase boundary, duration as a cue to perception 2−70780
sound transmission by IR light for improving speech intelligibility *(German)* 2−91159
stress and rate, differential transformations of articulation 2−91166
synthesis units representation, approximate, nonlinear interpolation use 2−91174
tests with vocoder based on hearing sensation sharpness 2−102982
vowel duration, perceptual cue to postvocalic consonant voicing 2−70779
vowel recognition, various linear prediction parametric representations evaluation 2−97316

speech processing *see speech analysis and processing*

speech recognition
acoustic invariance and the preception of place of articulation: a selective adaptation study 2−75792
automated directory listing retrieval system, based on connected letter strings recognition 2−60316
Chinese consonants, multidimensional analysis of perceptual confusion 2−75789
connected word recognition techniques, machine *(Japanese)* 2−75790
consonant discrimination comparison of Tadoma and frequency-amplitude spectral display 2−75794
context-sensitive phonological rules appl. 2−86178
demisyllable reference patterns, bootstrapping technique 2−91172
enhancement, phase unimportance 2−97312
feature parameters and speech anal. *(Japanese)* 2−97315
fundamental frequency extraction from speech signals 2−60314

speech recognition continued
gross spectral shape, role as perceptual cue to place of articulation in initial stop consonants 2−97313
hearing-impaired listeners, effect of spectral shaping 2−78349
hindi stop perception, importance of acoustic cues 2−70777
identification of synthesized /r-w/ continua for adult and child speakers 2−70781
isolated word recognition, dynamic time warping, adaptive ordered graph search technique 2−97307
isolated word recognition, modification over Sakoe and Chiba's dynamic time warping algorithm 2−97317
isolated word recognition, speaker-independent, 129-word airline vocabulary use 2−109130
Japanese syllables identification by spanish-speaking listeners 2−91173
listeners, performance at loudness discomfort level 2−68024
monaural and binaural speech perception in reverberation for listeners of various ages 2−75793
natural language man-machine dialogue in TULIPS-2 artificial intelligence system 2−114562
relation to written text, synchronising device as lip reading aid for deaf 2−78484
review of speech synthesis and recognition *(Japanese)* 2−86179
review of speech technology, implications for biomedical engng. 2−111806
shouted voice, phonetic structure 2−102980
speaker independent connected word recognition using a syntax-directed dynamic programming procedure 2−97309
speaker perception and recognition *(Japanese)* 2−114561
spectral dependencies in auditory and phonetic temporal processing 2−97314
synthesis-based recognition of continuous speech 2−70782
voice recognition computer terminal options and trends 2−91165
vowel identification, orthographic, perceptual and acoustic aspects 2−70778
vowel recognition, various linear prediction parametric representations evaluation 2−97316

speech synthesis
continuous speech, synthesis-based recognition 2−70782
elements synthesis using acoustic tube mode *(German)* 2−97306
filter design, direct approx. technique for generalized log frequency response 2−65431
human and electronic speech generation *(German)* 2−83578
identification of synthesized /r-w/ continua for adult and child speakers 2−70781
Italian language, diphone synthesis, prosody control *(Italian)* 2−75791
naturally produced stop consonant-vowel syllables, formant transitions meas. 2−109129
quality improvement of synthesized speech using predictive coding 2−75788
review of speech synthesis and recognition *(Japanese)* 2−86179
review of speech technology, implications for biomedical engng. 2−111806
shouted voice, phonetic structure 2−102980
Thai speech tones, polynomial approx. of pitch contours 2−65432
units representation, approximate, nonlinear interpolation use 2−91174
waveform, system to independently modify excitation and/or spectrum without explicit pitch extraction 2−97310
word accentuation, estimation procedure *(German)* 2−97305

speech transmission *see voice communication*

speed *see velocity*

speed control *see velocity control*

speed indicating instruments *see velocity measurement*

speed measurement *see velocity measurement*

spelter *see zinc*

spherical aberration *see aberrations*

spheroidizing
steel, C, cementite spherodization 2−111212
steel, high C, spheroidised annealing effects on subsequent heat treatment 2−116470
steel, hypoeutectoid, spheroidising treatment from various initial conditions, struct. form. 2−99451
$Au_{55}Pb_{22.5}Sb_{22.5}$, metallic glass spheres, prep. and surface characteristics 2−55851
Cu-Al lamellar eutectoid alloys, spheroidization by thermomech. treatment 2−93535

spicules *see solar prominences*

spin
see also baryon spin and parity; electron spin; isotopic spin (elementary particles); lepton spin and parity; meson spin and parity; nuclear spin and parity; spin density waves; spin Hamiltonians
baryon octet, quark fragmentation function, spin correlations 2−107645
deep inelastic polarised electroproduction with lower energy SU(6) constraints 2−54170
elastic media, quasimomentum, quasi ang. momentum, spin 2−58615
gluon spin derivation from hadron jet photoproduction 2−84859
kinetic energy and intrinsic mass, for spin 1/2 particles 2−95808
Lie-admissible spin algebra and neutrons interaction with elec. field 2−95678
nonAbelian test body, spinning, classical eqn. of motion in general relativity 2−95172
relativistic Newtonian mech., two-particle forces between spinning particles 2−101164
spin kinematics prehistory, Darboux's theory 2−112680
spin-nonzero particles, relativistic Newtonian mech. 2−74207
μN, dimuon events, shrinking cone limit and quark spin effects 2−101733
NN, spin observables in low energy scatt. 2−64339
pp, 800 MeV, spin depolarisation parameters and spin transfer parameters meas. 2−64409
$\bar{p}p \rightarrow \bar{n}n$, spin observables in charge exchange interaction 2−64339

spin arrangements *see magnetic structure*

spin decoupling (NMR) *see double nuclear magnetic resonance*

spin density waves
Fermi gas, quasi-one-dimensional phase transitions, renormalisation group study 2−56760
modulated crystal, excitations near commensurate-incommensurate transition 2−92179
one dimensional many electron system, SDW and CDW regions, mean field theory 2−98564
one-dimensional conductors, neutron scatt., struct., lattice dynamical, and mag. props. 2−91726

spin density waves continued
one-dimensional solitons, CDW, SDW, and ion displacement fields 2−115677
polyacetylene, collective fields, functional integral formalism 2−92588
quasi 1-D cond., spin density wave effects on nucl. spin lattice relax. 2−93042
quasi-one-dimensional spinand charge-density wave systems, solitons 2−56558
solitons in charge- and spin-density-wave systems 2−87162
superconductors, anisotropic, SDW state coexistence, energy gap struct. and nonmag. impurity effects calc. 2−87443
$TMTSF_2AsF_6$ antiferromagnetic resonance obs. 2−93015
$(TMTSF)_2AsF_6$, antiferromagnetic reson. below metal-nonmetal transition 2−116067
$(TMTSF)_2AsF_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
$(TMTSF)_2ClO_4$, itinerant electron antiferromag. precursor to supercond. 2−116068
$(TMTSF)_2ClO_4$, nonlinear resistivity above supercond. crit. current obs. 2−66732
$(TMTSF)_2PF_6$, anisotropic, SDW and supercond. coexistence, energy gap struct. and tunnelling props. calc. 2−87443
$(TMTSF)_2PF_6$, cond. increase due to nonequilibrium conditions 2−110332
$(TMTSF)_2PF_6$, dynamical response of SDW mode 2−61456
$TMTSF)_2PF_6$, highly conductive, spin charge separation hypothesis based on struct. 2−55958
$(TMTSF)_2PF_6$, NMR studies 2−56963
$(TMTSF)_2PF_6$, organic supercond., possibility of coexistence of SDW and supercond. 2−56759
$(TMTSF)_2PF_6$, radiation damage effect on cond. 2−87243
$(TMTSF)_2PF_6$, spin density wave fluctuation effects on NMR relax. 2−87616
$(TMTSF)_2X$, (X=PF_6, AsF_6) band struct. and Fermi surface, tight binding calc. 2−115660
$(TMTSF)_2X$, charge density waves, spin density waves 2−92491
$(TMTSF)_2X$, superconducting and insulating phases 2−115738
$(TMTSF)_2X$ (X=ClO_4, PF_6, AsF_6), nonlinear threshold phenomena due to SDW transitions 2−92885
$(TMTSF)_2X$ compounds, competition between SDW and supercond. 2−56755
$(TMTSF)_2X$ family of organic conductors, magnetism 2−61750
$(TMTSF)_2X$ family of organic metals, spin density waves, mag. props. review 2−66893
$(TMTSF)_2X$ series, phase transitions 2−92589
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
transition metal monosulphides, metal-dielec. phase transition, two-band model 2−71871
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
$CoSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
Cr alloys, spin density wave state, Landau theory 2−66757
Cr, antiferromag., spin-flip transition, latent heat 2−92906
Cr, antiferromagnetic spin waves, SDW model *(Russian)* 2−77281
Cr, incommensurate spin density wave, phase and amplitude fluctuations, RPA calc. 2−98565
Cr, longitudinal acoustic phonon vel. in spin density wave state, temp. depend. 2−98219
Cr, spin density wave states, tight-binding approx. 2−66751
Cr-Fe, antiferromagnetic, high press. phase diagram, neutron scatt. study 2−116000
Cr-Mn single crystals, first order incommensurate-commensurate transform. 2−92175
Cr-Si-Fe (2, 0.5 wt.%), mag. behaviours in commensurate spin density wave state 2−92882
Cr-V(Mn), spin density wave states, tight-binding approx. 2−66751
CrSi, dil. alloys, first order phase transition from paramag. to commensurate SDW state 2−116003
Fe-Cr(-Mo), Neel temp. and elec. resist., mag. moment-spin density wave coupling 2−82573
^3He, solid, magnetic phase transition, mag. ground state 2−76771
$NiSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
$TiBe_2$, weak itinerant antiferromag., SDW pairing soln. 2−92854
$ZrTe_5$, negative evidences for CDWs and SDWs 2−56553

spin disorder resistivity
Heusler alloys, elec. resist. rel. to scatt. mech. 2−98616
$Ce_xLa_{1-x}Be_{13}$, mixed valence and Kondo behaviour, lattice const. elec. resist. susceptibility 2−56515
Cr, electrical resistivity due to antiferromag. spin waves 2−61457
$MnAs_{1-x}P_x$ crystals, high spin-low spin mixture, charge carrier scatt. 2−115835
PdAuCr alloys, spin fluctuation effects, elec. resist. meas. 2−71958

spin dynamics
see also spin density waves; spin disorder resistivity
Anderson two-impurity symm. model, approx. mapping in local moment regime 2−66838
anisotropic Heisenberg chain, solitons and spin complexes 2−72250
antiferromagnet, randomly diluted anisotropic, spin waves, spin-flop transition, AFMR 2−104597
antiferromagnetic insulators, impure, role of S_2-nonconserving interaction in spin dynamics 2−66794
antiferromagnetic polarisation around local moments in the Hubbard model 2−72129
antiferromagnets, fluctuation corrections to hydrodynamics eqns. *(Russian)* 2−61722
Baxter-Wu model, Z(N) generalisation 2−104563
charge density wave, spin response study 2−115679
chromium phosphate, polymeric, ESR and spin dynamics 2−82710
2,2-diphenyl-1-picrylhydrazyl, mag. interaction and spin diffusion, susceptibility and ESR study 2−110566
ferro- and antiferromagnetism, spin fluctuation theory of coexistence 2−104569
ferromagnet, magnetisation, nonlinear dynamics, soliton models, review *(Russian)* 2−92914

spin dynamics continued
ferromagnetic chain, soliton dynamics 2−77296
ferromagnetic Heisenberg chain, classical dynamics in mag. field 2−56811
ferromagnetic metals, spin fluctuations, temp. variation of local moment and short range order 2−61717
ferromagnetic semiconductor, critical shift of cond. bound bottom 2−77255
ferromagnets, mag. anisotropy, correlation with inhomogeneity, spin freezing effects 2−115998
ferrous and ferric compounds, spin transitions 2−66832
film, ferromagnetic, susceptibility and spin correlation time near Curie point, Valenta model 2−72306
free induction decay, oscillatory behaviour, theoretical anal. 2−61774
Heisenberg, antiferromagnet, FCC, with nearest-neighbour interactions, spin dynamics on fully occupied lattice 2−82581
Heisenberg antiferromagnetic chain, alternating, excitation spectra 2−92955
Heisenberg antiferromagnetic spin $^1/_2$ chain, finite cell calcs. 2−104649
Heisenberg chain, classical isotropic, spin dynamicss, computer simulation 2−98899
Heisenberg paramagnet, S=1, with easy-planar anisotropy, spin fluctuations 2−66764
Heisenberg spin glasses, anisotropy-triad dynamics 2−56883
Hubbard model, local moments 2−82606
hydrodynamics of spin systems with symm. tension tensor without mag. field *(Russian)* 2−116019
intermediate valence compounds, dynamical susceptibility, periodic Anderson model calc. 2−56527
interrupted metallic strand model, freq. depend. NMR relax. rate 2−110685
Ising model, effective-field model with correls. 2−92950
Ising model, one-dimens. spin exchange model, real space dynamic renormalisation group 2−110597
Ising model, spin fluctuations, series expansion for gen. temps. 2−72239
Ising model, two dimensional pure and random, spin fluctuations, review *(Japanese)* 2−82625
Ising-Heisenberg chain at low temps., mag. excitations 2−115986
itinerant electron magnets, spin correlations 2−115964
Kondo problem, crossover from asymptotic freedom to infrared slavery 2−77265
Kondo problem, susceptibility and impurity relax. rate 2−77266
linear Heisenberg system, spin motions 2−87519
low dimensional magnets, NMR, review *(Japanese)* 2−82734
m-component magnet with correlated impurities, critical behaviour 2−98896
metallic glasses, commutative model of two-level systems 2−92920
metals, antiferromag., spin fluctuation theory 2−110577
methane, solid, spin-species conversion rate 2−104632
nuclear magnetism, order and disorder, book 2−63759
nuclear spin systems, energy and temp. meas. 2−66926
one-dimensional planar spin 1/2 ferromagnet, excitation spectrum 2−104602
one-dimensional spin dynamics, delocalisation effect 2−98939
ordered spin system, critical dynamics of longit. component 2−56882
periodic Gaussian model, helicity modulus, specific heat 2−92936
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
trans-polyacetylene, low field proton spin-lattice relax. meas. 2−93039
quantum XY spin chain, solitons and magnons 2−66797
random antiferromagnetic Ising chain, remanent magnetisation 2−72249
random ferro-antiferromagnet, Heisenberg-Mattis model dynamics 2−92953
relaxational spin glasses, generating functional for dynamics 2−87516
ruby, multiple resonant combination scatt. with spin flip and trapping of phonons *(Russian)* 2−92129
semiconductors, muon states transitions, spin dynamics 2−61808
spin glass, dynamics, hole model 2−66835
spin glass, relaxation dynamics of Edwards-Anderson model and mean field theory 2−92939
spin glasses, calculation of π-rotation minimum 2−104633
spin glasses, dynamics as a treatment of the Almeida-Thouless instability 2−72233
spin glasses, muon$^+$ depolarisation function calc. for dynamical processes 2−93097
spin glasses, muon spin relax. studies of spin dynamics 2−104786
spin glasses, order parameter fluctuations stabilisation 2−66847
spin glasses, static and dynamic props. 2−66846
spin glasses, uniaxial anisotropy, phase diagram 2−104621
spin one-half free induction decay expansion 2−110590
spin orientation phase transition near the Curie temperature *(Russian)* 2−87509
spin relaxation for arbitrary time scale 2−89557
superconductors, inhomogeneous, dynamic mag. susceptibility freq. depend. meas. 2−56777
TCNQ salt, 1-methyl-3′-ethyl-2,2′-quinoselenacyanine-$(TCNQ)_2$, mag. susceptibility, spin dynamics, elec. cond. and EPR study 2−66759
TCNQ salts, disordered, spin dynamics 2−87501
TCNQ salts, triphenylmethylarsonium $(TCNQ)_2$ and $Cs_2(TCNQ)_3$, one-dimensional triplet exciton systems, nucl. relax. 2−66940
theory of magnetism, statics and dynamics, book 2−68978
thymidine, coupled electron-proton spin system, response to external perturbs., ENDOR study 2−77419
TMMC:Cu, high temp. dynamics, effect of impurities, EPR study 2−98944
TMMC, one-dimens., spin dynamics, ESR study 2−72338
$TMMC-d_{12}$, soliton regime, neutron scatt. study 2−56844
$(TMTSF)_2AsF_6$, antiferromagnetism 2−66787
$(TMTSF)_2PF_6$, spin dynamics dimensionality, proton relax. rate meas. 2−110683
$(TTF)-AuS_4C_4(CF_3)_4$, susceptibility and magnetisation 2−66785
two-dimensional Glauber model, Monte Carlo renormalisation study 2−79498
two-dimensional kinetic Ising model, spin conserving, dynamic correls., renormalisation method 2−92949
two-dimensional planar magnet, eqn. of motion of spin vortex 2−66738
valence fluctuation metals, Fermi liquidology and T/T_{sf} scaling 2−56503
valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
Ag-Mn spin glasses, dynamics, muon spin relax. study 2−116106
Au-Fe spin glasses, dynamics, muon spin relax. study 2−116106

spin dynamics continued
CaF_2, nuclear spin diffusion of rare ^{43}Ca spin species 2−92915
CaO, F_2^{2+} defect, hole burning, optical spin-echo spectra 2−104298
$Cd_{1-x}Mn_xTe$, spin-flip Raman scatt. 2−110870
Ce alloys, antiferromagnetic, reduced moment, crit. behaviour 2−66815
Ce-Si, spin fluctuations, mag. susceptibility and sp. ht., paramagnon model 2−115970
$CeAl_2$, volume mismatch substitution, $\gamma \rightarrow \alpha$ transition 2−66197
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
$CePd_3$, electronic struct. from resonant photoemission and optical reflectivity spectra 2−66498
$CePd_3$, volume mismatch substitution, $\gamma \rightarrow \alpha$ transition 2−66197
$CeSb_{1-x}Te_x$, elec. and mag. props. 2−66523
$Ce_{1-x}Sc_xAl_2$, volume collapse and spin fluctuation behaviour 2−55892
$CeSn_3$, spin fluctuation quenching in heat capacity 2−82611
CoF_2, noncollinear state, magneto-optical study *(Russian)* 2−61883
$Co_{1-x}Mn_xF_2$, mag. excitation spectrum rearrangement *(Russian)* 2−61772
CoS_2 single cryst., ferromagnetic and paramagnetic resonance 2−116066
$Co(S_xSe_{1-x})_2$, metamagnetic transition, mag. props. 2−92904
Cr, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$CsCoBr_3$, propagating domain walls, inelastic neutron scatt. study 2−104599
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874
$CsMnF_3$, spin wave interaction with nuclear spin subsystem *(Russian)* 2−61703
$CsNiF_3$, ferromag., transverse spin fluctuations, neutron inelastic scatt. study 2−56836
Cu complex, bis(anilinium) copper tetrachloride, two-dimens. spin diffusion, EPR and ferromag. reson. study 2−77364
Cu-Mn spin glasses, dynamics, muon spin relax. study 2−116106
$ErFe_3H_x$, spin reorientation temp., hyperfine fields, Mossbauer study 2−93082
$ErFeO_3$, HF absorption and mag. phase diagram at low temp. spin reorientation *(Russian)* 2−61710
$ErFeO_3$, spin reorientation, Mossbauer study 2−82756
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
EuO(s), spin dynamics in paramag. state, method of moments 2−98839
Fe complex, $(Fe_xZn_{1-x}(2\text{-pic})_3)Cl_2.EtOH$, high spin⇌low spin transitions, lattice expansion effect 2−87510
Fe_2As, mag. phase diagram, critical behaviour 2−56862
FeF_2:Mn, localised magnon-pair modes 2−72182
$(Fe_{1-x}Mn_x)_2P$, mag. props. 2−61697
$Fe_{40}Ni_{38}Mo_4B_{18}$, Metglass MB 2826, internal stresses and spin texture, Mossbauer study 2−87634
$FePO_4$, anhydrous, mag. phase transition, mag. susceptibility, Mossbauer spectra and neutron diffr. 2−110579
FeSi, mag. susceptibility variation 2−92864
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., field induced 'exchange-flips' 2−66811
Gd, spin reorientation transition, neutron study 2−66771
H, stabilised, atomic, adsorbed on superfluid He, surface spin relax. 2−104116
^3He, BCC, neutron scatt. in paramag. phase, self-consistent phonon theory 2−76773
^3He, liquid, effective mass, energy depend. 2−104099
^3He-^4He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
^3He-^4He solutions, spin polarised, transport phenomena and sound propag. 2−76767
$Hg_{1-x}Mn_xSe$, zero gap, far IR magnetotransmission 2−116159
Ho, coupled spin system in external field, zero energy mode 2−92548
$HoVO_4$, Van Vleck enhanced nucl. antiferromag., collective excitations, effective nucl. Hamiltonian 2−61680
K_2FeF_5, anomalous mag. susceptibility and relax. effects above Neel temp. 2−66783
$LaF_3:Er^{3+}$, mag. field depend. optical dephasing 2−104856
γ-Mn, susceptibility and local moments, temp. depend. in paramag. state 2−104576
MnF_2, intermediate state antiferromagnetic resonance *(Russian)* 2−87599
MnF_2, muon rotation study of critical relax. 2−110740
$Mn_{0.99}Fe_{0.01}As$ alloy, mag. ordered phase stability, mag. field effect *(Ukrainian)* 2−61708
MnO, critical dynamics near Curie temp., US attenuation study 2−98928
NH_4IO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
NH_4ReO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
$(NH_4)_2SO_4$, ^{14}N spin diffusion, proton resonance 2−82733
α,β-O_2, magnetisation under high press. 2−66760
Pd, nuclear mag. relax. and Knight shift meas. 2−66941
Pr, paramagnetic phase, spin fluctuations 2−66764
PrAg, magnetisation and susceptibility meas. 2−116032
Rb_2CrCl_4, linear birefringence and spin correlations 2−93148
$Rb_2CuBr_4.2H_2O$, spin dynamics study 2−66860
$Rb_2CuBr_4.2H_2O$, three-dimensional Heisenberg ferromagnet, spin dynamics 2−98903
β-$Rb_2FeF_5.H_2O$, 1-D antiferromag., cryst. struct., mag. and Mossbauer study 2−92879
Sc, spin fluctuation quenching, specific heat 2−77304
SmB_6, mixed-valent, dynamic mag. response 2−72132
Sn-Nd(Pr)(Ce), liquid, dil., 4f spin dynamics, TDPAD study 2−56992
$TiBe_2$, nearly ferromag., Ti NMR study 2−87609
$TiBe_2$, possibility of p-state superconductivity 2−104524
Tm compounds, valence fluctuations between two mag. configs., mag. props. 2−115716
TmSe, trivalent and intermediate valent, spin dynamics, inelastic neutron scatt. meas. 2−72156
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
$(U_{0.06}Th_{0.94})S$, spin fluctuation temp., press. depend., elec. resist. meas. 2−56827
V, susceptibility and local moments, temp. depend. in paramag. state 2−104576
$Y_{0.33}Fe_{0.67}$ amorphous spin glass, spin dynamics, inelastic neutron scatt. study 2−98892
YIG, Bloch line dynamics *(Russian)* 2−92958

spin echo (EPR)
methyl radicals displacement in X-irrad. lithium acetate dihydrate 2−70300
optically oriented medium, spin echo excitation by means of intensity modulated pumping light 2−59730
phenazine in fluorene crystal, photoexcited triplet state, NQR, electron spin-echo detection 2−102497
polyacetylene, doped, spin and charge excitations, EPR, spin susceptibility and elec. cond. study 2−76943
spin-$^3/_2$ quasi-particles, spin-echo response for interacting pairs calc. 2−93061
tetrachlorobenzene, exciton wave packet width, electron spin echo spectrosc. obs. 2−110619
zeolites, A, X and Y, characterisation of Ag species by EPR and spin echo techniques 2−72339
O_2^- in DMSO-d_6, electron spin-echo modulation, Fourier transform appls. 2−59828

spin echo (NMR)
acetonitrile-d_3 in nematic soln., multiple quantum spin-echo spectra of D relax. 2−77416
amplitudes, low RF field depend. calc. 2−61788
chlorophyll a cations, ^{14}N nuclei, quadrupole coupling parameters determ. by electron spin echo method 2−102494
direct Fourier transform NMR tomography with modified Kumar-Welti-Ernst method 2−73310
domain wall containing nuclear spins, NMR freq. shift and echo 2−104727
electrolyte solns., single ionic drift velocities, NMR meas. 2−71679
ferrite spinel, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625
graphite:F^+, ion implanted, ^{19}F NMR spectroscopy study 2−61773
isotopically enriched compounds, ^{13}C resons. assignment by spin echo FT NMR 2−90576
liquids, spin-1 double quantum coherence detection 2−87623
magnetic thin film, nuclear spin echo in domain walls, pulsed mag. field effects 2−87625
microglobulin, Human β_2, NMR investig. 2−78290
multiple quantam spin-echo linewidths density matrix calc. of D relax. in CD_3 groups 2−77417
multiplicity determ. in ^{13}C NMR 2−89776
multiplicity differentiation, magic angle ^{13}C spin-echo J-modulation study 2−89778
nematic and smectic liquid crystals, translational diffusion consts. from pulsed field gradient double quantum open echo decays 2−60872
NQR, effects of asymmetry parameter for gradient tensor, for nuclei with I=3/2 2−93056
NQR, electrical effects obs. method 2−89761
NQR, Zeeman effect, pulsed spectrometer appl. spin. echo envelope shape 2−93055
nuclear quadrupole echoes, advanced and lagged 2−107361
optically oriented medium, spin echo excitation by means of intensity modulated pumping light 2−59730
oriented AB system, 2-D spin-echo multiple quantum NMR, strong coupling influence 2−87624
oriented systems, 2-dimens. spin-echo spin-echo spectrosc. 2−69219
oscillatory free-induction decay and oscillatory spin echoes 2−86062
polyacetylene:F^+, ion implanted, ^{19}F NMR spectroscopy study 2−61773
powders, nuclei with I=3/2, electric field gradient tensor, asymmetry parameter determ. from NQR spun echo 2−110709
propylene, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
propylene-Kr liquid mixture, self-diffusion and nuclear mag. relax. *(Russian)* 2−86915
proteins, PMR spectra simplification 2−54999
rare earth alloys, RMn_2 (R=Tb, Dy, Er), mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
rare earth-Co alloys, RCo_2, (R=Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Tm), anomalous hyperfine field and orbital moment 2−56973
simple cubic lattice of spin-$^1/_2$ nuclei, spin-echo response calcs. 2−110725
solid, mol. motion by ^2H NMR study 2−87618
spin-$^3/_2$ quasi-particles, spin-echo response for interacting pairs calc. 2−93061
spinning samples, spinning-sideband-free and spinning-sideband-only NMR spectra 2−104739
thermal neutron scatt. technique, neutron spectral modulation 2−103563
two-frequency quadrupole spin echo, detuning effects 2−93057
$BaFe_{12}O_{19}$ and $BaFe_{18}O_{27}$, ^{57}Fe spin echo NMR spectra in domains and domain walls 2−104742
Co textured films, NMR and mag. meas. *(Russian)* 2−98994
$ErCo_2$, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
Fe-As(Ga)(Ir)(Mn)(Nb)(Ru)(V), dil., impurity hyperfine fields, press. and temp. depend. 2−104610
$Fe_{67}Co_{18}B_{14}Si$, metallic glass, atomic site environments, spin echo NMR study 2−72376
FeNiCo films, echo signals in NMR and FMR overlap region 2−104741
$Fe_{3-x}V_xSi$, Mossbauer study of Fe hyperfine fields 2−87635
$GdCo_5H_x$, NMR spin echo study 2−56972
$Gd_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
$Gd_2(Co_{1-x}Mn_x)_{17}$, NMR spin echo study 2−93060
H_2, solid, NMR pulse study, solid echoes and orientational ordering 2−110726
H_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
^3He superfluid, multiple spin echoes 2−98375
^3He, uudd, magnetisation motion in strong mag. field 2−110085
$Ho(Co_{1-x}Ni_x)_2$, mol. moments rapid changes, magnetisation and spin-echo NMR study 2−72167
$KReO_4$, nuclear quadrupole echoes, advanced and lagged 2−107361
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
N_2, solid, NMR pulse study, stimulated echoes and slow rot. motions 2−110727
$^{15}N_2$, HCP, orientational props., NMR study 2−77396
$^{15}N_2$, solid, NMR pulse study, solid echoes and orientational ordering 2−110726
$NaNO_2$, spin echo, coherent multipulse sequences in NQR study 2−110708
Ni-Mn(Pt), dil., impurity hyperfine fields, press. and temp. depend. 2−104610
$NiS_{1.4}Se_{0.6}$, mag. moment distrib., ^{61}Ni NMR study 2−115975

spin echo (NMR) continued
$Pd_2MnSn_xIn_{1-x}$, ferromag. to antiferromag. transition, NMR study 2−104613
$PrCo_2$, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
Rb_2ZnCl_4, incommensurate, NMR lineshape and phase soliton effects 2−56971
Sm_2Co_{17}, NMR study of hyperfine interactions 2−56974
$Tb_{1-x}Dy_xCo_2$, spin orientation, ^{59}Co NMR study 2−66950
$TmCo_2$, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
$YAlO_3:Pr^{3+}$, two-pulse photon echo ENDOR study 2−98997
YCo_2, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
YCo_5H_x, NMR spin echo study 2−56972
$Y_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2−104740
$Y_2(Co_{1-x}Mn_x)_{17}$, NMR spin echo study 2−93060
$Y_2(Co_{1-x}Mn_x)_{17}$, Y transferred hyperfine fields, NMR study 2−66951
$YFeO_3$, NMR intensity in domain walls, spin-echo method, low temp. anomalies 2−87626
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
ZrH_x, proton site occupancy, PMR line shape study 2−116088

spin glasses
see also mictomagnetism
±J model, minimum free energy principle appl. 2−110592
alloys, transverse magnetoresistance study 2−77022
amorphous solids, ferromagnetic and spin glass states 2−116017
anisotropic, metastable states 2−92921
anisotropic Heisenberg spin glass, Parisi solutions 2−98902
anisotropic interactions, atomic short range order 2−104631
annealed system, Gaussian random bond problem in 1/n expansion 2−77298
Baxter-Wu model, random, duality relations and replica method 2−61728
Bethe approx., thermodynamic props. 2−72235
calculation of π-rotation minimum 2−104633
canonical, paramag. transition, Monte Carlo simulation 2−92940
classical spin-glass model 2−104627
critical behaviour in mag. field 2−66834
cube cluster approximation for the spin glass in the simple cubic lattice 2−66850
dilute mag. alloy, antiferromagnetic spin glass transitions 2−82616
disordered magnetic lattice gas, ferromag. and spin glass fluids 2−104629
disordered systems and localisation, conf., Rome, Italy (May 1981) 2−63750
disordered systems and sampling of Monte Carlo data 2−98889
dynamics, hole model 2−66835
dynamics as a treatment of the Almeida-Thouless instability 2−72233
Edwards-Anderson models with short-range interactions, numerical studies 2−66844
exchange stiffness energy, area depend. 2−116025
experimental techniques, review 2−66842
free energy surface of mean-field model, reversibility and irreversibility 2−92922
frustration effects and phase transition 2−66848
Ginzburg-Landau models 2−66845
ground state properties of a spin glass model 2−72244
Heisenberg, Onsager anisotropies 2−104650
Heisenberg, spin resonance frequencies 2−92889
Heisenberg model, magnetisation profiles 2−110600
Heisenberg spin glasses, anisotropy-triad dynamics 2−56883
induced-moment spin glass, generalised Thouless-Anderson-Palmer eqns. 2−92951
infinite range Ising spin-glass, lack of ergodicity 2−101344
Ising, random anisotropy study 2−72228
Ising chains, frustrated, ground-state and low temp. props. 2−61726
Ising model, frustrated, spin glass behaviour with chaotic renormalisation group trajectories 2−61729
Ising model, frustrated, variational real space renormalisation group 2−101336
Ising model, frustrated simple cubic, ground state and phase transition 2−92948
Ising model, infinite-range, TAP eqn., convergence 2−77307
Ising model, order parameter, lower bound 2−72246
Ising model, phase transitions 2−82624
Ising model, random, in d dimens., susceptibility, high-temp. series expansion 2−82623
Ising model, random bond, spin correl. function upper bound 2−56879
Ising model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
Ising model, randomly layered, on square lattice, criticality condition 2−104645
Ising model, site dil. frustrated, stability of spin-glass phases versus space dimensionality 2−72241
Ising model, spin glass of site-random with first and second neighbour interactions, transition temps. 2−110598
Ising model on Cayley tree, mean field eqns. 2−87517
Ising model site diluted, FCC and frustrated square lattice, spin glass and super-antiferromagnetism 2−77313
Ising model study thermodynamic props. 2−98901
Ising spin glass, dynamic nature of freezing process, Monte Carlo simulation 2−61723
Ising spin glass with finite range interactions, Bethe approx. 2−72243
Ising spin-glass model, infinite ranged, bounds for entropy 2−92947
itinerant model, mag. impurity conc. depend., paramag.-spin glass transition 2−82609
light scattering theory 2−72438
long range Ising spin glass, exact results and Monte Carlo simulations 2−110595
magnetic dilute alloy, spin glass behaviour 2−92937
magnetic model with short- and long-range interactions 2−77314
magnetic susceptibility, TAP-like diagrammatic anal., Harris criterion 2−72242
magnetic susceptibility phenomenological theory 2−98894
magnetisation in mag. field at low temp. 2−82617
magnetisation process, hysteresis loops, two spin cluster model anal. 2−56884
magnetoelastic interaction, spin wave and elastic wave damping 2−92917
mean field theory, recent developments 2−116015
mean field theory, validity for spin glasses 2−92919
mean field theory in framework of broken replica symm. for Ising spins 2−66855

spin glasses continued
$muon^+$ depolarisation function calc. for dynamical processes 2−93097
muon spin relax. studies of spin dynamics 2−104786
n-vector model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
n-vector model with random interactions, spin correl. function upper bound 2−56879
order parameter and static susceptibility in mean-field theory 2−72237
order parameter fluctuations stabilisation 2−66847
ordering, equilib. charact. of spin glass-paramagnet transition 2−66862
Parisi's solution of SK model, alternative soln. 2−116014
Parisi solutions for the m-vector spin glass in a field 2−110587
photo-induced, interaction between mag. impurities in strong EM field *(Russian)* 2−61707
random bond model, theory 2−61719
random impurity electric dipole system, low temp. collective props., Ising model *(Russian)* 2−116136
random-band Ising model, entropy, free energy 2−82621
rare earth alloys, amorphous, induced mag., singlet-singlet model 2−104560
relaxation dynamics of Edwards-Anderson model and mean field theory 2−92939
relaxational spin glasses, generating functional for dynamics 2−87516
review of magnetic order in solids 2−110586
review of models 2−71931
RKKY spin glasses, numerical simulation studies 2−116016
semimagnetic semiconductors, mag. props. 2−98898
Sherrington-Kirkpatrick model, phase transition crit. temp. determined 2−98890
spinel spin glasses, mag. phase diagram 2−92912
static and dynamic props. 2−66846
statistical mechanics for system with imperfections, appl. to spin glass model 2−95213
susceptibility in presence of chem. short range order 2−77256
transition metal alloys, ferromagnetism and spin glass ordering 2−72197
transition metal spin glass alloys, origin of anisotropy 2−72211
uniaxial anisotropy, phase diagram 2−104621
unified treatment for different distributions of exchange interaction intensities 2−116018
m-vector spin glass, crit. behaviour for $m=\infty$ 2−98888
vector spin glass, instabilities in mag. field 2−92924
vector spin glasses, internal field distrib. 2−92946
X-Y magnet, random-axes, spin glass phase transition 2−92918
Ag-Fe(16.8 wt.%), mag. double transition, Mossbauer study 2−87503
Ag-Mn, dil., spin glass, temp. depend. of order parameter 2−72214
Ag-Mn, dynamics, muon spin relax. study 2−116106
Ag-Mn, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Ag-Mn, spin glass, equilib. magnetisation meas., comparison with mean field theory 2−66843
Ag-Mn, spin glass, muon spin relax. studies 2−72395
Ag-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Ag-Mn (10.6 at.%), spin glass, mean field description, comparison of theory and expt. 2−72213
Ag-Mn spin glass, freq. and field depend. of AC susceptibility 2−61721
Ag-Mn spin glasses, H-T phase diagram 2−98895
Ag-Mn spin glasses, time and field depend. of magnetisation 2−72216
Al_2O_3-Ho_2O_3-SiO_2, amorphous, EPR, optically detected EPR, and MCD meas., spin glass props. 2−56924
Au-Fe, dynamics, muon spin relax. study 2−116106
Au-Fe, spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
Au-Fe, spin glass alloy, vol. and shape magnetostriction 2−104674
Au-Fe spin glasses, at. short-range order, X-ray determ. 2−92941
Au-Fe spin glasses, time and field depend. of magnetisation 2−72216
$Au-Fe_1$ spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
Au-Mn, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
$(Au_{1-x}Cu_x)$ Mn spin glass alloys, low-field magnetoresist. 2−82323
$CdCr_{2x}In_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$CdIn_{0.4}Cr_{1.6}S_4$, microwave mag. reson. study, 4.2 to 300K 2−66908
CdMn, hexagonal, spin glass behaviour 2−66861
$Cd_{1-x}Mn_xTe$, 'antiferromag. phase', neutron scatt. studies 2−92868
$Cd_{1-x}Mn_xTe$, semimagnetic, Raman scatt. by phonons and magnons 2−77531
$Cd_{1-x}Mn_xTe$, spin glass versus antiferromagnetic clustering 2−82613
$Cd_{1-x}Mn_xTe(Se)$, EPR and mag. susceptibility 2−98954
CdTe:Mn, photo-induced spin glass 2−87513
Co-Cr, mag. behaviour above crit. conc. for ferromag. 2−72204
$CsNiFeF_6$, spin glass props. 2−87515
Cu-Co(Fe)(Mn) alloys, spin glass state form. investig. *(Russian)* 2−56875
Cu-Fe(Mn), elec resist., Hall effect, mag. susceptibility, and EPR meas. *(Russian)* 2−82602
Cu-Mn, dynamics, muon spin relax. study 2−116106
Cu-Mn, magnetisation saturation in high mag. fields, effect of RKKY interaction 2−82645
cu-Mn, spin glass, AC susceptibility, Mossbauer and anomalous Hall effect, mag. hysteresis, review 2−56866
Cu-Mn, spin glass alloy, vol. and shape magnetostriction 2−104674
Cu-Mn (10 at.%), lattice location of Mn 2−71489
Cu-Mn spin glass, LF ESR, lineshape and temp. depend. 2−104692
Cu-Mn spin glass, magnetocaloric study of (H, T) phase diagram 2−56869
Cu-Mn spin glass, remanent magnetisation reversal, mag. domain walls obs. 2−98893
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
Cu-Mn spin glasses, spin struct., neutron polarisation anal. 2−110593
Cu-Mn(-Au) spin glass, anisotropy energy at $T<T_g$ transverse susceptibility study 2−66829
$xCuCr_2S_4$-$(1-x)Ga_{0.67}Cr_2S_4$ ($0\leq x\leq 0.4$) semiconducting spinel, spin-glass state 2−66840
CuMn spin glass, magnetisation, calorimetric determ. rel. to Maxwell relation 2−92926
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92927
CuMn spin glass, magnetisation, calorimetric determ., rel. to Maxwell relation 2−92928
$Cu_2MnIn(Al)(Sn)$ films, struct., mag. and transport props. 2−60889
Dy-Sc, spin glass and antiferromag. transitions, bulk magnetisation study 2−72222

spin glasses continued
$Eu_{1-x}Gd_xS$ spin glass, mag. relax., Mossbauer study 2−66833
$Eu_{0.54}Sr_{0.46}S$, ferromag. and spin glass states, magneto-optical rot. and microscopy study 2−72458
$Eu_xSr_{1-x}S$, dil. Heisenberg system, with competing interactions, mag. ordering 2−72212
$(Eu_xSr_{1-x})S$, dilute, possibility of dipolar spin glass 2−66837
$Eu_xSr_{1-x}S$, spin glass transition, AC susceptibility freq. depend. study 2−72221
Fe-Cr alloys, existence of spin glass region 2−66830
Fe-Mn, amorphous, ferromagnet-spin glass transition, ESR linewidth meas. 2−77305
Fe-Mn-P-B-Al alloys, amorphous, evidence for spin-glass phase transition 2−72218
Fe-Ni-B-Si amorphous alloys, spin glass, mag. viscosity 2−72217
γ-Fe-Ni-Cr, spin glass state characts. near crit. conc. *(Russian)* 2−98886
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
Fe_xB_{1-x} amorphous films, spin glass behaviour and non-ergodicity, FMR study 2−98897
$Fe_{0.16}Cr_{0.84}$, spin glass, mag. relax. meas. 2−110589
$(Fe_xM_{1-x})_{75}P_{16}B_6Al_3$, (M=Ni, Mn), amorphous, mag. props. meas. 2−92880
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, irreversible response study 2−104594
$(Fe_{0.64}Mn_{0.36})_{75}P_{16}B_6Al_3$, spin glass, temp.-field phase diagram 2−104619
$(Fe_{1-x}Mn_x)_{75}P_{16}B_6Al_3$, amorphous, spin correls. near ferromag.-spin glass crossover point 2−77268
$Fe_{65}Ni_{25}Cr_{10}$, spin glass, magnetic viscosity obs. *(Russian)* 2−72230
$γ-Fe_{82-c}Ni_cCr_{18}$, transport and galvanomag. props. near crit. comp., 4.2 to 300K *(Russian)* 2−61444
$Fe_{55}(Ni_{0.74}Mn_{0.26})_{35}$, effect of external field on spin glass behaviour 2−61716
$Fe_xNi_{80-y}P_{14}B_6$ amorphous alloys, ferromag.-spin glass transition, ferromag. resonance study 2−110648
$Fe_xNi_{80-y}P_{14}B_6$, ESR study in reentrant phase 2−72331
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
$Fe_4Ni_{74}Si_8B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
$FeO-Al_2O_3-SiO_2$, amorphous, spin glass, mag. behaviour 2−72226
$Fe_xPd_{82-x}Si_{18}$, amorphous, spin glass-ferromag. transitions and crit. lines, magnetisation meas. 2−77302
$Fe_{90}Zr_{10}$, amorphous, sp. ht., suceptibility, resist. 2−72224
GdAl, spin glass, nonlinear susceptibility 2−72215
$Gd_{0.37}Al_{0.63}$, amorphous, spin glass props. 2−72271
$Gd_{0.37}Al_{0.63}$ amorphous spin glass, mag. props. 2−92933
$Hg_{1-x}Mn_xTe$, spin glass transition and Hall coeff. anomalous temp. depend. *(Russian)* 2−82610
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
MgMn, hexagonal, spin glass behaviour 2−66861
Mn spin systems, cooperative phenomena at low temps. 2−92956
MnCu, spin glass, nonlinear susceptibility 2−72215
Ni-Mn, disordered alloy, spin glass-ferromag. transition, magnetisation study 2−72223
Ni-Mn, spin glass alloy, effective anisotropy field, EPR study 2−72333
Ni_xMn_{1-x}, magnetic phase diagram, coexistence of spin glass and ferromag. phase 2−92938
Pd-Mn, ferromagnetic-spin glass transition, elec. resist. study *(Russian)* 2−82601
Pd-Mn, intermediate conc., mag. phase diagram, AC susceptibility study 2−72199
$Pd_{77.5-x}Cu_6Si_{16.5}Fe_x$, amorphous, elec. and mag. props. 2−72169
$(Pd_{1-x}M_x)H$, M=Cr, Mn, Fe, mag. and supercond. ordering 2−98845
$Pd_2MnSn_xIn_{1-x}$, ferromag. to antiferromag. transition, NMR study 2−104613
Pr_3S_4:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2−72195
Pr_3Tl:Gd, ferromagnet, dil. Gd moments, press. depend., magnetisation 2−72195
Pt-Mn, spin glass, sp. ht. meas., 0.5 to 20K 2−98887
$Rb_2Mn_{1-x}Cr_xCl_4$ spin glass, thermoremanent magnetisation 2−110607
$Rb_2Mn_xCr_{1-x}Cl_4$, insulating spin glass, mag. reson. study 2−56868
$(Sb_2S_3)_x(SbI_3)_yFe_z$, glassy semicond., spin glass like behaviour 2−56871
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
Th-Gd spin glasses, time and field depend. of magnetisation 2−72216
$ThF_4-BaF_2-MnF_2$, spin glasses, AC susceptibility, local anisotropy 2−92876
$Th_{6-x}Y_xMn_{23}$ hydrides, mag. props. 2−87512
$(Ti_{0.9}V_{0.1})_2O_3$, nonlinear susceptibility, field depend. 2−66831
Y-Fe, amorphous, mag. props. due to 3d magnetism 2−72269
$Y_{0.33}Fe_{0.67}$ amorphous spin glass, spin dynamics, inelastic neutron scatt. study 2−98892
$YMn_{2-2c}Co_{2c}$, mag. order occurrence, comp. depend. 2−82646
$ZnCr_{2x}Al_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$ZnF_2-BaF_2-DyF_3(HoF_3)$, spin glasses, AC susceptibility, local anisotropy 2−92876
ZnMn, dilute mag. alloy, spin glass behaviour 2−92937
ZnMn, hexagonal, spin glass behaviour 2−66861
$Zr(Fe_{1-x}Al_x)_2$, ferromag., mag. props., conversion to superparamagnet and spin glass on H_2 absorption 2−92965
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2−98853,

spin Hamiltonians
alkali chlorides, Mn^{2+} spin-Hamiltonian param. anal. 2−87196
Anderson model, one dimensional periodic Hamiltonian, finite cell calcs. 2−66407
coupled doublet triplet system spin Hamiltonian and ESR spectra 2−87573
electron gas, spin-charge coupling, spin Hamiltonians, phenomenological model 2−82555
EPR, spin Hamiltonian, orthorhombic HF and g tensors 2−70297
excited S′=0 states in anisotropic antiferromagnetic Heisenberg Hamiltonian 2−66748
ground state feature for isotropic Heisenberg spin Hamiltonian 2−110558
Heisenberg ferromagnet, semi-invariants of second-rank Racah operators 2−66746
Heisenberg ferromagnet, semifinite, localized impurity states 2−66747
Ising-Heisenberg chain at low temps., mag. excitations 2−115986
magnesium acetate tetrahydrate:Co^{2+}, EPR spectra 2−61757

spin Hamiltonians continued
metamagnetism, spontaneous, new spin Hamiltonian for microphysical two-sublattice model 2−56858
mixed valence system with two mag. configurations, mag. props. 2−56810
nickel diglycine dihydrate, antiferromag., sp. ht. meas., 0.5 to 10K 2−77294
potassium hydrogen maleate:Cu^{2+}, EPR and optical absorpt. spectra, spin Hamiltonian parameters 2−98948
$R_2(SO_4)_3$:Gd^{3+}.$8H_2O$ 2−72340
$R(NO_3)_3$:Gd^{3+}.$6H_2O$, EPR spectra, host-lattice effects meas. 2−72340
rare earth trichloride hexahydrates:Gd^{3+}, spin-Hamiltonian parameter superposition model anal. 2−98600
RCl_3:Gd^{3+}.bH_2O, EPR spectra, host-lattice effects meas. 2−72340
spin-lattice coefficients, for s-state ($4f^7$) ions 2−98830
tris(sarcosine) calcium bromide:Cu^{2+} hyperfine spectra, ESR study 2−61754
Z_3 symmetric spin system, non-universality 2−107513
$(Al,Cr)_2BeO_4$, laser-quality alexandrite, Cr^{3+} EPR spectrum and anti-phase boundaries obs. 2−87583
$AlPO_4$:V^{4+}, X-band ESR spectrum, spin Hamiltonian parameters 2−56917
BiI_3:Gd, ESR and photoluminesc. spectra 2−93000
$CdK_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$Cd(NH_4)_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755
Cu complex, $Cu(2,5\text{-diphenyloxazole})_2(ClO_4)_2.4H_2O$ ground state wavefunction and EPR 2−82702
Fe(III) compounds, high spin, X-band EPR spectra in rhombic ligand fields, computer simulation 2−87582
^3He, solid, mag. props., review 2−115488
$HfSiO_4$:Nd^{3+}(Yb^{3+}), EPR study 2−72341
$HoVO_4$, Van Vleck enhanced nucl. antiferromag., collective excitations, effective nucl. Hamiltonian 2−61680
KCl:Ga^0(In^0), hyperfine consts., relativistic many body calc. 2−104327
$KSc(MoO_4)_2$:Cr monocrystals, ferroelastic phase transitions, Cr^{3+} EPR 2−115404
$Na_5Al_3F_{14}$:Fe^{3+}, superposition model for cryst. field parameters, EPR study 2−110632
NbP_5O_{14}:Gd^{3+}, monoclinic-orthorhombic ferroelastic transition, EPR study 2−61763
PO_4^{4-}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
$PrVO_4$:Gd^{3+}, ESR spectrum, temp. depend. 77 to 300K 2−66913
$RCl_3.6H_2O$:Gd^{3+}, (R=Nd,Sm,Eu,Tb,Dy,Ho,Er,Tm), cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
SbI_3:Gd, ESR and photoluminesc. spectra 2−93000
SmB_6:Eu^{2+}, local cryst. fields, EPR study 2−92999
$SmVO_4$, ratio of nucl. elec. quadrupole moments of ^{50}V and ^{51}V, NMR meas. 2−77411
ThOS:Gd^{3+}, spin Hamiltonian parameters, superposition model anal. 2−92850
ThS_2:Gd^{3+}, spin Hamiltonian parameters, superposition model anal. 2−92850
Tl^{2+}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
YIG:Si(Ge), magnetocrystalline anisotropy of Fe^{2+} at zero temp. 2−56848
$ZnRb_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$ZrSiO_4$:Nd^{3+}(Yb^{3+}), EPR study 2−72341

spin-lattice relaxation
see also electron spin-lattice relaxation; nuclear spin-lattice relaxation
Anderson impurities, pair of interacting, Fermi liq. relations 2−56491
biomedical NMR imager, Aberdeen, calibration for proton spin-lattice relax. time meas. 2−100088
blood, relax. time for healthy subjects and for patients with malignant blood disease 2−94155
malignant and healthy tissue, improved characterisation by NMR lineshape relax. correls. 2−93990
proteins, dipolar NMR relaxation of nonprotonated axomatic C, struct. and dynamical effects 2−99896
tissue NMR relaxation times, rel. to local inflammatory response, rat and rabbit expts. 2−83550
$β-Al_2O_3-Li_2O$, Li^+ distrib. and motion, NMR and Raman study 2−66284

spin-orbit interactions
achiral chromophore, singlet-triplet transition, circular dichroism generation 2−75334
acridine, heteroatom n-electrons effects on optical props. 2−113907
alkali metal halides 2−82297
aniline, heteroatom n-electrons effects on optical props. 2−113907
anisotropic superconds., spin-orbit effects on transition temperature 2−72108
asymmetric top mols., spin vibronic transition moments and phases of spin-orbit matrix elements 2−80732
atom, two-photon-induced spin-orbit transitions 2−64924
atomic electron impact excitation, quantum beats, spin-orbit coupling, electron-photon ang. correls. 2−114109
atomic spin orbit coupling consts. calc. using universal systematic sequence of even tempered exponential type basis set 2−54742
atomic states, spin-orbit contribution to isotope, isomer shifts *(Russian)* 2−96480
atoms, optically pumped, spin relax. at surfaces, mech. torque generation 2−62021
atoms, spin-orbit splitting, correl. and relativistic effects 2−70151
atoms and ions, non-relativistic energies from relativistic radial integrals 2−102417
chemisorption, localized spin-orbital theory 2−56339
crystals with diamond and sphalerite structs., valence bands, spin-orbit interaction 2−76898
cubic symmetry systems, Jahn-Teller effect, linear ^4T-e-τ_2 problem 2−96474
degenerate semiconductor, p-type, Auger recomb. process, four-band Kane model 2−115782
diatomic mol. $^2\Pi$ electronic state, rot. inelastic collisions with structureless target 2−96685
diatomic molecules, centrifugal corrections of spin interactions 2−80570
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
distorted wave Born approx., symmetry props., coherence parameters effects 2−114061

spin-orbit interactions continued
electron conductivity in random potential, supersymmetry in localisation theory *(Russian)* 2−58758
external heavy atom effect, role of spin-orbit coupling 2−54781
F-centre luminescence, effect of spin-orbit coupling on temp. depend. of mag. circular polarisation 2−87861
formaldehyde, π^*-n phosphoresc., spin-orbit interaction 2−80713
free radical complexes, interacting mol. orbitals and mag. reson. 2−80681
heavy atoms, electron excitation, light emission, integrated state multipoles 2−54968
heavy element materials, electronic press., self consistent relativistic LMTO calcs. 2−92499
8-hydroxyquinoline, heteroatom n-electrons effects on optical props. 2−113907
II-VI semiconductors, optical props. of 3d transition metals 2−110286
inert gas monohalides, mol. ground state spin-orbit splitting 2−102405
Knight shift, spin-orbit and many-body effects 2−72366
liquid metals, spin-orbit coupling and Hall coeff. 2−66530
magnetic dilute alloy, spin glass behaviour 2−92937
magnetic susceptibility of interacting electrons in solids, many-body theory 2−115962
metallic thin films, anomalous magnetoresistance anal. 2−77205
metals, weak anti-localisation in presence of spin-orbit coupling 2−92601
methane, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
methoxy radical, ^{2}E state, spin-orbit coupling const. meas. 2−59692
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
methyl iodide, absorpt. spectrum in extreme VUV region 2−75304
methyl iodide ions, photopredissoc. fragments, ang. distrib. 2−96655
molecules and mol. ions, spin-orbit coupling consts., ab initio calc. using universal even tempered basis set of exponential functions 2−96415
naphthalene clusters, triplet states, phosphoresc. lineshape anal. using spin-spin and spin-orbit interactions 2−96615
noble metal-rare earth alloys, dil., magnetotransport and EPR props. 2−104355
noble metals with rare earth impurities, magnetotransport and EPR props. 2−66528
nucleon magnetic moment, spin orbit term in gluon exchange QCD pot. 2−79835
optically active molecules, electron scatt. 2−80772
pion-nucleon σ commutator, spin-orbit interaction, QCD calc. *(Russian)* 2−95770
pyridine, heteroatom n-electrons effects on optical props. 2−113907
quinoline, heteroatom n-electrons effects on optical props. 2−113907
rare earth alloys, RCo_2, C15 type, ^{59}Co NMR study, hyperfine field anisotropy 2−66934
relativistic center of mass and spin-orbit interaction 2−96476
semiconductor, anomalous Hall effect, under uniaxial stress, theory 2−66575
semiconductors, optical absorption by bound excitons, exchange and spin-orbit effects 2−110263
superexchange with orbital degeneracy and spin-orbit interactions effective tensor Hamiltonian for chain SU2→O* 2−56531
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
transition metals, electronic struct. and soft X-ray emission spectra 2−76911
tris(sarcosine) calcium bromide:Cu^{2+} hyperfine spectra, ESR study 2−61754
TTF-TCNQ, ESR line broadening and interstack spin-orbit coupling 2−92992
TTF-TCNQ, interstack spin-orbit coupling and ESR line broadening 2−116056
two-dimensional system, disordered, mutual interactions in weakly localised regime, spin-orbit scatt. 2−66511
xanthone, in matrices, phosphoresc. spectra, vibronic coupling 2−80706
xanthone, in n-hexane matrix, phosphoresc., optical detect. of sublevel splitting 2−80705
xanthone triplet state in-pentane, multiple emission from single site 2−75341
(p,p), 800 MeV, polarisation, spin effects and Coulomb interaction 2−64411
ASN, $a^3\Pi$ and $A'\Pi$ states of $(\sigma\pi^*)$ config., rot. anal. 2−96534
Ag film, cond. electrons inelastic lifetime, magneto-conductance meas. 2−110494
AlSb, interband transition energies, spin-orbit effects, electroreflectance study 2−104849
Ar II dense plasma, emission rays displacement *(French)* 2−91599
Ar monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
$Ar^+ + N_2(CO)$, charge transfer, spin-orbit states, threshold electron-secondary ion coincidence study 2−96715
Au film, cond. electrons inelastic lifetime, magneto-conductance meas. 2−110494
Au surfaces, photoemission, electron spin polarisation, FCC interpolation scheme calc. 2−99302
Be-like ions, spin-orbit elec. dipole transitions 2−96497
$Bi_{1-x}Sb_x$ alloy, electron Fermi surface comp. depend., magnetoplasma wave study 2−76899
CCN radical, Doppler limited dye laser excitation spectroscopy, spin-orbit and spin-rot. coupling const. 2−108538
CH_3F^+, ^{2}E state, spin-orbit coupling const. meas. 2−59692
CO^+, electronic states, spin-rot. coupling, RKR pot., deperturbation anal. 2−85624
CaO, sub-Doppler spectrum, rot. anal. and deperturbation 2−64996
CaO:Cr, APR study, Jahn-Teller effect 2−66899
CdD, arc emission spectrum, $A^2\Pi$-$X^2\Sigma^+$ system, rot. anal., spin splitting, vibr. and rot. depend. 2−64994
$CoCr_2S_4$:Fe^{2+}, impurity Jahn-Teller effect, phase transition, mol. field theory 2−61418
Cr, X-ray K series emission spectra 2−57216
Cr^{3+} pairs, interacting mag. ions, D_{3h} symmetry 2−98874
$Cs_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
Cu (110), photoemission spectra, relativistic dipole selection rules 2−72602
Cu film, cond. electrons inelastic lifetime, magneto-conductance meas. 2−110494
Cu films, elec. cond. localisation effects and negative magnetoresist. obs. 2−82476
Cu halides, spin-orbit splitting, volume, depend. 2−104322
Cu, resonant satellite photoemission, super-Coster-Kronig decay 2−102443
Cu-Co(Fe)(Mn) alloys, spin glass state form. investig. *(Russian)* 2−56875
Cu-Cr(-Fe), (-Mn), dilute alloys, ionic model, energy level splitting, NMR study 2−66932
Cu-Mn spin glass alloys, origin of anisotropy 2−72211
$CuGaSnSe_4$ energy gap values, temp. var., optical refl. study 2−56438
$CuInSe_2$, thin film, prep. by RF sputtering, optical props. 2−110962
CuO, $^2\Pi$ ground state, centrifugal distortion in spin-orbit coupling 2−64956
$DyVO_4$, mag. relax. study 2−98989
$EuCu_2Si_2$, valence fluctuation study by 3d core level XPS 2−57269
F, hyperfine components of spin-orbit splitting, direct absorpt. meas. 2−80518
$FeCr_2S_4$, cooperative Jahn-Teller effect, phase transition, mol. field theory 2−61418
Fe_3O_4, magnetite, mag., elec., and crystallographic props., low temp. anomalies 2−82586
FeZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
GaAs:Cr, optical absorpt. spectroscopy on Cr-related defects 2−57129
GaP, indirect gap absorpt., invariants method appl. 2−77474
GaP:Cr, optical absorpt. spectroscopy on Cr-related defects 2−57129
GaP:Cu, photoluminescence, excitons 2−116249
GeO, low lying electronic states, vibrational numbering determ. from isotope shifts 2−64850
$Ge_{1-x}Si_x$, spin-orbit splitting, electrorefl. study 2−116155
H_2, spin orbit coupling consts. as function of internuclear distance, CI and STO calcs. 2−108401
H_2O, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
He-like multicharged ions, self-ionisation states, intermediate-coupling approx. 2−75152
$HeNe^+$, spin splitting, spin-orbit coupling, SCF calcs. 2−96442
Hg, photoelectron polarisation in subshell ionisation with unpolarised light, Fano effect 2−54819
Hg, photoemission of high ang. momentum electrons, relativistic and pot. barrier effects, exchange terms 2−113951
$Hg_{1-x}Cd_xTe$, bandgap spin-orbit splitting resonance 2−115719
$Hg_{1-x}Cd_xTe$, electronic struct., localised orbital calc. 2−87139
HgSe, far IR magnetotransmission, cyclotron and spin-flip resons. 2−57066
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2−102401
KBr:Ti^+-type phosphors, quadratic Jahn-Teller effect in line shapes of A-emission and A-absorpt. bands 2−87825
KCl:Pb^{2+}, EPR study 2−56930
$K_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
KI:Sn^{2+}, spectral line shape, visible-UV study 2−72524
$K_4(Pt_2H_8P_8O_{20}).2H_2O$, electronic spectra 2−65035
K_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
Kr, $4s4p^65p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203
Kr monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
Mg film, with Au submonolayers, spin-orbit coupling effect on weak localisation, magnetocond. meas. 2−66495
MgHe system, ab initio CI pot. energy curves 2−80765
MgMn, dilute mag. alloy, spin glass behaviour 2−92937
NH_3, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
NO, multistate vibronic coupling oscillator strengths, rot. and vibr. struct. 2−80566
NO+NO(N_2)(SF_6)(CO)(Ar)(He), rot. and spin-orbit transitions, IR-UV double reson. 2−75382
NO_2, rot. anal. of 13200 and 13400 cm^{-1} bands by Fourier transform spectroscopy 2−113975
Na, X-ray absorption edge spectra, spin-orbit and exchange effects 2−105001
NaH, photodissociation, fine struct., ang. distrib., quantum mech. calcs. 2−108646
NaI, resonance Raman scatt. induced by F-centres, electron-phonon coupling 2−87788
$Nd_2(SO_4)_3 8H_2O$ complexes in soln., optical absorpt. spectra 2−70270
Ne, electron impact excitation, electron-photon ang. correls. 2−75445
Ni and Ni-Cr (5 at.%), ferromag., optical props., temp. depend. *(Russian)* 2−61923
Ni_3Al, de Haas-van Alphen effect and band struct. 2−66422
NiZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
$NpO_2Cl_4^{2-}$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
$NpO_2(NO_3)_3^-$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
O_2^{2+}, ground and excited states, pot. energy curves, predissociation, MRD-CI calcs. 2−96662
OH, $X^2\Pi$ state, vibr. rot. emission bands, rot. anal. 2−54827
PH_2^-, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_3, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PH_4^+, nuclear spin coupling anisotropy, spin-orbit effects ab initio calcs. 2−96596
PbTe, Knight shift spin-orbit and many-body effects 2−72366
Pd_2MnSn, elec. and mag. props. 2−66522
$PrCl_3$ complexes in soln., optical absorption spectrum, cryst. field parameters 2−116205
rare earth-Co alloys, RCo_2, (R=Pr, Er, Tm), ^{59}Co Knight shift anisotropy, spin echo study 2−110668
$Rb_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
Rb_2SnCl_6:Os(IV), power luminesc. spectra and electronic levels 2−77585
Rh, dielec. function, empirical band calc. 2−66435
SeD radical, vibr.-rot. spectrum studied by laser mag. reson., fine struct., spin-orbit splitting 2−65023
Si, anomalous magnetoresistance in two-dimensional hole gas *(Russian)* 2−72012
Si, indirect gap absorpt., invariants method appl. 2−77474
Si_4 valence electron calcs. using effective core pot. 2−96411
Si^{9+}, electron impact excitation cross sections determ., fine struct. transitions, oscillator strengths 2−65094
Si:Ga(In), impurity IR excited-state lines 2−82883
Si:S^+(Se^+)(Te^+), multivalley spin splitting of $1s(T_2)$ states 2−77000
Sn superconducting small particles, NMR study 2−66712

spin-orbit interactions continued
Te, anisotropic semicond., band shapes, effect of relativistic operators 2−92459
$ThCl_4$:Pa^{4+}, absorpt. and emission spectra, spin-orbit and crystal field parameters 2−99158
TlH, mol. struct., relativistic ab initio CI calcs. 2−85562
VO, higher multiplicity Σ electronic states, spin-orbit distortion, hyperfine struct. 2−80418
VO, rot. struct., spin-orbit coupling, Fourier transform IR obs. 2−75262
Xe, $5s5p^6 6p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203
ZnMn, dilute mag. alloy, spin glass behaviour 2−92937
Zn_3P_2, AC photocond., spectral response 2−77109
p-$ZnSnP_2$ Schottky diodes, current-voltage characts., photosensitivity and recomb. radiation spectra 2−115863

spin-phonon interactions
see also spin-lattice relaxation
antiferromagnet, nuclear spin relax. at ultralow temps. 2−72372
halides, layered, intercalation with organic cpds., NQR investig. 2−110717
leucosapphire, ^{27}Al quadrupole and hexadecapole transitions, ANMR 2−110659
magnetic resonance linewidth, indirect interaction of effective spins via a phonon field 2−104682
magnetically ordered crysts., phonon and spin wave hybridization *(Russian)* 2−77278
Mossbauer line shape in presence of spin-phonon relax. effects 2−56995
nuclear spin-system with non-equidistant spectrum acoustic pulses effect 2−110660
one-dimensional Heisenberg antiferromagnet, antiferromag.-spin Peierls state phase diagram calc. 2−87469
one-dimensional solids, structurally unstable, Peierls and spin Peierls transitions 2−98632
pseudospin-phonon system, isolated and isothermal susceptibilities 2−93120
Raman spin lattice relax. applied to S-electron ions, Kramers doublets with hyperfine interaction 2−61751
spectral diffusion during RF saturation 2−66895
TCNQ salt, DBTTF-TCNQF4 charge transfer salt, struct. high temp. phase transition obs. 2−109778
transition metal $(3d)^n$ ions, sp. ht. contrib. from spin-phonon interaction 2−92232
Ag-rare earth ⟨001⟩ and ⟨111⟩, dil., orbit-lattice coupling parameters, magnetostriction meas. 2−72327
Al_2O_3:Cr^{3+}, multiple reson. spin-phonon Raman scatt. by acoustic phonons in mag. field 2−116198
$CaWO_4$:Ho^{3+}, NMR study of EM and sound energy absorpt. *(Russian)* 2−61778
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
$Cs_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
GaP:Fe^{3+}, tetrahedral paramag. complex, distortions effects, ESR study 2−110633
^3He, solid, magnetic phase transition, mag. ground state 2−76771
InP, (n, γ)-induced point defects, NMR study 2−98980
InSb, (n, γ)-induced point defects, NMR study 2−98980
$K_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
KH_2PO_4, soft mode, proton-lattice interaction 2−98222
KH_2PO_4:$NH_4H_2PO_4$, soft mode spectra and ferroelec. phase transition 2−57029
$Rb_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$TbVO_4$, collective mode damping near struct. phase transition 2−109944
ZnS:Cr^+, cubic, ESR spectrum, press. influence 2−66909

spin polarised electron emission
electron spectrometer for spin-polarized angle- and energy-resolved photoemission from ferromagnets 2−101501
Heisenberg ferromagnet, surface magnetisation profile and low energy spin polarised inelastic electron scatt. 2−104661
Ag (110) and (111), polarisation depend. photoemission, dipole selection rules 2−72601
$Al_xGa_{1-x}As$, MBE layers, spin polarised photoelectron emission meas. 2−93365
Au (110), electron spin polarisation in photoemission calc. 2−57259
Au (110) and (111), electron spin polarisation in photoemission 2−105043
Au (111), spin polarised photoemission, band struct., workfunction effects 2−99301
Au, secondary electron spin polarisation meas., scatt. mech. study 2−116307
Au, spin-exchange collisions of electrons, secondary electron emission expt. 2−87922
Au surfaces, photoemission, electron spin polarisation, FCC interpolation scheme calc. 2−99302
Cr (100) surface, nonreconstructed, O induced magnetism 2−56833
Cs, source of spin-polarised slow electrons based on Fano effect 2−79711
Cu (110) and (111), polarisation depend. photoemission, dipole selection rules 2−72601
$Fe_{81.5}B_{14.5}Si_4$ glass, spin and energy analysed secondary electron emission 2−87921
Ge, photoelectron spin depolarisation during photoemission due to paramag. Gd atoms 2−111029
$Ni_{1-x}Fe_x$ (100), spin-dependent density of states, spin-polarised photoemission meas. 2−83004
$Ni_{40}Fe_{40}B_{20}$, amorphous, spin-depend. elastic electron scatt. 2−116311
W (001), energy-, angle-, and spin resolved photoemission by unpolarised light 2−99300

spin polarised electron phenomena *see electron spin polarisation*

spin-spin nuclear coupling in molecules *see molecular nuclear coupling*

spin-spin relaxation
acetonitrile partially oriented by nematic liq. crystals, ^{13}C-^{13}C and ^{13}C-^{15}N coupling const. anisotropies 2−102506
2-adamantanone, mol. motions, NMR study 2−56960
alkyl chain conformations in a micellar system from the nuclear spin relaxation enhanced by paramagnetic ions 2−75311
5′-AMP, transverse relax., proton decoupling effects 2−80670
Anderson mixed valence impurity, static and dynamic susceptibility 2−76990
antiferromagnet, nuclear spin relax. at ultralow temps. 2−72372
$^{137}BaCl_2.2H_2O$, NQR freq. and apparent spin-spin relax. times, coherent mode obs. 2−108558

spin-spin relaxation continued
CCV HF, NMR spin-spin coupling, ab initio calc. 2−102495
^{35}Cl-containing mols., spin-spin relax., reson. freqs., temp. depend. meas. 2−108557
crystals near phase transition points, nucl. mag. relax. 2−110677
cyclobutadiene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
diatomic molecules, centrifugal corrections of spin interactions 2−80570
DNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
dodecyltrimethylammonium chloride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2−82740
electron transfer reactions, nucl. mag. relax. obs. 2−93772
EPR, spectral diffusion in presence of spin-phonon coupling during RF saturation 2−66895
ethylene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
ferroelectric, EPR line broadening, elec. dipole-dipole interaction, spin-spin relax. 2−77360
hexadecyltrimethylammonium fluoride-H_2O, phase equilibria studied by ^2H, ^{14}N and ^{19}F NMR 2−81958
hexadecyltrimethylammonium fluoride-water, mol. motion and struct., ^{14}N spin-lattice and spin-spin relax. times 2−82740
hexamethylenetetramine, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
impurity ion, relax. to cond. electron bath, method of moments 2−110618
internuclei magnetic interactions, anisotropy in condensed matter, review 2−110314
ionic solids, wide-line NMR and relax. processes, review 2−116072
kinetics, multiple pulse FT NMR investig. method 2−89769
lanthanide shift reagents, nonlabile coordinated chelate proton spin relax. 2−59823
low dimensional magnets, NMR, review *(Japanese)* 2−82734
magnetic resonance linewidth, indirect interaction of effective spins via a phonon field 2−104682
malignant and healthy tissue, improved characterisation by NMR line-shape relax. correls. 2−93990
malonic acid in soln., dynamic props. from spin relax. of ^{13}C labeled methylene group 2−54872
methane, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
4-methoxy analine, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
microscopic model, dissipative Schrodinger-like evolution eqns. 2−59820
molecular solids, wide-line NMR and relax. processes, review 2−116072
monochloroacetic acid, spin-spin relax., phase transitions, NQR study 2−110710
naphthalene in dihalobenzenes, coherence in phosphoresc. triplet state, pulse ODMR study 2−104748
NMR spectrometer, video pulse signal simulator with specified envelope form 2−69214
NQR spectrometer as a device for meas. T_2* 2−107365
NQR spin-spin reservoir relax. 2−110679
one-dimensional spin dynamics, delocalisation effect 2−98939
poly(N-hexyl-4-vinylpyridinium)bromide, ^{13}C spin relax. time, Monte Carlo method 2−75477
polyacetylene, pristine and I(AsF_5) doped, EPR saturation characteristics meas. 2−92991
quadrupolar nuclei in mols., vibr. induced nucl. spin relax. 2−102500
RNA in water, relax. rates of imino H^+, time-shared Redfield 214 pulse method 2−57940
S/R method, relax. obs. in pulsed high mag. field *(Japanese)* 2−92994
spectral densities, NMR relax. investig. using tracing method involving freq.-reduced variables 2−89770
spin locking process, spin temp., establishment 2−116085
sulphanilamide, NQR and NMR study 2−108568
tetraethyloxysilane, mol. dynamics below freezing pt., PMR relax. investig. *(German)* 2−110689
thymidine:5-thymyl radical, long-range spin interactions, ENDOR obs. 2−110731
tissue NMR relaxation times, rel. to local inflammatory response, rat and rabbit expts. 2−83550
$(TMTSF)_2PF_6$, NMR studies 2−56963
Al^{3+}-Ni^{2+} interaction in aqs. soln., NMR relax. study 2−87614
$Al(OH)_3$, anodic oxide layer of Al electrolytic capacitor, proton magnetic relaxation study 2−104733
a-B:H, ESR study, annealing effects on signal intensity and linewidth 2−87591
BH_4^-, nucl. spin-spin coupling tensors calcs. 2−108361
$BaFeSi_4O_{10}$, gillespite, Fe^{2+} Mossbauer spectra, mag. relax. effects 2−61793
$BaTiO_3$:Mn^{2+}, spin-spin relax. study 2−77407
$Bi_{12}SiO_{20}$, NQR relax., transverse and longit., temp. depend. 2−110697
CN^-, NMR spin-spin coupling, ab initio calc. 2−102495
$DyVO_4$, mag. relax. study 2−98989
EuS, EPR linewidth, reson. field, and spin-spin relax. near Curie temp., shape depend. 2−66910
F^- aqueous ion, intermol. nuclear spin-spin coupling and scalar relax., quantum and statistical mech. calcs. 2−90641
Fe^{2+}+Fe^{3+} electron exchange in H_2O, theory 2−54954
$Fe(NO_3)_3$, glassy paramag., Fe^{3+} Mossbauer spectra, spin-spin relax., microscopic model 2−93077
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
$Ga(NO_3)_3$ in heavy water, ^{69}Ga and ^{71}Ga nuclei, mag. relax., quadrupole coupling const. 2−77405
$H^{13}C^{15}N$, spin-spin coupling consts., magnitude and sign determ. 2−65008
H_2O, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
^3He], nucl. relax. in weak inhomogeneous mag. field *(French)* 2−70170
^3He, BCC, nucl. relax. time meas. for large molar vols. 2−110084
^3He, superfluid, spin-spin relax. 2−98376
^3He-^4He solid soln., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
K+He(Ne), electronic and nuclear spin relax., hyperfine interaction 2−96688
$KCr_{1-x}Al_x(SO_4)_2.12H_2O$, nonlinear adiabatic effects in parallel static and harmonic mag. fields 2−104574
KH_2AsO_4, spin-spin relax. study 2−77407
$K_3LiNb_6O_{17}(Ta_6O_{17})$, Li ion motion, NMR study 2−66939

spin-spin relaxation continued
$K_2Pt(CN)_4Br_{0.3}.3H_2O$, mixed valence state and metal-nonmetal transition 2−56494
LaH_3, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
$Mn_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
NH_2^-, nucl. spin-spin coupling tensors calcs. 2−108361
NH_3, nuclear spin-spin coupling tensor, anisotropy calc. using extended ab initio calcs. 2−108555
NH_4^+, nucl. spin-spin coupling tensors calcs. 2−108361
$NaClO_3$, effects of nonresonant RF photon dressing on NQR 2−54879
$NaNO_2$, spin-spin relax. time using a super-regenerative NQR spectrometer 2−108569
NdH_3, PMR spin-spin relax. time, 150 to 400K *(Russian)* 2−104728
Rb, spin exchange with ^{129}Xe, nucl. polarisation study 2−85575
Rb_2IrCl_6, antiferromagnetism and crit. relax., NMR study 2−56961
Si:H,B, amorphous film, NMR study 2−110686
SiC:Al,N(Ti), luminescence, cross relax. optical detection 2−99180
$SnO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
$TiO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
UF_6, liq., ^{235}U enrichment effect, ^{19}F NMR 2−116084
β-$VH_{0.59}$, H superstruct. and diffusion, ^1H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
β-$VH_{0.77}$, H diffusion, superstructure, ^1H NMR study 2−104731
$VT_{0.5}$ and $VT_{0.75}$, triton relax. time obs. of phase transitions 2−110684

spin systems
see also magnetic properties of substances; magnetism
A_3 spin system in anisotropic medium, differential pulse effect, relax. meas. 2−104732
abelian gauge theories and spin systems, massless phases and symmetry restoration 2−53926
Anderson two-impurity symm. model, approx. mapping in local moment regime 2−66838
anisotropic Heisenberg chain, solitons and spin complexes 2−72250
anisotropic quantum spin chain, antiferromag. long-range order 2−87470
antiferromagnets, fluctuation corrections to hydrodynamics eqns. *(Russian)* 2−61722
Baxter-Wu model, Z(N) generalisation 2−104563
charge density wave, spin response study 2−115679
classical ferromag. spin systems, contour probability estimation 2−77249
continuous spin systems, perturbation expansion, analyticity and Borel summability 2−61679
dibromodifluoroethylene, director dynamics and NMR appl. of nematic liq. crystals spinning at various angles 2−103598
disordered magnetic lattice gas, ferromag. and spin glass fluids 2−104629
disordered spherical model, free energy calcs. 2−72227
eight-vertex model, new solvable classes 2−112833
electron gas, spin-charge coupling, spin Hamiltonians, phenomenological model 2−82555
energy gap, clustering and Goldstone theorem in statistical mechanics 2−74350
EPR, relaxation, kinetic theory for zero frequency shift 2−82698
ferromagnetic semiconductor, critical shift of cond. bound bottom 2−77255
ferromagnetic semiconductors, spin system cooling in high freq. EM field, electron-magnon interaction mechanism 2−56846
ferromagnetic superconductor, mixed state, fluctuations and instabilities 2−66727
ferromagnetic system, O(n) symmetry, generalisation of Migdal recursion relation 2−92911
ferrous and ferric compounds, spin transitions 2−66832
fluids, two-dimens., vortex dynamics, Heisenberg model 2−104094
free induction decay, oscillatory behaviour, theoretical anal. 2−61774
GaAs, nuclear polarisation front appearance during optical spin polarisation *(Russian)* 2−56953
harmonic rotator model, 2-D, generalisation of Migdal recursion relation 2−92910
Heisenberg magnet, S=1 two-sublattice uniaxial, spin wave interactions 2−110572
Heisenberg model, classical, chain version of const. coupling theory 2−92945
Heisenberg model, free energy and Green's function, functional integration method 2−98835
Heisenberg spin system, quantum statistical Monte Carlo method 2−89613
heteronuclear multiple quantum NMR, dipole coupling consts. determ., spin systems I= and 1 2−110651
higher spin one-dimension Ising lattice in arbitrary external field 2−95264
hydrodynamics of spin systems with symm. tension tensor without mag. field *(Russian)* 2−116019
interrupted metallic strand model, freq. depend. NMR relax. rate 2−110685
irrelevant operators and momentum-shell recursion relations in $d=2+\epsilon$ dimensions 2−98891
Ising and conjugate model spin correlations at T=Tc, influence of surface 2−74337
Ising and Heisenberg antiferromagnet, competing interaction effects on physical props. 2−77247
Ising model, cluster approx. for q-depend. correls. 2−82800
Ising model, random, critical temp., generalised transfer formalism 2−116020
Ising triangular lattice, modulated struct., domain boundaries, free energy 2−98831
Ising-classical spin systems, decomp. theorem 2−95252
m-component magnet with correlated impurities, critical behaviour 2−98896
magnetically ordered materials, nuclear spin system dynamics, NMR freq. shift 2−77398
Mattis-Heisenberg model, spin quantum number in ground state 2−77251
metallic glasses, commutative model of two-level systems 2−92920
methane, solid, spin-species conversion rate 2−104632
Monte Carlo simulation of quantum spin systems 2−104566
multicomponent spin models with transitive symm. groups, Cayley trees for special cases 2−104562
multicomponent spin models with transitive symm. groups, theory 2−104561
nitroxide spin labels, EPR, inhomogeneous line broadening correction 2−104685

spin systems continued
NMR, magnetization modes in weakly coupled spin systems without magnetic equivalence 2−72367
nuclear, dipole-dipole interactions, reson. acoustic saturation of quadrupolar transitions 2−110657
nuclear mag. double reson. with double modulated RF field 2−77423
nuclear spin systems, energy and temp. meas. 2−66926
O(3) lattice spin model, Z_2 vortices, Monte Carlo calc. in two dimens. 2−89898
O(N) Heisenberg spin operator, collective field in Hamiltonian and Lagrangian approach 2−74617
O(n) model, peculiarities for n<1 in mag. field 2−69107
one dimensional Ising system, Monte Carlo simulation 2−77250
one-dimensional planar spin 1/2 ferromagnet, excitation spectrum 2−104602
one-dimensional spin dynamics, delocalisation effect 2−98939
ordered spin system, critical dynamics of longit. component 2−56882
partition function of spin 1/2 chain, two dimensional classical representations 2−77246
percolation, critical phenomena and fractals 2−63937
periodic Gaussian model, helicity modulus, specific heat 2−92936
Potts model, antiferromagnetic, on square lattice, crit. behaviour anal. 2−104641
Potts model, generalised three-state and antiferromag., phase transitions and entropy 2−66852
Potts model, triangular lattice, crit. behaviour 2−104639
quantum spin models, two dimens., approx. mapping on staggered eight-vertex models 2−101366
quantum spin system, Goldstone theorem in statistical mechanics 2−74355
quantum spin systems, inverse problem in statistical mechanics 2−101307
Raman spin lattice relax. applied to S-electron ions, Kramers doublets with hyperfine interaction 2−61751
random, critical phenomena, second order ϵ-expansion, renormalisation model 2−116012
random, susceptibility matrix eigenvalue spectrum 2−110599
random walk representation of classical spin systems and correlation inequalities 2−53684
relaxation for arbitrary time scale, temp. effects 2−98933
renormalisation group recursions by mean-field approximations 2−82604
ruby:Cr^{3+} effect of ^{27}Al nuclei on hypersound intensification *(Russian)* 2−77422
semi-infinite, crossover in crit. behaviour 2−92943
semiconductors, nuclear polarisation front appearance during optical spin polarisation *(Russian)* 2−56953
solitons in mag. chains, functional integration approach 2−66737
spin glasses, calculation of π-rotation minimum 2−104633
spin one-half free induction decay expansion 2−110590
spin relaxation for arbitrary time scale 2−89557
spin systems CH, CH_2 and CH_3, DEPT pulse sequence 2−110650
$SU(n)/Z_n \times SU(n)/Z_n$ spin system, phase struct. in two dimens. 2−101518
symmetrical spin systems, NMR multiple solns. arising from nuclear permutations 2−77392
TCNQ salt, 1-methyl-3'-ethyl-2,2'-quinoselenacyanine-$(TCNQ)_2$, mag. susceptibility, spin dynamics, elec. cond. and EPR study 2−66759
thymidine, coupled electron-proton spin system, response to external perturbs., ENDOR study 2−77419
time-evolution of spin relax., power spectrum determ. 2−116053
time-evolution of spin relax., rot. diffusion eqn. 2−116052
transition probabilities in EPR, ENDOR and electron-nuclear multiple reson. transitions 2−110728
two spin system, homonuclear multiple quantum transitions, PMR pulse sequence effect 2−87602
two-dimensional Glauber model, Monte Carlo renormalisation study 2−79498
two-dimensional triangular lattice, spin struct. 2−61704
Van der Waals model, long-range order 2−56809
$CsMnF_3$, spin wave interaction with nuclear spin subsystem *(Russian)* 2−61703
$CuK_2(SO_4)_2.6H_2O/^4He$, phonon bottleneck, thermal resist. meas. 2−76760
$Eu_xSr_{1-x}S$, nearly ferromag., spin correls., neutron diffr. study 2−77258
Fe complex, $(Fe_xZn_{1-x}(2\text{-pic})_3)Cl_2.EtOH$, high spin=low spin transitions, lattice expansion effect 2−87510
Fe complex, rapid spin equilib., relax. time 2−82753
$Fe(II) \rightleftarrows Fe(III)$, mol. crysts., cooperative mol. distortive transitions, ligand field theory 2−76649
^3He, solid, spin struct. of 2-D triangular lattice 2−61704
Ho, coupled spin system in external field, zero energy mode 2−92548
α,β-O_2, magnetisation under high press. 2−66760
UN(S)(Te) single crystal, neutron scatt. from spins and phonons 2−56837

spin tickling (NMR) *see double nuclear magnetic resonance*

spin wave resonance *see ferromagnetic resonance*

spin waves
see also magnetostatic waves; magnons
above-threshold domain boundary motion *(Russian)* 2−56886
amorphous ferromagnet, tunnel states *(Russian)* 2−104604
amorphous media and thin films, spin waves 2−72181
Anderson-Hubbard model elementary excitations, Bose excitations in paramagnetic media 2−61694
antiferroelectrics, exchange magnetoelectric interaction, spin wave instability *(Russian)* 2−61749
antiferromagnet, nuclear spin relax. at ultralow temps. 2−72372
antiferromagnet, randomly diluted anisotropic, spin waves, spin-flop transition, AFMR 2−104597
bis-methylammonium copper tetrachloride, spin wave instability, subthreshold parallel pumping 2−110574
classical ferromagnetic chains, interacting boson approach 2−66859
cubic Heisenberg ferromagnet, spin wave bound states 2−92891
dilute ferromagnet with mag. moments dependent on local environment, mag. ordering calc. *(Russian)* 2−98833
dual chiral models, SU(2) invariant, in low coupling limit 2−101604
electron-hole Fermi liqs., spin waves at nonzero temps. 2−92893
ferromagentic semiconductors, spin wave excitation by strong static elec. field 2−61748
ferromagnet, amorphous, tunnelling states, spin wave relax., thermal cond. 2−98865

spin waves continued
ferromagnet, anisotropic, 1-D magnetisation eqns., soliton solns. *(Russian)* 2−82665
ferromagnet, chaotic states in strong parallel pumping fields 2−56843
ferromagnet, classical one-dimens. easyplane, dynamic struct. factors, computer simulation 2−66796
ferromagnet, cubic, parametrically excited spin wave-thermal spin wave interaction *(Russian)* 2−82585
ferromagnet, localised surface states in case of modified ground state *(Russian)* 2−61535
ferromagnetic chain, one-dimensional, excess electron-spin wave bound state *(Russian)* 2−115961
ferromagnetic film, Brillouin scatt. from magnons, Stokes-anti-Stokes asymm. 2−116202
ferromagnetic film, dipolar surface spin waves 2−66873
ferromagnetic film, spin wave spectrum and linear excitation 2−98866
ferromagnetic film layered structure, dipole-exchange spin waves dispersion 2−82582
ferromagnetic insulator, low-temp. magnon thermal cond. 2−66307
ferromagnetic layers, Brillouin scattering from spin waves *(German)* 2−104903
ferromagnetic materials, spin wave excitations, light scatt., review *(Japanese)* 2−93213
ferromagnetic media interface, surface spin waves and domains struct. 2−115993
ferromagnetic semiconductor, elec. cond. in quantising mag. field *(Russian)* 2−104385
ferromagnets, spin wave attenuation, effects of surface amorphisation 2−87486
films, spin waves, elliptically polarised, resonance spectrum calc. 2−72307
garnet film, magnetic profile, FMR determ. 2−72355
Heisenberg, antiferromagnet, FCC, with nearest-neighbour interactions, spin dynamics on fully occupied lattice 2−82581
Heisenberg chain, classical isotropic, spin dynamicss, computer simulation 2−98899
Heisenberg ferromagnet, surface spin wave relax. due to scatt. by surface fluctuations *(Russian)* 2−98857
Heisenberg ferromagnetic system with biquadratic exchange interaction at low temp., spin wave theory 2−56813
Heisenberg magnet, S=1 two-sublattice uniaxial, spin wave interactions 2−110572
Heisenberg one-dimensional ferromagnet, soliton wavenumber cut-off 2−110601
Heisenberg spin glass, spin resonance frequencies 2−92889
Heusler alloys, X_2MnY (X=Ni, Cu, Pd; Y=Al, Sn), Stoner and spin wave excitation spectra, OPW calcs. 2−115990
Hubbard model, 1-D, continuum 'spin-wave' spectrum 2−56842
Ising-Heisenberg chain at low temps., mag. excitations 2−115986
isotropic Heisenberg chain of arbitrary spins, picture of low-lying excitations 2−56815
magnetic structures, one-magnon scattering of polarised neutrons 2−66779
magnetically ordered crysts., phonon and spin wave hybridization *(Russian)* 2−77278
multicomponent system, Goldstone modes, dispersion and damping 2−98867
nonlinear mixing of bulk and surface magnetostatic spin waves 2−92886
one-dimensional planar spin 1/2 ferromagnet, excitation spectrum 2−104602
orthoferrites, Raman scatt. from mag. excitations 2−77528
parametric excitation threshold, effect of modulating fields *(Russian)* 2−82722
parametrically excited spin waves, phase transition, numerical simulation *(Russian)* 2−115987
quantum antiferromagnetic spin waves near one dimension 2−77280
quantum XY spin chain, solitons and magnons 2−66797
RKKY spin glasses, numerical simulation studies 2−116016
semiconductor, space charge layer, collective modes, perturbation theory 2−61383
soliton statistical mechanics, path-integral approach 2−101187
spin 1 ferromag. chains, spin wave excitation spectrum, variational approx. 2−104601
spin glass, magnetoelastic interaction, spin wave and elastic wave damping 2−92917
spin glasses, anisotropic, metastable states 2−92921
theory of magnetism, statics and dynamics, book 2−68978
$TMTSF_2AsF_6$ antiferromagnetic resonance obs. 2−93015
transition metals, ferromagnetic, mag. props. above T_c 2−66788
X-Y planar model, perturbative anal. 2−77254
$CoBr_2$, lattice and mag. vibr. study 2−86803
$CoBr_2$, trigonal cpd., mag. excitations 2−87485
$CoCl_2$, trigonal cpd., mag. excitations 2−87485
CoF_2, far-IR reflectivity of optical magnons 2−98864
Cr, antiferromagnetic spin waves, SDW model *(Russian)* 2−77281
Cr, electrical resistivity due to antiferromag. spin waves 2−61457
$CsCoBr_3$, propagating domain walls, inelastic neutron scatt. study 2−104599
$CsMnF_3$, spin wave interaction with nuclear spin subsystem *(Russian)* 2−61703
Cu complex, $CuCl_2$.DMSO, one-dimens. Heisenberg ferromag., spin waves, neutron scatt. study 2−92892
$DyMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$ErFe_2$, spin wave temp. depend. 2−104598
EuO(S), static and dynamic props., appl. of correlation theory 2−66742
EuO(s), spin dynamics in paramag. state, method of moments 2−98839
Fe film, ferromag., Brillouin light scatt. by spin waves 2−66872
Fe, spin waves, mag. props. 2−66795
Fe-based metallic glasses, mag. excitations, neutron diffr. study 2−115992
Fe_3A, low-energy Stoner excitations 2−66798
$Fe_{1-x}B_x$, amorphous, spin waves, inelastic neutron scatt. study 2−72179
$Fe_{81}B_{13.5}Si_{3.5}C_2$, amorphous, Mossbauer study 2−99013
$FeCl_2$, spin wave interactions in antiferromag. phase 2−110572
$Fe_{70}Cr_{10}P_{13}C_7$, amorphous, spin waves 2−92884
FeF_2, far-IR reflectivity of optical magnons 2−98864
$(Fe_xNi_{1-x})_{75}P_{16}B_6Al_3$, amorphous, spin wave and scaling law anal., magnetisation meas. 2−92888
$Fe_{1-x}V_x$, disordered, spin wave dispersion relations 2−77279
$GdMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
^{3}He, superfluid, rotating, NMR study *(Russian)* 2−82060

spin waves continued
^{3}He-A, influence of rotation on NMR signal *(Russian)* 2−71758
$Ho_2Co_{17}(Fe_{17})$, magnetic excitations study 2−110573
K_2CuF_4, spin wave instability, subthreshold parallel pumping 2−110574
K_2FeF_4, NMR study of susceptibility 2−82575
K_2FeF_4, spin wave anal., neutron scatt. 2−82580
K_3FeF_4, two-magnon Raman scatt., spin wave anal. 2−82865
MgMn ferrite magnetization, electron beam interaction 2−66868
Mn spin systems, cooperative phenomena at low temps. 2−92956
$Mn_xFe_{3-x}O_4$ ferrite thin films, spin wave resonance 2−110647
MnP, evidence for Lifshitz point in mag. phase diagram 2−66814
Ni, exchange energy meas. by high freq. sound probe 2−66804
Ni, spin waves, mag. props. 2−66795
$NiBr_2$, helimagnetic state, inelastic neutron scatt. study of mag. excitations 2−98861
NiO mag. and lattice mechanical props. 2−92890
Pd-Fe (1.5 at.%), spin waves, inelastic neutron scatt. study 2−72178
Pt-Mn, spin glass, sp. ht. meas., 0.5 to 20K 2−98887
Rb_2CrCl_4, optical and magneto-optical study 2−93220
$TbMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$TbVO_4$, collective mode damping near struct. phase transition 2−109944
YIG, spin waves, mag. props. 2−66795
YIG, spin-wave instability threshold in single crysts., meas. for oblique pumping 2−98859
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2−115989

spinodal decomposition
alloy, spinodally modulated struct., energetics in thermally activated dislocation motion 2−103777
alloys, motive force of diffusion and change in the free energy on the phase separation *(Japanese)* 2−56242
binary mixtures, solid and fluid, periodic spinoidal decomp. 2−61149
diethyl carbonate-polydimethylsiloxane, liq. mixture, phase separation, light scatt. study 2−98260
fluid phase, spinodal decomposition in linear regime, hydrodynamic fluctuation theory 2−71653
glass, spinodal decomp., stochastic theory of scatt., struct. and autocorrel. function 2−92211
III-V quaternary solid solns., composition plane, unstable regions, regular soln. approx. 2−92205
magnetic field effects 2−98291
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
nonconserved order parameter system, periodic spinodal composition, nonlinear sound waves effect 2−81930
one-component fluid, spinodal decomposition, hydrodynamic fluctuation theory 2−104002
solid binary mixture, periodic spinodal decomposition 2−110000
surface structure formation by stabilised spinodal decomposition, model 2−61144
Al-Mg (5, 10 wt.%), modulated struct. and Guinier-Preston zones 2−111184
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
Fe-Cr (32 at.%) supersaturated solid solns., spinodal decomp. at 470°C, precip. morphology 2−105162
Fe-Cr alloy, decomposition in unstable state, neutron small angle scatt. study 2−61145
$In_{1-x}Ga_xAs_{1-x}Sb_y$ solid soln., LPE growth, unstable comp. regions, regular soln. approx. 2−92204
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Nb-H, fluctuation induced spinodal decomposition 2−66235
Tb-Fe amorphous films, struct., decomposition, crystallisation *(Chinese)* 2−104176

spinor groups *see group theory*

spirality *see elementary particle theory*

splat cooling
metallic glass, melt spinning parameters and ribbon geometry 2−116405
Ag-Cu system, T_0 curve between liquid. and α-phases, calc. and relevance to rapid solidification 2−105128
Ag-Sn (16.5 wt.%) alloy, rapidly quenched, residual resist. increase, vacancy form. energy 2−88231
Al-Mn extended solid soln., as-quenched, conc. depend. of hardness and lattice parameter 2−116518
Al-Ru (10-15 wt.%), rapidly quenched, phase transform 2−77823
Cu-Cu_2Mg system, metastable cubic phase form. by quenching from liq. state 2−99396
$Cu_{60}Zr_{40}$, amorphous, initial quench effect on thermal behaviour 2−91813
$Cu_{60}Zr_{40}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe-B alloy, quenched from liq state, crystn., microstruct. and hardness 2−111166
Fe-Bi-Si metallic glass, form. and mag. props. 2−103648
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
$Fe_{82}B_{18}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
$Fe_{40}Ni_{40}B_{20}$, amorphous, neutron irrad. and annealed density changes 2−109850
Ni-Al-Co(Cr)(Fe)(Mn)(Si) $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Pb, excess vacancy conc., lattice parameter and elec. resist. meas. 2−71440
Sb-Zn, amorphous, form. and crystn. 2−76322

splines (mathematics)
see also function approximation; interpolation
arc static voltage gradient as nonlinear one-dimensional Elenbaas-Heller eqn. eigenvalue *(German)* 2−60830
bound state, Schrondinger eqn. soln. by cone spline method *(Russian)* 2−95117
electromagnetic theory appls. 2−102690
plane elasticity stress calcs. improvement by use of spline functions 2−91255
plate deflection theory, boundary value problems 2−53524

splines (mathematics) continued
second-order differential eqns., cubic spline method, appl. to Thomas-Fermi model 2−64854
solid mechanics problems, point least squares method with B-splines appl. 2−86209

sponges *see porous materials*

sponginess *see porosity*

spontaneous emission, amplified *see superradiance*

spontaneous fission
data with reactor applications, statistical distrib. approach 2−64464
^{252}Cf, fission fragments deexcitation, Monte Carlo calc. 2−54459
^{252}Cf fission neutron spectrum meas. by time-of-flight technique, scatt. effect 2−102322
^{252}Cf, high energy γ-ray obs. following spontaneous fission 2−84989
^{252}Cf, high energy γ-ray search in spontaneous fission *(Chinese)* 2−107919
^{252}Cf mean fission fragments, nuclear charge and at. mass 2−64819
^{252}Cf spontaneous fission, thermal fluctuations in classical dynamical model 2−69687
^{252}Cf, spontaneous fission prompt neutron emission, meas. methods 2−74782
^{252}Cf spontaneous fusion, ^{168}Dy isotope production and characterisation 2−101841
^{A}Fm, A=244, 246, fission products average total kinetic energy meas. 2−85110
^{A}Pu, A=242, 244, spontaneous fission fragments energy and mass distrib. 2−90175
^{238}U spontaneous fission decay constant meas. from etched fission track density 2−96057

spontaneous magnetisation
disordered spherical model, free energy calcs. 2−72227
ferromagnet, classical, multicomponent, mean field crit. temp. bounds and correlation inequalities 2−110596
Ising model, one-dimens., with $1/r^2$ interaction energy, low-temp. spont. magnetisations 2−66849
Ising model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
itinerant-electron ferromagnet, electron-phonon interaction effects 2−92855
n-vector model, random bond, zero field susceptibility, magnetisation, upper bounds 2−56880
random decorated Ising model 2−72236
rare earth alloys, amorphous, induced mag., singlet-singlet model 2−104560
rotating $^{4}P_2$ neutron superfluid, mag. vortices 2−58377
spin glasses, mean field theory in framework of broken replica symm. for Ising spins 2−66855
spin system, O(n) model, peculiarities for n<1 in mag. field 2−69107
ternary alloys, conc., onset of magnetism, review 2−56853
weak ferromagnetic crystal, spontaneous magnetisation meas. *(Japanese)* 2−115985
Co-Ga, mag. and struct. props., Mossbauer study 2−116097
$CsMnCl_3.2H_2O$, quasi-one-dimens. antiferromag., phase spin-flop transition to intermediate state *(Russian)* 2−56874
Fe-Mn, electron struct. and mag. state, CPA calc. *(Russian)* 2−87135
$Fe_{10}Ni_{70}B_{16}P_4$, amorphous, mag. phase transition, magnetisation and DC susceptibility meas. 2−56857
$Fe_{13}Ni_{67}B_{19}Si$, amorphous, critical mag. behaviour, mag. order disorder transition 2−66821
$GdFeO_3$, magnetisation, H-T phase diagram, Fe^{3+}-Gd^{3+} exchange interactions 2−77284
LaIrSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
LaRhSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
NdIrSi, cryst. struct., magnetisation and susceptibility 2−65969
Ni-Cu, ordered alloys, magnetisation and electronic struct. calc. 2−82576
Ni_3Al, weak itinerant ferromag., magnetocrystalline anisotropy 2−92900
$(PrRd_{80}Ga_{20})_{100-x}Fe_x$ metallic glasses, mag., Mossbauer, and struct. studies 2−72270
Pt-Co(Fe), weakly ferromag. alloys, elastic diffuse neutron scatt. 2−98849
$TiFe_{0.5}Co_{0.5}$, thermal expansion, mag. contrib., spontaneous magnetisation 2−115440
YIG:Pr^{4+}, cryst. growth from melt, spontaneous magnetisation and mag. anisotropy meas. 2−77273

spontaneous symmetry breaking
ϕ^6 field system, finite temp. behaviour 2−95593
Abelian gauge theory, spontaneously broken gauge invariance, massive vector mesons, Higgs bosons 2−84783
axion models with no domain wall problem 2−101621
baryon asymmetry and nucleon decay in supersymmetric SU(5) GUT 2−101617
baryon asymmetry of Universe, supersymmetry breaking scale 2−113193
baryon mag. moments in broken SU(6) symmetry model 2−54161
baryonic current sum rules and chiral symmetry breaking 2−59066
broken SU(3) symmetry from quark interchange, one boson exchange model 2−101651
C invariance, symmetry breaking interactions 2−79776
Cabibbo mixing from 2nd generation Higgs bosons, spontaneously broken $SU(2)\times U(1)\times U'(1)$ 2−89921
coloured pseudo-Goldstone boson pair production at very high energies, hypercolour 2−101652
compact single gauge group with arbitrary symmetry breaking, mag. monopole solns. 2−113104
composite quark-lepton model, generation, confinement and S^0 scalar mesons 2−79849
conformal invariance, spont. symm. breaking, mass generation 2−69363
constraints on supersymmetry breaking 2−107555
cooling Universe, gauge symmetry breaking, unified interactions 2−117840
cosmological grand unified theories with radiatively induced symmetry breaking 2−84359
cosmology, axion models, Z(N) breaking, domain walls role 2−74133
cosmology, dynamical symmetry breaking by EM corrections 2−79262
CP violation in broken supersymmetric theories 2−101593
Dirac vacuum, stability and decay in external gauge fields 2−84811
dynamical symmetry breaking induced by nonconformal coupling in $R^1\times S^3$ 2−53939
dyon field topology and mag. charge relation 2−95602
E(6) unified theory to solve strong CP problem 2−64260

spontaneous symmetry breaking continued
early Universe, vacuum phase transitions, primordial irregularities 2−101106
effective electroweak Lagrangian for composite models 2−74635
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
Einstein gravity as a symmetry-breaking effect in quantum field theory 2−95205
Einstein open metric, vacuum instability, spontaneous broken symm. phase 2−74295
energy gap, clustering and Goldstone theorem in statistical mechanics 2−74350
extended supersymm., with central charges, nonlinear realisations 2−69365
flavour-changing neutral interactions in broken supersymmetric theories 2−54051
frozen and broken colour, Lipkin's mechanism, matrix Schrodinger eqn., semiclassical limit 2−89933
functional measure, topology and dynamical supersymmetry breaking 2−54014
gauge field interactions from extra dimensional gravity 2−84499
gauge invariant spontaneously broken spinor theory without genuine gauge and Higgs fields 2−59051
gauge symmetries without scalar mesons, spontaneous breakdown 2−59003
gauge theories, softly broken symmetry restoration at high temps. 2−107503
gauge theory, globally supersymmetric, spontaneously broken, cancellation of quadratically divergent mass corrections 2−89895
gauge theory, holonomy group and spontaneous symmetry breaking 2−74596
gauge theory, spontaneously broken, duality transform. 2−69349
gauge theory, spontaneously broken, vacuum tunnelling 2−107531
gauge theory and spontaneous symmetry breaking 2−113152
gauge theory of gravitation, relativity and equivalence principles 2−58683
gauge-independent descriptions of broken symmetry, topological obstructions 2−95624
general gauge theories with fermions, dynamical symmetry breaking, complementarity principle 2−79740
geomagnetic symmetry breaking and Weinberg-Salam model 2−79791
grand unification, spontaneously broken continuous global symmetry 2−107592
grand unification with large supersymmetry breaking 2−84831
grand unification with large supersymmetry breaking 2−95709
grand unified model with Bogolubov's symmetry breaking mechanism 2−79801
grand unified theories, baryon generation and symmetry behaviour at high temp. 2−59072
grand unified theories, fermions and Higgs fields 2−95720
grand unified theories, monopoles and early Universe, review 2−79790
gravitation, spontaneous generation from quantum field, rel. to Second Law of Thermodynamics 2−53629
gravitational and cosmological constants in broken symmetry theories of gravity, temp. depend. 2−84505
gravitino and spin zero boson masses in theories with spontaneously broken supersymmetry 2−112781
gravity, conformal invariant theory, spontaneous symm. breaking 2−107208
heavy fermions in gauge theories, general spinor loop anal. 2−107501
hyperon semileptonic decay, evidence for SU(3) breaking in Cabibbo-type fits 2−69459
internal symmetry group, spont. breakdown, rel. to symmetric spaces 2−95690
Lagrangian field theory, invisible Goldstone bosons 2−95736
lattice gauge theories with fermions on lattice, strong-coupling limit 2−101549
lattice QCD, large-N, mean field approx., chiral symm. breaking 2−89903
local gauge invariance theories and spontaneous symmetry breaking *(French)* 2−89911
low-energy supersymmetric models 2−79783
many body content of gauge theories, spontaneous supersymmetry breaking, colour confinement 2−59020
massive electrodynamics, gauge technique 2−107602
N=8 supergravity, spontaneously broken, renormalisability props. 2−58685
N=8 supergravity with dynamical SU(8) gauge theory, spin-3/2 fields role 2−95209
neutron DD β-decay, Goldberger-Treiman relation, chiral symmetry breaking corrections 2−69611
non-abelian gauge symmetry, two-dimensional model 2−84788
non-Minkowskian space-times, vacuum stability and symmetry breaking 2−84803
nonAbelian gauge theories, spont. symm. breaking, gauge hierarchy, Lagrangian, decoupling 2−74613
O(N) σ model, dynamical supersymmetry breaking 2−95618
O(N) model, 1/N expansion, spontaneous symmetry breaking 2−64231
periodic table, rel. to broken supersymmetry 2−59675
pionic decays, current-algebra sum rules saturation in quark shell model nonrelativistic expansion 2−69430
preon models with dynamical symmetry breaking 2−101689
pseudoscalar mass spectrum as evidence for gluons, anomalies and topological charge 2−59136
pseudoscalar meson decay constant-pomeron residue relation 2−95821
QCD, chiral flavour symm., spontaneous breaking 2−79752
QCD, chiral symm. breaking, quark pair condensation 2−89938
QCD, chiral symm. breaking 2−69409
QCD, chiral symmetry breaking pattern 2−101678
QCD, colour monopoles from fractional charges 2−59103
QCD, dynamical chiral symm. breaking, pseudoscalar meson spectra *(Russian)* 2−95771
QCD, primordial colour fluctuations, survival and fractionally charged states production 2−101662
QCD, quark model pion and Goldstone pion 2−54096
QCD, short-distance behaviour 2−54068
QCD local colour symmetry, anomalous props. 2−113209
QCD vacuum quark condensate and MIT bag lagrangian with broken chiral symmetry 2−69413
QED, effective potential evaluation 2−84841
quantum theory, fermionic coordinates, supersymm. display 2−58645

spontaneous symmetry breaking continued
quarkless SU(2) lattice gauge theory, strong coupling expansion, phase transition, effective action 2−59041
quarks and the light hadrons, review 2−95759
quasi Goldstone fermions 2−113129
quaternionic Weinberg-Salam theory, spontaneous symm. breaking 2−107587
quenched Eguchi-Kawai model 2−84798
review of symmetry and spontaneous symm. breaking in physical states 2−64243
rishon model, particles, hypercolour, intermediate bosons 2−113249
scalar parameters in effective gauge theories, Weinberg method appl. 2−59071
scalar $q\bar{q}$ nonet in QCD, spontaneous breakdown of chiral symmetry 2−101650
scalars in low dimension representations, symmetry breaking pattern 2−101586
semisimple Lie groups, finite and continuous subgroups 2−64235
small cosmological constant, model using twisted symm. breaking on projective hypersphere 2−53641
$SO(10)_V \times SO(10)_H$ GUT, hypercolour, extended hypercolour, generation problem 2−113190
$SO(10)^3$ effective technicolour model, CP violation and axions 2−84824
SO(10) grand unified model, prospects for second neutral vector boson at low mass 2−95715
SO(10) grand unified model, unification constraints on mirror fermion mass scale 2−89923
SO(10) grand unified models, symm. breaking, rel. to proton decay 2−79797
SO(10) grand unified theory, intermediate mass scale through subgroup $SU(3) \times SU(2) \times U(1) \times U(1)$ 2−84823
SO(10) grand unified theory, neutron-antineutron oscill. 2−95719
SO(10) grand unified theory, string appearance on spontaneous symmetry breaking 2−84822
SO(10) model, with symm. breaking hierarchy, neutrino masses *(Russian)* 2−64263
SO(10) supersymmetric grand unified theory, intermediate mass scales 2−101618
SO(14) theory, spinor representation, $U(1)_\Gamma$ embedding and symmetry breaking 2−113183
SO(2N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
spontaneous chiral symmetry breaking before confinement, quenched fermions, nonrelativistic quarks, η, glueballs 2−113238
spontaneously broken conformal gauge theory of gravitation 2−58679
spontaneously broken N=8 supergravity, gauge coupling addition 2−112792
strong CP problem, supersymmetric GUT soln. 2−79778
$SU_n \times SU_n$ chiral broken symm., quark mixing in $SU_k \times SU_k$ exact limit 2−95669
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ gauge theory, neutrino masses, intermediate mass scales and cosmology 2−84825
$SU(2)_L \times SU(2)_R \times U(1)$, dynamical symm. breaking 2−107581
$SU(2)_L \times U(1) \times SU(3)_c$ gauge model, spontaneously broken B-L symm., H-$\bar{H}$ oscillations 2−84820
$SU(2)_L \times U(1)$ spontaneously broken gauge theory structure 2−64249
$SU(2)_L \times U(1)$ symmetry breaking as a radiative effect of supersymmetry breaking in GUTs 2−59082
SU(2)⊗U(1) model, dynamical symmetry breaking and radiative correction to weak-isospin relation 2−95714
SU(2) gauge field, spherically symmetric static sourceless soln., currents, symmetry breaking 2−53917
SU(2) gauge theory, symmetry breaking 2−79739
$SU(3)_c \otimes U(1)$ unification, integer charge quarks and spontaneously broken color symmetry 2−54033
$SU(3) \times SU(2) \times U(1) \times \tilde{G}$ spontaneously broken supersymmetric theories, neutral current conservation laws 2−59060
$SU(3) \times SU(2) \times U(1) \times \tilde{U}(1)$ supersymmetric model of strong and electroweak interactions, symmetry breaking 2−84830
$SU(3) \times SU(2) \times U(1)$ supersymmetric model, masses, p decay, conservation laws, spontaneous breakdown 2−101599
SU(3)⊗SU(2)⊗U(1) supersymmetric ground unified theory 2−101615
SU(3)XSU(2)XU(1)XU(1) model, low-energy softly-broken supersymmetry 2−101546
SU(5) grand unified theories, symmetry breaking effects 2−84818
SU(5) ground unified theory, Universe and supersymmetry 2−101616
SU(5) hierarchical supersymmetric model, cosmological consequences 2−79798
SU(5) model, spontaneous CP breaking, natural flavour conservation and baryon asymmetry 2−64258
SU(5) model with nonminimal Higgs field, symmetry breaking patterns 2−107595
SU(5) supersymmetric model, symmetry breaking, ground states 2−95710
SU(7) grand unified models, hypercharge generators, breakdown 2−69389
$SU(8)_L \times SU(8)_R$ grand unified model, spontaneous breaking and asymptotic freedom *(Russian)* 2−74639
SU(9) grand unified model, modified Higgs mechanism for symmetry breaking *(Chinese)* 2−95723
SU(N) gauge theory, Wilson line 2−84866
SU(N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
supergravity, R invariance and spontaneous supersymmetry breaking 2−84510
supergravity, spontaneous breaking of supersymm. and gauge invariance 2−107221
supersymmetric dipole mechanism 2−107556
supersymmetric flavour unification model SU(11), invisible axion and proton decay 2−95726
supersymmetric gauge theories, patterns of symmetry breaking 2−113131
supersymmetric gauge theories, symmetry breaking mechanism 2−79760
supersymmetric particles with internal symmetries and control charges 2−79770
supersymmetric SU(2) gauge theories, elec. dipole moment for monopoles 2−107663
supersymmetric theories, broken global symmetries 2−79799
supersymmetric theories, effective pot. 2−84794
supersymmetric theories, mass independent renormalisation, soft symm. breaking 2−107588
supersymmetric theories, renormalisation procedure for effective pot. evaluation 2−101545
spontaneous symmetry breaking continued
supersymmetry, multidimensional space combination, interaction unification 2−101585
supersymmetry, phenomenological Lagrangians struct. 2−113160
supersymmetry breaking, soft and spont. mechanisms 2−79781
supersymmetry breaking scale, cosmological constraints 2−69374
superweak CP violation and right-handed horizontal interactions in Weinberg-Salem theory 2−59073
symmetry violation in quark models of mesons 2−95764
$U(1) \otimes SU(2) \otimes SU(2)'$ gauge theory, unification and family structure as consequences of universality 2−54023
vacuum periodicity in instanton angle, chiral perturbation theory and fractional topological charge 2−101645
vacuum state determination from Universe hot dense phase dynamical evolution 2−106978
vector-like gauge theories with massless fermions, phase structure 2−53946
weak boson mass spectra in extended gauge models $SU(2)_L \times U(1) \times G$ 2−107573
weak interactions and symmetries 2−59098
white dwarfs, astrophysical constraints on broken supersymmetry 2−94723
D^+-$\bar{D}^0$ system, discrete symm. breakdown test 2−74626
$e^+e^- \rightarrow q\bar{q}g$, broken colour gauge symm. test 2−79900
$\Sigma^- \rightarrow \Lambda e\nu$, deviation from Cabibbo theory, symmetry breaking effects 2−64322
W boson condensation in mag. field, spontaneously broken symm. restoration *(Russian)* 2−59062
SO(10) and E_6 models, invisible axion at an intermediate symmetry breaking scale 2−64252
sporadic-E layer
correlation with barometric pressure 2−112070
dopplionogram method used to study dynamics of sporadic E 2−73711
E_s-activity percentage occurrence at Karachi and Islamabad for varying mag. conditions 2−117522
radiowave reflection from thin horizontally inhomogeneous E_s layer 2−73753
spray coating techniques
see also electrostatic coating techniques; flame spraying; plasma arc spraying; powder spraying
detonation spray-deposition of coatings, systematic anal. 2−67596
CdS:In film, low resist., prep. by spray pyrolysis 2−71842
CdTe, deposition by spray pyrolysis, for solar cell appl. 2−71828
Co black selective surface growth by spray pyrolysis for optimum photothermal conversion 2−57727
$CuInSe_2$, spray pyrolysis and heat treatment, for photovoltaic appl. 2−71843
Cu_2S/CdS sprayed solar cells photovoltaic performance 2−78221
SnO_2/n-Si polycrystalline solar cells, spray-deposited, performance parameters 2−83497
spray coatings
see also electrostatic coatings; flame sprayed coatings; plasma arc sprayed coatings; powder sprayed coatings
black Ni selective absorber coatings on Al and galvanised Fe substrates for solar thermal conversion 2−78243
duplex coating, diffusion-inhibited oxidation resistant, for superalloys 2−116622
$Cd_xHg_{1-x}Te$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
CdS polycrystalline film, photoconductivity meas. 2−66674
CdS_xSe_{1-x} sprayed thin films, struct. props. and optical band gap 2−110199
CdSe, spray-pyrolysed thin film, photoelectrochem. solar cell performance meas. 2−93924
CdSe sprayed films, struct., optical and photocond. props. 2−98698
$CdSe_xTe_{1-x}$ ($0 \leq x \leq 1$) thin films, laser epitaxy and annealing *(Russian)* 2−105070
$Cd_yZn_{1-y}S$ chemically sprayed thin films for solar cells, carrier density depend. on Zn conc. 2−115928
Co_3O_4-CoO, spray pyrolysed Co black, high temp. selective absorber 2−67891
Fe-Cr-Ni-Al coatings, for resisting fretting wear in temp. range 20-700 °C 2−88291
$Fe_{2-x}Cr_xO_3$ films, optical props. and chem. resist. 2−93300
In_2O_3:Sn films, annealed, elec. resist. and defect model 2−66671
Si film, produced by field emission deposition, props. 2−71836
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
SnO_2:Sb thin films, spray pyrolysed, X-ray diffr. and AES study 2−104204
SnO_2/n-Si, texturized heterojunction solar cell, spray pyrolysis prep. 2−105567
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
sprays
see also aerosols; drops; jets
bombardier beetles, spray aiming, jet deflection by the Coander effect 2−73290
laser diagnostic probes for flames, combustion products and sprays 2−89824
non-Newtonian fluid, ligament type disintegration in spinning disk atomisation 2−81370
oil-spray flames, burning processes studies, gas turbine low NO_x combustor design appls. 2−62403
spurions *see elementary particles*
sputter etching
concentration depth profiling by sputter etching, theory 2−99282
dielectric thin films, composition depth profiling, SIMS, IIR and AES comparisons 2−99287
diffraction grating, small-period, high-efficiency, fabrication method 2−86088
dry etching, recent trends for VLSI fabrication 2−116582
dry etching process, implementation of adaptive process control 2−83258
gas-surface chemistry, ion enhanced, review 2−111517
instrument for depth profiling with SIMS or ion-impact induced radiation 2−95528

sputter etching continued
ion beam milling, modelling 2−116575
ion beam processing, beam, target and substrate pot. effects 2−116366
MOS systems, reactive sputter etching of SiO_2 effect on elec. props. 2−115903
multi-chamber dry etching system for fabricating VLSI 2−69184
optical glass surface interaction with ions of F-containing gases 2−72593
oxides, sputter etching, ion beam charge composition effect 2−67181
phosphosilicate glass, columnar etching residue generation in reactive sputter etching 2−93644
plasma etch and deposition monitoring using quartz cryst. microbalance 2−111095
plasma etcher, flat bed, RF voltage-current charact. and DC negative bias props. 2−109609
plasma etching, IR absorpt., spectroscopy and Langmuir probe obs. 2−116583
plasma etching and film prep., conf., Brighton, England (March 1981) 2−53420
plasma etching endpoint detection in a batch loaded planar etcher 2−71267
PMMA resist, ion beam exposed, dry development 2−116573
probe for optical in-situ measurement of growth and etch rates 2−72626
quartz, plasma and reactive ion etching in planar plasma reactor 2−77970
RF sputtering discharge characteristics and power supply coupling conditions 2−57290
SAW resonators, freq. trimming using reactive ion etching 2−81199
semiconductor materials, RF plasma etching, end point detection using optical emission spectra and mass spectrometers 2−72859
solar energy conversion technologies, ion etching limitations for interface analysis, review 2−88413
sputter etch-oxidation process, fabrication of MOSFET 2−88249
sputtering with O_2^+, etch patterns surface struct. and SIMS 2−99283
surface topography development using two ion beams 2−92317
texturing with an RF-ion source using Xe working gas 2−105390
thin-film lasers with two-dimens. periodic structs. 2−96988
trilevel high resolution resist, film form. and directional etching 2−116574
tunnel magnetron characteristics and discharge diagnostics w.r.t. deposition and surface treatment 2−55806
Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Al, reactive ion etching using $SiCl_4$ 2−57531
Al(-Si), single wafer plasma etching of Al and Al-Si alloys 2−72878
$AuIn_2$ film, O_2 and Ar plasma interaction, sheet resist. 2−77204
Cd-Zn eutectic alloys, etch pit generation, chemical, electrolytic and ion beam methods 2−88252
Cu tubes, cylindrical magnetron co-sputter etching with appl. for solar selective absorbing surfaces 2−93678
α-Cu-Zn, oxidation, low temp., XPs ESCA study 2−111352
GaAs, plasma etching by tetrachloromethane, kinetic study by nonperturbative optical techniques 2−116565
GaAs, surface composition and etching in Cl_2 ion beam 2−61262
Ge, surface topography, self-ion bombardment effects, 30 to 500 keV 2−71516
Hg_2Cl_2, plasmatic etching, study of treated surface layer 2−111336
InP, plasma etching by tetrachloromethane, kinetic study by nonperturbative optical techniques 2−116565
InP, surface composition and etching in Cl_2 ion beam 2−61262
InP, surface etching kinetics of H plasma, Auger spectra study 2−93637
Mo, etching using carbon tetrachloride/O_2 mixture gas 2−62273
Mo film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
$MoSi_2$ film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
N_2 plasma etching systems, plasma optical emission anal. 2−71268
Nb films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Nb_3Al films, oxide growth of RF plasma, ellipsometric study, refractive index 2−57529
Nb_3Ge microbridges, fabrication and I-V characteristics meas. 2−61663
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Si dry etching, chemical and physical sputtering yields by fluorocarbon ions 2−93638
Si, ion bombardment with F^+ and CF_n^+, chem. sputtering yields meas. 2−87928
Si, ion implanted or sputter etched, damage depth profile, ellipsometric study 2−56045
Si, plasma etching, etch rate rel. to optical emission intensity 2−99569
Si, plasma etching with HF mixtures 2−116567
Si, reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
poly-Si, reactive ion beam etching using hexafluoroethane, SiF_4 and BF_3 gases 2−88233
Si, reactive ion etching, contamination of blanket etched surfaces, MOS VLSI appls. 2−116568
Si substrate for SiO_2 layer, selective reactive ion beam etching 2−88236
Si surface damage caused by reactive sputter etching *(Japanese)* 2−77965
Si-metal diode, ion beam sputtering and etching prep. and elec. props. 2−104488
Si_3N_4 film stability, stoichiometry deviation effect 2−115632
SiO_2, columnar etching residue generation in reactive sputter etching 2−93644
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
SiO_2 layer on polycryst. Si, selective reactive ion beam etching 2−88236
SiO_2 layers, deposition and etching by means of beam plasma discharge with tube like electron beam 2−116372
SiO_2, plasma etching with HF mixtures 2−116567
SiO_2, reactive ion beam etching, using a 26-cm electron-cyclotron-resonance ion source 2−74572
SiO_2, reactive ion beam etching using hexafluoroethane, SiF_4 and BF_3 gases 2−88233
SiO_2, reactive ion etching with NH_3 and trifluoromethane, role of N_2 in discharge 2−88241
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588
TiB_2, thin film, plasma-ion sputtering, AES 2−82156
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913

sputtered coatings
see also reactively sputtered coatings
alloy films, RF sputter deposition 2−99334
carbide films, sputtered, effect of ion implantation on props. 2−87120
cryopump application in industrial vacuum technology *(German)* 2−79602
deposition profile calculation for sputtering with two facing targets 2−62064
glass, antireflection polished, strengthened by ion exchange 2−97134
glass sputtered film waveguides for integrated optics, scatt. pattern meas. 2−70671
ion beam processing, beam, target and substrate pot. effects 2−116366
ion beam sputter deposition onto levitated and stalk mounted laser fusion targets 2−88003
laser fusion targets, RF vs. DC sputter gun Cu coating 2−83024
metallic superlattice superconductivity and magnetism 2−92819
metallic thin film deposition methods using ion beam technology 2−57304
Mumetal film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
optical film waveguides obtained by RF sputtering, cathode-ray vaporisation, loss mechanisms, ion polishing improvement 2−75672
Permalloy film, RF sputtered, mag. props. and effect of deposition conditions 2−56899
quartz passivation of Al-Cu thin film, electromigration 2−98503
rare earth garnets, RFe_5O_{12}, amorphous, struct. props., Mossbauer study 2−103625
steel, 304 stainless, sputter deposited, oxide and sulphide scales, AES and SEM studies 2−88272
Al magnetron sputtered film overlaid with plasma SiN film, trapped Ar induced deformation 2−82155
Al, porous, deposition techniques and heat transfer props. 2−87979
AlN piezoelectric thin films, for SAW appls. 2−97338
Al_2O_3-Na_2O-Si_2O thin films, X-ray emission spectra, Al coordination 2−110985
Ar, determ. in sputtered films using wavelength-dispersive electron probe microanal. 2−73039
Au-Cu sputtered surface, AES, quantitative anal., backscattering correction factors 2−57221
$BaPb_{0.7}Bi_{0.3}O_3$ films, grain boundary Josephson junction network props. meas. 2−87452
$BaPb_{0.75}Bi_{0.25}O_3$ films, grain boundary junctions, max. DC Josephson current, temp. depend. meas. 2−92832
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
Bi-SiO_2 cermet films, elec. and optical props., H addition effects 2−82505
C-metal sputtered film for solar selective absorbing surfaces, prep. and props. 2−111585
$Cd_xHg_{1-x}Te$ sputtered epitaxial layers, structural and elec. props. 2−92424
Co sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-Cr film, RF sputtered, HCP phase and perpendicular mag. anisotropy, N_2 induced 2−56394
Co-Cr film, RF sputtered, perpendicular mag. anisotropy, magneto-optical Kerr effect and reflectivity meas. 2−61878
Co-Ni, sputtered film, high coercivity and hysteresis loop squareness, mag. props. 2−82666
Co-Zr(Hf) sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
Co_xSi_{1-x} amorphous sputtered films, anomalous Hall effect 2−71950
Cr film, sputtered, internal stresses, optical reflectance, 2−82181
Cr-Ni (45 wt.%) film, amorphous sputtered, crystn. 2−110211
Cu coated laser fusion targets preparation by molecular beam levitation 2−83023
Cu spherical shells, stability loss under external press. 2−116542
Cu-Cr sputtered thin film, precipitate morphologies, annealing effects, electron microscope and EDX study 2−67353
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
$CuInSe_2$, thin film, prep. by RF sputtering, optical props. 2−110962
Cu_2MnIn(Al)(Sn) films, struct., mag. and transport props. 2−60889
$Cu_xMo_6S_8$, sputtered film, surface topography, SEM study 2−92321
Cu_2S-CdS thin film solar cells, sputter deposited, fabrication and charact. 2−67850
D_2 film, erosion by 2 keV electrons 2−99237
Fe-Mn, dil., ferromagnetic antiferromagnetic interactions *(Russian)* 2−77282
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948
$Fe_x(As_{15}Te_{37}Si_{22}Sb_{27})_{1-x}$ film, sputtered, phys. props. 2−92421
$Fe_xAu_{0.8-x}B_{0.2}$ amorphous films, mag. and transport props. 2−72296
$Fe_{1-x}B_x$ amorphous, sputtered and liquid quenched, hyperfine field, Mossbauer study 2−104760
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
γ-Fe_2O_3 sputtered thin film disks, high density recording charact. 2−77335
Gd films obtained in discharge with oscillating electrons, struct. and props. 2−66665
Gd-Co, RF-sputtered amorphous film, magneto-optical spectra *(Japanese)* 2−116158
Gd-Co amorphous films, perpendicular mag. anisotropy, effect of O_2 and N_2 addition 2−72299
GdCo amorphous film, compensation temp., substrate effects, Hall effect study 2−92974
GdCo film, bias-sputtered, perpendicular anisotropy rel. to microstruct. 2−72297
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
GdFeB and GdCoB amorphous thin films, mag. props. 2−72298
Ge amorphous film, explosive crystallisation, temp. and thickness effects 2−65860
Ge:H amorphous film, AC losses and elec. cond., polarons 2−77055
HgS, sputter-deposited film, comp. determ. by electron microprobe anal. *(Japanese)* 2−92399
IrO_x, sputtered film, optical writing with laser beam 2−91008
$K_3Li_2Nb_2O_{15}$ piezoelectric thin films, for SAW appls. 2−97338
LaB_6, ion beam sputter deposition, on W filament, electron optical props. *(Japanese)* 2−82996
Mo film, sputtered, internal stresses, optical reflectance, 2−82181
Mo film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., charact. 2−87104

sputtered coatings continued
$MoS_2(Se_2)(Te_2)$, sputtered dichalcogenide layers, friction props. 2−72849
$MoSi_2$ film, sputtered, plasma etching in NF_3 gas mixtures 2−105350
$MoSi_2$ films, sputtered and coevaporated, cryst. struct. changes on annealing 2−115590
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
Nb-Ge film, DC magnetron sputtering and supercond. props. meas. 2−72097
Nb-Ge films, supercond. and struct. props. rel. to sputtering conditions *(Russian)* 2−104522
Nb-Ge sputtered films, supercond. transition temp., nonuniformity within film 2−92800
Nb_3Al film, sputter deposited on SiO_x, AES anal. 2−92383
Nb_3Al thin films, sputter deposited at high substrate temps., comp. deviation 2−87978
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
NbN films, prep. by magnetron sputtering 2−87977
NbO_2 films, RF sputtered, crystallisation, DTA and elec. cond. 2−104441
$NbSe_2$, sputtered dichalcogenide layers, friction props. 2−72849
$NbSi_2$ film, phys. and elec. props. 2−104193
Ni sputter deposited on polymer surfaces, XPS study of 'hot' atom interactions 2−93805
Ni-Cr-Cr_2O_3 films, RF sputter-deposited struct. and comp. 2−87983
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
P, amorphous, intermediate range order, X-ray diffr. and Raman scatt. study 2−91779
$PbMo_{6+x}S_{8-y}$ thin film, sputtered supercond., crit. currents and scaling laws 2−61677
PbTe films, RF sputtered, struct. props. obs. by X-ray asymm. refls. 2−110197
PbTe layers, photocurrent decay 2−87340
$PbTiO_3$-Si, RF sputtered, ferroelec.-semicond. interface states, DLTS and capacitance study 2−98746
Pt film, sputtered, internal stresses, optical reflectance, 2−82181
Pt thin film, microstruct. and dislocation density, X-ray diffr. study 2−104201
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Pt_2Si nucleation from RF sputtered Pt film on Si 2−92385
RuO_2 sputtered film, struct. and metallic cond. props. meas. 2−110493
RuO_2 sputtered overlayers on CdS electrodes, photoelectrochem. behaviour 2−111571
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si amorphous film, CC sputter and plasma deposited, photoconductive decay, carrier lifetime 2−82398
Si amorphous films, glow discharge and sputter deposited, optical bandgap, absorption coeff. meas. 2−71856
Si evaporated and sputtered films, multithreshold HF/DF pulsed laser damage meas. 2−65286
a-Si:F and a-Si:F, H films, motional narrowing effects of NMR spectra 2−77395
Si:H, amorphous, sputtered, time-resolved photolum. spectra 2−77581
Si:H, amorphous, sputtered, time-of-flight and photoinduced mid-gap absorpt., dispersion 2−87432
Si:H, amorphous, sputtering and glow discharge prep., photoluminescence and midgap state density 2−87855
Si:H, amorphous film, magnetoresistance study 2−92790
Si:H, amorphous film, tetrode RF sputtering and optical and elec. props. meas. 2−111072
Si:H, amorphous sputtered film, dispersive transport, carrier mobility, photoconductivity study 2−82357
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
Si:H amorphous film, DC sputtered, characterization by optical and nuclear methods 2−93308
Si:H amorphous film, H conc. correlation with low freq. noise 2−92795
Si:H amorphous films, H_2 evolution 2−93950
Si:H amorphous sputtered films struct. correlation with prep. cond., STEM study 2−66400
Si:H amorphous sputtered film, microstruct. and H bonding environments 2−76847
Si:H amorphous sputtered thin film, carrier propagation, trapping and mobility 2−87283
a-Si:H films, motional narrowing effects of NMR spectra 2−77395
a-Si:H RF sputtered films, elec. props. rel. to threshold and memory switching appls. 2−87347
Si:P,B amorphous sputtered solar cell, dopant impurity effects 2−62475
Si-CdS($Zn_xCd_{1-x}S$) heterojunction solar cell, elec. props. 2−115875
p-Si-CdSe junction, sputter deposited, elec. props. 2−98736
SiC, composition and homogeneity, sputter-Auger line shape anal. 2−104202
a-SiC:H films, elec. cond., 130 to 350K, hydrogenation effect 2−71986
Si_3N_4-GaAs interface, sputtered, ellipsometric study, optical props. 2−76841
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
SiO_2, RF sputtered, pinhole detection by electron irrad. and cond. studies. 2−82172
SiO_2-Al_2O_3 amorphous thin films, coordination and bond character of cations 2−99228
Sm-Co film, RF sputtered, phase stability and mag. props. 2−72301
Ta film, sputtered, internal stresses, optical reflectance, 2−82181
$TaSe_2$, sputtered dichalcogenide layers, friction props. 2−72849
$TaSi_2$ evaporated and sputtered films, resist., stress and etching behaviour under various residual gas conditions 2−87094
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Tb_xFe_{1-x} amorphous RF sputtered films, magneto-optic props. 2−72459
Te films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
Ti-Fe film, composite cathode sputtered, struct. and comp., expt. study 2−56390
TiB_2, plasma-ion sputtering, AES 2−82156
sputtered coatings continued
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiN film, Cu diffusion 2−98502
TiN films deposited on Si, characterisation 2−110212
V_3Si film, magnetron sputtering and supercond. props. 2−77738
WS_2, sputtered dichalcogenide layers, friction props. 2−72849
ZnO, diode-sputtered films, surface acoustic waves 2−104132
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2−57286
ZnO on SiO_2 substrate, RF sputtering, TEM anal. 2−56410
ZnO piezoelectric thin films, for SAW appls. 2−97338
ZnO, RF sputtered film, heat treatment effects on elec. and optical props. 2−72087
ZnO RF sputtered films, carrier conc. of function of surface acceptor state density, gas sensor appl. 2−98772
ZnO, sputtered thin films, correlation between film quality and photoluminescence 2−87842
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO-$Al_2O_3(SiO_2)(TiO_2)$, struct. and chem. comp. of transition region 2−76851
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS:Mn, RF sputtered thin film, electroluminescence *(Japanese)* 2−61979
ZnS:Mn film, sputter deposit, luminesc. and struct. props. variation with annealing 2−93287
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956
$Zr_{0.76}Ni_{0.24}$, amorphous supercond., lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779
ZrO_2, sputter deposited, microstruct. control 2−115619
ZrO_2-CaO(Y_2O_3), sputter deposited, microstruct. control 2−115619

sputtered layers *see sputtered coatings*

sputtering
see also d.c. sputtering; diode sputtering; radiofrequency sputtering; reactive sputtering; sputter etching; triode sputtering
adatom diffusion activation energy, ion beam microtexturing determ. 2−56330
alkali halides, sputtering, electron and photon induced 2−99232
alkali halides, sputtering under ion bombardment 2−99240
alloys, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
alloys and multicomponent targets, sputtering-material removal rate 2−111018
atom ejection processes influence of lattice atom pot. junction, mol. dynamics simulation study 2−93343
atomic collisions in solids, conf., Lyon, France (July 1981) 2−68949
atomic mixing, ion bombardment induced, sputtering assessment 2−98166
atomic vapour sources for laser isotope separation, electron-beam evaporation and cathode sputtering 2−65101
binary compounds, preferential sputtering, at. mass and surface binding energy effects 2−57232
bioorganic solids, ion induced desorpt. of mols., conf., Uppsala, Sweden (June 1981) 2−94884
charge states theory and sputtering 2−77735
collision cascades, low energy, energy sharing and sputtering 2−77691
condensed gas films, erosion and mol. form. by electronic energy loss of fast ions 2−98171
condensed gas solid, sputtering by energetic ions, electronic mechanisms 2−99246
copper acetate, Cu negative ion emission by mol. sputtering 2−57229
cryopumping, theory, operations and appl. 2−53777
deposition profile calculation for sputtering with two facing targets 2−62064
depth profiling, mass redistrib. by atomic mixing 2−82974
discrete vaporisation system in standard VUP-4 instrument 2−116361
excited neutral atom formation, inelastic energy transfer, statistical model 2−62032
excited neutral atoms formation in sputtering process 2−77656
excited sputtered atoms kinetic energy determ. 2−77737
excited state formation by ion impact on surfaces, review 2−67177
excited states formation, unified model 2−93356
film, uniaxially oriented, growth mechanisms in ion based processes 2−115602
film growth by ion beam techniques 2−116364
first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
fusion reactors, low-Z limiters, in-situ maintenance 2−74906
group III arsenide MBE layers, composition, substrate temp. effect 2−87098
heavy highly charged ions (fission fragments), sputtering mechanism 2−111017
ice, sputtering by fast hevy ions 2−99239
Inconel 600, 625, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
inelastic ion-surface collisions, conf., Feldkirchen-Westerham, Fed. Rep. of Germany, (Sept. 1980) 2−74161
interstellar grains, sputtering, by shock waves rel. to interstellar element depletions 2−106849
INTOR, ion sputtering from walls during neutral beam heating 2−81493
ion beam sputtering, cover up of particles by substrate material 2−93344
ion bombardment, near-surface composition changes, dynamic Monte Carlo simulation 2−109851
ion emission mechanisms 2−111005
ion sources, Penning type, with high efficiency, and appls. 2−74574
ion-assisted film form., conf., Tokyo and Kyoto, Japan (June 1981) 2−112653
isotopic sputter-ion source target prep. 2−108191
isotropic magnetic film with high H_c, planar magnetron sputtering 2−72622
laser beam meas. of sputter rate in ion sputtering 2−93354
low energy and nonlinear sputtering theory and comparison to expt. data 2−77733
low energy light ion sputtering, primary recoil contrib. 2−77659
magnetic film deposition, high rate sputtering method 2−111075
magnetron sputtering technique 2−83025
metal, sputtering and secondary ion yields under O_2^+ ion bombardment 2−99268
metal film, electrodeposited, sputtering yield 2−77676

sputtering continued
metal oxide film, electrodeposited, sputtering yield 2−77676
metal surface, non-adiabatic processes 2−87939
metal-C films, graded index, solar absorbing, prod. by dual cathode sputtering 2−99335
metallic thin film deposition methods using ion beam technology 2−57304
metals, heavy-ion bombarded, sputtering from elastic collision spikes 2−77653
metals, sputtering with O_2^+, etch patterns surface struct. and SIMS 2−99283
MIS layer structs., secondary ion energy distribution during sputtering 2−99285
molecular ion bombardment, nonlinear effects, shock wave model 2−67176
Monte Carlo hybrid calc. of ang. distrib. of keV sputtered protons 2−72590
multicomponent material sputtering theory 2−77736
multicomponent target, secondary ion emission, current density effects 2−99275
multiphoton reson. ionisation of sputtered neutrals from ion bombarded solids 2−85601
negative ion formation during sputtering, semi-empirical model 2−62030
neutrons, review 2−105008
Nimonic alloy PE 16, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
non-linear sputtering yields, $S_n^{3/2}$ depend., shock wave model 2−77693
nonlinear Boltzmann eqn. calc. of sputtering from spike 2−77654
organic compounds, Z 2−113030
oxides, sputtering, mol. form. mechanisms 2−99271
Penning sputtering source, HIM-10 type, appls. *(Hungarian)* 2−93419
physical sputtering code for fusion applications 2−80252
polyisobutylene film, sputter yield measurements on simulated adventitious carbonaceous contamination 2−77678
polymer coating, thermoplastic, pulsed detonational sputter deposition *(Russian)* 2−72620
probe for optical in-situ measurement of growth and etch rates 2−72626
profiling, depth resolution, depth depend. 2−83438
profiling, detrimental effects, deconvolution correction 2−99281
radiation damage in semi-infinite media, simplified transport theory 2−66040
radiation damage transport eqn., analytic solns. for sputtering spectra 2−81817
radioactive substances, by fission products, optical investigation method 2−116326
review of techniques and applications 2−62063
semiconductor growth, ion-surface interactions, review 2−110201
silver acetate, Ag negative ion emission by mol. sputtering 2−57229
SIMS, molecular ion sputtering from surfaces 2−111002
SIMS, reactive ion bombardment for secondary ion yield enhancement 2−82973
SIMS equipment Riber MIQ 156, improvements and appls. 2−95529
single crystal sputtering, models, review 2−99270
solids, compound, sputtering mechanism 2−77734
solids and surfaces, charact. by ion beams and mass spectrometry, review 2−93346
spikes, sputtering energy spectra, theoretical model 2−99248
steel, stainless, type 316, seconary ions ejected by D^+, He^+ ion bombardment, energy anal. 2−93355
successive metal layers on polyimide, crack reduction 2−105071
surface analysis by electron and ion beam methods, conf., Newcastle, NSW, Australia (Feb. 1981) 2−106995
surface disruption as observable factor in sputtered particle energy distrib. 2−77655
surface layers, Auger sputtering profiles, quantitative interpretation 2−82962
surface modifications due to preferential sputtering 2−110103
surface potential barrier with nonzero curvature 2−111008
textured surfaces by ion bombardment, sputtering yield and related phenomena, review 2−76528
thermal spikes, sputtered atoms degree of positive ionisation periodicity in thermal spikes conception 2−77658
thin film pressure sensor design and manufacture *(German)* 2−79570
Tokamak, sputtering yield calcs., light ions incident on wall 2−109525
Tokamak reactor, first wall erosion and plasma impurity flux reduction 2−74907
Tokamak reactor plasma, impurity generation 2−74916
ultrafine particle prep. by gas evaporation with arc plasma sputtering 2−67231
wear-resistant films, uniformly thick, high rate deposition onto spherical surfaces 2−87981
wire plating by cathode sputtering 2−72621
Ag film, sputter deposition, angular factors, SEM and EPMA study 2−87936
Ag-Cu, ion sputtered, surface topography 2−105025
Ag-Pd (16 wt.%), sputter behaviour, influence of ion energy and incidence angle on Auger depth profiles 2−82972
AgAu, preferential sputtering 2−77681
Al, self-ion sputtering yields 2−77660
Al/AlN coatings, sputter deposition prep. using pulsed gas processes, characterisation and mech. props. 2−83021
Al-Mg-V, candidate material for NET/INTOR first wall, development and evaluation 2−69834
Ar^+ ion sputtering in Be, Mg, Zn, Cd, at. excitation 2−75372
Au film, sputtering yield of Ar^+ and Ar^{2+} ions 2−67180
Au, sputtering, atomic excitations, optical spectrometry study 2−77689
Au, sputtering by reactor neutrons, isotropic peculiarities *(Russian)* 2−62022
Au, sputtering from (111) crystal, ang. distrib., impact energy depend. 2−77652
Au-Cu, surface comp. ion scattering spectra study by Ar^+ and He^+ ion bombardment 2−71781
B with adsorbed O, excited states of sputtered mol. O_2 2−77657
$BaTiO_3$ sputtered films, energy anal. of high-energy neutral atoms 2−87927
^{135}Ba target prep. on thick backings by heavy-ion sputtering technique 2−108178
C and carbides, chemical reaction and sputtering 2−111490
C film formation by laser evaporation and ion beam sputtering 2−116370
$CdHg_{1-x}Te$ high quality epitaxial films, growth by sputter deposition 2−116362
sputtering continued
Cr alloy crack-free 2000 Å films, sputter deposition onto ABS plastics 2−87984
Cs inverted negative ion sputter source 2−108172
Cu, 2−105024
Cu, caesiated surfaces and negative ion emission 2−99277
Cu, self-ion sputtering yields 2−77660
Cu, sputtering, atomic excitations, optical spectrometry study 2−77689
Cu-Al(-Ti)(-Hf) powder, sputtered, internal oxidation to produce dispersion strengthed Cu *(Russian)* 2−67238
Cu-Au, threshold sputtering effects, ion scatt. spectroscopy study 2−82982
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
Cu-Ni, high temp. sputtering, ion-enhanced diffusion, grain boundary erosion *(Japanese)* 2−116317
Cu-Ni, sputter-enhanced diffusion at high temps. 2−92279
Cu-Ni (40 at.%) alloy, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
Cu-Ni (40 at.%) Ar^+ irrad., subsurface composition modification 2−74932
Cu-W(-Mo), ion beam microtextured surface, optical absorption coeff. 2−83277
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
D_2O ice film, erosion and mol. form. by electronic energy loss of fast ions 2−98171
Fe, sputtering yield for, Monte Carlo calc. 2−77674
Fe-Si, oxide scale removal, interface exposure 2−105383
Ga, sputtering, atomic excitations, optical spectrometry study 2−77689
GaAs, sputtering, high resolution, using focused Ga^+ beam 2−116327
$(GaAs)_{1-x}Ge_x$ single-crystal metastable alloys, growth and optical props. 2−116360
GaP film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
Gd, ferromagnetic, sputtering coeff., temp. depend. 2−87938
Gd, paramagnetic, sputtering coeff., temp. depend. 2−87938
$Hg_{0.8}Cd_{0.2}Te$, surface anodic oxide film composition, ion beam effects, XPS study 2−71832
$Hg_{1-x}Cd_xTe$, cleaved (110) surface room temp., evaporation stability, XPS and UPS study 2−87040
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
In-Pb, surface comp., ion sputtering effect, AES study 2−82985
InSb MOS structure, interface characterization 2−87411
Ir film on n-Si, silicide form., AES study 2−86951
KCl, electron-induced sputtering 2−99236
$K_3LiNb_5O_{15}$ films for SAW devices 2−82111
Mg, sputtering, atomic excitations, optical spectrometry study 2−77689
Mo (100), sputtering of chemisorbed N, mass effect 2−82981
Mo adsorption of H on Cs monolayer, negative H ion production by sputtering 2−99253
Mo monocrystal, (110) surface, chemisorbed gas, desorption by low-energy ions 2−74923
Mo, nitridation by low energy N_2^+ ion bombardment, surface pretreatment depend. 2−111349
NaCl, electron-induced sputtering 2−99236
Nb, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
Nb surface (110), adsorption of S, static SIMS, ion dose effects 2−99274
Nb-V, spectrochemical anal. using photon emission from sputtered atoms, surface O contamination effect 2−77677
Nb-V alloys, sputtered clusters 2−93341
Nb_3Al thin films, sputter deposited at high substrate temps., comp. deviation 2−87978
NbB_2, fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
Ni, fusion reactor materials, light ion sputtering yield, depend. on angle of incidence 2−74922
Ni, photon emission from sputtered atoms as function of phase transition 2−77596
Ni, polycrystalline, chemisorbed gas, desorption by low-energy ions 2−74923
Ni, seconary ions ejected by D^+, He^+ ion bombardment, energy anal. 2−93355
Ni, self-ion sputtering yields 2−77660
Ni, sputtering of keV protons, ang. distrib., hybrid Monte Carlo calc. 2−72590
Ni thin film, 40 keV Xe^+ implanted, range profile and sputtering efficiency 2−66091
Ni/Cr thin-film structures, sputter depth profiles obtained from emission of Auger electrons and X-rays 2−77682
Ni-Pt interaction with Si 2−86953
Ni-W, ion beam microtextured surface, optical absorption coeff. 2−83277
NiSi, AES depth profiling, ion bombardment effects 2−99234
$NiSi_2$, preferential sputtering 2−77681
$Ni_{1-x}Si_x$, sputtering yield, Rutherford backscatt. study 2−57230
Pb, photon emission from sputtered atoms as function of phase transition 2−77596
PbS film, spectrally selective, produced by ion beam sputtering 2−71824
Pd membrane pumps in thermonucl. power plants, material sputtering effects 2−79601
Pd, on to polyester film, XPS obs. 2−111026
Pt, sputter deposition on ZrO_2 ceramic, interfacial reaction, Auger line shape and factor anal. 2−83429
PtSi, AES depth profiling, ion bombardment effects 2−99234
PtSi, preferential sputtering 2−77681
Rh film on n-Si, silicide form., AES study 2−86951
SO_2 ice, laboratory studies of charged particle erosion and appls. to Io SO_2 frosts 2−112374
Si:B, SIMS depth profiling, physico-chemical state 2−99286
Si:N, excited states of sputtered mol. N_2 2−77657
Si-C-Al-O film on Mo, D^+ irradiation effect 2−66081
Si-metal diode, ion beam sputtering and etching prep. and elec. props. 2−104488
SiC, D^+ ion irrad., secondary ion sputtering, energy anal. 2−77675
SiC film on Mo, D^+ irradiation effect 2−66081
SiC sputtered film, composition and homogeneity, sputter-Auger line shape anal. 2−104202
Si_3N_4, plasma deposited, characterisation by AES with N sputtering 2−110185

sputtering continued
SiO_2 film, sputter deposition, angular factors, SEM and EPMA study 2−87936
SiO_2/Si, sputtering, high resolution, using focused Ga^+ beam 2−116327
Sn, photon emission from sputtered atoms as function of phase transition 2−77596
Sn-In(Pb), surface comp., ion sputtering effect, AES study 2−82985
Ta oxide and nitride layers, quantitative anal. by sputtered neutral mass spectrometry 2−105031
Ta, sputtering, continuous emission production of photons 2−57188
TaC, sputtering of keV protons, ang. distrib., hybrid Monte Carlo calc. 2−72590
Ta_2O_5-Ta interface profile, Auger and sputter depth profiling study 2−104175
Te-Fe, film, prep. by sputtering from composite targets with fine metal wires *(Japanese)* 2−99333
Ti, seconary ions ejected by D^+, He^+ ion bombardment, energy anal. 2−93355
TiC, CVD coatings, 2 keV D bombardment, sputter yield, surface modification 2−74925
TiC, first wall coating, preferential sputtering partial yields 2−80212
Ti_2O_3, Ar sputtered, photoemission studies 2−116330
Tib, first wall coating, preferential sputtering partial yields 2−80212
Tl, sputtering, atomic excitations, optical spectrometry study 2−77689
UF_4, sputtering by fast hevy ions 2−99239
^{235}U target prep. on thick backings by heavy-ion sputtering technique 2−108178
V, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
W (100), sputtering of chemisorbed N, mass effect 2−82981
W, sputtering yield for, Monte Carlo calc. 2−77674
Zn, sputtering, atomic excitations, optical spectrometry study 2−77689
ZnO sputtered films, energy anal. of high-energy neutral atoms 2−87927
ZnS epitaxial growth on Wall and Cu, substrate ion planing effects 2−83048
Zr sputtered atoms, CW laser induced fluoresc. spectroscopy 2−80529
Zr, sputtered-atoms surface normal vel. distrib. for light-ion irradiation 2−77651
α-$Zr(PO_4)_2M_2$ (M=Li^+, Na^+, K^+, Cs^+) Mg Kα ESCA spectra, shake up struct. enhancement by sputtering 2−57252

square-wave generators
flow transducer difference freq. detector cct. 2−103233

SQUIDs *see superconducting junction devices*

stabilisation *see stability*

stabilisers *see controllers*

stability
see also flow instability; frequency stability; limit cycles; Lyapunov methods; plasma instability
accommodative oscillation, enhancement of average accommodative response, simulation study 2−116908
aerodynamic force singularities of aeroelastically unstable two-dimensional panels 2−91301
alloys, binary phases with α-Mn cryst. struct., computer prediction 2−76366
annular plate vibration and stability under conservative and other loads 2−91299
Applied Mathematics and Mechanics Society Meeting, Wurzburg, Germany (April 1981) 2−84377
atmosphere, effects of convective stability on Great Lakes evaporation 2−88919
bar, prismatic, vertical axis, elastically fixed at lower end, stability 2−114688
beam bending, descending branch, strain diagrams *(Ukrainian)* 2−103060
beam models, elastic, nonlinear, planar, computational post-buckling anal. 2−60434
beam supported at axially oscillating mount, destabilising effect of Coulomb friction on vibr. 2−60450
beams and rods, elastic, non-linear theory, finite element representation 2−109194
biaxial tension stability under creep conditions 2−60429
cantilevered pipes dynamic behaviour while conveying fluid near crit. vel. 2−91290
Cauchy problem stabilisation, class of initial functions processing power growth *(Russian)* 2−70932
celestial mechanics, Hill stability and distance curves for general three-body problem 2−78941
column, heavy, with end load, primary mode stability boundary and higher buckling modes 2−55468
column, perfect viscoelastic, dynamic stability 2−81262
cometary nuclei, instability of dust cloud model *(Russian)* 2−73908
composite material cylindrical shells, polymeric, stability under axial compression 2−114702
composite material triple-layer cylindrical shells, stability under combined axial compression and lateral pressure 2−114701
composite shell, cylindrical, glued with stiffeners, optimum design w.r.t. dynamic restrictions 2−60453
composite shell, three-layer fibreglass base, axisymmetrically heated, stability loss 2−60436
composite superconductor, stability with respect to thermal disturbances, dimensional anal. 2−92848
critical state of structures 2−97407
cylinder, circular, hollow, with laminated periodic struct., free torsional vibrs. 2−60446
cylinder, incompressible, elliptic, under finite deforms., stability 2−55466
discs, membrane-like, anisotropic, spinning, non-linear wave propag. and stability 2−75847
driven anharmonic oscillator, bistability and Feigenbaum bifurcations anal. 2−94995
dynamic systems, parametrically excited, stability anal., generalised Hill's method 2−101162
Earth global climate, effects of ice caps on stability in two-dimensional energy balance model *(Chinese)* 2−88999
elastic contact problems, singular integro-differential eqns., approx. soln. 2−70877
elastic system combination parametric resonances 2−114713
elastic-plastic strain hardening material, ductile tearing instability anal., piecewise power law hardening 2−60468
elasto-plastic layer bars, stability under irregular heating *(Russian)* 2−75859

stability continued
elastostatic systems with one degree of freedom, practical instability 2−55420
electron beam, neutralized, unstable oscillatory Pierce modes 2−75505
elliptic restricted three-body problem, stability of triangular points 2−89118
environmental monitoring and control hardware selection *(Russian)* 2−62541
equilibrium fluids, crystn. and ordered struct. formation, mol. theory 2−56161
ferrofluid mag. drops, instability under mag. field 2−110093
fibre reinforced composites, stability problem soln. *(Ukrainian)* 2−114696
fluid-structure interactions in model test system, perturbation analysis 2−91307
fractal diagrams for non-integrable hamiltonians 2−89624
frame, critical load factor, buckling modes, stability functions 2−60433
frames, rigidly jointed, non-linear elastic limit state anal. 2−70858
free circular plate under nonconservative edge loading, vibration and stability 2−91300
garnet epitaxial bubble film, ion implantation strain annealing, propag. device stability 2−88100
gas bubbles stability in liq. gas soln. 2−55640
glass fibre reinforced plastic cylindrical shells, triple-layer, dynamic stability 2−114710
global bifurcation diagram in ecological interacting and diffusion systems 2−95284
gravitating cylinder, rotation effect on stability 2−84080
gyrostat, heavy, steady rot. stability about its principal axis 2−63806
gyrostat with elastic plates, steady-state motion stability in Newtonian central force field 2−55410
HCP crystals, triple spatial dislocation nodes, equilibrium configurations *(Russian)* 2−115230
heat conduction equation, internal problem, uniqueness and estimation of stability *(Russian)* 2−75955
helically magnetic unstable elec. arc, instability growth rates and closed-loop mag. field control 2−103500
high-resolution electron energy loss spectrometers, high-stability low-noise power supply design and construction 2−89868
hyperelastic multilayer media, nonlinear waves stability 2−114709
III-V compounds, stability in quaternary liq. phase, thermodynamic anal. 2−71617
injection lasers, diffusion induced instability 2−70563
instability and catastrophe theory in science and engineering, book 2−53435
international atomic time 2−79537
interstellar clouds, stability of simple polytropes against homologous contraction 2−68872
laminated cylindrical shell, thin-walled, functioning for stability optimisation 2−91287
linear induction pump, instability suppression by external mag. field 2−103147
linear system with Markov perturbation, eqns. for moments and stability conditions 2−53666
magnetometers testing, stability of frozen magnetic field in a superconducting shield 2−95413
magnetron, rippled field, free-electron laser type instability 2−58839
mathematical physics principles, book 2−53445
multidimensional linear systems with variable parameters, stability theorems 2−97365
multilayer shell, inclined, isoparametric triangular finite element 2−91273
non-linear system disturbances, stability in the large 2−70856
nonautonomous system, periodic rotary motions *(Ukrainian)* 2−103014
nonlinear elastic media deformation, stability under finite disturbances *(Ukrainian)* 2−114697
nonlinear oscillator, periodically forced, bistability, period doubling bifurcations and chaos 2−101326
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
nonlinear structural dynamics, extrapolated force correction method stability anal. 2−101161
nonlinear systems in critical case of two zero roots, stability in the large 2−112706
panel, cylindrical, under axial compression, nonlinear deform. 2−81267
pendulum, inverted, optimal parametric stabilisation 2−81218
photographic films, polyester base, chem. stability 2−64145
piezoelectric hydrophone, temp. stability and sensitivity meas. 2−81188
plane rectangular block, positive ellipticity and stability of deformation *(German)* 2−65496
plate, elastic, buckling under lateral compression, asymptotic theory 2−55460
plate, elastic, thick, stability under thrust 2−91235
plate, extended, unlimited, elastic equilib. stability loss in vicinity of sloping crack *(Ukrainian)* 2−60464
plate, rectangular, simply supported, subjected to follower forces, instability mode 2−55424
plate, thin, unbounded, stability near hole, pure bending in its phase *(Russian)* 2−91270
plate bending, hybrid displacement method, numerical stability *(German)* 2−55469
plates, rectangular, completely supported with uncoupling boundary conditions subjected to follower forces, stability 2−75850
plates, rectangular, simply supported, elastic stability under locally distributed edge forces 2−103068
plates with cracks, fracture under tension after loss of stability 2−60481
positive glow corona point-plane gap, dual-patch regime stabilisation 2−103510
post buckling behaviour, instability of dual eigenvalue fourth-order systems 2−114699
precipitates, coherent, growth approx., stability 2−56193
propellant, solid, shock-induced instability due to crack-like defects 2−78106
radiative transfer equation, stability of solns. using finite difference eqns. 2−89139
rare earth-Co matrix magnets heated in dry air, thermal stability and temp. coeffs. 2−72292
rigid body, permanent rots. about nonprincipal axes in a Newtonian force field, stability 2−114632
rigid rod system, movable knots, shakiness, projective invariance 2−103013
ring fixed to elastic mountings, spatial stability *(Russian)* 2−60388

stability continued
rings, square, subjected to in-plane crushing, plastic collapse analysis 2−109200
rod, reinforced, viscoelastic, compressed and stretched, stability 2−55464
rod with variable section, elasticity after stability loss, nonlinear differential eqn. *(Ukrainian)* 2−55434
rods, elastic, flexural instabilities 2−91271
rods, viscoelastic, stability under influence of sliding force, thermomech. coupling effect 2−65498
rods and shells, characts. of discrete schemes 2−81266
self-similar diffusional processes of phase transition, front instability 2−61118
semiconductor, magnetoactive, helicon wave filamentation instability 2−87311
semiconductor device time-dependent models, stability problem 2−77068
shaft, rotating axially loaded homogeneous, stability behaviour 2−75874
shafts, elastic, rotating, stability principles including variational principles 2−103069
shell, conical, under combined load, stability, taper effect 2−114703
shell, cylindrical, dynamic stability, axial compression *(Russian)* 2−91285
shell, cylindrical, longit. divided, stability and load-carrying capacity under compression 2−97409
shell, cylindrical, nonlinear response to transient acoustic wave 2−91308
shell, cylindrical, stability under external press. and nonuniform heating 2−97408
shell, cylindrical, unilaterally interacting with elastic base 2−91288
shell, cylindrical three-layered anisotropic, elastic stability problem *(Ukrainian)* 2−81260
shell, developing under combined loading, stability, numerical analysis *(Ukrainian)* 2−103067
shell, elastic-plastic instability under compression 2−55465
shell, nonuniform, approx. analytical models in stability problems *(Russian)* 2−75873
shell, thin, shallow, spherical, nonaxisymm. equilib. modes, asymptotic anal. 2−60432
shell, thin axially-symmetric, creep stability, plastic flow theory *(Polish)* 2−81248
shell, three-layer spherical, stability *(Ukrainian)* 2−114695
shell, viscoelastic shallow spherical, stability under variable loading 2−60437
shells, cylindrical, coaxial, hydroelastic stability 2−65487
shells, cylindrical, under nonaxisymm. press., nonlinear deform. and stability, finite-element anal. 2−65481
shells, ribbed, dynamics studies 2−114719
shells, shallow saddle-shaped hypar supported by shear diaphragms under uniform load, stability *(German)* 2−75869
shells, spherical, three-layer, structurally asymmetric, crit. press., loss of stability *(Russian)* 2−60393
shells, truncated conical, with variable modulus of elasticity under periodic compressive forces, dynamic instability 2−60435
shock reflection from concave wedge-shaped wall obs. 2−91484
slab, massive, subjected to initial finite compression, thermoelastic stability 2−81264
soft ferromagnetic elastic plates, coupled magnetomech. eqns. 2−116045
spatially localised interactive neural populations, stability and dynamics of excitatory sets 2−83556
springs, large displacements and dynamic stability, helical finite elements 2−114630
stars with mag. field, stability and oscillations study 2−100908
static drift domain, fluctuation instability conditions *(Russian)* 2−104389
stationary fields in nonlinear media existence and stability theorems 2−75493
stellar dynamics, stability of periodic orbits in triaxial galactic models 2−79210
stellar magnetic fields, stability of toroidal flux tubes 2−63369
stellar pulsational stability, calc. of lowest eigenvalue via Schwartz iteration method 2−106671
stiffened annular plates, vibration and stability 2−109107
strip on rigid foundation, elastic stability 2−60438
system with fast and slow motions, technical stability 2−112698
systems of processes, stability and instability with respect to two multivalent measures 2−53525
tabular icebergs, interaction with ocean waves rel. to stability and overturning 2−88906
TEM, dark field, sources of image instabilities 2−117173
tetrafluoromethane, arc discharge, enhanced photoemission from F atoms 2−103487
thermoplastic instability in simple shear 2−114674
thermoviscoelasticity, boundary-value problems, soln. construction and investigation 2−60404
thin walled structures, expt. determ. of uniaxial compression charact. 2−91283
thin-walled cylindrical shells with reinforcing stringers, upper crit. loads rel. to stability loss 2−81265
transient state stability, phase-plane anal. 2−112696
unstable state dynamics, master equation evaluation 2−58714
Al alloy cylindrical shells under axial compression, plastic stability investigation *(Chinese)* 2−103057
Cs-O mixed film coadsorpt. on Nb (110), work function and thermal stability *(Russian)* 2−104166
$CsRHP_3O_{10}$, (R=rare earth), preparation, composition and stability 2−72644
$CsR(PO_3)_4$ (R=rare earth), preparation, composition and stability 2−72644
Cu-Ag, amorphous films with high stability 2−104196
KD_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
KH_2PO_4 crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
$KMnO_4$, open thermodynamic system, thermolysis 2−110010
Kr adsorbed on graphite, 2D commensurate solid, stabilization by Xe 2−61287
MnZn ferrite, temp. and time stability 2−82694
$NH_4H_2PO_4$ crystal, plastic flow and optical stability threshold during laser irradiation *(Russian)* 2−71498
Nb-HfN alloy, high temp. hardness changes *(Russian)* 2−72794
Nb-ZrN alloy, high temp. hardness changes *(Russian)* 2−72794
Nb_3Sn CVD superconducting tapes, dynamic stability 2−104554
$Pb_xSn_{1-x}Te$:In, Fermi level stabilization by defects at low temp., mechanism 2−66487
stability continued
Pd_2Si epitaxial film, ion beam induced, growth mechanisms and thermal stability 2−115604
Pt, surface (110), nonreconstructed, prep., thermal stability and adsorpt. characts. 2−115515
$RbRHP_3O_{10}$ (R=rare earth), preparation, composition and stability 2−72644
$RbR(PO_3)_4$ (R=rare earth), preparation, composition and stability 2−72644
SF_6 arc discharge, enhanced photoemission from F atoms 2−103487
SeF^* excimer laser discharge stabilization by low-current density electron beam 2−114257
Si, back-surface damage regions, gettering of mobile O, defect stability, annealing and water vapour effect 2−56255
Si, back-surface damage regions, gettering of mobile O, defect stability, O diffusion 2−56256
Si_3N_4 film stability, stoichiometry deviation effect 2−115632
Y_2O_3-SiO_2 UV laser mirror deposition and optical characteristics *(Hungarian)* 2−55213
stability of numerical methods *see convergence of numerical methods*
stacking faults
adsorption-induced variation of diffraction lines of a substrate with stacking-faults 2−92361
alloys, FCC supersaturated, multiple-layer intermediate martensitic struct. form. *(Russian)* 2−66017
alloys, $L1_2$ ordered, screw dislocation dissociation and core struct. in applied shear stress 2−76441
alloys, $L1_2$ ordered, screw dislocations, dissociation and core struct., computer simulation 2−76440
anomalous contrast, from stacking faults 2−76464
close-packed structure, X-ray diffr. effects generated by stacking faults, calc. method *(Russian)* 2−66018
crystal, order disorder cryst., and max. degree of order cryst. 2−103670
crystal potential near a stacking fault of FCC crystal 2−71475
dislocations, rectilinear, equilib. splitting theory, stacking fault energy *(Russian)* 2−65996
electron microscopy, conference, Kyoto, Japan (May 1981) 2−68953
electron scatt. theory, periodic continuation methods 2−109638
fault energy role, on galling and wear behaviour 2−88218
HCP cryst., core struct. of edge dislocations under shear stress, computer calc. 2−76454
interatomic pot. functions from phonon dispersion relations, stacking faults energy 2−109737
martensites, α and ε phase nucleation, role of dislocations and stacking fault energies *(Russian)* 2−62126
metals, austenitic region shape deformation under martensitic transformation, electron microscopic determ. 2−116629
metals and alloys, creep, influence of stacking fault energy 2−66110
Nimonic PE16, anomalous contrast from stacking faults 2−76464
oxidation induced, growth kinetics, interstitial capture by partial dislocations 2−98118
phthalocyanine thin films, cryst. defect orientations and growth mechanism 2−82151
poly(γ-methyl L-glutamate-co-γ-benzyl L-glutamate) film, irreg. layer lattice 2−86583
polydiacetylene crysts., dislocations and stacking faults, TEM study 2−71457
Si, twin interface, X-ray topography exam. of struct. and defects *(Chinese)* 2−109810
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
TGS, ferroelec. domain boundaries, X-ray topographic image contrast 2−77462
Al, deformed., cyclically and monotonically, stress-substruct. relationships in wavy slip mode metals 2−99498
Al, interatomic pair pot. calcs. 2−91865
Al, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Al stacking faults, (111), energy calc. *(French)* 2−87079
Al-Cu (4 wt.%), stacking fault energy change during ageing *(Russian)* 2−115256
AlN, multilayer polytypes form. during sintering 2−76404
Au film on Pd(001) expt. evidence for nucleation of partial dislocations 2−71455
Au, ruptured, final separation, role of glide and twinning 2−83200
$BaCa(CO_3)F$, huanghoite, lattice parameters and stacking faults, electron diffr. study *(Chinese)* 2−91903
$Ba(NO_3)_2$, stacking faults and dislocations due to liquid inclusion presence 2−91989
CdS, cryst. defects, high resolution TEM study 2−60991
CdS, recrystallised, stacking faults 2−103784
CdTe, defect imaging using TEM 2−71460
Co Nb (0.96 at.%) alloy, solute segregation to stacking faults, atom probe FIM obs. 2−105163
Co-based alloy, foil thickness meas. from convergent-beam diffr. patterns, error assessment 2−95557
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Co-Fe, induced mag. anisotropy, role of stacking faults, expt. study *(Russian)* 2−92897
$(Co_{0.78}Fe_{0.22})_3V$ alloy, ordered, microstruct. 2−72719
Cu and Cu-Ge, low dose fission neutron irrad. damage 2−103829
Cu, interionic pot. and stacking fault energy 2−66016
Cu, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Cu, stacking fault tetrahedra induced by electron irrad., dynamic study 2−76462
Cu-Al (10 at.%), single crysts., slightly deformed, dislocation multipoles struct., TEM 2−55975
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Cu-Si, rolled, microstruct. and texture 2−111204
α-Cu-Su-Al, anneal hardening *(Korean)* 2−116464
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Cu_2S, chalcocite, Cu vacancy ordering and transition to djurleite, TEM study 2−115222
α-Fe, dislocation splitting, alloying additions influence *(Russian)* 2−115231
Fe, low dose fission neutron irrad. damage 2−103829
Fe-Al, dislocation dissoc. and fault energies *(French)* 2−98106
Fe-Al, pseudoelasticity and slip reversibility, optical and electron microscopy obs. 2−111221
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107

stacking faults continued
GaInAs epitaxial layer device type structures, defects 2−71461
GaInAsP epitaxial layer device type structures, defects 2−71461
InGaAsP-InP DH LED, aged, dark defects 2−91974
$LiTaO_3$, ferroelec. domains and chemical twinning, dislocations and stacking faults 2−93130
$LiTaO_3$, nonstoichiometric, defect struct. model fitting to neutron powder diffr. data 2−65807
Mg_2GeO_4 spinel, deformed, cation stacking faults, TEM study 2−76463
Mo film, electrolysis prep., growth rate anisotropy and struct. *(Russian)* 2−61304
Mo, low dose fission neutron irrad. damage 2−103829
Mo-B dilute alloys, nature of planar faults 2−81800
n-$MoSe_2$, transverse photoconductivity, electronic mobility anisotropy 2−104419
Ni superalloy, particle strengthened, resisting stress model of creep, stacking fault energy role 2−88149
Ni-Cr based refractory eutectic alloy, electron microscopy study *(Russian)* 2−98298
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
Ni_3Ga, ordered alloy, dislocation struct. *(Russian)* 2−98094
Si, Czochralski wafers, effects of crystal defects on deep levels, TEM and DLTS obs. 2−92507
Si, deformed, stacking faults, dislocations, X-ray moire pattern study *(Russian)* 2−91990
Si, dislocations, and stacking faults, HV high-resolution electron microscopy study 2−91970
Si epitaxial growth using SiH_2Cl_2, hillocks and stacking faults obs. 2−93437
Si, epitaxial stacking faults, elec. props., crystallographic struct., interaction with point defects 2−92379
Si, gettering of stacking faults and heavy metal impurities, appl. to semiconductor device and IC manuf. *(Russian)* 2−66019
Si, heat treated wafers, metal decorated haze microdefects, TEM and energy dispersive X-ray anal. 2−91946
Si oxidation enhanced dopant diffusion and growth or shrinkage of oxidation-induced stacking faults 2−66015
Si, oxidation induced point defects, stacking faults and dopant diffusion, theory 2−91951
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si, point defects, diffusion mechanisms and shrinkage and growth of extended defects, theoretical anal. 2−71443
Si, stacking fault annihilation, surface orientation depend. 2−55985
Si, stacking fault growth and shrinkage kinetics in oxidizing ambient containing a Cl cpd. 2−98117
Si, stacking fault morphology, annealing temp. effect 2−66021
Si, stacking faults, {113}, atomic model and electron microscopy study 2−71478
Si, stacking faults for specimen surface crystal orientation deviation from (111) plane *(Chinese)* 2−91988
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si:P(As), dechannelling by dislocations and stacking faults 2−81845
Sm_5Co_{19}, intergrowth and stacking faults, electron microscope obs. 2−115255
Ti_3Al, deformed 'C' component dislocations 2−60983
TiC, stacking fault energy, TEM weak-beam technique 2−55986
$V_2Zr(Hf)(Ta)$ superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
WC-Co, deformed, defect struct. of WC 2−83166
ZnS, 2H to 3C solid state transform, X-ray diffr. study 2−98272
ZnS, form of Cu_xS and Zn secondary phases, dislocation and stacking fault decoration 2−115240
ZnS polytype, stacking fault sequences, high resolution electron microscopy study *(Chinese)* 2−91987
ZnS, revealing of defects by chem. etching 2−115239
ZnS, struct., twinning and thermal cond. 2−81744
ZnS:Mn^{2+} and ZnCdS:Mn^{2+}, electrolum. and photolum. props. 2−57184
ZnSe, polarity and inversion twins, high-resolution electron microscopy 2−109813

staff *see personnel*

stainless steel
see also austenitic stainless steel
abrasive wear resist. improvement, cryogenic treatment 2−116556
abrasive-corrosive wear 2−88214
Alloy 800 electrochem. potentiokinetic reactivation method, anal. of different treatments of expt. data 2−116625
amorphous, form. and stability, with W or Ti 2−81675
annealed FCC, twin boundaries, orientation and struct. *(Russian)* 2−103779
Auger anal. of Ti-coated surfaces of SUS 304 *(Japanese)* 2−92320
backscattering of low energy H ion, energy distrib. meas. 2−67173
carburisation profiles in sodium-cooled reactor fuel elements 2−54490
cast 13%Cr, QLT treatment effect on toughness *(Japanese)* 2−77914
cavitation damage under pressure conditions by a vibratory test *(Japanese)* 2−57491
cavitation erosion test, comparison of results, venturi and vibratory facilities *(Chinese)* 2−62231
cavity swelling, model based on fission-fusion correl. 2−85226
chopper wheel, polishing of both sides 2−109084
composite wire, C steel-stainless steel, corrosion under stress 2−88286
compressor blade fractures 2−72824
corrosion behavior, electrochem. prediction in Cl-containing water 2−105358
corrosion by simulated high level radioactive waste *(Japanese)* 2−59465
corrosion of corona etched stainless steel points, in room air 2−103511
corrosion properties, in saline media 2−57507
creep and creep recovery at low stresses, plastic strains, ageing effect in type 304 steels 2−93579
creep and fracture at elev. temp. of types 321 and 310 2−93558
creep microstrains nonuniformity 2−111254
creep rupture, correl. with environmentally controlled microstruct. 2−83222
crevice corrosion initiation in ferric chloride exposure tests 2−57521
cutting with gas transport CO_2 laser 2−116611
deposition of radioactive corrosion products on reactor components 2−59463
stainless steel continued
diffusion and trapping of D, SIMS study 2−76745
duplex, alloy development, review 2−105115
duplex, austenitic-ferritic, pitting behavior in methanol/water/HCl solns. 2−88257
electron irradiated, void swelling 2−61039
embrittlement, by liq. Cu and liq. braze alloys 2−67516
fatigue at cryogenic temperatures, EP810 steel 2−67547
fatigue life measurement, electromag. method 2−67693
ferrite struct., rolling, plastic deform., metallography study 2−57422
ferritic, Al vapour-diffused coating 2−105385
ferritic, alloy development, review 2−105115
ferritic, corrosion fatigue crack initiation mechanisms, influence of corrosion conditions 2−116594
ferritic, fast neutron irrad., microstruct. obs. 2−108108
ferritic, mechanical hysteresis in low-cycle fatigue, electrolytic H influence 2−88289
ferritic, selective oxidation at low temp. and low O_2 press. 2−88256
ferritic, stress corrosion cracking, inhibition in Na_2SO_4 soln. 2−88263
ferritic, temper rolling metallurgical and mech. phenomena *(French)* 2−93545
ferritic, weld solidification struct. and transform. behaviour, effect of quenching 2−99412
ferritic, with low interstitial level, mech. and corrosion props. *(Italian)* 2−99563
ferritic stainless, 26 Cr-1Mo, substruct. influence on strength 2−111234
ferritic stainless, fracture toughness rel. to first wall and blanket appl. in fusion reactor 2−72804
ferritic stainless, improvements of irradiation embrittlement 2−67506
ferritic/martensitic, suitability for first wall/blanket material 2−69891
fibre reinforced bioglass, processing and static mech. props. 2−57412
fission reactor coolant tubing, Co deposition 2−80114
flaw-to-grain echo enhancement by split-spectrum processing 2−78062
foil, thickness determination using transmission electron microscope 2−58786
fusion materials-radiation effects facility, use of Los Alamos Meson Physics Facility 2−85239
fusion reactor data base for irradiation data of type 316 stainless steel 2−69841
fusion reactor first wall, response to major plasma disruptions 2−69825
fusion reactor first wall material, suitability tests for type 316 and DIN 1.4970 2−69832
fusion reactor materials, conf. Seattle, WA, USA (Aug. 1981) 2−68954
geothermal plant structures appl., materials assessment 2−116776
hydrogen embrittlement, in type 304 2−57480
intergranular corrosion, electrochem. testing 2−83287
ion-implanted, surface hardness and abrasive wear resist. 2−57490
isomer shift, tensile stress effects 2−93093
laser surface hardening, acoustic emission monitoring 2−67602
limiters in ISX-B Tokamak, operational history 2−74900
maraging, susceptibility to warm embrittlement 2−67531
maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
martensitic, corrosion fatigue crack initiation mechanisms, influence of corrosion conditions 2−116594
martensitic, Cr, corrosion fatigue props., effect of heat treatment 2−111301
martensitic, Cr-Mo-V, weldments, transform. and tempering 2−88107
martensitic, fatigue crack growth rate, sea salt effect 2−78022
martensitic, ferritic and duplex, stress corrosion cracking, review 2−72862
martensitic, for mag. fusion reactors, buckling induced stresses 2−113730
martensitic, fracture mechanics, fusion reactor first wall struct. appl. 2−69837
martensitic, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
martensitic, stress-rupture strength of metal and weld joints, Cl ions and H_2S containing medium 2−99602
martensitic, wear against WC up to 500°C 2−83238
martensitic Cr-Ni, high-strength corrosion-resistant, fatigue resist. in air and seawater 2−99561
martensitic HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
martensitic-ageing NVS-2, deform. and texture form. during cold rolling *(Russian)* 2−62139
microcrystalline, corrosion resistance meas. 2−116605
microduplex, grain size depend. and strain rate sensitivity and activation energy of high temp. deform. 2−105244
neutron-induced He implantation in fusion the coolant pipes, Type 316 steel 2−69863
nitriding, saturation with H 2−62283
nuclear fuel rod cladding failure due to stress corrosion cracking 2−59474
oxidation behaviour, of fine-grained rapidly solidified 18-8 steel 2−111373
oxidation in high press. CO_2 of type AISI 310 2−62253
oxidation investig. using automated scanning proton microbeam 2−111351
oxidised, depth profiling using Raman spectroscopy with ion bombardment 2−57646
passive anodic oxide film, composition, ESCA and SIMS study 2−82090
permeability of H, protective coatings influence 2−67652
permeation of H_2, radiation enhanced, through stainless steel tubes, long time effects 2−98345
pipe, circumferentially cracked fracture instability 2−62221
pitting and corrosion fatigue in chloride environments, microstructure effects of type 17-4 PH 2−83302
pitting corrosion, hydrodynamic effects in NaCl soln. or type 304 2−62261
pitting under controlled potential, creep behaviour *(Japanese)* 2−78013
plates with WC plasma coating, thermal wave imaging through radio frequency induction heating 2−99613
polishing, magnetic-abrasive, effectiveness, methodology 2−67656
powder metallurgical, dense, prod. methods and mech. props. 2−99371
powder metallurgical, mech. props., sintering environment influence 2−72782
powder metallurgical, struct. condition, effect of different sintering environments 2−67254
radiation-induced structural changes 2−86714
rapid solidification 2−83106
reflectivity at 10.6 microns, laser heating effects 2−72442
scale phase composition and steel structure changes during oxidation at 1100°C 2−62284
sensitized, stress corrosion cracking in high temp. NaCl soln., type 304 2−62255

stainless steel continued
solar absorber convertors, CC *[α]*-Al_2O_3 whiskers grown on stainless steels, technique and performance potential 2−57728
sputter deposited 304 stainless steel, oxide and sulphide scales, AES and SEM studies 2−88272
stainless steel-C films prepared by reactive magnetron sputtering, optical constants and microstructure 2−99838
stress corrosion cracking, diagnosis *(Japanese)* 2−78009
stress corrosion cracking, expert system to predict risk 2−57544
stress corrosion cracking in boiling 70% NaOH soln. 2−67661
stress corrosion cracking susceptibility, cold working and heat treatment effects in type SUS 304 *(Japanese)* 2−67635
structural strength evaluation criteria 2−72924
substrate for high-hardness Mo coatings, vac.-arc discharge plasma deposited 2−72871
surface, damage thresholds for short pulse IR lasers 2−108923
surface blistering by 6 MeV alpha particles, temp. thresholds in type 304L 2−80219
surface damage, Ar ion induced, implantation effects 2−98164
surface modification by H ion erosion 2−93655
surface properties, in molten and quenched conditions *(French)* 2−98389
surface roughness meas. with He^+ irradiation, Xe adsorpt. meas., on types 304 and 316 2−76525
surface working effect on fatigue strength and wear, 13 wt.% Cr hardened steel 2−111386
texturing with an RF-ion source using Xe working gas 2−105390
thermomechanical fatigue curves 2−111318
welds, radiography mottling theory 2−88294
X-ray mirror reflectivities from 3.8 to 50 keV 2−84756
X-ray texture analysis, tube specimens prep. method 2−93717
yield point, temp. depend. at low temps. 2−67463
C coated and polished stainless steel, secondary electron yields 2−80214
Cr (12 wt.%), sulphide inclusions effects on fracture toughness and fatigue crack growth 2−105296
Cr-Mn, high-N, precip. and intercryst. corrosion after isothermal annealing 2−72729
Cr-Mo-Ni type, irrad., time-temp. depend. of long-term strength 2−99633
Cr-Mo-V, martensitic, stress corrosion cracking susceptibility 2−78017
Cr-Ni, anodic oxide film, XPS study *(Chinese)* 2−62250
Cr-Ni (13, 6 wt.%), contrib. to the optimalisation of heat treatment *(Czech)* 2−67388
Cr-Ni (18, 8.5 wt.%), hot corrosion in Na_2SO_4 and NaCl 2−57536
Cr-Ni-Al, sheet, fractographic investigation of failure 2−72823
D trapping, α-irrad. effect in types 304 LN and 12R72HV 2−69844
D^+ beam effects on 300 series stainless steels 2−74933
H ion backscatt., energy and ang. depend. in type 304 2−69849
H recycling simulation, wall temp. effect in type 2−74936
H^+ impact, D desorption, in Tokamak first walls for type 316 stainless steel 2−69845
He embrittlement reduction by finely dispersed TiC precipitates in type 1.4970 2−71520
N implanted, Rutherford backscatt., channelling and nucl. reaction study 2−98119
Nb stabilised, oxidation in CO_2, CVD SiO_2 coating effects 2−67620
Nb stabilised 20/25, creep, primary and recoverable 2−116492
Ni-Cr stainless steels corrosion resistance in thermochemical cycle of hydrogen production using concentrated sulphuric acid 2−72863
Ni-Cr-Mo-Nb-Al, precip.-hardening, struct. and props. after heat treatment 2−72728
TiN- stainless steel, prep. by gas absorption and reactive RF sputtering 2−74913
U trace content determ. using solid-state track detectors 2−70113

standard microphones *see microphones*

standardisation
geodetic data management standardisation 2−57960
harmonisation and standardisation in nucl. safeguards, symp., Ispara, Italy (April 1982) 2−112658
Indian Standards Institution, standardisation in field of optical and mathematical instruments 2−89783
radiological safety, standardisation problems *(German)* 2−57904
semiconductor and insulating crystals testing, homogeneity in refractive index meas. methods standardisation 2−96862
temperature meas. in 0-400°C range, experience with GOST 8.009-72 standard 2−112901
terrestrial solar cells, meas., international standards establishment 2−73114
wind power in Netherlands, technical studies and administrative steps *(Dutch)* 2−62455

standards
see also CAMAC; constants; measurement standards; television standards; units (measurement)
assessment of the legislative and regulatory environment: NO_x case studies 2−67903
environmental standards implementation based on moving averages 2−111609
experimental data acquisition and handling, system based on HP-1000 minicomputer and IEEE-488 standard 2−84598
fission track dating, current status and problems 2−73719
fission track dating problems and solns. 2−73724
hardness testing, standard machines, precision and accuracy 2−78063
IEEE/PES/Nuclear Power Engineering Committee nuclear power standards status report 2−85206
instrumentation control and maintenance *(Japanese)* 2−89699
ISO radiation protection standards 2−73372
lunar samples and meteorite mock-ups prep. 2−100747
LV indoor switchgear installations thermal problems *(Hungarian)* 2−91222
medical electrical equipment safety and BS5724 2−100140
noise, maximum permissible levels in EEC 2−75759
office lighting contrast rendering gauge 2−95438
practical reference temperatures using melting point techniques 2−107289
radiation sources stadards, calibration of dosimeters and doserate meters appl. 2−59550
scintillation camera characts. and test conditions, performance standards 2−94195
semiconductor detectors, standards for efficiency calibration, γ-rays intensity meas. frcm $^{197}Au(n,\gamma)^{198}Au$ 2−75129
solar cells metrology 2−99784
temperature meas. standards in high temp. mech. testing 2−105437
tristimulus values, recommendations for calc. of weights 2−58879

standards continued
tristimulus values calc. method using integration and interpolation 2−58878
water heaters thermal performance in UK 2−73147
X-ray fluoresc. standards, evaporated and implanted layers characterisation by RBS and PIXE anal. 2−99724
α-emitting nuclides as absolute efficiency calibration source for Ge detector 2−59580
Ge(Li) detectors, ^{226}Ra standard source for efficiency calibration 2−113792
^2H binding energy and mass-based γ-ray energy standards 2−79944
NaI(Tl) counter, calibration 2−90407
^{235}U systems, subcritical limits 2−96223
^{235}U systems, subcritical limits 2−96224

standby power supply *see emergency power supply*

standing wave detectors *see standing wave meters*

standing wave indicators *see standing wave meters*

standing wave meters
VSWR measurement, use of voltage characts. near min. and max. *(Czech)* 2−79616

star formation
in Abell 76, ring galaxy, visible obs. 2−117746
Barnard 18 cloud, interior low mass star form., CO line obs. 2−89328
in barred spiral galaxies, inhibition due to dense clouds high vel. 2−79199
binary star formation mechanisms 2−79163
binary stars, effect on galactic nuclei and globular clusters evolution 2−94798
binary stars in collisionless stellar systems, effect on system energy 2−94797
birthrate rel. to dynamical history 2−112510
Bok globules near α Muscae, assoc. Hα emission line stars and star form. 2−94819
3C 280, very distant emission-line radio galaxy, redshift of last star formation epoch 2−106917
Carina dwarf spheroidal galaxy, star form. age form obs. of C-stars 2−68774
Cepheus A region, implications of catalogue of radio sources within 30′ of Cepheus A 2−106551
in clumpy irregular galaxies 2−58446
coherent galactic oscillations, SSPSF model 2−63612
collapse of gaseous isothermal sphere, analytical soln. 2−106851
conference on molecular clouds and star form., Goutelas, France (May 1980) *(French)* 2−63753
S Coronae Austrinae, YY Orionis type star, peculiarities of activity and envelope 2−68770
in dark clouds, pedestal features and low-mass star formation 2−84292
disk galaxies evolutionary changes caused by star form. 2−112569
DR21(OH), implications of formaldehyde 2−68863
early stages of stellar evolution, observational approach 2−106672
early type stars formation in mol. clouds 2−63601
in elliptical galaxies, star form. rel. to galactic mass loss and ang. size test 2−68882
fragmentation on protostellar mass scale during dynamical collapse 2−84291
fundamental processes in star formation, review 2−100909
G134.2+0.8 H II region, B0.5 star form. at shock front, SHF obs. 2−74046
galactic centre thermal radioemission 2−63697
galactic cluster field stars rot. vel. bimodal distrib. and star form. mechanism 2−63546
galactic cluster late B-type stars, rot. vel. bimodal distrib. and star form. mechanism 2−63546
galactic disc 2.4 μm excess and metallicity, effects of high star form. rate 2−89362
galactic disc gas/young objects 2−112582
galactic evolution, stochastic star form. models, percolation anal. 2−74091
galactic nuclei, rotating mag. superstars form. rel. to QSOs luminosity and density evolution 2−106952
in galactic nuclei, structure and evolution of nuclear discs rel. to star form. bursts 2−94833
in galactic plane, active star form. regions identification from IR and radio obs. 2−112421
Galaxy central region 2−63668
GGD Herbig-Haro-like objects mol. clouds star form. regions 2−117730
gravitational collapse magnetic pressure effects 2−112434
HR 1614 moving group formation anal. from CN abundances 2−106827
hydrodynamic evolution during star form., stable numerical computation methods 2−100912
IC 342, Scd galaxy, star form. in galactic nucleus rel. to interstellar gas temp. meas. 2−68629
IC 5146, emission nebula, evidence for embedded protostar in nearby mol. cloud complex 2−74044
interstellar clouds, isothermal, evolution under varying external pressure rel. to star form. *(Russian)* 2−94813
interstellar clouds, young stars, energetic outflows 2−94822
interstellar clouds collapse, stability of simple polytropes against homologous contraction 2−68872
interstellar clouds collisions, ang. momentum changes rel. to stellar rot. axes orientations 2−63567
in interstellar dark dust clouds, implications of NH_3 obs. of cold cloud cores 2−106857
interstellar H_2O and OH masers evolution 2−112541
interstellar isothermal clouds gravitational collapse, hydrodynamics code 2−68862
interstellar matter, cloud form. and star form. through Parker instability 2−68605
interstellar molecular clouds, star form. rel. to gas dynamics of H II regions 2−79190
interstellar rotating clouds, instability to fragmentation and star form., heuristic criterion 2−112524
ion-neutral reactions importance for star form. 2−79195
in irregular galaxies, star form. histories from H II regions anal. Hα obs. 2−117743
in irregular galaxies, star form. rate rel. to chemical evolution 2−89363
in irregular galaxies, star form. rates from optical and radio obs. 2−101054
Khavtasi 141, interstellar dark cloud complex, evidence for form. of low mass stars 2−68874
in L1454, interstellar dark cloud, catalogue of nearby redstars rel. to low-mass stars form. 2−106560

star formation continued
Large Magellanic Cloud star form. from young populous cluster radial colour var. anal. 2—94826
large scale processes in Galaxy 2—63673
low mass stars, formation in low mass mol. clouds 2—63601
Lynds 1454 dark cloud region, star form. parameters 2—63564
M16, evolved H II region, obs. of compact far-IR source assoc. with H_2O maser 2—63561
M17, H II region, protostellar dust shells evidence from early type stars, JHKL photometry 2—94805
M17 SW giant molecular cloud, IR sources and OB star form. 2—94808
in M33, star formation and blue star mass function 2—112556
M 31 bulge, far UV surface brightness distrib. rel. to hot evolved stars and star form. rate 2—63632
Magellanic Clouds star formation test from search for Cepheids 2—117672
Markarian 325 (NGC 7653), clumpy irregular galaxy, recent star forming activity, visible obs. 2—112554
Markarian 8 and 325, clumpy irregular galaxies with exceptional star form. 2—63646
Markaryan 314 (NGC 7468), remarkable irregular galaxy, O-type stars form. in three bright regions 2—101042
massive star formation, implications of collisionally supported giant molecular clouds 2—112523
massive stars formation in spiral and irregular galaxies, rel. to UV spectral energy distribs. 2—74077
mechanism regularities *(Russian)* 2—94706
molecular cloud inhomogeneity, interaction with ionisation/shock fronts, 2-dimens. radiation hydrodynamic calc. 2—117721
molecular cloud orbits and perturbation due to density wave spiral pot., star form. 2—63599
molecular cloud processes 2—79194
in molecular clouds, initial motion due to clouds launched from spiral arms, vertex motion problem 2—68838
molecular clouds fragmentation 2—63601
NGC 2071, refl. nebula, evidence for bipolar gas flow from CO 2—58425
NGC 5408, irregular galaxy, X-ray emission from star formation burst 2—106911
in NGC 55, Sculptor group galaxy, star form. region rel. to large shell nebula 2—63575
NGC 6334, H II region, IR photometry of ultracompact radio source 2—68866
NGC 6334, H II region, star form. ridge, radiosources discovery and nature, SHF/UHF obs. 2—68857
NGC 6334/I(NORTH), 400 μm source detect., star form. region anal. 2—101018
NGC 7538, H II region, assoc. mol. cloud, CN line emission and star form. 2—101008
OH 351.78—0.54, interstellar OH maser source, evidence for assoc. star form. 2—112600
Orion MC-2, near IR spectroscopy of IRS and IRS 4 rel. to star form. 2—68851
Orion SiO maser, protostar expanding envelope model for rel. shifts of SiO maser emission 2—68875
FU Orionis stars (fuors), evolutionary connection with T Tauri stars 2—100921
Pegasus dwarf irregular galaxy, photometry of resolved stars rel. to star form. 2—63617
Population III stars generation and microwave background distortion *(Polish)* 2—94795
primordial stars, formation and masses, effect of fractionally charged lepton abundances 2—84360
protogalactic gas cloud collisions, induced star formation 2—112551
protoplanetary discs surrounding F and G-type stars, models *(Russian)* 2—106687
protostar formation from interstellar cloud fragmentation and collapse, stellar mass function *(Polish)* 2—106879
protostellar disks formation from rot. gas cloud accretion, hydrodynamic aspects 2—73959
protostellar objects, mass and momentum loss, evolutionary scenario 2—112420
SC galaxies, CO emission depend. on luminosity and star form. rate 2—106903
scenario involving galaxy formation and evolution and heavy element origin 2—117774
self-graviting incompressible fluid, dumb-bell equilibria, mass-shedding pear shape 2—95181
sequential star formation models in spiral galaxies, galacto-detonation waves struct./evolution 2—117748
Seyfert galaxies, radioemission, model involving star burst 2—112548
Sharpless 106, H II region, assoc. mol. cloud, CN line emission and star form. 2—101008
SMC star formation from protostar discovery in N76B H II region 2—100928
spectroscopic binary stars, effects of merging on distrib. of orbital semi-major axes *(Russian)* 2—100992
spiral arms, ballistic particle model for young stars vel. near Sun 2—68838
spiral density wave shocks causing interstellar clouds compression and star form. 2—63661
spiral galaxy star formation, effects of gas dynamics 2—107029
stochastic self-propagating star form., effect on galactic struct. and evolution 2—106909
Stromgren spheres in massive gas clouds 2—106834
Taurus dark cloud, photometry and spectrum of B-type star (HDE 283809) *(Russian)* 2—112444
velocity fields and turbulence effects 2—84212
in W49N, star form. rel. to distrib. of $^2\pi_{3/2}$ J=3/2 OH maser emission 2—79188
H_2O masers, high velocity, search in regions of star form. 2—74072

Stark broadening *see Stark effect*

Stark effect
see also atomic spectra
aC-Stark-shift-induced photoelectron spin polarization in resonant multiphoton ionization 2—108599
adsorbed molecule on metal, spontaneous Raman processes, cross section growth *(Russian)* 2—59810
alkali atoms, hyperfine splittings shift due to blackbody radiation 2—64910

Stark effect continued
alkali halides, theoretical problems associated with Stark effect in F-centre emission 2—104850
alkali metal atoms, photoionisation spectra, Stark effect theory 2—90475
atom and ion resonances, Stark width and slip, periodic depend. on nucl. charge number 2—113927
atomic physics conference, Cambridge, MA, USA (Aug. 1980) 2—68959
atomic spectra, M_1-E_1 interf. effects in crossed mag. and elec. fields 2—70179
atoms, modulated Hanle signals in partially coherent fields 2—70199
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2—96612
broadening in hot dense laser-produced plasmas, review 2—71105
CARS spectroscopy, dynamic Stark effect occurrence in homogeneous medium 2—90975
γ-crotonolactone, microwave rot. spectrum, ring-puckering vibr., ring conformation and elect. dipole moment 2—70234
far IR lasers, frequency control and modulation by Stark effect 2—60130
far IR lasers phase-locked by Stark effect, optical frequency meas. appl. 2—102845
finite crystal, Bloch electrons, Stark ladders 2—66509
fluoromethane, Stark-split components, reorientation and press. broadening of IR and microwave lines 2—70227
fluoromethane subMM laser using new resonator type, Stark shift props. 2—81000
fluoromethane-d_3, ν_2 and ν_5 bands, IR spectra 2—80623
formaldehyde, vibr.-rotation transition, Stark spectroscopy by saturated absorption 2—90591
formic acid, ν_3 vibr.-rot. band, Stark spectroscopy and laser microwave ODR, vibr.-rot. band 2—102516
formic acid, ground and excited vibr. states, stark effect, microwave obs. 2—85715
formyl fluoride, ν_2 fundamental band, high resolution laser Stark and Fourier transform spectroscopy 2—108598
four level atomic system, Autler-Townes effect study 2—85929
high resolution spectroscopy, conf., Bristol, England (April 1981) 2—74147
hydrogenic atoms, Rydberg states, ionisation rate in static electric fields 2—113928
hydrogenic donors in mag. field, ground state electrical polarisability 2—64912
1-indanone single cryst., Stark effect of lowest triplet states 2—104321
inverse scattering for one-dimens. Stark effect, appl. to KdV eqn. 2—84449
ion clusters, struct., stability, form. and props., rel. to nucleation, liq. props. and surface states 2—90756
linear gas molecules, elect. reson. obs. 2—70313
magnetic field measurements in fusion plasmas using the motional Stark effect 2—86478
magnetic interaction of ion in solid, energy-level splitting 2—77288
measurement by microwave Fourier transform spectroscopy 2—89826
methanol-d, dipole moments, Q-branch transitions 2—90595
methyl alcohol, laser Stark saturation spectroscopy, IR transition assignments 2—90592
methyl cyanide, laser Stark and microwave spectra, vibr.-rot. bands 2—85714
methyl fluorosilane, isotope effects, struct., rot., dipole moments, microwave obs. 2—75247
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2—85697
methyleneimine, laser Stark and interferometric studies 2—75333
molecular spectra, elec. field effects 2—80580
nonequilibrium plasma fluctuations theory, spectral line broadening effect 2—76076
one-electron theory of crystalline solids in homogeneous elec. field 2—66508
optical bistability, dispersive, Stark effect 2—75624
perturbation at large order, conf. proceedings of international workshop (March 1981) 2—53412
phase conjugation by resonantly enhanced degenerate four-wave mixing, AC Stark effect 2—70614
plasma Stark widths, regularities and similarities 2—97715
polyatomic molecules, hyperfine struct. corrections, P odd effects *(Russian)* 2—108736
positronium excitation of 1^2S_1 to 2^3S_1 two-photon transition 2—70453
resonant two-photon ionisation effect on AC stark effect spectrum 2—54801
semiconductor superlattice, narrow gap, cond. in strong. mag. field 2—77098
semiconductors doped with 3d metals, light absorption perturbation theory 2—104828
silyl acetylene, ground vibr. state, Stark effect, microwave obs. 2—102466
solar white light flare, 1981 February 26, Stark broadening of Hα emission line rel. to flare pink colour 2—100869
spectral line broadening in plasmas, kinetic theory, Stark profile 2—65698
superlattice semiconductors, Stark-cyclotron-phonon reson. 2—77107
supermultiplet Stark line widths variation 2—108421
γ-thiobutyrolactone, excited states, vibr., rot., Stark effect, microwave obs. 2—64964
thioformaldehyde, laser Stark and interferometric studies 2—75333
2,4,5-trimethylbenzaldehyde, triplet state Stark spectrosc. above phosphoresc. origin 2—90593
two-level atoms, nonresonance effects in fluorescent Dicke model, semiclassical and quantal results 2—64908
two-level atoms resonant interaction with two light waves 2—113947
two-level system energy level shift induced by laser pulse train *(Chinese)* 2—96505
Wannier-Stark states, Poole-Frenkel effect 2—98601
AsH_3, spectral line broadening and shift, Stark effect 2—108479
Ba^+, hyperfine splittings shift due to blackbody radiation 2—64910
C VI line in dense plasma, Stark profile calcs. 2—103453
C(II) plasma, UV Stark widths and shifts, photoelectric meas. 2—75212
$CaWO_4:Ho^{3+}$, NMR study of EM and sound energy absorpt. *(Russian)* 2—61778
Cs, hyperfine splittings shift due to blackbody radiation 2—64910
Cs I, 852.11 nm reson. line, Stark width and shift 2—102429
α'-$CsNd(PO_3)_4$, struct. and luminesc. props. 2—65948
DCN, vibr.-states, N isotope, dipole moments, laser Stark reson. spectra 2—90594
D_2O, optically pumped laser, wave interaction, for IR emission study 2—55128

Stark effect continued
Eu complex, β-diketonates:1,10-phenanthroline, IR and luminesc. spectra 2−113989
GaAs, epitaxial layers, donors contaminants study far-IR photoconducivity method 2−56732
Gd_2O_3, C-type, Stark levels, cryst. field splitting, UV study 2−66505
GdOBr:Eu^{3+}; cryst. field effects, fluoresc. study 2−66503
GdOCl:Tb^{3+}, Stark level, cryst. field anal., fluoresc. study 2−66504
H glow discharge-Co_2 laser interaction, spectroscopic aspects 2−97812
H, hyperfine splittings shift due to blackbody radiation 2−64910
H ionisation probability calc. based on quadratically integrable functions 2−70202
H, plasma, Stark broadening, relax. theory 2−76196
H, spherical Stark effect, factorised wave function calc. 2−59743
H, Stark broadening, exponential approx. 2−75215
H, Stark effect, WKB soln. 2−113929
H, Stark resonance, review 2−70185
H vapour, large DC-electric-field-induced nonlinear optical susceptibility 2−102848
H-Ar^+ plasma, H broadened Lyman-β line, radiation motion effects 2−70188
H-like atom, energy shift, quadratic Stark effect theory 2−70178
HCN, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HF, dipole moment and excited vibr. state, sub-Doppler IR mol. beam spectroscopy 2−75256
HF, multiphoton excitation in intense laser and static electric fields, quantum dynamics, Floquet theory 2−108652
H_2O, spectral line broadening and shift, Stark effect 2−108479
HSO radical, Stark shift, fluoresc., electric dipole moment determ. 2−85713
He glow discharge, AC Stark effect on 4713 Å line 2−85589
He I 4471 Å overlapping line Stark profiles appl. to stars 2−68726
He II, Stark shifts relative to fine struct. centres of gravity 2−80532
He II lines Stark broadening, ion-radiator dynamic effects 2−80536
He, oscillator strength distrib. near ionisation limit, Stark effect 2−108426
He^+(2S) ions, electric field quenching, radiation polarisation 2−114029
Hg^+, hyperfine splittings shift due to blackbody radiation 2−64910
Hnα lines in plasma, quasi-static stark profile 2−102430
I_2, visible absorpt. spectra by Stark modulation spectroscopy 2−64997
IBr, Stark effect in hyperfine components, rot. transition in microwave region 2−70312
ICl, visible absorpt. spectra by Stark modulation spectroscopy 2−64997
$KEr(MeO_4)_2$, (Me=W,Mo), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KGd(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KLu(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
$KY(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2−76999
LaOBr(I):Eu^{3+}, cryst. field effects, fluoresc. study 2−66503
LaOCl:Tb^{3+}, Stark level, cryst. field anal., fluoresc. study 2−66504
$LiErP_4O_{12}$, absorpt. spectra and Stark energy levels of Er^{3+} ion 2−57118
Mg I and Mg II reson. lines, Stark width meas. in wall stabilised arc 2−70182
N_2, optical Stark splitting of rotational Raman transitions 2−59837
NH_3, adiabatic rapid passage within Doppler-broadened line, level lifetime meas., Stark effect 2−70311
NH_3, coherent Stark switching, nanosecond optical modulation at 10 μm appl. 2−114415
NH_3 ν_2 band Doppler-free two-photon resons., optoacoustic detect. 2−96669
NH_3, spectral line broadening and shift, Stark effect 2−108479
NH_2D Stark-effect modulation of CO_2 lasers *(Chinese)* 2−60128
$^{14}NH_3$ laser, optically pumped, Stark tuning at 10.78 μm 2−80934
$^{15}NH_3$ far IR lasers, optically pumped, two-photon light shift and Autler-Townes splitting 2−96908
Na, excited states, photoionisation Stark spectra 2−70183
Na, photoionisation Stark spectrum, Earth mag. field effect 2−59766
Na+Na, microwave-assisted reson. collisional energy transfer, Rydberg states 2−90657
Nd^{3+}:phosphate glass, $^4I_{9/2}$ state, Stark struct. meas. under selective laser excitation 2−87867
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
PH_3, spectral line broadening and shift, Stark effect 2−108479
Rb, Stark states, field-induced stabilisation 2−80535
SiH_4, rot., stark effect, IR-RF double reson. obs. 2−85710
Sm, tensor polarisability determ. by quantum beat spectroscopy 2−59744
TbF_3, intrinsic fluorescence, energy transfer mechanisms 2−87839
Te cluster superlattice in NaX zeolite, I-V charact., current peak periodicity 2−77062
Xe II, Stark widths and broadening of homologous rare-gas ions 2−70181
Y_2O_3:Gd^{3+}, Stark levels, cryst. field splitting, fluoresc. study 2−66505
YOBr:Eu^{3+}, cryst. field effects, fluoresc. study 2−66503
YOCl Tb^{3+}, Stark level, cryst. field anal., fluoresc. study 2−66504
Yb, tensor polarisability determ. by quantum beat spectroscopy 2−59744
Yb_2O_3:Gd^{3+}, Stark levels, cryst. field splitting, fluoresc. study 2−66505

stars
see also stellar .....
see also dwarf stars; giant stars; magnetic stars; multiple stars, neutron stars; Sun; variable stars; Wolf-Rayet stars
3rd IUE European Conference in Madrid, Spain (May 1980) 2−101135
11 μm sources, positions from interferometric technique 2−94580
A_1 field, blue objects classification from visible spectra obs. 2−68926
A- and F-type stars, UV photometric data 2−63377
A-type stars, possible Fe abundance vars. among superficially normal stars 2−63361
late A-type stars, search for transition zone lines 2−68765
adiabatic stars, oscillatory models 2−58325
AGK3+17° 1309, occultation by 146 Lucina, 1982 April 18, obs. from Barcelona and Meudon 2−84139
AGK3 17°1309, occultation by asteroid 146 Lucina on 1982 April 18, obs. 2−68651
AGK3/SAO stars, for radio sources meridian obs. in FK4 system *(Russian)* 2−94581
Ancient Star Catalogue, Ptolemy and Hipparchus' obs. 2−101154

stars continued
angular diameter measurements, two-colour lunar occultation obs. 2−79079
B and Be stars, Hα and He I line profiles from photographic spectrophotometry 2−68767
B-type stars, Hβ distance scale for Orion association stars 2−106692
Becklin Neugebauer/Kleinmann Low region, 691 GHz CO line obs. 2−117724
Becklin-Neugebauer IR point source, model *(Russian)* 2−74070
Becklin-Neugebauer Kleinmann-Low region, H_2, CO and OH line emission modelling 2−106865
Becklin-Neugebauer object, NH_3 ice detect., IR obs. 2−117717
Bibliographic Star Index sample test (for 1967 and 1977) 2−101152
bipolar nebulae, 3 μm emission features obs. 2−89243
blue stragglers exhibiting peculiar charact., CM diagram anal. 2−84288
blue stragglers in open cluster NGC 6664, intermediate-band photometry 2−106823
BN-like IR point sources, model of 9.8 μm silicate absorption band 2−101020
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
in Carina Nebula, X-ray emission and assoc. early-type stars 2−84293
α Caris majoris (Sirius), anal. of spectrum in 3600 to 4200 Å region 2−84232
2 Ceti, new Be star, Hα emission line profile obs., (1982 September 5) 2−117683
Cetus, object on Carte du Ciel zone−1°, no.7, Algiers Observatory 1911 plate 2−106563
Cloudcroft occultation summary (December 1978 to March 1980) 2−112305
colours of bright stars, naked-eye determ. of colour indices and spectral types 2−68738
cometary nebulae, UHF obs. 2−112528
cool high polarisation stars, circumstellar dust extinction and luminosity 2−94858
cool stars, stellar systems and Sun, workshop, Cambridge, Massachusetts, (1981 October 21 to 23) 2−94916
counting, IR method using Fourier deconvolution 2−73855
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
Cygnus OB2 association, comparison of precise optical and radio positions for member stars 2−89319
Cygnus T1 association faint blue stars 2−68844
declinations, effect on Potsdam PZT latitude determs. *(German)* 2−100705
declinations of 100 equatorial stars, catalogue *(Russian)* 2−78982
disc, gas and young objects vertical/radial distrib. and Schmidt's star form. law 2−112582
early type stars, modelling of UV reson. line form. in expanding envelopes 2−63386
early-type emission-line stars, book 2−94934
early-type stars, Geneva photometric boxes rel. to interstellar reddening towards galactic poles 2−58327
early-type stars, ionisation and vel. struct. of expanding circumstellar envelopes 2−63370
early-type stars, spectrophotometric atlas of mid-UV spectra with 1.8 Å resolution 2−63278
early-type stars distrib. used to delineate galactic spiral arms three-dimens. struct. *(Russian)* 2−79213
electronic stopping power for massive neutrinos 2−64817
emission line stars, 2.9-4.0 μm spectral obs. 2−89243
emission-line stars in irregular galaxy NGC 6822, catalogue 2−106559
equatorial coordinate errors from asteroid positions determ. at Bordeaux Observatory (1977) *(French)* 2−63297
λ Eridani, Be star, new emission line phase, Hα emission line profile obs., (1982 September 8) 2−117683
evolution of single stars, reviews 2−100910
extreme halo stars, metal deficiencies rel. to early Galaxy 2−112585
extreme He stars nature 2−106705
F2 and G2 stars in McCormick proper motion fields, uvby photometry 2−100902
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
F and G-type stars, models of circumstellar protoplanetary discs *(Russian)* 2−106687
F-type stars, X-ray luminosity function from magnitude limited stellar X-ray survey 2−112422
faint blue stars at high galactic latit., photometry in field centred on (Selected Area 28) 2−100769
Feige 66, OB subdwarf, chem. comp. twin to HD 149382 2−106698
FK4 reference frame rot. from lunar occultations of stars timings 2−58229
FK4 stars, positions corrections using Washington observations of Sun and planets *(Russian)* 2−106480
free convection effects on oscillatory flow in Stokes problem 2−106510
G- and K-type metal-deficient stars, DDO photometry 2−106711
galactic stars in direction of LMC, radial vels. from objective-prism plates *(French)* 2−100763
gamma-ray burst (1978 November 19) optical candidates, BV and near-IR photometry 2−94865
general catalogue compiling method *(Chinese)* 2−84108
GGD Herbig-Haro-like objects mol. clouds, mass outflow anisotropy 2−117730
gravitational radiation suppression from stars falling into black holes 2−89292
Greenwich Obs. Time and Latitude Service, Time Report (April to June 1981) 2−78931
Greenwich Obs. Time and Latitude Service, Time Report (July to September 1981) 2−100707
Greenwich time report, Royal Greenwich Observatory Time and Latitude Service, (January to March 1981) 2−68599
Ground-based Electro-Optical Deep Space Surveillance system, use in astronomy 2−100746
halo dwarf stars, C/Fe and N/Fe abundance ratios 2−112446
HD 105262, bright field horizontal branch star, spectral obs. 2−94714
HD 127493, H-deficient subdwarf O-star, non-LTE analysis 2−79094

stars continued
HD 149382, OB subdwarf, abundances, microturbulence and temp., spectral anal. 2−73967
HD 197999, occultation by 105 Artemis, asteroid diameter determ. 2−112371
HD 37022, in Orion Nebula, polarisation obs. of light from assoc. nebula 2−68873
HD 44179 (Red Rectangle), 7.7 μm feature obs. 2−74064
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HDE 283809, B-type star in direction of Taurus dark cloud, photometry and spectrum *(Russian)* 2−112444
Herbig Haro objects, emission line spectra, model and ion abundances, visible obs. 2−63578
Herbig-Haro objects, 21 new objects *(Russian)* 2−74069
Herbig-Haro objects OH and H_2O maser sources evolution 2−112541
HH 24-27, HH 1-2, Herbig-Haro objects, obs. of nearby high-vel. mol. gas 2−112526
Hipparcos space astrometry mission, conf. at Strasbourg, France (February 1982) 2−89462
horizontal branch stars, He flash core overshooting and colour var. 2−63411
horizontal branch stars distribution in globular cluster omega, Centauri, UBVRI obs. 2−74038
horizontal branch stars in LMC globular cluster NGC 1806, distrib. 2−106824
hot evolved stars in bulge of M 31, results from far UV surface brightness distrib. 2−63632
HR 3467, 3582, 5285, early-type ultra-short period variables, photometric obs. 2−63410
HR 7739, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
in Hyades cluster, BVRI photometry of possible members 2−106829
infrared standard stars for JHKL, H_2O and CO, photometry 2−100995
interferometry, use of I2T at Grasse, France 2−78961
IR imaging using multiplex encoding techniques 2−63262
Johnson BVR magnitudes for comparison stars, obs. 2−79087
late-type stars, ang. dias. by lunar occultation technique 2−79078
α Leonis, probable new Be star, obs. of variable weak emission in Hα 2−112442
LMC member stars, catalogue and radial vels. from objective-prism plates *(French)* 2−100763
LMC reddened stars, obs. of far UV extinction and interstellar 4430 Å band 2−106898
Local System, region of enhanced star density near Sun, evidence 2−94845
low mass main sequence stars, influence of C and N abundances on evolution 2−106679
luminous stars in H II regions, wind interactions, spectral anal. and obs. 2−84213
Lynds 1454 dark cloud region, parameters from automated star counts 2−63564
α Lyrae (Vega), anal. of spectrum in 3600 to 4200 Å region 2−84232
α Lyrae and field, astrometry, parallax obs. 2−63217
M16 HH1, Herbig Haro object identification, visible obs. 2−63582
M17, location of illuminating stars rel. to optical linear polarisation 2−112536
in M31, (Andromeda Galaxy), distrib. of stars across S6 spiral arm *(Russian)* 2−106926
M-type luminous stars, 3-dimens. classification scheme 2−89244
mass loss from hot stars, theory 2−63394
massive single stars, evolution with mass loss 2−63391
massive stars, theoretical evolution with mass loss by stellar wind 2−63392
massive stars evolution, effects of stochastic fluctuations in mass loss rate 2−106674
massive stars evolution, influence of initial stellar comp. and mass loss 2−106682
Merate Observatory time and latitude results, Danjon astrolabe obs. (1981) 2−105882
meridian observations from Brorfelde (1969-1975), star position brighter than 11th magnitude 2−100767
metal weak stars, UBVRI and DDO photometry 2−63413
MHD convective flow of viscous fluid past infinite vertical surface 2−106506
Michelson stellar interferometer optical surface and rot. axis alignment using Twyman-Green interferometer 2−112337
nearby stars, odd behaviour of vel. components in direction l=330°, (b=0) 2−112432
nearby stars, perturbations of orbital elements of long-period comets 2−106626
NGC 3114 open cluster, spectrally peculiar stars, photometric indices, effects of peculiarities 2−94800
NGC 5253, E-S0 galaxy, O-type stars cluster rel. to high-excitation H II region in nucleus 2−79217
NGC 6302, poly-polar nebula, wind driven, ionised gas parameters from spectral lines 2−89339
northern PZT stars catalogue, compilation from meridian circle catalogues of 1950's ($NPZT_{58}$) 2−100758
northern PZT stars catalogue ($NPZT_{74}$), meridian circle obs. 2−100759
O3 type stars, membership and spectrum obs 2−58343
O-A0 stars near galactic equator, uvbyβ photometry 2−106700
O-type and related stars, radio and IR emission from stellar winds and circumstellar shells 2−63415
O-type star in NGC 6334 interstellar complex, contrib. to filamentary shell struct. and dynamics 2−112535
O-type stars, effective temps. 2−73971
massive O-type stars, evidence for evolution to WN7/WN8 stars 2−63478
O-type stars, evolution and Wolf-Rayet connection 2−63477
O-type stars, ionisation balance of radiatively driven winds rel. to IR spectrum 2−63387
O-type stars, mass loss and evolution, symposium, Vancouver Island, Canada (1978 June 5 to 9) 2−58541
O-type stars, optical review 2−63414
O-type stars, UV view of stellar winds 2−63385
O-type stars and related objects, near IR spectra 2−63416
O-type stars evidence for individuality from far UV spectra 2−68836
O-type stars in open cluster IC 1805, mass loss rates from C IV reson. line profiles 2−68734
stars continued
O-type stars surrounding H II regions, emission measures and radii 2−63563
OB stars in galactic halo, atmospheric parameters and chemical comps. 2−106706
OB stars in molecular clouds, observed polarisation origin 2−117727
OB-type stars, critical rates of mass loss for evolution to Wolf-Rayet stars 2−63393
OB-type stars, evidence for individuality from O VI lines 2−68836
OB-type stars in local-spiral arm, space distrib. in direction of (NGC 6823) *(Russian)* 2−94831
occultation by Uranus and rings, 1982 April 22, times for 2 μm obs. 2−68665
occultations by Moon (1623-1942) catalogue 2−100771
Of stars, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of stars, search for ring nebulae *(Russian)* 2−73999
Of stars in open cluster C1715−387 radiation distrib. from VRI and JHKL obs. 2−89317
Of-like stars with circumstellar shells, spectral classifications for LMC objects 2−84235
Oort cloud, effect of star passages on comet orbits 2−106619
ζ Ophiuchi, interstellar $^{12}CO/^{13}CO$ abundance ratio from UV obs. 2−63557
ζ Ophiuchi, obs. of interstellar C_2 absorpt. lines 2−63558
Orion B (NGC 2024), compact H II region, exciting stars identification from recomb. line and continuum map 2−101084
Orion Nebula stars down to m_{vis}=16, atlas (book) 2−101145
Orion population stars, absence of coronal line emission 2−63402
Palomar 14, outer halo globular cluster, structural charcts. from star counts 2−106828
pancake detonation of stars by black holes in galactic nuclei, effects on accretion process 2−63654
parallaxes, external and systematic errors 2−58331
parallaxes, statistical analysis methods 2−58264
parallaxes and detection of dark companions: atmospheric limitations 2−58231
59 Piscium, suspected δ Scuti star, photometric constancy from photoelectric obs. 2−106704
planet accretion in red giant envelope/wind, transform. to low mass star, cataclysmic binary form. 2−112454
planetary nebulae nuclei, spectral energy distribs. rel. to theoretical models of nebulae of intermediate-to-high excitation 2−84295
Population II stars in halo, age and photospheric chem. props. 2−112445
Population III objects effect on galaxy form. 2−117844
Population III stars, microwave background contrib. and early galactic heavy element form. 2−117711
Population III stars, possible locations 2−94793
Population III stars generation and microwave background distortion *(Polish)* 2−94795
population in M101, age comparison with Galaxy 2−68889
population in Seyfert galaxy M81 nucleus from UV continuum spectra 2−117747
post main sequence stars embedded in dust clouds, cloud energy distrib. 2−94820
pre main sequence stars embedded in dust clouds, cloud energy distrib. 2−94820
predicted star counts in selected fields and photometric bands, appls. to galactic struct. 2−63539
pregalactic Population III stars, prod. of primordial He and heavy elements and microwave background 2−106818
primordial stars, nucleosynthesis rel. to origin of chemical elements *(German)* 2−94877
protostar in SMC H II region N76B, nature and IR obs. 2−100928
protostars, IR spectra and dust shell comp. 2−63395
protostellar objects, excess line emission 2−89249
RX Puppis, symbiotic star, continuum anal. and possible hot subdwarf comparison 2−89266
ζ Puppis (04 If), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
ζ Puppis (04f), UV spectrum rel. to warm wind model 2−63388
Puppis field, photoelectric UBV sequence, extinction 2−106817
R136a, possible supermassive star, speckle interferometry rel. to ang. dia. 2−94719
R136a, possible supermassive star in LMC, anal. of vibr. instability of 3000 $M_\odot$ star 2−79083
R 136a, 2000 M. star hypothesis *(French)* 2−58346
red stars near dark cloud L1454, catalogue 2−106560
reference stars for asteroids positions, dependences for catalogue improvement and perturbation studies 2−112349
ROB 162 in globular cluster NGC 6397, O-type subdwarf, UV spectrum 2−63406
EY Sagittarii, supposed Cepheid variable, probably nonvariable from BVR_cI_c photometry 2−94739
Sagittarius-B2, mol. cloud, assoc. H II regions exciting stars nature 2−106941
SAO 77636, occultation of 15 Eunomia, obs. from South Africa 2−106596
Schweizer-Middleditch star, not stellar remnant of (SN 1006) 2−68798
τ Scorpii (B0 V), UV spectrum rel. to warm wind model 2−63388
Sharpless 106, bipolar nebula, photometry, polarimetry and spectrophotometric obs. 2−68856
Sharpless 106 (AFGL 2584), single O-type star model for IR images 2−68724
solar neighbourhood luminous stars, number density distrib. used to find vol. emissivity 2−94843
solar-stellar astrophysics 2−84207
southern hemisphere stars of astrophysical interest, objective-prism discoveries 2−79077
speckle interferometry, object reconstruction method, computer simulation 2−112338
subdwarfs, classification properties within Vilnius Geneva system 2−73955
subdwarfs, O/B-types, props and evolution status, convective envelope and model atm. calcs 2−63398
subdwarfs contribution to 2-60 keV diffuse X-ray background 2−117800
DR Tauri, T Tauri star, field, magnitudes for comparison star sequence 2−94716
20 Tauri, UV radiation rel. to vibrationally excited circumstellar H_2 and interstellar CH^+ abundance 2−84296
tides raised by planetary system, calc. 2−68611

stars continued
Tokyo Astronomical Obs., Time and Latitude Bulletins (January-March 1982) 2−106481
Tokyo Astronomical Obs., Time and Latitude Bulletins (July to September 1981) 2−68600
Tokyo Astronomical Observatory, Time and Latitude Bulletins (October to December 1981) 2−84065
Tokyo PZT star catalogue, positions improvements 2−63272
Ursa Major Stream stars, IR search for assoc. fragmentation debris 2−106572
Be Ursae Majoris, eclipsing red dwarf and hot subdwarf, model constraints from photometry 2−94791
ρ Virginis (HR 4828), possible Maia type variable, photoelectric and spectrographic obs. 2−112441
2=ES Vulpeculae, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
Wolf 294 and field, parallax obs. 2−63217
young stars, mass spectra 2−89263
young stars, radio emission obs. 2−73965
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229
H-deficient stars origin 2−68750
Hα emission line stars near Bok globules round α Muscae, star form. 2−94819
Hα emission objects in region in Vela, search and catalogue 2−78979
Hα emission stars, new discoveries in region of γ Cygni 2−84110
He-rich stars, Hα emission 2−79096

state estimation
sound source position calc. using passive sensor systems 2−114577

state of the art studies *see reviews*

static (atmospherics) *see atmospherics*

static electricity *see electrostatics*

static electrification
see also triboelectricity
atmospheric static charging and its effects on avionic systems 2−83897
space vehicle, electric charge buildup on surfaces, review 2−58223
spacecraft (high-voltage), elec. pot. of insulated surfaces 2−94576

statics
see also hydrostatics
films, wrinkling, equilib. anal. 2−91234

stations, power *see power stations*

statistical analysis
see also measurement errors; probability; random processes; statistical theory of nuclear reactions and scattering
aerosol sources evaluation using receptor models 2−62529
backscattering in randomly nonhomogeneous media 2−102697
battery systems, reliability evaluation 2−62471
biomembrane, elec. excitable, variance of conductance fluctuations 2−78315
bone, human compact, factors affecting creep props., 2−116965
building sound transmission prediction using statistical energy analysis 2−114572
cell survival-dose curves, statistical anal. and extrapolation number modification factor *(Russian)* 2−105769
Chandler wobble analysis theory 2−78525
climatology, statistical approach to historical records of flood and drought 2−100485
cockroach giant interneuron system, multivariate statistical anal. of the response to wind puffs 2−73268
computer code input variables, statistical screening 2−90190
creep strength prediction, statistical approach *(Japanese)* 2−93614
daily global radiation diffuse and beam components estimation and statistical distributions anal. for Genova and Macerata stations 2−73658
digital time and freq. meas., statistical description 2−89696
Dobson total O_3 atmospheric meas., statistical analysis 2−111987
earthquake analysis, statistical model for prediction of quasi-realistic strong ground motion 2−100316
earthquakes strong ground motions, statistical characterisation using power spectral density function 2−88757
ECG long term recording, vectorial/statistical detect. of ventricular ectopic depolarisation 2−62817
EEG, statistical data analysis, computer managed 2−117144
electron microscopy, low-dose, phase-amplitude object reconstruction from two defocused images, statistical anal. 2−95556
electron microscopy, low-dose, reconstruction of weak phase-amplitude objects, statistical analysis 2−101500
EM wave propag. in random nonuniform media, diurnal var., statistic of refraction angles 2−75498
EMG pattern analysis and classification for a prosthetic arm 2−78488
emission tomography reconstruction techniques, deterministic verses statistical methods 2−100112
environmental standards implementation based on moving averages 2−111609
experimental design, appl. to heat resist. of Fe-Cr-Ni-Mn-Si-Al-rare earth alloys 2−116604
fatigue crack growth data, statistical processing method 2−116648
fatigue damage accumulation in metals, math. model 2−56078
fatigue life prediction, random load spectral density shape effect 2−111432
fatigue testing, sheet specimens with stress concentrators 2−116649
fatigue testing, step-by-step loading, expt. planning 2−116652
fibre lightguide with different shaped end faces, light distrib. anal., computer method 2−65386
fibre reinforced composite, damaged, stress conc. factors, stat. treatment 2−105281
finite amplitude acoustic noise propagating in a tube, statistical characteristics 2−91148
fluorescence decay curves, numerical deconvolution, regularisation operators use with Lagrange multipliers, in FORTRAN 2−65034
Fourier spectra, statistical signatures of scale and amplitude vars. 2−102735
fracture 2−72800
fracture of brittle bodies in compression 2−114727
frequency separated waves in scattering medium, fluctuation correlation, statistical characts. 2−108794
galaxy clustering evidence in Shane-Wirtanen catalogue 2−106931
gasfilled spark gap overvoltage breakdown statistics 2−97827
Gaussian functional integrals in statistical physics, explicit evaluation 2−53668

statistical analysis continued
geophysical-meteorological data series analysis, significance tests *(German)* 2−106343
heterogeneous material, universal conditions for assimilation to effective continuum 2−114638
instrumentation, static metrological properties as multivariable random process *(Polish)* 2−89651
instruments error distributions approximation 2−63960
IR and microwave radiometry, statistical modeling of scene variability 2−112980
limnic ecosystems, water quality models 2−73608
Malaysian Peninsular, solar radiation data statistical presentations for 3 stations 2−83888
map classification accuracy estimation, statistical basis and user approach 2−112140
measurement errors estimates, significance 2−89650
medical images, noisy, phys. statistics theory for detectability of target signals 2−83539
metal film, polycrystalline, elec. cond., effects of non-cubic grains *(French)* 2−92786
metallic materials, statistical strength *(Japanese)* 2−111188
metals, plastic strain anisotropy, statistical method appl. 2−105405
microdensitometer positioning errors, random, transfer-function approach 2−84684
non-Gaussian parametric systems, functional statistical anal. 2−112685
normally distributed populations of same variance, mean values comparison using sampling results *(German)* 2−84435
Nova capacitor banks, performance and cost analysis using Weibull statistics 2−96400
nuclear power station, man-machine interfaces *(Japanese)* 2−74858
outlying data points, M-estimator robust regression model 2−74196
parametric radiators, source radiating nonlinearly confined spherical beams, statistical anal. of operation 2−114599
peak-fitting in Ge spectroscopy, χ_r^2 test applic. 2−113811
Poisson goodness-of-fit tests for radiation-induced chromosome aberrations 2−57769
prediction error variance, time and frequency instabilities analysis 2−107294
pulsar pulse microstructure 2−74006
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
quasar alignments, assessment of statistical significance 2−112606
quasars associations with companion galaxies to bright spirals, probability anal. using Poisson statistics 2−106954
radiation climate of Malta 2−73659
radiative transfer equation, two-freq., for statistically inhomogeneous and anisotropic absorptive medium 2−63946
rain fade duration on Earth-space paths, calc. of statistics 2−117432
random creep process, statistical props. 2−60421
ridits and cumulative percentile methods applied to atmos. visibility data 2−63086
road traffic noise, dynamical estimation method of objective noise under background noise *(Japanese)* 2−97288
S0-type galaxies, extended maximum likelihood anal. of apparent flattenings 2−68903
semiconductor laser, statistical anal. of instantaneous spectra 2−75574
solar irradiance deficits determ., data reduction techniques 2−116789
spiral galaxies, extended maximum likelihood anal. of apparent flattenings 2−68903
St. Paul, Minnesota, global solar radiation measurements anal. for persistence and variability 2−73655
steady vibration response variance analysis 2−60443
steel thin-walled tube, crack initiation and fatigue, statistical anal. using Weibull law *(French)* 2−111259
stellar parallaxes 2−58264
stratospheric O_3 data, statistical methods 2−112150
structural materials, ultimate stress states, dispersion anal. 2−115335
test points selection, for automatic checking of meas. facilities 2−63957
test signals for meas. information systems 2−63959
testing variation before and after treatment of a single sample 2−94982
thermal measurements, anal. of random errors *(Hungarian)* 2−79575
Tokamak fusion reactor, neutron streaming, staged Monte Carlo calcs., statistical errors, bias 2−64636
typhoon positioning errors over NW Pacific Ocean, statistical anal. *(Chinese)* 2−88948
underwater acoustic medium as generalised communication channel 2−60284
underwater acoustic transmission channel characterisation 2−60286
X-ray residual stress meas. using half-width method, statistical anal. 2−67682
Al alloy ADT-M, plastic strain anisotropy, statistical method appl. 2−105405
Fe-Cr-Ni-Mn-Si-Al-REM alloys, heat resist., expt. design appl. 2−116604
Fe-Si, electrotechnical steel type 2011, mag. induction anisotropy determ. 2−92898
Ti-Al-Cr-Mo-V, mech. props., statistical anal. 2−72763

statistical distributions *see statistical analysis; statistics*

statistical mechanics
see also classical theories of fluid structure; lattice theory and statistics; Liouville equation; liquid theory; master equation; quantum statistical mechanics; renormalisation
atoms in hot partially ionised matter, statistical mechanics, 1-electron Green function 2−71081
Bogoliubov hierarchy eqns. stationary solns. in classical statistical mechanics 2−84513
Boltzmann eqn., nonlinear, entropy time derivatives calc. 2−101300
canonical ensemble, energy fluctuations, higher moments 2−79463
chain of nonlinear oscillators, approach to equilib. 2−69084
charge symmetric system, cover bound for grand canonical partition function 2−112801
chemical reactions, molecular dynamics with stochastic boundary conditions 2−101298
classical anharmonic single oscillators, statistical mech., extended variational method 2−101305
classical charged systems, perfect screening 2−84521
classical models, chiral field analogue, Cauchy problem soln. 2−95215
cluster integral evaluation by spherical harmonic expansions 2−112803
continuum statistical mechanics, Dobrushin uniqueness techniques and decay of correl. 2−112800
correlation functions for quasi-linear response theory 2−101364

statistical mechanics continued
Coulomb condensate of nonlinear Poisson-Boltzmann eqn., unified theory 2−58747
dead time distorted Poisson behaviour, correlated pulse time spectra 2−58690
dense hard-sphere fluid mixtures, equilib. statistical mech. theory 2−107229
drops, surface tension, statistical mech. theory 2−56304
dynamic field equations interpretation 2−74313
entropy in expanding Universe, cosmological and biological implications 2−117836
equations of state, statistical mechanical, appl. to fluid phases 2−56151
ergodic props. of system in contact with heat bath, one-dimens. model 2−107228
field theoretical methods in chemical physics, book 2−94932
fluid-solid interfaces, wetting transitions 2−115501
fluoride heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
Fokker Planck system, Kramers time 2−112804
generating functional method and Gibbs random fields on countable sets 2−58693
Goldstone theorem in statistical mechanics 2−95218
hard disc packing with spherical boundary conditions, computer simulation 2−74314
hard spheres mutual diffusion, thermodynamic driving force 2−60849
hard-dumbbell mixtures, eqns. of state 2−79511
infinite classical system, states time evolution 2−84516
infinitely particle system, existence of time evolution 2−112805
inhomogeneous fluids, transverse current-current correl. function, generalised Langevin theory 2−79500
interface between QFT and stat. mech. 2−95663
intermittency in area-preserving mappings 2−84522
ionic and dipolar systems, Monte Carlo and molecular dynamics simulations, periodic boundary conditions 2−81644
irreversible kinetic eqns., distrib. function proportional force, *(French)* 2−69083
isotropic gases with generalised interacting charges, phase transitions 2−101369
Jaynes' information theory approach to statistical mechanics 2−95217
Kirkwood-Ruelle operators, spectral properties 2−84514
Kirkwood-Salsburg operators, spectral properties 2−84514
large particle in inhomogeneous field, Brownian motion 2−101333
lattice gas, two-dimens., cluster partition function, asymptotic form 2−84534
lecithin bilayers, ripple phase, mol. interaction, statistical mech. model 2−99914
Liouville theorem links *(French)* 2−74312
lipid bilayers, acyl chain motion, statistical mechanical model 2−78301
liquid metal with purely repulsive interatomic pot., thermodynamic props. and self-diffusion 2−103585
liquid state of matter: fluids, simple and complex, book 2−94930
Lorentz gas and random walks 2−95248
macroscopic systems, unstable state decay 2−74334
mathematical problems in theoretical physics, conf., Berlin, Germany (Aug., 1981) 2−94911
Maxwell, contrib. to mol. physics and statistical methods 2−112682
Mayer cluster expansion, props. 2−101301
Mayer graph estimates, upper bounds from spanning n-trees 2−84517
microemulsions, statistical mech. of interfacial region 2−57640
moderately dense gas, functionals generating method *(Ukrainian)* 2−76054
multicomponent solution absorpt. on homogeneous solid surfaces 2−76815
mutually entangled long flexible molecules, statistical gauge theory of topological entanglements 2−114144
nematic fluids, Flory statistical mechanics, steric effects 2−60873
neocortical interactions, statistical mechanics basic formulation 2−99872
noise in chaotic systems, appl. to transitional fluid flow 2−97489
nonconservative, stochastic evolution 2−74311
nonequilibrium, Onsager reciprocity theorem, generalisation 2−79520
nonequilibrium processes, stat. theory, asymptotic behaviour of Green's functions and correlation functions 2−58694
nonequilibrium statistical mech., non-Markov eqns. of motion, validity 2−84518
nonequilibrium system, linear response, generalised eqn. of motion derivation 2−101303
nonlinear Hamiltonian dynamics, ergodic theory 2−63784
nonlinear oscillator, driven by random, periodic force, spectral anal., linearised theory 2−84469
nonlinear oscillators, self-synchronisation, universal evolution criterion 2−74315
nonpotential interactions, Lie-admissible treatment, conf., Orleans, France (Jan. 1982) 2−74149
nonpotential interactions, Lie-admissible treatment 2−74666
nonspherical molecule fluids, statistical thermodynamics 2−55824
nonuniform fluid with long-range attractions, statistical mechanics 2−65833
nonuniform systems, statistical theory, reduced description, density fluctuations 2−84519
one-dimensional classical fluid with nearest-neighbor interaction in arbitrary external field 2−97891
organic compounds, ideal gas thermodynamic props., data tables 2−94922
Ornstein-Zernike eqn. soln in 1 and 3 dimens. 2−95214
oxide heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
Planck's formula for classical oscillators with stochasticity thresholds 2−112823
polyelectrolyte systems, cell model, statistical mech., Monte Carlo and Poisson-Boltzmann calcs. 2−81642
polymer, glass transitions, statistical mechanical theory 2−71649
polymers, helical crystals, struct. phase transitions, statistical mechanical theory 2−66165
probabilistics, status and physics appls. 2−95299
radiant cavity, one-dimens. model, stochasticity threshold 2−70828
relativistic plasma 2−97778
short-range interactions and irreversibility in statistical mechanics *(French)* 2−95677
solar differential rotation, axisymmetric hydrodynamic model 2−106661
soliton statistical mechanics, path-integral approach 2−101187
some inequalities related to roughening 2−95219
specific heat anomaly due to kinks in sine-Gordon and ϕ^4 chains 2−66252

statistical mechanics continued
spin glass, Sherrington-Kirkpatrick model, phase transition crit. temp. determined 2−98890
susceptibilities and conductivities, exact nonequilib. statistical relations 2−58692
system with imperfections, statistical mechanics, appl. to spin glass model 2−95213
thermal Green's functions, two-time, infinite system of eqns., soln. method 2−95216
turbulent flow, predictability and information decay 2−65571
two long flexible polymers, interactions, gauge theory of topological entanglements 2−114145
two-particle cluster integral, dielectric constant expansion 2−112802
two-phase random media, microstructure, n-point probability functions 2−101299
uncertainty relation in statistical thermodynamics 2−53656
Yang-Baxter eqns., for generalised Baxter models, symmetry 2−58691
Na-K liq. alloys, statistical thermodynamics 2−86540

statistical methods *see statistical analysis*

statistical models
Centauro event, superfluorescent like decay of coherently excited fireball 2−117551
chiral deconfining phase transitions, critical behaviour onset 2−54110
multiplicity distribution model for hadron-nucleon and α-α interactions 2−101691
optical beam propagation through atm. turbulence, irrad. fluctuations, universal statistical model 2−94495
phase transition in hadronic matter with internal symmetry 2−64306
quark fragmentation into hadron jet, quark statistical model 2−113235
statistical quark bag model and light hadrons 2−64294
thermodynamics of relativistic composite systems 2−64273
two-body inelastic scatt., cross-section, dual statistical bootstrap model 2−74669
$e^+e^-\rightarrow$ABX, A,B=hadrons, back-to-back jets in QCD, comparison with expt. 2−54186
e^+e^- annihilation, multijet final states, normicity measure 2−59167
$e^+e^-\rightarrow$baryons, quark fragmentation, Monte Carlo model 2−54196
hh→jets, transverse energy selection, in parton scatt. model 2−74717
hh multiparticle prod. models, quadrijets, fireballs, annihilation relationship multiplicity sure rules 2−64342
hN→X, grey prong distrib., reading particle cascade model 2−79918
$K^+p\rightarrow$hadrons, 32 GeV/c, multiparticle fragmentation 2−59201
lh→hX, multiplicity, two-fireball model 2−74693
N→X, high-energy multiplicity distrib., mixed two-component model 2−107710
$\nu p\rightarrow$hX, multiplicity, two-fireball model 2−74693
$p\rightarrow\pi^0e^+$, in nuclei, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
pp, heavy particle prod. cross section calc. using parton model 2−69496
π radius from fireball space struct. 2−84875
π^-p, 205 GeV/c, final-state particles charged depend. behaviour study 2−69491

statistical tests *see statistical analysis*

statistical theory *see statistical analysis*

statistical theory of nuclear reactions and scattering
^{A}Cu(π^+,X), A=63, 66, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
actinides, fission energy depend., superfluid model *(Russian)* 2−59325
average nuclear cross-section elastic enhancement and eigenphases condensation 2−69641
central high energy nuclear collisions, pion prod. model 2−74771
coherence energy extraction from fluctuating excitation function, autocorrel. function method 2−54346
cold neutrino degenerate dense matter, nuclei props., Thomas-Fermi model 2−117687
collisional time-depend. HF dynamics, interference effects lifetime 2−107786
complete multi-fragment event calcs. in statistical model for nuclear disassembly 2−107839
current perspectives on statistical models of nuclear reactions 2−113457
damped nuclear reactions, angular momentum transport 2−95982
data with reactor applications, statistical distrib. approach 2−64464
deep inelastic collisions, approach to irreversibility 2−54347
deep inelastic heavy-ion collisions, statistical fluctuations, expt. evidence and theoretical implications 2−85093
deep inelastic reactions, total energy and γ-ray multiplicity, statistical fluctuation effect 2−96043
deeply inelastic collisions, Z- and A-distribs., particle evaporation effects 2−101870
deuteron and alpha-particle collisions in intranuclear cascade model 2−85021
dissipative heavy-ion collision, local equilibration effects 2−107889
dissipative heavy-ion collisions, quantum dynamical semigroup theory 2−113560
dissipative heavy-ion collisions 2−113545
energy level fluctuation properties, anal. and expt. comparison 2−69538
equivalent channels, functional approach, entropy method 2−69630
exactly central heavy ion collisions by nuclear hydrodynamics, comments 2−90152
explosion-evaporation model for fragment production in medium-energy nuclear collisions 2−96032
fermion nonequilibrium momentum distrib. relaxation 2−59320
finite fermion system equilibration, low energy heavy ion reactions, transport eqn. 2−64428
fission, Brownian motion model 2−59323
fission, prompt mass distribs. study using structure-sensitive statistical model 2−69688
fission rate, Brownian motion, Fokker Planck eqn. soln. 2−54452
fission rate, Brownian motion study 2−54451
forward-angle inelastic scatt., single-step contrib. anal. in independent particle model 2−59318
fragment emission in relativistic heavy-ion reactions 2−96044
fusion-fission excitation functions, rot. liquid parameters, statistical corrections 2−107892
hadron-nucleus inelastic interactions, soft particle multiplicity distribs., Monte Carlo simulation 2−107856
Hauser-Feshbach formula in overlapping reson. domain, derivation in statistical theory framework 2−69632
heavy ion capture cross section in the surface friction model 2−54426

statistical theory of nuclear reactions and scattering continued
heavy ion collisions, composite particle prod., entropy and hadrochemical composition 2−54349
heavy ion collisions, hydrodynamical model eqns. *(Russian)* 2−90038
heavy ion collisions, relativistic, equilibrium attainment, statistical model 2−80024
heavy ion collisions, spin and isospin fluctuations and depend. on dinuclear complex shape 2−64420
heavy ion deep inelastic collisions, quantum and statistical fluctuation effects *(Russian)* 2−90157
heavy ion deeply inelastic collisions, coherent and stochatic effects, collective dynamics fluctuations 2−59392
heavy ion dissipative deep inelastic collisions, fragment ang. momentum correlation coeff. *(Chinese)* 2−96038
heavy ion energetic reactions, deuteron prod., entropy deduction, effective binding forces 2−80032
heavy ion fusion, review 2−85082
heavy ion fusion, review 2−85111
heavy ion high energy collisions, light fragment prod., kinetic theory calcs. 2−90148
heavy ion reactions, density isomer efforts, phase transitions, shock-wave model 2−59385
heavy ion reactions energy dissipation, single particle shell struct. effects, statistical model 2−59391
heavy ion relativistic collisions, non-equilibrium thermodynamic approach 2−107882
heavy ion scattering, deformation factors, diffraction model, adiabatic approx., collective motions *(Russian)* 2−59403
heavy ion-nucleus reactions, random walk model in two dimens. 2−74773
heavy-ion collision dynamics, conf., Hvar, Yugoslavia (May 1981) 2−84379
heavy-ion collisions, 250 MeV to 2 GeV per nucleon, intranuclear cascade model, review 2−113455
heavy-ion collisions, chaotic fragmentation of nuclei 2−113531
heavy-ion collisions, charge equilibration, preequilibrium light particle emission and projectile splitting 2−113547
heavy-ion collisions, collective transport theory 2−113544
heavy-ion collisions, fast fission phenomenon 2−113532
heavy-ion collisions, incomplete fusion and fragmentation 2−85089
heavy-ion collisions, light particle emission 2−85092
heavy-ion collisions, mass and charge fragmentation, quantum-mechanical treatment 2−85088
heavy-ion collisions, pot. energy surface calc. 2−85087
heavy-ion collisions, relative motion phase space evolution, numerical studies 2−113564
heavy-ion collisions, role of rotational degrees of freedom 2−113548
heavy-ion collisions at intermediate energy, light particle correl. 2−113535
heavy-ion fusion and nuclear structure 2−64447
heavy-ion reaction reson., schematic-model prediction comparison 2−85086
heavy-ion reactions, anisotropic three-fluid model 2−85094
heavy-ion reactions, conf., Saclay, France (May 1982) 2−112650
heavy-ion reactions, neutron evaporation from highly excited nuclei 2−113456
heavy-ion reactions, partial coherence 2−90133
heavy-ion relativistic collisions, composite particle emission, chemical equilibrium model 2−96027
heavy-ion scatt., nucleon transfer contrib. to absorptive pot. 2−90140
heavy-ion transfer reactions as quantal many-body systems probe 2−54242
high energy collisions, particle prod., chem. equilibrium and quasiergodic hypothesis 2−90076
high-energy heavy-ion collision dynamics, nucl. matter eqn. of state 2−113386
hop spots in nuclei microscopic transport theory 2−59316
hot nuclear matter phase stability, balance eqns., relativistic HI reaction appl. 2−54294
intra-nuclear cascade, event by event emission pattern anal. 2−54336
isoscalar giant monopole and quadrupole resonances, semiclassical description 2−113436
level crossings, master eqn. 2−54348
multistep direct emission, statistical theory 2−79997
neutron-induced reaction, ang. distrib. calc. based on exciton model 2−69665
nuclear flow patterns for E=250 MeV/N from cascade code 2−59317
nuclear fluid dynaics, TDHF approx., heavy ion low-l fusion window 2−69631
nuclear fluid dynamics and TDHF 2−101872
nuclear matter, self-consistent eqn. of state 2−59277
nuclear matter, thermal Hartree-Fock in the thermodynamic limit: statistical approach 2−90039
nucleus-nucleus collisions near speed of sound, soliton soln. for hydrodynamics eqns. 2−107840
phase particle integrations of the nuclear Vlasov equation 2−69629
photoabsorption cross section, vol. and surface symmetry energy coeffs. 2−79999
pion-emulsion nucleus interactions, model for slow particle prod. 2−90102
polarisation fluctuations, from S-matrix *(Russian)* 2−59321
positive energy Weinberg states for scatt. problem soln. 2−85010
prescission dissipation in nuclear fission from a microscopic point of view 2−64390
projectile like (N,Z) values on dinuclear liquid drop surface, discrete random walk evolution 2−90134
prompt fission neutron spectra, average multiplicities, evaporation theory calc. 2−90083
proton and electron induced light fragment prod., snowball model 2−59319
proton and heavy ion induced reactions, proton and pion emission in phenomenological model 2−95983
proton decay, Fermi motion and secondary particle collisions, intranuclear cascade model 2−74686
proton-emulsion nucleus interactions, model for slow particle prod. 2−90102
quasi-thermodynamic theory of fission charge distribution *(Chinese)* 2−107841
relativistic central nuclear collisions, inclusive proton prod., precritical scatt. effect 2−74772
relativistic heavy ion collisions, thermodynamic model for deuteron prod. 2−54432
relativistic heavy ion reactions, review 2−59388
statistical theory of nuclear reactions and scattering continued
relativistic heavy-ion collisions, cluster approach to intranuclear cascade 2−101922
relativistic heavy-ion collisions, nucl. disintegration 2−113541
relaxation studies in fermion systems: nonlinear and finite size effects 2−85020
resonance averaged γ-ray spectroscopy, historical description and statistical anal. 2−113404
rotating nuclei, equilibrium shapes and fission barriers with macroscopic two-centre model 2−90180
sequential three-body reaction, heavy-ion-light-particle angular correlations 2−113527
spherical nuclei, exciton levels, spin distrib., yrast lines, superconductivity model 2−90011
strange particle production in heavy ion collisions, hadrochemical model anal. 2−64383
summer school on nuclear phys., Mikoljki, Poland (Sept. 1980) 2−63732
translead region, α-width, Fermi-liquid model 2−107813
transmission coefficients for light projectiles 2−69621
two body collisions, effect on heavy ion dynamics, TDMF time relaxation method 2−59390
(α, 2nγ) on A=80-210, 28-35 MeV, neutron spectra and ang. distrib. 2−54414
(α,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(α,X), light fragment formation, coalescence approach, snowball model 2−90113
(d,X), light fragment formation, coalescence approach, snowball model 2−90113
(e,e'X), drifting hot spots in inclusive reactions, preequilibrium evolution 2−101869
(n,d), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(n,n'p), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(n,n') near collective excitation threshold, rel. to statistical-optical model calc. *(Russian)* 2−54362
(n,pn), 14.7 MeV, A=44-98, cross sections, Hauser-Feshbach anal. 2−101884
(N,X), light fragment formation, coalescence approach, snowball model 2−90113
(p,f) on nuclei near Pb and lighter nuclei, fast p, shell effects in fission *(Russian)* 2−90185
(p,p'X), drifting hot spots in inclusive reactions, preequilibrium evolution 2−101869
(p,π), pion prod. in rescattering model 2−80011
(p,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
(π,πN) and (π,π') on C, Al, Fe, Nb, Bi, NN cross section determ. in nuclei 2−85106
(π,X), statistical theory near Δ(1232) resonance 2−74775
^{108}Ag, p̄ annihilation, intranuclear cascade model 2−101871
^{26}Al compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
^{27}Al(^{16}O, x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{27}Al(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{27}Al(^{3}He, p)^{29}Si, preequilibrium contrib., spectral density method 2−74753
^{27}Al(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{27}Al(^{3}He,p), coherence energy extraction from fluctuating excitation function 2−54346
^{27}Al(α,p), 18 MeV reaction, pre-equilib. emission, exciton model 2−59370
^{A}Au(n,γ), A=196, 197, cross section theoretical calc. 2−101878
^{196}Au(n,γ), cross section theoretical calc. 2−101878
^{197}Au (α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{197}Au(^{12}C, X), 3.0, 12.0 GeV, target fragment ang. distrib., 2-step vector model, intranuclear cascade 2−107895
^{197}Au(^{16}O,x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{197}Au(^{20}Ne, X), 13 MeV/N, correlation between fission fragment and light charged-particles 2−113566
^{197}Au(^{20}Ne,X), 170,252 MeV, fragments charge and ang. distribs. 2−54434
^{197}Au(^{20}Ne,f), 252 MeV, ang. momentum, stat. equilib., sequential fission, very asymmetric systems 2−69689
^{197}Au(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{197}Au($\pi^{\pm}$,$\pi^{\pm}$n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{10}B(^{14}N, X), 86-180 MeV, fusion, direct and total cross sections, Hauser-Feshbach anal. 2−69692
Be(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
^{209}Bi(^{136}Xe,X), 940,1130,1422 MeV, dissipative collisions, impact parameter influence onelement distrib. 2−54436
^{209}Bi(p,π^{-}xn), near 200 MeV, intranuclear cascade model 2−107865
C(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
(^{12}C, X) on medium, heavy targets, 86 MeV/n, α-emitters prod., cross sections and dynamical props. 2−113540
(^{12}C, X) on U, Th, Au, Ni, 30-84 MeV/u, linear momentum transfer determ. 2−113539
^{12}C(^{12}C, ^{12}C), adiabatic coupling model, second order transitions 2−59384
^{12}C(^{12}C,α)^{20}Ne, 15 MeV, ang. distrib., excitation energy, nonstatistical effects 2−96035
^{12}C(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{12}C(^{9}Be, X), X=p, d, t, α, 5.9-15.4 MeV, cross section energy depend., reson. or fluctuations 2−90137
^{12}C($\pi^{\pm}$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{12}C($\pi^{\pm}$,$\pi^{\pm}$n), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{13}C(^{13}C,X), $E_{c.m.}$=4-15.8 MeV, fusion cross section meas. 2−54465
^{13}C(^{6}Li, t)^{16}O, 24-26 MeV, direct and compound nuclear contrib. 2−54424
^{40}Ca, p̄ annihilation, intranuclear cascade model 2−101871

statistical theory of nuclear reactions and scattering continued
^{40}Ca(^{20}Ne, X), 291 MeV, incomplete momentum transfer in heavy-ion fusion 2−96037
^{40}Ca(^{40}Ar, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{40}Ca(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
^{40}Ca(^{6}Li,X), X=p,d,t,^{3}He,α, 156 MeV, inclusive breakup, DWBA, coalescence model 2−101912
^{40}Ca(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{40}Ca(n,γ), contributions from statistical, valence and direct mechanisms below 2 MeV 2−113512
^{40}Ca(π^{-}, X), energy spectra following pion absorpt., exciton model description 2−113572
^{41}Ca(n,X), X=p, γ, α, thermonuclear reaction rates, state. calcs. 2−59437
^{48}Ca(^{16}O,X), 142 MeV, deep inelastic collisions, neutron, proton and alpha emission 2−59401
^{111}Cd^{m} production cross section, levels, transitions from γ-cascade calcs. from (n,γ), (n,n′) 2−113325
^{113}Cd(p,n), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
C(γ,p), 360-600 MeV, proton momentum spectra study 2−95985
Cm(C,xn)No reaction, nuclear temp. estimation 2−113524
^{59}Co(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{59}Co(α,p), 18 MeV reaction, pre-equilib. emission, exciton model 2−59370
^{59}Co(n,n′γ), levels, J, transitions, Hauser-Feshbach-Moldauer anal. *(Russian)* 2−107757
^{52}Cr(n,n), 5-7 Mev, elastic and inelastic scatt. cross section meas. *(Russian)* 2−90115
Cu(^{12}C,X), 86 MeV/A, products yields and recoil props. 2−96039
Cu(^{20}Ne,X), 170,252 MeV, fragments charge and ang. distribs . 2−54434
Cu(γ,p), 150, 300 MeV, inclusive photoproton cross section meas. 2−85025
^{A}Dy A=152-161, quasi-continuum γ-ray deexcitation, yrast states, stat. model anal. of (α, xn), (^{12}C, xn) 2−79973
^{54}Fe(α,α′x), 59-160 MeV, exciton coalescence model anal. 2−107875
^{156}Gd, α-decay, from ^{153}Gd(n,x), strength function, statistical approach *(Russian)* 2−59363
^{158}Gd(α, xnγ), 70 MeV, equilibrium and preequilibrium, energy and ang. momentum transfers 2−80021
^{4}He(α, α), 15 MeV, generator coordinate amplitude approximations from statistical regulations 2−113381
^{178}Hf, α-decay, from ^{177}Hf(n,x), strength function, statistical approach *(Russian)* 2−59363
^{180}Hf(p,n), 6.5-9.0 MeV, ^{180}Ta^{g,m} prod. cross-sections 2−107811
^{194}Hg* compound nuclei, anomalous behaviour of evaporative H/He 2−113563
^{165}Ho(^{20}Ne, X), 292 MeV, energy and ang. correl. between neutrons and heavy ions 2−85091
^{165}Ho(^{36}Fe, X), 464 MeV, stochastic transfer and isobaric and isotopic distribs. 2−96036
^{113}In(n,n′), 0-10 MeV, neutron spectra, nonstatistical component, multistep direct transitions *(Russian)* 2−101897
^{41}K(p,X), X=γ, n, $\alpha\gamma$, 0.68-2.48 MeV, thermonuclear reaction ra tes, stat. model anal. 2−59437
(^{6}Li, X), 74.8-94.4 MeV, on A=181-208, fusion-fission, hot high spin nuclei decay 2−113334
^{6}Li(^{13}C, t)^{16}O, 9.2-35.1 MeV, fusion reaction, cross section for evaporation residues 2−54424
^{175}Lu(^{19}F, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{24}Mg excitation spectrum, compound processes from ^{14}N(^{14}N, α), comparison with ^{12}C(^{16}O, α) 2−64429
^{24}Mg(^{12}C, ^{12}C), 24-34 MeV CM, elastic and inelastic scatt., cross-section fluctuations 2−85078
^{25}Mg(^{3}He,X), X=p or α, 8.05-20.42 MeV, fluctuations due to statistical multistep compound emission 2−59375
^{25}Mg($\pi^{\pm}$,$\pi^{\pm}$p), 100-300 MeV, nucleon charge exchange at reson. energies 2−85102
^{92}Mo(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
(^{14}N,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
^{15}N(n,n$_{0}$), cross section, autocorrelation anal., channel coupling influence 2−95997
^{93}Nb(^{14}N,p), 95Mev, spin polarisation of preequilibrium proton emission 2−113460
^{93}Nb(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^{20}Ne(^{16}O, ^{12}C)^{24}Mg, excitation functions, statistical anal. 2−96026
^{20}Ne(^{16}O, ^{20}Ne)^{16}O, excitation functions, statistical anal. 2−96026
^{20}Ne(^{8}Be,X), resonance search using deviation functions 2−101933
Ne($\bar{p}$,πX), low energy annihilation, leading particle effect, semiclassical transport theory 2−69655
^{A}Ni(n,n), A=58,60,64, 6 and 7 MeV, differential cross-section rel. to optical-statistical model 2−64412
^{58}Ni (n,n), 0.9-4.5 MeV, elastic and inelastic cross section meas. 2−96013
^{58}Ni(^{12}C, γ)^{70}Se, capture reaction cross section 2−113561
^{58}Ni(e,e′), 1^{+} and 2^{-} states excitation, inelastic scatt. cross section calc. 2−85030
^{60}Ni(^{12}C, X), light-ion emission, beam energy depend. 2−90146
^{62}Ni(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
(^{16}O,^{16}OX), drifting hot spots in inclusive reactions, preequilibrium evolution 2−101869
^{16}O(^{12}C,α)^{24}Mg*, resonance search using deviation functions 2−101933
^{16}O(^{14}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{16}O(^{93}Nb, X), pre-equilibrium particle emission in TDHF approx., total cross section 2−69673
^{16}O(p, X), binary fragmentation, cross sections, statistical model calc. 2−113468
^{17}O coulomb excitation, giant-dipole resonance contribution 2−113443
^{17}O(^{13}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
^{18}O(^{12}C,X), 32-140 MeV, complete fusion, entrance channel effect 2−107898
statistical theory of nuclear reactions and scattering continued
^{A}Os(n,γ), A=186-188, 2.5-450 keV, average cross sections, age of galaxy via ^{187}Re→^{187}Os decay 2−54389
Pb(Ar, X), 800 MeV/nucleon, macroscopic nucleon-nucleon correl. caused by bounce-off process 2−90143
^{A}Pb($\pi^{\pm}$,X), A=202, 208, neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{200}Pb from ^{181}Ta+^{19}F and ^{170}Er+^{30}Si, fission and evaporation competition, expt. and theory 2−101916
^{203}Pb level density effects on stat. calcs. for high spin fission from ^{197}Au(^{6}Li, X) 2−113335
^{207}Pb (n,p), 12-20.3 MeV, cross section energy depend. 2−85056
^{207}Pb(n,x), x=d, pn′, n′p, 12-20.3 MeV, cross section energy depend. 2−85056
^{208}Pb(γ,n), 9.9-11.2 MeV, fine structure in photoneutron cross section 2−59330
^{A}Pd(^{40}Ar, ^{40}Ar′), A=108, 110, Coulomb excitation, multiphonon vibr. states structure 2−64433
^{210}Po, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{141}Pr(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{239}Pu(n,f), isomer-yield ratios, primary angular momenta 2−90172
^{240}Pu(n,x), fast neutron cross section, statistical model calc. 2−113475
^{79}Rb compound nucleus formation and deexcitation, fusion barrier, evaporation anal. of (^{16}O,X), (^{34}S,X) 2−101913
^{103}Rh(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^{121}Sb(α,X), X=n, 2n, absolute cross section meas., gamma de-excitation competition effect 2−96018
^{45}Sc (n,γ), thermal, γ-rays energy and intensity meas. 2−54375
^{45}Sc(γ, p), 15.6-25 MeV, GDR direct cross-section, isospin, preequilibrium decay 2−107847
^{A}Si, A=29,30, compound nuclei reson. props. for elastic, recoil and α-particle exit channels 2−54435
(^{28}Si,X), 100-400 MeV/N, secondary particle formation time, nonequilibrium processes *(Russian)* 2−107900
^{28}Si(^{16}O,^{16}O), 50 MeV, phase shift anal., stat. fluctuations, backward and staggering effects 2−80033
^{28}Si(^{7}Li,^{7}Li), elastic and inelastic scatt., optical model and coupled-channel anal. 2−85077
^{144}Sm(^{32}S,X), 139.5-201 MeV, fusion reaction, Pt and Os isotopes detection and study 2−64431
^{154}Sm(^{40}Ar, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{154}Sm(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{112}Sn(^{3}He,X), 34.8 MeV, cross-sections, p, d, t and α ang. distribs., rel. to exciton model *(Russian)* 2−101904
^{116}Sn(^{35}Cl, X), 200, 215 MeV, fission and fusion excitation functions, meas. and stat. anal. 2−69684
^{116}Sn(^{40}Ar, X), energy equilib. in composite nuclei, correl. between evaporative ^{1}H, ^{4}He and fission 2−90139
^{88}Sr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{181}Ta(^{136}Xe,X), 1150 MeV, X-ray spectra, giant dipole strength function 2−101859
^{181}Ta(^{15}N,X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{181}Ta(^{35}Cl, X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{181}Ta(α,xn), 45 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{181}Ta(n,γ), 10-70 keV, cross-sections, γ-ray spectra, rel. to Hauser-Feshbach anal. 2−74761
^{181}Ta(p,xn), 22 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{232}Th(^{15}N, X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{232}Th(^{16}O,X), nucleon transfer to highly excited states, statistical behaviour 2−64432
^{232}Th(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{232}Th(p,f), 4-11 MeV, excitation function meas. 2−96061
^{232}Th(p,f), 8-22 MeV, fission fragment yields and excitation functions, statistical anal. 2−90182
^{A}Ti(^{13}C,X), 36-56 MeV, A=46-50, absolute residue cross sections, evaporation anal. 2−59389
^{48}Ti(^{13}C,X), 46 MeV, light medium systems formation and decay study 2−85083
^{169}Tm(n,γ), cross section theoretical calc. 2−101878
U(^{40}Ar,$\pi^{\pm}$), cross section for pion prod. near CM vel. 2−59400
^{A}U(n,f), A=233, 235, isomer-yield ratios, primary angular momenta 2−90172
^{A}U(n,f), A=233,235, thermal, internal excitation energy at scission point 2−59432
^{232}U, fission and neutron emission competition at high spin, deformation, stat. theory 2−69685
^{233}U(n,f), thermal, ^{95}Nb and ^{132}I isomeric yield ratios, fission fragment ang. momentum 2−54458
^{235}U(n,f), nonequilibrium statistical theory of mass distribs., deformation *(Chinese)* 2−80043
^{238}U(^{12}C, X), 3.0, 12.0 GeV, target fragment ang. distrib., 2-step vector model, intranuclear cascade 2−107895
^{238}U(^{20}Ne, X), 393 MeV/nucleon, coherent collective flow vs. independent two-nucleon collisions 2−90144
^{238}U(^{20}Ne, X), jets of nuclear matter, fluid dynamical model calc. 2−64434
^{238}U(^{20}Ne,X), nuclear eqn. of state study 2−84988
^{238}U(^{20}Ne,f), 252 MeV, ang. momentum, stat. equilib., sequential fission, very asymmetric systems 2−69689
^{238}U(n,n′), fast cross sections to vibrational states, intrinsic unified formalism 2−113331
^{238}U(n,xn), 14 MeV, neutron spectra and nuclear level density *(Russian)* 2−54419
^{238}U(p,f), 10-100 MeV, spallation yields and fissionability calc. 2−59430
^{238}U($\pi^{\pm}$,X), neutron spectra, A-depend., evaporation, deep inelastic processes *(Russian)* 2−64442
^{182}W(^{12}C, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{A}y(n,γ), A=88, 89, cross section theoretical calc. 2−101878

statistical theory of nuclear reactions and scattering continued
^{89}Y level density, partial width fluctuation method, stat. anal. of ^{88}Sr(p,γ) 2−59243
^{172}Yb, α-decay, from ^{171}Yb(n,x), strength function, statistical approach *(Russian)* 2−59363
^{174}Yb(^{20}Ne, X), emission from ^{194}Hg compound nuclei, fission-evap. competition 2−90138
^{68}Zn(n,γ), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{68}Zn(n,n), neutron reson. parameters and statistical distrib. of level spacing and widths 2−64408
^{90}Zr level density, partial width fluctuation method, stat. anal. of ^{89}Y(p,γ) 2−59243
^{90}Zr(^{16}O,x), x=p, d, t, α, 140, 215, 310 MeV, differential cross section meas. 2−85076
^{90}Zr(^{86}Kr, X), 380, 400 MeV, proton transfer in quasi-elastic and deep-inelastic reactions 2−113562
^{90}Zr(e,e'), inelastic scatt. spectra, level densities, missing mag. quadrupole strength, statistical anal. 2−95992

statistical thermodynamics *see statistical mechanics*

statistics
see also error statistics; game theory; Monte Carlo methods; probability; queueing theory; time series
acoustic power output, by monopole above reflected place, experimental investigation 2−114484
aftershock sequence following Friuli earthquake, 1977 September 16, time evolution 2−117221
atmosphere turbulence in unstable boundary layer, similarity of turbulence characts. 2−100430
climatic fluctuations in central European area, statistical struct. 2−68475
coherent light in saturated m-photon amplification and attenuation, photon statistics 2−55101
counting statistics, transform theorem 2−101324
energy resources, consumption statistics, present state and future trends, Netherlands *(Dutch)* 2−67798
experimental data, guide to covariance generation 2−63803
fission-track dating, age error estimation 2−111898
galaxies space distribution, search for large-scale linear filament struct. in apparent distrib. *(Russian)* 2−112567
galaxy redshifts, statistical anal. of multipole moments in Rubin-Ford data data, statistical anal. 2−106892
grain random array, harmonic anal., jitter model appls. 2−58936
hyperbolic distribution in statistical physics 2−86368
imagery, 2-dimens., sampled, information density and efficiency 2−108801
integrated photometric measurement spectral correction, statistical charact. calc. 2−69236
isolated word recognition, speaker-independent, 129-word airline vocabulary use 2−109130
laser speckle produced by moving diffuse object under Gaussian beam illum., dynamic statistical props. 2−75526
light scattering, non-Gaussian, by ruffled water surface 2−55071
meteorological fields, latit. depend. of variance of zonally averaged quantities 2−112008
microscopically inhomogeneous optical media subjected to numerous light pulses, damage statistics 2−76497
multipass laser beam propag. through laboratory-simulated atm. turbulence, irrad. fluctuations, statistical meas. 2−90812
non-Gaussian light in presence of number fluctuations, single-interval statistics 2−85893
nonlinear optical parametric up conversion, coherent interaction, statistical and coherence effects 2−108961
nonlinear optical parametric up conversion, incoherent interaction, statistical and coherence effects 2−108962
optical waves propagating in randomly inhomogeneous media, adaptive correction algorithms, comparative characts. 2−65313
ray optics, statistical 2−90796
road traffic noise, power levels of vehicles and noise exposure statistics *(Japanese)* 2−97289
rough surface, two-sided boundary conditions for average scalar field 2−115363
rough surface statistical charact. determ. using waveguide scatt. of light 2−70714
solar wind, statistical props. of MHD fluctuations assoc. with high speed streams 2−100697
space-group symm., probability density functions, cumulative distrib. functions, normalised struct. amplitude moments, generalised statistics 2−81705
steel, Cr-Mn-Si-Ni, K_{IC} test data statistical treatment *(Chinese)* 2−105397
strongly fluctuating field, second statistical moment calculation 2−114497
Al alloy K_{IC} test data statistical treatment *(Chinese)* 2−105397
CO_2 IR laser beam retroreflected through a turbulent atm., statistical props. 2−100561
He-Ne visible laser beam retroreflected through a turbulent atm., statistical props. 2−100561

stators
endwall boundary layer flows and losses in an axial turbine stage 2−86274

steady-state theory *see cosmology*

steam
electrolysis cell, high temp., using proton conductive solid electrolytes 2−105554
flow in heated channel, nucleation and bubble growth, void fraction 2−91515
heat transfer in condensation on finely-finned horizontal tubes 2−91423
saturated vapour condensation on melting vertical wall 2−91439
solar power stations saturated steam generation heat transfer and thermal optimisation 2−116781
sorption on glass surfaces 2−110147
thermodynamic props. of water, ideal-gas 2−114963
UPS study 2−67190
wet steam in evaporator tube, boiling crisis 2−91417

steam boilers *see boilers*

steam generators *see boilers*

steam plants
see also boilers
low-noise throttling and venting device, theory and operation 2−60298

steam power stations
aquatic environmental database and anal. system, power station appls. 2−78276
atmospheric fluidised-bed combustion boilers limestone consumption reduction methods 2−71028
coal water slurries, combustion characts., test programme 2−99753
combined heat and power, energy savings in FDR *(German)* 2−73050
flue gas desulphurisation, sprayer-dryers 2−73055
fluidised beds of coarse solids, fine particle behaviour 2−71027
gas turbine/steam turbine combined cycle using liquefied hydrogen as fuel, performance anal. 2−73164
KILnGAS coal gasification process for combined cycle power generation, evaluation 2−62452
noise prediction for fossil fuel power plants 2−62531
oil fired, burning municipal solid waste, energy recovery, five methods evaluation 2−99754
solar power station with mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
solvent-refined coal solids produced by liquefaction processes, combustion charact. evaluation 2−99755
supercritical once-through steam generator, variable pressure operation, two phase flow in furnace wall tube *(Japanese)* 2−86326
TVA 20 MW fluidised bed pilot plant design for atmospheric fluidised bed combustion 2−91530

steam turbines
see also turbogenerators
blades of stainless steel, pitting and corrosion fatigue in chloride environments, microstructure effects 2−83302
components, corrosion protective coatings, review 2−62288
gas turbine, open cycle, efficiency improvement and superiority of steam injection 2−81208
gas turbine/steam turbine combined cycle using liquefied hydrogen as fuel, performance anal. 2−73164
low pressure turbine rotors, susceptibility to stress corrosion cracking 2−72888
PWR stations, damp steam circuits, summary of erosion-corrosion observation 2−85170
PWR stations, steam generator feed pumps, investigations on resistance to erosion corrosion 2−85171
steam wetness measurement using calorimeter with two stage heating, application in corrosion protection *(Czech)* 2−107333
steel rotors, temper embrittlement rel. to heat treatment 2−83232

steel
see also alloy steel; austenitic steel; carbon steel; martensitic steel; stainless steel; tool steel
12Kh18N10T welded steel, effect of inoculation on corrosion resistance of chromium-nickel deposited metal 2−93661
abrasion, SEM obs. of worn surfaces 2−67568
abrasive wear resistance evaluation method 2−93713
AE monitoring system for crack growth *(French)* 2−62371
AE signatures, reproduced by indentation 2−62324
anti-tufftride coating on steel, tensile strength and deformability, effect of tufftriding time *(Japanese)* 2−93568
automatic A40G, struct. superplasticity w.r.t. treatment conditions 2−57426
bainite, an atom-probe study of incomplete reaction phenomena 2−73020
boiler, thermomechanical fatigue curves 2−111318
boriding, with high-freq. current heating 2−67644
boundary with inclusions, interphase props. and degree of struct. refinement 2−72685
cable net, pretensional saddle-shaped, modal stiffnesses 2−114631
carbide particles, diffusion-controlled precip. and dissoln., computer simulations 2−105157
carburised and nitrided cases, struct. criteria for quality eval. 2−62280
case hardened depth, depend. on carburisation duration 2−62281
cast, fatigue props. 2−93601
cast, temper rolling metallurgical and mech. phenomena *(French)* 2−93545
cast components, fatigue strength increase by residual stresses development 2−116551
castings, directional solidification *(Rumanian)* 2−99368
cavity growth during diffusion saturation with Ni from vap. phase *(Russian)* 2−104059
coated, corrosion eval. by AC impedance meas. 2−116601
cold cracks in welded joints, high strength, investigation using acoustic emission method 2−67668
cold formability *(French)* 2−67383
cold-drawn boron treated, rapid heat treatment effect on microstruct. and tensile props. 2−116466
commerical, high fluence neutron irrad., swelling behaviour 2−109842
construction, lower bainite struct., cementite precip., crystal geometry obs. *(Russian)* 2−93515
constructional, 42KhMFA, anomalous grain growth 2−105198
constructional, cold brittleness eval. using fracture mech. criteria 2−99555
constructional, cyclic crack resist., temp. and load asymmetry influence 2−111315
constructional, resist. to fracture, thermomech. treatment influence 2−67403
constructional, wear resistance improvement by electrospark alloying *(Russian)* 2−67551
containment, buckling research, NRC programme 2−96233
corrosion and H_2 embrittlement, role of H_2S 2−77996
corrosion behaviour in saline water, cooperation report 2−57506
corrosion fatigue crack growth behaviour 2−62287
corrosion of steel structs. in Europe, study of atmos. conditions 2−72886
corrosion prevention, testing methods, comparative eval. *(German)* 2−62343
corrosion scale action on H and ^{3}H permeation *(German)* 2−90242
crack detection, dry magnetic powder method transverse surface crack detection in semifinished castings *(German)* 2−78047
crack development determination, electropotential method appl. 2−116642
crack electrochemistry for active state, diffusion and ion migration mass transport model 2−116606
crack initiation, stable crack growth resist., rel. to inclusion distrib. 2−57436
crack propagation and branching, in delayed failure, effect of specimen thickness 2−86782
crack tip intense strain region in plane strain large-scale yielding 2−116527
creep behaviour, friction stress concept appl. 2−62167

steel continued
creep in type 09Kh16N15M3B at 623-823K in reactor 2−59468
critical brittleness temperatures, methods for determ. 2−105403
critical stress intensity coefficient determination, using specimens of different size 2−62311
cyclic fatigue strength, rel. to damping ability 2−111317
cylinder, impact deformation meas. at high temp. 2−83172
cylinders, with reinforced circular cutouts, buckling, area replacement method calc. 2−96107
deep drawing, diffuse necking in sheet tensile specimens 2−116496
deformation meas. by US technique 2−57577
diffusional transformations, superledge nucleation 2−61128
double cantilever beam specimens, finite element simulation of fast fracture 2−77897
dual-phase, diffuse necking in sheet tensile specimens 2−116496
dual-phase, struct.-prop. relationships 2−105253
Ducol W30, fratographic anal. rel. to corrosion fatigue mech. 2−88267
ductile crack initiation and notched bend specimens 2−111314
ductile plate, plastic strain conc. at crack, optical meas. 2−105268
dynamic fracture parameter determ. 2−105291
electrical, nondestructive testing of mag. props., tensile stresses influence on accuracy 2−58858
electroplating with Al in$AlCl_3$ based molten salt mixtures 2−62285
embrittlement, role of H 2−67537
embrittlement after hardening, impurities influence 2−88192
fatigue, multicycle loading with inhomogeneous states of strain, damping and failure 2−99625
fatigue and inelastic deformation under nonuniform stressed state 2−116545
fatigue crack closure gauge, compliance meas. 2−89704
fatigue crack corrosion, electrochemistry theoretical modelling, time dependent mass conservation eqn. 2−105387
fatigue crack growth kinetics, under symm. and pulsating load 2−116547
fatigue crack growth model, threshold region 2−92093
fatigue crack propagation, intrinsic material scatter 2−93591
fatigue strength, residual stresses and surface hardening effects eval. 2−111103
fatigue strength, test method for under biaxial loading 2−67699
ferritic, corrosion inhibition expts. in liq. Li 2−80171
ferritic, fatigue crack propagation expts. *(Japanese)* 2−57462
ferritic, fatigue props., effects of Li environment 2−80170
ferritic, ion irradiation, void swelling and solute segregation 2−85212
ferritic, LMFBR materials, neutron irrad. effects 2−107950
ferritic, monolayer grain boundary segregation using STEM-EDS X-ray microanal. 2−111412
ferritic, oxidation, edge-on TEM obs. of metal-oxide interface 2−72889
ferritic alloy HT-9, development for FBR cores 2−90232
ferritic struct., point defect production and behaviour in fusion reactor 2−69830
ferritic weld metal, COD and Charpy V test data correlation 2−57586
ferritic-martensitic, plasticity *(German)* 2−83195
ferromagnetic components FITAN-2M instrument for hardness testing 2−57575
fibre reinforced methyl methacrylate, crack growth, micromech. studies 2−111263
fracture mode and ductility on testing at cathodic potentials, P and S segregation effects 2−93679
fracture of plates with cracks under tension after loss of stability 2−60481
fracture structure defects observation, opt. system 2−93716
fracture toughness tests, J_{Ic} meas. in transition region *(Japanese)* 2−111400
fusion engineering device, FED, bulk shield design, materials considerations 2−69862
galvanised sheet, chromate-passivated, ESCA obs. 2−111382
grain boundary P segregation during tempering, stress effects, XPS study *(Russian)* 2−116444
grain boundary segregations, detections using STEM-EDS X-ray microanal. 2−67351
hardness measurement during nitriding, meas. apparatus 2−72912
hardness testing rel. to thermal contact resistance 2−67681
heat-resist., plasticity and strength determ. under long-term tensile stress 2−105404
heavy-section, controlled flaw prep. for fracture mech. testing 2−72929
high hardness, grain size effect on fracture toughness *(Japanese)* 2−77921
high strength, AE during fracture toughness tests. mech. condition effects *(Japanese)* 2−57555
high strength, crack growth rate rel. to H_2 supply under sustained and cyclic loads *(Japanese)* 2−67636
high strength, delayed fracture crack growth, macroscopic and microscopic processes 2−72845
high strength, fatigue crack initiation at inclusions, theory 2−67523
high strength, intercritically rolled, dynamic mech. props. 2−88113
high temperature temper treatment, quality control, performance anal. of magnetic probe 2−67703
high-strength, cracking in NaCl soln., role of H 2−88285
high-strength, inhibitor protection from corrosion cracking in crack propag. stage 2−67654
high-strength, time delayed surface plastic zone growth in H environment 2−72880
high-tensile, retarded failure tendency determ. method 2−116644
hot rolled, const. and variable amplitude fatigue and fracture at 25 and −45°C in type A572 2−93597
hydrogen embrittlement, in steels, review *(French)* 2−99542
hydrogen embrittlement, surface chem. kinetic model 2−105334
hydrogen sulphide embrittlement susceptibility eval. using delayed fracture test, procedures comparison *(French)* 2−78053
impact, oblique, of hardened steel spheres against ductile mild steel targets 2−55472
impact bending fatigue testing, evaluation of dynamic stress intensity factor *(Japanese)* 2−111285
ingot, hollow cylindrical continuously cast, solidifying, temp. distrib. analysis 2−67317
ingot prod., radioisotope inspection of technological process 2−62353
inspection of products with little variation in coercive force 2−93737
irradiation expts. in Petten HFR 2−69703
isothermal transform. diagram, thermodynamic anal. 2−57329
isotropic plates, backward elastic waves 2−81888
J_{Ic} evaluation by R-curve and stretched-zone-width methods *(Japanese)* 2−111399
joints, polymer glued, strength eval. 2−72903

steel continued
laminated sheet, mag. props. for normal fluxes 2−82673
large scale steel testing, specimen-grid moire techniques 2−105423
leaded, brittle fracture cause 2−111310
lightly doped, pulsed elec. field action near voids and nonmetallic inclusions *(Russian)* 2−67572
liquid, EM stirrer for slab mould *(French)* 2−77766
liquid films on steel strip electrostatic deposition, process improvement 2−99360
liquid metal embrittlement by molten Zn, stress conc. effect *(Japanese)* 2−77922
local thermal equilibrium model for SIMS 2−99288
low C, biaxial stress field, fatigue crack propag., stress-ratio effect 2−93590
low C, cold forming, bendability, tensile props. and particle struct. 2−88128
low C, deformed lath martensitic struct., recrystn. and form. of austenite 2−111195
low C, sheets, microstruct. and recrystn., influence of second phase particles *(French)* 2−93534
low Si electrical, mag. ageing characts., coercive force enhancement 2−116034
low-temperature, struct. strength eval. criteria 2−72924
M_s temperature equations, effect of Si and Co 2−62125
magnetic field treatment, field strength depend., X-ray obs. *(Russian)* 2−67354
magnetoabrasive polishing influence on macrostresses magnitude and distrib. in steel parts *(Russian)* 2−77989
mechanical props. for use at high temps. 2−105343
medium strength, compatibility between J-integral and CUD 2−67485
melt comp. effect on solidification cracking rel. to continuous casting 2−83107
mild, anodic behaviour in deaerated carboxylic acid solns. containing NO_2^-, Cl^- and NO_3^- ions 2−67607
mild, cold forming suitability 2−72718
mobile spectrometer for mixed grade separation, assessment 2−78039
nitrided, AES eval. of nitrides 2−93681
nitrided, X-ray diffr. line broadening, appl. of Voigt function in single-line method 2−81626
nitriding processes control, thermodynamic calcs. 2−67642
oxidation of fatigue fracture surface with low cracking rates *(French)* 2−62212
permeation of H, surface oxides and tempering treatments influence 2−93680
phase and struct. transitions caused by laser heating, original struct. effect *(Russian)* 2−77814
phase transform., equilib. props., quasichemical theory 2−57346
plane steel structures, limit analysis in presence of shear, load-carrying factor 2−111229
plasma-induced nitrided and carburised layers, technological importance 2−57543
plate, Fe losses under nonsinusoidal excitation waves 2−82674
plate, impact by polymer bonded explosive, radiographic study 2−78107
plates loaded by uniaxial in-plane compression, evaluation of elastic-plastic analyses 2−91265
point contact at heavy load, elastohydrodynamic lubrication, between steel-steel and steel-glass 2−91339
polycrystalline A-36 steel, magnetically induced US shear wave vel. change, tensile stress effects 2−98924
polymer coating adhesion applied as hot melt, test temp. effect 2−67637
pressure vessel, crack vel. and dynamic fracture toughness during brittle crack propag. *(Japanese)* 2−111283
prestressing tendon, transverse precracked, stress corrosion resist. in tension 2−67603
projectile, spherical, transverse impact on fluid-filled cylindrical tubes 2−103017
quenched and tempered, crack nucleation and propag., electron microscope obs. *(German, English)* 2−57477
quenched and thermomechanically hardened, austenite form., struct. and substruct. *(Russian)* 2−99421
reactor pressure vessel, neutron irrad. embrittlement 2−102051
reinforced Al conductors, coupled axial torsion model 2−116498
reinforced concrete, AE appl. to corrosion damage charact. 2−78026
reinforcing, corrosion cracking, role of H 2−67653
reinforcing, decarburisation in corrosive medium 2−88288
rigid-plastic structures, limit analysis allowing for shear force 2−75863
rods, elastic wave propag., elec. signal generation 2−61833
rolled sheet, mag. inspection method for mech. props. 2−62310
rolls, roll coatings formed during Al hot rolling 2−111385
rotor A470 class 8 type, low frequency fatigue crack growth at 538°C 2−111265
scale on steel, adhesion strength meas. methods 2−62369
self tempering, selective electromagnetic inspection, physical fundamentals and operating principles 2−83334
self-tempering, selective electromagnetic inspection, equipment design, selection, testing 2−83335
shear stress and spall strength under shock loads, preview 2−83213
sheet, residual stresses determ. 2−72902
sheet metals, neck growth and forming limits 2−93561
SIMS equipment for use in iron and steel anal. 2−95525
solidifying ingot, variable comp. nonmetallic inclusions form. in two-phase zone 2−99414
sphere impact on Al elastic exponential and conical shells, pulse transmission 2−55473
spheroidized type 1090, permeation, trapping and damage by hydrogen 2−116602
steel, killed, equibiaxial stretching textures 2−88103
steel, reactor pressure vessel, radiation damage, evaluation by elastic-plastic fracture mechanics 2−57486
steel-Al deformation welds, fracture toughness testing 2−67483
strengthening by surface plastic deformation, dislocation aspects 2−116615
stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
stress intensity factors during brittle crack propagation and at arrest in ESSO specimens *(Japanese)* 2−77916
structural, corrosion and corrosion fatigue in sea and under laboratory conditions 2−88283
structural, crack resist., 77-293K 2−111316
structural, ductile-brittle transition temp. determ. 2−116631
structural, durability eval. taking account of defects 2−111431

steel continued
structural, fatigue testing, correl. between rate of damage and energy absorpt. 2−88319
structural, fracture toughness rel. to strength, struct. aspects 2−77946
structural, high C, hardenability anal. 2−105197
structural, microplastic behaviour before fatigue softening 2−99478
structural, nitriding, saturation with H 2−62283
structural, of various strengths, temp. and strain rate effect on yield strength 2−62163
structural, of various strengths, temp. and strain rate effect at tensile and elongation props. 2−62164
structural, rolled, microhardness, influence of appl. tensile stress *(Japanese)* 2−105307
structural, stress distribution in specimens with fatigue cracks, X-ray diffr. determ. 2−67697
structural, toughening by preliminary thermomech. treatment, grain size red. *(Russian)* 2−62149
structural ductility diagrams plotting 2−93710
structural materials, prediction of tearing instability, acoustic emission rating parameter 2−111393
structural recrystallisation, test method for heating at specified rates 2−116639
structural strength, effect of different factors 2−116552
struts, subjected to impulsive loading with linear attenuation, dynamic anal. *(Chinese)* 2−103073
substrate for high-hardness Mo coatings, vac.-arc discharge plasma deposited 2−72871
surface, smooth, wear and transfer of sliding semicryst. polymers 2−83241
surface layers formed by friction, AES and X-ray emission spectra study *(Russian)* 2−93635
surfces, oxidation of Fe_3O_4, IR and Raman spectroscopy study 2−116563
temperature effects in fission reactor pressure vessels 2−64482
tempered, pseudo-intercrystalline brittleness mechanism 2−67502
tensile, hot hardness and fatigue props. of type E36 in as-rolled condition *(French)* 2−62214
tensile testing, machine compliance determination 2−93714
textured, X-ray method for determ. of retained austenite 2−93730
thermo-plastic shear instability 2−72757
thin walled struct., local buckling, plastic mechanisms 2−62169
tool, 01 commercial, stereological technique appl. to martensitic transform 2−111410
Torbar steel reinforced concrete, cold worked ribbed reinforcing bar, fatigue, fracture mechanics approach 2−67494
transformer, method for determ. energy of mag. anisotropy induced by coatings 2−72188
transformer plates, mag. props., rapid cooling effects *(Russian)* 2−104666
tube, thin-called, crack initiation and fatigue, statistical anal. using Weibull law *(French)* 2−111259
tubes, Ta coated, ICF reactor dry wall design 2−74908
unprotected, corrosion in inert-gas atmos. containing water vapour, O_2, SO_2, N_2 and CO_2 2−67616
wear mechanisms of boundary-lubricated surfaces 2−67561
wear resisting coating deposition on surface, high-purity TiN and ZrN 2−57492
weld, grain growth diagrams 2−116422
welded joints, crack detection and location using AMUR-6 acoustic emission apparatus 2−83330
welded steel plates fracture mechanics research, lowering ships construction costs 2−72895
wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
wire, high tensile, friction welded, SCC behaviour 2−111357
wire, high-elasticity, rapid annealing for prod. lines in thermomech. treatment *(French)* 2−72742
wire rod, unalloyed, 0.8% C, behaviour in cold drawing *(German)* 2−72717
work function, electrolytic hydrogenation effect *(Russian)* 2−66623
X-ray fluorescence analysis, calibration standards 2−73040
X-ray line broadening, determ. using Fourier coeffs. 2−71288
X-ray quantitative-analysis, of intermetallic phases, nitrides and oxides *(Czech)* 2−67787
X-ray stress measurement by centroid method, statistical anal. *(Japanese)* 2−105413
yield limit and energy dissipation, strain/temp. coupling effect *(Polish)* 2−83180
yield point, stress and strain gradient influence *(French)* 2−75864
Al-steel-Pb admixed alloys, wear-resistant, prod. by dynamic compaction 2−88025
Cd-Ti electroplated coatings on high speed steels, endurance and corrosion resistance 2−57537
Cr-Mo ferritic steel for LMFBR primary and secondary systems 2−64536
H content, equil. between trapped and diffusible H at room temp., obs. using gas-surface reaction 2−88092
H embrittlement and permeability in H_2S media, quaternary ammonium salts influence 2−67541
H-induced delayed cracking of type III specimens 2−116596
Mn content determ. in steels using proton-induced prompt γ-ray emission 2−67779
P grain boundary embrittlement, electronic model for alloying elements effect 2−105278
Si, grain oriented sheets, dynamic magnetostriction meas. 2−56902

steel industry
alternative routes to steel based on hydrogen from cheap hydroelectric power 2−73165
solidification of a liquid metal flowing through a circular pipe: a prediction of nozzle blockage 2−83104
H_2 utilisation as fuel, technico-economic potentialities 2−83444

steel manufacture
H_2 utilisation as fuel, technico-economic potentialities 2−83444

stellar atmospheres
see also circumstellar shells; solar atmosphere
γ-ray burst source (1979 March 5) neutron star accretion mechanism *(Chinese)* 2−79246
δ /Cephei, turbulence during pulsations from spectral anal. 2−106721
late A-type stars, search for transition zone lines 2−68765
λ Andromedae, RS CVn star, Balmer line profiles from different model chromospheres 2−79155
λ Andromedae, RS CVn-like star, UV and optical spectrum obs. rel. to atmospheric inhomogeneities 2−58347

stellar atmospheres continued
Ap stars, abundance stratifications detect. through curve of growth method 2−68783
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
Ap stars, spectroscopic detect. of surface chemical inhomogeneities in absence of spectrum variability *(Russian)* 2−100958
Ap stars photosphere expansion due to mag. field effect 2−63422
R Aquarii, binary long period variable, model involving companion photosphere under circumstellar shell 2−58350
V1343 Aquilae (SS 433) accretion disc luminosity and false expanding photosphere 2−63469
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission, UV/visib le obs. 2−68758
RW Aurigae, T Tauri star, photosphere spectrum at max. light *(Russian)* 2−68768
α Aurigae (Capella), X-ray spectrum obs. rel. to coronal struct. and UV emission 2−112485
binary stars, detached, chromospheric activity and anisotropic mass ejection rel. to period changes 2−74017
binary stars, penetration and circulation currents in irradiated spherically symmetric stellar atmospheres 2−112433
α Bootis (Arcturus), temp. from model atmospheres 2−73973
α Bootis (Arcturus), atmospheric struct. rel. to spectroscopic determ. of stellar mass 2−68769
boundary layer structure at stellar surface, rel. to thermally sustained stellar winds 2−63367
κ Cancri, Hg-Mn star, search for medium-Z elements in UV spectrum 2−106723
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
α Caris majoris (Sirius), line-blanketed model atmospheres rel. to anal. of spectrum in 3600 to 4200 Å region 2−84232
cataclysmic binaries, disk radiation, chromosphere model 2−79102
UY Centauri, SC star, composition using model atm. and curve of growth 2−63412
α Centauri A and B, individual X-ray sources, coronal emission, obs. 2−58336
β Cephei, atmospheric velocity field from UV line profiles 2−84240
VW Cephei, W Ursae Majoris star, starspot model for light curve vars. 2−106783
Cepheids, classical, chromosphere anal. from UV obs. 2−89275
beat Cepheids, model atmospheres 2−89281
o Ceti, long period variable, diameter, TiO in atm. effects, visible obs. 2−63433
ZZ Ceti stars, surface cooler patches effects 2−94712
chromosphere heating and Mg II 2800 Å resonance line emission 2−100896
chromosphere structure from Ca II K_{2V}/K_{2R} asymmetry 2−68689
chromospheres, heating when mag. fields are present 2−63366
chromospheres of X-ray emitting stars, IUE UV obs. 2−100930
cluster giants, TiO band strengths, model atmos. 2−100998
CoD−35°10525, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
collapsed stars, scaling laws for photoionisation cross section of hydrogenic ions in mag. fields 2−63240
convection zone, model of resonance interaction 2−84122
convective model stellar atmospheres, study using modified mixing-length theory 2−112427
cool non DA white dwarfs, model atm. struct. 2−84226
cool stars, atmospheric mag. structs. rel. to expected broadband linear polarisation 2−89241
cool stars, stellar systems and Sun, workshop, Cambridge, Massachusetts, (1981 October 21 to 23) 2−94916
cool stars chromosphere and coronal emission rel. to mass loss characts. 2−68743
cool stellar atmospheres, dust grains form. rel. to element depletions in interstellar gas 2−106871
S Coronae Austrinae, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
S Coronae Austrinae, YY Orionis type star, peculiarities of activity and envelope 2−68770
ι Coronae Borealis, HgMn star, absorpt., line symmetries rel. to atmospheric diffusion 2−63431
coronae parameters and processes rel. to HR diagram 2−68737
coronal loops, resonant electrodynamic heating, LRC circuit analogy 2−63229
coronal X-ray emission, H I 10830 Å line as emission measure 2−117660
X Cygni, Cepheid, turbulence during pulsation from spectra anal. 2−106721
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
55 Cygni, emission line star, abundances from spectral obs. 2−117682
32 Cygni, excitation through radiative pumping of Fe UV multiplet 191 during eclipse 2−68815
χ Cygni, Mira variable, photospheric pulsations and circumstellar shell from IR spectra 2−58348
Cygnus X-1, inverse Compton effect in hot plasma cloud rel. to hard X-ray spectrum 2−74015
dM and dMe stars, chromosphere and coronal heating and UV emission line spectra 2−117666
DK Draconis, RS CVn star, starspot evidence from photometric obs. 2−112487
dwarf stars, late type, outer atmospheres nature and spectral features, UV obs. 2−84227
early type stars photospheric Si and C lines, profiles anal. and obs. 2−106702
early-type emission-line stars, book 2−94934
early/intermediate type stars, spectral and microturbulence anal. by model atm. 2−84220
energy balance of stellar coronae, effect of coronal heating 2−112425
energy balance of stellar coronae, methods and examples 2−112424
F, G and K-type stars, model atmospheres rel. to ground-based spectrophotometry 2−100898
Feige 4, suspected EUV source, IUE spectra rel. to model atmosphere 2−106712
flare spectral signatures response to atm. struct. var. 2−89231
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861

stellar atmospheres continued
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
giant stars, chromospheric and transit on region emission obs. rel. to mag. struct. 2−89261
giant stars, cool, chemical element abundance determ. from synthetic spectra of model atmospheres *(Russian)* 2−78970
giant stars, late type, existence of closed mag. field loops and mass loss 2−79095
giant stars, late type, Mg emission variability intepretation with chromosphere and corona, UV obs. 2−68754
giant stars, late type, outer atmospheres nature and spectral features, UV obs. 2−84227
giant stars, photosphere motion and circumstellar region gas motion, CO IR obs. 2−68771
HD 112127, K-type giant, Li abundance, model atm. anal., visible obs. 2−79088
HD 122563, metal-poor giant star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
HD 127493, H-deficient subdwarf O-star, non-LTE analysis 2−79094
HD 149382, OB subdwarf, abundances, microturbulence and temp., spectral anal. 2−73967
HD 149499B, DO white dwarf, high gravity mixed comp. stellar atm. anal., UV obs . 2−68762
HD 185151, RS CVn star, chromospheric activity, visible obs. 2−100975
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 25329, subdwarf star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
HZ Herculis, circulation currents in irradiated stellar atmosphere rel. to light curve 2−112433
TX Herculis, detached binary system, chromospheric activity and anisotropic mass ejection rel. to period changes 2−74017
TX Herculis, detached close binary system, chromospheric activity and mass ejection rel. to period behaviour 2−74018
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
ϕ Herculis, HgMn star, absorpt. line symmetries rel. to atmospheric diffusion 2−63431
AM Herculis, radio emission detect., origin in white dwarf magnetosphere, model and SHF obs. 2−74020
hot stars, observational test of atmospheric temp. struct. from C IV line profiles *(Russian)* 2−112435
HR 5999 (V856 Scorpii), Herbig Ae star, strong chromospheric and transition region emission lines in UV spectrum 2−63404
hybrid atmosphere stars, red giants with double circumstellar lines 2−79092
incompressible convection in radiating atm. 2−79085
intermediate type stars, effective temps. from spectra and model anal. 2−68728
ionisation-dissociation shock waves in stellar envelopes, calc. of parameters *(Russian)* 2−73956
irreversible thermodynamics in radiating fluid, theory 2−112428
AR Lacertae, RS CVn-type binary star, starspot model for light vars. 2−106810
late type giant stars, chromospheric Ca II and Hε lines, photoelectric measures 2−89250
late type stars, spectral line asymmetries and convective velocities, obs. 2−68729
late type stars chromospheres, Ca II K-emission line width model 2−84216
late-type stars, chromosphere-corona transition region, mechanical energy spectrum and microturbulence 2−106678
late-type stars, search for FeO 2−74045
LB 3459, O-type subdwarf eclipsing binary, primary photosphere He depletion 2−63504
line photons formed in planar atm., escape probability 2−68725
line profile fluctuations in a turbulent atmosphere 2−112429
line source functions dipole scatt., effects of redistribution 2−73957
LMC X−4 X-ray binary, expanding atm. ionisation struct. 2−63507
long-period variable stars, outer layers opacity rel. to theoretical growth rates, periods and pulsation consts. 2−106715
LTE model atm., radiative transfer, energy balance, iterative solns. 2−84222
β Lyrae, magnetic field intensity from 100 spectrograms *(Russian)* 2−74032
α Lyrae (Vega), line-blanketed model atmospheres rel. to anal. of spectrum in 3600 to 4200 Å region 2−84232
RR Lyrae stars, model atm., absolute magnitude uvbyβ photometry obs. 2−63457
M-type dwarfs, single component homogeneous model chromospheres 2−94713
M-type giants and supergiants, TiO line blanketing, anal. 2−84225
M-type luminous stars, 3-dimens. classification scheme 2−89244
magnetic stars, evidence for radial mag. field gradient in stellar atmospheres 2−94743
magnetic stars line transfer equation of radiation in mag. field presence in non LTE atm. 2−78967
magnetised stellar atmospheres broadband linear polarisation tables for mag. intensification mechanism 2−112431
magnetogasdynamical spherical shock wave propag. in exponential medium 2−106508
magnetosphere of magnetic oblique rotator, EM field produced, corotating plasma soln. 2−73951
magnetosphere of star with accreted magnetised mass. equilib. config. 2−100905
magnetospheres and stellar winds *(Japanese)* 2−73952
mass loss rate determined by photosphere conditions, hydrodynamics anal. 2−79076
Melotte 66, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
Milne-Eddington atmosphere, vel. fields anal. by spectral line profile bisector 2−100750
R Muscae, Cepheid variable, evidence for chromosphere from UV, optical and IR obs. 2−89273
neutron star, magnetosphere accretion disk interface, Kelvin-Helmholtz instabilities 2−112480
neutron star component of X-ray binary, atm. and environment 2−63712

stellar atmospheres continued
neutron star magnetosphere, longitudinal waves generation by mag. drift mechanism 2−117699
neutron star magnetospheres, physical processes in gamma-ray bursts 2−112609
neutron star magnetospheres, plasma processes leading to gamma ray bursts 2−58501
neutron stars, magnetised, with non dipolar mag. geometry, pair prod. and pulsar cutoff 2−68804
neutron stars, model atmospheres rel. to X-ray bursts spectra 2−68933
neutron stars, neutrino emission from hot dense plane parallel atmosphere in hydrostatic equilib. 2−106755
NGC 2243, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
NGC 6853, NGC 7293, planetary nebulae, central stars, model atmospheres from IUE obs. 2−58333
O-type stars, model improvements and ionisation balance of radiatively-driven winds 2−63387
OB stars in galactic halo, atmospheric parameters and chemical comps. 2−106706
OB-type supergiants, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of stars, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
optically thin atmospheres, shock wave propag., gasdynamic and magneto-gasdynamic comparison 2−58324
Orion population stars, absence of coronal line emission 2−63402
β Orionis, evidence for Compton red shift in stellar chromosphere 2−106644
FU Orionis stars (fuors), atmospheric opacity increase rel. to evolutionary connection with T Tauri stars 2−100921
γ Pegasi, β Canis Majoris star, shock wave model for Si III and Mg II line profiles vars. 2−73982
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240
EG Pegasi, red dwarf binary flare star, microwave emission detect. from quiescent coronae 2−68775
RZ Piscium, RW Aurigae star, model of photosphere and chromosphere radiation 2−63401
planar atmosphere, radiation field in anisotropic scatt. case, invariance relation 2−63234
polarization of radiation scattered by an inhomogeneous atmosphere 2−63364
Population II stars in halo, age and photospheric chem. props. 2−112445
PR 1822−09, pulse-interpulse interaction rel. to site of radio emission in pulsar magnetosphere 2−89289
PSR 0531+21, radiospectrum prepulse form., role of relativistic electron positron plasma turbulence *(Russian)* 2−68806
pulsar high energy particles, motion and γ-ray emission 2−63489
pulsar magnetospheres, implications of 100 nanosecond time resolution obs. of (PSR 1133+16) 2−63487
pulsar magnetospheres, particle accel. scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
pulsar magnetospheres, quasi-steady theory, polarization of coherent radio emission 2−112478
pulsar magnetospheres, quasi-steady time depend. rel. to spectrum of coherent radio emission 2−79132
pulsar optical emission mechanism, synchrotron laser operating along open field lines 2−63490
pulsars, magnetospheric structure 2−100968
pulsars polar flux tube particle acceleration and photon emission models 2−63492
radiative transfer, multiple scattering problem in plane layer rel. to polarisation 2−100719
red dwarfs, chromosphere gas dynamics and flare optical continuum 2−58340
red dwarfs, X-ray emission and heating of quiescent chromosphere 2−68757
red giant model atmospheres, results for C-enriched models 2−112426
red giants, molecules column densities, appl. to bands identification 2−100927
red giants evolution to planetary nebulae, stellar envelope spectra anal. 2−94711
resonance radiation thermalisation length for partial freq. redistribution case 2−63233
rotating expanding spherical atmosphere, line form., optical depth effects 2−73958
σ Scorpii, β Cephei star, pulsation of outer layers 2−89274
δ Scuti stars, obs. of chromospheric emission in Mg II h and k lines 2−73981
semiregular variable stars, short-period, with maser emission 2−63420
shock-heated atmospheres theory, formalism 2−89239
SMC stars, atmospheric phenomena rel. to weakness of metallic lines 2−100926
SMC X−1, X-ray binary, expanding atm. ionisation struct. 2−63507
solar type atmospheres, Rosseland mean opacities *(Chinese)* 2−63374
spherical magnetogasdynamic shock waves vel. 2−73950
stability of atmospheres with mag. fields, MHD energy principle 2−94678
stellar semi infinite atmosphere, reson. radiative transfer, Monte Carlo calcs. 2−68733
strong shock wave in stellar atmospheres, law of motion 2−100899
subdwarfs, O/B-types, props and evolution status, convective envelope and model atm. calcs 2−63398
supergiant stars, early type, Hα emission variability and struct., obs. and model atm. anal. 2−106701
surface gravity for plane parallel model atm. case 2−106670
symbiotic stars, UV spectra model atm. anal., companion nature and spectrum origin 2−68773
α Tauri, ang. diameter and limb darkening from occultation obs. 2−100918
T Tauri, evidence for hot corona from radio obs. 2−73966
20 Tauri, He weak star, abundance from model atm. anal. and visible obs. 2−73997
119 Tauri, M-type supergiant, atm./shell occultation obs. in Hα and continuu m light 2−68760
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
V711 Tauri (HR 1099), RS CVn star, chromosphere thickness from Hα emission obs. 2−63511
thermodynamic requirements on atmospheric models, implications of observed nonthermal mass fluxes 2−63390

stellar atmospheres continued
Type I supernovae, envelopes ionisation and mass from radioactivity hypothesis 2−106762
4U 1822−37, eclipsing X-ray binary, evaporated atmosphere above accretion disc 2−89313
visual binaries with late type giant primaries model atmosphere anal. 2−100978
BW Vulpeculae, β Cephei type variable, pulsation of outer layers 2−73980
SV Vulpeculae, Cepheid, turbulence during pulsation from spectra anal. 2−106721
white dwarfs, magnetic, influence of magneto-optical effects on continuum 2−112443
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438
Wilson-Bappu effect, depend. on stellar atm. parameters 2−84223
Wolf 630, multiple star red dwarf X-ray source, coronal X-ray emission anal. 2−106790
Wolf-Rayet stars, atmospheric He densities from IUE UV spectrophotometry 2−58360
X-ray binary, neutron star accretion, magnetosphere and evolution within two stream model 2−74014
X-ray bursters, magnetospheric gate model simulation 2−94859
X-ray rapid burster auroral precipitation model 2−79147
C stars, chromosphere nature from UV spectral obs. 2−100936
C stars, model atmospheres 2−112426
C stars, models of grain forming atm. and mass outflow 2−89267
He I 4471 Å overlapping line Stark profiles, appl. to model atom. anal. 2−68726
Hg-Mn stars, LTE and non-LTE model atmospheres rel. to Be abundances 2−112448
OH/IR maser stars, type II, search for IR counterparts, luminosities, IR obs. 2−58349

stellar binaries *see binary stars*

stellar clusters and associations
see also globular star clusters
1725, field stars membership, distance and colour excess, uvbyβ obs. 2−74036
abundances and ages of disk clusters 2−112521
Ara OB1, H166α line obs. of diffuse ionized gas 2−106842
Ba 20, open cluster in Vela II, RGU photographic photometry 2−106826
Berkeley 21, open cluster CM diagram, field stars contamination, identification using slitless 2−112341
C1715−387, distance, membership and content from WULBV obs. 2−89317
Cepheus OB 3 association, interstellar graphite excess from UV obs. of brightest stars 2−101003
circumstellar matter, ANS photometry of 2200 Å hump 2−79174
colour-magnitude diagrams, effects of semiconvection in low-mass main sequence stars 2−79084
Coma cluster unevolved stars He abundance comparison with field stars and Hyades stars 2−73961
common proper motion group, age, compositions and distance, obs. 2−94801
Cygnus OB2 association, comparison of precise optical and radio positions for member stars 2−89319
Cygnus OB2 star 12, supergiant IR energy distrib., obs. 2−94796
Cygnus OB 2 association stars, wind vel. law and mass loss, visible/IR obs. 2−68841
Cygnus T1 association faint blue stars 2−68844
expanding stellar associations, implications for early stages of stellar evolution 2−106672
formation of stars *(Russian)* 2−94706
G45.5+0.1, H II region complex and assoc. OB star cluster, CO mapping obs. 2−79179
galactic cluster late B-type and field stars, rot. vel. bimodal distrib. 2−63546
in galactic nuclei, collisions in compact star cluster as mechanism for recurrent activity *(Russian)* 2−101072
giants in compact clusters, theory for far-red objects in galactic centre 2−117759
h and χ /Persei, circumstellar matter, ANS photometry of 2200 Å hump 2−79174
HR 1614 moving group, membership criteria and CN abundances, DDO photometry 2−106827
Hyades, BVRI photometry of possible cluster members 2−106829
Hyades, cluster main sequence and colour-magnitude diagram, visible obs. 2−112516
Hyades, photoelectric obs. of δ star θ^2 Tauri (HR 1412) 2−79121
Hyades, possible membership of BD+22°669, vA 771 and vB 166 2−63503
Hyades, X-ray emitting stars, IUE UV obs. 2−100930
Hyades binary stars, spectroscopic and close visuals, separation, interferometric obs. 2−63525
Hyades cluster, distance determ. from obs. of eclipsing binary (HD 27130) 2−68811
Hyades main sequence and giant stars chromospheric emission 2−89250
Hyades stars, Ca II emission rel. to depend. of rot. vel. on effective temp. 2−68764
Hyades unevolved stars He abundance comparison with field stars and Coma cluster stars 2−73961
IC 1805, open cluster, mass loss rates of O-type stars 2−68734
IC 388, open cluster field stars, dist. and reddening from photometry computer reduction 2−112519
IC 4651 open cluster giants, reddening, distance and composition, DDO obs. 2−63543
far-IR sources in galactic plane, high resolution survey and nature of sources 2−58413
Large Magellanic Cloud young populous clusters, radial colour variation, supergiant anal. 2−94826
LMC cluster age-metallicity relationship 2−100996
M16 HH1, Herbig Haro object identification, visible obs. 2−63582
in M33, catalogue and obs. of star cluster system 2−106556
M67, open cluster membership from relative proper motion anal. *(Chinese)* 2−112518
Magellanic Clouds globular clusters, late-type stellar content from IR and visual obs. 2−58414
master list of nonstellar optical astronomical objects 2−58563
Melotte 66, open cluster, chem. comp. from red giant model atm. and spectra 2−89316

stellar clusters and associations continued
Monoceros R2, formyl ion (HCO^+) J=4-3 transition obs. 2−89341
NGC 206, OB association in M31, B-obs. 2−63624
NGC 2243, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
NGC 2360, open cluster near galactic anticentre, nearby stars UBV obs. 2−58468
NGC 2516, radial vels. of /spectroscopic binaries 2−106793
NGC 2516 open cluster, Ap stars Cox 15, 24, 38 and C, V-obs. 2−58364
NGC 2547, southern open cluster, membership, basic parameters and luminosity function 2−58416
NGC 3114, open cluster, distance, age and colour excess, uvbyβ photometry 2−94800
NGC 3603, UBV photometry of star cluster rel. to distance of giant H II region 2−68864
NGC 5253, E-S0 galaxy, O-type stars cluster rel. to high-excitation H II region in nucleus 2−79217
NGC 581, proper motion determ. using plate sequence *(Russian)* 2−78971
NGC 6193 in Ara OB1, H166α line obs. of diffuse ionized gas 2−106842
NGC 6611, high resolution far-IR obs. of assoc. evolved H II region (M16) 2−63561
NGC 6664, open cluster, intermediate-band photometry 2−106823
NGC 6823, classification of stellar spectra *(Russian)* 2−79175
NGC 6823 direction, struct. of inner edge of local spiral arm *(Russian)* 2−94831
NGC 6910, open cluster, variability of (BD+40°4145) 2−106734
NGC 6913, stellar motions in open cluster field *(Russian)* 2−79176
NGC 7160, Be star member EM Cephei, spectroscopy 2−112466
OB association radiation pressure driving interstellar giant shells 2−68846
OB associations, evolution of surrounding H II region as massive stars evolve 2−106858
OB associations, surrounding H II regions evolution dependence on initial ambient density 2−106859
OB associations and formation of Solar System 2−89169
old star cluster system, integrated UBV colours for Magellanic clouds 2−84287
open cluster Be stars, CM diagram anal. 2−84289
open cluster blue stragglers, stars exhibiting peculiar charact., CM diagram anal. 2−84288
open cluster white dwarf survey, turnoff mass leading to progenitor mass limit determ. 2−68763
open clusters, zero-age luminosity function universality 2−117714
open clusters and galactic structure, results from colour magnitude diagrams 2−106557
open clusters in Galaxy, anal. of catalogue data rel. to galactic struct. 2−89318
Orion association, Hβ distance scale for B-type stars 2−106692
Orion flare stars, colour indices, UBV obs. 2−58357
Pegasus dwarf irregular galaxy, photometry of star clusters 2−63617
h and χ Persei clusters direction, interstellar extinction towards nine stars, UV obs. 2−63580
phases of clusters of young and massive stars, γ-ray sources 2−89411
Pleiades, photometric obs. of variable stars 2−63448
Pleiades, study of nearby diffuse interstellar gas 2−58426
Pleiades, VBLUW meas. of shell star BU Tauri (Pleione) 2−94741
Pleiades, vibrationally excited H_2 in circumstellar clouds rel. to interstellar CH^+ toward 20 Tauri 2−84296
Pleiades brightest stars, interstellar extinction and age from UV/visible obs. 2−63545
Pleiades flare stars, colour indices, UBV obs. 2−58357
Pleiades flare stars, UBV obs. 2−63544
Praesepe, light vars. of δ Scuti star KW 207 (HD 73576) rel. to radial and nonradial pulsations 2−106718
Praesepe region, photographic obs. of flare stars (1972 to 1974) 2−78983
R136a, in LMC, speckle obs. rel. to star cluster model 2−94719
red giant members of galactic clusters, radii and masses, UBVRI obs. 2−63399
RGU photographic photometry of five open clusters in Vela II 2−106826
GY Sagittae, Cepheid in anonymous OB association, obs. 2−100933
Scorpio-Centaurus association, Ap stars, slow metal enrichment from visible obs. 2−100935
Scorpius OB1 association (NGC 6231), radial vel. obs. of three new massive spectroscopic binaries 2−112493
Scorpius-Ophiuchus association, stellar winds and supernovae rel. to local interstellar medium 2−63554
Small Magellanic Cloud clusters, radii and structural parameters from star counts 2−101051
Small Magellanic Cloud clusters luminosity functions, age and comp., B obs. 2−74037
spatial chemical inhomogeneities rel. to galactic clusters 2−112586
Taurus T1 and T3, extinction properties of T Tauri stars 2−73976
Trumpler 16, open cluster, two colour diagram, UBVRI obs. 2−101002
Upgren 1, open cluster membership and radial vel., UBVRI and spectral obs. 2−94799
Ursa Major Stream stars, IR search for assoc. fragmentation debris 2−106572
Vela II, RGU photographic photometry of five open clusters 2−106826
young clusters in Galaxy, SMC and LMC, HR diagram comparison 2−68842
young open clusters, initial mass function 2−89320
young open clusters, possible existence of protoplanetary discs around F and G-type stars *(Russian)* 2−106687

stellar composition
see also element origin; solar composition
9 $M_\odot$ star evolution for Cepheid/yellow supergiant CNO abundance anomalies 2−117673
A-type stars, possible Fe abundance vars. among superficially normal stars 2−63361
abundances and ages of disk clusters 2−112521
abundances rel. to dynamical history 2−112510
Ap stars, abundance stratifications detect. through curve of growth method 2−68783
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
Ap stars, spectroscopic detect. of surface chemical inhomogeneities in absence of spectrum variability *(Russian)* 2−100958
Ap stars in Scorpio-Centaurus association, slow metal enrichment from visible obs. 2−100935

stellar composition continued
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
asymptotic giant branch stars of small core mass, C brought to surface by semiconvection 2−106699
binary stars mass outflow effect on comp. and evolution 2−68832
blue globular clusters, ages and chemical abundances in Magellanic Clouds 2−84286
α Bootis (Arcuturus), element abundances rel. to spectroscopic determ. of stellar mass 2−68769
XX Camelopardalis, Li and Ba abundances from Coude spectra 2−63434
κ Cancri, Hg-Mn star, abundances from UV spectra anal. 2−94728
κ Cancri, Hg-Mn star, search for medium-Z elements in UV spectrum 2−106723
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
η Carinae, evidence for N overabundance in ejected material 2−63438
α Caris Majoris, Am star, CNO abundances from visible obs. 2−68759
UY Centauri, SC star, composition using model atm. and curve of growth 2−63412
Cepheid CNO abundances anomalies and implications 2−117673
Cepheids, heavy element opacities reexamination 2−117680
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
chemical gradient and vertical force law in Galaxy 2−112592
circumstellar shells, laboratory simulation of chemical evolution 2−106831
circumstellar shells, obs. of new cyanoacetylene sources 2−68736
common proper motion group, age, compositions and distance, obs. 2−94801
convective stellar model atmospheres, effect of comp. and modified mixing-length theory 2−112427
R Coronae Borealis, Li and Ba abundances from Coude spectra 2−63434
cyanodecapentayne, detection in IRC+10°216 cool C star at 24 GHz 2−58369
V460 Cygni, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
55 Cygni, emission line star, abundances from spectral obs. 2−117682
χ Cygni, Mira variable, CO meas. from time series IR spectroscopy 2−58348
XX Cygni, SX Phoenicis star, composition, radius, mass and radial vel., obs. 2−94756
disc stars abundance variations 2−112581
disc stars composition gradient from DDO photometry 2−112584
early type stars, wind var. between Galaxy and Small Magellanic Cloud due to comp. var. 2−84218
eclipsing cataclysmic binaries, He I line emission and He abundance 2−89269
ethylene in stars, IR heterodyne spectroscopy 2−68635
evolution models, use in calculating star distances and element abundances 2−89237
extreme halo stars, metal deficiencies rel. to early Galaxy 2−112585
Feige 4 (DB), suspected EUV source, IUE spectra rel. to effective temp. and comp. 2−106712
Feige 66, OB subdwarf, chem. comp. twin to HD 149382 2−106698
galactic disc, chemical evolution and age-metallicity relation, model 2−68888
galactic disc 2.4 μm excess and metallicity, effects, synthetic stellar population modeling 2−89362
galaxies chemical evolution, constraints imposed by $\Delta Y/\Delta Z$ ratio 2−74107
giant metal deficient stars, classification properties within Vilnius Geneva system 2−73955
giant stars, cool, chemical element abundance determ. from synthetic spectra of model atmospheres *(Russian)* 2−78970
giant stars, late type, UV excess and Li content, model 2−58342
globular cluster stars, anal. of CN distribs. in NGC 3201, M55 and (M71) 2−63542
globular cluster two dimensional classification from giant branches and metallicities 2−58415
globular clusters compositions from visible spectra obs. 2−101000
globular clusters metallicity scale from theoretical giant branches construction 2−112514
halo dwarf stars, C/Fe and N/Fe abundance ratios 2−112446
halo stars metal abundance gradient, determ. method 2−63269
HD 111980 and 149414, halo cool subdwarf binaries, spectroscopic orbits and comp., obs. 2−100922
HD 112127, K-type giant, Li abundance, model atm. anal., visible obs. 2−79088
HD 122563, metal-poor giant star, thirteen-colour photometry rel. to N abundance and Rayleigh scatt. 2−73975
HD 127493, H-deficient subdwarf O-star, non-LTE analysis 2−79094
HD 149382, OB subdwarf, abundances, microturbulence and temp., spectral anal. 2−73967
HD 149499B, DO white dwarf, high gravity mixed comp. stellar atm. anal., UV obs . 2−68762
HD 25329, subdwarf star, thirteen-colour photometry rel. to N abundance and Rayleigh scatt. 2−73975
Herbig Haro objects, emission line spectra, model and ion abundances, visible obs. 2−63578
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
BL Herculis stars, masses and metal abundances rel. to theoretical models 2−112450
HR 1614 moving group, membership criteria and CN abundances, DDO photometry 2−106827
Hyades, metal abundance rel. to mass-luminosity relation and distance 2−68811
Hyades unevolved stars He abundance comparison with field stars and Coma cluster stars 2−73961
IC 1805, open cluster, metal content rel. to stellar mass loss rates 2−68734
IC 4651 open cluster giants, CN as result of non standard stellar evolution 2−63543
IC 4651 open cluster giants, reddening, distance and composition, DDO obs. 2−63543
intermediate mass stars, mass loss effects on nucleosynthesis 2−68772
intermediate type unevolved main sequence stars 2−112436
IRC+10216, C star, acetylene in shell, abundance from IR spectra 2−112458
stellar composition continued
IRC+10216 (CW Leonis), CO/H_2 ratio and mass loss rate from circumstellar mol. emission 2−68928
IRC 10216, shell CN abundance from EHF obs. 2−89326
late-type dwarfs and subdwarfs, near UV spectra and line identification 2−58344
LB 3459, O-type subdwarf eclipsing binary, primary photosphere He depletion 2−63504
CW Leonis (IRC+10216), rot. temps. of cyanodiacetylene 2−63559
CW Leonis (IRC 10216), circumstellar shell molecular abundance 2−63706
LMC cluster age-metallicity relationship 2−100996
LMC evolution from globular cluster motion, colour and comp., giants anal. 2−112547
long-period variables, metal abundances rel. to theoretical growth rates, periods and pulsation consts. 2−106715
low mass main sequence stars, influence of C and N abundances on evolution 2−106679
α Lyrae, CNO abundances from visible obs. 2−68759
RR Lyrae stars, C abundance from visible photometry/spectra obs. 2−73978
RR Lyrae stars, towards galactic anticentre metal poor stars deficiency 2−63426
RR Lyrae stars in halo globular cluster Pal 13, spectra and metal abundance 2−106822
RR Lyrae stars in Magellanic Clouds, metallicity, ages and mass determ., obs. 2−89357
RR Lyrae stars towards galactic anticentre, metal abundances, visible obs. 2−63427
M31 globular clusters, dynamics and metallicity, visible obs. 2−106825
M3 globular cluster, subgiant and horizontal branch sequences, widths and metallicity determ. 2−79173
M71, globular cluster metal abundance from photometry and spectra 2−68840
M-type giants and supergiants, Li abundance from visible obs. 2−84225
Magellanic Clouds age-metallicity 2−89322
Magellanic Clouds globular clusters, metallicity from obs. of late-type giant stars 2−58414
massive stars, influence of initial stellar comp. and mass loss on evolution 2−106682
massive stars, nucleosynthesis bulk yields 2−112475
Melotte 66, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
metal abundances, effect on line accel. in radiatively driven stellar winds 2−106668
metal deficient stars, Mg II 2800 Å resonance line emission 2−100896
metallicity distribs., effect of stellar crossing times in solar neighbourhood 2−112513
NGC 2243, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
NGC 6752, globular cluster, origin of C and N vars. 2−68839
NGC 7006, anomalous globular cluster, metallicity and CNO abundances rel. to second parameter 2−68843
novae nucleosynthesis models, sources for Ne-E and ^{26}Al 2−79100
O-type stars, N anomalies 2−79091
OB stars in galactic halo, atmospheric parameters and chemical comps. 2−106706
open clusters in Galaxy, metallicities rel. to ages and galactic struct. 2−89318
β Orionis, Copernicus UV spectral atlas and line identifications 2−106703
FU Orionis stars (fuors), prestellar matter decay rel. to evolutionary connection with T Tauri stars 2−100921
Pal 13, halo globular cluster, metal abundance from RR Lyrae stars spectra 2−106822
Pal 14, globular cluster, distance and colour magnitude diagram 2−89315
TX Piscium, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
Population II stars in halo, age and photospheric chem. props. 2−112445
PSR 0329+54 and 1237+25, mode switching due to surface composition and struct. var. 2−94761
red giant stars, C/O ratios rel. to model atmospheres 2−112426
red giant stars, metal deficient, C and N abundances 2−84233
red giants, molecules column densities, appl. to bands identification 2−100927
red giants in galactic bulge, distorted energy distrib. due to super metal rich comp. 2−100924
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
RY Sagittarii, R Coronae Borealis variable, C rich dust rel. to circumstellar extinction 2−106747
Small Magellanic Cloud clusters luminosity functions, age and comp., B obs. 2−74037
SMC stars, evidence for weak metallic lines from equivalent width meas. 2−100926
solar neighbourhood stars chem. evolution constraints and vel. and galactocentric distances 2−112583
subgiant CH stars, s-process abundances, C/O ratios and evolutionary status 2−112451
supergiants, effects of mass loss on N/H ratio rel. to evolution of Cas siopeia A progenitor 2−63417
supergiants, late type, chemical composition anal. and galactic metallicity gradient 2−84224
supernovae, presence of H-rich envelopes rel. to physical classification *(Russian)* 2−106761
20 Tauri, He weak star, abundance from model atm. anal. and visible obs. 2−73997
time series IR spectroscopy 2−58348
47 Tucanae, globular cluster, anticorrelation of C and N on horizontal branch 2−63541
47 Tucanae, globular cluster, main sequence N variations, implications from stellar struct. theory 2−112515
47 Tucanae, origin of C and N vars. 2−68839
Type I supernovae, envelope Fe abundance and envelope ionisation 2−106762
4U 1915−05, X-ray burster, metallicity from 50-minute periodic absorpt. events 2−63509
visual binaries with late type giant primaries, metal abundance from uvbyβ photometry 2−100978
white dwarfs, He-rich, with metal features, grain accretion from interstellar medium, model 2−117667
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438

stellar composition continued
Wolf-Rayet stars, atmospheric He densities from IUE UV spectrophotometry 2−58360
Wolf-Rayet stars, chemical nature and evolutionary status 2−63479
Wolf-Rayet stars, comps. rel. to connection with O-type stars 2−63477
Wolf-Rayet stars ^{22}Ne surface abundance and cosmic ray composition and accel. 2−94568
X-ray transients, neutron star metal deficiency origin 2−94860
yellow supergiants, CNO abundances anomalies and implications 2−117673
C star shells, inverse greenhouse effect of dust/molecules 2−89280
C stars, C/O ratios rel. to model atmospheres 2−112426
FeO in late-type stars, unsuccessful search for J=5-4 transition 2−74045
Hg-Mn stars, Be abundances from near UV spectra 2−112448
Li abundance in Galaxy at time of form. from extreme population II dwarf obs. 2−89382
NH_3 in stars, IR heterodyne spectroscopy 2−68635
TiO band strength in solar neighbourhood giants, comparison with metal rich globular clusters 2−94720

stellar dimensions
Am stars, effective temps., radii and bolometric magnitudes from spectrophotometric studies 2−84238
angular diameter measurements, two-colour lunar occultation obs. 2−79079
angular diameters in Cloudcroft occultation summary (December 1978 to March 1980) 2−112305
catalogue of stars with large expected ang. diameters for each spectral type 2−63276
VV Cephei, radius and rot. vel. of Hα emission envelope around early-type component 2−68827
Cepheid variables, short-period, radii and masses from photometric and radial vel. study 2−112452
o Ceti, long period variable, diameter, TiO in atm. effects, visible obs. 2−63433
Z Chamaeleontis, dwarf nova, masses and radii and evidence for eccentric disc during supermaximum 2−63418
RT Coronae Borealis, RS CVn star, radii *(Chinese)* 2−112491
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
XZ Cygni, RR Lyrae star, appl. of integral method for light curve plotting and mean radius determ. *(Russian)* 2−94734
XX Cygni, SX Phoenicis star, composition, radius, mass and radial vel., obs. 2−94756
diameter determ. by photometric obs. during lunar occultation *(Japanese)* 2−68627
dwarf novae, influence of tidal effects on the structure of accretion discs 2−79126
ellipsoidal variable stars, photometric discovery of five new objects 2−112496
ζ Geminonorum, Cepheid, angular diameter from lunar occultation obs. 2−73949
DI Herculi, B-type eclipsing binary, mass, radius and orbit, obs. 2−63500
HR 7308, peculiar classical Cepheid, mass, radius and luminosity from radial vels. and BV photometry 2−89272
HR 7308, peculiar classical Cepheid, radius from UBVRI photometry 2−106746
Lanning 10, eclipsing cataclysmic variable, accretion disc radius from photometry and spectrum 2−58321
late-type stars, ang. dias. by lunar occultation technique 2−79078
LB 3459 O-type subdwarf eclipsing binary, secondary mass and radius 2−63504
α Leonis, angular diameter from lunar occultation obs. 2−73949
LMC supergiants, effective temp. and radii, absolute flux and flux distrib. from UV obs. 2−101067
M-type giant stars, ang. dias. by lunar occultation technique 2−79078
main sequence low mass star at constant mass loss rate, evolution 2−117661
AU Monocerotis, Algol system, light curve anal., luminosity and radii 2−63527
BT Monocerotis (Nova 1939), eclipsing nova, accretion disc radius and luminosity 2−68776
R Muscae, Cepheid variable, radius determ. from UV, optical and IR obs. 2−89273
neutron stars, mass and radius determ. from X-ray bursts spectra 2−68933
NGC 6853, NGC 7293, planetary nebulae, central stars, radii from IUE obs. 2−58333
OB-type stars, implications of spectroscopic obs. of OB-type eclipsing binaries 2−63515
RZ Ophiuchi (BD+7°3832), supergiant eclipsing binary, accretion disc radius from VBLUW photometry 2−106788
pancake detonation of stars by black holes in galactic nuclei, effects on accretion process 2−63654
protostar in Orion SiO maser, vel. struct. and size of maser amplification region 2−68875
pulsating stars, effect of rot. and tidal distortions on periods of small adiabatic oscillations of stellar models 2−106675
R136a, possible supermassive star, speckle interferometry rel. to ang. dia. 2−94719
red giant members of galactic clusters, radii and masses, UBVRI obs. 2−63399
U Sagittae, Algol system mass transfer and subgiant radius var., uvbyl obs. 2−74027
spots on surface, effects on radii and luminosity 2−73953
stars with hot coronae, mass and radius rel. to models of energy balance 2−112424
α Tauri, ang. diameter and limb darkening from occultation obs. 2−100918
119 Tauri, M-type supergiant, atm./shell occultation obs. in Hα and continuum light 2−68760
4U 1915−05, X-ray burster, dimensions of X-ray emitting region 2−63510
W Ursae Majoris systems, determ. of parameters from photoelectric light curves 2−58393
white dwarfs, scaled mass and radius of partially degenerate semirelativistic isothermal spheroids 2−63409
Wolf-Rayet stars, radii of stellar cores and emission line regions from IUE UV spectrophotometry 2−58360
C stars, ang. dias. by lunar occultation technique 2−79078

stellar envelopes *see circumstellar shells*

stellar evolution
see also solar evolution; star formation
9 $M_\odot$ star evolution for Cepheid/yellow supergiant CNO abundance anomalies 2−117673
3000 $M_\odot$ star, vibrational instability rel. to R136a problem 2−79083
abundances and ages of disk clusters 2−112521
accreting C-O white dwarf models 2−89284
accreting neutron stars, He shell flash, H-rich envelope effects 2−94766
accretion effects on evolution hydrodynamical anal. 2−68751
Am stars, evolutionary status from spectrophotometric studies 2−84238
Ap stars in Scorpio-Centaurus association, slow metal enrichment from visible obs. 2−100935
V1343 Aquilae (SS 433), model and evolutionary status 2−63471
asymptotic giant branch evolution, constraints from ΔY/ΔZ ratio and galaxies chemical evolution 2−74107
asymptotic giant branch stars, evolution, mass loss, nucleosynthesis and convection 2−106708
asymptotic giant branch stars, low mass evolution core, processes and dredge up 2−117668
axisymmetric nonrotating stars, general relativistic collapse, numerical calc. 2−106773
Be stars, high mass loss rate as short lived evolutionary phase 2−68784
binary stars, effects of mass loss on evolution 2−63536
binary stars, evolution of highly compact systems 2−68812
binary stars, mass loss effects on evolution during various evolutionary stages 2−68832
binary stars, synchronisation between orbital and rot. motions, mag. field role 2−94787
binary stars, tidal evolution in close binary systems of high eccentricity 2−89304
close binary stars evolution, bifurcation points for medium-mass binaries 2−106782
binary stars hardening, effect on galactic nuclei and globular clusters evolution 2−94798
binary stars in collisionless stellar systems, effect on system energy 2−94797
blue globular clusters, ages and chemical abundances in Magellanic Clouds 2−84286
RS Canum Venaticorum stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
η Carinae, spectrum of ejected material rel. to evolutionary status 2−63438
Cassiopeia A progenitor, implications for evolution and mass loss of supernova remnant N/H ratio 2−63417
cataclysmic binaries origin from star-planet systems 2−112454
cataclysmic binary, secondary low mass main sequence star secular evolution and period gap 2−117661
cataclysmic binary stars, progenitors and birthrate comparison with Type I supernovae 2−106741
cataclysmic variables, minimum period, gravitational radiation and mass loss effects 2−106717
SV Centauri, early-type contact binary, evolution model 2−84268
SV Centauri, interacting early-type contact binary, evolutionary status 2−100979
Cepheid instability strip, left hand side, vibr. stability against nonradial oscills. 2−73998
Cepheids, characteristics from B-type companions uvbyβ photometry 2−68796
ZZ Ceti stars, mean temp. and DA instability strip edge 2−94712
common envelope binaries of blue supergiant+neutron star, evolution and mass loss rates 2−63538
conference on stellar evolution-mass loss relations, Trieste, Italy (Sept. 1980) 2−63746
contact binaries, age-zero, stability and evolution 2−84280
contact binaries, evolution and stability, mass ratio var. 2−84278
contact binary stars, angular momentum loss in and out of contact, evolution 2−112488
convective overshooting at core boundary, HR-diagram loops 2−79081
core collapse, neutrino-induced ^9Be prod. *(Russian)* 2−106686
S Coronae Austrinae, YY Orionis type star, age of YY Orionis stage 2−68770
Crab supernova, exploding 10 $M_\odot$ model 2−89285
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
φ Cygni, spectroscopic binary, evolutionary status 2−79149
BY Draconis stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
dredge up leading to scarcity of Magellanic Cloud C stars, brighter than $M_{bol}=-6.5$ 2−117672
dwarf cataclysmic binary stars, effect of gravit. wave radiation on mass exchange and evolution *(Russian)* 2−106751
dynamical history of the stars in relation with age, kinematics, abundances, birthrate 2−112510
early stages, role of phase transitions latent heat 2−58434
early stages of stellar evolution, observational approach 2−106672
early type stars, mass loss implications for evolution 2−68744
end points involving red giants 2−100915
energy loss, light pseudoscalar particle role 2−84086
extreme C stars, dust shells morphology rel. to evolution into bipolar nebulae 2−112447
field, colour magnitude diagram to V=21.5, stellar population presenc e 2−63381
gamma-ray bursters as old radio pulsars, model 2−106958
giant elliptical galaxies, stellar population evolution 2−89398
giant stars, ang. momentum history of Hyades K-type giants 2−63397
globular clusters with massive central black hole, stellar dynamics and galactic tides 2−63540
gravitational collapse phase, neutron shell blocking of electron-capture 2−58323
gravothermal aspects of evolution of stars and Universe, theory 2−100726
HD 200925, Cepheid, mass, evolutionary status and period, UBV obs. 2−58355
BL Herculis stars in globular clusters, period changes rel. to evolution 2−79101
HR diagram, correl. with stellar winds and coronae parameters 2−68737
HR diagram boundary between late type stars with/without high temp. outer atm. 2−89229
Hyades, cluster main sequence and colour-magnitude diagram, visible obs. 2−112516

stellar evolution continued
Hyades stars, effects of evolution on mass-luminosity relation 2−68811
IC 4651 open cluster giants, CN as result of non standard stellar evolution 2−63543
inner core bounce and shock propag. in 15 $M_{\odot}$ star 2−89234
instability as manifestation of evolution *(Russian)* 2−94706
intermediate mass stars, mass loss effects on ultimate fate 2−68772
kinematical age determ., mass effect 2−112512
late stages and accretion onto black holes 2−100960
late-type giant stars, implications of stellar content of Magellanic Clouds globular clusters 2−58414
LB 3459 O-type subdwarf eclipsing binary form. from mass exchange in first giant phase 2−63504
Lindsay 102, SMC globular cluster with C star member, BV photometry rel. to age 2−63430
LMC cluster age-metallicity relationship 2−100996
low mass main sequence stars, influence of C and N abundances on evolution 2−106679
low mass stars evolution, effects of mass loss 2−68750
low-mass main sequence stars, effects of semiconvection on evolutionary tracks 2−79084
RR Lyrae field stars and galactic disk age 2−58412
RR Lyrae instability strip red edge, depend. on mass, luminosity, He abundance *(Chinese)* 2−79114
RR Lyrae stars in Magellanic Clouds, metallicity, ages and mass determ., obs. 2−89357
M3 globular cluster, subgiant and horizontal branch sequences, widths and metallicity determ. 2−79173
M5 and M71, globular clusters, giant stars HR diagram positron and mass loss, obs. 2−100999
Magellanic Cloud globular cluster extended giant branches, age from photometric anal. 2−89322
Magellanic Clouds age-metallicity 2−89322
magnetized neutron stars, evolutionary diagram 2−106767
main sequence low mass star at constant mass loss rate 2−117661
mass loss effect on evolution of interacting close binaries 2−68833
mass stars, evolution of various mass models with mass loss 2−68749
massive common envelope binary stars, evolution and mass loss 2−63537
massive Population I stars, core processes and evolution to supergiant phase 2−84211
massive single stars, evolution with mass loss 2−63391
massive star collapse to neutron star and supernova, neutrino oscills. effects 2−74007
massive stars, theoretical evolution with mass loss by stellar wind 2−63392
massive stars evolution, effects of stochastic fluctuations in mass loss rate 2−106674
massive stars evolution, influence of initial stellar comp. and mass loss 2−106682
massive stars evolution in OB associations, effect on surrounding H II region evolution 2−106858
massive stars losing mass+ang. momentum, evolution, appl. to WR stars 2−63362
massive stars mass loss and evolution, review 2−68748
metal poor 0.9 $M_{\odot}$ star evolution, implications for globular cluster 47 Tucanae N variations 2−112515
misaligned binaries, Roche potential and critical lobe 2−89300
models, use in calculating star distances and element abundances 2−89237
multimode stellar pulsations, ratio of dynamical and thermal time scales rel. to anharmonic oscills. 2−106673
neutrino emission, photo-neutrino energy losses in strong mag. fields 2−58330
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron star collision and r-process nuclei ejection 2−106779
neutron star explosion hypothesis 2−117700
neutron stars, effect of pion condensation on model calc. *(Russian)* 2−63494
neutron stars, neutrino cooling by percolating quarks 2−58376
neutron stars, surface thermonuclear processes, model calcs. 2−84259
neutron stars evolutionary sequences and thermal props. 2−79133
NGC 2547, southern open cluster, age and luminosity function from UBV and Hβ obs. 2−58416
NGC 3114, open cluster, distance, age and colour excess, uvbyβ photometry 2−94800
NGC 6664, open cluster, age from intermediate-band photometry 2−106823
NGC 6752, globular cluster, origin of C and N vars. 2−68839
nucleosynthesis theory, slow neutron capture process 2−100914
numerical computation of stellar evolution, stable numerical methods 2−100912
O-type stars, evolution and Wolf-Rayet connection 2−63477
O-type stars, mass loss and evolution, symposium, Vancouver Island, Canada (1978 June 5 to 9) 2−58541
OB stars in galactic halo, evolutionary tracks and masses rel. to ejection from galactic plane 2−106706
OB-type stars, critical rates of mass loss for evolution to Wolf-Rayet stars 2−63393
open clusters, distances and ages from colour-magnitude diagrams 2−106557
open clusters, old, age and distances 2−89316
open clusters in Galaxy, metallicities rel. to ages and galactic struct. 2−89318
FU Orionis stars (fuors), evolutionary connection with T Tauri stars 2−100921
DI Pegasi, eclipsing binary, evolutionary status and UBV photometry obs. 2−58386
γ Persi, spectroscopic possible eclipsing binary, evolutionary status 2−79149
planetary nebula origin involving separation of one massive nebula 2−63565
planetary nebulae, bubbles from dying stars, review 2−68878
planetary nebulae, evolutionary sequences rel. to expansion vel.-radius relations 2−79197
planetary nebulae, radio emission evolution rel. to radio distance scale 2−106873
planetary nebulae formation rate and evolution 2−117728
planetary nebulae origin, role of randomly emerging mag. flux in driving stellar winds 2−89335
stellar evolution continued
Pleiades brightest stars, interstellar extinction and age from UV/visible obs. 2−63545
Population II stars in halo, age and photospheric chem. props. 2−112445
post-main sequence stars, rot. and luminosity and evolution 2−100904
pre-main sequence stars in protocluster cloud, accretion effect on evolution 2−68751
presupernova evolution, weak interaction rates for intermediate mass nuclei 2−58322
protostellar objects, mass and momentum loss, evolutionary scenario 2−112420
PSR 1913+16, binary pulsar, evolution history, mag. field and period constraints 2−68799
PSR 1913+16 companion, possible pulsar in propeller phase, X-ray emission anal. 2−84258
pulsar birthrate and evidence for injection, statistics anal. 2−74002
pulsar evolutionary models, discrimination from (P,$\dot{\gamma}$) diagram 2−84254
pulsar formation rates and emission 2−106880
pulsar nulling, origin from evolutionary models 2−106763
pulsars, evolutionary sequence gaps in period plot 2−106764
radioastronomy review, history, development and state of art *(German)* 2−89148
red dwarfs, age and dynamo 2−68756
red giant stars on HR diagram, comparison with C stars 2−73969
red giants evolution to planetary nebulae, evidence from spectra 2−94711
red giants in galactic bulge 2−100924
red supergiant in open cluster C1715−387, presence implications for evolution from WR stars 2−89317
rotating stars collapse, appl. of numerical relativity 2−100727
RY Sagittarii, pulsating R Coronae Borealis star, period decrease rel. to evolution 2−112465
Schweizer-Middleditch star, not stellar remnant of (SN 1006) 2−68798
V861 Scorpii, eclipsing binary, wind parameters and evolutionary status, spectra/photometry anal. 2−68834
single stars, evolution 2−100910
single/binary stars, nucleosynthesis, mass loss and nucleosynthesis 2−89248
Small Magellanic Cloud clusters luminosity functions, age and comp., B obs. 2−74037
solar evolution sequences, new programme rel. to solar models and periods of oscillations 2−79070
solar neighbourhood, stellar age-kinematics relation rel. to high order momenta of stellar vel. distrib. 2−89242
spectroscopic binary stars, ang. momentum loss rel. to distrib. of orbital semi-major axes *(Russian)* 2−100992
study of evolution of Universe, stars and solar system, personal retrospect and prospect 2−101108
subdwarfs, O/B-types, props and evolution status, convective envelope and model atm. calcs 2−63398
subgiant CH stars, s-process abundances, C/O ratios and evolutionary status 2−112451
supernova core collapse, results from physics of hot dense matter 2−100966
supernova remnants birthrate in SMC, results from 843 MHz obs. 2−112537
supernovae, gravitational collapse dynamics with Majorana neutrinos and lepton number violation 2−68800
supernovae, origin and energy production 2−117692
supernovae induced by axion-like particles 2−117688
theoretical isochrones with variable G in Brans-Dicke cosmology 2−106683
47 Tucanae, origin of C and N vars. 2−68839
Type I supernovae, progenitors and birth rate comparison with cataclysmic binary stars 2−106741
Universe with non-zero baryon number, asymmetric lepton prod. due to stellar evolution processes 2−74129
Upgren 1, open cluster, age, UBVRI and spectral obs. 2−94799
W Ursae Majoris stars, detached systems evolving to contact systems by ang. momentum loss 2−84277
white dwarf, accreting in binary system, evolution model up to Type I supernova 2−63482
white dwarfs, accreting, He shell flash and evolution 2−89252
white dwarfs, accreting, secular evolution rel. to Type I supernovae 2−112439
white dwarfs, astrophysical constraints on broken supersymmetry 2−94723
white dwarfs, hot, accreting, evolution in quasi-static approximation 2−106691
white dwarfs in open clusters, turnoff mass leading to progenitor mass limit determ. 2−68763
WN7/WN8 stars, as massive O-type stars in advanced stages of evolution 2−63478
Wolf-Rayet binary stars, conservative and non-conservative evolutionary computations 2−63480
Wolf-Rayet stars, chemical nature and evolutionary status 2−63479
Wra 977 (4U 1223-62), B1.5 supergiant, spectroscopic orbit rel. to evolutionary status 2−106814
X-ray binaries, pulse period distrib. gap, accretion effects on neutron stars 2−58388
X-ray binary, neutron star accretion, magnetosphere and evolution within two stream model 2−74014
X-ray transients, neutron star thermonuclear evolution model and accretion 2−94860
young clusters in Galaxy, SMC and LMC, HR diagram comparison 2−68842
C stars, circumstellar shells development rel. to optical obscuration and IR emission 2−94735
C stars, colour index-effective temp. calibration comparison with K/M-type stars 2−73969
C stars, cool, spectra, colours and HR diagram anal. 2−73969
C stars in Carina dwarf spheroidal galaxy, evolutionary status rel. to galaxy age 2−68774
C/O white dwarf, accretion rate effect on evolution, nova 2−89268
H poor stars, evolutionary status rel. to light variability 2−84229
H shell flashes on accreting white dwarfs, envelope expansion 2−89256
H shell flashes on accreting white dwarfs, recurrence period 2−89257
H-rich white dwarfs evolution to ZZ Ceti stars 2−100917
He star of 1 $M_{\odot}$, evolution in struct. and luminosity to white dwarf stage 2−68785

stellar interiors *see stellar internal processes*

stellar internal processes
see also solar interior; stellar evolution
9 $M_\odot$ star evolution for Cepheid/yellow supergiant CNO abundance anomalies 2−117673
accreting neutron stars, He shell flash, H-rich envelope effects 2−94766
accreting white dwarf, C-burning model 2−58337
AP stars, diffusion rel. to abundance stratification detected by curve of growth method 2−68783
Ap stars, global mag. field effect on upper main sequence envelopes 2−63422
Ap stars, meridional circulation versus diffusion 2−94727
asymptotic giant branch star, core C-burning model 2−58337
asymptotic giant branch stars, evolution, mass loss, nucleosynthesis and convection 2−106708
asymptotic giant branch stars, low mass evolution core, processes and dredge up 2−117668
asymptotic giant branch stars of small core mass, C brought to surface by semiconvection 2−106699
axisymmetric star with poloidal mag. field, dynamical stability 2−89236
binary stars, convective auto-oscills. of stellar interiors 2−63520
close binary stars, H and He burning lifetimes rel. to bifurcation points in evolution 2−106782
η Carinae, evidence for CNO cycle from remarkable spectrum of ejected material 2−63438
cataclysmic binaries, H and He burning in hot accreting white dwarfs quasi-static approximation 2−106691
β Cephei stars pulsations, excitation mechanisms and He capacity bump 2−94758
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
convection, theoretical development and appl. to stellar convection zone struct. 2−100911
convective overshooting at core boundary, HR-diagram loops 2−79081
convective zone rotation and convection mechanism for MHD dynamo 2−63244
core collapse, eqn. of state rel. to abundance distrib. of heavy nuclides 2−106758
core collapse, exploding 10 $M_\odot$ star as model for Crab supernova 2−89285
core collapse, postshock neutrino transport and electron capture 2−106669
core collapse and adiabatic shock energetics 2−100900
core evolution, stable numerical computation methods for variable-mass cores 2−100912
degenerate Fe core collapse in supernova model 2−106688
dense stars, physics of dense plasmas and enchancement of thermonuclear reaction rates due to strong screening 2−100725
differential rotation by mean field model 2−106516
dredge up leading to scarcity of Magellanic Cloud C stars, brighter than $M_{bol}=-6.5$ 2−117672
dynamo, Lorentz force effect on differential rot. 2−84217
evolution models, use in calculating star distances and element abundances 2−89237
explosive nucleosynthesis, significance of (p,γ) and (p,n) reactions 2−80019
flash driven convective region, max. extent during core flash 2−63359
flux ejection dynamo effect in stellar convection zones, theory 2−100722
flux ejection dynamo with small diffusivity, appl. to stellar magnetism 2−106503
gamma-ray burst source, neutron star accreted layer thermonuclear model, shock wave 2−94862
giant stars, energy loss, light pseudoscalar particle role 2−84086
giant stars, nucleosynthesis rel. to comps. of planetary nebulae 2−68878
giant stars, rot. of convective layers rel. to ang. momentum history of Hyades K-type giants 2−63397
heavy stars, annihilation of $\pm^1/_3$ charged heavy leptons, cosmological implications 2−84360
υ Herculis, Hg Mn star, diffusion rel. top Mn abundance stratification 2−68783
horizontal branch stars, He flash core overshooting and colour var. 2−63411
hot stars, shock wave propag. 2−117582
HR 5999 (V856 Scorpii), Herbig Ae star, sub-photospheric convection rel. to chromospheric and transition region emission lines 2−63404
inhomogeneous stars, non-local convection, statistical theory 2−68739
inner core bounce and shock propag. in 15 $M_\odot$ star 2−89234
late type main sequence stars, dynamo generated mag. fields 2−58338
late type stars, mag. field generation, local time depend. dynamo model 2−79086
low-entropy adiabats for stellar collapse, Thomas-Fermi model 2−100961
RR Lyrae stars, radial pulsations thermodynamic coupling with convection *(Chinese)* 2−79114
magnetic dynamo residual fields 2−63449
magnetic fields, stability of toroidal flux tubes 2−63369
magnetic fields stability, effects of Ohmic diffusion to unstable configurations 2−63380
magnetic white dwarfs, MHD instability 2−68606
main sequence low mass star at constant mass loss rate, evolution 2−117661
main sequence stars, core-halo phase transition 2−58244
massive Population I stars, core processes and evolution to supergiant phase 2−84211
massive stars, influence of initial stellar comp. and mass loss on core He burning and C ignition 2−106682
massive stars, nucleosynthesis bulk yields 2−112475
massive stars surface layer composition, mass loss effects, evolution, appl. to WR stars 2−63362
metal poor 0.9 $M_\odot$ star evolution, implications for globular cluster 47 Tucanae N variations 2−112515
neutrino bursts from collapsing stars, Homestake burst search results 2−89099
neutron capture nucleosynthesis, heavy element yields 2−58243
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron star envelopes and cooling calcs. 2−100969
neutron star explosion hypothesis 2−117700
neutron star matter, degenerate neutrinos transport props. 2−63493
neutron star structure, influence of pion condensate in cold dense matter 2−94765

stellar internal processes continued
neutron stars, effect of pion condensation on model calc. *(Russian)* 2−63494
NGC 6752, globular cluster, origin of C and N vars. 2−68839
non-resonant reaction rates evaluation 2−112317
novae nucleosynthesis models, sources for Ne-E and ^{26}Al 2−79100
nucleosynthesis in primordial stars and supernovae, rel. to origin and abundances of elements *(German)* 2−94877
nucleosynthesis theory, slow neutron capture process 2−100914
FU Orionis stars (fuors), prestellar matter decay rel. to evolutionary connection with T Tauri stars 2−100921
penetrative convection model, numerical expts. 2−94708
polytropic models with core dynamo mag. field 2−63382
post-main sequence stars, rot. and luminosity and evolution 2−100904
primordial stars, formation and masses, effect of fractionally charged lepton abundances 2−84360
pulsation problem, effect of turbulent viscosity on local theories of time-dependent convection 2−89240
radiative transfer in stellar interiors effects of plasmon-electron interaction 2−89238
red dwarfs, late type coronal X-ray emission var. with rot., stellar dynamo interpretation 2−68756
relativistic stellar interior, Einstein's eqns. for perfect fluid distribs., exact static solns. 2−95163
rotating stars, theory of Eddington-Sweet circulations 2−112423
rotation, active picture including wave-rotation interaction rel. to differential rot. 2−79082
s-process, neutron-capture cross section appl. 2−89235
s-process elements and galactic evolution 2−112437
semiconvection, occurrence and effects in low-mass main sequence stars 2−79084
single/binary stars, nucleosynthesis, mass loss and nucleosynthesis 2−89248
starspot heat flow in convective zone, implications for light variations from spotted stars 2−73954
strong shock wave in stellar envelopes, law of motion 2−100899
subdwarfs, O/B-types, props and evolution status, convective envelope and model atm. calcs 2−63398
subgiant CH stars, evidence for internal mixing and s-process nucleosynthesis 2−112451
supernova core collapse, results from physics of hot dense matter 2−100966
supernova nucleosynthesis, abundance distrib. of heavy nuclides up to sub-nuclear density 2−106758
supernovae, gravitational collapse dynamics with Majorana neutrinos and lepton number violation 2−68800
supernovae, instability leading to explosion 2−63485
supernovae, neutron shell blocking of electron-capture during gravit. collapse 2−58323
supernovae, nucleosynthesis and cosmic ray production 2−89288
thermonuclear energy release during pancake detonation by black holes in galactic nuclei, effects on accretion 2−63654
47 Tucanae, origin of C and N vars. 2−68839
violently relaxed galactic systems, massive neutrinos 2−106522
weak interaction rates for A=21 to 60 nuclei 2−117663
weak interaction rates for intermediate mass nuclei, results for A=21 to (A=60) 2−58322
white dwarf, accreting in binary system, evolution model up to Type I supernova 2−63482
white dwarf supernovae, new model 2−63484
white dwarfs, accreting, He shell flash and evolution 2−89252
white dwarfs, accreting, shell flash theory rel. to secular evolution and Type I supernovae 2−112439
white dwarfs, cold dense matter mixed lattice phases 2−63223
white dwarfs, energy loss, light pseudoscalar particle role 2−84086
white dwarfs, H-shell burning and diffusion, accretion rate effects 2−89253
X-ray burst sources, accreting neutron star envelope, shell flashes 2−94863
X-ray transients, neutron star thermonuclear evolution model and accretion 2−94860
nβ-process, implications for Ca-Ti-Cr isotopic anomalies in Alende meteorite inclusion 2−112397
^{15}(p,α), 78-810 keV, stellar energies, cross sections, ang. distribs., astrophysical S-factor 2−90119
^{9}Be production by neutrinos generated in gravit. collapse of stars, rel. to Galaxy ^{9}Be abundance *(Russian)* 2−106686
H shell flashes on accreting white dwarfs, envelope expansion 2−89256
H shell flashes on accreting white dwarfs, recurrence period 2−89257
^{1}H(p,e$^+\nu$)^{2}H, reaction rates in stellar interiors 2−68612
He production in intermediate mass stars, rel. to $\Delta Y/\Delta Z$ ratio and galaxies chemical evolution 2−74107
He star of 1 $M_\odot$, evolution in struct. and luminosity to white dwarf stage 2−68785
Hg-Mn stars, radiative diffusion rel. to Be abundances 2−112448

stellar light curves *see stellar photometry*

stellar magnetism
see also solar magnetism
2A 0526−328, X-ray cataclysmic variable, mag. field rel. to accretion process 2−112506
A-type stars, residual fields of extinct dynamos 2−63449
Ap stars, calc. of Stokes parameters for line emission 2−94747
Ap stars, global mag. field effect on upper main sequence envelopes 2−63422
Ap stars, magnetic field models anal. 2−79123
axisymmetric star with poloidal mag. field, dynamical stability 2−89236
binary stars, synchronisation between orbital and rot. motions, mag. field role 2−94787
black hole imbedded in mag. field, conducting medium accretion 2−112772
broadband linear polarisation from magnetised stellar atmospheres numerical tables for mag. intensification mechanism 2−112431
53 Camelopardalis, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
α^2 Canum Venaticorum, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
Cepheids with tangled magnetic fields, nonlinear models 2−68780
chromospheres, heating when mag. fields are present 2−63366
collapsed stars, scaling laws for photoionisation cross section of hydrogenic ions in mag. fields 2−63240

stellar magnetism continued
convective stellar models with radiation press., adiabatic oscill., mag. field effect 2−94701
convective zone rotation and convection mechanism for MHD dynamo 2−63244
cool stars, effect of mag. structs. on expected broadband linear polarisation 2−89241
cool stars wave-driven winds, mag. field effects 2−89230
coronae, effect of heating on energy balance of open mag. field regions 2−112425
coronae, energy balance of open mag. field regions 2−112424
β Coronae Borealis, magnetic Ap star, relation between H lines equivalent widths and mag. field strength 2−94745
CW 1103+254, new AM Herculis star, mag. field strength from spectropolarimetry 2−84250
Cygnus X-3, effect of normal star mag. field on spectral energy distrib. 2−106781
dynamo, Lorentz force effect on differential rot. 2−84217
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. 2−58381
field stability, effects of Ohmic diffusion to unstable configurations 2−63380
flux ejection dynamo effect in stellar convection zones, theory 2−100722
flux ejection dynamo with small diffusivity, appl. to stellar magnetism 2−106503
flux ejection dynamo with small diffusivity, basic props. 2−106502
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861
giant stars, late type, rapid mass loss onset, mag. field effects 2−79095
giant stars, mag. struct. determ. from obs. of chromospheric and transit on region emission 2−89261
H 0139−68, AM Herculis star, two-pole mag. white dwarf model rel. to polarisation obs. 2−106803
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 215441, Ap star, mag. field surface struct. 2−84237
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
Hyades K-type giants, mag. braking rel. to ang. momentum history 2−63397
EW Lacertae (HD 217050), Be star, mag. field and shell disturbances, visible obs. 2−79115
late type main sequence stars, dynamo generated mag. fields 2−58338
late type stars, mag. field generation, local time depend. dynamo model 2−79086
late-type main-sequence stars, rot. vels. rel. to Ca II H and K emission and mag. struct. 2−68764
β Lyrae, magnetic field intensity from 100 spectrograms *(Russian)* 2−74032
magnetic stars, evidence for radial mag. field gradient in stellar atmospheres 2−94743
magnetosphere of star with accreted magnetised mass, equilib. config. 2−100905
MBD 1730−335, accretion onto neutron star mag. poles rel. to two modes in type II bursts *(Russian)* 2−112509
R Monocerotis, shell dust grains aligned by mag. field, contrib. to NGC 2261 polarisation 2−63581
neutron star accretion disc tearing mode instability in neutral sheet configuration 2−68935
neutron star magnetosphere, longitudinal waves generation by mag. drift mechanism 2−117699
neutron star polar caps low-luminosity accretion 2−89291
neutron stars, mag. fields rel. to physical processes in gamma-ray bursts 2−112609
neutron stars, magnetised, with non dipolar mag. geometry, pair prod. and pulsar cutoff 2−68804
neutron stars and γ-ray sources, magnetosphere and surface plasma processes 2−58501
normal upper main sequence stars, mag. field search 2−100897
oblique rotator, EM field produced, corotating plasma soln. 2−73951
EQ Pegasi, red dwarf of binary flare star, dimensions of microwave emitting regions 2−68775
planetary nebulae progenitors, role of randomly emerging mag. flux in driving stellar winds 2−89335
plasma physics appls. 2−63243
polytropic models with core dynamo mag. field 2−63382
PR 1822−09, pulse-interpulse interaction rel. to site of radio emission in pulsar magnetosphere 2−89289
PSR 1913+16, binary pulsar, evolution history, mag. field and period constraints 2−68799
pulsar crust Ae phase, eqn. of state allowing for superstrong mag. field 2−117696
pulsar magnetic window and diffuse gamma-ray background 2−100967
pulsar magnetospheres, implications of 100 nanosecond time resolution obs. of (PSR 1133+16) 2−63487
pulsar magnetospheres, particle accel. scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
pulsar magnetospheres, quasi-steady time depend. rel. to spectrum of coherent radio emission 2−79132
pulsar optical emission mechanism, synchrotron laser operating along open field lines 2−63490
pulsars magnetic inclination relative to apparent beamwidth distrib. *(Chinese)* 2−112477
pulsars polar flux tube particle acceleration and photon emission models 2−63492
VV Puppis, time-resolved spectroscopy rel. to accretion onto active mag. pole 2−112449
quasi-steady state of mag. fields in low beta plasma, review 2−89145
rapidly oscillating Ap stars, rot. and mag. axes orientations from oblique pulsator model 2−112463
red dwarfs, late type coronal X-ray emission var. with rot., stellar dynamo interpretation 2−68756
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
rotation period determination, use of Ca II mag. field as tracer 2−117642
stability and oscillations of stars with mag. field 2−100908
stability of atmospheres with mag. fields, MHD energy principle 2−94678
static spherically symmetric star, external mag. field in Rosen's bimetric gravitation theory 2−89143
supernovae, Type II, mag. field amplification rel. to radio and X-ray emission 2−106756

stellar magnetism continued
superstars in galactic nuclei, rot. and mag. field rel. to QSOs luminosity and density evolution 2−106952
toroidal tubes in stars, stability 2−63369
white dwarfs, influence of magneto-optical effects on continuum 2−112443
X-ray binaries, dipole and spin axes orientation change 2−79152
X-ray binary stars, effect of mag. field on critical luminosity of neutron stars and degenerate dwarfs 2−112505
young stars magnetic energy as sizeable fraction of gravit. energy 2−63353

stellar mass
2A 1822−371, compact X-ray binary, orbital vel. and mass of compact component 2−112502
2A 1822−371, degenerate star shell emission, component masses and orbital period, visible obs. 2−79145
AB 6, binary WR star in SMC, mass ratio, visible spectral obs. 2−89264
ADS 10279 and 12889, orbital elements, masses and dynamical parallaxes *(French)* 2−79158
ADS 3182 and 3483, total masses *(French)* 2−106794
Algol-like binary stars, subgiant component mass rel. to transient photometric disturbances 2−112483
Am stars, masses and effective temps. from spectrophotometric studies 2−84238
BD+22°669, spectroscopic binary, orbit and mass, possible Hyades member, spectral obs. 2−63503
binary stars, critical mass ratio rel. to bifurcation points in evolution of medium-mass binaries 2−106782
binary stars, effect of central star mass on theory of steady accretion discs 2−100913
binary stars mass var. due to winds, effect on evolution 2−68832
binary stars orbit evolution-mass relation taking mass loss into account 2−68835
binary systems with variable masses, eqns. of motion 2−68831
black holes in galactic nuclei, mass range for pancake detonation of stars 2−63654
blue stars, mass function in M33 galaxy 2−112556
α Bootis (Arcturus), anal. of spectroscopic determ. of stellar mass 2−68769
Case 1, red+white dearf, period and mass, visible obs. 2−68810
Cassiopeia A progenitor, implications for stellar mass and mass loss of remnant N/H ratio 2−63417
cataclysmic variables, minimum period, gravitational radiation and mass loss effects 2−106717
Cepheid variables, short-period, radii and masses from photometric and radial vel. study 2−112452
Cepheids with B-type Companions, mass determ. 2−68796
Z Chamaeleontis, dwarf nova, masses and radii and evidence for eccentric disc during supermaximum 2−63418
cluster stars, initial mass function for young open clusters 2−89320
contact binaries, evolution and stability, mass ratio var. 2−84278
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
Crab Nebula progenitor star, mass on main sequence 2−68849
Crab pulsar, mass determ. from equation of state of nuclear matter 2−106766
Crab supernova, exploding 10 $M_\odot$ model 2−89285
ϕ Cygni, spectroscopic binary, mass, orbit and luminosity, speckle interferometric obs. 2−79149
XX Cygni, SX Phoenicis star, composition, radius, mass and radial vel., obs. 2−94756
dwarf cataclysmic binary stars, effect of masses on mass exchange and evolution *(Russian)* 2−106751
eclipsing binary stars, photometric mass functions from periodic ephemerides 2−106809
F and G-type stars, mass and luminosity rel. to models of circumstellar protoplanetary discs *(Russian)* 2−106687
HD 127493, H-deficient subdwarf O-star, non-LTE analysis 2−79094
HD 191765, binary Wolf-Rayet star, mass and optical luminosity of companion *(Russian)* 2−100957
HD 200925, Cepheid, mass, evolutionary status and period, UBV obs. 2−58355
HD 208095, spectroscopic binary masses from visible spectra obs. 2−74028
HD 219634, new massive eclipsing binary star, photometric obs. of eclipses rel to masses and spectral types 2−79159
HD 27130, eclipsing binary in Hyades, obs. rel. to mass-luminosity relation and cluster distance 2−68811
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
HD 86161, WR star with neutron star comparison, mass and orbit, visible obs. 2−73983
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
DI Herculi, B-type eclipsing binary, mass, radius and orbit, obs. 2−63500
BL Herculis stars, masses and metal abundances rel. to theoretical models 2−112450
HR 1883, spectroscopic binary, primary giant, orbit and mass 2−63528
HR 2577, Be+giant stars, mass and orbit determ. 2−63532
HR 7308, peculiar classical Cepheid, mass, radius and luminosity from radial vels. and BV photometry 2−89272
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
initial mass function, constraints from $\Delta Y/\Delta Z$ ratio and galaxies chemical evolution 2−74107
initial mass function in spiral and irregular galaxies, rel. to UV spectral energy distribs. 2−74077
kinematical age determ., mass effect 2−112512
Lalande 21185, red dwarf, upper limit to mass of dark companion from 40-year Sproul plate series 2−79089
Lanning 10, eclipsing cataclysmic variable, radial vel. curve and mass function 2−58321
LB 3459, O-type subdwarf eclipsing binary, primary mass and struct. 2−63504
LB 3459 O-type subdwarf eclipsing binary, secondary mass and radius 2−63504
EH Librae, δ Scuti star, period variation and mass function, photometric obs. *(Chinese)* 2−63439
LMC Mira variables, luminosity, period, mass, JHK photometry obs. 2−63455

stellar mass continued
long-period variables, masses and luminosities rel. to theoretical growth rates, periods and pulsation consts. 2−106715
RR Lyrae stars in Magellanic Clouds, metallicity, ages and mass determ., obs. 2−89357
neutron star accretion disc tearing mode instability in neutral sheet configuration 2−68935
neutron stars, mass and radius determ. from X-ray bursts spectra 2−68933
neutron stars, masses rel. to equation of state of nuclear matter 2−106766
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109
OB stars in galactic halo, evolutionary tracks and masses rel. to ejection from galactic plane 2−106706
OB-type stars, implications of spectroscopic obs. of OB-type eclipsing binaries 2−63515
OB-type stars, initial masses rel. to critical mass loss rates and evolution 2−63393
open clusters, zero-age luminosity function universality 2−117714
γ Persei, spectroscopic possible eclipsing binary, orbit, mass, luminosity, speckle interferometry, obs. 2−79149
protostar formation from interstellar cloud fragmentation and collapse, stellar mass function *(Polish)* 2−106879
PSR 1913+16, binary pulsar, progenitor system component masses 2−68799
PSR 1913+16 (pulsar+compact star) orbit determ. and masses, UHF obs. 2−63498
pulsars mass spectrum from rot. energy loss scaling, from Jupiter to pulsars 2−112375
VV Puppis, AM Herculis star, masses from time-resolved spectroscopy 2−112449
R 136a, 2000 M. star hypothesis *(French)* 2−58346
red giant members of galactic clusters, radii and masses, UBVRI obs. 2−63399
Small Magellanic Cloud clusters, mass from star counts 2−101051
SN 1980k in NGC 6946, progenitor upper mass limit from visible obs. 2−94759
spectroscopic binary stars, distrib. of masses of primary components and orbital semi-major axes *(Russian)* 2−100992
spectroscopic binary stars, massive in Scorpius OB 1 association, radial vels. and masses 2−112493
stars with hot coronae, mass and radius rel. to models of energy balance 2−112424
47 Tucanae, globular cluster main sequence luminosity function and mass segregation 2−101001
Type I supernovae, envelopes ionisation and mass from radioactivity hypothesis 2−106762
4U 1223−62 (Wra 977), neutron star mass from spectroscopic orbit 2−106814
4U 2129+47, X-ray binary, radial vel., mass, spectral line origin, obs. 2−68930
W Ursae Majoris systems, determ. of parameters from photoelectric light curves 2−58393
visual binaries, orbital elements, masses from astrometric obs. 2−63513
visual binary stars, masses, mass ratios and parallaxes of seven objects from astrometric studies 2−106693
white dwarfs, masses and accretion rates rel. to secular evolution and Type I supernovae 2−112439
white dwarfs, scaled mass and radius of partially degenerate semirelativistic isothermal spheroids 2−63409
white dwarfs in open clusters, turnoff mass leading to progenitor mass limit determ. 2−68763
Wolf-Rayet stars, masses rel. to connection with O-type stars 2−63477
Wra 977 (4U 1223-62), B1.5 supergiant, spectroscopic orbit and masses 2−106814
young stars, mass spectra 2−89263

stellar models
9 $M_\odot$ star evolution for Cepheid/yellow supergiant CNO abundance anomalies 2−117673
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
γ-ray burst source (1979 March 5) neutron star accretion mechanism *(Chinese)* 2−79246
r-mode oscillations in uniformly rotating stars, perturbations in gravit. pot. 2−84214
2A 0311−227, AM Herculis star, wavelength independent modulation from accretion column emission 2−94775
2A 0311−227 (EF Eridani), AM Herculis star, accretion column model, visible/IR obs. 2−89311
2A 0526−328, X-ray cataclysmic variable, rotating white dwarf+subluminous red giant model 2−112506
accreting C-O white dwarf models, off-centre Type I SN detonation 2−89284
alpha disk model of thin accretion disk around black hole 2−79137
o Andromedae, Be star, shell episode 2−73994
λ Andromedae, RS CVn star, Balmer line profiles from different model chromospheres 2−79155
Ap stars, magnetic field models anal. 2−79123
V1343 Aqilae (SS 433), accretion disc models involving black hole or neutron star 2−63474
V1343 Aqilae (SS 433), review of models 2−63472
R Aquarii, binary long period variable, model involving companion photosphere under circumstellar shell 2−58350
V1343 Aquilae (SS 433), light var. in close binary model, visible obs. 2−63467
V1343 Aquilae (SS 433), model and evolutionary status 2−63471
V1343 Aquilae (SS 433), model including 164 day period 2−63466
V1343 Aquilae (SS 433), monoenergetic beams model from spectral anal. 2−84234
V1343 Aquilae (SS 433), polarisation due to electron scatt. in jets or disc 2−63468
V1343 Aquilae (SS 433), relativistic models 2−63475
V1343 Aquilae (SS 433) neutron star with accretion disc+B-type star 2−63473
TT Arietis, UV continuum intensity comparison with optically thick accretion disc models 2−94730
asymptotic giant branch star, core C-burning model 2−58337
asymptotic giant branch stars, low mass evolution core, processes and dredge up 2−117668

stellar models continued
atmospheric models, thermodynamic requirements imposed by observed nonthermal mass fluxes 2−63390
ε Aurigae, 1982-84 eclipse and models 2−100994
Becklin-Neugebauer IR point source *(Russian)* 2−74070
binary stars, polarisation variation modeling, effects of orbital eccentricity 2−63524
binary systems, X-ray induced winds, hydrodynamics models 2−94700
black hole, thick disc, model with equatorial accretion 2−63495
black holes, spherical accretion and synchrotron emission 2−79136
α Bootis (Arcturus), temp. from model atmospheres 2−73973
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
α Caris majoris (Sirius), line-blanketed model atmospheres rel. to anal. of spectrum in 3600 to 4200 Å region 2−84232
SX Cassiopeiae, Be+giant stars, eclipsing model for continuum and spectral emission 2−84263
cataclysmic binaries, disk radiation, chromosphere model 2−79102
SV Centauri, early-type contact binary, evolution model 2−84268
VW Cephei, W Ursae Majoris star, starspot model for light curve vars. 2−106783
Cepheids with tangled magnetic fields, nonlinear models 2−68780
cluster giants, TiO band strengths, model atmos. 2−100998
convective stellar models with radiation press., adiabatic oscill., mag. field effect 2−94701
cool non DA white dwarfs, model atm. struct. 2−84226
coronae, theoretical models of energy balance 2−112424
Crab supernova, exploding 10 $M_\odot$ model 2−89285
Cygnus X-3, star model with pulsar component 2−106781
degenerate Fe core collapse in supernova model 2−106688
differential rotation detect. from artificial spectral lines appl. 2−63371
DE Draconis, eclipsing binary, spectroscopic orbit, model and rotation effects, spectral obs. 2−58387
dwarf novae, white dwarf accretion disk, model 2−79127
early type stars, wind models from UV reson. line narrow profile components 2−94699
early type stars photospheric Si and C lines, profiles anal. and obs. 2−106702
early/intermediate type stars, spectral and microturbulence anal. by model atm. 2−84220
RU Eridani, eclipsing binary, BV light curve anal. and model 2−58385
evolution in theoretical isochrones with variable G in Brans-Dicke cosmology 2−106683
evolution models, use in calculating star distances and element abundances 2−89237
F, G and K-type stars, model atmospheres rel. to ground-based spectrophotometry 2−100898
flare spectral signatures response to atm. struct. var. 2−89231
G109.1−1.0, similar object to SS 433, precessing beam model 2−63710
gamma-ray burst of 1979 March 5, model involving neutron star accretion *(Chinese)* 2−63708
gamma-ray burst source, neutron star accreted layer thermonuclear model, shock wave 2−94862
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861
gamma-ray burst sources, asteroid impact mechanism 2−94869
gamma-ray bursters as old radio pulsars, model 2−106958
gamma-ray transients and related phenomena, conf., San Diego, USA (Aug. 1981) 2−53408
giant stars, cool, chemical element abundance determ. from synthetic spectra of model atmospheres *(Russian)* 2−78970
giant stars, late type, UV excess and Li content 2−58342
globular clusters metallicity scale from theoretical giant branches construction 2−112514
globular clusters with massive central black hole, stellar dynamics and galactic tides 2−63540
H 0139−68, AM Herculis star, two-pole mag. white dwarf model rel. to polarisation obs. 2−106803
H 1909+096, X-ray binary, X-ray pulsations, neutron star pulsation models 2−94774
HD 112127, K-type giant, Li abundance, model atm. anal., visible obs. 2−79088
HD 185151, RS CVn star, chromospheric activity, spot model 2−100975
HD 215441, Ap star, oblique rotator model with toroidal surface mag. field struct. 2−84237
Herbig Haro objects, emission line spectra, model and ion abundances, visible obs. 2−63578
HZ Herculis, X-ray binary precessing tilted accretion disc periodic mass transfer models 2−84264
BL Herculis models, pulsation modes effect on light curve 2−58352
AM Herculis stars, 2-second period, standoff accretion shock height instability, model predictions 2−94777
BL Herculis stars, theoretical models for field variables rel. to light curves 2−112450
hot star winds, energy transport 2−63373
hot stars, radiation driven winds, models involving radiative transfer 2−63372
hot stars, X-ray emission from shocks in line driven winds 2−68732
intermediate type stars, effective temps. from spectra and model anal. 2−68728
late type stars chromospheres, Ca II K-emission line width model 2−84216
low-mass main sequence stars, semiconduction occurrence and effects 2−79084
LS I +61°303, radio X-ray binary, model of periodic radio emission, SHF obs. 2−68915
MV Lyrae, red+white dwarf model, X-ray emission, UV obs. 2−94726
α Lyrae (Vega), line-blanketed model atmospheres rel. to anal. of spectrum in 3600 to 4200 Å region 2−84232
RR Lyrae stars, radial pulsations thermodynamic coupling with convection *(Chinese)* 2−79114
M-type dwarfs, single component homogeneous model chromospheres 2−94713
main sequence stars, core-halo phase transition 2−58244
mass stars, evolution of various mass models with mass loss 2−68749
massive Population I stars, core processes and evolution to supergiant phase 2−84211
massive stars losing mass+ang. momentum, evolution, appl. to WR stars 2−63362
R Monocerotis, circumstellar torus and stellar wind model for NGC 2261 and (HH-39) 2−106841

stellar models continued
MXB 1728−34, periodic emission from black hole accretion disc 2−89297
neutron star envelopes and cooling calcs. 2−100969
neutron star structure, influence of pion condensate in cold dense matter 2−94765
neutron stars, interstellar matter accretion H-He flash as gamma ray burst origin 2−106959
neutron stars, magnetised, with non dipolar mag. geometry, pair prod. and pulsar cutoff 2−68804
neutron stars, model atmospheres rel. to X-ray bursts spectra 2−68933
neutron stars, surface thermonuclear processes, model calcs. 2−84259
neutron stars evolutionary sequences and thermal props. 2−79133
neutron stars with pion condensation, model calc. *(Russian)* 2−63494
NGC 6853, NGC 7293, planetary nebulae, central stars, model atmospheres from IUE obs. 2−58333
nonspherical winds and envelopes, radiative flux 2−68735
novae nucleosynthesis models, sources for Ne-E and ^{26}Al 2−79100
OB type runaway stars, compact companions, theoretical light curve 2−106697
OB-type stars, evolutionary models rel. to critical mass loss rates 2−63393
OB-type stars, warm wind model for τ Scorpii and ζ Puppis 2−63388
OB-type supergiants, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of stars, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
penetrative convection model, numerical expts. 2−94708
RR Pictoris, cataclysmic binary, light/colour curves interpretation, visible photometric/polarisation obs. 2−89271
SZ Piscium, eclipsing RS CVn star, light curve and components, model implications 2−74013
RZ Piscium, RW Aurigae star, model involving absorbing matter above photosphere 2−63401
planetary nebula origin involving separation of one massive nebula 2−63565
polytrope index 5 with finite radius, physical charact. and radial oscills. 2−106685
polytropic models with core dynamo mag. field 2−63382
posteruptive phase, shell 2200 Å graphite feature, var. in different models 2−63425
premain sequence stars in W51 region, mass outflow models radiation driven 2−79228
protoplanetary discs surrounding F and G-type stars, models *(Russian)* 2−106687
PSR 0531+21, anomalous braking index, plasma inertial effect 2−94762
PSR 0531+21 (Crab pulsar), pulsed emission 2−117694
PSR 1133+16, pulsar, models for microsecond intensity vars. 2−63487
pulsar crust Ae phase, eqn. of state allowing for superstrong mag. field 2−117696
pulsar evolution, dipole braking model anal. 2−74002
pulsar evolutionary models, discrimination from (P,γ) diagram 2−84254
pulsar high energy particles, motion and γ-ray emission 2−63489
pulsar nulling, origin from evolutionary models 2−106763
pulsar radio emission and models 2−74003
pulsars polar flux tube particle acceleration and photon emission models 2−63492
pulsating stars, effect of rot. and tidal distortions on periods of small adiabatic oscillations of stellar models 2−106675
VV Puppis, AM herculis star, cyclotron spectrum and polarisation props., model 2−58409
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
rapidly rotating polytropes and concave hamburger equilibrium 2−117664
red giant model atmospheres, results for C-enriched models 2−112426
relativistic linear stellar model, space-time continuum 2−84089
rigidly rotating and self gravitating polytropes, 3-dimens., bifurcation and fission 2−117665
Roche model, blast wave propag. 2−106676
rotating neutron stars, modelling using exact solns. of Einstein's eqns. 2−58375
rotating polytropes, struct. and oscills. 2−117662
2S 1223−624 (GX 301−2), X-ray binary, neutron star accretion model 2−89312
V3885 Sagittarii, nova like variable, accretion disc model and wind, UV obs. 2−94725
ζ^1 Scorpii, variability and mass loss in extreme supergiant 2−63407
δ Scuti stars, pulsational mode typing from line profile-model comparison 2−63424
RW Sextantis, cataclysmic binary, accretion disc with hot wind, model and line anal. 2−94724
shock-heated stellar atmospheres, two-parameter model and appl. to stellar coronae 2−89239
SN 1408 possible link with CTB 80 radiosource 2−63696
SN 1979c, shock wave emission and progenitor star 2−100964
solar models and periods of oscillation, new programme for solar evolution sequences calc. 2−79070
solar umbral oscillations in a detailed model umbra 2−100882
SS 433, nature and model *(Russian)* 2−68792
subdwarfs, O/B-types, evolutionary models 2−63398
supergiant stars, early type, Hα emission variability and struct., obs. and model atm. anal. 2−106701
supernova models 2−117689
surface gravity for plane parallel model atm. case 2−106670
symbiotic stars, main sequence star accreting from red giant scenario 2−84077
T Tauri, double star detect. and model, speckle interferometry obs. 2−74019
20 Tauri, He weak star, abundance from model atm. anal. and visible obs. 2−73997
4U 1822−37, eclipsing X-ray binary, evaporated atmosphere above accretion disc 2−89313
4U 2129+47, neutron star accretion disc model scatt. radiation, obs. 2−94771
Be Ursae Majoris, eclipsing red dwarf and hot subdwarf, model constraints from photometry 2−94791
visual binaries with late type giant primaries, uvbyβ photometry rel. to models/isochrones 2−100978
white dwarf, accreting, C-burning model 2−58337
white dwarf, accreting in binary system, evolution model up to Type I supernova 2−63482
stellar models continued
white dwarf supernovae, new model 2−63484
white dwarfs, He-rich, with metal features, grain accretion from interstellar medium 2−117667
white dwarfs, numerical function values for slowly rotating partially degenerate semirelativistic isothermal spheroids 2−63409
white dwarfs, props. of hot accreting white dwarfs quasi-static approximation 2−106691
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438
winds, radiatively driven, in O-type stars, model improvements, ionisation balance and IR spectrum 2−63387
X-ray binary, accretion disc structure, role of X-ray heating 2−74030
X-ray binary, neutron star accretion, magnetosphere and evolution within two stream model 2−74014
X-ray binary stars, accretion disc coronae around eclipsing systems, spectra 2−89298
X-ray bursters, magnetospheric gate model simulation 2−94859
X-ray bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
X-ray emission from radiatively driven shocks formed in line driven winds 2−68731
X-ray rapid burster auroral precipitation model 2−79147
X-ray sources, recurrent, effect of stellar wind vel. on eccentric-orbit binary model 2−84275
C stars, model atmospheres 2−112426
C stars, models of grain forming atm. and mass outflow 2−89267
He star of 1 $M_\odot$, evolution in struct. and luminosity to white dwarf stage 2−68785
Hg-Mn stars, LTE and non-LTE model atmospheres rel. to Be abundances 2−112448

stellar motion
see also celestial mechanics
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
2A 0311−227, AM Herculis star, orbit and light curve fluctuations 2−94775
2A 0526−328, X-ray cataclysmic variable, radial vel. and photometric periods from optical and X-ray study 2−112506
3A 0729+103, X-ray cataclysmic binary star, rotation and orbital periods 2−63521
2A 1822−371, compact X-ray binary, orbital vel. and mass of compact component 2−112502
2A 1822−371, degenerate star shell emission, component masses and orbital period, visible obs. 2−79145
AB 6, binary WR star in SMC, motion, visible spectral obs. 2−89264
Abell 41, planetary nebula, nucleus, ultra-short-period binary star, orbital period from light vars. 2−94718
ADS 10279 and 12889, orbital elements, masses and dynamical parallaxes *(French)* 2−79158
ADS 10621, ADS 15650, visual doublestars, orbital elements, ephemerides and residuals 2−58394
ADS 3182 and 3483, dynamical parallaxes *(French)* 2−106794
ADS 3182 and 3483, revised orbital elements *(French)* 2−106794
Ae/Be binary stars, two groups according to orbital vel. 2−74031
AM 064-741, southern ring galaxy, rot. vels. of interstellar gas and stellar component of nucleus 2−79216
o Andromedae, Be star, search for short-term radial-velocity vars. 2−73988
AB Andromedae, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
RX Andromedae, eclipsing dwarf nova, orbit, spectral obs. 2−73995
R Aquarii, eclipsing symbiotic star, light curve, 1933 to 1981 and orbital period 2−100942
EE Aquarii, revised photometric elements of eclipsing binary 2−63508
ϵ Aquilae, orbital parameters from spectroscopic/photometric data 2−94789
V1343 Aquilae (SS 433), disc motions/binary orbital period from theoretical anal. 2−117676
astrometry (book) 2−112671
IM Aurigae, BV photoelectric obs. of eclipsing binary, light elements 2−58400
KR Aurigae, cataclysmic binary star, orbital period from spectroscopic obs. 2−68791
SU Aurigae, T Tauri star, rapid and slow vars. in absorpt. lines radial vels. 2−100920
BD+22°669, spectroscopic binary, orbit and mass, possible Hyades member, spectral obs. 2−63503
Be stars, long-term radial vel. vars. 2−84239
binary star components, toroidal oscills., effect of orbital-rot. resonances 2−106786
binary star orbital perturbations on passage of gravit. waves 2−68813
binary stars, evolution of highly compact systems 2−68812
binary stars, Mg II 2800 Å resonance line emission 2−100896
binary stars, period changes in detached close systems due to anisotropic mass ejection 2−74017
binary stars, polarimetric vars. rel. to inclinations 2−73992
binary stars, polarisation variation modeling, effects of orbital eccentricity 2−63524
binary stars, synchronisation between orbital and rot. motions, mag. field role 2−94787
binary stars, tidal evolution in close binary systems of high eccentricity 2−89304
binary stars orbit evolution-mass relation taking mass loss into account 2−68835
binary stars spin nutation due to general relativistic and quadrupole effects 2−58383
binary systems with variable masses, eqns. of motion 2−68831
44=i Bootis, W Ursae Majoris star, evidence for orbital period vars. from single night light curve 2−112497
28 Canis Majoris, Be star, photometric and spectroscopic periods differences, obs. 2−100934
ST Carinae, β Lyrae type eclipsing binary, orbital elements from UBV photometry 2−106812
QX Carinae, uvby lightcurves and orbit of eclipsing binary 2−106796
Case 1, red+white dwarf, period and mass, visible obs. 2−68810
TV Cassiopeiae, eclipsing binary, photoelectric timings of primary minima using folding method 2−74022
PV Cassiopeiae, eclipsing binary star, apsidal motion meas. from photoelectric times of minima 2−106776

stellar motion continued
ι Cassiopeiae, radial vel. and equivalent width vars. in Ap-star 2−79104
cataclysmic variables, minimum period, gravitational radiation and mass loss effects 2−106717
SV Centauri, interacting early-type contact binary, orbit elements and dimensions 2−100979
V436 Centauri, SU Ursae Majoris star, radial rel.. curve and orbital period, visible obs. 2−68777
V757 Centauri, W Ursae Majoris star, orbit, spectral obs. 2−63534
GW Cephei, W UMa type system orbital elements from BV light curves 2−84271
VW Cephei, W Ursae Majoris star, evidence for orbital period vars. from photoelectric light curves 2−89307
Cepheid variables, anal. for spectroscopic binaries using simultaneous photometric and radial vel. study 2−100939
Cepheid variables, short-period, simultaneous photometric and radial velocity study 2−63442
Cepheids, binary detection and occurrence from vel. curves 2−89279
Cepheids, period-luminosity relation zero point refining from kinematic obs. 2−106752
Z Chamaeleontis, dwarf nova, radial vels. meas. rel. to eccentric disc during supermaximum 2−63418
CC Comae Berenicis, W UMa star, orbital parameters from lightcurve anal. 2−100983
contact binary stars, angular momentum loss in and out of contact, evolution 2−112488
U Coronae Borealis, eclipsing binary, third component orbital period and eccentricity 2−100981
RT Coronae Borealis, RS CVn star, wavelike distortion and photometric soln. *(Chinese)* 2−112491
crossing times in solar neighbourhood rel. to stellar age and metallicity 2−112513
CSV 6984, new W Ursae Majoris type star, BV photometry, light curve and orbital elements 2−112500
CW 1103+254, AM Herculis star, emission lines radial vel. curves 2−94751
CW 1103+254, new AM Herculis star, orbital period and polarisation ephemeris 2−84250
59=V832 Cygni, Be star, radial vels. during shell episode (1974-1975) 2−100940
ZZ Cygni, eclipsing binary star, primary minimum time and mean light curve 2−68819
V836 Cygni, eclipsing binary star, revised light elements from photoelectric obs. 2−74023
V470 Cygni, ellipsoidal variable, orbit, photometry anal. 2−89302
P Cygni, radio star, precise optical and radio positions and proper motion 2−89319
V463 Cygni, revised photometric elements of eclipsing binary 2−106801
φ Cygni, spectroscopic binary, mass, orbit and luminosity, speckle interferometric obs. 2−79149
XX Cygni, SX Phoenicis star, reddening, temp., radial vel. and surface gravity, uvbyβ obs. 2−94756
V1357 Cygni (Cygnus X-1), light curve anal., orbital motion effects, UBV obs. 2−106816
Cygnus OB2 association, precise optical positions and proper motions of radio stars 2−89319
disk galaxies dynamics, Vlasov simulation in axisymmetric case 2−74104
disk galaxies dynamics, Vlasov simulation in nonaxisymmetric case 2−74105
BV and BW Draconis, eclipsing binaries, light curve, orbit and astrometry, obs. 2−58397
DE Draconis, eclipsing binary, spectroscopic orbit, model and rotation effects, spectral obs. 2−58387
BS Draconis, elements from light curve anal. 2−106785
BW Draconis, W Ursae Majoris star, times of photoelectric minima from BV photometry 2−84282
Drifts I and II, solar motion of local standard of rest 2−112511
dynamical history of the stars in relation with age, kinematics, abundances, birthrate 2−112510
dynamics, galactic scale size changes due to mass loss rel. to ang. size test 2−68882
dynamics, galactic shock wave evolution, density wave theory 2−79172
dynamics, Henon-Heils system, analytic struct. 2−112558
dynamics, rel. distrib. functions for axisymmetric self-similar galaxy models 2−63620
dynamics, relaxation time of one-dimensional self-gravitating system 2−106484
dynamics, retrograde closed orbits in a rotating triaxial potential 2−100708
dynamics, stability of periodic orbits in triaxial galactic models 2−79210
dynamics, transitions between epicyclic stellar orbits induced by massive gas clouds 2−68837
dynamics, two-component model of spherical stellar system 2−106820
dynamics in elliptical galaxy NGC 2685, and of prolate stellar dynamical model 2−106912
E 1405−451, E 1013−477, AM Herculis stars, photometric orbital periods 2−63378
eclipsing binaries, light curves reanalysis and photometric elements determ. 2−100982
eclipsing binary stars, periodic ephemerides for 49 systems 2−106809
eclipsing binary stars, photoelectric minima during 1980 and 1981 from BV obs. 2−112498
eclipsing binary stars, photoelectric times of minima for eight objects 2−89310
YY Eridani, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
YY Eridani, W UMa star, orbital parameters from ligthcurve anal. 2−100983
EF Eridani (2A 0311−227), mag. white dwarf binary, radial vels. from complex emission line struct. 2−58381
faint stars, parallax, proper motions and UBV obs. 2−63363
galactic dynamics, isothermal models for phase space struct. of $r^{1/4}$ galaxies 2−112563
galactic halo and disc mass ratio determ. method using stellar motion anal. 2−73860
galactic stars in direction of LMC, radial vels. from objective-prism plates *(French)* 2−100763
galaxies, spiral, density wave theory, resonant stars at corotation 2−79212
galaxies active nuclei, characts. of gravit. radiation bursts from close stellar encounters 2−106504

stellar motion continued
Galaxy angular momentum, origin through gravit. interactions with external galaxies 2−89384
galaxy haloes merging and stripping on binary galaxy systems collision 2−84330
81 and χ Geminorum, orbits of spectroscopic binaries from photoelectric radial vels. 2−112507
YY Geminorum, spectroscopic eclipsing binary orbit anal. 2−94790
globular clusters, characts. of gravit. radiation bursts from close stellar encounters 2−106504
globular clusters with massive central black hole, stellar dynamics and galactic tides 2−63540
V Gruis, eclipsing binary star, new orbital period and light curve from photometric obs. 2−112495
GX349+2, GX17+2, flaring X-ray sources, orbital periods determ. from X-ray obs. 2−94867
H 0139−68, AM Herculis star, orbital period from high speed photometric obs. 2−63517
H 2215−086, optical counterpart light curve anal., orbital/rot. effects, visible obs. 2−74011
HD 111980 and 149414, halo cool subdwarf binaries, spectroscopic orbits and comp., obs. 2−100922
HD 115968, spectroscopic binary, radial vel. determ. and spectral type 2−74021
HD 134518, main sequence detached eclipsing binary orbit from photometric anal. 2−89301
HD 136905, new RS Canum Venaticorum variable star, orbital period from spectroscopic obs. 2−58407
HD 181602, spectroscopic binary, orbit from radial vel. obs. 2−68825
HD 185151, RS CVn star, single line binary orbit 2−100975
HD 189178, spectroscopic binary, orbital elements for primary component 2−106811
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, orbital period *(Russian)* 2−100957
HD 193077, Wolf Rayet star, neutron star secondary with possible OB third star spectra anal. 2−58351
HD 25354 and 152107, binary Ap stars, spectral var. and orbit/rot. synchronism 2−112455
HD 26337, new RS Canum Venaticorum variable star, orbital and photometric periods 2−58406
HD 27130, eclipsing binary in Hyades, obs. rel. to mass-luminosity relation and cluster distance 2−68811
HD 29647, Hg-Mn star, radial vel. distance and luminosity, visible obs. *(Russian)* 2−68794
HD 33708, binary star orbit 2−106805
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
HD 77581, X-ray binary, orbital plane rot. axis relation, supernova effect interpretation *(Russian)* 2−68828
HD 81410, new RS Canum Venaticorum binary star, orbital elements from BV photometry and radial vels. 2−79168
HD 86161, WR star with neutron star comparison, mass and orbit, visible obs. 2−73983
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
DI Herculi, B-type eclipsing binary, mass, radius and orbit, obs. 2−63500
TX Herculis, detached close binary star, anisotropic mass ejection rel. to period changes 2−74017
TX Herculis, detached close binary system, orbital period behaviour 2−74018
V644 Herculis δ Scuti star, orbital motion from radial vels. meas. *(French)* 2−58396
AM Herculis-type eclipsing binary (1114+18), photometric, polarisation and spectrum vars. and ephemerides 2−58408
HR 1883, spectroscopic binary, primary giant, orbit and mass 2−63528
HR 2577, Be+giant stars, mass and orbit determ. 2−63532
HR 3626, double-lined spectroscopic nature revealed 2−106808
HR 4006 (G3:5 III), spectroscopic binary star, radial vel. orbit 2−106815
HR 4975, early-type contact system with unequal components, orbital period 2−79153
HR 5049, binary Co Ap star, pulsations and orbit determ. 2−106742
HR 7024, spectroscopic binary orbit, radial vel. obs. 2−79169
HR 7275, photometric period for RS CVn-type binary 2−84270
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
RY Indi, β Lyrae type eclipsing binary, orbital elements from UBV photometry 2−106812
Kepler problem for explosive binaries *(Polish)* 2−94792
kinematical age determ., mass effect 2−112512
CM Lacertae, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
AR Lacertae, RS CVn-type binary star, orbital period vars. from photoelectic photometry 2−106810
SW Lacertae, W Ursae Majoris star, new minimum times, 1980 and 1981, rel. to orbital period vars. 2−79161
Lalande 21185, red dwarf star, study of intensive 40-yr Sproul plate series 2−79089
Lanning 10, eclipsing cataclysmic variable, radial vel. curve and mass function 2−58321
late type dwarfs, spectral characts. and radial vel., visible obs. 2−58335
XY Leonis, W Ursae Majoris star, new times of minima and orbital period vars. 2−106800
AM Leonis, W Ursae Majoris star, photometric obs. rel. to orbital period vars., (1977 to 1981) 2−84274
ε Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
EH Librae, δ Scuti star, period variation and orbital motion, photometric obs. *(Chinese)* 2−63439
LMC evolution from globular cluster motion, colour and comp., giants anal. 2−112547
LMC member stars, catalogue and radial vels. from objective-prism plates *(French)* 2−100763
local stellar velocity distribution, high order momenta 2−89242
UV Lyncis, UBV light curves and ephemeris improvement 2−106807
RR Lyrae stars, periods and photometric elements, obs. *(Russian)* 2−79111
M31 globular clusters, dynamics and metallicity, visible obs. 2−106825
M67, open cluster membership from relative proper motion anal. *(Chinese)* 2−112518

stellar motion continued
RW Monocerotis, Algol type binary star, ephemeris from five-colour photometry of primary eclipse 2−94782
BM Monocerotis, Algol-type binary, evidence for orbital eccentricity and apsidal motion 2−100988
nearby main sequence stars (annual proper motion >0.7″), photometric parallax and colour luminosity relation 2−63376
nearby stars, odd behaviour of vel. components in direction l=330°, (b=0) 2−112432
NGC 2346, planetary nebula with eclipsing binary central star, orbital period from UBV photometry 2−68870
NGC 2547, southern open cluster, kinematic data rel. to membership and luminosity function 2−58416
NGC 6913, stellar motions in open cluster field *(Russian)* 2−79176
OB type stars motion at birth and vertex deviation problem 2−68838
UU Ophiuchi, Algol-type binary, light minimum time obs. and new ephemeris 2−100987
V1022 Ophiuchi, W UMa-type binary, period from BV photometry 2−84272
V566 Ophiuchi, W Ursae Majoris star, times of photoelectric minima and new light curve 2−89308
orbits in galaxies, scale-free models 2−58447
paired collision dynamics, regularised system of differential eqns. 2−117712
Palomar 14, outer halo globular cluster, galactic orbit rel. to structural characts. 2−106828
γ Persei, spectroscopic possible eclipsing binary, orbit, mass, luminosity, speckle interferometry, obs. 2−79149
AX Persei, symbiotic star, orbital period from light curve anal. 2−63461
β Persei (Algol), photoelectric minimum timings rel. to new period and ephemeris 2−74024
PG 1550+191, AM Herculis star, polarisation and period, visible obs. 2−84265
95 Piscium, orbital elements 2−100980
plane galactic orbits in stationary and time-dependent rotating bars 2−79171
planetary nebulae nuclei, corrections to ang. momentum loss for close binary nuclei 2−89259
proper motion catalogues, system differences rel. to galaxies *(Russian)* 2−78981
proper motion determ. using plate sequence *(Russian)* 2−78971
proper motions, correction for accidental errors *(Russian)* 2−63384
proper motions, corrections from determ. of FK5 equinox and equator 2−68598
PSR 0655+64, new binary pulsar, orbital elements from timing obs. 2−63486
PSR 1913+16, binary pulsar, orbit eccentricity due to second supernova occurrence 2−68799
PSR 1913+16 (pulsar+compact star) orbit determ. and masses, UHF obs. 2−63498
radial velocities from Herstmonceux and Kottamia (1964-1971), catalogue 2−94628
radial velocity field of Milky Way outside galactic plane 2−106821
radial velocity measurements, use of Image Photon Counting System 2−106684
radial vels. of 617 stars in four galactic fields *(French)* 2−106681
relativistic galactic dynamics, new integral of motion 2−79170
rotating galactic bar, equilib. and stability, numerical expt. 2−106888
2S 1223−624 (GX 301−2), X-ray binary, flares and orbital period determ. 2−89312
WY Sagittae (Nova 1783), eclipsing binary star, orbital period and ephemeris from five eclipse timings 2−89278
EG Sagittarii, eclipsing binary star, orbital period 2−100986
Schwarzschilds triaxial galaxy model stability, self consistent n-body numerical expts. 2−89352
solar neighbourhood stars chem. evolution constraints and vel. and galactocentric distances 2−112583
southern stars, radial vel., BV colours and magnitudes for 339 stars 2−94709
spectroscopic binaries in NGC 2516, radial vels. 2−106793
spectroscopic binary stars, distrib. of masses of primary components and orbital semi-major axes *(Russian)* 2−100992
spectroscopic binary stars in Scorpius OB 1 association, radial vel. studies of three new massive binaries 2−112493
spherical galaxies head-on collisions, representative stars dynamics 2−101057
spherically symmetric collisionless stellar systems, stellar dynamics and models, stability anal. 2−106830
star cluster, compact, in galactic nuclei, stellar collisions as mechanism for nuclei recurrent activity *(Russian)* 2−101072
Sun motion, research by Mayer, Herschel and Prevost 2−53476
SV Tauri, Algol-type binary system, ephemeris from photoelectric UBV photometry 2−94781
V471 Tauri, eclipsing binary, radial vel. curve and orbital elements from spectroscopic obs. 2−63516
T Tauri, proper motion and discrepancy between optical and radio positions 2−89258
V471 Tauri, RS CVn-like binary star, light and colour vars. rel. to orbital period changes 2−84273
triple stars, Hill stability and distance curves for general three-body problem 2−78941
triple stars, study of stellar three-body problem 2−68816
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129+47, X-ray binary, radial vel., mass, spectral line origin, obs. 2−68930
4U 2129+47, X-ray binary star, orbital period from photoelectric photometry 2−89303
Upgren 1, open cluster membership and radial vel., UBVRI and spectral obs. 2−94799
W Ursae Majoris, eclipsing binary star, light curves and times of minimum from photoelectric obs. 2−89306
W Ursae Majoris, light minimum times and (O-C) residuals 2−58398
W Ursae Majoris, new photoelectric times of minima (1976 to 1982) 2−89309
W Ursae Majoris stars, detached systems evolving to contact systems by ang. momentum loss 2−84277
vA 771, spectroscopic binary, orbit and possible membership of Hyades, visible obs. 2−63503
vB 166, spectroscopic binary, orbit and possible membership of Hyades, visible obs. 2−63503
AZ Virginis, W Ursae Majoris star, photometric elements 2−112492
visual binaries, orbital elements, masses from astrometric obs. 2−63513
visual binaries, orbits and parameters from statistical anal. 2−79163
visual binary stars, masses, mass ratios and parallaxes of seven objects from astrometric studies 2−106693
visual binary stars, revised orbits of 25 stars *(Russian)* 2−100993
Vlasov simulation for stellar systems dynamics in infinite homogeneous case 2−74103
VW Cephei, close binary, period var. and lightcurve fluctuations 2−63523
wide binaries separation, effect of field star encounters 2−63501
Wra 977 (4U 1223−62), B1.5 supergiant, spectroscopic orbit 2−106814
X-ray sources, recurrent, effect of stellar wind vel. on eccentric-orbit binary model 2−84275

stellar multicolour photometry *see stellar photometry*

stellar origin *see stellar evolution*

stellar photometry
see also stellar radiation; stellar spectra
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
2A 0311−227, AM Herculis star, light curve fluctuations anal., VRI obs. 2−94775
2A 0311−227 (EF Eridani), AM Herculis star, accretion column model, visible/IR obs. 2−89311
A- and F-type stars, UV photometric data 2−63377
Algol-like binaries, hot and cool components optical fluxes, visible obs. 2−89296
Am stars, spectrophotometric studies rel. to effective temps., radii and bolometric magnitudes 2−84238
Am stars, UV photometric data 2−63377
BX Andromedae, eclipsing binary, light minimum time from photoelectric photometry 2−58399
AB Andromedae, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
λ Andromedae, RS Canum Venaticorum star, Hα photometry 2−89305
Z Andromedae, UBVRJHKLMN photometry of symbiotic star 2−117686
ANS UV photometry, point sources catalogue 2−106553
Ap stars, photometric obs. of four objects 2−94744
ζ Aquarii, B component IR companion detect., KL obs. 2−106792
AE Aquarii, red dwarf+white dwarf eclipsing binary, flicker spectrum 2−63526
EE Aquarii, revised photometric elements of eclipsing binary 2−63508
R Aquarii, symbiotic star, discovery and photometry of elongated extension of stellar image 2−117685
V794 Aquilae, cataclysmic variable star, short-term light vars. detect. by high speed photometry 2−106732
TT Aquilae, Cepheid, period and photometric obs. 2−63464
ε Aquilae, orbital parameters from spectroscopic/photometric data 2−94789
V1343 Aquilae (SS 433), light var. in close binary model, visible obs. 2−63467
V1343 Aquilae (SS 433), nutation and pseudoregular precession, 6-day periods 2−63432
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433) polarisation obs. and model 2−63468
AR Pavonis, eclipsing binary, secondary giant and system nature, UBV photometry during 1980 eclipse 2−100991
TT Arietis, distance and outer disc temp. from light curve and spectral obs. 2−100951
UX Arietis, RS Canum Venaticorum star, UBVR photometry during 1981 2−94784
IM Aurigae, BV photoelectric obs. of eclipsing binary 2−58400
SU Aurigae, RW Aurigae star, 1900 to 1979 light curve anal. 2−117669
RW Aurigae, T Tauri star, spectral and photometric obs. anal. *(Russian)* 2−68768
automatic photometer for stellar UBVR photometry *(Russian)* 2−78962
B-type stars, intrinsic colours on Geneva photometric system 2−112440
B-type stars, Stromgren photometry rel. to Hβ distance scale for Orion association stars 2−106692
Basel RGU photometry used for inner Galaxy halo abundance contours determ. 2−63269
BD+13°3224, pulsating H-deficient star, period, uvby obs. 2−63451
BD+40°4145, member of NGC 6910, variability obs. from BV photometry 2−106734
BD+60°562, new variable star, UBV photometry 2−79119
Be-stars, IR photometry of 46 bright southern objects 2−79107
Berkeley 21, open cluster CM diagram, field stars contamination, identification using slitless 2−112341
close binary stars, five colour band UV photometry 2−63514
binary stars, photometric and astrometric obs. of close visual binaries 2−58395
binary stars with luminous cool primaries and hot companions, BVRI obs. 2−100985
blue globular clusters, ages and chemical abundances in Magellanic Clouds 2−84286
i=44 Bootis, BV photometry of W UMa-type system 2−84269
TZ Bootis, W UMa star, light var. in bv 2−100976
44=i Bootis, W UMa star, photometry with microcomputer based system *(Italian)* 2−106535
44=i Bootis, W Ursae Majoris star, single night light curve, (1982 April 7 to 8) 2−112497
α Bootis (Arcturus), temp. from model atmospheres 2−73973
C1715−387, open cluster distance, membership and content from WULBV obs. 2−89317
XX Camelopardalis, R CrB star microvariability due to absorpt. spectrum var., photometry obs. *(Russian)* 2−78968
AO Camelopardalis, UBV light curves of W UMa system 2−84285
AC Cancri, cataclysmic eclipsing binary, colour indices, magnitude, spectral obs. 2−63531
SY Cancri, Z Camelopardalis star, pulsations and flickering, spectra and colours 2−79099
28 Canis Majoris, Be star, photometric and spectroscopic periods differences, obs. 2−100934
Y Canum Venaticorum, semiregular variable, photometric obs., (1980 to 1981) 2−100946
RS Canum Venaticorum stars, photometric obs. 2−100990

stellar photometry continued
ST Carinae, β Lyrae type eclipsing binary, UBV photometric study 2−106812
QX Carinae, uvby lightcurves and orbit of eclipsing binary 2−106796
DO Cassiopeiae, eclipsing binary, light minimum time from photoelectric photometry 2−58399
AB Cassiopeiae, eclipsing binary star, δ Scuti pulsational groups. of hot component from BV photometry 2−106733
catalogue of red and IR magnitudes in Kron photoelectric photometric system 2−100768
SV Centauri, interacting early type contact binary, visible/UV obs. 2−100979
V757 Centauri, W Ursae Majoris system, spectral types, UBV obs. 2−63533
Centaurus region stars, density functions, RGU obs. 2−63375
GW Cephei, BV light curves of W UMa type system 2−84271
NN Cephei, eclipsing binary, BV obs. 2−58401
μ Cephei, SRc star, light var. and pulsations, anal. 2−106722
VW Cephei, W UMa system, photoelectric obs. and light curve vars. 2−79150
VW Cephei, W Ursae Majoris star, light min. times and light curves from photoelectric obs. 2−63519
Cepheid period-luminosity-colour relation unsuitability as distance indicator 2−106728
Cepheid variables, anal. for spectroscopic binaries using simultaneous photometric and radial vel. study 2−100939
Cepheid variables, short-period, radii and masses from photometric and radial vel. study 2−112452
Cepheid variables, short-period, simultaneous photometric and radial velocity study 2−63442
Cepheid variables with periods between one and three days, photoelectric UBV photometry 2−58361
Cepheids, binary detection from photometric obs. 2−89279
Cepheids, characteristics from B-type companions uvbyβ photometry 2−68796
beat cepheids, photometric search 2−89282
Cepheids, reddening from BVRI data 2−89251
Cepheids in LMC, BV photometry rel. to reddenings and period-luminosity relation 2−58353
Cepheids IR photometry used to determine distance to nearby galaxies 2−84103
ZZ Ceti stars, colour index, evolution, statistical anal. 2−100917
Z Chamaeleontis, dwarf nova, spectrum and photometry rel. to eccentric disc during supermaximum 2−63418
chemically peculiar stars, classification properties within Vilnius Geneva system 2−73955
CoD−35°10525, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
CC Comae Berenicis, W UMa star, orbital parameters from lightcurve anal. 2−100983
common proper motion group, age, compositions and distance, obs. 2−94801
comparison stars for asteroid 1009 Sirene, photoelectric obs. rel. to asteroid predicted brightness 2−68649
S Coronae Austrinae, YY Orionis star, visible spectra and photometry obs. 2−63408
S Coronae Austrinae, YY Orionis type star, BV photometry rel. to peculiarities of atmosphere and envelope 2−68770
R Coronae Borealis, 49-day cycle detect. from photometric obs., (1980 to 1981) 2−100946
R Coronae Borealis, polarisation and photometry at 1977 minimum 2−84246
RT Coronae Borealis, RS CVn star, wavelike distortion and photometric soln. *(Chinese)* 2−112491
UU Coronae Borealis (HD 137050), Johnson BVR magnitudes (1969 and 1973) 2−79087
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
R Coronae Borealis stars, spectrophotometric investigation *(Russian)* 2−73985
Cox 15, 24, 38 and C, Ap stars in open cluster NGC 2516, obs. 2−58364
CSV 5885, 8736, pulsating variable stars, light elements from Sky-patrol-plates obs. elements from Sky-patrol-plates obs. 2−112459
CSV 6984, new W Ursae Majoris type star, BV photometry, light curve and orbital elements 2−112500
CSV 8883, 101915, eclipsing binary stars, light elements from Sky-patrol-plates obs. 2−112459
CU Cancri (G9-8), flare star, confirmation by flare activity of photoelectric UBVR photometry 2−73990
CW 1103+254, AM Herculis star, visible and IR photometry and polarisation and spectroscopic obs. 2−94751
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
UZ and VW Cygni, β Persei stars, VB light curve anal. 2−58389
V478 Cygni, eclipsing binary, BV obs. 2−58402
V836 Cygni, eclipsing binary star, photoelectric obs. 2−74023
CG Cygni, eclipsing binary star, UBVR photometry during (1981) 2−79160
V470 Cygni, ellipsoidal variable, orbit, photometry anal. 2−89302
V1057 Cygni, FU Orionis star, IR photometric obs. rel. to origin of IR flux 2−89262
V453 Cygni, secular variability due to comparison star HD 227586 companions effects 2−63535
XX Cygni, SX Phoenicis star, reddening, temp., radial vel. and surface gravity, uvbyβ obs. 2−94756
CI Cygni, symbiotic star, H vars. and near IR monochromatic magnitude 2−68789
CI Cygni, symbiotic star, IR excess, UBVRJHKLMN obs. 2−106753
CH Cygni, symbiotic star, spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
V1357 Cygni (Cygnus X-1), light curve anal., UBV obs. 2−106816
Cygnus OB2 star 12, supergiant IR energy distrib., obs. 2−94796
Cygnus OB 2 association stars, wind vel. law and mass loss, visible/IR obs. 2−68841
Cygnus T1 association faint blue stars 2−68844
DDO photoelectric photometric system stellar data, catalogue 2−63274
diameter determ. by photometric obs. during lunar occultation *(Japanese)* 2−68627
differential variable-star photometry system at the Rothney Astrophysical Observatory 2−112331

stellar photometry continued
S Doradus, temps. for central star and envelope from VBLUW obs. 2−106726
BV and BW Draconis, eclipsing binaries, light curve, orbit and astrometry, obs. 2−58397
BS Draconis, elements from light curve anal. 2−106785
BY Draconis, flare star, photoelectric obs. (1979 July 11 to 31) 2−106731
BY Draconis, flare star, photoelectric UBV obs. ion 1980 and (1982) 2−112460
29 Draconis, probable new RS Canum Venaticorum star, BV photometry and light var. characts. 2−58405
BC Draconis, RR Lyrae star, period, BV obs. 2−63440
DK Draconis, RS CVn star, starspot evidence from photometric obs. 2−112487
BY Draconis, slow light variations, obs. 2−58358
BV Draconis, W Ursae Majoris star, BV lightcurve anal. 2−58390
BW Draconis, W Ursae Majoris star, times of photoelectric minima from BV photometry 2−84282
dwarf novae, southern hemisphere and equatorial, photoelectric photometry and spectra 2−100762
dwarf novae polarisation obs. 2−63458
1E 1405−451, AM Herculis star, two second variability 2−94777
E-regions, UBVRI standard stars 2−94794
early type stars, mass loss rates from JHKLM obs. 2−68742
eclipsing binaries, elements in freq. domain generalisation to close systems 2−58263
eclipsing binaries, light curves reanalysis and photometric elements determ. 2−100982
eclipsing binary stars, photoelectric minima during 1980 and 1981 from BV obs. 2−112498
eclipsing binary stars, photoelectric times of minima for eight objects 2−89310
Einstein deep survey fields in Cetus, Pavo, Eridanus, optical counterparts UBVRI obs. 2−84350
RU Eridani, eclipsing binary, BV light curve anal. and model 2−58385
YY Eridani, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
S Eridani, identification as δ Scuti star from photometric obs. 2−58363
YY Eridani, W UMa star, orbital parameters from ligthcurve anal. 2−100983
extreme λ_{MAX} stars, wavelength depend. of interstellar linear polarisation 2−74048
F2 and G2 stars in McCormick proper motion fields, uvby photometry 2−100902
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
faint blue stars at high galactic latit., photometry in field centred on (Selected Area 28) 2−100769
faint stars, parallax, proper motions and UBV obs. 2−63363
flare stars in γ Cygni region, new discoveries from photographic U-band photometry 2−73862
flare stars in Orion and Pleiades, colour indices, UBV obs. 2−58357
flare stars in Orion Nebula, photographic U-band obs. 2−73863
flare stars in Praesepe region, U-band magnitudes and flare amplitudes 2−78983
Fornax dwarf spheroidal galaxy globular clusters multiaperture JHK photometry 2−101065
G117-B15A, ZZ Ceti star binary, pulsation period from photometry anal. 2−68761
G- and K-type metal-deficient stars, DDO photometry 2−106711
galactic anticentre near open cluster NGC 2360, field UBV obs. 2−58468
galactic centre, JHK photometry of faint red stars 2−106707
galactic disc stars composition gradient from DDO photometry 2−112584
gamma-ray burst (1978 November 19) optical candidates, BV and near-IR photometry 2−94865
U Geminorum, dwarf nova, IR light curve anal., system nature, JHK obs. 2−100931
OT Geminorum (HD 58050), Be star, light variations from photoelectric BV photometry 2−73989
Geneva photometric boxes, announcement of catalogue (michrofiches and mag. tape) 2−100765
Geneva photometric boxes, appl. to interstellar reddening determ. towards galactic poles 2−58327
giant stars in solar neighbourhood, IR colour indices rel. to metal rich globular clusters 2−94720
Gliese 867B, flare star, photoelectric flare obs. (1981 October 1) 2−79120
globular clusters 2−74038
GX 339-4, optical counterpart, fast optical activity, accretion disc origin, visible obs. 2−84276
H2252−035, non-synchronous rotator, spectral/photometry obs. anal. 2−100955
H 0139−68, AM Herculis star, high speed photometric obs. 2−63517
HD 119213, 170000, 173650, Ap stars, line blocking effect on light curves 2−106720
HD 122563, metal-poor giant star, thirteen-colour photometry rel. to N abundance and Rayleigh scatt. 2−73975
HD 134518, main sequence detached eclipsing binary orbit from photometric anal. 2−89301
HD 136905, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58407
HD 137147, HD 137050, Johnson BVR magnitudes 2−79087
HD 185151, RS CVn star, chromospheric activity, visible obs. 2−100975
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 200925, Cepheid, mass, evolutionary status and period, UBV obs. 2−58355
HD 208664, δ Scuti star, freq. anal. BV obs. 2−100953
HD 219634, new massive eclipsing binary star, photometric obs. of eclipses rel to masses and spectral types 2−79159
HD 224113, Algol-type binary star, uvby photometry (1981 October 9 to 18) 2−94783
HD 25329, subdwarf star, thirteen-colour photometry rel. to N abundance and Rayleigh scatt. 2−73975
HD 26337, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58406
HD 29647, Hg-Mn star, radial vel. distance and luminosity, visible obs. *(Russian)* 2−68794

stellar photometry continued
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 32918 and 36705, FK Comae stars identification, visible spectra/photometry obs. 2−100952
HD 65227, new short period Cepheid of very small amplitude, photometric obs. 2−63446
HD 78616 (Q.81), new β Cephei star in Harvard Standard Region E4, photometric obs. rel. to period and light curve 2−94736
HD 80077, B2 supergiant spectroscopic binary, luminosity and period, visible obs. 2−100923
HD 81410, new RS Canum Venaticorum binary star, BV photometry and orbital elements 2−79168
HD 8357, RS CVn star, optical variability determ. 2−94778
HD 86161, WR star with neutron star comparison, mass and orbit, visible obs. 2−73983
HDE 269006, S Doradus star, temps. for central star and envelope from VBLUW obs. 2−106726
HDE 283809, B-type star in direction of Taurus dark cloud, photometry and spectrum *(Russian)* 2−112444
Herbig emission stars, near IR photometry 2−73977
DI Herculi, B-type eclipsing binary, mass, radius and orbit, obs. 2−63500
TT Herculis, eclipsing binary, period variability anal. from UBV obs. 2−100984
AM Herculis, VRI photometry and circular polarisation during low state, (1982 March 6 to April 19) 2−74025
AM Herculis stars, 2-second period, standoff accretion shock height instability, model predictions 2−94777
HH100, photometric obs. of nearby variable IR source 2−94816
HJ 2215−086, optical counterpart light curve anal., visible spectra/photometry obs. 2−74011
HR 1225, δ Scuti star, period determ., V obs. 2−63463
HR 151, 239 and 7461, δ Scuti stars with Ap star characts., nature 2−100954
HR 1614 moving group, membership criteria and CN abundances, DDO photometry 2−106827
HR 4975, possible early-type contact system with unequal components, photometric obs. 2−79153
HR 7275, photometric period for RS CVn-type binary 2−84270
HR 7308, peculiar classical Cepheid, radial vel. meas. and BV photometry rel. to pulsation and physical parameters 2−89272
HR 7308, peculiar classical Cepheid, UBVRI photometry 2−106746
Hyades, BVRI photometry of possible cluster members 2−106829
Hyades, cluster main sequence and colour-magnitude diagram, visible obs. 2−112516
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
IAU Commission 25 scientific sessions (Montreal, Aug. 1979) 2−94892
IC 388, open cluster field stars, dist. and reddening from photometry computer reduction 2−112519
IC 4651 open cluster giants, reddening, distance and composition, DDO obs. 2−63543
RY Indi, β Lyrae type eclipsing binary, UBV photometric study 2−106812
infrared standard stars for JHKL, H_2O and CO, photometry 2−100995
interstellar polarisation curves, meas. using simultaneous IR/optical polarimeter 2−106540
IR system for star counting using Fourier deconvolution 2−73855
JF photographic photometry, secondary standard sequences near 14 rich clusters of galaxies 2−106819
Johnson BVR magnitudes for comparison stars, obs. 2−79087
L19-2, ZZ Ceti star, oscillation, photometric obs. 2−100929
CM Lacertae, eclipsing binary, search for orbital period var. from photometric obs. 2−79162
EV Lacertae, flare star, photoelectric obs. in 1981 2−84244
EV Lacertae, flare star, photoelectric obs. in (1976) 2−106735
EV Lacertae, flare star, UBV photoelectric obs. in 1981 2−84243
AR Lacertae, RS Canum Venaticorum type binary star, photoelectric photometry (1976 to 1977) 2−106810
SW Lacertae, W Ursae Majoris star, new minimum times, 1980 and 1981, rel. to orbital period vars. 2−79161
Lanning 10, eclipsing cataclysmic variable, photometric and spectroscopic obs. 2−58321
Large Magellanic Cloud, extinction in IR from early-type supergiants JHK photometry 2−89377
Large Magellanic Cloud young populous clusters, radial colour variation, supergiant anal. 2−94826
late-type giant stars in Magellanic Clouds globular clusters, IR 2−58414
LD23, new eclipsing binary in Cygnus, approximate position, finding chart, and BV magnitudes 2−84109
AM Leonis, W Ursae Majoris star, BV and narrow-band obs., (1977 to 1981) 2−84274
XY Leonis, W Ursae Majoris star, new times of minima and orbital period vars. 2−106800
EH Librae, δ Scuti star, period variation and mass function, photometric obs. *(Chinese)* 2−63439
Lindsay 102, SMC globular cluster with C star member, BV photometry rel. to age 2−63430
LMC evolution from globular cluster motion, colour and comp., giants anal. 2−112547
LMC Mira variables, pulsational props., JHK photometry obs. 2−63455
LSS 4064 and 4065, WR stars in C1715−387, radiation and mass loss 2−89317
luminosity functions in RIJK bands from transform. from visual band 2−68727
RY Lupi, T Tauri star, optical and IR photometry rel. to cause of light variability 2−79098
UV Lyncis, UBV light curves and ephemeris improvement 2−106807
α Lyrae (Vega), possible microvar, WBVR photometry 2−117671
RR Lyrae stars, model atm., absolute magnitude uvbyβ photometry obs. 2−63457
RR Lyrae stars, periods and photometric elements, obs. *(Russian)* 2−79111
RR Lyrae stars, towards galactic anticentre, extinction, period, BV obs. 2−63426
RR Lyrae stars 24, 28 and 43 in globular cluster M15, light curve anal. *(Chinese)* 2−112517
M17, H II region, protostellar dust shells evidence from early type stars, JHKL photometry 2−94805
M25, galactic cluster, field stars membership, distance and colour excess , uvbyβ obs. 2−74036
stellar photometry continued
M31, globular clusters colour magnitude diagram, BV obs. 2−63642
M3 globular cluster, subgiant and horizontal branch sequences, widths and metallicity determ. 2−79173
M71, globular cluster metal abundance from photometry and spectra 2−68840
M-type dwarfs, BV photometry of faint red stars at S Galactic Pole 2−106709
M-type faint stars near SGP, photoelectric photometry 2−106710
Magellanic Cloud globular cluster extended giant branches, age from photometric anal. 2−89322
Magellanic Clouds supergiants and hypergiants, VBLUW photometry obs. 2−63441
metal weak stars, UBVRI and DDO photometry 2−63413
microcomputer based photometric system, testing on eclipsing binary 44=i Bootis *(Italian)* 2−106535
microdensitometer scans of spectra, comparison with photometry, spectral classification 2−63264
microvariability detection from photometric series anal., appl. to XX Camelopardalis *(Russian)* 2−78969
microvariability detection from photometric series dispersion and power spectral anal. *(Russian)* 2−78968
Milky Way field HD 95540, three-colour photometry 2−58328
AU Monocerotis, Algol system, light curve anal., luminosity and radii 2−63527
AU Monocerotis, Algol type binary, importance of UBV obs. during January to February (1983) 2−94780
RW Monocerotis, Algol type binary star, photoelectric obs. of primary eclipse in five colours 2−94782
BT Monocerotis (Nova Monocerotis 1939), eclipsing nova, photometric obs. 2−68776
multiple stars, common proper motion systems, obs. 2−100974
R Muscae, Cepheid variable, optical and IR photometry 2−89273
SY Muscae, symbiotic star, JHKL magnitudes, (1982 February 4) 2−63450
naked eye observations, accuracy of meas. of star colours 2−68738
nearby main sequence stars (annual proper motion >0.7″), photometric parallax and colour luminosity relation 2−63376
NGC 206, OB association in M31, B-obs. 2−63624
NGC 2346, planetary nebula, central star, identification as eclipsing binary from UBV photometry 2−68870
NGC 2547, southern open cluster, UBV and Hβ obs. rel. to basic parameters and luminosity function 2−58416
NGC 3114, open cluster, distance, age and colour excess, uvbyβ photometry 2−94800
NGC 3603, UBV photometry of star cluster rel. to distance of giant H II region 2−68864
NGC 6397, globular cluster core, optical struct. from BV obs. 2−89321
NGC 6664, open cluster, intermediate-band photometry 2−106823
NGC 6823 field, stellar photometry and spectra rel. to struct of inner edge of local spiral arm *(Russian)* 2−94831
NGC 7006, anomalous globular cluster, IR colour-magnitude diagram and spectra rel. to second parameter 2−68843
NGC 7528 H II complex, IR sources 1/2. assoc. visible stars extinction 2−79191
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109
Nova 5 in M31, discovery, H and blue magnitudes and precise position 2−117684
Nova Aquilae 1982, 2.3 to 20.0 m photometry (1982 July 3) 2−94750
Nova Aquilae 1982, optical and IR magnitudes (1982 April 14) 2−68790
nova like objects in M31 central region, B-obs. 2−63445
NP 0532, spectrum, IR fluxes and pulse shapes, JHKL obs. 2−63488
O-A0 stars near galactic equator, uvbyβ photometry 2−106700
OAO-2 photometry and spectrophotometry, presentation supported by UBV, ANS and TD1 obs. 2−58329
OB stars in galactic halo, spectra and photometry rel. to atmospheric parameters and chemical comps. 2−106706
Odessa Astronomical Observatory catalogue, comparison with Vilnius Observatory and Johnson and Mitchell's catalogues *(Russian)* 2−78980
Of stars in open cluster C1715−387 radiation distrib. from VRI and JHKL obs. 2−89317
open cluster Be stars, CM diagram anal. 2−84289
open cluster blue stragglers, stars exhibiting peculiar characts., CM diagram anal. 2−84288
open clusters, colour-magnitude diagrams rel. to galactic struct. 2−106557
open clusters, UBV data for young clusters rel. to initial mass function 2−89320
V1022 Ophiuchi, W UMa-type binary, period from BV photometry 2−84272
RZ Ophiuchi (BD+7°3832), supergiant eclipsing binary, VBLUW photometry rel. to eclipse of accretion disc 2−106788
CN Orionis, dwarf nova, periodic light vars. obs. 2−68787
VV Orionis, multiple eclipsing binary, stars nature from UBV uvby obs. 2−112494
α Orionis, semi-regular variable, BV photometry 2−58365
Pal 14 globular cluster giant branch colour magnitude relation 2−89315
peculiar B and A stars, spectrophotometry 2−112457
DI Pegasi, eclipsing binary, evolutionary status and UBV photometry obs. 2−58386
II Pegasi, RS Canum Venaticorum type star, UBVR photometry during (1981) 2−106798
BB Pegasi, W Ursae Majoris star, light curve synthesis 2−79157
AQ Pegasi β Persei stars, VB light curve anal. 2−58389
Pegasus dwarf irregular galaxy, photometry of resolved stars 2−63617
KP Persei, β Cephei type star, photoelectric obs. and anal. of variability 2−74000
DM Persei, Algol type eclipsing binary, BV obs. 2−63518
XY Persei, antiflare star, photographic investigation of light variability *(Russian)* 2−73984
AX Persei, symbiotic star, orbital period from light curve anal. 2−63461
PG 1550+191, AM Herculis star, polarisation and period, visible obs. 2−84265
AE Phoenicis in 1978, W Ursae Majoris stars, light curve, rot. effects 2−84279
photoelectric photometer for National Astronomical Observatory 60 cm Cassegrain telescope 2−117602
photoelectric photometry, performance of high-speed two-channel satellite electrophotometer *(Russian)* 2−94605
photoelectric photometry in mediocre climate 2−112125

stellar photometry continued
photoelectric system for Tokyo Observatory 30 cm reflector *(Japanese)* 2−68619
RR Pictoris, cataclysmic binary, light/colour curves interpretation, visible photometric/polarisation obs. 2−89271
SZ Piscium, eclipsing RS CVn star, light curve and components, model implications 2−74013
RZ Piscium, RW Aurigae star, model from UBV photometry 2−63401
59 Piscium, suspected δ Scuti star, photometric constancy from photoelectric obs. 2−106704
Pleiades brightest stars, interstellar extinction and age from UV/visible obs. 2−63545
Pleiades flare stars, UBV obs. 2−63544
protostar in SMC H II region N76B, nature and IR obs. 2−100928
Puppis field, photoelectric UBV sequence, extinction 2−106817
RC 0050-2722, very low luminosity dwarf star, optical and near IR spectrophotometry 2−79097
red giant variable stars in 47 Tucanae, photometric obs. 2−79125
red giants in galactic bulge toward NGC 6522, luminosity and color-magnitude diagram 2−100924
red stars near dark cloud L1454, catalogue and VI photometry 2−106560
reduction of photoelectric photometry 2−63383
2 S 0921−630, optical counterpart eclipsing binary, light curve anal. 2−106789
U Sagittae, Algol system mass transfer and subgiant radius var., uvbyl obs. 2−74027
GY Sagittae, Cepheid nature and membership of OB assoc., visible obs. 2−100933
HM Sagittae, symbiotic star, IR and visual photometric obs. *(Russian)* 2−63465
RY Sagittarii, R Coronae Borealis variable, circumstellar extinction meas. from UV spectrophotometry 2−106747
EY Sagittarii, supposed Cepheid variable, probably nonvariable from BVR_cI_c photometry 2−94739
V348 Sagittarii, uvby photometry during August 1981 fading 2−106736
SAO selected stars, VI photometry 2−73962
scintillation wavelength dependence meas. at Mauna Kea, Hawaii 2−73681
V861 Scorpii, eclipsing binary, wind parameters and evolutionary status, spectra/photometry anal. 2−68834
δ Scuti, refinement of fundamental pulsation freq. from photoelectric UBV photometry 2−79122
Selected Area 133 F, galactic centre field, interstellar reddening and stellar types identification 2−100903
Selected Areas 128 and 156, interstellar dust distrib. from *uvbyβ* obs. 2−101021
CV Serpentis, UBVR photometry and WC8 star charcts. *(Russian)* 2−74033
Sextans A, Im Y dwarf galaxy, brightest stars distance and absolute magnitudes, obs. 2−101035
Sharpless 106, bipolar nebula, field stars UBVRI obs. 2−68856
Small Magellanic Cloud clusters luminosity functions, age and comp., B obs. 2−74037
SN 1980k, bright type II supernova in NGC 6946, UBV photometric obs. 2−106760
SN in NGC 4536, photometric obs. (1981 March-July) *(Russian)* 2−74001
solar array appl. during nighttime operation 2−73843
southern stars, radial vel., BV colours and magnitudes for 339 stars 2−94709
spectral classification of stars, appl. of photometric methods *(Russian)* 2−94705
spectrophotometric standard stars, energy distribs. in continuous spectra *(Russian)* 2−94704
star counts, predicted, in selected fields and photometric bands, appls. to galactic struct. 2−63539
supergiants, yellow, reddening from BVRI data 2−89251
supernova in NGC 1332, circumstellar dust shell form. and K-band magnitude 2−117690
supernova in NGC 7713, confirmation, spectroscopic obs. and BV photometry 2−106759
surface brightness parameter from VRI_c system transform. 2−73960
SV Tauri, Algol-type binary system, photoelectric UBV photometry 2−94781
DR Tauri, T Tauri star, field, magnitudes for comparison star sequence 2−94716
DF Tauri, T Tauri star, UBVRI photometry rel. to rapid light vars. 2−100919
V711 Tauri (HR 1099), RS Canum Venaticorum star, BV photometry and light curve, January and February, (1982) 2−112499
BU Tauri (Pleione), 1980-2 photometry of shell star 2−79118
BU Tauri (Pleione), shell star, UBLUW meas. (1977 to 1981) 2−94741
T Tauri stars, linear polarisation and colour 2−58345
T Tauri stars, optical and IR photometry rel. to charact. max. temp. in circumstellar dust 2−73964
RV Tauri stars and yellow semiregular variables, UBV photometry 2−106749
Trumpler 16, open cluster, two colour diagram, UBVRI obs. 2−101002
47 Tucanae, globular cluster, equidensitometry and photometry 2−74038
47 Tucanae, photometry and spectra rel. to anticorrelation of C and N on horizontal branch 2−63541
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
4U 2129+47, neutron star accretion disc model scatt. radiation, obs. 2−94771
UBVRI photometry of late-type stars 2−79090
Upgren 1, open cluster membership and radial vel., UBVRI and spectral obs. 2−94799
AN Ursae Majoris, AM Herculis star, 1979 minimum, energy distrib., visible obs. 2−63423
AN Ursae Majoris, AM Herculis star, two second variability 2−94777
Be Ursae Majoris, eclipsing red dwarf and hot subdwarf, model constraints from photometry 2−94791
W Ursae Majoris, light curve, BV obs. 2−58403
W Ursae Majoris, light minimum times and (O-C) residuals 2−58398
W Ursae Majoris, new photoelectric times of minima (1976 to 1982) 2−89309
AN Ursae Majoris, polar, BV photometry during low state (1982 March 20 and April 20) 2−74025
XY Ursae Majoris, RS Canum Venaticorum star, UBVR photometric obs. during (1982) 2−94785
stellar photometry continued
AW Ursae Majoris, W Ursae Majoris star, light curve anal. 2−117707
W Ursae Majoris (BD+56°1400), eclipsing binary star, photoelectric obs. 2−89306
W Ursae Majoris stars, BV photoelectric light curves rel. to parameters of systems 2−58393
W Ursae Majoris stars survey in uvby system 2−106784
UV intrinsic colours of normal stars (06.5V-K3III) 2−101138
uvbyβ photometry, rel. to accuracy of interstellar reddenings derived from H I and galaxy counts 2−106838
variable, microvariable or suspected variable stars detected in Geneva photometry, list 2−100766
variable stars, newly discovered, in Cygnus, approximate positions, finding charts, and BV photometry 2−84109
new variable stars in direction of Sagittarius bright cloud B, astrometric and photometric catalogue 2−112348
Vela II, RGU photographic photometry of five open clusters 2−106826
Vela II field reddening function, density and luminosity functions, RGU obs. 2−106861
BH Virginis, eclipsing binary, variable light curve, relation to RS CVn stars, B-obs. 2−63512
AZ Virginis, W Ursae Majoris star, photometric elements 2−112492
ρ Virginis (HR 4828), possible Maia type variable, photoelectric and spectrographic obs. 2−112441
visual binaries with late type giant primaries, uvbyβ photometry rel. to models/isochrones 2−100978
visual double stars, absolute magnitudes and errors, uvbyβ photometry obs. 2−68818
ER Vulpeculae, eclipsing binary star, UBVR photometric obs. during (1981) 2−58404
PU Vulpeculae, optical variability in 1979 to 1981 from UBV photometry 2−63444
WD 77581, X-ray binary, light curve anal., UBV obs. *(Russian)* 2−68828
white dwarfs, obs. 2−73968
white dwarfs in open clusters, turnoff mass leading to progenitor mass limit determ. 2−68763
Wolf-Rayet stars, IUE UV spectrophotometry 2−58360
yellow semiregular variables and RV Tauri stars UBV photometry 2−106749
ZB 33, very short period variable star, spectroscopic and photographic obs. *(French)* 2−63447
C stars, 3 μm absorpt. anal. circumstellar emission, IR spectra/photometry obs. 2−73974
C stars, cool, spectra, colours and HR diagram anal. 2−73969
C stars, UV radation intensity, visible obs. 2−58339
C stars in Carina dwarf spheroidal galaxy, spectra and photometry rel. to galaxy age 2−68774
C stars in Draco dwarf spheroidal galaxy, spectra and photometry 2−68723
Hα emission line stars near Bok globules round α Muscae, star form. 2−94819

stellar positions *see astrometry*

stellar pulsations
3000 $M_\odot$ star, vibrational instability rel. to R136a problem 2−79083
δ /Cephei, turbulence during pulsations from spectral anal. 2−106721
r-mode oscillations in uniformly rotating stars 2−84214
adiabatic stars, oscillatory models 2−58325
o Andromedae, Be star, search for short-term radial-velocity vars. 2−73988
R Aquarii, eclipsing symbiotic star, light curve, 1933 to 1981 rel. to Mira vars. 2−100942
IM Aquilae, RR Lyrae star, period changes obs. 2−100947
BD+13°3224, pulsating H-deficient star, period, uvby obs. 2−63451
binary star components, forced oscillations, toroidal modes due to varying gravit. pot. 2−106786
binary stars uniformly synchronously rotating component, linear adiabatic oscills. 2−63506
black holes, oscillating, pulsar model 2−94764
α Bootis, search for oscills., visible spectral obs. 2−68755
28 Canis Majoris, Be star, photometric and spectroscopic periods differences, obs. 2−100934
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
Y Canum Venaticorum, semiregular variable, photometric obs., (1980 to 1981) 2−100946
TW Capricorni, W Virginis star, light curve obs., 1978 to 1979, rel. to period changes 2−100944
κ Cassiopeiae, B-type supergiant star, pulsation periods from obs. of light variability 2−94715
β Cassiopeiae, delta Scuti star, radial vel. var. visible obs. 2−94757
AB Cassiopeiae, eclipsing binary star, δ Scuti pulsational groups. of hot component from BV photometry 2−106733
β Cephei, atmospheric velocity field from UV line profiles 2−84240
EM Cephei, short-period variable Be star, spectroscopy 2−112466
μ Cephei, SRc star, light var. and pulsations, anal. 2−106722
β Cephei stars, nonradial pulsations, g-modes and r-modes 2−68778
β Cephei stars pulsations, excitation mechanisms and He capacity bump 2−94758
Cepheid instability strip, left hand side, vibr. stability against nonradial oscills. 2−73998
Cepheid variables, periods distrib. rel. to evolution of massive stars 2−106682
Cepheid variables, short-period, radii and masses from photometric and radial vel. study 2−112452
Cepheid variables, short-period, simultaneous photometric and radial velocity study 2−63442
Cepheid variables in LMC, intrinsic relations, interstellar reddenings and period-luminosity relation 2−58353
Cepheid variables with periods between one and three days, photoelectric UBV photometry 2−58361
classical Cepheids, resonance phenomena 2−79116
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
convection, time-dependent, coupling with pulsation, effect of turbulent visc. 2−89240
convective stellar models with radiation press., adiabatic oscill., mag. field effect 2−94701
R Coronae Borealis, 49-day cycle detect. from photometric obs., (1980 to 1981) 2−100946

stellar pulsations continued
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
CSV 5885, 8736, pulsating variable stars, light elements from Sky-patrol-plates obs. elements from Sky-patrol-plates obs. 2−112459
X Cygni, Cepheid, turbulence during pulsation from spectra anal. 2−106721
ZZ Cygni, eclipsing binary, photometric obs. and search for δ Scuti-type pulsations 2−68819
χ Cygni, Mira variable, photospheric pulsations and circumstellar shell from IR spectra 2−58348
XZ Cygni, RR Lyrae star, appl. of integral method for light curve plotting and mean radius determ. *(Russian)* 2−94734
V802 Cygni, RR Lyrae star, period revision and amplitude change obs. 2−100948
S Eridani, identification as δ Scuti star from photometric obs. 2−58363
figures of equilibrium, lateral oscill. modes 2−106523
G117-B15A, ZZ Ceti star binary, pulsation period from photometry anal. 2−68761
gamma-ray due to neutron star vibrs. 2−68931
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
H 1909+096, X-ray binary, X-ray pulsations, neutron star pulsation models 2−94774
HD 200925, Cepheid, mass, evolutionary status and period, UBV obs. 2−58355
HD 208664, δ Scuti star, freq. anal. BV obs. 2−100953
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HD 65227, new short period Cepheid of very small amplitude, photometric obs. 2−63446
HD 78616 (Q.81), new β Cephei star in Harvard Standard Region E4, photometric obs. rel. to period and light curve 2−94736
BL Herculis models, pulsation modes effect on light curve 2−58352
BL Herculis stars, theoretical models for field variables rel. to light curves 2−112450
BL Herculis stars in globular clusters, investigation of period changes 2−79101
HR 5049, binary Co Ap star, pulsations and orbit determ. 2−106742
HR 7308, peculiar classical Cepheid, results from radial vel. meas. and BV photometry 2−89272
HR 7308, peculiar classical Cepheid, UBVRI photometry rel. to pulsation mode 2−106746
HR 7308, unique Cepheid variable, amplitude modulation period from 1981 light curve 2−100941
ionisation-dissociation shock waves in stellar envelopes, calc. of parameters *(Russian)* 2−73956
KW 207 (HD 73576), δ Scuti star, evidence for radial and nonradial pulsations from photoelectric obs. 2−106718
L19-2, ZZ Ceti star, oscillation, photometric obs. 2−100929
ε Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
20 Leonis B (HR 3889), Scuti star, pulsation props. from photoelectric obs. 2−89276
LMC Mira variables, pulsational props., JHK photometry obs. 2−63455
long-period variables, theoretical growth rates, periods and pulsation consts. 2−106715
RR Lyrae stars, radial pulsations thermodynamic coupling with convection *(Chinese)* 2−79114
magnetic stars, stability and oscillations 2−100908
Mira variables, atm. expansion due to pulsations, effect on spectra period, expansion 2−106729
multimode stellar pulsations, theory of anharmonic oscillations 2−106673
R Muscae, Cepheid variable, UV, optical and IR obs. 2−89273
neutron star pulsations 2−106518
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109
p-modes, distrib. law 2−84215
γ Pegasi, β Canis Majoris star, profile vars. of Si III lines and Mg II doublet 2−73982
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240
KP Persei, β Cephei type star, photoelectric obs. and anal. of variability 2−74000
53 Persei stars, nonradial pulsations, g-modes and r-modes 2−68778
SX Phoenicis, AI Velorum star, fundamental and overtone periods rate of change 2−63454
59 Piscium, suspected δ Scuti star, photometric constancy from photoelectric obs. 2−106704
polytrope index 5 with finite radius, physical characts. and radial oscills. 2−106685
R548 (≡ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
radial oscillations, calc. of lowest eigenvalue in stability problem via Schwartz iteration 2−106671
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
red giant variable stars in 47 Tucanae, periods and pulsation modes from photometric obs. 2−79125
resonances in multimode formalism 2−89232
rotating polytropes, struct. and oscills. 2−117662
RY Sagittarii, pulsating R Coronae Borealis star, period decrease rel. to evolution 2−112465
V1670 Sagittarii, Type II Cepheid variable, period and amplitude determ. 2−100943
σ Scorpii, β Cephei star, pulsation of outer layers 2−89274
δ Scuti, refinement of fundamental pulsation freq. from photoelectric UBV photometry 2−79122
MY Scuti, RR Lyrae star, period determ., linear and parabolic elements 2−100945
δ Scuti stars, correl. between Mg II emission line widths and pulsation period 2−73981
δ Scuti stars, pulsational mode typing from line profile-model comparison 2−63424
δ Scuti stars in eclipsing binary systems, absolute magnitudes, rot. vels. and pulsation consts. 2−106733
semiregular variable stars, short-period, with maser emission 2−63420
small adiabatic oscillations of stellar models, effect of rot. and tidal distortions on pulsation periods 2−106675
solar 5-minute oscillations, evidence for oblique magnetic solar rotator 2−100863
stellar pulsations continued
solar interior, gravit. oscills. rel. to neutrino brightness vars. obs. *(Russian)* 2−89226
solar low-l five-minute oscillation, implications for solar struct. 2−89220
solar models and periods of oscillation, new programme for solar evolution sequences calc. 2−79070
solar oscillators, 160 min period obs. *(French)* 2−89222
solar quadrupole oscills., gravitational radiation generation 2−106645
solar umbral oscillations in a detailed model umbra 2−100882
Sun, convective properties rapid var., effect on solar variability 2−58316
Sun, detect. of 192 s oscillatory component at 8.6 mm wavelength *(French)* 2−63338
Sun, low degree 5-minute oscill. modes detect. from spectra obs. 2−84209
Sun, oblique magnetic rotator, evidence from rot. splitting of oscill. modes 2−63353
Sun, oscillatory mech. in thermal pulsations, rel. to solar neutrino counting rate 2−112419
Sun, rot. splitting of global oscills. rel. to internal rot. and gravit. quadrupole moment 2−100862
Sun and giant planets, free oscillations, review 2−100894
Sun evidence from chromosphere Ca II lines phase differences 2−58313
θ^2Tauri (HR 1412), δ Scuti star, pulsation props. from photoelectric obs. 2−79121
variable stars, chaotic oscillations from adiabatic nonlinear coupling between pairs of adiabatic radial linear modes 2−106725
variable stars in globular cluster M28 (NGC 6626), magnitudes, periods and positions 2−94626
α Virginis, line profile var. due to rot. and β Cephei pulsation effects 2−63459
BW Vulpeculae, β Cephei type variable, pulsation of outer layers 2−73980
SV Vulpeculae, Cepheid, turbulence during pulsation from spectra anal. 2−106721
PU Vulpeculae, periodic vars. at maximum light, 1979 to 1981, from UBV photometry 2−63444
wave-rotation interaction, rel. to active picture of differential rot. 2−79082
X-ray bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
ZB 33, very short period variable star, spectroscopic and photographic obs. *(French)* 2−63447
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229

stellar radiation
see also solar radiation; stellar photometry
γ-ray burst source (1979 March 5) neutron star accretion mechanism *(Chinese)* 2−79246
2A 0526−328, X-ray cataclysmic variable, radial vel. and photometric periods from optical and X-ray study 2−112506
A 0538−66, 69 ms periodic X-ray pulsations discovered 2−89314
3A 0729+103, identification with cataclysmic variable and photometric and spectroscopic obs. 2−63521
Abell 41, planetary nebula, nucleus, ultra-short-period binary star, orbital period from light vars. 2−94718
accreting neutron stars, He shell flash and X-ray burst 2−94766
accreting nonmagnetic degenerate dwarfs, X-ray and UV radiation 2−117670
accretion disc winds driven by super-Eddington luminosities, thermal and spectral props. 2−84076
accretion disc winds driven by super-Eddington velocities, dynamical theory 2−84075
Algol-like binaries, hot and cool components optical fluxes, visible obs. 2−89296
Algol-like binary stars, transient photometric disturbances obs. 2−112483
Am stars, effective temps., radii and bolometric magnitudes from spectrophotometric studies 2−84238
ο Andromedae, recurrent shell star, linear polarisation obs. in April 1982 rel. to new shell episode 2−94737
λ Andromedae, RS Canum Venaticorum star, relation between Hα emission and continuum intensity vars. 2−89305
Ap stars, physical parameters, relations from energy distrib. curves 2−58356
R Aquarii, symbiotic star, discovery and photometry of elongated extension of stellar image 2−117685
V794 Aquilae, cataclysmic variable star, short-term light vars. detect. by high speed photometry 2−106732
IM Aquilae, RR Lyrae star, period changes obs. 2−100947
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
V1343 Aquilae (SS 433), early type star+secondary accretion disc luminosities 2−63471
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433), photometric behaviour in 1979 and (1980) 2−68782
V1343 Aquilae (SS 433) accretion disc luminosity and false expanding photosphere 2−63469
RV Arietis, brightness var. obs. using SBG satellite-borne camera *(Russian)* 2−79113
γ and 56 Arietis, magnetic Ap stars, relation between H lines vars. and colour indices 2−94745
UX Arietis, RS Canum Venaticorum star, UBVR photometry during 1981 2−94784
TT Arietis, UV continuum intensity comparison with optically thick accretion disc models 2−94730
SU Aurigae, T Tauri star, photometric props. rel. to rapid and slow spectrum vars. 2−100920
KR Aurigae, unique variable star and X-ray source, new optical minimum obs., (December 1981) 2−63443
α Aurigae (Capella), X-ray spectrum obs. rel. to coronal struct. and UV emission 2−112485
B-type stars, Hβ scale for absolute magnitudes and distances of Orion association stars 2−106692
B-type stars, intrinsic colours on Geneva photometric system 2−112440
B-type supergiant stars, X-ray luminosities from UV reson. lines 2−84228
BD+40°4145, member of NGC 6910, variability obs. from BV photometry 2−106734
Be-type stars in Pleiades, energy distrib. from UV/visible photometry obs. 2−63545

stellar radiation continued
binary star, quasiperiodic, grav. radiation calc. 2−100989
binary stars, penetration and circulation currents in irradiated spherically symmetric stellar atmospheres 2−112433
binary stars, polarimetric vars. rel. to inclinations 2−73992
binary system, black hole+normal star, stellar radiation freq. shift 2−79139
binary systems, X-ray induced winds, hydrodynamics models 2−94700
black holes, constraints on gamma-ray production by spherical accretion with e^+-e^- pair prod. 2−68808
black holes, spherical accretion and synchrotron emission 2−79136
i=44 Bootis, BV light curves 2−84269
broadband linear polarisation from magnetised stellar atmospheres numerical tables for mag. intensification mechanism 2−112431
burst of March 5 1979, origin rel. to short γ-bursts 2−106956
C stars, opacity and thermal struct. of model atmospheres 2−112426
AO Camelopardalis, UBV light curves of W UMa system 2−84285
CU Cancri (G9-8), flare star, flare light curve from photoelectric UBVR photometry 2−73990
α Canis Majoris B (Sirius B), white dwarf, implications of UV and X-ray emission *(French)* 2−73972
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
RS Canum Venaticorum stars, MK standards, visible energy distrib. and temp. 2−74012
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
RS Canum Venaticorum stars wave like distortion in light curve, anal. 2−63505
TW Capricorni, W Virginis star, light curve obs., 1978 to 1979, rel. to period changes 2−100944
ST Carinae, β Lyrae type eclipsing binary, light and colour curves from UBV photometry 2−106812
OY Carinae, dwarf nova, near IR light curves 2−112464
QX Carinae, uvby lightcurves and orbit of eclipsing binary 2−106796
α Caris majoris (Sirius), model atmospheres rel. to anal. of spectrum and colour indices 2−84232
γ Cassiopeia, Be star, X-ray flux and spectrum, obs. 2−63460
κ Cassiopeiae, B-type supergiant star, obs. of short-period light variability 2−94715
SX Cassiopeiae, Be+giant stars, eclipsing model for continuum and spectral emission 2−84263
PV Cassiopeiae, eclipsing binary star, apsidal motion meas. from photoelectric times of minima 2−106776
cataclysmic binaries, disk radiation, chromosphere model 2−79102
cataclysmic binary stars, radiation emissions and accretion 2−100959
cataclysmic variable candidates from Palomar Green survey, spectroscopic classifications and emission line fluxes 2−106748
α Centauri A and B, individual X-ray sources, coronal emission, obs. 2−58336
HI Cephei, eclipsing binary star, magnitudes and times of minima from photographic obs. 2−94738
VV Cephei, evidence for radiative accel. of Hα emission envelope around early-type component 2−68827
VW Cephei, W UMa system, photoelectric obs. and light curve vars. 2−79150
VW Cephei, W Ursae majoris star, 2.2 μm light curve and epoch of primary minimum 2−106797
VW Cephei, W Ursae Majoris star, new photoelectric light curves 2−89307
VW Cephei, W Ursae Majoris star, starspot model for light curve vars. 2−106783
Cepheid B-type companions, absolute mag. and spectral type used for age determ. 2−68796
Cepheid period-luminosity-colour relation unsuitability as distance indicator 2−106728
Cepheid variables, dynamic coupling of convection and pulsation, effect of turbulent viscosity 2−89240
Cepheid variables, short period, trajectories in two-colour diagrams rel. to presence of companion 2−100939
Cepheid variables in LMC, intrinsic relations, interstellar reddenings and period-luminosity relation 2−58353
Cepheids, heavy element opacities reexamination 2−117680
Cepheids, period-luminosity relation zero point refining from kinematic obs. 2−106752
ZZ Ceti stars, mean temp. and DA instability strip edge 2−94712
Circinus X-1, X-ray spectrum obs. in low state 2−112504
circumstellar envelopes, light polarization by scattering in single stars 2−89246
cluster stars, colour-magnitude diagrams for young open clusters rel. to initial mass function 2−89320
continuous spectrum, effects of departures from LTE in solar atmosphere *(Russian)* 2−73926
convective atmosphere stars, modified mixing-length theory for model atmospheres rel. to spectral energy distrib. 2−112427
convective model stellar atmospheres, study using modified mixing-length theory 2−112427
cool high polarisation stars, circumstellar dust extinction and luminosity 2−94858
cool non DA white dwarfs, surface flux and IR colours, freq. distrib. 2−84226
cool stars, stellar systems and Sun, workshop, Cambridge, Massachusetts, (1981 October 21 to 23) 2−94916
cool starts with magnetic structures, expected broadband linear polarisation 2−89241
coronae, contrib. of optically thin radiation to energy balance 2−112424
coronae, effect of heating on energy balance and radiative losses 2−112425
S Coronae Austrinae, YY Orionis type star, peculiarities of activity and envelope 2−68770
U Coronae Borealis, eclipsing binary, times of minima rel. to presence of third component 2−100981
β Coronae Borealis, magnetic Ap star, relation between colour indices and H lines equivalent widths 2−94745
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
R Coronae Borealis stars, spectral energy distribs. and absolute magnitudes *(Russian)* 2−73985
coronal X-ray emission, H I 10830 Å line as emission measure 2−117660
CW 1103+254, AM Herculis star, optical and IR light curves and circular polarisation vars. 2−94751
stellar radiation continued
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
CG Cygni, eclipsing binary, light curve distortion behaviour from UBVR photometry during (1981) 2−79160
ZZ Cygni, eclipsing binary, photometric obs. and search for δ Scuti-type pulsations 2−68819
V836 Cygni, eclipsing binary star, light and colour curves from photoelectric obs. 2−74023
CI Cygni, eclipsing symbiotic star; visual and photogrpahic light curves, (1967 to 1981) 2−100949
V1057 Cygni, FU Orionis star, circumstellar and photospheric IR emission rel. to IR photometry 2−89262
XZ Cygni, RR Lyrae star, appl. of integral method for light curve plotting and mean radius determ. *(Russian)* 2−94734
V802 Cygni, RR Lyrae star, period revision and amplitude change obs. 2−100948
φ Cygni, spectroscopic binary, mass, orbit and luminosity, speckle interferometric obs. 2−79149
CI Cygni, symbiotic star, H vars. and near IR monochromatic magnitude 2−68789
CH Cygni, symbiotic star, rapid light vars. obs. during (1981) *(Russian)* 2−112470
CI Cygni, symbiotic star, UV obs. of 1980 eclipse 2−63437
V444 Cygni, Wolf-Rayet eclipsing binary, approximation of narrow-band light curve via special polynomials *(Russian)* 2−94779
Cygnus OB2 star 12, supergiant IR energy distrib., obs. 2−94796
Cygnus X-1, Compton-cooled feedback mechanism for high and low spectral states 2−63529
Cygnus X-1, hard X-ray spectrum obs. 2−74015
Cygnus X-1, reddening, supergiant light var. and distance 2−63530
Cygnus X-3, OSO-8 X-ray obs., period 2−106780
Cygnus X-3, spectral energy distrib. in binary star model with pulsar component 2−106781
S Doradus, continuum energy distrib. and spectra variations, obs. 2−94729
BY Draconis, flare star, photoelectric UBV obs. ion 1980 and (1982) 2−112460
29 Draconis, probable new RS Canum Venaticorum star, BV photometry and light var. characts. 2−58405
BW Draconis, W Ursae Majoris star, times of photoelectric minima from BV photometry 2−84282
dwarf cataclysmic binary stars, effect of gravit. wave radiation on mass exchange and evolution *(Russian)* 2−106751
dwarf nova outbursts and convective accretion disks 2−117679
dwarf novae, influence of tidal effects on accretion disc emergent radiation spectrum 2−79126
dwarf novae, viscous boundary layer and hard X-rays 2−79103
dwarf novae viscous accretion disc outbursts and mass flow, light curve anal. 2−63456
E 1405−451, AM Herculis-type binary evidence from polarization 2−68822
E 1405−451, E 1013−477, AM Herculis stars, light vars. and spectra 2−63378
E 1551+718, uncatalogued dwarf nova, X-ray flux and visual magnitudes 2−106965
early-type stars, Geneva photometric boxes rel. to interstellar reddening towards galactic poles 2−58327
early-type stars, spectrophotometric atlas of mid-UV spectra with 1.8 Å resolution 2−63278
early-type ultra-short period variables, photometric obs. 2−63410
eclipsing binary stars, approximation of light loss curves via special polynomials *(Russian)* 2−94779
eclipsing binary stars, periodic ephemerides for 49 systems 2−106809
eclipsing binary stars elements in frequency domain 2−58384
eclipsing binary stars in southern hemisphere, times of minima 2−112495
Eddington flux from dust shell, second spherical exponential integral 2−100901
ellipsoidal variable stars, photometric discovery of five new objects 2−112496
UX Eridani, eclipsing binary star, photoelectric minimum light times obs. 2−68820
extreme C stars, optical spectropolarimetry rel. to circumstellar dust shells morphology 2−112447
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
F and G-type stars, mass and luminosity rel. to models of circumstellar protoplanetary discs *(Russian)* 2−106687
F-type stars, X-ray luminosity function from magnitude limited stellar X-ray survey 2−112422
Feige 4, DB-type white dwarf and suspected EUV source, IUE spectra 2−106712
field stars X-ray emission, survey 2−68722
flare spectral signatures response to atm. struct. var. 2−89231
flare stars, continuum emission in fast electron hypothesis, book 2−68984
flare stars, gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons 2−106494
flare stars, newly discovered, in γ Cygni region, U-magnitudes and flare amplitudes 2−73862
flare stars in Orion and Pleiades, colour indices, UBV obs. 2−58357
flare stars in Orion Nebula, U-band magnitudes and flare amplitudes 2−73863
flare stars in Praesepe region, U-band magnitudes and flare amplitudes 2−78983
flux distribs., reflected and external radiation effects 2−89233
galactic disc, stellar luminosity function from star counts in selected fields and photometric bands 2−63539
galaxies, energy distribs. of spiral and irregular galaxies from UV photometry by OAO 2−74077
gamma ray burst of 1980 April, 19 origin from neutron star and spectrum var. 2−58495
gamma ray burst sources, burst continua and possible cyclotron absorpt. lines, interpretation 2−58497
gamma ray burst sources, low energy spectra, source physical conditions and geometry 2−58496
gamma ray bursters, burst luminosity 2−58492
gamma ray transients, neutron stars, line formation processes and anal. 2−58498
gamma-ray burst of 1979 March 5, model involving neutron star accretion *(Chinese)* 2−63708

stellar radiation continued
gamma-ray burst source, neutron star thermonuclear model, mag. field effects 2−94861
gamma-ray burst sources, asteroid impact mechanism 2−94869
gamma-ray transients and related phenomena, conf., San Diego, USA (Aug. 1981) 2−53408
U Geminorum, dwarf nova, IR light curve anal., system nature, JHK obs. 2−100931
OT Geminorum (HD 58050), Be star, light variations from photoelectric BV photometry 2−73989
giant stars, chromospheric and transit on region emission obs. rel. to mag. struct. 2−89261
giant stars, late type, UV excess and Li content, model 2−58342
Gliese 867B, flare star, characts. and light curves of flares from photoelectric obs. (1981 October 1) 2−79120
globular clusters, influence of C and N abundances on turn-off luminosity 2−106679
GR 306, new suspected variable in Pegasus, photographic obs. 2−94738
V Gruis, eclipsing binary star, new orbital period and light curve from photometric obs. 2−112495
GX349+2, GX17+2, flaring X-ray sources, evidence for periodicity in X-ray intensities 2−94867
GX 301−2 (4U 1223−62), pulsating X-ray source, X-ray flare obs. (1982 April 5 to 7) 2−63522
GX 339−4, accretion flow cyclotron radiation 2−94776
GX 339-4, optical counterpart, fast optical activity, accretion disc origin, visible obs. 2−84276
H 0139−68, AM Herculis star, light curve from high speed photometric obs. 2−63517
H 1741−280, soft X-ray transient, discovery, approximate position, and X-ray flux 2−89408
H 2215−086, optical counterpart light curve anal., orbital/rot. effects, visible obs. 2−74011
HD 122563, metal-poor giant star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
HD 191765, binary Wolf-Rayet star, mass and optical luminosity of companion *(Russian)* 2−100957
HD 193793, WN7 star, 0.12-12.5 μm range energy distrib. 2−84236
HD 224113, Algol-type binary, evidence for proximity effects from uvby photometry 2−94783
HD 25329, subdwarf star, Rayleigh scatt. rel. to thirteen-colour photometry 2−73975
HD 27130, eclipsing binary in Hyades, obs. rel. to mass-luminosity relation and cluster distance 2−68811
HD 29647, Hg-Mn star, radial vel. distance and luminosity, visible obs. *(Russian)* 2−68794
HD 37022, in Orion Nebula, polarisation obs. of light from assoc. nebula 2−68873
HD 37776, intermediate He star, confirmation of light variability 2−84229
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HD 80077, B2 supergiant spectroscopic binary, luminosity and period, visible obs. 2−100923
HD 90657, WN4+O4-6 Wolf-Rayet binary, light vars., orbital elements and masses 2−106716
HDE 283809, B-type star in direction of Taurus dark cloud, spectral energy distrib. *(Russian)* 2−112444
HZ Herculis, circulation currents in irradiated stellar atmosphere rel. to light curve 2−112433
TX Herculis, detached close binary system, light minimum times rel. to period behaviour 2−74018
AM Herculis, multiwavelength obs. during low state 2−89299
AM Herculis, radio emission detect., origin in white dwarf magnetosphere, model and SHF obs. 2−74020
AM Herculis, visual mag. estimates (1982 May) 2−79167
AM Herculis, visual magnitude estimates, (1982 June 23 to July 8) 2−106804
AM Herculis (3U 1809+50), new optical decline, visual magnitude estimates (1982 March 29 and April 19) 2−68823
AM Herculis (3U 1809+50), visual magnitude estimate, (1982 April 16) 2−68824
BL Herculis models, pulsation modes effect on light curve 2−58352
BL Herculis stars, luminosities of field variables rel. to theoretical models 2−112450
BL Herculis stars in globular clusters, investigation of period changes 2−79101
HH100, photometric obs. of nearby variable IR source 2−94816
horizontal branch stars, He flash core overshooting and colour var. 2−63411
hot DB dwarfs, Einstein obs. of soft X-ray luminosities 2−89255
hot stars, X-ray emission from shocks in line driven winds 2−68732
HR 7308, peculiar classical Cepheid, absolute magnitude and effective temp. from UBVRI photometry 2−106746
HR 7308, peculiar classical Cepheid, mass, radius and luminosity from radial vels. and BV photometry 2−89272
HR 7308, unique Cepheid variable, photoelectric light curve during (1981) 2−100941
RY Indi, β Lyrae type eclipsing binary, light and colour curves from UBV photometry 2−106812
interstellar giant shells driven by field star radiation press., runaway expansion 2−68846
interstellar polarisation curves, meas. using simultaneous IR/optical polarimeter 2−106540
IR stars, OH and H_2O maser sources evolution 2−112541
IRC+10216 (CW Leonis), circumstellar molecular emission and mass loss rate 2−68928
irreversible thermodynamics in radiating fluid, theory 2−112428
KW 207 (HD 73576), δ Scuti star, evidence for radial and nonradial pulsations from photoelectric obs. 2−106718
EV Lacertae, flare star, flares characts. from photoelectric obs. during (1976) 2−106735
EV Lacertae, flare star, photometric props. and light curves of three flares, 1981 September 28 to October 3 2−84244
EV Lacertae, flare star, superflare occurrence, U-obs. *(Russian)* 2−68793
EV Lacertae, flare star, UBV photometric characts. of flares during 1981 2−84243
AR Lacertae, RS Canum Venaticorum type binary star, photoelectric photometry (1976 to 1977) 2−106810
Lanning 10, eclipsing cataclysmic variable, accretion disc brightness struct. 2−58321
stellar radiation continued
late type giant stars, chromospheric Ca II and Hϵ lines, photoelectric measures 2−89250
late-type main-sequence stars, rot. vels. rel. to Ca II H and K emission and mag. struct. 2−68764
X Leonis, dwarf nova, visual magnitude obs., (1970 to 1979) 2−106737
AM Leonis, W Ursae Majoris star, light curve vars. from BV and narrow band obs. 2−84274
XY Leonis, W Ursae Majoris star, new times of minima and orbital period vars. 2−106800
20 Leonis B (HR 3889), Scuti star, photoelectric obs. 2−89276
LkHα 101, associated continuum radio source and surrounding H I cloud, UHF obs. 2−79186
LMC Mira variables, luminosity, period, mass, JHK photometry obs. 2−63455
LMC supergiants, effective temp. and radii, absolute flux and flux distrib. from UV obs. 2−101067
long-period variable stars, radiation press. on circumstellar dust rel. to mass loss rates 2−94748
long-period variables, masses and luminosities rel. to theoretical growth rates, periods and pulsation consts. 2−106715
low-mass main sequence stars, effects of semiconvection on colour-magnitude diagram 2−79084
LS I +61°303, radio X-ray binary, model of periodic radio emission, SHF obs. 2−68915
LSS 4064 and 4065, WR stars in C1715−387, radiation and mass loss 2−89317
luminosity functions in Milky Way field HD 95540, results from three colour photometry 2−58328
luminosity functions in RIJK bands from transform. from visual band 2−68727
luminosity relative to spectra digitisation 2−73849
RY Lupi, T Tauri star, variable circumstellar extinction as cause of optical and IR variability 2−79098
Lyman continuum photon production rate in M33 galaxy 2−112556
MV Lyrae, red+white dwarf model, X-ray emission, UV obs. 2−94726
α Lyrae (Vega), model atmospheres rel. to anal. of spectrum and colour indices 2−84232
RR Lyrae stars, model atm., absolute magnitude uvbyβ photometry obs. 2−63457
M31, obs. of optical warp of outermost isophotes 2−68887
M 31 bulge, far UV surface brightness distrib. rel. to hot evolved stars and star form. rate 2−63632
Magellanic clouds, hot stars flux distribution, winds and extinction law, UV spectral obs. 2−68891
magnetic Ap stars, calc. of Stokes parameters for line emission 2−94747
MC2 pulsars, distance and luminosity function 2−117698
microwave background produced by thermalisation of starlight by interstellar elongated grains 2−79248
Mira variables, shell expansion vel. rel. to period and 1 μm intensity var. 2−106729
AU Monocerotis, Algol system, light curve anal., luminosity and radii 2−63527
BM Monocerotis, Algol-type binary, light minimum timings rel. to orbital eccentricity and apsidal motion 2−100988
RW Monocerotis, Algol-type binary star, primary eclipse characts. from five-colour photometry 2−94782
BT Monocerotis (Nova 1939), eclipsing nova, accretion disc radius and luminosity 2−68776
SY Muscae, symbiotic star, JHKL magnitudes, (1982 February 4) 2−63450
SY Muscae, symbiotic star brightening interpretation, UV spectra/continuum obs. 2−89270
MXB 1636−53, X-ray bursts anal. and obs. 2−94772
MXB 1728−34, periodic emission from black hole accretion disc 2−89297
MXB 1730−334, discovery of 0.5 sec. oscills. in flat top bursts 2−112508
MXB 1730−335, Rapid X-ray Burster, nature of two modes in type II bursts *(Russian)* 2−112509
nearby main sequence stars (annual proper motion >0.7″), photometric parallax and colour luminosity relation 2−63376
neutrino bursts from collapsing stars, Homestake burst search results 2−89099
neutrino cyclotron radiation from superfluid vortex in neutron stars 2−79135
neutrino emission, photo-neutrino energy losses in strong mag. fields 2−58330
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron star magnetosphere, longitudinal waves generation by mag. drift mechanism 2−117699
neutron stars, deformation energy release due to rotation 2−58373
neutron stars, effects of stellar irradiation on vertical struct. of accre tion discs 2−63368
neutron stars, interstellar matter accretion H-He flash as gamma ray burst origin 2−106959
neutron stars, neutrino emission from hot dense plane parallel atmosphere in hydrostatic equilib. 2−106755
neutron stars, physical processes in gamma-ray bursts 2−112609
neutron stars, quadrupole formula for gravit. radiation rel. to fundamental mode damping 2−106518
neutron stars, surface thermonuclear processes and X-ray bursts 2−84259
neutron stars, X-ray bursts spectra rel. to mass and radius determ. 2−68933
neutron stars as gamma-ray burst sources, mechanisms review *(Polish)* 2−106966
neutron stars as origin of gamma ray bursts, spectra anal. 2−58493
NGC 2547, southern open cluster, membership, basic parameters and luminosity function 2−58416
NGC 4649, elliptical galaxy with strong UV flux, IUE obs. rel. to stellar content 2−68886
NGC 5253, E-S0 galaxy, ionising flux rel. to high-excitation H II region in galactic nucleus 2−79217
NGC 6334 interstellar complex, O-type star UV radiation rel. to filamentary shell struct. and dynamics 2−112535
NGC 6853, NGC 7293, planetary nebulae, IUE obs. of central stars 2−58333
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109

stellar radiation continued
Nova Aquilae 1982, 10 μm silicate emission feature obs. and photographic magnitudes 2−112461
Nova Aquilae 1982, discovery of 10 μm feature due to circumstellar SiC grains emission 2−94750
Nova Aquilae 1982, IR spectra features and visual mag. estimates 2−100950
Nova Aquilae 1982, visual magnitude estimates, (1982 April 8 to May 7) 2−84249
Nova Coronae Austrinae 1981, light curve and absolute magnitude rel. to distance 2−79117
NP 0532, pulsar, balloon borne γ-ray obs. 2−58252
O-type and related stars, radio and IR emission from stellar winds and circumstellar shells 2−63415
O-type stars, effective temps. 2−73971
O-type stars, ionisation balance of radiatively driven winds rel. to IR spectrum 2−63387
O-type stars, luminosity-mass loss rate relation 2−63385
O-type stars UV radiation as gas ionisation source in emission line galaxy nuclei 2−63629
OB stars, cosmic ray acceleration and gamma-ray production 2−63396
OB type runaway stars, compact companions, theoretical light curve 2−106697
OB-type stars UV flux, role in interstellar medium electron density supply 2−63600
OB-type supergiants, coronal X-ray emission rel. to cool stellar winds ionisation 2−63389
Of stars, coronal X-ray emission rel. to cool stellar winds ionisation 2−63389
Of stars in open cluster C1715−387 radiation distrib. from VRI and JHKL obs. 2−89317
open clusters, colour-magnitude diagrams rel. to galactic struct. 2−106557
open clusters, zero-age luminosity function universality 2−117714
open clusters in Galaxy, absolute magnitudes rel. to ages 2−89318
UU Ophiuchi, Algol-type binary, light minimum time obs. and new ephemeris 2−100987
TT arietis, nova-like variable, new minimum, apparent visual magnitude obs., (1982 July 21) 2−94753
RS Ophiuchi, recurrent nova, new brightening, visual magnitude obs., (1982 June 22 to July 21) 2−94754
V566 Ophiuchi, W Ursae Majoris star, times of photoelectric minima and new light curve 2−89308
FU Orinios stars (fuors), light vars. rel. to evolutionary connection with T Tauri stars 2−100921
Orion B (NGC 2024), compact H II region, exciting stars identification from recomb. line and continuum map 2−101084
CN Orionis, dwarf nova, periodic light vars. obs. 2−68787
FU Orionis, pre-main-sequence star, spectral energy distrib. obs. 2−73970
θ^1 Orionis C, X-ray source, luminosity, X-ray obs. 2−74075
peculiar B and A stars, spectrophotometry 2−112457
DI Pegasi, eclipsing binary star, photoelectric minimum light times obs. 2−68820
EQ Pegasi, red dwarf binary flare star, detect. of microwave emission from both components 2−68775
II Pegasi, RS Canum Venaticorum type star, UBVR photometry during (1981) 2−106798
XY Persei, antiflare star, photographic investigation of light variability *(Russian)* 2−73984
γ Persei, spectroscopic possible eclipsing binary, orbit, mass, luminosity, speckle interferometry, obs. 2−79149
β Persei (Algol), photoelectric minimum timings rel. to new period and ephemeris 2−74024
β Persei B (Algol B), X-ray emission rel. to variable He I 10830 Å absorpt. line 2−112484
RZ Piscium, RW Aurigae star, model to explain antiflares involving absorbing matter layer 2−63401
planetary nebula central star, radiation through gravit. contraction of envelope 2−63565
planetary nebulae nuclei, spectral energy distribs. rel. to theoretical models of nebulae of intermediate-to-high excitation 2−84295
planetary nebulae with close binary nuclei, effect of radiation press. on ang. momentum loss 2−89259
polarisation, theory of multiple scattering problem in plane layer 2−100719
polarization of radiation scattered by an inhomogeneous atmosphere 2−63364
Population II X-ray sources, trapped line radiation 2−106957
post-main sequence stars, neutrino emission, effect of rot. 2−100904
post-main sequence stars, rot. and luminosity and evolution 2−100904
pre-main-sequence stars, radio obs., results and interpretations 2−73966
pregalactic Population III stars, effect on cosmic microwave background spectrum 2−106818
protostellar objects, excess line emission 2−89249
PSR 0531+21, 1971 to 1981 flux at 74 MHz, interplanetary scintillation obs. 2−84253
PSR 0531+21, Crab Nebula pulsar, optical radiation mechanism *(Russian)* 2−63491
PSR 0531+21, radiospectrum prepulse form., role of relativistic electron positron plasma turbulence *(Russian)* 2−68806
PSR 0531+21 (Crab pulsar), pulsed emission, models and X-ray obs. 2−117694
PSR 0833-45 (Vela pulsar), pulse period decrease obs., (1982 August 10) 2−117697
PSR 1133+16, 100 nanosecond time resolution obs. 2−63487
PSR 1133+16, emitting regions location and dispersion meas. determ. 2−89290
PSR 1822−09, pulse-interpulse interaction obs. 2−89289
PSR 1822−09, pulsed emission, X-ray and γ-ray upper limits 2−117695
PSR 1913+16 (pulsar+compact star) general relativity test and gravit. radiation evidence 2−63498
PSR 1913+16 companion, possible pulsar in propeller phase, X-ray emission anal. 2−84258
PSR 1913+16 quasiperiodic binary system, grav. radiation calc. 2−100989
pulsar nulling, origin from evolutionary models 2−106763
pulsar optical emission mechanism, synchrotron laser operating along open field lines 2−63490
pulsar radio emission and models 2−74003
pulsar timing irregularities 2−117693
pulsars, discovery of gamma-ray emission *(German)* 2−94868
stellar radiation continued
pulsars, polarization of coherent radio emission 2−112478
pulsars, pulse timing obs. and improved parameters for 67 objects 2−68805
pulsars, spectrum of coherent radio emission 2−79132
pulsars magnetic inclination relative to apparent beamwidth distrib. *(Chinese)* 2−112477
pulsars polar flux tube particle acceleration and photon emission models 2−63492
pulsars timing noise, contrib. of stochastic background of gravit. radiation 2−79249
RX Puppis, symbiotic star, continuum anal. and possible hot subdwarf comparison 2−89266
ζ Puppis (04 If), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
R548 (=ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
radiative flux from nonspherical envelopes and winds 2−68735
radio bursts, electron-cyclotron maser model 2−112312
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
red dwarfs, chromosphere gas dynamics and flare optical continuum 2−58340
red dwarfs, late type coronal X-ray emission var. with rot., stellar dynamo interpretation 2−68756
red dwarfs, X-ray emission and heating of quiescent chromosphere 2−68757
red giant stars model atmospheres, opacity and thermal struct. for C enriched models 2−112426
red giants in galactic bulge toward NGC 6522, luminosity and color-magnitude diagram 2−100924
red variable stars in 47 Tucanae, effective temps. and absolute magnitudes from photometric obs. 2−79125
rotating star radiation coherent properties in spectral lines 2−63365
2S 1223−624 (GX 301−2), X-ray binary, flares and orbital period determ. 2−89312
RZ Sagittae, new SU UMa-type dwarf nova, 1981 Oct. supermax. 2−117678
WY Sagittae (Nova 1783), eclipsing binary star, orbital period and ephemeris from five eclipse timings 2−89278
V356 Sagittarii, 1979 October mid-point of primary eclipse 2−79151
EG Sagittarii, eclipsing binary, depths of eclipses rel. to orbital period 2−100986
RY Sagittarii, R Coronae Borealis star, visual magnitude estimates, (1982 May 10 and 12) 2−84248
EY Sagittarii, supposed Cepheid variable, probably nonvariable from BVR_cI_c photometry 2−94739
V1670 Sagittarii, Type II Cepheid variable, period and amplitude determ. 2−100943
V348 Sagittarii, uvby photometry during August 1981 fading 2−106736
V884 Scorpii (=HD 153919=4U 1700−37), absence of optical pulses from photometric obs. 2−106799
MY Scuti, RR Lyrae star, period determ., linear and parabolic elements 2−100945
δ Scuti stars in eclipsing binary systems, absolute magnitudes, rot. vels. and pulsation consts. 2−106733
Selected Area 133 F, galactic centre field, Population I main sequence stars luminosity function 2−100903
semiregular variable stars, short period, different type of maser star 2−63420
Sextans A, Im Y dwarf galaxy, brightest stars distance and absolute magnitudes, obs. 2−101035
shell stars, Balmer continuum radiation deficit 2−58359
shock-heated stellar atmospheres, theoretical formalism rel. to coronae radiative losses 2−89239
short γ-bursts rel. to burst of March 5 1979, origin 2−106956
Small Magellanic Cloud clusters luminosity functions, age and comp., B obs. 2−74037
SN 1980k, bright Type II supernova in NGC 6946, absolute magnitude from UBV photometry 2−106760
speckle pattern spatial-temporal statistics meas. at Mauna Kea, Hawaii 2−63267
spectrophotometric standard stars, energy distribs. in continuous spectra *(Russian)* 2−94704
spectroscopic binaries in Scorpius OB 1, radial vels., absolute magnitudes and masses of new massive binaries 2−112493
spiral galaxies, early-type, multiaperture UBVJHK photometry for inner (bulge) regions 2−106891
spots on surface, effects on radii and luminosity 2−73953
spotted stars luminosity, effect of sunspots 2−73954
star colours, naked-eye determ. of colour indices and spectral types 2−68738
starlight from irregular galaxy M82, contrib. rel. to scatt. light 2−79214
subdwarfs contribution to 2-60 keV diffuse X-ray background 2−117800
subgiant CH stars, visual absolute magnitudes and comps. rel. to evolutionary status 2−112451
supergiant stars spectral energy distribution 2−84231
supernova in anonymous galaxy in Centaurus, discovery and photographic magnitude, (1982 April 16) 2−68803
supernova in anonymous galaxy in Centaurus, discovery and photographic magnitude (1982 June 22) 2−89287
supernova in anonymous galaxy in Telescopium, discovery and photographic magnitude (1982 June 21) 2−89286
supernova in anonymous galaxy in Telescopium, discovery and apparent photographic magnitude 2−94760
supernova in NCG 7713, continuum and emission-line spectrum obs. 2−106759
supernova in NGC 1332, circumstellar dust shell form. and K-band magnitude 2−117690
supernova in NGC 4490, discovery and photovisual magnitude, (1982 April 15) 2−68801
supernova in NGC 4490, magnitude estimates, (1982 March 29 to April 22) 2−68802
supernova in NGC 521, discovery and photographic magnitude (1982 August 19) 2−112474
supernova near NGC 1332, discovery and photographic magnitude, (1982 March 29) 2−63483
supernovae, light curve decay rel. to absolute mag. for Type I objects 2−100963
supernovae, luminosity distance method for determ. of location inside parent galaxies 2−106757

stellar radiation continued
supernovae, origin and energy production 2−117692
supernovae, Type I, intrinsic brightness dispersion from distance determ. methods 2−63496
supernovae, Type II, theory of radio and X-ray emission 2−106756
supernovae in anonymous galaxies in Phoenix and Fornax, discoveries, approximate positions and magnitudes 2−117691
supernovae in anonymous galaxies in Phoenix and Pavo, discoveries, approximate positions and magnitudes 2−112473
supernovae neutrino pulse shape in scintillation counters 2−58370
supernovae of Type I, max. absolute mags. as distance indicators and Hubble constant global value 2−84306
superstar model for quasi-stellar objects, anal. of luminosity and density evolution 2−106952
SV Tauri, Algol-type binary, light min. time and eclipse depths and duration from photoelectric UBV photometry 2−94781
AU Monocerotis, Algol type binary, ephemeris for long-period intrinsic var. rel. to UBV obs. in January to February (1983) 2−94780
V471 Tauri, RS CVn-like binary star, photoelectric light and colour vars. 2−84273
DR Tauri, T Tauri star, photometric obs. (1980 to 1982) 2−94716
DF Tauri, T Tauri star, search for rapid light vars. 2−100919
20 Tauri, UV radiation rel. to vibrationally excited circumstellar H_2 and interstellar CH^+ abundance 2−84296
V711 Tauri (HR 1099), RS Canum Venaticorum star, BV photometry and light curve, January and February, (1982) 2−112499
V711 Tauri (HR 1099), RS CVn star, correl. between Hα emission flux and radio flux 2−63511
θ^2Tauri (HR 1412), δ Scuti star, pulsation props. from photoelectric obs. 2−79121
RV Tauri stars, light and colour curves and times of minima from UBV photometry 2−106749
47 Tucanae, globular cluster main sequence luminosity function and mass segregation 2−101001
Type I supernova, light curve solns. 2−63481
Type I supernovae, light curve exponential tail due to ^{56}Ni decay 2−106762
4U 1702−42, Hakucho obs. of X-ray bursts 2−68817
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129+47, X-ray binary star, effects of X-ray heating on photoelectric photometry 2−89303
UBV integrated colour for old clusters in Magellanic Clouds 2−84287
AN Ursae Majoris, AM Herculis star, 1979 minimum, energy distrib., visible obs. 2−63423
W Ursae Majoris, eclipsing binary star, light curves and times of minimum from photoelectric obs. 2−89306
XY Ursae Majoris, RS Canum Venaticorum star, UBVR photometric obs. during (1982) 2−94785
W Ursae Majoris systems, determ. of parameters from photoelectric light curves 2−58393
UV radiation, rel. to interstellar grain explosions and molecules cycling between gas and dust 2−89331
variable star, new, in γ Cygni region, discovery, U-magnitudes and light min. times 2−84281
variable stars in Cygnus and Cepheus, photographic obs. (1965 to 1970) 2−94738
new variable stars in direction of Sagittarius bright cloud B, amplitude-number relation 2−112348
variable stars in globular cluster M28 (NGC 6626), magnitudes, periods and positions 2−94626
variable stars in Pleiades, periods and light curves 2−63448
Vela pulsar, pulsed emission, X-ray and γ-ray upper limits 2−117695
Vela X-1 (4U 0900−40), X-ray pulse periods meas. rel. to spin down episodes 2−106787
γ Vetorum (WC8+09 I), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
AH Virginis, eclipsing binary star, photoelectric minimum light times obs. 2−68820
visual binaries with late type giant primaries, luminosity from uvbyβ photometry 2−100978
visual double stars, absolute magnitudes and errors, uvbyβ photometry obs. 2−68818
ER Vulpeculae, eclipsing binary, light curve vars. from UBVR photometric obs. during (1981) 2−58404
AM Herculis-type eclipsing binary (1114+18), photometric, polarisation and spectrum vars. and ephemerides 2−58408
VW Cephei, close binary, period var. and lightcurve fluctuations 2−63523
WC stars in LMC H II region 30 Doradus, detect. and luminosities, visible spectral obs. 2−58368
white dwarfs, deformation energy release due to rotation 2−58373
white dwarfs, hot, accreting, luminosity vars. in quasi-static approximation 2−106691
white dwarfs, magnetic, influence of magneto-optical effects on continuum 2−112443
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438
Wilson-Bappu effect, depend. on stellar atm. parameters 2−84223
wind theory, line acceleration calc. for radiatively driven winds 2−106668
Wolf 630, multiple star red dwarf X-ray source, X-ray emission anal. 2−106790
Wolf-Rayet stars, luminosities and temps. rel. to connection with O-type stars 2−63477
X-ray binaries, pulse period distrib. gap, accretion effects on neutron stars 2−58388
X-ray binary, accretion disc structure, role of X-ray heating 2−74030
X-ray binary stars, effect of mag. field on critical luminosity of neutron stars and degenerate dwarfs 2−112505
X-ray binary stars, effects of X-ray heating and ionisation on stellar winds 2−106775
X-ray binary stars, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
X-ray burst sources, accreting neutron star envelope, shell flashes 2−94863
X-ray burster emission regions nature 2−117708
X-ray burster in Serpens, new discovery and burst peak intensity 2−112610
stellar radiation continued
X-ray bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
X-ray emission, magnitude-limited survey rel. to F-type stars X-ray luminosity function 2−112422
X-ray emission from radiatively driven shocks formed in line driven winds 2−68731
X-ray luminosity in all stars as evidence for individuality 2−68836
X-ray rapid burster auroral precipitation model 2−79147
X-ray sources, recurrent, stellar wind vel. field rel. to eccentric-orbit binary model and X-ray light curves 2−84275
X-ray transients, neutron star thermonuclear evolution model and accretion 2−94860
yellow semiregular variables, light and colour curves and times of minima from UBV photometry 2−106749
young stars, 10 μm luminosities of fragmentation debris rel. to Ursa Major Stream stars 2−106572
young stars, radio emission obs. 2−73965
C stars, circumstellar shells development rel. to optical obscuration and IR emission 2−94735
C stars, IR excess and shell dust 2−112471
C stars, UV radation intensity, visible obs. 2−58339
C stars in Carina dwarf spheroidal galaxy, absolute bolometric magnitudes 2−68774
C stars in Draco dwarf spheroidal galaxy, luminosities rel. to evolutionary status 2−68723
C_2 white dwarfs, influence of C_2 absorpt. bands on UBV magnitude 2−63403
H 0139−68, AM Herculis star, optical and near-IR polarisation obs. 2−106803
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229
Hα emission stars, newly discovered, in region of γ Cygni, photographic B-magnitudes and Hα intensities 2−84110
OH/IR maser stars, type II, search for IR counterparts, luminosities, IR obs. 2−58349

stellar rotation
see also solar rotation
2A 0526−328, X-ray cataclysmic variable, rotating white dwarf+subluminous red giant model 2−112506
3A 0729+103, X-ray cataclysmic binary star, rotation and orbital periods 2−63521
Ae/Be binary stars, period distrib. and period-rot. vel. rel. anal. 2−74031
Ae/Be long period binaries, fast rot. characterisation 2−74031
Ap stars, meridional circulation versus diffusion 2−94727
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
V1343 Aquilae, (SS 433), non-stability of precession period from spectroscopic obs. *(Russian)* 2−112468
V1343 Aquilae (SS 433), law of variation of precession period, (1978 to 1981) *(Russian)* 2−112469
V1343 Aquilae (SS 433), nutation and pseudoregular precession, 6-day periods 2−63432
RW Aurigae, T Tauri star, rot. vel. from spectroscopic obs. 2−73963
B-type stars, effects of rot. on Hβ distance scale for Orion association stars 2−106692
Be type stars, Hα profile, correl. with rot. vel. *(French)* 2−58362
binary star components, toroidal oscills., effect of orbital-rot. resonances 2−106786
binary stars, synchronisation between orbital and rot. motions, mag. field role 2−94787
binary stars spin nutation due to general relativistic and quadrupole effects 2−58383
BY Draconis stars in Pleiades, periods and light curves 2−63448
α Canis Minoris (Procyon), photospheric vel. field and rot. vel. 2−106695
RS Canum Venaticorum stars, tidal coupling with differentially rot. convective envelopes 2−58382
RS Canum Venaticorum stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
VV Cephei, radius and rot. vel. of Hα emission envelope around early-type component 2−68827
β Cephei, rot. vel. from UV line profiles 2−84240
collapse of rotating stars, appl. of numerical relativity 2−100727
cool stars with magnetic structures, broadband linear polarisation vars. during rot. period 2−89241
differential rotation, active picture including wave-rotation interaction 2−79082
differential rotation by mean field model 2−106516
differential rotation detect. from artificial spectral lines appl. 2−63371
differential speckle interferometric study 2−73856
DE Draconis, eclipsing binary, spectroscopic orbit, model and rotation effects, spectral obs. 2−58387
BY Draconis stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
dynamo, Lorentz force effect on differential rot. 2−84217
Eddington-Sweet circulations in rotating stars, theory 2−112423
F-type stars, differential rot. anal. from spectral lines 2−94710
F-type stars, rapidly rotating, Mg II 2800 Å resonance line emission 2−100896
galactic cluster late B-type and field stars, rot. vel. bimodal distrib. 2−63546
giant stars, rot. rates rel. to chromospheric and transit on region emission and mag. struct. 2−89261
GX 301-2 (4U 1223−62), pulse period meas. during X-ray flare, (1982 April 5 to 7) 2−63522
H 0139−68, AM Herculis star, phase-locked mag. white dwarf model rel. to polarisation obs. 2−106803
H 2215−086, optical counterpart light curve anal., orbital/rot. effects, visible obs. 2−74011
HD 136905, new RS Canum Venaticorum variable star, rot. vel. and orbital period 2−58407
HD 147010, Ap Si star, spectrum variability and rot. period 2−68788
HD 153919 (4U 1700−37), optical eclipses and precession effects in X-ray binary 2−117710
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 215441, Ap star, oblique rotator model with toroidal surface mag. field struct. 2−84237
HD 25354 and 152107, binary Ap stars, spectral var. and orbit/rot. synchronism 2−112455

stellar rotation continued
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 32918 and 36705, Fk Comae stars identification, rot. broadening and spectra 2−100952
HR 5999 (V856 Scorpii), Herbig Ae star, rapid rot. rel. to chromospheric and transition region emission lines 2−63404
HR 7308, peculiar classical Cepheid, rot. vel. meas. 2−89272
Hyades K-type giant stars, ang. momentum history 2−63397
late type stars, mag. field generation, local time depend. dynamo model, rot. effects 2−79086
late-type dwarfs and subdwarfs, effect of rotation on near UV spectra 2−58344
late-type main-sequence stars, rot. vels. rel. to Ca II H and K emission and mag. struct. 2−68764
magnetic Ap stars, calc. of Stokes parameters for line emission in oblique rotator model 2−94747
magnetic braking of interstellar cloud rotation, effects on star form and stellar rot. 2−100909
magnetic oblique rotator, EM field produced, corotating plasma soln. 2−73951
massive stars losing mass+ang. momentum, evolution, appl. to WR stars 2−63362
misaligned binaries, Roche potential and critical lobe 2−89300
MXB 1730−335, neutron star rot. period rel. to two modes in type II bursts *(Russian)* 2−112509
neutron star, magnetosphere accretion disk interface, Kelvin-Helmholtz instabilities 2−112480
neutron star rotation as a third order approx. in angular vel. of deformation energy *(Russian)* 2−84261
neutron stars, deformation energy release due to rotation 2−58373
O-type stars, effects of rot. on radiatively-driven winds 2−63387
O-type stars direction, interstellar element depletion rel. to rot. vel. 2−58431
OB stars in SMC, spectral classification and rot. vel., visible obs. 2−74101
optically thick accretion discs, meridional circulation 2−106680
γ Pegasi, β Cephei star, rot. vel. from UV line profiles 2−84240
AE Phoenicis, in 1978, W Ursae Majoris stars, light curve, rot. effects 2−84279
polytropes, struct. and oscills. 2−117662
post-main sequence stars, rot. and luminosity and evolution 2−100904
precession of gaseous stars in close binaries 2−89245
protostellar objects, mass and momentum loss, evolutionary scenario 2−112420
PSR 0525+21, spin-ups from JPL timing obs. 2−94763
PSR 0531+21, anomalous braking index, plasma inertial effect 2−94762
PSR 0655+64, new binary pulsar, orbital elements from timing obs. 2−63486
PSR 0833-45 (Vela pulsar), pulse period decrease obs., (1982 August 10) 2−117697
pulsar magnetospheres, elec. current rot. pattern rel. to spectrum of coherent radio emission 2−79132
pulsars, periods and period derivatives from pulse timing obs. 2−68805
pulsars, rot. energy loss scaling from Jupiter to pulsars rel. to pulsars mass spectrum 2−112375
pulsars, rot. periods of objects discovered by northern hemisphere pulsar survey 2−63486
pulsars magnetic inclination relative to apparent beamwidth distrib. *(Chinese)* 2−112477
pulsars timing noise, contrib. of stochastic background of gravit. radiation 2−79249
pulsating stars, effect of rot. and tidal distortions on periods of small adiabatic oscillations of stellar models 2−106675
radiation coherent properties in spectral lines 2−63365
random orientations of rot. axes, effect of ang. momentum changes in colliding interstellar clouds 2−63567
rapidly oscillating Ap stars, rot. and mag. axes orientations from oblique pulsator model 2−112463
rapidly rotating polytropes and concave hamburger equilibrium 2−117664
red dwarfs, late type coronal X-ray emission var. with rot., stellar dynamo interpretation 2−68756
rigidly rotating and self gravitating polytropes, 3-dimens., bifurcation and fission 2−117665
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
δ Scuti stars in eclipsing binary systems, absolute magnitudes, rot. vels. and pulsation consts. 2−106733
spectroscopic binary stars, ang. momentum loss rel. to distrib. of orbital semi-major axes *(Russian)* 2−100992
superstars in galactic nuclei, rot. and mag. field rel. to QSOs luminosity and density evolution 2−106952
W Ursae Majoris stars, detached systems evolving to contact systems by ang. momentum loss 2−84277
Vela X-1 (4U 0900−40), spin down episode detect. from COS-B obs. 2−106787
velocities statistical study 2−94707
α Virginis, line profile var. due to rot. and β Cephei pulsation effects 2−63459
WD 77581, X-ray binary, light curve, effect of supergiant rot. axis forced precession *(Russian)* 2−68828
white dwarfs, deformation energy release due to rotation 2−58373
white dwarfs, rotational perturbations to numerical function values for partially degenerate spheroids 2−63409
X-ray binaries, dipole and spin axes orientation change 2−79152
X-ray binaries, pulse period distrib. gap, accretion effects on neutron stars 2−58388
zonal flow generate by centrifugally driven thermal convection 2−106517
Ca II magnetic tracer, solar calibration 2−117642

stellar size *see stellar dimensions*

stellar spectra
see also solar spectra; stellar photometry
3 μm emission features in WC 10 and emission line stars 2−89243
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
δ /Cephei, turbulence during pulsations from spectral anal. 2−106721
A0538−66, X-ray transient, UV spectra anal. 2−94770
A_1 field, blue objects classification from visible spectra obs. 2−68926
A, Am and Ap spectroscopic binaries, composite spectra *(French)* 2−79106

stellar spectra continued
2A 0526−328, X-ray cataclysmic variable, optical and X-ray spectra 2−112506
3A 0729+103, identification with cataclysmic variable and photometric and spectroscopic obs. 2−63521
2A 1822−371, compact X-ray binary star, phase resolved optical spectroscopy 2−112502
2A 1822−371, degenerate star shell emission, component masses and orbital period, visible obs. 2−79145
2A 1822−371, optical, UV and X-ray modulation due to accretion disk bulge 2−79146
A-type stars, possible Fe abundance vars. among superficially normal stars 2−63361
late A-type stars, search for transition zone lines 2−68765
AB 6, binary WR star in SMC, mass ratio, visible spectral obs. 2−89264
Algol-type binaries, short period, spectroscopic survey for gaseous discs during primary eclipse 2−106813
Am stars, UV and optical line blanketing rel. to spectral energy distribs. 2−84238
o Andromedae, Be star, spectrum evolution and short-term radial vel. vars. during new shell phase 2−73988
RX Andromedae, eclipsing dwarf nova, orbit, spectral obs. 2−73995
λ Andromedae, RS Canum Venaticorum star, relation between Hα emission and continuum intensity vars. 2−89305
λ Andromedae, RS CVn star, Balmer line profiles from different model chromospheres 2−79155
λ Andromedae, RS CVn-like star, UV and optical spectrum obs. rel. to atmospheric inhomogeneities 2−58347
Ap stars, abundance stratifications detect. through curve of growth method 2−68783
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
Ap stars in Scorpio-Centaurus association, slow metal enrichment from visible obs. 2−100935
Ap stars with chemically inhomogeneous surfaces, effect of line intensities on apparent abundances *(Russian)* 2−100958
R Aquarii, binary long period variable model from spectral obs. 2−58350
R Aquarii, variability, nebulae and blue continuum 2−106754
V1343 Aquilae, (SS 433), non-stability of precession period from spectroscopic obs. *(Russian)* 2−112468
N603 Aquilae, accretion disc surrounding white dwarf, UV spectral obs. 2−68797
ε Aquilae, orbital parameters from spectroscopic/photometric data 2−94789
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
V1343 Aquilae (SS 433), 164 day period in emission/absorpt. lines, visible obs. 2−63466
V1343 Aquilae (SS 433), 164 day period secular change 2−58354
V1343 Aquilae (SS 433), absorpt. system, supercritical accretion disk wind scenario 2−84077
V1343 Aquilae (SS 433), accretion disc models from spectra line interpretation 2−63474
V1343 Aquilae (SS 433), disc motions/binary orbital period from theoretical anal. 2−117676
V1343 Aquilae (SS 433), line motion, visible obs. 2−73993
V1343 Aquilae (SS 433), monoenergetic beams model from spectral anal. 2−84234
V1343 Aquilae (SS 433), nutation and pseudoregular precession, 6-day periods 2−63432
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433), radio and X-ray spectra during flarelike events 2−112453
TT Arietis, distance and outer disc temp. from light curve and spectral obs. 2−100951
γ and 56 Arietis, magnetic Ap stars, nature of vars. of H lines 2−94745
TT Arietis, UV continuum intensity comparison with optically thick accretion disc models 2−94730
artificial integrated spectral lines and Fourier transform props. rel. to differential rot. 2−63371
KR Aurigae, cataclysmic binary star, orbital period from spectroscopic obs. 2−68791
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission, UV/visib le obs. 2−68758
RW Aurigae, T Tauri star, obs. of rapid line profile variability 2−73963
SU Aurigae, T Tauri star, rapid and slow spectrum vars. obs. 2−100920
RW Aurigae, T Tauri star, spectral and photometric obs. anal. *(Russian)* 2−68768
α Aurigae (Capella), X-ray spectrum obs. rel. to coronal struct. and UV emission 2−112485
B and Be stars, Hα and He I line profiles from photographic spectrophotometry 2−68767
B-type supergiant stars, X-ray luminosities from UV reson. lines 2−84228
Balmer decrement in eruptive stars 2−84247
Balmer decrement in expanding stellar envelopes 2−84221
BD+22°669, spectroscopic binary, orbit and mass, possible Hyades member, spectral obs. 2−63503
Be type stars, H_α profile catalogue *(French)* 2−58362
Berkeley 21, open cluster CM diagram, field stars contamination, identification using slitless 2−112341
black holes spherical accretion, multiple Compton scatt. effect on temp. and emission spectra 2−58379
BN-like IR point sources, model of 9.8 μm silicate absorption band 2−101020
α Bootis, search for oscills., visible spectral obs. 2−68755
α Bootis (Arcturus), anal. of spectroscopic determ. of stellar mass 2−68769
53 Camelopardalis, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
XX Camelopardalis, Li and Ba abundances from Coude spectra 2−63434
XX Camelopardalis, R CrB star absorpt. spectrum var. and microvariability *(Russian)* 2−78969
XX Camelopardalis, R CrB star microvariability due to absorpt. spectrum var., photometry obs. *(Russian)* 2−78968
AC Cancri, cataclysmic eclipsing binary, colour indices, magnitude, spectral obs. 2−63531
κ Cancri, Hg-Mn star, abundances from UV spectra anal. 2−94728
κ Cancri, Hg-Mn star, search for medium-Z elements in UV spectrum 2−106723
28 Canis Majoris, Be star, photometric and spectroscopic periods differences, obs. 2−100934

stellar spectra continued
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
α^2 Canum Venaticorum, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
RS Canum Venaticorum stars, Hα profile, surface phenomena 2−106777
RS Canum Venaticorum stars, MK standards, visible energy distrib. and temp. 2−74012
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
AG Carinae, galactic S Doradus star, spectral characts. and shell nature, visible obs. 2−106727
η Carinae, high resolution obs. of Hα line profile 2−106724
η Carinae, remarkable spectrum of ejected material 2−63438
α Caris Majoris, Am star, CNO abundances from visible obs. 2−68759
α Caris majoris (Sirius), anal. of spectrum in 3600 to 4200 Å region 2−84232
Case 1, red+white dearf, period and mass, visible obs. 2−68810
γ Cassiopeia, Be star, X-ray flux and spectrum, obs. 2−63460
SX Cassiopeiae, Be+giant stars, eclipsing, spectral classification and continuum radiation origin, obs. 2−84263
β Cassiopeiae, delta Scuti star, radial vel. var. visible obs. 2−94757
ι Cassiopeiae, radial vel. and equivalent width vars. in Ap-star 2−79104
γ Cassiopeiae, upper limit for interstellar superheavy H I in UV 2−89343
cataclysmic binaries, spectrophotometric survey of 31, visible obs. 2−73979
cataclysmic variable candidates from Palomar Green survey, spectroscopic classifications and emission line fluxes 2−106748
catalogue of stars with large expected ang. diameters for each spectral type 2−63276
SV Centauri, interacting early type contact binary, visible/UV obs. 2−100979
V436 Centauri, SU Ursae Majoris star, radial rel. curve and orbital period, visible obs. 2−68777
V757 Centauri, W Ursae Majoris star, orbit, spectral obs. 2−63534
V757 Centauri, W Ursae Majoris system, spectral types, UBV obs. 2−63533
β Cephei, atmospheric velocity field from UV line profiles 2−84240
VV Cephei, Hα line profiles rel. to struct. of Hα emission envelope around early-type component 2−68827
EM Cephei, short-period variable Be star, spectroscopy 2−112466
Cepheid B-type companions, absolute mag. and spectral type used for age determ. 2−68796
Cepheids, binary detection and occurrence from vel. curves 2−89279
Cepheids, classical, chromosphere anal. from UV obs. 2−89275
beat Cepheids, coude spectra of atmospheres 2−89281
o Ceti, long period variable, diameter, TiO in atm. effects, visible obs. 2−63433
2 Ceti, new Be star, Hα emission line profile obs., (1982 September 5) 2−117683
o Ceti (Mira), 1965-1980 spectral line weakening 2−63429
ZZ Ceti stars, radial vel. and line profile vars. assoc. with nonradial g-mode pulsations 2−106689
ZZ Ceti stars, temp. as unique predictor of variability, spectra anal. 2−94712
Z Chamaeleontis, dwarf nova, spectrum and photometry rel. to eccentric disc during supermaximum 2−63418
chromosphere structure from Ca II K_{2V}/K_{2R} asymmetry 2−68689
Circinus X-1, X-ray spectrum obs. in low state 2−112504
circumstallar shells, radiofrequency lines linear polarisation 2−68604
circumstellar expanding envelopes, ionisation and vel. struct. rel. to line profiles 2−63370
circumstellar shells, obs. of new cyanoacetylene sources 2−68736
classification for stars in NGC 6823 cluster *(Russian)* 2−79175
CoD−35°10525, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
colours of bright stars, naked-eye determ. of colour indices and spectral types 2−68738
α Columbae, spectrophotometry of B8Ve star 2−89277
FK Comae Berenicis, coalescing binary, mass transfer, Hα obs. and anal. 2−117675
common proper motion group, age, compositions and distance, obs. 2−94801
cool stars, mass loss spectral diagnosis 2−68743
S Coronae Austrinae, YY Orionis star, visible spectra and photometry obs. 2−63408
ι Coronae Borealis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
R Coronae Borealis, Li and Ba abundances from Coude spectra 2−63434
β Coronae Borealis, magnetic Ap star, nature of vars. of H lines 2−94745
R Coronae Borealis stars, spectral types from spectrophotometric obs. *(Russian)* 2−73985
CW 1103+254, AM Herculis star, visible and IR photometry and polarisation and spectroscopic obs. 2−94751
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
59=V832 Cygni, Be star, spectroscopic obs. during 1974-1975 shell episode 2−100940
V460 Cygni, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
X Cygni, Cepheid, turbulence during pulsation from spectra anal. 2−106721
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
55 Cygni, emission line star, abundances from spectral obs. 2−117682
32 Cygni, excitation through radiative pumping of Fe UV multiplet 191 during eclipse 2−68815
χ Cygni, Mira variable, time series IR spectroscopy 2−58348
V1016 Cygni, peculiar emission-line star, visible and near IR spectral vars. 2−84241
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
XX Cygni, SX Phoenicis star, composition, radius, mass and radial vel., obs. 2−94756
CI Cygni, symbiotic star, H vars. and near IR spectrum 2−68789
CH Cygni, symbiotic star, spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
CI Cygni, symbiotic star, UV obs. of 1980 eclipse 2−63437
CH Cygni, UV spectrum during 1977-80 outburst 2−63436
stellar spectra continued
α Cygni (Deneb), generalized Compton effect in spectra 2−106696
Cygnus OB 2 association stars, wind vel. law and mass loss, visible/IR obs. 2−68841
Cygnus X-1, Compton-cooled feedback mechanism for high and low spectral states 2−63529
Cygnus X-1, hard X-ray spectrum obs. 2−74015
Cygnus X-1, reddening, supergiant light var. and distance 2−63530
HR Delphini (Nova 1967), UV spectral obs. 2−79110
DEM 45, 137, H65, 174 and 208, LMC Wolf Rayet ring nebulae, kinematics obs. 2−68779
diffuse interstellar bands in reddened supergiants, high-resolution obs. 2−58423
digitisation correlation with spectral class and luminosity 2−73849
dM and dMe stars, chromosphere and coronal heating and UV emission line spectra 2−117666
S Doradus, continuum energy distrib. and spectra variations, obs. 2−94729
RW Doradus, W Ursae Majoris star, spectral type 2−68821
doublet resonance lines in expanding stellar wind, nonlocal radiative coupling, escape probability treatment 2−68730
DE Draconis, eclipsing binary, spectroscopic orbit, model and rotation effects, spectral obs. 2−58387
dwarf novae, influence of tidal effects on accretion disc emergent radiation spectrum 2−79126
dwarf novae, southern hemisphere and equatorial, photoelectric photometry and spectra 2−100762
dwarf stars, late type, outer atmospheres nature and spectral features, UV obs. 2−84227
E 1405−451, E 1013−477, AM Herculis stars, light vars. and spectra 2−63378
E 1551+718, X-ray source and uncatalogued dwarf nova, optical spectrum 2−106965
early type stars, comparison of winds in Small Magellanic Cloud/Galaxy, spectral obs. 2−84218
early type stars, individuality evidence from spectra anal. 2−68836
early type stars, modelling of UV reson. line form. in expanding envelopes 2−63386
early type stars, wind models from UV reson. line narrow profile components 2−94699
early type stars photospheric Si and C lines, profiles anal. and obs. 2−106702
early-type emission-line stars, book 2−94934
early-type stars, spectrophotometric atlas of mid-UV spectra with 1.8 Å resolution 2−63278
early/intermediate type stars, spectral and microturbulence anal. by model atm. 2−84220
echelle spectrogram reduction technique 2−89162
eclipsing cataclysmic binaries, He I line emission and He abundance 2−89269
Egg Nebula (GL 2688), possible planetary nebula precursor, near IR spectroscopy 2−106840
emission line stars, IR spectrophotometry 2−89342
emission-line stars in irregular galaxy NGC 6822, catalogue 2−106559
λ Eridani, Be star, new emission line phase, Hα emission line profile obs., (1982 September 8) 2−117683
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. 2−58381
ethylene in stars, IR heterodyne spectroscopy 2−68635
evolved stars, mass loss meas. from obs. in CO (2-1) line 2−58320
evolved stars, SiO masing and nonmasing emission, EHF obs. 2−89228
extreme C stars, optical spectropolarimetry rel. to circumstellar dust shells morphology 2−112447
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
F-type stars, differential rot. anal. from spectral lines 2−94710
Feige 4, DB-type white dwarf and suspected EUV source, IUE spectra 2−106712
Feige 66, OB subdwarf, chem. comp. twin to HD 149382 2−106698
flare spectral signatures response to atm. struct. var. 2−89231
flare stars, emission line excitation in fast electron hypothesis, book 2−68984
flare stars, UV spectral obs. 2−79124
flat rotating Keplerian gaseous disc, theoretical line profiles 2−106677
galactic disc 2.4 μm excess and metallicity, effects, synthetic stellar population modeling 2−89362
galactic stars in direction of LMC, radial vels. from objective-prism plates *(French)* 2−100763
galactic supergiant stars spectra, equivalent width meas. 2−100926
gamma ray burst of 1980 April, 19 origin from neutron star and spectrum var. 2−58495
gamma ray burst sources, burst continua and possible cyclotron absorpt. lines, interpretation 2−58497
gamma ray burst sources, low energy spectra, source physical conditions and geometry 2−58496
gamma ray burst sources as neutron stars, spectra anal. 2−58493
gamma ray transients, neutron stars, line formation processes and anal. 2−58498
YY Geminorum, spectroscopic eclipsing binary, Hβ line var. and active regions sectorial struct. var. 2−94790
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
giant stars, chromospheric and transit on region emission obs. rel. to mag. struct. 2−89261
giant stars, cool, chemical element abundance determ. from synthetic spectra of model atmospheres *(Russian)* 2−78970
giant stars, late type, Mg emission variability intepretation with chromosphere and corona, UV obs. 2−68754
giant stars, late type, outer atmospheres nature and spectral features, UV obs. 2−84227
giant stars, photosphere motion and circumstellar region gas motion, CO IR obs. 2−68771
globular cluster stars, anal. of CN distribs. in NGC 3201, M55 and (M71) 2−63542
globular clusters compositions from visible spectra obs. 2−101000
H2252−035, non-synchronous rotator, spectral/photometry obs: anal. 2−100955
H 0139−68 X-ray source identification with AM Herculis-type star 2−94788
HBV 475 (V1329 Cygni), peculiar emisson-line star, line profiles rel. to expanding motions in ionised envelope 2−68781

stellar spectra continued
HD 101065 temperature, visible spectral obs. 2−94702
HD 105262, bright field horizontal branch star, spectral obs. 2−94714
HD 111980 and 149414, halo cool subdwarf binaries, spectroscopic orbits and comp., obs. 2−100922
HD 112127, K-type giant, Li abundance, model atm. anal., visible obs. 2−79088
HD 115968, spectroscopic binary, radial vel. determ. and spectral type 2−74021
HD 119213, 170000, 173650, Ap stars, line blocking effect on light curves 2−106720
HD 127493, H-deficient subdwarf O-star, non-LTE analysis 2−79094
HD 136905, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58407
HD 147010, Ap Si star, spectrum variability and rot. period 2−68788
HD 149382, OB subdwarf, abundances, microturbulence and temp., spectral anal. 2−73967
HD 149499B, DO white dwarf, high gravity mixed comp. stellar atm. anal., UV obs . 2−68762
HD 181602, spectroscopic binary, orbit from radial vel. obs. 2−68825
HD 185151, RS CVn star, chromospheric activity from visible obs. 2−100975
HD 189178, spectroscopic binary, H lines intensity vars. rel. to orbital elements 2−106811
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 193077, Wolf Rayet star, neutron star secondary with possible OB third star spectra anal. 2−58351
HD 193793, WN7 star, wind vel. and circumstellar dust shell, UV obs. 2−84236
HD 200775, Herbig Be star, Balmer emission lines 2−106730
HD 208095, spectroscopic binary masses from visible spectra obs. 2−74028
HD 219634, new massive eclipsing binary star, photometric obs. of eclipses rel to masses and spectral types 2−79159
HD 25329, subdwarf star, effects of NH absorpt. bands on thirteen colour photometry 2−73975
HD 25354 and 152107, binary Ap stars, spectral var. and orbit/rot. synchronism 2−112455
HD 26337, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58406
HD 29647, Hg-Mn star, radial vel. distance and luminosity, visible obs. *(Russian)* 2−68794
HD 32918 and 36705, Fk Comae stars identification, rot. broadening and spectra 2−100952
HD 36402 in LMC interstellar bubble N51D, UV absorpt. by interstellar gas 2−79178
HD 44179 (Red Rectangle), 7.7 μm feature obs. 2−74064
HD 44594, solar analogue, energy distrib. 2−79093
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
HD 80077, B2 supergiant spectroscopic binary, luminosity and period, visible obs. 2−100923
HD 86161, WR star with neutron star companion, mass and orbit, visible obs. 2−73983
HD 87643, peculiar Be star, mass loss from Fe II lines obs. 2−68784
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
HD 93206, interstellar gas column densities and abundances in Carina direction, IUE obs. 2−74057
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
HDE 245770, X-ray binary, obs. *(Russian)* 2−68829
HDE 283809, B-type star in direction of Taurus dark cloud, photometry and spectrum *(Russian)* 2−112444
Herbig emission stars, near IR photometry and absorption spectra 2−73977
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
Hercules X-1, X-ray binary, hard X-ray line emission obs. 2−79154
DI Herculi, B-type eclipsing binary, mass, radius and orbit, obs. 2−63500
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
φ Herculis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
AM Herculis, multiwavelength obs. during low state 2−89299
HZ Herculis, spectral line profiles, taking mass transfer into account 2−94786
HZ Herculis, UV light curve, effect of accretion disc, UV obs. 2−63530
HJ 2215−086, optical counterpart light curve anal., visible spectra/photometry obs. 2−74011
hot stars, Voyager absolute far-UV spectrophotometry 2−89254
hot stars, X-ray emission from shocks in line driven winds 2−68732
HR 1883, spectroscopic binary, primary giant, orbit and mass 2−63528
HR 2577, Be+giant stars, mass and orbit determ. 2−63532
HR 465, spectrum of Ap star near rare-earth min. phase 2−106719
HR 5999 (V856 Scorpii), Herbig Ae star, strong chromospheric and transition region emission lines in UV spectrum 2−63404
HR 7024, spectroscopic binary orbit, radial vel. obs. 2−79169
HR 7308, peculiar classical Cepheid, radial vel. meas. and BV photometry rel. to pulsation and physical parameters 2−89272
HR 7739, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
Hyades, cluster main sequence and colour-magnitude diagram, visible obs. 2−112516
Hyades K-type giant stars, rot. vels. meas. rel. to ang. momentum history 2−63397
hybrid atmosphere stars, red giants with double circumstellar lines 2−79092
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
IC 2149, planetary nebula, central star, mass loss and wind vel., UV spectral obs. 2−68879
IC 2149, planetary nebula, central star wind, existence from UV spectral obs. 2−79192
intermediate type stars, effective temps. from spectra and model anal. 2−68728
interstellar absorption band at 220 nm, equivalent width catalogue 2−100760
IRC+10216, C star, acetylene in shell, abundance from IR spectra 2−112458
stellar spectra continued
IRC+10216 (CW Leonis), circumstellar molecular emission and mass loss rate 2−68928
IRC+10°216, circumstellar shell NH_3 inversion lines, SHF obs. 2−63428
IRC 10216, shell CN abundance from EHF obs. 2−89326
IRC 10216 (=CW Leonis), shell 30 micron feature obs. 2−100937
IRS 7, 12, 19, galactic centre red giant sources, 2 μm spectra obs. 2−101091
L 1363-3, C_2 white dwarf, UV absorpt. spectrum, obs. 2−84230
EW Lacertae (HD 217050), Be star, mag. field and shell disturbances, visible obs. 2−79115
Lanning 10, eclipsing cataclysmic variable, photometric and spectroscopic obs. 2−58321
late type dwarfs, spectral characts. and radial vel., visible obs. 2−58335
late type giant stars, chromospheric Ca II and Hε lines, photoelectric measures 2−89250
late type main sequence stars, convection zone-spectral type var., effect on mag. field 2−58338
late type stars, spectral line asymmetries and convective velocities, obs. 2−68729
late type stars, vibr. excited SiO maser lines, EHF obs. 2−84219
late type stars chromospheres, Ca II K-emission line width model 2−84216
late type stars with/without high temp. outer atm., HR diagram boundary 2−89229
late-type dwarfs and subdwarfs, near UV spectra and line identification 2−58344
late-type giant stars in Magellanic Clouds globular clusters, visual spectrophotometry 2−58414
late-type main-sequence stars, rot. vels. rel. to Ca II H and K emission and mag. struct. 2−68764
LB 3459 O-type subdwarf eclipsing binary visible/UV obs. 2−63504
α Leonis, probable new Be star, obs. of variable weak emission in Hα 2−112442
ε Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
CW Leonis (IRC+10216), molecular line obs. 2−63435
CW Leonis (IRC+10216), rot. temps. of cyanodiacetylene 2−63559
CW Leonis (IRC+10°216), $HC_{11}N$ detection in cool C star 2−58369
line driven winds, radiatively driven shocks formation and X-ray emission 2−68731
line photons formed in planar atm., escape probability 2−68725
line profile fluctuations in a turbulent atmosphere 2−112429
line source functions dipole scatt., effects of redistribution 2−73957
LINPOS, and interactive program for stellar line position measurement 2−94623
LMC member stars, catalogue and radial vels. from objective-prism plates *(French)* 2−100763
LMC reddened stars, obs. of far UV extinction and interstellar 4430 Å band 2−106898
LMC supergiants, effective temp. and radii, absolute flux and flux distrib. from UV obs. 2−101067
LMC X−4, X-ray binary, possible disc, UV spectral obs. and light var. 2−63507
luminous stars in H II regions, wind interactions, spectral anal. and obs. 2−84213
RY Lupi, T Tauri star, optical spectrum obs. rel. to cause of light variability 2−79098
α Lyrae, CNO abundances from visible obs. 2−68759
β Lyrae, Hα profile, image isocon obs. (1974-5) 2−106806
β Lyrae, magnetic field intensity from 100 spectrograms *(Russian)* 2−74032
MV Lyrae, red+white dwarf model, UV spectra anal. 2−94726
RR Lyrae, spectral peculiarities from visible obs. *(Russian)* 2−79112
α Lyrae (Vega), anal. of spectrum in 3600 to 4200 Å region 2−84232
RR Lyrae stars, C abundance from visible photometry/spectra obs. 2−73978
RR Lyrae stars in halo globular cluster Pal 13, spectra and metal abundance 2−106822
RR Lyrae stars in Magellanic Clouds, age, mass and metallicity, spectral obs. 2−89357
RR Lyrae stars towards galactic anticentre, metal abundances, visible obs. 2−63427
M16 HH1, Herbig Haro object identification, visible obs. 2−63582
M31 globular clusters, dynamics and metallicity, visible obs. 2−106825
M5 and M71, globular clusters, giant stars HR diagram positron and mass loss, obs. 2−100999
M71, globular cluster metal abundance from photometry and spectra 2−68840
M-type dwarf stars, discoveries on southern red-sensitive objective-prism plates 2−100761
M-type giants and supergiants, Li abundance from visible obs. 2−84225
M-type Hα emission stars, discoveries on southern red-sensitive objective-prism plates 2−100761
M-type luminous stars, 3-dimens. classification scheme 2−89244
Magellanic clouds, hot stars flux distribution, winds and extinction law, UV spectral obs. 2−68891
magnetic Ap stars, calc. of Stokes parameters for line emission 2−94747
magnetic line intensification mechanism, rel. to broadband linear polarisation from magnetised stellar atmospheres 2−112431
magnetic stars line transfer equation of radiation in mag. field presence in non LTE atm. 2−78967
Melotte 66, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
metallic line stars spectra, catalogue of Ca II K line profiles/equivalent widths 2−84111
methods of spectral classification of stars, appl. to study of galactic struct. *(Russian)* 2−94705
microdensitometry used for spectral classification 2−63264
Milne-Eddington atmosphere, vel. fields anal. by spectral line profile bisector 2−100750
Mira, giant+white dwarf, components UV spectra, obs. 2−84252
R Monocerotis, absorption line vels. rel. to NGC 2261 and proper motions of (HH-39) 2−106841
RW Monocerotis, Algol type binary star, spectral types from five-colour photometry of primary eclipse 2−94782
BM Monocerotis, Algol-type binary, spectral type and apsidal motion 2−100988
AV Monocerotis, eclipsing binary, UV spectra anal. 2−74029
R Muscae, Cepheid variable, UV spectrum obs. rel. to presence of chromosphere 2−89273

stellar spectra continued
SY Muscae, symbiotic star brightening interpretation, UV spectra/continuum obs. 2−89270
MWC 17, BQ[] star, spectrophotometric obs. in January 1982 2−84245
MWC 349, peculiar emission-line stars, near IR spectral vars. 2−84241
neutron star gamma ray sources spectra, role of cyclotron reson. processes 2−58374
neutron stars, X-ray bursts spectra rel. to mass and radius determ. 2−68933
NGC 2243, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
NGC 2547, southern open cluster, UBV and Hβ obs. rel. to basic parameters and luminosity function 2−58416
NGC 6823 field, stellar photometry and spectra rel. to struct of inner edge of local spiral arm *(Russian)* 2−94831
NGC 7006, anomalous globular cluster, IR colour-magnitude diagram and spectra rel. to second parameter 2−68843
nonthermal features in Xe stars, implications for thermodynamic requirements on stellar atmospheric models 2−63390
normal upper main sequence stars, mag. field search 2−100897
Nova 4 in M31, spectroscopic obs., (1982 September 27) 2−117684
Nova 5 in M31, discovery, H and blue magnitudes and precise position 2−117684
Nova Aquilae 1982, 10 μm silicate emission feature obs. and photographic magnitudes 2−112461
Nova Aquilae 1982, discovery of 10 μm feature due to circumstellar SiC grains emission 2−94750
Nova Aquilae 1982, IR spectra features and visual mag. estimates 2−100950
Nova Coronae Austrinae 1981, spectrophotometry (9-10 April 1981) 2−79108
Nova Serpentis 1970 (FH Serpentis), spectral obs. during early decline stage 2−94742
novae in M31, discoveries, precise positions and spectra of four novae 2−112462
NP 0532, spectrum, IR fluxes and pulse shapes, JHKL obs. 2−63488
O3 type stars, membership and spectrum obs 2−58343
O-type stars, N anomalies 2−79091
O-type stars, optical review 2−63414
O-type stars, Uv spectra rel. to stellar winds 2−63385
O-type stars and related objects, near IR spectra 2−63416
O-type stars direction, interstellar column densities, depend. on reddening 2−58431
O-type stars in open cluster IC 1805, mass loss rates from C IV reson. line profiles 2−68734
OAO-2 photometry and spectrophotometry, presentation supported by UBV, ANS and TD1 obs. 2−58329
OB stars in galactic halo, spectra and photometry rel. to atmospheric parameters and chemical comps. 2−106706
OB stars in SMC, spectral classification and rot. vel., visible obs. 2−74101
OB-type eclipsing binaries, optical spectra 2−63515
OB-type supergiants, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
objective prism survey in southern hemisphere on red-sensitive plates, extension to high galactic latits. 2−100761
Odessa Astronomical Observatory catalogue, comparison with Vilnius Observatory and Johnson and Mitchell's catalogues *(Russian)* 2−78980
Of stars, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of-like stars with circumstellar shells, spectral classifications for LMC objects 2−84235
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
ζ Ophiuchi, interstellar $^{12}CO/^{13}CO$ abundance ratio from UV obs. 2−63557
ζ Ophiuchi, obs. of interstellar C_2 absorpt. lines 2−63558
RS Ophiuchi, recurrent nova, UV spectral obs. 2−79110
ζ Ophiuchi direction, B and Be abundance in interstellar medium 2−79182
Orion population stars, absence of coronal line emission 2−63402
β Orionis, Copernicus UV spectral atlas and line identifications 2−106703
β Orionis, evidence for Compton red shift in stellar chromosphere 2−106644
FU Orionis, pre-main-sequence star, spectral energy distrib. obs. 2−73970
YY Orionis stars, spectral line form. in infalling envelopes using multilevel H I atom 2−89260
AR Pavonis, symbiotic eclipsing binary, UV spectrum during eclipse egress, obs. 2−73996
peculiar B and A stars, spectrophotometry 2−112457
γ Pegasi, β Canis Majoris star, profile vars. of Si III lines and Mg II doublet 2−73982
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240
X Persei, Be star, detect. of Hα, obs. 2−84242
δ and ε Persei, line of sight interstellar matter velocity components 2−89324
β Persei (Algol), variable He I 10830 Å line obs. 2−112484
GK Persei (Nova 1901), UV spectral obs. 2−79110
h and χ Persei clusters direction, interstellar extinction towards nine stars, UV obs. 2−63580
PG 1550+191, AM Herculis star, discovery of M-type dwarf component from spectrophotometry at red wavelengths 2−94755
PG 1550+191, AM Herculis star, polarisation and period, visible obs. 2−84265
RR Pictoris (Nova 1825), UV spectral obs. 2−79110
α Piscis Austrini (A3 V), UV interstellar C I detection 2−117734
TX Piscium, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
Pleiades stars, interstellar lines obs. rel. to props. of diffuse interstellar gas 2−58426
posteruptive phase, shell 2200 Å graphite feature, var. in different models 2−63425
protostar in SMC H II region N76B, nature and IR obs. 2−100928
protostars, IR spectra and dust shell comp. 2−63395
protostellar objects, excess line emission 2−89249
pulsars, spectrum of coherent radio emission 2−79132
VV Puppis, AM Herculis, time-resolved spectroscopy 2−112449
VV Puppis, AM herculis star, cyclotron spectrum and polarisation props., model 2−58409
RX Puppis, symbiotic star, spectra anal. and circumstellar shell activity, UV obs. 2−89266
KQ Puppis, UV spectrum, IUE obs. 2−106795
ζ Puppis (04f), UV spectrum rel. to warm wind model 2−63388
radial velocities from Herstmonceux and Kottamia (1964-1971), catalogue 2−94628
radial velocity measurements, use of Image Photon Counting System 2−106684
radiative transfer, angle-averaged redistribution function in the laboratory frame 2−84082
RC 0050-2722, very low luminosity dwarf star, optical and near IR spectrophotometry 2−79097
red giant stars, atomic and mol. spectra for C-rich stars rel. to model atmospheres 2−112426
red giant stars, metal deficient, C and N abundances 2−84233
red giant stars, temp. classification from MK types based on TiO band strengths 2−94722
red giants, molecules column densities, appl. to bands identification 2−100927
red giants evolution to planetary nebulae, evidence from spectra 2−94711
Red Rectangle (GL 915), possible planetary nebula precursor, near IR spectroscopy 2−106840
relativistic Keplerian ring line profiles *(Chinese)* 2−112430
ROB 162 in globular cluster NGC 6397, O-type subdwarf, UV spectrum 2−63406
rotating expanding spherical atmosphere, line form., optical depth effects 2−73958
rotation period determination, use of Ca II mag. field as tracer 2−117642
S and MS-type stars, discoveries on southern red-sensitive objective-prism plates 2−100761
GY Sagittae, Cepheid nature and membership of OB assoc., visible obs. 2−100933
HM Sagittae, peculiar emission-line star, visible and near IR spectral vars. 2−84241
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
V3885 Sagittarii, nova like variable, accretion disc model and wind, UV obs. 2−94725
RY Sagittarii, R Coronae Borealis variable, circumstellar extinction meas. from UV spectrophotometry 2−106747
V4024 Sagittarii (=MWC 311), Be star, H and H emission line vars., (1975 to 1982) 2−94752
σ Scorpii, β Cephei star, UV spectrum obs. rel. to pulsation of outer layers 2−89274
V861 Scorpii, eclipsing binary, wind parameters and evolutionary status, spectra/photometry anal. 2−68834
α^2 Scorpii, IUE obs. of absorpt. line spectrum rel. to mass loss from α^1 Scorpii 2−58334
τ Scorpii (B0 V), UV spectrum rel. to warm wind model 2−63388
δ Scuti stars, Mg II h and k line obs. 2−73981
δ Scuti stars, pulsational mode typing from line profile-model comparison 2−63424
semi infinite atmosphere, reson. radiative transfer, Monte Carlo calcs. 2−68733
semiregular variable stars, short-period, with maser emission 2−63420
RW Sextantis, cataclysmic binary, accretion disc with hot wind, model and line anal. 2−94724
Sharpless 106, bipolar nebula, central star spectral type from visible/IR obs. 2−68856
SMC stars spectra, equivalent width meas. 2−100926
SMC X−1, X-ray binary, possible disc from light var. and UV spectral obs. 2−63507
SN 1980k in NGC 6946, interstellar spectrum 2−74059
southern hemisphere stars of astrophysical interest, objective-prism discoveries 2−79077
southern stars, radial vel., BV colours and magnitudes for 339 stars 2−94709
spectroscopic binary stars in Scorpius OB 1 association, radial vel. studies of three new massive binaries 2−112493
ST 3, WC-O VI star spectrum 2−68786
subgiant CH stars, s-process abundances, C/O ratios and evolutionary status 2−112451
supergiant stars, early type, Hα emission variability and struct., obs. and model atm. anal. 2−106701
supergiant stars spectral energy distribution 2−84231
supernova in NGC 7713, confirmation, spectroscopic obs. and BV photometry 2−106759
supernova models and gamma-line spectra 2−117689
symbiotic stars, UV spectra model atm. anal., companion nature and spectrum origin 2−68773
RW Tauri, accretion disc, visible spectral obs. 2−94769
V471 Tauri, eclipsing binary, radial vel. curve and orbital elements from spectroscopic obs. 2−63516
20 Tauri, He weak star, abundance from model atm. anal. and visible obs. 2−73997
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
V711 Tauri (HR 1099), RS Canum Venaticorum star, Hα emission obs. 2−63511
T Tauri stars, Balmer decrement, contrib. of envelope 2−58341
T Tauri stars, obs. of rapid line profile variability 2−73963
T Tauri stars, turbulent velocities and mass outflow, visible obs. 2−68766
T Tauri stars, winds anal. from CO lines obs. 2−100925
47 Tucanae, photometry and spectra rel. to anticorrelation of C and N on horizontal branch 2−63541
4U 1735−44, X-ray burster, accretion disc struct., UV spectral obs. 2−58391
4U 1822−37, eclipsing X-ray binary, X-ray spectrum simulation 2−89313
4U 2129+47, X-ray binary, radial vel., mass, spectral line origin, obs. 2−68930
Upgren 1, open cluster membership and radial vel., UBVRI and spectral obs. 2−94799
AN Ursae Majoris, AM Herculis star, 1979 minimum, energy distrib., visible obs. 2−63423
ε Ursae Majoris, spectral var. of Ap star 2−79105
UV excess stars, spectral classification visible obs. 2−100907
UV spectra, interstellar absorpt. lines obs. rel. to element depletions in interstellar gas 2−106871
UV stellar classification, workshop, Vilspa, Spain (1981 October 26 to 28) 2−84390

stellar spectra continued
vA 771, spectroscopic binary, orbit and possible membership of Hyades, visible obs. 2−63503
vB 166, spectroscopic binary, orbit and possible membership of Hyades, visible obs. 2−63503
Vela X-1, Ariel V hard X-ray obs. 2−106778
γ Velorum, IR spectrum of Wolf-Rayet system 2−112467
TW Virginis, dwarf nova during outburst, winds and mass transfer, UV obs. 2−117674
α Virginis, line profile var. due to rot. and β Cephei pulsation effects, visible obs. 2−63459
ρ Virginis (HR 4828), possible Maia type variable, photoelectric and spectrographic obs. 2−112441
BW Vulpeculae, β Cephei type variable, UV spectrum obs. rel. to pulsation of outer layers 2−73980
SV Vulpeculae, Cepheid, turbulence during pulsation from spectra anal. 2−106721
ES=2 Vulpeculae, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
AM Herculis-type eclipsing binary (1114+18), photometric, polarisation and spectrum vars. and ephemerides 2−58408
WC stars in LMC H II region 30 Doradus, detect. and luminosities, visible spectral obs. 2−58368
white dwarfs, He-rich, with metal features, grain accretion from interstellar medium, model 2−117667
white dwarfs, magnetic, influence of magneto-optical effects on line spectrum 2−112443
white dwarfs, nearby, UV spectra rel. to nature of local interstellar medium 2−106690
white dwarfs, obs. 2−73968
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438
Wilson-Bappu effect, depend. on stellar atm. parameters 2−84223
wind theory, line acceleration calc. for radiatively driven winds 2−106668
Wolf 630, multiple star red dwarf X-ray source, X-ray emission anal. 2−106790
Wolf Rayet stars, 3.3 μm emission line-identified with C IV (11-10) transition group 2−63453
Wolf Rayet stars, winds velocity characts. from UV spectral obs. 2−68795
Wolf Rayet stars winds and UV/visible P Cygni profiles 2−63452
Wolf-Rayet stars, IUE UV spectrophotometry 2−58360
Wolf-Rayet stars, UV spectra rel. to chemical nature and evolutionary status 2−63479
Wra 977 (4U 1223−62), B1.5 supergiant, spectroscopic orbit 2−106814
X-ray binary periodic sources, spectrum versus phase from balloon X-ray obs. 2−63502
X-ray binary stars, accretion disc coronae around eclipsing systems, spectra 2−89298
X-ray binary stars, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
X-ray emitting stars, IUE UV obs. of Hyades 2−100930
X-ray spectra of polar hot spot on accreting neutron star 2−84267
ZB 33, very short period variable star, spectroscopic and photographic obs. *(French)* 2−63447
Ba stars, spectral classification 2−63400
Be-stars, mass loss from UV spectra 2−73991
C IV resonance lines profiles in hot stars spectra, observational test of temp. struct. in stellar atmospheres *(Russian)* 2−112435
C star in SMC globular cluster Lindsay 102, discovery and spectrum 2−63430
C stars, 3 μm absorpt. anal. circumstellar emission, IR spectra/photometry obs. 2−73974
C stars, atomic and mol. lines rel. to model atmospheres 2−112426
C stars, chromosphere nature from UV spectral obs. 2−100936
C stars, cool, spectra, colours and HR diagram anal. 2−73969
C stars, discoveries on southern red-sensitive objective-prism plates 2−100761
C stars in Carina dwarf spheroidal galaxy, spectra and photometry rel. to galaxy age 2−68774
C stars in Draco dwarf spheroidal galaxy, spectra and photometry 2−68723
C_2 white dwarfs, influence of C_2 absorpt. bands on UBV magnitude 2−63403
Fe emission lines from magnetised neutron star surface, observational possibility 2−84260
FeO in late-type stars, unsuccessful search for J=5-4 transition 2−74045
HCN in Orion A cloud, spectral data interpretation 2−106870
Hα emission objects in region in Vela, search and catalogue 2−78979
Hα emission stars, newly discovered, in region of γ Cygni, photographic B-magnitudes and Hα intensities 2−84110
He I 10830 Å line as measure of coronal emission in X-rays 2−117660
He I 4471 Å overlapping line Stark profiles, appl. to model atom. anal. 2−68726
He-rich stars, Hα emission 2−79096
He-rich stars, periodic spectrum vars. 2−106743
Hg-Mn stars, Be abundances from near UV spectra 2−112448
Mg II 2800 Å resonance line emission in different rot. vel. and metal abundance stars 2−100896
N V resonance doublet in early-type stars, Copernicus UV obs. 2−117681
NH_3 in stars, IR heterodyne spectroscopy 2−68635
O-rich stars, IR spectra anal., use of amorphous silicate smoke spectra 2−94703
Ti abundance towards high galactic latitude stars, Ti II obs. 2−84301
TiO band strengths in cluster giants, model atmospheres 2−100998

stellar spectrophotometry *see stellar photometry*

stellar structure
see also solar interior
3000 $M_\odot$ star, vibrational instability rel. to R136a problem 2−79083
ZZ Ceti stars, accreted H mass determ. 2−94712
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
convection zone structure, development of stellar convection theory 2−100911
cool non DA white dwarfs, model atm. struct. 2−84226
dense stars, physics of dense plasmas and enchancement of thermonuclear reaction rates due to strong screening 2−100725
dwarf novae, influence of tidal effects on the structure of accretion discs 2−79126
stellar structure continued
envelopes, calc. of parameters of ionisation dissociation shock waves *(Russian)* 2−73956
extreme C stars, circumstellar dust shells morphology from optical spectropolarimetery 2−112447
hot stars, structure and props. of stellar winds rel. to theory of mass loss 2−63394
LB 3459, O-type subdwarf eclipsing binary, primary mass and struct. 2−63504
long-period variables, theoretical growth rates, periods and pulsation consts. 2−106715
low-mass main sequence stars, semiconduction occurrence and effects 2−79084
magnetic stars, stability and oscillations 2−100908
massive stars, effects of stochastic fluctuations in mass loss rate on struct. and evolution 2−106674
massive stars, influence of initial stellar comp. and mass loss on evolution 2−106682
multimode stellar pulsations, ratio of dynamical and thermal time scales rel. to anharmonic oscills. 2−106673
neutron stars with pion condensation, model calc. *(Russian)* 2−63494
numerical computation of stellar evolution, stable numerical methods 2−100912
planetary nebula central star, radiation through gravit. contraction of envelope 2−63565
PSR 0329+54 and 1237+25, mode switching due to surface composition and struct. var. 2−94761
pulsar crust Ae phase, eqn. of state allowing for superstrong mag. field 2−117696
pulsars, magnetospheric structure 2−100968
pulsating stars, distrib. law of stellar p-modes 2−84215
pulsating stars, effect of rot. and tidal distortions on periods of small adiabatic oscillations of stellar models 2−106675
pulsational stability problem, calc. of lowest eigenvalue via Schwartz iteration method 2−106671
rotating polytropes, struct. and oscills. 2−117662
rotating stars, theory of Eddington-Sweet circulations 2−112423
Schweizer-Middleditch star, not stellar remnant of (SN 1006) 2−68798
spots on surface, effects on radii and luminosity 2−73953
starspot heat flow in convective zone, implications for light variations from spotted stars 2−73954
supernovae, physical classification based on cores and H-rich envelopes *(Russian)* 2−106761
white dwarfs, numerical function values for slowly rotating partially degenerate semirelativistic isothermal spheroids 2−63409
X-ray bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
He star of 1 $M_\odot$, evolution in struct. and luminosity to white dwarf stage 2−68785

stellar variables *see variable stars*

stellar winds
see also circumstellar shells
3rd IUE European Conference in Madrid, Spain (May 1980) 2−101135
acceleration of cosmic rays 2−106433
accretion disc winds driven by super-Eddington luminosities, thermal and spectral props. 2−84076
accretion disc winds driven by super-Eddington velocities, dynamical theory 2−84075
V1343 Aqilae (SS 433), B-type star wind confining W50 radio ansae 2−63473
R Aquarii, symbiotic star, mass ejection rel. to elongated extension of stellar image 2−117685
V1343 Aquilae (SS 433), stellar wind mass loss rel. to simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), system embedded in dense symm. outflowing atm. 2−63471
V1343 Aquilae (SS 433) accretion disc luminosity and false expanding photosphere 2−63469
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission, UV/visible obs. 2−68758
RW Aurigae, T Tauri star, evidence for mass infall and outflow from obs. of rapid line profile variability 2−73963
B-type supergiant stars, wind superionisation due to Auger ionisation by X-rays 2−84228
Balmer decrement in expanding stellar envelopes 2−84221
Barnard Loop Nebula possible stellar wind bubble, visible obs. 2−58432
Be stars, mass losing rot. mag. wind, Weber and Davis theory modified 2−63201
binary, supergiant+main sequence stars, winds interactions, shock fronts anal. 2−112489
binary neutron star, companion wind accretion on neutron star, γ-ray burst model *(Chinese)* 2−79246
binary stars, effects of mass loss on evolution 2−63536
binary stars, mass loss effects on evolution during various evolutionary stages 2−68832
binary stars orbit evolution-mass relation taking mass loss into account 2−68835
binary systems, X-ray induced winds, hydrodynamics models 2−94700
bipolar nebulae, stellar wind model 2−74074
Carina Nebula, available energy from stellar winds 2−68869
SV Centauri, interacting early-type contact binary, mass loss from system 2−100979
Circinus X-1, X-ray obs. in low state rel. to X-ray absorpt. by primary star stellar wind 2−112504
conference on stellar evolution-mass loss relations, Trieste, Italy (Sept. 1980) 2−63746
cool star mass loss, spectroscopic obs. anal., analogy to Sun 2−68743
cool stars wave-driven winds, mag. field effects 2−89230
coronae, effect of heating on energy balance and stellar wind 2−112425
CI Cygni, symbiotic star, interacting winds rel. to UV obs. during 1980 eclipse 2−63437
Cygnus OB 2 association stars, wind vel. law and mass loss, visible/IR obs. 2−68841
in dark clouds, pedestal features and low-mass star formation 2−84292
S Doradus, envelope emission and mass loss 2−94729
doublet resonance lines in expanding stellar wind, nonlocal radiative coupling, escape probability treatment 2−68730
early type stars, comparison of winds in Small Magellanic Cloud/Galaxy, spectral obs. 2−84218

stellar winds continued
early type stars, heating mechanism, radiation press. causing ion motion 2−58326
early type stars, mass loss depend. on stellar parameters 2−68741
early type stars, mass loss implications for evolution 2−68744
early type stars, mass loss rates from JHKLM obs. 2−68742
early type stars, modelling of UV reson. line form. in expanding envelopes 2−63386
early type stars, radiative wind accel. 2−68745
early type stars, wind models from UV reson. line narrow profile components 2−94699
early type stars winds, review and determination methods 2−68740
Egg Nebula, possible planetary nebula precursor, stellar wind shock rel. to IR spectrum 2−106840
energy balance of stellar coronae, role of stellar winds 2−112424
evolution of interacting close binaries, mass loss effects 2−68833
expanding circumstellar envelopes, ionisation and vel. struct. 2−63370
fluctuation theory of the stellar mass loss 2−68747
G134.2+0.8, H II region formed by B0.5 star wind, SHF obs. 2−74046
giant stars, late type, rapid mass loss onset, mag. field effects 2−79095
giant stars, mass loss rel. to planetary nebulae 2−68878
giant stars, photosphere motion and circumstellar region gas motion, CO IR obs. 2−68771
globular cluster X-ray emission due to cluster wind interaction with galactic halo obs. 2−58502
HBV 475 (V1329 Cygni), peculiar emission-line star, interacting winds model for expanding motions in ionised envelope 2−68781
HD 193793, WN7 star, wind vel. and circumstellar dust shell, UV obs. 2−84236
HD 50896, WN5 star, stellar wind rel. to kinematics of assoc. ring nebulae (Sharpless 308) 2−68852
HD 80077, B2 supergiant spectroscopic binary, mass loss, visible obs. 2−100923
HD 87643, peculiar Be star, mass loss from Fe II lines obs. 2−68784
HH 24-27, HH 1-2, Herbig-Haro objects, obs. of nearby high-vel. mol. gas 2−112526
hot star winds, energy transport 2−63373
hot stars, radiation driven winds, models involving radiative transfer 2−63372
hot stars, theory of mass loss 2−63394
hot stars, X-ray emission from shocks in line driven winds 2−68732
IC 2149, planetary nebula, central star, mass loss and wind vel., UV spectral obs. 2−68879
IC 2149, planetary nebula, central star wind, existence from UV spectral obs. 2−79192
intermediate mass stars, mass loss effects on ultimate fate 2−68772
IRC+10216 (CW Leonis), circumstellar molecular emission and mass loss rate 2−68928
late type stars, wind accel. mechanisms 2−68746
line driven winds, radiatively driven shocks formation and X-ray emission 2−68731
LMC 2, supergiant shell driven by stellar winds and supernovae, dynamics 2−101014
long-period variable stars, mass loss rates theory 2−94748
low mass stars evolution, effects of mass loss 2−68750
LSS 4064 and 4065, WR stars in C1715−387, radiation and mass loss 2−89317
luminous stars in H II regions, wind interactions, spectral anal. and obs. 2−84213
Lupus Loop, assoc. H I, shell expansion and models involving supernova in stellar wind bubble 2−106862
Lynds 1529, dark cloud, winds role in kinematics and energetics 2−74054
M5 and M71, globular clusters, giant stars HR diagram positron and mass loss, obs. 2−100999
Magellanic clouds, hot stars flux distribution, winds and extinction law, UV spectral obs. 2−68891
magnetospheres and stellar winds *(Japanese)* 2−73952
main sequence low mass star at constant mass loss rate, evolution 2−117661
mass loss from massive stars, constraints from $\Delta Y/\Delta Z$ ratio and galaxies chemical evolution 2−74107
mass loss in galactic nuclei, rel. to struct. and evolution of galaxies nuclear discs 2−94833
mass loss in heavier stars, effect on interstellar 2−68880
mass loss parameters rel. to HR diagram 2−68737
mass loss rate determined by photosphere conditions, hydrodynamics anal. 2−79076
mass stars, evolution of various mass models with mass loss 2−68749
massive Population I stars, core processes and evolution, mass loss effects 2−84211
massive single stars, effects of mass loss on evolution 2−63391
massive stars, effects of stochastic fluctuations in mass loss rate on evolution 2−106674
massive stars, influence of initial stellar comp. and mass loss on evolution 2−106682
massive stars, theoretical evolution with mass loss by stellar wind 2−63392
massive stars losing mass+ang. momentum, evolution, appl. to WR stars 2−63362
massive stars mass loss and evolution, review 2−68748
Mira variables, dust driven wind and expansion vel. 2−106729
R Monocerotis, circumstellar torus and stellar wind model for NGC 2261 and (HH-39) 2−106841
AV Monocerotis, eclipsing binary mass outflow characts., UV spectra anal. 2−74029
NGC 2071, refl. nebula, evidence for bipolar gas flow from CO 2−58425
NGC 6302, poly-polar nebula, wind driven, ionised gas parameters from spectral lines 2−89339
nova-like optically thick winds 2−79080
O-type stars, mass loss and evolution, symposium, Vancouver Island, Canada (1978 June 5 to 9) 2−58541
O-type stars, optical spectra rel. to mass loss 2−63414
O-type stars, stellar wind mass loss rel. to evolution and Wolf-Rayet connection 2−63477
O-type stars direction, interstellar element depletion rel. to mass loss rate 2−58431
O-type stars in open cluster IC 1805, mass loss rates from C IV reson. line profiles 2−68734
OB stars, cosmic ray acceleration and gamma-ray production 2−63396
OB type stars wind acceleration, momentum problem and terminal vel. 2−63405
stellar winds continued
OB-type stars, critical rates of mass loss for evolution to Wolf-Rayet stars 2−63393
OB-type supergiants, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of stars, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
Of stars, mass loss during H burning stage rel. to evolution into Wolf-Rayet stars 2−63479
Of stars, search for ring nebulae *(Russian)* 2−73999
Of-type stars, stellar wind mass loss rel. to evolution to WN7/WN8 stars 2−63478
planetary nebulae central star winds interaction with remnant red giant envelopes 2−94711
planetary nebulae central stars mass loss rates 2−68879
planetary nebulae progenitors, role of randomly emerging mag. flux in driving stellar winds 2−89335
planetary nebulae with close binary nuclei, corrections to ang. momentum loss 2−89259
pre-main sequence stars, ionised envelopes props. and mass flow rates from radio obs. 2−73966
premain sequence stars in W51 region, H_2 emission implications for mass outflow 2−79228
protostellar objects, excess line emission due to wind originated extended atmospheres 2−89249
protostellar objects, mass and momentum loss, evolutionary scenario 2−112420
ζ Puppis (04 If), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
ζ Puppis (04f), UV spectrum rel. to warm wind model 2−63388
radiative flux from nonspherical winds 2−68735
radiatively-driven stellar winds theory, line acceleration 2−106668
radiatively-driven winds in O-type stars, model improvements, ionisation balance and IR spectrum 2−63387
red giants, winds and late evolution 2−100915
2S 1223−624 (GX 301−2), X-ray binary, neutron star accretion model 2−89312
V3885 Sagittarii, nova like variable, accretion disc model and wind, UV obs. 2−94725
V861 Scorpii, eclipsing binary, wind parameters and evolutionary status, spectra/photometry anal. 2−68834
ζ^1 Scorpii, variability and mass loss in extreme supergiant 2−63407
τ Scorpii (B0 V), UV spectrum rel. to warm wind model 2−63388
Scorpius-Ophiuchus association, stellar winds and supernovae rel. to local interstellar medium 2−63554
σ Scropii, β Cephei star; transient stellar and assoc. with pulsation of outer layers 2−89274
RW Sextantis, cataclysmic binary, accretion disc with hot wind, model and line anal. 2−94724
shock-heated stellar atmospheres, theoretical formalism rel. to coronae and mass loss rates 2−89239
single/binary stars, nucleosynthesis, mass loss and nucleosynthesis 2−89248
SN 1979c, progenitor star as red supergiant giant with extensive shell and wind 2−100964
supergiant stars, early type, Hα emission variability and struct., obs. and model atm. anal. 2−106701
supergiant stars, mass loss rates rel. evolution of Cassiopeia A progenitor 2−63417
supernovae, Type II, presupernova mass loss rates determ. from radio emission 2−106756
T Tauri, double star detect., mass on flow anal. 2−74019
T Tauri stars, case for anisotropic mass loss 2−94721
T Tauri stars, mass loss and struct., SHF obs. 2−68753
T Tauri stars, turbulent velocities and mass outflow, visible obs. 2−68766
T Tauri stars, winds anal. from CO lines obs. 2−100925
thermally sustained stellar winds, theory 2−63367
thermodynamic requirements on atmospheric models, implications of observed nonthermal mass fluxes 2−63390
UV view of stellar winds in O-type stars, review 2−63385
γ Vetorum (WC8+09 I), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
TW Virginis, dwarf nova during outburst, winds and mass transfer, UV obs. 2−117674
BW Vulpeculae, β Cephei type variable, mass loss rate due to pulsation of outer layers 2−73980
warm wind model for OB-type stars, appl. to τ Scorpii and ζ Puppis 2−63388
Wolf Rayet stars, winds velocity characts. from UV spectral obs. 2−68795
Wolf Rayet stars in M33 H II region NGC 604, winds supplying kinetic energy 2−74052
Wolf Rayet stars winds and UV/visible P Cygni profiles 2−63452
Wolf-Rayet binary stars, effects of stellar winds on evolutionary computations 2−63480
Wolf-Rayet stars, Fabry-Perot obs. and kinematics of stellar wind blown bubbles 2−68853
Wolf-Rayet stars, mass loss rates from IUE UV spectrophotometry 2−58360
Wolf-Rayet stars, obs. of ring nebulae produced by stellar winds 2−68854
Wolf-Rayet stars ^{22}Ne surface abundance and cosmic ray composition and accel. 2−94568
Wra 977 (4U 1223−62), B1.5 supergiant, wind characts. rel. to spectroscopic orbit determ. 2−106814
X-ray binary stars, effects of X-ray heating and ionisation on stellar winds 2−106775
X-ray sources, recurrent, effect of stellar wind vel. on eccentric-orbit binary model 2−84275
young stars, mass outflow 2−94822
young stars, radio emission obs. rel. to mass loss 2−73965
young stars, stellar winds rel. to early stages of stellar evolution 2−106672
C stars, interacting winds model for mass loss 2−94735
C stars, models of grain forming atm. and mass outflow 2−89267
CO in Herbig-Haro-like GGD objects mol. clouds, mass outflow anisotropy 2−117730
H I regions interactions, H II regions form. 2−68752
H_2O maser outburst in Orion, condensation acted on by young star wind *(Russian)* 2−68877

stellarators
Alfven wave heating, HF electric and mag. field struct. 2−81525
CIEO stellarator, electron cyclotron reson. heating, prod. 2−71219
confinement, ohmic heating current, diamagnetic signal calcs. *(Russian)* 2−60783
expansion at finite aspect ratio 2−109611
finite field harmonics, improved aspect ratio 2−109610
fusion reactor approach, review 2−91649
fusion research with magnetic plasma confinement *(German)* 2−91644
gas ionisation in toroidal discharge, Tokamak and stellarator conditions *(Russian)* 2−91704
geometries, connection length, ballooning mode stability 2−71232
high-beta stellarator, book contrib. 2−76181
HV-DC circuit breaker for 20 kA, 12 kV and its protection system *(German)* 2−76168
L-2 stellarator, solid H pellet interaction *(Russian)* 2−76170
magnetic configuration, central region, mag. surface distortions, compensation 2−71235
magnetohydrostatic finite beta equilib. numerical study 2−109612
modular stellarator coils, optimisation techniques 2−109563
modular stellarator magnet design 2−69913
modular stellarator reactor, conceptual design 2−85318
plasma equilib., method of transforming variables *(Russian)* 2−103408
plasma pressure limit 2−71248
review, book contrib. 2−71253
scalar two-dimensional equilibrium eqn. for stellarator *(Russian)* 2−55779
soft X-ray emission, from L-2 stellarator, saw-tooth oscills. *(Russian)* 2−103311
symmetry-breaking toroidal perturbations of a stellarator magnetic field 2−103410

STEM *see scanning-transmission electron microscopy*

step motors *see stepping motors*

step-recovery diodes *see charge storage diodes*

Stepanov method *see crystal growth from melt*

stepped motors *see stepping motors*

stepping motors
linear step motor drive for auxiliary blood circulation equipment and partially implantable artificial heart 2−78500
linear step motors for medical apparatus and medical-biological research instruments 2−78516
precision manipulator for neurophysiological investigation of animal brains using microelectrode with step motor drive 2−78517

stereoisomerism *see isomerism*

stereoscopy *see vision*

stiffness constants *see elastic constants*

stimulated Brillouin scattering
amplification regime, reversing mirror charact. control 2−81026
backward stimulated Brillouin scatt. waves, phase conjugation charcts. *(Chinese)* 2−90988
benzene, wavefront reversal of weak Brillouin-shifted signals 2−70611
carbon tetrachloride, wavefront reversal of weak Brillouin-shifted signals 2−70611
coherent states, photon and phonon statistics of Brillouin scatt. 2−97104
conjugate wave phase instability 2−86058
excitation by incoherent optical radiation 2−114379
introduction to nonlinear optics, theory and practical appls. 2−97102
KrF laser amplifier with phase-conjugate Brillouin retroreflectors 2−108865
large-scale field struct. at wavefront with spatially inhomogenous pump, theory 2−114378
laser, generation of short radiation pulses in mode locking 2−86016
laser plasma, dispersing, induced Mandel'shtam-Brillouin scatt. spectrum, ang. charcts. 2−91679
laser wavefront reversal, appl. *(Czech)* 2−86055
lasers, high brightness, using stimulated Mandelstam-Brillouin scatt. phase conjugation 2−97118
Mandelstam-Brillouin stimulated scatt. mirror, appl. to subnanosecond high contrast laser pulse production *(Russian)* 2−70609
monomode fibre, stimulated Brillouin scatt. suppression during high power narrowband laser light transmission 2−97192
nonlinear stabilisation Landau damping effect *(Chinese)* 2−108949
phase conjugation by stimulated backscatt., reviews 2−70621
phase conjunction and image reconstruction in stimulated scatt., holographic model 2−90991
piezoelectric semiconductors, solid plasma, Brillouin instability 2−104902
plasma, reduced stimulated Brillouin scatt. from CO_2 laser interaction 2−103393
plasma, stimulated Brillouin scatt. reduction by ion acoustic harmonic generation 2−60737
plasma-laser interaction, stimulated ion-Compton laser modulation 2−103309
single-mode long fibres, transient stimulated Brillouin scattering 2−81091
single-mode silica fibre, observation of stimulated Brillouin scattering at 1.3 μm 2−81090
US coherent shear waves, laser excitation theory 2−114365
wavefront reversal by stimulated Brillouin scatt., laser correction and pulse compression appls. 2−70620
Z pinch plasma, enhanced ion wave damping and stimulated Brillouin scatt. 2−65729
Zakharov-Manakov soln. of stimulated Brillouin backscattering amplifier problem for non-rectangular envelopes 2−60162
CCl_4, conjugate wave phase instability at stimulated Brillouin scatt. 2−86058
I laser optical inhomogeneities, dynamic correction 2−70555
n-InSb, solid plasma, Brillouin instability 2−104902
KrF with phase-conjugate Brillouin mirror 2−60136
SF_n, wavefront reversal of weak Brillouin-shifted signals 2−70611

stimulated dielectric relaxation currents *see thermally stimulated currents*

stimulated emission
see also laser theory; lasers; population inversion
acetic acid-d_1 optically pumped submm. laser, 363-756μ range 2−55134
2-amino-7-nitrofluorene solutions, stimulated emission charcts., statistical intermol. process effect 2−60074
3- amino-N-methylphthalimide solutions, stimulated emission charcts., statistical intermol. process effect 2−60074
atoms, forward laser light scatt. in mag. field, perturbation theory 2−96515
channelled electrons, stimulated emission possibility, optical and X-radiation generation 2−116208
channelled electrons, X-ray stimulated emission, theory 2−85979
crystal lasers, physics and spectroscopy, current trends 2−90902
p-difluorobenzene, selective vibr. excitation by stimulated emission pumping 2−85618
p-difluorobenzene vibr. relax. in ground state, stimulated emission pumping preparation 2−96698
excited state, chemically pumped, superfluorescence 2−65064
formaldehyde, $\tilde{X}^1A_1$ system, selective vibr. excitation by stimulated emission pumping 2−96586
frequency variation of intra-cavity laser radiation, theory 2−86008
gamma ray amplification through stimulated annihilation radiation appl. to cosmic gamma ray sources 2−58499
gamma-ray laser, coherent and incoherent pumping with intense optical radiation 2−96878
I tunable anti-Stokes Raman laser, 178 nm 2−75560
ionic crysts., luminescence and stimulated emission from colour centres 2−82893
laser cryst., physics and spectroscopy stimulated emission, cascade schemes review 2−80973
metal surface, laser stimulated nonequilibrium EM emission 2−87915
methanol optically pumped submm. laser, emission lines, 150-970 μ range 2−55135
methylamine optically pumped submm. laser, emission lines 2−55135
mixed mol. crysts., stimulated emission, nonlinear coherent interaction effects and relax. 2−75547
molecular gas, coherent emission, polarisation wave, control of transverse dimens., expt. study 2−114230
molecules, free, complex, spontaneous and stimulated emission, polarisation 2−81443
multi-atom system, coherent radiation and entropy increase, theory *(Chinese)* 2−90848
multiply ionised ions, hydrogenic states, X-ray laser pumping with ionising radiation 2−55132
nitromethane optically pumped submm. laser, 311-1070 μ range 2−55134
plasma optical absorption for various collision regimes, stimulated emission in Gaunt-Maue branch 2−71115
rare-earth ion activator centers in garnet struct. laser cryst., spectroscopic anal. 2−110893
relativistic charged channelled particles, spontaneous and stimulated γ radiation 2−72521
relativistic electron beam, passing through mag. field, stimulated emission 2−75502
resonance medium, EM noise charact. filtering under collision, radiation trapping conditions 2−90851
rhodamine-6G solutions, stimulated emission, light quenching of fluoresc. effect 2−60073
semiconductors, radiative transitions between exciton sub-bands 2−99155
semiconductors lasers, longitudinal mode self-stabilisation 2−96950
transparent thin target, laser irradiated, rear surface temp. meas. 2−57220
AlGaAs laser diode, spontaneous and stimulated emission, picosecond. meas. 2−65216
$Al_xGa_{1-x}As$ laser, longitudinal mode self-stabilisation 2−96950
$BaEr_2F_8$, self-activated laser crystal, three-micron stimulated emission of Er^{3+} obs. 2−85976
CaF_2-HoF_3 (ErF_3), cryst. growth from melt, laser props. 2−105063
$CdGa_2S_4$, cathodolum. obs. in spontaneous and stimulated regimes 2−116209
CdS, radiative transitions between exciton sub-bands 2−99155
Cr^{3+}:$BeAl_2O_4$, alexandrite, ground state absorpt. determ. over tunable lasing region, 830 to 690 nm 2−60088
DF-CO_2 pulse-periodic chemical laser, 16μ stimulated emission feasibility 2−55138
GaAs:Si quantum well, degenerately doped, stimulated emission, luminescence 2−65215
GaN epitaxial layers, highly excited, photolum. and gain spectroscopy 2−77561
GdF_3-CaF_2:Nd^{3+} trigonal crysts., disordered, spectroscopy and laser emission 2−82905
$Gd_3Ga_5O_{12}$:Ho^{3+}, cascade generation of Ho^{3+} ions, solid laser appl. 2−85975
Ho^{3+},Er^{3+}:$LiYF_4$, multifreq. and cascade prod. of induced emission, delayed induced afterglow from Ho^{3+} 2−87819
Ho^{3+}, $^5I_7 \rightarrow {}^5I_8$ laser transition at 2 μm 2−110892
InAs, two-photon optically pumped stimulated recomb. radiation in high mag. fields 2−93228
InSe, stimulated photoluminescence 2−67113
KCl:O_2^-, superradiance and high-gain mirrorless laser activity 2−87820
$KGd(WO_4)_2$:Ho^{3+}, 2-μm stimulated emission 2−104915
$KLu(WO_4)_2$:Ho^{3+}, 2-μm stimulated emission 2−104915
$KY(WO_4)_2$:Ho^{3+}, 2-μm stimulated emission 2−104915
LaF_3:Er^{3+}, 0.2 THz phonon stimulated emission, luminescence study 2−81906
$LaNbO_4$:Ho^{3+}, 2-μm stimulated emission 2−104915
$La_{0.1}Nd_{0.9}P_5O_{14}$ CW laser at 1.051 and 1.32 μm 2−70567
$LiYF_4$:Er^{3+}, stimulated emission 2−116210
$Lu_3Al_5O_{12}$:Ho^{3+}, 2-μm stimulated emission 2−104915
$(Lu_{1-x}Er_x)_3Al_5O_{12}$, garnets, 3 μm stimulated emission and spectroscopic props. 2−93229
Na_2, coherence effects in laser-fluorescence molecular-beam magnetic resonance 2−90619
Nd:$LiYF_4$, CW laser operation, comparison with Nd:YAG 2−60086
Nd:YAG, absorpt. and stimulated emission cross sections, nonreciprocity due to vibronic interactions 2−82879
Nd^{3+}:$BiCl_3$ glass, stimulated emission cross-sections meas. 2−90899
Nd^{4+}:oxide (halide) glasses, stimulated emission cross-sections meas. 2−90899
$Pb_5Ge_3O_{11}$:Nd^{3+}, cryst. growth and spectroscopic props. 2−99178
PbTe, stimulated radiation polarisation charcts. *(Russian)* 2−61929
XeF, from Xe-F collision, laser induced reson., stimulated emission 2−80784
$YAlO_3$:Ho^{3+}, 2-μm stimulated emission 2−104915
$(Y_{1-x}Er_x)_3Al_5O_{12}$, garnets, 3 μm stimulated emission and spectroscopic props. 2−93229
ZnSe, stimulated photoluminescence, lasing mechanism 2−99183

stimulated Raman scattering
see also coherent antiStokes Raman scattering
active four-photon Raman spectroscopy 2−114369

stimulated Raman scattering continued
backward scatterings in picosecond range, generation and geometrical conditions for wavefront reconstruction 2−55277
benzene, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
benzene, inverse Raman scatt. spectra regularities 2−70608
coherent Raman mixing, five-wave model 2−102870
coherent Raman mixing in a vibrator 2−114366
coherent Raman mixing with simultaneous forward and backward wave excitation 2−102871
condensed media, freq. dispersion of nonlinear susceptibilities near single-, multi-quantum resons. 2−114362
cyclohexane, inactive vibr. recording in IR spectrum and Raman scatt. using stimulated Raman scatt. 2−108528
dispersion-free medium, stimulated Raman scatt. in ultrashort light pulse field 2−97114
dispersive medium, stimulated Raman scatt. in chaotic incoherent pump field 2−55258
four-wave mixing and stimulated Raman scatt., steady-state plane-wave analytic solns. 2−108957
gaseous system, stimulated Raman effect quantum statistics 2−102872
gases, stimulated Raman scatt., higher component generation, role of parametric effects 2−97113
introduction to nonlinear optics, theory and practical appls. 2−97102
inverse Raman scatt. spectra regularities 2−70608
large plasmas, stimulated Raman scatt. 2−103380
laser-fusion and laser-plasma interactions 2−76165
laser-switched collision processes, diagrammatical anal. 2−55098
liquids, comparison of schemes for four-photon spectroscopy with high spectra resolution 2−114363
magnetoactive plasma, effect on penetration of EM field 2−109524
methane Raman amplifiers, intensity averaging and four-wave mixing 2−55255
microtheory of nonlinear polarisabilities of crystals, effects of space dispersion 2−108943
multimode pumping, in dispersive medium, stimulated Raman scatt. 2−97108
multiphoton Raman scattering of light, active spectroscopy 2−108954
multiple-pass stimulated Raman conversion, design consideration 2−97116
optical fibre, multimode gradient index, optical time domain reflectometry at 1.5 μm using stimulated Raman scatt. 2−65379
optical fibre, Raman mixing 2−97177
optical fibre, stimulated Raman scatt., Stokes wave mode struct. 2−91072
optical fibres, parametric amplification and freq. conversion 2−86044
organic index-matching fluids, high intensity transmission props., stimulated Raman scatt. thresholds 2−102866
parametric excitation of eigenmodes, stimulated Raman scatt. 2−114993
partially coherent optical radiation stimulated scatt., dominant conversion 2−108952
phase conjugation by stimulated backscatt., reviews 2−70621
phase conjunction and image reconstruction in stimulated scatt., holographic model 2−90991
phase front reproduction in Raman conversion 2−102869
polarisability variation of medium under stimulated Raman scatt. 2−64990
pump spatial variations transfer to Stokes phase in Raman amplifiers 2−108958
quantum statistics, populated upper state effect 2−60050
self-focusing, registration and restoration of light wavefront 2−108981
semiconductor plasmas, stimulated Raman scatt. and instability 2−93196
SF_6, stimulated Raman study of CO_2-laser excited mol. 2−59811
solid-state ring laser, lasing props., intracavity stimulated Raman scatt. 2−70586
time domain reflectometry for ultralong multimode optical fibre fault location 2−97239
transient stimulated Raman scattering, energy fluctuations 2−90984
tunable fibre Raman oscillator in the 1.32-1.41 μm spectal region using a low-loss, low OH^- single-mode fibre 2−97105
tuned optical radiation oscillator, intracavity vibr. stimulated Raman scatt. *(Russian)* 2−86012
ultrahigh resolution Raman spectroscopy using free-expansion jet 2−108522
UV-laser produced plasma, stimulated Raman scatt. 2−71116
$CaCO_3$, high order CARS and CSRS spectroscopy 2−60169
$Cd_{1-x}Mn_xSe$, stimulated spin-flip Raman scatt., laser emission obs. 2−114287
Cs vapour tunable electronic Raman laser at 16 μm 2−75557
Cs vapour tunable IR laser system based on stimulated electronic Raman scatt. effect *(Chinese)* 2−90871
Ge:As, donor ground state, diamag. and Zeeman shifts, four-wave mixing spectroscopy 2−99096
H_2 gas, higher stimulated Raman scatt. component generation, parametric processes 2−90981
H_2 gas, higher-Stokes-order Raman conversion of XeCl laser 2−60161
H_2 gas, Raman freq. down-conversion of XeCl laser 2−97117
H_2 in solid SiO_2 optical fibres, new Raman-gain medium 2−90861
H_2, stimulated scatt. of long pulse length XeF* radiation 2−97115
I, $^2P_{1/2}$-$^2P_{3/2}$ Raman transition, cross-section and hyperfine struct. 2−96487
α-$LiIO_3$, stimulated Raman scatt., multimode lattice vibr. excitation obs. 2−65300
N_2, liquid, efficient Raman freq. conversion 2−55254
Na at. beam Ramsey fringes, stimulated reson. Raman tungsten obs. 2−64897
Pb vapour, high-efficiency joule-level Raman generation 2−60160
SiO_2-GeO_2 glass fibre optical waveguide, stimulated Raman scatt. characts. 2−70607

stimulated scattering
see also stimulated Brillouin scattering; stimulated Raman scattering
electron momentum modulation by stimulated Cherenkov interaction, theory 2−102708
gamma ray amplification through stimulated annihilation radiation appl. to cosmic gamma ray sources 2−58499
high power lasers using stimulated scatt. of Nd laser light 2−97118
laser plasma, homogeneous and inhomogeneous, stimulated scatt. and harmonic radiation *(Chinese)* 2−76086
laser-fusion and laser-plasma interactions 2−76165
opposite pump beam stimulated scatt. characts. 2−114376
partially coherent optical radiation stimulated scatt., dominant conversion 2−108952

stimulated scattering continued
phase conjugation by stimulated backscatt., reviews 2−70621
relativistic electron beam, Coulomb interaction effects *(Chinese)* 2−102864
resonance media, wavefront inversion efficiency during four-photon scatt., angular depend. 2−114382
wavefront reversal for intracavity stimulated temperature scatt. of light 2−108969
BaS phosphors, cryst., colour centres, stimulated IR spectra 2−104875
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
Ge, pulsed-laser-annealed, stimulated surface polariton wave scatt. and grating formation, time resolved meas. 2−114359
I photodissociation laser, ultrasound intensity excited in stimulated light scatt., optically-controlled chem. reactions 2−60165
I photodissociation laser, possible gain control of stimulated enthalpy scatt. of light 2−90986
I photodissociation lasers, stimulated light scatt. by thermal waves excited in thermodynamically nonequilib. media 2−60164

STO calculations
acenes, electronic struct., ab initio interpretation of XPS data 2−90444
aziridines, N inversion barriers, hyperconjugation effects calcs. 2−96440
benzenes, monosubstituted and disubstituted, struct., ab initio STO-3G level calcs. 2−96434
borepin, geometry optimisation, ab initio MO calcs. 2−108356
calcium malonate, Ca(II) ion binding, ab initio calcs. 2−64857
chemical bonds, computerised pattern recognition, model and computation method 2−54753
CSF iterations, convergence methods, appl. to CNDO, INDO and STO-3G calcs. 2−64852
α-cyano carbanions, isomerisation, struct., stability, ab initio STO calcs. 2−102370
cycloheptatriene, geometry optimisation, ab initio MO calcs. 2−108356
di- and triatomic mols., geometry, force consts., test of new SCF method 2−108367
diatomic molecules, bonding within local spin density approx. 2−113873
diatomic systems, HF Slater wave functions calc. 2−96441
dimethyl diselenide, torsional barrier heights, MO calcs. 2−102375
dithioglyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
ethene-HF, configs., interaction energy, ab initio SCF calcs. 2−113863
ethylenes, 1,2-disubstituted, ab initio STO-3G calcs. with geometry optimisation 2−96435
fluorobenzenes, lowest virtual MO orbitals, electronic props., ab initio STO-3G calcs. 2−113856
5-fluorouracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
formate, Ca(II) ion binding, ab initio calcs. 2−64857
glyoxal, lone-pair interactions, internal rot., pot. energy curves 2−64894
glyoxime, mol. struct., ab initio HF STO-3G calc. 2−96431
hybrid two-centre integrals, over Slater-type orbitals, computer generated formulas 2−80444
hydrocarbons, mol. struct. and stability, STO calcs. 2−80453
methylenephosphorane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methylenesulphurane, hypersurface, geometries, tautomerisation, dissoc. STO calcs. 2−54756
methyllithium clusters, binding energies, geometry, ab initio SCF STO calcs. 2−96787
5-methyloxyuracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
naphthothia-diazines and naphthoselina-diazines, electronic struct., STO-3G calc. and XPS meas. 2−90445
organic compounds, struct., rot. barriers, STO-3G MO calcs. 2−108350
organic molecules, /1,3/dipolar cycloadditions, LCAO-SCF-MO ab initio calcs. 2−111462
organic mols., dipole moments, atomic electron populations, ab initio MO theory 2−108329
paraphenylenes, electronic struct., ab initio interpretation of XPS data 2−90444
perfluorocarbon, use in O_2 and CO_2 transport, STO-3G calcs. 2−88527
spin projected Slater determinants, transformation under orbital permutation 2−80432
thymine, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
two-centre overlap and Coulomb integral evaluation from Slater-type orbitals 2−80434
uracil, and 4-hydroxytautomeric form., ab initio MO STO calcs. 2−113864
vinylamine, struct., ab initio MO calc. with complete geometry optimisation using three different basis sets 2−113855
vinylcyclopropane, rot. isomerism, pot. energy curves, ab initio SCF calcs. 2−108352
Al−O−Al, linkage stability in zedites, MO STO-3G calcs. 2−64871
C_3H_6O species, triplet state, isomerism, geometry, STO calcs. 2−85525
FSCN, He(I) photoelectron spectra, valence ionisation energies, HF Slater calcs. 2−80728
H-bonded molecules, ^2D quadrupole coupling, ab initio SCF calcs. 2−80655
H_2, spin orbit coupling consts. as function of internuclear distance, CI and STO calcs. 2−108401
H_2O_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
H_2S_2, lone-pair interactions, internal rot., pot. energy curves 2−64894
N_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894
N_2O_5, struct., ab initio restricted HF SCF MO calcs. 2−59685
P_2H_4, lone-pair interactions, internal rot., pot. energy curves 2−64894

stochastic automata
nervous system functions, general theory *(German)* 2−88493

stochastic processes
see also random processes
adiabatic elimination, systematic, for stochastic processes 2−107233
adiabatic processes in condensed phases, quantum stochastic Fokker-Planck theory 2−89615
adsorbate diffusion, particle hopping lattice gas model 2−92362
bistable systems, equilib. strength at deterministic limit of stochastic model 2−89623
Bloch eqns., randomly driven, differential eqns. 2−89617
book 2−74175
building solar heating systems optimised design and operation using climatic data stochastic model 2−116847

stochastic processes continued
cells, CHO, Cd transport and distrib. model 2−73214
circularly polarised standing wave, stochastic behaviour of particles 2−71131
classical stochasticity, quantum manifestations, bound states wave packets dynamics 2−101319
classical stochasticity, quantum manifestations, rel. to nonlinear systems energetics 2−101318
cluster growth on square lattice, simulation using stochastic model 2−101345
condensed phase, molecular dynamics, Fokker-Planck approach 2−74328
correlation time expansion for multidimensional weakly non-Markovian gaussian processes 2−89621
creep, dislocation struct. and internal stress, stochastic model 2−92088
critical slowing down 2−107285
de Broglie wave, rel. to EM and gravit., stochastic electrodynamics calc. 2−89590
decaying quantum states, stochastic mech. approach 2−74253
dechannelling model based on the stochastic theory for the axial channelling particles 2−98173
dielectric relaxation, multiplicative stochastic process anal. 2−82779
differential equations, linear stochastic, cumulant expansion for two-time correlation functions 2−101327
diffusion, position-momentum uncertainty rels. in stochastic mechanics 2−89628
diffusion coeff. determ. by fluoresc. correlation spectroscopy 2−95243
diffusion dynamics and related general EM pot. 2−95240
diffusion of Keplerian motions by stochastic force, general formalism 2−89117
diffusion processes, Debey-Smoluchowski eqn., Coulomb pot. unexpected symmetry 2−116680
discrete mappings, stochasticity, quasi-classical approx. 2−79417
distributed parameter systems, parameter estimation method 2−117505
dots, opaque, monosized, clustered distrib., density and granularity 2−74325
duality theory 2−53667
dynamic stochasticity in nonlinear quantum systems 2−101570
electron spin, stochastic electrodynamics calc. 2−79471
electronic music, digital techniques for sound synthesis *(French)* 2−70785
exchange dephasing, quantum theory of random freq. modulation 2−95238
exciton-phonon system, optical response, formulation of emission spectrum 2−67098
fast driving variables, contraction 2−74332
finite size effects in stochastically driven systems use of the Poisson representation 2−101328
fluctuation-dissipation relations for systems with internal multiplicative noise 2−107232
flutuating random surface, diffusion 2−95283
fractal diagrams for non-integrable hamiltonians 2−89624
fractal random walks 2−95241
free electron laser, electron motion in helical wiggler stochastic particle instability 2−90909
galaxies, evolution, stochastic models, directed percolation anal. 2−74091
gauge theory stochastic quantisation using supersymmetry formalism 2−95577
gauge-invariant Brownian motions and nonrelativistic quantum mechanics 2−107159
glass, spinodal decomp., stochastic theory of scatt., struct. and autocorrel. function 2−92211
gravitational radiation, contrib. of stochastic background to timing noise of pulsars 2−79249
Green's function, particle propagation in turbulent plasma 2−112822
heat conduction, chain model, stochastic dynamics 2−70811
Hopf bifurcation with fluctuating control parameter, Fokker-Planck eqn. soln. 2−84541
incompatible spin components, stochastic space meas. 2−79394
incomplete vibrational relaxation, stochastic models 2−54927
instrumentation, static metrological properties as multivariable random process *(Polish)* 2−89651
intermittency, exact solns. to Feigenbaum renormalisation group eqns. 2−84538
Ising model, stochastic process for computer simulation at equilib. 2−104636
isomerisation, probabilistic dynamics, sub master eqn. 2−88352
Ito type stochastic differential equation control problem 2−84542
KAM tori, link with nearby cycles 2−112825
Langevin eqns., coupled, nonlinear, asymptotic props. and cusp bifurcation in weak noise limit 2−107239
Langevin eqns., coupled, nonlinear, asymptotic props. and transition to limit cycle in weak noise limit 2−107240
Langevin equation with nonlinear periodic noise, exact soln. 2−101314
laser Doppler anemometer signals, digital processing accounting for non-uniform discretisation *(Russian)* 2−114936
linear stochastic differential equations, solns., time correl. functions, cumulant expansion 2−94983
lower and upper bounds for the eigenvalues of the Fokker-Plank equation in detailed balance 2−84540
Madey's gain-spread theorem and free electron laser appl. 2−102807
Malthus-Verhulst model, vectorial stochastic representation, transient behaviour near instability point 2−95246
Markov methods of analysis of stochastic quantum dynamics of quasiclassical open systems 2−95115
metal surface, sticking probability, electron-hole pair mechanism, temp. depend. 2−56336
mode coupling problems, new integral eqn. 2−63943
molecular liquid, extended diffusion oscillator model in two dimens. 2−91736
molecule, simulated, displacement following stochastic process, Boltzmann eqn. derivation 2−63899
monotonicity of the free energy in the stochastic Heisenberg model 2−53683
Mossbauer resonance coherent detection appl. to stochastic signals 2−107477
multidegree-of-freedom system with variable coeffs., response to random excitation 2−107088
multiplicative, Carleman imbedding 2−63904
multiplicative noise, analytical and numerical studies 2−107244
muscle force wavevorm study using population stochastic model of skeletal muscle 2−111650
muscle spindles, β motor stimulation effects on interpretation of signals 2−94081
Nelson process, sample-wise characterisation, two-sided continuous local semimartingales 2−112819
neuron, single motor unit, linear stochastic model 2−111649
NMR relaxation caused by spin-rotational interaction, stochastic differential eqn. study 2−82742
non-Gaussian parametric systems, stochastic stability 2−89629
non-linear stochastic proceses in presence of multiplicative noise, time behaviour 2−112816
non-Markov processes, theory of mean first passage time 2−79470
Non-Markovian macroscopic dynamics 2−101315
nonadditive fluctuations, generalised Langevin equation 2−79472
nonadiabatic processes in condensed phases and on surfaces, quantum stochastic theory 2−89616
nonequilibrium phase transitions, fluctuation dynamics *(French)* 2−84586
nonequilibrium stochastic transitions and quantum-mechanical tunnelling 2−112735
nonlinear oscillator, driven by random, periodic force, spectral anal., linearised theory 2−84469
nonlinear oscillators, self-synchronisation, universal evolution criterion 2−74315
nonlinear saturation, resonant coupling, stochasticity onset 2−55740
optimal control and quantum mechanics 2−95239
oscillator, chaotic behaviour, unstable periodic orbits 2−69088
oscillator, nonlinear, dissipative effects on stochasticity 2−69047
particle motion, one-dimensional dynamics, stochastic model, freq. and temp. depend. *(Russian)* 2−79473
particle motion, one-dimensional dynamics, stochastic model, dispersion *(Russian)* 2−79474
period-doubling bifurcations and associated universal properties including parameter dependence 2−107243
perturbed system, transient moments, Fokker-Planck spectrum 2−74333
photon counting statistics, dead time correction, classical theory 2−55103
photon pairs, correlated, motion, stochastic model 2−59023
Planck's formula for classical oscillators with stochasticity thresholds 2−112823
plasma, dissipative trapped-particle modes, anomalous dissipation effects 2−65707
plasma, kinetic eqns. in stochastic mag. field 2−65687
plasma drift waves, eigenmode calc., stochastic mag. field effects 2−65705
polymer chains, Edwards' model, Borel summability 2−95251
polymerisation reactions, stochastic theory 2−83384
quantisation, modification to true stochastic mech. 2−79416
quantum field theory, stochastic regularisation, superpropagator modification interpretation 2−95578
quantum optics, stochastic averages, functional integration calc. 2−90846
quantum stochastic processes 2−101242
quantum theory as probability theory on Hilbert space 2−95081
quantum thermal mixture, harmonic oscillator and thermal bath, stochastic description 2−63903
quartic anharmonic oscillator in stochastic electrodynamics 2−95036
radiant cavity, one-dimens. model, stochasticity threshold 2−70828
radiowave propagation inside ergodic layer 2−106416
random growing rate models, noise induced long-time tail, critical slowing down 2−112827
random walks with infinite spatial and temporal moments 2−84531
reaction diffusion systems, multivariate master eqn. stochastic derivation 2−93752
reaction-diffusion system, kinetic drumhead models of interfaces 2−112844
relative spatial diffusion in fluid turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
relative spatial diffusion in plasma turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
relativistic systems on phase space, procedure for quantisation 2−95583
slaving principle for stochastic differential equations with additive and multiplicative noise and for discrete noisy maps 2−89614
solar ^{3}He-rich particle events, stochastic Fermi accel. in Alfven turbulence rel. to particle spectra 2−106442
spatial stochastic systems theory and appl. to fields and waves in random moving media 2−53535
spin-1/2 particle in mag. field, stochastic description 2−101206
stable bed shear stress in curved channels, stochastic approach 2−60658
standard mapping, noise effects, accelerator modes and stochasticity 2−63907
star formation in irregular galaxies, self-propagating stochastic model rel. to chemical evolution 2−89363
statistical mechanics, nonconservative, stochastic evolution 2−74311
stellar mass loss rate, effects of stochastic fluctuations on evolution 2−106674
stochastic phase space formulation and non-potential interactions 2−95051
strange attractor dimensionality, box-counting algorithm impracticality 2−79480
subgrid turbulence modelling by homogenization 2−91398
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
transform theorem, counting statistics appl. 2−101324
two-level atom interacting with stochastic electromagnetic field 2−107167
two-state model, stochastic resonances 2−79348
unimolecular decay, quantum stochasticity model 2−93750
Universe, stochastic density fluctuations in radiation era 2−106969
unstable point relaxation, asymptotic probability distrib., path integral calc. 2−79477
unstable state decay, description of short and long time behavior 2−58713
Verhulst equation population average value 2−74324
water resources, stochastic modelling, pipeline processing on AP120B 2−111971
Ar particle in Ar fluid, Brownian motion, computer simulation 2−95245
H atom problem in stochastic electrodynamics, stochastic process nonrecurrence 2−74236

stochastic systems
see also random processes
cool stars atmospheres, expected broadband linear polarisation from random, distrib. of mag. regions 2−89241
correlation time expansion for multidimensional weakly non-Markovian gaussian processes 2−89621

stochastic systems continued
distributed parameter systems, parameter estimation method 2−117505
equilibrium relaxation from Boltzmann eqn. with isotropic cross sections 2−89622
Fokker Planck system, Kramers time 2−112804
Ito type stochastic differential equation control problem 2−84542
meteorology, stochastic field model for latit. depend. of variance of zonally averaged quantities 2−112008
optimal control and quantum mechanics 2−95239
sound source position calc. using passive sensor systems 2−114577
Universe, stochastic density fluctuations in radiation era 2−106969

Stockbarger method *see crystal growth from melt*

Stokes flow *see flow*

Stokes law (fluid mechanics) *see flow*

Stokes law (optical) *see luminescence*

Stokes lines *see spectra*

Stokes optical law *see luminescence*

stopping of particles *see energy loss of particles*

storage, analogue *see analogue storage*

storage, digital *see digital storage*

storage devices *see digital storage*

storage rings
ACO storage ring, beam line design and performance with toroidal grating monochromator 2−86080
ACO storage ring beam line, toroidal grazing incidence monochromator design and performance 2−86081
Adone, transverse optical klystron expt. 2−102806
Adone wiggler facility 2−59589
beam-beam interaction dynamics 2−113775
BESSY experimental facility, status report 2−85415
CERN, some astonishing ideas, bending magnet Fe-concrete cores *(French)* 2−113785
CHESS, Cornell High Energy Synchrotron Source, current status 2−85414
Daresbury synchrotron radiation source, vacuum instrumentation 2−84639
electron beam polarisation 2−113776
electron beam polarisation meas. using synchrotron radiation 2−80360
electron beam storage in annular dielec. channels, theory 2−85430
electron cooling 2−113790
electron linacs, appl. to storage ring RF systems and linear colliders 2−113763
electron self-polarisation effect, Compton scatt. test *(Russian)* 2−90343
electron storage ring, coherent RF radiation prod. by bunched electrons 2−54697
electron storage ring, particle losses at short times after injection 2−113782
electron storage ring at 10 to 100 MJ, theory 2−90329
electron storage rings, higher-order mode loss, in stationary state 2−85422
electron storage rings, synchrotron radiation and electron beam dynamics 2−113770
electrons polarisation using free electron laser 2−64711
free electron laser, ACO storage ring, gain meas. versus theory 2−55174
free electron laser, storage ring operation 2−75585
frere electron laser experiment on the ACO storage ring (Orsay) 2−65238
HASYLAB, synchrotron radiation facility at DORIS storage ring, survey 2−85416
high-energy facilities in Europe 2−80356
ISABELLE, small-angle physics 2−108167
Klein ERNA, table-top synchrotron radiation source 2−113780
LEP, transverse head-tail effect, finite synchrotron oscill. freq. influence 2−64725
LEP machine, implementation and techniques used for installed plant *(French)* 2−90330
LURE, French synchrotron radiation facility, status report 2−85417
MAX accelerator system with race-track microtron and pulse-stretcher/storage rings 2−90327
National Synchrotron Light Source, progress and prospects 2−85413
National Synchrotron Light Source, storage ring vacuum protection using fast valve 2−85421
National Synchrotron Light Source in IR region 2−85420
phase space density increases for high energy beams 2−54709
proton storage ring design 2−113777
RF accelerating system, numerical example 2−113778
single beam coherent instabilities 2−113772
SPEAR, undulator in spectral range 200-1000 eV 2−85439
SRS at Daresbury, IR beam port 2−85437
stochastic cooling 2−113789
SURF II, toroidal grating monochromator design 2−86077
SURF II facility at NBS, status report 2−85412
SURF-II irradiance uncertainty, X-ray, XUV and UV detectors linearity meas. 2−85440
SURF-II storage ring, beam line for X-ray lithography 2−85436
synchrotron radiation, generation, measurements and appls. *(Japanese)* 2−85411
synchrotron radiation for radiometric calibration 2−107378
synchrotron radiation source, modified Wadsworth monochromator theory 2−86078
Synchrotron Radiation Source status 2−85418
synchrotron radiation sources and instrumentation, review 2−108770
two-dimensional beam-beam interaction integrability 2−85454
UVSOR facility at IMS 2−85419
VUV storage ring, diamond turned mirrors for synchrotron radiation 2−86070
wiggler and undulator magnets for synchrotron radiation, overview 2−85438
X-ray storage ring, grating/crystal monochromator for spectral range 5 eV to 5 keV 2−84760
e^+e^- storage ring design 2−113779
e^+e^- colliding-beam storage rings, luminosity optimisation 2−113774

storage tubes
see also image storage tubes
No entries

stores (computer) *see digital storage*

storms
see also magnetic storms; thunderstorms
Andhra cyclone (1977), Bay of Bengal surges, effect of wind stress forcings 2−68373
Arabian Sea, tropical cyclone occurrence freq. 2−94439
Arabian Sea, tropical depression nature during SW monsoon onset 2−112078
Arabian Sea cyclone of 16-19 June 1979, winds and ang. momentum 2−88967
SE Asia winter monsoons, tropical motion mid-latitude forcing 2−78767
SW Asian summer monsoon, onset and maintenance, large scale heat budget role 2−112073
Atlantic hurricanes development, role of momentum eddy fluxes 2−78768
Atlantic tropical cyclones, track forecasting 2−73615
Australian region tropical cyclone development 2−88940
Bay of Bengal, cyclone wind threat estimates 2−112075
Bay of Bengal, storm surges 2−83844
Bay of Bengal, tropical cyclone occurrence freq. 2−94439
Bay of Bengal cyclone centres, thermosphere gravity waves and surface press. var. generation 2−117407
Bay of Bengal cyclones, rainfall and latent heat release from radar obs. 2−68439
Bay of Bengal/Arabian Sea, two simultaneous cyclones interaction and movements 2−112077
Bering Sea cyclone climatology rel. to sea ice extent 2−106180
Bhopal, India, monsoon rainwater chem. comp. obs. 2−68437
Bombay, SW monsoon precipitation patterns from 70 yrs pentad rainfall data 2−68391
boundary layer flow in hurricane and tornado vortices 2−68420
convective storm structure, vertical wind shear and buoyancy effects 2−112016
convective storms, jet stream config., 500 mb vorticity advection and low level thermal advection patterns 2−106192
Cooperative Convective Precipitation Experiment 2−100566
cyclone, vertical motion, horizontal spiralling wind field rel. to press. field 2−112074
cyclone climatology, appl. of test for principal components selection 2−106332
tropical cyclone development in westerly airstream, model 2−78745
cyclone forecast errors for NMC LFM-II model in 1978-9 cool season 2−106196
dust storms in Asia and aerosol characts. at Mauna Loa, Hawaii 2−63039
dust storms in Israel, and estimate of Sahara dust contrib. 2−68408
duststorm monitoring system combining satellite and surface data 2−63130
extratropical cyclone producing severe storms, available potential energy budget 2−112017
W Florida coastal waters, winter storm fronts rel. to atmospheric degassing of ^{222}Rn 2−78704
Fort Collins hailstorm, cloud origin and movement prediction 2−78723
severe frontal rainband over Central Valley, California 2−94443
Great Britain, heavy rain and snowstorms of April 1981 2−83933
Gulf of Alaska, boundary layer response to storms 2−89009
hailstone growth in storms, isotope and layer struct. study 2−117417
hurricane, radar reflectivity depend. on rainfall rate 2−94464
Hurricane David and response of Florida Atlantic shelf waters 2−68352
Hurricane Eloise in Gulf of Mexico, effect on ocean mixed layer 2−58065
hurricane Iva (13 Aug. 1978 over NE Pacific), wind and wave obs. 2−88954
hurricane passage over ocean, heat budget 2−83833
hurricane prediction using remotely-sensed rainfall rates 2−112019
hurricane response to local heat and momentum sources 2−94449
hurricane vortex evolution, numerical model 2−94450
hurricanes, four-dimensional anal. of development from easterly waves during GATE period 2−100466
hurricanes, origin, nature and effects (book) 2−63763
India, greatest one-day rainfall records 2−106272
India, monsoon rainwater, pH rel. to atm. CO_2 chemistry and content 2−68438
India, visibility assoc. with Andhi, effect of gravity dust settling 2−112130
India 1979 monsoon, onset delay, effects of extratropical blocking highs and flow patterns 2−112082
E India coast, tropical cyclone occurrence freq. 2−94439
Indian monsoon, southwest sector, high rainfall occurrence anal. 2−68436
Indian monsoons rainfall controlled by Indian Ocean-atm. interaction 2−68372
Indian Ocean summer monsoon devel. from wind stress patterns anal. 2−94455
Indian Ocean/Arabian Sea, monsoonal low level flows, pot. vorticity 2−78785
Indian sea areas, cyclonic storms and depressions in 1979, wind, press. and tracks 2−88965
Indian seas tropical cyclones, forecasting intensity and motion 2−68442
Indian summer monsoon, intensity var. from satellite cloud data 2−100517
Indian tornadoes, distribution and assoc. meteorological conditions 2−68443
Lake Michigan lake-effect snow storm, boundary layer struct. and horizonal roll convection 2−112038
Meteosat appl. to natural disasters detection 2−68593
midlatitude synoptic scale disturbances, pulse asymptotics of Charney baroclinic instability problem 2−100467
monsoon, fluid dynamics 2−83924
North America-North Atlantic region cyclone frequency prediction 2−106195
ocean, mixed layer response to storm winds in coastal areas 2−68346
ocean bottom stresses due to storms over continental shelves 2−68347
ocean response to storms, STREX program 2−89009
Oklahoma dryline and tornadoes on 8 June 1974 2−94441
Orissa, India, tornado of April 1978, synoptic conditions and form. 2−112080
prestorm boundary layer obs., single Doppler radar appl. 2−88963
QE II storm, 1978 September 10, gridded surface wind anal. rel. to SASS wind ambiguity removal 2−112013
rainfall rate, comparison of radar differential refl. and disdrometer meas. 2−73707

storms continued
Red River Valley storm environment during AVE-SESAME-1979 first period 2−78725
River Polomet, Russia, flood model using radar rainfall data 2−100411
runoff model incorporating radar data on rainfall 2−100411
SESAME-AVE IV, severe storm triggering mechanisms 2−100426
severe isolated rainstorms over Illinois, hydroclimatology 2−68472
severe storm environment, VISSR atmospheric sounder simulation expt. 2−106334
Sierra Nevada Mts, USA, seeding of towering cumuli 2−63053
snow growth in winter storms, airborne obs. technique 2−106353
tropical squall line, mesoscale air motions 2−106188
subsynoptic cyclone, numerical forecasting expt. *(Chinese)* 2−88947
successive cell development along cold outflow boundary, three dimens. numerical storm model 2−112036
sunspot cycle and flooding statistics for India 2−58116
Texas river flood recurrences from sediment record 2−78714
Texas storm environments during AVE-SESAME-1979 first period 2−78725
thunderstorms, D content in water vapour entering storm 2−78776
tornadic storm remote sensing by satellite IR method 2−94515
tornado development from Oklahoma dryline 2−94442
tornado development in severe frontal rainband 2−94443
tropical cyclone forecasting using bivariate normal distrib. 2−112052
tropical cyclones, large scale circulations 2−112020
tropical cyclones cloud spirals and wind field 2−88969
tropical cyclones over Arabian Sea and Bay of Bengal, radar features 2−88972
tropical storm Agnes transformation into extratropical cyclone, observed fields and vertical motions 2−112011
tropical storm Agnes transformation into extratropical cyclone, moisture, vorticity and kinetic energy budgets 2−112012
troposphere upper cold low in western North Pacific, anal. using GMS satellite data 2−100461
typhoon, lowest 1 km outside eye, dynamics 2−100458
typhoon development along tropical convergence zone, model *(Chinese)* 2−78736
typhoons frequency over W Pacific Ocean, effect of thermal state of equatorial E Pacific *(Chinese)* 2−88941
typhoons in intertropical Convergence Zone, devel. and origin 2−78822
typhoons over NW Pacific Ocean, statistical anal. of positioning errors *(Chinese)* 2−88948
W United States, November 13, 1981, press. field and nature 2−94479
E United States, storm trajectories determ. from D/H isotopic comp. of precipitation 2−68444
NE United States storm duration and seasonal precipitation rates 2−100420
wave cyclone development, latent heating effects 2−112041

strain ageing
dynamic and static, strain depend. 2−67384
Haasen plots, model and interpret. 2−72781
steel, deform., process development with temp., acoustic emission study of A508 and A533B 2−57423
steel, low alloy, metastable austenite, mech. props. 2−105254
steel, mild, aged, plastic behaviour 2−93559
steel, stainless, maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
Cr La-Ta-O-C-N dil. alloy, fracture and plasticity, structural effects *(Russian)* 2−99481
Fe, high-purity, effect of strain ageing on fatigue crack propagation 2−105316
Hb-Hf, dynamic strain aging, 20 to 900°C *(French)* 2−57377
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
Ni-Cr-Co, age-hardened, delayed discontinuous plastic flow, mechanism 2−93553
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081

strain gauges
see also strain measurement
amplified acoustic stringed instruments, acoustic feedback elimination using strain gauge sensors 2−55383
artery contour transducer with compliant fingers and semiconductor pick-ups 2−62825
balance, capacitive transducer linearisation 2−58809
balance dynamic interference compensation 2−58808
biomedical strain gauge US therapeutic exposimeter 2−111760
bonded resistance, in stress anal. 2−111392
bore-hole strain meter for meas. of seismic waves and Earth tides *(Chinese)* 2−73694
calibration by moire interferometry 2−114743
design of sensors with metal foil strain strips *(German)* 2−84615
dilatometer for the study of rare earths at cryogenic temperatures *(French)* 2−64014
electromechanical, for deform. meas. of ferromagnets 2−93705
fatigue crack closure gauge, compliance meas. 2−89704
fatigue damage gauge design 2−111433
fibre optic strain gauge based on microbending losses 2−91079
foil strain gauges for stress analysis and for transducers 2−95355
heart perimeters measurement in animal research, strain gauge system isolated from elec. ccts. using optocouplers *(Spanish)* 2−68214
interferometric strain/displacement gauge appls., review 2−86245
laser speckle strain gauge, simplified, surface displacement detect. 2−91360
load cell, advantages over electronic proving ring 2−101381
magnetic tape extensometer *(French)* 2−89754
mechanical impedance gauge based on vibrating rod strain meas. 2−91353
muscular action measurement, use of strain gauge meas. method *(German)* 2−88709
nondestructive strained state investigation method 2−55524
optical fibre strain gauge, single-mode, dynamical behaviour 2−81095
piezoelectric strain transducer for force meas. in presses, up to 500 tons *(German)* 2−64019
piezoresistive, force meas. exerted on sediment grain 2−68539
post yield strain gauge behaviour, calibration 2−89701
precision improvement by reverse-current circuit *(German)* 2−84614
pressure-capacitance gauge, immersible, design 2−74406
resistance, accuracy and reliability *(German)* 2−79565
resonant diaphragm pressure gauge, using piezoelectric transducer 2−95359
semiconductor remotely-operated pressure gauges *(Russian)* 2−64060
strain gauges continued
sensing element of strain gauge based on the oscillator effect 2−101393
sensors with thin film strain strips of metallic and semiconductor materials *(German)* 2−84616
shock loaded solids, mean and deviatoric stresses, piezoresistive deviatoric gauge meas. method 2−55520
stress analysis by holographic intrferometry and strain-gauge technology *(German)* 2−97481
thin film pressure sensor design and manufacture *(German)* 2−79570
transverse sensitivity, simplified method for eliminating error 2−79555
vibration pick-up model GCS-1 design *(Chinese)* 2−69166
Si circular-diaphragm pressure sensor, design considerations 2−95336
Si strain gauges application to pressure and force measurement in biomedicine *(Czech)* 2−57917
Si strain gauges for mechanical variables meas. in biomedicine, stability problems *(Czech)* 2−62803

strain hardening *see work hardening*

strain measurement
see also strain gauges
bone strain measurements and anal., in vivo, accuracy enhancement 2−117170
bore-hole strain meter for meas. of seismic waves and Earth tides *(Chinese)* 2−73694
crack-tip-strain loop appl. to fatigue-crack propag. 2−55501
curved surfaces, strain determ. using far field objective laser speckles 2−91361
cylinder with holes under compression, strain analysis by multiaperture white light speckle method 2−65541
DEER rheometer method with const. stress for rheological meas. *(French)* 2−65543
deformed state examination, interference optical methods, survey 2−114745
EPR, strain modulated, second harmonic detection, strain parameters of degenerate lines 2−53801
fatigue-induced surface plasticity, meas. method 2−88306
fibre optic coherent interferometric sensors, optical FM appl. 2−91084
fibre optic strain sensors, high sensitivity, for measuring structural distortion 2−74407
Fourier X-ray line shape anal. of single reflection 2−97846
graphite, irradiation-induced creep testing, computer-supervised data logger 2−69762
grid method for strain meas. 2−103125
high temperature extensometer for creep and fatigue testing 2−72894
holographic interferometry, perspective corrections for deform. meas. 2−96859
holographic moire method for displacements, strains, contours and slopes of surfaces determ. 2−86241
laser speckle subjective method, appl. to solid mechanics problems 2−91354
metal optical correlation method 2−105393
metals, sheet, residual stresses determ. 2−72902
Moire methods, fracture mech. appl. 2−65550
moire photography, high resolution, for engineering structure deform. meas. 2−103124
optical fibre cable, strain relief measurement 2−65367
plate, diffused, angularly vibr., real-time imaging and strain distrib. anal., shearing interferometry 2−69244
rock strain determ. from deformed ellipsoids, initial fabric role 2−83977
rotating components, contactless strain meas. using AC current bridges 2−65552
scattered light speckle metrology development, strain, displacement and velocity meas. 2−91356
semiconductor wafer wire bonding process, characterisation by X-ray diffr. topography 2−78031
servo-hydraulic test rig for controlled cyclic strain and temp. testing 2−57559
shearography, optical method for strain meas. and NDT 2−91355
speckle method, white light, for strain analysis, theory and appls. 2−103122
speckle method, white light, perspective effect 2−74487
steel, mild, mech. behaviour invest. by combined-stress testing machine 2−105419
steel, sheet, residual stresses determ. 2−72902
strain hardening curves, meas. technique for obtaining true stresses and strains *(Russian)* 2−93527
tensometric data acquisition systems, metrological support problems 2−95365
thick walled cylinders, pressurised, cracked, strain behaviour 2−116524
Al alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
GaP_xAs_{1-x} filamentary crystals, strain meas. props. and piezoelectric effect *(Russian)* 2−66992
Ni alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Pb alloy model beams, rig for creep and thermal ratchet testing, strain and temp. meas. 2−57558
Si_3N_4, neutron irradiated, X-ray anal. of internal strain 2−93557
Si_2ON_2, neutron irradiated, X-ray anal. of internal strain 2−93557
Ta-Ni thin film sensor system, temp. and strain meas. appl. *(German)* 2−64018

strange particles
see also hyperons; kaons
mesons weak hadronic decays in QCD 2−64318
production in heavy ion collisions, hadrochemical model anal. 2−64383
quark-gluon plasma, strangeness prod. in QCD, chemical equilibration time 2−69408
weak nonleptonic processes of strange and charmed mesons, unified SU(4) description 2−59085
$B'\rightarrow B\gamma$, strange baryons, dimension-five effective operators calc. 2−74691
$\nu(\bar{\nu})$, charged-current interactions, strange particle prod. 2−69444

strangeness *see strange particles*

stratified flow
annular flow stability in horizontal tubes 2−114875
atmosphere, three-dimensional model of ship waves in lee of isolated topography 2−100474
atmosphere boundary layer, appl. of model of flow over low hills to real terrain 2−100428
baroclinic instability of source-sink driven flow, theory for two-layer rotating fluid 2−103145
Benjamin-Ono eqn. direct linearisation 2−107108

stratified flow continued
binary mixture, stability of plane-parallel convective flow 2−55556
boundary layer, stratified, turbulent, heat-and-mass transfer *(Ukrainian)* 2−60530
boundary mixing in stratified fluid 2−109391
compressible stratified shear flow, Brunt-Vaisala freq. induced instability 2−109392
convection in stratified flow, ADI on staggered mesh anal. 2−109316
cylinder, transitional and turbulence zones, heat exchange by streamline flow of air *(Russian)* 2−60540
double diffusive thermohaline system heated from below, multilayer model for mixing layer developments 2−109388
flow of two immiscible liquids between rotating discs *(French)* 2−109386
fluid, freely convective mass transport 2−60607
gas bubble motion in vibr. cylindrical vessel containing two layer liq. 2−60630
gravity currents in the laboratory, atmosphere, and ocean 2−97617
gravity waves, nonlinear reflection at a critical level 2−55601
gravity waves, nonlinear reflection at critical level 2−55602
horizontal boundary surface, between immiscible liquids, stability in electric field 2−86350
internal gravity waves in stratified shear flow, instabilities 2−114767
jet development in stratified fluids *(French)* 2−109379
layered convection and crystal layers in multicomponent systems, appl. to magma chambers 2−106116
magnetisable fluids, interface stability between moving layers 2−86321
measurement by conductor heat loss determ. *(German)* 2−68540
MHD of stratified fluid between rot. coaxial cylinders, instability 2−114768
nonhomogeneous fluid flow, Navier-Stokes eqn. soln. 2−70894
nonlinear hydrodynamic stability for continuously stratified fluid, analogue for equivalent barotropic model 2−100563
nonlinear internal waves in stratified and sheared medium 2−60567
plane parallel flow of a binary mixture of fluids 2−91524
radiative fluids, transient and transport coeffs., astrophys. appl. 2−94588
Rayleigh Taylor instability in stratified fluids, normal modes and symmetries 2−70913
Rayleigh-Taylor hydromagnetic instability of stratified fluid 2−114925
rise of buoyant plumes in stratified environment, numerical study of flow development 2−97615
rotating fluid, hydromagnetic Rayleigh-Taylor instability 2−75933
rotating nonisothermal compressible stratified atmosphere, Alfven wave propag. WKB approx. 2−109346
shear flow, Couette and Garcia flows, unstable modes, evolution eqn. 2−71006
shear flow, steady state relations between disturbances above and below critical level 2−55636
simple gas flows with large density gradient layers 2−76011
slurries, through horizontal venturi meters 2−109387
solitary waves in unbounded stratified fluids 2−91475
stable salinity gradients, heated from below or cooled from above 2−65634
steady flow patterns of internal solitary bulges in a statified fluid 2−97616
steady stratified flows in porous media 2−109393
steady three dimens. flow, numerical anal. 2−109390
stratified liquid with obstacles, surface waves 2−97577
thermally stratified flow under unstable conditions, turbulence, ordered motion 2−109389
thermally stratified fluid in cylinder, spin-up numerical solns. 2−71005
tube banks, velocity fluctuations influence on heat transfer *(Russian)* 2−60541
turbulence enhancement by shear field 2−109302
unstably-stratified open-channel shear flow, turbulence struct., buoyancy effects 2−109305
vortex breakdown study 2−65593
water, thermally stratified buoyant flows, mixing and heat transfer study 2−70942
York River, Virginia, destratification due to estuary-subestuary interaction 2−106143

stratosphere
see also ozonosphere
aerosol (1974-80), comparison of lidar and balloon borne particle counter meas. 2−106232
aerosol and condensation nuclei conc. increase due to Alaid eruption (April 1981) 2−73624
aerosol conc., dependence on solar activity 2−83921
aerosol concs. and turbidity (1959-70) over China *(Chinese)* 2−88994
aerosol contribution by mixing with troposphere 2−112026
aerosol dispersion *(Russian)* 2−100465
aerosol increase during 1981, lidar obs. over central Europe 2−100450
aerosol injected by Soufriere volcano, St.Vincent 2−106279
aerosol injected by tropical cumulonimbus 2−112027
aerosol meso-scale variability *(Russian)* 2−94438
aerosols, observation and theory review 2−106278
altitude determination for remote sounding method for atmos. temp. 2−63134
brominated methanes and ethanes, photochemistry in stratosphere/troposphere from UV absorpt. spectra 2−111600
chemical processes 2−111984
chlorofluoromethane (CFC 11 and 12) residence times in stratosphere 2−106208
clouds in polar stratosphere, sightings by SAM II satellite 2−117419
cooling, evidence from 1958-80 radiosonde records 2−111988
dichlorodifluoromethane in Earth's atmosphere, stratospheric destruction rel. to observed concs. 2−100453
electric field large scale struct. over Brazil 2−100445
equatorial beta plane model, equatorial Kelvin and mixed Rossby gravity waves 2−88980
equatorial wave mean flow interaction in equatorial beta plane model 2−88981
fountain postulated from temp. anal. 2−78789
general circulation model of large-scale features 2−68449
global heating rate due to O_3 absorpt. of solar radiation 2−117420
gravity wave generation by thunderstorms 2−100446
Hadley circulation, affect of stratosphere on stability of flow *(French)* 2−63063
ion nucleation, potential aerosol source 2−106266
ions, composition meas. 2−94481
IR absorption spectra, atlas 2−73680

stratosphere continued
IR emission meas. using balloon-borne cryogenic Fourier transform spectrometer 2−117474
lidar (infrared) obs. of cloud and aerosol from space, optical calcs. 2−94500
lidar clear atmosphere multiple scattering dependence on receiver range 2−106306
lidar remote sensing of clouds, aerosol, temp. and density satellite multispectral method 2−94501
minor constituents detect. by far IR emission spectroscopy 2−100553
Mount St. Helens eruption, lidar meas. of aerosols 2−78622
negative ion composition, obs. of HSO_4^- and NO_3^- 2−106256
negative ion mol. clusters 2−83922
Northern Hemisphere stratosphere, signal of Southern Oscillation 2−106194
oscillations of stratosphere due to forced planetary waves 2−73639
planetary waves, meridional shear effects and critical latitudes 2−106225
planetary waves, meridional shear effects for nonsingular wind profiles 2−106224
planetary waves and transport of trace chemicals 2−78788
Poker Flat, USA, turbulence spectra from meridional and zonal wind obs. 2−106241
polar stratosphere seasonal temperature variability 2−63018
pollutants, concentration trends in Northern Hemisphere (1974-9) 2−111598
pollution detection in troposphere and stratosphere, satellite-borne research development 2−73181
radiative heating and cooling algorithm for use in dynamical model 2−112039
review of current knowledge 2−88979
solar UV heating of tropical stratosphere 2−68461
Space Shuttle booster rocket contrib. to atmos. aerosol 2−106265
springtime reversal of circulation at 30 mb level 2−117381
stationary planetary waves forced by topography and diabatic heating 2−117408
stratosphere aerosol layer, S budget and H_2SO_4 evaporation from aerosol particles 2−112046
sudden warming, sensitivity studies of numerical models 2−100477
sudden warming, theoretical description 2−117418
sulphate aerosol formation in low-temp. regions of stratosphere 2−78799
sulphate layer, implications of COS and CS_2 from eruptions of Mount St. Helens 2−78623
temperature and composition by analytical static model 2−68543
temperature and density vertical profiles from Salyut solar disc. obs. *(Russian)* 2−58098
temperature forecasts at 100 mk level, for Concorde aircraft 2−112071
temperature oscillations mechanism in troposphere-stratosphere system, thermodynamic model *(Russian)* 2−73627
thermal winds determination from horizontal gradients of satellite radiance obs. 2−78877
tide measurement, O_3 UV absorpt. as forcing component, method for solar UV variability 2−63266
trace constituents as tests of photochemical theory 2−106254
trace gases in troposphere and stratosphere, vertical profiles at mid-latitudes 2−63075
tropopause-lower stratosphere oberved by VHF radar 2−88955
turbulence, occurrence statistics of Richardson number less than unity 2−94460
UV absorption spectra due to O_3 content of stratosphere 2−83944
UV direct and scattered solar flux 2−63043
VHF vertical incidence backscattered power profiles, turbulence effects 2−63027
volcanic aerosol dispersion, model study 2−63040
volcanic eruption plume dynamics, April 1979 eruption 2−73519
warming event, February 1979, NO altitude distrib. meas. 2−100455
warming event and associated circulation changes, model 2−100501
warming event in February 1979, NO_2 and HNO_3 meas. at 54°N 2−100456
warmings in 1980/1, mid-latitude ground-based lidar study of temp. 2−106253
warnings, effect of distorted polar night vortex 2−78778
wind measurement by balloon borne optical interferometry 2−68517
wind semidiurnal, oscills. in tropical lower stratosphere 2−68433
winter high latitude planetary waves from temp. anal. 2−106240
winter zonal circulation in lower stratosphere 2−88949
zonal circulation, effect of momentum and heat sources in quasi-geostrophic model 2−73620
zonal mean flow of atmos. up to 100 km, 3-D global model 2−73638
HNO_3, determ. of total amount above Mont-Louis *(French)* 2−112129
HNO_3+OH, chem. reaction rate const. temp. depend. 2−78794
HNO_3+OH, rate consts. stratospheric modeling 2−99657
H_2O and NO_x seasonal conc. variations at stratopause 2−88956
H_2O balance of stratosphere and effect of cumulonimbus 2−112025
H_2O conc., influence of cumulonimbus 2−112029
H_2O transport through tropical tropopause by cumulonimbus 2−112028
HTO in atmos., produced by Chinese nucl. bomb tests 2−100526
NO_2 conc. near to Soufriere Volcano April 1979 eruption 2−106062
NO_2, diurnal and seasonal variations in stratosphere *(French)* 2−88932
NaOH photolysis in upper stratosphere, photodissoc. coeff. 2−100451
O_2, far IR absorpt. spectra (collision induced) 2−78839
O_3 conc. meas. by balloon-borne lidar 2−94505
O_3 effect on environment 2−107081
O_3 global distrib. obs. made with satellite IR radiometer 2−78754
O_3 profile up to 40 km over Natal 2−63026
O_3 seasonal and meridional variability, 2-D model 2−63065
O_3 total content in AD 1970 to 1977 period 2−94452
O_3, trace gas and temp., model of depend. on solar UV variability 2−63066
O_3 variability due to solar activity cycle 2−78751
O_3 vertical profiles in equatorial Indian Ocean, MONEX obs. 2−88937
O_3, vibrationally excited, UV continuum spectroscopy 2−63092
OH composition deduced from stratospheric O_3, HNO_3, NO_2, H_2O obs. 2−83890
OH conc. meas. by balloon-borne lidar 2−94505
^{90}Sr in surface air and stratosphere, inventory of 1963-75 data 2−111599
^{95}Zr atmos. conc. due to Chinese nucl. bomb tests 2−100526

strays (atmospherics) *see atmospherics*

streak photography
camera, picosecond, step-by-step calibration 2−95496
camera operation and appls. 2−113024

streak photography continued
electronic tube development for streak camera system 2−74535
high speed photography techniques and appls. 2−101483
magnetised plasma charact. study using streak photography, mag. probes and flux loops 2−91634
photoconductive switching to drive streak camera, subpicosecond optoelectronics developments 2−114414
Photocron streak image tubes, temporal and spatial resolution, theoretical evaluation 2−79697
picosecond high-power switching and applications 2−97069
rhodamine 6G CW dye laser, cavity length detuning effects, simultaneous autocorrel. and synchroscan streak camera meas. 2−97045
streak image tube, subpicosecond, Photochron IV 2−89813
synchroscan streak camera with microchannel plate, combined operation with CW dye laser 2−101487
tomographic streak camera for ultrahigh-speed movies for transient event recording 2−74534

streamer chambers
70 cm streamer chamber system *(Chinese)* 2−54722
drift tubes, self-quenching streamers 2−108250
European Hybrid Spectrometer using streamer chamber 2−108294
high resolution streamer chamber, status and plans 2−108300
high-pressure streamer chamber for charm particle lifetime meas. 2−108301
high-resolution, heavy quark spectroscopy appl. 2−64787
holography and high-resolution techniques workshop, Strasbourg, France, Nov. 1981 2−107018
hybrid streamer chamber for intermediate energy heavy ion physics 2−102330
particle tracks holography through high density wire grids 2−70043
photographic recording of tracks 2−64767
pulsed gas-flow regulator for a streamer chamber 2−102344
RISK spectrometer streamer chamber electrode module 2−108265
stability, streamer brightness using conical spark gap as pulse shaper 2−108253
tracks digitisation using CCD image sensor and video digitiser 2−75103
voltage pulse generator and photographic system synchronisation 2−85483
wire chamber, self-quenching streamer discharge operation mode *(Russian)* 2−75106

streamers *see discharges (electric)*

streaming, acoustic *see acoustic streaming*

strength (mechanical) *see mechanical strength*

stress *see internal stresses; stress effects; stress/strain relations; yield stress*

stress analysis
see also bending; crack-edge stress field analysis; photoelasticity; photoplasticity; strain gauges; thermal stresses; torsion; yield strength; yield stress
anisotropic elastic solid, initially stressed, disturbance propag. due to normal press. over boundary 2−114659
anisotropic tubes, gripping and end reinforcement, stress anal. 2−55440
aortic heart valve, stress anal. 2−116967
bars, flat, axially loaded projections, photoelastic stress anal. 2−55439
beam, prismatic, plastic analysis of torsion 2−86216
beam bending, descending branch, strain diagrams *(Ukrainian)* 2−103060
beam column critical compressive stress to second order 2−91291
bed load grain size grain size distribution model in FORTRAN IV 2−117366
bimaterial body, notched, out of plane shear 2−91243
biological tissue bending and shearing deform. anal. 2−105739
boundary element method, singular solns. requirement, stresses computation from boundary quantities 2−91239
boundary element methods, for plasticity and creep, including visco-plastic approach 2−81239
caisson structure, thin-walled, bending *(Russian)* 2−114684
composite, directionally reinforced, stress distrib. in components 2−62158
composite, spatially reinforced, elastoplastic props. determ. by averaging method 2−62182
composite material shell structure, rational parameter values calc. and selection 2−60409
composite plane containing thin elastic inclusion, elastic equilib. 2−55429
composite shell, three-layer, stress/strain state of boundary-layer type 2−60427
contact problem for rigid inclusion pressed between two dissimilar elastic half-planes 2−91343
contact problems studied using photoelastic isodynes 2−65544
contact stress problems, singularity considerations in numerical soln. 2−114741
continua, 2D and 3D stress analysis using UNCLE finite element scheme 2−97388
Cosserat medium, thermoelasticity eqns. in stresses 2−60406
crack, travelling, stress curves, dynamic theory problems 2−55509
curvilinearly fibre reinforced composites, stress anal. 2−114643
cylinder, semiinfinite circular, and stress calcs., Galerkin method 2−103054
cylinder, short circular, stress state, homogeneous soln. method convergence 2−55432
cylinders, elastic layer covered rolling contact driving a loaded sheet in the nip 2−91345
cylindrical shells, internally loaded, stress anal. 2−60403
cylindrically anisotropic wedge, stress singularities at vertex 2−109184
deflection of circular piezoelectric bending elements with passive substrate plate *(German)* 2−109197
diamond anvil under stress, CAD study 2−112917
dipolar bodies, initially stressed, with microstructure, thermoelastic stresses 2−81228
disc and needle, rigid, ellipsoidal, in anisotropic elastic medium 2−81225
discs, orthotropic, stress distrib., axisymm. computation 2−63808
dislocation glide loops, ensemble, elastic stress field calcs. 2−98113
dislocation layers, disordered, stress fields 2−76444
ductile material failure by void coalescence in localised shear bands 2−97439
Earth, effects of stress sources on surface vertical displacement and gravity field 2−73419
Earth crust, in situ meas. of tectonic stresses in mainland Greece by overcoring 2−94348
Earth crust, stress field in Western Rift Valley of Africa from earthquakes focal mechanisms 2−117224
Earth crust, stress-strain state of Garm region, USSR, rel. to seismic jointing, and erosion patterns 2−73474

stress analysis continued
Earth interior, stress field in semi-infinite elastic medium due to internal stress sources 2−100332
Earth tidal stress interactions with earthquakes, modelling and appl. to aftershock sequence in Pyrenees 2−88752
elastic, plane, stress conc. next to thin-walled inclusions 2−114662
elastic bodies contact, dual finite element analysis 2−60485
elastic half-space perforated by twin circular holes and under gravit. loading, stress anal. 2−65476
elastic plane, dynamic stress conc. around cavity, complex function method anal. 2−91259
elastic plates theories via orthogonal polynomials 2−91253
elastic solid, flat annular crack, normal compression wave scatt. 2−55508
elastic-plastic tubes, internal pressure, strain, bifurcation 2−60420
elasticity, linearized theory, variational principles, stress functions 2−112703
elastohydrodynamic analysis of head to flexible disk interface phenomena 2−91312
elastoplastic bodies obeying Hencky's constituent law, finite element analysis 2−84443
elliptical inclusions oriented in ⟨100⟩, ⟨110⟩ and ⟨111⟩ directions in cubic crystals, elastic energy calc. *(Chinese)* 2−61001
FASOR−a program for stress, buckling and vibration of shells of revolution 2−70855
femoral components, straight-stemmed, for total hip replacement 2−57931
femur, human, crit. review of biomech. stress anal. 2−83587
fibre inclusions embedded in elastic plate, yield loci 2−55450
fibre reinforced composite, stress concentration at an edge noncoincident with reinforcement direction 2−65486
fibre reinforced composite angle-ply cylindrical shells, thermoelastic stresses at free boundary 2−114655
fibre reinforced composite discs, rotating, stress state, refined calc. 2−81236
fibre reinforced laminates, edge effect, stress distrib. singularity 2−83153
foil strain gauges for stress analysis and for transducers 2−95355
gas-liquid-solid contact region, struct. and stress 2−115500
generalised elasticity problems, combined expt. and numerical soln. 2−81300
glass, opt. grade, stress distrib., nonuniformity during air-jet quenching 2−67274
glass fibre reinforced plastics, photo-orthotropic elasticity for stress analysis 2−103128
glass filament, bending strength meas. using transverse bend method 2−105263
half space, anisotropic, with elliptic inclusion, antiplane eigenstrain problem 2−101171
half-plane, Green's functions for transient thermoelastic contact problems 2−103116
half-space, two-dimens., thermal stress for moving heat input, plane stress care 2−103115
heated orthotropic plates, stress function under steady temp. distrib. 2−55449
hip joint total prosthesis, stress/strain analysis of Ti net cement construction *(German)* 2−88691
holographic intrferometry and strain-gauge technology *(German)* 2−97481
hybrid calculating methods, CYCLO-transmission curve-discs example *(German)* 2−97480
hyperelastic compressible isotropic solid, finite plane deformation 2−97373
hyperelastic solid with rigid elliptical inclusion under uniform stress at infinity 2−114652
inclusions, expanding, sharp corner local stress states 2−103048
inclusions, rigid, cuspidal point stress fields, photoelastic anal. 2−103049
inextensible fibre in stretched elastic medium, stress anal. 2−86211
intensity factor evaluation using combined integral-eqn. and finite-element method 2−107093
intensity factors using photoelastic techniques on notched models *(Spanish)* 2−86210
interferometric holography for stress visualisation *(Spanish)* 2−86238
isotropic half-space under torsion, mixed boundary value problem 2−65482
JT-60 poloidal field coils, nonlinear stress analysis 2−59521
large deformation static and dynamic finite element analysis of extensible cables 2−60442
layer composites, edge stress determ., finite element calc. 2−109187
martensitic transformations, dynamic effects, plate impingement at an obstacle *(Czech)* 2−116440
metal fibre reinforced metal matrix composites, stress redistrib. on local loss of plastic stability of fibres 2−116540
micropolar helical body, Saint-Venant's principle 2−81223
multilayer laminated plates, thin and thick, hybrid-stress eight-node elements 2−86212
multilayer shells of revolution, geometrically nonlinear anisotropic, statics, numerical soln. 2−91246
nonhomogeneous medium, stress conc. in neighbourhood of holes, elastic and elasto-plastic problems *(Polish)* 2−81234
nonlinear dynamic structural reponse, implicit time integration, numerical stability 2−109204
nonuniform deformation in tension, stress, necking 2−114686
notch, stress distrib., elasto-plastic finite element anal., geometry effects 2−109240
notch tips, elastic constants influence on stresses 2−60408
peribronchial stress anal. utilising concentric shells of parenchyma 2−105751
plane, elastic, anisotrpic, infinite, single force and edge dislocation influence functions *(German)* 2−55418
plane elasticity stress calcs. improvement by use of spline functions 2−91255
plane intersections of 3D boundary element mesh, stress contour plotting, PP3D-COUPE program 2−101168
plane stress problems in elasticity, finite element method appl. *(Chinese)* 2−103037
plastics, isotropic and anisotropic, calc. of equivalent stress for given complex stress state *(Polish)* 2−77860
plate, cantilever, thick, flexure anal. 2−97400
plate, circular, reinforced with stiff rings, contact problem 2−91342
plate, hole outline reinforcement by momentless elastic rod 2−55430
plate, nonhomogeneous magnetostrictive thin circular, with central hole, dynamic vibr. and stresses 2−109217
plate, thermal shock problems, exact soln. 2−91238

stress analysis continued
plate, thin elastic, flexural motions, nonlinear theory, boundary layer solns. 2−103051
plate, variable thickness, stress state eqns. 2−65474
plate pressed onto rigid base, elastic contact, stress anal. 2−75907
plate structures, hole shapes optimisation 2−91254
plate weakened by two elliptical holes with parallel axes, stress state 2−91250
plates, anisotropic, rectangular, in flexure, deflection and stress anal. 2−97406
plates, infinite orthotropic, hole shape optimisation, under inplane loading, conformal transform. appl. 2−114651
plates, rectangular finite, bending stresses and deflection *(German)* 2−109199
plates, thin and moderately thick, invariant 8-node hybrid-stress elements 2−103040
plates and shells, optimum design with allowance for temp. effect 2−114640
pressure cell bodies, anal. of dynamic stresses and motion in alluvium 2−95392
reinforced plastic, short beam bending, plane problem of hereditary elasticity 2−55443
S-1 Spheromak, vacuum vessel stress analysis 2−80332
scattered light method in photoelasticity, review 2−65542
seated buttock, model expt. of stress distrib. 2−105737
shafts of revolution, grooved, torsion, max. principles and bounds on stress conc. factors 2−109177
shell, cylindrical, elastoplastic, supporting power WRT pure bending *(Russian)* 2−65489
shell, cylindrical, longit. divided, stability and load-carrying capacity under compression 2−97409
shell, cylindrical, stability under external press. and nonuniform heating 2−97408
shell, cylindrical, with circular hole, compression, torsion and bending, stress anal. 2−55438
shell, long circular sandwich cylindrical, under axisymm. load, elasticity soln. 2−81227
shell, nonuniform, approx. analytical models in stability problems *(Russian)* 2−75873
shell, shallow spherical, states of uniform twisting and shearing, circular hole effects 2−55445
shell, spherical, with circumferential partial penetration defect, limit anal., spherical press. vessel appls. 2−114637
shells, circular cylindrical, under tension and torsion, optimum hole shapes 2−97376
shells, thin, separation method in thermoelasticity problems 2−114661
slab, orthotropic elastic, containing plane flaw, thermal stresses 2−81231
slider, cylindrical, cantilevered, elastic edge stress singularities 2−103113
space of stress invariants 2−53516
space with two thin elastic inclusions, axisymm. deform. 2−86214
sphere, elastic with annular, edge, or penny shaped crack, singular stresses 2−109249
spherical cavity in infinite body, uniform temp. distrib., axisymm. thermal stress 2−60405
spherical cells, shallow, twisting and shearing states, rigid circular inclusion effects 2−103052
spine, stress distrib. model, 3D surgical simulation 2−116959
strain gauges, bonded resist., appl. 2−111392
stress response in a piezoelectric circular plate 2−86213
strip with two-dimensional strain, neck development in stretching 2−81256
structural materials, ultimate stress states, dispersion anal. 2−115335
structural systems minimum weight design 2−114670
tectonic stress regime in N China Plain, implications of finite-element anal. of seismicity 2−94305
three dimensional solid shell transition elements 2−109181
tube, elastic-plastic, thin-walled, finite strain tension torsion test 2−55447
tube, partially autofretted, residual stress redistrib. caused by notches and cracks 2−62219
two-component infinite plate with heat sources, thermoelasticity 2−114663
two-dimensional finite elements, geom. shape effect 2−107098
unified theory of defects and stresses 2−109178
viscoelastic-elastic composite, general theory 2−109202
Mo:He, ion implanted, exfoliation modes, near-surface stress effects 2−74927
Si circular-diaphragm pressure sensor, design considerations 2−95336
Zr alloys, stresses induced by oxide layers in fission reactor 2−85155

stress birefringence *see mechanical birefringence*

stress control
thin film stress control during deposition for improved device performance 2−99331

stress corrosion cracking
BWR pipes, control methods for stress corrosion cracking 2−90276
BWR piping, stress corrosion cracking, qualified improvements 2−80126
BWR piping, stress corrosion cracking, utility research programme 2−96106
BWR piping welds, growing stress corrosion cracks, shape prediction model 2−108015
BWR primary system piping, stress corrosion cracking resistance, full-scale testing 2−80125
ceramic, crack front spreading, steady state fracture kinetics 2−109242
chopped strand mat glass reinforced polyester resin, long term strength in water 2−116587
corrosion fatigue crack, O conc., influence of mech. variables, theoretical evaluation 2−116591
corrosion fatigue crack growth, new characterising parameter 2−57487
corrosion fatigue crack initiation, theoretical considerations 2−78015
E-glass fibres, strength of single fibres in water 2−83263
fatigue crack growth, environmentally assisted, outline model 2−81881
glass fibre reinforced plastics, design considerations 2−116564
glass fibre reinforced polyester resin, long term strength in dil. H_2SO_4 2−88196
glass optical fibres, thermal stress and surface corrosion crack mechanisms, theory 2−109069
Inconel 600, Cr depletion at grain boundaries, detection 2−60996
Inconel 600, SCC in NaOH, composition and heat treatment effects 2−77983
Inconel 600, SCC using const. strain rate test 2−57520
Inconel 600, stress corrosion cracking in high-temp. water 2−83297
stress corrosion cracking continued
Inconel 600 alloy, stress corrosion cracking 2−83298
Inconel alloy 600, stress corrosion cracking in PWR boilers 2−80124
Inconel X750, age hardenable, stress corrosion cracking in hot water, rel. to prior heat treatment 2−83299
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
ion species concentration alteration at stress corrosion cracks in NaCl and $NaNO_3$ solns. expt. study 2−93667
low pressure turbine rotors, susceptibility 2−72888
LWR barrier claddings, I SCC susceptibility 2−80091
LWR reactor pins, thermochem. eval. 2−102043
metal, crack front spreading, steady state fracture kinetics 2−109242
metals, corrosion cracking, physicochem. aspects 2−88284
nuclear reactor constructional materials, liq. Na influence on strength, calc. method 2−96112
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
polymers, stress cracking and crazing, environmental irreversible thermodynamics 2−103891
polystyrene, high impact microcomposite thermoplastic, stress crazing, temp. effect 2−77926
polystyrene, high impact microcomposite thermoplastic, stress crazing relax. behaviour 2−77927
predicting stress corrosion crack growth rates at high stress levels 2−105379
prevention *(Japanese)* 2−78010
rare earth-Si-Fe alloys, self-powdering, X-ray diffr. and electron microscopy invest. *(Chinese)* 2−62249
solar energy conversion technologies, solid-liq. interface research needs 2−88464
steel, austenitic, influence of gaseous corrosion environment subcritical crack growth 2−83285
steel, austenitic stainless, crack tips prod. by SCC and hydrogen embrittlement, HVEM obs. 2−77978
steel, austenitic stainless, intergranular SCC, below 100°C, review 2−116593
steel, austenitic stainless, mechanical hysteresis in low-cycle fatigue, electrolytic H influence 2−88289
steel, austenitic stainless, phase transform, H-related 2−111298
steel, austenitic stainless, SCC, gamma ray effects *(Japanese)* 2−57533
steel, austenitic stainless, SCC behaviour, effect of surface modification 2−116595
steel, austenitic stainless, sensitisation, model, expt. evaluation 2−88261
steel, austenitic stainless, sensitised, corrosion fatigue, crack growth and AE behaviour, SEM obs. *(Japanese)* 2−83281
steel, austenitic stainless, stress corrosion cracking, intergranular, in Nas_2SO_4 soln., affect of dissolved O 2−88258
steel, austenitic stainless, stress corrosion cracking, intergranular, susceptibility effects of comp., thermodynamic model 2−93659
steel, austenitic stainless, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
steel, austenitic stainless, stress corrosion cracks, TEM study 2−88266
steel, austenitic stainless, using notched round bar specimen, in H_2SO_4-NaCl soln. *(Japanese)* 2−83280
steel, austenitic stainless, welded joint, stress corrosion cracking in boiling $MgCl_2$ soln. *(Japanese)* 2−72868
steel, austenitic stainless *(Japanese)* 2−105376
steel, austenitic stainless 304, crack initiation in constant extension rate tests in pure water 2−77985
Steel, C, low alloy and stainless, diagnosis *(Japanese)* 2−78009
steel, C, stress corrosion cracking in nitrate soln., minor element effects *(Japanese)* 2−67634
steel, C-stainless composite wire, corrosion under stress 2−88286
steel, Cr-Mo (9, 1 wt.%), caustic cracking at 300°C 2−99587
steel, Cr-Mo cast, corrosion fatigue in fresh water and corrosion inhibition using inhibitors *(Japanese)* 2−62276
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, crack electrochemistry for active state, diffusion and ion migration mass transport model 2−116606
steel, fatigue crack corrosion, electrochemistry theoretical modelling, time dependent mass conservation eqn. 2−105387
steel, ferritic, alloy, alloying additions effects on stress corrosion cracking resistance in solns. 2−62260
steel, ferritic stainless, mechanical hysteresis in low-cycle fatigue, electrolytic H influence 2−88289
steel, ferritic stainless, stress corrossion cracking, inhibition in Na_2SO_4 soln. 2−88263
steel, fratographic anal. rel. to corrosion fatigue mech. of types A533-B, Ducol W30, C-Mn and 304 2−88267
steel, H1-130, corrosion fatigue crack growth behaviour 2−62287
steel, high strength, crack growth rate rel. to H_2 supply under sustained and cyclic loads *(Japanese)* 2−67636
steel, high strength, stress corrosion cracks, micro- and macrobranching *(Japanese)* 2−111290
steel, high-strength, cracking in NaCl soln., role of H 2−88285
steel, high-strength, inhibitor protection from corrosion cracking in crack propag. stage 2−67654
steel, high-strength, time delayed surface plastic zone growth in H environment 2−72880
steel, HSLA, cyclic SCC stress ratio effects 2−72861
steel, low alloy, Ni effect on hydrogen stress cracking resistance, review 2−116598
steel, low alloy, quenched and tempered, susceptibility to environment assisted cracking, relationship with banding 2−77975
steel, low alloy, SCC in water and $K_2Cr_2O_7$ soln. 2−67624
steel, low C type X65, fatigue crack growth in crude oil containing H_2S 2−77980
steel, low-alloy, 65G, fatigue crack kinetics, influence of water and its inhibiting 2−88282
steel, marine type QIN, fatigue crack propag. in seawater, crack depth effect on rate 2−57527
steel, martensitic stainless, corrosion fatigue props., effect of heat treatment 2−111301
steel, mild, cold worked, caustic SCC 2−99596
steel, mild, corrosion fatigue in fresh water and corrosion inhibition using inhibitors *(Japanese)* 2−62276
steel, Ni-Cr, stress corrosion cracking in NaCl soln. near lower temper martensite embrittlement range 2−83264

stress corrosion cracking continued
steel, Ni-Cr-Mo-V turbine disc, corrosion fatigue crack growth rate, steam impurity effects 2−62263
steel, reinforcing, corrosion cracking, role of H 2−67653
steel, reinforcing, decarburisation in corrosive medium 2−88288
steel, rotor grade, caustic SCC mechanism 2−111379
steel, stainless, corrosion fatigue crack initiation mechanisms, influence of corrosion conditions 2−116594
steel, stainless, expert system to predict risk of stress corrosion cracking 2−57544
steel, stainless, fuel rod cladding failure due to stress corrosion cracking 2−59474
steel, stainless, martensitic, fatigue crack growth rate, sea salt effect 2−78022
steel, stainless, martensitic, ferritic and duplex, stress corrosion cracking, review 2−72862
steel, stainless, martensitic, stress-rupture strength of metal and weld joints, Cl ions and H_2S containing medium 2−99602
steel, stainless, pipe, circumferentially cracked fracture instability 2−62221
steel, stainless, SUS 304 *(Japanese)* 2−67635
steel, stainless, type 17-4 PH, pitting and corrosion fatigue in chloride environments, microstructure effects 2−83302
steel, stainless 304, sensitized, stress corrosion cracking in high temp. NaCl soln. 2−62255
steel, stainless 410, stress corrosion cracking in boiling 70% NaOH soln. 2−67661
steel, stainless and low alloys, corrosion fatigue crack growth in NaCl soln., stress ratio effect 2−111361
steel, stainless martensitic Cr-Ni, high-strength corrosion-resistant, fatigue resist. in air and seawater 2−99561
steel, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
steel, structural, corrosion and corrosion fatigue in sea and under laboratory conditions 2−88283
steel, structural, fatigue crack growth in air, crack surface oxide form., test freq. influence 2−105429
steel prestressing tendon, transverse precracked, stress corrosion resist. in tension 2−67603
steel wire, high tensile, friction welded, SCC behaviour 2−111357
steels, austenitic stainless, Al-, Mo-containing, corrosion fatigue props. at 20 kHz 2−57510
steels, C and low alloy, stress corrosion cracking in seawater, influence of pH and sulphide ions *(Italian)* 2−93686
steels, pre-stressing, environment cracking 2−99582
threshold stress intensity for crack growth 2−93663
time delayed surface plastic zone growth in H environment, artifact interpret. comment 2−72881
time delayed surface plastic zone growth in H environment, surface artifact interpret. 2−72880
Type 304, sensitised, low-temp., intergranular fracture and grain boundary chem. 2−105328
Zircalloy cladding, irrad., stress corrosion cracking under constant load 2−80090
Zircaloy, irrad., rapid stress corrosion crack growth 2−93676
Zircaloy, stress corrosion crack propag. in I_2, effects of texture and microstruct. 2−67638
Zircaloy, unirradiated, stress corrosion crack propag. 2−83276
Zircaloy fuel cladding tube, biaxial stress effect on I_2 SCC 2−83275
Zircaloy-4 tubing, determ. of critical I_2 conc. for stress corrosion cracking, 500-900°C 2−105371
Al alloy, for aircraft appl., improvement by retrogression and reaging processes 2−67623
Al alloy 7075, T6-RR temper treatment eval. w.r.t. SCC resistance 2−72879
Al-Cu-Mg, prestrained by pulling, corrosion fatigue crack length distrib. *(Japanese)* 2−93613
Al-Mg, SCC in saline water, protection by anodic coating 2−111358
Al-Zn-Mg, stress corrosion cracking susceptibility, effect of thickness of tartaric acid-anodised film 2−67604
Al-Zn-Mg, stress corrosion behavior of weldments, effect of heat input rate and postweld heat treatment *(Korean)* 2−67633
Al-Zn-Mg-Cu alloy V95, fatigue crack kinetics, influence of water and its inhibiting 2−88282
Al-Zn-Mg-Cu alloys, fractography of long-transverse SCC 2−77977
Fe, corrosion cracking, role of H 2−67653
Fe, fracture mode and ductility on testing at cathodic potentials, P and S segregation effects 2−93679
Fe-Si, corrosion cracking, role of H 2−67653
Ni-base Alloy 600, stress corrosion cracking in oxygenerated water at high temp., environemntal effects *(Japanese)* 2−83282
Ti alloy VT3-1, fatigue crack growth rate, sea salt effect 2−78022
Ti alloys, corrosion fatigue crack growth, electrode potential kinetics in 3% NaCl soln. 2−88281
Ti alloys, pseudo-α, thermal stability and eval. methods 2−105325
Ti-Al-Mn, Ti-Al-Mo-V and Ti-Mo-Sn-Zr, salt corrosion tendency, alloying influence 2−88287

stress effects
see also cavitation; deformation; elastic waves; heat treatment; high-pressure phenomena and effects; magnetomechanical effects; materials testing; mechanical properties of substances; mechanical testing; piezo-optical effects; piezoelectricity; piezoresistance; shock wave effects; stress analysis; stress measurement; stress/strain relations; tribology
alloys, creep behaviour, friction stress concept appl. 2−62167
cylinder, hollow, transversely isotropic, stresses and deform. under ring and radial loads 2−91241
s(d)-f model, intermediate valency, phase diag. and transitions, strain effects 2−98596
stainless steel, type SS 310 and SS 316, isomer shift, tensile stress effects 2−93093
$CaF_2:Tm^{2+}$, uniaxial stress effect on ENDOR, hyperfine parameters 2−72378
p-GaAs:Cr, EPR identification of $Cr^{44}3d^2$ using appl. uniaxial stress 2−110629
Ge, uniaxially stressed, electron-hole liquid props. 2−104259
n-InSb, ESR, uniaxial stress enhanced 2−98940
MgO, magnesiowustite, magnetisation changes due to stress waves 2−87544
$MgO-Fe_2O_3$, magnesioferrite, magnetisation changes due to stress waves 2−87544

stress effects continued
Se amorphous film, stress effects on crystallisation 2−86569
Si, uniaxially stressed, electron-hole liquid props. 2−104259
$SrF_2:Tm^{2+}$, uniaxial stress effect on ENDOR, hyperfine parameters 2−72378

stress field analysis at cracks *see crack-edge stress field analysis*

stress measurement
acoustoelastic effect of thickness oscillations 2−91363
acoustoelastic stress-measurement in rolled materials 2−78033
axisymmetric bodies, integrated photoelastic methods for stress determ. 2−103129
Barkhausen noise stress meas., acoustic method 2−83318
cells, living, meas. of stress required to induce deformation and separation 2−88705
crack opening stress measurement, during fatigue crack growth, electron microscopy technique 2−93719
crack tip, stress intensity factor and displacement field, determ. by white light speckle method 2−55519
detection of stress in stressed structures by reson. freq. meas. 2−93687
dynamic stress intensity factors, method of determ. from crack opening displacement at notch mouth 2−86239
elliptical optical fibre or preform, stress profile meas. 2−97201
epitaxial systems, internal stresses meas. in presence of plastic deform. 2−56401
foot, human, piezoelec. method of vertical contact stress meas. 2−100141
fracture mechanics, stress intensity factor determ., objective white-light speckles appl. 2−97478
glued connections, residual stresses meas. at low temps. 2−72911
holographic interferometry, real-time, digital phase meas. system 2−85916
incompressible non-Newtonian fluids, normal stress effects 2−55616
interferometric holography for stress visualisation *(Spanish)* 2−86238
internal stress, method based on zero entropy of activation concept 2−105430
internal stress meas. in metallic films, ultrahigh vacuum technique 2−82174
laser speckle subjective method, appl. to solid mechanics problems 2−91354
metals, fatigue testing with asymmetric load cycle, overall stresses determ. 2−62312
neutron diffraction method of stress measurement, stress gradient in Al alloy bar 2−99618
optical high-pressure cells, stress distrib. in cylindrical windows 2−101435
optical method of caustics for dynamic problems of running cracks 2−103123
patello-femoral contact stresses determ. using press. sensitive film 2−62667
Pendellosung effect, X-ray diffr. 2−103562
photoelastic determination of stress intensity factors, far field effects 2−109254
photoelastic holography for stress field visualisation, review of techniques 2−86246
photoelastic plane model subjected to an impact, stress determ. method 2−97477
photoelastic sandwich method for three-dimensional models *(German)* 2−81302
piezoelectric shear stress gauge for dynamic loading 2−69153
plate, square, uniformly loaded on two opposite sides, stress distrib. around circular hole 2−97479
plate bending studies using reflection moire methods 2−103126
plates, bent, with cracks, complex stress intensity factor meas. using method of caustics 2−103134
polypropylene, stress determ. using X-rays *(German)* 2−116662
polystyrol, stress determ. using X-rays *(German)* 2−116662
pulse stress measurement of controlled fusion set by single-beam light holography 2−81298
residual stress, nondestructive meas. using X-ray diffr. 2−72937
residual stress determ., nondestructive evaluation using acoustoelasticity meas. 2−93744
residual stress mapping using US tomography 2−105396
residual stress measurement, appl. of finite element calcs. 2−60493
residual stress measurement by selected NDT, review 2−57567
residual stresses, local, determ. from X-ray meas. *(German)* 2−93747
rock stress measurement in Sweden, glaciation as cause of high rock stresses 2−106035
roll load during cold strip rolling, contact stress distribution meas. 2−64016
semiconductor wafer flatness and thin film stress profile meas. using thickness analyzer, fibre-optic appls. 2−63971
slightly orthotropic material, acoustoelastic determ. of stress 2−65545
speckle metrology of surface displacement, digital imaging techniques in stress analysis 2−91359
speckles, close range objective, used for displacement meas. 2−91358
steel, C, ground and at layers, X-ray stress meas. *(Japanese)* 2−78012
steel, C, type St.3, stress meas., combined use of longitudinal and transverse effects of magnetostriction 2−62350
steel, mild, mech. stress meas. by means of mag. field strength rotation 2−62340
steel, structural and tool, stress distribution in specimens with fatigue cracks, X-ray diffr. determ. 2−67697
strain hardening curves, meas. technique for obtaining true stresses and strains *(Russian)* 2−93527
stress meas., appl. to J integral eval. in elastic-plastic deform. 2−78027
structural integrity assessment, stress intensity values determ. by photoelastic technique 2−103119
structural plate materials, stress conc. meas. using US surface waves 2−70880
surface layer, deformed, X-ray residual stress meas. and d-$\sin^2\psi$ diagrams *(Japanese)* 2−71780
thermoelastic stress analysis technique using high-sensitivity IR camera 2−70884
torsion bar, internal stress generated by plastic loading, X-ray meas. *(German)* 2−62336
US and stress measurements, nondestructive evaluation of J integral 2−57550
vibration method for determination of stress intensity factors 2−86240
weak stress waves in solid materials, interferometric detect. 2−65551
X-ray residual stress meas. using half-width method, statistical anal. 2−67682
X-ray stress measurement by centroid method, statistical anal. *(Japanese)* 2−105413

stress measurement continued
Al alloy 2024-T351, biaxial surface stress meas., use of US Rayleigh waves 2−57561
Al-Mg-Zn, 7070, crack closure and crack propag. rates 2−56076
Cu-Be (2 wt.%) alloy strips, residual stress profiles along rolling direction, X-ray diffr. obs. 2−67367
Fe foil, stress meas. using slip initiation 2−72792
KCl, b1⇄b2 dynamic transition, stress gauge meas. 2−66129
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285

stress-optical effects *see piezo-optical effects*

stress relaxation
see also anelastic relaxation; creep; viscoelasticity
cholesteric liquid cryst., elastooptic behaviour of continuous compressional deform. 2−71348
creep-fatigue, mechanistic approach to creep-dominated failure 2−88183
crystal plate with step-like impurity atom distrib., surface relaxation 2−66337
crystals, two dimensional, defect motion and stress relaxation, shear modulus 2−61208
epoxide resins, cured with aliphatic diamines, mech. relax. mechanism 2−99474
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
epoxy thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
fibre reinforced polymers coatings, internal stresses, reducticon by physiochem. means 2−83187
filled epoxy resin, dynamic mech. props., effect of boiling water 2−88117
filler effect on viscosity 2−57390
fusion material, irrad., miniaturised disc bend test development 2−88316
garnet epitaxial bubble film, ion implantation strain annealing, propag. device stability 2−88100
glass, model of struct. relax. with variable coeffs. 2−98190
glass, unified model of kinetic treatments of glass transition and viscoelastic props. 2−66221
glass fibre reinforced polyester, flexural stress relaxation *(Japanese)* 2−111219
glassy polymers, nature of nonlinear anelasticity 2−88121
metals, cyclic straining, stress and strain relaxation *(Czech)* 2−115352
metals, stress relaxation behaviour, self-consistent scheme 2−93551
methyl styrene elastomer, power law of stress relax. *(Russian)* 2−72754
nonlinear viscoelasticity theory based on temporarily cross-linked network model 2−75912
nylon-12, oriented, mech. anisotropy, H bonding effects 2−105209
plastically deformed sample, near-surface dislocation sources 2−98088
plate, relaxed by cut, tension state, small elastico-plastic deform. *(Russian)* 2−91269
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2−62160
poly(bisphenol-A carbonate), effects of thermal history, crystallinity and solvent on transitions and relaxs. 2−86872
polycarbonate glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polycarbonate-copolyester miscible blends, mech. props. 2−72775
polydimethylsiloxane networks, end-linked containing unattached PDMS, stress relax. and viscoelasticity 2−67411
polyester, unsaturated, thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
polyester resin, unsaturated, flexural stress relaxation *(Japanese)* 2−111219
polyethylene, branched, α-loss band fine struct., stress relax. study 2−72749
polyethylene, branched, stress relax., γ-loss band fine struct. meas. 2−57392
polyethylene, oriented high-density, O_3-O_2 oxidation effect on low-temp. stress relax., IR spectra obs. *(Russian)* 2−67408
polyethyleneterephthalate fibre, β_2 relax., dielec. meas. 2−104805
polyimide and polyamide-imide, stress relax. meas. in T_2 atmos. 2−88134
polymer, nonlinear stress in oscillatory shear fields, reptative motions 2−109904
polymer solution, stress relax. in double-step shear deforms., stress components eval. 2−97482
polymers, filled dynamic and mech. props. *(German)* 2−88123
polymers, in rubberlike state, stress influence on activation energies of relax. processes and rupture *(Russian)* 2−57401
polymers, mech. props., influence of mol. wt. and mol. wt. distrib. 2−111306
polypyromellitimide, Hugoniot cusp, low press. 2−76581
polystyrene, high impact microcomposite thermoplastic, stress crazing relax. behaviour 2−77927
polystyrene glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polystyrene melt, dynamics, real time neutron scatt. expt. 2−109656
polystyrene melt, real time neutron scatt. expt. during stress relax., interpretation 2−109657
polystyrene powder, rheological studies on compaction *(Japanese)* 2−83077
polysulphone, Hugoniot cusp, low press. 2−76581
polyvinyl acetate, stress relax. behaviour 2−67412
polyvinylidene fluoride film, uniaxially stretched, piezoelec. retention, stress relaxation effect 2−72428
prismatic dislocation loop sizes and interference error, connection with loop nature determ. methods 2−81787
PVC, plasticised, stress relaxation behaviour 2−88122
refractory, viscoelastic stress response of commercial struct. in service at high temp., model 2−83160
residual stress measurement, appl. of finite element calcs. 2−60493
rubber reinforced thermoplastics, structure and mech. props. 2−81689
solids, cooperative mechanism limiting spectral width of stress relax. processes 2−98198
SOS device structures, Raman meas. of stress 2−77499
steel, austenitic, rolling in anomalous-plasticity temp. range 2−99464
steel, Cr-Mo, const. and var. stress creep tests 2−62166
steel, maraging, Ni and Cr effect on thermal stresses and relax. capability, thermal welding simulation *(Russian)* 2−67386
thermoplastic elastomer, SBS type, γ-irrad. in air and vacuum, stress relaxation, oxygen effects 2−65877
thin films, stress relax. and hillock growth 2−115627

stress relaxation continued
tubes, thick-walled, elastic perfectly plastic materials, rel. between diametral expansion and internal pressure 2−103062
twinning interaction with slip 2−76489
two-level cooperative model, of stress relax. in solids 2−98198
viscoelastic material, linear, stress response and energy dissipation under periodic triangular strain loading 2−114675
viscoelastic-elastic composite, general theory 2−109202
Ag-Mg, equiatomic, rheological behaviour of β' phase 2−57421
Al alloy, 2618-T61, simultaneous stress relax. in tension and creep in torsion 2−105269
Al alloys, stress relaxation behaviour, self-consistent scheme 2−93551
Al, deform. modelling during repeated stress relax. runs 2−111248
Al, plastic deformation and stress relax. meas., 133 to 673K *(Russian)* 2−99482
Al-Mg-Mn-Cu-Si-Fe, AMG2 and D16 alloys, plastic deformation and stress relax. meas., 133 to 673K *(Russian)* 2−99482
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
Al_2O_3, anelastic deform. effect on high temp. stress relaxation 2−67410
Al_2O_3 sphere in KCl single cryst., crowdion mass transfer mechanism in localized stress relaxation *(Russian)* 2−66121
Al_2O_3, thermal expansion anisotropy, stress meas. 2−76713
Ca ferrite:PbF_2, mag. props., substitution effects *(Japanese)* 2−62240
$Cu_{60}Zr_{40}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
Fe whiskers, dislocations by stress appl., X-ray transmission topography 2−115634
Fe-Mn alloy, microstruct. and phase transform. mechanism, lenticular struct. origin 2−99424
Fe-Si (6 at.%) single crystals, strain rate vs. stress depend. 2−105240
$Fe_{82}B_{18}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
$Fe_{40}Ni_{40}B_{20}$, metallic glass, rel. between struct. relax. and sp. ht. 2−72750
$Fe_{40}Ni_{40}P_{14}B_6$, Metglas 2826, crystn. kinetics, effect of tensile stress 2−103652
In thin films, strength characts., struct. and temp. effect 2−76875
MgO, anelastic deform. effect on high temp. stress relaxation 2−67410
MgO, periclase, shock-loaded, struct. deform. 2−76586
Mo, mechanical eqn. of state 2−83194
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
Pb, irrad., time-depend. flow props. from indentation tests 2−88315
Se, amorphous film, photo-induced stress relax. obs. 2−66044
Si, heat-treated, Czochralski grown, compression tests, dislocation study, TEM and etch pit obs. 2−60985
Si, stress relaxation deform. at edge dislocation 2−76580
SiO_2-Al_2O_3-P_2O_5-Sb_2O_3 glasses, strengthened by ion exchange, stress relaxation 2−99471
Ti-Al-Nb-Ta alloy, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
Zn crystals, irradiated, electron-plastic effect *(Russian)* 2−61038

stress wave emission testing *see ultrasonic materials testing*

stress/strain curves *see stress/strain relations*

stress/strain diagrams *see stress/strain relations*

stress/strain relations
see also elastic constants; elastic limit; serrated yielding; yield point; yield stress
aircraft skin structs., sonic fatigue life estimation at room and elevated temps. 2−65428
aluminium, annealed, mechanical behaviour under uniaxial tension, numerical anal. *(Japanese)* 2−88136
anisotropic elastic solid, initially stressed, disturbance propag. due to normal press. over boundary 2−114659
bar, variable section, torsion, theory of small elastico, plastic deform. *(Russian)* 2−91268
bending test for tension and compression stress-strain curves 2−105401
brass, plastic deform. and stress-strain rel. for various corner angles 2−72759
brass sheet, 70/30, plastic yield behaviour 2−111239
brittle materials, fracture and defects *(French)* 2−86780
cellulose nitrate, creep behaviour in unloading process under superimposed tensile and hydrostatic loading 2−67430
cement based matrix reinforced with polyalkene films of varying elastic moduli 2−57411
composite, directionally reinforced, stress distrib. in components 2−62158
composite cylindrical shells, deform. under combined dynamic loading 2−91286
composite material shell structure, rational parameter values calc. and selection 2−60409
composite materials with different moduli in tension and compression, pre- and post-degradation anal. 2−91229
composite plane containing thin elastic inclusion, elastic equilib. 2−55429
composite plate, multipurpose optimisation 2−60426
composite shell, three-layer, stress/strain state of boundary-layer type 2−60427
concrete, plastic-fracture model 2−55503
continuous fibrillated polyolefin film reinforced cement, toughness 2−116521
creep crack growth tests, J* eval. methods 2−91327
Cu Cu, Cu-Al, deform., effect of low-temp. irrad. 2−93564
cubic single cryst., integral photoelasticity, computer graphics study *(Russian)* 2−97380
cylinder, viscoelastic, reinforced by shell with annular ribs, forced vibrs. 2−91304
disc, circular, residual stresses creation by heating, optimum control 2−91275
disc-shaped crack in elastic body with initial streses, three-dimens. problem 2−114728
ductile crack growth, local criterion *(Japanese)* 2−109897
elastic plane, interaction of linear rigid inclusions and cracks 2−86233
elastic-plastic material, mechanical behaviour under uniaxial tension, dia. imperfection effects *(Japanese)* 2−86217
elastoplastic bodies, stress-strain state in high-power pulsed laser heating 2−114718
elastoplastic material behaviour, modelling, rel. to nuclear reactor safety 2−62186
elastoplastic problem soln. by finite element method 2−75868
epoxy binders, strain-strength props. above glass transition temp. 2−83186

stress/strain relations continued
explosion chamber wall, dynamic loading calcs. 2−61064
fatigue crack growth, cumulative model 2−92092
fatigue criteria under combined stresses or strains 2−61060
fatigue evaluation under multiaxial loading, new approach 2−62225
fibre reinforced composite, stress concentration at an edge noncoincident with reinforcement direction 2−65486
fibre reinforced composites, unidirectional, specimen length rel. to struct. and anisotropy 2−83156
finite bar, elastoplastic waves propagated in temp. gradient, computer simulation *(Japanese)* 2−70853
fusion material, irrad., miniaturised disc bend test development 2−88316
fusion material, microhardness test techniques for high energy neutron source expts. 2−88313
glass fibre reinforced epoxy, fracture behaviour 2−72809
glass fibre reinforced epoxy resin, destruction obs. by mechanoluminesc. 2−88145
glass fibre reinforced plastic, ultimate resist. under proportional deform. conditions 2−62211
glass shell, sectional, with dismantable joint, strength and damage content 2−105431
glass shell, spherical, breaking external hydrostatic press. prediction 2−97457
glass-ceramics, ramp-wave generation 2−71566
glassy polymers, nature of nonlinear anelasticity 2−88121
graphite fibre reinforced resin, tensile testing at 316°C, gripping system appls. 2−105399
Haasen plots, model and interpret. 2−72781
HCP crystals, elastic moduli and linear expansion coeffs. of axial textures *(Russian)* 2−76560
heart, right ventricle in diastole, passive stress/strain relation 2−105723
heated orthotropic plates, stress function under steady temp. distrib. 2−55449
hysteresis energy under repeated loading *(Slovak)* 2−116483
ice, columnar-grained, compressive strength, const. strain- and stress-rate 2−66106
Inconel 718, Ni-base superalloy, low cycle fatigue, stress-strain behaviour 2−116516
INSTRON 1122, behaviour under cyclic testing over a small displacement range 2−83312
internal stress meas. method based on zero entropy of activation concept 2−105430
isotropic materials, nonlinear elastic model for materials with different behaviour in tension and compression 2−103878
J integral for various geometries of cracks and notches 2−67488
Kevlar fibre reinforced polymer, matrix-induced compression effect on morphology and tensile props. 2−105224
laminated composite plates, cracked, sudden stretching 2−65518
laminated composites, nonlinear stress-strain response at elevated temps. *(Japanese)* 2−93567
layer superstructure, domain-boundary hardening theory *(Russian)* 2−93529
linear viscoelasticity, dynamic problem solution 2−112707
locking solids analysis, dual math. models 2−114653
low cycle fatigue reliability expressions 2−77951
LWR fuel rod ridging, closed-form math. soln. 2−64467
magnetostrictive polycryst. material vibrs., hysteresis damping, phenomenological theory 2−66883
metal, FCC, saturation of flow stress 2−93574
metal based composites, porous, stress-strain state during compression 2−116414
metal forming simulation 2−72758
metallic materials, tensile test diagram construction, with deform. anisotropy 2−105406
metallic materials, torsion testing *(German)* 2−72925
metals, amorphous, strain localisation, inhomogeneous flow 2−56069
metals, deform., rate-dependent, elevated temps., constitutive eqns. 2−105265
metals, elongation, uniform, determ. from stress-strain curves 2−62313
metals, hardening curves analysis 2−111202
micro-indentation tests, Bernhardt's formula, generalisation 2−62304
microstructural features, computational models 2−76694
multilayer shells of revolution, geometrically nonlinear anisotropic, statics, numerical soln. 2−91246
neutron diffraction method of stress measurement, stress gradient in Al alloy bar 2−99618
nonequilibrium stationary states, constitutive eqns., extended irreversible thermodynamic theory 2−63950
nonlinear hydrodynamics, multiplicative stress-strain fluctuations 2−95017
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
Nylon-6,6 annealed in glycerol, thermomechanical props., stress-strain anal. 2−111213
nylon-b, large deform. behaviour of thermoplastics 2−111245
piezoresistance response, anal. and modelling 2−69154
plasticity, stress-strain relations, phenomenological theory 2−103055
plate, anisotropic, with a crack, fundamental solns. 2−65536
plate, hole outline reinforcement by momentless elastic rod 2−55430
plate, relaxed by cut, tension state, small elastico-plastic deform. *(Russian)* 2−91269
PMMA, large deform. behaviour of thermoplastics 2−111245
poly(phenylene oxide), tensile props. and density, effect of residual stresses 2−67401
1,2-polybutadiene, rupture strength criteria above vitrification temp. *(Russian)* 2−67474
1,2-polybutadiene characterisation above glass transition temp. 2−72774
1,2-polybutadiene viscofluid, strength characterisation in uniaxial extension 2−72829
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polyether-polyurethane zwitterionomers, phys. props. and phase segregation 2−67451
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polyisoprene, rupture strength criteria above vitrification temp. *(Russian)* 2−67474
polymeric glasses, excess entropy and stress-strain behavior 2−76710
polymers, failure under load with constant strain rates *(German)* 2−72830
polymers, mech. props., influence of mol. wt. and mol. wt. distrib. 2−111306
stress/strain relations continued
polymers, stress cracking and crazing, environmental irreversible thermodynamics 2−103891
polymers deformation studies by time resolved Fourier transform IR spectroscopy 2−89832
polystyrene, high impact microcomposite thermoplastic, stress crazing, temp. effect 2−77926
polystyrene, tensile stress-strain behaviour in inert and gaseous environments 2−88130
polystyrene, toughened, stress-strain behaviour model 2−67428
polystyrene, toughened, stress-strain behaviour model 2−67429
polystyrene powder, rheological studies on compaction *(Japanese)* 2−83077
polystyrene-low density polyethylene blends, const. stress behaviour 2−105229
polyurethanes SKU-10, opt. and mech. props. under pulsed and static loads 2−62159
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, filled, plasticized, rheological and mech. props. 2−67413
PVC melt, elongational flow behaviour 2−75913
refractory, viscoelastic stress response of commercial struct. in service at high temp., model 2−83160
reinforced plastic, short beam bending, plane problem of hereditary elasticity 2−55443
ring, nonlinear-elastic, bulging, action of radial load *(Russian)* 2−91244
rocks, impulsive strain effects correl. with detonation parameters of strain-generating explosive charges shock wave effects [-] 2−73541
rod, inhomogeneous isotropic viscoelastic square, torsion 2−81257
rods, hollow, curvilinear, of finite length plastic flow 2−97401
rolling, rheological properties of material effect on stress and strain states 2−99450
round die acting on elastic half-space, axisymm. contact problem *(Ukrainian)* 2−103108
rubber and rubberlike materials, elastic and loss moduli meas. 2−83314
sandwich beam, nonlinear compressive and tensile stress/strain curves determ. method 2−91346
servo-hydraulic test rig for controlled cyclic strain and temp. testing 2−57559
sheet moulding compounds, fracture behaviour, influence of constituents on mech. props. 2−67481
sheet moulding compounds, fracture behaviour under tensile load 2−67480
shell, cylindrical, dynamic stability, axial compression *(Russian)* 2−91285
shell, nonuniform, approx. analytical models in stability problems *(Russian)* 2−75873
shell, rolled cylindrical, loaded by internal pressure, elastic deform. and layers slippage 2−91340
shell, spherical, fluid filled, contact interaction with hard spherical base, asymptotic integration *(Russian)* 2−60487
shell, spherical, under transient wind load, stress-strain state 2−75867
shell, thin, shallow, spherical, nonaxisymm. equilib. modes, asymptotic anal. 2−60432
shell of revolution, open, under nonaxisymm. mech. and thermal loads, thermoelastoplastic stress state 2−109208
shell structures with cuts, stress-strain state at large and small strains, pneumatic meas. 2−91274
shells, cylindrical, locally-loaded, stresses, displacements *(Russian)* 2−60392
shells, cylindrical, thick-walled, pressurised bifurcation, deform.-theory anal. 2−109205
shells, cylindrical, under pure bending and pressure, nonaxysymm. longit.-transverse bending 2−109207
shells, elastic flexible shallow, variational principles of theory 2−114660
solar energy conversion technologies, mech. integrity of solid-solid interface, review 2−87077
Solithane 113 elastomer, shear wave propagation and compression 2−71565
stainless steel, type 304, creep and creep recovery at low stresses, plastic strains, ageing effect 2−93579
static stress/strain anal. of NDT samples, holographic methods 2−116676
steel, alloy, hot deform., struct. form. and stress-strain diagram during unstable stage *(Russian)* 2−77876
steel, austenitic stainless, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
steel, austenitic stainless, thin-walled tubes, state variable anal. of elastic deform. 2−57398
steel, austenitic stainless deform.-induced transform., effect of strain rate and strain state 2−77886
steel, C, hot deform., struct. form. and stress-strain diagram during unstable stage *(Russian)* 2−77876
steel, C, plastic flow, elevated temps., effect of C content 2−67524
steel, Cu(-Ni), powder metallurgy materials, characteristic props. relevant to fatigue design 2−83226
steel, diffuse necking in sheet tensile specimens 2−116496
steel, low alloy, metastable austenite, mech. props. 2−105254
steel, low C, elongation, uniform, determ. from stress-strain curves 2−62313
steel, low C cyclic stress-strain curves and internal friction at US freqs. 2−111321
steel, low-C sheet, strain rate effect as strain to fracture 2−105338
steel, martensitic Cr-Mo-V type, performance under low-cycle fatigue at elevated temp. *(French)* 2−78054
steel, microduplex, superplastic deform. activation energy, differential temp. tests 2−88325
steel, mild, hollow cylinders, strength of surface layer 2−57434
steel, Mn-Mo-Nb, pipeline, yielding behaviour 2−105256
steel, stainless, Type 316, modified Hollomon eqn., grain size depend. 2−67453
steel, stress corrosion cracking in high temp. water, effect of fluid flow 2−88259
steel, tool, high speed, S 6-5-2 and S 10-4-3-10, cooling during hardening process, effects on toughness *(German)* 2−57367
steel, uniaxial straining, thermal effects 2−99500
steel, yield point, stress and strain gradient influence *(French)* 2−75864
steel types 1018, 1020, thermo-plastic shear instability 2−72757
steels, austenitic stainless, type AISI 304 and AISI 316, dynamic testing, for large reactor structs. 2−74825
strain hardening curves, meas. technique for obtaining true stresses and strains *(Russian)* 2−93527
strain hardening curves of polycryst. materials, math. approx. 2−99448

stress/strain relations continued
stressed polymers microstruct. changes, vibr. Fourier transform IR spectroscopy 2−93201
structural elements, test installation for stress/strain state, using method of optically active coatings 2−67700
superconductor, critical current meas., elec. field and resistivity criteria, 2−92847
superconductors for supercond. magnets, mechanical props. and strain effects, review 2−67469
superplastic sheet, mechanical behaviour under uniaxial tension, numerical anal. *(Japanese)* 2−88136
tensile plastic instability and mech. eqn. of state 2−109888
upsetting of circular cylinder, assessment of free surface strains and stresses 2−93733
viscoelastic material, linear, stress response and energy dissipation under periodic triangular strain loading 2−114675
viscoelasticity theory, method of successive approximations appl. 2−81252
wire drawing, plastic flow and stress/strain distrib., calc., computer program 2−99480
Zircaloy-4, O containing duplex, deform. behaviour 2−99501
Al alloy, creep deform. and rupture under non-proportional loading 2−57445
Al alloys, stress-strain behaviour, large strain deform. 2−111237
Al plates between steel plates, stress-strain curves, plastic flow 2−72756
Al-Cu (2.8 wt.%) alloy, aged, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Al-Cu (4 wt.%) single crysts., containing θ'' precipitates, cyclic stress/strain response 2−99495
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Al-Mg(3 wt.%), high temp. creep, stress sensitivity parameter 2−77869
Al_2O_3, anelastic deform. effect on high temp. stress relaxation 2−67410
Au, evaporated film, tensile fracture *(Japanese)* 2−82182
Be, shock wave data interpretation with elastic viscoplastic model 2−71556
C fibre reinforced filament wound cylinder under internal press., probabilistic burst strength 2−62170
C fibre reinforced plastic, non-linear stress-strain effects in flexural wrinkling 2−77870
CaO, deformation processes during creep 2−61058
Cr-Cu alloy film, mech. props., thickness depend. 2−115628
Cu, creep deform. and rupture under non-proportional loading 2−57445
Cu, diffuse necking in sheet tensile specimens 2−116496
Cu, flow stress, strain and grain size depend. 2−57399
Cu, flow stress in polycryst., grain size depend., texture hardening concept 2−72780
Cu, lattice rotations, necking and localised deform. in FCC single crysts. 2−71546
Cu, single crysts., persistent slip bands, model for crack nucleation 2−93589
Cu, strain hardening, monotonic and cyclic deform. 2−62136
Cu, wrought, engng. fatigue props. review 2−88161
Cu-Al (3 at.%), dislocation struct. effect on flow stress, X-diffr. and electron microscope study 2−91982
Cu-Al (9.8-11 wt.%), dual-phase struct.-prop. relationship, alloy behaviour 2−77834
Cu-Al-Ni; loaded; internal friction meas. *(Russian)* 2−88116
Cu-Fe, containing α-Fe particles, back stress hardening and static and dynamic hardening 2−67358
β-Cu-Zn-Sn (33.8, 3.1 wt.%), pseudoelastic polycryst., fatigue 2−67517
Cu_2NiZn, ordering alloy, mech. props. 2−105216
Fe, cast, grey, stress-strain simulation model 2−93562
Fe, high purity single crystal, H_2 effect on mech. props. *(Japanese)* 2−105236
α-Fe, polycryst., stress-strain behaviour, improved dislocation model 2−105247
Fe-Mn-Si, shape memory effect in $\gamma \rightleftharpoons \epsilon$ martensitic transform. 2−83114
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
Fe-Si (6 at.%) single crystals, strain rate vs. stress depend. 2−105240
Fe-Si-Al, Sendust polycrystals, plastic deform. *(Japanese)* 2−57416
Fe-Si-Al, Sendust polycrystals, deformability *(Japanese)* 2−57417
Fe-Si-Al, Sendust single cryst., plastic deform. *(Japanese)* 2−57415
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
In-rich alloys, phenomenological considerations of phase transformations 2−88076
LiF single crysts., push-pull fatigue at elevated temps., mech. props. 2−105275
$LiKSO_4$ crystals, anomalous changes in piezoelec. and elastic props. 2−99054
MgO, anelastic deform. effect on high temp. stress relaxation 2−67410
$MgO.nAl_2O_3$ spinels, mech. props., comp. influence origin 2−92080
Mn-Ni alloy, FCC, equilib. proportions of phases, martensitic transform. 2−105144
Mo fibre reinforced Fe and Cu composites, porous, stress-strain state during compression 2−116414
Mo, mechanical eqn. of state 2−83194
NaCl, γ-irrad., aftereffect and photomemory, F-centres and dislocations 2−71547
Ni, high-temp. ductility, Sb, Sn, As and P addition effect, intergranular embrittlement 2−72839
Ni single cryst., plastic deformation, dislocation struct., stress/strain curves 2−109798
Ni single crystal, fatigued, plateau behaviour 2−115344
Ni superalloy, intergranular fracture assoc. with heterogeneous deform. modes during low-cycle fatigue 2−72834
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
Ni-base alloys, anisotropic, creep transients in deform. 2−83163
Ni-Cr alloy, brazed ring, geom. parameters selection, tolerable stresses 2−99640
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
Pb alloy model beams, rig for creep and thermal ratchet testing, strain and temp. meas. 2−57558
Pd crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
Si, bent, strain conc. factors around holes and inclusions, X-ray topography study 2−98189
Si_3N_4, neutron irradiated, X-ray anal. of internal strain 2−93557
SiO_x, stress-strain curves and internal stresses, bulge and tensile tests 2−82190
Si_2ON_2, neutron irradiated, X-ray anal. of internal strain 2−93557

stress/strain relations continued
Sn-Pb eutectic, superplastic behaviour in as-worked state 2−67442
Ti, stress-strain relationship, usefulness of Hollman eqn. 2−67415
Ti-Al-Nb-Ta alloy, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Al-V(-Mo), low cycle fatigue, effect of stress-strain behaviour 2−57439
α-B-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77884
α-β-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77885
Ti-Ni, phase hardening during martensitic transformations *(Russian)* 2−93504
TiO_2-SiO_2 glass, ramp-wave generation 2−71566
U, shock wave data interpretation with elastic viscoplastic model 2−71556
Zn-Al (22 wt.%), comparison of constant strain rate and creep testing procedures 2−99617
Zn-Al (22 wt.%), superplastic, stress-strain rate curve at low strain rates 2−57429
Zn-Al (22 wt.%), superplastic eutectoid alloy, mech. props. 2−83181
Zn-Al (22 wt.%) alloy, superplastic, low-strain-rate Region I controversy 2−105260
Zr, deform., mech. eqn. of state and strengthening mechanisms 2−93556

stresses, internal *see internal stresses*

stretch receptors *see mechanoception*

striations *see discharges (electric)*

striking *see impact (mechanical)*

strip line components
magnetic modulators for lasers and accelerators 2−97024
microstrip antennas, developments and trends towards bandwidth increase 2−68108

strip lines
thermal grounding, in dilution refrigerator 2−89722
thyratron nanosecond pulse generator based on strip line 2−85441

stripping reactions
antisymmetrized deuteron stripping, three-body model, appl. to $^{24}Mg(p,d)$ 2−107815
DWBA calcs. for stripping to unbound or weakly bound states 2−59315
Sd-shell nuclei, model space depend. of nucl. observables 2−113379
spectroscopic sum rules, spin dependent, for two-nucleon transfer 2−107751
unbound final state, calc. methods 2−79995
(d,p), effective interactions, DWBA theory appl. 2−96019
(d,p) sub-Coulomb meas., asymptotic D to S state ratio of ^2H wave function determ. 2−84964
(p,d), intermediate energy, stripping and pickup reactions, analytic eikonal model 2−85051
$^{27}Al(^3He,d_0)^{28}Si$, 130 MeV, proton stripping, DWBA analysis, ground state transitions 2−113454
$^{193}Ir(^3He,d)$, 40 MeV, ^{194}Pt levels, spectroscopic factors, DWBA anal., supersymmetric coupling test 2−113366
$^{24}Mg(p,d)$, 94 MeV, antisymmetrized deuteron stripping, three-body model appl. 2−107815
$^{92}Mo(^3He,\ ^2He)^{93}Mo$, DWBA calcs. 2−59315
$^{92}Mo(^3He,d)^{93}Tc$, DWBA calcs. 2−59315
$^{45}Sc(^3He,d)$, 16 MeV, ^{46}Ti level struct., cross sections, spectroscopic strengths, DWBA anal. 2−59242
$^{28}Si(^3He,d_0)^{29}P$, 130 MeV, proton stripping, DWBA analysis, ground state transitions 2−113454
$^{144}Sm(^3He,d)$, 240 MeV, transitions to high-lying p-states 2−79939
$^{144}Sm(\alpha,t)$, 80 MeV, transitions to high-lying p-states 2−79939

stroboscopes
see also velocity measurement
high-speed flow process investig. using laser Doppler and stroboscopic anemometers *(Russian)* 2−114934
single electron photomultiplier pulse study using stroboscopic unit 2−108259
synchronous accumulation of vibration signal under conditions of nonidealness of strobing process 2−67712

strong-coupling superconductors
A15 compounds, supercond., energy gap determ. from heat capacity meas. 2−110532
A15 superconductors, tunnelling, McMillan inversion of Eliashberg's equations 2−56792
alloys, with localised excited states in energy gap, strong coupling theory 2−104543
Chevrel phase cpds., supercond., energy gap determ. from heat capacity meas. 2−110532
critical temperature calcs. 2−110528
pair breaking and charge relaxation in superconductors 2−61649
strong-coupling superconductors, thermal cond. and charge relax. 2−104539
tunnelling characteristics inversion in superconductors with spin fluctuations 2−61668
Nb, superconductivity, paramagnon suppression, tunnelling estimates 2−61667
NbN film homogeneous supercond., IR transmission, scattering time effects 2−66713
Pb-Mn alloy, supercond., with localised excited states in energy gap, strong coupling theory 2−104543
V, superconductivity, paramagnon suppression, tunnelling estimates 2−61667

strong interactions, elementary particle *see elementary particle strong interactions*

strontium
see also nuclei with .....
abundance in magmatic rocks and sediments, X-ray fluorescence determ. 2−83972
atom, 2- and 3-photon reson. ionisation, electron 2−75224
atom, multiphoton ionis., Sr^+ and Sr^{2+} prod. 2−75225
atom, Rydberg states, hyperfine struct., singlet-triplet mixing 2−90463
atoms, 5 sns $^1S_0$ and 5 snd $^1D_2$ Rydberg series absolute energy level determ. 2−85606
atoms, resonant double photoionisation 2−102446
bone Sr content, in situ meas. by X-ray fluoresc. anal. 2−62869
Caledonian calc-alkaline volcanic arc (Scotland), Nd and Sr isotopes 2−62916

strontium continued
Costa Rica Rift, Sr and O isotopes of Pacific basalts 2−106016
Deccan Trap flood basalt origin, isotope geochem. study 2−106017
excimer molecule, dissoc. energy, laser induced fluoresc. obs. 2−96628
isotopic evidence for upper mantle long lived heterogeneities 2−100333
isotopic systematics in three-component Earth mantle model 2−100334
metastable ^3P level transition oscill. strength meas. 2−85567
mid-ocean ridge basalt Pb, Nd and Sr isotope ratios 2−106010
pressure induced superconductivity 2−56764
thermoelectric power, elec. resistivity, press. depend. 2−66532
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
Al-Si-Mg-Sr, hypoeutectic, modified by pure Sr, microstruct. and mech. props. 2−99386
He-Sr plasma laser, kinetic model of active medium 2−85947
KBr:Sr (Pb), mech. strengthening and impurity precip. 2−88093
KCl:Sr, interstitial centres and thermoluminescence 2−72565
KCl:Sr, with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KCl:Sr^{2+}, positron annihilation study 2−67145
KCl:Sr^{2+}, X-ray irrad., H_D ntype defects, ESR study 2−110641
$LaCrO_3$:Sr perovskite, IR spectra assignments and interpret. 2−93231
NaCl:$(Ca^{3+})(Sr^{2+})$, irradiated crysts., IR props. 2−99127
NaCl:Ca (Sr)(Mn)(Pb)(Cd), mech. strengthening and impurity precip. 2−88093
NaCl:Sr, Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
NaCl:Sr, Pb^{2+}, luminescence and absorpt. spectra 2−72547
NaCl:Sr, UV light irrad., thermoluminesc. study 2−57197
NaCl:Sr, X-irrad., thermoluminesc. study 2−57196
NaCl:Sr^{2+}, Eu^{2+}, precipitation of $SrCl_2$, EPR study 2−98956
Sr I, 3d subshell absorpt., spectra, multiconfig. anal. 2−54785
Sr II pulsed gas discharge lasers, output power, acoustic wave influence 2−114348
Sr III, resonance line excitation in electron-atom collisions 2−108720
Sr XII spectra, 40-95 Å 2−85582
Sr^{29+}, F-like ions, $2s^22p^5$-$2s2p^6$ transitions obs. 2−102403
Sr-Cs mixture, two-photon atomic ionisation, radiative collision influence 2−96523
Sr+Cl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
Sr+Eu, radiative collision, final-state coherences 2−75377
Sr+HF, state to state reaction dynamics studied using laser induced fluoresc. 2−105458
$^{86}Sr/^{87}Sr$ in Walvis Ridge basalts, mantle source 2−106015
^{87}Sr, msns Rydberg states level shifts induced by hyperfine interaction 2−64943
^{87}Sr, Rydberg state, hyperfine induced perturbation, high-resolution two photon spectra 2−59769
$^{87}Sr/^{86}Sr$ in oceanic basalts rel. to mantle evolution 2−73551
$^{88}Sr+H^+$, K-shell ionisation probability meas. 2−114092
^{90}Sr and $^{239+240}Pu$ in Greenland ice sheet cores as fallout records 2−69994
^{90}Sr, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
^{90}Sr in surface air and stratosphere, inventory of 1963-75 data 2−111599
^{90}Sr, low activities assay by early counting of Chenkov radiation induced by ^{90}Y 2−67782
^{90}Sr-^{90}Y toxicity, haematological studies, femoral CFUs kinetics and spleen cells mitogen response 2−117017
$^{88,86}Sr$ I, II, isotope shifts, Doppler-free optogalvanic spectroscopy 2−108425

strontium alloys
see also strontium compounds
Ba-Sr, liquid, elec. resist. and thermopower 2−82311
Ca-Sr-Ba, alloying behaviour, cryst. struct., stoichiometry and phase diagrams 2−109746
Sr_6Mg_{23} and $SrMg_4$, cryst. struct. relationships 2−60927
Sr_9Mg_{38}, cryst. struct. determ. 2−91869

strontium compounds
see also strontium alloys
dicalcium strontium acrylate, ferroelastic phase transition, lattice const. and birefringence 2−92187
dicalcium strontium propanoate, two-sublattice model, piezoelec. and elastic props. 2−87675
dicalcium strontium propionate, ferroelectric transitions, ESR study 2−66999
dicalcium strontium propionate, switching transients 2−110785
ferromag., magnetisation meas., mag. eqn. of state CC $Eu_xSr_{1-x}S$ alloys, ferromag., magnetisation meas., mag. eqn. of state 2−116001
$5SrO.4Al_2O_3.H_2O$, cryst. struct. refinement 2−55903
$SrWO_4$, solubility in metal chloride melts, crystallisation 2−86874
sulphides, IR matrix isolation spectra 2−75284
tartrate tetrahydrate, Co^{2+} centres, optical absorpt. studies 2−115220
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2−115145
Au-$SrTiO_3$-SiO_2-Si struct., electron beam deposited, nonvolatile memory props. 2−72068
$(Ba,Sr)TiO_3$ films on Si substrate, ferroelec. behaviour 2−66996
BaO-SrO-Na_2O-Nb_2O_5 system, cryst. growth and electromech. characts. 2−87693
$Ba_{0.4}Sr_{0.6}Nb_2O_6:Pr^{3+}$, inverse Raman spectra 2−104877
$Ba_xSr_{1-x}Nb_2O_6$, low freq. dielec. spectra, 20 to 200°C 2−61830
$Ba_xSr_{1-x}Nb_2O_6$, photorefraction and photoelec. props., ferroelec. polarisation 2−110394
$Ba_xSr_{1-x}Nb_2O_6:Ce(Sr_2Nb_2O_7)$, photoluminescence, thermoluminescence and photocond. 2−110908
$Ba_xSr_{1-x}O_6$, ferroelectric, dielec. and optical props. in fund. absorption region 2−77481
$Ba_{0.95}Sr_{0.05}Pb_{0.75}Bi_{0.25}O_3$ superconducting films, RF sputtering prep. 2−83019
$(BaSr)TiO_3$, planar capacitors in SHF range, capacity and dielectric loss angle meas. 2−58845
$Ba_{2-x}Sr_xTiSi_2O_8$, crystal growth and SAW props. 2−87970
$Eu_{2-x}Sr_{1+x}Cu_2O_{6-x/2}$, cryst. struct. and elec. props., O vacancies *(French)* 2−91917
$Eu_xSr_{1-x}S$, dil. Heisenberg system, with competing interactions, mag. ordering 2−72212
$(Eu_xSr_{1-x})S$, dilute, possibility of dipolar spin glass 2−66837
$Eu_xSr_{1-x}S$, nearly ferromag., spin correls., neutron diffr. study 2−77258

strontium compounds continued
$Gd_{2-x}Sr_{1+x}Cu_2O_{6-x/2}$, cryst. struct. and elec. props., O vacancies *(French)* 2−91917
KCl:Sr^{2+} solid solns., solvus, impurity precipitation, density meas., thermodynamic anal. 2−92217
KCl:$SrCl_2$ crystals, surface polarisation by blocked point defects, TSC study 2−110750
K_2O-SrO-B_2O_3 glass, microhardness 2−105335
$La_{1-x}Sr_xCoO_3$, X=0.2 to 1.0, elec. cond., influence of prep. and comp. 2−87257
$La_{1-x}Sr_xFeO_3$, elec. cond., effect of CO adsorption, appl. to gas sensors 2−71979
$(La_xSr_{1-x})(Mn_x^{3+}Mn_{1-x}^{4+})O_3$, indirect exchange interactions, and Jahn-Teller distortions, neu tron diffr. study 2−66800
$La0.84Sr_{0.16}MnO_3$, cryst. struct. and elec. cond. 2−81748
NaCl-$CaCl_2$-$SrCl_2$, molten, thermodynamic props. and phase diagram, calc. using computer *(Chinese)* 2−105129
$Na_2Sr_{3-2x}R_x(PO_4)_2$, R=La to Tb, Nd^{3+}, Eu^{3+} and Gd^{3+} local struct., probes, luminescence study 2−103715
P_2O_5-SnO_2-SrO, Mossbauer and IR spectra quadrupole splitting 2−104767
$(Pb_{0.8}Sr_{0.2})Bi_2Nb_2O_9$ piezoelectric. ceramic, mech. strength 2−77907
$Pb_{1-x}Sr_xGe_4O_9$, polymorphism, cryst. struct., and dielec. props. 2−109754
$SiCl_2$:Sn, electron-phonon interaction of impurity centres, photolum. and Jahn-Teller effect *(Russian)* 2−57179
$Sm_{2-x}Sr_{1+x}Cu_2O_{6-x/2}$, cryst. struct. and elec. props., O vacancies *(French)* 2−91917
(Sr,Ba,Ca)Nb_2O_6, diffuse ferroelec. phase transition, optical and dielec. props. study 2−61844
Sr $(NO_3)_2$, dry impregnation with MoO on Al_2O_3, cryst. struct. 2−109761
$SrAl_2O_4$-$SrGa_2O_4$, isotructural series, solid solutions of polymorphic modifications 2−109757
β-$SrAl_4O_7$, cryst. struct. determ. 2−71405
$SrAs_3$, elec. cond. and mag. props. 2−92907
SrB_6, ^{11}B chem. shifts and quadrupole coupling consts. 2−87607
$Sr_{0.75}Ba_{0.25}Nb_2O_6$ crysts., electromech. props. 2−99047
$Sr_{1-x}Ba_x(Nb_2O_6)$, ferroelectric thermal cond. and permittivity 2−115477
$Sr_{1-x}Ba_xNb_2O_6$, use in amplifying CW phase conjugate mirror 2−75632
$(Sr_xBa_{1-x})_{1-y}(Nb_2O_6)_y$, cerium-doped, as holographic recording medium *(Russian)* 2−60035
$Sr_xBa_{1-x}Nb_2O_6$, poled, dielec. props. rel. to pyroelec. detection 2−110777
$Sr_xBa_{1-x}Nb_2O_6$, pyroelec. large area high speed detectors for UV 2−101458
SrBiSe$_3$, prep. and cryst. struct., X-ray study *(German)* 2−109768
$SrBr_2$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
SrBrF, mixed dihalides, temp. depend. of dielec. behaviour, 100-600K 2−66968
$Sr(Ca_{1/3}Nb_{2/3})O_3$-$PbZrO_3$-$PbTiO_3$ elec. and optical props. 2−82794
$Sr_{0.7}Ce_{0.3}F_{2.3}$, solid electrolyte, ionic cond. 2−92273
$SrCeO_3$ based solid electrolytes, appl. in high temp. fuel and steam electrolysis cell 2−105554
$SrCl_2$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
$SrCl_2$, aq. solns., X-ray diffr. study 2−115129
$SrCl_2$, entropy change in fast-ion transitions 2−71640
$SrCl_2$:K, photochemically coloured, thermally stimulated depolarisation currents meas. *(Russian)* 2−116112
$SrCl_2$:O_3^-, EPR and Raman spectroscopy investig. 2−56928
SrClF, mixed dihalides, temp. depend. of dielec. behaviour, 100-600K 2−66968
$SrCl_2.6H_2O$, Cl K-absorpt. spectra, absorpt. fine struct. 2−105000
SrF, optical spectra at sub-Doppler resolution 2−75257
SrF, potential energy curves and dissociation energy 2−70163
SrF_2, doped, dipolar thermally stimulated depolarisation, theory 2−93106
SrF_2, electronic struct., cluster calc. by multiple scatt. Xα method 2−61350
SrF_2, high-temp. mean square displacements 2−66139
SrF_2, IR wavelength modulation spectroscopy of laser window materials 2−60191
SrF_2, impurity and interstitial clustering 2−86884
SrF_2, Raman scattering efficiencies for Γ-phonons 2−57100
SrF_2, rare earth doped and hydrolyzed mol. centres, Raman spectra study 2−104873
SrF_2, thermal neutron irradiated, point defects study 2−65985
SrF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
SrF_2:Eu^{2+}, ESR study of forbidden transitions 2−92998
SrF_2:La_3 Raman spectra between 300 and 1400K 2−99129
SrF_2:La^{3+}, thermal depolarisation studies 2−61817
SrF_2:Ni, X-ray irrad., luminesc. meas. 2−110921
SrF_2:Re^{3+}, point group crystal field and superposition model 2−92538
SrF_2:Ti^{2+}, transferred hyperfine interaction 2−66506
SrF_2:Tm^{2+}, uniaxial stress effect on ENDOR, hyperfine parameters 2−72378
SrH, potential energy curves, Franck-Condon factors 2−70164
SrH, UV spectrum at 2620 Å 2−54863
$SrHfO_3$, thermodynamic stability investig. using EMF method with CaF_2-type electrolyte 2−81983
$SrLaCoO_4$:^{57}Fe, emission and absorption Mossbauer spectra, electronic structure 2−77434
$Sr_4La(Nd)_6Si_4P(V, As)_2O_{26}$, solid phase synthesis, apatite struct. 2−111067
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe,Ru_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
$SrMO_4$-$Eu_2(MO_4)_3$ (M=Mo, W), defect formation, electrochemical props. 2−109783
$SrMoO_4$-$Eu_2(MoO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$SrMo(W)O_4$, scheelite struct., cation diffusional mobility, solid phase synthesis appl. 2−86923
$Sr(NH_3)_6$, NH_3 diffusion and H^+ shift, PMR obs. 2−82735
$Sr(NO_3)_2$, growth strains, synchrotron radiation X-ray section topography study 2−86512
$Sr(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
$SrNaPO_4.9H_2O$, cryst. struct. X-ray diffr. study, full matrix least squares technique 2−81721
$Sr_2NbIn_{0.9}Ni_{0.1}O_6$, and oxygen network stabilisation *(French)* 2−61759
$Sr_xNb_{2(3-x)/5}O_3$-$PbZrO_3$-$PbTiO_3$ elec. and optical props. 2−82796
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
$Sr_xNd_{1-x}FeO_{3-y}$ solid soln., superstructure, microdomains, electron diffr. and microscopy study 2−91925

strontium compounds continued
SrO with transition metal impurities, energy states 2−71903
SrO:Fe^{3+}(Cr^{3+})(Gd^{3+}), ESR dipolar linewidths 2−104688
SrO-BaO-Al_2O_3-TiO_2-SiO_2 system, crystallised-glass materials, isomorphous substitutions, X-ray diffr. study 2−71615
SrO-Li_2O_5-P_2O_5:Mn, Ce, luminesc. system, whitlockite phase struct. 2−98015
SrO-ZrO_2 system, electroconductometric analysis, struct. transitions obs. 2−98262
$Sr_{10}(PO_4)_{6-y}(AsO_4)_y(OH)_2$, cryst., anion migration, IR study 2−57106
$Sr_{10}(PO_4)_{6-y}(VO_4)_y(OH)_2$, cryst., anion migration, IR study 2−57106
$Sr_{0.02}Pb_{0.98}(La_{0.008}W_{0.012}Ti_{0.46}Zr_{0.52})O_3$, impurity distrib., props. 2−86701
$Sr_2Rd_6S_{11}$, synthesis cryst. struct. 2−55940
SrS:Cu,Er, phosphors, electroluminesc., spectral characteristics 2−67122
SrS:Eu,Sm, phosphor, luminesc., nanosecond IR laser stimulation, dosimeter appl. 2−57140
$SrSO_4$(001) surface, stratigraphical etch patterns 2−61263
SrS(SrSe), optic phonon IR reflection spectra and cryst. growth, expt. study 2−99117
$SrSc_2S_4$, cryst. struct. refinement by powder neutron diffr. 2−81732
SrSe:Cu,Er, phosphors, electroluminesc., spectral characteristics 2−67122
$SrSiO_3$, α-, β-, δ,′-forms, struct. and high-pressure polymorphism 2−55931
$SrSiO_3$:Pb^{2+}, phosphors, high press. phases, luminescence props., quenching 2−82903
$SrSiO_3$-$BaGeO_3$, solid solutions, phase reactions, IR spectra 2−72693
Sr_2SiO_4, vibr., isotope shift, IR and Raman study 2−77507
$Sr(Sr_{1/3}Nb_{2/3})O_3$, band gap, electron mobility, Schottky disorder, elec. cond. meas. 2−61530
$Sr_2Ta_2O_7$, ferroelec. transition temp., press. depend., dielec. const. study 2−87713
$SrTeO_3$, ferroelec., elec. cond., freq. and temp. depend. meas. *(Russian)* 2−77066
$SrTe_2O_5$, ferroelastic state 2−66109
$SrTiO_3$ (100), adsorption of H_2O and D_2O EELS and UPS study 2−115537
$SrTiO_3$, antiferrodistortive phase transition, impurity effect 2−82793
$SrTiO_3$, crossover exponent and struct. phase diagram, sp. ht. meas. 2−76665
$SrTiO_3$, dielec. nonlinearity, losses, and parametric interactions at UHF 2−99072
$SrTiO_3$ dielect. resonators nonlinear losses at 4.2K 2−72415
$SrTiO_3$, electronic spectra of TiO_6^{8-} clusters 2−93222
$SrTiO_3$, IR refl. and antidistortive transition 2−67058
$SrTiO_3$, matrix material for molten carbonate fuel cell electrolyte structs. 2−88426
$SrTiO_3$, non-adsorption of carbonate ions, Raman spectra study 2−66347
$SrTiO_3$, phase transition study 2−87705
$SrTiO_3$ photoanode, visible light photoresponse, surface treatment effects 2−98695
$SrTiO_3$, Raman spectra 2−82840
$SrTiO_3$, reference materials for superhigh permittivity 2−53789
$SrTiO_3$, refractive index temp. depend. and prism coupling to $LiNbO_3$ waveguide meas. 2−91010
$SrTiO_3$ resonant dielec. electroacoustic transducer 2−86199
$SrTiO_3$, struct. phase boundary under [111] stress, EPR study 2−61122
$SrTiO_3$, transient photocurrents and DC photocond. study 2−110390
$SrTiO_3$, with excess SrO, defect struct. 2−104370
$SrTiO_3$:Cr^{3+}, photoelectronic and optical props. 2−82402
$SrTiO_3$:La, elec. cond., 850 to 1050°C 2−87264
$SrTiO_3$:La, quenched, highly reduced, electronic cond. 2−56583
$SrTiO_3$:Ta, O non-stoichiometry, gravimetric anal. 2−98145
$SrTiO_{3-x}$, supercond. transition temp. of overlayered In films 2−66693
$Sr_{1-x}TiO_3$, elec. cond., 850 to 1050°C, comp. depend. 2−87274
$SrVO_3$-$EuVO_3$, perovskite struct., prep. and props. of solid solns. 2−72646
$SrWO_4$-$Eu_2(WO_4)_3$ solid soln., photolum. and thermolum. 2−110910
SrX_2 (X=Br,ClO_4), hydration, quadrupole moments of ionic nuclei NMR obs. 2−54882
Sr_4XP_4, X=Si,Ge, struct. and characterisation *(German)* 2−60955
$SrYb_2F_8$, disordered, luminescence, nonlinear excitation delocalisation *(Russian)* 2−72545
$Sr_{1-x}Yb_xF_{2+x}$, defect parameters ionic cond. study 2−115453
$Sr(Zn_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$PbZrO_3$ elec. and optical props. 2−82795
$Sr_3Zr_2O_7$, high-temp. phase transition, electroconductometric analysis 2−98262
ZnS-SrF_2 nine-layer dielectric mirrors, radiation strength 2−70598
structural transformations *see solid-state phase transformations*
structure (chemical) *see chemical structure*
structure factors (crystals) *see crystal atomic structure*
structure functions
cut vertex formalism, rel. to operator product expansion 2−79880
deep inelastic, Regge behavior, in perturbative QCD 2−95769
deep inelastic scatt., higher twist contribs., corrections to QCD, scaling violations, struct. functions 2−95757
deep inelastic scatt., longit. structure function, fourth order calc. 2−54169
deep inelastic scatt., power corrections in QCD, Q^{-2} effects 2−101643
deep inelastic scatt., two-loop QCD corrections to longit. structure function 2−113274
deep inelastic scatt. in QCD, power corrections theory 2−101730
deep inelastic scatt. structure functions, nonperturbative QCD effects 2−84894
deep inelastic structure functions, diquark model 2−101719
deep-inelastic scatt., large-x and higher order corrections 2−54167
deep-inelastic scatt. structure functions, renormalisation-convention in dependence beyond leading order 2−69466
Drell-Yan process, perturbative QCD correction, spectator interactions 2−113231
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
frozen and broken colour, Lipkin's mechanism, matrix Schrodinger eqn., semiclassical limit 2−89933
Gross-Llewellyn Smith sum rule from neutrino/antineutrino expts. 2−64313
hadronic inclusive meson prod., particle correls., recombination model from Kuti-Weisskopf struct. functions 2−95882
hadronic multijet prod., hadron structure functions, S-matrix approach 2−95880
inelastic neutrino interactions, limit on right handed weak coupling parameters 2−69446
intrinsic charm model, 5-quark wave function calc. 2−101670
Lie groups, eigenvalue evolution equation analysis 2−107564
structure functions continued
momentum subtraction scheme in the axial gauge 2−113150
neutrino deep inelastic scatt., gluon distribs., nucleon struct. functions, QCD anal. 2−59140
nuclear structure function at large x and Λ_{QCD} 2−107634
nucleon gluon and sea quark models, QCD and DTU correspondence 2−101720
nucleon structure functions, deep inelastic, scaling violations 2−59186
nucleon structure functions from νN inclusive scatt., QCD anal. 2−54163
nucleon valence structure functions, QCD and DTU parton model 2−84898
photon structure functions in operator product expansion 2−54162
polarised deep-inelastic scatt., total gluon helicity 2−54160
proton structure function calc. in QCD perturbation theory 2−54073
QCD, evolution eqns. approx. soln. *(Russian)* 2−54100
QCD, principle of minimal sensitivity appl. to higher-order processes 2−95767
QCD, structure function tests 2−89942
QCD evolution, heavy quark effects, Monte Carlo calc. program 2−64327
quark matter, thermodynamical information from nucleon valence quark distrib. 2−95783
soft gluon corrections, Bloch-Nordsieck moments 2−101718
$e^-e^+ \rightarrow Z^0 \rightarrow$hadrons, energy-energy correlations, structure functions 2−101749
$e^+e^- \rightarrow \gamma X$, direct photons, QCD predictions, $\bar{W}_3^\gamma$, $\bar{W}_4^\gamma$ structure functions 2−95855
$e^+e^- \rightarrow hX$, charm baryon prod. and decay, P-odd effects *(Russian)* 2−64325
$e^+e^- \rightarrow \mu^+\mu^-X$, QCD effects 2−107673
$e^+e^- \rightarrow q\bar{q}\pi$ process, P-odd effects *(Russian)* 2−59139
$e^+e^- \rightarrow VX$, vector mesons structure functions in QCD framework using relativistic quark model *(Russian)* 2−74699
$e^+e^- \rightarrow X$, 12-36.7 GeV, inclusive charged particle prod., scale breaking 2−89972
$e^+e^- \rightarrow X$, virtual photon structure to non-leading order in QCD 2−89966
ep, scaling violations and gluon distrib. of nucleon 2−79882
$ep \rightarrow eX$, deep inelastic scatt., structure functions 2−89965
η structure functions, from charge exchange quark-parton model *(Russian)* 2−59183
lh deep inelastic scatt., struct. functions, rel. to analyticity and renorm-group *(Russian)* 2−95655
μN, nucleon structure function meas. 2−64329
μN deep inelastic scatt., QCD related expt. results 2−54173
μN deep inelastic scatt., QCD strong coupling constant examination 2−79889
$\mu n \rightarrow X$, struct. functions, QCD quark-parton model test 2−74652
$\mu p \rightarrow X$, struct. functions, QCD quark-parton model test 2−74652
$\mu^- p \rightarrow \mu c\bar{c}X$, spin-spin asymmetries, structure function depend. 2−59161
νN, deep inelastic scatt., structure function F_2, QCD anal. 2−101731
νN, deep inelastic structure functions, direct diquark contrib. 2−101701
νN, nucleon structure functions, comparison with QCD predictions 2−113272
νN, struct. functions, strong non-asymptotically-free theories, QCD test, scaling violation 2−84897
νN, structure functions, higher twist phenomena 2−79857
νN deep inelastic scatt., nucleon gluon distrib., QCD, struct. function scaling violation 2−84887
$\bar{\nu}_\mu$N, 10-200 GeV, inclusive charged current interactions, struct. functions, scaling, quark-parton anal. 2−101700
$\nu p \rightarrow X$, struct. functions, QCD quark-parton model test 2−74652
pn, 19 GeV/c, ρ^0, ω(780), f^0, g non-strange meson inclusive prod., structure functions 2−107708
π, EM form factors and struct. functions, dressed quark model 2−59149
π structure functions, from charge exchange quark-parton model *(Russian)* 2−59183
H(e,e), EM struct. at large Q^2 2−95912
^{4}He(e,e), A=3, 4, EM struct. at large Q^2 2−95912
μN, structure functions, higher twist phenomena 2−79857
structure of alloys, crystal *see crystal atomic structure of alloys*
structure of elements, crystal *see crystal atomic structure of elements*
student experiments *see demonstrations*
student laboratory apparatus
coupled pendulums, teaching 2−68989
cylindrical wire, eddy currents study, undergraduate laboratory expt. 2−79313
digital multichannel analyser-computer interface for use in physics laboratory 2−94964
electronic multimeter, laboratory apparatus for mech. expts. 2−63787
Fabry-perot scanning interferometer for student meas. of spectral line splittings 2−79304
Greninger nets for backscattered Laue analysis 2−84421
laser light recording on positive paper for student laboratory expts. 2−53470
liquid refractive index meas. using a liq. lens 2−84420
paramagnetic resonance, demonstration apparatus 2−84426
speckle interferometry for measuring small rotation 2−94962
spectrometer automation, Bausch and Lomb Spectronic 20, use as teaching aid 2−74187
vision threshold measurement, undergraduate laboratory expt. 2−79315
studios
see also television studios
multi-purpose, in conservatoire, variable acoustics planning *(German)* 2−75781
SU_2 theory
Adler-Bell-Jackiw anomaly and fermion number breaking in mag. monopole presence 2−107509
angular momentum on lattice 2−107170
axially symmetric SU(2) multimonopoles 2−64228
bag fusion in SU(2) Yang-Mills matter and colour deconfinement 2−84847
Cabibbo mixing from 2nd generation Higgs bosons, spontaneously broken $SU(2)\times U(1)\times U'(1)$ 2−89921
classical SU(2) gauge theory, axially symmetric solns. 2−53956
classical SU(2) Yang-Mills field, spherically symmetric soln. 2−113124
composite quark-lepton model, generation, confinement and S^0 scalar mesons 2−79849
conformal spinor geometry, internal symmetry algebra 2−69362
conformal supersymmetry SU(2,2/N) realisation 2−113173
coupled oscillators, normal modes, symmetry breaking, group theory 2−79407

SU_2 theory continued
discrete axial symmetry, SU(2) monopole rings, N=3 soln., Corrigan-Goddard conditions 2−74627
dual chiral models in low coupling limit 2−101604
dyon, Julia-Zee, fermion emission, S-matrix 2−69350
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
electroweak $SU(2)'_w \times U(1)$ symmetry, subconstituent models and composite symmetries 2−79852
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
EM vector potential, quantisation 2−79735
Faddeev-Popov ghosts, classical configs. from SU(2) Yang-Mills theory 2−89892
fermionic composite models from confining $SU(2)_L$ 2−89951
gauge field, spherically symmetric static sourceless soln., currents, symmetry breaking 2−53917
gauge-independent descriptions of broken symmetry, topological obstructions 2−95624
generalised Clebsch-Gordan coeffs., permutational props. 2−95073
generalised SU(2) spherical harmonics 2−113165
glueball mass, in SU(2) lattice gauge theory, Monte Carlo calc. 2−107635
Harrison-Neugebauer-type transformations for instantons, multicharged monopoles as limits 2−95623
Higgs boson phenomenology in standard $SU(2) \times U(1)$ electroweak model 2−107572
hot SU(2) glue, Monte Carlo study 2−53995
in $SU(2)_L \times U(1)$ 2−54038
instanton-induced baryon and lepton number violating processes in $SU(2) \times U(1)$ electroweak theory 2−54027
intermediate bosons, mass in $SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ electroweak gauge model 2−79813
lattice gauge field topology 2−101509
lattice gauge theory, continuum limit estimates near crossovers 2−95611
lattice gauge theory, first order phase transition 2−69335
lattice gauge theory, Monte Carlo calcs., review 2−53916
lattice gauge theory, off-axis plaquette-plaquette correl. functions 2−107536
lattice gauge theory, potential and restoration of rot. symm., Monte Carlo simulation 2−101598
lattice gauge theory, SU(2), SO(3), Z(2), mean field soln. with corrections 2−69337
lattice gauge theory, Z_2 mag. monopoles 2−59047
lattice gauge theory dynamics, monopoles and vortices 2−79745
lattice gauge theory with quarks, mean field anal., coupling constant 2−69336
lattice QCD with fermions, high temp. behaviour 2−95750
lattice SU(2) gauge theory, finite temp. Monte Carlo study 2−53994
Lie algebras in particle physics, book 2−79298
monopole solution, self-dual axially symmetric Abelian background 2−113171
multimonopoles close together, Higgs fields 2−84792
N=8 supergravity with dynamical SU(8) gauge theory, spin-3/2 fields role 2−95209
neutrino decay and lepton number spontaneous violation in $SU(2) \times U(1)$ gauge theory 2−54154
neutrinoless double-β decay in $SU(2) \times U(1)$ theories 2−95975
neutron β-decay, Goldberger-Treiman relation in $SU(2) \times SU(2)$, chiral symmetry breaking corrections 2−69611
nonlinear field theories, perturbative solution non-existence, SU_2 gauge theory example 2−101533
nonselfadjoint systems, non-Euclidean and non-Desarguesian geometries 2−95054
nucleons, unique spin and isospin determ., from $SU(3)_{flavour} \times SU(2)_{spin} \times SU(3)_{colour}$ assignments 2−74628
off-axis glueball masses, strong coupling expansions from lattice gauge theory 2−95782
point groups, double groups and projective representations 2−64240
polarised Bhabha and Moller scatt. in $SU(2) \times U(1)$ theory 2−95813
pure SU(2) lattice gauge theory, glueball masses, Monte Carlo method 2−69339
pure Su(3) and SU(2) Yang-Mills theories without Higgs scalars, magnetic monopoles 2−101553
QCD, glueball mass spectrum, lattice Monte Carlo calc., SU(2) gauge theory 2−59108
quark electric dipole moments in standard $SU(2) \times U(1)$ model 2−101717
quark-lepton correspondence in model with $(SU(2)_L \times U(1))_{WS} \times U(1)'_{II} \times U(1)''_{II}$ symmetry 2−54029
quarkless SU(2) lattice gauge theory, strong coupling expansion, phase transition, effective action 2−59041
quasi-Abelian Yang-Mills configurations, topological props. and mag. charge 2−107525
quaternionic metrics and SU(2) Yang-Mills 2−95196
radical unification, effective generalisation of hypercharge from isospin, SU(2) dynamics 2−59069
Salam-Weinberg theory expt. verification 2−69396
scalar glueball, energy-momentum dispersion 2−107515
self-dual SU(2) gauge fields on Euclidean space, soliton solns. 2−95597
self-dual SU(2) Yang-Mills system, t' Hooft's ansatz, local conservation laws 2−113109
semileptonic processes mediated by W, $O(\alpha)$ corrections, large m_w, m_t behaviour 2−59114
SO(2n+1) in $SO(2n-3) \times SU(2) \times SU(2)$, symmetric representations reduction 2−107559
SO(3) lattice gauge theory, monopoles, vortices, confinement 2−89896
SO(7) symmetric representations on $SO(2n-3) \times SU(2) \times SU(2)$ basis 2−107560
spin-orbit interaction in superexchange with orbital degeneracy, effective tensor Hamiltonian for chain $SU2-O^*$ 2−56531
spontaneous symmetry breaking, restoration by boson condensation *(Russian)* 2−59062
static Euclidean anti-self-dual SU(2) Yang-Mills eqns. perturbation 2−79772
$SU_2 \times U(1)$ theory, Zee model of neutrino mixing 2−113186
$SU_L(2) \times SU_R(2) \times U_{B-L}(1)$ model, ν-production of heavy neutral leptons 2−113170
$SU(2|1)/S(U_1 \times U_1)$ supersymmetric graded σ-model reduction 2−74585
$SU(2)_L \times (2)_R \times U(1)_{b-l}$ electroweak model, low-energy phenomenology and neutral-weak-boson masses 2−69391

SU_2 theory continued
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$, left-right symmetric GUT, proton lifetime, quark-lepton mass ratio 2−95721
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ gauge theory, neutrino masses, intermediate mass scales and cosmology 2−84825
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ in SO(10) grand unified theory, low-energy parity restoration 2−69386
$SU(2)_L \times SU(2)_R \times U(1)_{B-L}$ model, doubly charged Higgs bosons and lepton number violating processes 2−69388
$SU(2)_L \times SU(2)_R \times U(1)_{L+R}$ electroweak symmetry and parity violations in electron-nucleon scatt. 2−113185
$SU(2)_L \times SU(2)_R \times U(1)$, dynamical symm. breaking 2−107581
$SU(2)_L \times SU(2)_R \times U(1)$ quaternionic Weinberg-Salam theory 2−107587
$SU(2)_L \times U(1)$, neutral mesons with heavy quarks and mixing angles in six-quark model 2−54105
$SU(2)_L \times U(1) \times SU(3)_c$ gauge model, spontaneously broken B-L symm., H-H oscillations 2−84820
$SU(2)_L \times U(1)$ spontaneously broken gauge theory structure 2−64249
$SU(2)_L \times U(1)$ symmetry breaking as a radiative effect of supersymmetry breaking in GUTs 2−59082
$SU(2)_L \times U(1)$ weak gauge theory, experimental test 2−59068
$SU(2) \times SU(2)_R$ theory, strong bounds on weak couplings 2−95711
$SU(2) \times SU(2) \times SU(2) \times SU(2)$ symmetry scheme for new particles 2−54106
$SU(2) \times SU(2)$ symmetry, current algebra sum rules saturation 2−69430
$SU(2) \times U(1)$, scalar parameters in effective gauge theories, Weinberg method appl. 2−59071
$SU(2) \times U(1)$, spontaneous breaking of local colour symmetry of QCD, anomalous props. 2−113209
$SU(2) \times U(1) \times SU(2)'$ gauge model, weak gauge bosons above or straddling standard-model masses 2−64256
$SU(2) \times U(1)$ and $SU(2) \times SU(2) \times U(1)$ gauge theories geometric symmetry breaking and Weinberg-Salam model 2−79791
$SU(2) \times U(1)$ electroweak gauge theory, role of effective pot. in symmetry breaking 2−84794
$SU(2) \times U(1)$ electroweak theory, mass matrix in Higgs-boson model of CP violation 2−69387
$SU(2) \times U(1)$ guage models, permutation symmetries and fermion mass matrix 2−69392
$SU(2) \times U(1)$ theory, charged lepton radiative decays in arbitrary order 2−74688
$SU(2) \times U(1)$ unified field theory, symmetry breaking effects 2−84818
$SU(2) \times U(1)$ Weinberg-Salam model, strongly interacting Higgs sector effects 2−64246
$SU(2) \times USp(2)$ Clifford algebra, soliton supermultiplet in 4×1 dimensions 2−53942
$SU(2) \otimes U(1)$ model, dynamical symmetry breaking and radiative correction to weak-isospin relation 2−95714
SU(2) adjoint Higgs model 2−95788
SU(2) gauge theory, holonomy group and spontaneous symmetry breaking 2−74596
SU(2) gauge theory, symmetry breaking 2−79739
SU(2) hedgehog soln., topological generalisation for SU(N) gauge groups 2−95625
SU(2) lattice gauge theories, asymptotically free scaling onset 2−107544
SU(2) lattice gauge theories, interquark pot., Monte Carlo evaluation 2−95753
SU(2) monopoles, Corrigan-Goddard conditions for n monopoles, exact solns. 2−79764
SU(2) symmetry groups for quarks *(Russian)* 2−54052
SU(2) Yang-Mills theory in (1+1) dimensions, finite-lattice method 2−53944
SU(2) Yang-Mills-Higgs eqns. on R^3, non-minimal soln. existence 2−113098
SU(2) Yang-Mills-Higgs monopoles in Atiyah-Drinfeld-Hitchin-Manin-Nahm construction 2−101563
SU(2)-invariant lattice theories, local and global invariance, algebraic struct. 2−69327
SU(2)-SO(3) lattice gauge theory, 2nd order deconfining transition, continuum limit 2−79743
SU(2)-SO(3) phase diagram, analyticity domain 2−107557
$SU(3)_C \times SU(2) \times U(1)$ gauge GUT, low-energy parameters, particle masses 2−107589
$SU(3) \times SU(2) \times U(1)$ content of all SU(5) representations 2−54030
$SU(3) \times SU(2) \times U(1)$ supersymm. GUTs, baryon and lepton conservation 2−107584
supersymmetric SU(2) gauge theories, elec. dipole moment for monopoles 2−107663
supersymmetric unification models *(Russian)* 2−59087
symmetry algebra of Heisenberg model and nonlinear Schrodinger eqn. 2−113168
symmetry violation in quark models of mesons 2−95764
technicolour, weak interaction confining models, strong $SU(2)_L$ effects 2−113208
$U(1) \otimes SU(2) \otimes SU(2)'$ gauge theory, unification and family structure as consequences of universality 2−54023
U(1) and SU(2) gauge theories in 2+1 dimens., mass gap, variational estimation 2−59040
unitary spin, rel. to space-time Hamiltonian struct. 2−95631
weak boson mass spectra in extended gauge models $SU(2)_L \times U(1) \times G$ 2−107573
Yang Mills theory, lattice thermodynamics 2−107511
Yang-Mills equations, with sources, nonAbelian solns. 2−69356
Yang-Mills field eqns. with sources, non-Abelian Coulomb soln. and type-II soln. 2−95622
B decays, penguin effects in five flavour $SU(2) \times U(1)$ model, QCD corrections 2−95826
$\Delta\Delta\pi$ strong coupling constant and $[g_A(0)]_{\Delta\Delta}$ weak axial vector coupling constant 2−113318
e^+e^- collisions, polarised and unpolarised, 30-150 GeV, polarised baryon prod. in $SU(2) \times U(1)$ model 2−69479
$\nu_2 \to \nu_1\gamma$, massive neutrinos radiative decays in $SU(2) \times U(1)$ model 2−54153
$\rho \to \pi\pi\gamma$, tests for ρ meson as gauge particle 2−54164

SU_3 theory
analytic SU(3) states in a finite subgroup basis 2−101208
asymptotic $|\Delta I| = {}^1/_2$ rule derivation 2−89962
baryon mag. moments, quark model and spectrum generating SU(3) fits 2−113275
bases, 3jm and 6j symbols 2−63841

SU_3 theory continued
boson expansion theories unification 2−90028
broken SU(3) symmetry from quark interchange, one boson exchange model 2−101651
composite SU(3) gauge bosons in nonAbelian theory 2−59129
deformed nuclei, interacting boson approx. E2 operator 2−69598
deformed nuclei, interacting boson approx. wave functions and transition rates 2−54284
diffraction in accelerators, colliders and QCD 2−107627
dipole states in interacting boson model 2−79989
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
excited glueball states in four-dimensional SU(3) lattice gauge theory 2−107633
gauge theory of graded algebra SU (l|m|n), superunified model appl. 2−59048
geometric rishon model, quark and lepton generations 2−69436
gluon gas, Stefan-Boltzmann law, SU(3) Yang-Mills calc. 2−54070
heavy quark mass, one-loop radiative correction in $U(1)\times SU(2)\times SU(3)$ model 2−101725
horizontal $SU(3)_H$ gauge symmetry and flavor changing neutral currents 2−79812
hypercolor unification 2−95708
hyperon semileptonic decay, evidence for SU(3) breaking in Cabibbo-type fits 2−69459
hyperon semileptonic decays, critical anal. 2−64323
lattice gauge theory, SU(3) discrete subsets, Monte Carlo simulation 2−95612
lattice QCD, hopping parameter expansion, meson and quark masses 2−69410
lattice QCD, meson spectrum, quark masses, analytic calc. 2−89939
lattice QCD with fermions, high temp. behaviour 2−95750
Lie algebras in particle physics, book 2−79298
neutrino mixing in $SU(3)_H\times SU(2)_L\times U(1)$ horizontal model, oscillator length 2−64254
nuclear structure, SU(6) particle-quadrupole phonon coupling model, SU(3) limit, signature effect 2−107784
nuclei, particle-vibration coupling, in SU(3) limit of SU(6) quadrupole phonon model 2−107736
nucleons, unique spin and isospin determ., from $SU(3)_{flavour}\times SU(2)_{spin}\times SU(3)_{colour}$ assignments 2−74628
off-axis glueball masses, strong coupling expansions from lattice gauge theory 2−95782
pure Su(3) and SU(2) Yang-Mills theories without Higgs scalars, magnetic monopoles 2−101553
QCD, colour monopoles from fractional charges 2−59103
second massless axion in $SU(3)_C\times SU(2)_L\times U(1)_Y$ standard model 2−89926
SO(10) grand unified theory, intermediate mass scale through subgroup $SU(3)\times SU(2)\times U(1)\times U(1)$ 2−84823
strongly coupled lattice QCD, baryons in effective lagrangian, SU(3) pot. 2−101644
$SU(2)_L\times U(1)\times SU(3)_c$ gauge model, spontaneously broken B-L symm., H-H oscillations 2−84820
$SU(3)_c$, spontaneously broken QCD, short distance behaviour 2−54068
$SU(3)_C\times SU(2)_L$, Witten-type supersymmetric models, light singlet particles and cosmological consequences 2−107591
$SU(3)_c\times SU(2)_L\times U(1)_Y$ models, spontaneously broken continuous global symmetry 2−107592
$SU(3)_c\times SU(2)_L\times U(1)$ supersymmetric grand unified theories predictions 2−95718
$SU(3)_C\times SU(2)\times U(1)$ gauge GUT, low-energy parameters, particle masses 2−107589
$SU(3)_L\otimes U(1)$ unification, integer charge quarks and spontaneously broken color symmetry 2−54033
$SU(3)_{HC}\times SU(6)_L\times SU(6)_R$ theory, four families of composite quarks and leptons 2−84873
$SU(3)_H\times SU(2)_L\times U(1)$ model, CP-violation from horizontal interactions 2−107593
$SU(3)\times SU(2)\times U(1)$, expt. tests, GUT and beyond 2−54037
$SU(3)\times SU(2)\times U(1)$, grand unified theories, fermions and Higgs fields 2−95720
$SU(3)\times SU(2)\times U(1)\times\tilde{G}$ spontaneously broken supersymmetric theories, neutral current conservation laws 2−59060
$SU(3)\times SU(2)\times U(1)\times\tilde{U}(1)$ supersymmetric model of strong and electroweak interactions, symmetry breaking 2−84830
$SU(3)\times SU(2)\times U(1)$ content of all SU(5) representations 2−54030
$SU(3)\times SU(2)\times U(1)$ gauge theories, naturality problems 2−79817
$SU(3)\times SU(2)\times U(1)$ model, supersymmetric extension 2−79803
$SU(3)\times SU(2)\times U(1)$ supersymm. GUTs, baryon and lepton conservation 2−107584
$SU(3)\times SU(2)\times U(1)$ supersymmetric GUT, proton decay 2−64248
$SU(3)\times SU(2)\times U(1)$ supersymmetric model, masses, p decay, conservation laws, spontaneous breakdown 2−101599
$SU(3)\times SU(3)$ bag model with pseudoscalar meson cloud of K, η, η' *(Chinese)* 2−95792
$SU(3)\otimes SU(2)\otimes U(1)$ supersymmetric ground unified theory 2−101615
SU(3) gauge field theories, wave solns. 2−74593
SU(3) gauge theory, holonomy group and spontaneous symmetry breaking 2−74596
SU(3) gauge theory, Neugebauer-Kramer mapping 2−95660
SU(3) gauge theory at finite temp., first-order phase transition 2−107545
SU(3) glueball mass numerical estimation 2−84857
SU(3) lattice gauge theory predictions for low-Q^2 phenomenology 2−54074
SU(3)XSU(2)XU(1)XU(1) model, low-energy softly-broken supersymmetry 2−101546
subconstituent models and composite symmetries 2−79852
subsectors of SU(N) generators, hadron properties 2−54123
supersymmetric unification models *(Russian)* 2−59087
symmetry violation in quark models of mesons 2−95764
three body quantum mechanics, hyperspherical function calcs. 2−95068
three-dimensional anisotropic oscillator with dynamical SU(3) symm. 2−101217
unitary scheme, canonical SU(3) basis, multidimensional spherical set of coordinates 2−64363
vector meson radiative decay, EM current operator, SU(3) scalar term 2−95841
vector-like gauge theories with massless fermions, phase structure 2−53946

SU_3 theory continued
Yang-Mills system, gluon matter, thermodynamic props., Monte Carlo simulation 2−101648
Yang-Mills theory, finite-energy soln. 2−95584
$K^-p\rightarrow\Xi^-K^+$, hyperon exchange, SU(3) violation 2−59182
$K^-p\rightarrow\Xi^0K^0$, hyperon exchange, SU(3) violation 2−59182
$\psi\rightarrow\eta(\eta')\gamma$, pseudoscalar mesons mixing in $SU(3)_c$ quark-gluon model 2−54145
$\psi\rightarrow\eta\gamma(\eta'\gamma)$, SU(3) breaking effects enhancement, Ward identities appl. 2−59136
Ξ hypernuclei, excited states, SU(3) theory *(Chinese)* 2−54299
^{9}Be hypernuclei *(Chinese)* 2−54299
^{12}C hypernuclei, binding energy, SU(3) model *(Chinese)* 2−54299
Pt region, odd-A nuclei description in interacting boson-fermion model 2−74722
SU(3)×SU(2)×U(1)y model, supersymmetric extension 2−79783
^{A}U, A=236, 238, fission isomer spectra in IBM, SU(3) limit 2−107767

SU_4 theory
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
generalised pseudospin system, SU(4) invariant Hamiltonian, time depend. mean field method 2−75162
harmonic oscillator, symmetry group in Hamiltonian formalism 2−95084
lattice gauge theory, Monte Carlo calcs. 2−53916
mesons, SU(4) quark model, mass relations, Regge trajectory *(Chinese)* 2−54121
multiquark charm hadrons, mass spectra, MIT bag model, with SU(4) flavour symm. 2−84884
$SO(10)_V\times SO(10)_H$ GUT, hypercolour, extended hypercolour, generation problem 2−113190
SO(10) grand unified theory, symmetry breaking via $SU(4)\times SU(2)_L\times SU(2)_R$, string appearance 2−84822
spontaneously broken N=8 supergravity, gauge coupling addition 2−112792
SU(4) and SO(6) monopole solns. in tensor representation 2−95596
SU(4) lattice gauge theory, Monte Carlo algorithm vectorization 2−53927
SU(4) symmetry mixing in s-d shell, shell model and spectral distrib. study 2−101820
weak nonleptonic processes of strange and charmed mesons, unified SU(4) description 2−59085

SU_n theory
see also elementary particle symmetry; SU_2 theory; SU_3 theory; SU_4 theory
σ model, four dimens., static axially symmetric solns. 2−107519
A≈100 transitional region interpretation in interacting boson model framework 2−54287
Abelian Higgs model, strong coupling limit, CP^{n-1} model correspondence 2−113125
Adler-Bell-Jackiw anomaly and fermion number breaking in mag. monopole presence 2−107509
anomaly eqns. solns. based on $SU(N)\times SU(N)$ hypercolour and superalgebras 2−84846
axially symmetric SU(N), Backlund transformation 2−95660
baryon asymmetry and nucleon decay in supersymmetric SU(5) GUT 2−101617
baryon hadronic decay, parity violation, SU(6) broken diquark model 2−79870
baryon mag. moments in broken SU(6) symmetry model 2−54161
baryon magnetic moments in the quark model and pion cloud contributions 2−59151
baryons, loop average in large N limit 2−69420
boson expansion theories unification 2−90028
classical SU(N) Yang-Mills eqn., static spherically symmetric soln., rel. to static source *(Chinese)* 2−79771
CP^{N-1} model, large-N limit, quantum fluctuations round topological singularities 2−69352
CP problem in strong interactions axionless soln. using $SU(9)\otimes SU(2)\otimes U(1)$ model *(Russian)* 2−69379
deep inelastic polarised electroproduction with lower energy SU(6) constraints 2−54170
E(6) unified theory, superheavy symmetry breaking to SU(5) 2−64260
Eguchi-Kawai lattice gauge model, in SU(N), N=2, 3, 4, 5, 10, Monte Carlo calc. 2−101542
Einstein gravity as a symmetry-breaking effect in quantum field theory 2−95205
four-quark scalar mesons, with charm, implications, $SU(6)_{cs}$ theory 2−101589
free energy at large beta 2−107512
gauge fermions model in grand unification SU(5) theory 2−84817
gauge field theory, book 2−84399
gauge field thermodynamics 2−107511
gauge hierarchies of SU(N) grand unification 2−107575
gauge theory, couplings on asymm. lattices 2−89905
Gelfand basis of group SU(n), group representation theory 2−53547
grand unification, Dynkin weights, global supersymm. SU(N) example 2−69385
grand unified model with composite fermions based on $SO(3)\times SU(8)$ group 2−69394
grand unified models, broke charge-conjugation invariance constraint on baryon asymmetry 2−64257
hadrons, SU(6) six-quark model 2−54143
hypercolor unification 2−95708
induced gravity, upper bound 2−101290
interacting boson model SU(6) representation and Bohr-Mottelson model equivalence 2−84977
lattice gauge theories with fermions on lattice, strong-coupling limit 2−101549
lattice gauge theory, in SU(N), generalised Villain action 2−69321
Lie algebras in particle physics, book 2−79298
massless QCD_2, Lax representation 2−101646
maximal grand unification model based on SU(16), gauge hierarchies and baryon nonconservation 2−95713
minimal SU(5) model, grand unified theories, effective parameters and renormalisation group 2−84826
minimal SU(5) model, review 2−79789
minimally extended SU(5) model, cosmological baryon generation 2−68943
modified lattice gauge theory, order parameters 2−95626
monopole solutions with spherical symm., inverse scatt. method 2−54015

SU_n theory continued
n-level quantum system, boson representation for SU(n) generators 2−90850
nuclear structure, SU(6) particle-quadrupole phonon coupling model, SU(3) limit, signature effect 2−107784
nuclei, particle-vibration coupling, in SU(3) limit of SU(6) quadrupole phonon model 2−107736
nuclei with few valence nucleon, interacting boson approx. in SU(5) limit 2−84973
Pati-Salam-type grand unification, uniqueness 2−54031
Pontryagin index for SU(N) gauge fields on Hypertorus 2−107493
proton decay, B-L nonconservation in SO(10), E(6) and SU(5) GUTs 2−101715
proton decay, lifetime and branching ratio, bag model calc. in SU(5) GUT 2−95827
proton decay and SU(5) grand unified model 2−79802
proton decay in supersymmetric SU(5), enhancement factors 2−95829
proton decay operator anal. in SU(7) grand unified theory 2−84821
QCD, master field Poincare invariance, $SU(N_c)$ gauge field construction 2−69405
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quark-lepton unification in $SU(4)_{PS}\times SU(2)_L\times SU(2)_R\times SU(2)_{L'}\times SU(2)_R$ model 2−54026
quarks and the light hadrons, review 2−95759
quenched Eguchi-Kawai model, Monte Carlo 2−107534
scalars in low dimension representations, symmetry breaking pattern 2−101586
Schwinger model and two dimens. SU(n) QCD, equivalence demonstration 2−101641
SO(10) grand unified theory, Higgs scalars and $SU(2)_R$ weak bosons 2−107590
SO(10) model, with symm. breaking hierarchy, neutrino masses *(Russian)* 2−64263
SO(10) supersymm. grand unified model, gauge hierarchy 2−95703
SO(10) supersymmetric GUT 2−101622
SO(10) theory, family structure, unification 2−69390
SO(10) unified gauge theory, CP violation, axions 2−74636
SO(14) model, supersymm. grand unification 2−101625
SO(2N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
SO(2p) representations, Kronecker products, Young tableaux 2−64233
$SU_{2/1}$ electroweak ghost-gauge theory, BRS algebra construction 2−113166
$SU_n\times SU_n$ chiral broken symm., quark mixing in $SU_k\times SU_k$ exact limit 2−95669
SU(10) grand unified theory, hierarchical fermion masses 2−54125
SU(14) and SU(5) limiting cases of s.d.g. IBM *(Chinese)* 2−107771
SU(3) subsectors, hadron properties 2−54123
SU(4) gauge theory, symmetry breakdown and condensates 2−79767
SU(5), early Universe supercooling, gauge coupling const. temperature depend. 2−58520
SU(5) and SO(10) GUTs superheavy particles, $\sin^2\theta_w$, and proton lifetime 2−113192
SU(5) gauge theories, renormalisation group constraints, Yukawa and scalar quartic couplings 2−79806
SU(5) grand unified gauge model, cosmological baryon asymmetry calc. 2−101614
SU(5) grand unified model, phase transitions 2−54036
SU(5) grand unified theories, symmetry breaking effects 2−84818
SU(5) grand unified theories 2−113195
SU(5) ground unified theory, Universe and supersymmetry 2−101616
SU(5) GUT, Higgs boson mass, neutral scalar current suppression with flavour change *(Russian)* 2−113194
SU(5) GUT, Higgs particle 45-plot role, cosmological baryon to entropy ratio 2−113191
SU(5) hierarchical supersymmetric model, cosmological consequences 2−79798
SU(5) Higgs problem with adjoint+vector representations 2−54022
SU(5) lattice gauge theory, Monte Carlo calcs., review 2−53916
SU(5) model, grand unified theories, baryon generation and symmetry behaviour 2−59072
SU(5) model, $\sin^2\theta_W$ and M_X two-loop anal. 2−64259
SU(5) model, spontaneous CP breaking, natural flavour conservation and baryon asymmetry 2−64258
SU(5) model with nonminimal Higgs field, symmetry breaking patterns 2−107595
SU(5) monopole solns. using 5×5 tensor representation 2−95702
SU(5) representations, $SU(3)\times SU(2)\times U(1)$ content 2−54030
SU(5) structure, symmetry constrained Dirac fields 2−113112
SU(5) supersymmetric model, symmetry breaking, ground states 2−95710
SU(5) supersymmetric theory, weak mixing angle, unification mass 2−59075
SU(5) theory, family structure, unification 2−69390
SU(5) unified theory, spontaneously broken QCD, short-distance behaviour 2−54068
SU(5)-SO(10)-E_6 chain, weights of elementary representation 2−79784
SU(6) bases, 3jm and 6j symbols 2−63841
SU(6) lattice gauge theory, phase transition, Monte Carlo study 2−69344
SU(6) model, comparison with Isgur-Karl model, meson-baryon two-body reactions 2−113246
SU(6) model, polarised quarks fragmentation into polarised baryons in e^+e^- collisions 2−69479
SU(7) grand unified models, hypercharge generators, breakdown 2−69389
SU(7) grand unified theories, generation problem 2−64262
SU(7) grand unified theory, CP violation *(Chinese)* 2−54032
SU(7) grand unified theory with four generations of light fermions 2−64261
$SU(8)_L\times SU(8)_R$ grand unified model, spontaneous breaking and asymptotic freedom *(Russian)* 2−74639
$SU(8)_L\times SU(8)_R$ grand unified model, symmetry hierarchy and radiative corrections *(Russian)* 2−54034
SU(8)×SU(8) grand unified model, axion elimination 2−95755
SU(8) hyperunification, composite quarks and leptons derivable from SO(8) extended supergravity 2−95712
SU(9) grand unified model, modified Higgs mechanism for symmetry breaking *(Chinese)* 2−95723
SU(9) theory, fermion mass changes due to axion suppression 2−101628
SU(n)×U(1) symmetry, soliton quantum numbers in fermion-soliton system 2−107542

SU_n theory continued
SU(N) chiral $(QCD)_2$, massless baryons and anomalies, chiral limit 2−69414
SU(N) gauge field eqns., exclusion of dyon soln. 2−84810
SU(N) gauge theory, Wilson line 2−84866
SU(N) grand unification model, electroweak interactions in case of many generations 2−64255
SU(N) Gross-Neveu model, West's proof of confinement 2−84852
SU(N) Higgs problem with adjoint representation, and Michel's conjecture 2−59015
SU(N) invariant chiral model, instanton type soln. 2−95693
SU(N) lattice gauge theories, boson representation 2−58995
SU(N) lattice gauge theory, strong coupling vs. large N 2−53943
SU(N) magnetic monopoles, topological study 2−95625
SU(N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
SU(N) Yang-Mills theories, Abelian dominance and quark confinement 2−84853
$SU(n)/Z_n\times SU(n)/Z_n$ spin system, phase struct. in two dimens. 2−101518
$SU(N)/Z_N$ lattice gauge theories, phase transitions in 4 space-time dimens. 2−107541
supergroup SU(N/M) from SU(N+M), branching rules 2−95683
supersymmetric dual string theory, loops and renormalisation 2−89952
supersymmetric flavour unification model SU(11), invisible axion and proton decay 2−95726
supersymmetric SU(5) ground unified model construction 2−79800
supersymmetric SU(5) model, naturally massless Higgs doublets 2−113184
supersymmetric SU(5) model, ordinary SU(5) predictions, proton decay mode 2−107594
supersymmetric Yang-Mills theory with $SU(N_c)$ gauge group, effective lagrangia n 2−84801
suppressed production of some bottom and top hadrons 2−69361
symmetric group and relevance to fermion physics 2−69381
symmetries and quark aggregates as hadron constituents 2−107649
tumbling SU(N) gauge theories 2−59036
two dimensional gases of weight charges and SU(N) fermion theories 2−89884
Wilson loop functionals and related eqns. for irregular paths, renormalisation 2−95588
Yang-Mills theory, four-dimens., in SU(n), dense instanton gas, statistical mech. 2−53990
$\eta\rightarrow\gamma\gamma$ in SU(5) classification scheme 2−84899
$\rho(770)$—4π, π,ω,A_1,A_2 contribs., broken SU(6)×O(3) model 2−113268
t quark mass, quark-lepton generation number in SU_5 GUT *(Russian)* 2−84827
H-$\bar{H}$ oscillations, double proton decay, minimal SU(5) model 2−89924
sub-lepton models *see composite models of elementary particles*
sub-quark models *see composite models of elementary particles*
subboundary structure
creep behaviour, Class II, modified constitutive eqn. 2−71550
steel, Cr-Mo, high strength, thermomech. strengthening 2−77855
steel, stainless, type 304, dislocation substruct. rel. to power law breakdown 2−67454
Al, creep, dislocation networks 2−57400
Al, creep, dislocation substruct. rel. to power law breakdown 2−67454
Al-Mg (3 at.%), solid soln., correl. between creep and dislocation substruct. 2−105249
Al-Zr alloys, microstruct. and mech. props., effect of plastic strain *(Korean)* 2−62172
Cu, flow stress, strain and grain size depend. 2−57399
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu-Zn Al, martensitic, rapid solidification effects 2−111175
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
$Hg_{1-x}Cd_xTe$, recrystallised skin junctions, electron beam induced currents study 2−86895
Mg-Al, solid soln., creep behaviour at elev. temp. 2−83164
Mo, creep, polycrysts., substruct.-induced stability 2−93555
Mo-W (5 wt.%), creep props., effect of substructure 2−105227
Ni, cold deformed, local cryst.-amorphous state phase change obs. 2−57374
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Si-SiO_2, laterally seeded, subgrain boundaries formed by graphite strip heater recrystn. 2−56376
W, polycrystalline, deformed, grain growth during fast heating *(Russian)* 2−93542
W wire, splitting, knife-edge compression test 2−116536
subgrain structure *see subboundary structure*
sublimation
see also heat of sublimation
calorimetric system using Calvet microcalorimeter, construction and testing 2−107327
desublimation problem in porous medium 2−70832
graphite, solid-liquid-gas triple point, sublimation and boiling curve 2−61116
jet flow during sublimation in vacuum studied by schlieren photography 2−60598
solid-vapour transformation under action of laser or electron beam, spin sublimation regime *(Russian)* 2−81942
viscous fluid flow and heat transfer, phase transition effects 2−81337
Ar, solid, erosion by fast He ions 2−98165
Ar, sublimation press. and zero temp. cohesion energy, determ. from sp. ht. data 2−103970
As rotating specimen in Ar, 340-390°C 2−72964
$CdCl_2.2.5H_2O$, purification, by distillation and sublimation in vacuum 2−77720
CdS(Se), evaporation kinetics of thin crysts. and films on vacuum annealing, comp. changes meas. 2−110157
$CrCl_3$, purification, by distillation and sublimation in vacuum 2−77720
HgSe, sublimation press. determ., 620 to 933K 2−81941
Kr, sublimation press. and zero temp. cohesion energy, determ. from sp. ht. data 2−103970
Li oxide systems, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
Li_2O-SiO_2, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
NbO, NbO-Nb vaporisation study by mass spectrometric methods 2−92170

sublimation continued
PbTe, polycrystalline, sublimation-grown, cryst. perfection 2−93391
$PbWO_4$, vapour form., by sublimation mass spectrometric investigation 2−86846
Xe, sublimation press. and zero temp. cohesion energy, determ. from sp. ht. data 2−103970
$ZnSiP_2$, $ZnSiAs_2$, purification by sublimation in hermetically sealed system 2−93389
submarine cables
voltage fluctuations induced in transatlantic cable, geomagnetic origin 2−100242
submillimetre waves *see microwaves*
suboptimal control *see optimal control*
subroutines
BUNDLS, FORTRAN IV program for Schreinemakers bundles 2−117304
data rounding using BASIC subroutine 2−78851
electrodeposition macro- and micro-scattering capabilities determ. with current-density-potential curves using mathematical model *(German)* 2−78112
remote sensing and planetary image storage and retrieval by BIRP computer system 2−112139
subsets (mathematics) *see set theory*
substrates
see also semiconductor device manufacture
adsorbed incommensurate atoms, deformable substrate *(Russian)* 2−104167
CdS, ZnS film growth, laser film thickness modulation and small pattern generation 2−66396
deformed, soln. to adsorbed atoms *(Russian)* 2−104167
gas-thermal metal coating, thermal interaction of particles with substrate *(Russian)* 2−67213
glass, factors affecting film formation *(Russian)* 2−67586
glass, with thin electroconducting, oxide layers, electrochemical etching *(Polish)* 2−88248
III-V semiconductors, LPE, substrate orientation and surface morphology 2−67229
optical constants, multiple angle and ellipsometric analysis of surface layers and surface layer contaminants 2−53818
piezoelectric for ultrathin metallic films, secondary acoustoelectric current 2−66594
plasma sprayed coatings on substrates of Cu, 316 stainless steel, Mo, Ta, Poco graphite 2−74909
polymer, single crystal, use in adsorption studies 2−61280
polymer substrates, mag. field alignment of nematic liq. cryst. 2−55830
polyoxymethylene, single crystal, adsorption of serum proteins 2−61280
quartz for Al films, optical props., open wove resonator characts. *(Russian)* 2−93312
sapphire, Ti/Pt/Au thin film cct., RF deposition 2−99338
sapphire substrate with Au thin film, surface phonon scatt. 2−82114
semiconductor materials, carrier diffusion length meas. 2−101409
SOS films, sapphire substrate orientation influence on crystn. quality and SOS/MOS mobility 2−91948
Al for Ag film, differential reflectivity, nonlocal electrodynamics 2−87884
Cu, for Ni thin film, presence and absence of magnetism 2−104667
Cu, low temp. CVD of TiB_2 corrosion protective coating 2−87999
Cu, misfit twin crystals in deposited Cr films *(Japanese)* 2−104194
Cu, TaB and TaB_2 low temp. CVD, corrosion protection 2−83033
GaAs {001}, epitaxial relationship with MBE grown Al and Ag layers 2−56396
GaAs {001} for Ag film, Auger lineshape variation during epitaxial growth 2−87916
GaAs, crystal growth from melt *(German)* 2−57281
GaAs, for ZnSe VPE film, optoelectronic props. control 2−116382
GaAs, in situ etching using $AsCl_3$ in MOVPE 2−99348
GaAs LEC semi-insulating crystals, appearance of negative peak in photo-induced transient spectroscopy 2−104312
GaAs, MBE grown (100) autoepitaxial films and substrates, struct. and comp. and surfaces 2−56383
GaAs sputtered films, substrate-epitaxial interface effect on C-V characts. of Schottky barriers 2−77156
GaAs substrate cleaning procedures, AES study 2−88237
GaAs substrate for Ta_2O_5 film, thickness determ. by Monte Carlo method *(Chinese)* 2−110179
GaAs vapour-phase transport on V-shape grooved GaAs substrate 2−99347
GaAs:B(Se), depth profiling using spectroscopic ellipsometry 2−79647
$Gd_3Ga_5O_{12}$, cryst. growth and prep. defects, bubble memory substrates appl. 2−93405
InP structured {100} substrate, fabrication by preferential etching for LPE growth 2−99571
InP structured substrates for LPE growth of $In_{0.53}Ga_{0.47}As$ 2−105093
Si and GaAs substrate manufacture, crystal growth from melt *(German)* 2−57281
Si beveled substrate, relationship between carrier distrib. and dopant atomic distrib. 2−66034
Si, physical-chemical interaction with thin films of Pd and its alloys 2−61211
Si substrate for ZrO_2 film, thickness determ. by Monte Carlo method *(Chinese)* 2−110179
$Si/LiNbO_3$ substrate, SAW parametric oscill. 2−65440
$Si-SiO_2$ system, origin and elimination of defects in thermally grown SiO_2 2−65982
SnO_2/glass substrate for high efficiency a-Si:H p-i-n solar cell 2−93902
WC, cemented, CVD, of TiN, TiC_xN_y and TiC, growth rate and failure mode 2−116380
sudden commencement *see magnetic storms*
Suhl effect
No entries
sulphur
see also nuclei with .....
absorbed on Pt (100) surface, UPS study of surface electronic struct. 2−77145
abundance in planetary nebula NGC 2440, obs. 2−106860
adsorbed layer on Cu, electron scatt. from surface vibr. modes 2−98424
adsorbed monolayer on Cu and Pd (110) faces, struct. *(French)* 2−71788
adsorbed on Ni(110), angle resolved UPS study 2−77699
adsorbed on Ni (100), ordered struct., EELS spectrum, theoretical anal. 2−67162
sulphur continued
adsorbed on Ni (100) and (111), vibr. freq. calcs. 2−98422
adsorbed on Pd (100), LEED anal. 2−98449
adsorbed overlayers on Ni(011) and (111), photoelectron diffr. study 2−116335
adsorption and graphite segregation on Co surface 2−82121
adsorption kinetics on Cu cylindrical cryst. surface, AES study 2−56355
adsorption of simple gases on (111) face, effect of lateral interactions 2−56348
adsorption on Nb(110), static SIMS, ion dose effects 2−99274
atmospheric input into ocean 2−94400
atomic excited state, flash photolysis study from UV dissoc. of CS_2 2−59719
atoms, inner-shell ionisation by ultra relativistic electron impact, density effect search 2−70426
atoms, two-photon induced fluoresc. and reson.-enhanced photoionisation 2−113923
chemisorbed c(2×2) layer on Co(001) surface superstruct., LEED study 2−98404
chemisorbed on Ni surfaces, electronic struct. calc. 2−77150
chemisorption on Ni (100), surface EXAFS study 2−105003
chemisorption on W (100) Auger, TDS, LEED and work function study 2−82147
Comet Bradfield (1979 X), CS and S production rates from IUE obs. 2−73904
diffusion couple Ag-S, struct. and elec. cond. meas. 2−82033
diffusion in Be, layer-by-layer radiometric anal. *(Russian)* 2−61202
diffusion in Fe-Cr alloy, activation energy, comp. depend. 2−86939
emission to atmosphere from bushfires in intertropical savannah zones 2−112031
fluid, critical point, equation of state determ. 2−92142
impurity, on Ti surface, oxidation 2−72882
interstellar dense clouds, molecule containing S, gas phase chemistry model 2−117725
Io, S geochemistry 2−106600
Jupiter plasma torus, Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
Kilauea volcano, Hawaii, S isotopes of basalts and volcanic glass 2−88822
melt structure, polymerisation temp., orientation birefringence study 2−65840
monolayer on Cu(110) surface LEED diagram interpretation *(French)* 2−86524
nuclear microanal. using $^{32}S(d,p)^{33}S$ reaction *(French)* 2−105527
origin and hydrothermal sulphide geothermometry at Galapagos Rift 2−106095
particulate meas. with dichotomous sampler and X-ray fluorescence, on-line analysis 2−73178
particulate S and H_2SO_4 over St. Louis (1977-8) 2−93959
photoelectric cross sections 2−96514
segregation in Ni, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
sensitisation, chem. mechanism 2−58934
Siberian iron ore deposits, study of S isotope ratios 2−78614
solid, high-pressure phase transition obs. using diamond-anvil device 2−56173
steels, Cr (12 wt.%), sulphide inclusions effects on fracture toughness and fatigue crack growth 2−105296
stratosphere S budget, effect of H_2SO_4 evaporation from aerosol layer particles 2−112046
thermodynamic activity in liq. Co 2−105126
tolerant catalysts, Toyo T-12 and T-12/T-48 combination, for processing no.2 fuel oil for use in fuel cells 2−62474
Ag halide emulsions, coprecipitated S impurity contrib. to photographic sensitivity 2−111502
AgCl:S, S centre, ENDOR study 2−93063
CS-S-O_2, supersonic mixing, CO chemical laser, computer model 2−90881
GaAs:S, comparison of H_2S and H_2Se n-type doping by MOCVD 2−103800
GaAs:S, ion implanted, elec. props., ion energy depend. 2−71999
GaAs:S, ion implanted, elec. carrier and atomic profiles correlation 2−72000
GaAs:S, ion implanted, elec. props. and impurity distrib. 2−98141
GaAs:S, MOCVD epitaxial layer, S donors, photothermal ionisation study 2−98569
GaAs:S, S diffusion, vacancy reduction effects, theory 2−115464
GaAs:S, VPE *(Chinese)* 2−93435
GaP:S, homoepitaxial layers, influence of microdefects on dislocation generation 2−92377
GaP:S LEC epitaxial layer, microdefects and dislocation generation, TEM study 2−115236
Ge:S, deep impurity states, energy levels and majority carrier capture cross sections 2−71900
LiH:S, ionic conduction, impurity effects 2−76735
N-O-S, spatial separation of components 2−88392
in Ni, grain boundary segregation of S and Cl, high resolution scanning AES and SIMS 2−93518
Ni:S, intragranular S segregation, SEM and AES study *(French)* 2−109998
O^++C-foil, fast ion excited Rydberg states 2−75392
Pt(S), H_2+O_2 surface reaction kinetics 2−116727
S II, bound state energies calc., effect of configuration interaction 2−59942
S III, forbidden transitions, electron impact excitation rate coeff. 2−59942
S III forbidden line at 33 microns in Orion Nebula Trapezium region 2−106867
S IV, electric dipole transition probabilities calcs., appl. to solar transition zone 2−89210
S IV, oscillator strengths, potential model calc. 2−80538
S XII, electron collisional excitation, radiative lifetimes, energy level calcs. 2−108723
S^+, 3d-4p transitions in ionic spectra, isotope shifts, laser spectroscopic meas. 2−70193
S^{13+}, dielectronic recombination cross sections 2−59944
S^{n+} ions, He-like, 2^1P_1-1^1S_0 and 2^3P_1-1^1S_0 transitions, wavelength determ. 2−96488
S+Ar, electron prod., impact parameter depend. 2−54921
S+Zn, mechanochem. reaction, positron annihilation study 2−105446
S^++C-foil, absolute L-shell Auger electron yield meas. 2−75393

sulphur continued
S_2, $B^3\Sigma_u^-$ and $B''^3\Pi_u$ states, fluoresc., rot. anal. 2−114031
S_8-cyclotetraazathane complexes, IR study, struct. *(French)* 2−90529
$^{32}S^-$, trapped negative ions, Zeeman reson. spectroscopy 2−64913
^{35}S production from ^{35}Cl 2−111795
Si:S, deep donor binding energy, g-value calc. 2−92517
Si:S, deep levels, quantitative criterion 2−87183
Si:S, impurity related defect centres, DLTS and optical absorpt. study 2−71919
$Si:S^+$, impurity states, charge densities and wave functions 2−115700
$Si:S^+$, multivalley spin splitting of $1s(T_2)$ states 2−77000
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691

sulphur compounds
in atmosphere, interregional transport of SO_2 and SO_4^{2-} versus model predictions 2−99860
catalyzed thermal decomposition of H_2SO_4 and production of HBr by the reaction of SO_2 with Br_2 and H_2O 2−57740
chalcogen-iodine cations, ^{127}I Mossauer study 2−96608
complexes, thermodynamic stability, free energy of form., solvent effects 2−83405
fossil fuels, gas sorption systems for S compounds, NH_3, computer simulation 2−73057
Io, S geochemistry 2−106600
partial discharges across metal-dielectric gap in compressed SF_6/N_2 2−115065
SF_6, stimulated Raman study of CO_2-laser excited mol. 2−59811
SF_6, supercooled, high-resolution IR spectra obtained using injection laser based spectrometer 2−113972
sulphate reduction in Early Precambrian oceans, S isotope anal. 2−63097
sulphates in atmosphere, O isotope study 2−63025
sulphides, cation-S bond-valence/bond-length parameters 2−65914
sulphides, optical const. meas. rel. to metallography *(German, English)* 2−111422
sulphides at Galapagos Rift hydrothermal geothermometry 2−106095
switchgear, Cc SF_6 insulated, random prebreakdown discharges as diagnostic criterion of particle contamination 2−97809
switching substations, HV, SF_6 insulated, partial discharges acquisition and localisation using noise anal. *(German)* 2−76218
Ar-SF_6 mixtures, contraction of volume discharge initiated by UV radiation 2−86494
As-S chalcogenide glass, As and S centred paramag. species, photo-ESR data 2−61765
As-S chalcogenide glass fibres, optical transmission loss spectra, IR region 2−57075
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
$Co(S_xSe_{1-x})_2$, metamagnetic transition, mag. props. 2−92904
CsI:SO_4^{2-}, cryst., SO_4^{2-} conc. and separation factors, spectrophotometric meas. 2−57132
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
Ge-S, amorphous, effective electron correlation energy, EPR study 2−110271
Ge-S glasses, local order, ESR study 2−65865
GeSx, glass, photoinduced EPR meas., dangling bonds role 2−56932
$Ge_{15}Te_{81}S_2Sb_2$ glass, hopping cond. at low temp., Ge effects 2−61460
H_2 production, sulphur-iodine thermochemical water-splitting cycle bench scale testing preliminary results 2−73156
H_2 recovery from H_2S with metals or metal sulphides 2−73162
KCl:SO_4^{2-}, cryst., SO_4^{2-} conc. and separation factors, spectrophotometric meas. 2−57132
Li/SO_2 battery anodes, surface struct., electrode chemistry, SEM and XPS study 2−82095
Na-S-Al chloride cells, performance 2−93888
Ni-Cr stainless steels corrosion resistance in thermochemical cycle of hydrogen production using concentrated sulphuric acid 2−72863
Pt-S, adsorption/desorption of CO, effect of S layer, AES and temp. programmed desorption study 2−66369
S-N ring systems, 3, 4, 5 and 6 membered, localised MO calcs. 2−59707
SCN^-, aq. solns., vibr. and rot. dynamics, Raman obs. 2−80637
SCO...HCl, ab initio SCF MO study, H-bond energies 2−54766
SCO...HF, ab initio SCF MO study, H-bond energies 2−54766
SF radical, rot. and centrifugal distortion const., microwave obs. 2−75249
SF_3, ground electronic state and geometry, ab initio LCAO MO SCF calcs. 2−102381
SF_6, analysis of Paschen curves using Townsend breakdown eqn. 2−109450
SF_6 and SF_6 mixtures, transport parameters calc. 2−103273
SF_6 arc discharge, enhanced photoemission from F atoms 2−103487
SF_6 arc plasma, optical spectroscopy study. at atm. press. *(French)* 2−76228
SF_6, attachment rates for thermal electrons 2−102574
SF_6 axially blown arc, dielec. recovery after current zero, expt. 2−115067
SF_6 axially blown arc, dielect. recovery after current zero, theoretical 2−115068
SF_6 axially blown arc, dielect. recovery after current zero, expt. and theoretical comparison 2−115069
SF_6 breakdown obs., barrier effect in air and SF_6-insulated nonuniform electrode configurations 2−103265
SF_6 breakdown obs. using dielectric coated electrodes, partial discharges influence 2−103264
SF_6, clusters, vibr. predissociation, IR obs. 2−55005
SF_6, coherent active Raman scatt. spectra *(Russian)* 2−54858
SF_6, collision induced light scatt., three body correl. spectrum 2−80636
SF_6, compressed, electrode surface roughness modelling and prediction of breakdown 2−103527
SF_6, compressed, optimisation of pressure and surface roughness parameters 2−103526
SF_6 cooled in free jet expansion from pulsed supersonic nozzle, multiple-photon absorpt. characts. 2−96555
SF_6 corona, effects of H_2O 2−103525
SF_6, corona stabilisation and critical pressure 2−103260
SF_6, crystal struct. below 94K, electron diffr. study 2−98001
SF_6 DC and 60 Hz AC corona, inception mechanisms 2−81600
SF_6, development of predischarge currents in sphere to sphere arrangement for lightning impulse voltages 2−103262
SF_6, dielectric behaviour in nonuniform fields near critical pressure 2−103257
SF_6 diffusion in He buffer due to CO_2 laser radiation *(Russian)* 2−109444

sulphur compounds continued
SF_6 discharges, comparison to air discharge 2−65784
SF_6 discharges detection and characterisation, using trace gas analysis 2−103534
SF_6, Doppler limited spectrum and anal. of $2\nu_1+\nu_3$ band, rot. consts. 2−85631
SF_6, effect of coatings on impulse breakdown for electrodes with different surface roughness 2−103530
SF_6, elec. insulation, plasma breakdown, engineering problems *(German)* 2−76213
SF_6, electric breakdown, filamentary stages of point to plane discharges 2−103550
SF_6, electric dipole moment function for IR-active modes, ab initio calcs. 2−108510
SF_6, electrochromism data, dielectric virial coeffs. for excited states estimated from dipole moment changes 2−96771
SF_6, electron affinity, negative ion chemistry, flowing afterglow study 2−99677
SF_6, electron scatt., total cross section meas., ToF obs. 2−54971
SF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
SF_6, excitation and dissociation in IR laser field, spectral characts. 2−108639
SF_6, flashover voltage dependence on tangential field strength of contaminated insulator surfaces 2−103532
SF_6, force consts., excited vibr. states, Lennard-Jones and Morse pots. 2−90647
SF_6, formative time lag meas. *(German)* 2−76219
SF_6, freely recovering gas blast arc, temp. decay mechanisms 2−71279
SF_6, gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529
SF_6, highly vibrationally excited, single photon excimer laser photodissoc. 2−96664
SF_6, hot mol., anharmonic shrinkage effects, electron diffr. study 2−102625
SF_6 hot mol., thermal expansion, electron diffr. study 2−102624
SF_6, IR multiphoton excitation and dissoc. 2−59871
SF_6, IR spectrum binary combination bands, absolute intensities 2−108509
SF_6 impulse ratios of gaps in compressed gases 2−97820
SF_6, in liq. O_2, vibr., line shift widths and intensities, IR spectra 2−80604
SF_6 in low temp. Xe matrix, preferred orientation, IR obs. 2−59798
SF_6 insulated substations enclosure burn through probability estimation 2−97807
SF_6 insulation, impulse corona effects on subsequent breakdown 2−65790
SF_6 isolated in Ar matrix, IR diode laser spectrum 2−70236
SF_6 Lamb dip, optoacoustic tracking for CO_2 laser freq. stabilisation 2−70579
SF_6, liq. and gas, thermal conductivity determ. in critical region 2−71058
SF_6 mixtures having small amount of electronegative gas in nonuniform field gaps, breakdown strengths 2−103259
SF_6 mixtures with enhanced corona stabilisation 2−103520
SF_6, model of vibr.-vibr. relax., mol. quasicontinuum 2−70210
SF_6, mol. struct. param., temp. depend. 2−102658
SF_6 molecules, laser-activated chemisorption on W hot surface 2−56366
SF_6, multiphoton absorpt. spectra at low temps. 2−75281
SF_6, multiphoton excitation, role in sensitised dissoc. with isotopic selectivity 2−80832
SF_6, nonlinearly-optical excitation of symm. vibr., Fermi resonance *(Russian)* 2−80842
SF_6, ν_1 band, high resolution stimulated Raman gain spectrum 2−85669
SF_6 $\nu_2+\nu_6$ combination band multiple photon excitation in bulk and pulsed free jet 2−96670
SF_6, oscillating lightning impulse voltage, breakdown behaviour of nonuniform electrode arrangements 2−97821
SF_6, physisorption of He, H_2, D_2 and Ne, sorption energy determ. 2−87013
SF_6, positive and negative mean ion mobilities in corona discharges 2−103524
SF_6, positive glow pulses and sparks in 1 cm point-to-point gaps 2−103521
SF_6 prebreakdown discharges in highly nonuniform fields in rel. to gas-insulated system 2−81602
SF_6, resonance excited vibr. spectrum, CARS method study *(Russian)* 2−70249
SF_6, rotationally-resolved ultrahigh resolution stimulated Raman spectra 2−108522
SF_6, self-focusing 2−102885
SF_6, self-focusing and self-defocusing of intense reson. IR radiation 2−65316
SF_6, sparked, SF_4 detect. 2−88387
SF_6, spectrometric anal. during an elec. discharge 2−91708
SF_6, sub-Doppler resolution at 10 μm using sub-Doppler optoacoustic spectroscopy 2−107410
SF_6, supercooled, ν_3 band, high-resolution IR laser spectroscopy 2−54853
SF_6, threshold field for DC positive corona discharge 2−103522
SF_6, time lags, local detachment rate of negative ions 2−103261
SF_6, transport and elec. props. calc. 2−114964
SF_6 transport parameters calc. for non-equilibrium medium 2−103274
SF_6, two-photon Q branch reson., nonlinear IR obs. 2−102471
SF_6, wavefront reversal of weak Brillouin-shifted signals 2−70611
SF_6^-, SF_5^- negative ions on heated W surface, laser-assisted negative surface ionisation 2−99233
SF_6/N_2 gas mixture compositions effects on discharger switching time in nanosecond range *(Russian)* 2−97804
SF_6-air mixtures, impulse corona in negative rod-plane gaps 2−103523
SF_6-air mixtures, prebreakdown phenomena in long nonuniform field gaps 2−103258
SF_6-Ar, recombining arc discharge, decay and re-ignition, appl. to circuit breakers 2−60818
SF_6-CO_2 mixtures, impulse corona in negative rod-plane gaps 2−103523
SF_6-H_2 laser pumped by axially injected electron beam, characts. 2−114258
SF_6-insulated systems, volt-time performance 2−103263
SF_6-N_2 gas mixtures, meas. of impulse positive point predischarge growth 2−103519
SF_6-N_2 mixture, arc discharge, thermal and elec. conductivity coeffs., theory and expt. 2−103501
SF_6-N_2 mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698

sulphur compounds continued
SF_6-N_2 mixtures, impulse corona in negative rod-plane gaps 2−103523
SF_6-N_2 mixtures, optimisation of pressure and surface roughness parameters 2−103526
SF_6-N_2 mixtures, positive and negative mean ion mobilities in corona discharges 2−103524
SF_6-N_2 mixtures, prebreakdown phenomena in long nonuniform field gaps 2−103258
SF_6+N_2O, vibr. relax. study using overtone bands 2−90675
SF_6+NO, rot. and spin-orbit transitions, IR-UV double reson. 2−75382
SF_6+N**, collision induced atom ionisation, time of flight spectra 2−114095
SF_6+Na_3, mol. beam reaction, triple electron jump mechanism 2−88360
SF_6+$SF_2Cl(UF_6)(XeOF_4)$, sensitised dissoc. by laser-excited absorber 2−65070
SF_5Cl, sensitised dissoc. with isotopic selectivity using SF_6 2−80832
SF_5Cl+SF_6, sensitised dissoc. by laser-excited absorber 2−65070
SH, pot. energy curves, ab initio MRD CI calcs. 2−80503
SH^+, high resolution laser study 2−70224
SH^+, hyperfine struct. in electronic spectra resolved by laser-ion beam spectroscopy 2−75466
$(SN)_x$ chain, ab initio struct. calcs. 2−104282
$(SN)_x$, cryst. struct., prep., band struct., Fermi surface and Meissner effect *(Japanese)* 2−82212
$(SN)_x$, proton-spin lattice relax. time from incorporated water 2−61781
$(SN)_x$:Na(Br) and $(SN)_x$, elec. cond. and magnetoresist. meas., 0.2 to 4.2K 2−92586
S_2N_2, polymerisation, Woodward-Hoffmann orbital correl. diagrams 2−81952
$(SNBr_x)_x$, electronic struct. and props. *(Japanese)* 2−66417
$(S^{15}NH)_4$ and $(S^{15}ND)_4$, IR and Raman spectra, vibr. assignments and force consts. isotope shifts 2−59796
SO, $^3\Delta$ state, rel. to rot. anal. of $A^3\Pi$-$X^3\Sigma$ spectrum 2−113869
SO, 86 GHz emission maps of Kleinmann-Low nebula, kinematics 2−106835
SO, ($B^3\Sigma^-$, $A^3\Pi$-$X^3\Sigma^-$) emission in UV and visible spectral range from SO_2 afterglows 2−90561
SO, highly excited vibr. states, millimetre wave, mol. consts. 2−64962
SO radical, $A^3\Pi$ and $B^3\Sigma^-$ excited states, vibr. level lifetimes 2−114049
SO radicals, absolute absorpt. cross-sections, 190 to 235 nm 2−64998
SO+$O_2(O_3)(NO_2)$, rate coeffs., chemiluminescence study 2−99651
SO_2 absorpt. of UHF/SHF, appl. to Venus middle atm. 2−58279
SO_2, air pollutant long-range transport model *(German)* 2−94424
SO_2, air pollution conc. in Athens, Greece 2−68405
SO_2, air pollution in Netherlands up to 2000 AD *(Dutch)* 2−88481
SO_2, air pollution washout by rain 2−83866
SO_2 and SO_4^{2-} in New York City (1972-79) 2−93960
SO_2, anharmonic force consts. and anal. pot. energy function calcs. 2−80768
SO_2 atm. mean daily conc. by Markov chain model 2−106169
SO_2, autoionisation states, vibr., mol. beam photoionisation mass spectrometry 2−80644
SO_2, $C(^1B_2)$ state, quantum beats, fluoresc. obs. 2−59847
SO_2 chemisorption on Ag (110), atomic O effects, UPS, LEED and thermal desorpt. study 2−76824
SO_2 concentrations in Madrid, behaviour in invariant model *(Spanish)* 2−88482
SO_2, crystalline, low lying electronic triplet state, phosphoresc. emission and excitation spectra 2−72535
SO_2 decomposition kinetics on Pt (111), AES study 2−105509
SO_2 depolarised electrolysis for H_2 production, development status 2−99846
SO_2, dual-mode sorption and transport in Kapton polyimide 2−87042
SO_2, electronic relax., collision induced, long range interaction mechanism 2−65079
SO_2 electroreduction in nonaqueous media, electrochem. and ESR obs. 2−114017
SO_2, IR absorption bands monitoring in atmosphere, Indian (Trombay) experience 2−111525
SO_2 ice, laboratory studies of charged particle erosion and appls. to Io SO_2 frosts 2−112374
SO_2, in atmos. of Io, photochem. models 2−73897
SO_2 in clouds, conversion to SO_4, model 2−100419
SO_2 in supersonic jet, fluoresc. excitation spectrum and single rovibronic level lifetime 2−90615
SO_2, ion-mol. reactions, low pressure, metastable transitions, mass spectrosc. investig. 2−93781
SO_2 ionisation and dissociation in Io plasma torus 2−106602
SO_2, laser excited, deactivation and V-V transfer, theoretical probabilities 2−102586
SO_2, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
SO_2, multiphoton photofragmentation at 248 nm 2−102557
SO_2, NO, NO_2 air pollutants, simultaneous concentration monitoring using dye laser visible and UV freqs. 2−62540
SO_2, optically excited, fluoresc. induced by IR multiphoton excitation 2−70326
SO_2 over St. Louis, hourly conc. variability 2−93958
SO_2 pollutant in atm., conc. determ. from solar radiation transmission spectra 2−93975
SO_2 pollutant residence times *(German)* 2−94425
SO_2, pollution in city of Mostar, Yugoslavia 2−106173
SO_2 pollution of Vienna in winter, daily conc. models 2−106170
SO_2, single photon laser-induced fluoresc. detect. for atm. conditions of composition and press. 2−105629
SO_2, surface dealkalisation of Na_2O-Fe_2O_3-SiO_2 2−73016
SO_2 to SO_4 aerosol transformation rate during transport over North Sea 2−83871
SO_2 triplet state, EELS study 2−99235
SO_2, valence bands, solid and gas phase UPS study 2−67190
SO_2/Li cell, discharge products, X-ray diffr. and DSC study 2−78196
SO_2-inert gas afterglow, SO($B^3\Sigma^-$, $A^3\Pi$-$X^3\Sigma^-$) emission in UV and visible spectral ranges 2−90561
SO_2-sulphate transformation in lower atmosphere over Sweden 2−94422
SO_2+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
SO_3 absorpt. of UHF/SHF, appl. to Venus middle atm. 2−58279
SO_3 formation kinetics in oil-fired power station boilers 2−83345
SO_4^{2-}+H_2O interactions, X-ray diffr. study in presence of Ni and Mg ions 2−78073

sulphur compounds continued
S_2O, excitation and fluoresc. spectra, quantum yields for vibronic states, vibr. const. 2−108612
$SOBr_2$, mol. struct. gas phase electron diffr. study 2−114107
$SOCl_2$-Ca($AlCl_4$)$_2$-Ca cell, performance and safety meas. 2−78195
$SOCl_2$+Mg*(Ca^*), chemiluminesc. and chemiionising reactions absolute cross sections 2−83381
SOF_4, mol. struct., resolution of multiple model problem 2−90699
SOF_4, quadratic force fields, symmetry bending consts. and bond angles 2−90734
$SO_2(NH_2)_2$, IR vibr. spectra 2−87766
SOO existence and formation in combustion of CS_2 2−83386
SO($X^3\Sigma^-$), free radicals, v=3-O vibr. overtone bands, IR obs. 2−102477
SO_2*($\tilde{A}^1A_2$) fluoresc. quenching by He and Ar in supersonic jet 2−80715
$^{32}S_{1-x}{}^{34}S_xF_6$ solid isotropic mixture, IR spectra of dipole-active optical phonons 2−67063
$SbSBr_xI_{1-x}$, phase transitions, permittivity, polarisation *(Russian)* 2−77461
$(Sn)_x$, electronic struct. and props. *(Japanese)* 2−66417
$SnS_{2-x}Se_x$, far IR reflectance spectra 2−87789
$TiS_2Ag_{0.33}$, superlattice melting study 2−103958

sum rules
A=20, 24, 28, 32, 36, multipole excitations, EM sum rules calc. by spectral distrib. methods 2−69599
Adler-Weisberger sum rule saturation in quark shell model, general proof 2−69431
baryonic current sum rules and chiral symmetry breaking 2−59066
Bessel functions products with appl. to plasma physics 2−97751
deep-inelastic lepton scatt., charge retention sum rules 2−64332
ds-shell nuclei, isovector mag. dipole sum rules 2−59289
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
exotic hadrons, mass sum rules from bag model 2−107640
exotic meson reson. with $J^{PC}=1^{-+}$ from QCD sum rules *(Russian)* 2−74655
exotic mesons with $J^{PC}=1^{-+}$ from QCD sum rules 2−79824
finite fermion systems, sum rules for dipole transitions, giant resonances *(Russian)* 2−79993
Gross-Llewellyn Smith sum rule from neutrino/antineutrino expts. 2−64313
hadrons containing heavy quark, masses from QCD sum rules 2−79820
heavy mesons exclusive decay study 2−101706
heavy quark system decay, gluon condensate effects, QCD sum rules appl. 2−95765
local QCD sum rules and quarkonia 2−69422
Lorentz-Lorenz quenching for the Gamow-Teller sum rules 2−113446
lowest lying scalar glueball 2−95766
meson resonances, spectrum and leptonic decay widths in QCD *(Russian)* 2−74653
meson resonances mass spectrum and leptonic decay widths in QCD 2−79836
neutrino oscillations, sum rules *(Russian)* 2−74637
nuclear isovector dipole mode, sum rule approach 2−107753
nuclear spectroscopic sum rules, spin dependent, for two-nucleon transfer 2−107751
nuclei, quark spin-isospin rules and Adler-Weisberger relation 2−101806
optical scattering amplitudes, sum rules 2−75514
pion form factor and sum rules in QCD 2−113273
pion form factor at intermediate momentum transfer in QCD 2−107661
pion polarisabilities, sum rule inequalities 2−64244
pionic decays, current-algebra sum rules saturation in quark shell model nonrelativistic expansion 2−69430
pseudoscalar glueball two-proton decay 2−54227
QCD, L=1 light quark mesons 2−59115
QCD, nonperturbative power corrections calc. *(Russian)* 2−54079
QCD charmonium sum rules, higher gluonic power correction calcs. 2−64279
Weinberg type sum rules, Laplace transform analysis, pseudoscalar meson properties 2−113178
$A_2(A_3)$ tensor mesons in QCD sum rules 2−79837
$D\bar{N}\rightarrow D\bar{N}$, backward scatt. sum rules, rel. to charm hadroprod. 2−101754
e^+e^- annihilation, sum rules, in electro-weak gauge theories 2−54195
e^+e^- annihilation, testing QCD with moment sum rules 2−69421
$ep\rightarrow\pi^+X$, inclusive single soft pion prod., moment sum rules 2−113281
f tensor mesons in QCD sum rules 2−79837
hh multiparticle prod. models, quadrijets, fireballs, annihilation relationship multiplicity sure rules 2−64342
$\pi p\rightarrow\pi^+n$, sum rules, rel. to poor man's absorpt. model 2−59162
U- and d-quark masses, daughter sum rule tech. appl. to V-A spectral functions 2−59067
^{40}Ca, strong E2 and M1 transitions 2−64372
^3H, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^3He(e,e), sum rules with realistic wave function 2−59335
^4He, A=3, 4, effective numbers in spherical nuclei, spectroscopic factors, sum rules, superfluid correls. *(Russian)* 2−59269
^6Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
^6Li(e,e), bremsstrahlung cross-section, sum rule, nucleon symm. effect 2−64396

Sun
see also solar .....
see also cosmic ray solar modulation
analemmas from planets 2−78942
astrometric observations, appl. of pinhole system of new photoelectric meridian circle at Tokyo Astronomical Observatory 2−100736
astrometric observations, rel. to determ. of FK5 equinox and equator 2−68598
astrometry, positional obs., at CERGA astrolobe in (1980). *(French)* 2−100855
astrometry experiment using reflecting pin-hole telescope solar beacon 2−94601
Comet Howard-Koomen-Michels (1979 XI) collision 2−100830
cool stars, stellar systems and Sun, workshop, Cambridge, Massachusetts, (1981 October 21 to 23) 2−94916
diameter variation, possible correl. with luminosity and solar activity 2−79073
eccentricity and perigee, effect on lunar orbital motion, ELP 2000 soln. 2−73869
five-minute oscillation, low-l, implications for solar struct. 2−89220

Sun continued
five-minute oscillation, model of overstability 2−73944
free oscillations, review 2−100894
gravitational light deflection, non-eclipse optical determ. 2−94591
gravitational radiation generation 2−106645
gravity effect on radio wave propag. between Viking on Mars and Earth 2−94592
internal rotation and gravit. quadrupole moment of Sun, determ. from rot. splitting of global oscills. 2−100862
light deflection obs. during solar eclipses, correl. with ellipticity of solar corona 2−100880
magnetic core in Sun, rel. to rigidly rotating solar surface distortion 2−94685
motion, research by Mayer, Herschel and Prevost 2−53476
motion as seen from Local Group barycentre 2−63687
motion through local interstellar medium, determ. from UV spectra of nearby white dwarfs 2−106690
neutrino brightness curve, obs. using Cl-Ar neutrino detector *(Russian)* 2−89226
oblique magnetic solar rotator, evidence from fine struct. of 5-minute oscills. spectrum 2−100863
oscillation periods of solar models, new programme for solar evolution sequences calc. 2−79070
oscillations, detect. of 192 s component at 8.6 mm wavelength *(French)* 2−63338
oscillations, p-modes distrib. law 2−84215
primitive Sun, UV and X-ray emission influence on biological processes 2−105880
protosun radiation pressure causing dust coagulation leading to comets form. 2−112351
radius changes in 1974 to 1981 period 2−58319
radius variations, effect of perturbations of convective energy transport 2−112402
Solar Maximum Mission, instrumentation and mission 2−89114
solar radiation variations due to sunspot deficits and facular excesses 2−79068
stellar-solar astrophysics 2−84207
supercorona, effect on polarised radio emission of Crab Nebula 2−94815
tides raised by planetary system, calc. 2−68611

sunlight
see also atmospheric optics; sky brightness
Abastumani Forest Aerosol Experiment, (August 1978), weather conditions, solar and atm. radiation *(Russian)* 2−117401
atmosphere, aerosol, size distrib. determ. from spectral solar irrad. meas. 2−89048
atmospheric aerosols, photophoretic force size depend. 2−105517
Azerbaidzhan SSR region daily solar radiation distribution characts., aid to practical utilisation 2−100418
Beer Sheva, Israel, monthly average daily fraction of diffuse solar radiation calc. 2−67838
California, total and spectral solar irradiance measured at ground surface 2−58097
SE Canada and NE USA, insolation 2−100482
Dar es Salaam point cloudiness sampling and estimation 2−58114
data rehabilitation using clear hour analyses 2−106281
diffuse fraction for hourly, daily and monthly-average global radiation 2−73657
Earth global climate, effects of ice caps on stability in two-dimensional energy balance model *(Chinese)* 2−88999
Earth surface radiation from cloud images obs. from satellites 2−100489
estimating solar irradiance and components using various models, performance comparisons 2−100514
extinction and scattering by dust at 60 km in mesosphere 2−112131
flat-plate collector daily solar radiation computation model anal. 2−67841
generalised lambda distrib. for solar radiation data 2−112054
Genova station daily global radiation diffuse and beam components estimation and statistical distributions anal. 2−73658
W Germany, solar radiation observations 2−117433
glacier basins, operational net shortwave radiation model 2−94409
global, diffuse and direct normal meas. using spectroradiometer, design and development 2−63112
global irradiance variation due to Mount St. Helens volcanic cloud 2−78842
global UV radiation at ground level, influence of effective cloud amount, horizontal visibility and total O_3 2−100462
Hawaii, solar radiation and thin cloud climatology 2−94461
hourly diffuse solar radiation estimation from global solar radiation, methods comparison 2−100513
insolation measurements spatial transformations, preliminary results 2−57686
insolation mesoscale variability determination from satellite data 2−100482
insolation variations, appl. of marine-astron. correls. to dating of Brunhes-Matuyama mag. reversal 2−94277
Iran, sunshine correl. with cloudiness 2−88966
low Sun phenomena, effect of atmospheric gravity waves on solar image 2−100560
Malta, radiation climate 2−73659
Mars atmosphere, effects of solar tides on general circulation 2−100800
measurement of solar radiation beneath cloud by dial radiometer technique 2−94528
meteorological data, computational methods validation 2−67863
normal direct radiation correlation with global radiation dependence on cloudiness 2−73656
E Pacific insolation value obs. and calcs. 2−94462
planetary surfaces, var. of albedo with solar incidence angle 2−106573
radiation budget, Arctic soot effect 2−94418
shortwave fractional absorptance of non-homogeneous clouds 2−83945
site-specific clear-day solar irradiance model from long-term irradiance data 2−94467
sky radiation measurements using simple model for optimal orientation of solar collector 2−73084
solar irradiance variations, correl. with changes in photospheric limb darkening 2−63342
solar radiation total estimation at Karachi, Pakistan 2−88411
solar UV spectral irradiance, Oct. 1981 to Jan. 1982 obs. 2−100448
St. Paul, Minnesota, global solar radiation measurements anal. for persistence and variability 2−73655
stratosphere, attenuated solar irradiance meas. rel. to O_2 Herzberg continuum absorpt. 2−100550

sunlight continued
Sun+sky irradiance at 340 to 2500 nm, meas. via portable field spectrometer 2−112143
sunrise/sunset hours solution for a tilted without singularity at zero azimuth 2−73660
troposphere, radiative flux meas. 2−58119
UK solar energy installations review 2−73067
upper atmosphere, solar radiation intensity and ion production rate *(Chinese)* 2−100624
UV radiation, reson. scatt. contrib. to near-Earth UV environment 2−117513
variations of solar constant due to solar activity 2−100860
Venus atmosphere, scattered solar radiation ang. distrib. 2−84130
NaOH photolysis in upper stratosphere, photodissoc. coeff. 2−100451

sunshine *see sunlight*

sunspots
see also solar activity
bipolar active region, slowly varying component of radio radiation *(Chinese)* 2−84197
bipolar groups near flares, mag. axis correl. with flare generated wind structures 2−117554
bipolar magnetic field rel. to convection zone toroidal field 2−100857
cycle 20, sunspot groups indices 2−94627
differential rotation and meridional motions (1874 to 1902) 2−106649
early eigtheenth century sunspot observations 2−73947
EUV spectrum, electron press. determ. in sunspot transition zone from O IV and N IV obs. 2−106639
flare assoc. with sunspot umbra, 1981 February 26, origin of pink colour 2−100869
flocculi, brightness variations assoc. with mag. fields 2−84201
groups, latitude drift and solar rotation 2−100892
groups, two components in distrib. rel. to max. areas 2−100856
magnetic field meas. above sunspots, gyroresonance emission 2−100884
magnetic flux ring, dynamical effects *(Chinese)* 2−84195
magnetic flux values, occurrence freq. distrib. 2−94689
magneto-hydrostatic theory 2−68705
McMath 13043, burst activity and local radiosources at SHF 2−84205
McMath 13043, sunspot motion from mag. δ config. during flare 2−84202
McMath 14822, polarisation, sunspots and mag. fields emission, UHF obs. 2−84206
McMath 14943, sunspot model/physical conditions from spectral obs. 2−84200
Mt. Wilson 20551, umbral fine structures, morphological study 2−63341
Nimbus 7 extraterrestrial solar irradiance measurements anal., sunspot correl. 2−112088
penumbral filaments width distribs., photographic obs. 2−68706
polarity intrusion associated with bipolar magnetic region 2−68704
propagating oscillations from photospheric and chromospheric lines obs. 2−58314
structure, use of five minute oscills. as subsurface probe 2−89224
surrounding polarised horseshoe structures at SHF obs. 2−73924
symmetry axes, angle of inclination to solar surface 2−94688
transequatorial VHF wave propagation, long term exp. results *(Japanese)* 2−73780
transition region oscillations, C IV line obs. 2−63328
turbulent nature of Sun, anal. 2−112414
umbra, line spectra of chromosphere above 2−100883
umbral fine structures, morphological study 2−63341
umbral oscillations in a detailed model umbra 2−100882
velocity dispersion of single sunspots 2−100850
Wolf numbers, trigonometric models for long-period vars. and relation to length of day vars. 2−105881
Ca II spectrum, intensity ratios of Ca II K to H line cores across sunspot 2−100877
Fe I 532 nm line formation in magnetic field *(Chinese)* 2−84198
Fe I 6302 Å magneto-sensitive line and Alfven waves *(Chinese)* 2−63238

superaerodynamics *see rarefied fluid dynamics*

superalloys
Astroloy, wrought, grain boundary void nucleation during high temp. creep 2−93575
Astroloy, wrought, grain boundary voids nucleation in intergranular fatigue crack vicinity 2−93626
commerical, high fluence neutron irrad., swelling behaviour 2−109842
duplex coating, diffusion-inhibited oxidation resistant 2−116622
gas turbine hot section components fabrication, using advanced forming methods 2−93475
Hastelloy X, carburization protection with Ti-Si enriched layers 2−116619
hot isostatic pressing 2−83061
IN 100, powder consolidated, superplastic response, effect of heat treatment 2−93570
IN 738, cast, sequential effect of creep and fatigue 2−105330
Incoloy 901, electron irrad., void swelling 2−103820
Incoloy-800, Ni-base, fatigue crack growth, elevated temps., sulphidising environments 2−67526
Inconel 600, Ni-base, corrosion behaviour in high temp. steam, effect of grain size 2−67615
Inconel 600, Ni-base, ultra-pure, H embrittlement, effect of C, P, Sn and Sb additions 2−67525
Inconel 706, electron irrad., void swelling 2−103820
Inconel 718, electron irrad., void swelling 2−103820
Nimonic alloy PE 16, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
Nimonic API, powder-formed, near-threshold crack growth, effects of grain size and microstruct. 2−93616
Nimonic PE16, anomalous contrast from stacking faults 2−76464
Nimonic PE16, electron irrad., void swelling 2−103820
Nimonic PE16, ion bombarded, damage struct. 2−109855
Rene 95, Ni-base superalloy, fatigue crack propag. thresholds for long and short cracks 2−105314
structural, high temp., high cycle fatigue strength, procedure for estimating 2−62368
thermodynamics, activity coeffs. of Al, Ti, Cr, Fe, Co, Ni, Mo and W 2−99390
Al-Cu eutectic, superplastic, fracture strain and strain rate sensitivity *(Japanese)* 2−57459
Al-Cu eutectic, superplastic, fracture behaviour *(Japanese)* 2−57460
Co-Cr, 2−93501

superalloys continued
Fe-base superalloy A-286, effect of composition and high energy rate forging on precipitation 2−111183
Fe-Ni-Cr, A286 superalloy, electron beam welded, fatigue crack growth 2−111300
Ni, anisotropic fatigue hardening at elevated temp. 2−72927
Ni base, IN 100, hybrid experimental-numerical procedure for determining creep crack growth rates 2−77899
Ni, creep life, effect of room temp. restrain and subsequent heat treatment 2−72833
Ni, intergranular fracture assoc. with heterogeneous deform. modes during low-cycle fatigue 2−72834
Ni, particle strengthened, resisting stress model of creep, stacking fault energy role 2−88149
Ni superalloy IN 738, applicability of strain range partitioning to high temp. low cycle fatigue life prediction 2−88162
Ni superalloys, B-1900 and NASA-TRW VIA, hot corrosion chem. reactions, expt. study 2−78000
Ni superalloys, NIM80A, NIM90, NIM105, IN738, IN939, long-term growth of γ' particles 2−105153
Ni superalloys, precipitate struct., convergent beam electron diffr. study 2−72709
Ni-alloys, cast, grain boundary voids formation after cold-working and annealing 2−57375
Ni-base, 718, sintered and heat treated, phase anal. 2−67290
Ni-base, fatigue growth of surface cracks 2−93599
Ni-base, P/M, fatigue crack initiation, effect of defects 2−67518
Ni-base, P/M, fatigue crack initiation, effect of defects, surface-subsurface transition 2−67519
Ni-base eutectic superalloy, γ/γ'-α, interfacial struct. 2−82149
Ni-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296
Ni-base superalloy, IN-100, an eval. study of Al-N and Cr-Al-N coatings 2−67591
Ni-base superalloy, space group of μ-phase, electron diffr. study *(Chinese)* 2−60924
Ni-base superalloys, deterioration of aluminide coating *(Chinese)* 2−62248
Ni-based superalloys, phase identification, by interference film microscopy 2−62322
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
(Ni)-Co-Cr-Al-Y coatings, on IN-100 and Udimet 520 superalloys, microstruct. stability 2−99462
Ni-Cr alloys MA 6000E, scaled-up thermomech. processing 2−77856
Ni-Cr-Al-Y_2O_3, dispersion and precip. hardened superalloy, recrystn., influence of hot working 2−111196
Ni-Cr-Al-Y_2O_3, oxide dispersion and precip. strengthened, creep and rupture 2−111299
Ni-Cr-Co, Mar M002, cast superalloy, creep and fracture, effect of hot isostatic pressing 2−88184
Ni-Cr-Co, Mar M002, superalloy, fracture processes during creep in conventionally cast and directionally solidified material 2−88185
Ni-Cr-Co, nimonic 90, He^+ ion irrad., microhardness, microstruct., and blistering 2−98168
Ni-Cr-Co-Al-Ta superalloy, air embrittlement, role of S 2−99541
Ni-Fe base superalloys, serrated yielding of 700°C 2−57428
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
Nimonic AP1, crystallographic fatigue crack growth 2−93587
W fibre reinforced Ni superalloy, high temp. composite, microstruct. stabilisation with ZrO_2 short fibres *(German)* 2−77781
W wire reinforced Ni-base superalloy, flow and fracture behaviour during isothermal forging 2−93617
Zn-Al eutectic, superplastic, fracture behaviour *(Japanese)* 2−57460
Zn-Al eutectoid, superplastic, fracture strain and strain rate sensitivity *(Japanese)* 2−57459

superconducting cables
critical current, effect of technological defects *(Russian)* 2−98829

superconducting critical field
A15 compound for fusion reactor magnets, ion and neutron damage studies 2−110549
A15 continuous filamentary superconductors, metallurgy 2−67263
A15 superconductors, atomic disorder rel. to superconductivity 2−56769
Abiskosov vortex state near upper crit. field, Ginzburg-Landau theory 2−66726
amorphous inhomogeneous alloy, upper critical field and paraconductivity 2−77244
anisotropic supercond., upper critical field, effective mass model 2−72127
antiferromagnetic superconductor, nonmonotonic temp. depends., phenomenological derivation using two-fluid model 2−77227
corrugated film in transverse mag. field, vortex struct., upper crit. field increase, crit. currents *(Russian)* 2−56805
critical Ginzburg-Landau param., Fermi surface anisotropy effect 2−104533
inhomogeneous superconductors, resist. transition, heat capacity transition, upper crit. field 2−110523
materials for supercond. magnets, mechanical props. and strain effects, review 2−67469
metal films, mol. beam condensed, elec. and supercond. props., review *(Russian)* 2−56726
metallic superlattice superconductivity and magnetism 2−92819
mixed valence impurities effect on supercond. props. 2−61641
rare earth ternary cpds., mag. and supercond. props. 2−115937
ring struct., higher order crit. fields, nonlinear Ginzburg-Landau eqns. 2−77242
small-κ superconductors, energy gap and vortex creation energy 2−72126
superconducting two-loop networks, mag. phase diagram 2−72111
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2ClO_4$, supercond. transition in mag. fields 2−56758
$(TMTSF)_2X$ family of organic superconductors, survey of low dimensional phenomena 2−56751
$(TMTSF)_2X$ series, band struct. and props. 2−92438
$(TMTSF)_2X$ superconductors, props. 2−56802
Ag-Pd-Ag epitaxial junction, superconductivity 2−82545
Al superconducting film, critical mag. field 2−56800
Au-In, supercond,. study at ultralow temps. 2−87438
$C_8KH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
C_4KHg (RbHg), intercalate, superconductivity study 2−82512
$C_8KHg(RbHg)$, intercalate, superconductivity study 2−82512

superconducting critical field continued
$CdMo_6S_8$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$CeCu_2Si_2$, high press. superconducting transition *(Russian)* 2−82511
$Cu_{1.8}Mo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$ErRh_4B_4$, percolation magnetoresistance in ferromagnetic superconductors 2−56774
$Eu(Gd)Mo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
$HgMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
InGe, percolating supercond., upper crit. field 2−77243
$Ir_{0.78}Y_{0.22}$ eutectics, strain-induced softening and high-press. expts. 2−56090
$KTl_{1.5}C_x$ (x=4, 8), intercalation cpd., supercond. transition temp. and crit. field 2−92844
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
LaS_x, heat capacity in superconducting and normal states 2−82521
Nb mag. props. near T_c *(Russian)* 2−61652
Nb, peak effect near $H(c_1)$, crit. current meas. 2−77245
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
Nb-Ti superconducting materials, review 2−67255
Nb_3As(A-15), supercond. transition temp. and upper critical field 2−82507
Nb_3Ge films, critical mag. field temp. depend. *(Russian)* 2−61673
$NbSe_2$ (2H) and 2H-$NbSe_2(TCNQ)_{0.05}$, upper crit. field anisotropy and supercond. crit. field *(Russian)* 2−56801
$NbSe_2$, anomalous flux entry 2−87462
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Sn, infiltration process prep., supercond. props., effect of Cu and Ga additions 2−61676
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803
$PbMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$PbMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$PbMo_6S_8$, scaling law parameters, upper critical field, critical current meas. 2−56803
$Pb_{1.2}Mo_{6.4}S_8$, superconducting critical parameters *(Russian)* 2−61646
$PbMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
Sn small particles, NMR study 2−66712
$Sn_xEu_{1.2-x}Mo_6S_8$, supercond. props. under high press. and high mag. field 2−110551
$Sn_xEu_{1.2-x}Mo_6S_8$, anomalous supercond. props., H_{c2}, exchange interaction 2−104553
$Sn_xEu_{y-x}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$SnMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$SnMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$SnMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$SnMo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
$(TMTSF)_2PF_6$, high press. metallic phase, low temp. ESR, evidence for singlet paired supercond. 2−56913
$Th_xPb_{1-x}Mo_6S_8$, supercond. props., effect of actinide component 2−66700
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516
$U_xLa_{1-x}Mo_6S_8$ 2−66700
$U_xPb_{1-x}Mo_{6+y}S_8$, supercond. props., effect of actinide component 2−66700
V_2(Hf,Zr) Laves phase composite superconductors, effect of strain on crit. parameters 2−82552
$V_{90}M_{10}$ (M=Cr, Mn, Nb, Mo, Pd, Ta, W, Re, Pt, Au), supercond. crit. temp. and crit. field meas. 2−92805
V_3Si, for fusion reactor magnets, neutron irrad. defects influence on supercond. props. 2−110550
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
V_3Si, pressure induced electronic changes 2−82513
Zr_3Pd, amorphous, upper critical field and paraconductivity 2−77244

superconducting critical temperature *see superconducting transition temperature*

superconducting devices
see also cryotrons
A15 continuous filamentary superconductors, metallurgy and appls. 2−67263
bolometer, Al+O_2 2−89808
displacement meas., superconducting, sensitivity threshold spectral depend. *(Russian)* 2−53735
EMF standards maintenance and comparison at BIPM 2−112927
emitter, losses caused by radiotransparent cryostat 2−112926
inductor-converter superconductive magnetic energy storage for electric utility usage 2−67895
lens system for electron microscope, high resolution imaging at low magnification *(German)* 2−53899
magnetic monopoles, superconductive detector 2−84932
magnetoresistive transducer, with superconducting control lines, design and response 2−64011
materials development, review 2−66684
neutrino detector using coherent scattering, appl. to low energy solar and cosmic neutrinos 2−78964
precision metrology appl. 2−94937
research activities in China 2−66687
screening-filters for ultralow freq. magnetic field meas. 2−58855
shields, frozen magnetic field for magnetometers testing 2−95413
stabilised oscillator as freq. standard *(German)* 2−69123
superconductive windings cooling by helium in various phase states, calculation fundamentals *(Slovak)* 2−69180
temperature meas., establishment of fixed points below 13.81K using mutual inductance bridges *(Polish)* 2−95377
winding construction and design *(Slovak)* 2−69181
Nb superconducting resonators, characterisation using 10 GHz ultrastable oscillator 2−112923

superconducting energy gap
A15 compounds, supercond., energy gap determ. from heat capacity meas. 2−110532
alloys, with localised excited states in energy gap, strong coupling theory 2−104543
amorphous superconductor, correlation between energy gap and Hall effect *(Chinese)* 2−104519
anisotropic superconductor, crit. temp. derivation 2−61642
anisotropic superconductors with variable density of states, normal impurities effect, generalised BCS theory 2−98795
Chevrel phase cpds., supercond., energy gap determ. from heat capacity meas. 2−110532
diagonally disordered supercond. glass, supercond. transition study *(Russian)* 2−61638
electron-phonon interaction, thermodynamic formulation of supercond. and normal state props. 2−103924
film, nonequilibrium electron and phonon kinetics in intense UHF fields 2−98807
film, phonon-induced nonequilib. states, kinetic eqn. study 2−82519
impure and pure superconductors, transition temp. and gap anisotropy, linearised Eliashberg theory 2−92812
instabilities and inhomogeneous gap states 2−115944
nonequilibrium superconductor, detection of HF phonons from inhomogeneous gap states 2−104544
order parameter anomalies and scatt. processes *(Russian)* 2−66703
SDW state coexistence in anisotropic supercond. energy gap struct. and nonmag. impurity effects calc. 2−87443
small-κ superconductors, energy gap and vortex creation energy 2−72126
small-particle superconductor, Monte Carlo simulation, disorder effects 2−82518
$(TMTSF)_2ClO_4$, one-dimens. fluctuating supercond., energy gap, far IR magnetoabsorpt. study 2−98808
$(TMTSF)_2PF_6$, anisotropic, SDW and supercond. coexistence, energy gap struct. and tunnelling props. calc. 2−87443
$(TMTSF)_2X$ superconductors, props. 2−56802
weak coupling superconductor, critical temp., specific heat 2−104521
weak links, subharmonic energy gap struct. 2−110544
Al supercond., order parameter relax. under microwave irrad. 2−72115
Al superconducting strip, influence of microwaves on order parameter relax. time 2−72114
$Ce_{1-x}Gd_xRu_2$, self induced vortex state, Meissner effect, NMR study 2−87463
Hg, films, electron localisation and superconductivity *(Russian)* 2−72107
Nb Josephson point contact, supercond. energy gap, RF noise enhancement study 2−92829
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
$Nb_3Al(Ge)(Sn)$, supercond. props. study by electron tunnelling 2−110545
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785
Pb-In-Pb-In-Pb double tunnel junction, inhomogeneous gap states 2−82539
Pb-Mn alloy, supercond., with localised excited states in energy gap, strong coupling theory 2−104543
Ta films, amorphous and cryst., tunnelling expts. 2−92827
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800
V_3Si, electron phonon spectral function, supercond. thermodynamic props. 2−104540

superconducting junction devices
bridge, critical current, increase in microwave field *(Russian)* 2−82547
clean SNINS junction, double critical current stimulation *(Russian)* 2−110546
coupled Josephson weak links, resistivity shunted junction model perturbation calc. 2−66721
double-loop DC SQUID, lumped circuit element model 2−98816
driven Josephson junction, dissipative phase transition 2−77239
inductively shunted Josephson tunnel junctions, relax. oscills. 2−92836
Josephson bridges, method for production using hardness tester 2−99615
Josephson contacts, connected soliton states *(Russian)* 2−87456
Josephson effect based voltage unit reproduction, Italian (IEN) participation 2−112929
Josephson interferometers, dense array, stray mag. coupling between neighbouring supercond. memory cells 2−115951
Josephson junction, bifurcations, transition to chaos 2−92834
Josephson junction, current-driven, nonlinear eqns. 2−77237
Josephson junction, nonequilibrium, Josephson current, Harris singularity, model calc. 2−66716
Josephson junction, pair current, periodic modulation 2−92840
Josephson junction, quantum dynamics of tunnelling 2−92835
Josephson junction, resonance cct. model *(Japanese)* 2−87451
Josephson junction, subharmonic freqs. and chaos, theory, parametric amplifier appl. 2−92833
Josephson junction, two-dimens., phase distrib., boundary conditions effect 2−110541
Josephson junction(s), Hamiltonian model, cooperative and chaotic behaviour, free-electron laser analogy 2−110543
Josephson junction devices development *(Japanese)* 2−77235
Josephson junction fluxon oscillators, freq. tuning by mag. field 2−87453
Josephson junction tunnelling, pseudo-angular momentum approach 2−98820
Josephson junctions, chaotic behaviour 2−110538
Josephson junctions, current-driven small-capacitance, thermal voltage fluctuation spectrum 2−98817
Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
Josephson junctions, vortex lines, eqn. of motion 2−82550
Josephson point-contact junction, voltage standard appl. 2−112930
Josephson potentiometers, voltage standard appl. 2−112928
Josephson S-N-S junctions, critical current oscills. *(Russian)* 2−56797
Josephson transmission line, fluxon propagation 2−87460
Josephson tunnel junction with Nb-NbN double-layered electrodes 2−77233
Josephson tunnel junctions, microwave-induced DC quasiparticle tunnelling currents, capacitance meas. 2−82535
Josephson tunnel junctions, soliton dynamics, zero field steps 2−92838
Josephson tunnel junctions, soliton excitations, sine-Gordon model 2−82543

superconducting junction devices continued
Josephson tunnel junctions, stable zero field mode 2−66719
Josephson weak link ring, classical electrodynamic noise 2−84533
microbridge, crit. current hysteresis, theory 2−72119
microconstriction contacts, metallic to tunnelling regime transition 2−82541
MM wave video detect. via photon-assisted tunnelling between two superconductors 2−98815
multiple flux quantum transition, analogue computer simulation, rel. to analytical approach 2−77240
nuclear radiation detector using supercond. tunnel junctions 2−90384
one-point contact interferometer, low temp. behaviour, quantum mech. treatment *(Russian)* 2−66717
planar DC SQUID based on thin-film Josephson microbridges, coherent arrays 2−92837
point contacts, Josephson effect in high voltage limit 2−87458
resistivity shunted Josephson junction, quantum noise meas. 2−98822
resonances in Josephson tunnel junction 2−79611
ring with weak link, supercurrent oscills. *(Chinese)* 2−110535
small Josephson junction, soft-phonon emission from electron-pair tunnelling 2−104546
SQUID, meas. of biomagnetic fields, Helsinki University of Technology, Low Temperature Laboratory 2−89721
SQUID, meas. using magnetoresistive transducer with superconducting control lines 2−64011
SQUID, switching dynamics and rest currents 2−115952
SQUID applications in meas. of weak mag. fields 2−89759
SQUID linear amplifiers, DC, optimisation and quantum noise limit 2−115950
SQUID low freq. noise and parameter fluctuations 2−92824
SQUID mag. susceptometer, appl. to medical diagnostics 2−62713
SQUID magnetometer for meas. of miniature eye movements 2−94218
SQUID magnetometer using Nb thin-film microbridge 2−107352
SQUID magnetometers use for small magnetic moments meas. sample holder 2−95417
SQUID-gradiometers, optical coupling, appl. to biomagnetic meas. *(German)* 2−117152
superconducting filament response delay to supercritical current pulses 2−82540
superconductor and metal point contact, irrad. effect 2−66724
superconductor-insulator-superconductor reflection parametric amplifier 2−98811
superconductor-normal metal-superconductor contact, influence of localisation effects *(Russian)* 2−82538
superconductor-normal-superconductor junctions, crit. current *(Russian)* 2−56788
superconductor-semiconductor-superconductor junction, current-voltage characts. 2−104547
susceptometer for high-accuracy routine operation 2−101429
synchronization effects in a linear array of N Josephson junctions 2−77231
tunnel junction, nonequilib., with inhomogeneous order parameter, impedance *(Russian)* 2−82533
tunnel junctions, inhomogeneous resist. state 2−77236
tunnel junctions, three-port quantum mixer theory 2−82536
weak link, current-biased, fluxoid tunnelling, QED theory 2−72117
weak link, inductively coupled, stationary macroscopic quantum behaviour 2−61665
weak links, subharmonic energy gap struct. 2−110544
Ag-Pd-Ag epitaxial junction, superconductivity 2−82545
Al superconducting film, critical mag. field 2−56800
Al-oxide-Ga thin film tunnel junction, zero bias anomaly, mag. field depend. 2−82546
$BaPb_{0.7}Bi_{0.3}O_3$ films, grain boundary Josephson junction network props. meas. 2−87452
$BaPb_{1-x}Bi_xO_3$, fabrication and supercond. props., boundary layer Josephson junctions appl. 2−82530
In, supercond. bridges, current-voltage characts. 2−115955
In superconducting microbridges, two strongly coupled effects of microwave radiation 2−110542
$Li_{1+x}Ti_{2-x}O_4$, fabrication and supercond. props., boundary layer Josephson junctions appl. 2−82530
Nb integrated DC SQUID gradiometer 2−112932
Nb Josephson junctions weakly coupled array, phase coherence 2−72124
Nb, point contact, crit. current-normal state resist. product meas. 2−56791
Nb/Pb thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
Nb/Pb-In thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
Nb-Nb oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
Nb-Nb oxide-Pb Josephson tunnelling elements in junction microstructs. 2−98819
Nb-Nb_xO_y-Pb Josephson junction, phase distrib., boundary conditions effect 2−110541
Nb-NbO_x-Pb Josephson junctions, high current density, fabrication and props. 2−82532
Nb-NbO_x-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455
Nb-Pb Josephson junction, submicron, electron beam lithographic fabrication and crit. current density meas. 2−56796
Nb-SnO_x-Sn and Nb-Sn, tunnel-and bridge-type Josephson junctions, submm wave response meas. 2−92831
Nb-Te-Nb Josephson MM-wave mixer, characts. and anal. 2−92830
Nb_3Ge microbridges, fabrication and I-V characteristics meas. 2−61663
NbN granular weak links, current-phase relationship inferred from Josephson interferometer characts. 2−82527
NbN-Nb double-layered base-electrode Josephson junctions, single flux quantum memory cells fabric 2−82531
NbN-Nb Josephson tunnel junctions, with sputtered amorphous Si barriers 2−66715
Pb/Bi/Jn oxide-Pb/Bi tunnel junction, quasiparticle mixer and other appls. 2−98812
Pb-Bi film, Josephson junction counterelectrode, strain distrib., X-ray study 2−82179
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
Pb-In-Pb-In-Pb double tunnel junction, inhomogeneous gap states 2−82539
Pb-Zn-Pb junction, Josephson supercurrent oscill. temp. depend. 2−82544

superconducting junction devices continued
Pb-Zn-Pb superconductor-normal-superconductor junction, self-field effects 2−110540
Sn, supercond. bridges, current-voltage characts. 2−115955
Ta-Ta oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
$VO_x/V_3Si/Si$, semiconductor-superconductor-semiconductor, Josephson junction fabrication *(Japanese)* 2−82537

superconducting lenses *see magnetic lenses*

superconducting machines
AC machine windings, multifilament superconductor, energy consumption and performance *(Slovak)* 2−72128
motor, construction, Helsinki University of Technology, Low Temperature Laboratory 2−89721
synchronous/DC, worldwide development review, Polish uses *(Polish)* 2−53775
turbogenerator superconducting windings bonding material requirements and development 2−62097

superconducting magnets
see also superconducting machines
12 T yin-yang magnets design 2−75038
20 MJ induction coil for Tokamak poloidal field system 2−80234
A15 compound, for fusion reactor magnets, ion and neutron damage studies 2−110549
accelerator dipole magnet design 2−113791
acoustic emission triangulation, of disturbances and quenches in superconductor and superconducting magnet 2−56807
acoustic emission triangulation of mechanical disturbances in superconducting magnets 2−69918
Argonne Pulsed Cable Test Facility for the development of superconducting ohmic heating coils 2−85360
C NbTi superconductor for magnets, fusion neutron damage 2−80184
cluster test coil supercond. mag., acoustic emission meas. 2−69896
Cluster Test Facility and Test Module Coil development 2−85364
cooling using superfluid ^{4}He, dynamic quench of NbTi/Cu 2−112906
cryogenic current leads theoretical and engineering design problems, mathematical models and calculation methods *(Slovak)* 2−69182
cryostable low loss cable for 3.8 MJ pulsed supercond. coil 2−75036
cyclotron, neutron therapy appl., RF cavity struct. 2−96340
cyclotron, superconducting magnet model, design 2−96341
EBT-P development supercond. coils 2−85359
EBTR magnet design 2−69912
electromechanical strain measurement 2−69921
European LCT coil, progress report 2−85363
FED, magnetic systems design 2−75027
FED, PF coil replacement considerations 2−80300
FED, poloidal field coil system 2−69967
FED superconducting coils protection system 2−80318
fusion magnets, responses, finite element anal. 2−59529
fusion reactor, radiation resist. of org. insulators and Cu stabilisers in magnet location 2−108118
fusion reactors, engineering feasibility challenges for the magnet community 2−69969
fusion research engineering problems, conf., Chicago, IL, USA (Oct. 1981) 2−63744
glass fibre reinforced epoxy, magnet coil insulating materials, irradiation studies 2−80181
insulators, stabilizers and superconductors, low temp. irradiation effect 2−80182
internally cooled superconducting magnet, extended operating field 2−69909
INTOR, magnet design 2−69983
INTOR, superconducting poloidal field coils 2−80261
ISX-C superconducting Ohmic heating solenoid 2−69915
Japanese LCT and domestic test facility, status 2−85361
Large Coil Program, two-phase ^{4}He quench anal. 2−69910
Large Coil Test Facility pulse coil support and transport system, design features 2−69907
Large Coil test stand structural analysis 2−69905
Large Coil turn heaters, cryogenic voltage withstand and heat transfer tests 2−69906
large-current conductor development for superconducting poloidal coils 2−85365
LCP, USA magnet manufacturers QA and QC 2−69976
lens design for electron microscopes 2−113081
material fabrication technology, review 2−67256
materials, mechanical props. and strain effects, review 2−67469
MFTF magnet, transport and installation, mag. field meas. 2−69970
MFTF-B, A-cell and transition coils, design features 2−85357
MFTF-B, central cell solenoid magnets, design features 2−85356
Mirror Fusion Test Facility magnet system 2−85355
missile generation due to electrical arcing in high field fusion magnets 2−59531
modular stellarator magnet design 2−69913
neutron irradiation effects on alloy superconductors [for fusion reactor magnets] 2−110553
poloidal field coils for Tokamak reactors 2−80233
pool boiling helium heat transfer from two large monolithic copper stabilizers 2−69911
protection, using shunted circular grid for electric arc extinguishing *(Czech)* 2−65777
proton beam induced quench 2−90338
quench source triangulation using acoustic emission 2−69920
radiation resistant magnets, review 2−96356
shorted turns, safety implications in fusion magnets 2−69916
solenoid for NMR at ultra-low temps. 2−58872
solenoids, design optimisation, energy storage appl. 2−88480
stressed structures, stress detection by reson. freq. meas. 2−93687
superconducting ring magnets of the pion therapy facility PIOTRON at the Swiss Institute for Nuclear Research (SIN) 2−117087
Swiss LCT coil cooldown anal. 2−85362
TMX Upgrade magnet set geometry design 2−69971
Tokamak reactors, magnet engineering challenges 2−69917
TOSKA superconducting test facility, instrumentation layout 2−69914
tubular superconductor pulsed dipole magnet with circulating cryostatic system for synchrotrons 2−64076
USA, supercond. magnets for fusion research, problems 2−75034
winding prestrain for circular solenoid for ELMO Bumpy Torus, anal. 2−69922
windings, He vapour induced quench propagation 2−69919

superconducting magnets continued
windings for MHD generators, computational models of potential-field sources 2−93933
Cu stabiliser in supercond. magnet, radiation damage, review 2−80183
Cu, superconducting magnet stabiliser, fusion neutron damage 2−80184
Nb_3Sn, for fusion reactor magnets, displacement cascades, TEM obs. 2−109862
Nb_3Sn forced flow conductor production for Large Coil Program 2−75039
Nb_3Sn Large Coil magnet, Westinghouse manufacturing plan 2−85358
Nb_3Sn, multifilamentary supercond., prod. by external diffusion method 2−75035
Nb_3Sn, neutron damage, changes in critical props. and damage-energy anal. 2−80186
Nb_3Sn superconductor for High Field Test Facility, development and manufacture 2−75037
Nb_3Sn superconductor jacket, forced flow design in Westinghouse Large Coil Program 2−69908
Nb_3Sn-Cu composites for fusion magnets, in-situ development 2−75033
NbTi compacted monolithic conductor, fabrication and performance 2−69925
NbTi superconducting wire for Tokamak toroidal field coil 2−69924

superconducting materials
see also composite superconductors; dirty superconductors; magnetic superconductors; strong-coupling superconductors; superconducting semiconductors; superconducting thin films; type I superconductors; type II superconductors
AC machine windings, multifilament superconductor, energy consumption and performance *(Slovak)* 2−72128
acoustic emission sources in technical superconductors 2−86799
amorphous, review 2−66686
electromagnetic systems for tokamak reactors, engineering problems 2−64639
fabrication technology, review 2−67256
granular superconductors, reentrant phase transition 2−56747
high field, developments in Japan 2−66733
inhomogeneous, dynamic mag. susceptibility freq. depend. meas. 2−56777
intermediate valence compounds, electron-phonon compiling 2−56133
materials development, review 2−66684
materials science, metallurgy, fabrication and applications, conf., Sintra, Portugal (Aug. 1980) 2−63751
mechanical props. and strain effects, review 2−67469
metal and superconductor point contact, irrad. effect 2−66724
metallic film, local phonon density of states and its influence on supercond. props. 2−56321
multifilamentary, for large scale appl., review 2−92817
organic conductors and superconductors, review 2−115734
organic superconductors, review 2−92806
phase diagrams, review 2−67304
physical kinetics, theoretical aspects, book 2−58569
plate, resonant transmission of EM wave *(Russian)* 2−98804
practical materials, review 2−66685
production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
quasiparticle-injected, Bose-Einstein condensation of excitons 2−56768
research activities in China 2−66687
research in the USA 2−66734
review, applications 2−61678
small-κ, energy gap and vortex creation energy 2−72126
$(TMTSeF)_2PF_6$ superconductor, thermal conductivity 2−92822
$(TMTSF)_2ClO_4$, IR props. 2−93186
$(TMTSF)_2ClO_4$, itinerant electron antiferromag. precursor to supercond. 2−116068
$(TMTSF)_2ClO_4$, nonlinear resistivity above supercond. crit. current obs. 2−66732
$(TMTSF)_2ClO_4$, nonlinear threshold phenomena due to SDW transitions 2−92885
$(TMTSF)_2ClO_4$, one-dimens. fluctuating supercond., energy gap, far IR magnetoabsorpt. study 2−98808
$(TMTSF)_2PF_6$ superconductor, X-ray irradiation induced defects 2−92031
$(TMTSF)_2X$, superconducting and insulating phases 2−115738
$(TMTSF)_2X$ series, band struct. and props. 2−92438
$(TMTSF)_2X$ series, phase transitions 2−92589
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF salts, supercond. props., review 2−110522
TMTSF-DMTCNQ superconductor, X-ray irradiation induced defects 2−92031
$(TMTST)_2X$ (X=PF_6, AsF_6, ClO_4, etc.), semimetallic SDW state, Hubbard model 2−115736
$(TMTTF)_2X$ series, phys. props., role of counterion ordering 2−92469
transition metal dichalcogenides and their intercalation cpds., supercond., review *(Japanese)* 2−82517
winding construction and design *(Slovak)* 2−69181
$BaPb_{1-x}Bi_xO_3$, supercond. ceramics, thermodynamic props. 2−92820
$Co_{1-x}Ni_xZr_2$, supercond., anisotropy of normal state props. 2−110324
MoGe, amorphous, EXAFS studies 2−93327
$Nb_{1-x}Mo_x$, supercond. alloys, nuclear acoustic reson. study of electron-lattice interaction 2−56950
Re, single cryst., electron-phonon interaction, point-contact spectroscopy 2−56132
$(SN)_x$, cryst. struct., prep., band struct., Fermi surface and Meissner effect *(Japanese)* 2−82212
Si-SiO_2, MOS inversion layer, stress induced supercond., electron-phonon coupling 2−56702
$^{99}Tc^m$, decay rate, supercond. effect 2−95957
TiB_2, possible room temp. supercond., mechanisms *(Japanese)* 2−72109
Zr, cryst., supercond. and normal state, very low temp. sp. ht. 2−61656
$ZrSe_2$ intercalated with Li, elec. props. 2−66529

superconducting quantum interference devices *see superconducting junction devices*

superconducting semiconductor materials *see superconducting semiconductors*

superconducting semiconductors
PbS, superconductivity, cond. under high press. 2−66702
tribolayers, formed by frictional contact in liq. He 2−62234
$BaPb_{1-x}Bi_xO_3$, cryst. growth from molten KCl solvent and supercond. props. 2−77719
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690

superconducting semiconductors continued
$BaPb_{1-x}Bi_xO_3$, supercond. props., effect of O^{2-} conc. 2−115939
PbTe:Tl, density of states in valence band, sp. ht. and Hall coeff. meas., supercond. 2−82515
PbTe:Tl, doping effect on superconductivity *(Russian)* 2−110525
PbTe:Tl, impurity states and supercond. 2−104308

superconducting thin films
A15 compounds, prep. by electron beam evaporation, superconductivity and phys. props. *(Russian)* 2−66688
charging effect and T_c 2−104527
corrugated film in transverse mag. field, vortex struct., upper crit. field increase, crit. currents *(Russian)* 2−56805
EM wave penetration, anomalous transparency 2−61657
excitonic superconductivity in thin film system *(Japanese)* 2−87441
ferromagnetic, thermal oscillations 2−66710
granular film, superconducting transition, quantum fluctuations and topological transition 2−56767
information flow study 2−68993
inhomogeneous, local transition temps. and crit. currents, optical probing technique 2−61635
inhomogeneous state under nonequilib. conditions 2−72112
localised resistive domains, model *(Russian)* 2−56806
metal films, mol. beam condensed, elec. and supercond. props., review *(Russian)* 2−56726
metallic superlattice superconductivity and magnetism 2−92819
metastable superconducting films, vapour-deposited, review 2−98792
multilayer films, proximity effect 2−77232
narrow, obs. of flux trapping threshold 2−82529
nonequilibrium electron and phonon kinetics in intense UHF fields 2−98807
normal-superconducting multiform struct., electron states calc. *(Chinese)* 2−92825
penetration depth, expt., temp. depend. calc. 2−61650
phonon-induced nonequilib. states, kinetic eqn. study 2−82519
planar DC SQUID based on thin-film Josephson microbridges, coherent arrays 2−92837
quasiparticle and phonon nonlinear dynamics 2−87449
superconducting films, thermodynamic fluctuations of order parameter, review 2−98809
transparency calc. using differential operator describing nonlocal coupling of the current to the field 2−115949
trapped flux, distrib. of pinning force 2−61669
tunnel injected superconductor, phase transitions, kinetic eqn. 2−56794
tunnel junctions, inhomogeneous resist. state 2−77236
tunnel-injected nonequilibrium quasiparticle number density in multiple gap states 2−104534
tunnelling size effect in film with normal coating *(Russian)* 2−56787
two-dimensional superconductors, vortex dynamics 2−110554
vortex phase dielec. const., AC impedance meas. 2−72116
Al film, AC temp. calorimetry at low temp. 2−53762
Al, inhomogeneous current state, vortex lines, C-V characts. study *(Russian)* 2−82549
Al superconducting film, critical mag. field 2−56800
Al, thin narrow film, localisation and superconducting effects *(Russian)* 2−72106
$BaPb_{0.7}Bi_{0.3}O_3$ films, grain boundary Josephson junction network props. meas. 2−87452
$BaPb_{0.75}Bi_{0.25}O_3$ films, grain boundary junctions, max. DC Josephson current, temp. depend. meas. 2−92832
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
$BaPb_{1-x}Bi_xO_3$ superconducting films, RF sputtering prep. 2−83019
$Ba_{0.95}Sr_{0.05}Pb_{0.75}Bi_{0.25}O_3$ superconducting films, RF sputtering prep. 2−83019
Be film, struct., condensation rate effects, supercond. transition temp. *(Russian)* 2−98477
Be, superconducting thin film, transition temp., vapour deposition procedure effects *(Russian)* 2−98782
Bi, superconducting amorphous film, SAW, acoustoelec. attenuation 2−56783
a-Bi:H films, elec. and supercond. props. *(Russian)* 2−82506
$ErRh_4B_4$ film, pair tunnelling meas. 2−87454
Hg, films, electron localisation and superconductivity *(Russian)* 2−72107
In film, discontinuous, supercond. transition temp., resistive meas. 2−92810
In film, overlayered on $SrTiO_{3-x}$, supercond. transition temp. 2−66693
In, localised resistive domains, model verification *(Russian)* 2−56806
In one-dimensional strips, crit. current, temp. depend. 2−104550
$LiTi_2O_4$ supercond. film, prep. and props. 2−115940
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb film, internal friction in vicinity of superconductive transition 2−66707
Nb, nonequilib. state instability, quasi-particle tunnel injection 2−87459
Nb patterned supercond. film, production using trilevel lift-off process 2−93643
Nb:Ar, O_2 supercond. thin films, ion implantation effects on supercond. props. 2−77226
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
Nb-Ge film, DC magnetron sputtering and supercond. props. meas. 2−72097
Nb-Ge films, supercond. and struct. props. rel. to sputtering conditions *(Russian)* 2−104522
Nb-Si, supercond., electron beam evaporated, growth morphology, O_2 effects and substrate temp. 2−110207
Nb_3Al film, sputter deposited on SiO_x, AES anal. 2−92383
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
Nb_3Ge film, EXAFS study, superconducting props. 2−99225
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
Nb_3Ge films, critical mag. field temp. depend. *(Russian)* 2−61673
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
$Nb_3Ge(Si)$, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
NbN films, prep. by magnetron sputtering 2−87977
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113

superconducting thin films continued
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785
NbN, supercond. thin film., ion beam irrad. during deposition transitio n temp. 2−82180
NbN thin film homogeneous supercond., IR transmission, scattering time effects 2−66713
NbN-Nb double-layered base-electrode Josephson junctions, single flux quantum memory cells fabric 2−82531
Nb_3Si, film, production, struct. and Tc 2−110527
Pb, interfaced with Formvar, influence of grain size on T_c 2−115933
Pb, supercond. transition, voltage decompensation 2−87461
Pb superconducting film, behaviour in states far from equilibrium 2−72125
Pb superconducting film, current-carrying, induced by mag. fields, breakdown of supercond. 2−104528
Pb superconducting film under quasiparticle injection, inhomogeneous gap states obs. *(Chinese)* 2−92826
e-Pb-Bi film, alloy evaporation prep. and comp. control 2−105077
e-Pb-Bi film, alloy evaporation prep., film comp. control 2−111077
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
Pb-In-Pb-In-Pb double tunnel junction, inhomogeneous gap states 2−82539
PbInAu film, RF oxidation, oxide composition 2−76858
$PbMo_{6+x}S_{8-y}$ thin film, sputtered supercond., crit. currents and scaling laws 2−61677
$PbMo_6S_8$, Chevrel phase thin films, crit. currents meas. 2−115960
$PbMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
Re film, elec. and supercond. props. 2−115941
Sn, granular superconducting film, vortex mean free path noise meas. 2−104551
Sn, nonequilibrium superconductor, detection of HF phonons from inhomogeneous gap states 2−104544
Sn, paraconductivity, comparison with Maki-Thompson theory 2−98810
Sn superconducting film, current-carrying, induced by mag. fields, breakdown of supercond. 2−104528
$SnMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
Ta films, amorphous and cryst., tunnelling expts. 2−92827
V film, internal friction in vicinity of superconductive transition 2−66707
V_3Si, amorphous supercond. film, crit. temp., thermal annealing effects 2−92801
V_3Si film, far IR laser thermal spectroscopy 2−98805
V_3Si film, magnetron sputtering and supercond. props. 2−77738
V_3Si, film, production, struct. and Tc 2−110527
$Zr_{0.76}Ni_{0.24}$, amorphous, lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779

superconducting transition temperature
A15 compound critical temps., structural factor effects, empirical expression 2−61636
A15 compound for fusion reactor magnets, ion and neutron damage studies 2−110549
A15 superconducting cpds., varying electronic density of states 2−61328
A15 superconductors, atomic disorder rel. to superconductivity 2−56769
alloys, Ginzburg-Landau functional calc. 2−92815
amorphous inhomogeneous alloy, upper critical field and paraconductivity 2−77244
Anderson model, extended periodic, coexistent ferromagnetism and supercond. 2−92811
anisotropic supercond., spin-orbit effects on transition temperature 2−72108
anisotropic superconductor, crit. temp. derivation 2−61642
anisotropic superconductors with variable density of states, normal impurities effect, generalised BCS theory 2−98795
charge density wave superconductors, impurity and fluctuation effects 2−82526
convergence radius calc. of T_c series soln. based on Eliashberg eqn. 2−56746
Coulomb interaction and weak electron-phonon coupling 2−115945
critical temp. λ curve 2−77220
diagonally disordered supercond. glass, supercond. transition study *(Russian)* 2−61638
differential cure of T_c (crit. temp.) with respect of λ (penetration depth) *(Chinese)* 2−98779
dirty, 2-D, localisation effects, transition temp., electron density of states 2−87442
disordered interfaces, supercond. transition temp. enhancement by local tunnelling states 2−87457
disordered systems, metal-insulator and supercond. transitions, polarisation catastrophe, freq. depend. 2−71869
electron-phonon interaction, thermodynamic formulation of supercond. and normal state props. 2−103924
Fermi gas, quasi-one-dimensional phase transitions, renormalisation group study 2−56760
films, inhomogeneous, local transition temps. and crit. currents, optical probing technique 2−61635
first principles calcs. 2−110524
Ginzburg-Landau theory, Ising approx. for supercond. transition temp. 2−115943
granular film, superconducting transition, quantum fluctuations and topological transition 2−56767
granular supercond., charging effects and phase ordering transition, specific heat 2−66699
granular superconductors, reentrant phase transition 2−56747
impure and pure superconductors, transition temp. and gap anisotropy, linearised Eliashberg theory 2−92812
inhomogeneous state under nonequilib. conditions 2−72112
inhomogeneous superconductors, resist. transition, heat capacity transition, upper crit. field 2−110523
Josephson current, in nonsymmetric proximity systems, theory *(German)* 2−61661
Kondo alloys, transition temp., sp. ht., and DC Josephson effect 2−98818
magnetic superconductors, mag. prop. 2−98789
materials for supercond. magnets, mechanical props. and strain effects, review 2−67469
metal films, mol. beam condensed, elec. and supercond. props., review *(Russian)* 2−56726
metallic materials, amorphous, supercond. props. *(Russian)* 2−66695
metallic superlattice superconductivity and magnetism 2−92819

superconducting transition temperature continued
mixed valence impurities effect on supercond. props. 2−61641
multilayer films, proximity effect 2−77232
nitride interstitial phases, thermal and elec. cond. characts. rel. to electron energy spectrum 2−71987
one-dimensional conductors, phase diagram, band filling effect 2−98545
one-dimensional model, sinusoidal mag. field effect 2−110530
PbS, superconductivity, cond. under high press. 2−66702
polymeric superconductors, high temp., synthesis *(Russian)* 2−72110
quasi-one-dimensional superconductors, interchain coupling homogeneous coupling and cross linking 2−56752
rare earth ternary cpds., mag. and supercond. props. 2−115937
(rare-earth)B_2C_2, elec. plrops. 2−87266
SDW state coexistence in anisotropic supercond. energy gap struct. and nonmag. impurity effects calc. 2−87443
series formula coeffs., numerical soln. *(Chinese)* 2−92797
small-particle superconductor, Monte Carlo simulation, disorder effects 2−82518
strongly-coupled superconductors, critical temperature calcs. 2−110528
ternary superconductors, magnetism rel. to supercond. props. 2−110517
thin film, charging effect and T_c 2−104527
thread appearance near screw dislocation in cryst. and electronic current distrib. *(Russian)* 2−66704
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2ClO_4$, deuterated, organic supercond. Meissner anisotropy 2−56776
$(TMTSF)_2ClO_4$, nonlinear effects near superconducting T_c 2−92802
$(TMTSF)_2ClO_4$, organic Π donors, electrochemically grown salts, supercond., synthesis and study 2−56750
$(TMTSF)_2ClO_4$, organic supercond., resistive and mag. susceptibility transitions 2−56754
$(TMTSF)_2ClO_4$, supercond. at zero press. obs. 2−56757
$(TMTSF)_2ClO_4$, supercond. transition in mag. fields 2−56758
$(TMTSF)_2PF_6$, pure and radiation damaged, magnetotransport and nonlinear effects 2−56555
$(TMTSF)_2PF_6$, quasi-one-dimensional superconductors, interchain coupling, homogeneous coupling and cross linking 2−56752
$(TMTSF)_2PF_6$, radiation damage effect on cond. 2−87243
$(TMTSF)_2PF_6$ superconductor, X-ray irradiation induced defects 2−92031
$(TMTSF)_2ReO_4$, press. depend. of metal-insulator transition and supercond. transition 2−56753
$(TMTSF)_2X$ family of organic superconductors, survey of low dimensional phenomena 2−56751
$(TMTSF)_2X$ series, phase transitions 2−92589
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
TMTSF salts, supercond. props., review 2−110522
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
TMTSF-DMTCNQ superconductor, X-ray irradiation induced defects 2−92031
$(TMTTF)_2X$ family of organic charge transfer salts, supercond. obs. 2−56756
transition metal carbides and nitrides, Tc, charge transfer model 2−72095
transition metals and alloys, omega phase formation, effect on mech. props. 2−77806
transition metals and intermetallic cpds., electron-phonon coupling parameter, theoretical determs. 2−104269
transiton metal narrow band alloys, supercond. transition temp. 2−77222
tunnel injected superconductor, phase transitions, kinetic eqn. 2−56794
tunnel junctions, tunnelling, pair field susceptibility 2−98821
two-dimensional superconductors, vortex dynamics 2−110554
two-dimensional system, Anderson localization and supercond. transition temp. 2−61644
weak coupling superconductor, critical temp., specific heat 2−104521
Ag-Pd-Ag epitaxial junction, superconductivity 2−82545
AgGa, Coulomb pseudopotential from normal-state resistivity and T_c 2−98790
Al film, AC temp. calorimetry at low temp. 2−53762
Al, granular, mag. susceptibility meas., grain clustering near T_c 2−61651
Al, impurity scatt. time, critical current density 2−82548
Al, thin narrow film, localisation and superconducting effects *(Russian)* 2−72106
Al-Si-Ge, amorphous, superconducting transition *(Chinese)* 2−104520
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
Au, search for supercond. at ultralow temps. 2−87438
Au/Cr/Au epitaxial metal film sandwiches, supercond. transition temp. 2−87440
Au-In, supercond,. study at ultralow temps. 2−87438
AuAl, Z 2−98790
Ba, pressure induced superconductivity 2−56764
$Ba(Pb, Bi)O_3$, ceramic supercond., transition temp., prep. conditions 2−82509
$BaPb_{1-x}Bi_xO_3$, cryst. growth from molten KCl solvent and supercond. props. 2−77719
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
$BaPb_{1-x}Bi_xO_3$ superconducting films, RF sputtering prep. 2−83019
$BaPb_{1-x}Bi_xO_3$, superconductivity, electronic and cryst. struct. effects 2−115938
$BaPb_{1-x}Bi_xO_3$, supercond. props., effect of O^{2-} conc. 2−115939
$BaPbO_3$-$BaBiO_3$ system, Hall EMF, elec. cond., and supercond., 2.5 to 300K 2−61645
$Ba_{0.95}Sr_{0.05}Pb_{0.75}Bi_{0.25}O_3$ superconducting films, RF sputtering prep. 2−83019
Be film, struct., condensation rate effects, supercond. transition temp. *(Russian)* 2−98477
Be, superconducting thin film, transition temp., vapour deposition procedure effects *(Russian)* 2−98782
a-Bi:H films, elec. and supercond. props. *(Russian)* 2−82506
$C_8KH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
C_4KHg (RbHg), intercalate, superconductivity study 2−82512
$C_8KHg(RbHg)$, intercalate, superconductivity study 2−82512
$CdMo_6S_8$, supercond crit. props., depend on hexagonal cell vol. 2−61643
CdS, high-temp. superconductivity, transition temp. calcs. 2−87436
$CeCu_2Si_2$, high press. superconducting transition *(Russian)* 2−82511
$CeCu_2Si_2$, superconductivity 2−66691
superconducting transition temperature continued
Co-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$Co_xMo_6S_8$, low temp. props. 2−66689
Cu-Pb, microstruct., mech., elec., and mag. props., depend on synthesis conditions 2−56748
Cu-V-Si superconducting filament produced by glass-coated melt spinning 2−83066
$Cu_xMo_6S_8$, low temp. props. 2−66689
$Cu_{1.8}Mo_6S_{8-y}Se_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$Cu_{1.8}Mo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$Cu_{1.8}Mo_6S_{8-y}Te_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$Eu_{1.2}Mo_6$ $(S_{1-x}Se_x)_8$, press.-induced non-bulk supercond. 2−110521
$Eu_xMo_6S_8$, superconductivity, thermoelectric power, Fermi surface 2−82510
$Fe_xSnMo_6S_8$, influence of press. on T_c *(Russian)* 2−56763
$Gd(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
H, metallic, interatomic pot. appl., density functional theory 2−76946
Hf-Nb-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
Hf-V-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
Hg filaments in chrysotile-asbestos matrix, heat capacity near supercond. transition 2−66254
Hg, films, electron localisation and superconductivity *(Russian)* 2−72107
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
$Ho_xLu_{1-x}Rh_4B_4$, superconductivity and mag. props., μSR meas. 2−72101
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
In filaments in chrysotile-asbestos matrix, heat capacity near supercond. transition 2−66254
In film, overlayered on $SrTiO_{3-x}$, supercond. transition temp. 2−66693
In-Ga, FCT struct., supercond. transition temp., resistive meas. 2−56749
In-Mn, ion beam induced precipitate dissolution, characterisation by supercond. transition temp. meas. 2−86740
In-Mn alloys, dil., supercond., T_c depression produced by ion implantation 2−77221
$In_xMo_6S_8$, low temp. props. 2−66689
$KTi_{1.5}C_x$ (x=4, 8), intercalation cpd., supercond. transition temp. and crit. field 2−92844
$La_{100-x}Al_x$, amorphous, supercond. transition temp. press. depend. 2−115932
LaB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
$La_{1-x-y}Ce_xY_y$ system, multiple supercond. transition temps. 2−98788
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$LaFe_4P_4$, superconductivity and mag. props., Mossbauer study 2−72102
$La_{3-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
LaIrSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
$La_{1-x}Pr_x$, intermediate valence materials, press. expts. 2−56502
LaRhSi, cryst. struct., supercond. transition temp., mag. props. 2−65969
LaS_x, elec. cond. study 2−82363
LaS_x, heat capacity in superconducting and normal states 2−82521
$LiTi_2O_4$ supercond. film, prep. and props. 2−115940
Mo-Zr-C, cubic solid soln., prep. and props. 2−71395
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb film, internal friction in vicinity of superconductive transition 2−66707
Nb mag. props. near T_c *(Russian)* 2−61652
Nb, thermoelastic effect in acoustic loss at supercond. transition 2−104542
Nb:Ar, O_2 supercond. thin films, ion implantation effects on supercond. props. 2−77226
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Cu superlattice, supercond. transition temp., proximity theory, density of states 2−66701
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
Nb-Ga high T_c supercond. wires, prep. by heating and quenching in liq. He 2−77770
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-Ge film, DC magnetron sputtering and supercond. props. meas. 2−72097
Nb-Ge films, supercond. and struct. props. rel. to sputtering conditions *(Russian)* 2−104522
Nb-Ge sputtered films, supercond. transition temp., nonuniformity within film 2−92800
Nb_3Al, A15 type phase, supercond., at. ordering, and stoichiometry 2−61637
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
$Nb_3(Al_{1-x}Ge_x)$, A15 superconductor, prep. from transformation from liq. quenched BCC phase 2−98777
Nb_3As(A-15), supercond. transition temp. and upper critical field 2−82507
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
Nb_3Ge film, EXAFS study, superconducting props. 2−99225
Nb_3Ge film, supercond., conc. depend. of Tc 2−92809
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
Nb_3Ge superconductor, neutron radiation damage 2−80185
$Nb_3Ge(Si)$, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
$Nb_{4.95}Ir_{2.2}O_{1.35}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113
NbN, supercond. thin film., ion beam irrad. during deposition transitio n temp. 2−82180
NbN_x, reactive synthesis by pulse laser annealing, X-ray, AES and supercond. study 2−72642
NbN(C), single cryst., prep. and supercond. props. *(Japanese)* 2−92808

superconducting transition temperature continued
$Nb_3Pt(Al)$, neutron irrad., normal-state resistivity anal. 2−56550
$Nb_{5.04}Pt_{2.97}O_{1.08}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
$NbSe_2$ (2H) and 2H-$NbSe_2(TCNQ)_{0.05}$, upper crit. field anisotropy and supercond. crit. field *(Russian)* 2−56801
$NbSe_2$, anomalous flux entry 2−87462
$NbSe_3$, transport props. rel. to CDW form. 2−115739
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Si and Nb_7Si, α-particle irrad. effects on supercond. and struct. props. 2−98167
Nb_3Si, film, production, struct. and Tc 2−110527
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Nb_3Sn, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
Nb_3Sn, surface impedance, critical temp. 2−98796
Nb_3Sn-Ti, composite processed, Ti addition effect on supercond. props. 2−104555
Nb_3SnH_x, heat capacity, supercond. transition temp. electron phonon interaction, H content effects, expt. study 2−56206
NbTi, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
$Ni_xMo_6S_8$, low temp. props. 2−66689
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Pb, modulus defect and amplitude dependent damping, normal-supercond. transition effect 2−55978
Pb superconducting film, interfaced with Formvar, influence of grain size on T_c 2−115933
Pb ternary alloys, supercond. props., influence of US treatment 2−82514
Pb-Zn-Pb junction, Josephson supercurrent oscill. temp. depend. 2−82544
$PbMo_{6\pm x}S_{8-y}$ thin film, sputtered supercond., crit. currents and scaling laws 2−61677
$PbMo_6S_8$, superconducting props. 2−66697
$Pb_{1.2}Mo_{6.4}S_8$, superconducting critical parameters *(Russian)* 2−61646
$Pb_xMo_6S_8$, low temp. props. 2−66689
$PbMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
PbTe:Tl, density of states in valence band, sp. ht. and Hall coeff. meas., supercond. 2−82515
PbTe:Tl, doping effect on superconductivity *(Russian)* 2−110525
Pd-Ag, search for superconductivity 2−77223
$(Pd_{1-x}M_x)H$, M=Cr, Mn, Fe, mag. and supercond. ordering 2−98845
Re film, elec. and supercond. props. 2−115941
Re-Si, phase diagram and supercond. transition temp., expt. study 2−98784
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$ScRe_2$, density of states and supercond., low temp. sp. hts. 2−61640
$ScTc_2$, density of states and supercond., low temp. sp. hts. 2−61640
Si-SiO_2, MOS inversion layer, stress induced supercond., electron-phonon coupling 2−56702
Sn, granular superconducting film, vortex mean free path noise meas. 2−104551
Sn-Xe frozen mixtures, normal state cond. and supercond. props. 2−92798
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−72100
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−77224
$Sn_xEu_{y-x}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$(Sn_{1-x}Eu_x)_{1.2}Mo_6Se_8$, superconductivity, press. effect 2−104531
$SnMo_6S_8$, Chevrel phase, stoichiometry, rel. to supercond. props. 2−66242
$Sn_xMo_6S_8$, low temp. props. 2−66689
$SnMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$SnRh_4Sn_{12}$ R, (R=rare earth), supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
Sr, pressure induced superconductivity 2−56764
$(TMTSF)_X$ family of organic charge transfer salts, supercond. obs. 2−56756
Ta films, amorphous and cryst., tunnelling expts. 2−92827
TaC, single cryst., prep. and supercond. props. *(Japanese)* 2−92808
TaS_2-2H, intercalation cpd. with NaOH, supercond. transition temp. and charge transfer 2−92804
$TaSe_3$, cryst. struct., superconducting props. 2−60954
Tc_xRe_{1-x}, isoelectronic HCP, supercond. transition temp. 2−56761
$Th(Ir,Os)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
$Th(Ir,Ru)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
$Th_xPb_{1-x}Mo_6S_8$, supercond. props., effect of actinide component 2−66700
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
$TiBe_2$, possibility of p-state superconductivity 2−104524
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
TiN_x, low temp. specific heat 2−82520
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516
$Ti_{80}Pd_{20}$ amorphous superconductor, T_c study 2−72096
U, martensitic transform. effect on supercond. 2−110526
α-U, superconducting transition temp., martensitic transformations, domain form. 2−98791
$U_xLa_{1-x}Mo_6S_8$ 2−66700
$U_xPb_{1-x}Mo_{6+y}S_8$, supercond. props., effect of actinide component 2−66700
V film, internal friction in vicinity of superconductive transition 2−66707
V, mechanical twinning effect on T_K *(Russian)* 2−98781
V-Ta, superconducting Tc, specific heat calcs. 2−115935
$V_2(Hf,Zr)$ Laves phase composite superconductors, effect of strain on crit. parameters 2−82552
$V_{90}M_{10}$ (M=Cr, Mn, Nb, Mo, Pd, Ta, W, Re, Pt, Au), supercond. crit. temp. and crit. field meas. 2−92805
$VO_x/V_3Si/Si$, semiconductor-superconductor-semiconductor, Josephson junction fabrication *(Japanese)* 2−82537
V_3Si, amorphous supercond. film, crit. temp., thermal annealing effects 2−92801
V_3Si film, magnetron sputtering and supercond. props. 2−77738
V_3Si, film, production, struct. and Tc 2−110527
V_3Si, for fusion reactor magnets, neutron irrad. defects influence on supercond. props. 2−110550
V_3Si, neutron irrad., normal-state resistivity anal. 2−56550
superconducting transition temperature continued
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2−86736
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
V_3Si, pressure induced electronic changes 2−82513
V_3Si, supercond., produced by pulsed laser annealing 2−56766
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
YB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2−104590
$Y(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
Zn, plastic deform., supercond. transition effect *(Russian)* 2−116503
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
Zr-Co, melt spun alloys, struct. and supercond. props., X-ray diffr. study 2−87437
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526
Zr_3Pd, amorphous, upper critical field and paraconductivity 2−77244
$Zr_3Pd(Rh)$ amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

superconductive tunnelling
see also Josephson effect; proximity effect; superconducting junction devices; tunnelling spectra; tunnelling spectroscopy
A15 superconductors, tunnelling, McMillan inversion of Eliashberg's equations 2−56792
charge imbalance, voltage, taking approx. charge neutrality into account 2−56770
diagonally disordered supercond. glass, supercond. transition study *(Russian)* 2−61638
disordered interfaces, supercond. transition temp. enhancement by local tunnelling states 2−87457
electron-tunnelling spectroscopy, locality of information, impurity disorder effect on phonon spectra 2−66720
ferromagnetic, superconductor, Josephson currents 2−110547
granular superconductors, resistivity minima origin 2−56772
inhomogeneous state under nonequilib. conditions 2−72112
inversion of tunneling characteristics in superconductors with spin fluctuations 2−61668
Josephson junction, quantum tunneling and zero-point motion limit of noise fluctuations 2−61666
Josephson junction tunnelling, pseudo-angular momentum approach 2−98820
Josephson short tunnel junctions, low-freq. cavity mode excitation 2−56798
Josephson tunnel junction with Nb-NbN double-layered electrodes 2−77233
macroscopic quantum tunnelling, in a system with dissipation *(Russian)* 2−98814
metastable superconducting films, vapour-deposited, review 2−98792
microconstriction contacts, metallic to tunnelling regime transition 2−82541
MM wave video detect. via photon-assisted tunnelling between two superconductors 2−98815
non-equilibrium superconductors, fluctuation induced cond. near supercond. transition 2−66714
nonequilibrium superconductor, detection of HF phonons from inhomogeneous gap states 2−104544
normal metal tunnel junction phenomena, stationary state model 2−110492
normal metal-superconductor bilayer, heat capacity and density of states 2−82542
normal-superconductor interface, elec. cond. and charge carrier lateral focusing *(Russian)* 2−66718
pair breaking and charge relaxation in superconductors 2−61649
quasi-one-dimensional superconductors, interchain coupling homogeneous coupling and cross linking 2−56752
small Josephson junction, soft-phonon emission from electron-pair tunnelling 2−104546
superconductor-semiconductor-superconductor junction, current-voltage characts. 2−104547
thin film with normal coating, tunnelling size effect *(Russian)* 2−56787
$(TMTSF)_2ClO_4$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2PF_6$, anisotropic, SDW and supercond. coexistence, energy gap struct. and tunnelling props. calc. 2−87443
$(TMTSF)_2PF_6$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2X$ family of organic superconductors, survey of low dimensional phenomena 2−56751
$(TMTSF)_2X$ superconductors, props. 2−56802
TMTSF salts, supercond. props., review 2−110522
tunnel injected superconductor, phase transitions, kinetic eqn. 2−56794
tunnel junctions, tunnelling, pair field susceptibility 2−98821
tunnel-injected nonequilibrium quasiparticle number density in multiple gap states 2−104534
Al superconducting film, critical mag. field 2−56800
Al-amorphous Si-Ni(Au) struct., tunnelling characteristics meas. 2−66657
Al-oxide-Ga thin film tunnel junction, zero bias anomaly, mag. field depend. 2−82546
Al-Sn(Ag), preparation of tunnel junctions 2−77234
Au-Al_2O_3-Al tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
In-Cr dilute superconducting alloy, tunnelling, localised excited states 2−72122
Nb film, nonequilib. state instability, quasi-particle tunnel injection 2−87459
Nb MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Nb, superconductivity, paramagnon suppression, tunnelling estimates 2−61667

superconductive tunnelling continued
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
Nb-Nb oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
$Nb_3Al(Ge)(Sn)$, supercond. props. study by electron tunnelling 2−110545
Pb superconducting film under quasiparticle injection, inhomogeneous gap states obs. *(Chinese)* 2−92826
Pb-In-Pb-In-Pb double tunnel junction, inhomogeneous gap states 2−82539
Pb-Mn alloy, supercond., with localised excited states in energy gap, strong coupling theory 2−104543
Pd-Zr, amorphous, US absorpt. and dispersion 2−56784
Sn, supercond. tunnel junctions phonon spectrum emitted 2−56106
Ta films, amorphous and cryst., tunnelling expts. 2−92827
Ta MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Ta-Ta oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
V, supercond. tunnelling, Eliashberg function, paramagnon spin fluctuations 2−66722
V, superconductivity, paramagnon suppression, tunnelling estimates 2−61667

superconductivity
see also BCS theory; coherence length; composite superconductors; Cooper pairs; critical currents; dirty superconductors; fluctuations in superconductors; Ginzburg-Landau theory; magnetic superconductors; Meissner effect; penetration depth (superconductivity); strong-coupling superconductors; superconducting critical field; superconducting devices; superconducting energy gap; superconducting materials; superconducting transition temperature; superconductive tunnelling; type I superconductors; type II superconductors
adsorbed two-dimensional incommensurate solids, one-harmonic structures 2−82143
amorphous inhomogeneous alloy, upper critical field and paraconductivity 2−77244
atomic, molecular and solid state theory, and computational quantum chemistry, conference, Flagler Beach, FL, USA (March 1981) 2−79267
bipolaron in one- and two-dimens. system 2−104270
charge density wave superconductors, impurity and fluctuation effects 2−82526
charge imbalance, voltage, taking approx. charge neutrality into account 2−56770
condensate, invariant system, macroscopic wave function 2−115942
correlated Cooper pairs, Green function eqns. 2−92816
disordered superconductors, random contact model 2−77222
dynamical group SO(6), coexistence with charge density waves 2−92814
electroweak gauge boson effects in superconductors, P violation, neutral currents 2−59079
EM wave, resonant transmission through plate *(Russian)* 2−98804
excitonic superconductivity along dislocations 2−92813
excitonic superconductivity in thin film system *(Japanese)* 2−87441
excitonic superconductor design, BCS theory 2−87444
granular supercond., charging effects and phase ordering transition, specific heat 2−66699
granular superconductors, resistivity minima origin 2−56772
graphite intercalation compounds, low dimensional conductor, review of phys. props. *(Japanese)* 2−82202
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
impure superconductors, crit. behaviour in 4-ε dimensions 2−92823
intercalation compounds, conf., Triest, Italy (July 1981) 2−74165
intermediate layer, surface superconductivity 2−104523
ion core mechanism for existence, numerical calc. 2−66692
Josephson junctions, phase locking 2−92839
large-scale applications in the USA 2−66735
longitudinal collective mode excitation, dielec. response functions 2−98806
low dimensional conductors, irradiation effects and role of disorder, review 2−87233
magnetic superconductors, mag. prop. 2−98789
magnetically doped, nuclear spin relax., ultrasonic attenuation 2−87450
magnetisation of cylinders in perpendicularly applied mag. fields 2−66709
magnetoelasticity of superconductors 2−82522
many-particle physics in solid state theory, book 2−68981
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
metal superconductive superlattices, critical prop. singularities 2−104530
metallic hydrides, electron-phonon coupling parameter rel. to occurrence of supercond. 2−66462
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
monodisperse superconducting granule suspension, superconductivity simulation 2−104532
non-equilibrium superconductors, fluctuation induced cond. near supercond. transition 2−66714
nuclear refrigeration, limitations for ultralow temp. achievement 2−107331
one-dimensional conductors, radiation effects on cond., review 2−71496
one-dimensional metals, superconducting and insulating phases 2−115738
phase electron topological transition, pecularities of superconductor order parameter *(Russian)* 2−98793
phase-slip centres, current-induced relax. of charge imbalance 2−61659
polymeric superconductors, high temp., synthesis *(Russian)* 2−72110
random resistor-diode networks, elec. cond. and supercond. 2−82307
research activities in China 2−66687
rotating superconductors, relativistic mass correction 2−98794
small-particle superconductor, Monte Carlo simulation, disorder effects 2−82518
sound, propagation, transverse shortwave, nonlinear effects *(Russian)* 2−56786
supercritical current pulses response 2−56771
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
system kinetics in strong alternating fields, semiconductor electron gas, electron Cooper pairs 2−56773
thermoelectric current in a superconducting circuit 2−98797
thermoelectric effects, review 2−115946
transition metal dichalcogenides and their intercalation cpds., supercond., review *(Japanese)* 2−82517

superconductivity continued
transition metal trichalcogenides supercond., CDW's and related phenomena, review *(Japanese)* 2−82256
tunnel-injected nonequilibrium quasiparticle number density in multiple gap states 2−104534
two-liquid model, nonlocal coupling inclusion between current and field 2−82523
vortex line pinning to small defects 2−87464
Z-γ mixing in superconductors, P-violation from Josephson effect 2−59080
$EuMo_6S_8$, impurity phase supercond. under press., magnetisation meas. 2−92807
^{3}He-A, rotating, vortex lines, analytic and singular, order parameters and energies 2−56289
$Hg_{8-\delta}AsF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
$Hg_{3-\delta}SbF_6$, one-dimensional cond., phys. props., review *(Japanese)* 2−82334
$KTaO_3$, search for supercond., 0.01 to 4K 2−98787
Pd-Fe, dil., thin film, AC susceptibility, ion irrad. effects, rel. to supercond. 2−56828

superconductors *see superconducting materials; superconductivity*

supercooling
abietic acid, supercooled, dielec. relax., viscosity and DC cond. meas. 2−57016
anorthite-gehlenite system, crystn. of glass-forming melts 2−71371
classical supercooled liquid, velocity correlation spectrum 2−91744
crystal melt supercooling by faceting the phase boundary during pulling 2−115161
dynamics of supercooled fluids 2−109958
ethanol, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
ethanol-water, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
gas permeability of powders solidified at high and ultrahigh cooling rates 2−67235
hard-sphere fluid, nucleation, activation energy 2−61115
hydrazine, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
III-V compounds, stability in quaternary liq. phase, thermodynamic anal. 2−71617
laser annealing expt., mol. dynamics simulation 2−109828
liquid, nondispersive relax. processes 2−115148
liquid, unstable state onset time, Suzuki scaling method calcs. 2−103953
liquid phase electroepitaxy, interface stability enhancement, theoretical anal. 2−72636
metallic glasses, crystalline embryo model 2−97927
nematic liquid crystal mixtures, pretransitional effects 2−76676
steel, austenite precipitation, supercooled, after forced austenitization, kinetics *(Russian)* 2−93516
steel, supercooled austenite, decomp. products morphology changes during continuous cooling, HTTMT influence 2−105159
o-terphenyl, supercooled, positron annihilation 2−76504
water, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al alloys, ternary and quaternary, solidification, estimate of interdendritic undercooling 2−111163
$Ca(NO_3)_2$, crystal growth from conc. aq. soln. 2−55869
$Ca(NO_3)_2.4DMSO$, cryst. growth rate from melt, cryst. morphology 2−111053
D_2O, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
Fe-FeSi, liquid hypoeutectic alloy, solidification, obs. by droplet method 2−67309
Fe-Si (5 wt.%) alloy, supercooled ingots, cryst. struct. features 2−67318
Fe-Si-C, melts, crystn. of primary graphite 2−72687
H_2O, mol. vibr., H bond enthalpy, Raman obs. 2−110839
H_2O supercooled droplets, reorientation during freezing on ice substrates 2−92162
Hg, type I superconductor, supercooled and superheated metastable phases, average lifetime meas. *(Russian)* 2−115957
$MgSO_4.7H_2O$, contact nucleation at low impact energy levels 2−76334
NH_4Br dendritic crystal growth in capillary, quantitative meas. on morphology 2−98506
Ni alloy, molten particles impinging on water-cooled Cu plate, cooling rate calc. 2−67252
Pb, type I superconductor *(Russian)* 2−115957
PbTe, cryst. growth from soln. by travelling heater method, gravitation effects 2−111045
PbTe epilayers, LPE growth from supercooled solns., improved morphology 2−110192
PbTe, heterogeneous nucleation, statistical thermal anal. 2−65892
Si:In, ion implanted, laser annealed, convection and constitutional supercooling cells 2−66054

superexchange interactions
alkane diammonium copper halides, layered, superexchange interaction 2−98869
dielectric containing mag. ions, superexchange four-particle mech. 2−61705
garnet ion implanted bubble films, CEMS characterisation 2−72387
iron sulphides, mixed-valence compounds, valence meas. using Mossbauer ^{57}Fe isomer shift 2−61798
rare earth orthoferrites, $RFeO_3$, local and exchange field inhomogeneity, NMR study 2−87209
spin-orbit interaction in superexchange with orbital degeneracy, effective tensor Hamiltonian for chain SU2—O* 2−56531
Co-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
$Cs_7FeCl_8.H_2O$, Heisenberg antiferromag., sp. ht. and mag. susceptibility, 1 to 30K 2−104630
Fe-based amorphous alloys and intermetallic compounds, mag. props., prep. method effects 2−115982
α-$(Fe_{1-c}Al_c)_2O_3$, Mossbauer study 2−87637
$Fe_{1-x}Cr_xBO_3$, ferrimagnet, Mossbauer study 2−72381
$Fe_xCu_{1-x}Rh_2Se_4$, magnetic and crystallographic props. 2−92860
$Lu_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923

superexchange interactions continued
NiO mag. and lattice mechanical props. 2−92890
$Tm_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
$Y_3Fe_{5-x}Ga_xO_{12}$, mag. ordering influence on lattice reflection spectra *(Russian)* 2−72467
$Yb_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
$(Zn)_x(Ni)_{1-x}Fe_2O_4$, Mossbauer spectra, mag. props. 2−77439

superfluid helium-3
A_1 phase, supercurrents 2−61236
A-phase, boundary effects on helical textures 2−110076
A-phase, canonical equation of quantum solution taking into account the orbital and spin hydrodynamics *(Chinese)* 2−110075
A-phase, large mag. perturbation and solitons 2−104101
A-phase, sound attenuation well below T_c, anomalous behaviour at low press. 2−110077
B-phase, acoustic order parameter mode spectroscopy 2−110080
B-phase, collective modes, in weak mag. field, Fermi liquid corrections 2−82058
B-phase, correlated Cooper pairs, Green function eqns. 2−92816
B-phase, current-current autocorrelation function rel. to stability conditions, effect of additional f-wave interaction 2−56285
B-phase, flow dissipation 2−104100
B-phase, flow through narrow channels 2−66314
B-phase, magnetisation nonlinear motion, spin relax. effect in pulsed NMR config. 2−61237
B-phase, shear viscosity, Landau parameters effect 2−104098
B-phase, texture in large cylindrical geometry near T_c, NMR study 2−71756
B-phase, transitions between sublevels of J=2 collective mode 2−56291
B-phase ground state, derivation from Green functions for Cooper pairs *(Russian)* 2−56287
broken relative symm. and hydrodynamics 2−110082
dynamics at low press. *(Russian)* 2−86970
Fermi liq. theory, review 2−110078
film, superfluidity and Bose excitations 2−56290
heat capacity meas. 2−110081
many-particle physics in solid state theory, book 2−68981
melting curve thermometry 2−58823
multiple spin echoes 2−98375
negative ions mobility 2−56286
nonlinear spin relax. *(Russian)* 2−71757
nuclear magnetism, order and disorder, book 2−63759
oscillating superleak transducer of second sound 2−86965
physics near 0K, review 2−107330
properties and early history 2−53452
rotating, equilib. order parameters and chem. pots. 2−71759
rotating, equilib. order parameters and chem. pots. 2−71760
rotating, NMR study, vorticity 2−86969
rotating, NMR study *(Russian)* 2−82060
second sound vel. and attenuation meas. 2−110079
separable interactions, Landau expansion extrema, phase diagram, weak coupling limit 2−82057
spin-spin relax. 2−98376
violation of T-invariance in NMR *(Russian)* 2−82061
^{3}He-^{4}He, properties and early history 2−53452
^{3}He-A, rotating, vortex lines, analytic and singular, order parameters and energies 2−56289

superfluid helium-4
acoustic streaming velocity meas. 2−110062
adsorbed film, density profile calc. 2−104109
adsorbed film on graphite substrate, superfluid transition, colorimetric study rel. to third sound meas. 2−104108
adsorbed on SiO_2, isotherm, US attenuation phonon echo meas. 2−104107
adsorbed stabilised atomic H, surface spin relax. 2−104116
counterflowing, induced vorticity fluctuations 2−82049
critical dynamics at superfluid phase transition *(German)* 2−71746
critical dynamics near lambda transition, nonlinear renormalisation group anal. 2−110069
critical phenomena 2−110066
dual lambda transition during transient heat transfer, dynamic quench of NbTi/Cu 2−112906
electrostriction theory 2−71752
film, adsorbed on pyrolytic graphite, third-sound vel. and superfluid onset 2−61242
film, Korteweg-de Vries solitons 2−71762
film, temp. gradient in presence of superflow 2−115486
film, third sound and thermal cond. 2−56279
film, two dimens. electron system, electron dimples-vortex pair interactions, theoretical anal. 2−61247
film, US method for superfluidity studies 2−61227
film, with layer of spin polarised H, third sound 2−82077
film with adsorbed spin polarised atomic H, spin relax. 2−82067
film-vapour interface, local equilib. condition 2−98364
films, superfluid transition, SAW and phonon echo study 2−61243
films, vortices, finite freq. nonlinear effects, Debye-Huckel approx. 2−66313
first-sound subharmonic generation, bifurcation universality 2−56281
free particle dynamics of negative ions in the mechanical vacuum of He II 2−86963
group representations, spectrum of states 2−98370
heat-exchange drag, low-Reynolds number 2−61228
hydrodynamic analogy of Gunn effect *(Russian)* 2−71749
ion-vortex ring transition quenching 2−82050
Josephson interferometer, interference and inertia 2−71750
lambda transition in narrow gaps *(Russian)* 2−82053
Landau theory, possible verification 2−66312
momentum distribution and condensate fraction, neutron scatt. determ. 2−98367
negative charge transfer, effective mass 2−86964
neutron-roton scattering *(Russian)* 2−98372
non-dissipative equations of motion, derivation using generalised continuum mech. 2−110074
nonasymptotic critical dynamics of the asymmetric-spin model in two-loop order 2−86962
nonlinear hydrodynamics and one fluid theory 2−82048
oscillating superleak transducer of second sound 2−86965
quantised vortex lines, photographic studies 2−61229

superfluid helium-4 continued
rotating, mutual friction, freq. depend. 2−104096
rotating, Tkachenko waves 2−104093
roton liquid theory 2−110063
sound velocity of 2D and 3D liq. He II 2−98363
steady flow in presence of heat current 2−76762
stratification, nonlinear excitations, from Gross-Pitaevskii eqn. 2−98366
structure factor, linear integral eqn. 2−92300
subcooled, time depend. heat transport 2−115483
superfluid-solid interface, roughening transition 2−82071
surface phenomena, adsorption and atom scatt. 2−110068
surface state electrons escape rate below 1K 2−61226
thin films, vortex dynamics 2−56282
turbulence, transient effects 2−76763
turbulence and cooling effect in adiabatic flow 2−115484
turbulence free decay 2−82051
turbulence generation, dynamical rules 2−98368
turbulent counterflow temp. gradient uniformity 2−71751
turbulent superfluid-multiplicative noise in Vinen eqn. 2−82052
two-particle excitations, rel. to loss of spatial order at T_λ 2−110072
unsaturated film, vortex pinning 2−56295
US velocity meas. 2−114486
vortex line struct. near λ point *(Russian)* 2−61234
vortex lines and vortex arrays, normal oscill. modes 2−110070
vortex motion near solid boundary protuberance *(Russian)* 2−56278
vortex photography study of quantised vortex lines 2−110067
XY model, three-dimens., collective modes, rel. to quantum lattice 2−110058
$CuK_2(SO_4)_2.6H_2O/^4$He, phonon bottleneck, thermal resist. meas. 2−76760
^{3}He-^{4}He, properties and early history 2−53452
^{4}He-quartz interface, anomalous Kapitza cond. saturation 2−110073
$(^4He)_4$, Faddeev-Yakubovsky theory appl. 2−98369

superfluidity
see also quantum fluids; superfluid helium-3; superfluid helium-4; vortices
exciton systems, superfluidity 2−110254
film, vortex-boundary interactions 2−82066
many-particle physics in solid state theory, book 2−68981
mixture, dissipative hydrodynamic eqns. *(Russian)* 2−66317
neutron star rheology, crust superfluid vortex line pinning 2−58378
nuclear refrigeration, limitations for ultralow temp. achievement 2−107331
relativistic neutral superfluid, exact soln., of Einstein eqns. 2−76775
restricted geometry, spherical model 2−104097
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
superfluid liquid, relativistic hydrodynamics 2−104115
two-dimensional vortex lattices, melting in self-consistent harmonic approx. 2−110065
variational principle and superfluid mechanics 2−76774
H film, spin polarised, fluctuation correl. and superfluidity *(Russian)* 2−82065
H, spin-polarised, confinement in azimuthal field, total and superfluid density profiles 2−66320
H, spin-polarised, confinement, prod. and props. 2−71770
He film, dipole complexes *(Russian)* 2−56293
^{3}He-^{4}He dilution refrigerators 2−112911
^{3}He-^{4}He mixture, dil., onset of convection in unbounded slab 2−104102
^{3}He-^{4}He mixture, dil., onset of convection in closed cylindrical container 2−104103
^{3}He-^{4}He mixture, mutual friction effects, flow impedance expts. 2−76768
^{3}He-^{4}He solution, saturated, vibr. wire behaviour, mean free path effect and boundary limitations 2−76765
^{3}He-^{4}He solutions, dil., spin polarised, second sound vel. meas. 2−110083
^{3}He-^{4}He solutions, spin polarised, transport phenomena and sound propag. 2−76767
^{3}He-He II dilute mixture, density fluctuation spectra, rotons 2−104104
^{4}He, superfluid, Landau theory, possible verification 2−66312

superfluorescence *see superradiance*

supergiant stars
ε Aurigae, 1982-84 eclipse and models 2−100994
B-type stars, evidence for amplitude variability in parameters 2−68836
B-type supergiant stars, X-ray luminosities from UV reson. lines 2−84228
B-type supergiants, radio and IR emission from stellar winds and circumstellar shells 2−63415
binary, supergiant+main sequence stars, winds interactions, shock fronts anal. 2−112489
binary stars, late-type component detect. from space and ground-based spectrophotometry 2−100898
binary stars with luminous cool primaries and hot companions, BVRI obs. 2−100985
blue supergiant+neutron star common envelope binaries, evolution and mass loss rates 2−63538
XX Camelopardalis, R CrB star absorpt. spectrum var. and microvariability *(Russian)* 2−78969
XX Camelopardalis, R CrB star microvariability due to absorpt. spectrum var., photometry obs. *(Russian)* 2−78968
AG Carinae, galactic S Doradus star, spectral characts. and shell nature, visible obs. 2−106727
η Carinae, high resolution obs. of Hα line profile 2−106724
η Carinae, remarkable spectrum of ejected material 2−63438
κ Cassiopeiae, B-type supergiant star, obs. of short-period light variability 2−94715
VV Cephei, Hα line profiles rel. to struct. of Hα emission envelope around early-type component 2−68827
μ Cephei, SRc star, light var. and pulsations, anal. 2−106722
Cepheid instability strip, left hand side, vibr. stability against nonradial oscills. 2−73998
Cepheid variables, short-period, simultaneous photometric and radial velocity study 2−63442
cool stars, mass loss spectral diagnosis 2−68743
R Coronae Borealis, 49-day cycle detect. from photometric obs., (1980 to 1981) 2−100946
R Coronae Borealis, polarisation and photometry at 1977 minimum 2−84246
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
R Coronae Borealis stars, spectrophotometric investigation *(Russian)* 2−73985
P Cygni, application supercritical accretion disc wind theory 2−84077

supergiant stars continued
NML Cygni, assoc. H II region and radiosource, spectrum and nature 2−74053
55 Cygni, emission line star, abundances from spectral obs. 2−117682
32 Cygni, excitation through radiative pumping of Fe UV multiplet 191 during eclipse 2−68815
P Cygni, radio star, comparison of precise optical and radio positions 2−89319
V1357 Cygni (Cygnus X-1), light curve anal., UBV obs. 2−106816
Cygnus OB2 star 12, supergiant IR energy distrib., obs. 2−94796
Cygnus X-1, reddening, supergiant light var. and distance 2−63530
diffuse interstellar bands in reddened supergiants, high-resolution obs. 2−58423
distribution in Galaxy used to delineate spiral arms three-dimens. struct. *(Russian)* 2−79213
S Doradus, continuum energy distrib. and spectra variations, obs. 2−94729
S Doradus, temps. for central star and envelope from VBLUW obs. 2−106726
early type, Hα emission variability and struct., obs. and model atm. anal. 2−106701
Egg Nebula (GL 2688), possible planetary nebula precursor, near IR spectroscopy 2−106840
evolution of single stars with mass loss, rel. to distrib. of supergiants in H-R diagram 2−63391
galactic disc 2.4 μm excess and metallicity, effects of supergiants abundance 2−89362
galactic spatial chemical inhomogeneities 2−112586
galactic supergiant stars spectra, equivalent width meas. 2−100926
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
HD 77581 (Vela X-1), spin down episode obs. in X-ray source 2−106787
HD 80077, B2 supergiant spectroscopic binary, luminosity and period, visible obs. 2−100923
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
HDE 269006, S Doradus star, temps. for central star and envelope from VBLUW obs. 2−106726
HR 7308, peculiar classical Cepheid, results from radial vel. meas. and BV photometry 2−89272
HR 7308, unique Cepheid variable, photoelectric light curve during (1981) 2−100941
HR diagram boundary between late type stars with/without high temp. outer atm. 2−89229
JHK photometry of LMC supergiants used to find interstellar extinction 2−89377
Large Magellanic Cloud young populous clusters, radial colour variation, supergiant anal. 2−94826
late type, chemical composition anal. and galactic metallicity gradient 2−84224
LMC supergiants, effective temp. and radii, absolute flux and flux distrib. from UV obs. 2−101067
long-period variables, theoretical growth rates, periods and pulsation consts. 2−106715
Luminous Stars in Northern Milky Way catalogues, list of named variable stars 2−63277
M-type giants and supergiants, radiative transfer in dust shells 2−89247
M-type stars, Li abundance determ. from visible obs. 2−84225
Magellanic Clouds supergiants and hypergiants, VBLUW photometry obs. 2−63441
mass loss from evolved stars, obs. of 17 stars in CO (2-1) line 2−58320
mass loss rates, implications for Cassiopeia A progenitor 2−63417
massive Population I stars, core processes and evolution to supergiant phase 2−84211
massive stars, influence of initial stellar comp. and mass loss on blue and red supergiants 2−106682
O3 type stars, membership and spectrum 2−58343
O-type supergiants, He I and He II emission lines in near IR spectra 2−63416
OB-type supergiants, corona plus cool wind model for O VI, N V, C IV and Si IV lines 2−63389
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
RZ Ophiuchi (BD+7°3832), supergiant eclipsing binary, VBLUW photometry rel. to eclipse of accretion disc 2−106788
β Orionis, Copernicus UV spectral atlas and line identifications 2−106703
β Orionis, evidence for Compton red shift in stellar chromosphere 2−106644
α Orionis, semi-regular variable, BV photometry 2−58365
KQ Puppis, UV spectrum, IUE obs. 2−106795
red supergiant in open cluster C1715−387, presence implications for evolution from WR stars 2−89317
red supergiants in resolved galaxies, brightest object as distance indicator 2−84306
red variable stars, catalogue of positions *(Russian)* 2−73986
2S 1223−624 (GX 301−2), X-ray binary, neutron star accretion model 2−89312
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
RY Sagittarii, pulsating R Coronae Borealis star, period decrease rel. to evolution 2−112465
RY Sagittarii, R Coronae Borealis star, visual magnitude estimate (Feb. 28 1982) 2−58367
RY Sagittarii, R Coronae Borealis star, visual magnitude estimates, (1982 May 10 and 12) 2−84248
RY Sagittarii, R Coronae Borealis variable, circumstellar extinction meas. from UV spectrophotometry 2−106747
α Scorpii, IUE obs. rel. to mass loss rate from supergiant component 2−58334
ζ^1 Scorpii, variability and mass loss in extreme supergiant 2−63407
V884 Scorpii (=HD 153919=4U 1700−37), absence of optical pulses from photometric obs. 2−106799
SMC stars spectra, equivalent width meas. 2−100926
SN 1979c, progenitor star as red supergiant giant with extensive shell and wind 2−100964
spectral energy distribution from visible obs. 2−84231
stellar winds, radiatively driven, line accel. for supergiant stars 2−106668
119 Tauri, M-type supergiant, atm./shell occultation obs. in Hα and continuum light 2−68760
RV Tauri stars and yellow semiregular variables, UBV photometry 2−106749
supergiant stars continued
WD 77581, X-ray binary, light curve, effect of supergiant rot. axis forced precession *(Russian)* 2−68828
Wra 977 (4U 1223−62), B1.5 supergiant, spectroscopic orbit 2−106814
yellow semiregular variables and RV Tauri stars UBV photometry 2−106749
yellow supergiant reddenings from BVRI data 2−89251
yellow supergiants, CNO abundances anomalies and implications 2−117673
Hα emission objects in region in Vela, search and catalogue 2−78979
OH Type II southern maser sources, IR counterparts 2−79243
supergravity
11-dimensional supergravity, ghost interactions from auxiliary fields 2−58686
18-dimensional gravitation, grand unification by Kaluza-Klein approach 2−79451
anti-de Sitter background and gauged extended supergravity 2−107224
antisymmetric tensor field theory, geometrical approach 2−53958
antisymmetric tensor gauge fields and gravity, unified geometry 2−101289
auxiliary field anomalies for N=1 and N=2 supergravity 2−107222
conformal supergravity, one loop beta function 2−107220
D=5 supergravity aux. field problem, group theory anal. of Bianchi identities 2−74307
degenerate supersymmetric vacua and gravitation 2−84508
dynamically broken supergravity and hierarchy problem 2−107223
Einsteinian supergravity, nonlinear realisation, transformation law 2−53649
extended conformal supergravity, asymptotic freedom 2−53648
extended supersymm., with central charges, nonlinear realisations, supergravity appl. 2−69365
extreme Reissner-Nordstrom black holes, spin-3/2 perturbations anal. using O(2) supergravity theory 2−100972
geometric supergravity in D=11 and hidden supergroup 2−101294
grand unified theories−extended supergravities connections, Lie groups 2−58684
high-derivative field theories, counting of states 2−107226
linearised N=1 supergravities and superspace translation tensor 2−58688
linearised N=1 supergravity, non-minimal version 2−95208
linearised N=4 Poincare supergravity in 5-dimens., auxiliary fields and lagrangian 2−58689
linearised ten-dimensional supergravity, auxiliary field and superspace lagrangian 2−79460
Lorentz connexion, nonpropagating mode, freezing constraints 2−79459
Lorentz-invariant formulation, absence, consequences 2−101597
minimal N=1 supergravity, linearised superfield formulation 2−58687
N=1, D=10 and N=4, D=4 super Yang-Mills theory, geometric structure 2−53947
N=1 Poincare supergravity with local chiral invariance, constraints soln. 2−79458
N=1 supergravity, alternative minimal auxiliary field formulation, tensor calculus and matter coupling 2−89604
N=1 supersymmetric Maxwell theory in 10 dimens., supercurrent, N=4 supergravity 2−79780
N=2 supergravity solitons, Bogomolny bound for general relativity 2−53646
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
N=8, in review of theoretical physics *(Russian)* 2−89927
N=8 supergravity, spontaneously broken, renormalisability props. 2−58685
N=8 supergravity with dynamical SU(8) gauge theory, spin-3/2 fields role 2−95209
N≥3 extended supergravity, one loop, four particle S-matrix 2−53647
Newton's constant quantisation in supergravity theories 2−107225
O(N) σ model, dynamical supersymmetry breaking 2−95618
off-shell extended supergravities, no-go theorem 2−53644
phenomenological appls. 2−53650
plane symmetric supergravity solutions 2−101295
Poincare, N=1,2 supersymmetric tensor gauge multiplet, conformally invariant theory 2−59031
progress report 2−112793
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quantum gravity, BRS transformation, superspace formulation 2−101291
real Clifford algebras modulo 8 periodicity and particle phys. 2−113132
recent developments 2−95210
recent progress, conf. Bad Honnef, Germany (Sept. 1980) 2−53432
second-order content of N=2, D=4 supergravity 2−53645
sixteen dimensional Noether supercurrents in indefinite metric quantum gravity 2−58680
SO(N) gauged Poincare supergravity theories, vanishing β-functions 2−84509
spontaneous breaking of supersymm. and gauge invariance 2−107221
spontaneously broken N=8 supergravity, gauge coupling addition 2−112792
SU(8) hyperunification, composite quarks and leptons derivable from SO(8) extended supergravity 2−95712
super Killing equation and supersymmetry transformation 2−74308
supergraphs for supersymmetric theories, covariant rules and higher loop finiteness 2−113161
superspace formulation, on- and off-shell theories 2−84507
superspace gauge theories with central charges 2−53948
supersymmetric constraints and gauge fields on superspace 2−89916
supersymmetric dual string theory, loops and renormalisation 2−89952
supersymmetric gauge theories, symmetry breaking mechanism 2−79760
supersymmetric theories, indices, triality and UV divergences 2−89920
supersymmetry, supergravity and geometry 2−101606
supersymmetry breaking scale, cosmological constraints 2−69374
twelve dimensions, Cartan integrable systems 2−112794
U(1), covariant superfield description *(Russian)* 2−69079
U(1) gauge theory, R invariance and spontaneous supersymmetry breaking 2−84510
Yang-Mills theory, supersymmetric, particle unification, supergravity 2−69319
superheating *see heat transfer*
superheavy nuclei
see also nuclei with mass number 220 or higher
chondritic meteorites, fission tracks and search for siderophile superheavy elements 2−68686

superheavy nuclei continued
heavy ion reactions, compound nucleus form., superheavy element prod. *(Russian)* 2−101927
heavy ion-atom collisions, superheavy quasiatom form. 2−96674
inner shell excitation in superheavy quasimolecular systems 2−54929
search for superheavy elements in monazite, X-ray spectrochem. anal. 2−83436
Z=109, existence in nature, invest. *(Chinese)* 2−59442
Z=110, existence in nature, invest. *(Chinese)* 2−59442

superheterodyne receivers
EM wave propagation in plasma-beam system, effect of superheterodyne amplification 2−76137

superionic conducting materials
see also ionic conduction in solids; mixed conductivity
alkaline earth fluoride type electrolytes use for thermodynamic studies of alkaline earth metahafnates 2−81983
β-alumina, solid electrolyte, mobile ion conc. and mixed alkali effect 2−92271
beta alumina electrolytes with improved properties for storage batteries 2−73106
ceramics, electrotechnical, present and future develop. *(Czech)* 2−111133
degradation in systems with transport number gradients due to internal deposition, theory 2−92257
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
ionicity dependence of superionic props., theory 2−110029
mixed conductors, semicond.-metal transition, superionic transition, phenomenological model 2−61529
modulated, hopping cond. 2−71709
NMR probe, high temperature 2−101434
phase transition in high-cond. state, macroscopic description 2−61111
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
polymer, solid electrolyte for water electrolysis, optimal structure study 2−71715
quasi 1-D conductor thermal conductivity dispersion *(Russian)* 2−104089
solid electolytes for H_2O hydrolysis, charact. and prod. 2−71716
solid electrolyte failure, electronic cond. increase, impurity effects 2−115837
solid electrolytes, amorphous, ionic transport 2−56250
solid polymer electrolyte photovoltaic cell 2−78232
solid state batteries for commercial production, Anglo-Danish cooperative research programme, report 2−99782
surface capacitance, charge density waves *(Russian)* 2−92729
thermopower of superionic conductor, Brownian particle model 2−66282
Ag chalcogenides, collective motion, plasmon-LO phonon coupling and cond. 2−56108
Ag/zeolite 4A-I_2 solid state cell, electrochemical performance 2−73101
AgBr, solid electrolyte thin film battery 2−62466
AgBr-AgI, anomalous ionic cond. in mixed cryst. and multiphase systems 2−98332
$AgCrS_2$, 2-D superionic conductor, hopping cond., Green function calc. 2−115449
Ag_2HgI_4 solid electrolyte, attempt freq. for ion hopping, Raman spectra 2−116176
β-AgI, phonon spectra, hopping kinetics, IR spectra study 2−76616
α-AgI, Raman scatt. temp. depend. 2−110860
AgI, solid electrolyte thin film battery 2−62466
α-AgI, state of order, diffuse X-ray and neutron scatt. study 2−71425
AgI, thermal cond. meas., 120-500K 2−56277
AgI:$Ag_2B_4O_7$, vitreous electrolytes, struct. and ion dynamics 2−61197
AgI-$Al_2O_3(SiO_2)$(AgBr)(fly ash), enhanced ionic cond., AC elec. cond. meas. 2−82011
AgI-CuI solid soln., influence of Cs^+ ion on co-ionic cond. 2−71713
$Ag_{16}I_{12}P_2O_7$, fast ion cond. charact. 2−82013
$Ag_{16}I_{12}P_2O_7$, single cryst. growth and struct. determ. 2−81751
$Ag_{19}I_{15}P_2O_7$ solid electrolyte, ionic cond. study 2−61198
$Ag_7I_4VO_4$ superionic conductor, heat of transport 2−92262
Ag_4RbI_5 solid electrolyte, I_2 dissolution meas. 2−110001
$Ag_3SBr_{0.5}I_{0.5}$, superionic conductor, cryst. struct. and phase transition study 2−109758
Ag_3SI superionic conductor, Ag ion dynamics, IR reflectivity study 2−61199
β-Al_2O_3 solid electrolytes, review 2−104055
β''-Al_2O_3, wetting by liq. Na 2−66325
β-Al_2O_3:$Ag^+(Cu^+)$, solid ceramic electrolyte, cells for thermodynamic studies 2−99378
β-Al_2O_3-K_2O, superionic conducting membrane, prod. by ion exchange 2−76733
β-Al_2O_3-M_2O, triply occupied mirror planes 2−71659
β-Al_2O_3-NH_3^+, defect struct., PMR study 2−110649
β-Al_2O_3-Na_2O, amorphous-like acoustical props. at low temp. 2−56097
Al_2O_3-Na_2O, β and β'' phases, chem. coloration 2−67767
β-Al_2O_3-Na_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
β-Al_2O_3-Na_2O, hot-pressed polycryst., fracture energy at high temp. 2−93630
β-Al_2O_3-Na_2O, ionic cond., 223 to 573K, effect of Na/S cell cycling 2−92265
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
β-Al_2O_3-Na_2O, solid electrolyte degradation in systems with transport number gradients due to internal deposition, theory 2−92257
β-Al_2O_3-Na_2O electrolyte, mode I degradation initiation 2−56245
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
β''-Al_2O_3-Na_2O-Li_2O, ceramic, solid electrolyte, chemical coloration, EPR study 2−66914
β''-Al_2O_3-$Na_2O(Na_2O$-$Li_2O)(Ag_2O)$, dehydration reactions, DTA and TGA study 2−78091
B_2O_3-Li_2O(-LiCl) glasses, chem. durability 2−93647
B_2O_3-LiF(LiCl)(Li_2O) glasses, ionic cond., ^7Li, ^{11}B, and ^{19}F NMR study 2−93022
$Ba_{0.75}Gd_{0.1}F_{2.1}$, solid electrolyte, ionic cond. 2−92273
$Ba_{0.7}La_{0.3}F_{2.3}$, solid electrolyte, ionic cond. 2−92273
$Ba_{0.75}La_{0.5}Nd_{0.1}F_{2.25}$, solid electrolyte, ionic cond. 2−92273
CaF_2, entropy change in fast-ion transitions 2−71640
$Ca_{1-x}Gd_xF_{2+x}$, solid electrolyte, ionic cond. 2−92273
$CsCu_4Cl_3I_2$, solid electrolyte, cond. and struct. props. 2−82016
Cu, $Rb_4Cu_{16}I_7Cl_{13}/Rb_4Cu_{16}I_7Cl_{13}/Cu_{1.75}Se$ solid electrolyte cell electrochemical behaviour 2−78198

superionic conducting materials continued
Cu_2HgI_4 solid electrolyte, attempt. freq. for ion hopping, Raman spectra 2−116176
CuI, theory of superionic transition 2−66200
$DyO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
$ErO_{1.5}$-CaO; elec. cond., electrolytic region 2−86924
Ga alumina, ionic and electronic cond. meas. 2−71703
$GdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
In alumina, ionic and electronic cond. meas. 2−71703
$K_3LiNb_6O_{17}(Ta_6O_{17})$, Li ion motion, NMR study 2−66939
$Li_{1.6}Ag_{0.4}SO_4$, solid electrolyte, cryst. struct. at 565°C 2−91934
Li_3CeO_6, solid electrolyte, ionic cond. study *(French)* 2−71704
$LiClO_4$-dioxolane-water electrolytes in WO_3 electrochromic cells 2−93305
Li_2CrO_4 cathodes in Li/organic electrolyte batteries, props. 2−93889
Li_4GeO_4-Al_2O_3, solid electrolytes, cationic cond. and struct. 2−110031
Li_2HfO_3, solid electrolyte, ionic cond. study *(French)* 2−71704
Li_nMoO_3 cathodes in Li/organic electrolyte batteries, props. 2−93889
Li_3N, anharmonic thermal vibrs., fast ionic conduction 2−109937
Li_3N, Li^+ conductivity, primary cell application 2−92270
Li_3N:D, H, Czochralski growth and doping method 2−111061
Li_3PO_4-Li_4SiO_4 solid electrolyte system, phase diagram and cond. 2−71705
Li_2SO_4, solid electrolyte, Brillouin spectra, 899-1120K, elastic constants 2−104897
$Li_{0.5}Y_{0.5}Zr_{0.5}S_2$:$Cr^{3+}$, NMR ionic motion studies 2−110676
Na-S-Al chloride cells, performance 2−93888
$Na_3Sc_2(PO_4)_3$, ferroelec., ionic cond. meas. 2−92263
$Na_x(Ti, Mg)_2(O, F)_4$, solid electrolyte, Na cation distrib. *(Russian)* 2−56249
$Na_5YSi_4O_{12}$ ceramic superionic cond., sintering prep. and characterisation 2−83056
$Na_20.5Al_2O_3$, electron irradiation damage mechanisms 2−66072
$NdO_{1.5}$-CaO, elec. cond., electrolytic region 2−86924
PbF_2, Debye screening length saturation, free energy 2−86929
PbF_2, ionic disorder computer simulation 2−92259
PbF_2, neutron study of anion disorder, fast-ion cond. 2−92258
PbF_2:Eu^{3+} superionic conductor, optical absorption line broadening due to F^- ion motion 2−115456
$RbAg_4I_5$ crystal, superionic conductor, cubic-trigonal phase transition, order-disorder theory 2−55876
$Rb_4Cu_{16}I_7Cl_{13}$ thin film preparation and electrical conductivity 2−77216
$SnO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
$Sr_{0.7}Ce_{0.3}F_{2.3}$, solid electrolyte, ionic cond. 2−92273
$SrCeO_3$ based solid electrolytes, appl. in high temp. fuel and steam electrolysis cell 2−105554
$SrCl_2$, entropy change in fast-ion transitions 2−71640
$TiO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
ZrO_2, CaO stabilised, calc. of n, p-type conductivity surfaces 2−98717
ZrO_2, Yt-stabilised, electrolytes, operation in ultra-high vac. cell 2−79595
ZrO_2-Al_2O_3-Y_2O_3, solid electrolyte, phase equilib. 2−111160
ZrO_2-Y_2O_3 (8 wt.%), polycrystalline, annealing effect on elec. cond. 2−76734
$(ZrO_2)_x(C_eO_2)_{1-x}$ solid solns., elec. cond., O_2 press. depend. *(French)* 2−98704
ZrP_2O_7:$Li^+(Na^+)(K^+)(Ag^+)$, solid electrolyte, ionic cond. meas. 2−92256

superlattices
see also semiconductor superlattices
adsorbed layers, hypersound generation through EM excitation 2−56319
alloys, ternary, superlattice configuration entropy 2−56216
band structures, superlattice, moment eqns. in Wigner formulations 2−104222
composition modulated alloys, electronic struct., CPA calc. 2−104224
crystal struct. determ. using partial Patterson function 2−86603
cubic superstructure ordering from BCC struct., theory *(Russian)* 2−92147
graphite, basal plane, adsorbed Ne orientational alignment 2−66361
lattice thermal cond. due to mini-umklapp process 2−82044
metal superconductive superlattices, critical prop. singularities 2−104530
multilayer thin films on thick substrate, internal stress formula 2−66404
random superstructures, controlled disorder 2−87127
voids superlattice, neutron scattering, theory 2−76240
Ag_xTaS_2 intercalation cpd., electron diffr. investig. of superlattices, struct. and CDW 2−103720
Ag_xTaS_2, superlattices, electron diffr. study 2−91931
Au-Cd (33 at.%), hexagonal type antiphase domain struct., lattice modulation, X-ray diffr. study 2−65924
Au-Cu long period ordered alloys, incommensurate statistical struct., high resolution electron microscopy 2−71397
$Au_3Mg(Zn)(Cd)$, high resolution images by high-voltage electron microscopy 2−81636
$BaCe(CO_3)_2F$, huanghoite, superstruct., X-ray diffr. study *(Chinese)* 2−91904
$BaZnGeO_4$, cryst. struct. of room temp. phase 2−65937
Bi_2O_3-BaO system, rhombohedral phase, cryst. struct., superlattice existence, electron microscope study 2−60947
$(Bi_xSb_{1-x})_2(Te_ySe_{1-y})_3$, orientated thermoelec. material, Bridgman method prep. technique 2−105061
CeBi(Sb)(As), mag. struct. and transitions, crit. neutron scatt. study 2−72144
$CsHSeO_4$, ferroelastic phase transition 2−86855
Cu/Ni compositionally modulated films, magnetisation and Curie temp. meas. 2−87533
Cu-Ni composition modulated foils, thermoelec. props. meas. 2−98629
Cu-Pd long period ordered alloys, incommensurate statistical struct., high resolution electron microscopy 2−71397
Cu_3Au, Fermi surface, de Haas-van Alphen meas. 2−104229
CuSe, superlattice struct. polymorphism and elec. props. *(French)* 2−66556
$Er_4Si_3C_x$, solubility of C and its effects on struct., X-ray and hardness study 2−109997
Fe-Ni, atomic ordering effects on mag. props., superlattice form., TEM study 2−92966
HfV_2H_x, low temp. phase, H-atom configuration, NMR study 2−72375
$KCdF_3$, cryst. struct. study 2−98016
$K_{1.8}(Li_{2.45}Sb_{5.55})O_{16}$, hollandite phase, cryst. struct. and ionic cond. meas. *(French)* 2−103717
K_2SeO_4, incommensurate superlattice, X-ray diffr. study 2−55943
β-$Li_{0.36}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
$(NH_4)_2BeF_4$, incommensurate superlattice, X-ray diffr. study 2−55943

superlattices continued
β-$Na_{0.33}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb, voids superlattice, neutron scattering, theory 2−76240
Nb-Cu layered system, conductivity transition 2−110253
Nb-Cu superlattice, supercond. transition temp., proximity theory, density of states 2−66701
Nb-Ta single cryst. superlattices, MBE growth, HEED study 2−82166
Nb_4N_5, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
Pd, surface (100), adsorbed H, phase diagrams for a square lattice with two- and three-body interactions 2−115556
Pd_3Mn ordered alloy, coincidence patterns, high resolution electron microscopy study 2−86528
Pt (111), adsorption of methylacetylene, propylene and 2-butenes, surface structs., LEED study 2−71804
Pt (111), chemisorption from polar solvents, superlattice form., LEED, AES and mass spectra study 2−92354
Rb_2ZnBr incommensurate struct., Raman spectra, superspace selection rules 2−61909
ReP_2O_7, isomorph of ZrP_2O_7, synthesis and struct., X-ray study 2−115196
Ta_4N_5, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
$TaSe_2$-2H, Raman scatt. from orthorhombic commensurate phase 2−116192
Ti_3Al-Nb, as-annealed and creep deformed, superdislocation networks, APB energy role 2−98091
$Ti_4O_5(Nb_4N_5, Ta_4N_5)$, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
$TiS_2Ag_{0.33}$, superlattice melting study 2−103958
γ-$VD_{0.75}$, incommensurate density modulations, electron diffr. and TEM study 2−91878
β-$VH_{0.59}$, H superstruct. and diffusion, ^1H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
V_3O ϵ-phase, deposition phase superstructure cell characts. *(Ukrainian)* 2−103706

supernova remnants
Barnard Loop Nebula, possible fossil SNR, visible obs. 2−58432
3C 10, expansion speeds implications for young remnants models 2−101085
3C 58, spectra and emission props. X-ray obs. 2−79185
Cassiopeia A, fast moving condensations radial vel. catalogue 2−106948
Cassiopeia A, fast moving knots, search for hot dust, IR obs. 2−79184
Cassiopeia A, multiwavelength comparison with Tycho's SNR 2−89325
Cassiopeia A, N/H ratio rel. to progenitor star mass and supergiant stars mass loss 2−63417
Cassiopeia A, structure, HF obs. 2−58427
Cassiopeia A, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
compact associated radio sources, X-ray/UHF/SHF obs. 2−63690
composition and supernovae nucleosynthesis 2−89288
cosmic ray acceleration, struct. of cosmic ray shocks 2−106431
cosmic ray acceleration in supernova remnants, anal. of Bell's mechanism 2−106432
Crab Nebula, 7378 Å feature assigned to Ni II forbidden line 2−94589
Crab Nebula, abundances and UV spectral obs. 2−68849
Crab Nebula, emission spectrum and brightness distrib. model 2−84305
Crab Nebula, exploding 10 $M_\odot$ star as model for Crab supernova 2−89285
Crab Nebula, filament photoionization model analysis 2−101005
Crab Nebula, filament spectrophotometry 2−101004
Crab Nebula, O III deep image of jet 2−117733
Crab Nebula, obs. of polarised radio emission through Sun's supercorona 2−94815
Crab Nebula, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
Crab Nebula pulsar PSR 0531+21, X-ray emission nature 2−63712
CTB 80, spectra and emission props., X-ray obs. 2−79185
CTB 80 (AD 1408 SNR), beam nature for present morphology 2−63594
Cygni Loop, struct. and spectrum of different nebula parts, VHF obs. 2−74056
Cygnus Loop, knots vel. dispersions, optical spectra obs. 2−68848
Cygnus Loop, monochromatic photographs with fibre glass image tube *(Russian)* 2−101027
Cygnus Loop, UV spectra rel. to depletion of heavy elements 2−106848
Cygnus superbubble *(Russian)* 2−68876
distribution and galactic non-thermal radiation 2−63659
Eridanus H I shell, mag. field meas. from radio obs. 2−106868
G109.1−1.0, similar object to SS 433, possible assoc. SNR 2−63710
G127.1+0.5, VLBI obs. of radiosource in SNR 2−117787
G127+40.5, continuum obs. at 608.5 MHz 2−106945
G206.9+2.3 radio props. and spectra, continuum UHF obs. 2−89395
G292.0+1.8, X-ray morphology rel. to asymmetric SN explosion 2−117732
G33.2−0.6, SNR with spectral break, UHF/SHF obs. 2−63572
galactic radio brightness distribution used for SNR search 2−106947
GF 2.4+1.4, ring nebula assoc. with Wolf-Rayet star, identification as supernova remnant 2−63562
IC 443, knots vel. dispersions, optical spectra obs. 2−68848
interstellar matter, three phase models, role of supernova remnants 2−89346
interstellar matter interaction, self similar soln. 2−94803
Kepler's SNR, model and shock propag. from visible spectra 2−112530
kinetic energy supply to interstellar medium 2−63600
LMC supernova remnants, X-ray spectra classification, obs. 2−79177
Lupus Loop, assoc. H I, shell expansion and models involving supernova in stellar wind bubble 2−106862
in M31, 20 cm radio emission from optically identified objects 2−58420
in M31, element abundance gradients from supernova remnants and H II regions 2−63618
in M31 bulge, accounting for central extended radiosource 2−84325
M33 supernova remnants, radio map at 21 cm, UHF obs. 2−58438
master list of nonstellar optical astronomical objects 2−58563
Monoceros Nebulosity, radio props. and spectra, continuum UHF obs. 2−89395
MSH 15−32, radio pulsar observed in UHF 2−84256
MSH 15−52, X-ray pulsar discovery in SNR shell, obs. 2−84255

supernova remnants continued
N49, in LMC, physical processes in gamma-ray burst of (1979 May 5) 2−112609
N49, in LMC, possible association with anomalous gamma-ray transient, (1979 March 5) 2−68934
N49 in LMC as origin of 1979 March 5 gamma ray burst source 2−58500
in NGC 5236, possible UHF detection of two sources 2−100962
in NGC 7552 (2A 2315−428), 'starburst' galaxy model rel. to Einstein X-ray obs. 2−94866
OB stars as central objects, deficiency 2−63594
plerions, space distrib. and radio emission evolution compared with shell remnants *(Russian)* 2−101026
pulsars, mechanisms, life-histories and relationship with supernovae 2−74003
Puppis A, X-ray image, shocked interstellar medium structure 2−101006
radio emission as origin of galactic synchrotron radio background 2−63717
radio emission from SNR in cloudy interstellar medium 2−117729
radio loop II associated SNR, mag. field meas. from UHF obs. 2−106868
reddening relations from VBLUW and UBV photometry 2−101016
scintillating sources, detection at 102.5 MHz using two-frequency correlation technique 2−117788
Scorpius-Ophiuchus association, stellar winds and supernovae rel. to local interstellar medium 2−63554
shell supernova remnants, space distrib. and radio emission evolution compared with plerions *(Russian)* 2−101026
shock front acceleration of cosmic rays 2−73802
shock front cosmic ray acceleration 2−73801
in SMC, 843 MHz obs. of supernova remnant candidates 2−112537
SN 1006, spectrum anal. from X-ray obs. 2−89329
SN 1572, young supernova remnant, radio flux var. meas. *(Russian)* 2−63593
structure in four SNRs at 1.4 GHz 2−112538
Tycho's SNR, multiwavelength comparison with Cassiopeia A 2−89325
Tycho's SNR, X-ray spectra, lack of strong Fe emission, model 2−94803
VBLUW photometry used to find interstellar medium pre-shock densities 2−101015
W44, H I clouds, RATAN-600 obs. 2−117737
W50, association with V1343 Aquilae (SS 433) 2−63473
W50 high N abundance, evidence for form. from Wolf-Rayet star supernova 2−63594
W51, nature and components, IR/SHF obs. 2−79227
W63, radial vel. field of optical filaments 2−74073
X-ray emission, effect of non-equilibrium ionisation 2−68868
X-ray luminosities of supernova remnants, effects of metal-rich ejecta 2−112527
young remnants from Type I supernovae interaction with circumstellar gas 2−106863
O-rich ejecta, shock wave model for optical emission from precursor region 2−74065

supernovae
see also supernova remnants
in anonymous galaxies 0903+50 and 1004+68, field search (1982 March 1) 2−58372
in anonymous galaxy in Centaurus, discovery and photographic magnitude, (1982 April 16) 2−68803
in anonymous galaxy in Centaurus, discovery and photographic magnitude (1982 June 22) 2−89287
in anonymous galaxy in Fornax, discovery, approximate position and magnitude 2−117691
in anonymous galaxy in Pavo, discovery, approximate position and photographic magnitude 2−112473
in anonymous galaxy in Phoenix, discovery, approximate position and photographic magnitudes 2−112473
in anonymous galaxy in Phoenix, discovery, approximate position and magnitude 2−117691
in anonymous galaxy in Telescopium, discovery and photographic magnitude (1982 June 21) 2−89286
in anonymous galaxy in Telescopium, supernova discovery and apparent photographic magnitude 2−94760
in anonymous spiral galaxy in Grus (1982 May 30) 2−79130
axion-like particles as triggers 2−117688
blast wave acceleration of cosmic rays 2−63194
blast wave acceleration of cosmic rays 2−89088
blast waves, generation of hot plasma 2−63605
Cassiopeia A, progenitor star evolution and mass loss rel. to remnant N/H ratio 2−63417
collapse phase, weak interaction rates for intermediate mass nuclei 2−58322
core collapse, eqn. of state rel. to abundance distrib. of heavy nuclides 2−106758
core collapse, results from physics of hot dense matter 2−100966
cosmic ray acceleration, struct. of cosmic ray shocks 2−106431
cosmic ray acceleration in supernova outbursts 2−73802
Crab supernova, exploding 10 $M_\odot$ model 2−89285
degenerate Fe core collapse in supernova model 2−106688
dense cloud supernova and cosmic ray accel. 2−106433
distance determination, kinematic and dynamical methods rel. to cosmic distance scale 2−63496
ejecta interaction with interstellar matter self similar soln. 2−94803
explosion hydrodynamics 2−63485
extragalactic supernovae, technique for location of supernovae inside parent galaxies 2−106757
G292.0+1.8, X-ray morphology rel. to asymmetric SN explosion 2−117732
galactic supernovae, historical 2−79129
gravitational collapse dynamics, theory with Majorana neutrinos and lepton number violation 2−68800
gravitational collapse phase, neutron shell blocking of electron-capture 2−58323
HD 77581, X-ray binary, orbital plane rot. axis relation, supernova effect interpretation *(Russian)* 2−68828
hot dense matter, equations of state, reviews, book contrib. 2−54296
hydrodynamic evolution during supernova explosion, stable numerical computation methods 2−100912
in interstellar molecular clouds, cosmic rays confinement rel. to γ-ray emission 2−112271

supernovae continued
interstellar shock waves, supernova-driven, numerical gas dynamics theory 2−100729
IR emission of cosmic dust sources 2−63379
LMC 2, supergiant shell driven by stellar winds and supernovae, dynamics 2−101014
models of explosions, nucleosynthesis and gamma-line spectra 2−117689
neutrino pulse shape in scintillation counters 2−58370
neutron capture nucleosynthesis, heavy element yields 2−58243
neutron star formation on massive star collapse, neutrino oscills. effects 2−74007
in NGC 1332, circumstellar dust shell form. and K-band magnitude 2−117690
near NGC 1332, discovery and photographic magnitude, (1982 March 29) 2−63483
in NGC 4185, discovery and photographic magnitude (March 22 1982) 2−58371
in NGC 4490, discovery and photovisual magnitude, (1982 April 15) 2−68801
in NGC 4490, magnitude estimates, (1982 March 29 to April 22) 2−68802
in NGC 4536, photometric obs. (1981 March-July) *(Russian)* 2−74001
in NGC 521, discovery and photographic magnitude (1982 August 19) 2−112474
in NGC 5236 and 5253, historical SN, radio search at 1.5 GHz 2−100962
in NGC 7713, confirmation, spectroscopic obs. and BV photometry 2−106759
in NGC 7713, discovery and photographic mag. 2−100965
nucleosynthesis, abundance distrib. of heavy nuclides up to subnuclear density 2−106758
nucleosynthesis and cosmic ray production 2−89288
nucleosynthesis bulk yields 2−112475
nucleosynthesis in supernovae, rel. to origin of chemical elements *(German)* 2−94877
numerical relativity, appl. to supernova explosions 2−100727
origin and energy production 2−117692
parent galaxies redshifts, spectrum features, visible obs. 2−101052
physical classification of supernovae, based on core and envelope struct. and multiplicity *(Russian)* 2−106761
PSR 1913+16, binary pulsar, orbit eccentricity due to second supernova occurrence 2−68799
rate comparison with pulsar birthrate 2−74002
Scorpius-Ophiuchus association, stellar winds and supernovae rel. to local interstellar medium 2−63554
Seyfert galaxies radioemission, model involving star burst, supernova rate anal. 2−112548
shock wave propagation, in NGC 9646, effect of mag. field 2−68897
in SMC, supernova remnants birthrate from 843 MHz obs. 2−112537
SN 1006, Schweizer-Middleditch star is not stellar remnant 2−68798
SN 1408, possible link with radiosource CTB 80, model 2−63696
SN 1979c, progenitor star nature from radio/UV emission anal. 2−100964
SN 1980k, bright type II supernova in NGC 6946, UBV photometric obs. 2−106760
SN 1980k in NGC 6946, interstellar spectrum 2−74059
SN 1980k in NGC 6946, progenitor upper mass limit from visible obs. 2−94759
Solar System OB association first supernovae, element abundances implications 2−89169
stellar collapse, postshock neutrino transport and electron capture 2−106669
strong shock wave in stellar envelopes, law of motion 2−100899
Type I, envelopes ionisation and mass from radioactivity hypothesis 2−106762
Type I, max. absolute mags. as distance indicators and Hubble constant global value 2−84306
Type I, old accreting white dwarf with close companion as progenitor 2−63485
Type I, pre-supernova white dwarf model 2−63482
Type I objects, Hubble diagram 2−100963
Type I off-centre detonation, accreting C-O white dwarf models 2−89284
Type I supernova, light curve solns. 2−63481
Type I supernovae, implications of secular evolution of accreting white dwarfs 2−112439
Type I supernovae, progenitors and birth rate comparison with cataclysmic binary stars 2−106741
Type II, equations of state, HF calcs. 2−112472
Type II, inner core bounce and shock propag. in 15 $M_\odot$ star 2−89234
Type II, massive young star as progenitor 2−63485
Type II supernovae, theory of radio and X-ray emission 2−106756
white dwarf supernovae, new model 2−63484
Wolf-Rayet star, form. of W50 and V1343 Aquilae (SS 433) 2−63594
nβ-process, implications for Ca-Ti-Cr isotopic anomalies in Alende meteorite inclusion 2−112397
^{9}Be production by neutrinos generated in gravit. collapse of stars, rel. to Galaxy ^{9}Be abundance *(Russian)* 2−106686

superparamagnetism
see also magnetic properties of fine particles
magnetic relax., Monte Carlo simulation 2−110610
magnetisation moment, discrete orientation model *(Russian)* 2−87548
microcrystals, mag. props. study by Mossbauer spectroscopy 2−93090
zeolite catalyst, ZSM-5(Fe), magnetisation, Mossbauer and catalytic props. meas. 2−77433
Co-Al_2O_3 mag. emulsion, electron diffr. study *(German)* 2−82667
Co-Cr, mag. behaviour above crit. conc. for ferromag. 2−72204
Co-Ga, mag. and struct. props., Mossbauer study 2−116097
Cu-Co single cryst., magneto specific heat capacity, superparamagnetic clusters 2−92944
Fe-N thin films, RF sputtered, static mag. and Mossbauer study 2−82641
Fe-Ni alloys, critical, mag. struct., Arrott plots and Mossbauer spectra 2−104615
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_4Ni_{74}Si_9B_{13}$ amorphous spin glass, mag. props., Mossbauer effect meas. 2−104765
Fe_3O_4 particles in silicate matrix, superparamag. and ferrimag. props., magnetisation study 2−92972
$Fe_2O_3.H_2O$ gel, pure, prep., struct. and mag. props. 2−67769
$Fe_2O_3.xH4d2O$ gel, pure, prep., struct. and mag. props. 2−67770

superparamagnetism continued
FeTi, surface anal. by magnetisation meas. 2−73012
$Mg_{1.5}Ti_{0.5}FeO_4$ spinel, mol. field coeffs. and exchange interactions 2−66801
$Pd_xPt_{1-x}Fe$, magnetic state, mixed exchange interaction, magnetisation and susceptibility 2−72208
$Zr(Fe_{1-x}Al_x)_2$, ferromag., mag. props., conversion to superparamagnet and spin glass on H_2 absorption 2−92965

superplasticity
activation energy for superplastic flow eval. 2−98184
ceramics, creep fracture in polycrysts. containing small amount of liq. phase 2−83197
diffusional creep, migration-assisted, grain boundary diffusion 2−92087
forming processes, influence of material parameters and microstruct. 2−83184
fracture processes in superplastic flow 2−72828
mechanical, microstructural and fracture processes, conf., Pittsburgh, USA (Oct. 1980) 2−79277
mechanical properties of materials, review 2−83181
microstructural aspects, review 2−83182
rate controlling deform. mechanisms, review 2−83183
steel, high-speed, effect of determ. under superplasticity conditions 2−62176
steel, low-alloy, superplasticity and polymorphic transforms. 2−62177
steel, microduplex, superplastic deform. activation energy, differential temp. tests 2−88325
steel, Mn, superplasticity and polymorphic transforms. 2−62177
steel, stainless, microduplex, grain size depend. and strain rate sensitivity and activation energy of high temp. deform. 2−105244
steel U8 and automatic steel A40G, struct. superplasticity w.r.t. treatment conditions 2−57426
white cast Fe powders, enhanced densification by cyclic phase transformations under stress 2−111110
Al alloys, microstructural aspects 2−83182
Al-Ca-Zn superplastic alloy matrix-metallic glass composite, fabrication feasibility using vac. hot pressing 2−99372
Al-Cu alloy 1201, superplasticity conditions 2−62179
Al-Ge (4 wt.%), superplastic deform. mechanism 2−83190
Al-Zn-Mg-Cu, superplastic alloy, cavitation, influence of hydrostatic press. and multiaxial straining 2−116494
Cu-Ni-Fe, superplasticity and form. of microduplex struct. *(Japanese)* 2−72769
Fe, superplasticity and polymorphic transforms. 2−62177
Fe-H, anomalous plastic self-deform. *(Russian)* 2−62168
Mg alloys, microstructural aspects 2−83182
Mg alloys, superplasticity in commercial and experimental composition sheets 2−105271
Mg-Li-Al-Cd, superplastic deform., effect on struct. and props. 2−62180
Ni alloys, microstructural aspects 2−83182
Ni-base superalloy, powder consolidated, superplastic response, effect of heat treatment 2−93570
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Sn-Pb (38 wt.%) eutectic alloy, fracture in superplastic flow Region III 2−105300
Sn-Pb alloys, superplastic, superanelasticity 2−83147
Sn-Pb eutectic, superplastic behaviour in as-worked state 2−67442
Ti-Al-Mo-Zr, struct. and mech. props., relationship offer superplastic deform. 2−62178
TiC-TiB_2 system, compressive creep of two-phase alloys, superplastic phenomena 2−99506
Zn-Al (1.1 wt.%), superplastic, ageing influence of deform. behaviour *(Czech)* 2−67438
Zn-Al (22 wt.%), comparison of constant strain rate and creep testing procedures 2−99617
Zn-Al (22 wt.%), eutectoid, thermomech. treatment effect on superplasticity 2−105195
Zn-Al (22 wt.%), superplastic, stress-strain rate curve at low strain rates 2−57429
Zn-Al (22 wt.%), superplastic eutectoid alloy, mech. props. 2−83181
Zn-Al (22 wt.%) alloy, superplastic, low-strain-rate Region I controversy 2−105260
Zn-Al (2.2 wt.%), superplastic, strain and strain-rate dependent props. under biaxial stresses 2−105266
Zn-Al alloys, thermal cycling effect across eutectoid transformation temp. on superplasticity 2−67440
Zn-Al eutectoid, microstructural aspects 2−83182
Zn-Al eutectoid, superplastic, cavitation, effect of grain size 2−111231
ZrC-ZrB_2 system, compressive creep of two-phase alloys, superplastic phenomena 2−99506

superradiance
see also acoustic superradiance
atomic superradiance modal structure in long cylinder, numerical calc. 2−80558
atoms, laser induced autoionisation, spontaneous emission effect 2−70200
atoms, spontaneous emission, vacuum turn off obs. 2−60054
Burnham-Chiao ringing and superfluorescence, transverse effects 2−96868
coherent spontaneous molecular radiation, control of direction 2−114224
7-diethylamino-4-methyl coumarin dye laser, spectral and gain charcts., solvent effects 2−108870
inhomogeneous broadening, spontaneous emission by many detuned sources 2−60052
inhomogeneous broadening, spontaneous emission by two detuned sources 2−60051
light pulse evolution, effects of propag., transverse mode coupling and diffr. 2−97098
multi-atom system, coherent radiation and entropy increase, theory *(Chinese)* 2−90848
one-dimensional crystalline structure, semiclassical theory *(Russian)* 2−57127
polyatomic system, superradiation spectrum shape 2−80752
rhodamine 6G dye laser, fan-shaped superradiance investigation *(Chinese)* 2−96939
Rydberg atoms and radiation 2−70159
Rydberg superradiance 2−60055
semiconductor, streaming motion and population inversion of hot carriers, crossed elec. and mag. fields 2−98668
stimulated Raman scattering, transient, energy fluctuations 2−90984
superfluorescence evolution, effects of transverse mode coupling, propag., diffr. and fluctuations 2−108842

superradiance continued
superfluorescent cascades, altered branching ratios and relax. oscillations 2−102455
swept-gain superradiance, transverse effects, superradiant state evolution 2−108843
transverse coherence and scaling in four-dimens. simulations of superfluorescence 2−80921
two level atoms, incoherently driven Dicke model, fluoresc., photon bunching and antibunching effects 2−113924
two-level atoms, collective reson. fluoresc., S-conserving theory 2−85928
Ba^+ VUV autoionisation-pumped laser 2−70551
Cu vapour lasers, pulse width var. 2−85950
Hg produced by $HgBr_2$ photodissociation by ArF laser, superfluoresc. laser action at 404.7 nm 2−96934
$I_2(B^3\Pi)$, excited state, chemically pumped, superfluorescence 2−65064
K vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
$KCl:O_2^-$, superradiance and high-gain mirrorless laser activity 2−87820
Li_2 pulsed laser, optically pumped 2−114255
N^+, $^5S_2$ metastable state, radiative lifetime meas. by monitoring spontaneous emission 2−64923
$^{14}NH_3$ laser, optically pumped, Stark tuning at 10.78 μm 2−80934
Nd:phosphate glass superluminescenc. laser with variable radiation pulse length 2−75589
Rb vapour, resonance four-photon parametric superluminesc. obs. for two-photon pumping 2−108853
Tm vapour laser, optically pumped 2−55124

supersaturation control *see chemical variables control*

supersaturation measurement *see chemical variables measurement*

supersonic flow
see also shock waves
aerodynamics design problems, direct approach 2−91483
air ejectors, zero-secondary flow performance 2−75992
air gap sensor, static charcts. *(Japanese)* 2−91568
annular supersonic nozzles, transonic flow in throat region 2−114837
attached shock wave curvature, vibr. relax. effects in supersonic flow 2−114850
axisymmetric nozzle, supersonic external flowfield, Navier-Stokes soln. 2−114866
axisymmetric supersonic blunt body problem, steady shock tracking method 2−97585
blown gas jet, supersonic oncoming stream interaction 2−71000
boundary layer on cooled surface, laminar to turbulent transition 2−75931
bubbly water flow past supercavitating wedge, compressibility effects 2−71008
compressible flat plate boundary layers, 3D spatial stability, heat transfer effect 2−109364
compressible turbulent flow, free shear layer reattachment, Navier-Stokes eqns. 2−65576
compressible turbulent flow, free shear layer reattachment 2−65575
compressive supersonic ramp, near-field analysis 2−97587
cylinder drag behind a disk in supersonic flow, extremal values 2−114843
cylinder moving with supersonic velocity, shock wave interaction 2−60577
over ducted body in detached shock wave regime 2−70983
far flow field, nose geometry effects calcs. 2−75993
flow oscillations of spike-tipped bodies Navier-Stokes eqns. soln. 2−65616
flow separation in shear-layer driven cavities 2−97484
gas, viscous, supersonic flow past a vibrator, linear problem 2−114842
high speed turbulent models at rough wall boundary layers 2−91403
high-speed flow process investig. using laser Doppler and stroboscopic anemometers *(Russian)* 2−114934
impulsive local heat release in transonic and supersonic gas flow, 2-D nonlinear acoustic processes 2−60275
interface with liq. film, nonlinear wave interaction 2−109345
inviscid flow, three-dimens., shock wave effect, floating fitting technique 2−65615
inviscid flow past blunt bodies, shock waves, compression, analytical soln. 2−81356
jet, impingement on normal flat surface 2−109376
jet entering conical cavity, gas heating and press. pulsations 2−70985
jets, convergent nozzles, broadband shock noise, acoustic meas. 2−65617
jets, moderate Reynolds no., flow and acoustic props. 2−65626
Kelvin Helmholtz instabilities in supersonic flow with shear layers, astrophysical appl. 2−58249
laminar viscous flow past a cone, heat transfer, flow separation, vortices 2−109362
Laval nozzles with gas jets blown asymm. 2−60605
leading zone of separation of flow over a blunt body, calc. 2−60573
lift/drag ratios and sonic boom intensities of a circular wing 2−70747
measurement by electron beams *(German)* 2−81423
mixing nozzles, laser Doppler velocimeter meas. 2−91507
mixing nozzles, laser induced fluoresc. visualisation 2−109423
molecular beam supersonic expansions from slit source nozzle, characterisation 2−70377
molecules, gas dynamic flow and laser spectroscopy 2−60574
nonlinear potential flow with implicit isentropic shock fitting 2−97584
optical quality of supersonic jets of various gases 2−55697
plasma, supersonic nonisothermal flow, cylinder obstacle, plasma wake struct. 2−71123
plasma equilibrium flow, cylindrical Langmuir probe meas. 2−91672
pressure pulsations in subsonic or supersonic flow over recess 2−60654
pulsed gas insulated discharge and hollow gas cylinder production 2−86497
relaxing gas, flow past notched objects 2−81361
secondary flow, ejector performance examined using one-dimensional solns. as well as Fabri theory 2−114841
shock polar, new specific point 2−86299
shock wave-turbulent boundary layer interaction, scaling at compression corners 2−109365
slotted transonic wind tunnel, supersonic flow development 2−109363
solar wind, numerical algorithm for unsteady thermally conductive coronal flow 2−112399
sphere, drag in supersonic and hypersonic transition regimes 2−70906
star-shaped body, aerodynamic charact. at Mach numbers 3 to 5 2−86296
stream at exit section, profiling planar and axisymm. nozzles and channels 2−86320
supersonic jet coherent struct., instability and mixing zone visualisation using laser light sheets *(French)* 2−86362

supersonic flow continued
thin profile trailing edge, supersonic flow, boundary layer, flow separation 2−75995
thin wings with arbitrary sideslip at subsonic and supersonic speeds 2−81353
three dimensional supersonic flow around cylinder, vortex pattern computation 2−109325
transonic pot. flows, 3D, algorithm for soln. of full pot. eqn. 2−109354
two-dimensional flow of gas through turbomachine cascades 2−97563
two-dimensional supersonic flow, weak nonlinear waves, reductive perturbation theory 2−75994
two-phase flow around obstacles, wave struct. variation 2−114844
unsteady flow interaction with jet pipe, low freq. sound radiation and generation 2−109310
unsteady viscous supersonic flow over a short flap 2−86297
wakes left by supersonic objects in anomalously relaxing gases, expt. study 2−86282
wing-fuselage combination in supersonic gas stream, wave resistance decrease 2−70984
CO chemical laser produced by supersonically mixing CS-S-O_2, computer model 2−90881
CO_2 and CO, nonequilibrated mol. gas, vibr.-rot. bands, IR radiation transfer and emissivity 2−114927
CO_2 free jets, rot. energy distrib. FT IR emission spectrosc. obs. 2−108688
CO_2-N_2, turbulent mixing of relaxing gases in a supersonic nozzle 2−60521
Cl, nonequilib. recomb. in supersonic nozzles, chemiluminesc. investig. 2−59737
ICl, supersonic expansion, laser spectrosc. 2−114032
Mg tetraphenylporphyrin, fluoresc. excitation in supersonic expansion 2−90610
N_2, free jet, rot. relax. in transition regime 2−114084
N_2 supersonic jets, two-dimens., interferometric obs. 2−103197

supersonics *see supersonic flow*

supersymmetry
see also supergravity
σ models, nonlinear supersymm., quantum nonlocal conserved charges 2−95579
Abelian supergauge supersymm. theory in Wess-Zumino gauge, multiplicative renormalisability 2−101603
Abelian supergauge theory, renormalisation in Wess-Zumino gauge 2−74619
alternative super-Poincare algebra 2−107562
analytical constraints in extended supersymmetry 2−95672
anti-de Sitter background and gauged extended supergravity 2−107224
baryon asymmetry and nucleon decay in supersymmetric SU(5) GUT 2−101617
breaking, soft and spont. mechanisms 2−79781
breaking scale of grand unified theories, baryon asymmetry of Universe 2−113193
broken global symmetries in supersymmetric theories 2−79799
broken supersymmetric theories, mass independent renormalisation 2−107588
broken supersymmetry, phenomenological Lagrangians struct. 2−113160
complex sine-Gordon model, N=2 supersymmetric generalisation 2−84797
composite quarks and leptons in supersymmetric grand unification 2−101686
constraints on supersymmetry breaking 2−107555
cosmological constraints on supersymmetry breaking scale 2−69374
CP^{n-1} models, finite action solns. in supersymm. generalisation 2−69326
CP problem in strong interactions axionless soln. using SU(9)⊗SU(2)⊗U(1) model *(Russian)* 2−69379
CP violation in broken supersymmetric theories 2−101593
critical dimensions for extended multidimensional objects 2−113151
de Sitter supersymmetry, graded Lie algebra, linear unitary irreducible representation, with positive energy 2−64241
degenerate supersymmetric vacua and gravitation 2−84508
dual string theory, loops and renormalisation 2−89952
dual string theory, vertices and trees 2−84876
dynamically broken supergravity and hierarchy problem 2−107223
effective action divergences in chiral superfield in external supergauge field *(Russian)* 2−113176
effective potential for supersymmetric theories 2−84794
Einsteinian supergravity, nonlinear realisation, transformation law 2−53649
electron conductivity in random potential, supersymmetry in localisation theory *(Russian)* 2−58758
extended Becchi-Rouet-Stora invariance for gravity via local OSp(412) supergravity 2−101293
extended supersymm., with central charges, nonlinear realisations 2−69365
fermion determinant calcs. in chiral and supersymmetric theories *(Russian)* 2−69378
finite-temperature behavior of mass hierarchies in supersymmetric theories 2−79779
flavour unification model SU(11), invisible axion and proton decay 2−95726
flavour-changing neutral interactions in broken supersymmetric theories 2−54051
functional measure, topology and dynamical supersymmetry breaking 2−54014
gauge fields, with Faddeev-Popov fields, superfiber bundle struct. 2−101528
gauge theories, patterns of symmetry breaking 2−113131
gauge theories time-non-local conserved currents 2−95594
gauge theory, globally supersymmetric, spontaneously broken, cancellation of quadratically divergent mass corrections 2−89895
gauge theory, loop dynamics in superspace 2−84791
gauge theory, supermanifolds and Becchi-Ronet-Stora transformations 2−74594
gauge theory stochastic quantisation using supersymmetry formalism 2−95577
general supersymmetric grand unification, proton decay, one-loop contribs. 2−107580
geometric supergravity in D=11 and hidden supergroup 2−101294
gluino mass in supersymm. theories 2−79782
gluino mass in supersymmetric theories 2−107552
graded Lie algebras, cohomology theory 2−101581

supersymmetry continued
graded Lorentz groups, rel. to superspinors 2−69368
grand unification, Dynkin weights, global supersymm. 2−69385
grand unification with large supersymmetry breaking 2−84831
grand unification with large supersymmetry breaking 2−95709
grand unified theories, supersymm., cosmological consequences 2−101620
grand unified theories, supersymmetric and conventional 2−107574
gravitino and spin zero boson masses in theories with spontaneously broken supersymmetry 2−112781
hadrons, supersymmetric dynamics 2−84812
Higgs physics, supersymmetric grand unification model 2−79787
high energy physics and nuclear structure, conf., Versailles, France (July 1981) 2−53416
high-derivative field theories, counting of states 2−107226
indices, triality and UV divergences for supersymmetric theories 2−89920
infinite Lie algebra construction 2−101584
interacting locally supersymmetric field theories, field representations 2−54013
lattice gauge theories 2−84789
Lie groups and supergroups, Casimir operators, anomalies, eigenvalues 2−64238
Lie-admissible algebras, construction 2−74622
light cone gauge supersymmetrical string theory 2−59058
linearised N=1 supergravities and superspace translation tensor 2−58688
Liouville action renormalisation and 3D Ising model critical exponent 2−79762
Lorentz-invariant formulation, absence, consequences 2−101597
low-energy supersymmetric models 2−79783
magnetic monopole incorporation 2−107548
many body content of gauge theories, spontaneous supersymmetry breaking, colour confinement 2−59020
massive supersymmetric quantum field theory, central charges, Lorentz and internal symmetries 2−84790
massless Dirac particle, super phase space reduction 2−53935
massless two-dimens. models, bosonisation formula 2−113126
monopoles, supersymm. field theory 2−101594
multidimensional space combination, interaction unification 2−101585
N=1,2 supersymmetric tensor gauge multiplet, conformally invariant theory 2−59031
N=1, D=10 and N=4, D=4 super Yang-Mills theory, geometric structure 2−53947
N=1 supergravity, alternative minimal auxiliary field formulation, tensor calculus and matter coupling 2−89604
N=1 supersymmetric Maxwell theory in 10 dimens., supercurrent, N=4 supergravity 2−79780
N=1 supersymmetric Yang-Mills theories, renormalisation, classical theory 2−59017
N=1 supersymmetric Yang-Mills theories, renormalisation, radiative corrections 2−59018
N=1 supersymmetric Yang-Mills theory, supercurrent, classical case 2−59010
N=1 supersymmetric Yang-Mills theory, two loop axial anomaly 2−59032
N=2 Fayet-Sohnius superfield, reduction to chiral superfields *(Russian)* 2−59063
N=2 super-Yang-Mills model, with central charge, superfield formulation 2−74607
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
N=8 supergravity with dynamical SU(8) gauge theory, spin-3/2 fields role 2−95209
Newton's constant quantisation in supergravity theories 2−107225
nonlocal conserved currents in supersymmetric generalized nonlinear sigma models 2−89913
nuclear and particle physics 2−59053
O(10) supersymmetric grand unified theories, hierarchy problem 2−59078
O(N) σ model, dynamical supersymmetry breaking 2−95618
orthosymplectic Lie superalgebras, para-Bose and para-Fermi operators as generators 2−95086
osp(1,2) Lie superalgebra, boson-fermion representation 2−54010
periodic table, rel. to broken supersymmetry 2−59675
phenomenological model of particle physics based on supersymmetry 2−59061
proton decay, enhancement factors 2−95829
pseudoclassical particle models with internal symmetries and control charges 2−79770
pure spinor theory 2−101595
quantised gauge theory, dimensional reduction and OSp(4+NM/2) supersymmetry 2−107520
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quantum gravitation, extended BRS symmetry, superfield approach 2−79456
quantum solitons, fermion zero modes, supersymm., fractional charges 2−53970
quantum solitons fractional charges and supersymmetry generators 2−95614
quantum theory, fermionic coordinates, supersymm. display 2−58645
quark supersymm. scalar partners, mass from P-violating nuclear transitions 2−101596
quasi Goldstone fermions 2−113129
regularisation by dimensional reduction 2−95673
relativistic spinning particles, scalar interactions 2−113114
renormalisation procedure in supersymmetric theories for effective pot. evaluation 2−101545
simple Lie superalgebras, finite representations, congruence classes 2−101583
sixteen dimensional Noether supercurrents in indefinite metric quantum gravity 2−58680
SO(10) supersymm. grand unified model, gauge hierarchy 2−95703
SO(10) supersymmetric grand unified theory, intermediate mass scales 2−101618
SO(10) supersymmetric GUT 2−101622
SO(14) model, supersymm. grand unification 2−101625
SO(N) gauged Poincare supergravity theories, vanishing β-functions 2−84509
soliton supermultiplet in 4+1 dimensions 2−53942
spontaneous breaking in dipole field, Goldstino production 2−107556
strong CP problem, supersymmetric GUT soln. 2−79778
$SU_{2/1}$ electroweak ghost-gauge theory, BRS algebra construction 2−113166
supersymmetry continued
SU(2,2/N), nonrealisation in Hilbert space of SU(2,2) 2−113173
$SU(2)_L \times U(1)$ symmetry breaking as a radiative effect of supersymmetry breaking in GUTs 2−59082
SU(2) gauge theories, dipole moment for monopoles 2−107663
$SU(3)_c \times SU(2)_L \times U(1)$ supersymmetric grand unified theories predictions 2−95718
$SU(3)_C \times SU(2) \times U(1)$ gauge GUT, low-energy parameters, particle masses 2−107589
$SU(3) \times SU(2) \times U(1) \times \tilde{G}$ spontaneously broken supersymmetric theories, neutral current conservation laws 2−59060
$SU(3) \times SU(2) \times U(1) \times \tilde{U}(1)$ supersymmetric model of strong and electroweak interactions, symmetry breaking 2−84830
$SU(3) \times SU(2) \times U(1)$ model, supersymmetric extension 2−79803
$SU(3) \times SU(2) \times U(1)$ supersymm. GUTs, baryon and lepton conservation 2−107584
$SU(3) \times SU(2) \times U(1)$ supersymmetric GUT, proton decay 2−64248
$SU(3) \times SU(2) \times U(1)$ supersymmetric model, masses, p decay, conservation laws, spontaneous breakdown 2−101599
$SU(3) \otimes SU(2) \otimes U(1)$ supersymmetric ground unified theory 2−101615
$SU(3) \times SU(2) \times U(1) \times \tilde{U}(1)$ model, low-energy softly-broken supersymmetry 2−101546
SU(5) and SO(10) GUTs superheavy particles, $\sin^2\theta_w$, and proton lifetime 2−113192
SU(5) grand unified model construction 2−79800
SU(5) ground unified theory, Universe and supersymmetry 2−101616
SU(5) hierarchical supersymmetric model, cosmological consequences 2−79798
SU(5) model, naturally massless Higgs doublets 2−113184
SU(5) model, supersymmetric, ordinary SU(5) predictions, proton decay mode 2−107594
SU(5) supersymmetric model, symmetry breaking, ground states 2−95710
SU(5) supersymmetric theory, weak mixing angle, unification mass 2−59075
SU(6) quadrupole phonon model, approx. supersymmetries, unique parity bands 2−59267
super Killing equation and supersymmetry transformation 2−74308
super-cosmology, supersymmetric theories, baryon asymmetry, proton decay 2−68945
super-Poincare algebra, central charges, geom. origin 2−69369
superconformal anomalies, algebraic characterisation 2−59016
supercurrent anomaly in analytic regularisation, supersymmetric Yang-Mills 2−113167
supergraphs for supersymmetric theories, covariant rules and higher loop finiteness 2−113161
supergravity, phenomenological appls. 2−53650
supergravity, R invariance and spontaneous supersymmetry breaking 2−84510
supergravity, spontaneous breaking of supersymm. and gauge invariance 2−107221
supergravity, superspace formulation, on- and off-shell theories 2−84507
supergroup SU(N/M) from SU(N+M), branching rules 2−95683
superspace, negative dimensions, and quantum field theories 2−95610
superspace gauge theories with central charges 2−53948
supersymmetric constraints and gauge fields on superspace 2−89916
supersymmetric gauge theories, symmetry breaking mechanism 2−79760
supersymmetric grand unified theories and the early universe 2−107577
supersymmetric instanton *(Russian)* 2−79785
supersymmetric technicolour model of particle physics 2−107576
supersymmetric unification, cosmological implications, phase transitions, baryon no. 2−59081
supersymmetric unification models *(Russian)* 2−59087
supersymmetry, supergravity and geometry 2−101606
ten-dimensional super Yang-Mills theory, off-shell representations with central charges 2−113106
two-dimensional Lagrangian model with extended supersymmetry 2−74585
u(2,2/1) conformal supersymm., no-go theorem 2−69375
U(6/4) supersymmetry in complex nuclear spectra *(Chinese)* 2−107783
unified field theories, supersymmetry application 2−95699
unified models, naturality problems 2−79817
white dwarfs, astrophysical constraints on broken supersymmetry 2−94723
Witten-type supersymmetric models, light singlet particles and cosmological consequences 2−107591
Yang-Mills theories, quartic mass matrix and renormalisation constants 2−107540
Yang-Mills theories, symmetry breakdown and condensates 2−79767
Yang-Mills theories, three-loop beta-function 2−79761
Yang-Mills theory, effective lagrangian 2−84801
Yang-Mills Theory, N=1 supersymm., supercurrent, renormalisation 2−59011
Yang-Mills theory, quantum superspaces 2−95688
Yang-Mills theory, supersymmetric, particle unification, supergravity 2−69319
e^+e^- annihilation, gluino pair prod. 2−113284
$P \rightarrow K^+\bar{\nu}_\mu$, supersymm. models calc. 2−74684
Au, odd isotopes, dynamical supersymmetries and positive parity states 2−69530
$^{\wedge}$Ir(t,α), A-191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
$^{\wedge}$Ir(t,p), A=191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667

supply systems (electric) *see power systems*

suppressors (surge) *see surge protection*

surface acoustic wave devices
see also acoustic microwave devices; acoustic parametric amplifiers; acoustic parametric devices; acoustic parametric oscillators
C-scan imaging using interdigital transducers 2−78030
communication equipment, surface acoustic wave devices and optical fibres appls. *(French)* 2−86200
convolver using 3-phase unidirectional transducers 2−81195
filters, low-loss low-ripple, using bidirectional centrosymmetric transducers 2−81196
flat overlay waveguides for SAW using acoustic surface impedance, finite element anal. 2−91182
gas analyzers, sorption, surface acoustic waves appl. 2−73025
generator with integrated thermostat 2−91204
high-performance signal processing using SAW components *(German)* 2−109122

surface acoustic wave devices continued
IDT fan-shaped SAW transducer, radiation directivity 2−60342
interdigital transducer, excited, SAW generation characts. 2−60336
interdigital transducer in water, selection of piezoelectric material 2−97341
interdigital transducers, sound vel. difference meas. in liqs. 2−81179
Japanese development of materials and devices 2−99056
laser beam diffraction for investigating props. of planar structures *(German)* 2−102843
magnetomechanical coupling coeff. for periodic EM-acoustic transducers 2−81198
narrowband, tunable, SAW filter 2−70797
piezoelectric crystals, for SAW devices 2−99057
piezoelectric polymer film transducer for acoustic emission sensor 2−86196
piezoelectric thin film SAW IDT using an apodized shorting electrode 2−60344
powerful passives, appls. 2−97336
propagation characts. on α-quartz with arbitrary cut 2−91115
quartz, piezoceramic, synthetic, elastic and elec. characts. at 4.2K, acoustic device applic. *(Ukrainian)* 2−82784
Rayleigh wave from periodic grooved zone on solid surface, Bragg refl. 2−61275
reflection coeff. predict., four variable two past anal. 2−109148
resonators, freq. trimming using reactive ion etching 2−81199
resonators, reflection characteristics of open metal strip arrays 2−91105
SH-type SAW filter, 1.6 GHz, for optical fibre transmission systems 2−81177
soliton theory 2−102967
sonar combination of SAW analogue and digital processing 2−60288
surface-skimming bulk wave IDT on rotated Y-cuts of $LiNbO_3$, radiation cond. 2−75817
three-pass signals suppression in SAW filters 2−114557
transfer function derivation of SAWD with apodised transducers 2−97342
tunable optical separators, using multilayered thin film optical waveguides controlled by SAWS, characts. 2−81125
two-channel SAW filters with capacitive electrode weighting 2−81203
unidirectional transducers for SAWD, using interdigital transducers 2−91208
US electronics, conf., Tokyo, Japan, Dec. 1980 2−79274
waveguide with edge corrugation, scattering 2−55373
wide-band linear phase SAW filter design using slanted transducer fingers 2−81176
AlN on sapphire delay lines, zero temp. coeff. 2−86185
AlN, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
AlN piezoelectric thin films, for SAW appls. 2−97338
BeO film growth by reactive ionised cluster beam deposition technique, thin film device appls. 2−83039
GaAs monolithic SAW device, new SAW modes obs. 2−104134
GaAs SAW charge transport, monolithic delay line appl. 2−115522
InP monolithic SAW device, new SAW modes obs. 2−104134
$K_3Li_2Nb_2O_{15}$ piezoelectric thin films, for SAW appls. 2−97338
$K_3Li_2Nb_5O_{15}$, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
$LiNbO_3$-CdSe multilayer struct. with periodic-array contacts, freq. doubling 2−92705
Li_2O-SiO_2-B_2O_3 glass ceramics, piezoelec. reson. meas., crystal resonators appl. 2−82786
(Pb,Nd)(Ti,Mn,In)O_3 piezoelectric ceramics, appl. to high freq. SAW filters 2−81178
(Pb, Nd)(Ti, Mn, In)O_3 piezoelectric ceramic SAW reflector, poled/unpoled domain array 2−91196
Pd SAW delay line for H_2 detection 2−95335
Si/$LiNbO_3$ substrate, SAW parametric oscill. 2−65440
ZnO, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
ZnO piezoelectric films formed by RF reactive ion plating, SAW device appl. 2−93446
ZnO piezoelectric thin films, for SAW appls. 2−97338
ZnO piezoelectric thin films, for SAW devices 2−97339
ZnO thick- and thin-film SAW devices 2−75816

surface acoustic waves
see also acoustic waves; Rayleigh waves; surface acoustic wave devices; surface phenomena
acoustoelastic effect of Rayleigh surface wave in isotropic material 2−98420
acoustoelectronic waves, parametric amplification 2−91124
asynchronous interaction of bulk and surface acoustic waves 2−115525
attenuation measurement using reflection acoustic microscopy 2−102990
beams, fold and focused, BAW delay line improvement 2−97304
complex impedance theory for surface acoustic wave interelectrode multireflection effects 2−114508
condensed matter, US methods, conf., Zilina, Czechoslovakia (Sept. 1980) 2−63733
conference on surface physics, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
edge wave propag. in elastic media 2−60457
EM-acoustic wave interaction in solids 2−98419
ferroelectric materials and appls., conference, Kyoto, Japan (May 1981) 2−79273
fiber-optical sensor for surface acoustic waves 2−97323
focusing effects of SAW in crystalline solids 2−82112
hexagonal cryst. with overlayer, elastic surface waves anal. 2−56318
horizontally-polarized shear-wave type SAW propag. on rotated Y-cut quartz 2−55372
isotropic elastic media, low-temperature interface specific heat due to localized modes 2−76704
isotropic materials, temp. characts. 2−91117
laser probe for SAW measurements 2−81184
leaky SAW parameters effect on V(z) curves obtained by acoustic microscopy 2−97326
light scattering kinematics from SAW in anisotropic media *(German)* 2−80895
metal, laser generation of directional SAW pulses 2−92333
metallic thin, volume EM, surface polaritons and SAWs, theory of three-wave mixing 2−82937
metallic ultrathin films on piezoelectric substrate, secondary acoustoelectric current 2−66594

surface acoustic waves continued
multilayer structure with periodic coating, SAW dispersion and amplification, theory 2−114522
mutual conversion of shear surface and bulk waves at periodic inhomogeneities of the boundary of a solid 2−70735
nonlinear effects in surface acoustic waves 2−81149
nonlinear SAWs, coupled amplitude theory 2−114509
nonpiezoelectric materials, SAW excitation technique 2−114582
normal mode SAW diffraction by interfaces 2−114519
phase velocity of SAW, meas. using comb filters 2−81183
piezoelectric anisotropic medium, SAW propag. 2−66336
piezoelectric crystals, for SAW 2−99057
piezoelectric crystals, nonlinear acoustic propag. 2−98415
piezoelectric crystals, nonlinear props. of bulk and surface acoustic waves 2−98416
piezoelectric crystals, SAW on cylindrical surfaces 2−98417
piezoelectric crystals, transverse surface waves in crysts. of classes 622 and 422 2−98418
piezoelectric media, excitation interaction and detect. of bulk waves and SAW 2−110773
piezoelectric-semicond. layered system, acoustic quantization in case of tight binding 2−87002
piezoelectrics, energy flux, group and phase velocity of acoustic surface waves 2−98414
plasma column, acoustic surface wave generation 2−86421
propagation characts. on α-quartz with arbitrary cut 2−91115
propagation on photoinduced grating in alternating electric field 2−91122
pulsed SAW meas., phase sensitive laser probe 2−109137
quartz, crystn., effects of ion implantation 2−98124
α-quartz, SAW propagation characts. on singly and doubly rotated cuts 2−98421
quartz, XY, with SiO film overlays, Rayleigh wave propag. 2−66335
quasiisotropic elastic medium approx. in acoustoelectronic problems 2−81151
quasilongitudinal leaky SAW excitation 2−70732
Rayleigh wave scattering by edge cracks, numerical simulation and expt. 2−114510
reflection from periodic surface structure at oblique incidence 2−114518
SEM study of SAW propag. 2−113048
shear horizontal acoustic waves, propag. on sinusoidally corrugated layered surfaces, theory 2−81148
shear SAWs, excitation using wedge 2−91118
slow flexural surface wave, observation expts. 2−114516
solid-solid interfacial wave propag., influence of external press. 2−61272
stainless alloys, surface wave studies of H damage incubation time 2−111296
structural plate materials, stress conc. meas. using US surface waves 2−70880
transverse, parametric excitation by microwave elec. field 2−87345
travelling Rayleigh waves on piezoelectric crystal surface, direct imaging by stroboscopic X-ray topography 2−110124
triangular lattice, surface dynamics and thermodynamic props. anal. 2−76796
two directional amplification by alternating drift of carriers in piezoelec.-semicond. layer struct. 2−61527
velocity measurement *(French)* 2−97417
visualisation, using SEM 2−86190
water/Si boundary, leaky SAW rel. meas., by reflection acoustic microscope using line focus beam 2−104133
wideband differential interferometric system using optical fibres 2−79663
Ag discontinuous film, carrier mobility 2−82479
Ag film, volume EM, surface EM and SAWs, three-wave mixing 2−82936
Ag_3AsS_3, proustite, piezoelectric and SAW props. meas. 2−93116
Ag_3SbS_3, pyrargyrite, piezoelectric and SAW props. meas. 2−93116
Al discontinuous film, carrier mobility 2−82479
Al, nonreciprocal SAW propagation 2−92335
Au discontinuous film, carrier mobility 2−82479
Au/Al thin film diffusion couple, elastic props., SAW vel. study 2−82183
$Ba_{2-x}Sr_xTiSi_2O_8$, crystal growth and SAW props. 2−87970
$BaTiO_3$, coupled surface waves *(French)* 2−87003
Bi, superconducting amorphous film, SAW, acoustoelec. attenuation 2−56783
Cu discontinuous film, carrier mobility 2−82479
GaAs, SAW generation by photoexcitation, Brillouin spectra detected 2−98413
He_4 film, superfluid transition, SAW and phonon echo study 2−61243
^4He film, US method for superfluidity studies 2−61227
InP, SAW and surface skimming bulk waves obs. 2−92331
n-InSb film, surface phonon amplification, non-parabolic band struct. effect 2−110126
$K_3LiNb_5O_{15}$ films for SAW devices 2−82111
$LiNbO_3$ crystal in contact with liquid ^4He bath, Rayleigh wave attenuation 2−61273
$LiNbO_3$, SAW propag. 2−66336
$LiNbO_3$, SAW study of subsurface damage 2−76794
$LiNbO_3$:Ti optical waveguide, acoustooptic interaction, wide-band, with mode conversion 2−91045
$LiNbO_3$-CdSe film, alternating field acoustoelectronic effect, CdSe cond. effects 2−72033
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785
Ni-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296
$Pb_2KNb_5O_{15}$ films for SAW devices 2−82111
$PbTiO_3$ ceramics, piezoelectric, elastic and dielectric props. 2−87685
Se (layers), piezoelec., props. 2−99058
Se amorphous thin film on $LiNbO_3$, US attenuation and Rayleigh surface waves 2−71588
a-Si:H films, SAW attenuation, paramag. defects, IR, ESR and SEM studies 2−110123
SiO_2 film, on Si (001) substrate, surface Brillouin scatt., strong interf. effects 2−72518
Ti-diffused optical waveguide, codirectional TE-TM mode conversion through acoustooptic interactions 2−65404
YIG:Ga-ZnO, SAW parametric amplification obs. 2−92332
ZnO, diode-sputtered films, surface acoustic waves 2−104132

surface activity *see surface energy*

surface-atomic beam collisions *see atom-surface impact*

surface chemistry
see also chemisorption; corrosion; oxidation
acetaldehyde, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
adsorbates and small condensed mols. containing O and N, X-ray excited Auger spectra 2−83433
adsorption of CO, decomposition and oxidation of surface carbide 2−62432
adsorption of hydrocarbon on SiO_2-supported water surfaces, meas. using gas chromatographic technique 2−57636
aromatic mols. adsorbed on Ag (110) surface, enhanced photofragmentation, Raman study 2−116725
cation insertion reactions 2−105526
chemisorption of HCl on Pb(110), ionic adlayer form. 2−105501
CO, adsorbed on Mo, mol. dissociation, pulsed voltage and pulsed laser atom-probe study 2−76828
conference on surface physics, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
conference on surface science, Liverpool, England (April 1981) 2−58538
coupled cells with mutual mass exchange and reactions, dissipative structs. 2−111513
desorption, ion induced, surface chemistry 2−99701
diatomic ion beam-surface reaction, quantum mechanical model 2−99705
1,1-diphenylethylene adsorbed layer, reaction intermediates, resonance Raman spectra 2−73014
etching and gas-surface chemistry, ion enhanced, review 2−111517
ethanol, decomp. on ZnO surfaces, thermal desorption and surface cond. meas. 2−105508
ethylene, adsorbed on Ir, decomposition, surface struct. effects, comparison with Pt 2−98460
ethylene+O, surface reactions on Pt (111) 2−105511
formaldehyde, adsorbed on Ag(110), oxidation, EELS study 2−116728
Fourier transform vibr. IR emission spectroscopy 2−78139
gas-solid interactions, adsorption-complex isomerism and quantum chemical study 2−93816
gas-solid noncatalytic reactions model solution 2−99702
gas-surface reactions, diffusion controlled, state depend. reactivity 2−99707
graphite, corrosion in gas-cooled reactors, by H_2O, O_2, CO_2, H_2, temp. depend. *(German)* 2−102025
halocarbon adsorption on solid surfaces, particularly Fe, review 2−82120
halogen adsorption on solid surfaces, particularly Fe, review 2−82120
laser-based photochemical and photothermal processes, review 2−93803
LWRs, high temp., corrosion producing salts, chemistry 2−99688
methanation reaction over Ni and Ru single cryst. catalysts 2−83412
methanol, adsorption, oxidation and decomposition on Ag (111), UPS and XPS study 2−76826
methyl cyanide oxidation over Ag surface, AgCn and AgOCN surface compounds formation 2−78126
nonisothermal chemical reaction at the particle surface in a laminar flow 2−91429
organometallic cpds. and synthesis, conf., Ft. Collins, CO, USA (Aug. 1981) 2−53418
phenylacetylene, half-hydrogenation with Pd supported on vitreous materials, chem. comp. effects 2−78138
plane wedge ignition by a glowing surface 2−116698
polymer surfaces, 'hot' Ni atom interactions, XPS study 2−93805
polymer-metal interface chem. interactions, correlation with adhesion 2−78132
pyrazine on Ag (111) and Ni surface, phosphoresc. lifetime meas. as function of mol.-metal separation between 10 and 420 Å 2−102523
pyridine, on surface of laminar silicates, interaction, optical electronic spectrosc. 2−54868
quench furnace system, horizontal, for gas-solid reactions at high temps. 2−64043
review of surface phase mechanics and thermodynamics *(French)* 2−66341
SEM, hot stage UHV, appl. to dynamic studies of surface processes 2−71311
single crystal surface, chem. reactivity, surface irregularities and point defects role 2−57637
solar energy conversion technologies, interface microstruct. and microchem., research needs 2−87078
solar energy conversion technologies, solid-gas interface reactions, research needs 2−88378
solids and surfaces studied by photoacoustic spectroscopy 2−71587
steel, Cr-Mo, ferritic, carburisation-decarburisation in liq. Na environment 2−111369
steel, equilibrium between trapped and diffusible H at room temp., obs. using gas-surface reaction 2−88092
steel, mild, corrosion and inhibition in NaF soln., study by small amplitude cyclic voltammetry 2−67605
steel, stainless, oxidation investig. using automated scanning proton microbeam 2−111351
TEM studies of surface structures and reactions, review 2−71309
thiophene reactive adlayer on Ag foil, molecular SIMS 2−87056
transition metal, refractory, surface carbidisation by elec.-spark alloying 2−67658
$Ag+O_2$ system, catalytic intermediates, evidence for AgO_2 nonsymm. mol. 2−96563
Ag(110) with adsorbed H_2O, adsorption and reaction studies 2−87034
Al oxide, absorpt. of 1,3-dihydroxy- and 1-amino-3-hydroxypropane, chemisorpt. and oxide surface sites, tunnelling spectra 2−78140
Al_2O_3-Na_2O, β and β'' phases, chem. coloration 2−67767
Au, Auger electron spectroscopy, relative intensity meas. 2−62441
C fibre surfaces, XPS and heat treatment effects 2−99296
CO, catalytic oxidation on Pt (100), kinetic oscills. 2−93815
CO, chemisorbed on Rh, dissociation mechanism 2−57638
$CO+H_2$, on transition metal surfaces, heterogeneous catalysis 2−105507
CO+O, on Ni (100), XPS/LEED studies 2−83414
Ca+Br, surface reaction, chemical equilib., desorpt. and reaction kinetics *(German)* 2−78123
Ca+Cl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
Ca+Cl, surface reaction, chemical equilib., desorpt. and reaction kinetics *(German)* 2−78123
Co sheet, P vapour reaction kinetics and mechanism *(Japanese)* 2−78006

surface chemistry continued
Co-polybutadiene interface chemistry, ^{57}Co emission Mossbauer spectroscopy 2−87638
Cr, surface (110), chemisorpt. of O and initial oxidation 2−115567
$Cr(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
Cs thick film oxidation, multiplet struct. in photoemission studies 2−72596
CsI crystal, dissolution mechanism 2−66228
Cu (110)-Ni surface alloy, adsorption of O_2 and reaction with H_2 and CO 2−104161
Cu, Auger electron spectroscopy, relative intensity meas. 2−62441
Cu, surface (111), O_2 chemisorpt. 2−110155
α-Cu-Zn, oxidation, low temp., XPs ESCA study 2−111352
Fe, Armco, surface films grown in saturated $Ca(OH)_2$ soln., electrochem. and ellipsometric invest. 2−67611
Fe, polycryst., sulphidation in H_2S, ESCA obs. 2−111027
Fe-Cr(-Mo), reaction with Cl_2 gas, kinetics and mechanism 2−67639
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
γ FeOOH, mechanochemical reaction effects on struct. and surface, IR and X-ray anal. 2−116726
FeTi, surface anal. by magnetisation meas. 2−73012
GaAs, heat treated in H_2-Ar_2, surface thermal decomposition, Ar_2 partial press. effects 2−62246
GaAs, surface (110), oxidation, low intensity laser radiation effect 2−111341
Ge(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
H_2, dissociation on clean and contaminated Pd surfaces, UPS study 2−105510
H_2O, photooxidation sensitisation by WO_3 powder 2−78116
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
HgO, struct. of new form produced by exposing Hg to open air 2−55944
$In_{0.53}Ga_{0.47}As$ surfaces (100), peroxide etch chemistry 2−111515
Ir (110), adsorption and reaction of alkanes, mass spectroscopy study 2−67764
Li, surface reaction with CO_2, C KVV Auger electron spectrum 2−111511
Mg, hydriding using Fe particles as dissoc. adsorption catalyst 2−67650
Mo, polycryst. N_2 adsorpt. and NH_3 decomp. AES obs. 2−67157
$Mo(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
MoO_3-Al_2O_3 system, reaction and degree of cryst., effect of prep. conditions 2−67206
n-$MoS_2(Se_2)$, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
N_2^++Al(Cu)(Mo)(Ni) surfaces, nitridation reaction in low kinetic energy region, Auger effect 2−99706
NH_3 adsorbed on Ni surface, decomposition rate, magnetocatalytic effect absence 2−99709
NH_3, synthesis, on Fe surface, IR spectrosc. anal. 2−93813
NH_3 synthesis, on Fe surface, IR spectrosc. anal. 2−93814
NO+CO, long transients in surface reactions at high pressures 2−78131
NO_2, adsorbed on Cu surface, reaction, UHV ESR obs. 2−67765
Na_2O-Fe_2O_3-SiO_2, glass, surface dealkalisation, role of iron oxides 2−73016
Ni (100), decomposition of methanol 2−83413
Ni, adsorption of ethylene and acetylene, chem. modification, SIMS investig. 2−105515
Ni, monocryst., chemisorpt. of benzene, hydrogenation and exchange *(French)* 2−67766
Ni surface, stepped, CO adsorpt. and dissociation, FEM study 2−92358
Ni surfaces, dehydrogenation of cyclohexane, cyclohexene, and cyclohexadienes to benzene 2−83415
Ni surfaces (001) and (111), O_2 interaction, SIMS investig., residual hydrogenated cpds. intervention 2−73015
Ni-Fe, surface (100), oxidation 2−116612
Ni-O surface, interaction with H_2 and H_2O, SIMS study 2−99708
Ni+ethylene surface reaction, SIMS and thermal desorpt. mass spectra 2−105514
O_3, absorbed on porous particles, dissoc., rel. to ball lightning 2−105512
OH reduction in preforms by isotope exchange 2−83408
Pb surfaces, halogenation, UV photoelectron spectra 2−73013
PbO-SiO_2 glasses, leaching mechanism in acid soln. 2−93646
Pd (111), chemisorption of Br and dibromide form. 2−66364
Pd surface (100), initial oxidation, LEED, EELS and AES studies 2−56314
Pt (111), adsorption and surface reactions of O_2, CO, and ethylene, EELS and thermal desorption study *(German)* 2−98469
Pt (111), water form. from coadsorbed O and H, XPS and temp. programmed reaction obs. 2−83411
Pt, adsorbed CO, oxidation, photocatalytic effect 2−111519
Pt surfaces, dehydrogenation of cyclohexane, cyclohexene, and cyclohexadienes to benzene 2−83415
$Pt_{10}Ni_{90}$, chemisorpt. of benzene, hydrogenation and exchange *(French)* 2−67766
Pt(S), H_2+O_2 surface reaction kinetics 2−116727
Pt(111) with adsorbed carboxylates, struct. and reactivity 2−87035
Rh, surface (111), oxidation, impurity effects, EELS and AES studies 2−111353
SO_2 chemisorption on Ag (110), atomic O effects, UPS, LEED and thermal desorpt. study 2−76824
SO_2 decomposition kinetics on Pt (111), AES study 2−105509
Se, ion plated on α-brass, adhesion and interface chemistry 2−66405
Si-d metal interface, interface, O_2 interaction, photoemission investig. 2−110474
Si+F reaction, gas phase products anal. 2−83409
SiH_4 on W-emitter, surface interaction, field ionisation mass spectra 2−105503
SiO_2, collision with n-octane, vibr. energy transfer, mass spectrosc. obs. 2−114082
SiO_2, methanol and N_2 adsorpt., porosity charact. 2−62433
SiO_2, non-porous, surface lyophobicity and heat of immersion in cyclohexane 2−62434
Si(111), stepwise oxidation and nitridation study 2−88246
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380
Sr+Cl, desorpt. kinetics, dissoc. and recombination rate consts., temp. depend. *(German)* 2−78124
Th(111) chemisorption of O_2, CO and CO_2, electron spectroscopic studies 2−56337

surface chemistry continued
Ti alloys, high melting point, low temp. plasma interaction *(Russian)* 2−99595
Ti, oxidation of C and S surface impurities 2−72882
Ti-Si enriched layer for carburization protection of Hastelloy X 2−116619
$TiSi_2$, appls. in MOS technology 2−104501
α-U, chemisorption of O_2, CO_2 and CO_2, electron spectroscopic studies 2−56337
UO_2, porous, low-temp. Kr adsorpt. 2−61297
$W(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
$WO_3.H_2O$ film, cation insertion reactions 2−105526
n-WSe_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
$ZnO+CO=Zn(gas)+CO_2$, reaction free energy 2−53708
Zr, oxidation rate calc. 2−62266

surface composition *see surface structure*

surface conductivity
see also surface scattering
bis(ethylenedithiolo)-TTF, metal-semiconductor transition suppression, two dimensionality 2−87150
conference on surface physics, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
dielectric materials, surface TSC meas., residual gas condensation effects 2−72045
electron gas, disordered two-dimensional, freq.-depend. cond. 2−82427
many-valley semiconductor, polarisation-dependent photocond. and surface photocurrent 2−115821
MIM structures, electroreflectance meas. 2−93160
MOS structure, bulk generation lifetime and surface generation vel., rapid determ. by saturation capacitance meas. *(Chinese)* 2−92760
photoinsulator-airgap-dielectric system, surface charge calc., separation of surfaces in elec. field 2−87337
PVC:I_2, photoconductivity, doping effect 2−61629
PVC electrical characts. deterioration when irradiated by Co^{60} γ-rays *(Japanese)* 2−56031
quantised two dimensional Hall cond. theory 2−98718
semiconductor, surface 2D plasma conductivity tensor components, direct meas. method 2−115850
semiconductor surfaces, general recomb. statistics, effect of extra carriers 2−110438
steel, lightly doped, pulsed elec. field action near voids and nonmetallic inclusions *(Russian)* 2−67572
surface superlattices, lateral, transport and scatt., Monte Carlo calc. 2−104454
Ag-O-Cs, S1 photocathode, surface resist. meas. 2−87940
$CdSnA_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
$CdSnP_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
GaAs electrical surface props. determ. by thermo-optical acousto-electric voltage method 2−92720
GaAs, surface oxide thin film, carrier photoinjection 2−92699
GaAs-oxide interface electronic struct. 2−87409
Ge (100) alkali metal adsorption, surface cond. and interface states, EELS study 2−92716
Ge, cleaved surface, charge carrier minimal motion *(Russian)* 2−72046
Ge, surface oxide thin film, carrier photoinjection 2−92699
Ge:$He^+(Ar^+)$, ion implantation, surface recombination kinetics meas. 2−66031
InP (100), electron cond. in surface subbands 2−115846
InP, MIS struct., electron subbands, magnetoconductance oscills. cyclotron resonance and surface cond. meas. 2−56708
InSb, surface oxide thin film, carrier photoinjection 2−92699
PbI_2, surface, photolysis and conductivity, desorption, quadrupole mass spectra study 2−66617
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
Si, adsorption of O_2 and H_2, influence on surface cond. *(Russian)* 2−72047
Si, heavily implantation with BF_2^+ (BCl_2^+) and carrier density meas. 2−81803
Si surface, recombination channels 2−72002
Si, surface oxide thin film, carrier photoinjection 2−92699
Si:P, amorphous, ion implantation doping and surface conductivity 2−115262
Si-SiO_2 charge coupled struct., surface charge transport, losses, temp. depend. 2−115851
Si-SiO_2 MOS struct. etched in chloroform RF discharge, charge props. *(Russian)* 2−61592
SiO_2, anodised surface layers, SIMS study 2−105352
SiO_2-PbO-Bi_2O_3 glass, surface cond. meas. 2−87363
SnO_2(110), surface reconstruction effects on work function and surface cond. 2−115857
WO_3, amorphous film, elec. cond., humidity depend. and meas. *(Japanese)* 2−112914
ZnO surfaces, decomp. of ethanol and acetaldehyde, thermal desorption and surface cond. meas. 2−105508
Zn_3P_2, AC photocond., spectral response 2−77109
ZrO_2, CaO stabilised, calc. of n, p-type conductivity surfaces 2−98717

surface contours
see also surface structure; surface topography measurement
anodic leveling under secondary and tertiary current distribution conditions 2−88270
conveyor belt surface meas., contactless scanning by US transducers *(German)* 2−53734
diamond, micropowder, thermal ovalling, theoretical model 2−88018
electrode protrusion influence on cylindrical spacer surface flashover voltage in SF_6-N_2 gas mixtures 2−91710
heterogeneous solid surfaces, low temp. gas adsorption, surface topography effects 2−104146
kaolin, mech. strength rel. to specific surface 2−57403
metal electrodeposits, surface roughness and max. deposition rate, periodic reverse current effect 2−116705
optical scattering from rough surfaces, integral eqn. perturbative method 2−57034
polystyrene, atactic, propag. of shear bands through obstacles 2−67427
rough metal surfaces, EM wave absorptivity and emissivity meas. 2−77471
solid cylinders, surface contours in axi-symm. upsetting 2−67431

surface contours continued
steel, C, rolling-contact fatigue, effect of tangential traction and surface roughness 2−111256
two-dimensional discrete properties of random surfaces 2−104126
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
AlN CVD films, comp., kinetics, and mechanism of growth 2−87100
Au/n-Si Schottky diode, elec. props., effect of regular surface relief 2−77158
Cd electrodeposit on Cu wire, surface roughness and max. deposition rate, periodic reverse current effect 2−116705
Cu-Ni system, diffusion erosion phenomenon *(Russian)* 2−77988
$Cu_xMo_6S_8$, sputtered film, surface topography, SEM study 2−92321
$Cu_2S/(Cd,Zn)S$ solar cells, fabrication and characterisation, SEM study 2−73122
GaAs, MBE growth on Ge (100), interface morphology, RHEED study 2−56386
Ge, MBE growth on GaAs (100), interface morphology, RHEED study 2−56386
InSb, LPE regrowth by CW laser annealing, expt. study 2−56029
MoS_2 films, lubrication and failure mechanisms, substrate surface finish influence 2−110216
Na_2O-CaO-SiO_2 glass, leaching characts., surface roughness and surface area effects 2−93650
PVC, rigid, wear, effect of mol. wt., surface roughness and sliding speed 2−111323
Se corrugated surface, surface flattening kinetics under heating, light scatt. study 2−82089
Si, recrystallised CVD film; laser irrad., surface topography characts. 2−82086
Si:H amorphous sputtered films struct. correlation with prep. cond., STEM study 2−66400
Si/Rh bilayers, optical storage by laser writing 2−81036
SiO_2-B_2O_3-K_2O-Na_2O glass, leaching characts., surface roughness and surface area effects 2−93650
Si(100) surface inversion layer, electron mobility, memory function and Boltzmann eqn. approaches 2−56699
ZnO (000$\bar{1}$) surfaces, chem. etched, topography study 2−98401

surface diffusion
see also sorption
activation energy, ion beam microtexturing determ. 2−56330
adatom cluster diffusion on surfaces 2−98435
adatom coalescence and cluster motion on amorphous surfaces, mol. dynamics simulation 2−56351
adatom diffusion, Monte Carlo anal. 2−115568
adsorbate diffusion, particle hopping lattice gas model 2−92362
adsorbed layers, diffusion, review 2−104140
alloys, hardness measurement during nitriding, meas. apparatus 2−72912
alloys, surface segregation due to chemisorption and absorpt. 2−56345
aluminosilicate glass surface interdiffusion and phase boundary reaction in aqueous CsCl soln. 2−57503
atomistic or molecular processes on clean surfaces: recent advances 2−110130
brass, diffusion galvanising kinetics 2−111377
creep fracture by void growth 2−77940
cutting tool carbonitriding in salt baths 2−67643
embrittlement, continuum theory 2−109895
FCC (111) Lennard-Jones system, surface self-diffusion theory 2−98327
graphite, adsorbed methane, rot. diffusion, incoherent quasielastic neutron scatt. study 2−56352
graphite, Cr_xC_y diffusion layer form. 2−83289
liquid-liquid interface, adsorbed species surface diffusion and convection, theory 2−98387
metals, adsorbed atom diffusion coeffs., FEM 2−115555
metals, chemisorbed atoms, friction coeff., electron correlation 2−92345
metals, multiphase oxide film growth by cation interstitial diffusion 2−62272
molecular dynamics study of adatom and vacancy diffusion 2−87061
rate constants for surface processes, desorption and hopping 2−56350
reactive diffusion in two component solid soln. 2−61191
sintering, surface diffusion, anal. using morphology model 2−111107
steel, boriding, with high-freq. current heating 2−67644
steel, C, Cr_xC_y diffusion layer form. 2−83289
steel, C, pore-free siliconising 2−111375
steel, carburised and nitrided cases, struct. criteria for quality eval. 2−62280
steel, case hardened depth, depend. on carburisation duration 2−62281
steel, hardness measurement during nitriding, meas. apparatus 2−72912
steel, low-alloy, hardness and brittleness of nitrided case 2−62282
steel, medium C, cavitation resist. of Cr diffusion coatings 2−72872
steel, nitriding processes control, thermodynamic calcs. 2−67642
steel, plasma-induced nitrided and carburised layers, technological importance 2−57543
steel, stainless and structural, nitriding, saturation with H 2−62283
surface and interface diffusion and segregation 2−104128
Taylor dispersion phenomena, general theory 2−74327
transition adatoms on transition metals, and of simple chemisorption theory 2−92346
transition metal, refractory, surface carbidisation by elec.-spark alloying 2−67658
vapour adsorption, surface diffusion and heterogeneous nucleation on solid substrates 2−76813
Al (111), chemisorption of Li, O, and Na, cluster model 2−66363
Al, oxide film chem. composition, influence on surface props., SIMS, XPS, AES 2−104209
Au film growth on amorphous C, Au clusters surface diffusion, computer simulation 2−92412
Co-Fe(Ni), ternary oxide scale form., diffusional growth, computer simulation 2−62271
CoO, undoped and Cr doped, segregation and near surface diffusion 2−76682
Cu with adsorbed CO, laser flash desorption, surface diffusion 2−87039
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
Cu-Ni system, diffusion erosion phenomenon *(Russian)* 2−77988
Cu-Sb, chemiepitaxial layer formation, during reactive diffusion 2−76849
Fe, cast, cavitation resist. of Cr diffusion coatings 2−72872
Fe, cast, white and grey, Cr_xC_y diffusion layer form. 2−83289
Fe, nitriding processes control, thermodynamic calcs. 2−67642
Fe, oxidation, high temp., growth of haematite blades 2−78019

surface diffusion continued
Fe polycrystalline wire, Ni coated, plastic deform. during diffusion homogenisation *(Russian)* 2−67445
Fe-Cr(-Mo), reaction with Cl_2 gas, kinetics and mechanism 2−67639
MgO and Cr doped MgO, surface diffusion 2−76785
Mo, interaction with molten Cu 2−72873
Mo, surface diffusional electrotransport of ^{63}Ni *(Russian)* 2−104083
Nb, coated with $MoSi_2$-Pd, protective props., Pd effect 2−116614
Nb-Mo-Zr, carbide form. and embrittlement in technical Ar at 1100°C 2−72821
Ni, high-porosity strips, capillary infiltration by Pb-Sn 2−115506
Ni, migration on C, SiO_2 and Al_2O_3, TEM obs. 2−86983
Pb on graphite, morphological change mechanisms during equilib. shape establishment 2−91839
Pd_xZr_{1-x}, surface segregation due to H absorpt. 2−56345
Pt surface (110), cross-channel diffusion mechanism anal. 2−61288
Re surface, nuclear spin relaxation of alkali metal atoms 2−98991
Sb-Te, chemiepitaxial layer formation, during reactive diffusion 2−76849
SiC, diffusion annealing in B vapour, surface distrib. of B 2−56305
SiO_2-CaO-Na_2O glass surfaces, interdiffusion of H^+ and alkali ions, elec. resist. study 2−110034
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
Ti alloys, high melting point, low temp. plasma interaction *(Russian)* 2−99595
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
W (211) surface, substrate strain induced interaction of adatoms, diffusion and self trapping 2−66368
W surface, diatomic W cluster migration, computer simulation 2−86990
W, surface diffusional electrotransport of ^{63}Ni *(Russian)* 2−104083
W, vacuum siliciding diffusion parameters, influence of NaCl activator 2−83273

surface discharges
see also corona
AC superficial discharge-insulating surface interaction, phase meas. apparatus 2−58848
diffusion-pump oil, Dow Corning type 704, vacuum flashover 2−91706
electrode protrusion influence on cylindrical spacer surface flashover voltage in SF_6-N_2 gas mixtures 2−91710
insulating oil, inception field at point electrode on dielectric slab surface 2−104812
insulators in vacuum, surface elec. strength, influence of electrode area *(Polish)* 2−76212
Meteosat-2 discharge expts. 2−68594
nanosecond surface discharge at low pressure in air 2−103512
phase electrodes, current density distrib. in point-to-plane configuration 2−103518
PMMA in vacuum, effect of surface deterioration 2−91707
polyethylene in vacuum, effect of surface deterioration 2−91707
polymers, quantitative method for determ. of resistance to surface discharges 2−109616
positive streamer, charge density distrib. on dielectric surface 2−103555
PTFE in vacuum, effect of surface deterioration 2−91707
solid dielectric in vacuum, surface flashover 2−91689
spark gap insulator surface damage, ellipsometry and SEM obs. 2−92330
SF_6, flashover voltage dependence on tangential field strength of contaminated insulator surfaces 2−103532

surface electron states
see also interface electron states; surface scattering
ab initio atom cluster model 2−115641
adsorbates, non-adiabatic processes, theory 2−115543
adsorbates, photoemission splendectra, satellite structs. 2−105048
adsorbed atoms, indirect interaction on metal surfaces 2−71806
adsorbed atoms, vibrating, electronic struct., mag. field effect, theory 2−110435
alkali halides, F-centres absorption spectrum, surface polarisation effects, theoretical anal. 2−77556
alkali metal (110) surface, adsorbate-induced surface states effect on optical props. 2−104452
antiferromagnet, uniaxial, surface polaritons 2−104600
atomic geometry determ. and appl. 2−110095
Bloch waves, anal. props. and surface states, tight-binding approx. 2−56656
book contrib. 2−66615
ceramic/ceramic (metal) systems, surfaces and interfaces, 17th Univ. Conf. (7th LBL/MMRD Int. Materials Symp.), Aug. 1980 2−94909
chemical physics of clean solid surfaces, book 2−63762
chemisorbed species, Auger lineshapes, effect of hole-hole correlations 2−87919
chemisorption, localized spin-orbital theory 2−56339
collective excitations, radiative decay in polarisable cylinders, theory 2−110431
conference on surface physics, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
conference on surface science, Liverpool, England (April 1981) 2−58538
core level photoelectron spectroscopy for surface crystallography 2−77694
core p-vacancy levels in crystal field, multiplet struct. calcs. 2−98580
core-level shifts, semiempirical theory 2−56662
core-valence-valence Auger lineshapes 2−87917
desorption, fast ion induced, polarization field 2−98432
diamond, (111)-(2×1) surface, dimerised chain model reconstruction 2−77153
diamond, exactly soluble models 2−87357
diamond (110), electronic struct. transformation, EELS study 2−56658
diamond (111), (1×1) struct., strongly correlated surface state band model 2−110418
diamond (111) reconstructed surface, electronic states, angle-resolved photoemission study 2−57257
dielectric surface levels, optical props. 2−61548
disordered two-dimensional system, localisation criteria 2−104450
EM study of grating enhanced nonlinear surface polariton excitation 2−61372
exactly soluble models 2−87357
ferroelectrets, exoemission visualisation of defects 2−67200
ferromagnet, localised surface states in case of modified ground state *(Russian)* 2−61535
field sustained surface states, relativistic, existence condition 2−61537
for IR surface plasmon propag. at metal-air interfaces 2−98566

surface electron states continued
four-wave mixing and two-dimensional phase conjugation of surface plasmons 2−86056
Fourier transformation direct data reduction of normal photoelectron diffr. curves 2−93372
graphite surface, electronic struct., ab initio atom cluster model 2−115641
Green's function calc. of bulk and surface electron states, layer-by-layer KKR scheme 2−98523
Green's function calcs. 2−104448
Heisenberg ferromagnet, surface states, exactly soluble models 2−87357
hexatriacontane, angular- and light-polarisation dependent valence UV photoelectron spectra, electronic struct. 2−99294
ideal vacancy and surface states, tight binding calcs. 2−104227
II-VI semiconductors, (110) surfaces, angle-resolved photoelectron spectroscopy, valence band struct. *(Japanese)* 2−116339
II-VI semiconductors, electronic surface states, review 2−110411
III-V semiconductor photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
III-V semiconductor-metal interface, Schottky barrier form. due to surface antisite defects 2−61556
inelastic ion-surface collisions, conf., Feldkirchen-Westerham, Fed. Rep. of Germany, (Sept. 1980) 2−74161
insulator surfaces, electronic struct. of point defects, review 2−61539
intermediate layer, surface superconductivity 2−104523
inversion layers, hopping cond. in two-dimensional impurity band 2−104464
jellium surface, charge response through ripplons 2−87164
liquid He surface, low-dimensional electron systems *(Russian)* 2−98361
metal, free electron, adsorption of He, kinetics, polarization induced dissipation 2−98447
metal, surface Bernstein modes 2−82420
metal ferromagnet, electronic surface levels 2−66614
metal film, surface magnetoplasmons, quantum theory, RPA approx. 2−82259
metal particles, surface plasmon lifetime 2−61382
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metal surface, pressure distrib., density functional theory 2−77146
metal surface, randomly rough, elec. field enhancement, surface enhanced Raman scatt. 2−87790
metal surface, sinusoidal, surface plasmon polariton modes, contrib. of surface enhanced Raman scatt. 2−110845
metal surface, sticking probability, electron-hole pair mechanism, temp. depend. 2−56336
metal surface positron binding calcs. 2−98707
metal surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
metal surfaces, adsorpt. of $H(H_2)$, electronic damping of adsorbate vibrations 2−104135
metal surfaces, monocrystalline and chemisorbed species, photoemission study *(French)* 2−105052
metallic surfaces investigation by ATR and Auger spectroscopy and electrical resistance meas. 2−72078
metals, core-electron photoemission spectra shape 2−77701
metals, magnetic surface states, angle resolved photoemission studies 2−66604
metals, multielectron core excitation spectra, surface effects 2−87912
MIS amorphous solar cells, theory of Schottky barrier heights 2−116827
MNOS structure, surface state density evaluation 2−61602
molecular crystal surfaces, energy level bending 2−104449
narrow gap semiconductors, interfacial and surface energy bands 2−92719
narrow-gap semiconductors, surface polariton excitation by laser radiation 2−104264
optical cavity excitation for surface energy transfer enhancement, pole analysis 2−57042
optical scattering from rough surfaces, integral eqn. perturbative method 2−57034
perturbation effects, influence on surface states 2−98710
3,4,9,10-perylenetetracarboxylic dianhydride, Elovich photovoltage decay kinetics 2−98696
photocathodes, photoelectron spectra, Monte Carlo simulations 2−67197
photoelectron spectroscopy, angle resolved UV, electronic band struct. determ. 2−111020
photoelectron spectroscopy using synchrotron radiation 2−93373
plasmon propag. parallel to grooves of large amplitude grating 2−60000
plasmon-polariton nonlinear interaction, coupled-mode theory 2−115840
plasmons, use in meas. of third order nonlinear optical susceptibility 2−114353
polar surface of compound crystals, electronic struct. 2−110416
polariton scattering by order parameter fluctuations near phase transition point 2−110265
polaritons, surface, p-polarised nonlinear, in layered structs. 2−98705
polaritons along a grating, linear EM study 2−109029
polaron, ground-state energy, phase diagram 2−56657
poly-1-vinyl-1,2,4-triazole-metal boundaries, charge carrier photoinjection 2−61587
positrons, surface bound, theory of desorption 2−87195
Raman scattering, surface enhanced, surface-plasmon-polariton resonances, classical calc. 2−77529
Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
rare earth metals, photoemission studies of surface core-level shifts and their applications 2−87941
rare earth metals, surface shifts, photoelectron spectra study 2−105046
rare gas adsorbates, local work function determ. by photoemission 2−82436
reconstructed overlayer system, electronic states 2−56654
review 2−82425
self-trapping of an electron by the surface modes 2−104461
semiconductor, amorphous, surface double layer model, bulk localised states in gap 2−92726
semiconductor, one-dimensional, laser excitation of surface electronic states 2−56665
semiconductor, space charge layer, collective modes, perturbation theory 2−61383
semiconductor, surface electron states, barrier height determination *(French)* 2−110436
semiconductor, surface states spectroscopy, appl. of Tikhonov regularisation method 2−92717

surface electron states continued
semiconductor electrode, relaxation effects of surface and interface states 2−61583
semiconductor field effect measurement, apparatus used 2−66563
semiconductor film, EM wave absorpt. by two-dimens. plasmons 2−115685
semiconductor surface, adsorbed layers electronic struct. changes, theory 2−82426
semiconductor surface, picosecond laser damage mechanisms, energy transfer by reson. surface plasmons 2−115283
semiconductor surfaces, struct. and surface states, review 2−98395
semiconductor thin film, size quantisation of holes and carriers, energy spectrum and effective mass *(Russian)* 2−82499
semiconductor-electrolyte interface, electrochemical transfer via surface states 2−87384
semiconductors, ideal vacancy and surface states 2−104226
semiconductors, modification in gaseous media *(French)* 2−92718
semiconductors, photoemission studies of surface core-level shifts and their applications 2−87941
n-Si/acetonitrile interface, Fermi level pinning and surface states investig. 2−61584
simple-cubic tight-binding solid, vacancy-vacancy effective interaction in bulk and on surface 2−56008
small metal sphere, EM response, general nonlocal theory 2−104830
small metallic particles, quantum size effect in optical props. 2−87721
solids, core level spectra, electronic relax. effects 2−92713
steel, surface layers formed by friction, AES and X-ray emission spectra study *(Russian)* 2−93635
surface and interface mag. props. 2−66772
surface physics, conf., Bechyne, Czechoslovakia (Sept.-Oct. 1980) 2−89457
surface plasmons hydrodynamical theory 2−72043
surface polariton interaction, electron transmission expt. appl. 2−87354
surface pseudopotential calcs., aspects of self-consistent procedures 2−104451
surface shape resonances 2−87718
surface with impurity and distortion, relativistic surface states 2−98711
thin films, nonlinear surface polariton dispersion at resonance with oscills. 2−61371
thin films, optical spectroscopic studies, appl. of surface phonon polaritons and surface plasmons 2−110437
transition metal oxides, surface oxidation state, Auger studies 2−72581
transition metal surface kink electronic structure 2−56666
transition metals, ferromag., chemisorption of H, self-consistent model 2−115554
transition metals, photoemission studies of surface core-level shifts and their applications 2−87941
transition metals, stimulated proton desorption 2−87027
two-dimensional electron systems, zero-resistance state and quantised Hall effect 2−61491
two-dimensional lattice, interaction energy between charged particles, lattice type depend. *(Russian)* 2−56667
two-dimensional system, quantized Hall cond., effect of Landau band struct. 2−61490
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
two-photon transitions to surface states, angular dependences 2−99081
W (100) face, unreconstructed and H reconstructed, W4f core level shift study 2−92711
X-ray-excited Auger and photoelectron spectroscopy, review 2−99299
Ag (100) surface, electronic struct., photoemission study 2−83002
Ag (111), I_2 monolayer, core electron spectroscopy 2−72604
Ag evaporated film, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
Ag film, surface photoemission in 4d band 2−87952
Ag films, surface plasmons, light emission efficiency meas. 2−77151
Ag, surface polaritons, attenuated total refl. 2−116288
Ag-gratings, surface plasmon dispersion relations 2−98708
Ag-pyridine sols, surface enhanced Raman scatt. 2−82859
Ag_2 film, IR surface plasmon attenuation coeffs. 2−110434
AgBr:Au photographic grains, role of Au containing surface states, expt. study 2−74538
Al, (111), blue coloured surface obs. during high temp. oxidation 2−88280
Al (111), chemisorption of Li, O, and Na, cluster model 2−66363
Al (111), overlayer of O, position, electronic and binding props. 2−82135
Al-Al_2O_3-Au(Cu)(Ag) tunnel junctions, electron energy loss function image in light emission 2−116267
Al-GaAs MBE Schottky barrier height, O stabilization 2−87367
Al-SiO_2-Si, MOS struct., low temp. var. of oxide change and surface state density conc. under γ-irrad. 2−104496
AlAs (110) surface, deep defect levels and Schottky barrier calc. 2−110413
$Al_xGa_{1-x}As$(100) epitaxial surface, photoemission study 2−93371
η-Al_2O_3, surface states, luminescence study 2−61955
AlSb(As)(P), surface (110), bound and resonant surface states 2−110429
Au (110), electron spin polarisation in photoemission calc. 2−57259
Au (111) surface, light-induced magnetisation, PES study 2−67185
Au film, IR surface plasmon attenuation coeffs. 2−110434
Au, photoemission studies of surface core-level shifts and their applications 2−87941
Au, photoemission study of condensed layers of H_2 2−93374
$BaPb_{1-x}Bi_xO_3$, electronic struct. study 2−110432
Be monolayer, electronic struct. calc. method 2−115844
CaD, EELS study, surface states 2−110998
Cd film, laser-photodeposited, stimulated surface plasma wave scatt. and periodic struct. growth 2−87108
n-CdS, exciton refl. spectrum, inversion layer effect 2−116207
CdS films, chemisorption of O_2, XPS study 2−99292
CdS, refl. spectrum, additional boundary conditions, linear response theory 2−77548
n-CdSe, electrodeposited, Fermi level pinning, low-field electrolyte electrorefl. spectra 2−57059
Cr, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
Cr, electron energy loss spectra for clean and oxidized surfaces 2−56663
CsBr, surface phonon polariton, far IR dielec. const. determ. in reststrahlenband, laser spectroscopy 2−99085
Cu (111), clean and Na covered, CO adsorption, surface state shifts, UPS study 2−98716
Cu, photoemission study of condensed layers of H_2 2−93374
Cu, surface sp-d charge transfer 2−104458
surface electron states continued
Cu, surface sp-d charge transfer 2−104459
Cu-Al, surface electronic states, Tamm state, photoemission, LEED and Auger study 2−98712
Cu-Al(Ni), electronic struct. atomic approx. 2−104244
$Cu_{0.9}Al_{0.1}$, bulk and surface electronic struct. 2−104238
Cu_3Au (111), surface state near Fermi level, photoelectron spectra 2−92712
Cu(100), surface core-electron binding energy shifts 2−104460
Cu(110), corrugation profile determ. by the scatt. 2−104455
Cu(110) with adsorbed Xe, commensurate-incommensurate transition, PES study 2−104154
DyS, bulk and surface valence states 2−104247
Eu-Au, surface segregation study using surface shifted core levels 2−105047
$EuPd_2Si_2$, mixed-valent system, surface shifts, photoelectron spectra study 2−62047
EuS, bulk and surface valence states 2−104247
Fe (001) film, surface states, surface magnetisation, electron spin polarisation 2−61540
Fe (110) surface, exchange splitting, binding energies 2−77149
Fe, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
Fe, optical absorption anomaly *(Russian)* 2−61928
GaAs (001), adsorbed Pb, electronic struct., angle-resolved photoemission study 2−110424
GaAs (001)-2×4 reconstructed surface band struct. 2−72042
GaAs (110), Al chemisorpt., extended Huckel mol. orbital calc. 2−66345
GaAs (110), chemisorbed H, pseudopot. calc. 2−110423
GaAs (110), chemisorption of Ge, surface defect states 2−56659
GaAs (110), chemisorption of Ge, UPS and work function studies 2−110412
GaAs electrical surface props. determ. by thermo-optical acousto-electric voltage method 2−92720
p-GaAs, reduction of fast surface states 2−66602
GaAs surface, electron state density, low energy electron reflection study *(Russian)* 2−87362
GaAs, surface (100), reconstructed, atomic and electronic struct. 2−115518
GaAs, surface donors and acceptors, Fermi energy as function of O_2 exposure 2−110426
GaAs surface state reduction by plasma growth of oxyfluorides 2−110427
GaAs, surface states, intrinsic unoccupied, bremsstrahlung isochromat spectroscopy study 2−98713
GaAs, surface Tamm state energy spectrum, Green's function calc. *(Russian)* 2−77154
GaAs:Cr surface states, two-beam transverse acoustoelec. spectroscopy study 2−82463
GaAs-$Al_xGa_{1-x}As$ heterojunctions, zero-resistance state of two-dimensional electrons in a quantizing magnetic field 2−61570
GaAs(110), vacancies and adsorbed H, electronic struct. calc. 2−110422
GaP(110), chemisorbed H, pseudopot. calc. 2−110423
GaSe single crystals, surface photo-EMF at high excitation levels 2−61522
Ge (111), Cl chemisorpt., charge density self-consistent-extended Huckel calc. 2−66344
Ge (111), clean and adsorbed H, electron states, angular resolved UPS study 2−110414
Ge (111) surface, electronic struct., photoemission meas. 2−66609
Ge surface, adsorpt. of H, electrophysical props. 2−76833
Ge, surface, electron capture, Thomas-Fermi approx. 2−61547
Ge:H, (111) surface, electronic struct., photoemission meas. 2−66609
Ge-GaAs (110) heterostructures, electronic props. and chem. comp., low-energy EELS study 2−93339
H monolayer, electronic struct. calc. method 2−115844
He film, superfluid, dipole complexes *(Russian)* 2−56293
He film, surface electron localisation, UHF EM absorpt. study *(Russian)* 2−56294
He film surface, self-trapped electron, temp. depend. effective mass 2−76776
He films on solid Ne, two dimens. electrons, electron mobility meas. 2−61246
He, liq., character of electrons on surface *(Japanese)* 2−82055
He liquid, localised electron states energy spectra *(Russian)* 2−110278
He, liquid, sum rules and dynamical properties of two-dimensional classical electron liquid 2−110087
He superfluid thin film, electron spectrum *(Russian)* 2−61248
He surface, two-dimens. electron lattice, phonon-ripplon coupled modes 2−110089
He, two dimens., electrons, escape rate, correlation effects, expt. study 2−61252
^{4}He, charged particle systems, collective aspects, theoretical anal. 2−61230
^{4}He film, surface electrons, localisation energy and effective mass, path integral formalism 2−61244
^{4}He film, surface two-dimens. electron, polaronic aspects, path integral formalism 2−61245
^{4}He, liq., surface state electrons escape rate below 1K 2−61226
^{4}He, liq. surface, electron charged, macroscopic structs., optical study 2−61233
^{4}He, liq. surface, macroscopic electron dimples obs. 2−61232
^{4}He, superfluid film, two dimens. electron system, electron dimples-vortex pair interactions, theoretical anal. 2−61247
$Hg_{1-x}Cd_xTe$, surface and interface electronic props. derived from III-V cpds. theory 2−87355
$Hg_{1-x}Cd_xTe$, surface electronic struct. and cation bonds, tight binding calc. and UPS study 2−110428
HgSe, 2-D surface electron states, tunnelling spectra study 2−72044
InAs, surface, electron state density, low energy electron reflection study *(Russian)* 2−87362
$In_{0.53}Ga_{0.47}As$-$In_{0.48}Al_{0.52}As$ interface, MBE grown, two-dimens. electron gas 2−98730
InP (100), electron cond. in surface subbands 2−115846
InP (100) MIS system, energy levels of n-channel accumulation layer 2−61541
InP (110), elec. props., pseudopotential calcs. 2−66606
InP, electron stimulated interaction with water vapour, Auger and EELS study 2−76786
InP, surface defects and Fermi-level pinning 2−82431
InP, surface donors and acceptors, Fermi energy as function of O_2 exposure 2−110426
InP/Al_2O_3 MOSFETS, CVD of Al_2O_3 dielec. layer 2−111090

surface electron states continued
InSb, surface, electron state density, low energy electron reflection study *(Russian)* 2−87362
InSb(As), subband reson., nonparabolicity parallel excitation mechanism and doublet peak problem 2−61863
InSe single crystals, surface photo-EMF at high excitation levels 2−61522
n^+-$In_{2-x}Sn_xO_{3-y}$p-InP solar cell, electron trap characterisation by DLTS 2−92513
KI microcrysts., surface electronic transitions and adsorbate charge transfer 2−104453
LaB_6, adsorption of O on (100), (110), and (111) surface, UPS, XPS, and LEED meas. 2−66365
Li, surfaces (100) and (110), BCC, H atom-cluster interactions, ab initio Cl calc. 2−116325
LiF film, on $LiNbO_3$, Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
$LiNbO_3$:Fe, emission study of surface states 2−66608
MIS structure, minority carrier accumulation and capacitance under light illum. 2−115907
Mg (0001), surface electronic struct., angle-resolved photoemission study 2−115845
Mg, electron irrad., surface defect peak in EELS, V^--centres 2−92715
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
MgO (001), chemisorption of H_2 and CO, ab initio SCF calc. 2−104158
MgO smoke particles, surface plasmons, low electron energy loss imaging 2−67168
MgO surface, image force for fast electrons 2−111000
Mn overlayer on Cu(100), LEED, AES and UPS study 2−87111
Na_xWO_3, conduction band photoelectron spectroscopy, core holes and Fermi surface 2−105040
Na_xWO_3, high resolution electron energy loss spectroscopy, surface plasmons 2−82967
Ni (001), surface barrier resonances at tilted incidence, extinction map 2−77148
Ni (100), adsorption of N_2 and CO, photoemission study 2−56335
Ni (100) and (111), chemisorption of H, binding props., effective medium theory calc. 2−82137
Ni (110), He scatt., energy depend. and softness of pot. 2−87931
Ni, adsorption of N_2, HF cluster model calc. 2−56334
Ni surface, (110), surface barrier resonances excitation map, two dimensional nearly free electron approx. 2−77147
Ni, surface sp-d charge transfer 2−104458
Ni, surface sp-d charge transfer 2−104459
Ni surfaces, chemisorbed S(Se)(Te), electronic struct., mol. cluster model 2−77150
PLZT, transparent ferroelec. ceramic, surface effects for information storage *(Russian)* 2−104846
$Pb_{1-x}Sn_xTe$ epitaxial film, surface recombination, photoconductivity study 2−104393
Pd (III) unoccupied surface state, inverse photoemission obs. 2−98709
Pd MOS struct., dissoc. of adsorbed H_2, UPS study 2−105510
Pd-Cu (110), chemisorbed CO, Pt core level shifts, XPS study 2−77143
Pt (100), catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
Pt (100) surface, clean and S saturated electronic struct., UPS study 2−77145
Pt, chemisorption of CO, 4f surface core level shifts, soft XPS study 2−67195
Pt surface (111), CO chemisorpt. and oxidation, mol. orbital study 2−98463
Pt surface (111), clean and with chemisorbed CO, surface 4f core level binding energy shifts 2−87359
Pt, surface enhanced Raman scatt. from adsorbed pyridine induced by Ag adatoms 2−110871
$Pt_{0.98}Cu_{0.02}$, surface segregation and surface electronic interactions, UPS and AES study 2−66612
Pt(111), chemisorbed CO, reson. photoemission obs. 2−105039
Rh (100), surface electronic struct., density of states, self con sistent local orbital calc. 2−61339
Sb_2Te_2Se, photoelectron diffr. azimuthal patterns from different at. sites 2−93375
Si (100), interaction with AH_3 UPS study 2−77144
Si (100) electron inversion layers, magnetoplasmon interaction with cyclotron reson. harmonics 2−110482
Si (100) ideal surface, electron state investig. by transfer matrix Green function method *(Chinese)* 2−110415
Si (111), Cl chemisorpt., charge density self-consistent-extended Huckel calc. 2−66344
Si (111) 2×1, highly dispersive dangling bond band, angle-resolved photoemission study 2−66607
Si (111) 2×1 reconstructed surface, electron state investig. by transfer matrix Green function method *(Chinese)* 2−110415
Si (111) 7×7 surface, chemisorption of Cl and H, electronic struct., DV-XX cluster calc. 2−66613
Si (111) and (100), adsorption of H, UPS study 2−116338
Si (111) chemisorbed H, Cl, Ag, vacancy and chemisorptive bond elec. struct. 2−82417
Si (111) inversion layers, valley degeneracy and intersubband spectroscopy 2−61542
Si (111) surface, struct. of density of states studied by total current electron spectroscopy 2−87361
Si (111) surface inversion layers, subband separations, effects of exchange-correl. and surface strain 2−61543
Si beveled substrate, relationship between carrier distrib. and dopant atomic distrib. 2−66034
Si, chemisorption of O, electronic struct. study 2−87053
Si, complex band struct., surface states, Green's function, eigenvalue method 2−82206
n-Si, field-emission energy distribs., multiple peaks 2−67199
Si, generation kinetics oxide charges and surface states during oxidation 2−66611
Si inversion layers, minigaps, effects of one-dimens. periodic staircases 2−56700
p-Si, inversion layers, two-dimens. plasmon anisotropy, expt. study 2−61545
Si inversion layers, valley occupancy transition 2−87356
Si MOS struct., fast surface states, photovoltage spectra study 2−56697
Si, screening effects on Auger lineshapes 2−87918
Si surface, (001), adsorbed H, 2×1 and 1×1 structs., inelastic LEED study 2−92710
surface electron states continued
Si surface (001), plasmon excitation enhancement by LEED due to surface resonance 2−77139
Si surface (111), 1×1 struct., antiferromag. ground state, dangling bond states 2−66790
Si surface (111), Ag adsorption, struct. and electronic props., LEED and AES study 2−82092
Si surface (111), electron-photon interaction and metal-insulator transition 2−87358
Si, surface (111), Mott insulator model 2−115839
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360
Si surface electronic struct. of 1×1 and 7×7 reconstructions, UPS study 2−98715
Si, surface state bands of 2×1 reconstruction, angle-resolved photoemission study 2−98714
Si, vacancy and chemisorptive bond elec. struct. 2−82417
Si:C, polycrystn., C influence in resistivity and grain size 2−66547
Si:F, H, amorphous, density of localised states, DLTS study 2−98591
Si:H, amorphous thin film, pure and hydrogenated, adsorbed O_2 layer, electronic struct., XPS and UPS study 2−57254
Si:H amorphous MIS struct., Langmuir-Blodgett film 2−87410
Si:Zn surface, nonuniform depletion relax., expt. study *(Russian)* 2−115849
Si-SiO_2 charge coupled struct., surface charge transport, losses, temp. depend. 2−115851
SiC surface, relaxed, atomic and electronic struct. calc. 2−110119
SiC, surface states, rel. to mech. fracture, ESR obs. 2−110639
SiO, ion bombardment induced electronic states *(Japanese)* 2−93345
SiO_2 films, thermally nitrided, MOS characts. 2−61590
SiO_2, plasma deposition, indirect 2−116383
SiO_2, surface electronic struct. tight binding calc., UV photoelectron spectroscopy, and EELS study 2−82226
Si(100) and (111), surface electronic struct. changes induced by ion bombard., LEED and AES study 2−82983
Si(100), electronic correlation and buckling props. calc. 2−110421
Si(100)-SiO_2 inversion layers, final-state interaction and intersubband spectroscopy 2−56698
Si(100)-SiO_2 MIS system, inversion layer electronic struct. 2−115901
Si(111), (1×1) struct., strongly correlated surface state band model 2−110418
Si(111), (2×1) struct., Mott insulator model 2−110419
Si(111), adsorption of Ti, secondary electron spectroscopy 2−87015
Si(111), electronic and atomic struct., spin polarisation effects, theory 2−110417
Si(111), electronic struct., π-bonded chain model and nonbuckled antiferromag. insulator model 2−110420
Si(111)2×1, dangling-bond surface states, photoemission study 2−110430
Sm surface divalency from electron energy loss spectra 2−66610
SmS, bulk and surface valence states 2−104247
$Sm_{1-x}Y_xS$, surface core-level shift calcs. 2−104457
SnO_2 (110), surface electronic struct., tight-binding calc. 2−110250
Ta (111), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
Ta, surface core-level shifts for low-index surfaces 2−56661
Th, cathodoluminesc. in presence of O_2, CO, and gas mixtures 2−110953
TiN(100), surface state revealed by photoemission and gas adsorption studies 2−77705
Ti_2O_3, surface electron struct., defect, chemisorption effects 2−82421
Ti(0001), chemisorbed CO, correlated wave function calcs. 2−104148
TmS, bulk and surface valence states 2−104247
TmSe(Te)(S), surface effects on core level binding energies 2−115843
$Tm_xY_{1-x}Se(S)$, single site mixed valence, PES studies 2−110308
UAs_xSe_{1-x}, electronic struct. and magnetism 2−66605
USb_xTe_{1-x}, electronic struct. and magnetism 2−66605
$U_xTh_{1-x}Sb(U_xY_{1-x}Sb)$, electronic struct. and magnetism 2−66605
V, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
V oxides, oxidised surface state model, appl. to catalysis 2−82419
W (001), chemisorption of Cs, work function lowering by multiple dipole form., full pot. linearised APW calc. 2−72050
W (001) surface electronic struct., APW and warped muffin-tin calc. 2−61343
W (111), clean and adsorbed H_2, ang. resolved photoemission meas. and LCAO calc. 2−83008
W (111) and (100), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
W polycrystalline surface, Auger neutralization of multiply charged rare gas ions 2−99265
W, surface (110), NH_3 adsorpt. and decomposition, XPS study, core level binding energy interpretation using equiv. core approx. 2−115558
W, surface core-level shifts for low-index surfaces 2−56661
W(110) with adsorbed CO, core-level processes in electron stimulated desorption 2−110151
Yb, 4f levels, surface effects, UPS study 2−98706
Yb-Au, surface segregation study using surface shifted core levels 2−105047
YbS, bulk and surface valence states 2−104247
ZnO, refl. spectrum, additional boundary conditions, linear response theory 2−77548
ZnO, surface, two-dimens. plasmon spectra, low energy EELS study 2−61544
ZnO, surface (10$\bar{1}$0), localized and delocalized charge transfer during adsorpt. 2−110425
ZnO, surface exciton polariton, attenuated total refl. meas. 2−115666
ZnO surfaces, ideal and relaxed, electronic struct. 2−56660
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342
ZnSe(Te), surface electronic state spectroscopy resonances 2−115842

surface energy
see also surface electron states; surface energy measurement
adatom coalescence and cluster motion on amorphous surfaces, mol. dynamics simulation 2−56351
adsorption, interfacial tension variation with crit. two-dimens. nucleus size, theory 2−87041
binary compounds, preferential sputtering, at. mass and surface binding energy effects 2−57232
brittle solids, rel. between max. stress and macroscopic surface energy in crack formation 2−97448
capillaries, meniscus, wetting film, equilib. profile of transition zone 2−66321

surface energy continued
ceramics, heat resistance, rel. to strainability, strength and thermal expansion 2−115441
chemisorption energy, image pot. contrib. 2−104163
cohesion parameters applic. to wetting and adhesion, review 2−104119
displacement wetting, thermodynamic anal. 2−76780
drop, thermocapillary and buoyant flow in space laboratory 2−76779
electrolyte solns., surface struct., thermodynamic props., calcs. 2−76262
electronic structure, review 2−82425
FCC crystal-liquid interface, thermodynamic and struct. props., molecular distrib. function anal. 2−56166
ferrite surface in transformer steel and Armco Fe, C migration during graphite centres form. 2−67378
ferrofluid droplets, in mag. field, deform. study 2−56303
fracture, collective effects in an ensemble of microcracks and transition to macrofracture *(Russian)* 2−88156
fracture toughness expressions, instability conditions 2−56075
graphite, basal plane, adsorbed Ne orientational alignment 2−66361
heptane-water-tetraoxyethylene glycol dodecyl ether, low water content, dielec. obs. 2−93830
ionic crystal, NaCl struct. cohesive and surface energy eval. 2−65915
Ising model, d=2, surface energy and equilib. shape 2−69106
liquids, adsorbed solutes, bubble motion, surface activity 2−60617
metallic phase boundary, energy calc. *(French)* 2−87079
metals, chemisorbed atoms, surface bond energy estimation 2−82117
metals, cubic, brittle fracture surface energy, evaluation by lattice dynamical method *(Chinese)* 2−61059
metals, FCC, surface free energy anisotropy, computer model *(Russian)* 2−87007
metals, grain boundary surface energy, electronic component, perturbation calc. 2−104467
metals, nonlocal and local exchange, work function and surface energies 2−87370
metals, surface exchange energy, wave vector fluctuations 2−72049
mica, surface adhesion, effect of meniscus forces, appl. of macroscopic thermodynamics 2−56300
nematic homeotropically aligned cell in DC elec. field, alignment deterioration and surface props. meas. 2−115133
nonionic surfactants, struct. and solubilisation props. 2−93829
nonmetallic crystal surface energy estimation from hardness and solubility data 2−92336
nonpolar surfactant solns., microemulsion concept 2−93825
octyloxycyanobiphenyl, nematic, surface smectic A order, synchrotron X-ray diffr. study 2−71341
phase boundary energy, form of thermal groove along line of boundary emergence 2−76799
plates, reorientation transitions, phase diagrams, surface energy *(Russian)* 2−81956
polyethylene, calc. of free surface energy at cryst.-melt interface on crystn. *(Russian)* 2−56299
polymer glasses, in surface active medium, strength, time depend. *(Russian)* 2−109891
polymers, friction coefficient eqn. 2−111327
Potts model, semi-infinite, low temp. phase 2−53679
review of surface phase mechanics and thermodynamics *(French)* 2−66341
simple metals, face dependent surface props. 2−98721
sodium dodecylsulphate-protein complex, binding, light scatt. study 2−70459
steel, low-C, determ. of plastic surface energy 2−83178
triangular lattice, surface dynamics and thermodynamic props. anal. 2−76796
triethanolamine, interfacial resistance to evaporation, under vacuum 2−61256
water, flow beneath stagnant film, Reynolds ridge form. 2−65604
Ag halide emulsion, microcrystal growth rate and precipitation in emulsification *(Russian)* 2−58958
AgCl-LiCl molten soln., surface tension, activity and thermodynamic props. and density meas. 2−76778
Al, lattice relax. at surface, work function, surface energy 2−87008
Al-Al_2Cu, phase boundary, energy calc. *(French)* 2−87079
CuI, theory of superionic transition 2−66200
Fe/molten Ag system, wetting behaviour 2−82080
Fe-Si, high permeability elec. steel, Goss texture, surface energy and primary texture effects 2−83135
γ FeOOH, mechanochemical reaction effects on struct. and surface, IR and X-ray anal. 2−116726
GaAs, surface reconstruction, buckling, ionicity and π-bonded chains 2−92337
HPO_3, hydrated microdrop, normal-super liq. transform., SEM study 2−98258
Mg, lattice relax. at surface, work function, surface energy 2−87008
Na, lattice relax. at surface, work function, surface energy 2−87008
Na, surfaces (100) and (110) lattice relaxation 2−56311
PbO-B_2O_3 glasses, comp. depend. of fracture toughness, Vickers hardness and fracture surface energy 2−72793
PbTe, heterogeneous nucleation, statistical thermal anal. 2−65892
Si, surface reconstruction, buckling, ionicity and π-bonded chains 2−92337
$Sm_{1-x}Y_xS$, surface core-level shift calcs. 2−104457
Ta, surface core-level shifts for low-index surfaces 2−56661
W, surface core-level shifts for low-index surfaces 2−56661
ZnO (000$\bar{1}$) surfaces, chem. etched, topography study 2−98401
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342

surface energy measurement
fibres, surface energy characterisation 2−56326
C fibres, surface energy characterisation 2−56326
MgO, small crystal, surface energy and struct., STEM study 2−56327
NiO, small crystal, surface energy and struct., STEM study 2−56327

surface hardening
alloys, hardness measurement during nitriding, meas. apparatus 2−72912
brass, α/β phase, laser surface hardening, acoustic emission monitoring 2−67602
brass, vibration-hardening treatment, influence of polymer-containing oil media, mech. characts. 2−99603
cordierite based crystallised glass, damage resistance of fortified surfaces 2−111339
depth meas. by magnetic method, appl. to machine saw blades 2−111441

surface hardening continued
ferrous materials, plasma-nitriding in N_2-H_2-CH_4 gas mixtures *(German)* 2−88292
laser hardening, Gaussian and Doughnut beam, effect of heat source pattern *(Japanese)* 2−78008
metallic components under high stress, surface thermal treatment by laser radiation *(Rumanian)* 2−99600
metallurgy, ion implantation appls. *(Italian)* 2−93639
metals, case-hardened layers, hardness and thickness monitoring 2−111415
powder coatings produced by elec.-pulse sintering and weld facing for engine valve units, wear resist. 2−67659
solar energy conversion technologies, solid-solid interface research needs, adhesion abrasion and polymer coatings 2−88247
steel, 65G, high-energy electron irradiation influence on struct. *(Russian)* 2−61037
steel, alloy, boriding process, influence of alloying element additions 2−105378
steel, alloy, nitrosulphurised, wear props. 2−62233
steel, anti-tufftride coated, tensile strength and deformability effect of tufftriding time *(Japanese)* 2−93568
steel, austenitic stainless, surface hardening and microstruct. changes, influence of US vibr. 2−99538
steel, carburised and nitrided cases, struct. criteria for quality eval. 2−62280
steel, case hardened, fracture behaviour evaluation by means of fracture mechanics values *(German)* 2−83204
steel, case hardened depth, depend. on carburisation duration 2−62281
steel, Cr, nitrided, microstruct. 2−105381
steel, Cr-Mo, vacuum carburised, SCM 420, fatigue strength, carburised layer microstruct. effects *(Japanese)* 2−105304
steel, En8, stainless and C mild, laser surface hardening, acoustic emission monitoring 2−67602
steel, fatigue strength, residual stresses and surface hardening effects eval. 2−111103
steel, hardness measurement during nitriding, meas. apparatus 2−72912
steel, high C, carbonitriding 2−111374
steel, high-speed, laser strengthening *(Russian)* 2−67625
steel, low-alloy, hardness and brittleness of nitrided case 2−62282
steel, low-C, boronising treatment 2−105354
steel, Ni-Cr (30,30 wt.%), high temp. carburisation correl. with creep-rupture props. 2−62265
steel, nitrided, AES eval. of nitrides 2−93681
steel, plasma-induced nitrided and carburised layers, technological importance 2−57543
steel, stainless 13 wt.% Cr hardened, surface working effect on fatigue strength and wear 2−111386
steel, stainless and structural, nitriding, saturation with H 2−62283
steel, structural, high C, hardenability anal. 2−105197
steel, tool and constructional, wear resistance improvement by electrospark alloying *(Russian)* 2−67551
steel, vibration-hardening treatment, influence of polymer-containing oil media, mech. characts. 2−99603
transformation hardening by electron beam *(Japanese)* 2−105351
transition metal, refractory, surface carbidisation by elec.-spark alloying 2−67658
US strengthening-surface finishing treatment, elec. model *(Russian)* 2−67580
Al-Cu (4 wt.%), laser surface hardening, acoustic emission monitoring 2−67602
CO_2 CW laser irradiation surface hardening, numerical anal. 2−116610
Fe, grey cast, local electric arc remelting for generation of wear resistant layers 2−111363
Fe, local case-cementation in conditions of pulse laser heating and fast hardening *(Russian)* 2−62270
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
Nb, Pd and Ni coated, hardening and fracture initiation, H_2 absorption-desorption effects *(Japanese)* 2−57458
Ti, cavitation erosion behaviour, nitriding effects 2−111331
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-V (6, 4 wt.%), cavitation erosion behaviour, nitriding effects 2−111331

surface-ion beam collisions *see ion-surface impact*

surface ionisation
cationization in laser desorption mass spectrometry 2−98433
ion bombardment, outer shell excitation, appl. to surface anal. 2−111003
light scattering, by surface wake 2−98607
molecular ion formation from liquids and solids 2−98384
organic molecules, surface ionisation on Pt needle shaped emitters 2−105054
SIMS, ionization yield, elemental composition depend., isotopic variations 2−99272
sputtered atoms degree of positive ionisation periodicity in thermal spikes conception 2−77658
sputtered ion emission mechanisms 2−111005
Cu, secondary electron emission enhancement by adsorbed Pb and Sn monolayers 2−62025
I isotopic anal. using negative surface ionisation 2−114121
Pd(110) with chemisorbed CO, angle resolved surface Penning ionisation 2−87929
Si, surfaces (111) and (100), ionization and desorpt. kinetics, atomic beam interaction study 2−115566
W heated surface, SF_5^- form. SF_5%u%-form. 2−99233

surface-molecular beam collisions *see molecule-surface impact*

surface phenomena
see also surface.....
see also atom-surface impact; capillarity; crazing; crystal surface and interface vibrations; emissivity; field evaporation; interface phenomena; ion-surface impact; magnetic surface phenomena; molecule-surface impact; sorption; surface acoustic waves
atomistic or molecular processes on clean surfaces: recent advances 2−110130
binary mixtures boundary, surface film thickening 2−104213
conference Munster, Germany (Sept. 1981) 2−94901
crystal plate with step-like impurity atom distrib., surface relaxation 2−66337
diffusion and segregation 2−104128
diphenylhexatriene, on Ag surface, spectra, intense quadrupole transitions 2−108524

surface phenomena continued
diphenyloctatetraene, on Ag surface, spectra, intense quadrupole transitions 2−108524
elastic isotropic medium, mechanical interaction of points defects and volume defects near curved surfaces 2−56005
elastic isotropic solid, point defects elastic interaction, defect-matrix modulus influence 2−56006
electrically conducting bodies, thermodynamic fundamentals 2−98427
ferromagnets, spin wave attenuation, effects of surface amorphisation 2−87486
glass microstructure, surface and bulk, conf., University Park, PA, USA (July 1981) 2−89438
granular aggregate, surface statistics 2−82192
helicons and elastic waves interaction in conducting solids 2−104410
homogeneous and heterogeneous materials, residual stress in near-surface region after grinding 2−105170
ice, surface transition layer 2−56412
light scattering, by surface wake 2−98607
mechanical props., mech. marginal oscillator meas. method 2−56317
mechanics and thermodynamics, review *(French)* 2−66341
microbeam analysis, conf., Vail, CO, USA (July 1981) 2−68961
picosecond surface Raman spectroscopy, surface damage effects obs. 2−93170
radiative cooling to low temperatures with selectively IR-emitting surfaces 2−92241
Raman scattering, surface enhanced, surface-plasmon-polariton resonances, classical calc. 2−77529
regularly inhomogeneous media, wave interaction with charged particle flows *(Russian)* 2−87673
segregation in binary alloys, temp. depend. calc. *(Russian)* 2−76691
semiconductor, surface magnetoplasma wave propag. 2−77108
sintered material, contiguity coeff. and elec. cond. importance 2−111106
solid films and surfaces, conf., College Park, MD, USA (June 1981) 2−106994
solids, surface free energies and surface segregation 2−98426
steel, austenitic stainless, surface segregation, AES obs. 2−83288
AgBr microcrystals, in gelatin layers, slow electron mobility, size effect 2−92661
Al, oxide film chem. composition, influence on surface props., SIMS, XPS, AES 2−104209
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
$CaSiO_3$, ceramic-forming glass, thermal expansion 2−71673
$Co_3(CO)_9(\mu_3\text{-}CH)$, CH fragment orientation calc., implications for metal surfaces 2−108373
Fe, cast, spheroidal graphite, fatigue strength of machined and as-cast surfaces 2−93602
Fe:N, ion implanted, temp. stimulated outgassing 2−111205
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, amorphous and polycryst., He ion bombardment 2−103856
Na_2O-CaO-SiO_2, scored glass, fracture toughness 2−83208

surface phonons *see crystal surface and interface vibrations*

surface potential
alkali metal (110) surface, adsorbate-induced surface states effect on optical props. 2−104452
atomic local exchange and correlation potentials for electron scattering at solid surfaces 2−105019
chemisorption energy, image pot. contrib. 2−104163
desorption kinetic equations 2−61283
dielectric free surface, spontaneous polarisation theory 2−66975
electrons at surfaces, book contrib. 2−66615
gas-solid system, bound states, kinetic eqns. 2−87010
graphite, ^3He, ^4He multilayer physisorption, mean-field theory 2−87050
graphite, physisorption kinetics of ^3He, mean field theory, compensation effect near monolayer coverage 2−87046
image potential barrier for large angle inelastic surface electron scatt. 2−87368
ion inelastic scatt. at surface, collective modes and surface-channelled ions 2−57233
lipid bilayer membranes, charged, interaction problem 2−78318
magnetic semicond. in MIS system, 2-D electron gas, subband struct. and magnetisation 2−104497
metal-metal interface interactions, similarity to metal-semiconductor interfaces 2−115578
metal-semiconductor interface interactions, similarity to metal-metal interfaces 2−115578
Michlers ketone-CdS mixture binder layers, electrophotographic characts., acceptance, contrast and residual pots. 2−107433
MOS capacitors, nonequilibrium surface potential vs. gate voltage characts. meas. 2−92774
MOS structure diagnostics by nonequilibrium linear voltage ramp technique 2−61604
photoinsulator-airgap-dielectric system, surface charge calc., separation of surfaces in elec. field 2−87337
polymer surfaces, SIMS anal., ion beam damage charge neutralisation, surface pot. 2−93353
quantum inversion layer, surface scatt. mechanism 2−77197
rate constants for surface processes, desorption and hopping 2−56350
Schottky barrier heights, contactless meas. using secondary electrons 2−115855
semiconductor, amorphous film, gap states, xerographic spectroscopy 2−77213
semiconductor ion-implanted layer, SEM with secondary-electron collector 2−86998
space charge capacitance, determ. using light probe 2−77449
spacecraft (high-voltage), elec. pot. of insulated surfaces 2−94576
sputtering, surface potential barrier with nonzero curvature 2−111008
superionic crystals, surface capacitance, charge density waves *(Russian)* 2−92729
surface (111), surface pot. low temp. baking effect, photo-EMF study 2−77971
wake, surface potential and its rel. phenomena 2−57228
Ag, Ar multilayer physisorption, mean-field theory 2−87050
Ag epitaxial layers, inner potential meas. 2−92725
AgBr emulsion grains, space charge characts., effect of soln. pAg and pH 2−72418
AgBr, surface pot., adsorbed layer effects, expt. study 2−92724
AgBr, surface pot. and Debye length, temp. depend. 2−61536
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717

surface potential continued
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
Au epitaxial layers, inner potential meas. 2−92725
Au thin films on n-TiO_2 wafer, photocatalysts, pot. meas. 2−110469
Au/n-Si Schottky diode, elec. props., effect of regular surface relief 2−77158
Au-β-PbF_2 thin film interface, XPS and elec. meas. 2−87080
CdS thin film, work function, surface pot., annealing effects *(Russian)* 2−87373
Co, adsorption and decomp. of water, LEED, UPS, surface pot., and thermal desorption study 2−104160
Cu epitaxial layers, inner potential meas. 2−92725
Cu, internal pot. determ. by interf. electron microscopy *(Russian)* 2−60845
Cu surface, low index planes, LEED fine struct., surface barrier resonances obs. 2−56309
GaAs surface, (110), He atom diffr., theoretical anal. using He-surface potentials 2−77685
n-GaAs, surface (110), surface photovoltage meas. and Fermi level pinning 2−87364
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
$Hg_{0.7}Cd_{0.3}Te$-anodic oxide interface, photoelec. and field effect props. 2−87398
p-InP Schottky diodes, photoluminesc. dead layer 2−104932
InP-Si_3N_4 interface, surface pot. var., I-V, C-V and MISFET characts., surface prep. by etching 2−56710
InP-SiO_2 interface, surface pot. var., I-V, C-V and MISFET characts., surface prep. by etching 2−56710
Mo(100), change in surface polarisability with oxidation, XPS of physisorbed Xe 2−77451
Ni (110), He scatt., energy depend. and softness of pot. 2−87931
Ni surface (001), surface barrier resonances, excitation map calc. 2−61538
Pt thin film, methane, ethane or propane coadsorption with H_2, surface pot. meas. 2−92353
Si, polycrystalline, grain boundaries, chem., compositional and elec. props. 2−76458
Si:H amorphous photoreceptor drum, RF glow discharge deposition, electrophotographic props. 2−107436
Si-SiO_2, MOS capacitance, surface pot. and surface states 2−72059
Si-SiO_2 interface props. studied by constant capacitance DLTS method 2−61606
SiO, ion bombardment induced electronic states *(Japanese)* 2−93345
surface, thermionic emission, theory, band struct., electron electron interactions 2−67183
W (110), LEED fine struct., effect of H chemisorption 2−81635
ZnO RF sputtered films, carrier conc. of function of surface acceptor state density, gas sensor appl. 2−98772
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342

surface scattering
used for carrier scattering by surfaces
see also surface conductivity
adiabatic effects in surface electron scatt., boundary condition *(Russian)* 2−61549
ferromagnetic metallic film, spontaneous Hall coeff. 2−110331
light scattering, by surface wake 2−98607
metal, surface scatt. effects on resist. 2−104361
metal plate, thin, low-temp. cond., surface scatt., temp. and thickness depend., size effects *(Russian)* 2−66616
metallic films and wires, longitudinal magnetoresist., quasiclassical kinetic eqns. 2−61615
metallic films and wires, longitudinal magnetoresist., size effect calc. *(Russian)* 2−98763
normal metal point contacts, non-Ohm's law behaviour 2−87375
optical scattering from rough surfaces, integral eqn. perturbative method 2−57034
quantum inversion layer, surface scatt. mechanism 2−77197
thin wires, resistivity, surface scatt., Matthiessen's rule, roughness effects 2−82338
Al thin films, polycryst., correl. between struct. and elec. props. *(Russian)* 2−66663
$Bi_{14}Te_{11}S_{10}$ thin cryst., two-dimens. cond. and magnetocond. 2−71985
W thin plates, adsorbed O_2H_2 and Ag effects on conduction electron diffr. and reflection *(Russian)* 2−71959
W thin plates, adsorbed O_2H_2 and Ag effects on conduction electron diffr. and reflection *(Russian)* 2−82339

surface structure
see also interface structure; surface texture
AES, as local probe for solid surfaces, review 2−82963
AES, high resolution studies of solids, theoretical developments, review 2−110991
AES, surface anal., experimental aspects, review 2−110102
AES of solid surface, microcomputer based data acquisition and control system 2−116304
alloys, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
alloys, surface composition, review 2−92322
alloys, surface precipitation in case of ordering in interior *(Russian)* 2−104125
aluminosilicate glass, electron irrad., composition changes, XPS and nucl. anal. 2−92319
analysis by electron and ion beam methods, conf., Newcastle, NSW, Australia (Feb. 1981) 2−106995
anisotropic rough surface, probability density function determ. 2−98396
atomic geometry determ. and appl. 2−110095
atomically clean surfaces, prep., struct. and props. 2−82103
atomically rough crystal surface, topographic order *(Russian)* 2−86989
Auger sputtering profiles, quantitative interpretation 2−82962
borate glasses, surface anal. by fast atom bombardment mass spectrometry 2−83424
borosilicate glasses, composition profile, near surface, SIMS study 2−115144
catalyst particles, STEM, bright and dark field imaging methods 2−97884
ceramic/ceramic (metal) systems, surfaces and interfaces, 17th Univ. Conf. (7th LBL/MMRD Int. Materials Symp.), Aug. 1980 2−94909
charge density calc. for low energy atom diffr. 2−111010

surface structure continued
chemical physics of clean solid surfaces, book 2−63762
chemisorbed atom surface struct. determ. by surface EXAFS 2−105003
chemisorbed layers, island size distrib., LEED and Fourier anal. 2−115510
coal liquefaction vessel components, surface anal. of corrosion 2−83279
conference on surface physics, Bechyne, Czechoslovakia (Sept.-Oct. 1980) 2−89457
conference on surface physics, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
conference on surface science, Liverpool, England (April 1981) 2−58538
core level photoelectron spectroscopy for surface crystallography 2−77694
corundum crystals grown from cryolite flux, surface microtopographs, spiral growth mechanism 2−76343
cracks, scanning acoustic microscope obs. 2−57552
crystal plate with step-like impurity atom distrib., surface relaxation 2−66337
defect structures, LEED spot profile anal. studies 2−110100
diamond, (111) surface relax. and reconstruction, CNDO/2 calcs. 2−82097
dielectric thin films, composition depth profiling, SIMS, IIR and AES comparisons 2−99287
directed desorption as a probe of the structure of the desorption site 2−71802
disordered struct., secondary electron emission and elastic electron reflection study 2−110994
elastic conformity in Hertzian contacts 2−72847
electrolyte solns., surface struct., thermodynamic props., calcs. 2−76262
electron microscopy of surfaces and catalysts, image resolution 2−94973
EM, high resolution applied to chem. problems, conf., New York, USA, (Aug. 1981) 2−94904
ESD, angular resolved, for surface struct. determ. 2−110107
extended absorption fine struct. anal., review 2−110097
extended fine struct. anal. 2−110970
fatigue process reconstruction by fracture surface morphology study 2−78060
FCC (111) face, segregation of interacting atoms 2−76692
ferroelectric ceramic, acoustic microscopy, imaging of flows, grain struct. and elastic props. 2−105410
film, ion beam epiplantation on Si 2−116389
Fourier transform IR spectroscopy, surface analytical technique, feasibility 2−116745
gas-surface scattering distributions according to the hard-spheroid model 2−57237
glass matrix for radioactive waste disposal, surface effects on leaching 2−93649
glass surface, review 2−92318
glass surfaces used in precision optics, roughness and crack layers *(French)* 2−108985
glass thin films, sol/gel prep. and characterisation, SIMS study 2−82093
graphite (0001), clean and adsorbed K, LEED study 2−76791
graphite (0001) surface struct. determ. by LEED 2−82107
HEED analysis, theory 2−82108
high energy beam surface probes, ion and electron 2−110987
high resolution imaging methods 2−97877
II-VI semiconductor, polishing induced phase transforms. of single crysts. for device applic. 2−72852
II-VI semiconductors, clean and adatom treated surface props. 2−110115
III-V solid solutions, heteroepitaxial film crystalisation, orientation effects *(Russian)* 2−61302
Inconel 600, 625, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
inelastic ion-surface collisions, conf., Feldkirchen-Westerham, Fed. Rep. of Germany, (Sept. 1980) 2−74161
ion bombardment, near-surface composition changes, dynamic Monte Carlo simulation 2−109851
ion bombardment, outer shell excitation, appl. to surface anal. 2−111003
ion bombardment self-decoration, cryst. microstructure study 2−111337
ion channeling techniques for defect and surface studies, review 2−71535
ion microprobe mass analyser, distortion of secondary ion extraction due to sample surface irregularities 2−95567
ion scatt. spectroscopy study, time of flight energy anal. 2−76790
ion scattering spectroscopy, single and double scatt. intensities ratio 2−105029
ion scattering studies of surface crystallography 2−110106
Kevlar fibre reinforced polymer, matrix-induced compression effect on morphology and tensile props. 2−105224
large molecule layers, surface struct. determ. by LEED, combined space method 2−55814
large unit cell structures 2−110105
laser fusion targets, characterisation by a phase modulation interferometer 2−79656
LEED, for surface structure anal., review 2−76793
LEED, threshold effects, reson. and interf. effects 2−76251
LEED anal., data enhancement by averaging 2−65814
LEED determination, review 2−110096
LEED fine structure anal. 2−109639
LEED instruments, imaging of surfaces 2−55813
low energy ion scatt. from solid surfaces, neutralisation effects 2−77663
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metal surface layers, effect of spark discharge and electrolytic plasma *(Russian)* 2−62267
metal surfaces, monocrystalline, and chemisorbed species, photoemission study *(French)* 2−105052
metallic surfaces, laser irradiated, regrowth, surface nonuniformities and coupling phenomena 2−61030
metals, ion beam textured surfaces, quasi-liquid states 2−82984
metals, supercond., subsurface layers quality eval., electrophys. methods 2−115959
metals and alloys, surface roughness inspection for exoemission investigations, X-ray photoelectron spectroscopy study 2−57581
microanalysis by electron spectroscopy techniques 2−73041
microwire surface monitoring, electron microscopy obs. 2−93736
models, low-temp. expansion, correlations decay 2−86986
morphology and composition of crystal surfaces, book contrib. 2−66333
Nimonic alloy PE 16, ion eroded, erosion yields, topographical changes and depth profile anal. 2−77661
nonsteady behavior of the structure of a randomly nonuniform surface of small area 2−61271
order in two dimensions, theory 2−110131
surface structure continued
order-disorder transitions on surfaces, classification, review 2−92323
oxide films, reflectance spectroscopy 2−67135
passivation and conversion films, surface anal. low energy electron induced X-ray spectra 2−83426
percolation clusters, three dimensional surface struct. above p_c 2−53682
periodicity, crystallography and struct., book contrib. 2−66334
photoelectron spectroscopy and microscopy in surface studies 2−69301
photoemission studies of surfaces and adsorbates, in $h\nu$=50-500 eV range 2−104123
PIXE depth profiling technique appl. to near surface Ar distrib. in semicond. 2−99716
PIXE sample characterization, review 2−111523
PMMA, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
poly(ethylene oxide), surface struct., Auger spectroscopy study 2−71785
polycrystalline materials, ion scatt. spectroscopy 2−111004
polyethylene, surface struct., Auger spectroscopy study 2−71785
polyethylene, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polyethylene terephthalate, semi-cryst., extrusion-drawn, multiple internal refl. IR obs. 2−67042
polyisobutylene film, sputter yield measurements on simulated adventitious carbonaceous contamination 2−77678
PTFE, surface composition, XPS study, X-ray flux effects 2−57251
PVC, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
quartz, CO_2 laser-method, frozen periodic surface struct. 2−110110
quartz, surface struct. change on interaction with $NaNO_3$, RHEED study 2−110109
quartz, surface struct. changes on interaction with simple gases, RHEED study, computer simulation 2−92325
Raman ellipsometry 2−79684
randomly distributed steps, diffraction intensity angular distrib. 2−115519
reconstructed surface, backscattered channelling MeV ions, surface peak intensity 2−116322
relaxation determ. by ion bombardment Auger spectroscopy 2−93352
rough defects in solids, US eval. of geometrical and surface parameters 2−62293
rough surface, Gaussian curvature of interaction, statistical props. 2−104130
Rutherford ion backscattering appls. to surface crystallography 2−111001
SEM, bulk samples, resolution 2−97883
semiconductor ion-implanted layer, SEM with secondary-electron collector 2−86998
semiconductor native oxide form., atomic struct., interface electronic struct. 2−76788
semiconductor surfaces, struct. and surface states, review 2−98395
semiconductors, elastic LEED, electron exchange effects and relativistic corrections 2−65815
semiconductors, surface prep. by selective chem. etching 2−83254
single crystal surface, chem. reactivity, surface irregularities and point defects role 2−57637
solid films and surfaces, conf., College Park, MD, USA (June 1981) 2−106994
solid surface microasperities, thermodynamic and mechanical equilibrium morphologies 2−92334
solids and surfaces, charact. by ion beams and mass spectrometry, review 2−93346
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
SOS films, optical characterisation of Si and sapphire surfaces rel. to discrete device performance 2−93219
SOS structures, CVD growth, surface defect and strain reduction by ion implantation and solid phase epitaxy 2−66384
spinodal decomposition, stabilised, model of surface struct. formation 2−61144
sputter profiling, depth resolution, depth depend. 2−83438
sputtering with O_2^+, etch patterns surface struct. and SIMS 2−99283
stainless steel, SUS 304, Ti-coated surface, Auger anal. *(Japanese)* 2−92320
steel, 1020, hydrogen damage obs. 2−57480
steel, alloys, fractographic features and fatigue failure mechanism, 20 GL and 20 GFL 2−72825
steel, austenitic, Cr-Mn 2−82109
steel, austenitic stainless, SCC behaviour, effect of surface modification 2−116595
steel, austenitic stainless, surface activity, co-segregation behaviour of non-metallic elements with metallic elements, AES study *(Japanese)* 2−83126
steel, C, Cd plated, ductility, surface layers H content influence 2−67538
steel, C-stainless composite wire, corrosion under stress 2−88286
steel, Cr-Mo, surface segregation of impurities *(Czech)* 2−116447
steel, stainless, 304, hydrogen damage obs. 2−57480
steel, stainless, austenitic and ferritic 2−105385
steel, stainless, passive anodic oxide film, composition, ESCA and SIMS study 2−82090
steel, stainless, scale phase composition and steel structure changes during oxidation at 1100°C 2−62284
steel, surface layers formed by friction, AES and X-ray emission spectra study *(Russian)* 2−93635
STEM, imaging methods for catalyst particles 2−97884
step growth, master eqn. approach 2−98403
structural characterization by secondary electron emission 2−87923
superficial changes of dielectrics in contact with electrodes subjected to corona discharge 2−104131
surface layer, deformed, X-ray residual stress meas. and d-sin$^2\psi$ diagrams *(Japanese)* 2−71780
surface modifications due to preferential sputtering 2−110103
surface studies using slow positron beams 2−110111
TEM, UHV, in-situ high-resolution, for surface studies 2−98411
TEM studies of surface structures and reactions, review 2−71309
thin film, low loss surface imaging STEM studies 2−110181
thin layers, determ. of phase comp. by X-ray quantitative phase anal. 2−82105
thin passive films, comparison of AES and XPS anal. 2−78004
topography development using two ion beams 2−92317
transition metal fluorosilicates, surface damage under Ar ion bombardment, XPS studies 2−61045
two element thin films, stoichiometry and thickness, elastic backscatt. study 2−104199
two-dimensional lattices, Ewald summation technique 2−97868

surface structure continued
two-dimensional Lennard-Jones system, phase transitions, stability, computer simulation 2−56155
VSLI, and VHSIC materials development, SIMS anal. of thin surface layers and low kV ion implants 2−78156
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458
X-ray absortion near edge structure, and local atomic arrangements determ. 2−82954
X-ray photoelectron spectroscopy, detection sensitivity for surface atoms 2−83423
X-ray scattering by crystal with surface defects 2−86499
X-ray-induced Auger electron spectroscopy, detection sensitivity for surface atoms 2−83423
zirconium bis(methylphosphonate) surface texture and crystallinity 2−86982
(100), soft surface phonons and reconstruction, dispersion relations 2−92128
Ag (110), (100) and (111), work function, Auger and LEED study 2−77155
Ag, electrodeposited, oriented growth of single cryst. on as-grown crysts. 2−104179
Ag evaporated films, surface morphology under anodic and cathodic load and during ageing 2−98504
Ag surface (110), LEED surface crystallographic anal. 2−87000
Ag surface (111), NO scatt., laser induced fluoresc. 2−99256
Ag-Cu, ion sputtered, surface topography 2−105025
Ag-Si phase, interdiffusion form., surface struct. anal. by quantitative AES 2−67159
Al (111) and (111)p(1×1)O, cluster and DVM approach to LEED pot. generation 2−98439
Al (111) surfaces, CO exposed, Auger electron spectroscopy, electron beam stimulated chemisorption 2−82088
Al alloy conversion coatings, corrosion protection, adhesive bond durability, cracking 2−83270
Al alloys, corrosion-preventing coatings, surface studies 2−83266
Al, anodic films, porous, cell walls, STEM/energy-dispersive X-ray anal. 2−86988
Al, LEED temp. depend. study 2−56307
Al, oxide film form., EXAFS study in total yield and refl. modes 2−57212
Al, plasma etching process, problems of surface morphology and layer deposition 2−67609
Al surface, preconditioned, flaw obs. by anodisation/TEM technique 2−116607
Al-Mg alloy adhesive joints, surface anal. and bonding 2−116679
Al-Mg based alloys, surface corrosion during heat treatment 2−99598
Al-Mn (1.2 at.%), electrochemical behaviour, effect of laser-surface melting 2−57523
Al-Mn (1.2 wt.%), rapid solidification with pulsed laser, microstructural and surface modification 2−67323
Al-Si, as-cast and age-hardening, wear, friction and surface topography in dry sliding 2−83237
Al-Zn (45 wt.%), corrosion protection coating, SIMs study 2−93683
$Al_xGa_{1-x}As$ epitaxial layers, MBE growth, substrate temp. influence on morphology 2−76853
$Al_xGa_{1-x}As$(110) and GaAs(110)-Al adsorbed system, surface struct., LEED study 2−110120
Al_2O_3, dense, steam-enhanced impurity segregation 2−111116
Al_2O_3, ion incidence angle effect on cleanness, roughness and topography 2−92050
β-Al_2O_3-Na_2O, polycrystalline, X-ray obs. of surface layers 2−67587
Al(111), appl. of r-factor anal. of effect of non-structural parameters in LEED 2−56306
Ar monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
As-S-Ag system glass, phase separation and struct. changes on Ag addition to As_2S_3, fractured surface obs. 2−103649
Au (100), LEED diagram interpretation *(French)* 2−98397
Au (110), scanning tunnelling microscopy study 2−86987
Au electrode, interface with electrolyte, effect of adsorbed water, work function and pot. of zero charge meas. 2−61557
Au film, (111), vapour deposited, surface and inclined planar defect electron-microscope images 2−71844
Au, reconstructed (110) 1×2 surfaces, missing row model 2−86995
Au surface (100), quasidynamical LEED intensity analysis in the medium energy range 200-600 eV 2−98405
Au surface (110), angle resolved low energy K^+ and Ar^+ ion scatt. 2−62033
Au, surface (110), reconstructed, He diffr. calc. 2−116321
Au-Cu, surface comp. ion scattering spectra study by Ar^+ and He^+ ion bombardment 2−71781
Au-Cu sputtered surface, AES, quantitative anal., backscattering correction factors 2−57221
Au-Si phase, interdiffusion form., surface struct. anal. by quantitative AES 2−67159
Au(111), in-situ UHV high-resolution TEM surface study 2−98411
BaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
C, adventitious, binding energy of C_{1S} electrons, energy ref. in electron spectroscopy 2−92328
C fibres, surface structure effect on strength, in appl. of carbide coating in metal melt 2−83067
C-film adsorbed on Ir, study by Auger electron spectroscopy and thermionic emission 2−66332
CO, kinetics and mechanisms of oxidation at 600-800°C 2−67646
CaF_2 epitaxial films, MBE growth on Si substrate MIS capacitance and mass spectra study 2−76861
$CaIrSn_4$ (110), scanning tunnelling microscopy study 2−86987
$CdCl_2$, adsorption of N_2 and Ar, surface homogeneity effect 2−115563
$CdCl_2$ cleavage faces, TEM investig. by surface decoration 2−66328
CdSe, photocond., struct. and defect levels 2−115811
$CdSnA_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
$CdSnP_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
CdTe (110) surface, kinematical anal. of LEED intensities *(Japanese)* 2−115512
CdTe(110), surface atomic struct., LEED 2−76252
Co surface, competitive accumulation of S and graphite 2−82121

surface structure continued
CoSi (100) and $CoSi_2$ (110), interaction with O_2, LEED, AES, and UPS STUDY 2−104162
Co(0001), LEED struct. anal. 2−56316
Cr (100), chemisorption of Cl and surface chloride form., struct. and kinetic study 2−66366
Cr film, evaporated, scanning ion microscope study, ion probe forming and secondary electron images *(Japanese)* 2−113051
Cr-Cr_2O_3, black chrome solar selective films, surface comp., SIMS study 2−57724
Cs adlayer on reconstructed Ir, Pt and Au surfaces, structure, LEED study 2−115509
Cu (100):K, surfaces, metastable de-excitation spectra 2−82197
Cu (110), adsorbed Kr and Xe, surface structs. and uniaxial phase transitions 2−66367
Cu (110), O_2 adsorption, Debye Waller factor, surface struct., He scatt. study 2−87070
Cu (111)(1×1)-Ni, LEED study using reliability (R) factors 2−110116
Cu (410) surface, ion scatt. spectroscopy study 2−82096
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu single crystal, ion bombardment induced surface topography, incidence angle effect 2−76471
Cu single crystals, erosion at 30° incidence of glass spheres 2−111329
Cu stepped surfaces, interaction with H, pairwise-additive model 2−56349
Cu surface, low index planes, LEED fine struct., surface barrier resonances obs. 2−56309
Cu, surface (110, O covered, surface reconstruction, Ne^+ and H_2O^+ ion scatt. 2−61268
Cu surface (110), LEED surface crystallographic anal. 2−87000
Cu, surface (110), Ne^+ and H_2O^+ ion scatt., angular distrib., surface geometry 2−62035
Cu surfaces, chem. nature of centres of exoelectron emission 2−83012
Cu-In, low energy ion bombard. enhanced diffusion, segregation, and phase transforms. 2−82991
Cu-Ni, high temp. sputtering, ion-enhanced diffusion, grain boundary erosion *(Japanese)* 2−116317
Cu-Ni (40 at.%) alloy, ion bombardment induced subsurface composition modifications at elevated temps. 2−77692
Cu-Sn(100) surface struct., LEED obs. *(Japanese)* 2−115511
D_2O ice crystal, light ion interaction 2−81842
Fe alloy, friction glazing, surface melting interpret. of white etching areas 2−67550
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe surface (110), CO adsorption, thermal desorpt. spectroscopy, dissociation enhancement by surface defects 2−98464
Fe-B, refractory layer, powder boriding, photoelectron spectra, thermodynamic studies 2−93471
Fe-Co monocryst. alloy, surface comp., ion bombardment and annealing effects, Auger study 2−71782
Fe-Si, surface segregation temp. depend. *(Russian)* 2−86999
FeB, compositional and chem. state, XPS study 2−77706
FeCo and $Fe_{0.5}Co_{0.4}Cr_{0.7}$ films, polycryst., subjected to X-irrad., magnetisation *(Russian)* 2−66876
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, thin passive films, comparison of AES and XPS anal. 2−78004
γ-Fe_2O_3 layer on Fe, Mossbauer and ESCA meas. 2−76848
$FeSi_2$, compositional and chem. state, XPS study 2−77706
Fe(110), H_2 adsorption, pair interaction energy, embedded cluster formalism 2−92356
GaAs (001), faceting, steps and reconstruction, theoretical model 2−92327
GaAs (110), adsorbed Al, surface structure, first-principles pseudopot. determ. 2−110143
GaAs (110) surface, struct. anal. at room temp. 2−82099
GaAs {001}, epitaxial relationship with MBE grown Al and Ag layers 2−56396
GaAs epitaxial films, activated, photoemission, surface purity and perfection effect 2−72608
GaAs, MBE grown (100) autoepitaxial films and substrates, struct. and comp. and surfaces 2−56383
GaAs, oxide layer struct., diffuse X-ray scatt. study 2−71831
GaAs, step development during MBE growth, RHEED study 2−76860
GaAs surface (001), reconstructed, domain struct., RHEED evidence 2−98408
GaAs, surface (100), reconstructed, atomic and electronic struct. 2−115518
GaAs, surface comp., X-ray photoelectron spectroscopy and ellipsoid meas. *(Ukrainian)* 2−104124
GaAs, surface composition and etching in Cl_2 ion beam 2−61262
GaAs, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
GaAs, surface reconstruction, buckling, ionicity and π-bonded chains 2−92337
GaAs, thermally oxidised, interface comp. studies using Auger depth profiling 2−78154
GaAs(110) substrate for Sb monolayer, LEED dynamic anal. 2−115110
GaN epitaxial layer, optimized growth conditions 2−66391
GaP (111), surface comp., atom probe FIM study 2−92326
Ge, (111)-stressed, binary electron-hole liq., phase separation, surface struct. role 2−71882
Ge, (111)-stressed, electron-hole liq., surface struct. and surface tension, rel. to bulk props. 2−66455
Ge, atomic step height on clean vicinal faces 2−86997
Ge, HCl gas phase etched, surface topography 2−98400
Ge, HCl gas phase etching, surface form. processes 2−99570
Ge plates, surface treatment effect on X-ray diffraction, struct. 2−86514
Ge, surface, (100), atomic struct., CNDO calc. 2−61270
Ge surface, high index, struct., order-disorder transitions, LEED study 2−71786
Ge surface (111), cleaved in superhigh vacuum, low temp. LEED surface struct. study 2−98406
Ge, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Ge, surface topography, self-ion bombardment effects, 30 to 500 keV 2−71516
Ge, surface unit cell cleaved at 4K, (1×1) struct., LEED study 2−110118
Ge{111}, atomic struct. and reactions with deposited Al 2−86991
He, liquid, hexagonal charged surface reconstruction *(Russian)* 2−110061

surface structure continued
^{4}He, solid, interface with liq. ^{4}He and ^{3}He-^{4}He solns., equilib. props. 2−115489
$Hg_{0.8}Cd_{0.2}Te$, surface anodic oxide film composition, ion beam effects, XPS study 2−71832
Hg_2Cl_2, plasmatic etching, study of treated surface layer 2−111336
I, on Si{111}7×7 and Ge{111}2×8, surface EXAFS study 2−66360
In-Pb, surface comp., ion sputtering effect, AES study 2−82985
$InGaPAs_{0.01}$:Zn(Te)(Se) LPE layer on GaAs, doping effect on physical, elec. and optical props. 2−110501
InP (100), laser induced order-disorder transition, LEED study 2−110117
InP (110), ion bombardment and etching effects, EELS and AES study 2−110099
InP, electron stimulated interaction with water vapour, Auger and EELS study 2−76786
InP, LPE grown, surface morphology, doping impurities and cooling rates effects 2−92390
InP surface, prepared by various cleaning methods, anal. by AES 2−88389
InP, surface composition and etching in Cl_2 ion beam 2−61262
InSb cleavage faces, decoration of steps 2−110114
Ir, adsorbed ethylene, decomposition, surface struct. effects, comparison with Pt 2−98460
Ir, reconstructed (110) 1×2 surfaces, missing row model 2−86995
Ir surface (100), quasidynamical LEED intensity analysis in the medium energy range 200-600 eV 2−98405
KCl (001), Ar ion irrad., defect instability, LEED study 2−82110
KH_2PO_4, KD_2PO_4, growth features of prismatic faces, refl. microscopy obs. 2−115160
Kr monolayer on Cu (110), electronic and geometric struct., LEED and photoemission study 2−98407
LaF_3 epitaxial films, MBE growth on Si substrate, MIS capacitance and mass spectra study 2−76861
Li/SO_2 battery anodes, surface struct., electrode chemistry, SEM and XPS study 2−82095
LiF and ^{6}Lif TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
$LiNbO_3$, SAW study of subsurface damage 2−76794
MgO, small crystal, surface energy and struct., STEM study 2−56327
MgO, surface struct., ionic bonding, He diffr., Auger and LEED study 2−86996
MgO(001), surface rumpling from RHEED Kikuchi pattern changes 2−86984
Mo (100), sputtering of chemisorbed N, mass effect 2−82981
Mo film, electrolysis prep., growth rate anisotropy and struct. *(Russian)* 2−61304
Mo, surface damage from diamond-saw emitting, positron lifetime study 2−61266
$NH_4H_2PO_4$, growth features of prismatic faces, refl. microscopy obs. 2−115160
Na, surfaces (100) and (110) lattice relaxation 2−56311
Na_2O-FeO-SiO_2 simulated waste glass, chem. durability, press. effects and surface layer form. 2−93651
Naβ-alumina surface study using XPS and Auger methods 2−92329
Nb, supercond., subsurface layers quality eval., electrophys. methods 2−115959
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Nb surface (110), coadsorpt. of O and Cs, work function and thermal stability *(Russian)* 2−104166
Nb, surface damage during irrad. in plasma accelerator 2−113737
Nb-Co, residual induction of individual particles, powders and massive specimens 2−72288
Nb-V, spectrochemical anal. using photon emission from sputtered atoms, surface O contamination effect 2−77677
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
Ni (011) and (111), adsorbed S and Se, photoelectron diffr. study 2−116335
Ni (100), ion bombardment induced faceting, LEED study 2−56310
Ni (100):K surfaces, metastable de-excitation spectra 2−82197
Ni (110), adsorbed O, atomic structure, LEED, AES, EELS and work function study 2−66329
Ni (110), extensive LEED anal. 2−82100
Ni (110), extensive LEED anal., R-factor anal. 2−82101
Ni (110), extensive LEED anal., merits and drawbacks of I(g) approach 2−82102
Ni (110), N_2^+ implantation, AES, LEED, EELS and secondary electron spectra study 2−92014
Ni (111), chemisorption of CO, cluster formation, SIMS study 2−71800
Ni (111) surface, clean and O-adsorbed, high energy ion scatt. study 2−62039
Ni catalyst, dispersed, low-temp. transfer of H from surface to bulk 2−56252
Ni, migration on C, SiO_2 and Al_2O_3, TEM obs. 2−86983
Ni, passive oxide films, electrochem. and surface analytical techniques 2−88260
Ni surface, O_2 and H_2 adsorption kinetics, surface struct. effects, Auger, LEED and work function meas. 2−87066
Ni surface (001), disordered O and CO adsorbate layers, He scatt. study 2−98445
Ni surface (110), clean and O covered, Li^+ and He^+ ion scatt. 2−99263
Ni surface (110), He diffraction, incident energy depend., soft exponential pot. 2−99255
Ni, surface (111), adsorbed acetylene, full dynamical LEED anal. 2 115521
Ni surface (311), LEED structural anal. 2−86993
Ni surface (311), LEED crystallographic studies, methodology and uncertainties 2−86994
Ni surfaces, chem. nature of centres of exoelectron emission 2−83012
Ni surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Ni:He, gas re-emission and surface structure due to implantation 2−76469
Ni-base superalloy, IN-100, an eval. study of Al-N and Cr-Al-N coatings 2−67591
Ni-Fe, surface (100), oxidation 2−116612
Ni-Fe (25 at.%), ESCA studies, surface prep. treatments, oxidation effects 2−83295
Ni-Fe (25 at.%), ESCA studies, anodic dissolution, passivation effects 2−83296
surface structure continued
Ni-Pt sputtered coating, AES, quantitative anal., backscattering correction factors 2−57221
$Ni_xFe_{80-x}B_{20}$ metallic glass, surface B composition, $^{10}B(n,^4He)^7Li$ nuclear reaction meas. 2−104121
NiO, small crystal, surface energy and struct., STEM study 2−56327
NiO, sulphurisation by H_2S, elec. cond. and TEM study 2−110200
Ni(100), chemisorption of p(2×2) and c(2×2)O, surface EXAFS study 2−93326
PbO-SiO_2, reduced surface layers, slow-electron spectroscopic study 2−105017
PbO-SiO_2 glass, reduced surface layers, struct., resist. and electron emission props. 2−105016
Pd surface (100), initial oxidation, LEED, EELS and AES studies 2−56314
Pd(111), chemisorbed acetylene, surface vibr., LEED and EELS study 2−71787
Pt (100) soft surface phonons and reconstruction, dispersion relations 2−92128
Pt (111), adsorption of methylacetylene, propylene and 2-butenes, surface structs., LEED study 2−71804
Pt, adsorbed ethylene, decomposition, surface struct. effects, comparison with Ir 2−98460
Pt, adsorption of ethylene and acetylene, field emission study 2−82119
Pt catalyst, SiO_2 supported, surface struct., EXAFS study 2−99219
Pt, reconstructed (110) 1×2 surfaces, missing row model 2−86995
Pt, surface (100), metastable 1×5 struct. 2−115517
Pt surface (100), quasidynamical LEED intensity analysis in the medium energy range 200-600 eV 2−98405
Pt, surface (110), nonreconstructed, prep., thermal stability and adsorpt. characts. 2−115515
Pt surface (111), clean and adsorbate covered, He beam scatt. 2−99259
Pt, surface (111), low energy alkali ion backscatt. 2−116323
Pt, surface (997), double step form. and destruction dynamics, O_2 induced, He beam scatt. study 2−115513
Pt, surface (997), reconstruction, O_2 induced, He diffr. pattern shape changes 2−115514
Pt surfaces (111) and (997), clean and O covered, thermal He atom scatt. *(German)* 2−87001
Pt-Ni, surface composition, oxidation, surface segregation, AES and photoemission study 2−66330
Pt-Ni alloys, layer-by-layer calcs. of alloy comps. 2−82087
$Pt_{0.98}Cu_{0.02}$, surface segregation and surface electronic interactions, UPS and AES study 2−66612
$Pt_{10}Ni_{90}$, surface (111) composition determ. by AES, XPS and ion scatt. spectroscopy 2−98410
Pt(110), clean and with adsorbed CO and NO, surface phase study 2−86985
$Rh_{0.95}Cu_{0.05}$, surface segregation, AES study 2−110108
Ru, coadsorption of H_2O and O_2 on (001) surface, vibr. and struct. props. 2−104150
S c(2×2) chemisorbed on Co(001), surface superstruct., LEED study 2−98404
Sb overlayers, on GaAs (110), struct. 2−76862
SbSI single cryst., photocond., surface perfection influence 2−104423
Sb_2Te_2Se, photoelectron diffr. azimuthal patterns from different at. sites 2−93375
Sc surface (0001), atomic struct. 2−56312
Se amorphous film, surface relief form. by laser bombardment 2−86728
Si (100) reconstructed surfaces, LEED studies 2−92324
Si (111), adsorbed Ag, struct. anal. by LEED/const. momentum transfer averaging technique 2−56347
Si (111), adsorbed Br, surface registration, X-ray standing waves determ. 2−104151
Si (111), cryst. axes identification by Kikuchi patterns in RHEED 2−98398
Si (111) laser annealed and impurity induced metastable surfaces, UPS and LEED study 2−76789
Si, (111) surface relax. and reconstruction, CNDO/2 calcs. 2−82097
Si (111) surface transitions, unified description 2−82106
Si, amorphous film, laser crystallisation, rel. to density 2−56407
Si, atomic step height on clean vicinal faces 2−86997
Si, ion bombardment, surface layer amorphisation, ellipsometry and channelling investig. 2−103855
Si, laser annealed, surface topography study 2−104129
Si, laser pulse processing, heterogeneous nucleation of spatially coherent damage struct. 2−56020
Si surface, (111), thermal epitaxial growth during ion bombardment, LEED study 2−87088
Si surface, crystallographic orientation determ., micro-probe RHEED technique 2−60843
Si surface, high dose N^+ ion implanted layer *(Chinese)* 2−91997
Si surface (111), Ag adsorption, struct. and electronic props., LEED and AES study 2−82092
Si surface (111), epitaxy, high resolution LEED study 2−98487
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360
Si surface (111)-(7×7), D adsorption, nuclear microanal., LEED and ion scatt. study 2−76821
Si surface (112), clean and H and Ga covered, surface struct., LEED study 2−71784
Si, surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
Si surface layer struct., action of directed flow of ionised halogen containing gas *(Russian)* 2−71515
Si, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Si, surface reconstruction, buckling, ionicity and π-bonded chains 2−92337
Si surfaces, relaxation, reconstruction and oxidation, ion beam study 2−77662
Si, UHV-deposited thin films, laser cleaning of (100), (110) and (111) surfaces 2−83250
Si wafers, HCl etched {111}, deep etch pits and facet form. obs. 2−76447
Si, with chemisorbed Br, X-ray standing wave anal. 2−82128
Si:As, surface layer struct., influence of non-uniformity of laser beam intensity 2−92314
Si:Au, depth distrib. determ. using elastic backscatt. 2−77671
Si:B, thermally evaporated, near-surface layer impurity distrib., photoluminesc. study 2−110902

surface structure continued
Si:B^+, inhomogeneous implanted surface layers studied by X-ray rocking curves meas. 2−92315
Si:O(N), surface crystallinity and anomalous comp. profiles of buried SiO_2 and Si_3N_4 layers 2−86688
Si-SiO_2 struct., Si MBE growth, RHEED study 2−92757
SiC, 6H-type, double spiral interpretation 2−109714
SiC single cryst., XPS, AES and friction studies 2−93633
SiC surface, relaxed, atomic and electronic struct. calc. 2−110119
SiO, obliquely evaporated film, struct. effect on nematic liq. cryst. orientation *(Japanese)* 2−92403
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
SiO_2, surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
SiO_2, vitreous, struct. in bulk and surface layers, gas probe anal. 2−91801
α-SiO_2, X-cut surface, defect stability under ion irrad., LEED study 2−92058
SiO_2:B(Al)(Ga), variation of surface conc. with oxide content 2−82098
SiO_2-Al_2O_3-Fe_2O_3-CaO-MgO-Na_2O basalt glass, surface conc. profile, AES study 2−93333
Si(001), 2×1 struct. reconstruction, LEED anal. 2−110121
Si(001) surface, low-energy ion scatt. study 2−104127
Si(100), electronic correlation and buckling props. calc. 2−110421
Si(111), charge density calc. for low energy atom diffr. 2−111010
Si(111), electronic and atomic struct., spin polarisation effects, theory 2−110417
Sn and Sn-Pb, material ejection from shocked surfaces 2−71569
Sn-In(Pb), surface comp., ion sputtering effect, AES study 2−82985
Sn-Pb alloy, surface comp. 2−78157
Sn-Pb alloys, equilib. surface composition, Auger spectroscopy 2−82104
SnI_4 single cryst., {111} faces, microstruct. 2−66327
SnO_2(110), surface reconstruction effects on work function and surface cond. 2−115857
Sn_xPb_{1-x} (x=0.998, 0.03), equilibrium surface composition 2−115516
Ta, material ejection from shocked surfaces 2−71569
Ta oxide and nitride layers, quantitative anal. by sputtered neutral mass spectrometry 2−105031
TaO layers, Ta, quantitative anal. by sputtered neutral mass spectrometry 2−93842
$TaSi_2$ layers, coverage on Si/SiO_2, surface struct., ion-implant profiles surface anal. study 2−82094
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Te adsorbed on Si{111}7×7 and Ge{111}2×8, surface EXAFS study 2−66360
Ti:N, depth distrib. determ. using elastic backscatt. 2−77671
TiC, contact reactions with Fe-Ni (Si) (Cr) 2−67597
TiC field emitter, field emission ion and electron microscopy, AES and atom-probe studies 2−115520
TiN (001) cleaved surface, tetragonal struct. on annealing, RHEED study 2−92316
TiN, TiC layers, CVD, nucleation and kinetics 2−83034
TiO_2 surface (001) thermal faceting 2−86992
TiO_2, surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
TiO_2:H electrodes, SIMS and AES anal. 2−57655
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
V (100) struct., O_2 and CO adsorption, LEED and Auger study 2−71783
V oxides, oxidised surface state model, appl. to catalysis 2−82419
V surface (100), clean, LEED study 2−61267
V, surface damage during irrad. in plasma accelerator 2−113737
V thin films, on oxidised Si wafers, scanning Auger microscopy studies on high-temp. annealing 2−76863
W (001), reconstruction, theory 2−110101
W (001) surface atomic structure, reconstruction, FIM study 2−66331
W (100), adsorbed H and temp. induced reconstruction, polarised LEED study 2−56308
W (100), sputtering of chemisorbed N, mass effect 2−82981
W (110), H chemisorption effect on LEED fine struct. *(French)* 2−104122
W dispenser cathodes, M-type, activation by Os-Ru coating, Auger, XPS and ISS study 2−82091
W single crystal, cylindrical, (110) zone surface struct., LEED and work function 2−61269
W surface, {100}(1×1), reliability of LEED I-V spectra, incidence angle errors and symm. effects 2−76784
W surface (001), adsorbed H phase suppression by steps 2−98409
W surface (001), transition to incommensurate reconstruction induced by H adsorpt. 2−56313
W, surface (001) struct. transition, LEED fine struct. 2−110104
W, surface (100), polarized LEED, const. moment transfer averaging data reduction 2−110122
W surface (110), low energy K^+ ion scatt., struct. effects 2−99264
W(001), adsorbed H, desorption kinetics and surface restructuring 2−87025
W{100}, adsorption of N_2 and CO, $(\sqrt{2}\times\sqrt{2})R45°$ surface phase, LEED struct. anal. 2−110142
ZnO thin film, c-axis orientation and surface morphology, sputtering gas press. influence *(Japanese)* 2−92402
ZnTe (110) surface, kinematical anal. of LEED intensities *(Japanese)* 2−115512
ZrO_2-YeO_3, thermoionic cathode, Auger electron spectroscopy 2−110113

surface tension
adsorption, interfacial tension variation with crit. two-dimens. nucleus size, theory 2−87041
air bubble rising axially in a tube, viscoelastic effect 2−55644
binary alloys, molten, surface tension, rel. to thermodynamic enthalpy and activities, eqns. 2−61260
binary Lennard-Jones fluid mixture, liquid-vapour interface, surface segregation and tension 2−115495
binary solution, spherically symmetric freezing precipitate, time depend. soln. 2−109961
binary van der Waals fluid, interfacial density profiles 2−109647
brine-dodecane-pentanol-sodium octylbenzenesulphonate microemulsion, phase diagram and interfacial tensions 2−93832
buoyancy and surface tension driven instabilities, negative Rayleigh and Marangoni no.'s effects 2−97503
capillary viscometers taking into account surface tension effects 2−91567
surface tension continued
convection, at plane interface, linear perturbation anal. 2−61257
creeping Newtonian jet dynamics with gravity and surface tension, free-surface flows 2−91496
dispersant effectiveness test based on the drop-weight interfacial tension test method 2−67685
disperse system, solid-liquid-gas, effects of surface tension and viscosity of liq. medium 2−66322
drop density profile and surface tension 2−115494
drops, surface tension, statistical mech. theory 2−56304
electrolyte cryst.-aq. soln. interfacial tensions, from crystn. data 2−60902
electrolytic soln., surface tension, self-consistent theory 2−98385
electrostatic withdrawal of nonwetting conducting liquid through holes in thin isolating films *(Russian)* 2−86981
equilibrium fluid phases, surface tension along interface 2−103938
ferrofluid mag. drops, instability under mag. field 2−110093
film, liq., irregular flow down vertical column, curvature effect on flow stability 2−55668
flotation of sphere and cylinders by pendant bubbles or liquid-liquid interfaces *(French)* 2−92308
fluorocarbons-hydrocarbons nonideal mixtures, surface tension against water 2−71773
glass surface, review 2−92318
hard hexagon model, interface tension and correl. length 2−53688
hexamethyldisiloxane, surface tension meas. at low temp. 2−82083
immiscible liquid oscills. in free space or spherical containers in zero gravity environment 2−110090
Ising model, d=2, surface energy and equilib. shape 2−69106
isothermal fluid cylinder in presence of inertia, surface tension and gravity 2−91368
lattice-gas models, 2-D and 3-D, surface tension, Monte Carlo calcs. 2−63927
liquid, dynamic breaking tension 2−66326
liquid alloys, binary, surface tension 2−98393
liquid cylinder, equilib. shape and stability in gas flow at low Weber no's. 2−65637
liquid-gas interface, generalised van der Waals theory 2−104118
liquid-vapour interface, surface tension, elastic moduli 2−56301
liquids, pure and mixtures, prediction, generalised corresponding-states method 2−86975
low-gravity fluid flows 2−97493
magnetic coatings, particles packing and orientation behaviour, interaction of polyester binder with mag. powder *(Japanese)* 2−87547
metals, surface tension, electron density modulation effect 2−87009
mica, surface adhesion, effect of meniscus forces, appl. of macroscopic thermodynamics 2−56300
microemulsions, statistical mech. of interfacial region 2−57640
microgravity research in space 2−57278
morphology and composition of crystal surfaces, book contrib. 2−66333
multicomponent fluids, surface tension and freezing theory, singlet density-direct correl. function appl. 2−92310
nitroethane+3-methylpentane mixt., thermally excited capillary waves, light scatt. spectroscopy 2−75982
nonlinear Kelvin Helmholtz and Rayleigh-Taylor instability, surface tension effects 2−91395
nonlinear Marangoni convection, large cells, form. and stabilisation 2−55571
nonlocal approximations 2−71776
nonviscous liquid, surface sp. ht., vibr. contrib. 2−56325
nucleation, two-dimensional, nucleus size dependence of interfacial tension calc. 2−65893
phase boundary energy, form of thermal groove along line of boundary emergence 2−76799
1,2-polybutadiene viscofluid, strength characterisation in uniaxial extension 2−72829
polyimide film, surface tension, tensile stress effects, expt. study 2−98485
review of surface phase mechanics and thermodynamics *(French)* 2−66341
rough surface analysis using optics of oil films 2−112859
sea-surface films, surface tension meas. using mobile platform 2−89019
sheared liquid layers instability 2−109283
silicate glasses, ultimate strength rel. to other mech. and thermal characts. 2−88177
simple liquids, surface tension temp. depend., quantum effects 2−56302
smectic liquid crystal, A and B phase, surface tension measured by vibrating membranes 2−115504
solid-vacuum interface, thermodynamic equilib. rel. to vacuum deposition 2−61310
solitary wave with surface tension 2−109348
spherical fluid layer, small perturbations 2−60508
square-lattice percolation clusters, surface tension, Monte Carlo simulation 2−69105
steel, austenitic-ferritic, solidification, σ-ferrite form., influence of O 2−72690
steel, stainless, surface props. in molten and quenched conditions *(French)* 2−98389
thermal Marangoni effect in infinite liquid column, velocity distrib. 2−114914
thermocapillary flows in two-dimensional slots 2−109408
two phase Stokes flows distorted by a sphere straddling the interface 2−114877
two-dimensional cryst. symm., surface tension effects, theory 2−103677
viscoelastic liq. threads, surface tension driven jet breakup, stability anal. 2−97599
viscous fluid in cylindrical elastic shell, normal modes, surface tension 2−65607
water-oil-nonionic surfactant system, phase inversion 2−93824
Ag-O liquid alloys, surface tension and adsorption meas. 2−104117
Ag-Pb, system, solid-liq. region of phase diagram, interfacial tensions and adsorption 2−88057
AgCl-LiCl molten soln., surface tension, activity and thermodynamic props. and density meas. 2−76778
Al/Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al-Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al_2O_3-Cr_2O_3 solid solutions, wetting by liq. metals, Cr_2O_3 content influence 2−61261
Cd, liq., temp. depend., 325-800°C 2−104120
Cl_2, fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
o-D_2, capillary const. and surface tension, 20 to 36K *(Russian)* 2−82081

surface tension continued
Ge, (111)-stressed, electron-hole liq., surface struct. and surface tension, rel. to bulk props. 2−66455
p-H_2, capillary const. and surface tension, 20 to 32K *(Russian)* 2−82081
HPO_3, hydrated microdrop, normal-super liq. transform., SEM study 2−98258
He, liquid, nonlinear equilibria of electron-charged surface 2−82047
^{4}He, solid, interface with liq. ^{4}He and ^{3}He-^{4}He solns., equilib. props. 2−115489
^{4}He solid-superfluid interface, roughening transition 2−82071
Hg, electrostatic withdrawal through holes in SiO_2 film *(Russian)* 2−86981
$Li_{1-x}Na_x$, immiscible liq. metals, interfacial tension, pseudopotential theory 2−86980
$MgCl_2$-LiCl(CsCl) binary melts, surface tension *(Japanese)* 2−76782
N_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
O_2 fluid, liq.-vapour interphase, perturbation-variational theory 2−115502
Pd crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
SiFe laminations, skew domain wall bowing and shearing, asymmetric roll orientation 2−82680
UCl_4-$CaCl_2$ melt, density and surface tension meas. 2−113676
UCl_4-$MgCl_2$ melt, density and surface tension meas. 2−113676
Xe, liquid, vapour nuclei curvature effect on surface tension 2−115505
Zn-Bi alloys, molten, density and surface tension 2−61259

surface tension measurement
adsorbed mixed monolayers, dynamic surface tension and surface dilational viscosity, meas. technique 2−98386
dynamic surface tension studies, surface balance, design 2−61255
liquids, low temp. meas. 2−82083
non-contact meas. using VELOMET interphako interference microscope 2−71774
ring method using surface deformations 2−98388

surface texture
adatom diffusion activation energy, ion beam microtexturing determ. 2−56330
atomically rough crystal surface, topographic order *(Russian)* 2−86989
blistering by radiation and nonradiation effects 2−56315
film, surface roughness determ. from X-ray diffr. meas. 2−110180
foils, electrodeposited, ESCA signal intensity dependence on surface area (roughness) 2−110098
friction, effect of surface parameters 2−67565
height sensitive surface roughness parameters, profile waveforms 2−79532
Inconel 600, mechanically polished and sand-and bead-blasted, thermal outgassing props. 2−110161
ion bombardment surface texturing, sputtering yield and related phenomena, review 2−76528
metal surface enhanced Raman spectra, surface roughness effect 2−82837
metal surface roughness effect on surface plasmon dispersion relation and photoemission 2−57035
metal surfaces rough, EM wave scatt. 2−114154
metals, ion beam textured surfaces, quasi-liquid states 2−82984
metals and oxides, ionic implantation for SIMS quantification, corrosion study 2−99744
mirror surface roughness effect on scatt. ultrasoft X-radiation 2−87898
MIS solar cell, open circuit voltage modification due to nonuniform insulating layer 2−88434
optical films, surface figure and roughness, ion beam milling, appl. to IR optics 2−81130
polymeric materials, expt. verification of fatigue wear eqn. 2−111326
polypyrrole films, electrochemical and cond. props., chem. modification, SEM and voltammetric study 2−77217
profile and texture meas. by laser interferometric transducer 2−112869
quartz, X-ray irrad., X-ray topograph under high electrostatic field 2−110112
Raman scattering from surface polaritons, surface roughness effect 2−110844
rolling texture heterogeneity, modelling and predictions 2−93531
rough surface, effect of spatial dispersion on classical field enhancement factors 2−104462
rough surface analysis using optics of oil films 2−112859
semiconductor thin film, dielectric function spectra, density and surface roughness 2−82943
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
spreading of liquids, resistance from sharp edged microsteps 2−61254
steel, C, impact wear of tool steel, surface topography 2−88225
steel, medium-C, railway wheels, rolling texture, X-ray determ. 2−99623
superconductor, surface impedance and effective penetration depth, roughness effect 2−115948
thin film, low loss surface imaging STEM studies 2−110181
thin wires, resistivity, surface scatt., Matthiessen's rule, roughness effects 2−82338
topography development in SIMS anal. grain boundary struct. 2−98412
zirconium bis(methylphosphonate) surface texture and crystallinity 2−86982
Ag dendrites and single crysts., electrolytic growth in gel media, surface morphology, SEM study 2−87962
Ag film, sputter deposition, angular factors, SEM and EPMA study 2−87936
Ag surface profiles, autocovariance functions, electron microscope and microdensitometer study 2−76792
Al, surface erosion under the ion bombardment, mech. loading effects, SEM study 2−78021
Al thin film, surface topography meas. using α-particle energy loss distrib. 2−76552
Al-Mg, oxide formation, Mg diffusion, Auger and SEM study 2−82009
AlN, metal organic CVD on Si substrate, substrate temp. effects, surface texture 2−67223
Au film, surface roughness determ. from X-ray diffr. meas. 2−110180
Au surface profiles, autocovariance functions, electron microscope and microdensitometer study 2−76792
Au_2Mn, micro-texture study 2−61265
$Au_{55}Pb_{22.5}Sb_{22.5}$, metallic glass spheres, prep. and surface characteristics 2−55851
Bi thin film, classical size effect, rel. to surface roughness and struct. *(French)* 2−110507
$Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$, amorphous ferromag. alloys, anal. of coercivity 2−87538
Cu foil, electrodeposited, AES and ESCA, effects of surface roughness 2−78155
Cu surface profiles, autocovariance functions, electron microscope and microdensitometer study 2−76792
Cu-W(-Mo), ion beam microtextured surface, optical absorption coeff. 2−83277
$ErSi_2$, surface morphology, pitting, SEM study 2−92313
Fe-Si, grain oriented, domain struct. obs. using high voltage SEM 2−87527
Fe-Si alloys, polycrystalline ribbon form, rapid quenching technique *(Japanese)* 2−116475
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous ferromag. alloys, anal. of coercivity 2−87538
FeO_x, berthollide type, reactive sputtering prep., struct. and props. 2−82158
GaAs, surface ripples under picosecond laser illumination 2−81822
GaP ohmic contacts, laser annealed, for high temp. devices 2−56692
Ge epitaxial layers, LPE growth in γ-radiation field, struct. and electrophysical parameters 2−115599
InGaAsP/InP misfit dislocations, photoluminescence, TEM and etching study 2−98109
$LiNbO_3$ film, plasma assisted deposition and struct. *(Japanese)* 2−115595
Mo optical components, polishing procedures for surface texture reduction 2−102898
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Nb, surface erosion under the ion bombardment, mech. loading effects, SEM study 2−78021
NbV alloys, secondary ion emission, target morphology effects 2−99279
Ni-W, ion beam microtextured surface, optical absorption coeff. 2−83277
Sb thin film, classical size effect, rel. to surface roughness and struct. *(French)* 2−110507
Si, reactive ion etching, contamination of blanket etched surfaces, MOS VLSI appls. 2−116568
Si, stacking fault annihilation, surface orientation depend. 2−55985
Si, surface ripples under picosecond laser illumination 2−81822
Si:As^+ layer, ion implanted, Q switched Nd:YAG laser annealing 2−56015
Si-SiO_2 interface, atomic roughness, oxidation parameters influence 2−56372
SiO_2 film, sputter deposition, angular factors, SEM and EPMA study 2−87936
$SrSO_4$(001) surface, stratigraphical etch patterns 2−61263
Ti, diffusion of O_2, high temp. interaction, diffusive kinetics under nonstationary heating *(Russian)* 2−98342
W, cold worked, grain boundary dislocations, topographic anal., field ion microscopy study 2−115242

surface topography measurement
contour contactless scanning of conveyor belt surfaces, by US transducers *(German)* 2−53734
curved smooth surface 3D shape, high sensitivity moire topography for error meas. 2−69138
deviations from rectilinear surfaces, using autocollimation instrument 2−63975
diamond-turned metal optics, surface characterisation 2−109089
diffuse surface relief investigation using refl. holograms 2−65189
diffusing object contouring in real time with moire interference 2−69139
eddy current surface defect probe, new design 2−84597
electrical discharge imaging for nondestructive inspection of surface topography and flaw detection 2−72933
electron microscopy, surface relief investigation using defocused images 2−112865
fringe-pattern analysis using Fourier-transform method, computer-based topography and interferometry appls. 2−58890
holographic correlation method for testing microdeformations 2−58784
holographic moire method for displacements, strains, contours and slopes of surfaces determ. 2−86241
impact craters, shadow moire contouring 2−101384
interferometer and viewing optics for automated surface mapping, refl.-transmission phase shift 2−74489
laser mirros for far VUV spectral region 2−81046
laser speckle method for surface roughness meas. *(Czech)* 2−69132
magnetic tape contact area meas. using interferometry 2−69242
metal, strain meas. by optical correlation method 2−105393
microtopographical parameters determ. by digital and analogue methods, statistical accuracy estimation 2−95320
moire metrical topography with micrometer resolution 2−107299
moire techniques, shadow and projection, for absolute or relative mapping of surface shapes 2−101383
moire topography, automatic fringe anal. 2−95452
moire topography, double illumination method generalization 2−112860
moire topography, fringe localisation 2−96823
moire topography, moving human body meas. appl. 2−95449
moire topography, review from birth to practical appl. 2−95448
moire topography, rigid body motion correction 2−68099
moire topography contour interval interpolation by phase modulation 2−101455
moire topography using developed recording methods 2−95450
nonrectilinearity measurement using noncontact optical straight edge 2−74481
oil, heavy, heated by laser beam, surface profile, interferometric determ. 2−84693
optical contour method, interference of diffracted laser beam 2−89687
optical profilometer method for high sensitivity and wide dynamic range 2−107295
planarity deviations meas. instrum. 2−95323
plate bending studies using reflection moire methods 2−103126
plate static and dynamic flexure, grating techniques of slope and curvature meas. 2−103132
profile and texture meas. by laser interferometric transducer 2−112869
profile meas. using confocal scanning optical microscope 2−101456
profilograph-profilometer t_m parameter determ. 2−95321
profilometry, three-dimens., using confocal scanning microscope 2−74383
rectilinearity and planarity deviations meas., instruments checking means in Soviet Union 2−89688
relief checking for large surface areas, using laser beam 2−69135
rough surface analysis using optics of oil films 2−112859
rough surface statistical charact. determ. using waveguide scatt. of light 2−70714
self-calibrating meas. systems *(German)* 2−53726
semiconductor wafer flatness and thin film stress profile meas. using thickness analyzer, fibre-optic appls. 2−63971

surface topography measurement continued
speckle contrast technique, modified, surface roughness meas., ambiguity removal 2−69137
spinning disk, autofocusing laser based system 2−112862
straightness meas. of surface profile sections, up to 1.2 m *(German)* 2−69129
US echoes, surface characterisation by deconvolution using extended bandwidth 2−91184
Al, erosion by WC-Co sphere impingement at oblique incidence 2−111324
UO_2, porous, low-temp. Kr adsorpt. 2−61297

surface treatment
see also etching; polishing; surface hardening
atomically clean surfaces, of selected elements, prep., review 2−83251
atomically clean surfaces, prep., struct. and props. 2−82103
biological implants, ion beam sputter modification of surface topography, SEM obs. 2−116570
borosilicate glass, effect of fining agents on solarisation 2−99572
borosilicate glass with antireflective surface, strength and fatigue 2−83209
brass, diffusion galvanising kinetics 2−111377
brass, surface cleaning by scratching, AES study 2−57528
curved smooth surface 3D shape, high sensitivity moire topography for error meas. 2−69138
cutting tool carbonitriding in salt baths 2−67643
filled epoxy resin, dynamic mech. props., effect of boiling water 2−88117
graphite, Cr_xC_y diffusion layer form. 2−83289
Hastelloy X, carburization protection with Ti-Si enriched layers 2−116619
III-V semiconductor devices, hydrogenation/nitridisation passivation mechanism 2−77961
ion bombardment self-decoration, cryst. microstructure study 2−111337
laser optical components, ultrasonic cleaning and solvent drying 2−75730
metal processing with gas transport CO_2 laser, cutting and heat treating 2−116611
metal surface layers, effect of spark discharge and electrolytic plasma *(Russian)* 2−62267
metallic surfaces, laser irradiated, regrowth, surface nonuniformities and coupling phenomena 2−61030
metals, chemicothermal treatment in glow discharge, ion bombardment effect 2−111376
metals, laser surface alloying, review 2−116609
metals, surface treatment using pulser *(German)* 2−83271
metals industries, US cleaning 2−62321
optical films, surface figure and roughness, ion beam milling, appl. to IR optics 2−81130
optical glass integral antireflective surfaces, historical development 2−60202
performance and property improvement conf., NY, USA (July 1979) 2−94914
polymer film surface treatment by electric discharge, temp. effects 2−105353
polymer quenchants, use in surface heat treatment of metals 2−116471
PTFE, surface pretreatment 2−67589
refractory metals, trilevel lift-off process 2−93643
semiconductor, using diffusion plasma columns in coaxial cylindrical glow discharge tube 2−103476
stainless steel, SUS 304, Ti-coated surface, Auger anal. *(Japanese)* 2−92320
steel, austenitic stainless 304, crack initiation in constant extension rate tests in pure water 2−77985
steel, boriding, with high-freq. current heating 2−67644
steel, C, Cr_xC_y diffusion layer form. 2−83289
steel, C, ground and at layers, X-ray stress meas. *(Japanese)* 2−78012
steel, C, pore-free siliconising 2−111375
steel, Cr-Mo, high strength, delayed fracture strength, influence of residual stress due to surface treatment *(Japanese)* 2−72810
steel, high speed, unidirectionally deformed layers, ψ splitting and microscopic residual shear stress in X-ray stress meas. *(Japanese)* 2−78011
steel, nitriding processes control, thermodynamic calcs. 2−67642
steel, stainless, oxidation investig. using automated scanning proton microbeam 2−111351
steel, stainless, surface modification by H ion erosion 2−93655
steel, stainless 13 wt.% Cr hardened, surface working effect on fatigue strength and wear 2−111386
steel, strengthening by surface plastic deformation, dislocation aspects 2−116615
steels, ferritic, protection by Al cementation with or without subsequent oxidising *(French)* 2−99597
surface (111), surface pot. low temp. baking effect, photo-EMF study 2−77971
textured surface, optical storage medium, reflectance changes 2−81038
transition metal nitride surface films, prep. and characterisation 2−82165
Zircaloy, surface oxidation, protective coating form. 2−99607
Ag evaporated films, surface morphology under anodic and cathodic load and during ageing 2−98504
Ag-GaAs Schottky diodes formation on Kelvin, AES and LEED characterised surfaces cleaned by ion bombard. 2−87391
Al alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Al, surface oxidation and segregation, SIMS studies 2−105388
Al-Cu-Mg-Mn-Si-Fe sheet, fracture toughness and crit. crack length, inhibiting layer effect 2−72826
Al-SiO_2-Si system, hydrogenation of defects at the Si-SiO_2 interface 2−56373
B, polycrystalline, oxidation, AES and EELS studies 2−77963
B, surface modification by H ion erosion 2−93655
C fibre, containing ZrO_2, effect of low temp. Ar plasma 2−67585
C, surface modification by H ion erosion 2−93655
Cu, wrought, engng. fatigue props. review 2−88161
Cu-Al-Fe, surface oxidation, suppression during laser surface treatment 2−83294
Fe, cast, white and grey, Cr_xC_y diffusion layer form. 2−83289
Fe, nitriding processes control, thermodynamic calcs. 2−67642
Fe, sulfidation at high temps. and diffusion kinetics 2−67647
Fe, unidirectionally deformed layers, ψ splitting and microscopic residual shear stress in X-ray stress meas. *(Japanese)* 2−78011
Fe-Ni, laser surface alloying, mass transport effects, theory 2−93660
Fe-Si, oxide scale removal, interface exposure 2−105383

surface treatment continued
GaAs, heat treated in H_2-Ar_2, surface thermal decomposition, Ar_2 partial press. effects 2−62246
GaAs, hydrogenation/nitridisation passivation mechanism 2−77961
GaAs substrate cleaning procedures, AES study 2−88237
GaAs substrate for MBE, thermal removal of surface C 2−116572
GaAs-Si_3N_4 interface quality improvement by surface treatment and annealing 2−110487
GaP:N LED degradation, surface corrosion 2−116559
Ge plates, surface treatment effect on X-ray diffraction, struct. 2−86514
$Hg_{1-x}Cd_xTe$, solid soln., plasma reflectance spectra meas., effect of damaged surface layer 2−67064
Hg_2Cl_2, surface layer hardness, stress and etching behaviour, surface treatment effects 2−111335
HgTe, anodic oxidation and electrochem. surface treatment obs. 2−93641
InGaAs, photodetectors, hydrogenation/nitridisation passivation mechanism 2−77961
p-InP surface modified photocathodes for photoelectrochem. cell 2−99813
InSb photoconductive detectors, cooled, effects of surface treatment on performance 2−84705
Mg, hydriding using Fe particles as dissoc. adsorption catalyst 2−67650
Mo, electric spark alloying with TiN, ZrN and HfN 2−67657
Mo, nitridation by low energy N_2^+ ion bombardment, surface pretreatment depend. 2−111349
Mo, nitridation by N_2^+ and N^+ beam bombardment, energy and dose depend. 2−111350
Mo, surface damage from diamond-saw emitting, positron lifetime study 2−61266
Na_2O-CaO-SiO_2 glass, chemically toughened, crack evolution in Vickers indentation 2−88169
Na_2O-Fe_2O_3-Al_2O_3-SiO_2 glass with decorative cryst. surface film, synthesis 2−67275
Nb patterned supercond. film, production using trilevel lift-off process 2−93643
$(Nb_{0.99}Zr_{0.01})_3Sn$, supercond., mag. field penetration depth, surface treatment effects *(Russian)* 2−115947
Ni alloys, strain testing by moire method, high-temp. linear grids appl. 2−93712
Ni, aluminisation, form. of intermetallic phases and Ni_2Al_3 coating 2−99593
Ni first wall, passive He pumping, regeneration 2−71190
Ni, surface oxidation, suppression during laser surface treatment 2−83294
Ni-Cr, aluminide coatings, form. kinetics and microstruct. 2−116620
Ni-Cr-Mo-Co-Fe(Al), aluminide coated, compatibility in simulated HTGR 2−113664
Ni-Fe, surface (100), oxidation 2−116612
Ni-Hf, surface oxidation, suppression during laser surface treatment 2−83294
PbO-SiO_2 glass, reduced surface layers, struct., resist. and electron emission props. 2−105016
Pt/n-GaAs Schottky interface, effects of surface treatments 2−98743
Se-Ge-As glass, microstruct., fracture surface study by SEM 2−91796
Se-Sn-As glass, microstruct., fracture surface study by SEM 2−91796
Si, brittle fracture crit. stress, ion implantation and surface treatments effect 2−81882
Si, dislocation EBIC contrast 2−60988
Si film, plasma hydrogenation effects on elec. props. and ESR 2−104511
Si, high purity single crystal, nitridation 2−72661
Si, nitriding in NH_3, kinetics study 2−88335
Si surface, laser annealed, residual strain, surface treatment effects, Raman spectra study 2−81821
Si, surface cleaning, deionised water rinse impact 2−88240
Si surface cleanness control by TEM *(Russian)* 2−99573
Si, surface modification by H ion erosion 2−93655
Si, UHV-deposited thin films, laser cleaning of (100), (110) and (111) surfaces 2−83250
Si:H amorphous film, glow discharge deposited, heterogeneities and surface effects 2−92420
SiC, single crystal, growth kinetics of oxide films 2−77959
Si_3N_4 layers grown by plasma enhanced thermal nitridation 2−62076
SiO_2 films on Si, dielec. breakdown, effect of plasma cleaning 2−61831
SiO_2 surfaces, fused, CO_2 laser polishing for increased laser-damage resist. at 1064 nm 2−114342
SiO_2 thin films, nonequilib. water permeation 2−92250
$SrTiO_3$ photoanode, visible light photoresponse, surface treatment effects 2−98695
Ta, surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
Ti, hybriding in H plasma embrittlement, sorption, rel. to contamination 2−74935
Ti, nitriding in RF discharge, effect of H addition to N on nitriding 2−88271
TiB_2, surface modification by H ion erosion 2−93655
TiFe, nitrided by NH_3 pretreatment, SIMS investig. 2−105389
W, electric spark alloying with TiN, ZrN and HfN 2−67657
W, vacuum siliciding diffusion parameters, influence of NaCl activator 2−83273
WC-Co cermet, surface modification by H ion erosion 2−93655

surface vibrations *see crystal surface and interface vibrations*

surface waves (fluid)
see also liquid waves; oceanography
Alfven surface wave propag. along fluid-vacuum interface, two-mode struct. 2−86411
breaking surface waves, parametric solns. 2−109342
capillary fluctuations, self-gravity constraint 2−114828
classical shallow water eqns., symplectic geometry 2−55606
2-D diffraction of long surface wave by trench 2−58081
evaporating liq., surface waves, dispersion eqn. 2−92311
evaporating liquid, mass transfer effect on surface wave spectrum 2−109349
excitation by sub-surface sources 2−97576
free surface flows and surface gravity waves, numerical methods 2−97579
glaciers, wave motion theory 2−100403
gravity waves, damping 2−75979
gravity waves, plane and axisymmetric, viscous spreading 2−109340
interfacial wave nonlinear self-modulation 2−86290
long surface gravity waves, lateral wave theory, relevance to tsunami propag. 2−73487
longitudinally compressed elastic plate influence on stream wave perturbation development 2−61258

surface waves (fluid) continued
non-Gaussian water-wave fields 2−111930
nonlinear EM surface wave at plasma-conducting media interface *(Ukrainian)* 2−103325
nonlocal dielectric fluids, dispersion of surface waves 2−75978
reaction-diffusion system, rotating spiral waves, symm. props. 2−75984
second-order wave force on a large cylinder 2−114814
shallow water, 2-D periodic permanent waves 2−55605
solid-fluid boundary, surface waves, tangential vel. discontinuity stability 2−75983
solitary wave collisions investigated using numerical scheme 2−55604
solitary wave with surface tension 2−109348
stratified fluid, waves on surface layer, asymptotic calcs. *(Russian)* 2−103184
stratified liquid with obstacles, surface waves 2−97577
strongly nonlinear waves, review 2−97578
submerged cylindrical duct, surface gravity wave radiation 2−114825
submerged obstacles effect on water waves in channel 2−60568
thin liquid films, surface waves, spectral anal. 2−70969
turbulent flow, surface wave propag., asymptotic soln., appl. to oce an waves *(Russian)* 2−73593
turbulent plane jet interacting with small amplitude waves, mean flow characts. 2−65628
two-component fluid, ripplon dispersion relations, hydrodynamic mean-field calc. 2−58699
vortex dynamics, Kelvin waves, stability 2−55591
water, flow beneath stagnant film, Reynolds ridge form. 2−65604
water, solitary surface wave, oblique interactions 2−97571
water surface gravity waves, evolution, effect of long internal waves 2−70972
water waves, drift vel. investig. 2−65602
water waves, wind-driven gravity-capillary waves, steady state distrib. 2−70970
water waves over variable depth bottom, three dimens. eqns. approx. 2−65605
wave crest heights, statistical study, for coastal structure design and planning 2−88908

surge absorbers *see surge protection*

surge protection
see also divertors; surges
long switching spark between electrode and ground in air *(Polish)* 2−76211
surge towers/corrosion control of Mingechaursk hydroelectric power plant *(Russian)* 2−88268
N_2 gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529
SF_6, gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529

surge suppressors *see surge protection*

surgery
cardiac surgery, use of impedance spectroscopy *(German)* 2−83697
computerised tomography guided stereotaxis, localisation error sensitivity 2−94166
cryosurgery, appl. to otolaryngology 2−62828
drill, improved, design and performance 2−117129
electrosurgery: concepts, operation theory, appls. and safety 2−83699
electrosurgery, circular dispersive electrodes, anal. and control of current distrib. 2−78466
electrosurgical circular dispersive electrodes, distrib. equiv.-circuit models 2−78482
electrosurgical equipment development and problems 2−78480
heart, non-contacting temp. meas. technique *(German)* 2−111811
HF surgical instruments, technical scope and safety problems *(German)* 2−88683
laryngeal surgery, perturbation anal. use for objective assessment 2−57879
laser applications, conf., Germany (1981) 2−89467
laser beam applications 2−94154
laser uses in biomedicine, book 2−63765
lasers and fibreoptic endoscopy for medical use 2−78406
orthopaedic cutting operations, temp. elevations, bovine expts. 2−105662
pneumatic tourniquets used in surgery, complications and improvements 2−88686
RF surgery equipment, technical possibilities and hazards in use *(German)* 2−100153
RF surgical equipment: appls., technical possibilities and safety problems *(German)* 2−73392
stereotactic neurosurgery, 3-D digital signal processing 2−62744
CO_2 laser surgery 2−83628

surges
see also overvoltage; transients
polyethylene subjected to switching surges superimposed upon AC voltage, tree mechanisms obs. 2−99041

surgical operations *see surgery*

surveying
Antares laser system, optical tooling and surveying techniques 2−102813
data management 2−57962
environmental science methods book 2−101150
fault displacement surveying, variance anal. of underdetermined problem 2−111835
geodetic levelling rod calibration procedures 2−78855
gravimetry applications *(German)* 2−68236
gyrotheodolites test rig 2−95425
levelling database implementation 2−57964

susceptance, electric *see electric admittance*

susceptance, electric, measurement *see electric admittance measurement*

susceptibility, dielectric *see optical susceptibility*

susceptibility, magnetic *see magnetic susceptibility*

susceptibility, optical *see optical susceptibility*

suspensions
anisotropic Ericksen fluid, flo9w of fibre suspension between coaxial cylinders , Couette flow stability 2−65566
bentonite suspension, plastic fluid pulsatile flow, enhancement 2−70997
Brownian particle dynamics, Langevin approach 2−63900
ceramic binding materials, heat resistant, prep., fundamental principles 2−111121
deformable shell particles, in conc. suspension, non-Newtonian viscosity 2−86248

suspensions continued
dielectric constant, effective, of suspension of uniform spheres, bounds 2−92495
dielectric function effective of suspension of spherically symmetric particles, bounds 2−92494
dielectric sphere liquid suspension, use as artificial Kerr medium 2−97123
dilute, rheological behaviour, shear rate depend. of flow 2−97620
dilute hard core suspensions, scatt. and memory functions, transport coeff., light scatt. 2−60851
dipolar Brownian particles in electric field, transport and relaxation 2−79505
dispersion by laminar flow 2−91391
dusty fluid, laminar two phase boundary layer flow over flat plate 2−81382
dusty gas shock tube, flow struct. 2−97593
electromagnetic field effects 2−103202
ethanol-H_2O liq. droplets interaction 2−81384
fluid dynamics and mass transfer in stirred suspensions *(German)* 2−86322
fluid-particle suspension, torsional oscillations of disc 2−76013
gas particle suspensions through venturis, scaling laws, appl. to flow meas. 2−86328
gas suspensions, transport coeffs., aerodynamic effects 2−81436
gas-solid two phase flow sudden expansion 2−91511
glass fibre suspensions, viscosity 2−65555
hard sphere suspension, self diffusion of interacting Brownian particles 2−92246
heat exchanger employing laminar flow of particle suspensions, thermal design 2−70822
interacting sphere suspensions, shear viscosity conc. depend., cluster theory 2−93817
interacting sphere suspensions, shear viscosity conc. depend., Huggins coeff. calcs. 2−93818
leukocytes:mn^{2+} suspensions, H^+ NMR relax. 2−116895
liposome suspensions, optical study of microstruct. 2−111633
lubricant inertia for suspension theory *(Russian)* 2−55621
microstructure deformation, strong flow criteria 2−81383
monodisperse superconducting granule suspension, superconductivity simulation 2−104532
Navier-Stokes fluid, random array of spheres, dynamics 2−97628
newtonian suspension, velocity profile in cylindrical tube 2−55651
nonhomogeneous fluid flow, Navier-Stokes eqn. soln. 2−70894
particle dispersion in uniaxial flow, stochastic theory 2−86327
pipe flow, unsteady, numerical study 2−55648
pipe flow meas., using electric mocro-probe method *(German)* 2−81425
polarisable suspension, cluster expansion for dielectric const. 2−97697
Polirit aqueous suspension for polishing chem. unstable gallate-aluminate glass 2−109091
polydisperse, diffusion memory effects, hard sphere approx. at low density 2−82001
polydisperse equivalent spheres, elec. birefr. evaluation of particle size distribs. 2−70507
polydisperse gas suspensions, kinetic model 2−103243
polydisperse suspension, diffusion, memory effects, projection formalism 2−82000
polystyrene, charged spheres in colloidal suspension, spatial correls. calcs. 2−105520
polystyrene, charged spheres in colloidal suspensions, dynamic correls. calcs. 2−105521
powder suspension, aqueous, new paint prep., applic. and props. 2−67599
pulverised products quality control, computerised particle size analyser *(Italian)* 2−58789
reacting monatomic dusty gas, relax. zone behind normal shock waves 2−86432
red blood cell suspensions, O_2 diffusivity investig. 2−88523
rigid rods, bimodal and polydisperse, damped oscillations in viscosity 2−75916
rigid rods, monomodal, damped oscillations in viscosity 2−75915
screening effect, freely moving spheres 2−86249
sedimentation beneath inclined walls, kinematic wave theory 2−97630
solid-liquid suspensions in elastic tube, one-dimens. unsteady flows 2−109397
stationary spheres in incompressible fluid, linear hydrodynamics 2−81390
thermal cond. of solutions filled with metallic powders 2−70829
turbulent duct flows, motion of particles 2−70920
unsteady flow through rectangular pipe 2−97663
virus capsid destruction by laser radiation 2−100060
viscoelastic fluid flow past convexly curved boundaries, suspended particle effects 2−81368
Al_2O_3 suspension, high conc., rheology and binding props. 2−88042
$BaSO_4$, growth rate in suspension, influence on inhibiter conc. 2−116352
γ-Fe_2O_3 aq. suspensions, H^+ adsorpt. desorpt. kinetics, press. pump method 2−71792
Fe_3O_4 aq. suspensions, H^+ adsorpt. desorpt. kinetics, press. pump method 2−71792
FeOOH aq. suspensions, H^+ adsorpt. desorpt. kinetics, press. pump method 2−71792

swelling
alloy, austenitic, microstruct. development, effects of pulsed dual-ion irrad. 2−109852
alloys, complex, high temp. radiation damage 2−109843
creep, irrad. and thermal, by dislocation climb, theory 2−86709
diffusion, biased, of radiation point defects to interactive sinks 2−110045
diffusion processes in irrad. materials with point defects, transport eqns. *(Russian)* 2−92251
dislocation sink strengths, rate theory of irrad. damage 2−86716
FACSIMILE code for void swelling and creep calc. with vacancy loops 2−67468
filled vulcanizates of natural rubber, equilib. swelling *(Russian)* 2−71379
fission reactor fuel, oxide, swelling and gas release during fast temp. transients 2−90223
fusion material, ICFR, He interaction with displacement damage, rate theory applic. 2−85232
fusion reactor first wall, irrad. creep characts. 2−85220
fusion reactor materials, pot. for using rapid solidification for improved irrad. performance 2−108107
fusion reactor materials, pulsed irradiation, effects on microstruct., swelling, creep 2−54641
gelatin, photographic, thin layers, swelling 2−95507

swelling continued
graphite, water-cooled pyrolytic targets, design and operation at LAMPF 2−108188
hydrophilic swelling materials, sorption eqn. 2−110092
light ion bombardment, simulation of neutron-induced mech. prop. changes 2−103864
metal, void growth during irrad., cyclic pulsed temp. effect 2−86717
metals, He bubble form. and swelling 2−109788
metals, swelling, radiation-induced, effect of defect struct. 2−86721
Nimonic PE16, ion bombarded, damage struct. 2−109855
oxide fuel, fission gas release at high burn-up 2−80066
oxide fuel, gas release swelling, gas porosity development kinetics model 2−80063
PMMA, glassy state relax. characteris. by low press. CO_2 sorption, pres-welling influence 2−65883
point defect sink strength, thin foil, with bulk recombination 2−60970
polyacetylene film, I_2 or Na doping, swelling meas. 2−92007
polyacrylamide gels, deswelling under reverse osmosis 2−105504
polyacrylonitrile, I swelling, creep yield and conformational transition 2−76275
polybutadiene, effect of glass filler size on tensile props. and tear strength 2−88137
polydimethylsiloxane gels, swelling and orientational order, NMR obs. 2−62437
polymer, star shaped, model for conformation, conc. depend. 2−54998
polystyrene networks, specific vol. meas. at different degrees of swelling 2−109660
prime candidate alloys, path A, rapidly solidified, microstruct. 2−85210
PVDF films in various solvents, unusual swelling behaviour 2−109691
PVF films in various solvents, unusual swelling behaviour 2−109691
radiation damage phenomena, cascade diffusion theory as general method for modelling 2−103841
stainless steel, electron irradiated, void swelling 2−61039
steel, austenitic stainless, 316, degradation of props. during irrad., preirrad. microstruct. development 2−69865
steel, austenitic stainless, ageing, dimensional changes *(Russian)* 2−67385
steel, austenitic stainless, electron irrad., swelling behaviour, influence of He 2−109836
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, austenitic stainless, irrad. in EBR-II and HFIR, swelling, microstruct. development and He effects 2−108109
steel, austenitic stainless, irradiated in EBR-II and HFIR, swelling and microstruct./microchem. evolution 2−108110
steel, austenitic stainless, Nb-stabilised, neutron irradiated, void-swelling and precipitation 2−105154
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, microstruct. after Fe and He ion irrad. 2−108115
steel, austenitic stainless, swelling, effect of solid transmutation products 2−108111
steel, austenitic stainless, swelling and microstruct., fission-fusion correl. 2−85222
steel, austenitic stainless, void swelling, 1.1 MeV N-ion irrad., TEM study 2−109854
steel, austenitic stainless, void swelling, during HVEM irrad. 2−109835
steel, austenitic stainless 316, radiation induced evolution, neutron spectra effects 2−109845
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, austenitic stainless 316, rapidly solidified Al_2O_3 dispersion strengthened, microstruct., path A alloys 2−88094
steel, austenitic stainless 316, Ti effect on microstructs. changes rel. to void swelling 2−86741
steel, ferritic, ion irradiation, void swelling and solute segregation 2−85212
steel, ferritic and austenitic, LMFBR materials, neutron irrad. effects 2−107950
steel, FV548, irradiated with 1 MeV electrons, void nucleation and growth 2−103819
steel, stainless, austenitic, ion irrad. mode effects on void form. 2−86756
steel, stainless, austenitic, precip. and cavity form. during irrad. 2−86735
steel, stainless, cavity swelling, model based on fission-fusion correl. 2−85226
steel, stainless, martensitic, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
steel, stainless, Types 304 and 316, dual ion bombarded, He partitioning to extended defects 2−86755
steels, ferritic stainless, fast neutron irrad., microstruct. obs. 2−108108
structural fusion reactor materials, rate theory and swelling induced by the displacement damage 2−80192
transient swelling during pool boiling 2−91220
UC-PuC fuel pins, neutron irrad., swelling, microstruct., fission gas release 2−80108
Zircaloy, neutron irrad., microstruct. and dimens. changes, irrad. growth theory 2−109848
Al_2O_3-B_4C burnable poison, gas release, swelling, high fluence effects 2−80099
B_4C, irradiated, crack propag. induced by swelling and thermal gradients 2−77912
$CaPuTi_2O_7$, alpha decay self irrad. damage 2−80064
$(Fe,Ni)_3V$ long range ordered alloy, resistance to neutron and ion irrad. 2−85217
Fe, ion irradiation, void swelling and solute segregation 2−85212
Fe-Cr-Ni alloys, electron-irrad., swelling and Ni segregation 2−111182
Fe-Cr-Ni alloys, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Fe-Cr-Ni-based alloys, commercial, electron irrad., void swelling 2−103820
Fe-Cr-Ti-Mo-TiO_2, dispersion strengthened, void swelling in HVEM, influence of fabrication procedure 2−111189
Fe-Cr-Ti(Si), ion irradiation, void swelling and solute segregation 2−85212
Fe(-Cr), triple beam ion irrad., microstruct. 2−109856
$Fe_{40}Ni_{40}B_{20}$, amorphous, neutron irrad. and annealed density changes 2−109850
$MgAl_2O_4$, fission neutron irradiation, structural props. study 2−80187
MgO, fission neutron irradiation, structural props. study 2−80187
Mo alloy TZM, void swelling after high fluence neutron irrad. 2−85213
Mo, neutron irrad., void coarsening during annealing 2−86734
swelling continued
Mo-Re, re effect on void swelling, in-situ obs. in HVEM 2−86743
Mo-Ti and alloy TZM, void swelling behaviour under heavy ion bombard. 2−86744
Nb and alloys, ion irradiated by $^{58}Ni^+$ and $^3He^+$, swelling 2−85216
Ni, nonstationary Ni^+ irradiation regimes effect on void formation 2−56050
Ni, pore formation and swelling under Ar ion irrad., temp. depend. *(Russian)* 2−115312
Ni, void swelling, pulsed ion beam effects 2−85214
Ni:He, ion implanted, damage profiles, swelling due to Ni ion irrad. 2−103805
SiO_2-B_2O_3-Na_2O microporous glass, swelling in water rel. to heat treatment 2−111209
TiB_2-Ni ceramics, crack form. and swelling in liquid Al 2−111273
(U,Pu)C, swelling investigation 2−64479
UO_2 fuel, swollen, with nonuniform grain size, interconnected pores stability 2−93481
V, ion implanted, mech. props. study after neutron irrad. 2−71511
V-Ti, ion implanted, mech. props. study after neutron irrad. 2−71511
V-Ti (20 wt.%), He injected and neutron irrad., tensile props. and microstruct. 2−71509
V_2O_5 amorphous phase, hydrated 2−55847
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101

swept-frequency reflectometry
microwave and MM-wave transmission/reflection test sets, delay-line based techniques 2−107340
precision automatic reflectometry, reference impedance attainable calc. *(French)* 2−64067

switchboxes *see switchgear*

switches
see also relays; semiconductor switches; time switches
10×10 optical matrix switch 2−55354
10 kA arc in air, quickly switched off, free burning, breakdown phenomena *(German)* 2−115066
150 kV, 100 kA spark gap switch for Marx generator 2−97831
Bragg diffraction switches, electrooptic, in low cross-talk integrated-optics switching matrix 2−91093
conductive rubber footswitch for gait anal. 2−117118
dense plasma focus and m=1 instability opening switch concepts 2−91683
electrooptic 4×4 matrix switch for multimode fibre-optic systems 2−70698
foot-switch, inexpensive but durable, for telemetered locomotion studies 2−57937
grid-controlled plasma switch with isolated neutral plasma and free electron flow regions 2−91684
laser-controlled gas-phase switches, optical processes 2−97806
low pressure spark gap Blumlein switch, testing 2−91715
magnetooptic bistable switch for multimode optical fibre 2−81082
optical, bistable injection laser, interaction with external optical cavity 2−55210
optical, using organic materials 2−70637
optical fibre, bistable detent mechanism 2−70682
optical passive guided-wave components, review 2−75679
optical switch, 2×2 transverse-type, appls. as wavelength meter and demultiplexer 2−55351
optical switch, used for signals in optical fibres, appls. *(Japanese)* 2−70701
optical switches, high-speed *(Japanese)* 2−75718
optical waveguide 2×2 matrix switch using dielectric chip motion 2−86094
optical waveguide matrix switch, 2×2, non-blocking, using dielectric chip motion 2−75682
optogalvanic effect applications to opening switches 2−97824
overvolted water spark gap switch, laser initiated conduction 2−97832
polarisation independent switch using a Gaussian taper function 2−75681
rail-gap switches for high output energy excimer lasers 2−96999
semiconductor laser bistable operation with an adjustable trigger 2−90894
$Bi_{12}SiO_{20}$ single-crystal film, LPE growth, optically activated planar optical switch appls. 2−116391
$CaCO_3$, calcite 2×2 optical bypass switch controlled by liq.-cryst. cells 2−60257
GaAs DH laser, ultra-short light pulse generation by Nd:YAG laser controlled opto-electronic switch *(Chinese)* 2−90959
InP electro-optic directional coupler switch 2−75683
$LiNbO_3$ optical channel waveguide TIR switches, GHz bandwidth, 4×4 switching networks 2−75680
Nd:YAG continuously excited laser resonator acousto-optic switch *(Polish)* 2−97006

switchgear
see also circuit breakers; switches
discharge voltages of non-corona air gaps of different shape at high frequency *(Russian)* 2−97805
gas discharges and appls., conf., London, England (August/September 1982) 2−101134
LV indoor switchgear installations thermal problems *(Hungarian)* 2−91222
noise levels measurement and reduction measures *(German)* 2−65429
SF_6 insulated, random prebreakdown discharges as diagnostic criterion of particle contamination 2−97809
SF_6 insulated substations enclosure burn through probability estimation 2−97807

switchgear testing
short cct., lower temp. limit determ. with double wire probes 2−103470

switching
see also electrical conductivity transitions; ferroelectric switching; magnetic switching; Q-switching; switches
3rd IEEE International Pulsed Power Conference, Albuquerque, NM, USA (June 1981) 2−89461
absorptive optical bistability, switching times 2−102850
laser switching wave control device 2−86017
multiphoton ionisation for breakdown triggering or control Xe 2−96529
nematic liquid cryst. display, multiplexible bistable, homogeneous elec. field threshold switching 2−103597
optical picosecond gate *(Chinese)* 2−91001
optical switching developments for telecommunications networks 2−91092
p-n junctions subjected to overvoltage, avalanche breakdown 2−66632
pulsed power bibliography 2−94940

switching continued
two-dimensional solid-state ferroelec. self-wave medium, nonlinear switching waves obs. 2−89546
C-CdS-metal, switching struct., with potential barrier, elec. characts. 2−87407
SF_6/N_2 gas mixture compositions effects on discharger switching time in nanosecond range *(Russian)* 2−97804
V_2O_5-P_2O_5-MoO_3, glass, threshold switching in bulk specimens 2−98703
switching circuits
see also switching networks; trigger circuits
LCT protective dump switch tests 2−69954
linear-gate device [spectrometer pulse selection] for selecting input pulses with control signals 2−108305
switching networks
see also minimisation of switching nets
$LiNbO_3$ optical channel waveguide TIR switches, GHz bandwidth, 4×4 switching networks 2−75680
switching substations
HV, SF_6 insulated, partial discharges acquisition and localisation using noise anal. *(German)* 2−76218
SF_6 insulated substations enclosure burn through probability estimation 2−97807
switching transitions *see electrical conductivity transitions*
syllabic compandors *see compandors*
symbiotic stars *see cataclysmic binary stars*
symbols *see nomenclature and symbols*
synchrocyclotrons
Philips, external beam prod., stochastic extraction, shutdown 2−59576
synchronisation
accumulation of vibration signal under conditions of nonidealness of strobing process 2−67712
atomic clocks, Lasso experiment scheduling and data processing at the Sirio-2 Lassoo Coordination Centre 2−89695
automatic time, 3-site interplanetary scintillation exp. 2−89155
clock reliability in earthquake research 2−83964
laser synchronizer for parametric frequency conversion systems 2−80997
microwave spectrometric tests, using synchronised sample clocking multivibrator cct. *(French)* 2−58841
motion pictures, supporting role of sound 2−109132
streamer chamber, voltage pulse generator and photographic system synchroni sation 2−85483
subnanosecond optical pulse generator using argon ion laser 2−65249
synchronisation system in 2-station search for primordial black holes 2−79541
time meas. standardisation, BCR-project on time comparison via OTS-2 2−112874
VLF propagation phase velocity meas., time scale synchronisation effect 2−58774
VLF signals instant of arrival meas., error determ. and elimination 2−58799
synchronism *see synchronisation*
synchronous generators
TEXT, motor generator installation and operation 2−69936
synchronous machines
see also synchronous generators; synchronous motors
four-pole cylindrical synchronous machine solid rotor temp. distribution measurement *(French)* 2−84628
superconducting, worldwide development review, Polish uses *(Polish)* 2−53775
synchronous motors
heteropolar linear synchronous motor (LSM) theoretical design, construction and testing for combined propulsion and levitation 2−70479
Transrapid 06 maglev system propulsion by iron-cored long-stator synchronous motor *(German)* 2−70477
synchroscopes *see cathode-ray oscilloscopes*
synchrotron radiation
acetylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
acetylene, angle-resolved photoelectron spectra using synchrotron radiation 2−108625
applications, conf., Stoughton, WI, USA (Oct. 1981) 2−94907
V1343 Aquilae (SS 433), synchrotron model for simultaneous radio and X-ray activity 2−112453
atomic physics, past, present and future 2−70449
beam formation in linear gap of synchrotron, incoherent effects 2−90791
beryl, soft X-ray monochromator crystal, stability in synchrotron radiation 2−84759
BESSY experimental facility, status report 2−85415
bromomethane, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
charged particle radiation in mag. systems 2−80884
CHESS, Cornell High Energy Synchrotron Source, current status 2−85414
circular polarisation and absolute intensity meas. and calcs. 2−85501
Daresbury synchrotron radiation source, vacuum instrumentation 2−84639
diamond turned mirrors for synchrotron radiation 2−86070
electron and ion spectroscopies using synchrotron radiation, instrumentation considerations 2−84740
electron beam rotating in plasma, coherent synchrotron radiation polarisation 2−97750
electron storage rings, synchrotron radiation and electron beam dynamics 2−113770
emission in plasma, two dimens. EM relativistic simulation code 2−103436
ethylene, adsorbed on Pt(111), angle resolved photoemission using synchrotron radiation 2−115564
ethylene, angle resolved PES as a function of photon energy using synchrotron radiation 2−85740
EXAFS spectroscopy, conference, Boston, MA, USA (Nov. 1979) 2−74160
generation, measurements and appls. *(Japanese)* 2−85411
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, simplified expressions 2−106494
HASYLAB, synchrotron radiation facility at DORIS storage ring, survey 2−85416
holographic X-ray gratings production using synchrotron radiation 2−84768
synchrotron radiation continued
hybrid electron synchrotron laser, expt. study and computer simulation 2−55172
III-V semiconductors, Schottky barrier form. and MOS interface states, unified model 2−87372
instrumentation, conf., Ithaca, NY, USA (July 1981) 2−84369
intensification effects from electron synchrotron 2−85425
intensity, rel. to beam spatial parameters 2−114175
IR beam port for SRS at Daresbury 2−85437
Klein ERNA, table-top synchrotron radiation source 2−113780
LURE, French synchrotron radiation facility, status report 2−85417
MAX accelerator system as synchrotron light source 2−90327
microchannel plate X-ray detector for synchrotron radiation 2−85475
modified Wadsworth monochromator matched to storage ring source, theory 2−86078
monochromator, vac., for synchrotron radiation in 15-160 nm range, absolute calibration 2−109603
multiparameter multichannel anal. system for X-ray sources 2−84767
MWPC, multielement detector system for synchrotron X-ray source 2−85476
National Synchrotron light source, data acquisition and control system 2−59672
National Synchrotron Light Source, progress and prospects 2−85413
National Synchrotron Light Source in IR region 2−85420
NGC 1275, Seyfert galaxy, evidence for synchrotron self-absorpt. from multifreq. VLBI obs. 2−74080
optically thin synchrotron radiation, spectral polarisation props. 2−112309
polarisation, mag. adjustment 2−114170
polybis-p-toluene sulphonate diacetylene, single cryst. perfection, synchrotron radiation topography, defects role in solid-state polymerisation 2−71373
power variation at close distances to the orbital ring 2−96815
protection problems at a synchrotron radiation facility 2−70003
PSR 0531+21, Crab Nebula pulsar, optical radiation mechanism *(Russian)* 2−63491
quasi-stellar objects, luminosity and density evolution in rotating mag. superstars model 2−106952
radio sources, compact, synchrotron radiation from relativistic flows 2−74113
radiometric calibration appl. 2−107378
radiosources in relativistic motion, synchrotron polarisation props. 2−117786
relativistic charges driven by elliptically polarised plane vacuum wave, synchro-Compton radiation 2−63225
replica gratings contaminated by synchrotron radiation, plasma discharge cleaning 2−86086
review, uses, special technologies 2−102314
review of synchrotron radiation sources and instrumentation 2−108770
semiconducting MBE films, interface microstruct. props. 2−87082
solar flares, struct. of impulsive phase from microwave obs. 2−68699
SRS facility status 2−85418
storage rings, electron beam polarisation meas. using synchrotron radiation 2−80360
SURF II facility at NBS, status report 2−85412
surface photoelectron spectroscopies 2−93373
synchrotron X-radiation sagittal focusing with curved crystal 2−84753
Tokamaks, current maintenance by synchrotron radiation 2−91596
toroidal grating monochromator, beam line design and performance at ACO storage ring 2−86080
toroidal grating monochromator design for SURF II 2−86077
transmission grating goniometer elements for synchrotron radiation facilities 2−84771
two-axis diffractometer for synchrotron X-rays at DORIS 2−84766
two-dimensional electro-optical X-ray detectors survey 2−85474
UV and VUV systems, conf., Washington, DC, USA (April 1981) 2−106999
UVSOR facility at IMS 2−85419
VUV spectrometers development for synchrotron radiation facilities 2−84716
wide bandpass monochromators for synchrotron radiation 2−84752
wiggler and undulator magnets for synchrotron radiation, overview 2−85438
X-ray diffraction gratings for synchrotron radiation spectroscopy, fabrication method 2−101506
X-ray energy and line shape meas. using diffraction markers 2−79729
X-ray microanalysis near absorpt. edge using synchrotron radiation, quantitative results 2−57661
X-ray scattering beam line at National Synchrotron Light Source 2−84764
X-ray source coherence properties, synchrotron radiation spatial coherence 2−60002
X-ray sources coherent properties, partially coherent X-radiation in crystals, dynamic scatt. 2−58988
β-Al_2O_3, soft X-ray monochromator crystal, stability in synchrotron radiation 2−84759
Br_2, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
CO, Rydberg series in 2-electron excited region 2−102491
CO/Co (0001), angle-resolved photoemission studies 2−83000
Ge, high pressure struct. phase transition, X-ray diffr. study using synchrotron radiation 2−103975
Ge(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
HBr, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
Kr, angular distrib. param., mol. effects, PES using synchrotron radiation 2−70332
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
Ni single crystal, (1$\bar{1}$0), white synchrotron radiation topography, mag. field effect 2−86623
Si-d metal interface, interface, O_2 interaction, photoemission investig. 2−110474
SiC, chemical vapour deposited, mirror material evaluation for synchrotron radiation 2−86071
Si(Li) detector array, multielement detector system for synchrotron X-ray source 2−85476
Si(111)-Ag interface, chem. reaction, synchrotron radiation photoemission study 2−61212
Si(111)-Ag interface oxidation and struct., photoemission investig. 2−88380

synchrotron radiation continued
W (011), valence band struct., angle-resolved XPS, synchrotron radiation, direct transitions and phonon effects 2−61340
WC (0001), angle resolved photoemission results 2−82999
XeCl/Xe_2Cl laser, excited state kinetics study using synchrotron radiation 2−96928

synchrotrons
see also cosmotrons
air activation by an electron synchrotron 2−109448
Coulomb freq. shift of noncoherent oscillations of synchrotron particles 2−113804
high-energy facilities in Europe 2−80356
IHEP U-70 proton synchrotron and physics programme, status and outlook 2−113787
KEK polarised beam project and polarised ion source 2−75084
Klein ERNA, table-top synchrotron radiation source 2−113780
magnet, method of generating undulatory signal in scatt. field of gaps 2−85465
National Synchrotron Light Source, progress and prospects 2−85413
NIMROD proton accelerator, neutron transmission calc. through access way using MORSE code 2−113581
proton synchrotron, bunched beam, longit. short-wavelength instability 2−64737
proton synchrotron, ultrahigh energy, bunched beam longitudinal instability, current loading 2−113786
radiation instrumentation, conf., Ithaca, NY, USA (July 1981) 2−84369
radiation sources and instrumentation, review 2−108770
RFQ linac injector for medical heavy ion synchrotron 2−75072
Saturne, polarised proton accel. 2−75073
shielding at proton accelerator, absorbed dose meas., comparison with Monte Carlo calc. 2−96317
space charge force compensation using RF quadrupole 2−75091
synchronous transfer of beam in the BPS *(Chinese)* 2−108205
synchrotron radiation beam intensification effects from electron synchrotron 2−85425
tubular superconductor pulsed dipole magnet with circulating cryostatic system 2−64076

synoptic climatology *see climatology*

synthetic rubber *see rubber*

system documentation *see program and system documentation*

systems analysis
see also program and system documentation
fuel supply organization, economic region *(Russian)* 2−83445

systems design *see systems analysis*

systems programming *see systems analysis*

Szilard-Chalmers reactions *see radiochemistry*

T invariance
aligned nuclei in paramag. crystal, mag. resonance, nuclear force T violation 2−107760
atoms, time reversal symmetry and parity expts. 2−70433
cellular automata models of particles 2−95698
elementary particles elec. dipole moments, review 2−69468
magnetic groups corepresentation, character table 2−76357
nonpotential scattering theory and Lie admissible algebras, time evolution operator and S-matrix 2−95053
nonselfadjoint systems, non-Euclidean and non-Desarguesian geometries 2−95054
parity and time-reversal noninvariance using neutron interference 2−84814
polarised neutrons propag. through polarised medium, T invariance test 2−69377
quantum gravity, determinism, time symm. 2−84502
short-range interactions and irreversibility in statistical mechanics *(French)* 2−95677
superball and time-reversal invariance 2−107071
time reversal invariance, evidence of violation 2−95675
time-reversal invariance tests from polarisation quantities in elastic scatt. 2−59056
time-reversal invariance tests via polarisation-analysing power equality 2−95676
^{197}Au γ-decay, Mossbauer test of T-invariance 2−59285
^{9}Be(^{3}He,$\bar{p}$)^{11}B, 13.6 MeV, proton polarisation and implications for time-reversal invariance 2−59378
^{13}C(d,t), time reversal test, use of molecular beams 2−69666
^{56}Co, β^+ decay, Fermi-Gamow-Teller mixing, T invariance test in V-A model 2−90055
^{3}He, superfluid, violation of T-invariance in NMR *(Russian)* 2−82061
^{3}He(γ,d)p, two-body photodisintegration, 150 to 350 MeV, rel. to T invariance 2−90086
^{131}Xe, E2/M1 transition polarisation, test of time reversal invariance 2−69637

Ta *see tantalum*

table-top computers *see minicomputers*

tables (data) *see collections of physical data*

tachometers
see also angular velocity measurement
DC motors phaselock loop control by optical tachometers, velocity and direction information recovery techniques 2−74404
direction-sensitive current-mode tachogenerator design and performance 2−69161
HP HEDS-5000 electro-optical tachometer for microprocessor systems *(German)* 2−69155

tachyons
generalised sub- and super-luminal Lorentz transforms., formal and physical props. 2−101166
Lorentz transformations 2−95001
meta-physical interpretation of tachyons 2−58609
scalar tachyon impossibility *(Russian)* 2−69014
search using unshielded plastic scintillation detector, negative results 2−117548
shape in rest and lab. frame 2−95003
spin zero, wavefunction transforming as scalar field imaginary mass system, reduction 2−95591
superluminal EM fields polarisation 2−101520
superluminal light propag., in hadronic matter, rel. to curved spacetime gauge symm. 2−101530

tackiness *see adhesion*

TADMR *see microwave-optical double resonance*

tandem accelerators *see particle accelerators*

tantalum
see also nuclei with .....
AES, composition depth profiling, depth depend. of depth resolution 2−105013
atom, gamma ray incoherent scatt. at 662 keV 2−80543
atoms, incoherent photon scatt. cross sections 2−75220
Auger profiling, obs. of artifacts 2−78005
chemical diffusion in γ-U, samples fabricated for positron studies 2−110052
cyclotron masses and many-body effects, relativistic APW calc. 2−56426
cylinder, impact deformation meas. at high temp. 2−83172
deformed, low temp. internal friction 2−72751
diffusion of H and D, N interstitials effect 2−104067
electromigration of H isotopes, quantum characts. *(Russian)* 2−92293
electron stimulated desorption of H^+ from O-contaminated (110) surface 2−110153
Fermi surface, relative changes due to uniaxial tension 2−92441
film, sputtered, internal stresses, optical reflectance, 2−82181
film deposition, planar magnetron characts. at high power input 2−57291
film growth of evaporated layers, struct. changes, elec. resist. study 2−92414
laser-enhanced chemical etching of solid surfaces 2−77958
lattice location of D impurities by ion channelling technique 2−81843
magnetron sputtered, nucleation props., substrate surface effects 2−115624
MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
nitriding, form. of Ta_2N, kinetics 2−81700
oxide and nitride layers, quantitative anal. by sputtered neutral; mass spectrometry 2−105031
pion implanted, blocking expts. with positive muons from pion decay 2−81839
polycrystalline, oxidation at low temp. and press., AES and sputtering study 2−93684
positive muon depolarisation, 5 to 365K 2−82766
powders, prep. process 2−111108
precipitation of interstitial solns., initial stages, computer simulation *(Russian)* 2−77824
protective coatings on Al, Cu, AIST 316L, Inconel 600 for fusion reactor appl. 2−74911
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
shocked surfaces, material ejection 2−71569
single and bicrystals, work hardening and deformation *(Russian)* 2−105179
sputtering, continuous emission production of photons 2−57188
strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
superconducting films, amorphous and cryst., tunnelling expts. 2−92827
surface, (111), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
surface core-level shifts for low-index surfaces 2−56661
surface transfer processes during arc plasma heating and oxidation, mag. field effect *(Russian)* 2−99594
thermotransport of H and D 2−82029
thin-layer resistance thermometer *(German)* 2−84626
ultrasound induced elec. field gradient, quadrupolar nucl. acoustic reson. study 2−56951
wrought, physical-mechanical props., thermal processing effect *(Czech)* 2−57407
β-B:W,Ta, grown by electron-beam zone refining, distrib. patterns 2−76480
$CaTiO_3$:Ta, O nonstoichiometry, dopant conc. 2−86704
$DyNi_5$, ^{181}Ta TOPAC meas. of non-axial quadrupole interaction 2−93089
$ErNi_5$, ^{181}Ta TOPAC meas. of non-axial quadrupole interaction 2−93089
H solubility in metals, deviations from Sievert's law 2−71656
Nb, electromigration of Nb-95 and Ta-182 *(French)* 2−71729
Ni-Cr-Co-Al-Ta superalloy, air embrittlement, role of S 2−99541
$SrTiO_3$:Ta, O non-stoichiometry, gravimetric anal. 2−98145
Ta, Snoek effect, rel. to O impurity content, cold work and ageing *(French)* 2−67414
Ta/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
Ta/Ta_2O_5, miniature implantable electrodes for stimulation 2−57927
Ta-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
Ta-Si interface, polycryst. Si film growth and disilicide formation 2−71817
Ta-Si Schottky barrier structures, effect of interfacial impurities 2−82435
Ta-Ta oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
Ta_2O_5-Ta interface profile, Auger and sputter depth profiling study 2−104175
^{182}Ta, specific γ-ray constant and exposure rate constant 2−68162
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971

tantalum alloys
see also tantalum compounds
Inconel 625, high-temp. air oxidation 2−80115
Inconel 625, sequentially He^+ implanted, surface exfoliation suppression 2−76522
Co-Cr-Ta alloys, hot corrosion in modified Dean's rig 2−99583
$Hf_{0.8}Ta_{0.2}Fe_2$, ferromagnetic-antiferromag. transition, magnetisation and Mossbauer study 2−87493
Nb-Ta ribbon, abnormal transverse field effects, pinning characts. 2−110552
Nb-Ta single cryst. superlattices, MBE growth, HEED study 2−82166
NbTa-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
Ni-Ta solid solns., short-range order, conc. and temp. depend., X-ray diffr. study 2−115178
Ta-H alloys, low freq. internal friction study 2−116479
Ta-H alloys, low freq. internal friction study 2−116480
Ta-H system, phase diagram and transitions, mag. susceptibility study 2−92155
Ta-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Ta-Re(Mo)(Hf)(W)(Zr), athermal solid soln. hardening 2−99437
Ta-W (10 wt.%), limiters in Doublet III, changes in near-surface microstructure 2−74901

tantalum alloys continued
Ta-W (10 wt.%) single crystals, hydrogen embrittlement, 77K-290K temp. range *(Japanese)* 2−67549
Ta-W alloys, elec. resist. meas. 2−98621
Ta-W-Re(Mo)(Hf)(Nb), athermal solid soln. hardening 2−99437
TaH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
TaH_x, Jahn-Teller resonance states, electron-phonon interaction, HF calc. 2−82302
$Ta_{55}Ir_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
$Ta_{55}Rh_{45}$, metallic glass, electronic struct., UPS and XPS study 2−76908
Ti-Al-Nb-Ta, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
TiN-Ta, sintering and props. 2−111109
V-Ta, binary alloys, fabricability and tensile strength 2−67496
V-Ta, superconducting Tc, specific heat calcs. 2−115935
V-Ta-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V_3Ta superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
WC-TiC-TaC binderless cemented carbides, effect of hot isostatic pressing 2−111120
WC-TiC-TaC-NbC-Co cemented carbide, C content effects 2−77939

tantalum compounds
see also tantalum alloys
nitrides, and oxynitrides, obs. of artifacts during Auger profiling 2−78005
Ag_xTaS_2 intercalation cpd., electron diffr. investig. of superlattices, struct. and CDW 2−103720
Ag_xTaS_2, superlattices, electron diffr. study 2−91931
Cu_3TaSe_4, ^{181}Ta 6.2 keV nuclear transition isomer shift 2−110737
$DTaWO_6$, cryst. struct. determ. 2−91884
$Fe_{1/3}TaS_2$, X-ray core level photoemission, charge transfer effects 2−111023
$HTaO_3.xH_2O$, proton conductor, charact. 2−104054
$HTaWO_6$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
$HTaWO_6.H_2O$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
HfO_2-MgO-Ta_2O_5, ordered fluorite related phase 2−111159
$9LiTaO_3$:Ta_2O_5, cryst. struct., powder neutron diffr. study 2−65935
$Mn_{1/4}TaS_2$, X-ray core level photoemission, charge transfer effects 2−111023
$Na_{0.33}(H_2O)_yTaS_2$ cointercalation cpd., cryst. struct., X-ray diffr. study 2−91909
$Ni_{1/3}TaS_2$, X-ray core level photoemission, charge transfer effects 2−111023
PbO-Ta_2O_5 system, pyrochlore related structs., X-ray diffr. study 2−103712
Ta/Ta_2O_5, miniature implantable electrodes for stimulation 2−57927
Ta-H, low-temp. stable states, interstitial sublattices 2−86618
Ta-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Ta-Ta oxide-Ag tunnelling junction, zero-bias conductance dip, phonon features 2−98824
TaB and TaB_2, low temp. CVD, hardness and corrosion resistance 2−83033
TaB_2, single crysts., high temp. hardness and slip systems 2−86674
TaC, coating for graphite furnaces in electrothermal at. absorpt. spectrometry *(Japanese)* 2−112995
TaC fibres in Ni, Cr matrix, directionally solidified eutectics, field emission cathodes 2−57274
TaC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
TaC, single cryst., prep. and supercond. props. *(Japanese)* 2−92808
TaC single-crystal powders, morphology, hardness, and grinding ability 2−83230
TaC, sputtered film, effect of ion implantation on props. 2−87120
TaC, sputtering of keV protons, ang. distrib., hybrid Monte Carlo calc. 2−72590
$TaH(PO_4)_2.2H_2O$, layered struct., thermodecomposition 2−71420
TaN, thermal and elec. cond. characts. rel. to electron energy spectrum 2−71987
Ta_2N, HCP thin film resistors, mass prod. by planar-magnetron sputtering 2−99337
Ta_4N_5, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
TaO layers, Ta, quantitative anal. by sputtered neutral mass spectrometry 2−93842
TaO_5 thin-film optical waveguide, CO_2 laser annealing for scatt. loss reduction 2−75677
β-Ta_2O_5, defect struct., non-stoichiometry, thermogravimetry study 2−91953
Ta_2O_5, elec. cond. 2−56582
Ta_2O_5 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
Ta_2O_5 film on GaAs substrate, thickness determ. by Monte Carlo method *(Chinese)* 2−110179
Ta_2O_5 optical thin film, refractive index meas. during film deposition 2−82944
α-Ta_2O_5, photocond. and photochromic props. meas. 2−92696
Ta_2O_5 sputtered antireflection coating for Si solar cells 2−105564
β-Ta_2O_5, vibr. spectra and X-ray diffr. obs. of cryst. struct. 2−98012
Ta_2O_5:Al(Cr), acceptor doped, elec. cond., majority defect model 2−92615
Ta_2O_5-Ta interface profile, Auger and sputter depth profiling study 2−104175
TaS_2, 2H polytype, electron diffr. study of twist boundaries 2−76248
TaS_2 (1T), CDW phase transform., positron annihilation Doppler broadening study 2−99215
TaS_2 (1T), electron irrad., Mott to Anderson localisation, electronic transport 2−92594
TaS_2 (2H), intercalation cpds., mag. susceptibility and band struct. 2−104251
TaS_2 intercalated with Li, elec. props. 2−66529
TaS_2, X-ray core level photoemission, charge transfer effects 2−111023
TaS_2-2H, intercalation cpd. with NaOH, supercond. transition temp. and charge transfer 2−92804
TaS_3, CDW dynamics, freq. depend. cond. meas. 2−71956
TaS_3, cryst. struct., semicond. elec. props. 2−60954
TaS_3, elastic anomalies at CDW transition 2−76564
TaS_3, irradiation induced defect pinning of CDW, electron diffr. study 2−66064

tantalum compounds continued
TaS_3, monoclinic, press. depend. on CDW transitions 2−87241
TaS_3, thermoelectric power meas. 2−104400
TaS_2(1T), irradiation induced defect pinning of CDW, electron diffr. study 2−66064
$TaSe_2$, 2H polytype, low temp. phase change 2−76249
$TaSe_2$ (2H), discommensurations in commensurate CDW states 2−71426
$TaSe_2$ (2H), microstruct. in incommensurate and commensurate CDW states, electron microscopy obs. 2−104009
$TaSe_2$ (2H), Raman scatt. from CDW state, commensurate-incommensurate transition 2−66468
$TaSe_2$ (2H) structure, CDW, interlayer interactions effects 2−76950
$TaSe_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2−97974
$TaSe_2$, sputtered dichalcogenide layers, friction props. 2−72849
$TaSe_2$-2H, charge density wave-periodic struct. distortion transition 2−103980
$TaSe_2$-2H, normal state phonon prop. anal. 2−103919
$TaSe_2$-2H, Raman scatt. from orthorhombic commensurate phase 2−116192
$TaSe_3$, cryst. struct., superconducting props. 2−60954
$TaSe_3$(2H), electronic susceptibility, CDW and lattice vibr., Raman scatt. study 2−77530
$TaSe_2$(2H), incommensurate CDW phases 2−103722
$TaSi_2$ evaporated and sputtered films, resist., stress and etching behaviour under various residual gas conditions 2−87094
$TaSi_2$ layers, coverage on Si/SiO_2, surface struct., ion-implant profiles surface anal. study 2−82094
$TaSi_2$/Si composite structs., oxidation kinetics in dry O_2 2−105349
$TaWO_{5.5}$, defect pyrochlores, cryst. struct., neutron diffr. study 2−60950
ZrO_2-MgO-Ta_2O_5, ordered fluorite related phase 2−111159
tantalum electrolytic capacitors *see electrolytic capacitors*
tape recorders
see also magnetic heads; magnetic recording; video tape recorders
built-in microphones, uses of electret microphones 2−102995
FeRRIT, 35 mm/17.5/16 mm audio recorder/reproducer, audio post production appl. 2−101480
instrumentation data recorders and their uses 2−95398
Rythm 320 2-channel primary synchronous audio tape recorder, cinematography appl. *(Russian)* 2−70803
tariffs
residential solar power-systems, adoption in USA incentives offered by electricity supply industry 2−73080
taste *see chemioception*
Taylor instability *see flow instability*
t.d.m. *see time division multiplexing*
teaching
see also demonstrations; education; student laboratory apparatus; training
approximations used in undergraduate physics, accuracy 2−107036
atoms in elec. field, continuum eigenfunction expansions and resonances: a simple model 2−84416
audio-visual materials utilisation in higher education, British Universities Film Council 2−53469
barrier penetration via path integrals 2−107066
basics in physics, secondary school teaching 2−68990
Bell's inequality and quantum correlations 2−107062
binary gravitating system, sudden loss of mass 2−107045
Bloch electrons behaviour, boundary conditions effect 2−107069
boson gas, ideal, population struct. 2−107060
Brownian motion sedimentation, micro-computer educational expt. *(Japanese)* 2−58580
charged particle current, rel. to displacement current 2−107047
charged particle trajectories near long straight current-carrying wire 2−89508
classical and quantum mechanics, comparison 2−112676
classical mechanics, proof of theorems 2−63781
coherent states and swift ion-condensed matter interactions 2−89509
cold gas, nonadiabatic compression, P-V relation 2−94949
commuting functions of noncommuting operators 2−94957
conservation of momentum, space charge problem soln. 2−94954
coordination radii in diamond, zinc blende and CaF_2 structs. 2−94956
Coulomb's law, note on expt. determ. 2−79319
coupled pendulums, teaching 2−68989
de Broglie's phase waves, phys. props. 2−63783
de Broglie relationship, derivation from Doppler effect 2−53467
degeneracy in the particle-in-a-square problem 2−94963
diffraction efficiency and approximate bandwidth in thick holograms 2−53459
Dirac's light-cone coordinate systm 2−107043
einstein's relation 2−89507
electrodynamics, lecture course for undergraduates 2−94950
electrodynamics, Poincare gauge 2−107038
electrodynamics, rel. to action at a distance, 4-dimensionality and conservation of energy 2−107046
electrodynamics, time symmetric, absorber theory and the Kocher-Commins expt. 2−89513
electromagnetic waves in a plasma containing both electric charges and magnetic monopoles 2−107068
electromagnetism, teaching, problem-solving course 2−107044
electrostatics, dipole interaction energy near plane metal surface 2−107051
elementary energy questions and (wrong) answers 2−79322
EM momentum density 2−79307
EM wave propag. in slowly moving conducting dielectric 2−107048
engineering sciences, education, training and research 2−68992
F-centres regularity argument from uncertainty principle 2−84423
Fermat's theorem of primes 2−53454
fluid mechanics, conf., Aachen, Germany (March 1980) 2−68969
Fourier transform spectroscopy, increased resolution by using a bandpass filter 2−79321
fractional charges on oil drops, reanalysis of Millikans expt. on charge quantisation 2−79302
free wave packet spreading 2−79312
frictional force rotator, demonstration equipment 2−94951
fusion, catalytic, using heavy lepton injection 2−89514
general relativity theory, black holes, review 2−63774
geophysics, conference, April 1982, Cardiff, Wales 2−63736
gravitational deflection of fast particles and light 2−84413
Greninger nets for backscattered Laue analysis 2−84421

teaching continued
group theory application to phase transitions *(Japanese)* 2−101153
gyrotron or electron cyclotron resonance maser 2−53462
hologram potential for improved communication in education and training 2−63788
hot chocolate effect [acoustic mode of water column] 2−79303
hyperfine structure, Pauli's 1924 note 2−79320
ideal gas and second law of thermodynamics 2−107059
inertial confinement fusion, simulation for physics education 2−58582
inertial reference frames, gravitational forces, appl. to university courses 2−69006
ionization energies and electron affinities of atoms up to neon 2−53453
isospin relations, Schmushkevich counting method appl. 2−107049
itinerant magnetism, two-band model 2−94955
Kac's ring model, many-particle system irreversibility, micro-computer expt. *(Japanese)* 2−58581
Lamb shift, perturbation theory method of elucidation, teaching 2−63776
laser light recording on positive paper for student laboratory expts. 2−53470
learning and visual communication, book 2−63760
Lewis-Tolman-like nonrelativistic paradox 2−89510
light, one-way vel. meas. 2−84414
light beacons, use for synchronisation 2−107058
liquid refractive index meas. using a liq. lens 2−84420
local field effects and effective-medium theory, microscopic aspects 2−107041
Lorentz transformations, covariant four dimensional expression 2−107064
loudspeaker, fundamental reson. freq., teaching 2−63780
magnetic energy density, idealised model 2−107052
magnetic flux quantum, elementary derivation 2−84410
mass energy, Einstein's derivation using photons and Doppler shift 2−84425
mathematical physics transcendental eqns. iterative solns. with programmable pocket calculator 2−84412
mechanical systems dynamic stability and pot. energy 2−79310
microprocessor-based Mossbauer fitting program 2−84772
mirage in the laboratory 2−84411
molecular beam epitaxy prep. and processing techniques for semicond. materials 2−53471
multiple images in plane mirrors 2−53472
muonic He, one-dimens., theory 2−79327
mystical concepts, rel. to those of physics 2−53479
Newton's Principia, Kepler's laws, universal gravitation 2−94970
Newton's Principia and inverse-square orbits 2−94969
nonlinear effects in a simple mechanical system 2−53455
nonlinear Hamiltonian dynamics, ergodic theory 2−63784
Nordstrom's first theory of gravitation, cosmology 2−53456
nuclear arms race, technical and political aspects 2−107030
nuclear explosions, general physics course 2−94945
open systems, work-energy theorem 2−94947
paramagnetic resonance, demonstration apparatus 2−84426
path integrals and the WKB approximation 2−107065
pendulum large-angle motion, meas. and anal. 2−79316
perihelion precession in central field simulators 2−53463
phase volume, adiabatic invariance 2−53465
planetary atmospheres, comparative study and the search for life 2−68991
plates, vibrations, Chaldni's law 2−53468
point charge between conducting plates, method of images 2−94948
point groups, tree flow charts, teaching and indexing appl. 2−65903
pulse power systems, graduate course curriculum 2−94942
pulsed power technology lecture series for USAF at Texas Tech University, modular instructional 2−94943
quantum mechanics, density matrix and energy-time uncertainty 2−94953
quantum mechanics, rel. to ground state hyperfine splitting 2−107040
quantum theory, validity 2−107061
quark confining potential in relativistic eqns. 2−84418
radiant energy transfer, teaching 2−63777
relativistic acoustic Doppler effect 2−107063
relativistic time dilatation of bound muons and the Lorentz invariance of charge 2−53461
repulsive singular potentials, resons., eigenvalue calcs. 2−89511
resonance scattering from a double δ-function potential 2−94961
resonances and analyticity of scattering wave function for square-well-type potentials 2−107067
rigid double pendulum, Newtonian formulation 2−94946
ring laser gyro of arbitrary shape and rot. axis 2−94958
Schrodinger eqn., numerical determ. of eigenvalues 2−63785
Schrodinger wave eqn., strange bound states, scalar pots. 2−63782
Schrodinger wave function first derivative discontinuity 2−84419
Schwarzchild metric 2−84409
science and society test on energy and environment 2−107081
science teaching and conceptual change 2−112675
second law of thermodynamics, Sears-Kestin statement 2−53460
single-degree-of-freedom system with an infinite number of equilibrium positions 2−107053
Skyhook: another space construction project 2−79323
special relativity 2−107054
spectrometer automation, Bausch and Lomb Spectronic 20, use as teaching aid 2−74187
Stern-Gerlach expt., theory 2−107039
superball and time-reversal invariance 2−107071
symmetric double square well, quantum solns. 2−53458
systems, using new developments in communication and information techniques *(Italian)* 2−58583
thermodynamics, second law, anal. treatment using Kelvin's principle 2−89506
tissue paper ribbons, meandering fall expts. 2−74188
transformation of directions between laboratory and center-of-mass reference frames 2−79311
transmission lines, lumped component type, standing and travelling waves 2−107050
travelling wave ring laser gyro, quantised angular momenta 2−94959
two-capacitor problem, hydrostatic analogy 2−94960
uniform rope sliding over the edge of a smooth table 2−84415
uniformly accelerated reference frame and twin paradox 2−53457
university building, energy waste, thermodynamics 2−63775
videotaped problem solutions for introductory physics 2−53466
visible horizon calc. as function of altitude 2−107057
vorticity and rotation discussion 2−79309
water droplet, light backscatt. and glory effect visualisation 2−79308

teaching continued
Wigner-Eckart theory, wave mechanical formalism, teaching 2−63778
zitterbewegung and the Klein paradox for spin-zero particles 2−84417
α-particles, energy straggling effect 2−79318
H atom, one-dimensional, in infinite square well, theory 2−79328
H_2, average value evaluation 2−84422
H_2, photoelectric effect matrix element, nonrelativistic but high energy continuum state approx. 2−53464
H_2, binding energy origin, Bohr orbit model and Ruedenberg's theory 2−84424
H_2, one-dimensional molecule, δ-function interactions and wave functions 2−79317
He-Ne frequency-stabilised laser design and construction project for students 2−94968
^{3}He, properties and early history 2−53452
^{3}He-^{4}He, properties and early history 2−53452
NaCl, semi-infinitive, site-by-site Madelung energies 2−79314
teaching approaches to particular topics *see teaching*
teaching demonstrations *see demonstrations*
teaching machines *see computer-aided instruction*
technetium
see also nuclei with .....
lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
metallic, E3 transition conversion electron spectrum of ^{99m}Tc, chem. environment effect *(Russian)* 2−54316
nuclear spin-lattice relax., ab initio semi-relativistic ASA-SCF-LMTO linear tetrahedron calc. 2−98985
^{99}Tc^m, decay rate, supercond. effect 2−95957
^{99}Tc^m-aerosol, quantitative comparison with ^{81}Kr^m in ventilation imaging 2−83632
^{99m}Tc, external radiation exposure of medical personnel 2−105837
^{99m}Tc labelling of glass fibres 2−117086
^{99m}Tc-MDP dose and distrib. in various bones and tissues 2−94214
^{97,98}Tc production by solar neutrinos 2−89227
technetium alloys
see also technetium compounds
$ScTc_2$, density of states and supercond., low temp. sp. hts. 2−61640
Tc_xRe_{1-x}, isoelectronic HCP, supercond. transition temp. 2−56761
technetium compounds
see also technetium alloys
TcO_4^- coextraction in Purex process 2−64551
technical information centres *see information services*
technical presentation
No entries
technicians *see personnel*
technological forecasting
see also research and development management
arid land plants, fuel biomass sources 2−57732
economic systems, dynamic, nonlinear, technological forecasting and resource policy anal. using bond-graph method 2−111531
electricity generation, coal-using technologies, effects on future markets 2−57674
geothermal energy policy and market share in western United States calc. 2−67820
hydrogen, large-scale production plants, future development *(German)* 2−62506
marine technologies for the 1990s 2−67881
NASA space missions development, using advanced automation technologies 2−94579
nuclear power, future role in energy states *(French)* 2−99773
nuclear power, projected growth, rel. to gross national product 2−111542
shale oil, production, technology, effects on power industry 2−67800
US energy prospects forecast 2−62449
voice recognition computer terminal options and trends 2−91165
Li batteries, future development 2−105551
tectonics
Acapulco-San Marcos region of Mexican subduction zone, seismic potential 2−111881
accreting plate boundary memory and fracture zone continuity 2−106067
Aegean plate deformation, finite element study 2−94353
E Africa, focal mechanism of major earthquakes in Western Rift Valley 2−117224
E Africa, focal mechanisms of volcanic and tectonic earthquakes in Western Rift Valley 2−111906
Africa, mag. anomalies and tectonic features correl. 2−100234
E Africa, thermal model of lithospheric thinning assoc. with continental rifting 2−106078
SW Africa continental margin, isostasy and gravity anomalies 2−88857
African-Sicilian Rise, tectonic struct. rel. to geothermal conditions 2−73498
S Alaska, Denali fault motion and accretionary development 2−94344
S Alaska, plate tectonic origin since Triassic 2−94342
E Central Alaska, terranes and suture zones 2−94321
central Alaska Range, tectonic significance of accretionary terranes 2−94343
central Aleutians, subduction zone calibration of thrust zone events 2−68307
Southern Alps, interaction of African and European plates 2−105940
Western Alps region, seismicity rel. to tectonic processes 2−73458
alternative to plate tectonic hypothesis *(Russian)* 2−106072
Central America, gravity and mag. anomalies rel. to tectonic struct. 2−100237
N America, later Proterozoic polar wander path from ^{40}Ar-^{39}Ar studies on Tudor Gabbro, Ontario 2−106022
NE America continental margin, isostasy and gravity anomalies 2−88857
N American Cordillera, fault motion during Jurassic 2−88853
N American plate underthrusting Caribbean plate 2−100301
Andes, intra-crustal melting indicated by isotope geochem. study 2−68313
Andes uplift at N Peru, crust subduction model *(French)* 2−100350
W Antarctica, problems for Gondwanaland reconstruction 2−94334
Appalachian crust struct. and tectonic history 2−83774
S Appalachian Piedmont, crust struct. and tectonic history 2−73523
Appalachian tectonic evolution, correl. with New Brunswick mineral deposits 2−100352
N Appalachians, Late Palaeozoic basins subsidence 2−94337
Arabian and Indian plate interaction since L. Cretaceous 2−117282
Arabian Sea shales near India, geochem. and thermoluminesc. studies 2−73504

tectonics continued
Archaean crust thickness of S.India, greenstone granite belt 2−88833
Archaean gneisses at Hebron, Labrador, Rb-Sr isotope study 2−117262
Archaeozoic plate tectonics 2−106075
Arctic Ocean, aeromagnetic anomalies and tectonic evolution 2−62890
Arctic Ocean basin and continental margins (book) 2−53440
Arctic-Alaska, Mid-Palaeozoic motion, geological anal. 2−106077
E Asia, evolution of major strike-slip faults *(French)* 2−111909
Asia, mag. anomalies, rel. to tectonic struct. 2−100233
central Asia, tectonic processes rel. to depend. of seismic Q on freq. and depth 2−88750
Asian fold belts, evolution and Tethyan block interaction 2−83803
E Australia, 'hot-spot' like trace due to intraplate extension 2−73527
NW Australia, isostasy and struct. of lower crust and upper mantle in Pecambrian terrains from gravity studies 2−117256
Australia, seismic study of crust thickness and isostasy 2−106080
SE Australia, struct. geol. of Palaeozoic subduction complex 2−106031
SE. Australia, tectonic implications of Palaezoic polar wander 2−68255
Australia and surrounding region, plate tectonics and origin 2−58029
Australia-Antarctica area, sea-floor spreading anomalies 2−68241
Australian-Pacific plate boundary, offshore Marlborough, New Zealand, Motunau Fault and other structures 2−111918
Azores-Biscay Rise, struct. and origin of crust 2−88855
Ba Bao Shan fault, near Beijing, China, tectonic movement and earthquake occurrence *(Chinese)* 2−57980
Barbados, Lesser Antilles accretionary prism and tectonic evolution 2−94320
Barbados Ridge complex, bathymetric and seismic survey rel. to interpretation of accretionary wedge 2−94355
Barberton Greenstone Belt, gliding and overthrust nappe tectonics 2−106066
Beijing Plain contemporaneous active faults morphology *(Chinese)* 2−62935
bending model for subducting oceanic crust 2−117281
Bermuda rise, intraplate earthquake focal mechanisms 2−100312
Blue Ridge of Virginia, USA, tectonic origin and geology 2−73492
Bocono fault (W.Venezuela), Holocene and Quaternary displacements 2−88865
Bonaire Block, Netherlands Leeward Antilles, Upper Cretaceous study of palaeomagnetic rotation 2−57972
Bonin Islands (W.Pacific), palaeomag. and tectonic rotation 2−57967
boudinage stresses as estimate of palaeo-stress and -strains 2−106089
Bout Nant, alpine deformations in fault zone between Mont-Blanc and Belledonne *(French)* 2−117273
Brazil, search for Oklo type reactor and ^{235}U, continental drift implications 2−117280
Britanny, Hercynian regional deformation 2−73536
British Columbia coast, Late Quaternary sea levels and crustal movement 2−88854
central Brittany, regional ductile strains and wrench tectonics 2−83804
Brittany and Limousin, seismic vel. struct. and Hercynian tectonics 2−88779
Calabrian Arc, seismotectonics 2−78638
W California, exotic terrains, collision evidence 2−78630
California Sierra Nevada, origin of ophiolite belt 2−73502
W Canada coast area, vertical crust movements 2−94356
Canadian Tectonics Group, inaugural meeting (Fredericton, New Brunswick, Canada, Oct. 1981) 2−101110
Carpathian region seismotectonic lines *(Russian)* 2−94294
W Carpathians, struct., paleogeographic and tectonic framework *(French)* 2−100347
N Cascade range, Washington, USA, palaeomag. study of tectonics 2−100219
Caucasus Mountains, palaeomag. investigations of Palaeozoic rocks rel. to tectonic history 2−117195
Cedros Island, Mexico, tectonic setting of blueschists and melanges 2−88819
Central Sakhalin Fault, USSR, crust near-surface area deform. from geodetic obs. 2−111912
SW China, Cainozoic crustal deformation *(Chinese)* 2−68323
N China, focal mechanisms and crustal stress field *(Chinese)* 2−73451
China, mantle convection pattern and tectonic source mechanism 2−106038
China, neotectonic normal stress directions 2−62944
NE China, seismic activity and continental rift valley system form. *(Chinese)* 2−62933
NE China, stress field from minor earthquakes study *(Chinese)* 2−105937
N China Plain, upper mantle upwelling rel. to seismicity, finite element anal. 2−94305
chrome diopside, deformation by mechanical twinning process 2−100372
Coast Plutonic Complex, BC, Canada, geologic and tectonic history 2−94325
coastal deformation near Straits of Hormuz 2−100365
coastal seawater pile-up causing crustal depression 2−117187
N Cocos plate, tectonic evolution from geomag. data 2−88859
Columbia, W Cordillera, Andean ophiolitic megastructures 2−83787
conf., July 1980, Paris, France 2−58533
continent-continent collision deformation model 2−100354
continental crust, fault zone models and heat flow rel. to earthquakes depth distrib. in United States 2−88751
continental crust, tectonic evolution rel. to xenoliths mag. props. and long wavelength mag. anomalies sources 2−100370
continental crust development stages 2−106042
continental geotherms, plate thickness and heat production 2−78600
continents movements, computer graphics simulation 2−73717
Coral Sea/Lord Howe Rise continental margin, isostasy and gravity anomalies 2−88857
core, geomagnetic dynamo driven by gravity 2−58021
core convection responsible for secular geomag. variation 2−100243
Cortlandt complex, New York, emplacement history and tectonic significance 2−100377
crack fusion dynamics as model for large earthquakes 2−111882
mid-Cretaceous plate and mountain range distrib. 2−106076
crust deformation associated with seismic activity strain from geodetic geometric results 2−78859
crust growth since Archean, geochemical constraints 2−106030
crust movement monitoring by satellite methods 2−68592
crust stress meas. by borehole wall fracture obs. method 2−111894
crustal motion, information in Canada's National Gravity Data Base 2−106322
deglaciation as initiator of volcanic activity 2−68322

tectonics continued
S Denison Trough, Queensland, deformation phases identification from seismic survey (1978 to 1979) 2−117302
diapir formation model based on plate tectonics 2−106083
dilatancy and cracking of brittle rock, model 2−88870
dislocation models of tectonic earthquake 2−83749
displacement of surface monuments: horizontal motion 2−58030
Dnieper-Donets palaeorift, cryst. struct. and tectonics *(Russian)* 2−106026
ductile shear zone models (const. slip rel. and const. shear stress) 2−73524
dynamic mechanism 2−88860
Early Proterozoic Cape Smith fold belt, New Quebec, nature and geology 2−111914
Earth surface loading response, analytical study with appl. to Lake Bonneville 2−106070
Earth surface vertical displacements, effects on gravitational field 2−73419
Earth tidal stress interactions with earthquakes, modelling and appl. to aftershock sequence in Pyrenees 2−88752
earthquake initiation, rigid inclusion model 2−117236
earthquake source mechanisms, spatiotemporal characts. of strong earthquakes with different types of movements 2−117232
earthquakes on plate margins, slow fracture propag. on fault surface with embedded viscous layer 2−117219
large earthquakes physical models, implications of earthquake scaling laws 2−88746
East China Sea basin struct. and evolution 2−58031
East Kootenay orogeny, implications of Mount Fisher superimposed low grade metamorphism 2−88872
Ecuador-Colombia coast subduction zone, variable rupture mode from earthquake anal. 2−117275
epeirogenic plate movements 2−78628
Main Ethiopia Rift, fissure induced by earthquake 2−83796
Eurasia-India suture zone, gravity profile along Middle Indus valley, N.Pakistan 2−117180
Eurasian-Indian plates collision, boundary crustal struct. from seismic wave characts. 2−117274
W.Europe, Palaezoic plate tectonics of Mediterranean area 2−62940
E European platform, crust struct. and Palaeozoic faulting *(French)* 2−100349
extensional tectonic modes 2−106065
Falkland tough (S Atlantic) crust struct. and tectonic origin 2−94322
fault behaviour prior to dynamic rupture 2−100260
fault bifurcation, fracture mechanics study 2−78633
fault displacement surveying, variance anal. of underdetermined problem 2−111835
fault dynamics, rectangular fault finite difference model 2−100261
fault movements causing changes in gravity field *(Chinese)* 2−57950
fault tectonics regions, distortion of magnetotelluric sounding curves 2−117197
faults in Lake Baikal-Nyukzha River area, classification and tectonics 2−58042
features formed through glacial action *(Russian)* 2−83819
Fiji-Tonga region, seismic moments of foci of deep-focus earthquakes 2−73478
film of continental drift made using computer graphic technique 2−68331
Florida basement, tectonic history review 2−111913
forearc marginal wedge seismicity 2−94340
France, seismotectonic map *(French)* 2−100285
France, tectonic map *(French)* 2−100353
French Alps, strain analysis of cover thrust zone 2−106092
French external Alps, tectonic history 2−106091
Friuli area, Italy, space-time evolution of 1977-1980 seismicity and seismotectonic implications 2−117222
Friuli earthquakes tectonic discrimination from seismic activity anal. 2−78558
Friuli seismic area shear stress, from rock rheology anal. 2−78557
Garm region, USSR, seismic jointing, erosion patterns and Earth crust stress-strain state 2−73474
Garm region of USSR, focal mechanism study 2−62901
Gazli district, USSR, tectonic struct. rel. to seismotectonic conditions of earthquake occurrence 2−117233
Gazli earthquake, Uzbekistan, 1976 May 17, magnitude, ground motions and focal mechanism 2−73473
geodetic analysis of global kinematic plate motions 2−88715
geodynamic parameters determ., appl. of specialised complex using three very long baseline interferometers *(Russian)* 2−100737
Geysers geothermal area, California, induced seismicity mechanism 2−111880
Glen Roy, Scotland, rapid localized glacio-isostatic uplift 2−78629
Golconda allochthon, Nevada, USA, geology and tectonic origin 2−94323
Gondwana assembly and polar wander paths 2−105889
Gondwanaland drift history during Tertiary period 2−68325
Greece, geology of mid-Triassic volcanic rocks 2−88844
Greece, in situ meas. of tectonic stresses in mainland Greece by overcoring 2−94348
Greece, recent crustal block movements from Holocene shorelines in Crete and Antikythira 2−94349
SE Greenland, palaeomag. of Tertiary dykes (and tectonic implications) 2−73432
Gulf of Elat, an incipient spreading centre 2−106068
hangingwall strain, model of thrust belt tectonics 2−106087
hedenbergite, deformation by mechanical twinning process 2−100372
Heilam thrust sheet, N.W.Scotland 2−106090
Hellenic arc and Sea of Crete, synthesis of tectonic development 2−94352
Hellenic arc and trench, international symposium, Athens, Greece, (1981 April 8 to 10) 2−89443
Hellenic sedimentary arc, palaeomag. results from Mio-Pliocene series rel. to tectonic rot. 2−94278
Hellenic trench tectonics, synthesis of Sea-Beam and submersible obs. 2−94350
Hellenic trench-arc system, long-term earthquake prediction 2−94309
Henaux Basse Normandie duplex in N France 2−106046
Himalaya, dynamic uplift 2−100364
NW Himalaya, Mid-Palaeozoic to Cainozoic geology and tectonic evolution 2−73515
NW. Himalaya, Middle Palaeozoic-Cenozoic geology and tectonic evolution 2−83802
Himalaya, plate tectonic model using new gravity and uplift data 2−88858

tectonics continued
Himalaya region crustal movement, lithosphere blocks tectonic movement and active fault anal. *(Chinese)* 2−62913
Hindukush region, seismotectonics and earthquakes 2−68328
Hinnoy, Norway, geology of Caledonian deformation 2−78617
Honshu, active tectonic zone, seismic activity *(Japanese)* 2−94333
Hunhe fault zone, neotectonic movement since Tertiary *(Chinese)* 2−62936
Iceland hotspot, tectonic evolution 2−62942
imbricate folding in Idaho-Wyoming foreland thrust belt 2−88843
Imperial Valley, California, tectonic displacement since 1934 AD 2−100203
E India, Precambrian converging microplates 2−94358
NW Indian Ocean, rock magnetic nature of geomag. anomaly zones 2−117298
Indian sub-continent, tectonic activity rel. to EM induction by long period geomag. vars. 2−111865
intraplate stress buildup and intraplate seismicity 2−73531
Ionian Sea (W. Greece), crust struct. and tectonics 2−78618
Iran, interpretation of polar wander data since Precambrian 2−68258
Central Iran, Mesozoic formations, tectonic inferences from palaeomgnetic data 2−106074
island chain formation, mantle hot-spot model 2−100356
Isle of Ischia, Gulf of Naples, <33000 yr K-Ar dating of volcano-tectonic horst 2−111903
isostatic compensation rel. to gravit. potential and topography, degree variances 2−105883
isostatic geoid anomalies on a sphere, theory 2−100202
Italian peninsula, tectonic activity rel. to delineation of North Central Italian upper mantle anomaly 2−62924
S.Italy, seismotectonics of Calabrian arc 2−88864
Japan, anal. of stress field in semi-infinite elastic medium due to internal stress sources 2−100332
NE Japan, crust and upper mantle struct. from seismic vel. and azimuth anomolies at Kitakami array 2−111892
Japan, ground uplift rel. to seismic activity in Izu Peninsula *(Japanese)* 2−94360
Japan, stress meas. by hydrofracturing, plate motions *(Japanese)* 2−94359
SW Japan, three dimens. stress field, numerical modeling 2−78637
NE Japan arc, crustal stress and movements rel. to structure *(Japanese)* 2−94331
Josephine ophiolite, California, evidence for struct. of oceanic crust 2−73512
Juan de Fuca plate aseismic subduction, volcanic activity anal. 2−62938
Kamchatka Trench area, tectonic model of crust struct. 2−78611
Kandi fault (Benin), a major fault within the African Plate reactivated at the end of the Cretaceous *(French)* 2−88850
Kane fracture zone (N. Atlantic), crust struct. and isostatic compensation 2−68315
Kashmir Basin, thermal and tectonic evolution 2−111917
Kashmir intermontane basin development chronology 2−100362
NE Kinki district, Japan, obs. of normal faulting microearthquakes near Mohorovicic discontinuity 2−100315
Kishorn Nappe recumbent fold palaeostrains (Scotland) 2−106045
Klamath Mts., California, ophiolite accretion history 2−94347
Kozo-Matsuda fault, seismic activity, assoc. gravity survey and tilt meas. *(Japanese)* 2−83734
Kula plate (N.Pacific), Late Cretaceous tectonics and mag. lineations 2−68326
Kuril Islands, Earth surface deform. and inclination var. as precursor of Shikotan earthquake, (1978 December 7) 2−73480
Ladakh Himalaya, evidence against Shyok palaeo-suture 2−83793
Ladakh Himalayas, geology and tectonics 2−117259
Lageos laser range data, outliers removal/detect., appl. to observatory sites relative motion 2−100191
Laos, seismicity and seismotectonics *(French)* 2−73445
Late Cenozoic uplift of stable continents in a reference frame fixed to South America 2−73528
Lhasa block, Tibet, positron during Late Cretaceous from geological evidence 2−83794
linear feature detection and interpretation on satellite images, tectonics significance 2−106084
lithosphere containing density heterogeneities, tectonics and topography 2−94318
lithospheric plate displacement, mantle chemico-convection hydrodynamics model 2−106029
lithospheric plates motion, thermoelastic stress strain anal. 2−73525
Macquarie Island, seafloor spreading mag. anomalies 2−57973
Madagascar-Africa separation, rel. to salt diapirs of continental margin of N Kenya and S Somalia 2−78653
magnetic field anomalies associated with volcanoes, earthquakes and similar tectonically active regions 2−78540
mantle convection, numerical model of non-Newtonian flow 2−117283
mantle convection, theory for two immiscible liquids 2−100358
mantle convection currents, models 2−117279
mantle convection model including phase transition phenomena 2−100360
mantle convection with nonlinear rheology, influence of lithosphere 2−62939
mantle rheology use of deformation maps in grain-size-stress space 2−106081
mass loading response of crust, Maxwell models 2−100357
W Mediterranean Basin, evidence for early history from Oligo-Miocene rift of Sardinia 2−106079
Mediterranean region, plates convergence rel. to seismic potential zones for future large earthquakes 2−94300
E Mediterranean ridge, strain distrib. synthesis incorporating new Sea-Beam data 2−100369
E Mediterranean Sea, geological evidence concerning compressional tectonics 2−94354
Mendocino Fracture Zone, geoid height/crust age relation 2−100359
Mesozoic convection beneath Pangea 2−83795
Mesozoides of NE USSR, magmatism zoning and evolution 2−106044
S. Mexico, direct evidence of subducted oceanic plate 2−62923
Middle America Trench, seismic strain release 2−83791
Middle America Trench as example of subduction zone, study of bathymetry and tectonics 2−94351
model of world plate tectonics since Early Palaeozoic 2−68330
Moesian microplate and Carpathian Balkan arch geodynamic relations *(Rumanian)* 2−117285
Moine Thrust zone, Scotland, hangingwall strain model 2−106087
Molucca Sea arc-arc tectonics and seismicity 2−94339
tectonics continued
Mongolia, crustal and tectonic struct. 2−88862
Montenegro coastal region, Yugoslavia, tectonic activity from Landsat imagery 2−100346
Inner Moray Firth basin development tectonics 2−106069
Morocco, Alpine-type peridotites polyphase tectonics 2−83801
N Morocco-S Spain region, tectonic implications of elec. cond. struct. *(French)* 2−111910
Mount Fisher region, Canadian Rocky Mountains, folding and deformation, geology and tectonics 2−100379
Nanga-Parbat region, Pakistan, Quaternary uplife, fission track evidence 2−100380
Nansen Ridge (Arctic Ocean), seismicity and crustal struct. 2−73513
nappes, strain variation models 2−106086
Negoro fault, Median Tectonic Line, H_2 emanation rel. to fault movement 2−106094
New Zealand, Quaternary terraces, uplift rates and speleothem dates 2−100361
normal fault development due to stress amplification 2−78635
Norman Wells area of N. Canada, crust stress from borehole breakout obs. 2−111894
W North America, seismotectonic domains 2−100311
North American plate rigidity 2−78636
North Scotia ridge (S Atlantic) crust struct. and tectonic origin 2−94322
North Sea basin development tectonics 2−106069
SW Norwegian Caledonides, evolutionary model and tectonic setting 2−106115
Nova Scotia continental margin, evolution rel. to rifted margins models 2−106071
ocean crust thickness correlation with spreading rate, seismic refr. data anal. 2−58019
ocean floor fault dislocations, general characts. 2−78615
oceanic crust struct. and origin *(Russian)* 2−73510
oceanic plate bending at trenches, focal depths of assoc. earthquakes 2−100320
oceanic plateaus, characteristics and tectonic origin 2−94338
oceanic plates thermal structure, comparison of discrete and continuous intrusion models 2−106023
oceanic thrusting and subduction from basal ophiolite sections, kinematics 2−73530
oceanic trench geoid anomalies 2−78627
Odawara tiltmeter borehole near Kozu-Matsuda fault, leveling survey *(Japanese)* 2−83733
Olympic Mts., Washington, USA, palaeomag. and accretionary origin 2−94274
ophiolite emplacement by plate collision 2−94326
ophiolites, oceanic crust on-land fragments 2−117284
Oregon-Washington coastal ranges, landward tilting and tectonic deformation 2−100201
Orroral-Yarragadee intersite distance from Lageos laser ranging 2−100192
NE Pacific, geoid anomalies and isostasy of fracture zones 2−68329
NE Pacific, plate tectonic evolution 2−68327
Pacific frame, NW region, Mesozoic and Cenozoic folded systems, struct. and tectonic evolution 2−106085
W.Pacific gravity anomalies, tectonics and crust struct. 2−88723
SW Pacific marginal basins, geomag. anomalies and tectonics 2−100244
Pacific Plate during Cretaceous, hot spot motion 2−88734
SW Pacific region, conf., Dec. 1979, Sydney, Australia 2−94903
East Pacifiic Rise (21°N), crust struct. and sea-floor topography 2−62926
Pamir-Hindu Kush vel. structure rel. to subducted crust 2−58013
Panama uplift (Late Neogene), effect on isotopic palaeo-oceanography of Caribbean and E Pacific Ocean 2−111968
Pannonian Basin basement, development through Cretaceous-Cenozoic collision 2−111915
Papua New Guinea, crustal motion from geodetic meas. 2−100351
Pelly Mountains, SE Yukon Territory, geological setting and tectonic significance of Mississippian felsic metavolcanic rocks 2−78649
Pelusium megashear system across Africa and associated lineament swarms 2−58016
Peter I Range, USSR, ground motion from geodetic/seismic data 2−106073
Peter I Ridge, Garm region, USSR, detailed investigation of seismic-tectonic deform. 2−73495
West Philippine Basin, tectonic evolution 2−73532
Philippine Sea plate near Taiwan, earthquakes caused by plate horizontal bending 2−111890
Pindos zone, Greece, landslides rel. to geology and tectonics 2−100382
plate driving mechanism within multiple scale convection model 2−78609
plate motions, meas. using very long baseline interferometry *(Japanese)* 2−89166
plate movements and guyot subsidence rate in N Pacific 2−83797
plate tectonic processes, possible time vars. of elements of Earth gravity field 2−117183
plate tectonics, probing, use of seismic refl. profiling and drilling 2−100336
plate tectonics, rel. to marginal seas configurations and warm saline bottom water in ancient ocean 2−68374
plate tectonics and asthenosphere flow, seismic three-dimens. inhomogeneities anal. 2−105991
post-Precambrian tectonism of Delhi-Aravalli belt 2−88863
Primor'e Territory, tectonic zoning from geological data 2−78632
propagating rift theory, illustration using computer graphics 2−62941
proterozoic, Early and Middle, supracrustal successions and tectonic settings 2−100376
Proterozoic supercontinent configuration from palaeomag. data 2−88730
Proto-Atlantic Ocean, palaeomag. evidence from SE. Ireland 2−68256
pull-apart basins, evolution and scale independence 2−94336
Pyrenees earthquake of 29 Feb. 1980, complex faulting process 2−88814
Rangely, Colorado, crust stress from borehole breakout obs. 2−111894
rectangular fault vertical displacements, calc. for elastic-gravitational media 2−62904
Red Sea submersible research expedition 2−78599
regional stress tensor determ. from single phase fault populations 2−78625
Reykjanes Ridge, sonar study of midocean ridge struct. 2−62943
Ridge Basin, California, magnetostratigraphy of sedimentary rocks 2−88731
Riffian external zones, Morocco, metamorphic units *(French)* 2−117272

tectonics continued
rifted continental margins evolution, comparison of models and obs. for Nova Scotian margin 2−106071
rock hydraulic fracture near Earth surface, size limit 2−68336
rock stress measurement in Sweden, glaciation as cause of high rock stresses 2−106035
Romanche transform fault on Mid-Atlantic Ridge, morphology and tectonics 2−83798
Roosevelt Hot Springs area, Utah, USA, faulting history 2−94357
Ryukyu Arc tectonic evolution 2−58031
Salado Basin, Argentina, gravity anomalies and tectonic evolution 2−73414
Sambagawa regional metamorphic belt, Japan, strain stress and uplift 2−94335
San Andreas fault area, Rn and Co_2 variations in groundwater 2−100300
S. Scotland, geoelectric structure, tectonic implications 2−78538
Sea of Crete and Hellenic arc, synthesis of tectonic development 2−94352
sea-floor spreading mag. lineations, model of pattern quality 2−88737
Seven Devils volcanic arc, Oregon, USA, palaeomag. and tectonics 2−94275
Shandong Province earthquakes, crustal structures, faults and tectonics *(Chinese)* 2−62897
Sharpsburg, Kentucky, earthquake, 1980 July 27, isoseismal maps, focal mechanism and faults plane soln. 2−88755
shear fault elastic displacements, laboratory expts. on plexiglas model 2−117245
Shilka region, Transbaikal, Late/Middle Mesozoic structures, tectonic settings 2−111911
Sierra Nevada, California, tectonic rotation history 2−94346
Songpan-Pingwu earthquakes, 1976 August, tectonic stress field and seismicity *(Chinese)* 2−62896
NE Sonora, Mexico, focal mechanism for seismicity in epicentral area of 1887 earthquake 2−88815
South /America, gravity and mag. anomalies rel. to tectonic struct. 2−100237
Southern Cape Conductive Belt (S.Africa), geology and tectonic significance 2−78634
Spitsbergen and Arctic Quaternary glacio-isostatic events 2−100363
spreading centre cells in young brittle lithosphere, memory 2−106067
Stanovoi Range, Siberi, seismotectonic study 2−105996
strain determination from triangulation data using simultaneous reduction method 2−73423
strain measurements in South Africa, obs. of coseismic and other short-term strain changes 2−105957
stress amplification in upper crust due to creep in lower crust 2−100355
stress field in NE China from minor earthquakes study *(Chinese)* 2−105937
striations on pre-existing faults, calc. of responsible tectonic processes 2−73534
strike-slip fault in elastic plate subject to basal shear 2−73462
strike-slip fault zone, strain softening as precursor for earthquakes 2−111919
subducted lithosphere bending stresses 2−117277
subducted slab seismicity and rheology 2−73529
subduction zone earthquake cycle, model 2−78626
subduction zone initiation due to sediment loading on oceanic crust 2−83792
subduction zone thermal modeling 2−73526
subsidence, crust flexure and sea level global changes 2−88861
Sudbury area of Canada, uplift deduced from remanent mag. 2−62937
Svalbard (Spitsbergen), seismicity zones and intraplate tectonics 2−73490
Swiss Alps, internal, kilometric scale sheath folds *(French)* 2−88852
Syros, Greece, ductile thrust zone deformation 2−106093
Tadzhikstan, USSR, crustal deform. as long-term forerunner of series of strong earthquakes 2−117234
Tangshan, China, anomalous land uplift and aseismic creep before 1976 earthquake 2−94307
Tangshan earthquake, 1976 July 28, physico-rheological model 2−94308
Tarim Basin, China, geological struct. and tectonic sequences *(Chinese)* 2−100378
tectonomagnetism, implications of relation between geomag. vars. and hydrologic regime in Garm polygon 2−73481
tensile fracture lineaments, tension due to tectonic uplift 2−83775
Tethyan blocks and evolution of Asian fold belts 2−73535
E Texas Basin, crust stress from borehole breakout obs. 2−111894
thrust sheets, strain variation models 2−106086
Tibet Plateau, plate tectonic model using new gravity and uplift data 2−88858
Tibet Plateau tectonic origin 2−105987
Timor region, crustal reactions to mid-Pliocene to Recent continent-island arc collision 2−117276
Tonga trench-Louisville ridge, Oct. 1977 earthquake mechanism 2−105986
topographic effects, comparison of Earth and Venus 2−63289
Tras os Montes, Spain, seismic vel. struct. and Hercynian tectonics 2−88779
trench depth as function of subduction rate and crust age 2−73533
Turkey, large strike slip earthquakes rupture complexity 2−68295
SE Turkey, Upper Cretaceous plate rupture and leaky transcurrent fault ophiolites devel. 2−111916
Tuva, USSR, metallogeny, importance of tectonic-magmatic activity 2−83815
Tuva Barlyk ophiolitic complex, struct. and devel. model, tectonic role 2−83799
upper mantle plasticity, laboratory expts. on forsterite 2−106082
Ural Mountains, evidence for horizontal movements of Earth crust from deep seismic sounding data 2−117278
USSR, vertical crust movement at N. and E. shorelines 2−78631
Variscan brittle tectonics of S Rhone valley, Gard faults dynamics, tertiary stress fields *(French)* 2−88851
Variscan fold belt of S.W.England 2−106088
Variscan fold-thrust complex in SW England, palaeostress study 2−106089
Variscan geology of S Brittany, significance of E-W lineation *(French)* 2−100348
viscosity of mantle from glaciation caused Earth rot. changes 2−88720
Voznesenskii ore region, Primor'e, crust approx. by mass of material points 2−100338
Vrancea region, Rumania, seismo-tectonic deform. of lithosphere 2−117235
SW Washington (USA), palaeomag. and tectonic rot. 2−94345

tectonics continued
West Siberian Plate, pre Jurassic basement struct., features from areal seismic sounding 2−78592
West Siberian Plate, pre Jurassic rocks of different tectonic zones, density variation with comp. 2−83810
West Siberian Plate, sedimentary cross section, seismoacoustic model 2−83768
White Hills Peridotite, Newfoundland, tectonic structs. related to thrusting of ophiolitic complex 2−94365
Wilkes fracture zone, bathymetry and geomag. leading to struct. and tectonic implications 2−58018
Winona Basin, off Vancouver Island, struct. and tectonics 2−94361
Yanshan region fault structures, movement and seismicity *(Chinese)* 2−62934
Yellowstone Park, USA, vertical crustal motion since 1923 AD 2−88856
Yenisei Range, USSR, crust struct. and tectonic origin 2−78612
Zeya breach valley at Tukuringra-Soktakhan Ridges juncture, block tectonics and pebble petrography 2−83800

tektites
age and target material composition of different tektite groups 2−117305
irghizites, SEM investigations of surface structs. and comparison with pyroclastics 2−88875
North American microtektites from meteorite impact 34.4 Myr BP 2−94663
North American strewn field, synchronous Ir anomaly 2−94664

telecommunication
see also biocommunications; communication channels; communication networks; optical communication; radiocommunication; telecommunication traffic; telemetering; telephony; television
health care telecommunications, US Army example 2−88688
teaching processes in the light of developments in communication and information techniques *(Italian)* 2−58583

telecommunication cables
see also coaxial cables; submarine cables; underground cables
fibre-optic cable characterization of attenuation and baseband response, location of breaks *(Spanish)* 2−65403
optical fibre cables, high performance, using V-grooved cylindrical units, limiting of micro-bending losses 2−102945
optical fibre cabling processes, optimisation procedure 2−102924

telecommunication equipment
see also multiplexing equipment; radio equipment; repeaters; television equipment
acoustic noise radiated by electronic exchange power supplies, measurement procedure 2−97280

telecommunication theory *see information theory*

telecommunication traffic
satellite emergency communication system, use of 1980 November 23 Italian earthquake as design basis 2−117199

telecontrol
see also alarm systems; telemetering
circulatory system, modular, mock, programmable electronic control unit 2−100188
focusing/non-focusing solar collector testing using low-cost simulator *(Rumanian)* 2−88475
geophysical apparatus with induction transducer, remote control and calibration of receive-amplifying channel *(Russian)* 2−100595
spent nuclear fuel reprocessing, remote control using computerised X-ray fluorescence 2−64557

telecontrol equipment
camera remote release, using CdS cell, bipolar transistors, LED indicator 2−84725
nuclear power plant primary circuit structural metals, remotely controlled NDT devices, methods and technology 2−90234

telefilming
comparison with cinefilm *(German)* 2−89839
filters for special effects in motion picture/TV visuals production 2−107426
Rank Xerox Mk III broadcast telecine equipment, advertising agency appl. 2−74537
Scene-Sync system, slave pan, tilt head with chroma-key, TV special effects appl. 2−53862

telemetering
biotelemetering frequency allocation requirements 2−83721
biotelemetry, review of recent developments *(Japanese)* 2−57886
biotelemetry for obstetrics and gynecology *(Japanese)* 2−57873
biotelemetry of foetal signals *(Japanese)* 2−57874
human locomotion, telemetered studies, inexpensive but durable footswitch 2−57937
implantation telemetry, review *(Japanese)* 2−57941
optical biotelemetry, review *(Japanese)* 2−57888
seismic station network in Hungary, telemetry system 2−78850

telemetering equipment
acoustic transponding fish tag compass, trials 2−111815
cardiotachometer, data processing and storing, field-portable, microprocessor-controlled 2−111816
nuclear power plant primary circuit structural metals, remotely controlled NDT devices, methods and technology 2−90234
pH-sensitive radio pill for ingestion and implantation 2−57885
sporting swimming, telemetric arrangement for studying flow conditions of boundary layer *(Russian)* 2−83706

telemetering systems
biotelemetric systems *(Japanese)* 2−57889
biotelemetry, aspects of new systems, review *(Japanese)* 2−57887
biotelemetry system for the monitoring of cervical motility in baboons 2−94266
buried, for in situ energy extraction 2−93860
GMS-2 geostationary meteorological satellite, USB Tracking, Telemetry and Command system *(Japanese)* 2−83965
medical diagnostic data transmission via standard telephones 2−68191
seismic data telemetering, collection, processing and storage system 2−106324
telephone ECG monitoring in real time by means of a microcomputer based terminal 2−83690

telemeters *see telemetering*

telemetry *see telemetering*

telephone equipment
see also compandors; microphones; repeaters
aids for elderly disabled population 2−68193

telephone exchanges
see also private telephone exchanges
acoustic noise radiated by electronic exchange power supplies, measurement procedure 2−97280

telephone systems
see also telephone exchanges
CYCLOPS distance tutorial system for Open Univ. using TV and telephone network 2−79335

telephony
see also videotelephony
adoption of self-induction, 1886-9 AD 2−112679
medical diagnostic data transmission via standard telephones 2−68191

telephotography *see facsimile*

telerecording *see video recording*

telescopes
see also astronomical telescopes
Acme catadioptric telescope design 2−95422
airborne instruments enhancement, graphite/epoxy materials appl. 2−74478
all-spherical catadioptric telescope with small corrector lenses 2−108989
astigmatism and field curvature correction, psychophysical meas. 2−105873
bioptic low vision aid, variable focus telescopic system 2−105853
double Gaussian, satellite Earth observation for land appls. *(French)* 2−94521
double-beam telespectrophotometer for field use 2−53815
ground telescope phase detector wave-front sensing and correction, different wavelength effects 2−78837
multiple mirror telescope performance, piston and tilt errors effects 2−97142
resolution, effect of dirty protective glass 2−95429
schlieren optical system utilising Schmidt-Cassegrain telescopes 2−107055
spherical primary mirror with aspheric corrector plates located near focus, optimum soln. 2−65332
static split, atmospheric turbulence meas. appls. *(French)* 2−112086
theodolites, mining, T-30M and T-30MK types, specifications 2−109002
three-mirror telescope anastigmats, classification 2−91019
two-mirror telescopic system, calc. of paraxial props., wave aberration *(Czech)* 2−55292

teletypes *see interactive terminals*

television
see also colour television; video signals
20 years after conception, applicational fields *(Czech)* 2−55089
123rd SMPTE conf., Los Angeles, USA, 1981, Oct. 2−53419
SMPTE 1981 progress report 2−79703
technical progress problems in magnetic tapes and motion picture films, applicationn in cinematography and television *(Russian)* 2−89845
techniques, comparison with cinematography *(Russian)* 2−64154

television applications
see also videotelephony
airborne video image processing 2−63131
biological photomicrography device with TV finder system *(Russian)* 2−58948
biology, video microscope densitometric system for cellular and nuclear props. study 2−111829
biomedical dynamic US scans identification system 2−88635
biomedical meas., TV monitor with electrochemical recording of thermograms, Soviet Ruby-3 model 2−62729
biomedical TV/computer system, repeatability in spinal and pelvic movements meas. 2−94150
crystal growth, temp. and quality distrib. anal., Hg_2Cl_2 appl. 2−111037
CYCLOPS distance tutorial system for Open Univ. using TV and telephone network 2−79335
diode laser, real time spectral characteristic technique 2−114344
guider for astronomical multichannel polarimeter *(Japanese)* 2−117601
guiding system for multichannel polarimeter on 91 cm reflector *(Japanese)* 2−88620
IR television microscope 2−74499
kinematic analysis, calibration and performance of a 3D TV system 2−105862
measuring system for crystal growth parameter determ. *(German)* 2−69151
microchannel plate X-ray detector for synchrotron radiation 2−85475
NASA space probes, use of TV systems and slow-scan vidicons 2−100704
oceanographic underwater photography 2−68532
standing balance rehabilitation, video aid 2−68192
two-dimensional electro-optical X-ray detectors survey 2−85474
vision, TV pupillometer, solid-state 2−62875
walking, method for studying spinal and pelvic movements using computerised TV system 2−94148

television broadcasting
16 mm test film for evaluation of telecine performance 2−79701
contamination in air, elimination in film, and TV tape handling rooms 2−89836
precise time-keeping, time and frequency transfer using SABCTV 2−89675
standard time and frequency signals transmission, over Cuban TV channels 2−69145
T/F comparisons, precise international, ground and satellite TV systems 2−89674
telecine film transmission, EBU colour mixing curves *(German)* 2−58929
time synchronisation via INSAT-1 direct reception system 2−89678

television camera tubes
see also image storage tubes
intensified Si vidicon detector, appl. to direct imaging and photometry 2−73846
IR spectrometer for expts. with solar occultation using pyroelectric vidicon 2−98493
IR television microscope 2−74499
NASA space probes, use of TV systems and slow-scan vidicons 2−100704

television cameras
aerosols, dispersed, detection by TV camera 2−53737
digital scanning video camera for motion tracking of humans and monkeys 2−68229
ophthalmoscope for analysing images of retina and choroid 2−100174
Scene-Sync system, wave pan, tilt head with chroma-key, TV special effects appl. 2−53862

television equipment
see also video and audio discs; video tape recorders
astronomical television equipment adjustment using KYuP-1/2 instrums. 2−91103
CYCLOPS distance tutorial system for Open Univ. using TV and telephone network 2−79335
optical view-finder Soyuz, cinematography appl. *(Russian)* 2−69291

television interference
EM waves reflection by periodically stratified dielectrical medium, TV signal inteference caused by tall buildings 2−70488

television reception
Lucknow-Allahabad TV link, India, VHF signal propag. 2−117406

television reception quality *see television reception*

television signals *see video signals*

television standards
SMPTE role in motion picture and TV standards 2−79702

television studios
lighting systems *(Russian)* 2−69292
Scene-Sync special effects system 2−53862

television systems
see also closed circuit television
intensified video speckle interferometry system, Steward observatory 2−73857

tellurium
see also nuclei with .....
adsorbed layer on W(110), multiple commensurate-incommensurate transitions, LEED study 2−115560
adsorbed on Ni(110), angle resolved UPS study 2−77699
adsorbed on Si{111}7×7 and Ge{111}2×8, surface EXAFS study 2−66360
adsorbed on Si and Ge(111), surface EXAFS study 2−110977
adsorption on Ni (100), binding states, LEED, Auger and work function study 2−82146
amorphous thin film, crystallisation, electronic structure, UV photoemission study 2−71355
anisotropic semicond., band shapes, effect of relativistic operators 2−92459
cavity, optical modulation and bistability in IR region, optical tuning 2−55322
chemisorbed on Ni surfaces, electronic struct. calc. 2−77150
cluster superlattice in NaX zeolite, I-V charcts., current peak periodicity 2−77062
core-hole lifetimes, electron spectra determ. 2−57256
corrosion-resistant film deposition for ablative optical recording media 2−62243
diffusion couple Ag-Te, struct. and elec. cond. meas. 2−82033
diffusion kinetics and correl. factors, random-walk method 2−61196
films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
impurity luminescence, Jahn-Teller model 2−77582
IR-sound acousto-optical interactions 2−67025
laser-enhanced chemical etching of solid surfaces 2−77958
liquid, elec. cond., at temps. up to 1200°C and press. up to 3 kbar 2−77048
molecule, laser induced fluoresc. spectrum studied by Fourier transform spectrometry, RKR pot. and dissoc. energies 2−65043
molecule, laser-induced fluorec. obs. 2−85730
optical absorption, permittivity, Hartree-Fock-Slater calc. 2−87733
optical activity, current-induced, temp. depend. 2−77483
photoelectric cross-section at K edges 2−56639
photogalvanic effect, free carrier absorpt., one band model 2−56640
single crystal, amorphisation by ion implantation 2−103854
solid, inelastic electron scatt., 4d shell excitation 2−85819
sputtering, atomic excitations, optical spectrometry study 2−77689
thin films, for optical data storage, hole formation process 2−70640
VPE growth with partially ionised vapour, expt. study 2−116368
Ag/1Agϑ/Te vaporisation cells, printed oct. power supplies appl. *(Spanish)* 2−88419
Al-Te contacts, needle struct., current-voltage charcts. after different types of aging *(French)* 2−61566
Al-Te-SiO coating system, reflectivity, graphical representation 2−75521
n-$Al_xGa_{1-x}As$:Te solid soln. LPE layers, carrier diffusion length, conc. depend., 77-300K *(Russian)* 2−56741
$BiTe_1$:Te crystal growth using directional crystallisation apparatus for growing complex solid solns. *(Russian)* 2−72609
CdS:Te film, vacuum deposited, dark cond. and photocond. meas., doping effects 2−61623
$CdS_{1-x}Se_x$:Te, isoelectronic impurity-exciton interactions, visible spectra study 2−61395
p-CdTe-Te film, mol. beam deposited, props. 2−104192
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
GaAs:Te, Cu contamination during heat treatment, photolum. study 2−91993
GaAs:Te, defect struct. after Cd diffusion 2−103762
n-GaAs:Te, degree of electronic compensation, laser IR microscopy 2−67043
GaAs:Te, implanted, laser annealed, metastable Te donor conc., expt. study 2−56025
GaAs:Te, MBE grown, elec. cond. and photoluminesc. props. meas. 2−56734
$GaAs_{0.6}P_{0.4}$:Te, electron trap spectrum obs. by DLTS and transient capacitance meas. 2−87302
$GaAs_{1-x}P_x$:Te, donor states, impurity optical absorpt. spectra study 2−82287
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2−115920
GaP:N,Te, epitaxial layers, photoluminescence study 2−61968
GaSb:Te, Hall coeff. and L minima under hydrostatic press. 2−115793
GaSb:Te, Kondo effect obs. under high press. 2−61459
Ge:Te, ion implanted amorphous, struct. change features due to laser irradiation 2−76493
InAs:Cd,Te, donor-acceptor pair form., annealing, elec. cond. and Hall coeff. study 2−61404
InGaAs:Te, VPE growth for photodetectors 2−111086
$In_{1-x}Ga_xP$:Te, epitaxial film, photo-, electro-and cathodoluminescence involving deep levels 2−116258
$InGaPAs_{0.01}$:Te LPE layer on GaAs, doping effect on physical, elec. and optical props. 2−110501
$In_{0.53}Gd_{0.47}As$:Te degenerate LPE layers, electron mobility 2−61620

tellurium continued
InP:Te, VPE growth for photodetectors 2−111086
Nb-Te-Nb Josephson MM-wave mixer, characts. and anal. 2−92830
Se-Te bilayers, struct. changes by laser writing, TEM study 2−91009
Si:Te^+, impurity states, charge densities and wave functions 2−115700
Si:Te^+, multivalley spin splitting of $1s(T_2)$ states 2−77000
Te I, UV and visible spectrum 2−59731
^{125}Te II, $5p^26p$ config. hyperfine struct., effective-operator interpretation 2−75454
Te:Cd, charge carrier governed temp. depend. of EFG for ^{111}Cd, TDPAC meas. 2−56982
Te^++Ag, secondary electron emission yields 2−77649
Te_2^++Ag, secondary electron emission yields 2−77649
$^{130}Te_2$, ground electronic state, Lande factor meas. 2−108641

tellurium alloys
see also tellurium compounds
Bi-Te, dilute alloys, anomalous magnetoresistivity in quantising mag. field 2−92664
Ga-Te, liq. alloys, appl. of percolation theory and transport coeffs. 2−66516
In-Te, molten, liq. struct., X-ray diffr. study 2−115131
In-Te liq. alloys, appl. of percolation theory and transport coeffs. 2−66516
Pb-Te, liq., dil., activity coeff. of O, impurities effect 2−99700
Pd-Te, liq. and solid alloys, thermodynamic props. 2−67297
Sb-Te, liq., absolute viscosity, temp. and comp. depend., Sb_2Te_3 intermetallic behaviour 2−82002
Tl-Te liq. alloy, cpd. forming, configurational entropy and regular associated model 2−97890

tellurium compounds
see also tellurium alloys
chalcogenides, mechanochemical synthesis, explosions *(German)* 2−62053
Ag-Sb-Te, ternary system, enthalpy of mixing *(German)* 2−76693
As_xTe_{1-x} amorphous film, energy gap, composition depend. 2−61337
Fe_2O_3-TeO_2 glass, Mossbauer effect and elec. cond. meas. 2−87639
$Ge_{15}Te_{81}S_2Sb_2$ glass, hopping cond. at low temp., Ge effects 2−61460
$Mo_6(Se_{1-x}Te_x)_8$, Chevrel phase cpds., ^{125}Te Mossbauer effect 2−77436
Sb-O-Te system, metastable phase vitrification and crystn. 2−103647
Sb-Te-In, Krupkowski method for thermodynamic props. 2−76708
Se-Te, liquid, thermodynamic and elec. props., inhomogeneous struct. model 2−98314
Se-Te chalcogenide amorphous semiconductors, nonisothermal crystallisation kinetics 2−103651
Se-Te liq. and cryst. semicond., elec. transport and struct. props. 2−115746
Se-Te liq. mixtures, NMR 2−98970
SeO_2-TeO_2-M_nO_m (M_nO_m=V_2O_5, MoO_3, Nb_2O_5, Sb_2O_3, La_2O_3), glass formation at high pressure 2−86576
$Se_{1-x}Te_x$, energy gap, photoacoustic study 2−76603
$(SnTe)_x(PbSe)_{1-x}$ system, ^{119}Sn Mossbauer study *(Russian)* 2−104781
Te-Si-Pb glasses, preheating effect on crystn. kinetics 2−97926
Te-Tl melt, short range order struct. 2−103590
α-Te_2MoO_7 and β-$TeMo_5O_{16}$, industrial oxidation catalysts, X-ray diffr. and electron microscopy study 2−61157
TeO, $bO^+ \rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
TeO_2 acousto-optic filters for 1.0-1.6 μm region 2−109024
TeO_2 acousto-optic tunable filter, appl. in coherent forward scatt. spectrometry 2−88391
TeO_2, dislocation density and hypersound attenuation 2−103771
TeO_2 on CdTe, interface struct., high resolution TEM study 2−56367
TeO_2 thin films, dielectric studies 2−93114
$Te(OH)_6.Rb_3P_3O_9.H_2O$, cryst. struct. determ. *(French)* 2−55935
$Te(OH)_6.Tl_2SO_4$, cryst. struct., X-ray study, Patterson method 2−81734
$Te_2O_3.HPO_4$, cryst. struct. determ. 2−91898
TeS, $bO^+ \rightarrow X_1O^+$, X_2I IR emissions, chemiluminesc. studies 2−83388
Tl_2Te, liquid semiconductor, total struct. factor 2−97904

TEM *see transmission electron microscopy*

temper brittleness *see brittleness*

temperature
see also atmospheric temperature; boiling point; critical points; Debye temperature; ferroelectric Curie temperature; magnetic transition temperature; melting point; superconducting transition temperature; temperature scales
alkaline battery electrodes, temp. limitations 2−88423
dust grains in interstellar medium, temp. and elec. charge 2−89345
interstellar C_2 towards ζ Ophiuchi, excitation temp. from, IR absorpt. lines obs. 2−63558
interstellar CO towards ζ Ophiuchi, vel. dispersion and kinetic temp. from UV absorpt. lines 2−63557
interstellar dark dust clouds, temps. of cold cloud cores from NH_3 obs. 2−106857
Jupiter plasma torus, S ions temps. from Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
Lake Erie, water temps. in Nanticoke-Long Point Bay region 2−88918
O-type stars, effective temps. 2−73971
ocean mixed layer temperature, governing terms and estimates for sea area south of Japan 2−117308
oesophageal temperatures, prediction from core temps. measured at other sites in man 2−67959
E Pacific Ocean, equatorial, effect of sea surface temp. on freq. of typhoons in W Pacific *(Chinese)* 2−88941
Pacific Ocean, vars. in tropical sea surface temp. and surface wind fields assoc. with El Nino 2−111931
soil, effective temp. for microwave emission meas. 2−62957
solar flare, 1973 July 29, revised temp. and electron density values for post-flare loops 2−100873
stellar coronae, effect of heating on energy balance and temp. 2−112425
Sun, effect of mag. field on effective temp. and luminosity 2−112401
T Tauri stars, evidence for charact. max. temp. in circumstellar dust 2−73964
Wolf-Rayet stars, luminosities and temps. rel. to connection with O-type stars 2−63477
SiO_2, fused, shock temp. determ. by radiance intensity meas. 2−86793

temperature compensation *see compensation*

temperature control
see also thermostats
adiabatic demagnetisation expts., temp. controller 2−95337
biological materials appl., programmable system 2−100175
diffuse dispersion filters for temp. stabilisation of photodetector sensitivity 2−91031

temperature control continued
Doppler meter, investig. of transition to turbulence in hydrodynamic flows *(Russian)* 2−114929
ESR spectrometer, modification to the heater unit in the Diapazon temperature control 2−112944
heat pump automatic control system guided by computerised integrated heating control system for space heating *(German)* 2−93938
heated humidifiers for patients on ventilatory support, temp. control 2−88684
nuclear power plant, primary coolant temperature, optimal control 2−102102
parabolic trough solar collectors fluid control systems frequency response anal. 2−78254
photographic dark room thermostat, using temperature sensor 2−113021
proportional temperature regulator with phase control for an inductive load 2−112891
rolling, heat transfer dimensional analysis model applic. 2−99449
SEM EBIC analysis of defects using controlled low temps. 2−65823
sensor using thin-films Pt resistors, design and appl. *(German)* 2−79584
solar powered central receiver, quadratic optimal control 2−57687
thermal regenerators, waste steam recirculation, matrix temp. control 2−65667
X-ray camera for single cryst. studies at high temps. under controlled atmosphere 2−65803
Al block temperature controller for fatigue testing 2−78057
Si, cryst. growth from melt., temp. field control by IR television technique 2−111052

temperature distribution
agricultural fields in central California, surface temp. variability meas. 2−111928
air jet, heated axisymmetrical temp. and vel. profiles *(Russian)* 2−91504
air temp. and solar radiation intensity, daily fluctuations 2−73693
anisotropic bodies, free thermal expansion, temp. and aeolotropy fields 2−114617
annulus flow, natural convection, flow pattern, temp. distrib. 2−91446
NW Atlantic, horizontal temp. inhomogeneities 2−83834
N. Atlantic, monthly mean sea surface temp. anomaly classification 2−73647
atmosphere, profile from thermomicrowave imaging, fundamental integral eqn. linearization 2−73652
atmosphere, vertical profiling, Fourier spectometer appls. 2−78878
atmospheric temperature profile reconstruction by remote radiation sensing, basic integral eqn. linearisation 2−68531
automatic temperature mapping system based on holographic interferometry 2−95374
axi-symmetrical distribution of temperature in a hollow cylinder of a material with memory 2−97358
biological phantom, microwave irrad., influence of bone on temp. patterns 2−62683
C Al_2O_3 coating, plasma sprayed on steel and Cu, temp. distrib. during deposition 2−116390
ceramic components from thermoplastic slip, continuous hot casting, temp. patterns calc. 2−60384
circular cylinder during quenching, transient temp. distrib. 2−109172
circulating well, aquifer mass transfer, temp. profile 2−91225
clinical hyperthermia systems engineering problems and solutions 2−62829
cometary atmospheres, temp. distrib. in photochemical heating model 2−112389
computer aided thermal design analysis of dies used in the pressure die casting process 2−65455
conical bodies, transient thermal diffusion, temp. distrib. 2−103008
convective-diffusive type catalytic burner using a Pt catalyst supported on inert porous materials for H_2 combustion 2−73163
cylinder, rotating, non-steady-state thermoelastic stresses 2−55442
dielectric slab, heating under EM illum. 2−109176
disperse medium, temp. fluctuations 2−109174
electric arc, close to cathode, temp. gradients *(French)* 2−65781
electron-hole plasmas in semiconductors, thermodiffusion 2−110376
elliptical cylinder moving through plate, heat transfer, appl. to electron beam welding 2−70823
fibre optic temperature distribution sensor using time-domain reflectometry 2−91076
fibrous layer, two-dimens. heat flow problem *(Ukrainian)* 2−81211
finite element analysis of temperature distribution in human torso 2−99902
flame, axisymmetric, temp. distrib. meas. by holographic interferometry, refr. effects 2−69170
flat plate, laminar flow and heat-transfer with approach flow and temp. distrib. 2−60500
four-pole cylindrical synchronous machine solid rotor temp. distribution measurement *(French)* 2−84628
free convection from an infinite horizontal cylinder in a second-order fluid with time dependent temperature distribution 2−60543
gas-thermal metal coating, thermal interaction of particles with substrate *(Russian)* 2−67213
gases, temp. distrib., thermal conductivity, holographic interferometry study 2−79660
glow discharge, radial distrib. of gas temp. in positive column, swarm anal. 2−55803
greenhouse/dryer, double-block, for year-round operation 2−116784
ground collector/storage system, constant flow, heat transfer coefficient determ. 2−83507
heat transfer in scraped thermal boundary layer on rot. cylinder, optical study 2−114608
heat transfer problems, evaluation of enthalpy method soln. 2−65471
HV contaminated insulators physical surface processes *(German)* 2−86486
hyperthermia, whole-body, simulations of various modes in normal subjects 2−93980
hyperthermia production for cancer therapy: a review of fundamentals and methods 2−62716
insulators, crystalline, electrothermal effect 2−61822
IR dynamic high temp. target irrad., spatial and temporal effects 2−81003
large astronomical mirrors, thermal gradient effects in optical testing 2−91016
laser beam scanning of solid, temp. profiles calc. 2−92028
laser mirrors, water-cooled, Fresnel ripple mapping 2−97040
liquid and air flat-plate photovoltaic/thermal collector thermal and electrical performance anal. 2−78227

temperature distribution continued
living tissue thermal dosimetry and heat transfer 2−62564
local and regional hyperthermia, microwave/radiofrequency system clinical evaluation 2−62722
M42 and M43 (Orion nebula), temp. distrib. from forbidden O I, O II and O III lines obs. 2−106878
medical hyperthermia, theoretical comparison of temp. distribs. prod. by several systems 2−62731
microwave cancer therapy, blood flow effects on temp. distrib. from invasive antenna array 2−100087
mirrors, repetitively pulsed, thermal distortions, analytical model 2−86022
moving condensation front, heat transfer in thermal oil processes 2−55557
multilayer structure, laser induced local heating, optical energy absorpt. 2−65269
nonlinear media, heat transfer eqns., analytic solns. 2−60347
ancient ocean, convection model for warm saline bottom water 2−68374
oxide, interface shape control using IR radiation convergence type heater in F2 growth 2−93410
phantoms and animals, thermal distrib. of magnetic-loop induction hyperthermia 2−99904
piezoresistive integrated pressure transducer, temp. fields calc. *(German)* 2−107317
pig thorax and abdomen and large phantoms, heating pattern induced by 13.56 MHz RF generator 2−100057
planetary nebulae, electron temperature mapping using O III lines 2−74062
planetary surface temperatures, var. of albedo with solar incidence angle 2−106573
plate, rectangular, thermal gradient vibr. anal. 2−81281
plate with temp.-depend. heat source, temp. distrib. 2−109175
plates of variable thickness, nonsteady temperature fields 2−81207
Poland, fault effects on geothermal field distrib. 2−83773
power station boiler furnaces heat flux measurement devices 2−81212
radio electronic apparatus, generalised thermal model for calc. temp. field 2−60385
radiofrequency hyperthermia, clinical experience 2−62723
rectangular plate, two-dimensional cond., temp. distrib. 2−55397
rural solar collector utilising heat storage by sand/iron filings mixture, performance anal. 2−78246
semitransparent media, one dimens., internal heating effect on radiant heating 2−114611
skin and subcutaneous tissue, 2-D steady state temp. distrib., finite element anal. 2−57784
slab, orthotropic elastic, containing plane flaw, thermal stresses 2−81231
solar atmosphere, temp. of photosphere-chromosphere transition layer below flares 2−68720
solar coronal loops, footpoints temp. difference rel. to energetics of steady-state flows 2−100858
solar energy concentrators, V-trough, linear, natural convection heat transfer coefficients experimental determ. 2−57684
solar heating systems, liquid-based, effects of thermal stratification on performance 2−111593
solar pond mixing layer development interferometric study in laboratory simulation 2−83516
solar power stations saturated steam generation heat transfer and thermal optimisation 2−116781
solar receiver, bench model, hot tube to manifold ceramic joint, thermal stresses 2−67892
steel ingot, hollow cylindrical continuously cast, solidifying, temp. distrib. analysis 2−67317
stellar atmospheres, temp. struct. determ. for hot stars from C IV line profiles *(Russian)* 2−112435
stellar winds, ionisation balance and IR spectrum of radiatively-driven winds in O-type stars 2−63387
target temperature distribution generated and maintained by a scanning laser beam 2−90954
thermal shock problem, generalised one-dimens., for small times 2−81229
thermoelastic problems, axisymmetric coupled, temp. and stress distribs. 2−81232
thermohydraulic characteristics of single rods with three-dimensional roughness 2−91430
thermoplastic, temp. rise under reversed bending stresses, math. model and test results 2−83227
tissues with nonuniform blood flow distribs., transient temp. profiles 2−116887
turbulent boundary layer, temp. derivative skewness model 2−91409
two-layer structure, scanning electron or laser beam irrad., temp. distrib. calc. 2−92027
vapour generating tubes, heat transfer under transcritical conditions 2−91418
viscous incompressible flow, MHD flow between flat and wavy walls 2−103218
water, flow through heated porous layer, evaporative cooling, temp. distrib. 2−65639
water, river, real equilib. temp. and instantaneous cooling velocity 2−75844
Ge transport by GeI_4, GeI_2, CVD numerical model 2−97956
GeSe single crystal growth from vapour, phenomenological description 2−91840
He, liquid and gaseous, thermodynamic parameters in centrifugal force field 2−115434
^{4}He superfluid film, temp. gradient in presence of superflow 2−115486
Si, cryst. growth from melt., temp. field control by IR television technique 2−111052
Si, laser scanned, temp. profile calc. 2−92028
Si, thermoelectric effects, X-ray interferometry study 2−98682
YAG, interface shape control using IR radiation convergence type heater in F2 growth 2−93410

temperature measurement
see also pyrometers; spectral methods of temperature measurement; temperature scales; thermocouples; thermometers
4K region, using magnetoresistance of Bi crystal *(French)* 2−64031
adiabatic demagnetisation expts., temp. controller 2−95337
atmosphere temperature profile by thermomicrowave imaging, fundamental integral eqn. linearization 2−73652
atmospheric temperature remote sensing, appl. of meteorological lidar developments 2−106335
automatic temperature mapping system based on holographic interferometry 2−95374

temperature measurement continued
average air temp. and wind speed meas. equipment with teletypewriter recording *(Rumanian)* 2−68505
biomedical thermistor catheter for core temp. meas. 2−94228
British standards, National Physical Laboratory activities 2−58775
Cantonal Chemical Laboratory building structure and thermal behaviour anal. *(German)* 2−70818
Cantonal Chemical Laboratory infra-red thermography for heat losses anal. *(German)* 2−70819
clinical hyperthermia systems engineering problems and solutions 2−62829
cold-wires for meas. for dissipation of temp. fluctuations 2−89709
concentrator photovoltaic cells performance measurement techniques 2−93916
contact radiometric meas. of internal temps. of bodies 2−89814
contact transducer, threshold sensitivity estimation 2−64034
corona discharges, interferometric meas. of gas temp. 2−65785
cryogenic temperature meas. and data processing system *(Russian)* 2−112909
cryogenic temperature sensors, use of semiconductor diodes 2−58821
cryotemperatures measurement using Cu resistance-type sensing element *(Polish)* 2−53760
crystalline substances, automatic melting-point determ. device 2−115393
device for electric furnaces for annealing sheet glass 2−53769
dew-point temperature, automatic sensor, sweating meas. appl. 2−111823
diffusion furnaces, temp. profile meas., systematic error model *(German)* 2−58819
digital thermometer, seven-segment LED display, indoor/outdoor use 2−79580
Earth surface temperature variability in central Californian agricultural fields, aircraft remote sensing meas. 2−111928
electron temperature, direct meas., new technique 2−97796
fibre optic instrument for temp. meas. 2−81097
fibre optic sensors, applications 2−75705
fibre optic temperature distribution sensor using time-domain reflectometry 2−91076
fixed points below 13.81K, establishment using mutual inductance bridges *(Polish)* 2−95377
flame, axisymmetric, temp. distrib. meas. by holographic interferometry, refr. effects 2−69170
flowing gas non-intrusive meas., by laser-ray scattering apparatus *(German)* 2−81420
four-pole cylindrical synchronous machine solid rotor temp. distribution measurement *(French)* 2−84628
gas flow vel. and temp. simultaneous meas., noncontact optoacoustic technique 2−97669
gas mixture concentration and temp. meas. using heterodyne holographic interferometry 2−80910
gas properties, measurement without inertia *(French)* 2−63967
gases, temp. distrib., thermal conductivity, holographic interferometry study 2−79660
geophysical remote sensing, optical system design of interferometer imaging sounder 2−112159
geothermal sounding, comparison of methods of estimating static formation temperature from well logs 2−100326
grinding workpiece temp. meas. with infrared radiation pyrometer using optical fibres *(Japanese)* 2−101404
heat flux sensor with thermocouples, furnace transient temp. field meas. appl. *(German)* 2−64041
heat transfer coeff. mapping contours, mapping using cholesteric liquid crystals 2−79576
heat transfer measurement thermoelectric printed circuit device *(French)* 2−64025
hot heterogeneous flow, sat.-centre line intensities in gas phase pyrometery, temp. meas. 2−60620
hyperthermia production for cancer therapy: a review of fundamentals and methods 2−62716
IC 342, Scd galaxy, interstellar gas temp. meas. from NH_3 radio spectrum obs. 2−68629
IC temperature transducer, low power, high sensitivity and easy calibration 2−95341
image spectrogram interpretation in some metrological appls. 2−79685
instrumentation and calibration standards *(Rumanian)* 2−74410
integrated optical temperature sensor based on array of waveguide interferometers 2−95373
interstellar cloud complexes in external galaxies, temp. meas. via NH_3 radio spectrum 2−68629
IR thermometry 2−79582
laser cooled-stored ions, dilute population, model for computing temp. 2−65112
left ventricular heat production, hybrid device for meas. 2−99905
living tissue thermal dosimetry and heat transfer 2−62564
local and regional hyperthermia, microwave/radiofrequency system clinical evaluation 2−62722
low Curie temp. magnetic material characteristics for thermosensors *(Japanese)* 2−69209
low temperature meas., bridge circuit *(Polish)* 2−95376
LV indoor switchgear installations thermal problems *(Hungarian)* 2−91222
micro-climatic measurements in power stations for optimizing protection against corrosion. *(German)* 2−93665
microprocessor based reactor vessel level/containment monitor 2−85175
non-contacting temperature measurement technique for application in heart surgery *(German)* 2−111811
ocean temperature microstruct. meas. with new conductivity probe 2−117490
oesophageal probe for heart and temp. monitoring during anaesthesia 2−68183
optical single-mode-fibre point and extended temperature sensors 2−114450
oxides, melting point measurements, in solar furnace in different atms. 2−58830
power station boiler furnaces heat flux measurement devices 2−81212
pressure dependence of the thermoelectric power of sheathed chromel-alumel-thermocouples *(German)* 2−64027
Pt thermometers, calibration at fixed points of IPTS-68 using standard resistances *(Polish)* 2−95378
pyroelectric sensor, construction, performance and appl. 2−74414
quartz, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
radiation effects when using thermocouples 2−101402

temperature measurement continued
reactor coolant temp. monitoring system using heated junction thermocouple 2−64561
remote meas. in lower atmosphere, radio acoustic sounding system *(Japanese)* 2−58171
resistance characts. of cold-wire probes 2−89711
Sanyo IR detectors for surface temp. meas. *(German)* 2−74500
sea surface temp. remote sensing by aircraft, West Coast Expt. (March 1977) 2−100585
sea surface temperature determ. from coincident radiometric meas., single-channel double-viewing angle method 2−100588
SEM, hot stage UHV, appl. to dynamic studies of surface processes 2−71311
semitransparent materials with low heat cond., systematic meas. errors investig. *(Russian)* 2−64028
sensor using thin-films Pt resistors, design and appl. *(German)* 2−79584
sensors, calibration at boiling points of cryogenic liqs. 2−89708
sensors technological developments due to electronic advancements, 'Valvo' range *(German)* 2−53747
shock compressed solid, thermocouple temperature meas., longitudinal strain 2−112899
shock compressed solid, thermocouple temperature meas. shock enhanced thermal equilibration 2−112900
shock-compression temperature rise determined from resistivity of embedded metal foils 2−69196
solar pond mixing layer development interferometric study in laboratory simulation 2−83516
standardisation of thermometers, experience with GOST 8.009-72 standard 2−112901
standards in high temp. mech. testing 2−105437
superconducting devices, precision metrology appl. 2−94937
surface temperature measurement using separated contacts, error anal. *(French)* 2−64038
surface temperatures, direct contact meas. method, transient regime, errors, response time *(French)* 2−64037
surface temps. of moving objects, using colour indicators *(German)* 2−53758
telemetry system, buried, for in situ energy extraction 2−93860
television measuring system for crystal growth parameter determ. *(German)* 2−69151
thermal plasmas, temperature meas. technique 2−55791
thermistor types and appl. 2−95380
thermocouple thermometry in microwave fields, medical appl. 2−68101
thermodynamic, EPT-76 temp. scale realisation and appl. 2−53728
thermodynamic properties meas. techniques, conf., Albany, OR, USA (Aug. 1979) 2−53425
thermograph with thermistors for geodynamic observations *(Rumanian)* 2−117504
thermometry, utilising thermistors, complementary amplifying circuit *(Chinese)* 2−69172
transducer technology and temp. meas., conf., Essen, Germany (Jan. 1982) 2−63752
transistor characteristics appls. to temperature sensing 2−101414
transparent thin target, laser irradiated, rear surface temp. meas. 2−57220
US sensor for simultaneous meas. of level, temp. and density 2−65435
using Raman spectroscopy *(German)* 2−81421
water, shock-compressed, temp. meas. using pyrometer 2−89719
water bodies, oil slick effect on remote radiometric meas. 2−62513
water flow in pipe, temperature meas. using external thermometer with Schmidt belt *(Japanese)* 2−114910
weather station as example for microcomputer sensorics *(German)* 2−100440
Cu vapour laser tube temp. meas. 2−80991
GaAs photodiodes, thermometric characts. 2−101460
He cryostat, continuously filled, temp. stabilisation 2−112905
He-Ne laser tube positive column region gas temp. meas. by thermal expansion method *(Chinese)* 2−95369
InP:Fe(Cr), photocurrent instability, temp. depend. meas., temp. meas. system appl. 2−58824
N_2 DC plasma jet, time resolved meas. of rotational temp. 2−103479
Ni-Cr/Ni-Al thermocouple response linearization using FET cct. 2−53757
Pd, melting point, determ. by pulse heating method, temp. reference point appl. 2−58822
Pt 100 resistance sensors, linearisation through positive feedback at transmitter *(German)* 2−89712
Pt resistance thermometer, methods for connecting with electronic convertor circuits *(German)* 2−74415
Pt thermometric resistance sensors, ZPA, low-temp. meas. in range 13-80K *(Czech)* 2−89727
Si temperature sensor elements developments *(German)* 2−64039
Si temperature sensor type KTY 84 by Philips *(German)* 2−64108
Si temperature sensors *(German)* 2−84627
SiC thin-film thermistor, use as temp. sensor from 30 to 300°C 2−69174
Ta thin-layer resistance thermometer *(German)* 2−84626
Ta-Ni thin film sensor system, temp. and strain meas. appl. *(German)* 2−64018

temperature scales
British practices, National Physical Laboratory activities 2−58775
EPT-76 realisation and appl. through practical thermometers 2−53728
fixed points below 13.81K, establishment using mutual inductance bridges *(Polish)* 2−95377
IPTS-68 scale above 1064.43°C realisation, precision photoelectric pyrometer design and operation 2−69179
practical reference temperatures using melting point techniques 2−107289
Pt thermometers, calibration at fixed points of IPTS-68 using standard resistances *(Polish)* 2−95378
sighting device for placing a temperature lamp in front of a spectropyrometer 2−64044
thermodynamic properties meas. techniques, conf., Albany, OR, USA (Aug. 1979) 2−53425
Pd, melting point, determ. by pulse heating method, temp. reference point appl. 2−58822
Pt resistance thermometry, thermodynamic meas. appl. 2−53727
Si narrow-band radiation thermometer for temp. standard establishment *(Japanese)* 2−107292
W, electrical resistivity-temperature scale, vacancy parameters 2−98622

tempering
desorption site populations, continuously distributed activation energy, tempering schedules 2−110162
steel, Al, high C, struct. changes during tempering *(Russian)* 2−105190
steel, alloy, quenched and tempered, fracture, effect of H_2 2−67527
steel, alloy, roll, heat treatment influence on struct. and props. 2−67393
steel, alloy, weld metal similar to X20 CrMoV121, heat treatment effect on phase transform. and mech. props. 2−62144
steel, B, type 10B35, X-ray factography on const. fatigue fractured surface *(Japanese)* 2−77919
steel, barothermomechanical treatment effect on struct. and temper embrittlement susceptibility 2−57386
steel, C, Nb addition effect on tempering of undeformed lath martensite *(Japanese)* 2−57381
steel, C-tool, hot-isostatic powder densification 2−57316
steel, constructional, critical hardening rates and hardness calcs. 2−67390
steel, Cr, wear resistance, effect of chem. comp., tempering and austenitising 2−72848
steel, Cr-Mn type, carbide form., W and Mo influence 2−105160
steel, Cr-Mn-Si, deform. under high pressure, effect on temper brittleness 2−67391
steel, Cr-Mo, heat resist., partially recryst. struct. effect 2−67399
steel, Cr-Mo, low C, tempering behaviour, effect of C content 2−77853
steel, Cr-Mo, precip. of Fe_3MoC carbides 2−83123
steel, Cr-Mo, pressure vessel, autoradiography of H trapping rel. to hydrogen embrittlement *(French)* 2−62213
steel, Cr-Mo ($2^1/_4$; 1; at.%), heat treatment for breeder reactor boilers 2−54500
steel, Cr-Mo type HT-9, microstruct. effect on mech. props. rel. to fusion reactor apps. 2−88108
steel, Cr-Mo-Nb-V, fast breeder reactor components, precip. study *(French)* 2−88089
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, Cr-Mo-V martensitic stainless, weldments, transform. and tempering 2−88107
steel, Cr-Ni (13, 4-6 wt.%), temper embrittlement *(Czech)* 2−116535
steel, Cr-Ni-Mu (1.9, 0.85, 0.76 wt.%) original struct. and heating rate influence on props. after hardening from intercrit. range 2−72736
steel, CrMoV, temper embrittlement rel. to heat treatment 2−83232
steel, die, hardened with vanadium carbonitride, props. 2−111211
steel, embrittlement after hardening, impurities influence 2−88192
steel, ferritic stainless, fracture toughness rel. to first wall and blanket appl. in fusion reactor 2−72804
steel, grain boundary P segregation during tempering, stress effects, XPS study *(Russian)* 2−116444
steel, high C, carbonitriding 2−111374
steel, high speed, precip. of carbidic phases during tempering 2−88090
steel, high speed powders, gas-atomised, solidification struct. 2−88023
steel, high strength, stress corrosion cracks, micro-and macrobranching *(Japanese)* 2−111290
steel, high temperature temper treatment, quality control, performance anal. of magnetic probe 2−67703
steel, high-speed, hydroextruded, austenitic grain size 2−111197
steel, high-speed, tempered carbides, precip. sequence interpret. 2−105150
steel, low alloy, quenched and tempered, susceptibility to environment assisted cracking, relationship with banding 2−77975
steel, low C, deformed lath martensitic struct., recrystn. and form. of austenite 2−111195
steel, low-alloy, embrittlement after hardening, impurities influence 2−88192
steel, low-alloy, H embrittlement in long-term strength tests 2−67539
steel, low-alloy, quenched and tempered, transcryst. cleavage microcracks initiation and propag. 2−111320
steel, martensitic stainless, corrosion fatigue props., effect of heat treatment 2−111301
steel, martensitic stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
steel, medium C, mech. props. in dynamic deform., struct. and ultrasonic vibrs. influence 2−72772
steel, medium C, N implanted, Mossbauer surface study 2−93086
steel, medium-C low-alloy En 24, intercritical treatments, duplex struct. 2−105189
steel, Mg, quenched and tempered, fracture behaviour 2−83221
steel, Mn, struct. and phase comp., tempering temp. influence 2−105199
steel, Mn-Ni, low-C, cast, replacing Ni with Mn for low temp. operation 2−72731
steel, Mo and V, tempered, struct. changes and carbide formation, electron microscopy study *(Russian)* 2−99459
steel, Ni, low C, heat treatment and O_2 cutting influence on struct. and props. 2−72732
steel, Ni-Cr, stress corrosion cracking in NaCl soln. near lower temper martensite embrittlement range 2−83264
steel, Ni-Mn-Mo, high-strength cast maraging, ageing influence on mech. props. 2−67397
steel, permeation of H, surface oxides and tempering treatments influence 2−93680
steel, pseudo-intercrystalline brittleness mechanism 2−67502
steel, quenched and tempered, crack nucleation and propag., electron microscope obs. *(German, English)* 2−57477
steel, self tempering, selective electromagnetic inspection, physical fundamentals and operating principles 2−83334
steel, self-tempering, selective electromagnetic inspection, equipment design, selection, testing 2−83335
steel, Si-P, dual-phase, development of high strength sheets 2−105251
steel, stainless, maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
steel, stainless and structural, nitriding, saturation with H 2−62283
steel, tool, high speed, S 6-5-2 (M2), Nb and C effects on struct. and tool life *(German)* 2−57360
steel U8 and automatic steel A40G, struct. superplasticity w.r.t. treatment conditions 2−57426
steels, alloy and C, martensite struct. after quenching and tempering *(Russian)* 2−99460
Al alloy, by retrogression and reaging processes, stress corrosion cracking resistance improvement 2−67623
Al alloy 7075, T6-RR temper treatment eval. w.r.t. SCC resistance 2−72879
Cu-Al (9.8-11 wt.%), dual-phase, struct.-prop. relationship, individual phases 2−77833

tempering continued
Cu-Al (9.8-11 wt.%), dual-phase struct.-prop. relationship, alloy behaviour 2−77834
Fe-Al (10 to 50 at.%), quenched from 1100°C, 10 to 26.5 at.% Al during tempering *(German)* 2−111215
Fe-Al (40 at.%), quenched, nucleation of dislocation helices *(French)* 2−55969
Fe-Al (40 at.%), quenched or electron irrad., nucleation of dislocation loops *(French)* 2−55968
Fe-Cr-Al alloys, rapidly quenched, microstructs., mech. props., elec. cond. 2−111332
Fe-Cr-Co-Nb-Al alloy, high-coercivity, microstruct. rel. to mag. props. 2−111333
Fe-Mg, cast, nodular, mech. props. and cryst. struct., effect of heat treatment 2−83113
Fe-Ni martensitic alloys, tempering behaviour in cryst. microstruct. *(Korean)* 2−83144
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
K_2O-B_2O_3-SiO_2 glass, temp. derivative of elec. resist. near transition temp. 2−76730
K_2O-B_2O_3-SiO_2 glass, phase separation and structon types, DC elec. resist. meas. 2−76729
Ni, segregation of S, intergranular, equilib. and non-equilib., high resolution microprints and electrochem. testing 2−57355
$Sm(Co, Cu, Fe)_{6.8\text{-}7.2}$ cast hard mag. alloys, fine struct. after heat treatment 2−99465

tenacity *see tensile strength*

tensile strength
see also fracture; yield strength
amine cured epoxies, tensile deform. and failure processes 2−67449
amorphous metal ribbon reinforced resin matrix composite, mech. props. 2−57410
brass, atomised powder prod. and characters. 2−67251
brittle glass polymers, tensile strength elevation by entanglements 2−93621
brittle materials, microstrength meas. 2−93743
cellulose felt, metal-filled, high-porosity material prep., heat treatment and strength props. 2−99383
ceramics, fibrous, low-density, fracture behaviour 2−77910
ceramics, heat resistance, rel. to strainability, strength and thermal expansion 2−115441
ceramics, tensile strength, determ. by radial compression methods 2−67698
chromaffin granule membrane, obs. 2−100021
composite materials, fibre length influence on tensile strength 2−116512
concrete, frame-specimens, applicability of indirect tensile test method *(Japanese)* 2−62320
FCC crystal, multislip, theoretical approach compared with expt. data 2−103775
fibre reinforced composites, coated, raindrop impact, indirect damage 2−62229
fibre reinforced composites, tensile strength relationship with flexure strength 2−83168
formaldehyde copolymer, serviceability, effect of radiation 2−83223
glass, multilayer cylindrical struct. for fibres, optical fibres and cables, thermoelastic stress 2−65396
glass, tensile strength, determ. by radial compression methods 2−67698
glass fibre reinforced cement, strength assessment of aged fibres 2−99513
glass fibre reinforced plastic, elec. insulation, liq. medium influence on strength and deform. props. 2−99576
glass fibre reinforced plastic, ultimate resist. under proportional deform. conditions 2−62211
glass fibre reinforced plastics, in-plane stiffness and strength props. 2−67409
glass fibre reinforced plastics, mech. props. at low temps. 2−77864
glass fibre reinforced plastics, strength anisotropy 2−67357
glass fibre unidirectionally reinforced terephthalate-polyester filled resin, laminate, filament wound tubes, resin flexibility effects on props. 2−116497
graphite fibre reinforced epoxy, centre-notched angle ply composites, tensile fracture 2−57450
graphite fibre reinforced epoxy laminate, in situ transverse lamina strength, X-radiographic obs. 2−88135
gray cast Fe, cooling rate influence on eutectic cell struct. and mech. strength *(Japanese)* 2−62115
ice, polycrysts., tensile strength as function of grain size 2−105272
ideally fibre-reinforced elastic strip under tension, instability 2−72760
INSTRON 1122, behaviour under cyclic testing over a small displacement range 2−83312
Kevlar fibre reinforced polymer, matrix-induced compression effect on morphology and tensile props. 2−105224
MANGALIOY, elinvar type alloys, nonferromag., characts. *(Japanese)* 2−77881
metallic materials, statistical props. of mech. strength *(Japanese)* 2−99493
metals, plastic, Brinell hardness rel. to mech. characts. 2−116635
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
optical fibre strength/fatigue expts. 2−99622
osteonic lamellae, single, tensile props. technical problems and expt. results 2−88569
piezoelectric ceramics, mech. props. under large amplitude operation, transducer appl. *(Japanese)* 2−67510
plastic foams, mech. props. change during storage, prediction 2−116508
PMMA, serviceability, effect of radiation 2−83223
poly(butylene terephthalate), struct., tensile strength meas. 2−86589
polyamide, serviceability, effect of radiation 2−83223
polybutadiene, effect of glass filler size on tensile props. and tear strength 2−88137
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polycarbonate, serviceability, effect of radiation 2−83223
polycarbonate, weathered, tensile failure 2−116511
polycarbonate glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polyethylene, filled, hydrostatic extrusion 2−67281
polyethylene, linear, oriented, shear and tensile relax. behaviour 2−77890
polyethylene, serviceability, effect of radiation 2−83223
polyethylene fibres, influence of low-temp. radiolysis on strength *(Russian)* 2−57402
tensile strength continued
polymer, conductive, fibre filled, elec. and phys. props. 2−56562
polymers, coke filled, strength and deform. props. 2−83188
polypropylene, rolled, mech. props. rel. to struct. 2−67377
polypropylene film, effect of high O_2 press. and temp. on ageing 2−116576
polypropylene isotactic film, thermo-oxidative degradation, struct. changes 2−71377
polypropylene reinforced with glycerol-treated mica, rheology, tensile props. 2−111216
polystyrene, serviceability, effect of radiation 2−83223
polystyrene, tensile stress-strain behaviour in inert and gaseous environments 2−88130
polystyrene glassy polymers, time depend. birefringence during stress relax. and recovery 2−72448
polysulfone, injection molded, effects of residual stress and orientation on fatigue 2−67536
polyurethane foam, mech. props. change during storage, prediction 2−116508
powder coherent strength meas. by tensile rupture test method *(Japanese)* 2−64022
powders, compact strength, rel. to shear-normal stress curve obtained from uniaxial compression 2−116400
rubber, natural and styrene butadiene, tensile rupture, SEM obs., vulcanisation and filler effects 2−116533
sheet metal, notched tensile elongation and anisotropic ductility 2−62175
sheet moulding compounds, fracture behaviour under tensile load 2−67480
shell, cylindrical, dynamic stability, axial compression *(Russian)* 2−91285
silicate glasses, ultimate strength rel. to other mech. and thermal characts. 2−88177
skin, human, uniaxial tension, in vivo obs. 2−83592
steel, 40KhN2MA, mechanical props. and struct., effect of austenitisation temp. and hot deform. *(Russian)* 2−77901
steel, anti-tufftride coated, tensile strength and deformability effect of tufftriding time *(Japanese)* 2−93568
steel, austenitic stainless, 316, cold worked, 20%, tensile props. correl. 2−72714
steel, austenitic stainless, 316, cold worked, Ti modified, tensile props., irrad. in high flux isotope reactor 2−72764
steel, austenitic stainless, Cr-Mn, uniaxial tensile props., Li exposure influence 2−80178
steel, austenitic stainless, type 316, long-temp. creep rupture properties, 550 to 700°C 2−99564
steel, austenitic stainless *(Japanese)* 2−105376
steel, austenitic stainless 316, high temp. tensile props. 2−105270
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, austenitic stainless 316, rapidly solidified Al_2O_3 dispersion strengthened, microstruct., path A alloys 2−88094
steel, C and alloy, fatigue limits, indirect eval. from static tensile strength 2−72900
steel, Cr-Mo, low alloy, heat resistance at 500°C in Na, NaOH admixture effect 2−67459
steel, Cr-Mo-V, heat resistant, thermomech. fatigue, effect on struct. and mech. props. 2−116546
steel, Cr-Ni-Mu (1.9, 0.85, 0.76 wt.%) original struct. and heating rate influence on props. after hardening from intercrit. range 2−72736
steel, deform., process development with temp., acoustic emission study of A508 and A533B 2−57423
steel, dual-phase, deform. characts., effect of martensite vol. fraction 2−67443
steel, dual-phase, struct.-prop. relationships 2−105253
steel, eutectoid, thermomechanically treated, fatigue initiation study 2−77934
steel, low alloyed powders and compacts, hot ductility, correl. with other props. 2−88148
Steel, Low C, weld zone crack resistivity *(Korean)* 2−57461
steel, low-alloy, low-pearlite, V addition effect on struct., phase comp., and mech. props. 2−72818
steel, low-alloy, mech. props., rare earth elements effect 2−72773
steel, low-C, influence of non-metallic inclusions on cold upsetability 2−67421
steel, low-pearlite, rolling regime influence on strength and toughness props. 2−99545
steel, low-pearlite with Nb and V, strengthening phase precip. during hot deform. 2−62133
steel, martensitic, ferritic, Cr-Mo-V-W, low temp. irrad. with (n,α)He prod., effect on tensile props. 2−71508
steel, martensitic stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
steel, Mn-Mo-Nb, pipeline, yielding behaviour 2−105256
steel, Ni-Co-Mo-(W)-Ti, maraging, props. after high-temp. treatment 2−67395
steel, stainless, microduplex, grain size depend. and strain rate sensitivity and activation energy of high temp. deform. 2−105244
steel, stainless, neutron irrad. at 55°C, effect on mech. props. 2−69866
steel, stainless 316L, fibre reinforced bioglass, processing and static mech. props. 2−57412
steel, structural, of various strengths, temp. and strain rate effect at tensile and elongation props. 2−62164
steel, tensile, hot hardness and fatigue props. of type E36 in as-rolled condition *(French)* 2−62214
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
steel cold-drawn boron treated, rapid heat treatment effect on microstruct. and tensile props. 2−116466
steel KhGSA, ultimate strength determ., reliability of NDT methods 2−93742
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
steels, Cr-Mo-V-Nb, with (n,α) He, yield strength, tensile strength, neutron hardening 2−80122
transparent solids, destruction by pulsed tensile loading, submicroscopic crack development 2−66118
uniaxial tension, compression and plane problems, continuous damage theory appl. 2−91336
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458
Zircaloy-2 fuel cladding, iodine effect on fatigue props. 2−59460
Al alloy castings, low-temp. characts. *(French)* 2−77895

tensile strength continued
Al alloys, fatigue limits, indirect eval. from static tensile strength 2−72900
Al alloys, high tensile strength, environmental fatigue strength and fracture *(Japanese)* 2−93612
Al-Al_2Pt_5, unidirectionally solidified eutectic, microstruct. and mech. props. 2−116434
Al-Cu (10 wt.%), rheocast, microstruct. and mech. props. 2−99420
Al-Li-Cu-Zr-Cd system alloys, microstruct.-prop. rels. 2−111210
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Al-Mg-Mn-Zr-Ca-Ti, chem. comp. optimisation rel. to fracture toughness, Mn, Zr, Cr and Ti additions effect 2−77945
Al-Mg-V, candidate material for NET/INTOR first wall, development and evaluation 2−69834
Al-Si-Ni-Mg-Cu, Ni, Mg, and Cu additions effect on tensile strength, hardness, abrasion and thermal expansion *(Korean)* 2−57418
Al-Zn-Mg, struct. and strength after duplex ageing 2−72727
Al_2O_3 fibre reinforced Al-Mg, fabrication method 2−67259
Au, film, tensile fracture mechanism, SEM study *(Japanese)* 2−92428
B fibre reinforced Al, interface struct. and strength 2−77942
B fibres, SiC coated, tensile strength as function of coating thickness 2−77950
$Bi_xSb_{1-x}SI$, uniaxial deform., influence on elec. cond. and dielectric const. 2−109886
C fibre reinforced Al-Si, TiC barrier coating effect on reaction between components 2−99373
C fibre reinforced filament wound cylinder under internal press., probabilistic burst strength 2−62170
C fibre reinforced plastics, fatigue resist. rel. to engineering factors 2−93618
C fibre strand, tensile test damping method 2−72915
Co-Si-B with and without group IV-VIII transition metals, amorphous wire prod. by melt spinning into rotating water, mech. props. 2−105104
Cr-Au film, vacuum deposited, partial press. and temp. effect on props. 2−76871
CsBr single-crystal IR fibres, cryst. growth, mech. and optical props. 2−102947
Cu, cold rolling, strain rate effect on mech. prop. changes at high strains 2−105184
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Cu, pure, strain bursts under various forms of static and cyclic loading at ambient temp. 2−62206
Cu, strength controlling processes, temp. and strain rate effects 2−77891
Cu-Be, AE generated during tensile deform *(Japanese)* 2−105232
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Fe, cast, compacted-vermicular graphite, rel. between physico-mech. props. and numerical indexes 2−105337
Fe, cast, graphite morphology in sintered swarf powder from nodular Fe *(Japanese)* 2−83060
Fe, cast, grey, degraphitized powder, sintering *(Korean)* 2−57318
Fe, high purity single crystal, H_2 effect on mech. props. *(Japanese)* 2−105236
Fe, pure, H_2 effect on deform. and fracture microprocess *(Chinese)* 2−62188
Fe-Cl-Cu, cast high strength, effect of Al-Cu additions *(Korean)* 2−67311
Fe-Mg, cast, nodular, mech. props. and cryst. struct., effect of heat treatment 2−83113
Fe-Mn-Al-C, nonequilib. ordered austenite wire fabrication by in-rotating-water spinning method, mech. props. 2−93532
Fe-P-C amorphous wires, prod. by in-rotating-water spinning, mech. props. 2−57317
Fe-Si-B amorphous wires, produced by in-rotating-water spinning method, mech. props. 2−111233
Hf, neutron irrad., dimens. stability, strength, hardness 2−80155
In thin films, strength characts., struct. and temp. effect 2−76875
Li_2O-P_2O_5 glass fibres, mech. props. and struct. aspects rel. to drawing process 2−93608
Mg-Li-Y system, isothermal sections and mech. props. in Mg-rich region 2−111142
Mo-Hf-C, powder metallurgical, props. 2−111228
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
Mo-Ti-Zr-C, powder metallurgical, props. 2−111228
Na_2O-CaO-SiO_2 glass, test pieces with controlled flaws, uniaxial and biaxial strength comparison 2−57414
Na_2O-SiO_2 glasses, mech. props., finite element method calcs. 2−111232
Nb, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb-Hf-Ti (10, 1 wt.%), hot isostatically pressed powder compact, creep 2−116504
Nb-W, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
Nb-W(Mo)(TA)-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803
Ni, electroless deposits, heat treatment effects on physical props. 2−57384
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Ni-Co, relation between damping capacity and magnetomech. props. 2−57397
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Ni-WC cermet, electrocodeposition and mech. props. 2−93462
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
SiC fibre reinforced Al, tensile props., thermal degradation effects 2−116485
SiC multifilament reinforced Al, prep. and characts. 2−77941
SiO_2:Ge optical fibres, graded index and polymer clad, γ-ray effect on strength 2−86114
Ta, strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
Ta, wrought, physical-mechanical props., thermal processing effect *(Czech)* 2−57407
Ti alloys, tensile props. after neutron irrad. 2−72767
Ti alloys, texture and plasticity, under hydrostatic press., deform. conditions influence *(Russian)* 2−116501
Ti-Al-Cr-Mo-V, mech. props., statistical anal. 2−72763
Ti-Al-Mo and Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
tensile strength continued
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-V, mech. props. after β-annealing 2−67398
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
Ti-Al(Al-V)(Mo-Zr), fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
TiB_2 coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
UO_2 pellets, thermal shock resist., bench tests and calcs. *(German)* 2−85144
V-Nb-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V-Ta-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V-Ti (20 wt.%), He injected and neutron irrad., tensile props. and microstruct. 2−71509
V-Ti(Nb)(Ta)(Al)(Cr)(Mo)(Fe) binary alloys, fabricability and tensile strength 2−67496
W, cross-rolled, tensile and low cycle fatigue meas. 2−72808
W fibre reinforced Cu, helical fibres tensile props. *(Japanese)* 2−77913
W helical fibre reinforced Cu, fibre deform. under tensile load *(Japanese)* 2−105233
Zn-Al, casting, mech. props. 2−62113
Zn-Al (22 wt.%), eutectoid, thermomech. treatment effect on superplasticity 2−105195
ZnSe, melt-grown crysts., mech. props. during flexure, prep. conditions influence 2−57404
Zr-Nb (2.5% wt.%), pressure tubes for CANDU-PHW, tensile strength 2−90231

tensimeters *see vapour pressure measurement*

tensors
Cartesian tensors, fourth-rank, irreducible representation 2−69100
crystal, tensor fields, space group irreducible representations 2−55874
crystallographic colour groups, appl. to tensor fields in crysts. 2−103680
double trigonal group, Clebsch-Gordan coeff., Racah algebra 2−101194
Einstein's λ-transformation and the invariance of Einstein's tensor 2−63867
elastic vessels, general soln. for flow and stress phenomena 2−83585
fields with internal degrees of freedom, tensor calculus generalisation 2−95146
Fokker-Planck eqns., class of exact solns. 2−95279
general relativity, space-time admitting vector field 2−95158
generalised SU(2) spherical harmonics 2−113165
gravitational energy-momentum pseudotensors, finite region of space-time *(Russian)* 2−58670
gravitational field, energy content, energy-momentum density pseudotensor formalism 2−63862
N=1 supergravity, alternative minimal auxiliary field formulation, tensor calculus and matter coupling 2−89604
polymer base anisotropic materials, long-term strength prediction 2−92083
three-dimensional Cartesian tensor averages 2−95006
three-dimensional Cartesian tensors, explicit expression for rotation 2−95005
three-dimensional Cartesian tensors, irreducible tensors props. 2−95004
TiO_2, rutile, third-order nonlinear susceptibility tensor component and dispersion determ. by coherent Raman ellipsometry 2−104876

terbium
see also nuclei with .....
electron diffr. pattern of Fm3m phase, Te_2O_3 effects, theory 2−91868
EXAFS and chem. shifts meas. 2−99224
first order phase transition study 2−77262
foils, ^{106}Pb recoil through foil, transient mag. fields, X-ray spectra study 2−66891
magneto-optical reson. and complex refractive index, polarimetric study 2−72466
nonlinear acoustic props. meas. near Neel temp. 2−116051
particles, cryst. struct. and mag. props. 2−77330
phonon dispersion calc., model with 3-body forces 2−61089
tribophysical pulverisation, martensitic transformations *(German)* 2−93634
$Bi_{2-x}La_xWO_6$:Tb, luminesc. props. 2−82900
$CaF_2:Tb^{3+}$ single cryst., fluoresc. spectrum 2−61945
$Ca_3Y_2Ge_3O_{12}:Tb^{3+}$ garnet, luminescence studies 2−61952
$GdOCl:Tb^{3+}$, Stark level, cryst. field anal., fluoresc. study 2−66504
Ge:Tb, deep level impurity states, DLTS study 2−56477
LaOBr:Tb, luminesc., effect of Tb and rare earth impurities *(Chinese)* 2−72530
LaOBr:Tb phosphors, two-stage excitation of phosphorescence 2−110945
$LaOCl:Tb^{3+}$, Stark level, cryst. field anal., fluoresc. study 2−66504
$LiLaP_4O_{12}:Tb^{3+}$, luminescence of broad band emitters, concentration quenching 2−77575
Mg_2SiO_4:Tb, phosphor, thermolum., carrier capture during irrad. 2−104973
Tb, photoelectron spectra meas. *(German)* 2−90628
Tb^{3+} ions in Tb chloride aq. solns., luminesc. spectra with excitation in 4f-5d absorpt. bands 2−116244
$Y_3Al_5O_{12}$:Tb single crystal, phosphor's produced by ion implantation 2−76472
$Y_2O_3:Tb^{3+}$, optical absorpt. and fluoresc. spectra, crystal field anal. 2−72525
$YOCl\ Tb^{3+}$, Stark level, cryst. field anal., fluoresc. study 2−66504

terbium alloys
Ag-Tb, dilute alloys, magnetostriction, free energy calc., single ion Hamiltonian 2−92987
AuTb dilute monocrysts., magnetostriction, ion-lattice coupling parameters 2−92985
Gd-Tb, magnetocrystalline anisotropy meas. 2−98873
$Ho_{50}Tb_{50}$, anomalous AC susceptibility near ferromagnetic to spiral transition 2−98856
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Tb-Fe amorphous films, struct., decomposition, crystallisation *(Chinese)* 2−104176
Tb-Gd alloys, magnetocaloric effect and mag. props. 2−72209
Tb-Ho, critical field anomalies and anisotropy 2−98878
Tb-Ho, paramagnetic, deviations from Curie-Weiss law 2−56825
Tb-In system, phase diagrams and lattice spacings of cpds. 2−111141
$TbAl_2$, quadrupole interaction at ^{111}Cd probe 2−116100
TbAlGa, mag. props. study 2−72141
$TbAu_2$, first order phase transition study 2−77262

terbium alloys continued
$TbCO_{2-x}Fe_xHy$, lattice parameters and mag. charcts. 2−56891
$TbCo_2$, anomalous hyperfine field and orbital moment 2−56973
Tb_2Co_7, mag. anisotropy, cryst. symmetry effects 2−92901
Tb_3Co, elec. resist. accompanying metamag. phase transitions *(Russian)* 2−66820
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
$Tb_{1-x}Dy_xCo_2$, spin orientation, ^{59}Co NMR study 2−66950
$Tb_{0.27}Dy_{0.73}Fe_2$, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
$TbFe_2$, amorphous, struct. ordering, neutron scatt. study 2−97923
$TbFe_2$ amorphous film, mag. and elec. props. *(Chinese)* 2−104750
Tb_xFe_{1-x} amorphous alloy system, simulation of dense random packed models 2−71353
Tb_xFe_{1-x} amorphous RF sputtered films, magneto-optic props. 2−72459
$Tb(Fe_xCo_{1-x})_2$, pseudobinary intermetallic compound, mag. struct., neutron diffraction study *(Russian)* 2−98846
Tb_5Ge_3, mag. ordering and struct., incommensurate phase transition, neutron diffr. study 2−115977
$TbMn_2$, mag. dipole, elec. quadrupole hyperfine parameters determ., NMR spectra 2−116087
$Tb_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872

terbium compounds
see also terbium alloys
EXAFS and chem. shifts meas. 2−99224
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2−87973
Gd_2Cl_3, photoelectron spectra meas. *(German)* 2−90628
$La_{1-x}Tb_xP_5O_{14}$:Tb^{3+}, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
$LiTbF_4$, Landau eqn. of state near T_c 2−66839
$LiTb_{0.9}Y_{0.1}F_4$, randomly diluted Ising dipolar-coupled ferromagnet, mag. eqn. of state 2−61730
$LiTb_pY_{1-p}F_4$, random uniaxial dipolar ferromagnet, critical behaviour 2−92935
$LiTb_pY_{1-p}F_4$, random dipolar-coupled ferromag., mag. eqn. of state 2−104617
$LiY_{0.5}Tb_{0.5}F_4$, elastic consts., hydrostatic press. derivatives 2−66104
$Na_2La_{2-x}Tb_x(PO_4)_6Cl_2$:$Tb^{3+}$, strong self quenching of Tb^{3+} in stoichiometric materials 2−72542
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
$TbAl_3B_4O_{12}$, luminesc. and energy transfer 2−61950
$TbBO_3$, preparation from TbO_x and B_2O_3, characterisation 2−72645
$TbCl_3$, crystal field splittings by polarisable ligands 2−92539
Tb_2Cl_3, electrical resistivity and reflectivity meas. 2−92630
$TbCl_3.6H_2O$:Gd^{3+}, cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
$TbCl_3.6H_2O$:Gd^{3+}, spin-Hamiltonian parameter superposition model anal. 2−98600
$Tb_2Cu_2O_5$, cryst. struct. data 2−81757
TbF_3, intrinsic fluorescence, energy transfer mechanisms 2−87839
$Tb_2Fe_3Si_5$, mag. order, neutron diffr. study 2−82567
Tb_5Ga_3, mag. props., struct., anal. 2−66763
TbH_{2+x}, antiferromagnetic ordering 2−72158
$Tb_2(MoO_4)_3$ crystal, heat capacity in phase transition region 2−66253
$Tb_2(MoO_4)_3$, luminesc. and energy transfer 2−82901
$Tb_2(MoO_4)_3$, spontaneous shear strain meas. and free energy expression 2−72433
$TbMo_6S_8(Se_8)$, dipole antiferromagnetism, collinear struct. and spin wave vector *(Russian)* 2−98847
$TbNa(WO_4)_2$, radiation quenching, cross relax. and exctionic behaviour 2−93247
Tb_3NiS_2, cryst. struct., Gd_3NiSi_2 type, X-ray diffr. study 2−65961
TbO, electronic spectrum vibr. struct. anal. 2−113968
TbO_x, struct. of intermediate phases, TEM and electron diffr. obs. 2−60940
Tb_2O_3, cubic, lattice and binding energies 2−60916
Tb_2O_3-$TbPO_4$, phase diagram 2−67740
TbP_5O_{14}, radiation quenching, cross relax. and exctionic behaviour 2−93247
TbRhSi, cryst. struct. and mag. props. 2−55946
$Tb_3Sb_5O_{12}$, cryst. struct. and dielec. props. 2−109755
$Tb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
Tb_5Si_4, magnetic, thermal, and elec. props. 2−72177
$TbVO_4$, collective mode damping near struct. phase transition 2−109944
Y_2O_2S:Tb^{3+}, X-ray phosphor prep., luminesc. props. 2−67096
ZnS:TbF_3 thin films, electroluminescence quenching obs. 2−99194

terminals, interactive *see interactive terminals*

ternary semiconductors
for pseudobinary semiconductors, see II-VI semiconductors, III-V semiconductors, III-VI semiconductors, IV-VI semiconductors and semiconductor materials
see also chalcogenide glasses
carrier scatt. mechanisms, Boltzmann eqn. calc. 2−115744
chalcopyrite compounds, ternary, energy band features rel. to electronegativity scale 2−61347
chalcopyrite crystals, struct. correls., tetragonal distortion, thermal expansion coeff. 2−109764
chalcopyrite type struct., structural parameter eqn. 2−81763
heteroepitaxy, diffusion phenomena 2−92378
II-IV-V_2 compounds, bond structure of pseudodirect bandgap systems, review 2−66448
II-IV-V_2 semiconductor applications in optoelectronics *(German)* 2−116219
III-V polycomponent semiconductor systems modelled by computing technique, phase diagrams *(Czech)* 2−83013
V-VI-VII compounds, chem. transport during crystn. from vapour 2−81698
$AgGaS_2$, cathodoluminescence, excitonic luminesc. and edge emission obs. 2−72559
$AgGaS_2$, piezooptical, electrooptical and birefringence consts., meas. in visible region *(Russian)* 2−77490
$AgGa(Se_{0.75}S_{0.25})_2$, crystal solid soln., impurity photocond. meas. 2 61521
$AgInTe_2$, force consts. and phonon freq., spectral moment calc. from sp. ht. data 2−98224
$AgSbSe_2$ film, growth and cryst. 2−115620
$AgTlSe_2$, liq. semicond., elec. props. study 2−66576
$AgTlSe_2$ liq. semicond., elec. props. 2−82384
$AgTlSe_2$ semicond., liq. and solid, elec. cond. thermoelec. power and thermal cond. 2−92625
$AgTlSe_2$, semicond., solid and liq. states, dielec. relax. and AC cond. 2−110754
Bi_2Te_2Se, heat treatment influence on props. 2−72721
Cd-Pb-Se-Te system, liquidus surface 2−105132
$CdCr_2Se_4$, effect of light on mag. after effects 2−87553
$CdCr_2Se_4$, ferromag. semicond., cathodoluminesc. study 2−87876
$CdCr_2Se_4$ single crystals, production of ohmic contacts 2−77179
$CdCr_2Se_4$, single crystal growth, chemical transport reaction 2−99328
$CdCr_2Se_4$:In, Ag defect single cryst. growth, elec. and mag. charcts., dopant influence 2−91842
$CdCr_2Se_4(S_4)$, occupied d-band position, photoemission determ. 2−83005
$CdGa_2S_4$, band struct., linear optical charcts., effective carrier masses, pseudopotential calc. 2−61355
$CdGa_2S_4$, cathodolum. obs. in spontaneous and stimulated regimes 2−116209
$CdGa_2S_4$ crystals, spatial dispersion effects 2−72446
$CdGa_2S_4$, electroabsorption, luminescence studies 2−61875
$CdGa_2S_4$, semicond., localised states, impurity absorption and photocond. spectra 2−110298
$CdGa_2S_4$, ternary semicond., electronic spectrum in region of fundamental absorption edge 2−57123
$CdGa_2S_4$, uniaxially deformed, long wave absorption edge 2−104836
$CdGa_2Te_4$, amorphous film, structural ordering, effect of group I metal impurities 2−87114
$CdGa_2Te_4$(:Ag) film, polycryst. and amorphous, elec. cond. and Hall effect meas. 2−82490
$CdGeAs_2$, carrier scatt. mechanisms, Boltzmann eqn. calc. 2−115744
$CdGeAs_2$, efficient multikilowatt mid IR difference freq. generation 2−102868
$CdGeAs_2(P_2)$, vitreous, IR absorption spectra 2−110834
$CdGe(As_xP_{1-x})_2$, vitreous, IR absorption spectra 2−110834
$CdGeP_2$ nonlinear cryst. refractive index, temp. depend. 2−61856
$CdGeP_2$, prep. and struct., vapour transport method 2−93392
$CdGeP_2$:Ga photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
$CdIn_2S_4$, fundamental absorpt. edge meas., doping effects 2−61927
$CdIn_2S_4$, semicond., neg. resist., resistive state transitions 2−92637
$CdIn_2S_4$ spinel, lattice thermal expansion, 28 to 685°C 2−104033
$CdIn_2S_4$-In_2S_3 solid soln., vaporization chemistry and thermodynamics 2−116720
$CdIn_2Se_4$, α- and β-polytypes, optical props. in region of fundamental absorption edge 2−93223
$CdIn_2Se_4$, photoluminescence spectra, radiative recombination 2−57165
$CdIn_2Se_4$, semicond., lattice consts. and thermal expansion, X-ray diffr. study 2−92240
n-$CdIn_2Se_4$/aqueous polysulphide photoelectrochem. cell, expt. study 2−116838
$Cd_xPb_{1-x}S$, film, growth kinetics, chem. deposition from aq. soln. 2−110190
p-$CdSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
$CdSiP_2$, Hall study of electrically active centres *(Russian)* 2−56623
$CdSiP_2$, intrinsic defect effect on elec. props. 2−61481
$CdSiP_2$:Mn^{2+}, ESR spectrum 2−82708
$CdSnA_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
$CdSnAs_2$, films, prop. by LPE 2−72634
$CdSnAs_2$ single crysts. and p-n junctions, photosensitivity spectra 2−92689
p-$CdSnAs_2$:Ga, transport coeffs., temp., field, and press. depend. 2−77061
$CdSnAs_2$-GaSb heterojunctions, LPE fabrication and props. 2−92743
$CdSn_xGe_{1-x}P_2$ solid solns., photoactive absorpt. and radiative recomb. anisotropy 2−92690
$CdSnP_2$, melt-grown crystals, surface polarity effect on electrical props. 2−115852
$CdSnP_2$:Cu photopleochroism spectrum, imbedded n-p junction depth effect 2−61523
$CdTl_2Se_4$, sp. ht. and thermodynamic props. 2−81973
$CdTl_2Se_4$-$CdTl_2Te_4$, phase equilibria 2−71616
$CdTl_2Te_4$:Au, Hall coeff., thermo-EMF, cond. type, temp. depend., doping effects 2−56615
$CuCr_2Se_{4-x}Br_x$ spinel, elec. cond., NMR study 2−56954
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGa_{0.5}In_{0.5}Se$, thermal expansion meas. 2−92239
$CuGa_xIn_{1-x}Se_2$ solid solns., phase diag., cryst. growth and dislocation struct. 2−86836
$CuGaS_2$, band gap temp. depend., exciton reflection spectra 2−104252
$CuGaS_2$, luminesc. and refl. spectra of free excitons 2−104963
$CuGaS_2$ nonlinear cryst. refractive index, temp. depend. 2−61856
$CuGaSe_2(Te_2)$, specific heat, Debye temp., entropy 2−92231
$CuGaTe_2$, LPE growth on ZnSe from Bi soln. and heterostruct. elec. props. 2−62084
CuIn/Se_2, semicond., absorption coeff., impurity effects, IR spectra study 2−77475
$CuInS_2$, electron-beam induced effects, Auger spectroscopy study 2−103824
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
$CuInS_2$, force consts. and phonon freq., spectral moment calc. from sp. ht. data 2−98224
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2−105065
p-$CuInS_2$, photocond. spectrum obs. 2−56643
$CuInS_2$, photoluminescence, broad band emission, defect electron states 2−93249
$CuInS_2$, photoluminescence, exciton and near edge emission, energy gap 2−93250
$CuIn_5S_8$ spinel, thermal expansion coeff., 28 to 685°C 2−104032
$CuInS_2(Se_2)(Te_2)$, mag. susceptibility, 4.2 to 300K 2−66761
$CuInSe_2$ grown onto CdS by molecular beam epitaxy, resistivity control using ion gauge beam flux monitor 2−99344
$CuInSe_2$, impurity states, after annealing, elec. cond. study 2−66475
$CuInSe_2$, LPE heteroepitaxial growth on ZnSe from In soln. 2−57310
$CuInSe_2$, spray pyrolysis and heat treatment, for photovoltaic appl. 2−71843
$CuInSe_2$, thin film, prep. by RF sputtering, optical props. 2−110962
$CuInSe_2$:Fe, EPR study, thermal treatment effects 2−98945
n-$CuInSe_2$/polysulfide, photoelectrochem. solar cells 2−67854

ternary semiconductors continued
$CuInSe_2$-CdS solar cells with CdS window layer, high efficiency operation, review 2−105570
$CuInSe_2$-CdS solar cell, interface formation, comp. and stability, XPS, EELS and AES study 2−111554
$CuInSe_2$-Mo interface, capacitance-voltage and EBK study 2−87385
$CuIn_2Se_{3.5}$, optical props. near fundamental absorpt. edge 2−99151
$CuInTe_2$, electrical charcts. 2−92648
$CuInTe_2$, neutron irrad., elec. props. and defect levels 2−71982
$CuInTe_2$ single cryst., photocond. and electronic struct., impurity levels 2−115814
$CuInTe_2$, specific heat, Debye temp., entropy 2−92231
$CuInTe_2$, two-phonon absorption spectra meas. 2−93197
$CuInTe_2$:Zn(Cd), elec. props., hole mobility and conc., annealing effects 2−87279
$CuTlSe_2$, ternary semicond., liq. and solid, dielec. relax., defect electron states 2−61829
$Hg_{1-x}Mn_xTe$ ($0<x<0.075$), anomalous temp. depend. of resistivity and Hall coeff. at low temps. *(Russian)* 2−98637
$Hg_{1-x}Mn_xTe$, elec., optical and mag. props. 2−87140
InSb-In_2GeTe, thermographic, X-ray and microscopic investigation 2−109995
$Pb_xCd_{1-x}I_2$ crystal, interlayer interactions, Raman phonon spectra *(Russian)* 2−104893
$Pb_xHg_{1-x}Te$, single crystal growth by Czochralski method 2−99322
Tl-$AgTlS_2$, molten system, electronic and mag. props. 2−98647
$TlGaS_2(Se_2)$, layer semicond., hopping cond., freq. compensation effect 2−104381
$TlGaS_2(Se_2)$ layered semicond., polar optical phonon freq., angular behaviour 2−109928
$TlGaSe_2$, negative photocond. obs. 2−56642
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
$TlInS_2$ layered semicond., polar optical phonon freq., angular behaviour 2−109928
$TlInS_2(Se_2)$, layer semicond., hopping cond., freq. compensation effect 2−104381
$TlInTe_2$-$TlEuTe_2$, reactions, microhardness and elec. cond. 2−111167
$TlSbSe_2$ layer cryst., electrophys. parameters, growth conditions depend. 2−104375
$ZnGeP_2$, intrinsic defect effect on elec. props. 2−61481
$ZnGeP_2$, nonlinear cryst. refractive index, temp. depend. 2−61856
$ZnGeP_2$, press. depend. of pseudodirect gaps 2−87141
$ZnGeP_2$:Mn^{2+}, ESR spectrum 2−82708
$ZnIn_2S_4$, electron trap distrib., elec. cond. meas. 2−92520
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
p-$ZnSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
$ZnSiAs_2$ thin-film solar cells, status as emerging materials PV technologies 2−57712
$ZnSiP_2$, $ZnSiAs_2$, purification by sublimation in hermetically sealed system 2−93389
$ZnSnAs_2$ LPE growth on ZnSe substrate from Sn soln. 2−77756
p-$ZnSnP_2$ Schottky diodes, current-voltage characts., photosensitivity and recomb. radiation spectra 2−115863

terrestrial age *see geochronology*

terrestrial atmosphere
see also air; atmospheric elementary particle precipitation; clouds; stratosphere; troposphere; upper atmosphere
Alfred Wegener, contribs. to physics of atmosphere 2−63790
atomic physics interrelation 2−78949
early atmosphere general circulation model 2−106319
gravity currents in the laboratory, atmosphere, and ocean 2−97617
magnetogasdynamical spherical shock wave propag. in exponential medium 2−106508
Late Mesozoic mass extinctions, asteroid impact theory 2−58055
model interpretation workshop, San Diego (March 1981) 2−106993
origin and evolution of planetary and terrestrial atmospheres, introduction to problem 2−112357
origin and evolution of planetary atmospheres, conference, Hamburg, Germany, (1981 August 17 to 18) 2−107010
origin of atmosphere, degassing model based on geochem. evidence 2−100562
prebiological palaeoatmosphere composition rel. to UV radiation from young Sun 2−73929
primitive atmosphere, C and N fixation by lightning 2−63098
primitive terrestrial atmosphere, radiative-convective-photochemical models rel. to vertical thermal struct. 2−112135
primordial Earth atmosphere, rare gas retention by accreting Earth in solar nebula 2−112353
solar eclipse shadow zones on surface of Earth, TIROS-N obs. 2−68489
solar influence on Earth's atmosphere and interplanetary space, review 2−94474
subsatellite three-dimensional motion, effect of air drag perturbations 2−78940
volcanic eruption plume dynamics, April 1979 eruption 2−73519
soft X-rays due to solar radiation scatt. and fluoresc. 2−89057
NH_3 in early atmosphere, conc. and destruction mechanisms 2−78796

terrestrial composition *see Earth composition*

terrestrial electricity
W African craton (Senegal) *(French)* 2−111844
Allahabad region, India, geoelectrical soundings of aquifers in Gangetic alluvium 2−111862
analogue laboratory model used to study elec. sounding problems 2−78857
apparent resistivity sounding method, book 2−107027
aquifer in Kent, England, contamination by salt from coal mine 2−63005
tropical Atlantic Ocean, natural EM fields in deep ocean *(Russian)* 2−88895
Australia, differences between lithosphere Phanerozoic and Precambrian, seismic and elec. cond. meas. 2−78621
B-polarization induction in 2 thin sheets at surface of cond. $^1/_2$ space 2−68252
Baikelian rift deep sounding in near zone by EM field induction 2−105934
borehole radiofrequency sounding method 2−100581
Byelorussian crystalline massif, MTS obs. of deep struct. 2−117198
Campi Flegrei geothermal area, Italy, crust struct. study 2−73493
carbonaceous siltstone induced polarisation response 2−73542
Cerro Prieto geothermal field, Mexico, self potential data inversion 2−100211
chalk, elec. cond. rel. to pore aspect ratios 2−117294

terrestrial electricity continued
coast effect, deviated electric currents, numerical thin-sheet model 2−100246
composite curve of crustal apparent elec. resistivity 2−62887
conductivity anomaly elec. profiling, inverse problem theory 2−106368
conductivity in lower crust, review 2−78601
conductivity variation with depth, use of geomag. field gradient anal. 2−68529
conductivity-temperature-depth systems, digitizing methods and error anal. 2−73704
conference, April 1982, Cardiff, Wales 2−63736
conference of EM induction in Earth and Moon at Istanbul, Turkey (August 1980) 2−74148
Crone pulse EM system, response of layered Earth 2−73429
crust induction, meas. techniques and instruments for land and sea obs. 2−78869
crustal resistivity modification by materials stress field time var. 2−78539
current loop source above layered Earth, transient fields 2−105908
Damara orogenic belt, SW Africa, crust elec. cond. struct. 2−88733
depth of investigation constraints for gradient arrays over homogeneous isotropic half-space 2−111845
dielectric anisotropy in rock, correl. with petrofabric 2−78641
dielectric borehole logging, appl. of EM wave propag. in fluid saturated porous rock 2−78656
dielectric constant of brine saturated rock 2−58036
dipole array sounding, calc. of resistivity curves 2−63117
dipole source induced elec. field in layered media 2−68250
direct current data interpretation, improved algorithm 2−100590
Earth mantle heating by variable EM field, convection, effect of solar activity rel. to Earth diurnal rot. vars. 2−111834
earthquake precursors, resistivity anomalies rel. to physico-rheological model for Tangshan earthquake 2−94308
earthquake precursory radiowave emissions, Chile, May 1960 event 2−88800
earthquake prediction and terrestrial electricity, review in book 2−94919
electromagnetic interference fringes method for prospecting 2−73705
EM (VLF) sounding of buried inclined conducting half plane 2−105931
EM field separation into mag. and elec. interior and exterior components 2−111867
EM field transfer functions var. with time 2−78541
EM fields variations induced by synoptic scale oceanic movements 2−112133
EM induction, sign convention for quadrature Parkinson arrows 2−111866
EM induction anomalies and 'current channelling' 2−100216
EM induction in inhomogeneous spherical Earth model 2−105922
EM induction inverse problem for crust elec. cond. struct. 2−117190
EM induction modelling, use of finite-difference methods 2−68247
EM induction sounding of elec. cond. struct., inverse problem theory 2−117189
EM prospecting, effect of EM coupling between parallel lines on uniform Earth 2−73439
EM response of arbitrarily shaped 3-D conductor in layered media 2−68251
EM sounding for subsurfaces struct., inverse problem 2−105903
EM sounding of buried disc struct., theory 2−78549
EM sounding of ground using circular loop, transient response 2−58154
EM sounding of one dimensional medium, inverse problem soln. method 2−106348
EM wave sounding of subsurface struct. 2−111857
field induction sounding method, multibedded geoelectric section apparent resistance determ. 2−105933
finite-difference simulations using local integral forms, appl. to telluric fields in two dimensions 2−88732
Gani, India, pulsed EM anomalies over conductors 2−68493
Garm polygon, USSR, groundwater electrokinetic current system rel. to geomag. vars. 2−73481
geomagnetic daily variations used to study crust cond. struct. 2−68519
geomagnetic step-like change due to core, effect of mantle conductivity 2−73442
global EM response, improved estimates 2−78545
granite, elec. cond. rel. to pore aspect ratios 2−117294
Grenville Province, Canada, elec. cond. of crust and mantle 2−100215
horizontal loop EM measurements, interpretation using permeable sphere model 2−105911
Great Hungarian Plain, geoelectric crust struct. *(Hungarian)* 2−68253
hydrothermal system, above resist. pattern determ. using controlled source audiomagnetotellurics 2−73698
Idaho, USA, magnetotelluric study of possible geothermal energy site 2−88738
impedance estimation in horizontally homogeneous media 2−111848
NW India, elec. cond. struct. and geomag. induction in crust 2−73433
Indian magnetic observatories, underlying cond. anomalies 2−88743
Indian sub-continent, anal. of EM induction by long period geomag. vars. 2−111865
induced elec. field in layered media due to line current 2−68250
induced polarity method with mag. reception, mag. field vector constituents 2−112183
induced polarization method for ore prospecting *(German)* 2−106345
induction logging, high order geometrical factors *(Chinese)* 2−105902
induction logging of inclined anisotropic beds 2−57976
instrument for continuous current geoelec. sounding *(Italian)* 2−88726
inverse geomag. induction problem solution 2−88735
inverse resistivity problem, fast automatic solution 2−111863
isoparametric well logging, high freq. induction, vertical charcts. 2−100603
Ivory Coast ground electric field *(French)* 2−100245
Kamchatka (USSR), crust struct. from geoelectric obs. 2−78548
Karnataka, India, airborne EM signatures of different conductor groups, statistical anal. 2−83746
Kerch-Taman trough, USSR, EM sounding of crust struct. 2−117483
kimberlite pipe prospecting using superconductor magnetometry 2−106370
local EM induction, direct and inverse problems soln. methods 2−78871
lunar semi-monthly variations at Chinese coastal sites *(Chinese)* 2−68240
magnetic survey data interpretation, method of stable localisation of features of potential fields 2−117484
magnetotelluric and magneto-variational sounding of crust inhomogeneities 2−117483
magnetotelluric anomaly of elec. cond. inhomogeneity, data anal. method 2−78547

terrestrial electricity continued
magnetotelluric data presentation, use of Bostik transform 2−83745
magnetotelluric field above cross sections containing high resist. screens 2−57977
magnetotelluric impedance tensor, eigenstate formulation 2−111846
magnetotelluric impedance tensor, random and bias errors 2−83744
magnetotelluric models using improved rock elec. property data 2−88727
magnetotelluric observatory observations, at Nagycenk, Hungary 2−78536
magnetotelluric response of layer Earth with magnetised layer 2−100214
magnetotelluric response on vertically homogeneous Earth with cond. varying exponentially with depth 2−73430
magnetotelluric sounding curves, distortion in regions of fault tectonics 2−117197
magnetotelluric sounding method for deep fracture studies 2−117486
mantle, elec. cond. rel. to analytical extension of main geomag. field and secular vars. to core surface 2−111850
mantle, field produced by core dynamo 2−105926
mantle relevant minerals, elec. cond. meas. 2−78651
marine EM sounding, EM wave field for three-layer geoelectric section 2−111847
Messina Straits, Italy, crust struct. from seismic and elec. dipole soundings 2−100323
minerals, resistivity at high temp. and press. 2−106111
modelling, parabolic partial differential equations with unknown coefficients 2−83748
Mongolia, geoelectric inhomogeneities of crust 2−111854
N Morocco-S Spain region, tectonic implications of elec. cond. struct. *(French)* 2−111910
Mt. Hood volcano, Oregon, USA, elec. resist. struct. obs. 2−88848
Mt. Mihara on Oshima Volcano, resist. var. before Izu-Hanto-Toho-Oki earthquake (1980) *(Japanese)* 2−83759
n-layer media, surface magnetotelluric field *(Croatian)* 2−83747
ocean internal wave mag. induction spectra, model 2−58066
oceanic sediments, elec. cond. rel. to EM fields induced by synoptic scale oceanic movements 2−112133
Pannonian basin, crustal conducting layer and asthenosphere depth 2−106037
Peru, crustal conductivity anomaly at dip equator 2−88741
profiling of layered Earth, direct inversion algorithm 2−58144
prospecting for cavities, boundary integral approach 2−58137
Queen Charlotte Islands, EM induction, analogue model 2−78546
Raniganj Coalfield, India, coal seam anal., use of elec. resist. methods 2−68243
rectangular loop source of current over two layered Earth, mag. field 2−68242
regional strikes determination from magnetotelluric impedance tensor and tipper 2−100579
resistivity logging, fundamental problem integral transform soln. 2−100212
resistivity sounding, bipole-dipole field difference technique 2−100580
resistivity soundings with errors and their equivalent models 2−68244
Rhine Graben, magnetotelluric and geomag. sounding of struct. 2−68245
rocks, resistivity and dielectric constant at high temp. *(German)* 2−88869
rocks, resistivity at high temp. and press. 2−106111
S Scotland, crust and upper mantle conductivity structure 2−78537
S. Scotland, geoelectric structure, tectonic implications 2−78538
Scotland, regional induction 3-dimens. thin sheet model 2−100247
sea ice, complex dielec. const., 0.1 to 40 GHz 2−57002
seafloor seismic waves generating EM fields 2−100313
sedimentary rock, electrical props., effect of grain anisotropy 2−78643
short digital linear filters optimisation for increased accuracy; appl. to Earth resist. 2−105912
Siberian Platform asthenosphere struct. from magnetotelluric obs. 2−78550
Siberian platform structural survey, appl. of SENZ method, accuracy 2−100602
snow, geometry, porosity and permittivity at high freq. 2−87251
sounding method, inversion of resistivity data with intrinsic noise 2−63135
Southern Cape Conductive Belt (S.Africa), geology and tectonic significance 2−78634
surface polarisation fields, calc. for two-dimensional bodies of infinite conductivity 2−117194
Taoyuan-Chupei, NW Taiwan, vertical elec. sounding rel. to saline water invasion in coastal area 2−100402
telluric fields and their gradients over a step fault 2−105909
temporal variations of resistivity at a geoelectric observing site *(Chinese)* 2−57966
three dimensional buried conductivity anomaly, response of perturbation and induction arrows 2−73427
transient coupling between finite circuits on an anisotropic conducting half-space 2−105910
transient EM fields, asymptotic solns. 2−73425
transient EM method, calcs. using Gaver-Stehfest inverse Laplace transform method 2−73426
transient terrestrial elec. field due to geomagnetic variations 2−68246
Turam method for sounding of ore bodies 2−100218
Ukrainian Shield, magnetotelluric sounding of crust struct. *(Russian)* 2−57969
Vancouver Island region, elec. cond. struct. of subduction region 2−57975
VLF EM response of perfectly conducting half-plane in layered half-space 2−105907
VLF field wavetilt changes due to ionosphere HF wave propag. 2−73428
wave tilt of ground wave (geophys. prospecting method) 2−58155
wave tilt of TE and TM mode waves over homogeneous Earth model 2−100206
wireline logging of boreholes, present techniques 2−89018
Yamasaki fault, nearby borehole, resist. meas. using elec. well logging method *(Japanese)* 2−83739
Yamasaki Fault, resistivity along active Japanese fault 2−111859
E Yorkshire, England, magnetotelluric study of crust cond. 2−100213
zeolitic conglomerate, induced polarisation response 2−73542

terrestrial heat
see also volcanology
E Africa, thermal model of lithospheric thinning assoc. with continental rifting 2−106078
African-Sicilian Rise, geothermal conditions 2−73498
Archaean geothermal gradients in S.India crust 2−88833
asthenosphere heat flow effect on lithosphere thinning, appl. to Hawaiian Emperor chain evolution 2−68321
basaltic magma solidification during flow in dike 2−106048
Beijing area, China, Curie temp. isothermal surface rel. to earthquakes *(Chinese)* 2−100258
borehole temperature logging to very high precision 2−88834
Brazil, crust heat flow at Pocos de Caldas 2−88835
Campi Flegrei geothermal area, Italy, crust struct. study 2−73493
Cerro Prieto, Mexico, geothermal area, anal. of assoc. microearthquake activity using Automated Seismic Processor (ASP) 2−89013
Cerro Prieto geothermal field, Mexico, conf., Oct. 1979, Mexicali, Mexico 2−62456
classification of geothermal source types and location of geothermal stations *(Dutch)* 2−78606
coalification process and estimation of geothermal history 2−88839
Colorado Plateau, USA, heat flow obs. 2−88827
continental geotherms, plate thickness and heat production 2−78600
continental heat flow, age depend. 2−106013
continental magnetic, gravity and thermal fields correl. 2−105916
continuation technique for isotherm construction in geothermal area 2−58010
Costa Rica Rift, water circulation and heat transfer in oceanic crust 2−88866
Crimea, heat flow map *(Russian)* 2−106025
crust-mantle boundary, heat flow obs. restricting composition transition *(Russian)* 2−106028
Earth mantle heating by variable EM field, convection, effect of solar activity rel. to Earth diurnal rot. vars. 2−111834
Europe, crust temp. and mantle heat flow 2−88841
extraction from fluid-injected fault, resulting slip 2−58017
formation temperature estimation from well logs, comparison of two methods 2−100326
fractured geothermal reservoir, cold water injection and thermal front 2−58090
frost penetration into ground, heat balance calc. 2−88921
Galapagos Rift, S origin and hydrothermal sulphide geothermometry 2−106095
geological samples, apparatus for meas. thermal properties at pressures to 0.2 GPa and temp. to 750K 2−84620
geomagnetic field reversals rel. to heat flow 2−78604
geosyncline heat flow due to advection of heated asthenoliths *(Russian)* 2−94319
geothermal and hydrothermal systems, book 2−89495
geothermal field, management model for elec. power extraction 2−116778
geothermal springs in W Florida, contrib. to high concs. of ^{226}Ra and ^{222}Rn in coastal waters 2−78704
geyser process, theory 2−73599
Geysers steam reservoir, N California, induced seismicity nature 2−117214
ground temp. to 4 m depth at Nobeyama, Japan (1978-80) *(Japanese)* 2−68320
groundwater circulation effects in closed sedimentary basins 2−88838
Gulf of Aden, axial magnetic anomaly and Curie temp. isotherm 2−94276
Gulf of Thailand, sea floor heat flow obs. 2−89053
heat-conductivity-depth systems, digitizing methods and error anal. 2−73704
Hinton area of west-central Alberta, geothermal gradients meas. 2−94315
hot springs in India, search for correl. between Rn anomaly and local seismicity 2−111886
hydrothermal system, above resist. pattern determ. using controlled source audiomagnetotellurics 2−73698
Iceland, low-temp. geothermal energy 2−83452
Idaho, USA, magnetotelluric study of possible geothermal energy site 2−88738
Indian Peninsula heat flow distrib. 2−88837
Indian shield, Moho temp. 2−83788
Indian shield, Moho temp. calc. 2−73516
interior temperature distribution effect on magnetic field 2−73436
interior temperature profiles of terrestrial planets, theory 2−106577
Italian peninsula, heat flow rel. to delineation of North Central Italian upper mantle anomaly 2−62924
Kashmir Basin, thermal and tectonic evolution 2−111917
Kilauea Iki Lava Lake melt zone, seismic vel. and thermal convective expts. 2−73520
Krafla geothermal area, Iceland, groundwater flow obs. 2−73598
Kuril Islands, vars. in temp. and chemistry of thermal waters as precursor of Shikotan earthquake, (1978 December 7) 2−73480
Lake Baikal region, heat flux distrib. and nature of local anomalies 2−73500
Loihi, Hawaii, active submarine volcano, hydrothermal deposits, geology and chemistry 2−100344
magma ascent velocity and modeling 2−106047
upper mantle and crust thermal diffusivity 2−106107
mantle convection currents, models 2−117279
mantle heat convection, effect on lithosphere 2−78616
mantle temp. determination by anal. of diamonds with garnet inclusions 2−62929
mid-ocean ridge hydrothermal circulation in fault zones 2−117288
minerals, fission track temp. age theory 2−73508
Mount Meager geothermal area, B.C., Canada, hydrogeology and geothermometry 2−111896
Mt. Hood region, Oregon, USA, geothermal energy potential 2−88846
Mt. Hood volcano, Oregon, USA, heat flow obs. 2−88847
Mt. St. Helens, heat flow, geological implications 2−100328
Mud Volcano, Yellowstone, USA, hydrothermal changes rel. to seismicity 2−88845
New Hampshire, USA, radioactivity and heat flow distrib. 2−106012
Nova Scotia continental margin, subsidence and temp. history rel. to rifted margins models 2−106071
ocean bottom evolution, appl of heat cond. eqn. with moving heat source 2−73537
oceanic crust thermal evolution *(Dutch)* 2−78607
oceanic plates thermal structure, comparison of discrete and continuous intrusion models 2−106023
oceanic thermal isostasy, moving crust response to distrib. heat source 2−58015
NW Pacific, geothermal heat flow distrib. 2−88840
E Pacific Rise, heat flux effect on mid-depth waters 2−100329
Pannonian Basin crustal thinning and geothermics *(Hungarian)* 2−106032
phase boundary motion due to surface press. and temp. excitations 2−100339

terrestrial heat continued
plate tectonic subduction zone, thermal modeling 2−73526
Poland, fault effects on geothermal field distrib. 2−83773
primitive Earth thermal evolution 2−88842
Red Sea, geothermal heat flow anomalies at 18°N 2−78608
rifted continental margins models, subsidence and temp. histories rel. to Nova Scotian margin 2−106071
W Siberia, geothermal gradients rel. to natural gas hydrates in northern region 2−58041
soil heat fluxes due to solar illumination of ground 2−112062
soil heating due to rise in atmos. surface layer temp. 2−73511
soil moisture and heat transport theory 2−117374
W South America, crustal heat flow obs. 2−88836
sphene sample from pegmatite, fission track temp. ages meas. 2−73721
The Geysers, California, geothermal area, anal. of assoc. microearthquake activity using Automated Seismic Processor (ASP) 2−89013
The Geysers-Clear Lake geothermal field, California, seismic wave vel. investigations 2−88778
thermal convection above crustal large shallow magma bodies 2−78620
thermal history estimation of geological objects 2−83786
thermal springs of Bath, England, geochemistry, hydrogeology and origin 2−100407
thermograph with thermistors for geodynamic observations *(Rumanian)* 2−117504
Tibet Plateau, hydrothermal activity and geothermal regime *(Chinese)* 2−68305
Tudor Gabbro, Ontario, cooling time from ^{40}Ar-^{39}Ar incremental heating studies 2−106022
Ukrainian Shield, heat flow and radiogenic heat generation *(Russian)* 2−58011
United States, fault zone models and heat flow rel. to depth distrib. of earthquakes in continental crust 2−88751
vapour-dominated geothermal reservoir, vertical equilib. 2−83859

terrestrial magnetic field *see geomagnetism*

terrestrial magnetism *see geomagnetism*

test equipment
see also automatic test equipment
BWR small-break loss-of-coolant accidents, two simulation tests 2−102244
current-conducting sensor for recording failure of structures 2−99636
dynamometer, mobile hydraulic reference installation 2−53753
EEG recorder programme tester 2−117104
fibres testing by time domain reflectometry test set for long wavelength monomode fibres 2−107391
flaw detection in mine hoist transportation systems 2−78064
flowmeter testing using mobile laboratories 2−55683
gyrotheodolites test rig 2−95425
Hall teslameter testing installation 2−53796
HTR fuel irrad. facility, programmable logic controller appl. 2−69761
HTR fuel testing, irrad. device for abnormal thermal conditions 2−69706
level meter checking universal stationary reference installation 2−53733
mechanical-radiation effects test capsule for simulating fusion material environments 2−88311
microwave and MM-wave transmission/reflection test sets, delay-line based techniques 2−107340
optical fibres, OF 150 opt. fibre time-domain reflectometer, loss and distance meas. appl. 2−79650
semiconductor material props. meas., tester prototype design *(Polish)* 2−99608
thermocouples checking in range 300-1200°C, metrological certification of test equipment 2−95370

test facilities
see also aerospace test facilities; anechoic chambers; reverberation chambers
Advanced Turbine Test Facility, temp. and press. meas. techniques 2−60691
Argonne Pulsed Cable Test Facility for the development of superconducting ohmic heating coils 2−85360
Cardiff Solar Energy Unit activities in solar collector thermal performance and design 2−73148
Cluster Test Facility and Test Module Coil development 2−85364
Emsland Transrapid test facility (TVE) for high speed maglev system, goal, requirements and design *(German)* 2−70474
Emsland Transrapid test facility data processing and safety system *(German)* 2−70478
Emsland Transrapid test facility guide for maglev systems testing *(German)* 2−70475
FFTF reactor characterization program 2−101977
fusion material irradiation facilities, neutron source characterisation 2−85228
fusion material irradiation test facility, neutron environment calc. for d+Li facilities 2−85229
INTOR as an engineering test devices 2−80223
Ispra, program for 1980-83 2−54692
Japanese LCT and domestic test facility, status 2−85361
Large Coil Test Facility pulse coil support and transport system, design features 2−69907
Lawrence Berkeley Laboratory neutral beam engineering test facility power supply system 2−69950
magnetometers testing, stability of frozen magnetic field in a superconducting shield 2−95413
materials testing reactors, France, role and use *(French)* 2−64571
TFTR neutral beam test facility, discharge ion sources and power supply 2−69951
TOSKA superconducting test facility, instrumentation layout 2−69914

testers *see test equipment*

testing
see also automatic testing; electronic equipment testing; environmental testing; impulse testing; inspection; integrated circuit testing; life testing; machine testing; materials testing; mechanical testing; nondestructive testing; optical testing; switchgear testing
coal water slurries, combustion characts., test programme 2−99753
folded-tube Al condenser for OTEC heat exchange, test results 2−88472
heat pumps, electric air source, in single family homes, hourly power demand, Monte Carlo model 2−62493
heat pumps, industrial, high temp., gas engine driven, design, construction, and testing 2−116844
manometer, loaded-piston, graphical method of determ. referred area of piston 2−79563
map accuracy test reporting, user's view 2−111838

testing continued
MM-wave anechoic chamber, absorber testing method for the oblique incidence 2−91162
piezoelectric hydrophone, temp. stability and sensitivity meas. 2−81188
punch press, pure tone vibration shaker tests 2−86167
quality criteria in checking means of measurement 2−63958
solar receiver for solar gas-turbine plant, test results 2−73139
solar water heaters, comparative test 2−73142
solar water heaters using standard steel panels, in Dagestan ASSR test results 2−73143
TEXTOR toroidal field power supply system commissioning tests 2−69942
therapy accelerators, beam alignment tests 2−78418
visual acuity testing with aid of chart, for radiographs interpretation 2−73226

testing apparatus *see test equipment*

testing equipment *see test equipment*

testing machines *see test equipment*

tetramethylammonium manganese chlorides *see organic compounds*

tetraneutrons *see neutrons*

tetrodes
inverse reflex tetrode for ion beam focusing, expt. study 2−89855

textile fibres *see fibres*

textile industry
colour-measuring instrument assessment for textile acceptability judgment 2−58877
yarn guide, diamond composite, feasibility 2−72893

texture
see also recrystallisation texture; surface texture
N-(alkoxycarbonyl-n-pentyl)-3β-cholesteryl urethanes, synthesis, polymorphic and mesomorphic props. 2−81957
azomethyne polymeric films, thermotropic liq. cryst. behaviour 2−60877
biaxial nematics hydrodynamics with arbitrary nonsingular textures 2−81671
brass, equibiaxial stretching textures 2−88103
CBOOA, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
CBOOA-80CB mixtures, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
ceramics, fibrous, low-density, mech. props., micromech. model 2−77909
cholesteric liquid crystals, planar texture, field-induced instability calcs. 2−55835
cholesterics, thermomechanical coupling expt. 2−60883
disodium cromoglycate, in mag. fields, lyotropic cholesteric and nematic phases 2−76284
functions, three-dimens., method for determ. 2−60910
gel to glass transform. by sintering, densification and crystn. phenomena 2−77794
p-n-hexyloxybenzylidene-p′-toluidine, phase relation, DTA and microscopic studies 2−91770
inhomogeneous, meas. by pole figures *(German)* 2−111447
liquid crystal, electrochemically induced coloration 2−71334
liquid crystal film, elec. field induced texture and phase transformation, light absorpt. study 2−55833
liquid crystal film on solid substrate, alignment and texture 2−91765
low-strain development of textures and significance 2−67380
MBBA, nematic liq. cryst., flexoelectrically controlled twist of texture 2−81662
metal, FCC, graphic kinematics using computer *(French)* 2−78055
metal film, vacuum condensed, texture form., ion beam induced 2−115601
metals, hexagonal symm., inverse polar figures calc. method 2−93694
metals, sheet, FCC and BCC, planar anisotropy rel. to texture *(Korean)* 2−116505
metals and alloys, textured, HCP struct., elastic props. anisotropy *(Russian)* 2−77858
4-n-octyloxy-4′-cyanobiphenyl, liq. cryst., p-T phase behaviour, optical microscopy at high press. 2−60881
orientation space resolution, rel. to pole-figure resolution 2−109628
polyethyleneterephthalate fibres, undrawn, crystn., effect of mech. stress 2−65874
polystyrene-polyethylene oxide (polyisoprene) block copolymer-solvent systems, liq. cryst. textures 2−115130
porous medium, microgeometric modelling, quantitative methods 2−94364
steatite ceramics, extruded, texture effects, glass phase influence 2−111117
steel, alloy, boriding process, influence of alloying element additions 2−105378
steel, barothermomechanical treatment effect on struct. and temper embrittlement susceptibility 2−57386
steel, electric grade, isotropic with planar cubic texture, prod. by two-stage treatment, mag. charact. 2−67379
steel, killed, equibiaxial stretching textures 2−88103
steel, lower bainite struct., cementite precip., crystal geometry obs. *(Russian)* 2−93515
steel, martensitic-ageing NVS-2, deform. and texture form. during cold rolling *(Russian)* 2−62139
steel, Mn-Nb-V, low-pearlite, struct. and mech. props. after controlled rolling 2−57385
steel, Si, electrical, texture form., preliminary annealing effect 2−111198
steel, Si-P, dual-phase, development of high strength sheets 2−105251
steel, stainless, X-ray texture analysis, tube specimens prep. method 2−93717
steel, type 08KP, structure and texture formation mechanism under hot plastic deformation *(Russian)* 2−67363
steels, influence of duplex microstruct. on fatigue crack growth in near-threshold region 2−111294
steels, textured, X-ray method for determ. of retained austenite 2−93730
X-ray diffraction, energy-dispersive, defocusing effects in reflection technique 2−109634
X-ray texture analysis, tube specimens prep. method 2−93717
Zircaloy, stress corrosion crack propag. in I_2, effects of texture and microstruct. 2−67638
Zircaloy-2, cold rolled, stress corrosion failure in methanol-HCl media, texture dependence 2−99579
Al, conventionally and shock-wave-deformed, correlation between texture and substruct. 2−99445
Al, equibiaxial stretching textures 2−88103

texture continued
Al rod fibre texture changes during drawing of initial {112}⟨111⟩ and Goss orientations 2−57369
Al, rolled, penetration of shear texture 2−77841
Al, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
Al-Bi alloys, directionally solidified, occurrence of aligned microstructs. 2−111164
Al-Cr(Ni)-Al layer system anal. by Rutherford backscatt. spectrometry 2−105177
Al-Zn-Mg, slatiness of fracture after rolling 2−111303
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
$Al_2Mg(OH)_2(Si_4O_{10})(Ca,Na)_2.4H_2O$, bentonite, texture changes during vibr. grinding and after ageing *(Czech)* 2−88101
Au, epitaxially evap. film, texture anal. and pole figure determ. using TEM *(German)* 2−111448
Au-Mn, structure, high resolution electron microscope and electron diffr. study of Au_3Mn phase 2−86627
Bi, Bridgman and zone-levelling cryst. growth, preferred orientation, effect of growth mode 2−111055
C fibre, microtexture and structure, TEM and electron diffr. obs. *(French)* 2−78058
Cd-Ag, warm deform. and texture strengthening 2−111199
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
CoPt ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
Cu, rolled, penetration of shear texture 2−77841
Cu, texture induced acoustic anisotropy due to compressive deformations, strain rate and temp. effect *(Japanese)* 2−77839
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Fe film, evaporated at oblique incidence, columnar struct. 2−98493
Fe-Si, elec. steel grain-orientated sheets, commercial production, review 2−83243
Fe-Si (3 wt.%), grain orientation and core loss relationships in high permeability materials 2−83245
Fe-Si (3 wt.%), surface-active Sb influence on recrystn. and texture *(Czech)* 2−67374
Fe-Si oriented alloys with residual S, tensile stress effect on mag. props. 2−72325
Fe-Si sheets, mag. domain struct. and stray field behaviour, grain orientation effects 2−82631
GaAs layer growth on insulating substrates, ion beam deposition *(Japanese)* 2−116384
Ge film, laser-crystallised, crystallite morphology and defect struct; TEM and SEM study 2−66402
^3He, superfluid, B-phase, texture in large cylindrical geometry near T_c, NMR study 2−71756
^3He, superfluid A-phase, boundary effects on helical textures 2−110076
$Hg_{1-x}Cd_xTe$ film growth by laser included evaporation and deposition 2−87989
Mo, cold rolled, strain texture formation, dependence on orientations distrib. function *(Russian)* 2−99441
Mo, grain misorientation statistics meas. after recrystn. annealing *(Russian)* 2−93526
Mo-HfN (0.36 vol.%), texture changes during recrystn. annealing *(Russian)* 2−93528
Ni, electrodeposition, multifaceted helicoidal struct. around [210] axis *(French)* 2−83051
Ni-based oxide dispersion strengthened alloys, crystallographic texture 2−99444
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Si film, large grain polycryst., crystallographic orientation, grid-of-etch-pits technique 2−115591
Si film, polycryst., low temp. mol. beam deposition 2−57295
Si:P, polycrystalline, low press. CVD with in situ P doping 2−93438
SiO_2:B, glass, solid state track autoradiography study of B distrib. 2−92016
Ti alloys, texture and plasticity, under hydrostatic press., deform. conditions influence *(Russian)* 2−116501
Ti-Al-V (6, 4 wt.%), texture hardening in dentate rolling *(Japanese)* 2−77838
Ti-Al-Zr-V-Mo-B sheet, elastic props. anisotropy and texture hardening *(Russian)* 2−116502
Ti-Al(-V), tensile props., influence of test temp. and microstruct. 2−111236
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2−86194
ZnO film, preferred orientation controlled by RF sputtering 2−61314
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2−57286
Zr fibre texture by time-of-flight neutron diffr. 2−57370
Zr, radiation induced dimens. changes 2−103809
ZrO_2 on Zr (0001) crystallographic relationship, transmission electron diffr. study 2−109727

texture, surface *see surface texture*

thallium
see also nuclei with .....
atom, noble gas collisional broadening, Raman echo meas. 2−85574
atom, parity nonconservation, relativistic many-body theory 2−85566
atomic beam interaction with Si(111) and (100), surface ionization and desorpt. kinetics 2−115566
epitaxial growth on Cu(100), LEED, AES, UPS and EELS studies 2−56398
glass planar optical waveguides, fabrication by Tl^+ ion exchange diffusion 2−109042
isotope refinement and chem. recovery by anodic oxidation technique 2−108020
laser, anti-Stokes Raman, efficiency studies 2−80990
laser, atomic, two photon dissociation of Tll-Hg mixture, 535 nm stimulated emission 2−90875
laser, photodissociation, radiation trapping and collisional de-excitation effects on efficiency 2−96938
phonon dispersion calc. 2−61088
polymorphic transition kinetics, point defect relax. processes, elec. resist. study *(Russian)* 2−92174
quadrupole interaction of ^{69}Ge, temp. depend., TDPAD meas. 2−82752
vapour M1 transition absorpt. line, inert-gas broadening 2−113938

thallium continued
As_2Se_3:Tl, chalcogenide glasses, carrier mobility, transient photocurrent spectra study 2−72024
CsI:Tl, photoconductivity, thermoluminescence and TSC 2−82404
He-Tl ion lasers with transverse RF discharge excitation 2−86002
InSb:Tl, cryst. growth and p-n junction form., zero cavity growth 2−82452
KBr:Tl, activator electroluminesc., recomb. and intracentre processes, strong electric field effect 2−72557
KBr:Tl, visible emission intensity study 2−87846
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KBr:Tl^+-type phosphors, quadratic Jahn-Teller effect in line shapes of A-emission and A-absorpt. bands 2−87825
KCl:Th, dielec., sp. ht. and thermal cond. 2−86960
KCl:Tl, visible emission intensity study 2−87846
KH_2PO_4:Tl^+, dynamical charge compensation, ESR, rel. to ferroelec. transition 2−56929
KI:Tl, activator luminescence, complex excitation spectra shape *(Russian)* 2−104936
KI:Tl, decay and polarisation of luminesc. pulses in 336 nm emission band 2−77560
KI:Tl, photoluminescence, exciton-Tl^+ and -In^+ interactions *(Russian)* 2−104938
KI:Tl^+, A_X and A_T emissions double struct., photoluminescence study 2−77577
KI:Tl^+, photoluminescence, quantum yield, ionisation of In and Tl *(Russian)* 2−104937
KI:Tl^+ crystal, optical absorption induced by intense laser radiation 2−87829
K_2O-B_2O_3:Tl^+ glass, luminesc. study 2−67105
NaBr:Tl, phosphor, complex ion centres 2−61977
NaBr:Tl phosphors, pretreated, dimer centres 2−61937
NaCl:Tl, luminescence obs. at high press. 2−72533
NaCl:Tl(T) prep., beta-radiation thermolum. dosimetry 2−102272
NaI(Tl) scintillation detector, high temp. performance characts. 2−80388
Ne-Tl ion lasers with transverse RF discharge excitation 2−86002
PbTe:Ag, Tl epitaxial film, elec. cond. and Hall effect 2−115922
PbTe:Tl, density of states in valence band, sp. ht. and Hall coeff. meas., supercond. 2−82515
PbTe:Tl, doping effect on superconductivity *(Russian)* 2−110525
PbTe:Tl, impurity states and supercond. 2−104308
PbTe:Tl, In single cryst. p-n junction, tunnel cond. characts. 2−77174
p-PbTe:Tl epitaxial films, Hall mobility, doping effects 2−110509
Si:Fe, Tl, photoluminescence lines, Fe-Tl complexes 2−104948
Tl I resonance line laser operation 2−80942
Tl^+, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
Tl^{2+}, matrix isolated, HF, interaction, g tensors, EPR study 2−70298
Tl-Hg broadband excimer emission, two photon dissociation of Tll-Hg mixture 2−90875
Tl+Co_2, Tl line broadening and shift accompanying Tll photodissoc. 2−96503
Tl+O, reactions in Ar matrix, IR spectra of prods., vibr. 2−96564
Tl^++C-foil, relative level excitation study 2−75398
Tll, electronically excited, photodissoc., UV absorpt. spectrum 2−90471
^{201}Tl myocardial scintigrams, computer processing 2−73355
^{204}Tl, diffusion in fused Tl_2Se_3 2−81996
ZnSe:Tl, p-type layer, elec. cond., photocurrent decay 2−115926

thallium alloys
see also thallium compounds
rare earth-thallium, liq., thermodynamic characts., intermetallides form., liquidus behaviour 2−67293
Cs-Tl molten alloys, reflectances meas. 0.65-4.5 eV 2−67076
Hg-Tl, liq., anomalous electronic props., higher order correl. effects 2−104340
Hg-Tl, liq. alloys, molar vol. and thermal expansion coeff. meas. 2−109879
In-Tl, FCC to FCT transition, Landau theory appl. 2−98246
In-Tl, shape memory behaviour and FCC to FCT transform. 2−93502
Nb-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Sn-Tl-Hg, liq. alloys, viscosity and elec. resist. 2−71694
Ta-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Tl-Te liq. alloy, cpd. forming, configurational entropy and regular associated model 2−97890

thallium compounds
see also thallium alloys
chalcogenides, mechanochemical synthesis, explosions *(German)* 2−62053
electronic struct., photoelectron spectroscopy studies 2−62051
halides, cohesive energy, compressible ion theory 2−71387
intercalated with graphite, $KTl_{1.5}C_x$ (x=4, 8), supercond. transition temp. and crit. field 2−92844
(Ag, Tl, K)NO_3-H_2O electrolyte solns., water activities, vapour press. meas. 2−105498
$AgTlSe_2$ liq. semicond., elec. props. 2−82384
$AgTlSe_2$, semicond., solid and liq. states, dielec. relax. and AC cond. 2−110754
$AgTlTe_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
$(As_2S_3)_{1-x}(Tl_2Se)_x$, chalcogenide glass film, photoconductivity 2−110399
B_2O_3-K_2O-Tl_2O (14, 1 mol.%) glass, Tl^+ centre interaction with laser radiation *(Russian)* 2−105009
$CdTl_2Se_4$, sp. ht. and thermodynamic props. 2−81973
$CdTl_2Se_4$-$CdTl_2Te_4$, phase equilibria 2−71616
$CdTl_2Te_4$:Au, Hall coeff., thermo-EMF, cond. type, temp. depend., doping effects 2−56615
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
GeO_2-$BiO_{1.5}$-$TlO_{0.5}$, formation compositions, two-phase glass separation 2−91810
InSb-TlSb eutectic alloy, galvanomagnetic props. 2−104399
Tb_1InF_6, struct. modifications, IR and Raman investig. 2−87771
Te-Tl melt, short range order struct. 2−103590
$Te(OH)_6$.Tl_2SO_4, cryst. struct., X-ray study, Patterson method 2−81734
Tl halide IR fibre crystal materials 2−97130
Tl halides, rot. energy, isotopic field shift 2−85748
Tl halides, valence band struct., XPS study 2−71865
Tl-$AgTlS_2$, molten system, electronic and mag. props. 2−98647
Tl-Se, melt, elec. cond. and thermo-EMF, temp. depend. 2−87307
Tl-Se-Te, vitrification, physicochemical props. 2−76313
Tl_3AsS_4 crystals, vibr. spectra, Davydov double resonance 2−61897
Tl_3AsSe_3, seeded growth 2−62061

thallium compounds continued
Tl_3AsSe_3, thermal cond. and specific heat 2−115476
$Tl_4As_2Te_3$-Te, intersecting section in Tl-As-Te system 2−111153
$TlBiTe_2$ single crysts., defects 2−103766
$TlBiTe_2$-2PbTe cross section, solid soln. form., physicochem. and electrophys. props. 2−57337
Tl_9BiTe_6, thermoelec. props. and cryst. struct. 2−110374
$TlCdF_3$, fluoperovskites, 3rd and 4th order elastic consts. 2−98181
$TlCu_3Ta_7O_{21}$, intergrowth of hexagonal and perovskite-like structs. 2−65962
TlF, mol. force consts., bond lengths, pot. energy functions, electronegativity anal. 2−75463
TlF-SnF binary system, cryst. struct., ionic cond. and thermal behaviour *(French)* 2−109769
$TlGa_xIn_{1-x}Se_2S_{2(1-x)}$ solid solns., IR light scatt. study 2−110856
$TlGaS_2(Se_2)$, layer semicond., hopping cond., freq. compensation effect 2−104381
$TlGaS_2(Se_2)$ layered semicond., polar optical phonon freq., angular behaviour 2−109928
$TlGaSe_2$, negative photocond. obs. 2−56642
$TlGaSe_2$, order-disorder phase transition in surface layer 2−92190
Tl_2GeS_3, heat of melting, phase equilibra 2−66171
Tl_4GeS_4, heat of melting, phase equilibria 2−66171
TlH, mol. struct., relativistic ab initio CI calcs. 2−85562
TlI-Hg mixture, two photon dissociation, atomic Tl laser and Tl-Hg excimer formation 2−90875
$TlI+CO_2$, CO_2 press. effect on Tl line following TlI photodissoc. 2−96503
$TlInF_4$, struct. modifications, IR and Raman investig. 2−87771
$TlInS_2$ layered semicond., polar optical phonon freq., angular behaviour 2−109928
$TlInS_2(Se_2)$, layer semicond., hopping cond., freq. compensation effect 2−104381
$TlInSe_2$, Raman spectrum, first order, hydrostatic press. effect 2−87794
$TlInTe_2$-$TlEuTe_2$, reactions, microhardness and elec. cond. 2−111167
$Tl_2MnAs_2S_5$, synthetic, cryst. struct. determ. 2−65973
$TlMnCl_3$, struct. types and phase transformations, X-ray diffr. study 2−103710
$Tl_2Mo_6Se_6$, 1-D supercond., electronic struct., SCF scatt.-wave $X\alpha$ calc. 2−92461
TlN, thermodynamic props., at. no. depend., synthesis method selection 2−66259
$TlNO_3$, electron diffr. patterns, struct. 2−75434
$TlPbI_3$, Tl_2PbI_5, Tl_3PbBr_5, crystal growth, elec. and optical props. 2−87967
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808
TlS, Raman spectrum, first order, hydrostatic press. effect 2−87794
Tl_2S, crytallisation from KSCN melts, solubilities 2−111043
Tl_2S-GeS_2 system, phase equilibria, DTA, X-ray diffr. and hardness study 2−66171
Tl_2S-SnS systems, ^{119}Sn Mossbauer spectra, chemical isomer shifts *(French)* 2−61799
Tl_3SbS_4, synthetic, crystal structure 2−60963
$TlSbSe_2$ layer cryst., electrophys. parameters, growth conditions depend. 2−104375
$TlSbSe_2$-PbSe, phase diagram and physicochemical and electrophysical props. determ. 2−88067
TlSe, inelastic neutron scattering, selection rules *(Russian)* 2−92119
TlSe, single crystal, photoelectrical props., influence of laser beam irradiation *(Russian)* 2−92680
TlSe, thermal expansion meas. and sp. ht. and Gruneisen coeff. calc. 2−110019
TlSe-DySe, phase diagram, reaction in the system 2−88068
Tl_2Se_3, fused, diffusion of impurities ^{204}Tl, ^{110}Ag and ^{113}Sn 2−81996
$TlSnI_3$,$TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
$Tl_2X_2O_6$ (X=Ta, Nb, Sb), vibr., force fields, IR and Raman study, normal coordinate anal. *(French)* 2−110869
Tl_2ZnI_4, ionic cond., Raman spectra and phase diagram, press. depend. 2−115450
TmS, bulk and surface valence states 2−104247

thawing *see melting*

The Galaxy
5 kpc ring, gas density rel. to solar neighbourhood from γ-ray emission 2−89411
γ-ray emission from galactic plane, obs. 2−89151
abundance gradient, implications of Pal 14 globular cluster colour magnitude diagram 2−89315
age estimation from Os(n,γ) cross section and nucleosynthesis model 2−54389
angular momentum origin through gravitational interactions, effect of Galaxy dimensions 2−89384
anticentre, star density and luminosity functions near open cluster NGC 2360 2−58468
anticentre region, gamma-ray obs. by MPI balloon-borne Compton telescope 2−89147
anticentre region, obs. of high rel. H I stream (Weaver jet) and colliding H I shells 2−106856
Centaurus region, structure out to 5 kpc 2−63375
central 2 kpc, CO behaviour 2−63667
central parsec, luminosity and dust density, Sgr A far IR obs. 2−101034
central region, gas distrib. and dynamics 2−63669
central region, post-explosion shock propag. 2−84318
central region, structure from IR astronomy 2−63668
central region near IR sources, CCD obs. 2−63592
centre, 0.511 MeV variable γ-ray source obs. 2−89151
centre, conference at Pasadena, USA (January 1982) 2−89429
centre, cosmic ray origin and accel. during periods of activity model 2−106438
centre, gas dynamics and density 2−112576
centre black hole, mass upper limit 2−112579
centre radial motions and spiral struct. origin 2−112580
centre region, 511 keV annihilation line radiation obs.,2−106961
centre region, abundances and chem. evolution 2−112575
centre region, catalogue of new variable stars in direction of Sagittarius bright cloud B 2−112348
centre region, confirmation of positron annihilation line time variability 2−106962
centre region, discovery of high-velocity H II regions delineating bar struct. 2−63640

The Galaxy continued
centre region, ionised gas clouds rel. to apparent variability of 'point' radio source *(Russian)* 2−101074
centre region, JHK photometry of faint red stars 2−106707
centre region, search for 511 keV line variability 2−58463
centre region, Westerbork obs. of H I absorption in direction of Sagittarius A 2−89336
centre region formaldehyde/formaldehyde-^{13}C ratio in mol. clouds, SHF obs. 2−63591
centre region gas distribution and velocity field from SHF, UHF, VHF, obs. 2−112578
centre region thermal radioemission from H II and star forming regions 2−63697
chemical abundance gradients in planetary nebulae and H II regions in Galaxy 2−63666
chemical and dynamic evolution, connections 2−112596
chemical evolution, generalised model for two-component Galaxy allowing for gas inflow 2−106897
chemical gradient and vertical force law 2−112592
cloud medium motion behind large scale shocks 2−58417
compact radio source at galactic centre, UHF/SHF variability 2−63614
conference on chemical and dynamical evolution, in Torun, Poland (September 1977) 2−107016
conference on large scale characts. College Park, USA (June 1978) 2−58542
cosmic ray halo size and diffusion coeff., effect of galactic fountain MHD instabilities 2−63587
cosmic ray propagation halo from γ-ray evidence 2−63676
density wave, possible pattern speeds 2−112591
disc, chemical evolution and age-metallicity relation, model 2−68888
disc, gas and young objects vertical/radial distrib. and Schmidt's star form. law 2−112582
disc, three-dimensional mass and light distribs. rel. to photometry of edge-on spiral galaxies 2−89364
disc 2.4 μm excess and metallicity, effects, synthetic stellar population modelling 2−89362
disc bending, effect of Magellanic Stream and Clouds 2−63681
disc chemical composition variations from stellar/interstellar comp. 2−112581
disc composition gradient from DDO photometry 2−112584
disc luminosity function, appl. of predicted star counts in selected fields and photometric bands 2−63539
disc magnetic field generation, turbulence effects 2−106927
disc magnetic fields generated by interstellar gas motions 2−74049
disc surface brightness and colours 2−94843
disk, interstellar Ti towards high latitude stars from Ti II obs. 2−84301
disk, unresolved X-ray emission, spectrum and disk parameters 2−68892
disk age from Oosterhoff period shifts in field RR Lyrae stars 2−58412
disk-halo interaction 2−112588
Drake equation for exact technological civilisations in Galaxy, re-examination 2−68638
Drifts I and II, solar motion of local standard of rest 2−112511
dynamical history of the stars in relation with age, kinematics, abundances, birthrate 2−112510
extended gaseous envelope 2−117771
far-red objects on CDD images of galactic centre 2−117759
free electron distribution in inner Galaxy from pulsar dispersion measures 2−89358
fundamental standard for cosmic distance scale 2−117768
gamma ray astronomy, review 2−106964
gamma ray emission, COS-B meas. rel. to cosmic rays and local interstellar medium 2−74051
gamma ray intrinsic burst luminosity distrib., implications 2−58462
gamma-ray bursts, intrinsic burst luminosity distrib. 2−101033
gamma-ray emission from Milky Way, review *(German)* 2−94868
gamma-ray lines from galactic centre and transients 2−117765
giant molecular cloud complexes 2−89344
giant molecular clouds distrib. 2−63595
giant molecular clouds distrib. in Galaxy 2−63665
halo and disc mass ratio determ. method 2−73860
halo interaction with globular cluster wind, X-ray emission, obs. 2−58502
halo metal abundance gradient, determ. methods 2−63269
halo nature from interstellar lines towards Seyfert galaxies, UV obs. 2−79200
halo OB stars, atmospheric parameters and chemical comps. 2−106706
haloes, neutrino EM decay as photoionisation source 2−74066
heavy elements content, contrib. of pregalactic Population III stars 2−106818
interaction with Magellanic Clouds, rel. to dynamics of Magellanic Stream 2−68904
interstellar formaldehyde, isotope ratios from 6 cm obs. in galactic plane and galactic centre sources 2−68850
interstellar medium pre-shock densities from SNR and emission nebulae, VBLUW photometry 2−101015
interstellar OH, widespread galactic emission at 1720 MHz as new tracer of spiral arms 2−68865
interstellar reddening maps, results from H I column densities and galaxy counts 2−106838
interstellar reddening towards galactic poles, determ. using Geneva photometric boxes 2−58327
far-IR sources in galactic plane, high resolution survey and nature of sources 2−58413
IRS 1, 7, 12, 16, 19, galactic centre sources, 2 μm spectra obs. 2−101091
IRS 7, galactic centre IR source, spectrum over 2.9 to 3.9 μm waveband rel. to bacterial grains 2−84347
kinematics from radio nebulae in galactic plane, distrib. and kinematic anal. 2−63597
LMC direction, stellar radial velocities from objective-prism plates *(French)* 2−100763
local spiral arm, struct. of inner edge in direction to (NGC 6823) *(Russian)* 2−94831
Local System, region of enhanced star density near Sun, evidence 2−94845
Luminous Stars in Northern Milky Way catalogues, list of named variable stars 2−63277
Magellanic Plane Group surrounding Milky Way, struct. and reson. theory 2−117767
Magellanic Stream-Milky Way interaction, obs. of infalling clouds with very high vels. 2−74083
magnetic field correl. with dynamics and evolution 2−112574

The Galaxy continued
magnetic fields, contrib. of parity nonconservation to cosmic magnetic fields origin 2−63227
magnetic fields, plane parallel, in thin gaseous disc in random motion, Fokker-Planck eqn. 2−68905
Maryland-Green Bank galactic 21-cm line survey, atlas 2−106555
mass modelling 2−63675
massive halo detection, appl. of predicted star counts in selected fields and photometric bands 2−63539
matter distrib. model *(Chinese)* 2−84327
metal abundance gradients, rel. to stellar mass loss rates in open cluster (IC 1805) 2−68734
metal enrichment rel. to extreme halo stars 2−112585
metallicity distribs., effect of stellar crossing times in solar neighbourhood 2−112513
metallicity gradient, H_2 mass and cosmic ray distrib. 2−101062
metallicity gradient from late type supergiants chem. comp. anal. 2−84224
Milky Way field HD 95540, three-colour photometry 2−58328
molecular cloud orbits and perturbation due to density wave spiral pot., star form. 2−63599
molecular gas, gap between nuclear and molecular cloud annulus 2−101037
morphological type from spheroidal and disc components photometric props. 2−63663
motion within Local Group 2−63687
NGC 3603, giant galactic H II region, distance 2−68864
non-thermal radiation distrib. and origin 2−63659
North Polar spur, X-ray line emission from C and O atoms 2−63549
nucleus, black hole existence possibility, mass upper limit 2−63670
nucleus, comparison with other galaxies 2−63671
nucleus, energy production, radio emission and IR sources 2−106928
nucleus, mass density, radio emission, IR sources and motions 2−117766
O-A0 stars near galactic equator, uvbyβ photometry 2−106700
open clusters and galactic structure, results from colour magnitude diagrams 2−106557
open clusters in Galaxy, anal. of catalogue data rel. to galactic struct. 2−89318
Pal 13, halo globular cluster, metal abundance from RR Lyrae stars spectra 2−106822
Palomar 14, outer halo globular cluster, galactic orbit rel. to structural characts. 2−106828
Perseus arm, interstellar extinction, UV obs. 2−63580
planetary nebulae distribution and galactic scale height 2−117728
polarisation rotation towards 3C 31, 66B and 129, obs. 2−101047
positron annihilation radiation from galactic centre 2−117764
radial velocity field outside galactic plane 2−106821
radial vels. of 617 stars in four galactic fields *(French)* 2−106681
radio emission below 16.5 MHz and galactic emission measure 2−74128
rotation, oort const. redetermination from FK4 reference frame rot. 2−58229
rotation curve 2−63664
rotational standard of rest 2−63648
s-process elements and galactic evolution 2−112437
Sagittarius arm structure from CO cloud mapping 2−79179
SGP direction, M-type dwarfs, BV photometry 2−106709
SGP direction, photoelectric photometry of faint M-type stars 2−106710
shock wave evolution, density wave theory 2−79172
solar neighbourhood, spiral arms struct. compared with S6 arm in M31 (Andromeda Galaxy) *(Russian)* 2−106926
solar neighbourhood stars chem. evolution constraints and vel. and galactocentric distances 2−112583
South Galactic Pole region, uvby photometry in McCormick proper motion fields 2−100902
southern hemisphere plane from H I survey anal. 2−63677
spatial chemical inhomogeneities 2−112586
spiral arms, comets form. in interstellar dust clouds 2−101149
spiral arms, interstellar comets prod. in giant molecular clouds and relation to terrestrial catastrophism 2−79039
spiral arms, molecular cloud launching vel. and star formation, initial motion of stars anal. 2−68838
spiral arms delineation from enhanced γ-ray emissivity 2−89411
spiral arms three-dimens. struct. from stellar distrib. anal. *(Russian)* 2−79213
spiral structure, nonlinear theory 2−112587
spiral structure rotation speed, surface density in plane effect 2−112593
star formation rate and nucleosynthesis models, review 2−112569
star formation regions in galactic plane, identification from IR and radio obs. 2−112421
stellar clusters, young, HR diagram comparison between Galaxy, SMC and LMC 2−68842
stellar dynamics, transitions between epicyclic stellar orbits induced by massive gas clouds 2−68837
stellar kinematics, high order momenta of local stellar vel. distrib. 2−89242
stellar kinematics, odd behaviour of nearby stars vel. components in direction l=330°, (b=0) 2−112432
stellar populations of Galaxy, implications for galaxies massive halos 2−101070
stellar z-distrib., cosmogonical significance 2−112590
structure, appl. of visual, quantitative and photometric methods of stellar spectral classification *(Russian)* 2−94705
structure and evolution in terms of interactions of various components 2−63673
structure of outer Milky Way from H I distrib. 2−106902
supergiant stars spectra, equivalent width meas. 2−100926
supernova remnants, space distrib. and radio emission evolution of plerions and shell remnants *(Russian)* 2−101026
supershells of H I rel. to galactic structure *(Russian)* 2−74067
synchrotron radio background, possible origin from SNRs 2−63717
three component model of mass and light distrib. 2−63674
transition region between disc cool gas and outer halo regions, UV obs. 2−117722
Vela II field, absorbing clouds identification from RGU stellar photometry 2−106861
Vela region of Milky Way, search for Hα emission objects 2−78979
X-ray diffuse 1 keV background origin 2−101095
^{9}Be abundance, contrib. of ^{9}Be prod. induced by neutrinos generated in stellar gravit. collapse *(Russian)* 2−106686
^{13}CO, obs. in second galactic quadrant *(French)* 2−89367
H I and continuum struct. comparison with other galaxies 2−63672

The Galaxy continued
H I at high galactic latitudes, warm gas 2−106889
H I regions kinematics and distribution in 1.5 kpc of galactic centre 2−63603
H II regions distrib. as seen from Sun and in galactic plane 2−63596
H_2O maser survey of galactic plane at 22 GHz 2−79189
He, broad emission in galactic centre 2−117758
Li abundance at time of form. from extreme population II dwarfs obs. 2−89382
N enrichment and abundance in galactic disk 2−112542

theoretical mechanics *see mechanics*

thermal analysis
alkali metal cpds., $M_2[UO_2(MoO_4)_2]$, (M=Na, K, Rb), solid-phase synthesis, composition determ. 2−72618
alkylene glycol terephthalate copolymers with mesogenic p-oxygenzoate units, thermal transitions 2−61139
2-[4-n-alkylphenyl]-5-[4-n-alkyloxyphenyl]-pyrimidines, calorimetric investig. 2−56172
aromatic copolyesters containing rigid binaphthyl units, mech. and thermal props. 2−67452
1,2-bis-[4-n-alkyloxybenzoyl]-hydrazines, thermotropic cubic mesophases, expt. study 2−65849
chalcogenide amorphous semiconductors, nonisothermal crystallisation kinetics 2−103651
chemisorption of CO on Pt(III) in presence of K, thermal desorpt. and electron energy loss spectra 2−83410
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2−103630
cobalt salicylato complex, mag. susceptibility, cond., thermal and chemical anal. 2−86639
COC, smectic A-cholesteric transition, press. induced tricritieal behaviour, DTA study 2−115409
computerised system, routine analysis and quality control appl. 2−74416
copper calcium acetate hexahydrate, linear chain complex, thermal anal. 2−61756
crystallisation interface temp., DTA and DSC meas. errors anal. 2−103628
4-cyano-4′-octyloxy biphenyl, solid cryst. polymorphism 2−103738
DTA, computerised extraction of calorimetric information *(Russian)* 2−79586
EBBA, melting and crystn. processes, thermal anal. 2−92198
epoxy resin, amine cured, thermal modification, thermal and mech. obs. 2−111206
fibrinogen, α-chain C-terminal regions, struct. organisation and localisation 2−78284
fuel oils characterisation by thermogravimetry 2−73034
halogenobenzenes, polymorphism, order-disorder transform, NQR study 2−109978
p-n-hexyloxybenzylidene-p′-toluidine, phase relation, DTA and microscopic studies 2−91770
instrumental techniques for thermochemical analysis 2−73030
length rod-shaped standards thermal behaviour *(German)* 2−112863
magnesium formate monoclinic and orthorhombic forms, struct. and thermal stability, X- ray diffr. and IR spectra obs. *(French)* 2−60939
metallic glasses, thermal transform., composition effects, DSC obs. 2−81962
methylammonium iodide, solid, pre-melting phases, ^{1}H spin-lattice relax. and DTA study 2−77409
Nylon 12, α form, formation from melt and quenched state under high press., DTA and X-ray study 2−72684
Nylon-6,6 annealed in glycerol, thermomechanical props., stress-strain anal. 2−111213
organic filled plastics, components determ. by thermogravimetric anal. 2−83321
orientated, crystn. of partial melt during annealing *(Russian)* 2−65873
partial pressure of oxygen meas. and regulation, electrochemical system adaptation to symmetrical thermogravimetric anal. system using Cahn 1000 electrobalance 2−99687
PET films, physical ageing in glassy polymer, IR spectra 2−103667
poly(di-cyclo-octyl itaconate), sub-glass transition events detection using differential scanning calorimetry 2−92200
poly(ethylene terephthalate-co-p-oxybenzoate), phase transitions 2−98279
poly(p-phenylene sulfide) hexafluoroarsenate, novel conducting polymer 2−87275
polyacetylene, cis-trans isomerisation, IR, DSC, UPS, NMR, EPR and elec. cond. study 2−93792
polybutene-1, plastic deform. and solid-phase transform. 2−67434
polycaprolactone/chlorinated polyethylene blends, miscibility, Cl conc. depend. DSC and light scatt. obs. 2−92215
polyesters, rigid-chain, thermotropic liq. cryst., crystallites 2−76303
polyether-polyurethane zwitterionomers, phys. props. and phase segregation 2−67451
polyethylene, ultrahigh mol. wt., isothermal crystn. kinetics 2−103665
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
polyethylene oxide-$LiClO_4$ filled polymer electrolytes, electrochem. and mechanical props. 2−115458
polyethylene oxide-$LiClO_4$ filled polymer electrolytes, electrochem. and physical props., prep. condition effects 2−115459
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polyethylene terephthalate films, ethylamine soln. treated, biaxially stretched, fine struct. *(Japanese)* 2−86590
polymer, glassy, approach to thermodynamic equil., improved calorimetric procedure 2−89717
polymers, crystallisation kinetics studied using differential scanning calorimetry 2−109702
polypropylene, isotactic, isothermal crystn. kinetics 2−103665
polypropylene films blended with ethylene-propylene copolymers and polyisobutylene, morphology, crystallisation, melting 2−65881
polystyrene, sulfonated, effect of ageing on thermal behaviour 2−88109
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
PVC, stearate additive interaction, high temp., differential calorimetric obs. 2−81966
PVC glass, vitrified at elevated press., nonequil. processes, conform. and enthalpic changes 2−86873
quench furnace system, horizontal, for gas-solid reactions at high temps. 2−64043
sheet moulding compound composite, NDT of localised weak areas 2−111404

thermal analysis continued
silicon alkoxides, hydrolysis kinetics rel. to glass form. 2−76316
silver oxalate, thermal decomposition, mech. pretreatment effects, mass-spectrometric thermoanalysis 2−62397
solid state reactions, thermogravimetric analysis 2−67730
steel, alloy, heat treatment into lower bainite, C distrib., alloying elements influence *(Russian)* 2−67389
steel, C, H-trapping phenomena 2−98288
steel, martensitic, Cr, precip. and decomp., DSC study *(Korean)* 2−62128
styrene-hydroxystyrene copolymers, glass transition, effect of water *(Japanese)* 2−109990
terephthalylidene-bis-[4-n-alkylanilines], liq. cryst., temp. and enthalpy of phase transition, calorimetric studies 2−92193
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
V-VI-VII compounds, chem. transport during crystn. from vapour 2−81698
vacuum differential thermal analysis apparatus for use up to 1000°C 2−69178
Ag-La (25 at.%), phase diagram invest., thermal anal. and X-ray meas. 2−67301
$AgBrO_3$, phase transition temp. and enthalpy, DSC obs. 2−98261
$Ag_{1-x}Cu_xI$, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
AgI, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
$AgI:Ag_2B_4O_7$, vitreous electrolytes, struct. and ion dynamics 2−61197
Al alloys 2219 and 7075, precipitation and dissolution kinetics, calorimetric study 2−83127
Al-Zn-Mg-Cu, precip., DSC study 2−99430
β''-Al_2O_3-$Na_2O(Na_2O{\cdot}Li_2O)(Ag_2O)$, dehydration reactions, DTA and TGA study 2−78091
$Al(OH)_3$, anodic oxide layer of Al electrolytic capacitor, thermal gravimetric anal. 2−104733
$2Al_2O_3{\cdot}CO_2{\cdot}15H_2O$, structural characteristics, X-ray, IR spectra, DTA and electron microscopy study *(Bulgarian)* 2−76385
$Al_2SiO_4F_2$, fluor-topaz, thermodynamic props. 2−92226
$As_{0.005}Se_{0.995}$, amorphous, crystallisation, scanning calorimetry and X-ray diffr. study 2−91780
BaF_2-ThF_4-ZnF_2-YbF_3, glasses, stabilization and IR transmission, DTA study 2−97929
$Ba_3P_6O_{18}{\cdot}9H_2O$, preparation and props. 2−72643
$BaWO_4$, crystal growth from melt, diffusion controlled, activation parameters, DTA 2−65891
BiI_3-$BiCl_3$, phase diagram, eutectic point, crystn. range 2−99405
$(Bi_2O_3+V_2O_5)$-SiO_2 flux, HoO_3 solubility determ. by thermogravimetric method, applic. to $R_2Si_2O_7$ single cryst. growth 2−105059
Bi_2WO_6, polymorphism, differential dilatometry and DTA study 2−60913
Ca-Pd, phase diagrams and intermetallic phase cryst. struct., X-ray and DTA study 2−109955
CaO-CO_2-H_2O system, high press. differential anal. 2−93756
Cd-Pb-Se-Te system, liquidus surface 2−105132
Cd-Sb-Ge system, DTA, microstruct. and microhardness 2−105130
CdSe-ZnS, phase diagram, DTA and X-ray phase anal. 2−72676
CdTe-Ge system, phase diagram, determ. by DTA and X-ray diffr. *(Japanese)* 2−105122
$CeBO_3$, preparation from CeO_2 and B_2O_3, characterisation 2−72645
$Ce_2(SO_4)_3{\cdot}5(H,D)_2O$, crystal synthesis and struct., X-ray, Raman spectra and thermal anal. 2−67205
Co-Ge-Te, phase equilibrium cross-sections 2−72679
Co-Zr, intermediate phases, heat of formation, direct reaction calorimetry study 2−99699
$Co_xFe_{1-x}S$, electrical resistance, time depend., α-phase transition *(German)* 2−92626
Cr-Al-Y-M (M=Co, Ti, Si, Ni, Mn, Pt, Fe), alloying additions effect 2−116451
$CrAl_2S_4+_\gamma$, spinel, homogeneity region 2−76695
$CsAlSiO_4$, high temp. thermal stability 2−62108
$CsAlSi_2O_6$, high temp. thermal stability 2−62108
Cs_3BiCl_6 ceramic, ferroelastic transitions, DTA, X-ray, dielec. and TSC meas. *(French)* 2−109889
$Cs_xMo_3O_9$, $Cs_xW_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
α-Cu-Al, DSC eval., energetics 2−83111
Cu-Fe-Se system, phase equilibria and stability field, X-ray, electron microprobe and DTA study 2−116429
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
$CuCr_2Se_4$-$InSe(In_2Se_3)(CuInSe_2)$ solid soln. form., DTA and X-ray phase anal. 2−109993
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGa_xIn_{1-x}Se_2$ solid solns., phase diag., cryst. growth and dislocation struct. 2−86836
$Cu_xV_{1-x}O_2$, struct. and physical props., EPR, DTA, mag. and X-ray diffr. study *(French)* 2−81761
$Cu_{60}Zr_{40}$, amorphous, initial quench effect on thermal behaviour 2−91813
Cu_xZr_{1-x} ($25\leq x\leq 70$) metallic glasses, crystn. characts. 2−97928
Dy-Ni phase diagrams, X-ray and DTA study *(Chinese)* 2−93488
Fe, pure, trapped H, thermal anal. 2−66290
Fe-B-Si metallic glass, crystn. kinetics, DSC study 2−71364
Fe-C system, austenite+liquid phase boundaries, expt. determ. by DTA 2−105125
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Cu binary alloy, selective oxidation, optical, X-ray and SEM obs. 2−99605
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni-Mo-B ferromag. metallic glasses, mag. and neutron diffr. meas. 2−116027
Fe-rich magnetites, $Fe_{3+x}O_4$, non-existence 2−83100
$Fe_{1-x}B_x$ glass, crystn. kinetics, Mossbauer and DSC study 2−103632
$Fe_{85}B_{15}$, amorphous, struct. and crystn. study by Mossbauer spectroscopy *(Russian)* 2−93075
$Fe_{80}B_{15}Si_{5-x}Ge_x$, amorphous, Curie temp. and crystn. behaviour 2−87496
$(Fe_{1-x}Ni_x)_{75}B_{25}$, amorphous, magnetisation and crysts. 2−72266
$Fe_{40}Ni_{40}B_{20}$, amorphous, in-core, reactor irradiated, props. 2−102047
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
$Fe_xV_{2-x}O_4$, solid solution, IR spectra, elec. cond. and DTA study 2−87751
$[rGa(OH)_2]_6P_6O_{18}.12H_2O$, preparation and props. 2−72643
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
thermal analysis continued
GaSe-Sb, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
$GaSe$-Sb_2Se_3, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
$GdGa_5O_{12}$ garnet, formation, DTA and X-ray phase anal. 2−67207
GeI_2-RbI (CsI) system, cryst. structs., DTA and X-ray diffr. study *(French)* 2−109766
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
$GeSe_xTe_{2-2x}$ chalcogenide glasses, broken chemical order, X-ray and DTA study 2−103638
GeTe-$FeGe_2$, phase diagram, eutectic composition 2−111154
$HNbO_3{\cdot}xH_2O$, proton conductor, charact. 2−104054
$HSbO_3{\cdot}xH_2O$, proton conductor, charact. 2−104054
$HTaO_3{\cdot}xH_2O$, proton conductor, charact. 2−104054
Hg-Cd amalgam, metastability breakdown detection *(French)* 2−88362
InSb-In_2GeTe_3, thermographic, X-ray and microscopic investigation 2−109995
KF-PrF_3 system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
K_2WO_4-Rb_2WO_4, solid solutions, phase diagram, X-ray and DTA study 2−88064
K_2WO_4-UO_2WO_4, reactions, and phase diagram, DTA study 2−88066
$K_6W_2O_9$, $K_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
La-Mn-Co(Ni), phase diagrams, isothermal sections at 400 and 600°C 2−83092
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
$LaCoO_3$, magnetic and electronic props. *(French)* 2−82574
La_2CoO_4, magnetic and electronic props. *(French)* 2−82574
$La_4Co_3O_{10}$, magnetic and electronic props. *(French)* 2−82574
Li/SO_2 cell, discharge products, X-ray diffr. and DSC study 2−78196
α-$LiIO_3$ single crystal, thermal study, 195-265K 2−104014
Li_2O-ZrO_2, cpd. form., thermal and X-ray obs. 2−83102
$Li_xV_2O_5$, amorphous, phase separation *(French)* 2−56159
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
$MgSiO_3$-$MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
$Mn_{1.11}Al_{0.89}$ metastable alloy, mag. and struct. props., X-ray and neutron diffr. and DSC meas. 2−72163
Mo, yield point, neutron irrad. and impurites effects, thermal activation anal. *(Russian)* 2−115333
NH_4^+/H^+-W-O system, phase diagram 2−99407
NH_4HSeO_4, ferroelec. transitions, dielec. const., dielec. loss and DTA study 2−93121
$(NH_4)_2SO_4$, paraelec.-ferroelec. phase transition, low temp., thermal anal. 2−104822
$(Na,K)AlSi_3O_8$, albite-orthose vitreous system, enthalpy of mixing *(French)* 2−61147
$NaBO_2$-$CdO(CdB_4O_7)$, phase diagrams, DTA, X-ray phase anal. and IR spectra study 2−66174
$Na_{1/3}(H_2O)_yTaS_2$, $O\leq y\leq 2$, ambient temp. phase rels. 2−61155
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
Nb-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
NbO_2 film crystallisation, phase transitions, DTA spectra 2−104441
α-Nb_2O_5, defect struct., thermogravimetric obs. and oxygen partial press. depend. 2−65990
α-Nb_2O_5, nonstoichiometric anal. at elevated temp. 2−87267
Nd-In system, phase diagrams and lattice spacings of cpds. 2−111141
Ni-P chemically formed coatings struct. and props. *(Russian)* 2−92400
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
$Ni_{1-x}P_x$ amorphous, struct. inhomogeneities, processing effects, NMR, DTA and positron annihilation study 2−104993
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
Pb-Ca-Sn, phase diagram, Pb rich corner 2−105123
PbO-SiO_2 glass, crystn. kinetics, 500° to 725°C 2−86574
PbO-V_2O_5, equimolar system, new phases 2−93496
PbS-GeS-GeS_2 chalcogenide glass, struct. and photoelectronic props., DTA and SEM study 2−92681
PbTe, heterogeneous nucleation, statistical thermal anal. 2−65892
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
$Pd_{76}Au_6Si_{18}$ metallic glass, DSC, relax. and struct. change 2−65864
Pd_4Ge, metallic glass, crystn. kinetics 2−81682
polyimide:Pd filled polymer film, conductive, synthesis and characterization 2−57328
Pr-P system, phase diagram 2−77807
$PrBO_3$, preparation from PrO_x and B_2O_3, characterisation 2−72645
$Pr_x(Fe_{0.8}B_{0.2})_{1-x}$, amorphous, crystn. and mag. moments study 2−71362
Pt, study of H_2 and CO coadsorption 2−92338
$RbHSeO_4$, deuterated, ferroelec. transitions, isotope effects, DTA and dielec. study 2−87707
$RbHSeO_4$, ferroelec. transitions, dielec. const., dielec. loss and DTA study 2−93121
$Rb_6Mo_2O_9$, $Rb_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Sb-Zn, amorphous, form. and crystn. 2−76322
Sb_2S_3, amorphous and glassy, struct. rel. to As_2X_3 glass struct. 2−86573
Sb_2S_3-PbS glass, prep. and props. 2−71367
Se, amorphous, crystallisation, scanning calorimetry and X-ray diffr. study 2−91780
Se, amorphous, liq. and solid, struct. and phys. props., uniaxial compression effects 2−71352
Se-Te chalcogenide amorphous semiconductors, nonisothermal crystallisation kinetics 2−103651
Se(:I), vitreous, thermal crystn., DTA study 2−115143
p-Si:$Mn^+Al^-(B^-)_x$ DTA and electron beam anal., doping effects *(German)* 2−92010
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
SiP, single crystal, prep., p-T projection of three-phase equilib. line, DTA study 2−87963
Sm-In system, phase diagrams and lattice spacings of cpds. 2−111141
Sm-In system, phase equilibria, cryst. struct., DTA, X-ray and metallographic study 2−92156

thermal analysis continued
$SrTe_2O_5$, ferroelastic state 2−66109
Ta, strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
Ta-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
$TaH(PO_4)_2.2H_2O$, layered struct., thermodecomposition 2−71420
β-Ta_2O_5, defect struct., non-stoichiometry, thermogravimetry study 2−91953
Tb-In system, phase diagrams and lattice spacings of cpds. 2−111141
$TbBO_3$, preparation from TbO_x and B_2O_3, characterisation 2−72645
Te-Si-Pb glasses, preheating effect on crystn. kinetics 2−97926
ThO_2 powder, initial sintering stage study by emanation thermal anal. 2−88032
Ti-Al (1.65 to 10 wt.%), oxidation behavior, effect of Al *(French)* 2−57526
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2−67315
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
$Tl_5As_2Te_3$-Te, intersecting section in Tl-As-Te system 2−111153
$TlBiTe_2$-2PbTe cross section, solid soln. form., physicochem. and electrophys. props. 2−57337
TlF-SnF binary system, cryst. struct., ionic cond. and thermal behaviour *(French)* 2−109769
$TlInTe_2$-$TlEuTe_2$, reactions, microhardness and elec. cond. 2−111167
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808
Tl_2S-GeS_2 system, phase equilibria, DTA, X-ray diffr. and hardness study 2−66171
TlSe-DySe, phase diagram, reaction in the system 2−88068
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
UO_2 fuels, qualitative approach for characterisation 2−85160
V_2O_5 amorphous phase, hydrated 2−55847
YIG phase containing glass ceramics, prep. and mag. charcts. 2−67278
Zn-Al (22 wt.%), eutectoid decomp. kinetics *(German)* 2−67287
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
Zr-Ir system, phase equilib. study using thermal anal., metallographic and X-ray methods 2−83090
$Zr_{1-x}Co_x$, crystallisation and struct. transition, X-ray and thermal anal. 2−109677
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934

thermal blooming
atmospheric frequency response under thermal blooming conditions 2−94491
azulene, gas phase, time depend. thermal lensing studies 2−90669
CW light propagating through strong absorbing medium, self-focusing and spatial ringing 2−65318
frequency response of thermal lens calorimetry 2−102886
gas phase thermal diffusivities by a thermal lens technique 2−91576
Gaussian multimode optical beam thermal self-interaction in a turbulent medium 2−97054
high power laser optical systems, flow field effects, thermal blooming control 2−97037
high power laser system aberrations 2−97034
thermal lens effect, laser-induced, theoretical model 2−81033
time constant analysis by wave-propag. code 2−75639
time dependent thermal lensing technique for energy-transfer experiments 2−91002

thermal capacity *see specific heat*

thermal conductivity
see also Kapitza resistance; Lorenz number; thermal conductivity of gases; thermal conductivity of liquids; thermal conductivity of solids; thermal diffusivity; thermal insulating materials
annulus flow, natural convection, flow pattern, temp. distrib. 2−91446
blast waves, internal heat transfer effect on struct. 2−70988
bulky body heating by circular heat source heat elimination 2−60373
disordered media, macroscopic props., conf., New York, USA (June '81) 2−94915
effective lateral thermal conductivity of square-cell cores 2−97343
heat flux instruments for determ. thermal cond. 2−60377
inclined rectangular cell, thermal wall props. effect on natural convection 2−91445
metalloplastics−high conductivity materials 2−56563
N-phase composites, effective thermal cond., bounds 2−58754
nonlinear equation, solns., spatial localisation conditions *(Russian)* 2−101370
nonorthogonal networks, two-dimens. thermal cond. calcs. *(Russian)* 2−97361
one-dimensional transient heat conduction with temp.-dependent generation and conductivity 2−75824
periodic media, thermal cond., steady-state equation averaging *(Russian)* 2−103000
planar body, initial stage of heating calcs. 2−102997
plasma, in mag. field with disturbed mag. surfaces 2−86392
plate, heat liberating, cond. problem soln., Biot number time depend. 2−103009
quantised two dimensional Hall cond. theory 2−98718
radiation absorpt. effect on thermal cond. meas. by transient hot-wire technique 2−70830
stability of thermal conduction, extension of proof 2−84580
stability of thermal conduction 2−53709
thermal explosions with variable thermal conductivity 2−67752
thermal ignition with variable thermal conductivity 2−84572
thermal wave depth profiling, theory 2−92104
two-phase media, thermal conduct. model 2−65461
two-phase storage materials, thermal cond. 2−60371
H plasma, strongly coupled, thermal cond. 2−86391

thermal conductivity measurement
biological living tissue, pulse-decay method for thermal cond. meas. 2−62871
building materials, thermal cond. meas., cylindrical probe transient method *(French)* 2−65465
diffusivity, temp. depend., meas. by transient method 2−75832
diffusivity measurement by cross correlating injected and transmitted heat pulses through a wall 2−81214
double specimen technique at cryogenic temps. 2−89725
fibre, thin, thermal transport props. determ. using composite method 2−104088

thermal conductivity measurement continued
geological samples, apparatus for meas. thermal properties at pressures to 0.2 GPa and temp. to 750K 2−84620
insulation transmission meas. by symmetrical steam and hot-wire heat sources 2−74411
liquids, AC heated-wire technique 2−86205
low temp. technique, in high mag. fields, apparatus 2−60368
phase-changing materials, thermal cond., automatic meas. equipment *(French)* 2−65464
PMMA, thermal conductivity meas. by Forbes' method using IR temp. meas. 2−103010
polymer films, thermal conductivity meas., rapid technique 2−84621
semiconductors, method of measuring thermoelectric characteristics, 300-1300K 2−69200
shale, simulated by cement mixture, for nucl. waste dumping, thermal diffusivity meas. by Angstrom's method 2−68333
solids, sounding method 2−112892
spatial temperature gradient approx., thermal cond. integral method 2−114618
temperature-dependent thermal properties, meas. *(Hungarian)* 2−79573
thin films using pyroelectric technique 2−112890
transient hot-strip method for solids and liquids, second-order theory 2−114619
O_2, thermal conductivity in dissociation region, meas. by holographic interferometry 2−103251

thermal conductivity of gases
air, 312 to 373K, 0.1 to 24 MPa 2−86373
Boltzmann eqn. for steady flow, Hilbert expansion 2−109439
dichlorodifluoromethane, and mixture with N_2, gaseous, thermal cond. and mutual diffusion coeffs. 2−114962
dilute hard-sphere gas, self-diffusion, shear viscosity and heat cond. calcs. 2−81432
dissociating gases, transport phenomena calcs. 2−86308
gravitational instability in presence of rot. and thermal radiation *(Italian)* 2−114961
hard sphere gas, moderately dense, heat cond. calcs. 2−103249
ionization wave sustained by intense monochromatic radiation *(Russian)* 2−109452
molecular gas, heat conduction, electric and mag. field effects 2−86365
polar molecules, thermoelectric birefringence, expt. upper limit 2−86366
simple fluids, transport props. at low temps. and high press. 2−71691
temp. distrib., holographic interferometry study 2−79660
thermal lens study 2−91576
thermoacoustic self-oscillations in a gas volume with internal heat supply sources 2−81404
transient hot wire thermal cond. apparatus 2−71060
trichlorofluoromethane, and mixture with N_2, gaseous, thermal cond. and mutual diffusion coeffs. 2−114962
Ar, thermal conduct., power eqn. representation 2−60711
Ar-methane mixture, 300.4K; 1-22 MPa, thermal cond., rel. to kinetic theory 2−81438
Ar-organic compound mixtures thermal cond. *(Russian)* 2−55693
CO_2-He(Ne)(Ar) gas, thermal cond. meas. 2−103250
H_2-N_2, gas mixture, thermal conduct. meas. 2−86372
He, thermal conduct., power eqn. representation 2−60711
N_2, thermal conductivity at high press. 2−71059
Ne-methane mixture, 300.4K; 1-22 MPa, thermal cond., rel. to kinetic theory 2−81438
O_2, thermal conductivity in dissociation region, meas. by holographic interferometry 2−103251
SF_6, gas, thermal conductivity determ. in critical region 2−71058
SF_6-N_2 mixture, arc discharge, thermal and elec. conductivity coeffs., theory and expt. 2−103501

thermal conductivity of liquids
dialkylphthalates of silicone oil and liq. paraffin, thermal cond. between 30 and 190°C 2−98351
filled polymers, thermal cond. meas. and calcs. 2−104084
KNO_3-$NaNO_3$ matter mixture, thermal cond. meas. 2−115474
measurement AC heated-wire technique 2−86205
naphthene group hydrocarbons, thermal cond. determ. 2−104085
n-nonane, thermal cond. meas., density depend. 2−92294
organic, prediction method, reduced temp. range 0.3 to 0.8 2−61216
polyethylene melt, shear-induced anisotropy in thermal cond. 2−110053
simple fluids, transport props. at low temps. and high press. 2−71691
solar energy absorbing chromophoric materials in heat transfer fluids, thermal and photochemical studies 2−99839
solutions filled with metallic powders, thermal cond. 2−70829
transient hot wire thermal cond. apparatus 2−71060
n-undecane, thermal cond. meas., density depend. 2−92294
water, thermal cond., high press effects 2−56269
$AgTlSe_2$ semicond., liq. and solid, elec. cond. thermoelec. power and thermal cond. 2−92625
^{3}He, thermal conductivity near liquid-vapour critical point 2−56288
^{4}He, liquid, critical dynamics of λ transition 2−56283
^{4}He, liquid, critical dynamics near lambda transition, nonlinear renormalisation group anal. 2−110069
^{4}He, liquid, superfluid transition, crit. phenomena 2−110066
^{4}He, liquid, thermal conductivity, nonlinear renormalisation anal. 2−71753
^{4}He, near lambda transition, crossover behaviour in dynamics 2−86962
^{4}He superfluid film, temp. gradient in presence of superflow 2−115486
^{4}He superfluid film, third sound and thermal cond. 2−56279
N_2, thermal conductivity at high press. 2−71059
Rb, liquid, transport props. meas. using automated equipment 2−115722
SF_6, liq., thermal conductivity determ. in critical region 2−71058

thermal conductivity of solids
see also thermal magnetoresistance
building materials, thermal cond. meas., cylindrical probe transient method *(French)* 2−65465
composites, two-component, bounds on elastic and transport props. 2−99473
cyclohexanol, glassy cryst. and cryst. phases, sp. ht. and thermal cond., 1.5 to 20K 2−56205
diamond as an optical material for space optics 2−70635
dirty dielectrics, nonlocal heat conduction, longitudinal long-wave phonons *(Russian)* 2−92299
epoxy resin, thermal cond. meas. 2−71743
ferroelectrics, glasslike props. at low temps. 2−110778
ferromagnet, amorphous, tunnelling states, spin wave relax., thermal cond. 2−98865

thermal conductivity of solids continued
ferromagnetic insulator, low-temp. magnon thermal cond. 2−66307
fibre composites, bounds on effective transverse thermal cond. 2−98360
fibre reinforced composites, unidirectional, moisture diffusivity rel. to heat cond. 2−86934
fusion blanket insulators, thermal cond. meas. 2−69860
glass fibre/epoxy composite, 2 to 80K 2−92296
glass-ceramic, 14 MeV neutron irradiation effects 2−85208
GMZ graphite, thermal cond., neutron irrad. induced changes 2−54510
granular bed showing laminar free gas convection, thermal cond. determ. 2−60369
graphite, artificial, thermal and elec. props. in temp. range 500-2800K 2−66304
heat generating solids with memory, temp. distrib. 2−97348
ice, hexagonal, heat cond. anisotropy, 0.5 to 20K 2−98356
inhomogeneous thin films, thermoelec. props., effective medium method 2−115915
inorganic compounds, calc. of lattice thermal cond. components 2−110055
insulator, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
insulators, press. depend. of thermal cond. 2−98355
irradiated materials, absence of pore formation, vacancy diffusion *(Russian)* 2−56010
$KTa_{1-x}Nb_xO_3$, induced ferroelec. phase transition mech., thermal cond. meas. 2−56274
lattice theory, role of low freq. phonons 2−61218
Lattice thermal conductivity, phenomenological model 2−98352
measurement of thermal cond. by sounding method 2−112892
metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
metals, nonlinear waves during low temp. strain, heat evolution *(Russian)* 2−61653
metals, open-orbit effects in thermal magnetoresistance 2−104346
metals, thermopower cross over effect and thermal cond. peak 2−77025
mirrors, repetitively pulsed, thermal distortions, analytical model 2−86022
nitride interstitial phases, thermal and elec. cond. characts. rel. to electron energy spectrum 2−71987
nonmetals, additivity of relax. times and thermal cond. 2−61221
nylon, lattice thermal cond. at low temp., density fluctuation model 2−76757
plastics, conductive, appls. as current and heat conductors 2−56546
PMMA, lattice thermal conductivity anal. at low temps. 2−104086
PMMA, thermal conductivity meas. by Forbes' method using IR temp. meas. 2−103010
polyacetylene, thermal cond. anisotropy meas. 2−92587
polyethylene, lattice thermal cond. at low temp., density fluctuation model 2−76757
polyethylene, semicryst., low temp. phonon cond., dislocation and point defects effects 2−92295
polyethylene, semicrystalline, boundary scatt. and lattice thermal cond. at low temps. 2−76758
polyethylene, thermal cond., 3 to 9K, effect of microcryst. struct. 2−56272
polymer, conductive, fibre filled, elec. and phys. props. 2−56562
polymer films, thermal conductivity meas., rapid technique 2−84621
polystyrene, lattice thermal conductivity anal. at low temps. 2−104086
quartz, defects created by γ-ray, electron, and neutron irrad., thermal phonon transport study 2−56273
quartz, neutron irrad., thermal props. 50 mK to 4K 2−66248
quasi I-D superionic conductor, thermal conductivity dispersion *(Russian)* 2−104089
radioactive waste, sp. ht., thermal cond. and thermal diffusivity 2−90225
sandstones, thermal conductivity determ. by variable state approach 2−106342
semiconductor, ion implanted, photacoustic meas. 2−71586
semiconductors, optical thermal breakdown, switching waves 2−82045
semimetal systems, transport props., comparison 2−98535
solar furnaces utilisation for materials thermophysical props. anal. 2−73083
solidification interface during continuous casting, Stefan problem 2−93497
steel, austenitic stainless, standard ref. material SRM-735, anomalous behaviour in thermal and elec. cond. 2−104343
strong-coupling superconductors, thermal cond. and charge relax. 2−104539
superlattices, lattice thermal cond. due to mini-umklapp process 2−82044
TCNQ salt, TEA(TCNQ)$_2$, phonon heat pulse diffusivity meas. 2−110057
Teflon, lattice thermal cond. at low temp., density fluctuation model 2−76757
TGS, influence of const. elec. field on heat cond. 2−66306
thermally symmetric nonlinear solids, heat transfer 2−55401
$Ti_{0.67}V_{0.33}$, thermal and elec. cond. meas., glassy behaviour 2−87225
$(TMTSeF)_2PF_6$ superconductor, thermal conductivity 2−92822
$(TMTSF)_2ClO_4$, organic supercond., mag. field depend. thermal cond. 2−92821
type II superconductor, nonlinear waves during low temp. strain, heat evolution *(Russian)* 2−61653
V_3Si, thermal and elec. cond. 2−56548
Vycor, porous, low temp. thermal cond. 2−56270
AG, thermal cond., plastic deformation effects, dislocation scatt. 2−104349
Ag films, thermal cond. meas. 2−56728
AgCl, thermal cond. and sp. ht. under press., hot-wire method 2−82040
AgI, thermal cond. meas., 120-500K 2−56277
$AgTlSe_2$ semicond., liq. and solid, elec. cond. thermoelec. power and thermal cond. 2−92625
Al-Ag(Ge), dilute, Matthiessen's rule deviation at high temp. 2−115729
Al_2O_3, phonon spectrum thermalisation obs. by freq. crossing 2−61220
Al_2O_3:V, nonequilib. phonon propag. by quasidiffusion 2−92297
Al_2O_3-Mo composite powder, room- and high-temp. thermal cond. 2−66308
Al_2O_3-SiO_2 refractory fibre, apparent thermal cond. rel. to phys. props. 2−115475
AlSb, electron-phonon interaction, phonon cond. 2−66152
As, amorphous, thermal relax., specific heat 2−76702
As_2S_3, amorphous, thermal relax., specific heat 2−76702
As_2S_3, amorphous, time-resolved phonon spectroscopy 2−56140
Bi, electrical resistivity, thermal cond. and thermopower meas., 1.5 to 50K 2−92607
thermal conductivity of solids continued
$Bi_{1-x}Sb_x$, semicond., valence band struct., elec. and thermal cond. study 2−87143
Bi_2Te_3:$CdCl_2$(Te) crystal growth using directional crystallisation apparatus for growing complex solid solns. *(Russian)* 2−72609
Bi_2Te_3-Sb_2Te_3-GeTe-PbTe system alloys, thermo-EMF, elec. and thermal cond., thermoelec. efficiency 2−56626
BiTeI, thermophysical props. 2−82386
Bi_2Te_2Se, heat treatment influence on props. 2−72721
C fibre reinforced plastic, unidirectional, thermal cond. meas. 2−71743
C fibre/epoxy composite, 2 to 80K 2−92296
C, neutron irradiated material, thermal and elec. cond. restoration during annealing *(Russian)* 2−66303
$Ca(NO_3)_2$-KNO_3 glasses, low temp. thermal props. rel. to glass transition temp., water doping effect 2−56271
$CoBr_2.6H_2O$, thermal cond., mag. field depend., 1.5 to 30K 2−82043
$Co_{1-x}Fe_xSi$ and $Co_{1-x}Ni_xSi$, elec. props. and thermal cond. 2−82366
CoSi, elec. props. and thermal cond. 2−82366
Cr-Si alloys, Cr-rich, thermal cond. meas., 3-300K, rel. to antiferromag. transition 2−92567
$CrLa_4S_7(Ce_4S_7)$, thermal conductivity, phonon-paramag. ion scattering effects obs. 2−115480
Cu, electron-phonon effects, elec. and thermal resistivities, Hall effect 2−115728
Cu fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Cu, thermal cond., plastic deformation effects, dislocation scatt. 2−104349
Cu-Au(Al)(Ni), dilute, Matthiessen's rule deviation at high temp. 2−115729
Cu-Au(Ni), deviation from Matthiessen's rule 2−110327
CuCl, thermal cond. and sp. ht., temp. and press. depend. 2−115478
Cu_6GeSe_6, thermal cond., thermal diffusivity and elec. cond. 2−104090
CuSe, superlattice struct. polymorphism and elec. props. *(French)* 2−66556
Fe, cast, compacted-vermicular graphite, rel. between physico-mech. props. and numerical indexes 2−105337
Fe, cast, graphitic, struct.-prop. relationships 2−93604
α-Fe, thermal cond. anal. 2−71945
GaAs:Cr, phonon scatt., tunnelling parameter, thermal cond. study 2−61086
GaAs-II-III-V-VI semiconductor homogeneous solid solutions, physicochemical props., transfer effects 2−87260
$GdAl_2$, transport and thermal props., critical behaviour near Curie point 2−116005
$Gd_3Ga_5O_{12}$, thermal cond. meas. between 60 mK and 20K *(French)* 2−86957
$Gd_3Ga_5O_{12}$, thermodynamic props., 0.05-25K 2−104623
Ge laser windows, thermal runaway, temp. depend. thermal cond. influence 2−81004
Ge, thermal cond., phonon scatt. processes at low temps. 2−56275
n-Ge, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
Ge, thermal conductivity at low temp. 2−76759
Ge, three-phonon processes, resonance effects in thermal cond. 2−81913
Ge:P, phonon drag thermoelectric power and thermal cond., boundary scatt. effects 2−82388
α-HgI_2, single cryst., low temp. heat transport 2−66305
HgTe, lattice thermal cond., three phonon scatt., SDV model 2−82042
In-Cr dilute superconducting alloy, tunnelling, localised excited states 2−72122
InAs-II-III-V-VI semiconductor homogeneous solid solutions, physicochemical props., transfer effects 2−87260
InSb:Ga, lattice thermal cond., 0.35-3K 2−98353
$KTaO_3$, induced ferroelec. phase transition mech., thermal cond. meas. 2−56274
LiF, deformed, thermal cond. 0.05 to 5K, phonon-dislocation scatt. 2−56276
LiF, heavily deformed, sp. ht. and thermal cond., 0.08 to 4K 2−56210
LiF, highly deformed, phonon-dislocation interaction anisotropy, phonon imaging study 2−86818
LiF, neutron irrad., excess sp. ht. and thermal cond. 2−61160
MgO, Ni doped single crystal, thermal diffusivity/cond. 2−110056
Mg_2Si(Ge), electron-phonon interaction, phonon cond. 2−66152
Mo-ZrN composite powder, room-and high-temp. thermal cond. 2−66308
N_2, thermal conductivity at high press. 2−71059
Na, anharmonic crystal, thermodynamic and transport props., effect of temp. and press. 2−76706
NaF, thermal cond. in presence of dislocations, correction due to 3-phonon normal processes 2−98354
Nb, ideal transport, rigid muffin-tin approx. calcs. 2−87221
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
Ni fibre materials, sintered, high-porosity, physicomech. props. 2−83192
Ni, hemispherical specimens, thermal diffusivity, sp. heat and thermal cond. determ., pulse method appl. 2−61219
Pb, thermal resist. of normal/supercond. interphase boundary 2−77228
PbTe:In, thermal cond., elec. cond., Hall and Seebeck coeffs. 2−115479
PbTe:Sn(Ge), donor and acceptor props., elec. and thermal cond. meas. 2−66480
Pd, ideal transport, rigid muffin-tin approx. calcs. 2−87221
Pd-Ti, Mattheissen's rule deviations 2−82320
$PrNi_5$, elec. and thermal cond., 0.5 to 20K, cryst. field effects 2−56549
Rb, anharmonic crystal, thermodynamic and transport props., effect of temp. and press. 2−76706
Si, ion implanted, photoacoustic determ. of thermal cond. 2−86959
Si, phonon focusing effect on thermal cond., theory 2−98359
Si, temperature rise induced by continuous Xe arc lamp radiation 2−56009
n-Si, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
SiC, electron-phonon interaction, phonon cond. 2−66152
SiC fibre, amorphous, thermal transport props. determ. using composite method 2−104088
SiC:B 2−115302
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
SiO_2-B_2O_3-Al_2O_3-BaO, pyroceramic, low temp. thermal cond. 2−110054
$Sr_{1-x}Ba_x(Nb_2O_6)$, ferroelectric thermal cond. and permittivity 2−115477
TiO_x, metallic elec. and thermal cond., magnetoresistance, O conc., and temp. depend. 2−61439
Tl_3AsSe_3, thermal cond. and specific heat 2−115476
Tl_9BiTe_6, thermoelec. props. and cryst. struct. 2−110374

thermal conductivity of solids continued
(U, Gd)O_2 solid soln., near stoichiometric, Gd effect on thermal cond. 2−80060
UO_2 and (U, Pu) mixed oxide fuels 2−107952
UO_2, high temp. data on Seebeck coeff., elec. cond., thermal cond., specific heat 2−115796
UO_2-Gd_2O_3, thermal cond. and plasticity meas. *(German)* 2−85147
V_5Si_3, thermal and elec. cond. 2−56548
YIG, polycrystalline, thermal cond., 77-300K *(Russian)* 2−98358
ZnO varistor ceramics, thermal cond., intergranular phase and void effects 2−71744
ZnS, struct., twinning and thermal cond. 2−81744
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
ZrN-Al_2O_3 composite powder, room- and high-temp. thermal cond. 2−66308
$Zr_{0.76}Ni_{0.24}$, amorphous supercond., lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779

thermal convection *see convection*

thermal decomposition *see pyrolysis*

thermal diffusion
see also thermal diffusion in gases; thermal diffusion in liquids
binary mixtures, free convection in square cylinder, thermal diffusion effects 2−109166
interstitial solid solns., thermal transport enthalpy calc. *(Russian)* 2−115461
porous medium, diffusing component and permeability influence on convection onset 2−65449
viscoelastic bodies, coupled problem of thermodiffusion 2−79503
CeO_{2-x} 2−81215
n-PbTe:I, thermal diffusion of impurity atoms 2−66293
Si, amorphous film, melting threshold energy in laser annealing 2−92026

thermal diffusion in gases
column coefficients evaluation 2−97692
diffusion coefficient in dilute gas, meas. method, adsorption effect 2−60708
dilute gases, reactive species diffusion coeff. meas. method 2−60708
gas mixture, nonlinearity effect on process of separation by thermal diffusion 2−60705
inert gases, isotopic thermal diffusion factor, temp. depend., determ. using cadmium calibration factor 2−86369
methane-CO_2, thermal diffusion meas., interaction parameters 2−102565
methane-He, thermal diffusion meas., interaction parameters 2−102565
thermal lens study 2−91576
He-Ar, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Ar, quasiLorentzian mixture, thermal diffusion factor 2−86371
He-Kr, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Kr, quasiLorentzian mixture, thermal diffusion factor 2−86371
He-Ne, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Ne, quasiLorentzian mixture, thermal diffusion factor 2−86371
He-Xe, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Xe, quasiLorentzian mixture, thermal diffusion factor 2−86371
Ne isotope separation in DC arc 2−85829
Xe isotope separation in DC arc 2−85829

thermal diffusion in liquids
alkali nitrate-$AgNO_3$ mixtures, nonisothermal, Soret coeffs. and transport props. 2−71678
benzene-carbon tetrachloride, thermal diffusion columns, Soret coeff. determ. 2−104040
binary liquid metal, convective instability in horizontal layer, mag. field effect 2−98318
columns, forgotten effect 2−66266
fluid layer, convective, heat flux 2−70953
liquid crystals, thermotropic, impurity diffusion, review 2−71685
moving boundary diffusion, fixed domain method 2−109307
solar pond mixing layer development interferometric study in laboratory simulation 2−83516
thermal and mass diffusion coeffs. meas. *(French)* 2−71681
thermal boundary layer, diffusion controlled, mass and heat transfer 2−65577
viscous fluid mixture, equations of motion, thermal and intermol. diffusion, chemical reactions, radiation press. 2−76722
^{3}He-^{4}He mixture, superfluid, diffusive relaxation processes 2−61241
^{3}He-^{4}He mixtures, diffusive relax. processes in normal phase 2−61240

thermal diffusivity
conical bodies, transient thermal diffusion, temp. distrib. 2−103008
dilute gases, reactive species diffusion coeff. meas. method 2−60708
fission reactor, pressure vessel steel and concrete, temp. effects 2−64482
flat plate specimen, meas. 2−71742
gas phase thermal diffusivities by a thermal lens technique 2−91576
geological samples, apparatus for meas. thermal properties at pressures to 0.2 GPa and temp. to 750K 2−84620
geophysical well logging, thermal diffusivity of well contents rel. to static formation temp. estimation 2−100326
graphite, artificial, thermal and elec. props. in temp. range 500-2800K 2−66304
heat shielding materials, failure parameters in nonstationary heating regime 2−60375
liquid, determ. by flash heating of three-layered cell 2−61217
liquids, measurement by AC heated-wire technique 2−86205
measurement, flash method, thermogram interpretation *(French)* 2−65466
measurement, photoacoustic and mirage effect methods *(French)* 2−65463
measurement at cryogenic temps. by double specimen technique 2−89725
measurement by cross correlating injected and transmitted heat pulses through a wall 2−81214
measurement of temp. depend. thermal diffusivity by transient method 2−75832
measurement using pyroelec. detector 2−89705
optical fibre, thermal diffusivity, photoacoustic meas. technique 2−114432
photoacoustic measurements of thermal diffusivity of metals, elimination of 'drum effect' 2−55406
PMMA, thermal diffusivity of flat plate specimen 2−71742
polyvinylidene fluoride film, anisotropic thermal diffusion, transient pyroelec. currents 2−86958
radioactive waste, sp. ht., thermal cond. and thermal diffusivity 2−90225
shale, simulated by cement mixture, for nucl. waste dumping, thermal diffusivity meas. by Angstrom's method 2−68333
soda glass, thermal diffusivity of flat plate specimen 2−71742
solar furnaces utilisation for materials thermophysical props. anal. 2−73083
solid materials, thermal diffusivity determ. near melting point 2−115394

thermal diffusivity continued
TCNQ salt, TEA(TCNQ)$_2$, phonon heat pulse diffusivity meas. 2−110057
water, determ. by flash heating of three-layered cell 2−61217
Cu_5GeSe_6, thermal cond., thermal diffusivity and elec. cond. 2−104090
Fe_7S_8, pyrrhotite, thermal diffusivity meas. 2−98357
$Gd_3Ga_5O_{12}$, thermodynamic props., 0.05-25K 2−104623
^{3}He, thermal conductivity near liquid-vapour critical point 2−56288
^{4}He, superfluid, subcooled, time depend. heat transport 2−115483
MgO, Ni doped single crystal, thermal diffusivity/cond. 2−110056
MnSb, thermal and elec. props. 2−104087
Ni, hemispherical specimens, thermal diffusivity, sp. heat and thermal cond. determ., pulse method appl. 2−61219
SiC fibre, amorphous, thermal transport props. determ. using composite method 2−104088
SiC, sintered and reaction-bonded, radiation response, B isotope effects 2−80191
UO_2-Gd_2O_3, thermal cond. and plasticity meas. *(German)* 2−85147

thermal effects in magnetism *see magnetocaloric effects*

thermal expansion
see also Gruneisen coefficient
A15 intermetallic cpds., linear thermal expansion coeff., real struct. influence 2−56223
anharmonic crystals, BBGKI eqn. solsn. to fourth approx. in temp. 2−76632
anisotropic bodies, free thermal expansion, temp. and aeolotropy fields 2−114617
anisotropic solid, fluctuations, and thermodynamic props. 2−115435
benzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
benzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2−115426
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
ceramics, heat resistance, rel. to strainability, strength and thermal expansion 2−115441
chalcopyrite crystals, struct. correls., tetragonal distortion, thermal expansion coeff. 2−109764
cholesterol-1-hexadecanol smectic liquid crystal mixtures, US velocity, adiabatic compressibility and density meas. 2−61066
cubic crystals, thermal potential, mechanical instability, and melting entropy 2−92165
E-glass fibres, struct. sensitive meas. rel. to prep. conditions 2−93484
effective lateral thermal conductivity of square-cell cores 2−97343
electrode sets for MHD generator, physicochem. principles 2−73129
electronic dilation during pulsed laser annealing, lattice constants 2−56224
epoxy resins, 30 to 300K, temp. depend. *(German)* 2−61179
ethylbenzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
ferromagnetic amorphous alloys, magnetoelastic props., review 2−56905
fission reactor, pressure vessel steel and concrete, temp. effects 2−64482
fluorite type AB_2 crystals, cohesion and thermodynamical props., Debye temp., Gruneisen and force const. 2−61169
gas in planar, cylindrical and spherical geometry, self-similar solns. for nonadiabatic expansion 2−71061
graphite, fine-grained, oxidation effects on thermal expansion coeff. and thermal shock fracture initiation 2−77896
graphite, nuclear grade, dimensions, thermal expansion coeffs., neutron effects 2−64473
HCP crystals, elastic moduli and linear expansion coeffs. of axial textures *(Russian)* 2−76560
heat-generating boiling pools, heat transfer from vertical at inclined boundaries 2−114803
heterojunction, defect form. 2−92374
hexafluorobenzene, liq., sp. ht., sp. vol. and thermal expansion coeff. study 2−115426
ionic crystals, thermal expansion coeff., interatomic pot. approach 2−115437
laminated composites, three-dimens. inelastic finite element anal. 2−70852
laser window materials, optical distortion and far field meas. 2−97041
liq., anomalous electronic props., higher order correl. effects 2−104340
liquid Gruneisen parameter and characteristic param. estimation 2−109877
melting, solid, melting as a critical transition 2−81937
metallic thin film, supported Fuchs-Sondheimer expressions for strain gauge coeffs. 2−115917
metallic thin films and wires, TCR, effects of thermal expansion, differential thermal stress and size effect 2−115916
minerals, Young's modulus determ. by X-ray method 2−99616
molten salt, thermal expansion and temp. depend. of refractive indices 2−110018
α-nylon 11, ferroelec. transition, dielec. const., thermal expansion and pyroelec. coeff. study 2−116128
4′-n-octyloxy-4-cyanobiphenyl, piezothermal studies in vicinity of smectic A-nematic transition 2−61133
particulate reinforced epoxy resin, thermal expansion 2−110017
pine resin heating, acoustic emissions as models for seismic activity 2−102972
PMMA, low temp. glass transition temps., Brillouin scatt. obs. 2−61140
polycarbonate, thermal expansion and specific heat *(Russian)* 2−104035
polyethylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polymers thermal expansion effect on diffr. intensity from molecules 2−80849
polypropylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polystyrene, ultradrawn, thermal expansion 2−98316
polyvinylidene fluoride film, thermal expansion 2−92426
premixed flames in turbulent flows, mol. diffusion and thermal expansion effects 2−65657
PTFE, stretched, unidirectional invar-effect, α-β transform. contrib. 2−71672
quartz, mechanical properties, effect of α-β transition 2−99046
quartz, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
quartz, thermal expansion, Gruneisen functions and static lattice props. 2−98313
rare gas solids, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922

thermal expansion continued
silicate glass, water content influence on viscosity, T_g, thermal expansion and hardness 2−93632
silicate glasses, ultimate strength rel. to other mech. and thermal characts. 2−88177
single phase polycrystals, microcrack zone formation 2−103887
steatite ceramics, extruded, texture effects, glass phase influence 2−111117
steel, stainless, yield point, temp. depend. at low temps. 2−67463
Stoner model, magnetovolume effects and Gruneisen parameters 2−56817
strain wave velocity in single crystals and polycrystalline media, relation to thermal properties 2−61062
TCNQ scatt., HMTTF-TCNQ, thermal expansion, microwave cavity meas. 2−71675
tetrafluoromethane hot mol., thermal expansion, electron diffr. study 2−102624
TGS, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
thin films, stress relax. and hillock growth 2−115627
$TMTSeF_2$-ClO_4, thermal expansion, microwave cavity meas. 2−71675
$(TMTSF)_2PF_6$, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
TMTSF salt, $(TMTSF)_2PF_6$, sound vel. meas. 2−61075
TMTSF-DMTCNQ, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
$TMTTF_2$-I, thermal expansion, microwave cavity meas. 2−71675
toluene, equation of state, elastic and thermal props. *(Russian)* 2−86827
$TSeT_2$-I, thermal expansion, microwave cavity meas. 2−71675
TTF-TCNQ, thermal expansion, microwave cavity meas. 2−71675
TTT_2-I_3, thermal expansion, microwave cavity meas. 2−71675
valence fluctuation systems, systematics 2−56498
Volcoloy, antiferromagnetic Invar type alloy in Mn-Ge system *(Japanese)* 2−77291
water, nonBoussinesq convective behaviour near maximum density 2−70951
waterlike mols., fluid system Monte Carlo simulations, thermodynamic props. 2−65830
Al, surface thermal expansion, LEED temp. depend. study 2−56307
Al-Ag, thermal expansion of inclusions 2−61180
Al-Si-Ni-Mg-Cu, Ni, Mg, and Cu additions effect on tensile strength, hardness, abrasion and thermal expansion *(Korean)* 2−57418
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2−115145
Al_2O_3, thermal expansion anisotropy, stress meas. 2−76713
β-As_4S_3, thermal expansion, compressibility, X-ray diffr. study 2−115438
Au film, condensed, lattice dynamics and substruct. *(Russian)* 2−92425
B amorphous film, internal stress, Young's modulus and thermal expansion meas. 2−82187
B_4C, irradiated, crack propag. induced by swelling and thermal gradients 2−77912
$BaAl_2Si_3O_{10}.4H_2O$, Edingtonite, thermal expansion in region of structural phase transformations 2−76714
BaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
$Ba(NO_2)_2.H_2O$, pyroelectric cryst., struct., neutron diffr. study 2−86635
$BaTiO_3$, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
$BaTiO_3$(100) surface, dynamic lattice characts., LEED study 2−115528
$BiSbO_4$, anomalies of thermal expansion high temp. phase transitions 2−86908
$BiTaO_4$, anomalies of thermal expansion high temp. phase transitions 2−86908
Bi_2WO_6, polymorphism, differential dilatometry and DTA study 2−60913
C-C composite with hybrid C-SiC and C-TiC matrices, synthesis and characts. for high temp. applic. 2−77765
C-fibre reinforced plastics, thermal expansion, technological implications 2−98315
CO_2, thermal expansion, X-ray diffr. study, 5 to 195K *(Russian)* 2−81991
CaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
$CaSiO_3$, ceramic-forming glass, thermal inhomogeneity 2−71673
$CdIn_2S_4$ spinel, lattice thermal expansion, 28 to 685°C 2−104033
$CdIn_2Se_4$, semicond., lattice consts. and thermal expansion, X-ray diffr. study 2−92240
$CdTl_2Se_4$, sp. ht. and thermodynamic props. 2−81973
$CeAl_3$, low temperature sp. ht., thermal expansion and Gruneisen parameter 2−66246
$CeAl_3$, thermal dilatation and sp. heat at very low temp. 2−56213
$Ce_xLa_{1-x}Be_{13}$, thermal expansion temp. driven valence change 2−56226
Co amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
Co, molten, thermal expansion up to 600K above melting 2−66260
Co-P amorphous alloys, contraction during struct. relax., heat treatment effects 2−71674
$CoSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
Cr-Co-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Fe-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Mn single crystals, first order incommensurate-commensurate transform. 2−92175
Cr-Mo and G-V solid soln. systems, high-temp. X-ray investigs., lattice and thermal props. *(Russian)* 2−66156
$CrAl_2S_4$, thiospinel, thermodynamic props. 2−86906
$CsDy(MoO_4)_2$, thermal expansion coeffs., X-ray studies *(Russian)* 2−61178
$CsIO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
Cu, molten, thermal expansion up to 600K above melting 2−66260
$CuAlO_2$, delafossite-type cpd., cryst. struct. parameters 2−60942
$CuGa_{0.5}In_{0.5}Se$, thermal expansion meas. 2−92239
$CuIn_5S_8$ spinel, thermal expansion coeff., 28 to 685°C 2−104032
$Dy_2(Fe_{1-x}Co_x)_{17}$, spontaneous magnetostriction 2−77356
$DyFe_{1-x}Co_xO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$DyFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$Er_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
Fe complex, $(Fe_xZn_{1-x}(2\text{-pic})_3)Cl_2.EtOH$, high spin=low spin transitions, lattice expansion effect 2−87510
Fe, molten, thermal expansion up to 600K above melting 2−66260

thermal expansion continued
Fe-Al (12 wt.%), high permeability mechanism, soft mag. props. 2−82654
Fe-Co-W semihard mag. alloys for remanent reed switch appl. 2−82626
Fe-Cr system, lattice dynamical parameters, X-ray diffr. study *(Russian)* 2−61101
Fe-Cu, thermal expansion of inclusions 2−61180
Fe-Ni Invar alloys, FCC, linear expansion coeff. control by heat treatment *(Russian)* 2−61177
Fe-Ni-Co, phase transitions occurring during heating *(Russian)* 2−62119
Fe-Si(Mo)(C), liq., density, influence of Si, Mo and C 2−61048
GaAs, thermal expansion coeff. calcs. 2−86911
GeO_2-Bi_2O_3-Tl_2O, glass formation, optical appl. 2−77847
GeO_2-SiO_2 glasses from gels to increase oxidation resist. of porous Si-containing ceramics 2−77797
$Ge_{1-x}Pb_xTe$ solid soln., physicochem. investig. 2−104008
He II, superfluid, vortex line struct. near λ point *(Russian)* 2−61234
He-Ne laser tube positive column region gas temp. meas. by thermal expansion method *(Chinese)* 2−95369
^{4}He, liquid, permittivity, molar volume and crit. phenomena near λ-point *(Russian)* 2−98371
HfF_4 based IR transparent glasses 2−97133
HfO_2-MgO system, struct. and phase props. *(Ukrainian)* 2−57336
Hg-Cs, liq. alloys, molar vol. and thermal expansion coeff. meas. 2−109879
Hg-Tl, liq. alloys, molar vol. and thermal expansion coeff. meas. 2−109879
α-HgI$_2$, lattice const. thermal expansions 2−98312
$Ho_{0.5}Dy_{0.5}FeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
InP, thermal expansion coeff. calcs. 2−86911
$KClO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
KH_2PO_4, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
K_2SO_4, arcanite, phase transition, thermodynamic and phenomenological study 2−61129
K_2ZnCl_4, thermal expansion coeffs. and phase transitions 2−61181
$La_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$La_{1-x}Sr_xCoO_3$, X=0.2 to 1.0, elec. cond., influence of prep. and comp. 2−87257
$LiIO_3$, NQR frequencies, temp. and press. depend., compressibility, thermal expansion calc. 2−93050
$LiKSO_4$, low temp. phase, phase transitions, thermal expansion and twinning 2−86861
Li_3N, anharmonic thermal vibrs., fast ionic conduction 2−109937
Li_2O, thermal expansion 2−104034
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
$Lu_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
MX_2O_4 cpds., $SnPb_2O_4$, $NiSb_2O_4$, $ZnSb_2O_4$ and Pb_3O_4, struct. evolution, dilatation, vibr., rigidity *(French)* 2−91911
Mg, vacancy props., positron annihilation, thermal expansion studies 2−103753
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
NH_4LiSO_4, ferroelec. phase transition, thermal expansion study 2−98311
N_2O, thermal expansion, X-ray diffr. study, 100 to 182K *(Russian)* 2−81991
NaCl, aq. soln., volumetric props., data tables 2−94921
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
$Na_5YSi_4O_{12}$ ceramic superionic cond., sintering prep. and characterisation 2−83056
Nb, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
Nb-Zr, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
$NdCo_3$, thermal expansion and resist., anomalies obs. at spin-reorientation transition 2−76715
Nd_5Ge_3, mag. transition temp., mag. ordering effects on elec. and thermal props. 2−87507
Ni, molten, thermal expansion up to 600K above melting 2−66260
Ni-Al, thermal expansion of inclusions 2−61180
NiGa, vacancy conc. and mobility 2−103751
$NiMn_2O_4$, elec. cond., cation valencies, thermoelectric power and thermal expansion 2−66559
$NiSe_2$, thermal expansion, mag. susceptibility, spin density fluctuations 2−66262
$Ni_{11}Zr_9$ phase, cryst. struct. and thermal expansion, X-ray study 2−97992
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2−115429
Pb-In films, thermal cycling between room and liq. He temps., microstruct. changes 2−111214
$Pb_2KNb_5O_{15}$, phase determ. and growth for good quality crystals 2−97957
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
PbO-B_2O_3 glasses, microstruct. characts. by phys. prop. meas. 2−91800
PbTe epitaxial film, misfit strain 2−92423
$PbTiO_3$ ceramics, piezoelectric, elastic and dielectric props. 2−87685
$PbTiO_3$, phase transition in low temp. range, lattice consts. meas. 2−81947
$Pr_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$RbCaF_3$ lattice parameters and thermal expansion coeffs., precise determ. 2−92237
$RbCdCl_3$, cubic, lattice parameters, temp. variation, thermal expansion coeff. 2−98310
S, fluid, critical point, equation of state determ. 2−92142
SF_6 hot mol., thermal expansion, electron diffr. study 2−102624
Sb, electron energy spectrum, thermal expansion, band struct, pseudopotential method 2−71858
$SbTaO_4$, high temp. phase transitions 2−86908
ScF_3-BaF_2-YF_3(ThF_4)(NaF), glass, phys. props. *(French)* 2−91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2−91809
Se-Te, liquid, thermodynamic and elec. props., inhomogeneous struct. model 2−98314
Si particle reinforced Al, SAS1-50 composite, internal stresses and dimens. instability under cyclic thermal load 2−62210
Si, thermal expansion, 80 to 280K, polarisation interferometer study 2−115439
Si, thermoelectric effects, X-ray interferometry study 2−98682
Si:H microcrystalline glow discharge films, phys. props., substrate bias effect 2−87109

thermal expansion continued
SiF_4 hot mol., thermal expansion, electron diffr. study 2−102624
$SiFe_xCo_{1-x}$, ferromag., thermal expansion, mag. contribution meas. 2−86910
$SiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
SiO_2, neutron irradiation effects 2−85209
SiO_2 thin films, effects of humidity on stress 2−92427
SiO_2-based glass ceramics, neutron irradiation effects 2−85209
SrF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
TaS_3, elastic anomalies at CDW transition 2−76564
Tb_2Co_7, mag. anisotropy, cryst. symmetry effects 2−92901
$Tb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$TiFe_{0.5}Co_{0.5}$, thermal expansion, mag. contrib., spontaneous magnetisation 2−115440
$TiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
TlSe, thermal expansion meas. and sp. ht. and Gruneisen coeff. calc. 2−110019
$TmFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
W fibre reinforced Cu composites, tensile yield behavior, effect of thermal history *(Japanese)* 2−105238
$Y_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2−66261
$Y(Fe_{1-x}Co_x)_2$ crystal struct. deform., elastic props. *(Russian)* 2−92074
$Yb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$ZnAl_2S_4$, thiospinel, thermodynamic props. 2−86906
$ZnCr_2S_4$, thiospinel, thermodynamic props. 2−86906
ZrF_4-ThF$_4$-YF_3(LuF_3)(ScF_3)(AlF_3), glass forming area, thermal expansion and UV absorption edge *(French)* 2−115146

thermal expansion measurement
cryogenic, of epoxies, inorganic cements and polyester resins 2−65460
dilatometer for the study of rare earths at cryogenic temperatures *(French)* 2−64014
graphite-epoxy laminates, thermal expansion coeffs. determ. by moire interferometry 2−64100
sensitive dilatometer with capacitive displacement detector for absolute measurements of thermal expansion coefficients of solids 2−63972

thermal fatigue *see thermal stress cracking*

thermal imaging *see infrared imaging*

thermal insulating materials
see also thermal conductivity
cemented joints inspection by neutron radiography 2−93697
fusion blanket insulators, thermal cond. meas. 2−69860
heat resistant rubbers development for power cables and conductors 2−67273
refractory materials plasma-arc spraying onto preformed cores used as furnace heating elements *(French)* 2−62078
transmission meas. by symmetrical steam and hot-wire heat sources 2−74411

thermal insulation
cryogenic design, Indian imports 2−64053
dewar, superinsulated, for liq. He, vapour-cooled shields 2−64052
human superficial shell insulation in resting and exercising men in cold water 2−111627
La Baronne solar greenhouse using new latent heat storage concept 2−73085
optimum thermal isolation for houses with heat-pump-systems−considered under economic aspects *(German)* 2−93940
residential space heating, Dutch national programme of energy research, low-temp. heat utilisation *(Dutch)* 2−116842
space heating by heat receiving wall with heat storage, thermal insulation props. with variable weather 2−99823
stationary turbulence as plasma thermal insulation 2−81482

thermal magnetoresistance
metals, open-orbit effects in thermal magnetoresistance 2−104346

thermal noise
classical electrodynamic noise, equations of state, Schwinger renormalisation group 2−84533
cryogenic bolometers, responsivity, thermal props., noise, nonequilibrium theory 2−64046
diodes, fundamental noise sources, theory 2−104442
fibre-optic magnetic field sensors, thermal phase noise anal. 2−102948
maser noise, Callen-Welton thermal noise theory 2−80923
noise-power standard, precision HF termination, function, special features *(German)* 2−107345
thermal noise meas. using Josephson junction thermometer, effect of additive noise and bandpass filter 2−112902
$Hg_{0.795}Cd_{0.205}Te$ IR detector, for large biasing fields, thermal noise 2−107399
$LiIO_3$($LiNbO_3$), thermal radiation upconversion, thermal noise effects, theory 2−81023
Si, hot hole diffusion and mobility, thermal noise and cond. meas. 2−56604

thermal properties of substances
see also magnetocaloric effects; Scott effect; specific heat; thermal conductivity; thermal diffusivity; thermal expansion; thermal variables measurement
fibrous composite material, pulsed radiation flux exposure, thermokinetic charact. *(French)* 2−65462
frozen coal thawing using Thawtron microwave device 2−73058
homogeneous interpenetrating polymer networks, thermal and rheological props. 2−55452
laminated polymer structures, heat protective, optimum design 2−91221
liquids, thermal props., hole model *(German)* 2−55820
metal, thermal surface impulse, temp. field calcs. 2−60372
metals, generalised impurities, thermodynamic scaling theory 2−56490
methacrylic and epoxy networks, thermal and rheological props. 2−55452
methyl thiocyanide, produced by glow discharges, thermal props. *(German)* 2−56227
oxides, physical and chemical props. handbook 2−94927
polymers, decomposition characteristics studied using semiinfinite body method, thermophysical props. 2−115149
polyurethane, reaction injection moulded, annealing effect on thermal dimens. stability 2−83139

thermal properties of substances continued
silicone rubber, improved thermal stability by Si-N compound additions 2−88112
superconductor, ferromagnetic thin film, thermal oscillations 2−66710
thermophysical characteristics determ. by momentary thermal pulse method taking into account thermal contact resistance 2−60376
$BaAl_2Ti_6O_{16}$-$CaTiO_3$-$CaZrTi_2O_7$ ceramic, devel. and testing as high level nuclear waste form 2−107956
GaAs:Si, thermally stimulated optical absorpt., impurity level spectroscopy 2−104292
Li_2MoO_4, vaporisation and thermal stability 2−66191
δ-Li_4MoO_5, vaporisation and thermal stability 2−66191
Si, heat pulse propag. study by supercond. bolometer 2−92298
TiO_2 surface (001) thermal faceting 2−86992

thermal quenching *see quenching (thermal)*

thermal radiation *see heat radiation*

thermal resistance
liquid droplet growth rate on flat surface in dropwise condensation of vap. from vap. gas mix. 2−91517
solid-solid interface, thermal contact resist. 2−65453
upper bounds for the effective thermal contact resistance between bodies with rough surfaces 2−97360
LiF, edge dislocation dipole contrib. to thermal resistivity 2−86961
Pb, thermal resist. of normal/supercond. interphase boundary 2−77228
Si solar cell I_{sc}-V_{oc} charact., correction of temp. effect, thermal resistance determ. 2−93912
YIG, polycrystalline, thermal cond., 77-300K *(Russian)* 2−98358

thermal resistance measurement
brittle samples, meas. under high pressure 2−79572
contact res. meas. device for hardness testing 2−64024

thermal resistivity *see thermal conductivity*

thermal shock
brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramic, brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramics, influence of size factor 2−62194
nuclear fuel elements, thermomechanical design 2−64468
one-dimensional thermal shock problem, generalised, for small times 2−81229
plate, thermal shock problems, exact soln. 2−91238
PWR steam generator, thermohydraulic characteristics 2−108056
rock, crack effects on elastic moduli, thermal shock role, correl, with earthquake magnitude 2−73548
steel, stainless 316L, fibre reinforced bioglass, processing and static mech. props. 2−57412
Al alloy 2024-T3, perforated sheets, reinforcement by thermal shock with laser beams 2−116452
SiC, sintered and reaction-bonded, radiation response, B isotope effects 2−80191
UO_2 pellets, thermal shock resist., bench tests and calcs. *(German)* 2−85144

thermal shock failure *see thermal stress cracking*

thermal spikes *see crystal defects; radiation effects*

thermal stress cracking
aero gas turbines, corrosion prevention by organometallic cpd. additives 2−116623
brittle solid, thermally activated crack growth, lattice trapping effect 2−66115
brittle solids, fracture under thermal loads 2−91333
brittle solids, thermally induced interacting cracks 2−60466
ceramic, electronic, in high temp. environment 2−77953
ceramics, heat resistance, rel. to strainability, strength and thermal expansion 2−115441
ceramics, thermal shock resistance, influence of size factor 2−62194
ceramics, thermal shock stability *(French)* 2−88155
fatigue data, low cycle, appl. to thermal fatigue cracking 2−88153
glass optical fibres, thermal stress and surface corrosion crack mechanisms, theory 2−109069
graphite, fine-grained, oxidation effects on thermal expansion coeff. and thermal shock fracture initiation 2−77896
heat resisting coatings, optimising thermal fatigue testing 2−99614
hot-work tool steels, performance 2−67473
macrofracture of inhomogeneous solid, kinetic theory 2−103099
nuclear reactor constructional materials, liq. Na influence on strength, calc. method 2−96112
pine resin heating, acoustic emissions as models for seismic activity 2−102972
sitalls, thermal stability determ. by luminesc. defectoscopy 2−116671
steel, austenitic stainless, thermal shock fatigue, Type 304 and 316 steels 2−57443
steel, constructional, thermal embrittlement and fracture features, P influence 2−105323
steel, Cr-Mo-V, heat resistant, thermomech. fatigue, effect on struct. and mech. props. 2−116546
steel, heavy-section, controlled flaw prep. for fracture mech. testing 2−72929
thermoplastic, temp. rise under reversed bending stresses, math. model and test results 2−83227
Al_2O_3-ZrO_2-Bi_2O_3(CoO_x)(SnO_2) refractories, thermal shock resist., Bi_2O_3(CoO_x)(SnO_2) effect 2−93623
Al_2O_3-ZrO_2-SiO_2 refractories, props. with different ZrO_2 and SiO_2 concs. 2−88188
CaO-TiO_2-ZrO_2 system multiphase ceramics for bushing prod., mech. props. 2−67478
$MoSi_2$-Pd protective coatings on Nb, Pd effect 2−116614
Ni alloy, heat-resisting, EP-741P, fracture behaviour investig. by thermal microscopy, P/M alloys 2−67545
Si particle reinforced Al, SAS1-50 composite, internal stresses and dimens. instability under cyclic thermal load 2−62210
Si_3N_4, reaction bonded, mech. props., creep and thermal shock behaviour, influence of microstruct. variables 2−116541
Si_3N_4, SiC, hot pressed or reaction-bonded, effect of laser radiation 2−83174
Ti alloys, pseudo-α, thermal stability and eval. methods 2−105325
W fibre reinforced Ni superalloy, high temp. composite, microstruct. stabilisation with ZrO_2 short fibres *(German)* 2−77781

thermal stress cracking continued
ZrC-C composites, strength 2−116544
ZrO_2MgO (CaO)(Y_2O_3) ceramics, rare earth oxide stabilised, elec. conducting, for MHD generator electrodes 2−88043

thermal stresses
see also thermal stress cracking; thermoelasticity
beam of sectionally const. cross section, thermal stress and deflection 2−81230
body with random temp. distrib. at boundary thermal stresses *(Japanese)* 2−75825
ceramic, brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
ceramics, thermal stresses rel. to fracture 2−62218
composite shell, three-layer fibreglass base, axisymmetrically heated, stability loss 2−60436
concrete, transient structure code for thermal loading in reactor accident 2−74881
critical stress for plastic deformation, theory 2−103883
cylinder, rotating, non-steady-state thermoelastic stresses 2−55442
dipolar bodies, initially stressed, with microstructure, thermoelastic stresses 2−81228
disc, circular, residual stresses creation by heating, optimum control 2−91275
fibre reinforced composites, unidirectional, strengths and thermal residual stresses 2−83215
fibre reinforced plastic, filament-wound disc, rot. strength, tensile stress, cracking and buckling failures *(Japanese)* 2−57465
fission reactor primary structures, thermo-mech. loading, limit design anal. 2−74872
fusion reactor blankets, thermal stresses in neutron multipliers 2−80168
fusion reactor materials, thermal stress in materials heated internally by radiation absorption 2−69840
glass, multilayer cylindrical struct. for fibres, optical fibres and cables, thermoelastic stress 2−65396
graphite, water-cooled pyrolytic targets, design and operation at LAMPF 2−108188
half-plane, Green's functions for transient thermoelastic contact problems 2−103116
half-space, two-dimens., thermal stress for moving heat input, plane stress care 2−103115
heated orthotropic plates, stress function under steady temp. distrib. 2−55449
hyperstatic thermoelastic structures, deflection 2−114649
insulating materials, compatibility between thermal and electrical stresses 2−110767
metallic thin film, supported Fuchs-Sondheimer expressions for strain gauge coeffs. 2−115917
metallic thin films and wires, TCR, effects of thermal expansion, differential thermal stress and size effect 2−115916
minerals, Young's modulus determ. by X-ray method 2−99616
multilayer thin films on thick substrate, internal stress formula 2−66404
nonlinear viscoelastic bodies under harmonic excitation, approx. theory of behaviour 2−60428
one-dimensional thermal shock problem, generalised, for small times 2−81229
plate, rectangular, freely-supported, thermal stresses due to nonuniform heating 2−97378
plate, rectangular, thermal gradient vibr. anal. 2−81281
plate, semiinfinite, thermally stressed state caused by moving heat source 2−97379
plate, thermal shock problems, exact soln. 2−91238
plate, three-layered, unbounded, thermoelastic stresses due to optical radiation *(Russian)* 2−70846
plates, flat, thermal bending anal. by boundary integral eqn. method 2−75865
plates, polygonal, elastic, thermal stresses due to localised heating 2−103035
plates and shells, optimum design with allowance for temp. effect 2−114640
polyurethane, reaction injection moulded, annealing effect on thermal dimens. stability 2−83139
PWR steam generator, thermohydraulic characteristics 2−108056
shell, cylindrical, stability under external press. and nonuniform heating 2−97408
shells, cylindrical, thermal stresses based on improved theory 2−69699
slab, orthotropic elastic, containing plane flaw, thermal stresses 2−81231
sliding surfaces, thermomech. effects, conf., Columbus, USA (June 1981) 2−101124
solar receiver, bench model, hot tube to manifold ceramic joint, thermal stresses 2−67892
spherical cavity in infinite body, uniform temp. distrib., axisymm. thermal stress 2−60405
steel, Cr-Mo, low alloy, heat resistance at 500°C in Na, NaOH admixture effect 2−67459
steel, maraging, Ni and Cr effect on thermal stresses and relax. capability, thermal welding simulation *(Russian)* 2−67386
thermoelastic problems, axisymmetric coupled, temp. and stress distribs. 2−81232
thermomechanical failure criteria, stress intensity factors incl. crack closure effect 2−75903
thin films, stress relax. and hillock growth 2−115627
transient elastic stresses in ICF reactor first wall structural systems 2−69831
Al_2O_3, thermal expansion anisotropy, stress meas. 2−76713
B amorphous film, internal stress, Young's modulus and thermal expansion meas. 2−82187
Bi_2Te_3:$CdCl_2$(Te) crystal growth using directional crystallisation apparatus for growing complex solid solns. *(Russian)* 2−72609
C fibre reinforced epoxy, unidirectional, strengths and thermal residual stresses 2−83215
Cr films on K8 glass substrate exposed to pulsed laser heating, thermal stresses 2−82113
GaAs, liquid encapsulated Kyropoulos growth method, thermal stress decrease 2−99323
Na_2O-CaO-SiO_2 glass, brittle, thermal shock testing, fluidised bed as quenching medium, charact. obs. 2−116655
NbC_x, single cryst., prep., struct. and mech. props. 2−98108
Pb-In films, thermal cycling between room and liq. He temps., microstruct. changes 2−111214
PbTe epitaxial film, misfit strain 2−92423
PbTe epitaxial layers on BaF_2, misfit and thermal strains, magneto-optical and X-ray study 2−82175
Si particle reinforced Al, SAS1-50 composite, internal stresses and dimens. instability under cyclic thermal load 2−62210
W fibre reinforced Cu composites, tensile yield behavior, effect of thermal history *(Japanese)* 2−105238
Zr-Nb, fuel cladding, thermal expansion coeff. anistropy 2−54507

thermal transformations *see phase transformations*

thermal variables measurement
see also bolometers; calorimeters; calorimetry; temperature measurement; thermal conductivity measurement; thermocouples; thermometers
commercial thermophysical instruments 2−58816
diffusion factor of isotopic gases, temp. depend., determ. using column calibration factor 2−86369
diffusivity, liq., flash heating of three-layered cell 2−61217
diffusivity and activity, liquids, AC heated-wire technique 2−86205
diffusivity measurement, photoacoustic and mirage effect methods *(French)* 2−65463
diffusivity measurement *(French)* 2−65466
diffusivity measurement using pyroelec. detector 2−89705
dilute gases, reactive species diffusion coeff. meas. method 2−60708
emissivities of surfaces for high temperature heat transfer *(Japanese)* 2−81993
equipment for meas. *(Hungarian)* 2−79574
heat capacity, liquids, AC heated-wire technique 2−86205
heat of fusion and thermal props., 800-2000K, meas. device 2−101399
heat transfer measurement thermoelectric printed circuit device *(French)* 2−64025
hemispherical integral radiation capacity of materials meas., by modulation method 2−58817
Hungary, thermal measurement standards *(Hungarian)* 2−79527
integral emittance, simultaneous meas. of thermal and electrical props. by modulation method 2−95371
low-energy housing experimentation, colloquium, Liege, Belgium (May 1981) 2−57763
opaque materials, thermal radiation props., meas. methods *(French)* 2−65467
pool boiling heat transfer, meas. apparatus *(German)* 2−97547
quartz resonator thermometry developments 2−53761
random error analysis of complex thermal measurements *(Hungarian)* 2−79575
specific heat, pulse adiabatic method 2−58814
specific heat of solids and liquids, transient hot-strip method, second-order theory 2−114619
thermo-EMF measuring instrument using probe method 2−69168
twin-slope method of measurement of specific heat and coating absorptance of solid materials 2−79577
wall-to-atmosphere heat tranfer meas., impulse sensors *(French)* 2−64026

thermally stimulated capacitor discharge *see thermally stimulated currents*

thermally stimulated currents
alkali halides, activated, photoconductivity, thermoluminescence and TSC 2−82404
CN-85 solid-state nuclear track detector, electret props. studies 2−59615
hydrocarbons, saturated, liq. and solid, charge carrier form. by radiation *(Russian)* 2−61480
ionic crystals, doped 2−93106
ionic thermal currents under uniaxial stress, determ. of elec. and elastic dipole props. 2−110751
N-isopropylcarbazole-polycarbonate mixture, transport and trapping processes, comparison 2−66572
α-keratin fibres thermally stimulated depolarized currents, correl. walk model 2−88498
metal-polymer-metal system, thermally stimulated spontaneous current 2−82771
Onsager theory appl. 2−87293
phthalocyanine, β-metal free single cryst., TSC 2−77085
PMMA electrets, TSC meas. with needle-plate electrode geometry 2−57010
PMMA-PVC blends, transition behaviour, tacticity effects, TSDC obs. 2−76657
poly(N-vinylcarbazole), appl. of TSC transport peak appl. 2−66571
poly(N-vinylcarbazole)-polycarbonate mixtures, transport and trapping processes, comparison 2−66572
poly(vinylidene fluoride), pyroelectricity anal. by residual charge meas. technique 2−87700
poly-1-vinyl-1,2,4-triazole, trapping centres, TSC, thermally stimulated discharge and SCL cond. meas. 2−87298
poly-N-vinylcarbazole, TSC spectrum meas., Onsager theory appl. 2−87293
polychlorotrifluoroethylene film (Aclar), electret props., TSC study 2−77445
polyethylene:anthracene, γ-irradiated, trap depth 2−61479
polyethylene, thermally stimulated depolarisation spectrum 2−79561
polyethylene, TSC after low temp. γ irrad. 2−110365
polyethylene following AC stressing 2−87655
polyethylene naphthalate photoelectret, carrier traps 2−98661
polyethylene thermoelectret, TSC and space charge 2−110361
polymer films, molecular processes during friction, thermally stimulated depolarization current obs. 2−67560
polymeric insulating material degraded under specified conditions, radiation induced conductivity 2−110397
polymethylmethacrylate, thermally stimulated depolarisation spectrum 2−79561
polypropylene electret, vapour induced depolarisation currents 2−87658
polypropylene films, positively corona-charged, TSC meas. 2−98659
polypropylene foil condenser, thermoelectret, TSC study 2−72406
polystyrene film, pyrene doped, thermally stimulated discharge current spectra meas. 2−72408
polystyrene polar mol. systems, mol. rot. mobility study by TSC 2−91823
polyvinylidene fluoride, thin film magnetoelectret, thermally stimulated discharge current obs. 2−99025
PTFE, organic electret for condenser microphones, electret lifetime, annealing, thermally stimulated depolarisation meas. 2−72407
PTFE, TSC study of room temp. struct. transitions 2−57011
PVC:lead stearate, dielec. relax., thermally stimulated depolarisation current anal. 2−72414
Rochelle salt, ferroelectric, Curie points, temp. variation of thermocurrents study 2−72436

thermally stimulated currents continued
semiconductor, deep levels, position and capture cross section, thermally stimulated capacitance method 2−61402
semiconductors, local centres parameters determ. from TSC curves inflection points 2−82373
silicate glass, thermally stimulated currents and alkali-ion motion 2−57012
styrene-isoprene block copolymers, effect of temp. depend. of permitt. on TSC 2−87654
surface TSC meas. on dielectrics, residual gas condensation effects 2−72045
thermally stimulated capacitance, differential meas. technique 2−115773
vapour induced depolarisation currents 2−87657
vinyl chloride: vinyl acetate copolymer thin films; mol. motion, TSC obs. 2−82772
Ag-$Bi_{12}TiO_{20}$-Al, local levels in forbidden band of $Bi_{12}TiO_{20}$ 2−71899
AgBr emulsions, ionic thermocurrent meas., grain microcryst. struct. depend. 2−88383
AgCl:Mn^{2+}, dielec. relax., ionic thermocurrent method 2−99033
Al-SiO_2-Si, B-ion implanted MOS structure, radiation defect spectra study by TSC method 2−66646
Au-FeF_3-Au struct., FeF_3 film polarisation 2−61821
BaF_2:La^{3+}, thermal depolarisation studies 2−61817
BaS:Cu(Bi) phosphors, thermally stimulated conductivity 2−72006
$Bi_{12}GeO_{20}$, sillenite-type non linear crystals, deep localised centres 2−110362
$Bi_{12}SiO_{20}$, pulsed and steady-state photocond. and TSC meas. in MIM struct. 2−92695
$Bi_{12}SiO_{20}$, sillenite-type non linear crystals, deep localised centres 2−110362
$Bi_{12}TiO_{20}$, sillenite-type non linear crystals, deep localised centres 2−110362
CaF_2, doped, dipolar thermally stimulated depolarisation, theory 2−93106
CaF_2:La^{3+}, thermal depolarisation studies 2−61817
CaS:Bi excitation mech. of Bi^{3+} luminesc. centres, luminesc., TSC and photocond. meas. 2−67103
$CaSO_4$ phosphor, thermolum. and thermally stimulated exoelectron emission, SO_3^- radicals role 2−77602
CdF_2:Eu^{3+}, insulating, thermally stimulated relax. 2−67129
CdS, high resistivity, semi-insulating, thermoelectric props., influence of deep traps, TSC study 2−66577
p-CdS, metastable states, photoluminescence 2−104425
CdS, recharge-enhanced transforms. of donor-acceptor pairs and clusters 2−61390
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
p-CdTe, annealed in various atmospheres, carrier traps, TSC study 2−66478
Cs_3BiCl_6 ceramic, ferroelastic transitions, DTA, X-ray, dielec. and TSC meas. *(French)* 2−109889
$EuGa_2S_4$, semicond., injection and thermoactivation currents, trapping 2−87278
FeF_3 granular films, dielec. polarisation, AC cond. and TSC study 2−82774
$Ga_xAl_{1-x}As$, MBE grown, persistent photocond. centres, capacitance spectroscopy meas. 2−98688
GaAs-oxide interface electronic struct. 2−87409
GaSe, photocond. near fundamental band edge 2−92692
KBr:Sr, dielec. relax., impurity-conc. effects 2−104811
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KBr(I), cation size effect on ionic thermocurrents 2−72405
KCl, crystals, surface polarisation by blocked point defects, TSC study 2−110750
KCl:Ca_2 dielec. relax., impurity-conc. effects 2−104811
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831
KCl:Eu^{2+}, X-irrad., luminesc. and cond. props., elec. field effects *(French)* 2−116262
KCl:Sr, interstitial centres and thermoluminescence 2−72565
$KTaO_3$:Ni(Fe), electron trap levels, ESR and TSC meas. 2−82703
$KaTaO_3$:Ni, ESR lines and photocurrent kinetics 2−98942
LiF, cation size effect on ionic thermocurrents 2−72405
LiF:Mg, impurity-vacancy pair clustering, trimer form., dielec. losses and TSC meas. 2−115419
LiF:Ni(Co), dielec. relax., impurity-conc. effects 2−104811
LiH, X-ray irradiated, thermolum., TSC and F centre annealing at low temps. 2−116278
$Li(N_2H_5)SO_4$:VO^{2+}, elec. cond. and stimulated thermo-current studies 2−71706
Li_2O-Na_2O-SiO_2 glass, polarisation and cond. mechanism 2−87656
Li_2O-Na_2O-$2Si_2O$ glasses, thermally stimulated currents 2−104391
$Li_20.2SiO_2$ glass, polarization activation energy evaluation from TSD currents 2−99024
$MgAl_2O_4$, spinel, γ- and X-irrad., defect trap levels TSC and thermoluminesc. study 2−56608
NaCl, cation size effect on ionic thermocurrents 2−72405
NaCl:Pb, dielec. relax., impurity-conc. effects 2−104811
NaI:Ca, thermal depolarisation 2−93104
PbO, orthorhombic, photopolarisation 2−93102
PbO-SiO_2 glass, electron and gamma irradiated, charge trapping and release 2−57013
RbI:Ag^+, ionic thermal currents under uniaxial stress, determ. of elec. and elastic dipole props. 2−110751
Si, 20 MeV proton bombard., radiation defect parameters 2−92056
Si MOS struct., charge motion, TSC meas. 2−115911
Si, p-n junction, dislocation energy levels, determ. using photoelectret and thermoelectret states 2−61580
Si:Zn, Cr(Fe)(Mn)(V), donor-acceptor complexes, DLTS and TSC meas. *(German)* 2−98579
Si-SiO_2 interface states determ. by thermally-stimulated current method *(Chinese)* 2−66642
Si-SiO_2 structures, traps in transition region, TSCR study 2−98754
SiO_2 film, thermally grown on Si, elec. behaviour of H ions 2−61634
SiO_2, thermally stimulated hole current 2−104392
SiO_2-B_2O_3-Sb_2O_3-Na_2O glasses, electronic and ionic cond. 2−87348
$SrCl_2$:K, photochemically coloured, thermally stimulated depolarisation currents meas. *(Russian)* 2−116112
SrF_2, doped, dipolar thermally stimulated depolarisation, theory 2−93106
SrF_2:La^{3+}, thermal depolarisation studies 2−61817
$Sr_{1-x}Nd_xF_{2+x}$ solid soln., space charges, depolarisation, ionic thermocurrent study 2−87671
TiO_2, ESR studies of defect centres 2−87594
thermally stimulated currents continued
ZnS layers, TSC investigation of traps *(Russian)* 2−87659
ZnSe, LPE grown, deep electron traps, TSC, photocapacitance and DLTS study 2−56466
thermally stimulated depolarisation *see thermally stimulated currents*
thermally stimulated discharge *see thermally stimulated currents*
thermally stimulated ionic currents *see thermally stimulated currents*
thermally stimulated polarisation *see thermally stimulated currents*
thermally stimulated relaxation currents *see thermally stimulated currents*
thermionic cathodes
core-emission layer boundary, Schottky barrier effect 2−57243
matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244
Penning discharge, thermionic cathode, electron modulation of HF oscillations 2−81606
LaB_6 cathode, thermionic emission characteristics, ⟨100⟩ and ⟨110⟩ orientations 2−53894
LaB_6 cathodes in mass spectrometry 2−113031
W dispenser cathodes, M-type, activation by Os-Ru coating, Auger, XPS and ISS study 2−82091
W-BaO B-type dispenser cathode surface, theoretical model 2−99290
ZrO_2-Y_2O_3, Auger electron spectroscopy 2−110113
thermionic conversion
electricity generating coaxial cell kinetic charact. calc., numerical algorithm 2−93935
solar energy conversion technologies, solid-gas interface reactions, research needs 2−88378
solar-thermionic generator for radioactive waste disposal space vehicle 2−73132
thermionic emission converter, current energy, collector parameters effects 2−65773
thermionic energy convertor microwave power enhancement of the plasma conductivity 2−105584
thermionic electron emission
see also Schottky effect; thermionic cathodes
MHD oxide electrodes, elec. degradation, thermal emission of electrons meas. 2−88465
MIM junctions, linear response of thermionic emission 2−99291
SAMOS structures, charge retention, thermionic electron emission model 2−56696
Schottky barrier diode, interfacial layer thermionic diffusion theory 2−115859
semiconductor film, polycrystalline, Hall mobility interpretation 2−61630
space charge fluctuations, constant magnetic field effect on electron cloud in equilibrium 2−93362
thermo-field electron emission in arc discharges 2−109613
C-film adsorbed on Ir, study by Auger electron spectroscopy and thermionic emission 2−66332
Ir, adsorbed C, oxidation, thermionic emission study 2−66373
NbC_x (111), (110) and (100) surfaces, electron work function, thermoemission meas. 2−82440
Si, n- and p-type, Schottky barrier of nonuniform contacts 2−92723
Si, surfaces (111) and (100), ionization and desorpt. kinetics, atomic beam interaction study 2−115566
W-Ir(Ru)(Os) matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244
W-Re cesiated foil targets heated by laser pulse as electron source for high quality electron beams 2−96358
thermionic emission
see also thermionic electron emission; thermionic ion emission
$Au/Si_{12}Te_{48}As_{30}Ge_{10}/Al_2O_3/Al$ structure, current-voltage charact. 2−61589
Cu (100) surface, thermionic emission, theory, band struct., electron electron interactions 2−67183
$LiNbO_3$, in Cs vapour, thermionic emission 2−72595
thermionic generators *see thermionic conversion*
thermionic ion emission
ionisation detectors, characteristics study 2−90403
Fe, polycrystalline, H ion evolution under const. heating rate 2−93361
Re, oxidised, thermionic emitters of positive ions 2−57242
W, coated by LaB_6 film, by ion beam sputter deposition electron optical characteristics *(Japanese)* 2−82996
thermionic power generation *see thermionic conversion*
thermionic tubes
see also cathode-ray tubes; electron-wave tubes; gas-discharge tubes; rectifier tubes; vacuum tubes
No entries
thermionic valves *see thermionic tubes*
thermistors
biomedical thermistor catheter for core temp. meas. 2−94228
bolometer using positive temp. coeff. ceramic element 2−107405
flowmeter, thermistor transducer for weak flows *(French)* 2−65668
positive temperature coefficient thermistor quartz crystal temperature controller 2−84612
self-heated thermistors for flow rates and energy measurement *(German)* 2−86361
temperature sensing devices types and appl. 2−95380
thermograph with thermistors for geodynamic observations *(Rumanian)* 2−117504
thermometry, utilising thermistors, complementary amplifying circuit *(Chinese)* 2−69172
NiO-Mn_2O_3, CuO doped, NTC thermistor material, CuO impurity influence on elec. props. 2−66545
SiC thin-film thermistor, use as temp. sensor from 30 to 300°C 2−69174
thermo-optical effects
see also thermoreflectance
fibre optic cable vulnerability to thermal pulses 2−114441
gas, weak absorption meas. using thermooptical method in laser molecular spectroscopy 2−113985
holograms, IR thin-film recording device, thermooptic method 2−85923
interferometric thermooptic-based technique for differential meas. of weak solute absorpts. 2−79652
laser beam transforming optical system thermal distortion correction 2−75656
laser critical window orientation, stress-induced birefr. and thermal lensing expts. 2−61870
laser window materials, optical distortion and far field meas. 2−97041

thermo-optical effects continued
liquid crystal memory light valve using smectic-cholesteric liq. cryst. mixture 2−72468
nonlinear plane wave excitation by thermooptic array moving nonuniformly with transonic velocity 2−114514
optical glass, optical const., effects of external fields 2−72440
Schiff bases, photochromic and thermochromic, NQR spectra 2−110824
smectic liquid cryst. imaging device based on photochem. reaction 2−99692
trace gas detection using Fabry-Perot interferometric photothermal technique 2−112881
TTF-chloranil, neutral-ionic phase transition, review 2−92592
X-ray photoconductor-thermochromic film struct. for X-ray visualisation 2−84776
BaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
$Bi_{12}TiO_{20}$, piezoelec., temp. modulated spectroscopy near absorption edge 2−99100
CaF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
GaAs electrical surface props. determ. by thermo-optical acousto-electric voltage method 2−92720
Ge Fabry-Perot interferometer heated by laser radiation, thermal hysteresis 2−53829
KCl(Br,I) cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
KH_2PO_4, KD_2PO_4, for nonlinear devices, temp. dispersion data 2−60148
LiF cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
$NH_4H_2PO_4$, for nonlinear devices, temp. dispersion data 2−60148
NaCl cubic crystals, refr. index dn/dT temp. coeff., thermoelastic stress contrib. 2−57054
SbSI, thermodulated spectroscopy of band gap region 2−110823
SiO_2, vitreous, with small OH conc., absorpt. by 3D impurities, thermooptical interferometric study 2−104923
SrF_2, thermo-optical coeff. and thermal expansion, temp. depend. 2−61884
TiO_2, thermal-gradient induced electro-optical deflection obs. 2−99089

thermochemical energy conversion *see chemical energy conversion*

thermochemistry
see also chemical reactions
dissociative electron attachment, thermomechanical parameters, time of flight mass anal. 2−85821
fission product chemical behaviour in fuel rods under accident conditions 2−80087
laser radiation stimulation of thermochem. phenomena 2−111463
nuclear reactor waste heat pipeline transportation over long distances using thermochemical closed cycle *(German)* 2−67846
S/I thermochemical water splitting cycle studies 2−99845
steel, plasma-induced nitrided and carburised layers, technological importance 2−57543
GaAs CVD, thermodynamic anal. of $Ga/AsCl_3/H_2$/inert gas system *(Chinese)* 2−111079
GaAs, laser beam erosion, role of thermochemical effect 2−61028
GaP, donor-Ga vacancy complex form., electron trap behaviour 2−115688
H_2 cycles utilising $ZnSO_4$ decomposition 2−73160
H_2 production, sulphur-iodine thermochemical water-splitting cycle bench scale testing preliminary results 2−73156
H_2 production by water splitting, thermochemical cycles 2−57743

thermoclines *see temperature distribution*

thermocouples
see also thermopiles
biomedical thermoprobe, sheathed micro, for local temp. meas. in tissue 2−78472
checking in range 300-1200°C, metrological certification of test equipment 2−95370
Chromel-Alumel, deterioration of EMF in reducing atm. at high temps. 2−67641
chromel-alumel, for four-pole cylindrical synchronous machine solid rotor temp. distribution measurement *(French)* 2−84628
cold junction compensation using IC temp. transducer 2−95341
cold junction compensator for use with Pt resistance thermometer *(Japanese)* 2−89713
errors in temperature meas. of semitransparent materials with low heat cond. *(Russian)* 2−64028
fine wire, frequency response study 2−84625
fission couple time response in neutron pulse monitoring 2−64751
furnace transient temp. fields meas., using heat flux sensor with thermocouples *(German)* 2−64041
fusion neutrons, room-temp. irrad. 2−85240
insulation transmission meas. by symmetrical steam and hot-wire heat sources 2−74411
laser calorimetric wattmeter, thermocouple sections selecting system 2−81007
level sensor, of refrigerant in cryostat 2−64051
modulated solar thermoelectric refrigerator performance 2−83505
neutron detector response in normal and intrinsic config. 2−113816
pressure dependence of the thermoelectric power of sheathed chromel-alumel-thermocouples *(German)* 2−64027
PWR prototypic gamma thermometers, fabrication and elec. calibration 2−64564
radiation effects on results 2−101402
radiation effects on thermoelectromotive force 2−112903
reactor vessel level monitoring system using heated junction thermocouple 2−64561
shock compressed solid, thermocouple temperature meas., longitudinal strain 2−112899
shock compressed solid, thermocouple temperature meas. shock enhanced thermal equilibration 2−112900
surface temperature measurement using separated contacts, error anal. *(French)* 2−64038
temperature meas. standards in high temp. mech. testing 2−105437
thermo-EMF instability, determ. by calc.-empirical method 2−69167
thermoelectric transducers, radiation effect on errors in reactors 2−54546
vacuum thermocouple convertor inertia meas., comparator circuits for electric variables meas. appl. 2−58818
Al block temperature controller for fatigue testing 2−78057
Bi-Sb self-heated thermocouple for far IR detection 2−112974
Bi_2Te_3-$Bi_2Se_3(Sb_2Te_3)$ thermocouple, surface treatment effect 2−110373

thermocouples continued
Cu-Fe low temp. thermocouples, props. and calibration *(Chinese)* 2−107323
$GeTe$-Co_3Ge eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890
Ni-Cr/Ni-Al, response linearization using FET cct. 2−53757
PbS-NiSb, eutectics, microstructure and mech. props. meas., thermocouples appl. 2−86890
PbTe-NiSb eutectic, microstructure and mech. props. meas., thermocouples appl. 2−86890

thermodiffusion *see thermal diffusion*

thermodynamic changes of state *see phase transformations*

thermodynamic cooling *see cooling*

thermodynamic equations of state *see equations of state*

thermodynamic potential *see free energy*

thermodynamic properties
see also critical points; enthalpy; entropy; free energy; Gruneisen coefficient; latent heat; specific heat
A15 superconductors, effect of impurities on thermodynamics 2−98802
activation energies from conductivity-temperature measurements 2−56581
acyl halides, thermodynamic properties calcs., 100-1500K 2−109446
alkali metal liq. alloys, heat and entropy of mixing, Gibbs-Bogolyubov variational technique 2−56221
alkali metals, liq., internal energy and entropy, Gibbs-Bogolyubov variational technique 2−56221
alkaline earth metahafnate, thermodynamic stability investig. using EMF method with CaF_2-type electrolyte 2−81983
n-alkane mixtures, excess thermodynamic functions, corresponding states principle calcs. 2−81987
alkanes, connectivity indices, rel. to phys. props., molecular theory 2−81980
alloys, Krupkowski method for thermodynamic props. 2−76708
alloys, molten, cpd. forming, thermodynamic props. in weak interaction approx. 2−91759
amylose, mol., simplified helical model, partition function 2−81984
anharmonic crystal, thermodynamic and transport props., effect of temp. and press. 2−76706
binary molten salt mixtures, sound vel., excess thermodynamic parameters 2−76595
binary solutions, Gaussian formalism for free energy as function of comp. 2−83088
ε-caprolactam, activated anionic polymerisation, superimposed processes, exothermal effects 2−78095
carbontetrachloride+tetracene charge transfer interaction 2−78092
carboxyl-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
carboxylferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
castor oil, thermodynamics props. as a function of temp. and press., using sound vel. and density data 2−61166
ceramic materials in liq. metals, thermodynamic stability 2−80176
convex molecule mixtures, conformal soln. theory *(German)* 2−55823
correlations of thermodynamic effects for developed cavitation 2−60589
dense fluids and fluid mixtures, chemical pot. evaluated via computer simulation technique 2−103577
di-alkoxyazoxybenzenes, homologous series, nematic phase, high-press. thermodynamic meas. 2−71342
1,1′-dichloro-ferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
1,1′-dichloro-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
2,5-dichloropyridine, IR spectra, vibr. assignment 2−54839
dimer in random pot., microscopic theory 2−104216
dl-/lactide, thermodynamic props. and thermodynamics of polymerisation *(Russian)* 2−111510
drawn, crystal stability and mech. props., statistical-mech. approach 2−86586
electrically conducting bodies, surface phenomena, thermodynamic fundamentals 2−98427
electrolyte solutions, bimorphic lattice theory 2−103574
ethane, liq., fluids, thermodynamic props., mol. dynamics simulations 2−81648
eutectic alloys, homogeneity time estimating based on segregation model *(Polish)* 2−66226
fluoride heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
fluorite type AB_2 crystals, cohesion and thermodynamical props., Debye temp., Gruneisen and force const. 2−61169
formyl-ferrocene, mol. dynamics investig. by dielec. relax. meas. 2−87664
formylferrocene, dielectric absorpt. and relax. times, molecular dynamics, thermodynamics parameters 2−72410
fossil fuel related organic compounds meas., at Bartlesville Energy Technology Center 2−53764
gas-solid reacting systems, heat and mass transfer, thermodynamic approach 2−65635
gases, solubility in liq. solvents and solvent mixtures 2−66231
gases with anisotropic particle interaction, thermodynamic props. 2−60702
gauge theories, thermodynamic props. 2−79753
hard disk system in narrow box, thermodynamic props. 2−89644
heavy water, D_2O, liq., sound absorpt. mechanism, thermodynamic theory 2−81894
Heisenberg chain with arbitrary spin S, one-dimensional isotropic, exact soln. 2−104565
2,4-hexadiyne, cryst. struct., dynamics, model calcs. 2−81774
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
hydrocarbon complex, I_2 saturated, contact charge transfer interaction, UV absorpt. spectra 2−108547
hydrogens, liq., thermodynamic props. calcs. using interaction site model 2−103593
III-V compounds, stability in quaternary liq. phase, thermodynamic anal. 2−71617
indole-pyridine(quinoline) NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
ionic solutions, cond. and thermodynamic props., miscibility 2−56215
Ising model, two-dimens., thermodynamic props. at phase transform., analytic continuation method 2−69120
kinetic theory, relativistic, for variables mass particles, thermodynamic props., transport coeffs. 2−69085

thermodynamic properties continued
Kondo model, thermodynamic eqns. 2−104362
laser torch, atomisation and thermodynamic equilib. of matter 2−107414
Lennard-Jones two centre fluids, thermodynamic props., mol. dynamics simulations 2−81648
liquid alloys, binary, thermodynamic props. with negative deviation of activities from Raoult's law *(Japanese)* 2−77804
liquid crystals, nematic, microscopic theory for thermodynamics and elastic consts. 2−81668
liquid metal with purely repulsive interatomic pot., thermodynamic props. and self-diffusion 2−103585
liquid metal-O_2 system, correlations for thermodynamic and kinetic props. of gas solutes 2−98286
liquid mixture activity coeff. based on local area fraction concept *(Japanese)* 2−92169
liquid mixtures, 2-fluid theory and thermodynamic props. 2−110015
liquids, measurement by AC heated-wire technique 2−86205
liquids, statistical thermodynamics approach to eqns. of state 2−76707
liquids with anisotropic particle interaction, thermodynamic props. 2−60702
measurement techniques, conf., Albany, OR, USA (Aug. 1979) 2−53425
metal hydrides, Advanced Study Institute, Rhodes, Greece (June 1980) 2−74142
metal hydrides, energy conversion systems, props. and appls. 2−111594
metal silicide formation, ^{31}Si radioactive marker studies, computer simulation 2−98334
metallic solutions, dilute, empirical estimation of Henrian constants 2−66255
metals, shock adiabatic curves, statistical anal., theory 2−61173
metals, thermodynamic potential, many-point ring diagrams, degeneracy 2−81988
methane, liq., Monte Carlo simulations, thermodynamic and struct. props. 2−91748
methanol, liq., struct., thermodynamic props. and H-bonds, pressure effect, intermolecular interactions 2−71326
molecular crystals, thermodynamic props., NQR method appls. 2−110696
molten carbonate fuel cells, electrolyte distrib. thermodynamics 2−88425
monolayers at air-water interface, elec. field effects 2−115538
multicomponent gas, one-dimens., with infinite intermolecular pots., thermodynamics 2−109440
nematic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
nuclear matter, particle clustering and Mott transitions at finite temp. 2−74741
nucleic acid complexes with Ag^+ ions, thermodynamic characts. 2−99873
one-dimensional fermion lattice, thermodynamic props., Monte Carlo calc. 2−84553
organic binary mixtures, excess thermodynamic props., temp. depend. 2−71667
organic compounds, hydrophobic, Henry's law consts. 2−76683
oxide heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
oxide solid soln., elimination of polymorphism *(Chinese)* 2−60932
oxides, physical and chemical props. handbook 2−94927
polyelectrolyte solution containing mixture of same charge counterions, thermodynamic props., cell model 2−116721
polyelectrolyte-electrolyte solns., mean activity coeff. calc. 2−104024
polyethylene, high-press. phase transition, thermodynamic anal. 2−76656
polylactide, thermodynamic props. *(Russian)* 2−111510
polymer, glassy, free vol. fraction, excess entropy and mech. deform. 2−61176
polymer, glassy, inhomogeneous dissipative structure using variational principle of nonequil. thermodynamics 2−61142
polymer blend melts, thermodynamic and rheological props. *(Russian)* 2−76711
polymers, Rao constants 2−97893
polyoxides, heat capacity and other thermodynamic props. 2−74168
polypropylene, heat capacity and other thermodynamic props. 2−74169
polystyrenes in isorefractive PMMA-toluene solvents, light scatt. obs., radii of gyration, virial coeffs., θ condition 2−116730
pyrrole pyridine(quinoline), NH-N bonded complexes, dielectric relax. meas., dipole moments and thermodynamical props. determ. 2−104804
quantum fluid, perturbation theory at high temp. 2−104091
rhodamine 6G in aqs. soln., aggregate form. const. and absorpt. spectrum, association forces 2−111485
sintering, solid phase, neck size, thermodynamic relationships, morphological method 2−111105
smectic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
sodium polystyrene sulphonate, mixtures, activity coeffs. calcs., ^{23}Na NMR study 2−104023
soft-sphere crystals, shear-induced melting, thermodynamic props. 2−71621
solid solution, binary substitutional solvent, nonrandom, thermodynamics of interstitial solute atoms 2−92236
solid-fluid interface, struct. and thermodynamics 2−115499
steel, austenitic stainless, surface segregation, AES obs. 2−83288
steel, isothermal transform. diagram, thermodynamic anal. 2−57329
Stockmayer molecules, thermodynamic props., Monte Carlo simulation 2−81641
stressed systems, thermodynamic equilibrium, chemical potential 2−92141
superconductor, charge imbalance, voltage, taking approx. charge neutrality into account 2−56770
surface phase mechanics and thermodynamics, review *(French)* 2−66341
tetrafluoro-methane and methane, temperature dependence of some acoustical and thermodynamical properties 2−98201
tri-n-octylammonium halides, benzene solns., viscosity, partial molar vols. and expansibilities 2−110025
1,2,4-trichlorobenzene-n-decane-n-tetradecane mixtures, melting, density, viscosity and thermodynamic props. 2−71666
two-dimensional system, thermodynamic props. 2−81985
two-phase, diffusional creep 2−105218
type II superconductors, thermodynamic potentials 2−104552
vacancy size effect, Gibbs pot. 2−55967
viscous fluid mixture, equations of motion, thermal and intermol. diffusion, chemical reactions, radiation press. 2−76722
water, fluid, in space between two structureless walls, Monte Carlo calcs. 2−115128
water, ideal-gas thermodynamic props. 2−114963
water, in porous media, self-vaporisation *(French)* 2−81940
water, liq., sound absorpt. mechanism, thermodynamic theory 2−81894
thermodynamic properties continued
water properties, Fortran library of subroutines 2−96098
water properties, STP computer code 2−96099
waterlike mols., fluid system Monte Carlo simulations, thermodynamic props. 2−65830
XY_6 type molecules, vibr. anal. 2−108445
(Ag, Tl, K)NO_3-H_2O electrolyte solns., water activities, vapour press. meas. 2−105498
α-Ag_2S, nonstoichiometry investig. 2−86932
Al alloys 2219 and 7075, precipitation and dissolution kinetics, calorimetric study 2−83127
AlF_3-CaF_2-LiF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
AlF_3-CaF_2-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
B fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
$BaPb_{1-x}Bi_xO_3$, supercond. ceramics, thermodynamic props. 2−92820
$BiCl_3$, polycryst., thermodynamic props., NQR method appls. 2−110696
^{249}Bk, metal, vapour press. and thermodynamics 2−104022
C fibre reinforced Al, alloying influence on solubility of fibres, energy calc. 2−66237
CaF_2-LiF-NaF system, computer anal. of phase diagrams and thermodynamic props. 2−67308
CaO-$AlO_{1.5}$ system, phase diagram and thermodynamic props. 2−111147
$CaO.2Al_2O_3$, thermodynamic data 2−111161
Cd-Au alloy, dil. liq., EMF and vapour press. values, equil. and second law of thermodynamics confirmation 2−81981
Ce, thermodynamic props. in transcrit. region, theoretical anal. *(Russian)* 2−86905
Co-Cr(Mn), computer calc. of phase diagram *(Japanese)* 2−105120
Co-Cu alloys, molten, activities and thermodynamic props. 2−99401
Co-Cu-Mn(Ni), computer calc. of phase diagrams *(Japanese)* 2−105121
Co-Ge liquid alloys, thermodynamic excess props. determ. by mass spectrometry 2−98306
Co-S system melts, thermodynamic activity of S 2−105126
$CrAl_2S_4$, thiospinel, thermodynamic props. 2−86906
Cu-Cr, thermodynamic study and phase diagram by mass spectrometry 2−56219
Cu-Ge liq. alloy, activities of oxygen 2−66258
Cu-Sb alloys, solid, thermodynamic props. *(German)* 2−88059
Cu-Sb liq. alloy, activities of oxygen 2−66258
D_2O, thermodynamic properties in SI units 2−74179
Fe based ternary system, liq., N diffusivity estimation 2−115446
Fe, cast, thermodynamic stimulus to graphitisation, alloying elements influence, chilling action 2−105139
Fe-B, refractory layers, powder bonding element distrib., bonding states 2−93471
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-base ternary system, liq., H diffusivity estimation 2−115443
Fe-based ternary solid solns. containing N and substitutional solute, thermodynamics 2−98289
Fe-C-Si melts, thermodynamic study 2−71668
Fe-Cr(Ni)(Mn) solid solns., vol. effects in thermodynamics at high temps. 2−61172
Fe-Mn, liq., activity coeff. of Mn, meas. by isobaric method *(Japanese)* 2−83084
Fe-Mo system, phase diagram and thermodynamic props. 2−111137
Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
Ge, uniaxially stressed, electron-hole liquid props. 2−104259
HCl, in ethylene-glycol-water mixtures, thermodynamics, EMF meas. 2−98309
HF, nonideal associated vapour, thermodynamic anal. 2−86374
H_2O-alkaline earth dichloride systems, solid-liq. equilib., diagrams *(French)* 2−76644
He, liquid and gaseous, thermodynamic parameters in centrifugal force field 2−115434
^{3}He, superfluid, broken relative symm. and hydrodynamics 2−110082
^{4}He, liquid, linear irreversible thermodynamics, two-fluid model 2−92301
^{4}He, nucleation on graphite, thermodynamic and neutron diffr. studies 2−104110
Hg, liquid, thermodynamic props., density and elec. cond. in metal-nonmetal transition range 2−61170
Hg-Cd-Te phase diagram and thermodynamic props. anal. 2−88073
Hg-Cd(-Bi)(-Na)(-Pb) dilute liq. alloys, thermodynamic and elec. props., density and vol. of mixing 2−61171
Hg-Sn alloy, dil. liq., EMF and vapour press. values, Duhem integration, second law of thermodynamics confirmation 2−81982
In-As, activity coefficient, regular soln. approach and lattice model 2−93492
In-Cu(Ag), liq. binary system, O diffusivity and thermodynamic props. 2−86907
In-Ga-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
In-P, activity coefficient, regular soln. approach and lattice model 2−93492
In-Sb, phase diagrams, thermodynamic anal. *(Russian)* 2−93494
K_2CO_3, aqueous, activity and osmotic coeffs. 2−93807
LaH_x, disorder of site occupation 2−91910
Li intercalated dichalcogenides, props. and electrode appls. 2−57691
Li molecules with Bi and Pb, atomisation energies determ. 2−60710
Li-Ge alloys, thermodynamic studies, appl. to negative electrodes for molten salt batteries 2−76709
$(Li_{0.5}Fe_2O_4)_{x1}(Cu_{0.5}Fe_{2.5}O_4)_{x2}(CuFe_2O_4)_{1-x1-x2}$, ferrite solid soln., thermodynamic props. 2−66256
Mg-Ga liq. system, thermodynamics studies 2−66257
Mg_2SiO_4, forsterite, defect struct., graphical representation 2−81780
NH_3, liquid, empirical pot. for conformational, intermol. and solvation studies 2−91747
Na intercalated dichalcogenides, props. and electrode appls. 2−57691
Na-Bi, molten alloy, chem. pot. and related thermodynamic props. 2−92235
Na-Cs, molten alloy, chem. pot. and related thermodynamic props. 2−92235
Na-K liq. alloys, statistical thermodynamics 2−86540
Na_2O-CaO-SiO_2 glass melts, oxidation state and O activity 2−92233
Nb-V-O, ternary solid soln., modelling O activities 2−104021
Ni-Co-S melt, associated solution model extension, thermodynamic props. 2−71669
Ni-Cr-C, phase diagram, 1000-1200°C, thermodynamic study *(Czech)* 2−116425

thermodynamic properties continued
Ni-Cu liq. alloys, thermodynamic props. and solubility limits of O_2 2−56199
Ni-Mn liquid alloy, Mn activity 2−83089
Ni-Zn, thermodynamic data 2−111145
$Ni(NO_3)_2$ aqueous solns., activity and osmotic coeffs. 2−105496
O_2-Ar mixture, flow in nozzles, chem. and vibr. disequilib. effects 2−81381
Pb dilute molten alloys, O_2-Ag(Au)(Bi)(Cu)(In)(Ni)(Sb)(Sn)(Te) interactions 2−62099
Pb-In(Sn)(Te), liq., dil., activity coeff. of O, impurities effect 2−99700
Pb-Sn, phase diagram calcs., thermodynamic anal. 2−72668
Pd-Cd system, phase stability thermodynamic studies 2−99391
$SbCl_3$, polycryst., thermodynamic props., NQR method appls. 2−110696
Si, uniaxially stressed, electron-hole liquid props. 2−104259
p-SiC:Al, Fermi level, Fermi distrib. and activity coeff. calc. 2−92453
Si_3N_4 ceramic, prep., props. and appls., book contrib. 2−116420
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
TmSe crystals, valence and phase instabilities, review 2−110307
UMAl (M=Ni,Co,Mn), absorption of H_2, thermodynamic and struct. study 2−56196
UO_2 close to stoichiometry, chemical potential 2−113631
V_3Si, electron phonon spectral function, supercond. thermodynamic props. 2−104540
YH_x, disorder of site occupation 2−91910
$ZnAl_2S_4$, thiospinel, thermodynamic props. 2−86906
$ZnCr_2S_4$, thiospinel, thermodynamic props. 2−86906

thermodynamics
see also atmospheric thermodynamics; critical phenomena; entropy; equations of state; Joule-Thomson effect; statistical mechanics
adsorption, multilayers, from binary mixtures onto homogeneous solid surfaces, statistical thermodynamics 2−115571
Anderson asymmetric model, low-temp. props. 2−74356
Anderson model, low temperature thermodynamics, symmetric case 2−77263
anisotropic Potts model, large q expansion 2−101341
Bethe-ansatz quantum sine-Gordon thermodynamics, excitation spectrum 2−101367
Bethe-ansatz quantum sine-Gordon thermodynamics, sp.ht. 2−79521
bistable nonequilibrium systems without absolutely stable state 2−84573
black holes, acceleration radiation and the generalized second law of thermodynamics 2−58380
black holes, appl. to thermodynamic entrop/energy ratio 2−94767
black holes, rate of formation in thermal box 2−94768
blackbody radiation, conversion by quantum systems, thermodynamic limits 2−105547
book 2−89500
Bose-Einstein ferromagnetism 2−82608
boson and fermion systems, pressure study during interactions through mean field pot. 2−101310
boson condensation into infinite number of low-lying levels 2−95229
canonical ensemble, energy fluctuations, higher moments 2−79463
Caratheodory formulation in constructive maths 2−79515
causality principle and non-equilibrium thermodynamics 2−63949
channelling, quantum theory, transport coeffs. and equilib. distrib., quasi-classical case 2−66099
chemically reacting systems, sound propag. in presence of thermodynamic couplings 2−67745
classical hard-sphere fluid, kinetic theory 2−71314
classical hard-sphere fluid, kinetic theory 2−71315
classical lattice gases, solvable models 2−74352
coal gasification, kinetic equation parameters determ. *(Polish)* 2−105485
coordination compounds, appl. of generalised Forster cycle 2−57623
correlation functions for quasi-linear response theory 2−101364
cosmology, entropy in expanding Universe 2−117836
covariant formulation of dissipative phenomena 2−84570
cytoplasm, primitive motile system, information-thermodynamical model 2−99927
dense fluids, mol. dynamics system, stationary nonequilibrium state prod., thermodynamics 2−70841
dense fluids, shock wave effect, heat conduction, irreversible thermodynamic theory 2−86305
di-Schiff base liq. crysts., gas-liq. chromatography and DSC studies 2−98281
dielectrics, electromechanical resonances for phase transition studies 2−87702
dilute polar gases in electric field, kinetic theory and irreversible thermodynamics 2−103239
distributed collector solar thermal power plant energy conversion and transport by solar energy dissociation of NH_3 2−78248
electromagnetic radiation, chem. pot., thermodynamic treatment 2−90849
electron-phonon interacting system, renormalised thermal distrib. function, thermodynamics 2−81914
ellipsoid paradox, geometric optical resolution 2−107284
equilibrium systems, exact eqns. for correl. moments 2−58765
Fermi system, one-dimens., low temp. thermodynamics 2−58696
ferromagnet, dilute, spin wave excitations, fractal effects 2−72180
ferromagnet, rigid, thermodynamic model, phase transition phenomena 2−92942
ferromagnetic slab, impure, single Bloch wall thermodynamics 2−82636
fluid system under shear, thermodynamics, simulation 2−60852
fluids, irreversible thermodynamics, Gibbs relation, entropy balance eqn. 2−95290
gas turbine/steam turbine combined cycle using liquefied hydrogen as fuel, performance anal. 2−73164
generalisations of KMS boundary condition 2−95294
generalised virial relations, subdynamics theory 2−84524
gravothermal aspects of evolution of stars and Universe, theory 2−100726
Hall effect current, thermodynamic derivation 2−104354
hard sphere system in limited volume, density and isothermal compressibility coeff. changes *(Ukrainian)* 2−56064
heat conducting viscous fluids, irreversible thermodynamics, relax. phenomena 2−114620
heterogeneous equilibria, thermodynamics, book 2−58572
ideal gas and second law of thermodynamics 2−107059
ideal gas in empty space, Liouville theorem 2−79516
industrial thermodynamic systems modelling and anal. using process graph model 2−107281
information thermodynamics, classical, partition function, higher order temps. 2−95293

thermodynamics continued
interfacial fluid systems, with spin, boundary conditions, nonequilibrium thermodynamics 2−79517
intermittent systems, Onsager relations, verification 2−101368
ion plating, specimen heating, predictive model 2−105092
ionic lattice, thermodynamic factor for diffusion, effect of defect assoc. 2−61189
ionised and neutral gas mixture, nonlinear transport processes and irreversible thermodynamics 2−58748
irreversible thermodynamic stability criteria, thermal fluctuation effects 2−79514
isostructural phase transitions, in crysts. 2−98271
lattice models, thermodynamic and correlation functions, cluster variation calc. 2−89630
le Chatelier reciprocal relations 2−84574
lipid bilayers, acyl chain motion, statistical mechanical model 2−78301
lipid bilayers, multilamellar and vesicle systems, mol. motion, NMR line breadth 2−78302
lipid monolayers phase transitions theoretical model 2−78300
Lyapounov functions in extended irreversible thermodynamics 2−58764
martensitic transformation, nonlocal nonequilibrium thermodynamic description 2−115407
massive Thirring and quantum sine-Gordon system thermodynamics 2−84581
massive Thirring model thermodynamics for weak sine-Gordon coupling regime 2−74373
Mayer n-graphs, upper bounds, Holder inequality estimate 2−84576
metals, deform. kinetic theory 2−115341
mica, surface adhesion, effect of meniscus forces, appl. of macroscopic thermodynamics 2−56300
microemulsions, statistical mech. of interfacial region 2−57640
model binary alloy, phase change kinetics, decomposition, nucleation 2−81968
modified moment method and irreversible thermodynamics 2−107282
molecular gases, almost-isentropic flows, nonequilib. distrib. function 2−109353
momentum, generalised, thermodynamic restrictions on constitutive eqns. 2−58595
morphological thermodynamic stability criteria for a solidification front *(French)* 2−84571
non-equilibrium thermodynamics, review *(French)* 2−63948
nonequilibrium, broken symmetries in condensed matter systems, review 2−63955
nonequilibrium, confined fluid dynamics windmill and Carnot operators 2−112850
nonequilibrium open systems, mesoscopic anal., negentropy and residual entropy 2−58762
nonequilibrium stationary states, constitutive eqns., extended irreversible thermodynamic theory 2−63950
nonequilibrium systems, symmetry breaking and pattern selection 2−63947
nonlinear elastic materials, phase transitions of the first kind 2−112852
nonlinear oscillators, self-synchronisation, universal evolution criterion 2−74315
nonlinear reaction-diffusion, generalised Lagrangian equations 2−67728
nonspherical molecule fluids, statistical thermodynamics 2−55824
overlayer ordering and epitaxy, thermodynamics 2−110205
particles, thermal spectrum in elec. field., analogy with electrodynamics of a constant field 2−58763
partition function, Lippmann-Schwinger variational approx. 2−74370
Peierls models, exactly soluble, for electrons on deformable discrete chain 2−104217
phase volume, adiabatic invariance 2−53465
phases, surface effects 2−107279
plane square lattice, dimer distrib. in Percus-Yevick approx. 2−58732
polydisperse fluids, phase equilibria 2−98239
polymers, stress cracking and crazing, environmental irreversible thermodynamics 2−103891
polymers, transition points, dynamic and thermodynamic, NMR and relax. methods 2−87619
polystyrene, charged spheres in colloidal suspensions, dynamic correls. calcs. 2−105521
power conversion of energy fluctuations 2−105548
pressure, virial coeff., overlap graph expansion 2−84575
quantum fluids, constant density thermodynamic perturbation theory 2−58698
quantum spin models, two dimens., approx. mapping on staggered eight-vertex models 2−101366
radiant energy transformation into work, thermodynamics limitation 2−58766
relativistic, Einstein's influence on statistical thermodynamics 2−69117
relativistic Bose gas in even-dimensional space, thermodynamic behaviour 2−95228
rigid ions dynamic simulation in liq. and solids using Ewald sum, MDIONS program 2−65826
rigid ions dynamic simulation in liq. and solids using Ewald sum, MDIONS program 2−65827
rigid rectangular particles highly heterogeneous populations, lattice statistics 2−74340
Sandia Shock Thermodynamics Applied Research Facility 2−74185
Schreinemakers bundle, props. and their implications 2−63952
second law, anal. treatment using Kelvin's principle 2−89506
second law, exptl. confirmation using dil. Cd-Au alloys 2−81981
second law, exptl. confirmation using dil. Hg-Sn alloys 2−81982
second law general framework 2−107280
second law of thermodynamics, Sears-Kestin statement 2−53460
second law of thermodynamics, violation by moving mirror in quantum field theory 2−84800
self gravitating fermions, thermodynamic quantities model 2−58244
semiconductors, polycrystn. struct. formation mechanism 2−66243
shock wave study based on generalised thermodynamics 2−97423
sine-Gordon breather gas, thermodynamics, soliton gas phenomenology 2−89642
solar atmosphere, investigations of departures from LTE *(Russian)* 2−73926
solar H_2 production using two-step-thermochemical cycles 2−83522
solid surface microasperities, thermodynamic and mechanical equilibrium morphologies 2−92334
solid-vacuum interface, thermodynamic equilib. rel. to vacuum deposition 2−61310
solution, multicomponent regular, stat. thermodynamic eqns. 2−89647

thermodynamics continued
SOS films, and interfaces, chem. aspects 2−91847
spontaneous generation from quantum field, rel. to Second Law of Thermodynamics 2−53629
square-lattice three-state Potts model with spin anisotropy 2−63924
statistical, oscillator quantisation, Einstein influence 2−69118
steady energy circulation on finite body, max. mechanical work, Carnot operator 2−60386
steel, nitriding processes control, thermodynamic calcs. 2−67642
stellar atmospheres, irreversible thermodynamics in radiating fluid 2−112428
stellar atmospheres, thermodynamic requirements imposed by observed nonthermal mass fluxes 2−63390
stellar coronae, energy balance theory 2−112424
stratifying mixtures, thermodynamic props. *(Russian)* 2−104027
strength, thermodynamic approaches, review 2−76570
superconducting phase transition, type I to type II, thermodynamic theory 2−82524
superconducting weak link, inductively coupled, stationary macroscopic quantum behaviour 2−61665
systems with nonconserving quasi-particle number, entropy and thermodynamics 2−79522
ternary systems, isothermal conditions holonomic formula *(Russian)* 2−84585
thermal energy conversion anal. using minimal unbalanced action principle *(Rumanian)* 2−95295
thermal ignition with variable thermal conductivity 2−84572
thermal perturbations, nonlinear theory of fluctuations 2−93754
thermodynamically consistent eqn. of liquid theory 2−115125
thermoelastoplastic deformation of solids, analytical description 2−114685
thermoplastic instability in simple shear, first law of thermodynamics 2−114674
thermorheology, generalised Lagrangian thermodynamics 2−79513
transport and exchange of bodies dissoved in blood, model *(French)* 2−73182
two-dimensional Lennard-Jones system, phase transitions, stability, computer simulation 2−56155
two-dimensional non-abelian spin models, vortex condensation 2−79765
two-dimensional system, thermodynamic props. *(Chinese)* 2−110008
two-loop gas-liquid refrigerating power plant anal. 2−62487
uncertainty relation in statistical thermodynamics 2−53656
university building, energy waste, thermodynamics 2−63775
valence fluctuation systems, systematics 2−56498
viscous dissipation rates of velocity component kinetic energies 2−70840
viscous fluid, heat conducting, nonclassical thermodynamics 2−95296
water-ice system, thermodynamic equilibrium *(French)* 2−69115
Yvon-Born-Green function critical behaviour, dimensionality effects 2−53711
Al-B(C) interstitial solns., interaction parameters anal. 2−98307
α-Al_2O_3, CVD from $AlCl_3$-H_2-CO_2 gas phase mixtures, thermodynamic and expt. anal. 2−98479
Cu alloys, oxide particle precipitation, thermodynamic calcs. 2−81969
α-Fe, dislocation splitting, alloying additions influence *(Russian)* 2−115231
Fe, nitriding processes control, thermodynamic calcs. 2−67642
Fe-Co-Cr system, phase diagram, thermodynamic evaluation 2−72667
Fe-N, thermodynamics, kinetics and props., data collection 2−89474
Ge, defect annealing, electron induced, stimulated by 'additional lighting' *(Russian)* 2−103825
H^+ transfer reactions, gas-phase, energy barriers and wells 2−62386
^{4}He, liquid, sound propagation near λ point, specific heat 2−71754
HfV_2H_4, Laves phase, H ordering, thermodynamic description 2−86629
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
$KMnO_4$, open thermodynamic system, thermolysis 2−110010
Mg-B interstitial solns., interaction parameters anal. 2−98307
MnO-NiO, anal. phase diagram calculation from expt. activity data 2−99408
Na-K liq. alloys, statistical thermodynamics 2−86540
UH_3, isotope separation 2−96122
W-Ni-Fe system, thermodynamic calc. of phase diagram at 1540°C *(Korean)* 2−83085
$ZnO+CO=Zn(gas)+CO_2$, reaction free energy 2−53708

thermoelasticity
see also thermal stresses
axisymmetric coupled thermoelastic problems, temp. and stress distribs. 2−81232
boundary condition independence in coupled thermoelasticity 2−91256
boundary-value soln., mixed, of thermoelasticity, thermal crack and contact problems 2−81233
ceramics, thermal shock resistance, influence of size factor 2−62194
composite shell, three-layer fibreglass base, axisymmetrically heated, stability loss 2−60436
condensed matter, photoacoustic effect theory based on thermoelastic considerations 2−61071
Cosserat medium, thermoelasticity eqns. in stresses 2−60406
coupled problem in 3 dimensions 2−97386
coupled thermoelastic waves in continuously nonuniform anisotropic media, dynamic compactness 2−81869
cylinder, rotating, non-steady-state thermoelastic stresses 2−55442
dipolar bodies, initially stressed, with microstructure, thermoelastic stresses 2−81228
dynamic thermoelasticity with two relax. times, three-dimens. soln. 2−79363
elastic unbounded body, plane elliptical fracture thermal stress intensity coeff. determ. 2−55444
electrically conducting body with semi-infinite cut, magnetothermoelastic field 2−55022
electromagneto-thermo-mechanical plane wave attenuation in magneto-thermo-viscoelastic media, mag. field effect 2−55047
fibre reinforced composite angle-ply cylindrical shells, thermoelastic stresses at free boundary 2−114655
finite element approx. solns. to problems of thermoelasticity 2−74215
glass, multilayer cylindrical struct. for fibres, optical fibres and cables, thermoelastic stress 2−65396
glass, thermal lens formation by radiation at softening temperature *(Ukrainian)* 2−114672
glass fibre reinforced plastic cylindrical shells, triple-layer, dynamic stability 2−114710
half-plane, Green's functions for transient thermoelastic contact problems 2−103116

thermoelasticity continued
half-space, two-dimens., thermal stress for moving heat input, plane stress care 2−103115
homogeneous anisotropic cylindrical body, two-dimens. static thermoelasticity, boundary value problem soln. representation 2−81224
hyperstatic thermoelastic structures, deflection 2−114649
infinite body with spherical cavity, numerical soln. 2−81238
isotropic slab, dynamic thermoelasticity problem, uncoupled and quasi-static approx. 2−103036
isovector fields for problems in solid and fluid mech. 2−63822
laser radiation thermoelastic action on surface of a solid 2−115285
linear materials, plane problems, uncoupled thermoviscoelastic response for all Poisson ratios, finite element formulation 2−81243
metal, laser generation of directional SAW pulses 2−92333
mixtures, binary elastic, theory of coupled thermoelasticity 2−91249
nonlinear constitutive equations for thermoelastic-viscoelastic material that exhibits yield strength 2−97404
one-dimensional thermal shock problem, generalised, for small times 2−81229
plastic deformation, localisation by heat dissipation 2−70854
plate, conducting, with finite length cut, EM and thermoelastic field conc. 2−114152
plate, rectangular, freely-supported, thermal stresses due to nonuniform heating 2−97378
plate, thermal shock problems, exact soln. 2−91238
plate, three-layered, unbounded, thermoelastic stresses due to optical radiation *(Russian)* 2−70846
plates, thermoviscoelastic, dynamic problem soln. by Laplace transform-finite element method 2−81246
plates, thick multiply connected, elasticity and thermoelasticity mixed problems, homogeneous solns. *(Ukrainian)* 2−55435
polymer cement, KR-3, for optical component fabrication, temp. depend. of thermoelastic props. 2−102960
random non-simple medium, thermoelastic wave propag. 2−109185
shell of revolution, open, under nonaxisymm. mech. and thermal loads, thermoelastoplastic stress state 2−109208
shells, thin, separation method in thermoelasticity problems 2−114661
silicone rubber, improved thermal stability by Si-N compound additions 2−88112
slab, massive, subjected to initial finite compression, thermoelastic stability 2−81264
sliding surfaces, thermomech. effects, conf., Columbus, USA (June 1981) 2−101124
stress analysis technique using high-sensitivity IR camera 2−70884
thermal wave depth profiling, theory 2−92104
thermoelastic waves in circular cylinder, dispersion and energy dissipation 2−102974
thermorheology, generalised Lagrangian thermodynamics 2−79513
thermoviscoelastic solids, invariant integrals, crack tip fields 2−75853
thermoviscoelasticity, boundary-value problems, soln. construction and investigation 2−60404
thermoviscoplastic medium, coupling accel. waves, symmetry and hyperbolicity conditions 2−74224
thin finite rod thermoelasticity, dynamical problem 2−81237
thin plates, vibration dynamics 2−97415
three dimensional thermoelastic problems, boundary conditions effect 2−114647
two-component infinite plate with heat sources, thermoelasticity 2−114663
vibrating bodies, thermoelastic damping theory 2−81277
$CsNiF_3$, acoustic phonon vel., elastic coeff., refractive index, Brillouin scatt. study 2−86812
Cu-Zn-Al, thermoelastic martensitic transform., nucleation, localised soft mode model 2−99427
β-CuAlNi, pseudoelastic, thermal effect in β_1-β'_1 transform. 2−111177
Fe_3Pt, ordered, thermoelastic martensitic transform. free energy changes 2−105143
n-Ge, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
KCl(Br) crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
$Li_2SiO_3(GeO_3)$, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
NaCl crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
Na_2GeO_3, Czochralski growth, pyroelec., dielec., elastic props. 2−110775
Nb, thermoelastic effect in acoustic loss at supercond. transition 2−104542
n-Si, thermal cond. meas. under strong uniaxial elastic deformation 2−61222
UO_2 pellets, thermal shock resist., bench tests and calcs. *(German)* 2−85144
W, polycrystalline, deformed, grain growth during fast heating *(Russian)* 2−93542

thermoelectrets
cobalt naphthenate, thermo-electret form., surface charge 2−61819
polyethylene thermoelectret, TSC and space charge 2−110361
polypropylene foil condenser, thermoelectret, TSC study 2−72406
Si, p-n junction, dislocation energy levels, determ. using photoelectret and thermoelectret states 2−61580

thermoelectric conversion
see also thermoelectric devices
cooling batteries, contact resistance effects on elements height 2−99819
ferroelectric conversion of heat to electricity 2−93934
heat balance in a wall incorporating a thermoelectric cooling device 2−99820
heat pumps with heat transfer from wide surface, energy parameters generalised equations 2−99818
modulated solar thermoelectric refrigerator performance 2−83505
second-generation parabolic trough solar energy systems optimization analysis 2−93944
semiconductor thermoelectric battery cooling unit, coeff. of performance 2−105583
semiconductors, thermo EMF of composite materials *(Russian)* 2−67867
solar energy conversion technologies, solid-gas interface reactions, research needs 2−88378
solar photovoltaic array powered refrigerator for medicines cooling in developing countries 2−111564
solar thermoelectric generator, tert-butyl alcohol as heat sink substance 2−57729

thermoelectric conversion continued
solar thermoelectric generator with paraboloid concentrator and heat pipe 2−73131
supervisory scheme, design criteria *(Italian)* 2−62484
supply output power characteristic extremal points existence conditions determ. *(Russian)* 2−57719
$Pb_{0.99}Nb_{0.02}(Zr_{0.68}Sn_{0.25}Ti_{0.07})_{0.98}O_3$, ferroelectric, direct heat to electrical energy conversion, pyroelectric meas. 2−67878
n-$Pb_{0.85}Sn_{0.15}Se$ films thermoelectric props. for use in thermal radiation convertors 2−99817

thermoelectric devices
see also thermocouples; thermoelectric conversion; thermopiles
convertor using Peltier effect at small temp. differences, theory 2−112887
cooling in medicine, Peltier effect based devices 2−78474
heat transfer measurement thermoelectric printed circuit device *(French)* 2−64025
Schottky-barrier point-contact zero-biased diodes for thermoelectric detection of 10 μm radiation 2−89807
semiconductor thermoelectric modules for heating and cooling appls. in instruments *(German)* 2−107318
thermometers standardisation, experience with GOST 8.009-72 standard 2−112901

thermoelectric effect *see thermoelectricity*

thermoelectric effects in metals and alloys
alkali metals, electron transport props., electron-phonon and electron-electron scatt. contribs. 2−115727
alkali metals, liquid, electrical resistivity and thermoelectric power 2−61436
alloys, clustering and transport props., influence of short-range ordering 2−116558
cross over effect temp., rel. to thermal cond. peak temp. 2−77025
film, monocrystalline, electronic mean free path and Fermi surface area, energy depend. 2−115919
Kondo lattice, thermopower 2−77030
liq., anomalous electronic props., higher order correl. effects 2−104340
metal powders depending on press. *(German)* 2−77024
metals, amorphous ferromagnets, thermopower 2−82325
Mn complex, $Mn_{0.81}[Pt(Co_2O_4)_2].6H_2O$, prep. and elec. props. 2−66536
noble metals, electronic props., one parameter model pot. 2−61331
one-dimensional metals, thermopower calc. 2−71951
steel, low C, C atom segregation, thermoelectric power and elec. cond. study *(Japanese)* 2−105155
TCNQ salt, $(MTPP)_{1-x}(MTPA)_x(TCNQ)_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
thermocouple thermo-EMF instability, determ. by calc.-empirical method 2−69167
thermocouples, Chromel-Alumel, deterioration of EMF in reducing atm. at high temps. 2−67641
TMTSF-DMTCNQ, X-ray irrad., elec. props. of stable metallic phase 2−87145
transition metal alloys, amorphous, thermoelec. powers and resistivities 2−98611
$NdSn_3$, monocryst., thermopower 2−71952
Au-Fe, dilute, thermoelectric power meas. technique at low temp. *(French)* 2−101419
Ba-Sr, liquid, elec. resist. and thermopower 2−82311
C evaporated films, electron transport, semicond. and hole metal behaviour 2−61461
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
CeM_2Si_2 (M=Fe, Co, Ni, Cu), valence state of Ce rel. to thermoelec. power, X-ray absorpt. spectra meas. 2−61448
$CeSn_3$, monocryst., thermopower 2−71952
Co, Fermi surface, relative changes due to uniaxial tension 2−92441
$Co_{1-x}Ni_xZr_2$, supercond., anisotropy of normal state props. 2−110324
Cu-C steel multilayer composite, dislocation density and diffusion processes study by thermo-EMF method 2−67381
Cu-M, polycrystalline, thermoelectric power meas. *(Russian)* 2−87230
Cu-Ni composition modulated foils, thermoelec. props. meas. 2−98629
$EuSn_3$, monocryst., thermopower 2−71952
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
$Fe_{83}B_{14}Si_{1.5}C_{1.5}$, metallic glass, crystn. kinetics study using thermoelec. power meas. 2−86575
$GdAl_2$, transport and thermal props., critical behaviour near Curie point 2−116005
$GdSn_3$, monocryst., thermopower 2−71952
$Gd_{65.4}Y_{34.6}$, mag. phase transitions, elec. resist., elastic const. and US attenuation study 2−116006
$HfNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$HfTe_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571
$HoCu_2$, magnetisation, elec. cond., thermopower, paramagnetic-antiferromag. transition 2−77327
$(La_{0.8}Ca_{0.2})MnO_{3-y}$, elec. resist. and thermoelec. power 2−66551
$LaSn_3$, monocryst., thermopower 2−71952
Li-Mg, thermo-EMF meas. *(Russian)* 2−82326
Mg-Zn, amorphous, electron transport props., comp. depend. 2−104339
Nb, Fermi surface, relative changes due to uniaxial tension 2−92441
Nb-Ti (48 wt.%), supercond. thermoelectric power, 5 to 25K 2−66706
$NbSe_3$, singularity of thermoelec. power at struct. phase transition *(French)* 2−66199
Ni, Fermi surface, relative changes due to uniaxial tension 2−92441
Ni_3Al, elec. resist. and thermo-EMF at high temp. *(Russian)* 2−66531
$PrSn_3$, monocryst., thermopower 2−71952
Rb, liquid, transport props. meas. using automated equipment 2−115722
Si-Al, amorphous thin film, thermopower, elec. cond. and optical absorption 2−72079
$SmSn_3$, monocryst., thermopower 2−71952
Sn, temp.-elec. instability and I-V characts., low temp. *(Russian)* 2−82322
Sr, thermoelectric power, elec. resistivity, press. depend. 2−66532
Ta, Fermi surface, relative changes due to uniaxial tension 2−92441
Ti_3Al, elec. resist. and thermo-EMF at high temp. *(Russian)* 2−66531
$ZrCo_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$ZrNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$ZrTe_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571

thermoelectric effects in semiconductors and insulators
aniline black, amorphous organic semicond., elec. cond., thermoelec. and Gunn effects 2−71974
graphites, exfoliated, thermopower, diffusion and phonon drag components 2−82389
modulated solar thermoelectric refrigerator performance 2−83505
nitrides, electronic structs. rel. to electrophys. props. 2−76894
p-n junction, thermo-EMF appearance due to carrier heating by unidirectional elec. field 2−77175
p-n junctions, thermoelec. EMF of hot carriers, lattice heating effects, theoretical anal. 2−61581
polyacetylene:I_2 elec. cond., three-dimens. disordered semicond. islands model 2−56589
polyacetylene, I doped, three-dimens. variable range hopping obs. 2−92620
polyacetylene derivatives, thermoelec. power studies 2−98681
rare earth tungstates, mixed cond. 2−72035
semiconductor, Kane, strong EM wave propag. under electron and phonon heating 2−82368
semiconductor, thermoelectric current instabilities, theory 2−82390
semiconductors, method of measuring thermoelectric characteristics, 300-1300K 2−69200
semiconductors, thermo EMF of composite materials *(Russian)* 2−67867
semimetal films, polycrystalline, thermoelec. power 2−92794
size quantised film, thermoelec. power in mag. field 2−115929
SOS, electrical transport props., thermoelectric power appl. *(French)* 2−61594
TCNQ salt, $(MTPP)_{1-x}(MTPA)_x(TCNQ)_2$, evidence for strong electron-electron correlations, thermoelec. power meas. 2−87238
TCNQ salts with N-methyl derivatives of pyridine, phys. props. 2−87308
thermo-EMF measuring instrument using probe method 2−69168
$TMTSF_2ReO_4$, metal-insulator transition 2−71867
$Ag_7I_4VO_4$ superionic conductor, heat of transport 2−92262
$AgTlSe_2$, liq. semicond., elec. props. study 2−66576
$AgTlSe_2$ liq. semicond., elec. props. 2−82384
$AgTlSe_2$ semicond., liq. and solid, elec. cond. thermoelec. power and thermal cond. 2−92625
$AgTlTe_2$-Tl, liq., elec. cond., diamag. susceptibility and thermopower 2−56586
$(As_2Se_3)_{100-y}Ge_y$ glass, elec. cond. and thermoelectric power, adiabatic pot. 2−92610
Bi, electrical resistivity, thermal cond. and thermopower meas., 1.5 to 50K 2−92607
Bi thin wires, size effects, resist., magnetoresist., and thermoelec. power meas. 2−92632
$Bi_{1-x}Sb_x$, semicond., valence band struct., elec. and thermal cond. study 2−87143
$(Bi_xSb_{1-x})_2(Te_ySe_{1-y})_3$, orientated thermoelec. material, Bridgman method prep. technique 2−105061
Bi_2Te_3, thermoelec. props., elec. resist. and phase transitions meas. up to 9 GPa hydrostatic press. 2−87309
Bi_2Te_3:$CdCl_2$(Te) crystal growth using directional crystallisation apparatus for growing complex solid solns. *(Russian)* 2−72609
Bi_2Te_3-Bi_2Se_3(Sb_2Te_3) thermocouple, surface treatment effect 2−110373
Bi_2Te_3-Sb_2Te_3-GeTe-PbTe system alloys, thermo-EMF, elec. and thermal cond., thermoelec. efficiency 2−56626
BiTeI, thermophysical props. 2−82386
Bi_2Te_2Se, heat treatment influence on props. 2−72721
C evaporated films, electron transport, semicond. and hole metal behaviour 2−61461
C, soft, thermopower, 4.2 to 280K, rel. to phonon drag, heat treatment temp. influence 2−77103
$Cd_xHg_{1-x}Se$ mixed cryst., Γ point band struct. parameter, elec. and thermomagnetic studies 2−76923
CdS, high resistivity, semi-insulating, thermoelectric props., influence of deep traps, TSC study 2−66577
p-$CdSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
CdTe, thermoelectric power, effects of bipolar photoconductors, photo-Hall effect meas. 2−87310
$CdTl_2Te_4$:Au, Hall coeff., thermo-EMF, cond. type, temp. depend., doping effects 2−56615
$Co_{0.7}Cu_{0.3}Cr_2S_{4-x}Se_x$, ferrimag. semicond., elec. cond. and thermoelec. coeff. meas. 2−115763
$Co_{1-x}Fe_xSi$ and $Co_{1-x}Ni_xSi$, elec. props. and thermal cond. 2−82366
CoO, charge transport, lattice defects 2−104401
CoSi, elec. props. and thermal cond. 2−82366
CoSi-based material, figure of merit determ. 2−98679
$Cu_{2-x}B^{VI}$, preparation by solid-phase mass transport, elec. props. 2−111066
$Cu(H_2PO_2)_2$, elec. cond., temp. depend., effect of decomp. and $NaHSO_4$ additive 2−71967
CuSe, superlattice struct. polymorphism and elec. props. *(French)* 2−66556
$Eu_xMo_6S_8$, superconductivity, thermoelectric power, Fermi surface 2−82510
$(Fe_{1-x}^{2}Zn_x^{2+}Fe_x^{3+})O_4^{2-}$ ferrites, thermopower-composition depend. 2−61499
$(Fe_{1-x}^{2+}Co_x^{2+}Fe_2^{3+})O_4^{2-}$, ferrites, thermopower-composition depend. 2−61499
$(Fe^{2+}Fe_{2-x}^{3+}Cr_x^{3+})O_4^{2-}$ ferrites, thermopower-composition depend. 2−61499
$Ga_{1-x}Mn_xSb$ solid solns., carrier scatt. mechanisms 2−56571
$Ga_{1-x}Sn_xSe$, solid solns., elec. cond., thermo-EMF and Hall coeff. meas. 2−87259
Ge:P, phonon drag thermoelectric power and thermal cond., boundary scatt. effects 2−82388
$(GeTE)_{0.94}Bi_{0.05}Cu_{0.01}$, ionic transport of Cu and thermo EMF 2−104068
GeTe:Cr(Mn)(Fe)(Ni)(Co), solid solutions, thermoelectric props. 2−98680
$HfTe_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571
Hg, expanded fluid, thermoelec. power, transition from liq. semicond. to plasma state 2−82387
Hg-Bi(Cd), dil., expanded fluid, thermoelec. power, transition from liq. semicond. to plasma state 2−82387
In-Se, melt, elec. cond. and thermo-EMF, temp. depend. 2−87307
n-InAs:Cd, ion implanted, photo-EMF, spectral response 2−92697
$In_{1-x}Ga_xAs_yP_{1-y}$, low field mobility and thermoelectric power, scatt. mechanisms 2−82362
In_xNbM_2(M≡S,Se), elec. props. 2−87289
InSb:Cr, hot electron thermo-EMF 2−104402
In_xTaM_2(M=S, Se), elec. props. 2−87289

thermoelectric effects in semiconductors and insulators continued
$(La_{0.8}Ca_{0.2})MnO_{3-y}$, elec. resist. and thermoelec. power 2−66551
$MnWO_4$, elec. cond. and thermoelec. power, 300 to 1200K 2−87268
Nd_2NiO_4-NiO, elec. props. 2−66548
Ni-Te liquid semiconductor, resistivity, thermoelectric power and band struct. 2−98641
$NiMn_2O_4$, elec. cond., cation valencies, thermoelectric power and thermal expansion 2−66559
n-$Pb_{0.85}Sn_{0.15}Se$ films thermoelectric props. for use in thermal radiation convertors 2−99817
p-$Pb_{1-x}Sn_xTe$, valence band struct., elec. props. *(Russian)* 2−87144
PbTe and PbTe-SnTe solid solns., Ga doping effect on electrophys. props., doping mechanism 2−56578
PbTe, film, thermo-EMF calc. 2−87423
PbTe:Sn(Ge), donor and acceptor props., elec. and thermal cond. meas. 2−66480
Sb films, thermoelec. power, theoretical models 2−82495
$Sb_{1.425}Bi_{0.575}Te_{2.85}Se_{0.15}$, solid soln., effects of Ge and Cu impurities 2−82385
Sb_2Te_3, anisotropy in optical and elec. props. 2−56587
Si, amorphous, density of localised states and carrier mobility, elec. cond. study 2−115640
Si, glow discharge microcryst., thermoelec. power, Hall effect and density of states meas. 2−98674
Si, thermoelectric effects, X-ray interferometry study 2−98682
Si:H, amorphous film, optically induced pot. fluctuations, elec. cond. and thermpower study 2−77050
Si-B compounds, high elec. field effect 2−92639
Si-Ge-B amorphous film, glow discharge deposited, elec. cond., optical absorpt. and EPR study 2−71965
α-Sn, n-type, electron irrad., acceptor point defects, elec. resist., thermoelec. power and Hall effect study 2−61394
SnO_2:In thin film homojunction, thermoelectric effect 2−110451
TaS_3, thermoelectric power meas. 2−104400
Tl-$AgTlS_2$, molten system, electronic and mag. props. 2−98647
Tl-Se, melt, elec. cond. and thermo-EMF, temp. depend. 2−87307
Tl-Se-Te, vitrification, physicochemical props. 2−76313
Tl_9BiTe_6, thermoelec. props. and cryst. struct. 2−110374
$TlPrSe_2$-$TlInSe_2$, phase diagram, elec. props. 2−77808
$TlSbSe_2$-PbSe, phase diagram and physicochemical and electrophysical props. determ. 2−88067
VO_2:Nb, elec. and Seebeck effect meas. 2−66553
V_7O_{13} single cryst., physical, elec. and mag. props. 2−66251
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691
ZnS, intrinsic-defect hole conductivity, photoluminescence study 2−110927
ZnSe, mag. and elec. props., effect of disorder 2−82356
p-$ZnSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
ZrC_xN_{1-x}, band struct., elec. cond., Fermi energy, carrier density and mobility, two-band model 2−66438
$ZrS_{3-x}Se_x$, elec. resistivity and thermopower 2−71980
$ZrTe_5$, thermoelec. power and elec. resist., 7 to 380K 2−92571

thermoelectric generators *see thermoelectric conversion*

thermoelectricity
see also Peltier effect; Seebeck effect; thermocouples; thermoelectrets; thermoelectric effects in metals and alloys; thermoelectric effects in semiconductors and insulators; thermomagnetic effects; thermopiles; Thomson effect
alkali nitrate-$AgNO_3$ mixtures, nonisothermal, Soret coeffs. and transport props. 2−71678
Anderson model, asymmetric, specific heat, elec. cond., thermopower, perturbation calc. 2−76963
dimer in random pot., microscopic theory 2−104216
disordered materials, incoherent field Hall current, and thermoelec. phenomena, integral representation 2−72011
disordered system, two-component, topology below and above percolation threshold 2−66517
disordered systems, percolation theory and transport coeffs. 2−66516
inhomogeneous thin films, thermoelec. props., effective medium method 2−115915
low dimensional conductors, irradiation effects and role of disorder, review 2−87233
MHD heat convection, thermoelectric 2−97351
nonlinear thermoelectric fluctuation phenomena, theory 2−91582
polar molecules, thermoelectric birefringence, expt. upper limit 2−86366
quantised two dimensional Hall cond. theory 2−98718
semimetal systems, transport props., comparison 2−98535
superconducting circuit, thermoelec. current 2−98797
superconductor, thermoelectric effects, review 2−115946
superionic conductor, thermopower, Brownian particle model 2−66282
thermodielectric effect, theory 2−104403
thermoelectric power meas. technique at low temp. *(French)* 2−101419
$(TMTSF)_2FSO_3$, dipolar anion effect on mag. and conduct. props. 2−87232
TTF-TCNQ, thermoelec. power, press. depend., 4 to 300K 2−92573
two-dimensional electron system, disordered, thermoelec. power 2−61433
I, solid, metallic press. induced phase, elec. cond., thermoelectric power 2−92570
Sb-Cs(Na)(K), elec. and mag. props., transition to semicond. characts. 2−92709

thermography *see infrared imaging*

thermogravimetry *see thermal analysis*

thermoluminescence
adenine cation cryst., luminesc., excitation wavelength depend. 2−104941
alkali halides, activated, photoconductivity, thermoluminescence and TSC 2−82404
alkali halides, colour centres, thermoluminesc., expt. and computer anal. 2−57193
basaltic rocks, appl. of thermoluminesc. to determ. of weathering stage 2−62953
ceramics, thermoluminescence dating, grain size distrib. and beta dose-rate 2−100571
chloroplasts, thermoluminesc. in presence of photosystem II herbicides 2−111637
deoxycytidine-5'-phosphate monohydrate, X-irrad., low-temp. thermoluminescent behaviour 2−61987
feldspars, X-ray irrad. defects, thermoluminesc. and optical absorpt. study 2−110958
fluorite, thermoluminescence rel. to pretreatment history 2−72566

thermoluminescence continued
L-histidine, radiation damage, thermoluminescence study 2−61032
isothermal decay, trapping parameters 2−61989
meteorite, terrestrial age of estimation using thermoluminescence data 2−84100
optical fibres, radiation damage, thermoluminesc. anal. 2−114435
phenacite, fast neutron irrad., surface damage obs. 2−81830
phosphor, thermolum., carrier capture during irrad. 2−104973
phosphors, diffusion-assisted luminescent processes, nonequilib. thermodynamics study 2−82914
polyethylene film, elec. ageing, radiothermolum. obs., relax. characts. *(Russian)* 2−93288
polyethylene naphthalate photoelectret, carrier traps 2−98661
polyethylene terephthalate, irradiated in liq. He, radiothermoluminesc. *(Russian)* 2−57190
pseudo first-order kinetics, theory 2−116280
quartz, natural, thermoluminesc., paramag. defects effects 2−77573
quartz, shock-metamorphosed, defects study 2−115227
ruby, thermoactivation spectroscopy relaxation oscillator 2−82931
tunnelling pair recomb. theory 2−110911
β''-Al_2O_3, thermolum. props. 2−93292
Al_2O_3:Fe and laser ruby:Fe, thermoluminescence props., Fe ions absence effects 2−110957
As_2S_3, glassy and cryst., X-ray luminesc. and thermoluminesc. meas. 2−61993
$Ba+N_2O(O_3)$ in solid Ar, visible chemiluminescence, thermoluminescence 2−99682
BaS:Cu(Bi) phosphors, thermally stimulated conductivity 2−72006
$BaSO_4$ phosphors, rare earth doped, thermolum. after γ and microwave irrad., dosimetry applic. 2−87877
$Ba_xSr_{1-x}Nb_2O_6$:Ce($Sr_2Nb_2O_7$), photoluminescence, thermoluminescence and photocond. 2−110908
$BaTiO_3$, thermoluminesc. and absorpt. spectra 2−93290
$Bi_{12}XO_{20}$ (X=Ge, Si) energy levels in forbidden zone *(Russian)* 2−61930
CaF_2 films, thermoluminescence and thermally stimulated exoelectron emission, γ-ray irrad. effects 2−57191
CaF_2, fluorite, thermoluminescence rel. to pretreatment history 2−72566
CaF_2:Dy, gamma-irrad., laser heating in thermolum. dosimetry 2−104971
CaF_2:Tm, thermoluminesc. response characts. to X- and γ-rays, 2-hit traps 2−67127
CaS, prep., crystal growth by CVT and luminescence 2−116349
CaS:Ag phosphors, decay characts. and thermoluminesc. 2−99166
CaS:Bi excitation mech. of Bi^{3+} luminesc. centres, luminesc., TSC and photocond. meas. 2−67103
CaS:Ce,Fe(Co)(Ni)(Cd), phosphors, luminescence emission and decay, quenching 2−77584
$CaSO_4$ phosphor, thermolum. and thermally stimulated exoelectron emission, SO_x^- radicals role 2−77602
$CaSO_4$, X-irrad., ESR of thermoluminesc. centres 2−66916
$CaSO_4$:Dy, sensitised phosphor, and phosphor embedded teflon TLD discs, response to X- and γ-rays 2−67128
$CaSO_4$:Mn(Dy), gamma-irrad., laser heating in thermolum. dosimetry 2−104971
CdF_2:Eu, localised impurity excited states degenerate with cond. band, absorpt., cond., thermoluminesc., and ESR study 2−56473
CdF_2:Eu^{2+}, insulating, thermally stimulated relax. 2−67129
$CdGa_2S_4$, electroabsorption, luminescence studies 2−61875
CsCl(Br), X-ray irrad., colloid form., optical props. 2−56030
$CsMgI_3$:Sc(In)(Ce)(Gd)(Ho)(Er)(Tm) thermoluminescence and energy storage 2−99198
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KCl:CrO_4^{2-}, Ca^{2+}, X-irrad., EPR and thermoluminesc. glow curves 2−56919
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831
KCl:Eu^{2+}, X-irrad., luminesc. and cond. props., elec. field effects *(French)* 2−116262
KCl:$PbCl_2$, X-ray irrad. V_F centres, optical production, thermoluminescence, ESR and light absorption study 2−57194
KCl:$SnCl_2$, thermoluminescence on γ-irrad. 2−61992
KCl:Sr, interstitial centres and thermoluminescence 2−72565
$Li_2B_4O_7$, gamma-irrad., laser heating in thermolum. dosimetry 2−104971
$Li_2B_4O_7$:Cu, thermoluminesc. phosphor, radiation dosimetry characts. expts. 2−113755
$Li_2B_4O_7$:Cu thermoluminescent phosphor, dosimetry characts. 2−59556
$Li_2B_4O_7$:Mn, Cu, suitability of different props. for medical dosimetry 2−100129
LiF (TLD-100) phosphor, thermoluminesc. sensitivity, irrad. temp. dependence 2−116281
LiF films, thermoluminescence and thermally stimulated exoelectron emission, γ-ray irrad. effects 2−57191
LiF TLD dosimetric characts. 2−64693
LiF, TLD-100, thermoluminescence, order of kinetics 2−61990
LiF, TLD-100, thermoluminesc. response meas. at high irrad. temp. 2−77603
LiF TLD-100 phosphor, sensitisation and supralinearity, Z-centres and nonluminescent centres role, expt. study 2−99197
LiF, thermoluminesc. review, radiation dosimetry appl. 2−77600
LiF:Mg, TLD-100, thermoluminesc. meas., clustering and precip. effects 2−93291
LiF:Mg, Ti, gamma-irrad., laser heating in thermolum. dosimetry 2−104971
LiF:Mg, Ti, thermoluminesc., Z-centre model 2−57195
LiF:Mg, Ti, thermoluminescence sensitivity optimisation method 2−104972
LiH, X-ray irradiated, thermolum., TSC and F centre annealing at low temps. 2−116278
$MgAl_2O_4$, spinel, γ- and X-irrad., defect trap levels TSC and thermoluminesc. study 2−56608
MgB_4O_7, thermoluminesc. props., sensitivity and fading characts. 2−61985
MgO, thermoluminescent mechanisms involving transition metal ion impurities and V-type centres under UV irrad. 2−116279
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
NaCl:Sr, UV light irrad., thermoluminesc. study 2−57197
NaCl:Sr, X-irrad., thermoluminesc. study 2−57196
NaCl:Tl(T) prep., beta-radiation thermolum. dosimetry 2−102272

thermoluminescence continued
NaCl-KCl powder, thermoluminescence study of colour centre isothermal stability 2−72567
NaCl-KCl thermoluminesc., narrow glow peak obs. 2−104974
NaF Harshaw crysts., thermoluminesc. γ-ray induced sensitization obs. 2−87878
NaF Harshaw single crysts., γ-ray irrad., thermoluminescence, relationship to colour centres 2−61991
NaF:Ca^{2+}, γ-ray irrad., colour centres and interstitials, luminesc. spectra 2−110960
NaF:Ce^{3+}, F-centres, luminescence and optical study 2−77601
RbBr:Mg^{+}, optical absorption, thermolum. and emission studies 2−61986
RbI:Eu^{2+}, thermoluminescence and optical absorpt., effect of γ-irrad. 2−57192
SiO_2-Ge, recombinative luminescence *(Russian)* 2−61962
$SrMoO_4$-$Eu_2(MoO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$SrWO_4$-$Eu_2(WO_4)_3$ solid soln., photolum. and thermolum. 2−110910
$Th_{0.9}Y_{0.1}O_{1.95}$, X-ray irrad., luminescence study 2−67130
YAG:Nd crystals, Czochralski grown, defect disclosure by thermolum. 2−93289
ZnS, crystals, powders, films, thermoluminesc., luminesc. temp. depend. and damping 2−77604
ZnTe:Cl, EPR study of deep Cl-associated centre 2−110642

thermoluminescent dosimeters
albedo TLDs, computer assisted evaluation technique 2−113754
applied thermoluminescence dosimetry, ISPRA lectures, book 2−53406
calibration, γ-irrad. facility 2−102273
energy and directional dependence, compensation 2−75054
energy response of some thermoluminescent dosemeters to 4-12 keV X-rays 2−75066
environmental gamma ray dose monitoring using TLDs *(Czech)* 2−62538
environmental monitoring, TLD appl. 2−80349
INEL personnel dosimeter, rem response to photons 2−90308
laser heating technique 2−104971
Los Alamos TLD badge 2−59557
medical dosimeter calibration in absorbed dose units using thermoluminescent dosimeters *(Russian)* 2−62769
nonlinear characteristics, theory 2−75060
personnel monitoring systems, automated, present situation 2−64683
phosphor, thermolum., carrier capture during irrad. 2−104973
readout, effectiveness of background reduction by N_2 gas flow 2−75067
RTL detectors with multi-element filters, energy response calc. 2−59610
sintered TLDs for personnel and environmental dosimetry 2−90309
Three Mile Island accident, evaluation of response of TLDs to ^{133}Xe radiations 2−64691
total dose accumulation in TLDs 2−102357
variable temperature effects on environmental thermoluminescent dosimeters 2−57762
Al_2O_3 (Si,Ti) thermoluminescent phosphor appl. for environmental and personnel dosimetry 2−96316
$BaSO_4$ phosphors, rare earth doped, thermolum. after γ and microwave irrad., dosimetry applic. 2−87877
CaF_2, natural, TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
$CaSO_4$:Dy crystal TLD development 2−113753
$CaSO_4$:Dy embedded in teflon, reliability for routine personnel monitoring 2−68149
$CaSO_4$:Dy teflon discs, dose re-estimation by repeated read-outs, efficiency 2−59552
$CaSO_4$:Dy teflon thermoluminesc. discs, light induced fading 2−64690
$CaSO_4$(Dy/Tm) TL phosphors, self-dose and fading in environmental radiation monitoring 2−96315
$Li_2B_4O_7$:Mn TLD phosphor, light conversion efficiency for α-particles rel. to ^{60}Co gamma radiation 2−75136
LiF (TLD-100) phosphor, thermoluminesc. sensitivity, irrad. temp. dependence 2−116281
LiF and ^{6}LiF TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
LiF dosimeter for skin dose determ. 2−68152
LiF, high level γ-dosimetry using high temp. thermolum. peaks 2−117090
LiF in teflon TLDs, response to positrons 2−64685
LiF TLD dosimetric characts. 2−64693
LiF, TLD-100, thermoluminesc. response meas. at high irrad. temp. 2−77603
LiF TLDs, neutron sensitivity *(Hungarian)* 2−102346
LiF, thermoluminesc. review, radiation dosimetry appl. 2−77600
^{6}LiF, estimation of zero dose reading build up due to neutron prod. ^{3}H, computer programme 2−64689
MgB_4O_7:Dy, thermoluminescent props., dosimetric props. study 2−78457
NaCl:Tl(T) prep., beta-radiation thermolum. dosimetry 2−102272
Rn subsurface distrib. meas. with LR-115, CR-39 and thermolum. detectors 2−67913

thermomagnetic effects
metal, transient Nernst-Ettingshausen effect of hot electrons *(Russian)* 2−115732
semiconductor, bounded, galvanomag. and thermomag. effects under mutual electron-phonon drag conditions 2−77094
semiconductor, Kane, strong EM wave propag. under electron and phonon heating 2−82368
semiconductors, galvanomagnetic and thermomagnetic phenomena in strong mag. field, hot electron-phonon mutual drag effects *(Russian)* 2−77101
$Bi_{1-x}Sb_x$, semicond., valence band struct., elec. and thermal cond. study 2−87143
$Cd_xHg_{1-x}Se$ mixed cryst., Γ point band struct. parameter, elec. and thermomagnetic studies 2−76923
Co-V FCC alloy, quenched from 1200°C, elec. resist. 2−104345
$(Cr_{1-y}V_y)_{0.14}Te$, mag. phase diagram, thermomagnetic props., mag. moments 2−87494
Ga, Nernst effect and Hall effect, quantum oscillations obs. 2−98628
$Hg_{1-x}Mn_xTe$, longitudinal electron thermoelec. power in quantising mag. fields 2−72013
K, galvanomagnetic and thermomagnetic props. 2−87226
Ni_3(Fe,Ti) alloys, electronic characts., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447
$Ni_{38}Fe_{40}Mo_4B_{18}$, Metglas 2826MB, stripe domain dragging by temp. gradient 2−72254
Ni_3(Mn,Ti) alloys, electronic characts., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447

thermomagnetic effects continued
Sb, thermomagnetic wave obs. *(Russian)* 2−61498
Zn, magnetothermoelectric power and magnetic-breakthrough orbits, oscillations obs. *(Russian)* 2−98627

thermomagnetic recording
garnet films containing Bi, magneto-optical props. and thermomagnetic recording *(Russian)* 2−61715

thermomagnetic torque *see Scott effect*

thermomagnetic treatment
see also magnetic annealing; magnetocaloric effects
CoPt ferromagnetic alloy, atomic ordering in mag. field, magnetoelastic energy role *(Russian)* 2−92983
Fe-B (19.1 wt.%), amorphous, structural transitions under thermomagnetic treatment *(Russian)* 2−61130
Fe-Cr-Co-W, mag. props. and cryst. struct. *(Russian)* 2−92970
Fe-Ni-Al-Co-Cu;Ti, thermomag. treatment, struct. form. and mag. props. 2−62152
$Fe_{80}B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{78}Mo_2B_{20}$, Metglasses, thermomagnetic treatments 2−88110
$Fe_{40}Ni_{40}P_{14}B_6$, Metglasses, thermomagnetic treatments 2−88110
Ni-Fe-Co magnetic alloys with stepwise hysteresis loop 2−61738

thermomechanical processing *see thermomechanical treatment*

thermomechanical treatment
see also hot pressing; hot working
alloys, creep yield stress in thermomechanically treated samples 2−99479
austenite, quantitative determ. of mechanisms proceeding during controlled rolling *(German)* 2−57376
ceramics, strength rel. to hardness 2−111269
high strength, precipitation kinetics during discontinuous cooling *(French)* 2−99467
metal, pressure treatment, thermoplasticity, math. modelling *(Russian)* 2−72720
Nylon-6,6 annealed in glycerol, thermomechanical props., stress-strain anal. 2−111213
polymer processing, modelling of nonisthermal processes 2−77800
PVC, filled, plasticized, rheological and mech. props. 2−67413
steel, 40KhN2MA, mechanical props. and struct., effect of austenitisation temp. and hot deform. *(Russian)* 2−77901
steel, austenitic stainless, depend. on thermomech. pretreatments 2−93607
steel, austenitic stainless, strengthening and weakening of austenite during hot deformation 2−72734
steel, barothermomechanical treatment effect on struct. and temper embrittlement susceptibility 2−57386
steel, constructional, resist. to fracture, thermomech. treatment influence 2−67403
steel, Cr-Mn-Si, deform. under high pressure, effect on temper brittleness 2−67391
steel, Cr-Mo, high strength, thermomech. strengthening 2−77855
steel, Cr-Mo-V, heat resistant, thermomech. fatigue, effect on struct. and mech. props. 2−116546
steel, eutectoid, thermomechanically treated, fatigue initiation study 2−77934
steel, low C, strengthening and weakening of austenite during hot deformation 2−72734
steel, low-alloy, H embrittlement in long-term strength tests 2−67539
steel, Nb-V-N, low-alloy, hot forming simulation in multistage tensile test *(German)* 2−116468
steel, Ni, hot deform., substruct. effect on austenite strength 2−72735
steel, Ni-Co-Mo-(W)-Ti, maraging, props. after high-temp. treatment 2−67395
steel, Ni-Mo, austenitic, strengthened by phase strain hardening and hydroextrusion, mech. props. 2−72715
steel, strengthening by surface plastic deformation, dislocation aspects 2−116615
steel, structural, toughening by preliminary thermomech. treatment, grain size red. *(Russian)* 2−62149
steel, supercooled austenite, decomp. products morphology changes during continuous cooling, HTTMT influence 2−105159
steel, vacuum-melted, strengthening using combined cyclic elec. heat treatment and thermomech. heat treatment 2−72711
steel U8 and automatic steel A40G, struct. superplasticity w.r.t. treatment conditions 2−57426
steel wire, high-elasticity, rapid annealing for prod. lines in thermomech. treatment *(French)* 2−72742
steels, quenched and thermomechanically hardened, austenite form., struct. and substruct. *(Russian)* 2−99421
thermobimetal, thermomech., deform., mech., and normal motions *(Bulgarian)* 2−99507
Cr-MgO-B, struct. and mech. props. 2−72783
Cu-Al lamellar eutectoid alloys, spheroidization by thermomech. treatment 2−93535
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Fe, cast, hot-worked high-strength, kinetics of isothermal breakdown of austenite 2−105140
Fe-Cr-Co-Nb-Al alloy, high-coercivity, microstruct. rel. to mag. props. 2−111333
Fe-Cr-Ni, austenite-ferrite struct., tensile props. and fracture *(Japanese)* 2−105239
Mo-W (5 wt.%), creep props., effect of substructure 2−105227
Ni-Cr alloys MA 6000E, scaled-up thermomech. processing 2−77856
Ni-Ti (45 wt.%) plate, shape-memory effect, thermomechanical treatment influence *(Russian)* 2−72761
$Sm(Co, Cu, Fe)_{6.8\text{-}7.2}$ cast hard mag. alloys, fine struct. after heat treatment 2−99465
Ti-Al, helical dislocations by low temp. thermocycling, TEM study 2−115237
Zn-Al (22 wt.%), eutectoid, thermomech. treatment effect on superplasticity 2−105195

thermometers
see also pyrometers; resistance thermometers; temperature measurement; thermocouples; thermopiles
analogue ccts. for heat transfer instrumentation in transient tunnels, report 2−89715
clinical thermometers, testing 2−117115
cryogenic, recent developments 2−58820
digital, improved design 2−79583
digital portable barometer-thermometer *(French)* 2−79568
digital thermometer, seven-segment LED display, indoor/outdoor use 2−79580

thermometers continued
digital thermometer based on dual op-amp and PRT-100 Pt resistance thermometer 2−89714
digital thermometer using semiconductor diode temp. sensor 2−101400
history of IR detection, first detectors of thermal radiation 2−79336
IR thermometers, selection of portable instruments 2−79581
mass adjuster for pressure balance, use in thermometry 2−53759
multizone US thermometers for detection of critical heat flux 2−60321
NQR thermometer with freq. locking 2−107324
paramagnetic salt thermometer 2−84617
PWR prototypic gamma thermometers, fabrication and elec. calibration 2−64564
quartz resonator thermometry developments 2−53761
semiconductor deep level meas. techniques using precision thermometry 2−69173
standards laboratory design and calibration 2−112857
thermal noise meas. using Josephson junction thermometer, effect of additive noise and bandpass filter 2−112902
thermodynamic temp. meas., EPT-76 temp. scale realisation and appl. 2−53728
^{3}He melting curve thermometry 2−58823
Hg-glass, with 0.01°C scale divisions, zero mark testing instrument 2−64032
$KClO_3$ NQR thermometer, pulse excitation device 2−89707
Pt resistance, for multinuclear NMR 2−69175
Si narrow-band radiation thermometer for temp. standard establishment *(Japanese)* 2−107292

thermometric conductivity *see thermal diffusivity*

thermonuclear devices *see plasma devices*

thermonuclear reactions *see nuclear reactions and scattering*

thermooptical effects *see thermo-optical effects*

thermopiles
radiation thermoelectric pile for absolute measurements, based on thin film technology *(German)* 2−112982
vacuum, for meas. very weak continuous radiant energy, based on Bi_2Te_3 thin films *(French)* 2−95473

thermoreflectance
anthracene, vibronic excitons, thermorefl. spectra study 2−82832
$Nb_xTi_{1-x}S_2$, IR thermoreflectance spectra 2−104859
SnS_2, thermoreflectance meas. 2−93168
$SnSe_2$, thermoreflectance meas. 2−93168
Th, band structure, thermoreflectance study 2−104239

thermosphere
auroral protons precipitation interactions 2−100611
composition empirical model, interpretation of O/N_2 ratio var. 2−73733
EUV imaging spectrometer for thermospheric emissions 2−112147
Fabry-Perot Interferometer on Dynamics Explorer 2−58176
global circulation and temp. struct., affected by magnetospheric convection 2−73738
global model of O, He and N_2 densities from OGO 6 satellite obs. 2−73739
gravity wave generation by Bay of Bengal cyclone centres 2−117407
gravity wave generation from wind shear, equatorial spread-F occurrence 2−112215
gravity wave propagation, study of nightglow variations *(Russian)* 2−73737
gravity wave propagation causing ionosphere electron content perturbations, assoc. TIDs 2−100638
gravity waves and travelling ionospheric, disturbances, review 2−106379
gravity waves in lower thermosphere, effect on $O+O_2$ comp. 2−112187
heat budget numerical models 2−94545
ionospheric radiowave heating expt. and aeronomic implications 2−68557
long-period oscill. at 60 to 110 km altitude 2−94546
metastable species photochem. processes, review 2−89059
neutral temperature in lower E-region, meas. via vertical HF sounding in presence of acoustic wave 2−100636
neutral wind gradients and reversals at Arecibo, Fabry Perot obs. 2−112189
rocket plume detection using satellite-borne submillimetre-wave radiometry at thermospheric altitudes 2−94575
semidiurnal propagating tidal modes, assoc. wind and temp. struct. 2−106375
temperature and composition by analytical static model 2−68543
temperature and mid-latitude, solar and geomag. activity influences 2−73740
thermal regime, effect of turbulence and IR radiation 2−83979
lower thermosphere, planetary-scale waves in zonal winds 2−89058
UV heat budget, seasonal effect of NO and O cooling 2−100614
vertical oscillations at midlatitude seen in Doppler spectra obs. 2−100608
wind observations over Budrio, Italy 2−100610
winds, time depend. var. from O I forbidden line obs. 2−100609
winds in high-latitude thermosphere 2−73741
N atomic density of thermosphere, long-term variations 2−63154
O I 5577 Å line, peak emission altitude, Chapman and Barth mechanisms 2−106380
O profile determ., use of semiconducting detectors 2−68544
O^+ precipitation as energy source to thermosphere, wind and temp. perturbation 2−106377
O_3 conc. controlled by solar activity 2−100607
O_3 conc. drived from MSIS model and observations 2−73743
$O(^3P_1)$ 63 micron emission intensity calc. 2−100617

thermostats
see also cryostats; temperature control; thermistors
calorimeters, block thermostat for nonisothermic and nonadiabatic unit *(Polish)* 2−95382
evaporation controller for thermally sensitive specimens 2−64023
microthermostat for a Hall detector 2−101391
photographic dark room thermostat, using temperature sensor 2−113021
positive temperature coefficient thermistor quartz crystal temperature controller 2−84612
SAW generator with integrated thermostat 2−91204
thermal stabilizer for a Hall detector 2−101392

theta pinch *see pinch effect*

thick film circuits
city gas detector using thick film hybrid IC sensors and single-chip microcomputer 2−95356
lead frame bond failure mode in film integrated circuits, discriminants anal. of AE data 2−99621

thick film devices
non-encapsulated semiconductors in planar optical couplers *(German)* 2−91042
ZnO thick- and thin-film SAW devices 2−75816

thick film resistors
$Bi_2Ru_2O_7$-$Pb_2Ru_2O_6$ thick film resistors, particle size effect on cond. props. 2−104367

thick films
particle size analyses for powders used in thick film pastes 2−84779
CrB_2 based thick composite films, elec. cond. mechanism 2−72041
Fe, RF sputtered, lattice expansion 2−60922
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
TiB_2 based thick composite films, elec. cond. mechanism 2−72041
VO_2 thick films, screen printing prep. and elec. cond. thermal switching props. 2−111104

thickness control
optical film, microprocessor-controlled magnetron reactive sputtering system 2−57289
power device struct., chemical Ni plating, nondestructive control *(Russian)* 2−83049
$Al_xGa_{1-x}As$ heteroepitaxial struct., graded-index, current controlled thickness composition profile 2−88013

thickness measurement
aberrant phase objects, thickness contours, holographic interferometry phase objects, aberrant, thickness contour visualisation, holographic interferometry 2−102743
aberrant phase objects, thickness contours double exposure grating interferometer 2−101451
absorbing thin film, optical const. and thickness determ., reflectance and transmittance meas. uncertainties *(German)* 2−99203
beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
binary compound thin film, composition and thickness determ. using elastic backscattering 2−104177
biological structures, computer aided thickness measurement 2−100173
coating deposition in vacuum, condensate layer thickness calc. 2−99343
coating thickness monitoring, densitometric albedo method with single energy electrons 2−58788
coatings, albedo dynamic thickness control by high energy electrons 2−111438
electrically conductive single layer coatings, thickness inspection optimisation with laid-on eddy current transducers 2−89692
ellipsometric automatic in-line evaluation of thin films *(Japanese)* 2−112957
fibroblast, critical-point-dried cultured, partial specific thickness meas. by energy anal. 2−73409
film, superthin surface, thickness determ. by XPS, elastic scatt. of photoelectrons influence *(Russian)* 2−67191
film thickness determ., laser interferometry technique 2−63969
foil, thickness determ. by electron probe microanal. *(French)* 2−110995
gap measurement between rough cylindrical surfaces, ellipsoidal mirror use to minimise multipath and scattering effects 2−93728
hedero sediments, acoustic props. rel. to density and thickness meas. 2−75752
III-V semiconductor epitaxal layers, chem. interface width and struct., Auger meas. technique 2−87086
integrating electromagnetic thickness meter 2−112871
interference-microscopic film thickness meas. *(German)* 2−112864
IR laser reflector, dielectric-enhanced, wavefront error, interferometric meas. in visible light 2−95455
laser fusion targets, coating thickness variations meas., automated computer anal. of X-ray radiographs 2−79533
metal, coating thickness meas., eddy current and magnetic methods 2−107296
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
mirror, deformable glass, thickness profile determ. for variable focus device 2−70648
multidielectric stacked layer equiv. thickness determ., multi-half-wave interf. filter appl. *(French)* 2−70659
multiparameter eddy current inspection, algorithms rel. to nonlinear theory 2−62360
nonconducting layers, thickness meas. by applied linear conductors 2−58787
optical thickness monitoring device 2−58782
optoelectronic transducer technology *(German)* 2−63981
polymer film, UHF meas. of thickness and dielectric const., recursive algorithm applicability 2−111437
polymer films, spin coated, associated with semicond. industry, thickness variation 2−62081
polystyrene, PVC or polybutadiene coated, ellipsometric meas. of thickness of interfacial layer *(Japanese)* 2−84596
principal components method in NDT, multiparameter flaw detection 2−116675
real-time thin film refractive index and thickness monitor 2−114479
semiconductor wafer flatness and thin film stress profile meas. using thickness analyzer, fibre-optic appls. 2−63971
steel, martensite crystals, true thickness distrib. determ. 2−72907
steel, Ni-Co-Mo, martensite crystals, true thickness distrib. determ. 2−72907
steel, stainless, foil, thickness determination using transmission electron microscope 2−58786
substrate film thickness meas. using microwave device 2−101410
thin film, electron backscattering, review 2−77638
thin film, low absorbing, 2-D thickness distrib. determ. using new laser interferometry 2−112961
thin film optical constant determ., spectrophotometric (interference) method accuracy 2−112951
thin film thickness determ., X-ray diffr. method 2−101385
thin film thickness meas. using X-ray peak rationing in SEM 2−87119
thin film waveguide parameters, single-mode, two polarisation meas. 2−102920
thin specimens, thickness meas., using backscattered electron imaging using Robinson-type detector 2−64176
two element thin films, stoichiometry and thickness, elastic backscatt. study 2−104199
uncured insulating layer thickness meas. by potentiometric micrometer 2−74469

thickness measurement continued
water film thickness meas. in two-phase flow by capacitance method 2−71045
X-ray shadow projection microscopy of microwire 2−64207
Al film thickness meas., Grigson microdiffraction in STEM, systematic errors 2−63980
Al, oxide film thickness, ^{14}MeV neutron activation and BET method 2−53736
Al_2O_3 anodic oxide film thickness determ. by electrolum. method 2−110961
Au monolayer, thickness meas., X-ray fluorescence anal. 2−69140
Co-based alloy, foil thickness meas. from convergent-beam diffr. patterns, error assessment 2−95557
Cu monolayer, thickness meas., X-ray fluorescence anal. 2−69140
Cu/Au double layers, thickness meas., X-ray fluorescence anal. 2−69140
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
Si polycrystalline films, thickness meas. by ellipsometry 2−99202
Si structures with dielectric insulation, single cryst. layers thickness determ. 2−112867
Si_3N_4 films on Si, thickness meas. by IR absorption 2−112870
Si_3N_4 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
SiO_2 films on Si, strain-induced anisotropy meas. using multiangle single-wavelength ellipsometric method 2−116285
SiO_2 films on Si, thickness meas. by IR absorption 2−112870
SiO_2 thin film thickness meas. using principal angle spectroscopic ellipsometry 2−107385
Th target prep. and thickness meas. from radioactivity 2−108187
WC plasma coating on stainless steel plates, thermal wave imaging through radio frequency induction heating 2−99613

thin film capacitors
insulating thin films, conduction mechanisms *(Spanish)* 2−72091
polymer film deposition in low press. reactive plasmas, characteris. and applics., review 2−57287
Al-AlN-Al, ion plated thin film capacitor, dielec. and AC cond. props., annealing effects 2−61825
MoO_3 thin film MIM capacitors, elec. characts., temp. depend. 2−115914

thin film circuits
adhesion of film-substrate systems, problems, resolution 2−86235
lead frame bond failure mode in film integrated circuits, discriminants anal. of AE data 2−99621
Ti/Pt/Au thin film circuits, conductive via processing utilising RF sputtering and electrodeposition 2−99338

thin film devices
see also magnetic thin film devices
bolometer, with high sensitivity and thermal loading capacity *(German)* 2−79578
electrophotographic light-scanned image convertor, thin-film device, image readout dynamics 2−107438
organocopper thin-film structures exhibiting threshold switching with short term memory 2−56725
piezoelectric thin film SAW IDT using an apodized shorting electrode 2−60344
pressure sensor design and manufacture *(German)* 2−79570
radiation thermoelectric pile for absolute measurements *(German)* 2−112982
sensors with thin film strain strips of metallic and semiconductor materials *(German)* 2−84616
solar cells, optimum structs. 2−73123
thin-film lasers with two-dimens. periodic structs. 2−96988
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
BeO film growth by reactive ionised cluster beam deposition technique, thin film device appls. 2−83039
CdS-Cu_xS thin film solar cells, electron affinity difference 2−67858
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
Cu_2O/Cu thin film photovoltaic cells, possible appl. as solar cells 2−93896
$LiNbO_3$:Ti variable-period thin-film Bragg modulator 2−97168
SnO_2:P thin film gas sensor, sensing characteristics meas. 2−79559
T 2−113757
ZnO thick- and thin-film SAW devices 2−75816
ZnS:Mg AC thin film electroluminescent devices, luminescence-voltage characts. 2−104967
ZnS:Mn AC electrolum. thin film device, Mn^{2+} emission saturation 2−116265
ZnS:Mn AC thin film electrolum. devices, UV irrad., current and light generation 2−116266

thin film resistors
Ni-Cr thin film resistors 2−87976
NiCr thin film resistance layers, factors affecting props. *(Hungarian)* 2−77754
NiCr thin films, sequential heat treatment effect on resist. and TCR 2−110496
Pt, temperature sensor appl. *(German)* 2−79584
SiC thin-film thermistor, use as temp. sensor from 30 to 300°C 2−69174
Ta-Ni thin film sensor system, temp. and strain meas. appl. *(German)* 2−64018
Ta_2N, HCP thin film resistors, mass prod. by planar-magnetron sputtering 2−99337
Te-Fe, film, prep. by sputtering from composite targets with fine metal wires *(Japanese)* 2−99333

thin film transistors
CdSe polycrystalline thin film transistor, conductivity behaviour 2−56735
CdSe:Cr thin film transistor, SIMS depth profiling, high spatial resolution 2−104207
Si film, patterned and CW laser crystallised on amorphous substrate 2−61315

thin film triodes *see thin film transistors*

thin films
see also coatings; dielectric thin films; epitaxial layers; insulating thin films; magnetic thin films; metallic thin films; semiconductor thin films; semimetallic thin films; sputtered coatings; substrates; vapour deposited coatings
acoustic props. meas. using reflection loss of acoustic transmission line 2−104211
American Vacuum Soc., conf., Anaheim, USA (Nov. 1981) 2−79275

thin films continued
amino acid overlayers, UHV deposited on clean metal surfaces, secondary ion emission 2−105032
binary compound thin film, composition and thickness determ. using elastic backscattering 2−104177
composite, granular, metal-insulator transition 2−66452
condensed gas films, erosion and mol. form. by electronic energy loss of fast ions 2−98171
conducting films, elec. characterisation by contactless microwave cavity technique *(French)* 2−101418
cryopump attachment, for deposition and characterisation 2−64058
crystalline and disordered exciton hopping and luminescence, absorbing boundaries 2−82920
defect growth, computer simulation 2−92417
densities, appl. of Rutherford backscatter spectroscopy 2−87118
dynamics of systems with two interfaces 2−115523
(e,2e) collision expts. 2−110993
edge states, extended, and quantised Hall conductance in two-dimens. disordered potential 2−77201
elastic props. of film-substrate interface, US study 2−83340
electrical conductivity and dielec. props., conf., Herzlia-on-Sea, Israel (Sept. 1981) 2−79279
electron backscattering, review 2−77638
electron concentration and density of states, modelless calc. 2−92780
ellipsometry in thin film analysis 2−53820
emissivity of homogeneous thin films calc. 2−71677
eutectic thin film struct. growth, nonlinear model 2−115587
graphite layer covering Pt foil, Br_2 lobular scatt. 2−99269
growth, ellipsometric microgravimetry anal. 2−92410
growth by ion beam techniques 2−116364
heterogenous nucleation and growth, review 2−92408
insular, XPS meas. 2−57253
intrinsic stresses due to interfacial energy, theory 2−76873
ion bombardment implantation of impurity atoms, diffusion and defect interaction 2−55997
ion-assisted film form., conf., Tokyo and Kyoto, Japan (June 1981) 2−112653
isotropic solid films, Green functions and fluctuation spectra for thermal modes 2−98213
mechanical props., mech. marginal oscillator meas. method 2−56317
micromechanics, review 2−82188
morphological orientation determ. of struct. elements in films, small-angle X-ray scatt. method 2−91717
multilayer thin films on thick substrate, internal stress formula 2−66404
nonlinear surface polariton dispersion at resonance with oscills. 2−61371
optical constants, transmission diffraction meas. 2−82938
optical properties, scanning microellipsometer for spatial characterisation 2−101443
optical props., microstruct. effects on dielectric function 2−82943
optical spectroscopic studies, appl. of surface phonon polaritons and surface plasmons 2−110437
organic overlayers on reflective substrates, surface emission Fourier transform IR spectra obs. 2−116225
organocopper thin-film structures exhibiting threshold switching with short term memory 2−56725
oxide film growth on metals, conditions for form. of new oxide 2−87090
oxide films, interference-coloured, formed by heat treatment of high-Fe glass 2−116290
oxide films, reflectance spectroscopy 2−67135
phthalocyanine, metal-free, films, Raman spectra study 2−99119
phthalocyanine films, on Ag, enhanced Raman scattering 2−87778
quaterrylene, thin film growth, grain boundary struct., electron microscopy 2−81775
random systems, one- and two-dimens., electron localisation and elec. cond. 2−110305
solar energy conversion technologies, film and coating deposition and characteris., research needs 2−87974
solid films and surfaces, conf., College Park, MD, USA (June 1981) 2−106994
specific heat, AC temp. calorimetry at low temp. 2−53762
STEM, low-loss surface imaging of thin films 2−71310
stress relaxation and hillock growth 2−115627
structural characterization by secondary electron emission 2−87923
superthin surface, thickness determ. by XPS, elastic scatt. of photoelectrons influence *(Russian)* 2−67191
surface polaritons, p-polarised nonlinear, in layered structs. 2−98705
thermal conductivity measurement using pyroelectric technique 2−112890
thermoelectric props., effective medium method 2−115915
thickness determ., X-ray diffr. method 2−101385
transition metal nitride surface films, prep. and characterisation 2−82165
two-phase isotropic, screw dislocation stress field 2−91965
uniaxially oriented, growth mechanisms in ion based processes 2−115602
UPS and Auger anal., combined apparatus for thin film and interface studies 2−116341
void formation, gas bubble detachment model, vacancy trapping 2−76428
X-ray microanalysis method, development 2−116765
X-ray photoconductor-thermochromic film struct. for X-ray visualisation 2−84776
X-ray quantitative phase analysis, for phase comp. determ. 2−82105
X-ray spectra optimisation for quantitative anal. 2−69303
AgCl film, light illumination, modifications induced by ion implantation 2−93311
C islands, stability on Rh-Pt (10 wt.%) (111) surfaces 2−87089
Cr oxide layers, reflectance spectroscopy 2−67136
D_2O ice film, erosion and mol. form. by electronic energy loss of fast ions 2−98171
LiF film, on $LiNbO_3$, Raman scattering by surface polaritons under conditions of resonance with the transition layer 2−77539
MoO_3 thin film, electrochemical Li incorporation, for electrochromic display appl. 2−72454
MoS_2 films, lubrication and failure mechanisms, substrate surface finish influence 2−110216
$NiSi_2$ film formation, diffusion, Xe marker study 2−104079
PbO film/B_2O_3-Na_2O glass interaction, UV spectra and cation conc. profile meas. 2−86945
TiO_x film, reactive magnetron sputtering 2−87980
WO_3 amorphous thin films, coloration mech. study 2−99206
WO_3 thin film, electrochemical Li incorporation, for electrochromic display appl. 2−72454

third-order optical susceptibility *see nonlinear optical susceptibility*
thixotropy
macromolecular solns., temp. depend. of viscosity 2−116948
Thomas-Fermi model
atom, infinite without electron repulsion, Thomas-Fermi-von Weizsacker eqn. anal. 2−102384
atomic collisions, pair-potential calcs. 2−65069
atomic potential calc., simplified Thomas-Fermi-Dirac eqn. 2−80478
atoms, closed shell, radial electron density moments and X-ray scatt. factors 2−75184
atoms, electron positions expectation values calc. 2−113880
atoms, ground state, binding energies, recursion theory 2−75155
atoms, radially restricted Thomas-Fermi theory 2−85514
atoms and molecules, electron density theory 2−108334
atoms in high density plasma, statistical average pots., rel. to degree of ionisation 2−71082
charge oscills. and photoabsorption of Thomas-Fermi-Dirac-Weizsacker atom. 2−113881
compressed atoms, electron distrib. at high temps., Thomas-Fermi equation 2−80477
ferromagnetic semiconductor, homogeneous state instability 2−92932
hydrogenic limit of many-electron atoms 2−59700
ion beam scatt. from atom, shadow cone 2−108674
ions, Thomas-Fermi eqn. soln. by cubic spline method 2−64854
low-entropy adiabats for stellar collapse, Thomas-Fermi model 2−100961
metal-dielectric surface, scaling relations and analytic soln. 2−104484
metals, interionic interactions model, elastic consts. and phonon spectra calc. 2−81711
neutral atoms, Thomas-Fermi-Dirac energy density functional, shell struct. 2−80476
periodic table of elements, monotonic trend of periodicity, Thomas-Fermi theory 2−70120
planar channelled electron radiation, model calc. at relativistically high energies 2−81853
semiconductor, impurity screening in strong mag. fields and influence on transverse cond. 2−92667
semiconductor, Thomas-Fermi eqn. for negative ion pot. 2−110294
semiconductors, III-V and II-VI, Thomas-Fermi nonlinear dielec. screening 2−56459
semiconductors, nonlinear screening of negative point charges 2−82261
semiconductors, screening effects on D^- system 2−115699
statistical theories of large atoms and molecules 2−59877
surface struct., single and double scatt. intensities ratio in ion scatt. spectroscopy 2−105029
Thomas-Fermi eqn., modified variational soln. 2−96420
two-identical ion system, electron energy and interaction pot., Thomas-Fermi calcs. 2−90452
Ar, diamag. susceptibility, new Thomas-Fermi model test 2−85543
Cl, term energies and oscill. strengths, Thomas-Fermi Hartree Fock calcs. 2−80459
Cs plasma, free-free Gaunt factors for electrons, bremsstrahlung 2−71104
Cs, work function by Thomas-Fermi-Dirac method 2−82429
Fe plasma, photoelec. cross-sections, at. models calcs. 2−71080
Ge, surface, electron capture, Thomas-Fermi approx. 2−61547
H, metallic, structure and screening at high press. 2−76961
K, work function by Thomas-Fermi-Dirac method 2−82429
Kr, diamag. susceptibility, new Thomas-Fermi model test 2−85543
Na Thomas-Fermi-Dirac energy density functional, shell struct. 2−80476
Na, work function by Thomas-Fermi-Dirac method 2−82429
Ne, diamag. susceptibility, new Thomas-Fermi model test 2−85543
Rb, work function by Thomas-Fermi-Dirac method 2−82429
Xe, diamag. susceptibility, new Thomas-Fermi model test 2−85543
Thomson effect
No entries
thorium
see also nuclei with .....
band structure, thermoreflectance study 2−104239
cathodoluminescence in presence of O_2, CO, and gas mixtures 2−110953
chemisorption of O_2, CO and CO_2, electron spectroscopic studies 2−56337
concentration in coal, gamma-ray spectra meas. 2−67781
fission track production rate, fission radiography in geological samples 2−112154
inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
isotope geochemistry of basalt, genesis and mantle struct. 2−111902
mineral ore content by fission track technique 2−83976
seawater Th isotope composition (dissolved and in particulates) 2−68389
sediment radioactive dating method based on Th^{230} content 2−117494
shock Hugoniot eqn. of state 2−66161
target prep. and thickness meas. from radioactivity 2−108187
ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908
Th^+, energy distrib. meas. in energy range from 0 to about 500 eV *(German)* 2−93847
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800
thorium alloys
Bi-Th alloys, cryst. struct. and heats of formation, X-ray and metallographic study 2−91873
$Ce_{0.9-x}La_xTh_{0.1}$, mixed valent ground-state, elec. resist., localisation transition 2−56551
α-$Ce_{0.9}Th_{0.1}$, ground state studied by resonant photoemission 2−56496
Ir-W-Th, DOP-26, Th-doped, weld metal grain struct. and mech. props. 2−99499
Th-Fe(Co)(Ni), fast diffusing solutes, thermal friction studies 2−98326
Th-Gd spin glasses, time and field depend. of magnetisation 2−72216
$Th(Ir,Os)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
$Th(Ir,Ru)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
$ThPd_3$, f-states, optical refl. study 2−77550
$Th_{6-x}Y_xMn_{23}$, mag. and crystallographic characts. 2−56854
thorium compounds
fluoride melts of U, Th, Be, Li mixtures specific elect. cond. meas. 2−56235
BaF_2-ThF_4-ZnF_2-YbF_3, glasses, stabilization and IR transmission, DTA study 2−97929
HfF_4-BaF_2-ThF_4 glasses, polarised Raman scatt. study 2−57086
KF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
thorium compounds continued
$Li_{6-x}R_{1-x}Th_x(BO_3)_3$, (R=rare earth), ionic cond. study *(French)* 2−71714
NaF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
ScF_3-BaF_2-ThF_2, glass, phys. props. *(French)* 2−91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2−91809
(Th, U)O_2, stability of simulated fission product phases 2−80061
Th complex, $(CN_3H_6)[Th(CO_3)_5].4H_2O$, cryst., vibr., IR study 2−77512
Th complex, $Na_6[Th(-CO_3)_5].12H_2O$, cryst., vibr., IR study 2−77512
Th/Ba fluoride multicomponent glass, extended IR absorpt 2−61854
ThB_4, cyclic intergrowth and crystal structures 2−65975
β-$ThBr_4$, phase transform., cryst. symmetry, NQR study 2−110704
$ThBr_4$:U^{4+}, absolute oscill. strength determ. 2−61859
$ThBr_4$:U^{4+}, incommensurate, optical absorption spectrum, lineshape anal. 2−110899
β-$ThCl_4$, phase transform., cryst. symmetry, NQR study 2−110704
$ThCl_4$:Pa^{4+}, absorpt. and emission spectra, spin-orbit and crystal field parameters 2−99158
ThF_4 film, absorption coeff. caused by impurities 2−65165
ThF_4 film on Ge substrate, for polarisation-preserving coated laser biconical reflectors 2−97150
ThF_4/Ag beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
ThF_4/ZnS coated Si and SiO_2 substrates, small-scale laser induced damage obs. and morphology 2−81819
ThF_4/ZnS films, impurity initiated short pulse laser damage 2−65282
ThF_4−BaF_2−MnF_2, spin glasses, AC susceptibility, local anisotropy 2−92876
$ThGeO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
$ThMn_{12}$, cyclic intergrowth and crystal structures 2−65975
$ThNb_4O_{12}$, slow-cooled sample, Th-vacancy ordering 2−60928
ThO_2, 4f-photoelectron intensities and satellites 2−82998
ThO_2, calcination and sintering, theoretical and expt. studies 2−85165
ThO_2, enthalpy values 2−80084
ThO_2 membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
ThO_2 powder, initial sintering stage study by emanation thermal anal. 2−88032
ThO_2 powders, from hydrothermal denitration, ceramic quality 2−111115
ThO_2 powders, positron lifetime meas., particle size and positronium diffusion const. meas. 2−62010
ThO_2:Y_2O_3 electrochem. probes, for O_2 anal., in liquid Na reactor coolant 2−90265
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
ThOS:Gd^{3+}, spin Hamiltonian parameters, superposition model anal. 2−92850
$ThO_2.H_2O$, AC proton conduction 2−115451
$Th_xPb_{1-x}Mo_6S_8$, supercond. props., effect of actinide component 2−66700
ThS_2:Gd^{3+}, spin Hamiltonian parameters, superposition model anal. 2−92850
$ThSiO_4$ dimorphs, huttonite and thorite, metamict states 2−56046
$ThSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
$Th_{6-x}Y_xMn_{23}$ hydrides, mag. props. 2−87512
$Th_{0.9}Y_{0.1}O_{1.95}$, X-ray irrad., luminescence study 2−67130
$(U_{0.06}Th_{0.94})S$, spin fluctuation temp., press. depend., elec. resist. meas. 2−56827
$U_{1-x}Th_xSb$, Kondo behaviour, ferromag. and antiferromag. behaviour, transport and mag. meas. 2−77032
$U_xTh_{1-x}Sb$, f and d electrons, resonant photoemission study 2−116336
$U_xTh_{1-x}Sb(U_xY_{1-x}Sb)$, electronic struct. and magnetism 2−66605
V_2O_5 membranes, electroosmosis, higher order phenomenological coeffs. 2−73010
ZrF_4-BaF_2-ThF_4 glasses, polarised Raman scatt. study 2−57086
ZrF_4-ThF_4-$YF_3(LuF_3)(ScF_3)(AlF_3)$, glass forming area, thermal expansion and UV absorption edge *(French)* 2−115146
three-phase flow *see multiphase flow*
three-photon spectra *see multiphoton spectra*
throat microphones *see microphones*
thulium
see also nuclei with .....
mixed valence, X-ray absorption spectra 2−76991
mixed valent impurities in metal, cond. and magnetoresist. 2−87229
relativistic 2p excitation energy calcs. 2−115686
Rydberg states calc. using model pot. method 2−64891
vapour laser, optically pumped 2−55124
CaF_2:Tm, thermoluminesc. response characts. to X-and γ-rays, 2-hit traps 2−67127
CaF_2:Tm^{2+}, optical detect. in transmission band of ENDOR 2−116090
CaF_2:Tm^{2+}, uniaxial stress effect on ENDOR, hyperfine parameters 2−72378
$CaSO_4$:Tm, phosphor, thermolum., carrier capture during irrad. 2−104973
$CsMgI_3$:Tm^{3+}, thermoluminescence and energy storage 2−99198
Ge:Tm, deep level impurity states, DLTS study 2−56477
KBr:Tl, pressure induced absorpt. spectra changes 2−93235
KI:Tl, pressure induced absorpt. spectra changes 2−93235
$KMgF_3$:Tm^{2+}, paramagnetic centres, ENDOR, transferred hyperfine interaction parameters 2−61789
SrF_2:Tm^{2+}, uniaxial stress effect on ENDOR, hyperfine parameters 2−72378
Tm^{3+} doped oxide glass as potential laser material 2−90903
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334
YIG:Tm,Ca,Ge,Ne layers, ionimplanted, annealing effects on cryst. and mag. props. 2−77333
ZnO:Cu, Tm, phosphors, photo- and electro-luminesc. studies 2−110909
ZnS:Cu, Tm, electrolum. and photolum., quantum yield meas. 2−110943
thulium alloys
valence fluctuation systems, systematics 2−56498
Ag-Tm, dilute alloys, magnetostriction, free energy calc., single ion Hamiltonian 2−92987
Tm-Al thin films, crystallographic phases following electron beam annealing 2−55888
TmAg, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
TmAlGa, mag. props. study 2−72141
$TmAl_xGa_{2-x}$, cryst. struct. study 2−55889
$TmCo_2$, ^{59}Co Knight shift anisotropy, spin echo study 2−110668
$TmCo_2$, anomalous hyperfine field and orbital moment 2−56973
$TmFe_2$, cubic Laves phase, Mossbauer study 2−66961
$TmFe_4Al_8$, Mossbauer study 2−87636

thulium alloys continued
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978
TmZn, polarised neutron study, mag. prop. 2−72157

thulium compounds
see also thulium alloys
valence fluctuations between two mag. configs., electronic, mag. and elec. props. 2−76992
valence fluctuations between two mag. configs., mag. props. 2−115716
$(Eu,Tm,Y,Ca)_3(Fe,Ge)_5O_{12}$ thin film system, domain boundaries *(Russian)* 2−77338
$LiTmF_4$, influence of magnetostriction on NMR spectrum *(Russian)* 2−72361
SmTmCaGe garnet (100) films, Neel walls and line transitions 2−110614
$Sm_{0.85}Tm_{2.15}Fe_5O_{12}$, epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
$(Tm,Y)_3Fe_5O_{12}$, epitaxial bubble film, rare earth segregation 2−72633
$Tm(AlMn)O_4$, cryst. struct. 2−60945
$TmAsO_4$, local props. of Tm^{3+} and Yb^{3+}, ^{169}Tm and ^{170}Yb Mossbauer meas. 2−99006
$TmCl_3.6H_2O:Gd^{3+}$, cryst. field parameters, spin Hamiltonians, polarisability tensors 2−87206
$TmCl_3.6H_2O:Gd^{3+}$, spin-Hamiltonian parameter superposition model anal. 2−98600
$Tm_2Cu_2O_5$, cryst. struct. data 2−81757
$Tm_{1-x}Eu_xSe$, narrow gap mag. semicond., magnetization and elec. cond. 2−92969
TmF_3-BaF_2-MnF_2, glass form., quenching, IR study *(French)* 2−91808
$TmFe_2H_x$, heat and entropy of formation and absorption, H_2 desorption isotherms 2−110012
$TmFeO_3$, magnetoelasticity near mag. transitions *(Russian)* 2−98925
$TmFe_5O_{12}$ garnet, amorphous, struct. props., Mossbauer study 2−103625
$Tm(FeZn)O_4$, cryst. struct. 2−60945
Tm_3Ga_3, mag. props., struct., anal. 2−66763
$Tm(GaM^{2+})O_4$ (M=Mg, Mn, Co, Cu, Zn), cryst. struct. 2−60945
Tm_2O_3, cubic, lattice and binding energies 2−60916
TmSe crystals, valence and phase instabilities, review 2−110307
TmSe, electron-phonon coupling in intermediate-valence compounds 2−56133
TmSe, intermediate valence cpd., lattice dynamics 2−56111
TmSe, mixed valence, X-ray absorption spectra 2−76991
TmSe, mixed valence cpd., high press. neutron and X-ray diffr. studies 2−56509
TmSe mixed valence cpd., neutron diffr., props. on basis of interacting Kondo-like ions 2−56831
TmSe, mixed valent, hybridisation energy gap, inelastic neutron scatt. obs. 2−61352
TmSe, mixed valent cpd., dielec. response, anomalous features 2−56457
TmSe mixed-valence cpd., paramag. neutron spectra meas. 2−104577
TmSe, point contact spectroscopy of dynamic resistance 2−56591
TmSe, pressure-induced valence transition, X-ray diffr. study 2−82233
TmSe single cryst., inelastic neutron scatt. studies 2−55956
TmSe, stoichiometry, press. effects, lattice parameter, resistivity 2−56203
TmSe, trivalent and intermediate valent, spin dynamics, inelastic neutron scatt. meas. 2−72156
Tm_xSe and $TmSe_{1-y}Te_y$, intermediate valent, phonon and elastic anomalies 2−56116
Tm_xSe, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
Tm_xSe, local prop. variation, Mossbauer study 2−87633
$TmSe_{0.89}Te_{0.11}$, mixed valence cpd., mag. and elec. props. 2−56444
$TmSe_{1-x}Te_x$, intermediate valent, phonon and elastic anomalies, Raman effect 2−56110
TmSe(Te)(S), surface effects on core level binding energies 2−115843
$Tm_3(Tm_xGa_{2-x})Ga_3O_{12}$, Czhochralski growth, optical and X-ray topography quality obs. 2−93413
$Tm_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
$Tm_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
$(Tm_xY_{1-x})_2(SO_4)_3.8H_2O$, effect of dilution on mag. ordering 2−66812
$Tm_xY_{1-x}Se(S)$, single site mixed valence, PES studies 2−110308
$Tm_xY_{1-x}VO_4:Gd^{3+}$, EPR study of Jahn-Teller induced random strains 2−77368
$^{170}Tm_2O_3$ particles, mouse lung irrad., short term effect 2−68079
$(Y,Eu,Tm,Ca)_3(Fe,Ge)_5O_{12}$ system films, FMR study of mag. parameters *(Russian)* 2−77385
$(YGdTm)_3(FeGa)_5O_{12}$, bubble motion, vertical Bloch line annihilation during creep 2−77343
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312

thunderstorms
see also lightning
artificially triggered lightning in Japan 2−106297
China, storm development and convective activity from IR remote sensing 2−78820
cyclonic rotation of thunderstorm updraft model 2−106189
density current in atmos. boundary layer beneath storm cloud *(Chinese)* 2−112094
downdraft development and effect of electrified raindrops 2−83891
electric field radiated by multiple return strokes 2−63049
electrical model of thundercloud 2−100518
electrical structure in Hokuriku winter storms 2−63034
electrification, precipitation related theories, inductive and noninductive 2−78775
forecasting, 500 mb cyclonicity effects 2−83918
global distribution of thunderstorm activity observed with ISS-b 2−58102
gravity wave generation by thunderstorms 2−100446
Great Plains of USA, elec. props. of severe thunderstorms 2−63016
ground level space charge layers due to corona discharge 2−78801
lightning formation and discharge process, discharge parameters and safety measures *(French)* 2−78719
lightning location relative to storm struct., preliminary study 2−94417
mountainous terrain intense quasi-steady thunderstorm 2−94447
mountainous terrain intense thunderstorm, turbulent struct. obs. 2−94448
Norman, Oklahoma, steady glow and multicoloured flashes 2−94432
prediction of storm path using convective overturning model 2−83908
radar research 2−89047
Rocky Mountain intense thunderstorm evolution 2−94446
temperature profile meas. technique using microwave radar 2−112178

thunderstorms continued
tornadic thunderstorms, satellite observed cloud top height/temp. changes 2−78808
tropical lightning charcts. 2−73630
wind shear, sources and detection 2−100417
X-ray enhancements, origin 2−63028

thyratrons
10 kHz 10MW average power neutralised Li ion beam injector 2−96308
magnetic pulse compressor cct. for elec. excitation of XeCl laser 2−60094
nanosecond pulse generator based on strip line 2−85441
H_2 $C^3\Pi_u$ metastable molecule formation 2−90465
H_2 thyratron, metastable species form. 2−54936

thyristor applications
enlarger timer, using counter ICs, thyristor, relay switch 2−84726
fusion reactors, thyristor power supplies control using automatic pulse phase shifter 2−69937
large scale thyristor DC circuit breaker for fusion application 2−69938
photographic enlarger timer cct., using 555 timer, opto-coupled triac driver 2−95498
photographic exposure timer, using photo-resistor sensor, thyristor light control *(German)* 2−101476
power supply systems for tokamak thermonuclear installations 2−64640
proportional temperature regulator with phase control for an inductive load 2−112891
TEXTOR, poloidal field thyristor amplifier with improved power factor 2−69941
TEXTOR toroidal field power supply system commissioning tests 2−69942
thyristor supply systems for experimental thermonuclear reactors, design problems 2−64644
TMX Upgrade, magnet power supply, power factor correction appl. 2−69953
X-ray diagnositc set with image intensifier, electronic brightness stabiliser 2−78411

thyristors
No entries

tidal power stations
renewable sources of energy for electricity 2−88400
river Severn tidal power schemes, energy accounting 2−111537

tides
NW African upwelling region, tidal currents anal. 2−78664
South Atlantic, tides and low-freq. sea level changes 2−73583
atmosphere, lunar tide (18.6 year) seen in Japanese air press. data 2−73619
atmosphere, mesosphere winds obs. from Australia and Japan 2−63047
atmosphere, standing diurnal tides at mesosphere altitudes 2−83910
atmosphere, vertical struct. classical tidal theory formulation 2−63064
Baltic Sea near-shore currents, theory *(German)* 2−100390
Beaufort Sea M_2 tide amplitude and phase 2−111962
binary stars, tidal evolution in close binary systems of high eccentricity 2−89304
Bristol Channel, residual currents 2−73585
Chukchi Sea M_2 tide amplitude and phase 2−111962
continental shelf diurnal period waves generation by tidal currents 2−111954
crustal deformation measurement, comparison of tiltmeters 2−112166
Earth tidal stress interactions with earthquakes, modelling and appl. to aftershock sequence in Pyrenees 2−88752
Earth tides, anal. of tidal deformation of viscoelastic body rel. to Earth rot. deceleration 2−105887
Earth tides, correl. with foreshock sequence and earthquake swarms in Haichen, China, region 2−94306
Earth tides, relation to degassing of Earth *(Russian)* 2−83737
Earth tides database 2−57963
W.Florida Shelf, M_2 tide, currents and sea level 2−58059
geomagnetic data, estimation of errors of lunar tidal harmonics 2−105915
gravity field changes due to coastal seawater pile-up 2−117187
gravity observations, ocean tidal effects *(Chinese)* 2−83730
Green Bay, Lake Michigan, numerical models of tides rel. to water motion 2−106160
Gulf of Carpentaria, numerical simulation 2−83847
E India coast, sea level and tides and Paradip 2−78678
internal tides, linear generation models over large topographic features 2−78665
internal tides on continental margin, model 2−68363
inverted echo sounders records, tidal signal in Atlantic Ocean 2−106126
ionosphere, lunar tidal var. in A1-absorption at low latit. during solar min. 2−106387
ionosphere, tidal modes rel. to seasonal var. in occurrence time of equatorial midnight temp. bulge 2−100637
Iroise Sea, tidal currents *(French)* 2−83842
lunar influence on cold air activities in terrestrial atmosphere *(Chinese)* 2−88992
many gravitating bodies around spherical star or planet, extremal tide calc. 2−68611
mesosphere, equatorial radar backscatter obs. over Peru 2−63045
Messina Strait, tidal vertical circulation model 2−88907
Moon-Earth system, orbit evolution and tides 2−89172
Naples, sea level variation study 2−117322
S New England bight, nested numerical tidal model 2−83839
ocean tidal dissipation, effect of Earth rot. axis changes 2−68342
oceans tidal dissipation, secular effects on lunar orbit and Earth rot. 2−111843
One Tree Reef, southern Great Barrier Reef, tidal water movement rel. to suspended-sediment transport 2−117286
NW Pacific, tides over Kuril-Kamchatka and Japan trenches 2−83836
SEASAT radar altimeter obs. off Bermuda for height calibration 2−89026
semi-diurnal tides formation in world ocean, role of shelf effects *(Russian)* 2−117313
semidiurnal internal tide in Polygon-70, mean spatial spectra *(Russian)* 2−73570
shallow gulf, 3-D tidal model 2−83848
Shanghai Observatory, astrolabe obs., lunar tidal effect on vertical *(Chinese)* 2−63219
solid Earth lunar tides at South Pole 2−100204
solid Earth tide horizontal pendulum system 2−78854
solid Earth tides, influence of lateral mantle inhomogeneities 2−57951
solid Earth tides 2−78524
strait tidal mixing model 2−111938

tides continued
stratosphere measurement O_3 UV absorpt. as main forcing component, method for solar UV variability 2−63266
theory, and tidal energy, review 2−111932
thermocline internal waves of tidal period 2−117354
lower thermosphere, effect of tides and gravity waves on O and O_2 comp. 2−112187
tidal currents on smooth continental shelves, theory 2−88887
SE United States, effects of tides on ocean currents along nearshore frontal zone 2−83829
United States E and W coast M_2 tidal currents 2−88887
wetlands, multichannel recording piezometer system 2−78890
York River, Virginia, spring tides rel. to destratification events 2−106143
zonal luni-solar tidal potentials rel. to day length changes 2−78527

tight-binding calculations
adsorbed atoms, indirect interaction on metal surfaces 2−71806
alloys, disordered, alternative derivation of CPA, tight binding model *(Chinese)* 2−110221
amorphous solids, correlated diagonal and off-diagonal disorder 2−104235
amorphous solids, electrical conductivity, CPA study *(Chinese)* 2−110315
BCC transition metals, vacancy clusters, binding energies and electronic struct., tight binding calc. 2−109789
binary alloys, alloy broadening of impurity electronic spectra 2−82278
Bloch waves, anal. props. and surface states, tight-binding approx. 2−56656
composition modulated alloys, electronic struct., CPA calc. 2−104224
density of states, expansion technique calc. 2−56420
disordered systems, localisation, tight-binding Hamiltonian calc. 2−71928
effective-mass theory for electrons in heterostructures 2−110231
electronic struct., cryst. struct. depend. 2−56417
force computation method in tight-binding model 2−110222
graphite intercalation compounds, C_{12} M (M=K, Rb, C), charge distrib. among graphite layers 2−56421
Hartree-Fock crystal orbital calcs., error anal. 2−92433
HCP and FCC structures, s-band energies 2−110226
heterojunction between 2 semiconductors with different effective mass, wave function connection rules 2−110463
ideal vacancy and surface states, tight binding calcs. 2−104227
III-V semiconductors, defect electronic struct., tight-binding calcs. 2−76978
intermediate valence systems, elec. resist., phonon contrib. 2−56541
ion neutralisation, tight binding linear chain model 2−111009
layered ultra-thin coherent struct., electronic states *(Chinese)* 2−98519
linear chain of atoms, appl. of Hellmann-Feynman theorem to substitutional impurity study 2−76983
liquid metal, elec. cond., effective medium approx. 2−104338
liquid metal, electronic density of states, two-dimens. model, computer expt. 2−92446
localisation criterion in the Cayley tree without electron-electron interactions 2−104284
localisation in incommensurate pot., one-dimens. tight-binding model 2−110277
localised states in solids, selection rules, appl. to band calcs. 2−115687
metal-metal interface, electron transmission coeff. 2−92731
metals, liq., electrical conductivity, CPA study *(Chinese)* 2−110315
metals, multielectron core excitation spectra, surface effects 2−87912
metals, phonon spectra in Frohlich approach, appl. to transition metals 2−92132
molecular cryst., hole bands, mol. tight-binding method 2−82203
molecular crystal, excess electron bands, mol. tight-binding method 2−82204
off-diagonal disorder on square and cubic lattices 2−110223
one dimensional CDW distorted solid, charge density fluctuations, dielec. function calc. 2−71893
one-dimensional metals, thermopower calc. 2−71951
one-dimensional system, plasmon spectra and exchange contributions, tight binding model 2−76957
one-dimensional system with bond distortion, localised and extended electron states 2−92502
one-electron theory of crystalline solids in homogeneous elec. field 2−66508
polyacetylene, bond alternation, electronic correl. effects 2−56455
trans-polyacetylene, doped, elec. cond. freq. depend., two-band tight-binding model 2−77026
polyacetylene, momentum depend. dielectric function 2−110275
polymorphic phase transitions, Woodward-Hoffmann orbital correl. diagrams 2−81952
random chains, localisation and spectral singularities 2−104313
random site energies, disordered harmonic chain anal. 2−101160
randomly disordered systems, elec. cond., CPA study for various percolation models 2−56539
semiconductor superlattices, lateral, two-dimens., quantum-well confinement and charge instabilities, tight binding calc. 2−61577
semiconductors, evaluation of tight-binding models for deep defect levels 2−71914
semiconductors, ideal vacancy and surface states 2−104226
simple-cubic tight-binding solid, vacancy-vacancy effective interaction in bulk and on surface 2−56008
spectral functions of solids, Pade approximants, tight binding calc. 2−61321
superlattice alloy, impurity sheet doped, band struct. 2−110242
$(TMTSF)_2PF_6$, spin density wave fluctuation effects on NMR relax. 2−87616
$(TMTSF)_2X$, (X=PF_6, AsF_6) band struct. and Fermi surface, tight binding calc. 2−115660
transition adatoms on transition metals, and of simple chemisorption theory 2−92346
transition metal oxides, electron energy loss study of K near-edge fine struct. of O 2−104248
transition metal surface kink electronic structure 2−56666
transition metals, BCC and FCC, mag. phase diagram at zero temp. 2−66817
transition metals, normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
transition metals, vacancy clusters, electronic struct., binding energy, atomic relax. 2−87174
two-dimensional system with off-diagonal disorder, electronic states, tight-binding model 2−115711
zinc-blende materials, band structure, tight binding calc. 2−66443
α-Al_2O_3, electronic struct., extended tight-binding calc. 2−110241

tight-binding calculations continued
Cr, spin density wave states, tight-binding approx. 2−66751
Cr-V(Mn), spin density wave states, tight-binding approx. 2−66751
Cu film on Ni (100), electronic and mag. struct., interface magnetisation 2−82695
Cu halides, theoretical explanation of optical deform. potentials, absolute Raman scatt. efficiency 2−104835
Cu_xNi_{1-x}, surface segregation, electronic theory, local density of states 2−61152
Fe, anisotropic magnetoelastic coupling consts. 2−82689
Fe-Ni, ferromagnetic state, electronic struct., electron-magnon interaction effects 2−82217
$Fe_{1+x}Nb_{3-x}Se_{10}$, electronic struct., tight binding calc. 2−98517
GaAs (110) relaxed surface, angular resolved initial state spectra 2−87948
GaAs, electronic struct. induced by short-ranged defects, calc. method 2−104296
GaAs-AlAs (001) superlattice, electronic band struct. 2−61572
$GaAs-GaAs_{0.2}P_{0.8}$ superlattice, strained layer, lattice mismatched, electronic struct., tight binding calc. 2−66631
$GaAs_{1-x}P_x$:O_2, electronic struct. induced by short-ranged defects, calc. method 2−104296
$GaAs_xP_{1-x}$-GaP strain-layer superlattice, band struct., effective mass and tight-binding calcs. 2−98729
$GaAs_xP_{1-x}$-GaP strained-layer superlattice, electronic struct., tight-bending and effective mass models 2−110454
GaAs(110), vacancies and adsorbed H, electronic struct. calc. 2−110422
GaP:O, point defect electron states, enfeebled O bonding and metastability 2−61351
He, mol. cryst., excess electron bands, mol. tight-binding method 2−82204
He, mol. cryst., hole bands, mol. tight-binding method 2−82203
$Hg_{3-\delta}AsF_6$, quasi-one-dimensional incommensurate, Fermi surface 2−110229
$Hg_{1-x}Cd_xTe$, bulk vacancy electron states, tight binding calc. 2−87178
$Hg_{1-x}Cd_xTe$, disordered complex bound struct., CPA calc. 2−87129
$Hg_{1-x}Cd_xTe$, electronic struct., localised orbital calc. 2−87139
$Hg_{1-x}Cd_xTe$, surface electronic struct. and cation bonds, tight-binding calc. using CPA and virtual cryst. approx. 2−110428
LiC_6, electron states, cluster model *(Chinese)* 2−66415
LiF(Cl)(Br)(I), Compton profile anisotropy calcs. 2−72574
Nb_3Sn, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
Nb_3Sn, tetragonal, electronic struct., nonorthogonal tight binding and APW calcs. 2−76914
Ni, chemisorbed O at step sites, elastic interaction between atoms 2−98451
PdH, dipole force tensor, relationship to electronic struct. 2−109735
PdH_x, electronic and cohesive props., localised theory 2−82291
Si, axial channelling radiation from MeV electrons 2−81846
Si, radiation from axially channelled electrons at low energies 2−81851
Si, screw and 60° dislocations, core struct. and core energy, tight-binding calc. 2−81786
Si:H, amorphous, electronic states and total energies 2−66429
Si-Ni(Cr) interface, chem. bonding and density of states, UPS and LCAO calc. 2−110476
Si-SiO_2 junction, interface electronic struct. 2−110485
SiO_2, impurity and defect electron states, tight-binding model 2−82288
SiO_2, surface electronic struct. tight binding calc., UV photoelectron spectroscopy, and EELS study 2−82226
SnO_2 (110), surface electronic struct., tight-binding calc. 2−110250
VSi_2 (V_3Si), band struct., LCAO EHT calc. 2−82219
V_3Si, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
ZnO surfaces, ideal and relaxed, electronic struct. 2−56660

tilt (Earth) *see geodesy*

tilting control *see attitude control*

timber *see wood*

time and latitude
see also Earth rotation; time measurement
astronomical time measurements, Survey of India 2−84064
CERGA astrolobe, latit. and longit. vars. rel. to positonal obs. of Sun in (1980) *(French)* 2−100855
Danjon astrolabe obs. at Rio de Janeiro, May 1977 to December 1979, time and latit. 2−100706
Earth's surface, time and frequency generation and maintenance at arbitrary points 2−94614
Earth rotation parameters' solution from time and latitude classical obs. *(Chinese)* 2−78520
Earth rotation rate vars. and leap second *(Japanese)* 2−78519
equation of time, approx. function and correction terms 2−78929
Greenwich Obs. Time and Latitude Service, Time Report (April to June 1981) 2−78931
Greenwich Obs. Time and Latitude Service, Time Report (July to September 1981) 2−100707
Greenwich time report, Royal Greenwich Observatory Time and Latitude Service, (January to March 1981) 2−68599
Merate Observatory Darjon astrolabe obs. (1981) 2−105882
nutation constant corrections from ILS data *(Chinese)* 2−83731
Potsdam PZT latitude determ., star declination effects *(German)* 2−100705
RATAN-600 exact time and frequency service 2−94611
Tokyo Astronomical Obs., Time and Latitude Bulletins (January-March 1982) 2−106481
Tokyo Astronomical Obs., Time and Latitude Bulletins (July to September 1981) 2−68600
Tokyo Astronomical Observatory, Time and Latitude Bulletins (October to December 1981) 2−84065

time delay circuits *see delay circuits*

time delays *see delays*

time division multiplexing
optical 2−81118

time-domain analysis
EM fields transient anal., Bergeron's method adaptation to med. with resonance absorption 2−96801
inhomogeneous lossy dielectric slab, direct and inverse scattering, time domain and freq. domain anal. 2−65143
lossy magnetoplasma, transmitted impulse response by convolution method 2−91623

time-domain analysis continued
US testing, time-domain pulse analysis feasibility 2−72931
wave propagation and profile inversion in lossy inhomogeneous media 2−70483

time-domain reflectometry
acoustic, fibre-optic short-range fracture fault location 2−91100
admittance meas. using bridge sampling methods, 250 kHz to 5 GHz range 2−101427
automatic measurement of complex permittivity (from 2 MHz to 8 GHz) using time domain spectroscopy 2−69203
dielectric relaxation spectra, GHz region 2−95394
fibre backscatter signature simulations, computer-generated 2−95447
fibre optic temperature distribution sensor using time-domain reflectometry 2−91076
froth-pulp interface determination with time-domain reflectometry, report 2−84686
molecular fluorescence, time domain meas. system with /real-time monitor, pulsed dye laser control 2−74505
OF 150 opt. fibre time-domain reflectometer, chart recorder, CRT, LCD readout, optical links appl. 2−79650
optical, fibre optic strain sensors, high sensitivity, for measuring structural distortion 2−74407
optical, long wavelength monomode fibres testing appl. 2−107391
optical fibre, multimode gradient index, optical time domain reflectometry at 1.5 μm using stimulated Raman scatt. 2−65379
optical fibre cable fault location using modified reflectometry techniques 2−64097
optical fibre length meas. by reflectometry *(German)* 2−74484
optical for fibre backscattered light 2−101448
optical reflectometer, low cost 2−84685
optical single mode fibres, Faraday effect obs. using polarisation-optical time domain reflectometry 2−65371
optical time domain reflectometer, model GSFY-1 2−101449
optical time-domain reflectometers for optical fibre testing 2−102959
PMMA-polymethyl acrylate copolymers, benzene soln., chain motion, elementary processes 2−93107
polarisation optical time domain reflectometry meas. of fibre polarisation modifying props. 2−91080
polymer solutions, dielectric relax. spectra, time domain reflectometry technique 2−66978
semiconductors, local resistivity meas. over small regions, capacitively-coupled time-domain reflectometry 2−53783
single-mode optical fibres, determ. of structural parameter variations by time-domain reflectometry 2−81089
transparent media characterization using sub-pico second dye laser based time domain reflectometry technique 2−108873
ultralong multimode optical fibre fault location using Raman optical time domain reflectometry 2−97239

time interval measurement *see time measurement*

time measurement
see also clocks; frequency measurement; streak photography; time and latitude; time resolved spectroscopy
accuracy requirements for VLBI exp., radio astronomy appl. 2−89167
astronomical time measurements, Survey of India 2−84064
atomic and gravitational clocks, non-synchronous due strong equivalence principle violation 2−69058
atomic clock time scale, China, H-masers appl. 2−79538
automated high accuracy phase measurement system appl. 2−107311
Deep Space Network, frequency and timing capabilities 2−63999
digital, statistical description 2−89696
dissemination capabilities via navigation satellites 2−89676
Earth's surface, time and frequency generation and maintenance at arbitrary points 2−94614
electronic multimeter, laboratory apparatus for mech. expts. 2−63787
frequency activities overview at National Physical Laboratories, New Delhi, India 2−89658
frequency and time, methods and techniques used in New Zealand 2−89660
frequency and time, present status in Indonesia 2−89659
frequency and time in Japan 2−89664
frequency and time meas., conf., New Delhi, India (Feb. 1981) 2−95306
frequency and time meas., recent activities at Radio Research Laboratories 2−89657
frequency and time services in Kenya, establishment, future radio broadcasting appl. 2−89662
frequency standards, reliability, serviceability and performance 2−89661
international atomic time TAI 2−63986
International Radio Consultative Committee role in co-ordination of time and frequency activities 2−89665
international time and freq. comparison by orbiting H maser clock 2−64000
interval, frequency stability determ. of high performing sources 2−107307
LASSO experiment and its operational organization 2−89670
LF time signals for time and frequency dissemination system of moderate accuracy, sophistication and cost 2−89673
maser time keeping performance comparison with Cs standard, using passive H maser 2−107309
meteoric propagation of radio waves, chromometer scales comparison errors reduction 2−69146
NRC primary time standards, performance 2−63988
optical time scale based on freq. stable He-Ne/CH_4 laser oscill. period 2−101379
optical time scale using freq. stabilized laser 2−64004
precise T&F intercomparison between NPL, India and PTB, Federal Republic of Germany via Satellite Symphonie-1 2−89677
precise time transfer techniques, satellite laser ranging, Indian contribution 2−89671
precise time-keeping, time and frequency transfer using SABCTV 2−89675
precision time-keeping, modern methods, evolution of TAI and UTC 2−89668
prediction error variance, time and frequency instabilities analysis 2−107294
primary caesium clock development, review, satellite time comparison techniques and NRC 2−89672
pulsar observations appl. 2−79540
RATAN-600 exact time and frequency service 2−94611
satellite geodesy appl. 2−88724
scale realisation, US Naval Observatory time scale at the operational level 2−107308

time measurement continued
secondary time/freq. standards, heterodyne double-PLL structure appl. 2−79526
Shuttle experiment to demonstrate high-accuracy global time and frequency transfer 2−101387
standard time and frequency in Korea, and dissemination by AM/FM broadcasting network 2−89663
standard time and frequency signals transmission, over Cuban TV channels 2−69145
standard time sundial with interchangeable gnomons 2−63254
standard time/frequency dissemination, India, radio broadcasting appl. 2−79539
standardisation, BCR-project on time comparison via OTS-2 2−112874
standards, astronomical research appls. 2−89156
sun clocks design *(German)* 2−69143
synchronisation for 3-site interplanetary scintillation exp., solar plasma, wind velocity investigation appl. 2−89155
synchronisation of time scales, using Loran-C navigation system 2−69144
synchronisation system in 2-station search for primordial black holes 2−79541
synchronisation via INSAT-1 direct reception system 2−89678
T/F comparisons, precise international, ground and satellite TV systems 2−89674
thermogram evaluation, differentiating circuit for determination of elapsed time *(German)* 2−79571
time/frequency services of the US National Bureau of Standards and some alternatives for future improvement 2−89666
timing receiver, satellite, NNSS 2−89679
VLF phase meas. for precise T&F intercomparison 2−89667
VLF signals instant of arrival meas., error determ. and elimination 2−58799
VLF studies at NPL, New Delhi−experimental set-up and morphology of the data 2−89669
Cs atomic clocks, global time scale matching through transportation of clocks *(German)* 2−112856
Cs beam time and frequency primary standards in Federal Republic of Germany 2−63987

time of flight mass spectra
acetylene condensation reactions in a microwave induced plasma 2−57613
alanine, secondary ion emission, time of flight mass spectra 2−99241
alkali metal clusters, photoionisation and fragmentation in supersonic mol. beams 2−102547
biomolecule desorption yields for high and low energy primary ions 2−98430
biomolecules, rel. depend. of fast heavy ion induced desorption 2−94127
dissociative electron attachment, thermomechanical parameters, time of flight mass anal. 2−85821
ergosterol, desorption, fast heavy ion induced 2−98429
ergosterol, desorption yield as function of fast heavy ion beam angle of incidence 2−87058
ethanol ionic dissociation studied by photoelectron-photoion coincidence spectroscopy 2−75468
glycylglycine, desorption, fast heavy ion induced 2−98429
glycylglycine, desorption yield as function of fast heavy ion beam angle of incidence 2−87058
heavy ion time of flight spectrometer for space appls., detection efficiency 2−53891
metastable peak shapes in time-of-flight mass spectrometers 2−53889
phosphates, polymeric vitreous, gas phase synthesis laws 2−111084
vacuum gap, uniform field, charge carriers in prebreakdown current, mass spectra anal. 2−91699
valine film, secondary ion emission as function of primary ion velocity 2−99245
vitamin D-metabolites from human plasma and mass spectrometric analysis by fast heavy ion induced desorption 2−100171
CdSe, laser evaporated neutral components, energy distrib. 2−67156
CsCl-RbBr film, secondary ion emission as function of primary ion velocity 2−99245
CsI, desorption, fast heavy ion induced 2−98429
CsI, desorption yield as function of fast heavy ion beam angle of incidence 2−87058
HI^+, time of flight mass spectrometric obs. 2−59971
H_2I^+, time of flight mass spectrometric obs. 2−59971
H_2O, expanding vapour flows, cluster conc. determ., time of flight mass spectra 2−55002
Pb clusters, formation by adiabatic expansion and ionisation pot. meas. 2−85854

time of flight spectra
see also atom probe field ion microscopy; time of flight mass spectra
acrolein supersonic molecular beam at 193 nm, laser photofragmentation dynamics 2−96656
benzene, multiphoton ionisation, translational energies of fragment ions 2−96646
cosmic ray muons, energy spectrum meas. via time of flight method *(Japanese)* 2−106464
dielectric thin film, secondary ion emission, fission fragment induced 2−99244
EBBA, amorphous and cryst. phases, vibr. density of states 2−56141
electrons detachment energy distrib. 2−90684
fission neutron spectrum meas. by time-of-flight technique, scatt. effect 2−102322
fluorene-Ar(Ar_1)(Kr_1), Van der Waals mols., electronic spectroscopy by resonant two-photon ionisation 2−54907
heavy ions mass identification by time-of-flight techniques 2−90347
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
metallic thin film, secondary ion emission, fission fragment induced 2−99244
metals, electron emission during laser bombardment, time of flight energy meas. 2−62023
naphthalene, external phonon spectrum, neutron scatt. time of flight spectra study 2−71596
neutron emission from a 1 kJ plasma focus device 2−59587
neutron scintillation detectors, threshold determ. with thin ^{252}Cf source 2−102333
neutron time-of-flight spectrometry, black and white filter method for background determ. 2−102319
PAA, amorphous and cryst. phases, vibr. density of states 2−56141
particle flight times through electrostatic and magnetic sector fields and quadrupoles to second order 2−75472

time of flight spectra continued
polymer, solid, separation method of neutron incoherent inelastic scatt. in time of flight method 2−91724
pulsed molecular beams charact., car fuel injector appl. 2−97613
RF phase-drift compensator for neutron time-of-flight meas. 2−96398
secondary ions desorbed by fission fragments, energy spectra, time-of-flight method 2−99243
surface struct., ion scatt. spectroscopy study, time of flight energy anal. 2−76790
time-of-flight neutron powder spectroscopy, Bragg lineshapes 2−103564
trimethylamine, molecular beam photodissoc. isotropic ang. distrib. 2−96658
Al, lattice dynamics, coherent neutron scattering from polycrystals 2−56120
Al, pulsed He^+ beam scatt., time of flight technique 2−77670
$Ar^+ + H_2$, low energy charge transfer reactions, time-of-flight study 2−80803
Au, polycrystalline, low energy ion scatt. and neutralisation 2−77664
CO, positron scatt., total cross section, retarding pot. time of flight method 2−108706
Ca, lattice dynamics, coherent neutron scattering from polycrystals 2−56120
Cd, photoelectron spectra, autoionisng reson. profiles 2−96520
Cu surfaces (100) and (111), desorpt. of H_2 and D_2, fast vel. distrib. 2−98446
$Fe_{81}B_{19}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
$^2H(d,n)^3He$ neutron source using gas target, energy and angle straggling effects 2−64727
LiF surface (001), inelastic scatt. of Ne atoms 2−57239
N_2, multiphoton ionisation by Nd-glass laser 2−65056
N_2, positron scatt., total cross section, retarding pot. time of flight method 2−108706
N^{**}, metastable state, collision-induced ionisation, time of flight study 2−114095
$NbH_{0.99}$, lattic vibr. spectrum, inelastic neutron scatt. study 2−71597
$Ni_{60}Nb_{40}$ metallic glass, struct. factor, time of flight neutron diffr. study 2−103644
SF_6, electron scatt., total cross section meas., ToF obs. 2−54971
Si:H, amorphous, sputtered, time-of-flight and photoinduced mid-gap absorpt., dispersion 2−87432
$SnCl_2$, photofragmentation, pot. surface time of flight spectra 2−65059
$^{235}U(n,f)$, vel. selected fission products, isobaric elemental yields determ. 2−64443
V, pulsed neutron scatt. in thermal energy range 2−115104
Zr fibre texture by time-of-flight neutron diffr. 2−57370

time of flight spectrometers
computer simulation of different designs of pseudo-random time-of-flight velocity analysers for molecular beam scattering experiments 2−84733
double time-of-flight mass spectrometer for dE/dx meas. of fission fragments 2−64157
flash ADC time-of-flight spectrometer 2−107444
gas detectors for time and energy meas. using time-of-flight technique 2−90377
gridless position sensitive time-zero detector for heavy-ion spectrometer 2−102331
heavy ions mass identification by time-of-flight techniques 2−90347
high mass resolution in medium-heavy ion reactions using short ion pulses 2−90345
impact mass spectrometer for Giotto probe, electronic system 2−78955
inelastically scattered slow neutron spectrometer in Fakel accelerator 2−108220
ion mass spectrometer appl. in ion composition meas. in space 2−94612
JET, neutron diagnostic device, remote handling aspects 2−80299
JET, time of flight telescope spectrometer for neutron diagnostics 2−80285
magnetic spectrometer, time determ. with large area thin plastic scintillator 2−90396
metastable peak shapes in time-of-flight mass spectrometers 2−53889
neutron, rotating crystal, for condensed matter study 2−65809
neutron time of flight spectrometer, GNEIS, data acquisition system 2−64741
neutron time-of-flight spectrometry, black and white filter method for background determ. 2−102319
Ohio University beam swinger facility 2−102316
particle identification for heavy ions in time-of-flight spectrometer 2−90346
random background overlaps elimination in time of flight meas. 2−80381
time-of-flight scintillation telescope with logic sampling circuit 2−64769
time-zero detector for heavy ions mass identification 2−64156

time resolved spectra
alcohol-alkane systems, solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
alcohols solvation clusters, ps spectroscopy, electron localising dynamics in polar fluids 2−108763
p-aminophenoxyl radical, time resolved resonance Raman scatt. 2−70253
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
carotenoids, excited states, time-resolved reson. Raman spectrosc. 2−59805
chloroethene molecular beam, pulsed, optical study 2−80562
9-cyanoanthracene-1,3-dienes, photocycloaddition and adduct photodecomp., spectrosc. 2−83391
dichlorodifluoromethane molecular beam, pulsed, optical study 2−80562
diphenyl butadiene, rot. diffusion, UV picosec. pump-probe spectrosc. 2−80643
duroquinone in alcohol soln., electron transfer reaction, time-resolved flash photolysis, EPR 2−85703
high resolution spectroscopy, conf., Bristol, England (April 1981) 2−74147
hot atom phenomena probing, by laser photolysis 2−59970
laser produced plasmas, filamentation and $(3/2)\omega_0$ harmonic emission interrelation investigation 2−103405
liquids, time resolved electron spin resonance spectroscopy 2−116064
malachite green heucocyanide, intramol. electron transfer, psec. resolved fluoresc. and transient absorpt. 2−114026
methyl radicals, IR absorpt. detection, recombination rate, reaction with O_2 study 2−85647
methyl salicylate, freq. dispersed and picosecond time resolved fluoresc. characteristics of blue-emitting form 2−102525
molecular fluorescence, time domain meas. system with /real-time monitor, pulsed dye laser control 2−74505
naphthalene (-dn) doped mixed crysts., time resolved donor and acceptor fluoresc., energy transport kinetics 2−72532
1-pentene, photo-induced isomerisation, Fourier transform IR spectroscopy obs. 2−116708
perturbations studied using time resolved techniques 2−65044
photochemical systems, Fourier transform IR spectroscopy obs. 2−116708
photoexcited carriers, time-resolved diffusion profiles, nonlinear luminesc. study 2−116221
poly(1-vinyl naphthalene) solid, time-resolved spectra following electron beam pulse radiolysis 2−72995
polypropylene, stretched film, time resolved IR study 2−116180
polypropylene film, stretched, time-resolved Fourier transform IR spectra, stretching-relax. obs. 2−116287
pyridine, appearance pots., breakdown curves and metastable peak shapes, time depend. mass spectra 2−90515
semiconductor, photoexcited, time-resolved refl., two-wavelength picosecond dye laser appl. 2−57119
semiconductors, light induced transient grating decay obs. 2−57043
stilbene, picosecond excitation and trans-cis isomerisation in supersonic jet 2−83347
tensor polarisability determ. by quantum beat spectroscopy 2−59744
time-resolved fluoresc. relax., deconvolution calcs. 2−80710
$Al_xGa_{1-x}As$, compositionally graded, electron drift vel., time-resolved optical refl. meas. 2−115771
As_2S_3, amorphous, time-resolved phonon spectroscopy 2−56140
As_2S_3 chalcogenide glass, time resolved photoluminescence 2−116253
C_2, $A^1\Pi_u$ state, vibr. levels radiative lifetimes, time resolved spectra obs. 2−63226
CN adsorbed layer, picosecond surface Raman spectroscopy, surface damage effects obs. 2−93170
CaH, low lying electronic $B^2\Sigma$ state, radiative lifetimes, oscillator strengths meas. 2−65054
Cu_2 cooled metal clusters, laser spectroscopy 2−108762
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
p-GaAs, photoluminescence, time resolved, by population mixing 2−57138
Ge, pulsed-laser-annealed, stimulated surface polariton wave scatt. and grating formation, time resolved meas. 2−114359
HD, collision vibr. energy transfer, time domain photoacoustic relax. study 2−102587
HNO electronic spectrum, mag. field and time-resolved study 2−75342
H_2O, weak absorpt. lines meas. by time resolved intracavity laser spectroscopy 2−63091
Hg, time resolved study of prod. from $HgBr_2$ photolysis 2−93801
HgTl, $B^2\Sigma_{1/2}$ state, pulsed laser excitation, decay time, three body association and dissoc. energies 2−108608
KCl:Pb^{2+} excited in A absorpt. band, time resolved spectra 2−104921
$La_{1-x}Pr_xF_3$, inhomogeneous broadening, time resolved fluoresc. meas. 2−116251
Li_2, $B'\Pi_u$ state, quenching and vibr. energy transfer 2−80789
N_2, $C^3\Pi_u$ state, $v'=1$ level perturbations and radiative props., time resolved study 2−80841
N_2, Herman IR system obs. and formation kinetics study in pulsed-discharge apparatus 2−102472
$N_2(B^3\Pi_g)$, collision induced transition, time-resolved fluoresc. 2−59908
NH_2, $\tilde{A}^2A_1$ state, rot. energy transfer, time resolved fluoresc. 2−114033
NH_3 molecular beam, pulsed, optical study 2−80562
NO_2, fluorescence, dispersed and time resolved, decay times 2−90607
NbI, atomic beam, radiative lifetime, time-resolved laser induced fluoresc. 2−90473
$Ne(^3P_0)$ de-excitation kinetics, time resolved absorpt. spectra, temp. studies, quenching kinetics 2−113925
$O(^1D_2)+H_2O(CH_4)(H_2)(N_2O)$ quenching, $O(^3P_1)$ yields by time resolved fluoresc. 2−105492
Os complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
PbTe, electron-hole plasma, high density, time resolved spectrum 2−92678
Ru complexes, time-resolved reson. Raman spectrosc. and local charge-transfer state 2−59806
Si, amorphous, melting temp., time resolved optical refl. meas. 2−56163
Si, laser-irradiated, reflectivity, transmission and electron-hole plasma, ps time-resolved meas. 2−115281
Si, Raman and time-resolved transmission meas. 2−57073
Si:As, amorphous film, laser induced solid phase epitaxy kinetics, time resolved reflectivity study 2−56384
Si:H, amorphous, 1.4 eV luminescence lifetime distrib. 2−72540
Si:H, amorphous, sputtered, time-resolved photolum. spectra 2−77581
Si:H, amorphous, time resolved photoluminescence, quenching and carrier mobility 2−104949
Si-on-sapphire, amorphous, ion implanted, time-resolved optical transmission meas. during pulsed laser annealing 2−61027
SnO electronic transitions, Doppler limited laser spectroscopy 2−75345
Xe_2^* excimer, de-excitation by SF_6 and N_2, time resolved fluoresc. study, rate const. meas. 2−70316
Yb, tensor polarisability determ. by quantum beat spectroscopy 2−59744
ZnS:I cubic crysals, blue self-activated luminesc., N, P and Ag ion implementation effect 2−116237
ZnTe, excited electronic states, picosecond time-resolved photoelectron spectra study 2−111025
ZrI radiative lifetimes, time resolved laser induced fluoresc. 2−80542

time resolved spectroscopy
see also streak photography
Fourier transform IR, rapid-scanning, spectral anomalies analysis using computer model 2−113004
Fourier transform IR spectroscopy of pulsed transient phenomena, progress review 2−113005
IR radiometry, time-resolved, appl. to temp. meas. of shocked translucent materials 2−69227
laser Raman spectroscopy, time and/or space resolved, appls. 2−74510
laser role in chemistry problems 2−99694
laser-induced breakdown spectroscopy at. detect. and mol. identification appls. 2−101466
lasers in chemistry, conf., New York, USA, (August 1982) 2−107005
magnetoabsorption, far-IR, multichannel time-resolved meas. 2−74519
microprocessor-controlled multichannel photon counter with a time resolution of 2.5 ns 2−107407
picosecond high-power switching and applications 2−97069

time resolved spectroscopy continued
picosecond surface Raman spectroscopy, surface damage effects obs. 2−93170
polymers deformation studies by time resolved Fourier transform IR spectroscopy 2−89832
pulsed optoacoustic signals, freq. anal. and appl. to chem. anal. 2−89819
semiconductor laser true time resolved spectra meas. technique using multiple fibre array 2−75571
shocked compressed liquids, time-resolved spectroscopy 2−69266
square-flash source for time-resolved absorption spectroscopy 2−53853
SF_6, spectrometric anal. during an elec. discharge 2−91708
time series
geophysical-meteoroiogical data series analysis, significance tests *(German)* 2−106343
power spectrum estimation method, appl. to astrophysics 2−63263
resummation for approximate data 2−58590
smoothing methods, exponential, appl. for predicting time series from small samples *(Russian)* 2−58591
O_3, time series analysis of Umkehr data from Arosa (Switzerland) 2−63044
time switches
vacuum brazing machine power and coolant switching unit 2−74396
timing *see time measurement*
timing circuits
enlarger timer, using CMOS 7217 IC 2−84730
enlarger timer, using counter ICs, thyristor, relay switch 2−84726
exposure timer based on Electronika B3-18A microcomputer 2−95506
latched constant fraction discriminator and appl. in time resolution studies 2−108302
photographic dark-room timer, using Western Digital WD-55 IC timer, LEDs *(French)* 2−64139
photographic enlarger timer cct., using 555 timer, opto-coupled triac driver 2−95498
photographic exposure timer, using photo-resistor sensor, thyristor light control *(German)* 2−101476
photography, flash timer cct. using CMOS gates *(Spanish)* 2−79698
programmable multi-timer for transuranic waste anal. appl. 2−64798
RF phase-drift compensator for neutron time-of-flight meas. 2−96398
surface barrier detectors, fast timing methods 2−80402
TMX-Upgrade, diagnostic timing system 2−80230
tin
see also nuclei with .....
adsorbed monolayer on Cu cryst., secondary electron emission enhancement 2−62025
atom, electron impact K shell ionisation cross section, plane wave Born approx. 2−80821
atoms, L subshell photoionisation cross-section determ. 2−80550
backscattering of He^+, equilib. charge state distrib. 2−54957
band structure, tight binding calc. 2−66443
bulk, radiation detector using supercond. tunnel junctions 2−90384
coating on glass, chemical bond nature, Mossbauer spectra 2−99009
coatings on Fe, H absorption during electrodeposition and H charging 2−77993
cohesion, polymorphic transition, elastic and dielec. props. 2−60919
core-hole lifetimes, electron spectra determ. 2−57256
diffusion, grain boundary, in Pb, radioactive tracer study 2−82022
diffusion mobility of Fe(Co), radioactive tracer study *(Russian)* 2−92277
electro-plated coatings, grain size effect on whisker growth 2−115635
electron emission during elastoplastic deform. *(Russian)* 2−57276
electron structure, X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
epitaxial layer, semicond.-metal phase change, electron microscopy study 2−66666
film, excess low-freq. noise, effect of substrate 2−61533
film, graphoepitaxial electrodeposition, expt. study 2−87083
film, struct. rel. to elec. and optical props. 2−115623
film with Fe surface impurities, mag. behaviour, Hall effect meas. 2−87557
films, granular, optical props. from 0.22 to 1.0 μm 2−104976
granular superconducting film, vortex mean free path noise meas. 2−104551
high pressure transition, meas. by manganin press. gauge 2−89735
impurity in semiconductors, Mossbauer isomer shift and band struct. 2−93091
interaction cross section with low energy neutrons 2−59446
KI:Sn^{2+}, polarised luminesc., nature of Sn^{2+}-cation vacancy complex 2−57159
lattice consts. and bulk moduli, self-consistent pseudopot. calc. 2−109741
liquid, dielectric function calcs. 2−76959
liquid, electronic density of states, Green's function and perturbative calcs. 2−71854
liquid, isotope self-diffusion effect, radiotracer method 2−66270
microelements in fungicidal coatings, relative intensity of Hg, Sn spectral lines 2−109092
molecule, YAG laser vaporisation, laser excitation spectra and lifetimes 2−59850
monolayers and ultrathin films, growth on Cu 2−71829
muonic atoms, electronic K X-rays shifts 2−54994
nonequilibrium superconductor, detection of HF phonons from inhomogeneous gap states 2−104544
photon emission from sputtered atoms as function of phase transition 2−77596
positron lifetimes, systematic study, in α-phase 2−57207
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
quadrupole interaction of ^{113}Sn, temp. depend., TDPAD meas. 2−82752
quantum oscills. of sound velocity and absorpt. *(Russian)* 2−61074
shocked surfaces, material ejection 2−71569
Si:Sn, metastable alloy form., by electron beam annealing 2−56041
solidification, low-frequency vibration influence obs. 2−116432
superconducting, hollow, two-dimens. mixed state statics 2−98825
superconducting bridges, current-voltage characts. 2−115955
superconducting critical current, directional asymmetry, ferromag. particles effect 2−92841
superconducting film, current-carrying, induced by mag. fields, breakdown of supercond. 2−104528
superconducting films, thermodynamic fluctuations of order parameter, review 2−98809
superconducting small particles, NMR study 2−66712
superconducting tunnel junctions, phonon spectrum emitted 2−56106
tin continued
superconductivity thin films, paraconductivity, comparison with Maki-Thompson theory 2−98810
temperature-elec. instability and I-V characts., low temp. *(Russian)* 2−82322
tetravalent layers, Ni photographic image reversal phenomena *(Russian)* 2−58962
thermal diffusivity determ. of solid materials near melting point 2−115394
type I superconductivity, current induced destruction role of one- and two-dimensional mixed state 2−61670
vacuum deposited thin films, microstruct. 2−116369
vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
N Vietnam, Sn ore deposits 2−78613
work function, temp. depend. field emission current meas. 2−115856
Al/Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al-Sn, prep. of tunnel junctions 2−77234
Al-Sn double layer scatterers, albedo charact. of bremsstrahlung 2−67708
$Al_xGa_{1-x}As$:Sn epitaxial films, doping effects on elec. props. 2−110502
^{197}Au:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
$BaCl_2$:Sn, absorpt. spectra of S^2-configuration Sn ion 2−77553
Bi:Sn, magnetoreflection study, band struct. 2−87747
p-Bi:Sn, transverse magnetoresistance and Hall effect 2−77093
$Bi_2Se_3(Te_3)$:Sn, doping effect on transport and optical props. 2−92015
^{63,5}Cu:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
Cu/Sn, bimetallic thin films, interfacial reaction kinetics 2−66298
Cu/Sn bimetallic thin film, interdiffusion and intermetalic phase form. 2−115473
Fe-Si-B, mag. induction, effect of Sb and Sn during secondary recrystn. 2−83244
$Ga_{1-x}Al_xAs$:Sn layers, electron and γ-ray irrad., elec: cond., press. effects *(Russian)* 2−104512
GaAs doping during VPE, transition region width between active and buffer layers *(Chinese)* 2−67222
GaAs:Cr, Sn, Cr and Sn migration obs. during open tube diffusion 2−98343
GaAs:Si, Sn epitaxial films, double doping effect on defects 2−76867
GaAs:Sn, doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2−98129
GaAs:Sn, ion implanted, surface accumulation after laser beam annealing, Rutherford backscattering study 2−61006
GaAs:Sn, ion implanted, laser annealed, TEM study 2−66050
GaAs:Sn, ion implanted, Raman spectra study 2−110837
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaAs:Sn, Te MBE layer, doping using SnTe source 2−92004
GaAs:Sn LPE layer, deep level free-to-bound fluorescence line shapes 2−77564
n-GaAs-Sn(Ag)(Al)(Au) MIS Schottky barriers, electron trapping in oxide layer 2−77196
$Ga_xIn_{1-x}P$:Sn, MBE growth using Pb flux and elec. characterisation 2−87987
p-GaSe:Sn, dark current, anomalous temp. depend. 2−77063
GaSe:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
$GaSe_xTe_{1-x}$:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
$GaSe_xTe_{1-x}$:Sn single cryst., exciton and impurity electroabsorpt. 2−87741
GaTe:Sn, interference oscills. in temp., depend. of photocurrent and transmission 2−87329
GaTe:Sn, strongly compensated, localised state cond., 77 to 289K 2−77079
Ge:^{119}Sn, impurity atom vibrs., adiabatic bond-charge model 2−81917
In_2O_3:Sn conducting layers, thermal vacuum deposition technique 2−105076
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
In_2O_3:Sn films, annealed, elec. resist. and defect model 2−66671
InP:Sn, ion implanted, annealing behaviour obs. 2−98135
InSb:Sn, gamma-ray, electron and proton beam irrad., defect annealing, elec. props. *(Russian)* 2−103817
In_2Te_3:Sn, elec. inactivity of Sn impurity atoms, Mossbauer and photoelectron spectra 2−115703
KBr:Sn^{2+}, colour centres, optical absorpt. line shapes, calc. 2−67089
KBr:Sn^{2+}, cryst., absorpt. spectrum, annealing effects 2−87821
KBr:Sn^{2+}, emission spectra 2−87845
KBr:Sn^{2+} cryst., mag. circular dichroism 2−93163
KCl:Sn_2 photoconductivity, thermoluminescence and TSC 2−82404
KI:Sn^{2+}, cryst. field effects, visible-UV study 2−72523
KI:Sn^{2+}, luminesc. kinetics and radiative decay times 2−67093
KI:Sn^{2+}, spectral line shape, visible-UV study 2−72524
PbTe:Sn, donor and acceptor props., elec. and thermal cond. meas. 2−66480
^{107}Pd:Sn, ^{119}Sn impurity force const. changes, Mossbauer study 2−61098
Pd/Sn thin film diffusion couples, microstructural determ. of fast diffusion species 2−71741
Pd-Sn, thin film couple, single intermetallic cpd. form., X-ray diffr. obs. 2−92288
Si:^{119}Sn, impurity atom vibrs., adiabatic bond-charge model 2−81917
α-Sn, amorphous, Mossbauer study 2−99004
α-Sn, band struct., nonlocal pseudopot. calc. 2−110245
α-Sn, fluctuation slot in valence band *(Russian)* 2−61357
α-Sn, n-type, electron irrad., acceptor point defects, elec. resist., thermoelec. power and Hall effect study 2−61394
Sn XX, XXI, XXII, spectrum obs. in extreme UV, 20 to 85 Å 2−54794
α-Sn:^{119}Sn, impurity atom vibrs., adiabatic bond-charge model 2−81917
Sn/Fe interface form., chem. interdiffusion, Mossbauer study 2−104171
Sn-GaSe, layer-barrier structures, elec. props. *(Russian)* 2−77181
Sn-Ge bicrystal, In phase boundary diffusion, α-phase wedge obs. *(Russian)* 2−98339
Sn-GeS, work function determ. method 2−61553
Sn-SnO_x-Nb and Sn-Nb, tunnel and bridge-type Josephson junctions, submm wave response meas. 2−92831
Sn-Xe frozen mixtures, normal state cond. and supercond. props. 2−92798
$Sn+U^{40+}$, projectile charge state distrib., target thickness depend., inner shell vacancy prod. 2−75399
^{113}Sn, diffusion in fused Tl_2Se_3 2−81996
^{119}Sn impurities in group IV semiconductors, covalency and compression effects on isomer shift 2−56989

tin continued
$ZnS:Sn^{3+}$, photosensitive EPR, g-factors and hyperfine interaction 2−77369
$Zn(SCN)_2$:Sn, excitation spectra, luminesc. 2−104927
ZnS_xO_{1-x}:Cu,Sn, phosphor, electrolum. 2−57182

tin alloys
see also tin compounds
bronze, Al, recovery and recrystn. during hot deform. 2−105202
bronze-graphite antifriction material, sintered, struct. and mech. props. 2−67556
Heusler alloys, X_2MnSn (X=Ni, Cu, Pd) Stoner and spin wave excitation spectra, OPW calcs. 2−115990
rare earth alloys, RCoSn, cryst. struct. and mag. susceptibility, 78 to 800°C *(Russian)* 2−55891
Zircaloy-2 sphere, in the Ar and Ze, thermal accommodation coeffs. 2−74827
$NdSn_3$, monocryst., thermopower 2−71952
Ag-Sn, peritectic reactions and transforms, mechanisms 2−83087
Ag-Sn (16.5 wt.%), rapidly quenched, residual resist. increase, vacancy form. energy 2−88231
Ag-Sn (1.2 at.%), dislocation band struct. produced by bending stress, X-ray topography study 2−86679
Al-Ge-Sn, liq. alloy, thermodynamic props., EMF meas. 2−104031
Al-Sn, liquid system, oxidation, Auger electron spectroscopy 2−93658
Al-Sn, metastable alloy form., by electron beam annealing 2−56041
Au-Sn dilute alloys, low-temp. specific heat calcs. 2−61165
$BaCuSn_2$, cryst. struct., stability criteria *(German)* 2−65925
Bi-Sn, dilute alloys, anomalous magnetoresistivity in quantising mag. field 2−92664
C fibre reinforced, Sn-Ti C fibre surface struct. effect on strength 2−83067
CS_2Sn_3, semiconductor, electrophys. props. 2−110346
$CaIrSn_4$ (110) surface, scanning tunnelling microscopy study 2−86987
Ce-Sn system, phase struct. and heat of form. 2−109745
$CeIn_{3-x}Sn_x$, valence fluctuation metals, Fermi liquidology and T/T_{sf} scaling 2−56503
$CeSn_3$, Fermi surface, linearised APW calc. 2−98525
$CeSn_3$, mixed valence cpd., anomalous NMR shifts 2−56958
$CeSn_3$, mixed valent cpd., Fermi surface props. 2−56427
$CeSn_3$, mixed valent props. 2−56506
$CeSn_3$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$CeSn_3$, monocryst., thermopower 2−71952
$CeSn_3$, spin fluctuation quenching in heat capacity 2−82611
$(Cn_{1-x}Co_x)_2MnSn$ Heusler alloy, mag. transition 2−72203
Co-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
Co-Sn eutectic alloy solidification, low-frequency vibration influence obs. 2−116432
Co-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Co_2MnSn, Heusler alloys, band struct., SAPW calc. 2−82215
$Co_2Mn_{1-x}Ti_xSn$ Heusler system, mag. and chem. ordering 2−93073
Co_2TiSn, Heusler alloys, band struct., SAPW calc. 2−82215
Cu-Ni-Sn (10, 6 wt.%), spinodal, high cycle fatigue behaviour 2−99532
Cu-Ni-Sn (10.8 wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Cu-Ni-Sn (9, 6 wt.%), combined recrystn. and precip. 2−77840
Cu-Ni-Sn spinodal alloy, tensile props. improvements by two-phase heat treatment 2−116478
Cu-Sn, martensitic transform., influence of β-phase holding *(Russian)* 2−67333
Cu-Sn, peritectic reactions and transforms, mechanisms 2−83087
Cu-Sn, porous, laser pulse treatment *(Russian)* 2−67355
Cu-Sn, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Cu-Sn, sample prep. for TEM 2−69150
Cu-Sn (10 wt.%), sintered, Cu oxide film influence on dimens. change *(Korean)* 2−116407
Cu-Sn alloys, elec. and mag. props. at 4K 2−77018
Cu-Sn solid soln., H_2 solubility, thermodynamic props. *(Russian)* 2−92207
Cu-Sn whiskers, stress-extension behavior, size and conc. depend. 2−61320
Cu-Sn(100) surface struct., LEED obs. *(Japanese)* 2−115511
α-Cu-Su-Al, anneal hardening *(Korean)* 2−116464
Cu-Su-Cr, struct. and mech. props., Cr effect 2−111244
β-Cu-Zn-Sn (33.8, 3.1 wt.%), pseudoelastic polycryst., fatigue 2−67517
Cu_2MnSn film, struct., mag. and transport props. 2−60889
Cu_2NiSn, Heusler alloy, elec. and mag. props. 2−110326
CuPbSn, solid-liquid two-phase system, equilib. microstruct. and interface tensions *(French)* 2−61156
$EuSn_3$, monocryst., thermopower 2−71952
Fe-Al-Sn, Mossbauer study of spin and charge density changes 2−116102
Fe-Sn, hyperfine field, isomer shift, spin and charge density changes, Mossbauer study 2−93083
Fe-Sn, phase relations and multiphase diffusion 2−99400
Fe-Sn metallic glass, struct., forming ability and elec. cond. 2−103653
$(Fe_{1.22}Sb)_{1-x}(Fe_{1.68}Sn)_x$ solid solns., magnetisation, Curie temps. and lattice consts. meas. 2−76365
$Fe_{80-x}Sn_xB_{20}$, amorphous ferromagnet, Sn and Fe hyperfine fields, Mossbauer study 2−92552
FeTi activated surface, oxide struct., X-ray study 2−99591
Gd-Sn, charge transfer and isomer shift, ^{155}Gd Mossbauer spectra 2−104777
$GdSn_3$, monocryst., thermopower 2−71952
Ge-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
Hg-Sn, dil. liq., EMF and vapour press. values, Duhem integration, second law of thermodynamics confirmation 2−81982
In-Sn, dil., US attenuation in supercond. and intermediate states 2−77229
In-Sn-Cu system, dispersion-hardening pastes, phase comp. 2−111143
InGaSn-Si, interface contact potential difference *(Chinese)* 2−92748
K_2Sn_3, semiconductor, electrophys. props. 2−110346
$LaCo_{0.57}Sn_2$, cryst. struct., stability criteria *(German)* 2−65925
$LaCu_{0.56}Sn_2$, cryst. struct., stability criteria *(German)* 2−65925
$LaFe_{0.34}Sn_2$, cryst. struct., stability criteria *(German)* 2−65925
$LaNi_{0.74}Sn_2$, cryst. struct., stability criteria *(German)* 2−65925
$LaNi_4Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
$LaSn_3$, Fermi surface, linearised APW calc. 2−98525
$LaSn_3$, monocryst., thermopower 2−71952
tin alloys continued
$LaSn_3$, temp. factors, neutron scatt. study 2−103913
Li-Sn, impurity solubility, dislocation and deformation effects, ESR study *(Russian)* 2−103996
Mg_2Sn, molten semiconductors, US velocity, temp. depend. 2−76600
Mn_3Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study 2−110568
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
Mn_3Sn, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
Na-Sn, liq., elec. resist., and thermodynamic props., simultaneous meas. 2−82313
Na-Sn, liquid, entropy of mixing 2−103999
Na-Sn liq. alloys, thermodynamic props. 2−92234
Nb_3Sn CVD superconducting tapes, dynamic stability 2−104554
Nb_3Sn conductor, coil performance test for advanced cluster test facility 2−69923
Nb_3Sn, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
Nb_3Sn, electron-phonon interaction, supercond. props. 2−103924
Nb_3Sn, for fusion reactor magnets, displacement cascades, TEM obs. 2−109862
Nb_3Sn, for fusion reactor magnets, ion and neutron damage studies 2−110549
Nb_3Sn forced flow conductor production for Large Coil Program 2−75039
Nb_3Sn, form. kinetics by diffusion method *(Russian)* 2−66301
Nb_3Sn, infiltration process prep., supercond. props., effect of Cu and Ga additions 2−61676
Nb_3Sn large capacity conductor, resistive voltage 2−69926
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Nb_3Sn, multifilamentary supercond., prod. by external diffusion method 2−75035
Nb_3Sn multifilamentary supercond. composites, fabrication and supercond. props. *(Chinese)* 2−110555
Nb_3Sn, neutron damage, changes in critical props. and damage-energy anal. 2−80186
Nb_3Sn, photoemission studies of clean and oxidised surfaces 2−77695
Nb_3Sn, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
Nb_3Sn, supercond., energy gap determ. from heat capacity meas. 2−110532
Nb_3Sn, supercond., low bulk pinning, min. in AC losses 2−92842
Nb_3Sn, supercond. props. study by electron tunnelling 2−110545
Nb_3Sn superconducting composite wires, fabrication by solid-liquid diffusion method 2−67237
Nb_3Sn superconductor for High Field Test Facility, development and manufacture 2−75037
Nb_3Sn, surface impedance, critical temp. 2−98796
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803
Nb_3Sn, tetragonal, electronic struct., nonorthogonal tight binding and APW calcs. 2−76914
Nb_3Sn, ultrafine supercond. powder form. by vapour phase reactions 2−67232
Nb_3Sn-Cu composites for fusion magnets, in-situ development 2−75033
Nb_3Sn-Ti, composite processed, Ti addition effect on supercond. props. 2−104555
Nb_3SnH_x, heat capacity, supercond. transition temp. electron phonon interaction, H content effects, expt. study 2−56206
$NdNi_4Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
Ni-Al bronze cast, detection of selective phase corrosion by AE 2−67631
Ni-Sn, metallic glass, struct., forming ability and elec. cond. 2−103653
Ni-Sn, metalloid additions effect on high-temp. ductility, intergranular embrittlement 2−72839
Ni-Sn system, grain refinement by discontinuous precip. *(German)* 2−99466
$NiGa_MSi(Sn)_N$ mixtures, phase diagram invest. 2−67303
Ni_3Sn_4, X-ray cryst. struct. refinement 2−55886
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Pb-Ag-Sn-Au solder, solidus and liquidus temp., Au addition effects, DTA study 2−93499
Pb-Ca-Sn, phase diagram, Pb rich corner 2−105123
Pb-Sn, capillary infiltration into high-porosity Ni strips 2−115506
Pb-Sn, corrosion in acid soln. 2−67662
Pb-Sn, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2−88083
Pb-Sn, grain boundary diffusion 2−104074
Pb-Sn, liq., dil., activity coeff. of O, impurities effect 2−99700
Pb-Sn, phase diagram calcs., thermodynamic anal. 2−72668
Pb-Sn, supersaturated solid soln., discontinuous precip. obs. during ageing *(Russian)* 2−88082
Pb-Sn alloys, effect of precipitation on positron annihilation 2−67144
Pb-Sn submicron eutectic thin-film struct. 2−104186
Pd_2MnSn, elec. and mag. props. 2−66522
$Pd_2MnSn_xIn_{1-x}$, ferromag. to antiferromag. transition, NMR study 2−104613
$PrNi_4Sn$, mag. susceptibility, cryst. struct., X-ray diffr. study *(Ukrainian)* 2−103693
$PrSn_3$, monocryst., thermopower 2−71952
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Si-Sn, phase relations and multiphase diffusion 2−99400
Si-Sn system, electronic theory for binding forces and phase diagrams *(Japanese)* 2−72672
$SmCo_5$-Sn, alloying addition effect on X-ray diffr. relative intensity *(Chinese)* 2−97993
$SmSn_3$, monocryst., thermopower 2−71952
Sn-Co, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Sn-Fe, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Sn-In, surface comp., ion sputtering effect, AES study 2−82985
Sn-Nd(Pr)(Ce), liquid, dil., 4f spin dynamics, TDPAD study 2−56992
Sn-Ni, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Sn-Pb, electro-plated coatings, grain size effect on whisker growth 2−115635

tin alloys continued
Sn-Pb, high speed electrodeposition from HBF_4 soln. 2—93453
Sn-Pb, material ejection from shocked surfaces 2—71569
Sn-Pb, solid cylinders, surface contours in axi-symm. upsetting 2—67431
Sn-Pb, surface comp., ion sputtering effect, AES study 2—82985
Sn-Pb (15 wt.%), acceleration forces influence on dendritic growth and grain struct. 2—67316
Sn-Pb (38 wt.%) eutectic alloy, fracture in superplastic flow Region III 2—105300
Sn-Pb alloy, surface comp. 2—78157
Sn-Pb alloys, equilib. surface composition, Auger spectroscopy 2—82104
Sn-Pb alloys, superplastic, superanelasticity 2—83147
Sn-Pb eutectic, superplastic behaviour in as-worked state 2—67442
Sn-Sb, corrosion in deaerated citric acid, Sb effects 2—111364
Sn-Sb, discontinuous precip. obs., role of bulk diffusion *(Russian)* 2—88083
Sn-Si-Ga-As, phase equilibria, calc. of phase diagrams 2—66170
Sn-Tl-Hg, liq. alloys, viscosity and elec. resist. 2—71694
Sn_xPb_{1-x} (x=0.998, 0.03), equilibrium surface composition 2—115516
SnSb thin films, obliquely vacuum-deposited, elec. cond., defect density and struct. 2—66662
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2—83081
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2—99440
Ti-Al-Sn, H-charged, room temp. creep 2—111241
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2—72703
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2—57470
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2—57471
Ti-Al-Sn-Zr-Mo (6,2,4,2 wt.%), shear bands, occurrence during isothermal hot forging 2—57383
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2—77777
Ti-Al-Sn-Zr-Mo-Si, fatigue, low cycle high temp., effects of dwell 2—62208
Ti-Al-Sn-Zr-Mo-Si (6, 2, 4, 2, 0.1 wt.%), H_2 effect on fatigue crack growth 2—72806
Ti-Al-V-Sn, temp. depend. of sustained-load subcritical crack growth 2—111297
Ti-Al-V-Sn (6,6,2 wt.%), internal H-induced crack growth effect of stress state 2—99535
Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2—88152
Ti-Mo-Sn-Zr, salt corrosion tendency, alloying influence 2—88287
Ti-Sn, positron annihilation meas. near polymorphic transition *(Russian)* 2—99211
Ti-Sn, struct. transition due to deform., positron annihilation parameters *(Russian)* 2—62013
V-Sn-Cu system, phase comp., stoichiometry and homogeneity, microstruct., X-ray and microhardness study 2—66172
Zn solid/Zn-In(Bi)(Sn)(Pb) liquid, equilib. struct. transitions of solid-liq. interface 2—93487
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2—77846

tin compounds
see also tin alloys
chalcogenides, low temp. sp. heat anal. using Debye temp. 2—71661
chalcogenides, mechanochemical synthesis, explosions *(German)* 2—62053
chalcogenides, Mossbauer effect probability anal. 2—77431
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2—109687
Sn/Na halide lamps in ceramic envelopes, characts. features 2—95437
$SnCl_2.(H_2O)_2$ and deuterated form, isostructural phase transition, pseudospin model 2—76662
Al_2O_3-ZrO_2-SnO_2 refractories, thermal shock resist., SuO_2 effect 2—93623
As_2Se-GeSe-SnSe, glass, Sn valence states, Mossbauer, optical and electron spectroscopy study 2—71935
$CdSnAs_2$, films, prop. by LPE 2—72634
p-$CdSnAs_2$:Ga, transport coeffs., temp., field, and press. depend. 2—77061
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2—56911
$Fe_xSnMo_6S_8$, influence of press. on T_c *(Russian)* 2—56763
$Ga_{1-x}Sn_xSe$, solid solns., elec. cond., thermo-EMF and Hall coeff. meas. 2—87259
(Ge, Sn)-Se system, glass form. and vibr. props. 2—86578
$(Ge_{0.99}Sn_{0.01})Se_2$ glass, broken chem. order, Mossbauer study 2—81687
$H_2SnCl_6.10H_2O$, cryst. struct. study *(German)* 2—76373
In_2O_3-SnO_2/Si transparent conductor films/polycrystalline junction, appl. to solar cells 2—57711
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2—57198
$In_{2-x}Sn_xO_{3-y}$ coating on Kapton substrate, electron beam damage, Auger and secondary emission study 2—81826
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2—105078
$In_{2-x}Sn_xO_{3-y}$ interface props., examination 2—66638
$In_{2-x}Sn_xO_{3-y}$ transparent cond. films., prep. and props., review 2—105068
$In_{2-x}Sn_xO_{3-y}$ transparent cond. film, planar magnetron sputtering 2—105074
$In_{2-x}Sn_xO_{3-y}$-GaAs:Be heterojunction solar cell, AES and EBIC evaluation 2—78214
n-$In_{2-x}Sn_xO_{3-y}$-InP photo and electroluminesc. diode 2—61571
$In_{2-x}Sn_xO_{3-y}$-InP solar cell, comparison with RF sputtered CdS-InP cell 2—57714
$In_{2-x}Sn_xO_{3-y}$-Si p-i-n solar cell, reactive sputtering fabrication 2—57698
$In_{2-x}Sn_xO_{3-y}$-WO_3-$LiAlF_4$-LiIn thin film overlayer, electrochromism 2—72569
$In_{2-x}Sn_xO_{3-y}$-Si solar cell, EBIC response anal. 2—88436
KCl:$SnCl_2$, thermoluminescence on γ-irrad. 2—61992
$(NH_4)_2SnBr_6$, US study of phase transition 2—66201
$(NH_4)_2SnCl_6$ and other ammonium salts, NH_4^+ reorientation, dielec. and NMR studies 2—93108
$(NH_4)_2Sn(HPO_3)_2$, cryst. struct., X-ray study, block-diagonal least squares method 2—81727
Nb-SnO_x-Sn and Nb-Sn, tunnel- and bridge-type Josephson junctions, submm wave response meas. 2—92831
Nd^{3+}:$POCl_3$-$P_2O_3Cl_4$-$SnCl_4$:Nd^{3+}, liquid laser performance and fluorescence 2—70556
$NiSb_2O_4$, struct. evolution, dilatation, vibr., rigidity *(French)* 2—91911

tin compounds continued
P_2O_5-SnO_2-MgO(CaO),(SRO),(BaO), Mossbauer and IR spectra quadrupole splitting 2—104767
$P_{0.93}Sn_{0.07}Se$ long-wavelength laser diode, emission spectra, temp. and mag. field effects 2—81012
(Pb,Sn,Ge)Te, dielectric props., defects influence 2—93101
Pb-Sn chalcogenide photodiodes, quantum efficiency and R_0A product, struct. effect 2—107403
Pb-Sn-Se, LPE, comp. depend., 770 to 1020K 2—99356
Pb-Sn-Se, p_{tot}-x-y diagram calc., 973-1353K 2—72677
Pb-Sn-Te diode laser, recombination mechanisms and lasing threshold 2—90896
Pb-Sn-Te system, solidus determ. of phase diagram 2—93495
$(PbSe)_{1-x}(SnTe)_x$:In, influence of In on props. 2—110238
n-$Pb_{0.85}Sn_{0.15}Se$ films thermoelectric props. for use in thermal radiation convertors 2—99817
$Pb_{1-x}Sn_xSe$ epitaxial layers, equilib. compositions and cond. type 2—66398
$Pb_{1-x}Sn_xSe$, Fermi surface, Shubnikov-de Haas oscillations ang. depend. study 2—82211
$Pb_{1-x}Sn_xSe$, interband magnetoreflectivity meas. 2—110821
$Pb_{1-x}Sn_xSe$, microhardness meas., optimal conditions 2—116634
n-$Pb_{1-x}Sn_xSe$, native defect energy levels, Hall study, 4.2 to 300K 2—92529
$Pb_{1-x}Sn_xSe$, solid soln., carrier g-factor longitudinal and transverse components, band gap depend. 2—76903
$Pb_{1-x}Sn_xSe$, thin layers, grown by 'hot wall' method 2—72627
PbSnSeTe-PbSeTe DH lasers, lattice-matched, LPE grown 2—55194
PbSnSeTe-PbSeTe lattice-matched DH lasers, total refl. mode oscill. 2—60080
PbSnTe diode laser, lifetime mechanisms, tunnelling currents and laser threshold 2—80956
p-PbSnTe, free carrier freq. depend. relax. time, plasma refl. studies 2—110364
PbSnTe laser, gain saturation, theory and expt. 2—85965
PbSnTe, lifetime calcs. for Auger recomb. rel. to laser and IR detector performance 2—77081
$Pb_{0.7}Sn_{0.3}Te$ film, struct. and elec. props., Ar^+ bombard. and annealing effect 2—56731
$Pb_{0.76}Sn_{0.24}Te$:Cd, photoconductivity kinetics 2—104427
$Pb_{0.78}Sn_{0.22}Te$:In, photoferroelec. behaviour and Hall coeff., expt. study 2—87708
$Pb_{0.8}Sn_{0.2}Te$, amorphous-cryst. films, optical and elec. props. 2—104373
$Pb_{0.8}Sn_{0.2}Te$ epitaxial films produced by vacuum evaporation, high mobility produced by annealing 2—82486
$Pb_{0.81}Sn_{0.19}Te$ DH laser, LPE grown, operation at 10.6 μm, 85K 2—80955
$Pb_{0.82}Sn_{0.18}Te$, intrinsic defects, mag. susceptibility study 2—115217
$Pb_{0.83}Sn_{0.17}Te$ solid soln. epitaxial films, absorpt. edge obs., 100 to 300K, band struct. model *(Russian)* 2—61913
$Pb_{1-x}Sn_xTe$ (x=0.59 to 1), valence bonds energy separation, Hall coeff. meas. 2—72010
$Pb_{1-x}Sn_xTe$, band struct. dispersion low and parameters *(Russian)* 2—61358
$Pb_{1-x}Sn_xTe$ epitaxial films, additional long-wavelength absorpt. 2—77610
$Pb_{1-x}Sn_xTe$ epitaxial film, surface recombination, photoconductivity study 2—104393
n-$Pb_{1-x}Sn_xTe$, Fermi surface and cond. band, Shubnikov-de Haas study 2—115644
$Pb_{1-x}Sn_xTe$ films, ion implantation induced defect levels, Hall meas. 2—92528
$Pb_{1-x}Sn_xTe$ hetero-layers for IR diode lasers, hot-wall epitaxial growth 2—60103
$Pb_{1-x}Sn_xTe$, horizontal vapour transport in closed tube *(Chinese)* 2—111078
$Pb_{1-x}Sn_xTe$ LPE inhomogeneous layer, IR plasma reflection spectrum, vapour transport process 2—93314
$Pb_{1-x}Sn_xTe$ LPE layer, Hall and resistivity meas., impurity doping influence 2—92796
$Pb_{1-x}Sn_xTe$ laser threshold and recombination 2—90897
$Pb_{1-x}Sn_xTe$ MBE film struct. 2—104184
$Pb_{1-x}Sn_xTe$, phonon and elec. resist. anomalies at displacive phase transition 2—98653
$Pb_{1-x}Sn_xTe$ solid soln., carrier g-factor longitudinal and transverse components, band gap depend. 2—76903
$Pb_{1-x}Sn_xTe$, struct. instabilities, composition and carrier depend. 2—98652
p-$Pb_{1-x}Sn_xTe$, valence band struct., elec. props. *(Russian)* 2—87144
n-$Pb_{1-x}Sn_xTe$:Cd, elec. cond., photocond., and elec. cond. transitions 2—115759
$Pb_{1-x}Sn_xTe$:Cd, photoluminescence study 2—104958
$Pb_{1-x}Sn_xTe$:Cd(In), photoluminesc. study 2—93279
$Pb_{1-x}Sn_xTe$:In, band struct. at high In conc., elec. cond. press. depend. study 2—82230
$Pb_{1-x}Sn_xTe$:In, dielec. phase, switching effects and I-V characts. under IR illumination 2—92688
$Pb_{1-x}Sn_xTe$:In, semicond.-metal transitions, IR illumination induced dynamics 2—72036
$Pb_{1-x}Sn_xTe$:In epitaxial film, photolum. 2—77590
$Pb_{1-x}Sn_xTe$:In epitaxial film, elec. and struct. props. 2—110506
$Pb_{1-x}Sn_xTe$:In films, impurity electron-state, elec. cond. study 2—115705
$(Pb_{1-x}Sn_x)_{1-\Delta}Te_{1+\Delta}$/PbTe, diffusion phenomena, during heteroepitaxy 2—92378
$Pb_xSn_{1-x}Te$:In, Fermi level stabilization by defects at low temp., mechanism 2—66487
$Pb(Sn_{1-x}Zr_y)_{1-x}Ti_xO_3$, ferroelectric-antiferroelectric transition *(French)* 2—99068
PbTe-$Pb_{1-x}Sn_xTe$ superlattices, prepared by hot wall epitaxy, optical props. 2—99208
PbTe-$Pb_{1-x}SnTe$, superlattice, interband optical absorpt. *(Japanese)* 2—116179
PbTe-SnTe solid solns., Ga doping effect on electrophys. props., doping mechanism 2—56578
Se-Sn-As glass, microstruct., fracture surface study by SEM 2—91796
n-Si-SnO_2-n-CdSe electrolyte tandem junction solar cells 2—105556
Si_xSe_{1-x}-SnO_2 amorphous thin film photovoltaic devices, conversion efficiency 2—83479
Sn (II) diethyldithiocarbamate chelate, struct., XPS obs. 2—75355
Sn complexes, dithiocarbamates Sn (II), mol. group reorientation, PMR lineshape study 2—93016
Sn IV halide complexes, with organophosphorus ligands, struct., elec. field gradient, investig. 2—90589

tin compounds continued
Sn-O amorphous system, bonding struct. and lattice dynamics, Mossbauer study 2−104770
Sn-UBBA, smectic liq. cryst., alignment in mag. field, Mossbauer study 2−91771
$SnBr_6^{2-}$, force const. calc. using vibr. data 2−54986
$SnBr_4N_2$, pot. and vibr. consts. 2−90499
$SnCl_2$, luminescence at low temp. *(Russian)* 2−57178
$SnCl_2$, photofragmentation, pot. surface time of flight spectra 2−65059
$SnCl_2/SnCl_4$ sensitizing agents comparison in electroless deposition of Ag on glass using XPS 2−72641
$SnCl_4$+butanol, complex form., vibr., IR absorpt anal. NMR obs. 2−111486
$SnCl_4N_2$ pot. and vibr. consts. 2−90499
$SnCl_2.xH_2O$, x=1.5 and 2, ^{35}Cl NQR spectra, Zeeman effect, PMR 2−61787
$Sn_{1-x}Cr_xTe$ degenerate mag. semiconductor, struct. transform.-induced mag. ordering 2−56852
$Sn_xEu_{1.2-x}Mo_6S_8$, supercond. props. under high press. and high mag. field 2−110551
$Sn_xEu_{1.2-x}Mo_6S_8$, anomalous supercond. props., H_{c2}, exchange interaction 2−104553
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−72100
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−77224
$Sn_xEu_{1.2}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$(Sn_{1-x}Eu_x)_{1.2}Mo_6Se_8$, superconductivity, press. effect 2−104531
SnF, thermal emission spectrum of A to X system 2−102490
$SnGa_xMo_6S_8$, flux pinning force, scaling laws *(Russian)* 2−92845
$SnGeS_3$, cryst., vibr. props., Raman and far-IR study 2−67030
SnI_2 thin films, refr. index dispersion in transparent region 2−87886
SnI_4 single cryst., {111} faces, microstruct. 2−66327
$SnMn_3C$-$CuMn_3N$, perovskite, local effects and short range magnetic interactions *(French)* 2−72137
$Sn_{1-x}Mn_xTe$, low field AC mag. susceptibility 2−92874
$SnMo_6S_8$, Chevrel phase, stoichiometry, rel. to supercond. props. 2−66242
$SnMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$SnMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$Sn_xMo_6S_8$, superconductive props. 2−66689
$SnMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$SnMo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
SnO, $(X^1\Sigma)$ state, gas phase high temp. photoelectron spectroscopy 2−80724
SnO electronic transitions, Doppler limited laser spectroscopy 2−75345
SnO_2 (110), surface electronic struct., tight-binding calc. 2−110250
SnO_2 bent cryst., high resolution electron microscope and electron diffr. images 2−76402
SnO_2 conductance, effect of sorbed O_2 2−77037
SnO_2 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
SnO_2 film, reactive sputtering using microprocessor-controlled magnetron system 2−57289
SnO_2 film, vapour deposition, Rutherford backscatt. study 2−71812
SnO_2 film deposited by oxidation of $SnCl_2$, transparency and resistivity 2−111092
SnO_2 films, prep. from organic resinate soln. and photoelectrochem. props. meas. 2−116837
SnO_2 films, preparation, elec. and optical props., review 2−87428
SnO_2 films, pyrolitic prep., optical selectivity and crystallisation 2−87887
SnO_2 films, taper etching, RF sputtering method, AZ-1350J photoresist pattern masks *(Japanese)* 2−67588
SnO_2 films As solar-transmitting heat-reflecting coatings 2−105565
SnO_2, Mossbauer spectra, secondary periodicity 2−77430
SnO_2, oxidation kinetics from SnTe epitaxial film 2−66399
SnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
SnO_2 solid state gas sensors, humidity effects on H_2S detection 2−64010
SnO_2, substitutional impurities elec. activity 2−110345
SnO_2 thin-film gas sensors, improved performance due to Au diffusion 2−64009
SnO_2 ultrafine particle film, Hall effect meas. and elec. cond. model 2−87425
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F films, spray prep. and elec. and optical props. 2−105069
SnO_2:F transparent cond. films., prep. and props., review 2−105068
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
SnO_2:In thin film homojunction, thermoelectric effect 2−110451
SnO_2:P thin film gas sensor, sensing characteristics meas. 2−79559
SnO_2:Sb films, deposition by oxidation of tetramethyltin and trimethylantimony, elec. and optical props. 2−87997
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
SnO_2:Sb thin films, spray pyrolysed, X-ray diffr. and AES study 2−104204
SnO_2/glass substrate for high efficiency a-Si:H p-i-n solar cell 2−93902
SnO_2/In_2O_3-GaSe heterojunction, near UV detector 2−53839
SnO_2/In_2O_3-Si structure with tunnel-transparent insulating layer, elec., photoelec. and luminesc. props. 2−77159
SnO_2/In_2O_3-SiO_x-n-Si solar cell, edge leakage suppression at low illumination levels 2−57706
SnO_2/In_2O_3-SiO_x-nSi, role of tunnel-thin dielectrics 2−99787
SnO_2/Mo photothermal solar energy convertors, solar absorptance and thermal emittance 2−83514
SnO_2/n-Si, texturized heterojunction solar cell, spray pyrolysis prep. 2−105567
SnO_2/n-Si polycrystalline solar cells, spray-deposited, performance parameters 2−83497
SnO_2/n-Si solar cell, low-temp. CVD of SnO_2 film on Si, cell efficiency and stability 2−57713
SnO_2/SnO, formed on Sn by electropolishing, electron loss study 2−78003
SnO_2-GaSe heterostructure, depth profile, XPS and AES study 2−61299
SnO_2-GaSe p-n heterojunctions, I-V characts. and space charge thickness 2−115883
SnO_2-Nb_2O_5, reactions after annealing, X-ray anal. 2−88065

tin compounds continued
n-SnO_2-p-GaTe heterojunction, electrical and optical props. *(Russian)* 2−57189
SnO_2-Sb_2O_3 transparent conductive film, etching in solutions of alkali metal hydroxides 2−99574
SnO_2-Si solar cell, barrier height, temp. and voltage depend. 2−78219
SnO_2-SiO_2-n-Si, solar cell, photovoltaic and elec. props. 2−62476
SnO_2-SiO_x-nSi solar cells, diode characts. and open-circuit voltage 2−99809
SnO_x-ZnS(A)-Cu_xS-ZnS(A)-Al, A=Ag,Mn,Sm, thin film struct., electrolum., cathodolum. and photolum. meas. 2−87871
$Sn(OH)_2$, behaviour in high vac. of XPS spectrometer 2−99739
SnO_2(110), surface reconstruction effects on work function and surface cond. 2−115857
$SnO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
$SnPS_3$, photoresponse under photoelectrolysis conditions 2−61513
$Sn_2P_2S_6$ ferroelec. semicond., Curie temp. shift in mag. field 2−110792
$Sn_2P_2S_6$, lattice vibrs. in ferroelec. phase, Raman spectra anisotropy 2−104888
$Sn_2P_2S_6$, thermal evaporation, ferroelectric props. 2−71622
$Sn_2P_2(Se_xS_{1-x})_6$ ferroelec. solid soln., phase transition splitting 2−104823
$SnPb_2O_4$, struct. evolution, dilatation, vibr., rigidity *(French)* 2−91911
$Sn(Pb_2O_4)$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$SnPb(Pb_2O_4)_2$, vibr. spectrosc., force fields and bond rigidity *(French)* 2−67055
$SnRh_4Sn_{12}$ R, (R=rare earth), supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
SnS-BaS(Tl_2S) systems, ^{119}Sn Mossbauer spectra, chemical isomer shifts *(French)* 2−61799
SnS_2, angle-integrated photoemission, band struct. 2−67189
SnS_2, electronic props., Phillip's ionicity calc. 2−66440
SnS_2 films, optical absorpt. edge meas. 2−87885
SnS_2, Mossbauer spectra, secondary periodicity 2−77430
SnS_2, structural polytypism rel. to environments of formation 2−76338
SnS_2, thermoreflectance meas. 2−93168
Sn_2S_3, cryst. struct., X-ray diffr. study 2−98005
$SnS_{2-x}Se_x$, far IR reflectance spectra 2−87789
$SnSe_2$, angle-integrated photoemission, band struct. 2−67189
$SnSe_2$, electronic props., Phillip's ionicity calc. 2−66440
$SnSe_2$, Mossbauer spectra, secondary periodicity 2−77430
$SnSe_2$, thermoreflectance meas. 2−93168
SnTRe, epitaxial film, effect of thermal treatment on comp. and struct., Mossbauer and X-ray study 2−66399
SnTe elastic consts., 3rd and 4th order 2−76563
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
p-SnTe, MIS structure, field effect studies 2−104491
SnTe, Mossbauer spectra, secondary periodicity 2−77430
SnTe, soln. of impurities, behaviour of group IV elements 2−71650
SnTe vacuum evaporated thin films struct. param. from X-ray studies 2−103707
SnTe:H epitaxial film, elec. cond. and Hall effect on H_2 desorption 2−115923
p-SnTe:In epitaxial thin film, elec. transport props., In effect 2−104514
SnTe:In film, field effect studies, In effect 2−77210
SnTe-GaAs, heterojunction, open-circuit EMF meas. 2−87378
$(SnTe)_x(PbSe)_{1-x}$ system, ^{119}Sn Mossbauer study *(Russian)* 2−104781
TiO_2/SnO_2 ceramic moisture sensor, elec. resistance stability, SEM, powder X-ray diffr. exam. 2−74398
TlF-SnF binary system, cryst. struct., ionic cond. and thermal behaviour *(French)* 2−109769
$TlSnI_3$, $TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
YbS(Se)-$SnS_2(Se_2)$ reaction and phase diagrams 2−105131
Zn-Sn-Se phase diagram and electronic props., LPE 2−116428
p-ZnSnP$_2$ Schottky diodes, current-voltage characts., photosensitivity and recomb. radiation spectra 2−115863

titanium
see also nuclei with .....
(001) surface, adsorption of H_2O, desorption study 2−87028
(0001) surface with chemisorbed CO correlated wave function calcs. 2−104148
3d, L_{23} edge, EELS 2−108636
$\alpha \rightarrow \omega$ phase transform., press. induced, kinetics 2−56174
abundance in solar photosphere from Ti I lines equiv. widths and oscillator strengths *(Russian)* 2−79063
abundance towards high galactic latitude stars, visible spectra obs. 2−84301
adsorption, on Si(111), secondary electron spectroscopy 2−87015
adsorption of water on (001) surface, photon stimulated desorption and UPS study 2−115553
adsorption on W(011) props. calcs. 2−104165
anodic dissolution, in nitrates and nitrate-chloride solns., NO_3-ions reduction *(Russian)* 2−62269
anodic oxidation, and kinetics, in 1M Cl solns. 2−105356
anodic oxide films, growth and instability, expt. study 2−93674
anodisation, self-colour, colours rel. to electrochem. parameters 2−111381
atom, ^5F-^3F energy separation, correlation and HF calcs. 2−54776
atom, first spectrum, effective interactions calcs. 2−80517
atom and ions, valence state structs., electron correl. effects 2−108399
Auger profiling, obs. of artifacts 2−78005
bremsstrahlung isochromat spectra, density of unfilled electronic states 2−104982
cavitation erosion behaviour, nitriding effects 2−111331
creep, viscous, activation energy eval. through temp. change tests, α-phase specimens 2−72926
diffused optical waveguide, codirectional TE-TM mode conversion through acoustooptic interactions 2−65404
diffusion of hydrogen, temp. depend., high-temp. synthesis of hydrides 2−111112
diffusion of O_2, high temp. interaction, diffusive kinetics under nonstationary heating *(Russian)* 2−98342
dislocations, contrast calc. in TEM 2−60984
electric field gradients at probe nuclei in Ti host, comparison with cond. electron charge shift model 2−56533
electrical resist., plastic deform. and temp. influence *(Russian)* 2−61438
electronic heat capacity, electron band theory description 2−81977
film, adsorption of water vapour, elec. cond. and work fuaction 2−66354
film, reactive magnetron sputtering 2−87980
film deposition, planar magnetron characts. at high power input 2−57291

titanium continued
films on Si, processing using multiscanned electron beam, $TiSi_2$ formation 2−104180
flaw-to-grain echo enhancement by split-spectrum processing 2−78062
flux emitted from ASDEX Tokamak divertor plates, laser induced fluorescence meas. 2−55790
gettering efficiency in respect to C and N in Li 2−80177
HCP, dislocation struct. *(Chinese)* 2−109795
hexagonal close packed, sp. ht., adiabatic calorimetry study 2−92230
hip joint total prosthesis, stress/strain analysis of Ti net cement construction *(German)* 2−88691
hybriding in H plasma, embrittlement, sorption, rel. to contamination 2−74935
impact response, hypervelocity, cratering 2−77894
internal friction, temp. depend. *(Russian)* 2−115351
interstellar medium, Fe, Ti and H_2 abundances rel. to interstellar 4430 Å band strength 2−106847
ion beam induced radiation defects and stimulated trapping efficiency 2−76516
laser oscillations obs. at 569.5, 497.2 nm 2−85942
lattice dynamics, neutron diffr. study and dipole fluctuation model 2−81912
liquid, viscosity, C content influence, correl. with equilib. diagram 2−66273
metallic target, isotope discrimination, secondary ion mass spectrometry 2−57652
meteorite, Moon and terrestrial Ti isotopes, comparison 2−84113
neutron irrad., strength changes 2−71510
neutron scatt., 6-8 m/s, total cross-section meas. 2−86761
nitriding, in RF discharge, effect of H addition to N in nitriding 2−88271
nuclear spin-lattice relax., ab initio semi-relativistic ASA-SCF-LMTO linear tetrahedron calc. 2−98985
nuclear stopping regime, evidence for insulator-metal effect on Z_1 range oscills. 2−103869
omega to alpha transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
oxidation by plasma formed due to low-threshold breakdown of air 2−99604
oxidation of C and S surface impurities 2−72882
particle dispersion regularity, in high temp. Ar jet, with combustion *(Russian)* 2−60599
passive-active transition in H_2SO_4 2−111362
photoelectric cross sections 2−96514
pickled, anodised and thermally oxidised, oxide film effect on corrosion resistance 2−57518
plasma, BLACKJACK 5 pulse generator, Al(Ca)(Ti) imploding plasma expts. 2−91640
plasmas, Kalpha and K_β lines, struct. 2−103313
powder, prod. from Na-thermic reaction mass 2−116410
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
reactive DC sputtering and cosputtering of elemental targets 2−111074
rods, elastic wave propag., elec. signal generation 2−61833
secondary ions ejected by D^+, He^+ ion bombardment, energy anal. 2−93355
sheet, hydrogen embrittlement under multiaxial loading conditions, punch-stretch testing, fracture limit diagram 2−88323
slip, $\{11\bar{2}2\}\langle\bar{1}\bar{1}23\rangle$ type 2−71466
steel, maraging, N18K9M5T, influence of Ti additions on delayed fracture props. *(Russian)* 2−105286
stress-strain relationship, usefulness of Hollman eqn. 2−67415
structural transformations, thermal treatment influence *(French)* 2−72694
substrate for high-hardness Mo coatings, vac.-arc discharge plasma deposited 2−72871
surface (001), desorpt. of methanol, UPS 2−104143
surface layer, effect of spark discharge and electrolytic plasma on surface layer *(Russian)* 2−62267
surface nitride films, Auger and X-ray charact. 2−92396
textured, Young modulus anisotropy *(Russian)* 2−77858
thin film deposition in Ar using DC planar magnetron sputtering, O_2-partial press. condition effects 2−57294
two-wave shock wave configuration obs. *(Russian)* 2−61065
wire, elastic moduli and linear expansion coeffs. of axial textures *(Russian)* 2−76560
X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
Al-Si-Ti structure, use of Ti thin layers to retard reaction of Al with Si 2−71737
B filament reinforced Ti, fibre-matrix chem. interactions at high temp. composite strength 2−77783
Bi ion irrad., dislocation loops in α-phase 2−86758
CaF_2:Ti^{2+}, transferred hyperfine interaction 2−66506
H absorption and description rates, rel. to neutron irrad. 2−76817
H ion implantation by low voltage glow discharge plasma 2−96305
$LaCrO_3$:Ti perovskite, IR spectra assignments and interpret. 2−93231
LiF:Mg, Ti, gamma-irrad., laser heating in thermolum. dosimetry 2−104971
LiF:Mg, Ti, thermoluminesc., Z-centre model 2−57195
LiF:Mg, Ti, thermoluminescence sensitivity optimisation method 2−104972
$LiNbO_3$ Ti indiffused proton exchanged waveguides, fabrication and characterisation 2−91043
$LiNbO_3$:Ti, strip waveguides fabricated by combined metal diffusion and ion implantation 2−75731
$LiNbO_3$:Ti channel optical waveguide, SHG, conversion efficiency depend. on waveguide parameters 2−55273
$LiNbO_3$:Ti channel waveguides, photoinduced polarisation conversion obs. 2−109043
$LiNbO_3$:Ti coupled channel waveguide electro-optic modulator 2−86093
$LiNbO_3$:Ti coupled channel waveguides, second harmonic generation obs. 2−86103
$LiNbO_3$:Ti diffused waveguide integrated optic electrooptic modulator electrode anal. 2−55318
$LiNbO_3$:Ti indiffused waveguide, integrated optics picosecond transient digitizer 2−60262
$LiNbO_3$:Ti integrated optical device fabrication, Ti oxidation process, $(Ti_xNb_{1-x})O_2$ phase form. 2−75735
$LiNbO_3$:Ti intersecting waveguides, crosstalk characts., TE/TM mode splitter appl. 2−70668
$LiNbO_3$:Ti optical waveguide fabrication, Ti diffusion process, expt. study 2−65347
$LiNbO_3$:Ti optical waveguide, acoustooptic interaction, wide-band, with mode conversion 2−91045
$LiNbO_3$:Ti thin-film Bragg electrooptic modulator 2−65344
$LiNbO_3$:Ti variable-period thin-film Bragg modulator 2−97168
$LiNbO_3$:Ti waveguide, double degenerate four-wave mixing, TE to TM coupling 2−55332
$LiNbO_3$:Ti waveguide to single-mode fibre coupling at 1.32 μm 2−65360
$LiNbO_3$:Ti waveguide to single mode fibre coupling efficiencies 2−65361
MgO:Ti, single cryst., dielec. props. 2−110741
$Ni_{0.3}Zn_{0.7}Fe_2O_4$:Ti^{4+}, magnetisation and cryst. struct. study 2−77274
PbO_2-Ti anodes breakdown 2−78113
$ScFe_2H_{3.4}$:Y $ScCo_2H_{3.4}$:Y, effects on sorption-desorption characteristics 2−87014
Si:Ti, deep levels under hydrostatic press., isothermal capacitance study 2−66477
SiC filament reinforced Ti, fibre-matrix chem. interactions at high temp. composite strength 2−77783
SiC:Ti, luminescence, cross relax. optical detection 2−99180
SrF_2:Ti^{2+}, transferred hyperfine interaction 2−66506
Ti I, relative oscillator strength meas. 2−59727
Ti I lines in solar atmosphere, abundance and microturbulence determ. 2−63352
Ti II, singly ionised, spectrum and term system, configuration interaction and ionisation energy 2−64904
Ti XI spectra, intercombination lines obtained from Tokamak plasma 2−71262
Ti:N, depth distrib. determ. using elastic backscatt. 2−77671
Ti:YAG, laser props. 2−90898
Ti/Pt/Au thin film circuits, conductive via processing utilising RF sputtering and electrodeposition 2−99338
Ti-B(C), combustion under ultrasonic vibrs., capillary flow effects 2−116700
Ti-Cr_3Cr_2 composite, struct. form. mechanism 2−67260
Ti-Si interface, laser and electron beam irrad., silicide form. 2−66377
Ti+A, A=N, F, Mg, Al, Si, Cl, double to single K vacancy production ratio 2−90678
Ti+H_2 self-propag. high-temp reaction, hydride synthesis 2−111112
Ti+H^+, K-shell X-ray prod. cross section meas. in energy range 300-2400 keV 2−90492
Ti^{14+}+C foil, zero degree electron emission, energy spectra and dwell time depend. 2−75389
TiB_2-Ti-Mo, coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
Ti_5Si_3 coatings on Ti, high-temp. oxidation 2−67592
ZrO_2:Ti optical thin film, refractive index meas. during film deposition 2−82944

titanium alloys
see also titanium compounds
aerocosmic materials, high-freq. fatigue tests 2−57546
C NbTi superconductor for magnets, fusion neutron damage 2−80184
corrosion fatigue crack growth, electrode potential kinetics in 3% NaCl soln. 2−88281
critical stress intensity coefficient determination, using specimens of different size 2−62311
fatigue crack growth period determination, using microfractographic anal. 2−88305
fatigue crack growth rate, sea salt effect, alloy VT3-1 2−78022
flexural and longitudinal US wave absorption at high intensities 2−61063
fracture of plates with cracks under tension after loss of stability 2−60481
fracture toughness of VT3-1, struct. and hot rolling temp. influence 2−105324
hexagonal, VT-3 α-alloy plastic microstrain autocorrel. functions and spectral densities 2−56071
high melting point, low temp. plasma interaction *(Russian)* 2−99595
hip stem of Ti alloy, geometry effect on circumferential strains in proximal femur 2−62842
hot deformation of high alloy VT22 alloy, dislocation struct. obs. *(Russian)* 2−116500
IMI 685, planar slip material, short fatigue crack growth 2−93605
Inconel X750, age hardenable, stress corrosion cracking in hot water, rel. to prior heat treatment 2−83299
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
interface phase, identification from diffr. effects 2−76364
irradiated, miniaturised fatigue crack growth specimen technology and results 2−88308
MANGALIOY, elinvar type alloys, nonferromag., characts. *(Japanese)* 2−77881
metastable transformations study, by acoustic characts. meas. 2−105421
nuclear reactor constructional materials, liq. Na influence on strength, calc. method 2−96112
platic deformation and failure in low-cycle fatigue region, severe cooling effect 2−57479
pseudo-α, optimum heat treatment selection 2−105200
pseudo-α, thermal stability and eval. methods 2−105325
recrystallisation, struct. changes during thermal cycling 2−83140
steel, austentic stainless 316, Ti effect on microstructs. changes rel. to void swelling 2−86741
superalloys thermodynamics, activity coeffs. of Al, Ti, Cr, Fe, Co, Ni, Mo and W 2−99390
tensile props. after neutron irrad. 2−72767
texture and plasticity, under hydrostatic press., deform. conditions influence *(Russian)* 2−116501
$Ti_{0.67}V_{0.33}$, thermal and elec. cond. meas., glassy behaviour 2−87225
two-phase, $\beta\rightarrow\alpha+\beta$ transition, α-phase struct. study *(Russian)* 2−116437
welded near-α IMI 829, struct. and transform. characts. 2−116439
weldments, dissimilar, solute banding effect on transforms. 2−93503
Ag-Cu-Ti(Al)(Mg)(Ni), dendritic segregation, effect of alloying additions *(Polish)* 2−67338
Al-$Al_3(Ti_xZr_{1-x})$ alloy, dispersion strengthening and lattice parameters of dipsersed phase w.r.t. x 2−72713
Al-Cu, Mn, Ti, Cd and Zr impurities effect on ageing, electron microscopy study *(Russian)* 2−93539
Al-Mg-Mn-Zr-Ca-Ti, chem. comp. optimisation rel. to fracture toughness, Mn, Zr, Cr and Ti additions effect 2−77945

titanium alloys continued
Al-Ni-Co-Cu-Ti, Alnico 8 alloy, $\alpha \rightarrow \gamma$ transformation, α_γ phase precipitation, coercive force study 2−91858
Al-Ti, Al_3Ti_3 struct., electron and X-ray diffr. study 2−60926
Al-Ti, peritectic cooling curves interpret 2−105118
Al-Ti (0.26 wt.%), dil., cold rolled, brittle-ductile transition after liq. Ga embrittlement, temp. and strain rate effect 2−88189
Al-Ti-Be, grain refinement, Be-enhanced 2−83086
B filament reinforced Ti, fibre-matrix chem. interactions at high temp. composite strength 2−77783
C fibre reinforced, Sn-Ti C fibre surface struct. effect on strength 2−83067
C fibre reinforced Cu-Ti, C fibre surface struct. effect on strength 2−83067
Cd-Ti electroplated coatings on high speed steels; endurance and corrosion resistance 2−57537
Co-Cr-Ti alloys, hot corrosion in modified Dean's rig 2−99583
Co-Fe-Cu-Zr-Ti-Sm, permanent magnet, microstruct., SEM study 2−92224
Co-Ni-Al-Ti-Cu, porous, laser pulse treatment *(Russian)* 2−67355
Co-O-Zr(Ti), liq., solubility of oxides 2−98295
Co-Ti-B, amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
$Co_2Mn_{1-x}Ti_xSn$ Heusler system, mag. and chem. ordering 2−93073
Co_2TiAl, Heusler alloys, band struct., SAPW calc. 2−82215
Co_2TiSn, Heusler alloys, band struct., SAPW calc. 2−82215
Cu-Al-Ti-(-Hf) powder, sputtered, internal oxidation to produce dispersion strengthed Cu *(Russian)* 2−67238
Cu-Ti, amorphous, thermoelec. powers and resistivities 2−98611
Cu-Ti, dil., D permeation meas., trapping impurities effect 2−56254
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Cu-Ti alloy, thin foil, microstruct. changes 2−71826
Cu-Ti single crysts., model for anomaly in age-hardening 2−57368
Fe-Cr-Co-Mo-Ti (24, 15, 2, 0.5 wt.%), magneto alloy, machinable, microstruct. and props. *(Chinese)* 2−72261
Fe-Cr-Ti, ion irradiation, void swelling and solute segregation 2−85212
Fe-Cr-Ti-Mo-TiO_2, dispersion strengthened, void swelling in HVEM, influence of fabrication procedure 2−111189
Fe-Ni-Al-Co-Cu;Ti, thermomag. treatment, struct. form. and mag. props. 2−62152
Fe-Ni-Co-Ti, martensite and austenite, disperse γ' particles elastic deform. and $\gamma \rightleftharpoons \alpha$ transitions *(Russian)* 2−88078
Fe-Ni-Co-Ti (23, 10, 10, wt.%), martensitic transformation 2−83118
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
Fe-Ni-Ti type N26T3 alloy, martensitic transform. in austenite 2−105145
Fe-Ni(Ti)(Ga)(Al)(Co)(Pt), flow stress at low temp., influence substitutional elements 2−105213
Fe-O-Zr(Ti), liq., solubility of oxides 2−98295
Fe-Sb-Ti, dil., impurity pair interactions, resist. and NMR meas. 2−82317
Fe-Ti, dil., dislocation relax. peaks and solid soln. softening 2−111224
Fe-Ti, dil. alloy, vacancy-impurity interaction, positron annihilation study 2−98152
Fe-Ti, enthalpy of form., short-range order effect *(Russian)* 2−97982
Fe-Ti, magnetic aftereffects in specimens containing interstitial solutes and precipitates 2−87551
Fe-Ti-V-N system, complex nitrides form. in liq. metal 2−67295
Fe-Ti(Cr)(Mn)(Ni)(Rh)(W), in contact with SiC single cryst., adhesion, friction and wear 2−88199
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), C activity, influence of alloying additions *(German)* 2−93491
$Fe_{0.85}Mn_{0.15}Ti$, surface anal. by magnetisation meas. 2−73012
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
FeTi, spin polarised photoemission probing of magnetism 2−67184
FeTi, surface anal. by magnetisation meas. 2−73012
$FeTi_x$, H_2 storage props., XPS, Mossbauer and metallographic study 2−92347
$FeTiH_{1.9}$, Pauli paramagnet, mag. susceptibility, magnetisation, hysteresis 2−66765
$FeTiH_x$, local H vibrs. in α, β_1, β_2, and γ phases, inelastic neutron scatt. study 2−103927
Ga_4Ti_3 struct., electron and X-ray diffr. study 2−60926
Ga-Ti melts, contact reactions with quartz and graphite, X-ray diffr. study 2−82085
H_2 spectral analysis, with aid of computer, metrological characts. of standard specimens 2−83435
Hf-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
$Hf_{1-x}Ti_xMo_2(W_2)$, high temp. equilib., struct. transformation 2−66177
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
Mo-Ti (0.5 wt.%), struct. changes under action of high temps. and long loads in various media 2−67456
Mo-Ti (5 wt.%), void swelling behaviour under heavy ion bombard. 2−86744
Mo-Ti-Zr (0.5, 0.08 wt.%), dispersion-strengthened, activation energy meas. for creep 2−67426
Mo-Ti-Zr-C, powder metallurgical, props. 2−111228
Nb-Hf-Ti (10, 1 wt.%), hot isostatically pressed powder compact, creep 2−116504
Nb-Mo-Ti-Zr MN-1 alloy, nitriding effect on heat-resisting props. 2−111247
Nb-Ti, anelastic relax. due to Ti-H complexes, internal friction spectra 2−111222
Nb-Ti, phase comp., hydraulic extrusion process parameters influence 2−57330
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
Nb-Ti, superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb-Ti (38 wt.%), low-temp. heat capacity 2−76697
Nb-Ti (48 wt.%), supercond. thermoelectric power, 5 to 25K 2−66706
Nb-Ti composite superconductor, limiting currents 2−104556
Nb-Ti superconducting materials, review 2−67255
Nb-W(Mo)(Ta)-Ti, creep kinetics under ultrahigh vac. 2−67462
Nb-Zr(Ti)(V)(Ta), dil. alloys, diffusion of O, appl. of McNabb-Foster trapping eqns. 2−76744
Nb_3Sn-Ti, composite processed, Ti addition effect on supercond. props. 2−104555

titanium alloys continued
NbTi compacted monolithic conductor, fabrication and performance 2−69925
NbTi filamentary Cu superconductor, direct meas. of transverse resistivity 2−74460
NbTi, for fusion reactor magnets, neutron irrad. effects 2−110553
NbTi, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
NbTi supercond. composite, unpainted, exptl. study of quenching dynamic processes *(Chinese)* 2−110531
NbTi superconducting wire for Tokamak toroidal field coil 2−69924
NbTi/Cu composite supercond., dynamic quench in superfluid ^4He, rel. to magnet cooling 2−112906
NbTi-Cu, multifilamentary, supercond. current stability, max. transport current meas. 2−66731
NbTi-Cu composite multifilamentary supercond., losses under adiabatic conditions 2−66730
Ni-Al-Nb-Ti high-temperature strength alloys, mech. props. prediction, struct. factors influence 2−72771
Ni-Al-Ti, Ni_3Al based structural alloy, props. 2−72874
γ-γ'Ni-Al-Ti two phase bicrystal, morphological crystallographic features 2−87076
Ni-Cr-Al-Ti, ageing and γ' phase precipitation after strong deform., recrystn. processes *(Russian)* 2−99443
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cr-Nb-Mo-Al-Ti, heat-resistant, homogenisation effect on struct. and plasticity 2−62181
Ni-Cr-TiO_2, oxidation, high temp. influence of TiO_2 content 2−111384
Ni-O-Zr(Ti), liq., solubility of oxides 2−98295
Ni-Ti, close to equiatomic, hardening and shape memory effect 2−72737
Ni-Ti, dil. alloy, internal oxidation and oxide particles *(Japanese)* 2−105374
Ni-Ti, electron-phonon interaction contrib. to phonon dispersion curve, pre-martensitic phenomena 2−81915
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
Ni-Ti (102wt.%), liquid quenched modulated struct. alloy, ageing *(Japanese)* 2−105193
Ni-Ti (45 wt.%) plate, shape-memory effect, thermomechanical treatment influence *(Russian)* 2−72761
Ni-Ti alloys, electron beam induced amorphisation, electron microscope study 2−109832
Ni-Ti porous material, shape memory and vol. memory effects *(Ukrainian)* 2−67425
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
Ni-Ti/Cu multifilamentary supercond., proximity effect, diamag. transitions obs. 2−61664
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
$Ni_3(Al, Ti)$, heat-resistant, dendritic segregation 2−72698
$Ni_3(Fe,Ti)$ alloys, electronic characts., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447
$Ni_3(Mn,Ti)$ alloys, electronic characts., anomalous Hall effect and Nernst-Ettingshausen effect study 2−61447
NiTi shape memory alloy, electron irrad. induced cryst.-amorphous transitions 2−92041
$Ni_{20.3}Ti_{2.7}B_6$ τ-phase crystals, Czochralski growth and cryst. props. 2−111062
Pd-Ti, Mattheissen's rule deviations 2−82320
Pd-Ti-H, H diffusion study 2−82024
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
SiC filament reinforced Ti, fibre-matrix chem. interactions at high temp. composite strength 2−77783
Te-Fe, film, prep. by sputtering from composite targets with fine metal wires *(Japanese)* 2−99333
α/β-Ti Mn alloys, low cycle fatigue life 2−105319
Ti-Ag layered crystals, VPE synthesis, soft X-ray monochromator appl. 2−83040
Ti-Al, helical dislocations by low temp. thermocycling, TEM study 2−115237
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2−77874
Ti-Al, positron annihilation meas. near polymorphic transition *(Russian)* 2−99211
Ti-Al, struct. transition due to deform., positron annihilation parameters *(Russian)* 2−62013
Ti-Al (1.65 to 10 wt.%), oxidation behavior, effect of Al *(French)* 2−57526
Ti-Al (8.6 wt.%), dislocation pile-ups and tensile fracture, influence of grain size and age-hardening 2−105320
Ti-Al alloy, Cl migration under electron bombardment, AES 2−86935
Ti-Al based alloys, precipitation of metastable phases, X-ray diffr. and mech. props. meas. *(Russian)* 2−77825
Ti-Al laminar composites with a soft layer, low-cycle fatigue 2−67548
Ti-Al-Cr-Mo-V, mech. props., statistical anal. 2−72763
α- Ti-Al-Mn, optimum heat treatment selection 2−105200
Ti-Al-Mn, Ti-Al-Mo-V and Ti-Mo-Sn-Zr, salt corrosion tendency, alloying influence 2−88287
Ti-Al-Mo, α'' phase form. and decomp. *(Russian)* 2−99385
Ti-Al-Mo, IMI 550 fatigue testing by positron annihilation 2−62339
Ti-Al-Mo (5,4 wt.%), fatigue and dislocation behaviour, effects of H 2−99520
Ti-Al-Mo and Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-Mo-Zr, struct. and mech. props., relationship offer superplastic deform. 2−62178
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2−99440
Ti-Al-Nb-Ta, rate and time depend. behaviour under quasistatic monotonic and cyclic loading 2−93578
Ti-Al-Sn, H-charged, room temp. creep 2−111241
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470

titanium alloys continued
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
Ti-Al-Sn-Zr-Mo (6,2,4,2 wt.%), shear bands, occurrence during isothermal hot forging 2−57383
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-Sn-Zr-Mo-Si, fatigue, low cycle high temp., effects of dwell 2−62208
Ti-Al-Sn-Zr-Mo-Si (6, 2, 4, 2, 0.1 wt.%), H_2 effect on fatigue crack growth 2−72806
Ti-Al-V, mech. props. after β-annealing 2−67398
Ti-Al-V, orthopaedic implants, fracture cause 2−105855
Ti-Al-V (6, 4 wt.%), cavitation erosion behaviour, nitriding effects 2−111331
Ti-Al-V (6, 4 wt.%), texture hardening in dentate rolling *(Japanese)* 2−77838
Ti-Al-V (6,4 wt.%), compact specimen, initial notch shape effect on fatigue pre-cracking and fracture toughness testing 2−78028
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407
Ti-Al-V (6,4 wt.%), He^+ irrad., surface swelling 2−74931
Ti-Al-V (6,4 wt.%), high temp. phase transformations and thermal and mechanical props. meas. 2−71625
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
Ti-Al-V (6,4 wt.%), low cycle fatigue crack propag., influence of minor cycles 2−67493
Ti-Al-V alloy, improvement of fatigue life by ion implantation 2−57444
Ti-Al-V sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Al-V surface, response to XeF laser pulse 2−110989
Ti-Al-V-Sn, temp. depend. of sustained-load subcritical crack growth 2−111297
Ti-Al-V-Sn (6,6,2 wt.%), internal H-induced crack growth effect of stress state 2−99535
Ti-Al-V(-Mo), low cycle fatigue, effect of stress-strain behaviour 2−57439
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2−67315
Ti-Al-Zr-V-Mo-B sheet, elastic props. anisotropy and texture hardening *(Russian)* 2−116502
Ti-Al-(V)(V-Mo), ion irradiated, segregation 2−109859
Ti-Al(-V), tensile props., influence of test temp. and microstruct. 2−111236
Ti-Al(Al-V)(Mo-Zr), fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
Ti-Co, amorphous, thermal stability study 2−104029
Ti-Fe film, composite cathode sputtered, struct. and comp., expt. study 2−56390
Ti-Fe films, elec. cond., composition depend. 2−56727
Ti-H system, thermodynamics 2−111139
Ti-Mn, anomalous solid soln. struct. *(Russian)* 2−97994
α-β Ti-Mn, fatigue crack propag., plastic zone sizes and strain partitioning 2−72835
α-β Ti-Mn, near threshold retardation of fatigue crack propag., oxide growth effect 2−72836
Ti-Mn (5 wt.%), martensitic interface, martensite, TEM lattice fringe imaging 2−57353
α-B-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77884
α-β-Ti-Mn alloys, stress-strain behaviour, finite element method calcs. 2−77885
β-Ti-Mn(V)(Mo-V), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
Ti-Mo (10 at.%), struct. after low temp. ageing, X-ray and electron microscopy study *(Russian)* 2−93538
Ti-Mo (14-20 wt.%), β phase single crysts., stress-induced products and ductility due to lattice instability 2−105212
Ti-Mo (30 wt.%), fatigue thresholds and ductile brittle transition temp. 2−57442
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
Ti-Ni, phase hardening during martensitic transformations *(Russian)* 2−93504
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
Ti-Ni-(X), shape memory alloys, review 2−88142
Ti-Si enriched layer for carburization protection of Hastelloy X 2−116619
Ti-Sn, positron annihilation meas. near polymorphic transition *(Russian)* 2−99211
Ti-Sn, struct. transition due to deform., positron annihilation parameters *(Russian)* 2−62013
Ti-V, anomalous solid soln. struct. *(Russian)* 2−97994
Ti-V, β-ω transform under press., stacking solition model for diffuse omega phase 2−71639
Ti-V (3 wt.%), ion irradiated, segregation 2−109859
Ti-V-Cr-Mo, VT3-1, α″ phase form. and decomp. *(Russian)* 2−99385
Ti-V-Fe-Al, shape memory with large temp. hysteresis 2−111249
Ti-Zr solid solns., phase diagram, α⇌β transition 2−88077
α- Ti-Zr-Mo-V, optimum heat treatment selection 2−105200
Ti_3Al, deformed 'C' component dislocations 2−60983
Ti_3Al, elec. resist. and thermo-EMF at high temp. *(Russian)* 2−66531
Ti_3Al-Nb, as-annealed and creep deformed, superdislocation networks, APB energy role 2−98091
TiB_2-W(Mo)(Cr), sintering and props. 2−111109
$TiBe_2$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$TiBe_2$, nearly ferromag., Ti NMR study 2−87609
$TiBe_2$, weak itinerant antiferromag., SDW pairing soln. 2−92854
$TiBe_{2-x}M_x$ (M=Cu, Ag, Au, Fe), magnetisation meas. in high and low fields 2−56839
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
TiC-Ni, densification during heating under high pressure 2−72662
TiC-Ni containing N, high temp. oxidation *(Japanese)* 2−105372
TiC-W(Mo)(Cr)(Nb), sintering and props. 2−111109
$TiC_{1.85}H_x(D_x)$, H position and diffusion, NMR studies 2−93025
TiFe, nitrided by NH_3 pretreatment, SIMS investig. 2−105389
$TiFe_{0.5}Co_{0.5}$, thermal expansion, mag. contrib., spontaneous magnetisation 2−115440

titanium alloys continued
$TiFe_xCo_{1-x}$, mag. props. and magnetovolume effects, thermal expansion 2−86909
TiN-W(Mo)(Cr)(Ta)(Nb), sintering and props. 2−111109
TiNi, influence of Pd on martensitic transformation 2−83117
TiNi, phys. props. temp. depend., martensitic transform. rel. to phase diagram 2−111176
TiNi, porous sintered, shape memory effect features 2−99505
$Ti_{50}Ni_{40}Cu_{10}$, first-order martensitic transforms., and contrib. to shape memory effect *(Russian)* 2−67336
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., compositional depend. of one-third reflections from matrix 2−111173
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., morphology and crystal struct. 2−111174
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
$Ti_{80}Pd_{20}$ amorphous superconductor, T_c study 2−72096
TiW/Ge/GaAs refractory ohmic contacts, laser and thermal anneal 2−87386
U-Ti alloys, bonding, Auger spectra study 2−65920
V-Cr-Ti (1,0.1 wt.%), neutron irrad., preimplantation of He effect on microstruct. 2−85215
V-Cr-Ti (15, 5 wt.%) unirradiated high temp. fatigue in vacuum, comparison with 316 stainless steel 2−72805
V-Ti, binary alloys, fabricability and tensile strength 2−67496
V-Ti, ion implanted, mech. props. study after neutron irrad. 2−71511
V-Ti (20 wt.%), He bubble behaviour, alloying effects 2−86742
V-Ti (20 wt.%), He injected and neutron irrad., tensile props. and microstruct. 2−71509
W fibre reinforced depleted U-Ti matrix, corrosion rates and electrochem. behaviour obs. 2−116566
WC-TiC-Co, appl. of carbide coatings 2−72883
WC-TiC-TaC binderless cemented carbides, effect of hot isostatic pressing 2−111120
WC-TiC-TaC-NbC-Co cemented carbide, C content effects 2−77939
$Y(Co,Ti)_5$, metastable character, decomposition behaviour, precipitation 2−67342
$Y(Co_{1-x}Ti_x)_5$, struct. and mag. props. 2−91874
Zr-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
β-Zr(Fe) phase, effect of Ti in stabilisation 2−105166
$Zr_{1-x}Hf_x(Ti_x)Mo_2(W_2)$, high temp. equilib., struct. transformation 2−66177

titanium compounds
see also titanium alloys
12Kh18N10T welded steel, effect of inoculation on corrosion resistance of chromium-nickel deposited metal 2−93661
corrosion resistance deposit, prep. by CVD from tris-(2,2′bipyridine) titanium 2−77745
halide compounds, NQR frequency, phase transforms., temp. depend. 2−93048
hydride system for electric power storage *(German)* 2−62508
methane formation in hydrogen-implanted graphite and carbides, in fusion reactor 2−80216
nitride films, on surface of Ti, Auger and X-ray charact. 2−92396
nitrides, and oxynitrides, obs. of artifacts during Auger profiling 2−78005
oxides, interatomic Auger transitions, rel. to metal oxidation 2−82965
oxides, phase comp. determ., semiquantitative X-ray method 2−93708
sitall, luminescence defectoscopy of strength rel. to phase composition 2−99485
sitalls, thermal stability determ. by luminesc. defectoscopy 2−116671
TiN formed by evaporation as a diffusion barrier between Al and Si 2−92394
titanomagnetic solid solns., phase and point defect equilibria 2−109792
Ag_xTiS_2, disordered stage II, c-axis parameters, X-ray study 2−109772
Al-Si-Mg-ZiO_2, dispersion hardening 2−57362
Al_2O_3-TiO_2-Na_2O, ionic conductor, elec. props. and struct. 2−110030
BaO-TiO_2:Nb, (Sb), (La) system, phase diagrams, influence of foreign atoms on cryst. lattice 2−66179
BaO-TiO_2-B_2O_3-SiO_2 glasses, Ti ion structs., mag. props. and EPR spectra 2−92858
$BaTiAl_6(Ga_6)O_{12}$, cryst. struct., X-ray and electron diffr. study 2−81760
Bi_2O_3-TiO_2, melt, solubility of Pt 2−71652
$Bi_{10}Ti_3W_3O_{30}$, ceramic ferroelectricity, permittivity and losses 2−87701
$CaMgSi_2O_6$-$CaTiAl_2O_6$, diopside, crystal struct., Ti^{4+} role 2−86655
CaO-MgO-SiO_2-TiO_2 diopside glasses, nucleation kinetics, small-angle X-ray scatt. study 2−115141
CaO-TiO_2-ZrO_2 system multiphase ceramics for bushing prod., mech. props. 2−67478
β-FeTiH, electronic props., band struct. APW calc. 2−66416
β-FeTiH, electronic struct. and stability 2−71853
β-FeTiH, Mossbauer isomer shifts 2−87641
$FeTiH_2$, Mossbauer isomer shifts 2−87641
$Fe_{0.34}TiSe_2$, cryst. struct., elec., mag., and optical props. 2−81746
$HTiNbO_5$, localisation of H, cryst. struct., neutron powder diffr. obs. 2−60937
K-TiS_2 ambient temp. cell using organic electrolyte 2−62468
K_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
Li_2O-Al_2O_3-SiO_2-TiO_2 glass ceramics, cryst. props., grain growth, electron and X-ray study 2−66244
Li_2O_3-SiO_2-TiO_2, glass, isothermal cross-section, phase decomposition 2−72706
Li_xTiS_2, elec. field gradient, anisotropic shift, tetrahedral site occupation and atomic motion NMR study 2−66943
Li_xTiS_2, intercalation compound, elastic energy and staging 2−71391
$Mg_2Al_4Si_5O_{18}$-TiO_2, changes in spectral props. at initial stages of crystn. 2−72529
MgO-TiO_2 mixtures, reaction sintering 2−99376
$Mg_{1.5}Ti_{0.5}FeO_4$ spinel, mol. field coeffs. and exchange interactions 2−66801
Mo-TiC (23.5 mol.%), ion bombardment, surface damage 2−74930
$(NH_4)_2TiF_6$, cryst. struct., hydrogen bonds 2−91891
Na_2O-SiO_2-TiO_2 glass, photoelectron spectra *(Japanese)* 2−87954
$Na_x(Ti,Mg)_2(O,F)_4$, cryst. struct., cond. channels 2−86652
$Na_x(Ti, Mg)_2(O, F)_4$, solid electrolyte, Na cation distrib. *(Russian)* 2−56249
$Nb_xTi_{1-x}S_2$, IR thermoreflectance spectra 2−104859
PbO:TiO_2, mixed conductivity, defect model, temp. and press. depend. 2−115834
Pt/TiO_2, thermal desorpt. of H_2 and CO 2−105502
Pt/TiO_2 particle, photochem. diode model and photocatalytic activity 2−78127

titanium compounds continued
R_3O_3-TiO_2, R_2TiO_5 structural transitions at high temp. obs. 2−86850
Si-SiGe/TiO_x/Pt tandem type amorphous solar cells, spectral response width, plasma anal. 2−83487
Si_3N_4-TiC composites, fracture toughness and strength 2−83202
Si_3N_4-TiN composites, CVD, prep. and props. 2−87998
SiO_2-TiO_2, glass, X-ray spectral study of chem. bond character 2−105007
SiO_2-TiO_2 gels and glasses, mixed bonds, spectrosc. obs. 2−76314
SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SrO-BaO-Al_2O_3-TiO_2-SiO_2 system, crystallised-glass materials, isomorphous substitutions, X-ray diffr. study 2−71615
$Sr_{0.02}Pb_{0.98}(Li_{0.008}W_{0.012}Ti_{0.46}Zr_{0.52})O_3$, impurity distrib., props. 2−86701
$SrTiO_3$ photoanode, visible light photoresponse, surface treatment effects 2−98695
Ti complex, Zregler-Natta catalysts, reaction path SCF-X_α-SW MO study 2−108377
Ti-H, X-ray emission spectra, meas., bonding, hybridised states 2−87905
TiB_2 based thick composite films, elec. cond. mechanism 2−72041
TiB_2 coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiB_2 coating on C fibres *(Russian)* 2−67583
TiB_2 coatings, electrodeposited, sliding wear props. 2−62236
TiB_2 coatings on Cu, 316 stainless steel, Mo, Ta, graphite for fusion device, thermal fatigue props. 2−74909
TiB_2, ion implantation, H/D isotope exchange, local mixing model 2−56048
TiB_2 limiters in ISX-B Tokamak, operational history 2−74900
TiB_2, low temp. CVD of corrosion 2−87999
TiB_2 on Mo, fusion reactor structural materials, plasma spray coating 2−74914
TiB_2, porous, Al penetration and fracture 2−57456
TiB_2, possible room temp. supercond., mechanisms *(Japanese)* 2−72109
TiB_2, surface modification by H ion erosion 2−93655
TiB_2, thin film, plasma-ion sputtering, AES 2−82156
TiB_2-Ni ceramics, crack form. and swelling in liquid Al 2−111273
TiB_2+H reactivity electron beam enhancement 2−74938
$TiBe_2$, possibility of p-state superconductivity 2−104524
$TiBe_{1.94}O_{0.05}$, low-temp. specific heat, elec. cond., susceptibility 2−92934
$TiBr_4$, electronic structure and spectra SW Xα calcs. 2−114051
TiC (111) polar surface, electronic struct. 2−110416
TiC and TiC_xN_y, abrasive power of powders, prod. technology role 2−67271
TiC barrier coating in C reinforced Al-Si composite, effect on reaction between components 2−99373
TiC, bremsstrahlung isochromat spectra, density of unfilled electronic states 2−104982
TiC CVD coating on cemented carbides, effects of exptl. parameters on preferred orientation 2−92397
TiC, CVD coatings, 2 keV D bombardment, sputter yield, surface modification 2−74925
TiC, CVD on cemented WC, growth rate and failure mode 2−116380
TiC coated graphite, performance in electron beam tests 2−69843
TiC coated limiter testing in Tokamaks 2−69842
TiC coating, chemical vapour deposited onto cemented carbide, microstruct. study 2−56389
TiC, coating materials for Tokamak limiters and walls, thermal testing 2−102264
TiC coating on C fibres *(Russian)* 2−67583
TiC coating on graphite for Doublet III limiters, process evaluation and characterisation 2−74899
TiC coating on Mo, thermal and mechanical props. 2−69902
TiC coatings, appl. to hard-metal tools 2−72883
TiC coatings deposited onto graphite and Mo by electron beam evaporation, charact. 2−71825
TiC coatings on Cu, 316 stainless steel, Mo, Ta, grahite for fusion device, thermal fatigue props. 2−74909
TiC, contact reactions with Fe-Ni (Si) (Cr) 2−67597
TiC, densification during heating under high pressure 2−72662
TiC field emitter, field emission ion and electron microscopy, AES and atom-probe studies 2−115520
TiC film, laser CVD deposition and charact. 2−82162
TiC, first wall coating, preferential sputtering partial yields 2−80212
TiC, first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
TiC, fused single-cryst., struct. and props., melting conditions influence 2−81779
TiC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
TiC, ion implantation, H/D isotope exchange, local mixing model 2−56048
TiC limiters in ISX-B Tokamak, operational history 2−74900
TiC on Mo, fusion reactor structural materials, plasma spray coating 2−74914
TiC, RF floating zone grown single crystal, high temp. deform. mech. 2−105242
TiC reinforced high-speed steel composite, high-density material, processing parameters, struct. and mech. charact. 2−67262
TiC single-crystal powders, morphology, hardness, and grinding ability 2−83230
TiC, specific heat determ. using high-speed data acquisition system using minicomputer 2−61168
TiC sputtered film, effect of ion implantation on props. 2−87120
TiC, stacking fault energy, TEM weak-beam technique 2−55986
TiC, synthesis by self-propagating high-temp. method, effect of O content of Ti powder 2−99382
TiC, X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
TiC:H(D), ion-implanted impurity retention, release and isotope exchange 2−69848
TiC-Al_2O_3, condensates, microhardness and microbrittleness 2−77904
TiC-Mo, coating by reactive sputtering and electron beam technique 2−74915
TiC-Mo, erosion yields by vacuum arcs in mag. field, temp. depend. 2−74917
TiC-TiB_2 system, compressive creep of two-phase alloys, superplastic phenomena 2−99506
TiC+H reactivity electron beam enhancement 2−74938
$TiC_{0.96}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
$TiC_{0.98}$, ion bombardment, surface damage 2−74930
TiC_{1-x}, order-disorder transition, high-temp. neutron diffr. 2−103682
titanium compounds continued
TiC(N) CVD coatings on tool steels *(Hungarian)* 2−57305
$TiC_{0.51}N_{0.49}$-$TiO_{1.08}$, physicochemical props., effect of combined oxygen 2−83072
TiC_xN_y, CVD on cemented WC, growth rate and failure mode 2−116380
TiC_xO_y and $TiC_xO_yH_m$, oxygen-rich, electric explosion, phase comp. of products 2−88358
$TiCl_4$, electronic structure and spectra SW Xα calcs. 2−114051
$TiCl_4$ total electron density model, Xα scatt.-wave method 2−80466
$TiCl_4$+organic O-containing cpds., complex form., mol. vibr., IR obs. 2−67747
TiF_6 Schott glass, high index gradient, ion exchange technique 2−75726
$Ti_xFe_{3-x}O_4$, cubic spinel system, Mossbauer spectrum, electronic props. 2−104775
$TiFeSi_2$, orthorhombic type cryst. struct., X-ray diffr. anal. 2−103696
TiH, effective core pot. calcs., pseudopotential method 2−64861
$TiH_{1.98}$, polycryst., magic-echo sequence for second-moment meas. 2−107369
TiH_2, electronic struct., APW method and LCAO interpolation 2−61353
TiH_2, FCC-FCT phase transition, electronic theory 2−71641
TiH_x wall, plasma contamination reduction 2−115037
TiI_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
$TiMnSi_2$, orthorhombic type cryst. struct., X-ray diffr. anal. 2−103696
TiN (001) cleaved surface, tetragonal struct. on annealing, RHEED study 2−92316
TiN, bremsstrahlung isochromat spectra, density of unfilled electronic states 2−104982
TiN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
TiN, CVD on cemented WC, growth rate and failure mode 2−116380
TiN, coating materials for Tokamak limiters and walls, thermal testing 2−102264
TiN coating on Mo, thermal and mechanical props. 2−69902
TiN coating on Mo fibres, in Mo fibre reinforced Ni-Ci, influence on props. 2−67455
TiN electric spark alloyed coatings on Mo and W 2−67657
TiN, electronic struct., photoemission study 2−104249
TiN, fabrication by hot isostatic pressing 2−83075
TiN film, Cu diffusion 2−98502
TiN film deposition by reactive magnetron sputtering, elec. resistivity, comparison with other methods 2−57293
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913
TiN films, reactive DC magnetron sputtering, color, corrosion, Auger study 2−83249
TiN films deposited on Si, characterisation 2−110212
TiN films from N_2^+-implantation of Ti coated Si, elec. and optical props. 2−116286
TiN, formed by evaporation as diffusion barrier between Al and Si 2−83028
TiN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
TiN, ion beam induced radiation defects and stimulated trapping efficiency 2−76516
TiN powder, shock treatment effect, microstrain increase 2−105112
TiN, thermal and elec. cond. charact. rel. to electron energy spectrum 2−71987
TiN thin films, preparation method 2−105075
TiN, TiC layers, CVD, nucleation and kinetics 2−83034
TiN, ultradisperse particles, struct., neutron diffraction 2−73017
TiN, X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
TiN:C film, reactivity sputtered, optical consts. and spectral selectivity, IR reflectivity study 2−72445
TiN-Al_2O_3 composites, hot pressed, props. rel. to TiN conc. 2−72753
TiN_x amorphous film, CVD on TiB_2 interlayer, Vickers microhardness 2−76854
TiN_x, low temp. specific heat 2−82520
TiN_x-TiB_2 system reaction, polythermal cross-sections 2−105133
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
$TiN_{0.95}O_{0.05}$ powder, cryst. struct. charact., X-ray diffr. study 2−65950
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516
TiN(100), surface state revealed by photoemission and gas adsorption studies 2−77705
$Ti_2Nb_{10}O_{29}$, expt. electron micrograph matching to computed image simulations 2−53897
TiNx, optical constants, produced by reactive evaporation and ion-beam sputtering 2−104981
TiO band strength in solar neighbourhood giants, comparison with metal rich globular clusters 2−94720
TiO band strengths in cluster giants, model atmospheres 2−100998
TiO, bremsstrahlung isochromat spectra, density of unfilled electronic states 2−104982
TiO, effective core pot. calcs., pseudopotential method 2−64861
TiO in *o* Ceti atmosphere, effect on diameter determ. 2−63433
TiO, TiO_2, reflection and antireflection coatings for laser optics, reactive sputtering fabrication *(Czech)* 2−70634
TiO_2, 3d, L_{23} edge, EELS 2−108636
TiO_2, adsorption of H_2O, SIMS study 2−104168
n-TiO_2, Au-film coated, photocatalysts, pot. meas. 2−110469
TiO_2 coatings, damage threshold, light wave interf. and film microstruct. influence 2−71500
TiO_2, defect energetics, Mott-Littleton computational method 2−65987
TiO_2 dielectric coatings, optical strength, water adsorption process influence 2−70638
TiO_2, ESR studies of defect centres 2−87594
TiO_2 electrode, relaxation effects of surface and interface states 2−61583
TiO_2 electrode behaviour anal., photoelectron cell appls. 2−73126
TiO_2, electron energy loss study of K near-edge fine struct. of O 2−104248
TiO_2 electrophys. and photoelectrochem. props., uncontrolled impurities effects *(Russian)* 2−93799
TiO_2 film, laser CVD deposition and charact. 2−82162
TiO_2 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
TiO_2, optical coating microhardness and scratch testing 2−81131
TiO_2 optical thin film, refractive index meas. during film deposition 2−82944
TiO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
TiO_2 powder, shock loaded, paramagnetic defects, ESR study 2−77370

titanium compounds continued
TiO_2 powder, shock loaded, catalytic activity 2−78125
TiO_2 powder spectral reflectance and integrated absorptance under simulated solar radiation 2−99082
TiO_2, Raman spectra in anatase and rutile 2−82851
TiO_2, rutile, determ. of O x parameter by neutron powder methods 2−71398
TiO_2, rutile, epitaxial film growth on rutile {100} surface reacted with Ga_2O_3 in air 2−110196
TiO_2, rutile, tetragonal-packed crystal structures, theory 2−97968
TiO_2, rutile, third-order nonlinear susceptibility tensor component and dispersion determ. by coherent Raman ellipsometry 2−104876
TiO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2−111130
TiO_2 sputtered optical thin film, extinction meas. 2−110967
TiO_2 surface (001) thermal faceting 2−86992
TiO_2, surface composition changes due to pulsed laser irrad., appl. to surface cleaning 2−76787
TiO_2, thermal-gradient induced electro-optical deflection obs. 2−99089
TiO_2 varistors, prep. and props. 2−57320
TiO_2, with rare earth chromites, use as anodes in high-temp. O_2 conc. cell 2−77038
TiO_2:Cr(Fe), rutile pigments, EPR study 2−104695
TiO_2:H electrodes, SIMS and AES anal. 2−57655
TiO_2:Ta, self-compensation, gravimetric meas. 2−81971
TiO_2:V^{4+}, illumination and oxidation effects on ESR spectra 2−56922
TiO_2/SiO_2 bichromatic coatings for pulsed laser fusion appls. at 0.53, 1.06 μm, damage thresholds 2−65283
TiO_2/SiO_2 reflective coatings, loss factors, surface scatt., volume scatt. and absorptance *(Chinese)* 2−55061
TiO_2/SnO_2 ceramic moisture sensor, elec. resistance stability, SEM, powder X-ray diffr. exam. 2−74398
n-TiO_2-aqueous electrolyte interface, photoinduced and dark charge transfer obs. 2−92747
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
TiO_2-n-F_2O_3/NaOH/Pt cell, impedance response, equivalent circuit anal. and expt. study 2−78231
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
TiO_2-SiO_2 gel prep. to obtain high homogeneity glasses by low temp. synthesis 2−77796
TiO_2-SiO_2 glass, ramp-wave generation 2−71566
TiO_{2-x}:Pt ceramics, heat treated, elec. rectification obs. due to $PETi_3$ lamellar microstruct. 2−115748
TiO_x, elec. resist. for $0.80<x<1.23$, positive and negative temp. coeffs., theoretical model 2−77056
TiO_x film, reactive magnetron sputtering 2−87980
TiO_x, metallic elec. and thermal cond., magnetoresistance, O conc. and temp. depend. 2−61439
Ti_2O_3, Ar sputtered, photoemission studies 2−116330
Ti_2O_3, surface electron struct., defect, chemisorption effects 2−82421
Ti_3O_5, mixed valence, elec. cond. below Verwey temp. 2−71968
Ti_4O_7 crystallographic shear phase, oxidation, defects, electron microscope study 2−91985
Ti_4O_7, mixed valence, elec. cond. below Verwey temp. 2−71968
Ti_xO_{2x-1} (x=2 to 9), single cryst. growth by CVD 2−105056
TiO_2(B) to anatase transformation, crystallographic shear explanation *(French)* 2−66206
$Ti(OH)_4$, behaviour in high vac. of XPS spectrometer 2−99739
$Ti_4O_5(Nb_4N_5, Ta_4N_5)$, interstitial superlattice struct., comparison with Ni_4Mo (Ni_4W) struct. 2−55955
TiO_2SiO_2 multilayer dielectric coatings, damage thresholds in CW lasing 2−86019
$TiO_2.nH_2O$, proton transport, ^1H NMR study 2−93044
TiS, electronic charge density and bonding in NiAs-type solid 2−76921
$TiS_{1.7}$, structural and electronic characteristics 2−115749
TiS_2 (1T), p-d gaps, relativistic corrections 2−110240
TiS_2, elec. resist., T^2 temp. depend. 2−66550
TiS_2 intercalated with Li, elec. props. 2−66529
TiS_2, optical transitions, symm. depend., refl. spectra 2−57120
TiS_2, semicond., Hall coeff., elec. cond., electron-phonon scatt. 2−77041
TiS_2, $TiSe_2$, struct. rel. to lubrication performance 2−109901
TiS_2-1T, lattice instability and electron-lattice interaction, Jahn-Teller mechanism 2−98210
$TiS_2Ag_{0.33}$, superlattice melting study 2−103958
$TiSe_2$ (1T), p-d gaps, relativistic corrections 2−110240
$TiSe_2$, EXAFS spectra 2−72579
$TiSe_2$ intercalated with hydrazine, transport props. 2−98626
$TiSe_2$, optical transitions, symm. depend., refl. spectra 2−57120
$TiSe_2$, semimetal, elec. cond., high pressure phase transformation, Hall coeff. 2−77041
$TiSi_2$, appls. in MOS technology 2−104501
$TiSi_2$, formation, radioactive ^{31}Si marker study 2−115472
$TiSi_2$-Si, Schottky barrier height measurement by electron-beam induced voltage 2−92721
Ti_5Si_3 coatings on Ti, high-temp. oxidation 2−67592
$TiTaO_4$, struct. and mag. props. 2−86634
$TiTaO_7$, defect struct. at elev. temp. 2−87271
$(Ti_{0.9}V_{0.1})_2O_3$, spin glass, nonlinear susceptibility, field depend. 2−66831
$(Ti_{1-x}V_x)_2O_3$, semimetallic, elastic moduli, press. depend., slow shear mode softening near x=0.04 2−81874
Tib, first wall coating, preferential sputtering partial yields 2−80212
tiO single crystals, ordered modification with O, crystal-geometrical features *(Ukrainian)* 2−65945
$TlNO_3$, struct. param. derived from O 1s ionisation pot., XPS 2−85743
UO_2-TiO_2, elec. cond., effects of doping 2−87262
ZnO-TiO_2, struct. and chem. comp. of transition region 2−76851
$Zr_xTi_{1-x}Se_2$, EXAFS spectra 2−72579

Tokamak devices
10 kHz 10MW average power neutralised Li ion beam injector 2−96308
Alcator A Tokamak, continuum X-ray emission 2−65701
Alcator C, oscillatory disruptions, spectroscopic obs. 2−60791
Alfven wave heating, MHD computations 2−109542
Argonne plasma engineering expt. Tokamak design and operation 2−102260
axisymmetric toroidal plasmas, high-n collisionless ballooning modes 2−109475
ballooning stability in Tokamak, diamagnetic drift freq. effects 2−71250
beam-heated, impurity evolution calc. 2−55749
bundle divertors, constrained ripple optimisation code 2−91650

Tokamak devices continued
circular cross section, beta limit, stabilising effects 2−113741
coated materials for Tokamak fusion device appl., thermal fatigue props. 2−74909
computerised central system structure and equipment selection 2−65774
controlled thermonuclear fusion electrical engineering problems 2−64638
controlled thermonuclear reactions, brief progress review 2−96300
density oscillations in Tokamak-10 device, expt. and simulation *(Russian)* 2−76073
DITE, impurity radiation during neutral injection 2−71114
DITE Tokamak, species and impurity meas. in intense neutral beams 2−97768
DITE Tokamaks, arcing impurities, cathode erosion rate meas. of vacuum arcs 2−103475
Doublet III, cold high-density plasma obs. near limiter 2−109598
Doublet III, dee-shaped plasma, equilibrium and axisymmetric stability 2−109491
Doublet III, low-q, high-density discharges, with D-shape or circular section 2−71236
Doublet III and Big Dee Tokamak vacuum vessels, design 2−85246
Doublet III fusion machine nears crucial test phase 2−113743
Doublet III limiters, TiC coating on graphite, process evaluation and characterisation 2−74899
Doublet III metallic limiters, changes in near-surface microstructure 2−74901
Doublet-3, magneto-acoustic cyclotron instability due to neutral beam injection 2−109490
Doublet-III, impurity reduction and remote radiative cooling with single-null poloidal divertor 2−97769
EBT-S wave props., inhomogenity effects 2−109577
edge diagnostics, ion trapping and Langmuir probes and bolometer techniques 2−86477
electromagnetic systems for tokamak reactors, engineering problems 2−64639
elliptical cross-section, plasma kink instabilities, perturbation calc. 2−65706
Faraday rotation meas. in Tokamak, using magneto-optically modulated CH_3OH laser 2−97788
first wall damage in Cat-D and D-T types 2−109605
first wall erosion and plasma impurity flux reduction 2−74907
first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
Frascati Tokamak, energy confinement at high density 2−81554
Frascati Tokamak, energy confinement time, scaling with minor radius 2−81560
Frascati Tokamak, O impurity behaviour 2−71249
Frascati torus, high density Tokamak discharge, enhanced particle recycling, optical study 2−97771
FT machine, polarimetric density meas., expt. approach 2−109599
fusion applications, book contrib. 2−71252
fusion devices, press. and gas flow meas. techniques 2−55789
fusion devices C-SiC structured composite limiters for ablation control 2−74902
Fusion Engineering Device pump limiter material consideration 2−74904
fusion plasma, far IR laser scatt. study of density fluctuations 2−76192
fusion reactor, neutron streaming, staged Monte Carlo calcs., statistical errors, bias 2−64636
fusion reactor, supercond. thin solenoid design optimisation 2−88480
fusion reactor plasma, contour analysis 2−108119
fusion reactor technology based on Tokamak principle *(German)* 2−90286
fusion reactors, alpha-particle distrib. function, collisional losses, Fokker-Planck basis calc. 2−81556
fusion research with magnetic plasma confinement *(German)* 2−91644
fusion test reactor diagnostics and instrumentation, nuclear aspects 2−74896
gas breakdown in the T-7 Tokamak *(Russian)* 2−76169
gas ionisation in toroidal discharge, Tokamak and stellarator conditions *(Russian)* 2−91704
harnessing the Sun's fire on Earth 2−108120
heating at first harmonic of electron cyclotron resonance *(Russian)* 2−60773
HF plasma heating of Tokamak machines using high-power klystrons *(German)* 2−115022
high-β Tokamak equilibrium with anisotropic pressure 2−86455
homopolar generators, shockwave, disc-type, with gas-pressure supported rotor for pulse power supply systems 2−64642
homopolar generators, shockwave, for power supply to thermonuclear installations 2−64641
internal kink mode stability 2−97725
INTOR, LHRF heating, numerical simulation 2−113742
INTOR−the next step in the fusion program? *(German)* 2−91645
INTOR divertor collector plate, materials selection 2−74903
INTOR Tokamak ballooning stability, alpha-particle diamagnetic drift effects 2−109560
ion temp. determ. using waveguide CO_2 laser to pump the far-infrared (FIR) laser optically *(Japanese)* 2−90925
ISX-B, isotope exchange, H recycling and impurities 2−71189
ISX-B Tokamak, neutral beam injection and gas puffing effect and impurity levels 2−74918
ISX-B Tokamak, plasma-limiter interactions, high-speed photographic obs. 2−76142
ISX-B Tokamak limiters using stainless steel, TiC, TiB_2 and B, operational history 2−74900
Japanese fusion program developments and current-status *(German)* 2−91648
JFT-2, Thomson scatt. study, simultaneous six position measurements 2−55788
JFT-2 Tokamak, electron cyclotron heating using an inside launch antenna 2−97758
JFT-2 Tokamak, high-β plasma, MHD equilib. position and poloidal β from mag. probes, theory 2−115032
JFT-2 Tokamak, particle confinement during high-power neutral-beam injection 2−109561
JIPP T-II torus device, ECR discharge cleaning *(Japanese)* 2−115035
JIPP-II Tokamak, tearing modes, saturation theory 2−81464
local electron heat conduction in Tokamak-10 *(Russian)* 2−55777
lower hybrid heating, toroidal effects 2−109539
magnetic fluctuations, ambipolarity, charge filamentation, and plasma rotation in Tokamaks 2−97775
magnetic mode growth in anisotropic contrastreaming plasmas in Tokamaks 2−81470

Tokamak devices continued
microprocessor-controlled phase analysis for a 2-mm microwave interferometer on the TCA Tokamak 2−81588
molecular impurities penetration at Tokamak edges 2−109556
multichannel light detector system for visible continuum measurements on Alcator C 2−112988
next generation Tokamaks, book contrib. 2−71255
noncircular cross-section Tokamaks, mag. anal. 2−109476
noncircular TNT-A, electron temp. and density, Thomson scatt. meas. 2−97786
Ohmic heating circuit (PRETEXT) for Tokamaks 2−115021
Ohmically heated Tokamak plasma, relation between light and metal impurities 2−109559
PDX Tokamak, soft X-ray meas. 2−103318
PDX Tokamak plasma impurity diagnosis using a multichannel grazing-incidence spectrometer (SPRED) 2−91663
plasma, neutral deuterium ionisation, Fe ions contrib. 2−109459
plasma column compression, effects of conducting vacuum chamber 2−109566
plasma transport in a stochastic magnetic field ambipolar electric field and ambipolar diffusion 2−97709
plasma-position control systems 2−64648
PLT, deuterium incident on limiter-like probe, flux and energy 2−76174
PLT, Fe transport in confined high temp. plasma 2−109565
PLT, intensive H influx, radiation and impurity density changes 2−71087
poloidal divertor system ergodic behaviour of mag. field lines 2−97765
power supply systems for tokamak thermonuclear installations 2−64640
PRETEXT Tokamak, design 2−91651
reactor plasma, impurity generation 2−74916
Rotamak equilibria, expt. obs. 2−71246
screw-pinch Tokamak, time and space evolution 2−81558
second electron cyclotron harmonic effective opacity of dense Tokamak plasmas 2−97730
sensitivity study, FORTRAN code 2−85323
stability control method for large Tokamak, theory 2−115033
swimming pool type Tokamak reactor, divertor collector plate design 2−108135
TFR Tokamak limiter, thermal load during additional heating pulses and major plasma disruptions 2−65771
TFR Tokamak plasmas, impurity pump-out at two-ion hybrid reson. 2−109567
TFTR blanket module, source-to-incident flux relation 2−90290
thermal conduction appl. to Alcator, flutter interpretation 2−71251
thermonuclear ignition in Tokamak like configurations from scaling laws 2−59513
thermonuclear installation power supply injector systems design 2−64645
TNT-A noncircular Tokamak plasma props. meas., elongation ratio depend. 2−76172
Tokapole II noncircular Tokamak, $q<1$ discharges 2−109574
toroidal device, electron cyclotron current drive, kinetic theory 2−109557
TRAIL, EM rail gun limiter for fusion reactors 2−54652
TRIAM-1, turbulent heating, ion energy spectrum relax. 2−97755
unipolar arcs, initiation and spot types, influence of surface conditions 2−76173
US magnetic fusion program strategy and progress *(German)* 2−91647
vacuum arc behaviour rel. to cathode surface conditions 2−103496
vertically asymmetric equilibria, MHD stability 2−109564
wall material transport meas. using nuclear activation techniques 2−103407
WT-2, submillimeter wave scatt. from density fluctuations 2−97787
D-T plasma, ion tails and neutron rates due to lower hybrid waves, quasi-linear calc. 2−109541
D-T Tokamak reactors, plasma edge and divertor characts. 2−65747
He leak detection in Tokamak vacuum system in D_2 atmos. 2−84640
Ti coatings, vapour-deposited, exposed in MACROTOR and MICROTOR 2−92392
Zr-Al alloy, compatibility in Tokamak 2−69851

tomography, computerised *see computerised tomography*

tool steel
abrasive wear resist. improvement, cryogenic treatment 2−116556
cutting tool carbonitriding in salt baths 2−67643
die, hardened with vanadium carbonitride, props. 2−111211
heat resistant, die, struct. and mech. props., alloying effect 2−111243
high speed, fracture toughness testing, precracking 2−93720
high speed, precip. of carbidic phases during tempering 2−88090
high speed, S 6-5-2 (M2), Nb and C effects on struct. and tool life *(German)* 2−57360
high speed, S 6-5-2 and S 10-4-3-10, cooling during hardening process, effects on toughness *(German)* 2−57367
high speed powders, gas-atomised, solidification struct. 2−88023
high speed R6M3 and R6M5, mag. and elec. props. after heat treatment, NDT appl. 2−67404
high-speed, effect of determ. under superplasticity conditions 2−62176
high-speed, hydroextruded, austenitic grain size 2−111197
high-speed, laser strengthening *(Russian)* 2−67625
high-speed, powder prod. by pneumoacoustic atomisation, mech. characts. 2−67250
high-speed, pulsed mag. fields effect on fatigue resist., magnetostrictive substruct. strengthening *(Russian)* 2−67487
high-speed, steel-TiC composite, high-density material, processing parameters, struct. and mech. characts. 2−67262
high-speed, struct. and props., Ce addition effect 2−111242
high-speed, tempered carbides, precip. sequence interpret. 2−105150
high-speed, type R6M5, powders, primary crystn. features at high cooling rates *(Russian)* 2−62112
primary carbides, vol. fraction, new procedure for determ. 2−57564
stress distribution in specimens with fatigue cracks, X-ray diffr. determ. 2−67697
wear resistance improvement by electrospark alloying *(Russian)* 2−67551
wear under boundary lubrication, effect of heat treatment 2−88206
TiC(N) CVD coatings *(Hungarian)* 2−57305

topography (Earth)
see also geology; geomorphology
Antarctica, ice thickness and geodetic meas., maps 2−111981
atmosphere boundary layer, wind flow over low arbitrary hills 2−100433
atmosphere boundary layer flow over low hills, appl. of computer model to real terrain 2−100428
Australia, seismic study of crust thickness and isostasy 2−106080
China, effects of topography on climatic division *(Chinese)* 2−88942
comparison to Venus, plate tectonics presence test 2−63289
degree variances of Earth's gravit. potential, topography and isostatic compensation, spherical harmonic expansion 2−105883
digital image intensity surfaces, topographic classification 2−117512
Doppler geodetic point positioning database at DMA 2−57961
isolated topographic features, three-dimensional model of assoc. ship waves 2−100474
Kettles Hill, Alberta, appl. of computer model of boundary layer flow over low hills 2−100428
linear boundary value problem, general formulation 2−105888
lithosphere containing density heterogeneities, tectonics and topography 2−94318
Long Valley caldera, California, caldera floor uplift rel. to magmatic resurgence and Mammoth Lakes earthquakes 2−106064
Rhone Valley, France, topography rel. to violent valley winds 2−100470
river valley topography model 2−73595
terrain height and roughness effect on wind profile 2−68417
United States, image processing appl. 2−94520
variable grid digital elevation models, progressive sampling and contouring 2−100193
volcanoes, digital topographic models rel. to computer-assisted mapping of pyroclastic surges 2−117271

topology
see also catastrophe theory; graph theory
catastrophe theory in physics 2−69003
chemical constitution, distance-based topological index appls. 2−96762
complex quaternions, their connection to twistor theory 2−95145
condensed matter physics, topology of non-uniform media 2−98070
dispersive wave phenomena, analytic singularities based on topological singularities of dispersion relations 2−101176
dyon field topology and mag. charge relation 2−95602
energy hypersurfaces, isoelectronic and isoprotonic, nucl. charge space topology 2−80754
forced Lorenz system, chaos, limit cycles, topology 2−79478
gauge theory, topological excitations, renormalisation group anal. 2−64215
hadronic mass-relations from topological expansion and string model 2−54126
Helmholtz equation exterior problems, Galerkin-Petrov method 2−94977
lattice gauge field topology 2−101509
magnetic charge quantisation, topological meaning 2−74597
mappings of topological spaces, elementary props. 2−53480
matter fields, cosmology, topology and field theory 2−101101
MHD equilibrium, nonequilibrium of nonsymmetric hydrodynamic topologies 2−112311
microphysical particle structure probing by period integrals 2−95689
multi-dimensional potential energy surfaces, topography 2−80760
non-Abelian gauge theory, topological susceptibility in finite space-time vol., semiclassical formula 2−101519
O(3) lattice, topological charge 2−101514
overtopologies and their algebraic significance 2−69002
plasma hydrodynamic models, freezing-in integrals and Lagrangian invariants *(Russian)* 2−97720
Polyakov string theory, pomeron singularities, saddle point anal. 2−101694
pre-atlas manifolds and coordinate-free general relativity 2−53608
quantum gravity in 1+1 dimensions with zero cosmological constant, exact soln. 2−79457
quark chirality, topological representation 2−79831
quark-colour switching, smooth topological representation 2−79830
quasi-Abelian Yang-Mills configurations, topological props. and mag. charge 2−107525
solitons, field model with unit topological charge 2−95592
spin systems, topological excitations, renormalisation group anal. 2−64215
three-dimensional separated flow topology 2−97492
Pd, hardness and topology changes on H_2 absorption-desorption cycling 2−93606

torque
see also Scott effect
atoms, optically pumped, spin relax. at surfaces, mech. torque generation 2−62021
bar, variable section, torsion, theory of small elastico, plastic deform. *(Russian)* 2−91268
galaxies, torque due to gravit. interactions rel. to origin of angular momenta 2−89384
glass fibre reinforced epoxy laminate, failure under dynamic torsional loading 2−88194
induction motor windings with non-linear magnetisation characts., current shape anal. *(Slovak)* 2−56889
magnetic field, saturable, EMF, torque and stiffness, finite element anal., stationary method 2−80874
polyester shells, pressurised, circular cylindrical, postbuckling behaviour, expt. 2−70879
tube, elastic-plastic, thin-walled, finite strain tension torsion test 2−55447
Venus atmosphere circulation, surface torque rel. to irregularities of planetary rotation rate *(Russian)* 2−100792
viscoelastic body, spin axis torque due to tidal deform. 2−105887
$(Fe_{1-x}Co_x)_3Se_4$, mag. easy-axis transition, magnetisation and mag. torque study 2−66810
Gd Co amorphous films, torque curves meas. *(Russian)* 2−98926
HoNi, magnetisation easy direction, temp. depend., mag. torque study 2−72166
K, induced torque temp. depend. 2−110617

torque measurement
see also dynamometers
DEER rheometer method with const. stress for rheological meas. *(French)* 2−65543
roll load during cold strip rolling, contact stress distribution meas. 2−64016
vane rotating in fluids, dimens. anal., classroom expt. 2−68988

torque meters *see torquemeters*

torquemeters
No entries

Torrey oscillations (NMR) *see double nuclear magnetic resonance*

torsion
see also stress analysis
axial torsional oscillations, automatic recording 2−114744
bar, cylindrical elasto-plastic torsion, numerical anal. 2−81251
bar, internal stress generated by plastic loading, X-ray meas. *(German)* 2−62336

torsion continued
bar, variable section, torsion, theory of small elastico, plastic deform. *(Russian)* 2−91268
bars, torsional, with angle sections, SIF K_{III} calcs. for cracks, torsional rigidity *(Chinese)* 2−103090
beam, prismatic, plastic analysis of torsion 2−86216
beams, finite element for study of coupled bending-prevented torsion 2−97374
beams, thin-walled open section, free vibr. with unconstrained damping 2−97427
bone, compact, couple stress effects, transient study, torsion 2−62664
bone, human tibia, torsional stress anal. by finite element method 2−94097
boundary integral equation, formulations effectiveness for axisymmetric elastostatic problems 2−81240
cantilever, unsymmetric cross section, combined torsional and flexural buckling under normal loads 2−114689
ceramics, failure prediction by strength and fracture mechanics, comparison 2−88165
combined longitudinal and shear plastic waves anal. by continuum theory of dislocation 2−65500
composed torsion pendulums, comments on drawbacks in theory 2−64020
constitutive equation, hereditary-type, identification by torsion test 2−97394
crack growth in notches under torsion, DC potential drop method of monitoring 2−88303
crack growth monitoring in torsionally-loaded samples, DC elec. pot. method 2−97475
cylinder, circular, hollow, with laminated periodic struct., free torsional vibrs. 2−60446
cylinder, clamped/free, hollow, circular, dynamic response to travelling torsion impact loads 2−65510
cylinder, hollow, orthotropic, visco-elastic, torsion waves *(Russian)* 2−91292
double torsion test, crack front shape effects 2−116653
ductile materials, deformed in torsion, failure anal. 2−56074
elastic cylindrical bars 2−55446
elastic isotropic body, flat toroidal crack, stress intensity factors 2−75904
elastoplastic bodies obeying Hencky's constituent law, finite element analysis 2−84443
glass fibre reinforced epoxy laminate, failure under dynamic torsional loading 2−88194
glass fibre reinforced plastic, ultimate resist. under proportional deform. conditions 2−62211
internal friction in solids, torsion pendulum meas. technique 2−98197
isotropic half-space under torsion, mixed boundary value problem 2−65482
magnetostrictive polycryst. material vibrs., hysteresis damping, phenomenological theory 2−66883
membrane, cylindrical, nonlinear elastic axisymmetric deformation with torsion 2−103033
metal-matrix composite wire appl. of torsional wave vel. meas. technique 2−92113
metallic materials, torsion testing *(German)* 2−72925
model adhesive joints, failure loads when subjected to tension, compression or torsion 2−97454
multihole circular cylinders, shear stresses and torsional rigidities 2−103065
nonlinearly elastic rods, large buckled states under torsion, thrust and gravity 2−55462
pendulum for studying phase transitions in ferroelastic crysts. 2−107319
plate, large inextensional deform., eqns. of motion 2−89537
plate interaction with rib twisted by moment *(Ukrainian)* 2−114736
PMMA double torsion specimens, geometrical obs. on crack front profiles 2−116529
polyester shells, pressurised, circular cylindrical, postbuckling behaviour, expt. 2−70879
polyethylene films, crystalline, struct. mol. mobility, photoelasticity and torsion pendulum obs. *(Russian)* 2−110813
polymer, glassy, deform. props. prediction using dislocation analogy 2−62183
resonant systems Q-factor and internal friction meas., using digital meter 2−58813
rod, cylindrical, connected to an elastic half space, forced torsional vibrs. 2−103081
rod, inhomogeneous isotropic viscoelastic square, torsion 2−81257
rods, thin, skew-curved, large elastic deformations 2−55419
sapphire cylinders, torsional vibrs., electrostatic method investig. 2−103076
scale for meas. of small gravitational field gradients 2−74386
screw dislocations, strain due to continuous isotropic dislocation distrib., torsion tensor 2−115244
shaft, elastic axisymm. hollow, optimisation of torsional rigidity 2−114648
shafts of revolution, grooved, torsion, max. principles and bounds on stress conc. factors 2−109177
shell, cylindrical, with circular hole, compression, torsion and bending, stress anal. 2−55438
shell, shallow spherical, states of uniform twisting and shearing, circular hole effects 2−55445
shell, thick-walled, nonhomogeneous, finite, free torsional vibrs. 2−60445
shells, circular cylindrical, under tension and torsion, optimum hole shapes 2−97376
shells, cylindrical axially stiffened, mode interaction, stringer axial stiffness, torsional rigidity and eccentricity effects 2−91289
spherical cells, shallow, twisting and shearing states, rigid circular inclusion effects 2−103052
steel, C, fatigue life estimation, under combined bending and torsional stresses *(Japanese)* 2−72816
steel, C-Mn, hot ductility, effect of non-metallic inclusions 2−83196
steel, ferritic stainless, 26 Cr-1Mo, substruct. influence on strength 2−111234
steel, low alloy, Mode III fatigue crack propag. 2−67521
steel, medium C, fatigue crack growth regularities under torsion 2−116669
steel, mild, hollow cylinders, strength of surface layer 2−57434
steel mild, crack growth in notches under torsion, DC potential drop method of monitoring 2−88303
steel reinforced Al conductors, coupled axial torsion model 2−116498
steel type medium, energy dissipation and yield limit determ., strain/temp. coupling effect *(Polish)* 2−83180
torsion continued
steel wire, austenite-martensite transform. induced by torsional strain, mag. obs. 2−72696
tube, elastic-plastic, thin-walled, finite strain tension torsion test 2−55447
Al alloy, 2618-T61, simultaneous stress relax. in tension and creep in torsion 2−105269
Al alloy, creep under combined tension and torsion and stress reversal, nonlinear model predictions 2−93577
Al, pre-strained pure, low-cycle fatigue *(Japanese)* 2−62199
Cu, polycrystalline, low temp. fatigue, grain size effect *(Japanese)* 2−77920
Cu, shear stress and stored energy, high purity samples, influence of strain rate *(German)* 2−77893
Cu, tough-pitch, fatigue crack growth rate comparison between in-plane bending and cyclic torsion *(Japanese)* 2−62198
Cu, wrought, engng. fatigue props. review 2−88161
Fe, grey cast type medium, energy dissipation and yield limit determ., strain/temp. coupling effect *(Polish)* 2−83180
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, Metglas, heat treatment effect on internal friction 2−62151
NaO_2-B_2O_3-SiO_2 glass, internal friction *(Japanese)* 2−83161
Ni rods under torsion, crit. stress and cryst. anisotropy effect 2−72320
Ti, internal friction, temp. depend. *(Russian)* 2−115351
V, mechanical twinning effect on T_K *(Russian)* 2−98781

torsion loading *see torsion*

touch *see mechanoception*

town and country planning
global modelling, conf., Dubrovnik, Yugoslavia, (Sept. 1980) 2−78172

Townsend coefficient *see Townsend discharge*

Townsend discharge
air, analysis of Paschen curves using Townsend breakdown eqn. 2−109450
dichlorodifluoromethane-N_2(air) mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
ionisation growth in strong uniform elec. fields, theory 2−115076
ionosphere plasma, neutral beam interactions, Alfven's critical vel. effect 2−112224
microscopic theory of electron avalanche 2−103268
surface topography and flaw detection using elec. discharge imaging as NDT 2−72933
transport coeff. determ. in O_2 and dry air 2−103246
Ar, ionisation coeff. determ. at high press. 2−86496
Ar-Ne mixture 2−103267
Ar-Xe, ionisation coeff. determ. at high press. 2−86496
CO_2-N_2(air) mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
N_2, analysis of Paschen curves using Townsend breakdown eqn. 2−109450
SF_6, analysis of Paschen curves using Townsend breakdown eqn. 2−109450
SF_6-N_2 mixture of electronegative and buffer gas, electron attachment coeff. meas. 2−97698
Xe, ionisation coeff. determ. at high press. 2−86496

tracers
see also radioactive tracers
exotic tracers for atmospheric studies 2−94507
haemoglobin, tracer diffusion coeff determ. by pulsed field gradient NMR 2−105640
halocarbons, appl. as tracer substances for distrib. patterns of chlorinated waters in coastal areas 2−111604
oceanographic dye patch monitoring by airborne LIDAR 2−106337
$NiSi_2$ film formation, diffusion, Xe marker study 2−104079
Si, diffusion of $^{69-71}$Ga isotopes, SIMS studies 2−104070

track visualisation, particle *see particle track visualisation*

tracking
see also radar
ocean surveillance, attribute problem, combined probabilistic and fuzzy set technique 2−63147
phase and frequency tracking by forward dynamic programming 2−60311
radio source tracking by RATAN-600 radio telescope, appl. of plane-mirror operation 2−94595
sinusoids in noise, instrumental-variable frequency estimation and tracking 2−60310
solar power station with mirror panels array concentrating solar radiation onto absorption-type heater for steam generation *(French)* 2−57723
US frequency-tracked gated-pulse spectral analyser 2−78056

tracking (insulation) *see surface discharges*

tracking (sonar) *see sonar*

tracking systems
see also ground support systems; radar systems
aircraft tracking system for coordinated research missions 2−100570
free falling objects, constant magnification viewing by optical carriage mechanism 2−60214
GMS-2 geostationary meteorological satellite, USB Tracking, Telemetry and Command system *(Japanese)* 2−83965
solar powerplant tracking system cost considerations 2−116786
UV LADAR for tracking explosion plumes and ejecta 2−93972

tracks, particle *see particle tracks*

traction
discharge indicators for commercial batteries, evaluation and new approach based on dynamic impedance meas. 2−111547

tractive effort *see traction*

trade *see commerce*

trade fairs *see exhibitions*

trade shows *see exhibitions*

traffic
see also rail traffic; road traffic; telecommunication traffic
quasiline noise source for urban traffic, moving flow 2−102977

training
see also education; teaching
engineering sciences, education, training and research 2−68992
fission reactor core surveillance and operator training, simulation techniques *(Japanese)* 2−74859
hologram potential for improved communication in education and training 2−63788
Limerick BWR-4 simulator 2−102185
LWR, accident dynamics, economic simulation 2−102249

training continued
nuclear power plant operational training simulators, design in light of TMI 2—102247
nuclear power plant operational training simulators, upgrading for accident simulation 2—102248
nuclear power plant operator training simulator capability improvement in light of TMI-2 accident 2—102184
nuclear power plant training simulator improvements in Japan for greater safety 2—102182
nuclear power plant training simulators, lessons from recent accidents 2—102246
nuclear protection, SIM80 gamma ray simulator 2—100131
photography and audio-visual materials production, training courses 2—53863
pulse power systems, graduate course curriculum 2—94942
pulsed power education of Texas Tech University, in USA 2—94944
pulsed power technology lecture series for USAF at Texas Tech University, modular instructional 2—94943
vacuum technology, lab. package for training 2—84427

tramcars *see road vehicles*

transceivers
NQR coherent relaxometer, transceiver 2—89764

transducers
see also accelerometers; acoustic transducers; actuators; extensometers; Hall effect transducers; piezoelectric transducers; pressure transducers; strain gauges
AC force transducer using amorphous ribbon cores 2—84613
angle, microcomputer-based certifying device using reference transducer 2—63976
angle transducer circuit, anal. and design *(Chinese)* 2—69157
back-action evading transducer for gravitational radiation antennae 2—112796
Buckle transducer, appl. and evaluation in knee ligament force meas. 2—105878
calibration, for vibration and shock meas. 2—58806
capacitive transducer linearisation, of strain-gauge balances 2—58809
chronically implanted transducer appls. for cervical motility in baboons 2—94265
diameter transducer for direct dynamic meas. of trachea 2—73403
displacement, based on reactive sensors in transformer ratio bridge circuits 2—79560
displacement, helicoid multivibrator type, design 2—58807
displacement, with photoreceptor array 2—95475
displacement meas. using linear variable differential transducers, state of art 2—79566
eddy current transducer, thermal instability 2—58811
electric field intensity in conducting medium meas., transducers classification 2—58810
electrical force measuring transducers review 2—95358
electrically conductive single layer coatings, thickness inspection optimisation with laid-on eddy current transducers 2—89692
electronic sensors and analysers, book 2—84396
ferromagnetics parameters meas. at HF, primary transducers stability improvement 2—58861
fibre-optic, types, development and applications 2—95342
flow transducer difference freq. detector cct. 2—103233
foil strain gauges for stress analysis and for transducers 2—95355
force, pressure, displacement and flow sensors, conf., Enschede, Netherlands (May 1982) 2—94913
force and weight measurement, review 2—107303
force measurement, quantum amplifier limits 2—84590
gas anal., compensation for nonoptimal transducer selection *(Russian)* 2—67790
gravitational wave antenna with electrically reson. transducer 2—89605
high temperature extensometer for creep and fatigue testing 2—72894
HP HEDS-5000 electro-optical tachometer for microprocessor systems *(German)* 2—69155
hybrid, combined semiconductor and magnetic transductor technology appl. *(German)* 2—74405
IC temperature transducer, low power, high sensitivity and easy calibration 2—95341
implantable, biomedical telemetering appl. 2—83721
inductive, for electron flux meas. 2—80406
integrated analog multiplexer for array transducers used in ultrasound diagnosis *(German)* 2—94133
integrated Si magnetotransistor micro-transducer, rotation and angle detection appl. 2—95325
intelligent, with built-in semiconductor circuits for physical quantities conversion into digital signals *(German)* 2—76045
ionographic transducers in flaw detection 2—57580
laser radiation meas. transducer, standard means for meas. dynamic parameters 2—65276
linear displacement transducers with temperature compensation *(German)* 2—53751
longitudinal eddy current transducer design for inspection of small bearing components 2—83336
low-noise RF capacitance bridge transducer for studying displacement of a pendulum 2—95354
magnetic tape extensometer *(French)* 2—89754
magnetoresistive, with superconducting control lines, design and response 2—64011
magnetostatic variometer parameters computing, primary transducer stability assurance 2—58863
meniscographic, based on optoelectronic principle 2—64210
moisture optoelectronic transducer, LEDs based on heterojunctions 2—79594
monocharge electret headphone, characteristics calculation 2—114590
NMR spectrometer, switched receiver and transducer for 0.5 to 10 MHz range 2—69213
NQR spectrometer, regenerative wideband transistorised transducer 2—89768
optical fibre transducers 2—97215
optical fibre transducers and applications, 1982 status and future potential 2—65400
optical transducer development for precordial LF vibr. meas. system, heart disease diagnosis appl. *(Japanese)* 2—117047
optoelectronic, for length and thickness meas., technology status *(German)* 2—63981
optoelectronic displacement transducer for the neurophysiological lab. 2—105869
orthosis, lower limb, transducer for loads meas. 2—100158
polymer based capacitive hygrometer *(French)* 2—63128
pressure-volume-flow relations meas. in isolated rabbit hearts 2—100189
radiation energy charact. comparator calibration, using conjugate-comparator method 2—95471
SAW convolver using 3-phase unidirectional transducers 2—81195
SAW filters, low-loss low-ripple, using bidirectional centrosymmetric transducers 2—81196
self- and mutual inductance of a shielded externally mounted feedthrough primary transducer with a conducting tube 2—53750
signal processing circuits for eddy current transducers 2—67705
surface profile and texture meas. by laser interferometric transducer 2—112869
technology and appl., conf., Essen, Germany (Jan. 1982) 2—63752
temperature, contact, threshold sensitivity estimation 2—64034
temperature meas. in 0-400°C range, experience with GOST 8.009-72 standard 2—112901
temperature meas. with Pt resistance thermometers, electronic convertor circuits *(German)* 2—74415
thermoelectric convertor using Peltier effect at small temp. differences, theory 2—112887
vibration and shock meas., calibration and standards 2—53717
Si as mechanical material, review 2—92072

transductors *see saturable core reactors*

transfer functions
see also optical transfer function
EEG signal analysis, appl. of model of N-pole with random processes 2—83542
SAW devices with apodised transducers, transfer function deviation 2—97342
structural vibration anal., freq. depend. damping, transfer functions and numerical Fourier transform. 2—75888

transferred electron devices *see Gunn devices*

transferred electron effects *see Gunn effect*

transferred electron oscillators *see Gunn oscillators*

transfluxors *see magnetic cores*

transformations, phase *see phase transformations*

transformer substations
admin building heating by transformer station waste heat utilisation *(German)* 2—67875
transformer waste heat recovery for heating buildings *(German)* 2—67874

transformers
see also current transformers; potential transformers; power transformers; pulse transformers
cooling oil in transformers, flow simulation 2—91226
leakage field, magnetostatics, 3D problem, Fredholm integral eqn. 2—55012
steel, Si (3 wt.%), grain oriented, for transformers, mag. losses 2—72272

transforms
see also Fourier transforms; Laplace transforms
binary stars tidal evolution, coordinate transformation for highly eccentric orbits 2—89304
Bostick transform used for magnetotelluric data presentation 2—83745
composite plane containing thin elastic inclusion, elastic equilib., integral Mellin transform 2—55429
dipole-sheet transform 2—75531
higher Legendre transforms, relationship to Bethe-Salpeter kernels and r-field projectors 2—74595
Legendre transformations and equations for Green's functions 2—53985
nonlinear transformations, iterate sequences, asymptotic props. 2—69001
periodic sine-Gordon eqn., spectral theory 2—95600
phase retrieval using logarithmic Hilbert transform, algorithm for distortion reduction 2—60031
plate, nonhomogeneous magnetostrictive thin circular, with central hole, dynamic vibr. and stresses 2—109217
punch axisymmetric contact on elastic half-space, integral transform method 2—60490
$R^4 \rightarrow R^6 \rightarrow R^6 \rightarrow R^4$, composite transforms. 2—69013
seismic pulse problems, differential transform method 2—73696
sleep-wake patterns charact. rel. to sudden infant death syndrome, Fourier, Walsh and Haar transforms 2—62819
stochastic processes, transform theorem, counting statistics appl. 2—101324
translation invariant transformations, fast, for pattern and character recognition *(Slovak)* 2—55080
Weierstrass inverse transform for propagators calc. for time-depend. linear and quadratic pots. 2—101216

transient analysers
see also spectral analysers
laser Doppler system with transient recorder for study of particles in flowing fluid 2—74582
semiconductor transport equations, 3-D transient finite element model 2—71962

transient response
dissipative dynamical systems, statistics of turbulent transients 2—101325
EM fields transient anal., Bergeron's method adaptation to med. with resonance absorption 2—96801
forearm mechanical behaviour in response to transient perturbations 2—94091
ionic transient space-charge distribution, numerical anal. by hopping model 2—110027
lossy magnetoplasma, transmitted impulse response by convolution method 2—91623
loudspeakers, transient meas. method for finding equivalent electrical network 2—55394
RELAP-5 computer code for reactor transient behaviour during loss-of-coolant accidents, descriptive evaluation 2—108098
solar cell under illumination, minority carrier life-time determ. from steady-state and transient response 2—78208
Pd-InP Schottky diode H_2 sensors, sensitivity transient response and detection mechanism 2—89700

transient stability *see stability*

transient voltages *see transients*

transients
see also surges
chalcogenide glass, transient currents, high speed, explanation by valence alternation pairs 2—56671

transients continued
induction motor windings with non-linear magnetisation characts., current shape anal. *(Slovak)* 2−56889
LWR accident analysis using RELAP5 computer code 2−102255
MFTF neutral beam arc power supplies, output current transient elimination 2−69947
salt gradient stabilised shallow solar ponds, thermal behaviour 2−78257
thermionic electricity generating coaxial cell kinetic charact. calc., numerical algorithm advantages 2−93935
N_2 gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529
SF_6, development of predischarge currents in sphere to sphere arrangement for lightning impulse voltages 2−103262
SF_6, effect of coatings on impulse breakdown for electrodes with different surface roughness 2−103530
SF_6, gas filled gapped surge arresters, effect of microsurface of coaxial electrodes on time delay of step voltage breakdown 2−103529

transistor circuits
Used for general papers and papers where the use of transistors is significant
see also bipolar transistor circuits
NQR spectrometer, regenerative wideband transistorised transducer 2−89768

transistor-transistor logic
see also logic circuits
programmable sample dryer for thermal ionization mass spectrometer 2−95520

transistorised circuits *see transistor circuits*

transistors
see also bipolar transistors; phototransistors; power transistors; thin film transistors; unijunction transistors
No entries

transit time devices
see also IMPATT diodes
No entries

transit time noise *see random noise*

transition metal alloys
see also alloys of individual transition metals e.g. nickel alloys
see also copper alloys; gold alloys; silver alloys; transition metal compounds
amorphous, electrical resistance, pressure dependence meas. 2−77020
amorphous ferromagnet, magnetostriction, phenomenological theory 2−72324
d-band metals, pseudo Green's function theory for dil. alloys 2−71901
dilute, impurity system electronic struct., pseudopot. study 2−98575
electrical resistance, pressure dependence meas. 2−77020
electron-phonon coupling parameter, theoretical determs. 2−104269
electronic structure of metals and alloys, symposium, Gaussig, Germany (Apr. '81) 2−68968
ferromagnetism and spin glass ordering 2−72197
group IVB, $\alpha \rightarrow \omega$ transform. crystallography 2−91860
intermetallics, short range order above T_c, paramag. neutron scatt. study 2−72139
magnetic and structural transformations, H influence 2−67329
magnetic contributions in elastic moduli 2−92077
magnetovolume effects, molecular orbital study 2−66884
metallic glasses, binding energy of metalloid atoms 2−91806
Miedema's theory, microscopic basis 2−91866
noble metal-rare earth alloys, dil., magnetotransport and EPR props. 2−104355
omega phase formation, effect on mech. props. 2−77806
rare earth alloys, domain walls, role of the long-range exchange *(Russian)* 2−98905
rare earth-transition metal intermetallics, RM_6Al_6, (M=Cu, Mn, Fe), mag. props. 2−61734
secondary ion emission, bond breaking model, variation of chemical emission of secondary ions with composition 2−111013
shape memory behaviour 2−88139
shape memory behaviour 2−88140
superconducting transition temp. for narrow band alloys, random contact model 2−77222
superconductors, amorphous, review 2−66686
ternary alloys, conc., onset of magnetism, review 2−56853
Al-M, granules, resist to deform. 2−116412
$Ce_2Co_{17-x}T_x$ (T=Ti, V, Cr, Mn, Fe, Cu, Zr, Hf), mag. and crystallographic props. 2−72200
Co-M-Si-B, where M≡group IV to VIII transition metals, amorphous wire prod. by melt spinning into rotating water, mech. props. 2−105104
Cu-3d transition metal dil. alloys, residual resist. calc. using exact soln. of linearised Boltzmann eqn. 2−98618
Cu-M, polycrystalline, thermoelectric power meas. *(Russian)* 2−87230
Fe-M-B metallic glasses, mag. props. and thermal stability 2−87497
$Fe_{80}M_3B_{17}$ amorphous alloy, mag. and stress annealing 2−87554
$Fe_{80}M_3B_{17}$, M=transition metal, metallic glass, Mossbauer and corrosion studies 2−104769
$Fe_{80}M_3B_{17}$ metallic glasses, (M=transition metal), mag. after-effect meas. 2−87549
Sc-Si-M (M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
Si-R-M (R=Y, Ce, Ti, Zr, Hf, Sc, and M=Mn, Fe, Co, Ni, Cu), phase diagrams rel. to struct. charcts. 2−72669
Sm alloys, domain struct. charcts. appl. to phase anal. 2−72253
$Sm_2Co_{17-x}T_x$ (T=V, Ti, Zr, Hf), mag. props. 2−72171
$V_{90}M_{10}$ (M=Cr, Mn, Nb, Mo, Pd, Ta, W, Re, Pt, Au), supercond. crit. temp. and crit. field meas. 2−92805

transition metal complexes *see transition metal compounds*

transition metal compounds
see also compounds of individual transition metals e.g. nickel compounds
see also copper compounds; gold compounds; silver compounds; transition metal alloys
3d, L_{23} edge, EELS 2−108636
binuclear complexes, sudden polarization ab initio SCF calcs. 2−102662
carbene complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
carbide film-Al, interfacial reactions, expt. study 2−56368
carbides and nitrides, Tc, charge transfer model 2−72095
carbides of groups IVb and Vb, extended regular soln. model appl. 2−105499

transition metal compounds continued
carbonyl complexes, ^{13}C chem. shifts, interpretation 2−80673
carbonyls, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
carbyne complexes, maximum overlap and minimum orbital energy conform. studies 2−108358
complexes, α-dimine, photochemical reactivity, resonance Raman obs. 2−75291
complexes, charge distrib., 2-parameter relation calcs., XPS data 2−75165
complexes, orbitally degenerate, EPR spectra 2−110634
complexes, orientation effects in EPR powder samples induced by the static magnetic field 2−104686
complexes core binding energy, XPS study, ligand group shift 2−85735
deuterides, NQR by translational diffusion, mean field theory 2−110690
dichalcogenides, layered, low dimensional conductors, phys. props., review *(Japanese)* 2−82335
dichalcogenides, Raman scatt. from charge density wave phonons 2−104881
dichalcogenides, struct. rel. to lubrication performance 2−109901
dichalcogenides and their intercalation cpds., supercond., review *(Japanese)* 2−82517
disilicides, binding, two-correlations model 2−92498
electronic structure of metals and alloys, symposium, Gaussig, Germany (Apr. '81) 2−68968
fluorosilicates, surface damage under Ar ion bombardment, XPS studies 2−61045
fragments, MO electronegativities calc. using transition operator method 2−59968
gas phase ion complexes, thermomechanical props. of clustering reactions in gas phase 2−78081
Group VI dichalcogenides, semicond., photocurrent spectrosc. 2−87321
halides, final state interactions of inner core absorption excitation 2−67075
halides, resonant photoemission spectra 2−72603
hexacarbonyls, mixed, Raman spectra, vol. modulated freq. changes 2−77519
hydrides, Advanced Study Institute, Rhodes, Greece, (June 1980) 2−74142
hydrides, energy conversion systems, props. and appls. 2−111594
hydrides, low-temp. stable states, interstitial sublattices 2−86618
hydrogen production from solar energy using metal complexes 2−62507
inner core excitation spectra, absorpt. spectra 2−72598
inner core excitation spectra, p-XPS 2−72597
intercalation compounds with graphite, as catalysts of graphite to diamond conversion 2−67330
intercalation compounds with $VS_2(Se_2)$, X-ray absorpt. spectra and electronic struct. 2−67150
intraatomic Coulomb repulsion in Hubbard model, ferromag.-paramag. transition 2−115966
ion-H_2O(amine) complexes, semiempirical CNDO calc., σ-donor ability of H_2O 2−80482
layered chalcogenophosphates, effect of bond ionicity on Li electrochemical intercalation 2−71392
melting point, p-T phase diagram at high press. of H 2−71618
metal carbonyls, IR reflectance and Raman spectra, lattice modes 2−110851
metal complexes, metal-formylhydrazide, synthesis and characterisation 2−110848
metallic glasses, transition metal-metalloid, atomic radii, radial distrib. function 2−65871
monosulphides, metal-dielec. phase transition, two-band model 2−71871
nitride film-Al, interfacial reactions, expt. study 2−56368
nitride surface films, prep. and characterisation 2−82165
nitrides, phase diagrams and props., review 2−77813
oxide, lattice dynamics, three-body force shell and deform. dipole model effects 2−56114
oxide, surface oxidation state, Auger studies 2−72581
oxides, electron energy loss study of K near-edge fine struct. of O 2−104248
oxides, resonant photoemission spectra 2−72603
oxides, satellites in XPS 2−59859
oxohalo complexes, d^1 transition metal, electronic struct., SCF-MS Xalpha study 2−70145
pentacarbonyl bromides and decacarbonyls, IR reflectance and transmittance and Raman spectra 2−110852
porphyrin complexes, with group IV transition metals, picosecond spectroscopy 2−99154
precipitation, of sparingly soluble salts from aq. soln. heterogeneous nucleus numbers meas. 2−66229
Raman scattering from anomalous phonons 2−57089
silicide films, amorphous-cryst. transition, size effects, elec. cond. study 2−92407
silicide-Si interfaces, electronic struct., review 2−115847
silicides, germanides and gallides, cryst. struct., X-ray diffr. study 2−109760
silicides, thin films, resistivities 2−77203
sulphides, first and second row, electronic struct., SCF-SW-Xalpha cluster calcs. 2−70143
thiocyanato complexes, ESCA investigation, binding energies 2−83434
transition metal-carbonyl derivatives as photopolymerisation initiators and photocrosslinking agents in photoresists 2−58938
transition metal-H_2O complex, ab initio SCF MO study, Solomon-Bloembergen eqn. appl. 2−70137
transition-metal cation-TCNQ-cyclam complexes, synthesis and elec. resist. 2−93466
trichalcogenides supercond., CDW's and related phenomena, review *(Japanese)* 2−82256
CN^- complexes, ESCA chem. shift and low binding energy satellites 2−75352
M_nO_m-SeO_2-TeO_2 (M_n=V_2O_5, MoO_3, Nb_2O_5), glass formation at high press. 2−86576

transition metals
see also the individual transition metals e.g. nickel
see also copper; gold; silver
3d, L_{23} edge, EELS 2−108636
$(3d)^n$ ions, sp. ht. contrib. from spin-phonon interaction 2−92232
4d transition metals, positron wave function, anisotropy 2−62011
adsorbed molecules, AES study 2−110136
atoms, electron impact ionisation, excitation autoionis. effects 2−59945

transition metals continued
atoms, minimal-basis-adapted pseudopots. 2−113859
atoms of period IV and V, valence state, one-center param. depend. 2−90443
band struct., model Hamiltonian calc. 2−92450
BCC, simplified forms of Fielek model 2−115368
BCC, vacancy clusters, binding energies and electronic struct., tight binding calc. 2−109789
chemisorption energy polarisation effect, quasimolecule projection method 2−82141
chemisorption theory, simple, appl. to transiton adatoms on transition metals 2−92346
cluster chemistry and implication for hydrogen embrittlement, alloy behaviour and metal catalysts 2−91832
clusters in activated intermetallic hydrogen sorbers, ferromag.-paramagnetic transition 2−66233
core level binding energy meas., comparison of APS and FRESCA data 2−83430
correlation energy in a transition metal 2−87165
cubic, tetragonal shear moduli calcs. 2−115328
ductile metals, formation of wear debris by abrasion 2−88216
electromigration, theory 2−82039
electron-electron interactions 2−87134
electron-phonon coupling parameter, theoretical determs. 2−104269
electronic states of impurities of non-transition elements, Fano effect *(Japanese)* 2−71916
electronic struct. and soft X-ray emission spectra 2−76911
electronic structure of metals and alloys, symposium, Gaussig, Germany (Apr. '81) 2−68968
energy band calcs. of magnetism 2−66749
ferromagnetic, chemisorption of H, self-consistent model 2−115554
ferromagnetic, mag. props. above T_c 2−66788
ferromagnetic, strong short range mag. order above Curie temp. 2−110594
field ionisation, effects of H_2 *(German)* 2−103569
ground state props. calc. method 2−115643
group III, electron energy absorption spectrometry *(German)* 2−113084
group IVB, $\alpha \rightarrow \omega$ transform. crystallography 2−91860
HCP, lattice dynamics, dipole fluctuation model 2−81912
HCP transition metals, nucl. spin-lattice relax., ab initio ASA-SCF-LMTO linear tetrahedron calc. 2−98985
hopping integral influence on elec. props. 2−104347
impurities in SrO, energy states 2−71903
interatomic correls. of valence electrons, Hubbard model 2−110274
ionic potentials calc. from resonance model, S-matrix theory appl. 2−76879
ions, antisymmetric exchange effect on EPR spectra 2−116055
ions, bridging props. in electron transfer reactions 2−105449
local moments and magnetic ordering 2−77289
magnetic and structural transformations, H influence 2−67329
magnetic contributions in elastic moduli 2−92077
magnetic phase diagram at zero temp. 2−66817
magnetic thin films, amorphous and cryst., electron and spin density distrib., bubble memories appl. 2−82677
5d metals, final state screening systematics, bremsstrahlung excited Auger spectra 2−99209
model pseudopotentials, OPW calcs. *(Russian)* 2−56433
noble metals, optical props., data collection 2−93138
normal mode vibr. freqs. and struct. props., total energy calcs. 2−103688
nuclear acoustic reson. study of electron-lattice interaction 2−56950
omega phase formation, effect on mech. props. 2−77806
phonon spectra in Frohlich approach, appl. to transition metals 2−92132
photoemission studies of surface core-level shifts and their applications 2−87941
recombination-emission spectra fine struct. 2−61963
refractory, surface carbidisation by elec.-spark alloying 2−67658
second row, optimised Gaussian basis set calcs. 2−108359
semiconductor:M, luminesc. of deep centres 2−57152
semiconductors doped with 3d metals, light absorption perturbation theory 2−104828
solubility of H_2, surface effects, kinetic model 2−76836
spin susceptibility, local and non-local, calc. 2−98854
Sternheimer antishielding functions, Hartree-Fock estimates 2−82304
stimulated proton desorption 2−87027
surface, CO hydrogeneration, heterogeneous catalysis 2−105507
surface electrons, book contrib. 2−66615
surface kink electronic structure 2−56666
surface mag. moments and electronic struct., Hubbard model 2−115980
surfaces, mech. of near threshold stimulated desorption of protons 2−87045
surfaces, work function, polarisation model, Huckel LCAO MO calc. 2−115858
total energy computation by model electron density functional 2−61384
transition metals, energy-momentum band structure, angle-resolved UPS obs. 2−111019
vacancy clusters, electronic struct., binding energy, atomic relax. 2−87174
X-ray absorpt. spectra, K- and L-edges 2−77624
X-ray emission spectra, electron-electron interaction 2−72580
Si, transition metal interstitials, impurity states, many electron effects, SCF Xα cluster calc. 2−82283
Si, transition metal interstitials, impurity levels, many electron effects, SCF Xα cluster calc. 2−82284
Si-metal bilayer, laser writing for optical storage, TEM and electron diffr. study 2−91011

transition moments
asymmetric top mols., spin vibronic transition moments and phases of spin-orbit matrix elements 2−80732
diatomic molecules, dipole and transition moment, vibr. intensities 2−85625
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2−62553
methane, ν_4 band strength determ. from diode laser line strength meas. 2−108632
methane, vibr. states, IR spectral line assignments and strengths 2−90540
organic prolate mols., rot. motion in soln., luminesc. study 2−104966
orientation factor and rotation of molecules in luminescent solutions 2−59912
oscillator strength anomalies as described by antisymmetrised geminal power wave function 2−108628

transition moments continued
polyatomic mols., vibrationally excited, transition moment and energy spacing 2−102542
polyatomic vibr. excited mol., coupled Morse oscill., energy spacings and wave functions 2−80508
Bi_2, A-X band system, lifetimes, transition moment 2−65051
CN red system in solar spectrum, oscillator strengths, radiative lifetimes and electronic transition moment 2−106641
CO(a $^3\Pi$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
Ca_2, transition moments, pot. energy curves, green and red spectra 2−85629
H atoms, parity nonconservation expts. in RF cavities, theory 2−90725
Li isoelectronic series, ionisation pots., transition freqs., perturbation theory, HF method 2−113937
NO, β and δ systems, IR band intensities and electronic transition moments calcs. 2−59715
NO_2, spin-rot. consts., transition moments, line-widths and intensities, IR obs. 2−85662
O_2^+ $b^4\Sigma_g^-$ state lifetimes and predissoc. mechanisms 2−102552
PF(b $^1\Sigma^+$), metastable free radicals, radiative lifetimes quenching coeffs. 2−65050
PbO, transition moment variation with internuclear separation 2−80733

transition probability *see radiative lifetimes*

transition probability, nuclear *see nuclear energy level transitions*

transition probability (atomic) *see radiative lifetimes*

transition probability (molecular) *see radiative lifetimes*

transition radiation
Cherenkov and transition radiation generation when charged particle moves with const. velocity along straight line 2−90790
photon detector, Monte Carlo calcs. *(Russian)* 2−79643
semiconductor-vacuum interface, transition radiation from passage of non-relativistic charged particle 2−116294
surface physics, conference, Varna, Bulgaria (Sept.-Oct. 1980) 2−89468
tunable X-ray source using reson. transition radiation 2−64200
X-ray source using reson. transition radiation 2−64199
X-ray transition radiation in plates, influence of multiple scatt. 2−77613
X-ray transition radiation meas. from plastic fibres 2−64816
Gd, transition radiation characteristics meas. 2−93316
MgO smoke cryst. surfaces, energy losses of fast electrons 2−62028

translators (repeaters) *see repeaters*

transmission
see also acoustic wave transmission; electromagnetic wave transmission
MHD waves in ionosphere, boundary conditions and refl., transformation and transmission coeffs. 2−112198

transmission electron microscope examination of materials
see also transmission electron microscopy
ABS compounds, microstruct. and deform., effect of graft freq. and rubber particle size 2−99489
ABS compounds, microstruct. and deform., effect of matrix mol.wt. and rubber content 2−99488
ABS resin, thin films, plastic deform. mechanisms, TEM study 2−99487
alloys, amorphous, struct. determ. by TEM 2−115111
alloys, ordered, displacement cascade damage, TEM obs. 2−103861
amethyst quartz, twinning microstruct. and growth 2−109815
Astroloy, wrought, grain boundary voids nucleation in intergranular fatigue crack vicinity 2−93626
Barkhausen noise stress meas., acoustic method 2−83318
carbide directional γ/γ' eutectic, struct. defects after long-term strength tests *(Russian)* 2−98092
ceramics, grain boundary films, TEM characterisation 2−71312
copper phthalocyanine chlorinated, appl. of nonlinear high resolution image processing of conventional TEM 2−113074
DNA-molecule, double-strand, direct imaging 2−73194
ductile metals, formation of wear debris by abrasion 2−88216
electrodeposited films, inclusions, defocus contrast technique 2−92389
epitaxial layers, AES, RHEED and TEM characterisation techniques 2−92419
epoxy systems, high-resoln. dark-field imaging 2−97941
fatigue, fretting, finite element anal. and electron microscopy study 2−88193
FCC alloys, partial grain boundary dislocations, periodic arrays 2−91968
glass-ceramic, 14 MeV neutron irradiation effects 2−85208
glassy polymer thin films, competition between shear deform. and crazing 2−99528
grain boundary dislocations, spreading, yield stress depend. 2−66011
graphite, He^+ bombardment, microstruct. changes 2−76524
metal, gas bubbles, pressurized, strain contrast in TEM 2−71307
metal-oxide interface, edge-on TEM obs. 2−72889
metallic powders, TEM, new thinning technique 2−88321
metallic subsurface zones, characts. in sliding and impact wear 2−88208
metallic thin film deposition methods using ion beam technology 2−57304
metals, HCP, dislocation struct. *(Chinese)* 2−109795
microparticle processor appl. 2−83055
Mn, irrad. with 46 MeV Ni^+, microstruct. before and after 2−92051
Mo, ion irradiation, by H^+ and He^+ damage struct., blistering process, TEM study 2−76520
multilayer structure morphology, surface enhanced Raman scatt. 2−110178
organic films, evaporated, electron beam damage by laser microprobe mass analysis 2−71506
oxides, sputter etching, ion beam charge composition effect 2−67181
PMMA, microdeformations in glass transition region, electron microscopic studies 2−109887
PMMA, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polydiacetylene crysts., dislocations and stacking faults, TEM study 2−71457
polyethylene, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polyimide systems, high-resoln. dark-field imaging 2−97941
polymer, glassy, craze micromech., entanglement network role 2−111346
polymers, glassy, craze-shear band interaction, TEM study 2−97939
polypropylene, isotactic, microparacryst. globules study by SAXS and TEM 2−91824
polystyrene, craze microstructure, strain history effect 2−77967
polystyrene, high-impact, rubber-toughened, internal struct. of rubber particles and craze breakdown 2−105297

transmission electron microscope examination of materials continued
polystyrene, microdeformations in glass transition region, electron microscopic studies 2−109887
polystyrene-polyphenylene oxide blends, craze microstruct. and mol. entanglements 2−77968
proteins, sources of image instabilities 2−117173
PVC, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
quartz, single crystal, plastic deform., by indentation, at room temp., TEM 2−56070
rare gas thin films, 0 to 15 eV electron transmission spectra, temp. and thickness depend. 2−110217
RNA polymerase of Escherichia coli, quaternary struct., TEM obs. and model 2−78285
sapphire, dislocation climb dissoc., dislocation dipoles 2−60989
sapphire, dynamics of flow of c-axis 2−99490
Si:Sn, metastable alloy form., by electron beam annealing 2−56041
silicates, sol-gel transition, gel-to-glass conversion 2−76315
sintered materials, brittle fracture microstruct., comparative investig. by SEM and replica TEM 2−67695
SOS epitaxial films, defects and strain after CW laser annealing, Rutherford backscatt./channelling and TEM study 2−81799
steel, 1020, hydrogen damage obs. 2−57480
steel, alloy, interphase boundary migration, bowing mechanism 2−83129
steel, alloy 2−77933
steel, austenitic, fatigue, low-cycle, 800°C, dislocation configuration, TEM and SEM study *(French)* 2−88190
steel, austenitic stainless, 14 MeV neutron irrad., strengthening and microstruct. alterations, determ. by microhardness 2−103848
steel, austenitic stainless, 316, TEM observations of crack tip-cavity interactions 2−71521
steel, austenitic stainless, Cr-Mn, low-Ni, intergranular Li penetration 2−111371
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless, depend. on thermomech. pretreatments 2−93607
steel, austenitic stainless, He bubble form., influence of temp., stress and time 2−108114
steel, austenitic stainless, intergranular corrosion, struct. influence 2−72876
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, austenitic stainless, microstruct., dual ion-irrad., influence of He injection rate 2−109853
steel, austenitic stainless, Nb-stabilised, neutron irradiated, void-swelling and precipitation 2−105154
steel, austenitic stainless, Sb^+ ion implantation, martensitic transition, Rutherford backscatt. study 2−76658
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
steel, austenitic stainless, void swelling, 1.1 MeV N-ion irrad., TEM study 2−109854
steel, austenitic stainless, weld metal, carbide form. at 649°C 2−67345
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, austentic stainless 316, Ti effect on microstructs. changes rel. to void swelling 2−86741
steel, Cr-Mo, high strength, thermomech. strengthening 2−77855
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, Cr-Ni-Mo, fatigue crack growth period determination, using microfractographic anal. 2−88305
steel, dual-phase, struct.-prop. relationships 2−105253
steel, high-speed, tempered carbides, precip. sequence interpret. 2−105150
steel, low alloy, high strength, cold metals, nature of acicular ferrite 2−67286
steel, low alloy, quenched, lath martensite struct., TEM study 2−111420
steel, low-alloy, strengthening mechanism of NiAl precipitate *(Korean)* 2−116453
steel, martensitic, Cr, precip. and decomp., DSC study *(Korean)* 2−62128
steel, mild, plastic deform. in metal cutting 2−105267
steel, mild, precip. of $Cu_{1.8}S$, Digenite I 2−105158
steel, Mn, struct. and phase comp., tempering temp. influence 2−105199
steel, Ni-Cr-Ti-Al, precip. and dislocation struct. in creep, 1023-1173K *(Czech)* 2−116507
steel, quenched and tempered, crack nucleation and propag., electron microscope obs. *(German, English)* 2−57477
steel, stainless, austenitic, hydrogen induced α'-martensite form., TEM obs. of microcracks 2−99512
steel, stainless, duplex austenite-ferrite alloys, weld metal microstructures, heat treatment, TEM, EDS study 2−67406
steel, stainless, martensitic, microstruct. obs. of neutron irrad. ferritic alloys 2−109847
steel, stainless, Ni-Cr-Mo-Nb-Al, precip.-hardening, struct. and props. after heat treatment 2−72728
steel, stainless, type 316L, cathodically H charged, martensitic transitions at crack tip 2−111313
steel, stainless, type-348, neutron irradiated, microstruct. and rel. to creep and hardening 2−105231
steel, stainless 304, hydrogen damage obs. 2−57480
steel, V, hot deformed, isothermal austenite-ferrite transform, TEM study 2−111172
steels, austenitic stainless types 316, 347, high flux reactor irrad., microstruct., TEM study 2−80118
subgrain misorientation determ., statistical verification of Kikuchi line shift technique appl. 2−111409
troilite, meteoritic phase transitions and domains, TEM obs. 2−117641
Zircaloy-2, neutron irrad., evidence of basal or near basal slip 2−86675
Zircaloy-4, Cr, Sn and O content effect on solid state phase boundary temp. 2−83083
Zircaloy-4, recovery and deform. substruct. in high temp. plasticity, stationary and non stationary stress 2−83173
ZnSe:Li, p-type cond. 2−115925
Ag electrodeposited films, inclusions, direct obs. by TEM 2−92389
Ag evaporated films, surface morphology under anodic and cathodic load and during ageing 2−98504
Ag-Au, oxidized, plastic deform. effect on alloy-oxide layer, TEM study 2−110219
Ag-Cu films, plasmon excitation by fast electrons 2−92785

transmission electron microscope examination of materials continued
AgCl whisker-like crystals grown from vapour phase, light and electron microscopic obs. 2−98507
$AgSbSe_2$ film, growth and cryst. 2−115620
Ag(111), in-situ UHV high-resolution TEM surface study 2−98411
$(Al,Cr)_2BeO_4$, laser-quality alexandrite, Cr^{3+} EPR spectrum and anti-phase boundaries obs. 2−87583
Al alloy AK4-1, fatigue crack growth period determination, using microfractographic anal. 2−88305
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al anodic barrier films, direct obs. of ion implanted Xe marker layers 2−71481
Al, commercial purity, microstruct. development during rolling 2−83136
Al, conventionally and shock-wave-deformed, correlation between texture and substruct. 2−99445
Al, crack tip produced dislocations motion during cyclic loading 2−93625
Al, deformed., cyclically and monotonically, stress-substruct. relationships in wavy slip mode metals 2−99498
Al, dislocation dynamics, NMR and TEM study 2−105215
Al, electrical breakdown during anodisation in borate soln., TEM and SEM study 2−110771
Al electrolytic capacitor, anodic oxide layer obs. using TEM and SEM 2−99580
Al foil, deformation twinning, TEM study 2−66013
Al, Harper-Dorn creep, nature and origin 2−116491
Al, in-situ study of subboundary props. during creep, HVEM 2−71462
Al, microstructural evolution during 600 MeV proton irrad., He prod. rate effects 2−86746
Al, pure, cavities formation at and away from grain boundaries during 600 MeV proton irradiation 2−66078
Al, quenched, clustering process of vacancies 2−55964
Al, stress dependence of subgrain size 2−103765
Al surface, preconditioned, flaw obs. by anodisation/TEM technique 2−116607
Al, thin film, blistering by helium ions, TEM study 2−56049
Al:He thin film, He ion bombardment, TEM, SEM and α-particle backscatt. study 2−115319
Al-Ag-Al strip, pressure-welded, interdiffusion layer struct., ultramicrotomed thin section method 2−71738
Al-Al_2O_3, dispersion strengthened, fatigue strength, effect of heat treatment temp. *(Japanese)* 2−93610
Al-Al_2O_3 films, cluster size distrib. near metal-insulator transition 2−82169
Al-Cu (1 at.%), dislocation dynamics, NMR and TEM study 2−105215
Al-Cu films, amorphous, crystallisation 2−71837
Al-Cu thin films, large grain growth during recrystn. annealing, elec. resist. and TEM study 2−111203
Al-Li-Mn(Zr)(Mg)(Cu), corrosion behaviour, correl. with microstruct. 2−88253
Al-Mg, microstruct. development during rolling 2−83136
Al-Mg (3 at.%), solid soln., correl. between creep and dislocation substruct. 2−105249
Al-Mg (5, 10 wt.%), modulated struct. and Guinier-Preston zones 2−111184
Al-Mg (5 wt.%) solid soln., Harper-Dorn creep, mech. and microstruct. characts. 2−72755
Al-Mg (8wt.%), grain boundary segregation 2−88087
Al-Sn(Ni), metastable alloy form., by electron beam annealing 2−56041
Al-Zn (15 and 25 wt.%), intercryst. precipitation *(French)* 2−116448
Al-Zn (15-25 wt.%), grain boundary migration mechanism *(French)* 2−86684
Al-Zn (38 wt.%), morphological features of discontinuous reactions 2−67344
Al-Zn (9.87 at.%), defect struct., vacancy migration, effect of H_2O in annealing atmosphere 2−76451
Al-Zn-Mg, isothermal ageing, O-180°C, after direct quench, mech. props. and microstruct. 2−93536
Al-Zn-Mg, struct. and strength after duplex ageing 2−72727
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
Al-Zn-Mg-Cu, recrystallised grain size, effect of heating rate 2−57371
Al-Zn-Mg-Cu (6.2, 2.5, 1.7 wt.%), fatigue crack growth, micromechanisms 2−105273
(Al-4Cu)-Al_2O_3 composite, SAP type, precipitation hardening 2−77836
AlN, multilayer polytypes form. during sintering 2−76404
Al_2O_3 anodic films, cryst. and amorphous, voids, TEM study 2−93666
Al_2O_3, ceramic neutron irrad. damage 2−115301
As_2S_3 amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
Au, bicryst. film, ion implanted with Cr(Co)(Pb)(Au), struct., TEM study 2−92418
Au, epitaxially evap. film, texture anal. and pole figure determ. using TEM *(German)* 2−111448
Au, evaporated film, tensile fracture *(Japanese)* 2−82182
Au evaporated film, tensile fracture, SEM and TEM obs. *(Japanese)* 2−115631
Au film, epitaxial growth on pure and doped NaCl and KCl substrates 2−115621
Au film on Pd(001) expt. evidence for nucleation of partial dislocations 2−71455
Au island films, discontinuous, morphology 2−71823
Au particles vacuum deposited onto AgBr films, habit 2−110194
Au, ruptured, final separation, role of glide and twinning 2−83200
Au/Ag thin films, diffusion-induced grain boundary migration 2−71735
Au/Cu, thin films, diffusion-induced grain boundary migration 2−71735
Au/Pt (001) and (111) interface struct., misfit dislocations, TEM study 2−76843
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Au-Cd martensite, TEM lattice imaging study, twinning dislocations 2−71472
Au-Si:H, amorphous semiconductors interface reactions and Schottky barrier formation, expt. study 2−110176
AuGeNi-InP contact, electron microscopy investig. 2−66379
Au(111), in-situ UHV high-resolution TEM surface study 2−98411
C, disorder, micropore struct. obs. by high resolution electron microscopy 2−78024
C fibre, microtexture and structure, TEM and electron diffr. obs. *(French)* 2−78058
$CaPuTi_2O_7$, alpha decay self irrad. damage 2−80064

transmission electron microscope examination of materials continued
Cd laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
$CdCl_2$ cleavage faces, TEM investig. by surface decoration 2−66328
$Cd_xHg_{1-x}Te$, sputter deposited epitaxial film, X-ray, TEM and Rutherford backscatt. obs. 2−116362
CdS, cryst. defects, high resolution TEM study 2−60991
CdTe, defect annealing, dynamic obs. at lattice resolution 2−91978
CdTe, defect imaging using TEM 2−71460
CdTe, high resolution lattice imaging TEM study 2−76401
CdTe-TeO_2 epitaxial layer, interface struct., high resolution TEM study 2−56367
CeO_2 gels for protective coatings, TEM exam. technique 2−105400
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-based alloy, foil thickness meas. from convergent-beam diffr. patterns, error assessment 2−95557
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-Fe (20 at.%), grain boundary precip., TEM, STEM, SEM and electron channelling study 2−72708
$CoSi_2$-Si interface, lattice imaging 2−115609
$CoSi_2$-Si system, epitaxy, effects of nucleation and growth 2−115610
$CoSi_2$-Si(111), MBE growth, Rutherford backscattering, TEM and LEED studies 2−66385
Cr film on (001) Cu substrate, misfit twin crystals *(Japanese)* 2−104194
Cr-La (0.3 wt.%), films, dislocations, struct. and composition 2−115600
Cu, 14 MeV neutron irrad., strengthening and microstruct. alterations, determ. by microhardness 2−103848
Cu and Cu-Ge, low dose fission neutron irrad. damage 2−103829
Cu crystals, rapidly cooled, formation of etch beaks on (111) surface 2−71456
Cu, deformed, dislocation cell boundary widths and dislocation cell sizes 2−81789
Cu electrodeposited films, inclusions, direct obs. by TEM 2−92389
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu, erosion wear mechanism, solid particle, 90° impact 2−88209
Cu, flow stress, strain and grain size depend. 2−57399
Cu, glide systems during in situ straining in TEM, Schmid's law deviations 2−98103
Cu, recrystn. mechanisms, origin of cube texture 2−116456
Cu, rolled single crystals, shear band form., TEM study 2−99455
Cu single crystals, erosion at 30° incidence of glass spheres 2−111329
Cu:Kr, ion implanted, cryst. defects, positron annihilation and TEM study 2−81781
Cu/Sn bimetallic thin film, interdiffusion and intermetalic phase form. 2−115473
Cu-Al (10 at.%), single crysts., slightly deformed, dislocation multipoles struct., TEM 2−55975
Cu-Be, TEM obs. of microstruct. evol. in simulated ion irrad. alloys 2−86745
Cu-Ge (8.7 at.%), shock-loaded, deform. twinning, time depend. and assoc. strengthening 2−88138
Cu-Ni-Sn (10, 6 wt.%), spinodal, high cycle fatigue behaviour 2−99532
Cu-Ni-Sn (9, 6 wt.%), combined recrystn. and precip. 2−77840
Cu-Pd, ordering process during continuous process *(Japanese)* 2−77820
α-Cu-Su-Al, anneal hardening *(Korean)* 2−116464
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
Cu_3Au, Cu^+ ion irrad., displacement cascade dimensions, TEM and computer simulation study 2−86759
Cu_3Au, ordered, displacement cascade damage, TEM obs. 2−103861
Cu_3Au, ordered and disordered, containing SiO_2 particles, critical shear stress, Orowan stress 2−86778
$CuInS_2$ film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
Cu_2S, chalcocite, Cu vacancy ordering and transition to djurleite, TEM study 2−115222
Cu_xS film, topotactically grown, chalcocite-djurleite transform., TEM study 2−104195
$Cu_{50}Zr_{50}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
Dy-Cu amorphous films, crystallisation, TEM and electron diffr. study 2−92415
Fe, cast, austempered spheroidal graphite, strain hardening 2−93533
Fe, erosion wear mechanism, solid particle, 90° impact 2−88209
Fe, fatigue crack growth, mechanism and kinetics 2−88191
Fe, low dose fission neutron irrad. damage 2−103829
Fe, magnetic domain walls, dislocation struct. effects, magnetomech. damping study 2−56885
α-Fe, Mn and N_2 additions effect on work hardening, 200-400° C 2−67369
Fe, neutron irrad., TEM study 2−103838
α-Fe, neutron irrad. damage, low dose, TEM study 2−102050
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe, thin film, twisted domains, magnetisation, electrostatic TEM study 2−82683
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-B-Si amorphous ribbon, crystn., domain struct. and magnetisation study 2−71363
Fe-B-Si-C amorphous ribbon, mag. props., deleterious effect of Al 2−87525
Fe-Cr-Co-Nb-Al alloy, high-coercivity, microstruct. rel. to mag. props. 2−111333
Fe-Cr-Ni alloys, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Fe-Ni, atomic ordering effects on mag. props., superlattice form., TEM study 2−92966
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni martensitic alloys, tempering behaviour in cryst. microstruct. *(Korean)* 2−83144
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle dispersion 2−57352
Fe-P alloys, fracture mode and toughness, C effects 2−57484
Fe-Si {110} tilt boundaries and grain boundary dislocations TEM study 2−76461
Fe-Si-Al, Sendust, order-disorder transform. and dislocation configuration, TEM study 2−83108

transmission electron microscope examination of materials continued
Fe-Si-C, primary stage of bainite reaction, TEM obs. 2−83109
Fe(-Cr), triple beam ion irrad., microstruct. 2−109856
$Fe_{75}B_{25}$, crystalline to amorphous phase transform. by ion bombardment 2−103629
$Fe_{84}B_{16-x}C_x$, glassy, crystallisation, magnetisation 2−55862
$(Fe_{1-x}Ni_x)_{75}B_{25}$, amorphous, magnetisation and crysts. 2−72266
$Fe_{40}Ni_{40}B_{20}$, metallic glass, Vitrovac 0040, crystallisation, TEM obs. 2−116474
$(Fe_{1-x}Ni_x)_{78-y}Cr_ySi_{20}B_{12}$, glass, magnetisation, crystn. and microstruct. 2−77322
$Fe_{40}Ni_{38}Mo_4B_{13}$, metallic glass, crystn., TEM study 2−65867
$Fe_{40}Ni_{40}P_{14}B_6$, amorphous activation energy of crystallisation 2−81681
$Fe_{40}Ni_{40}P_{14}B_6$, Metglas 2826, crystn. kinetics, effect of tensile stress 2−103652
γ-Fe_2O_3 submicron particles, morphology using high-resolution electron microscopy *(French)* 2−97872
FeS_2, natural marcasite, orthorhombic, obs. of cryst. defects 2−76452
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107
GaAS, ion implanted, laser annealed, defect anal. 2−66053
$Ga_{1-x}Al_xAs$ LPE layers, dislocations config. TEM study *(Chinese)* 2−67670
GaAs, anodic oxidation, island stage 2−111342
GaAs, epitaxial film growth on amorphous substrate, CLEFT process, TEM and cathodoluminescence study 2−77749
GaAs, lateral expitaxial CVD, growth on Ge-Si substrates with low dislocation density 2−116371
GaAs, proton irrad., damage distrib. and proton range, TEM study 2−76507
GaAs:Cr, ion implanted, postannealed material state 2−103793
GaAs:Cr, O, ion implanted, Cr redistribution and Cr-defect-O interactions, SIMS and TEM study 2−98149
GaAs:Cr, Se, hot implanted, effects of damage-impurity interaction on elec. props. 2−71990
GaAs:Cr (Cr_2O_3), supersaturated soln., precipitation processes, TEM study 2−92203
GaAs:Se^+, ion implanted, high temp. annealed, damage, defects and elec. props. 2−98097
GaAs:Si, defect struct., effect of annealing Zn and Cu diffusion 2−55976
GaAs:Sn, ion implanted, laser annealed, TEM study 2−66050
GaAs:Sn, nucleation effects during MBE growth 2−76845
GaAs:Te, defect struct. after Cd diffusion 2−103762
GaAs:Te, implanted, laser annealed, metastable Te donor conc., expt. study 2−56025
GaP film, ion beam sputter deposition, substrate heating effects, TEM and Rutherford backscatt. study 2−111073
GaP:S, homoepitaxial layers, influence of microdefects on dislocation generation 2−92377
GaP:S LEC epitaxial layer, microdefects and dislocation generation, TEM study 2−115236
GaS:Cr, impurity redistribution after implantation with Ga_2As_2O, SIMS and TEM study 2−115276
$Gd_3Ga_5O_{12}$, garnet single crysts., slip systems 2−66007
Ge amorphous films, time-resolved TEM of pulsed crystn. 2−82167
Ge film, amorphous, electron beam annealing in TEM 2−71503
Ge film, laser-crystallised, crystallite morphology and defect struct; TEM and SEM study 2−66402
Ge-GeO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
$GeSe_2$ amorphous film, struct. changes due to laser irradiation and thermal treatment 2−86579
$Ge_{0.25}Se_{0.75}$ amorphous inorganic resist film, ion and electron beam induced struct. changes, TEM study 2−115588
HgCdTe epitaxial layers, implantation-induced defects behaviour 2−87379
Hg_2Cl_2, growth-induced inhomogeneities, electron optical investigation 2−109710
InGaAsP/InP double heterostruct. lasers, aged, TEM obs. of dark defects 2−55143
InGaAsP/InP misfit dislocations, photoluminescence, TEM and etching study 2−98109
InGaAsP-InP DH LED, aged, dark defects 2−91974
$In_xGa_{1-x}As_yP_{1-y}$ LPE layers, lattice matched to InP, comp. modulation, expt. study 2−87084
InSb cleavage faces, decoration of steps 2−110114
Li_2O-K_2O-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
Mg-Li-Al-Cd, superplastic deform., effect on struct. and props. 2−62180
$MgAl_2O_4$, ceramic, neutron irrad. damage 2−115301
Mg_2GeO_4 spinel, deformed, cation stacking faults, TEM study 2−76463
MgO, ceramic, neutron irrad. damage 2−115301
MgO crystal, elec. breakdown at high temp. 2−77450
MgO, extrinsic secondary grain boundary dislocations 2−91980
MgO, intrinsic secondary grain boundary screw dislocations, TEM study 2−91979
$MgO.nAl_2O_3$ spinels, climb dissoc. in {113} planes 2−91976
$MgO.nAl_2O_3$ spinels, mech. props., comp. influence origin 2−92080
Mg_2SiO_4, forsterite, deformed at high temp., dislocation study *(French)* 2−60995
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
$MnSi_{0.25}$ quenched alloy, cryst. struct., cyclic fourling method, electron diffr. and TEM study 2−91880
Mo film on Si, ion beam induced interfacial reactions, TEM obs. 2−110050
Mo, ion implantation effect on microstruct., TEM obs. 2−71522
Mo, ion irrad., final damage state, mass dependence, channelling and TEM study 2−76530
Mo, low dose fission neutron irrad. damage 2−103829
Mo, polycrystalline, creep props. and microstruct. precreeping effects, TEM obs. 2−105243
Mo polycrystals, cold-worked, mechanism of work softening at elevated temp. 2−67375
Mo, precipitation at room temp., TEM and THDS obs., He platelet form. 2−88088
Mo, recrystallised foils, grain boundary migration in presence of Ni 2−83146
Mo, self-ion implanted, in situ annealing 2−92011
Mo-B dilute alloys, nature of planar faults 2−81800

transmission electron microscope examination of materials continued
Mo-base alloys, Ni-activated recrystn., TEM and optical study *(Russian)* 2−116459
Mo-Ti and alloy TZM, void swelling behaviour under heavy ion bombard. 2−86744
MoC_x, metastable semicoherent precipitate struct. anal. by diffr. contrast image matching 2−76685
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., charcts. 2−87104
Na_2O-B_2O_3-GeO_2-SiO_2 system glass, microstruct. evolution 2−91795
Na_2O-CaO-SiO_2 glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Nb and alloys, ion irradiated by $^{58}Ni^+$ and $^3He^+$, swelling 2−85216
Nb and Nb-Zr, He bubble behaviour, alloying effects 2−86742
Nb, H-charged, self-fracture 2−62207
Nb-H system, hydride phase transition, low temp. 2−57344
Nb-Si, A15 phase, growth by epitaxy and composition grading 2−71827
Nb-Si, supercond., electron beam evaporated, growth morphology, O_2 effects and substrate temp. 2−110207
Nb-Zr-C, embrittlement during ageing, X-ray, SEM and TEM study *(Russian)* 2−93585
$Nb_{22}O_{54}$, oxidation, interstitial O 2−97879
$Nb_{22}O_{54}$ oxidised at 200°C, point defects, structural changes, TEM obs. 2−55965
Nb_2O_5-WO_3, O vacancies reduction and phase transition 2−97879
$2Nb_2O_5.7WO_3$, reduction studied by 1 MV HRTEM 2−83370
Nb_3Sn, for fusion reactor magnets, displacement cascade 2−109862
Ni alloy, heat-resisting, directional solidification, B influence on fine struct., diffusion and creep 2−67321
Ni, cavities depth distrib. induced by 20 keV He ion irrad. 2−86748
Ni electrodeposited films, inclusions, direct obs. by TEM 2−92389
Ni electrodeposits, defect struct., TEM study 2−56387
Ni, He^+ ion irrad., microhardness, microstruct., and blistering 2−98168
Ni, irrad. creep, 17 MeV deuterons, stress depend. 2−86749
Ni, laser irradiated, epitaxial regrowth and defects, Rutherford backscatt., channelling and TEM obs. 2−61031
Ni, migration on C, SiO_2 and Al_2O_3, TEM obs. 2−86983
Ni single cryst., plastic deformation, dislocation struct., stress/strain curves 2−109798
Ni superalloy, γ'-strengthened, particle misfit effect on void form. under electron and neutron irrad. 2−109838
Ni:He^+, D^+, ion implanted, D trapping, ion beam anal. studies 2−81813
Ni-Al (13 at.%), precipitation, early stages *(Japanese)* 2−77828
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
Ni-Al (15:4 wt.%) alloy, precip. hardening by large vol. fractions of γ' 2−72712
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-Al-In, β' phase, void distrib., X-ray small angle scatt. and TEM 2−105411
Ni-base eutectic superalloy, γ/γ'-α, interfacial struct. 2−82149
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Ni-Cr-Co, nimonic 90, He^+ ion irrad., microhardness, microstruct., and blistering 2−98168
Ni-Cu misfit boundaries, grown-in dislocation generation during 3D nucleation and growth 2−103772
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
$Ni_{80}B_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
NiO, single cryst. deformed at room temp., TEM obs. of dislocations, high work hardening rate origin 2−103767
NiO, sulphurisation by H_2S, elec. cond. and TEM study 2−110200
NiO supported on B modified SiO_2, dispersion of Ni determ. by TEM and XPS meas. 2−56202
$Ni_{2.2}P$, metastable phase struct. *(Chinese)* 2−109743
NiS_2 epitaxial layers on Si(001) substrate, pulsed ion beam annealing, TEM and Rutherford backscattering study 2−66383
$NiSi_2$-Si interface, lattice imaging 2−115609
Ni_3Si, ion and electron irrad., near-surface segregation, TEM and electron diffr. study 2−86883
γ''-Ni_3V precipitates, habit plane 2−65923
PLZT, chemically prepared powders, grain size of mixed oxides 2−72660
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
Pb thin films, on substrate, low-temp. strain behaviour 2−110218
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
PbO_2, defect struct., X-ray diffr. and TEM 2−76446
$Pb_3(PO_4)_2$, ferroelastic domain walls, interaction with struct. transition, TEM obs. 2−76655
PbS-Bi_2S_3, chem. twinning in PbS region, transmission electron microscopy obs. 2−76457
Pb(111), in-situ UHV high-resolution TEM surface study 2−98411
Pd crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
Pd/Sn thin film diffusion couples, microstructural determ. of fast diffusion species 2−71741
$Pd_{80}Si_{20}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
Pt film, ultrathin oriented, on Al_2O_3, catalysis of methylcyclopentane hydrogenolysis 2−88381
Pt particulate films, CO chemisorption 2−76818
Sb particles, vacuum evaporation prep., twinning, TEM study 2−91984
Sb, thin films, crystn., time-resolved TEM study 2−53898
Sb_2S_3, UV and dielec. props. 2−99148
Se-Te bilayers, struct. changes by laser writing, TEM study 2−91009
Si amorphous films, time-resolved TEM of pulsed crystn. 2−82167
Si amorphous photovoltaic cells, glow discharge prep., substrate condition effect on cell performance 2−83482
Si, amorphous UHV deposited film on Si(111), epitaxial regrowth 2−104197
Si, Czochralski crystals, intrinsic gettering study 2−76430
Si, Czochralski wafers, effects of crystal defects on deep levels, TEM and DLTS obs. 2−92507
Si, dendritic web grown, dislocation struct., TEM and SEM study 2−91975
Si, dislocations, interpretation of EBIC contrast 2−71453
Si, dislocations and interface characterisation, high resolution TEM study 2−66005
Si, epitaxial layer, boundary segregation of impurities, under action of γ-radiation, or quenching 2−87095
transmission electron microscope examination of materials continued
Si epitaxial layer on substrate with buried SiO_2 layer, ion implantation, crystallographic props. 2−92382
Si, epitaxial stacking faults, elec. props., crystallographic struct., interaction with point defects 2−92379
Si film, produced by field emission deposition, props. 2−71836
Si films over SiO_2 patterns, laser-induced lateral vertically-seeded epitaxial regrowth 2−87091
Si, heat treated wafers, metal decorated haze microdefects, TEM and energy dispersive X-ray anal. 2−91946
Si, heat-treated, Czochralski grown, compression tests, dislocation study, TEM and etch pit obs. 2−60985
Si, high resolution electron microscopy obs. of Σ=27 boundary 2−71468
Si, intense pulsed H^+, B^+, Ba^+ beam irradiation effects 2−76513
Si, ion implanted, CW laser annealing, dislocation nucleation, growth and suppression 2−56021
Si, ion implanted wafers, high dose rate, laser annealing effects, TEM, backscatt. and channelling obs. 2−56019
Si, ion-implanted, dechannelling by dislocations 2−76545
Si, melting and laser annealing using pulsed lasers 2−66052
Si, point defects, dark-field lattice phase imaging obs. technique 2−86527
Si, polycrystalline, grain growth mechanisms 2−115424
Si, precipitation of O, effect of C impurities 2−66240
Si, precipitation of O and intrinsic gettering 2−66239
Si, self ion implanted, residual lattice disorder after pulsed laser irrad. 2−76494
Si, stacking fault morphology, annealing temp. effect 2−66021
Si surface cleanness control by TEM *(Russian)* 2−99573
Si:As, ion damaged, undissociated dislocation dipoles and intermediate defects, TEM study 2−71459
Si:As, ion irradiated, point defect chains, high resolution TEM study 2−71479
Si:As, laser beam annealed, defects and elec. props., TEM study 2−109799
Si:B(P)(As), supersaturated, ion implanted and laser annealed, heat treatment effects 2−92000
Si:Bf_2^+, recrystallisation by light-flash annealing 2−98130
Si:H amorphous sputtered film, microstruct. and H bonding environments 2−76847
Si:O, C, Czochralski grown, O related donors, 700 to 800°C, expt. study 2−56469
Si:O, O precip., IR absorpt. and TEM study 2−92208
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
Si:P, dislocation clusters and P diffusion, TEM and X-ray topography study 2−91973
Si:P, electrically inactive impurities, precipitation explanation, TEM study 2−67341
Si:P polycryst. film, in situ doped, CW laser annealing, grain size and elec. cond. meas. 2−98771
Si:P(As), dechannelling by dislocations and stacking faults 2−81845
Si:Sb, pipe diffusion and dislocation density 2−110043
Si-CaF_2-Si heteroepitaxial struct., prep. by vac. deposition and charact. 2−115612
Si-metal bilayer, laser writing for optical storage, TEM and electron diffr. study 2−91011
Si-Pd_2Si epitaxial interface, defect struct. 2−66381
Si-sapphire interface, high resolution TEM study 2−66380
Si-SiO_2 systems, direct obs. of atomic struct. of interfaces 2−97871
β-SiAlON solid soln. containing different amounts of amorphous grain boundary phase, TEM obs. 2−92223
SiC, He^+ bombardment, microstruct. changes 2−76524
SiC, polycryst., containing excess Si, neutron irradiated, microstruct. study 2−71514
SiC, polycrystalline, long-period polytypism, TEM study 2−115199
SiC, single cryst., friction damage, surface and subsurface, SEM and TEM study 2−67566
SiC whisker reinforced Al-Li alloys, mech. props. and microstruct., effect of Li 2−111240
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SiO_2, etched in plasma, surface morphology and layer deposition, TEM and RHEED 2−116562
SiO_2-InP interface, plasma-enhanced CVD growth, XPS and TEM study 2−110169
SiO_x films, phase composition, TEM and EPR studies 2−98491
$SmCo_5$ sintered permanent magnets, fine struct. and mag. props. *(Russian)* 2−104664
Sm_2Co_{17}, mag. props., effect of heat treatment and addition of Fe, Mn, V and Sn *(German)* 2−67575
Sn film, struct. rel. to elec. and optical props. 2−115623
TbO_x, struct. of intermediate phases, TEM and electron diffr. obs. 2−60940
Te films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
α-Te_2MoO_7 and β-$TeMo_5O_{16}$, industrial oxidation catalysts, X-ray diffr. and electron microscopy study 2−61157
Ti, $\{11\bar{2}2\}\langle\bar{1}\bar{1}23\rangle$ slip behaviour 2−71466
Ti alloy VT3-1, fatigue crack growth period determination, using microfractographic anal. 2−88305
Ti alloys, interface phase, identification from diffr. effects 2−76364
α-Ti, dislocations, contrast calc. in TEM 2−60984
Ti-Al, helical dislocations by low temp. thermocycling, TEM study 2−115237
Ti-Al (8.6 wt.%), dislocation pile-ups and tensile fracture, influence of grain size and age-hardening 2−105320
Ti-Al-Mo-Sn-Si, $\alpha+\beta$ struct., mech. props., effect of Si 2−83081
Ti-Al-Sn, H-charged, room temp. creep 2−111241
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
Ti-Mn (5 wt.%), martensitic interface, martensite, TEM lattice fringe imaging 2−57353
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
Ti-V, β-ω transform under press., stacking solition model for diffuse omega phase 2−71639
Ti_3Al, deformed 'C' component dislocations 2−60983
Ti_3Al-Nb, as-annealed and creep deformed, superdislocation networks, APB energy role 2−98091
TiB_2 coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912

transmission electron microscope examination of materials continued
TiC coating, chemical vapour deposited onto cemented carbide, microstruct. study 2−56389
TiC, stacking fault energy, TEM weak-beam technique 2−55986
TiN film, Cu diffusion 2−98502
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., compositional depend. of one-third reflections from matrix 2−111173
$Ti_{50}Ni_{50-x}Cu_x$, martensitic transform., TEM obs., morphology and crystal struct. 2−111174
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
$TlBiTe_2$ single crysts., defects 2−103766
UO_2 fuels, qualitative approach for characterisation 2−85160
V and V-Ti, He bubble behaviour, alloying effects 2−86742
V-H and V-D systems, modified phase diagrams, TEM obs. of transforms. 2−72671
V_nO_{2n-1}, microsyntactic intergrowth, high resolution TEM obs. 2−91851
W, ion irradiation, by H^+ and He^+ damage struct., blistering process, TEM study 2−76520
W wire, splitting, knife-edge compression test 2−116536
WC, plasma-processed, condensation on graphite 2−105111
WC-Co, deformed, defect struct. of WC 2−83166
WC-Co (6 wt.%), substoichiometric, η-phase particles 2−105290
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
Zn laser-photodeposited film, optically induced microstructures, TEM and SEM obs. 2−98486
ZnO on SiO_2 substrate, RF sputtering, TEM anal. 2−56410
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956
Zr-Mo (2 at.%), pressurised, diffuse streaking accompanying $\alpha \rightarrow \omega$ transform. 2−67324
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
ZrO_2, crystallisation and transform. under hydrothermal conditions 2−111170
ZrO_2 on Zr (0001) crystallographic relationship, transmission electron diffr. study 2−109727
ZrO_2-zircon ceramics, prep. from plasma dissociated zircon 2−83073

transmission electron microscopes
see also transmission electron microscopy
cathodoluminescence spectrometer design 2−64174
convergent beam diffraction, alignment methods 2−113066
superconducting shielding lens, asymmetric, for TEM and STEM 2−64180
wide-angle projector systems, for TEM 2−64182

transmission electron microscopy
see also transmission electron microscope examination of materials; transmission electron microscopes
$2^1/_2$D technique, appls. 2−71304
bright-field imaging of strong scatterers, optimum contrast 2−115118
C-CD based image recording system, for TEM 2−113069
camera constant determ. in TEM *(Czech)* 2−55815
ceramics, comparison with SEM *(German)* 2−113047
computer control for X-ray and energy loss line profiles and images 2−107472
conference, Kyoto, Japan (May 1981) 2−68953
conventional, imaging with non-axial pencils 2−89870
diffraction, weak beam optical pot. and Fourier coeffs. 2−76246
dislocation contrast, Burgers vector characterisation when invisibility criterion invalid 2−60990
dislocation contrast, kinematic theory of electrons *(French)* 2−97866
EELS, chemical analysis in high voltage TEM 2−71298
electronic visualisation of high-voltage TEM images by sequential pixel acquisition 2−84746
energy-loss spectrometry, with large collection angle 2−69307
foil, electron scattering physics 2−72586
foil, energy dispersive X-ray anal. 2−73032
Fresnel holographic method, off-axis, appl. to ferromagnetic domain mapping 2−113070
high resolution, appl. to processing of ceramics 2−97881
high resolution TEM atomic density patterns 2−60846
high-resolution, detection of point defects accommodating nonstoichiometry 2−97879
HVEM, phys. principles and materials appls., review 2−113050
image information compression, for electron images 2−71303
image instabilities, time-dependent changes, biological appl. 2−117173
image processing, nonlinear high resolution, of conventional TEM 2−113073
image recording and processing, on-line 2−107465
lattice image geometry of steps and dislocations 2−91734
low-dose, weak phase-amplitude object reconstruction from two defocused images, statistical anal. 2−95556
magnetic fine particles, prep. method for TEM specimens 2−79553
metal, gas bubbles, pressurized, strain contrast in TEM 2−71307
metal hydrides, Pd coated, TEM samples preparation 2−84744
metallurgical and materials engineering applic., electron optical techniques 2−60847
nonlinear high resolution image processing of conventional TEM, appl. to chlorinated copper phthalocyanine 2−113074
object tilt for CTEM, posteriori correction 2−115117
phase contrast in electron-microscopic images formed by a single reflection 2−97875
powders and compact materials, particle shape microscopic anal. methods, review 2−72906
specimen temperature control, in heating holder of TEM 2−58968
surface structures and reactions, TEM studies, review 2−71309
thin films, X-ray spectra optimisation for quantitative anal. 2−69303
time-resolved method, appl. to fast phase transitions 2−53898
UHV, in-situ high-resolution, for surface studies 2−98411
voids, faceted and spherical, TEM contrast, computer simulation 2−76255
wear debris particles, prep. technique for TEM 2−111446
X-ray elemental anal., in TEM 2−67793
X-ray microanalysis, in TEM 2−67792
Cu-Sn, sample prep. for TEM 2−69150
V hydrides, Pd coated, TEM samples preparation 2−84744

transmission line theory
discontinuity propag. in coaxial cable, narrow gap case 2−59992

transmission line theory continued
finite lines, wave propag., evanescent wave and cutoff frequency *(French)* 2−74233
lumped component lines 2−107050
plasma current and mag. field penetration, high power-density flow in transmission lines 2−114986

transmission lines
see also cables (electric); power transmission lines; waveguides
acoustic props. meas. for thin films using reflection loss of acoustic transmission line 2−104211
Korteweg-de Vries eqn., soliton solns., elec. transmission line expt. study 2−74228
Particle Beam Fusion Accelerator magnetically insulated transmission lines combined into disc feed 2−96309
power flow for vacuum insulated inductive loads 2−97830
thermal grounding, in dilution refrigerator 2−89722
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803

transmitters
see also radio transmitters; transceivers; transponders
induction flowmeter, insulating lining of transmitter *(Polish)* 2−91565
LF time signals for time and frequency dissemination system of moderate accuracy, sophistication and cost 2−89673
parametric acoustic transmitters *(Japanese)* 2−114512

transmitting *see transmission*

transonic flow
aerodynamics design problems, direct approach 2−91483
airfoils in transonic flowfield, shock waves, finite difference scheme calcs. 2−70980
annular supersonic nozzles, transonic flow in throat region 2−114837
body with profile curvature discontinuity, transonic flow past body, exact soln. 2−55611
boundary layer shock-wave interaction at high Reynolds number 2−70982
bubbly water flow past supercavitating wedge, compressibility effects 2−71008
cascade flow simulation, thermodynamically consistent numerical method 2−70981
compressible potential flow, transonic eqn. soln. by optimal control and finite element methods 2−103187
conference, Aachen, Germany (March 1980) 2−68969
gas, perfect, transonic rarefaction flow in neighbourhood of convex corner 2−114838
gas blast circuit breaker DC arc in constant diameter nozzle flow 2−97808
heat and mass addition, similarity rules 2−103186
impulsive local heat release in transonic and supersonic gas flow, 2-D nonlinear acoustic processes 2−60275
integral eqn. calcs. appls. 2−91481
integral equation, supercritical solns., artificial viscosity appl. 2−55612
inviscid transonic flow field analysis 2−81355
leading zone of separation of flow over a blunt body, calc. 2−60573
nonlinear plane wave excitation by thermooptic array moving nonuniformly with transonic velocity 2−114514
nonlinear stability and instability of transonic flows through a nozzle 2−55633
partial differential eqns., parallel struct. computer technique for soln. *(French)* 2−65614
potential flows, computation 2−97583
potential gas flow along a wavy wall and the transonic controversy 2−109360
relaxing gas past a heat-release layer 2−114839
self-streamlining wind tunnel, development of transonic section 2−71040
sidewall boundary layer effects in two-dimens. subsonic and transonic wind tunnels 2−114776
steady potential transonic flow, 2-D eqns., factorisation scheme 2−109357
steady transonic duct flow, aerodynamics interaction of heat transfer 2−70930
stream function eqns., modified artifical density soln. 2−53526
supercritical transonic trailing-edge flow 2−109361
three dimensional transonic potential flows, algorithm for soln. of full pot. eqn. 2−109354
three-dimensional pot. flow about inlets, multigrid code 2−65613
turbulent separated flow, Navier-Stokes eqn. 2−109355
two-dimensional flow of gas through turbomachine cascades 2−97563
two-dimensional transonic diffuses channel flow, hot-film probe and optical study of shock waves 2−109358
unsteady transonic flows with shocks, field panel method calcs. 2−109356
unsteady transonic indicial response model 2−109359
unsteady transonic pot. flow over airfoils implicit algorithm 2−65612

transparence *see transparency*

transparency
see also light transmission; optical constants; self-induced transparency
container glass, optical props. 2−61858
diamond as an optical material for space optics 2−70635
fluorohafnate glass, UV absorpt. edge obs. 2−57117
fluorozirconate glass, UV absorpt. edge obs. 2−57117
glass, flat, optical props. 2−61857
interfaces between transparent media, total refl. or refr. of parallel-polarised light 2−70500
particle radius distribution density calcs. from spectral attenuation coeff. integral characts. 2−114194
pattern recognition, correlation function, effect of transparency characts. 2−108821
perovskite ferroelectrics, γ-ray effects on dielectric and electro-optical props. *(Russian)* 2−61809
semitransparent media, one dimens., internal heating effect on radiant heating 2−114611
solid transparent materials, laser damage, microdefect characts. determ. from statistical relations 2−70601
superconducting film, transparency calc. using differential operator describing nonlocal coupling of the current to the field 2−115949
AgBr single crystal IR fibres 2−99318
As_2S_3 film, vitreous, photodarkening value, press. effect 2−61026
CdS:Hg crystal, optical absorpt. and luminesc. *(Russian)* 2−104841
HfF_4 based highly transparent glasses, IR absorpt. meas. 2−60203
HfF_4 based IR transparent glasses 2−97133
$MgO-Al_2O_3$, transparent ceramic, coprecipitation followed by calcination 2−99379
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189

transparency continued
R_2SiO_5, single crystal growth, struct. and optical characteristics 2−87968
Sb_2S_3-PbS glass, prep. and props. 2−71367
β-Si-Al-O-N ceramics, translucent, effect of impurities and hot pressing temp. 2−57495
SnO_2 film deposited by oxidation of $SnCl_2$, transparency and resistivity 2−111092
$Tm_3(Tm_xGa_{2-x})Ga_3O_{12}$, Czhochralski growth, optical and X-ray topography quality obs. 2−93413
WO_3 film, reactively sputtered, prep., elec. and optical props. 2−93420
transpiration
see also flow through porous media
cooled porous medium with curved boundary, heat transfer 2−55579
polyatomic gas flow in cylindrical tube, thermal transpiration and mechanocalonic effect 2−76023
transponders
satellite remote sensing technology development, Japanese Marine Observation Satellite program 2−73820
time synchronisation via INSAT-1 direct reception system 2−89678
transport *see transportation*
transport equation *see Boltzmann equation*
transport phenomena *see transport processes*
transport processes
see also biotransport; Boltzmann equation; cellular transport and dynamics; cosmic ray propagation; diffusion; electrical conductivity; Liouville equation; master equation; neutron transport theory; photon transport theory; plasma transport processes; Senftleben-Beenakker effect; thermal conductivity; thermal diffusivity; viscosity
aerosols in marine boundary layer, transport processes modelling 2−117389
anisotropic conducting material, G-closure in 2-D, homogenisation procedure 2−63944
anisotropic lattice, random walk, asymptotic behaviour 2−84532
atmosphere, aerosol generation and transport rel. to meteorological models for optical props. of marine boundary layer 2−117452
atmosphere, transport of aerosols of high Cl conc. into central and eastern United States 2−63062
atmosphere boundary layer, temp., humidity, wind profiles and turbulent exchange over water surface layer *(Chinese)* 2−88944
atmosphere turbulent fluxes, modification of Kondo's formulas for bulk transfer coeffs. 2−117384
automorphism theorems and half-range theory 2−58735
Benney's eqns., linearisation 2−89545
Boltzmann eqn., linearised, probabilistic representation of solutions 2−95281
boundary and interface functions solution method 2−58746
charged light particles, transport calc., energy loss conservation 2−85505
charged particle motion, two series representations of the integral $\int_0^\infty \exp[-s(\psi+y\cos\psi-z\sin\psi)]d\psi$ 2−53703
charged particles motion in external EM fields, transport eqn. 2−58757
coal particles, motion in oil droplet, eqns. of motion 2−112848
collisional transport processes in early Universe, rel. to dissipation and unification 2−79256
composites, transport props. meas., extraction of struct. information 2−107271
conductivity of a lattice-gas with coulomb-interactions 2−101353
conference, transport theory, Lubbock, TX, USA (Mar. 1981) 2−58526
cosmic rays, solns. of spherically symmetric transport eqn. in interplanetary space 2−106439
curved geometry, invariant embedding and eigenfunction completeness of angular redistrib. operator 2−58737
cyclic irradiation parameters, calc. for radiation technological unit *(Russian)* 2−54688
diatomic model fluid, vortex viscosity, fluctuation expression 2−65597
diffusion in discrete nonlinear dynamical systems 2−112845
dilute hard core suspensions, scatt. and memory functions, transport coeff., light scatt. 2−60851
discrete-ordinates approx., convergence 2−58744
disordered media, inhomogeneous transport, binomial random variables, orthogonal polynomial expansion 2−63941
einstein's relation 2−89507
electrical double layer theory, nonlinear Poisson-Boltzmann eqn. soln. for inner problems 2−74366
ellipsoidal particle in binary mixture, thermophoresis 2−114959
energy albedo, Pade approximants 2−84565
energy albedo calc. for finite slab 2−84564
Enskog equation, time correl. functions, calc. 2−71316
eqns. of motion 2−112848
finite-difference approximations and superconvergence for the discrete-ordinate equations in slab geometry 2−95286
flux limiters and Eddington factors 2−69112
Fokker-Planck eqn., eigenvalue and definite evolution operator soln. 2−89641
fusion reactors, transport, one-dimens. discrete ordinates calc., Galerkin quadrature formulation 2−80221
fuzzy typical values for soln. of transport eqn. 2−101363
gas suspensions, transport coeffs., aerodynamic effects 2−81436
gases, transport props. for pots. with multiple extrema 2−97688
generalised virial relations, subdynamics theory 2−84524
Great Lakes evaporation, modified mass transfer method rel. to atmospheric stability effects 2−88919
H-theorem proof using 2-body Bogolubov-Green-Cohen 2−95282
hard rod gas, equilibrium time correl. functions, hydrodynamical theory 2−107269
Hilbert and Chapman-Enskog asymptotic expansion methods for linear evolution equations 2−58733
inhomogeneous fluids, transverse current-current correl. function, generalised Langevin theory 2−79500
interfacial transport, statistical rate theory 2−86944
ion beam, transport equation in three dimens., energy deposition, reflection 2−56052
ion drift vel. meas. in gases, new apparatus 2−113049
ionised and neutral gas mixture, nonlinear transport processes and irreversible thermodynamics 2−58748
kinetic equations in weak topologies 2−58740
kinetic theory, relativistic, for variables mass particles, thermodynamic props., transport coeffs. 2−69085
Kubo formula for transport in strong mag. field *(Chinese)* 2−89637
lattice, random walks 2−69095
lepton gas, volume viscosity including massive neutrinos 2−79467
transport processes continued
linear many-speed transport theory, completeness theorems 2−63945
linear transport in nonhomogeneous media 2−74367
Liouville eqn., stationary solns. and transport processes in strong mag. field 2−63939
liquid-gas soln., isothermal bubble evolution, statistical rate theory of interfacial transport 2−86973
master equation, solution time relaxation, large system behaviour 2−79502
Maxwell, contrib. to mol. physics and statistical methods 2−112682
mode coupling problems, new integral eqn. 2−63943
multicomponent diffusion decay, numerical soln., conservation variational principle 2−108151
neutrinos, postshock transport during stellar core collapse 2−106669
nonlinear boundary value problems, monotone method 2−69110
nonlinear transport theories 2−84559
ocean circulation, β-induced movement of isolated baroclinic eddies 2−83831
one-dimensional geometry, radiation transport eqn., delta anisotropic scatt. index *(Russian)* 2−101362
one-dimensional random walk chain, particle random walk 2−58711
open systems, general formulation, mirror operation 2−89640
Panama Basin, deep advective transport of lithogenic particles 2−94396
paramagnetic gas kinematic coeffs. depend. on mag. field, resonance struct. *(Russian)* 2−71056
particle motion, one-dimensional dynamics, stochastic model, dispersion *(Russian)* 2−79474
particle transfer equation, soln. in one dimens. conservative pot. 2−107273
particle transport theory, nonlinear integral evolution problem solns. 2−58751
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
planetary ring systems, ang. momentum transport rel. to rings sharp edges 2−112383
porous media, transport problems, self-consistent effective parameters 2−81388
prism with partly absorbing walls, exactly solvable one-dimens. transport 2−112843
probability methods in homogenization schemes for transport processes 2−58734
projected range algorithm as derived from transport eqns. 2−70115
PWRs, secondary cooling system, corrosion product transport 2−54527
quasi-particle transport with intermediate degree of coherence, disorder effect, mean square displacement calc. 2−74365
radiation damage transport eqn., analytic solns. 2−81817
radiation transport equation, finite transform approach 2−58743
random one-dimensional systems, correlation effect on low-freq. behavior 2−58755
random systems, wave propag. and transport problems, hopping cond. 2−66520
Rayleigh model, singular transport theory in one dimens. 2−101302
relativistic gas, generalised hydrodynamics, kinetic theory 2−81435
relaxation theorem and its appl. to gas equilib. 2−103236
relaxation time approx. for second order quantum response 2−112841
resonance transport in near-integrable systems with many degrees of freedom 2−95285
semimetals, variational method 2−110337
singular eigenvalue analysis, spatially depend. cross section problems 2−58741
slab geometry inverse solns. for monoenergetic transport 2−58742
soil, predictive approaches for solute transport 2−105607
solar flares, energetic electrons transport in fully ionised H plasmas 2−106493
solar interior, effect of perturbations of convective energy transport on solar luminosity and radius 2−112402
spontaneous interparticle percolation of particles falling through bed of larger particles 2−79508
stellar atmospheres, energy and momentum transport assoc. with irreversible thermodynamics in radiating fluid 2−112428
Sturm-Liouville problems with discontinuous coeffs., eigenvalue bounds 2−58759
suspended sediment transport on One Tree Reef, southern Great Barrier Reef, rel. to water movement 2−117286
suspension, of dipolar Brownian particles in electric field, transport and relaxation 2−79505
swarm parameters determ. in O_2 and dry air 2−103246
thermally activated escape rate in presence of long-time memory 2−101359
transport-diffusion algorithm and its applications to the Navier-Stokes equations 2−69114
two-dimensional systems, electronic props., conf., New London, NH, USA (Aug. 1981) 2−58536
C gas, transport props., atomic interaction pots. 2−97689
CaCl transport through Nuclepore membranes, flows and activation energy 2−84560
Na, anharmonic crystal, thermodynamic and transport props., effect of temp. and press. 2−76706
SF_6 and SF_6 mixtures, transport parameters calc. 2−103273
SF_6 transport parameters calc. for non-equilibrium medium 2−103274
transport properties *see transport processes*
transport theory *see transport processes*
transport theory of neutrons *see neutron transport theory*
transport through biomembranes *see biomembrane transport*
transportation
see also aircraft; lifts; marine systems; rail traffic; rapid transit systems; road traffic
nuclear materials 2−108158
snow, surface friction and resistance props., review 2−88925
transportation of radioactive materials, safety aspects *(Spanish)* 2−70002
Pu transport casks shielding calc. code comparison 2−108159
PuO_2, raw material, large package transportation design 2−102031
transportation networks *see transportation*
transportation services *see transportation*
transportation systems *see transportation*
transverse rupture strength *see bending strength*
trapped electron centres *see F-centres*
trapped free radicals *see free radicals*

trapped hole centres *see V-centres*
traps, electron *see electron traps*
travelling-wave-tubes
see also backward-wave tubes
gyrotron travelling wave amplifier, analysis of oscillations 2−96872
gyrotron travelling wave amplifier, velocity spread and wall resists effects 2−96873
gyrotron travelling wave amplifier, wide-band fast wave amplifier construction 2−96874
treatment, heat *see heat treatment*
treatment, patient *see patient treatment*
treatment, surface *see surface treatment*
treatment, water *see water treatment*
trees (mathematics)
Cayley tree basis, local props. 2−87466
fault trees top-event probability, probability intervals, approximate method for computation 2−113712
Ising model, regular and random, on Cayley tree, higher order susceptibilities 2−77248
lattice animals: $d_c=8$ for trees 2−112835
Markov random fields and chains on trees 2−79343
Mayer graph estimates, upper bounds from spanning n-trees 2−84517
spin glass, Ising model on Cayley tree, mean field eqns. 2−87517
supersymmetric dual string theory, vertices and trees 2−84876
triboelectric emission *see electron emission*
triboelectricity
see also static electrification
Moon, triboelectric transient lunar phenomena, model expt. 2−117617
polymer powders in fluidised bed, triboelectrification device 2−115866
tribology
see also friction; lubrication; mechanical contact; wear
elastic conformity in Hertzian contacts 2−72847
inviscid theory for sliding flexible sheets 2−97468
thermomechanical effects on sliding surfaces, conf., Columbus, USA (June 1981) 2−101124
Dy, tribophysical pulverisation *(German)* 2−93634
Gd martensitic transformation on tribophysical pulverisation, HEED study 2−93506
Gd, tribophysical pulverisation, martensitic transformations *(German)* 2−93634
Tb, tribophysical pulverisation, martensitic transformations *(German)* 2−93634
triboluminescence
adhesive failure, fracto-emission of electrons, positive ions and photons 2−77716
alkali halide crystals, mechanoluminescence 2−104975
halide crystals, mechanoluminescence 2−104975
image intensifier spectrograph for recording triboluminescent spectra 2−64117
inorganic crystals, mechanoluminescence 2−104975
mechanoluminescence spectrometer, design and appls. 2−95484
Al_2O_3, sintered and fusion cast, and ruby and sapphire, fracture induced photon emission, appl. to fracture mechanics 2−93293
$Ba(ClO_3)_2.H_2O$, crystalloluminescence and mechanoluminescence spectra 2−110947
KCl(Br) crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
2 $K_2SO_4.Na_2SO_4$, crystalloluminescence and mechanoluminescence spectra 2−110947
Mn complex, Mn[bromotriphenylphosphoric oxide], photo-, mechano- and electroluminescence 2−93294
NaCl, cryst., triboluminesc., localisation and spectral composition 2−116283
NaCl crystals irradiated by CO_2 laser pulses, nonthermal nature of generated radiation flashes 2−61995
SiO_2 glass core optical fibre, broadband triboluminesc. obs. 2−116282
trigger circuits
see also multivibrators
camera remote release, using CdS cell, bipolar transistors, LED indicator 2−84725
cosmic ray trigger cct. for large solenoidal particle detectors 2−68621
fast digital trigger for LBL time projection chamber 2−70047
field programmable logic arrays, trigger system using two levels 2−70103
surface barrier detectors, fast timing methods 2−80402
triode sputtering
No entries
triodes
No entries
triple point *see critical points*
triplet absorption detection of magnetic resonance *see microwave-optical double resonance*
triplet state
acetone, zero field splitting, ODMR and phosphoresc. study 2−114022
adenine-thymine base pair, triplet excited electronic states, intermol. H-bonds, charge transfer, CNDO calcs. 2−102602
alkali dimers, lowest triplet state curve, pot. model for evaluation isotropic pairwise interaction energies 2−80767
alkali metal halide cryst., triplet excitons, hyperfine interactions ESR optical registration study 2−87629
anilines, halogen containing, lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
anthracene, delayed fluoresc., external heavy atom and mag. field effects 2−110926
anthracene, solns., absorbing and non-absorbing excited transients investig. 2−84717
anthracene, triplet exciton-exciton annihilation, mag. field depend. 2−115669
anthracene, triplet-triplet annihilation, spin-statistical factor 2−64890
anthracene carbonyl derivatives, excited singlet and triplet states, substituent effects 2−108616
anthracene-tetracyanobenzene, triplet-exciton transport between differently oriented sites, EPR 2−116054
anthracene/tetracyanobenzene, charge transfer cryst., ODMR and EPR spectra calc., triplet excition coherent motion effects 2−56445
anthracenes, $^1B_{3u}^+$ state delayed fluorescence, hetero-triplet-triplet annihilation 2−70321
aromatic cpds. in cyclohexane soln., triplet state form., picosec. pulse radiolysis 2−108532
triplet state continued
aromatic hydrocarbons, triplet states O_2 quenching, intersystem crossing enhancement 2−96624
aromatic mols. in presence of heavy atom perturbers, phosphoresc. and triplet state decay functions 2−102520
azabenzenes, electronic relax., rot. state depend. 2−80507
bacteriochlorophyllic pigments, triplet-triplet energy transfer 2−108668
1,2-benzanthracene in polystyrene matrices, delayed luminesc. time-resolved anisotropy 2−85728
benzil in benzophenone-d_{10}, ENDOR and electron nuclear-nuclear triple reson. study, ^{17}O hyperfine coupling 2−98995
benzophenone, doped, excitonic phosphorescence 2−110935
benzophenone, $n\pi^*$ triplet state in glassy matrices, time-resolved ESR detect. 2−59826
^{17}O-benzophenone, photoexcited, ODMR and ENDOR, orbital rot. in lowest triplet state 2−59831
benzophenone and its derivatives, triplet-state orbital configurations, Stark effect, phosphoresc. 2−96612
biphenyl-naphthalene(pyrene), mixed cryst., triplet exciton fusion, luminesc. study 2−110913
biphenyl-tetracyanobenzene complex, triplet excitons, intersystem crossing and spin state superposition 2−80701
carbonyl compounds, tetraatomic, lowest triplet state pot. surfaces, ab initio SCF MO calcs. 2−64872
carotenoids series, triplet-triplet energy transfer 2−108668
chemically induced electron spin polarisation, triplet mechanism, density matrix equations of motion 2−102510
chlorophyll, monomeric, in liposomes at −196°C, triplet state, phosphoresc. and delayed fluoresc. 2−62557
chlorophyll a, n-octane soln., triplet state, fluoresc., ODMR 2−85708
chlorophyll in barley leaves with blocked carotenoid biosynthesis, luminesc. analysis of triplet states 2−78307
chlorophyll in liposomes, phosphoresc. and liposome effects on quantum yields 2−78308
chlorophyll-protein complex, photosynthetic membrane, triplet state, fluoresc. study 2−78291
coupled doublet triplet system spin Hamiltonian and ESR spectra 2−87573
coupled pair, electrostatic energy splittings 2−59718
cyclobutadiene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
1,4-dibromonaphthalene, triplet exciton trapping, delayed fluoresc. obs. 2−98547
4-4′ dichlorobenzophenone, cryst. heating and triplet exciton non-radiative relax. 2−87852
4,4′-dichlorobenzophenone, triplet excitons, spectrosc. obs. 2−87630
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2−72519
dimethylbenzaldehydes, in durene single crysts., phosphoresc. lifetimes 2−67094
dioxodiazacycloalkanes, singlet-triplet transition, CNDO/S-CI SCF MO calcs. 2−64879
diphenanthrylpropanes, intramol. singlet and triplet excimers, fluoresc. 2−90600
diphenylacetylene-TCNB charge transfer complexes, single crysts., excited triplet states, EPR investig. 2−92989
diphenylmethylene, mixed crystals, in benzophenone, Zeeman spectra, triplet-triplet absorpt., mag. field effects 2−87743
DNA molecular motion, meas. by triplet anisotropy decay 2−93984
donor-acceptor systems, examination of electronic energy transport between excited states 2−74517
dye saturable absorbers, real time holography through triplet state absorpt. 2−86060
ethylene, singlet-triplet inversion, dynamic spin polarisation effect 2−108590
fluorene:?acridine, photochemical H abstraction from fluorene, kinetic 2−57627
fluorene: phenanthrene, guest mol. triplet state interaction, H^+ spins, dynamic nucl. polarisation study 2−87628
formaldoxime, electronic spectrum, ab initio CI study 2−54758
fumaronitrile, triplet energy meas. using laser flash photolysis 2−75203
peri-hexabenzocoronene triplet state, symm. distortions and pseudo-Jahn-Teller effect, MODOR obs. 2−75196
hexacene, soln., electronic spectra of ground and triplet state, dication and dianion 2−59817
1-indanone single cryst., Stark effect of lowest triplet states 2−104321
kekulene in polycrystalline tetrachlorobenzene matrix, fluoresc., phosphoresc., zero field splitting parameters, ODMR 2−102526
lowest excited triplet states, EPR and zero field ODMR studies, struct. 2−85704
mag. props. singlet triplet activation energy, ESR obs. 2−56914
maleonitrile, triplet energy meas. using laser flash photolysis 2−75203
metalloporphyrins, triplet state quenching by O_2 2−114036
methyl cation, triplet state, struct., inversion barrier, ab initio MO theory 2−108354
methylene blue+Fe complexes, quenching rates and efficiencies of forward and reverse electron transfer, temp. depend. 2−83369
methylsilane, vertical excitation energies for singlet and triplet states, ab initio calcs., photochemistry 2−72996
molecular cryst., triplet exciton coherent motion, model calc. 2−56445
molecular crystals, triplet exciton-exciton annihilation, mag. field depend. 2−115669
molecular pairs, triplet excitons, nonresonant coherent motion, EPR props., Zeeman effect 2−82696
naphthalene: 2(1,4-diiodotetrafluorobenzene), exciton-phonon coupling, triplet energy transfer, Raman spectrosc. obs. 2−104869
naphthalene:anthracene crysts., delayed fluorescence, triplet exciton traps effect *(French)* 2−77576
naphthalene, cryst., isotopically mixed, subst. disordered, triplet exciton transfer and fusion 2−92474
naphthalene clusters, triplet states, phosphoresc. lineshape anal. using spin-spin and spin-orbit interactions 2−96615
naphthalene in dihalobenzenes, coherence in phosphoresc. triplet state, pulse ODMR study 2−104748
naphthalene-d_8, phosphorescence, double exponential decay and noise levels 2−93248
nucleic acid components, excited-state props. 2−99899
one-dimensional interacting Fermi system with mag. impurities, magnetisation curve 2−82658
perinaphtho-thioindigoid dyes, photoisomerisation, flash photolysis study 2−99649

triplet state continued
phenazine in fluorene crystal, photoexcited triplet state, NQR, electron spin-echo detection 2−102497
1-phenyl-1-propyne, Ar matrix isolated, two-colour resonance photoionisation 2−85751
polyphenyl vinyl ketone, triplet lifetime, laser flash photolysis obs. 2−102529
polyvinylcarbazole, nitrated, exciton migration and localisation on defect and impurity levels, luminesc. obs. *(Ukrainian)* 2−82896
porphyrins, triplet state population, fluoresc. obs. 2−75349
porphyrins, triplet state quenching by O_2 2−114036
pyrazine, jet-cooled, picosecond excitation, fluoresc. decay and quantum beats, mag. field effects 2−90601
pyrazine-d_4, sublevel phosphoresc. spectra, radiative and nonradiative transitions, vibr. assignments 2−108606
pyrene-dimethylaniline, donor to radical pair electron transfer, triplet form., delayed fluoresc. obs. 2−85720
pyridine, triplet state, dynamical spectroscopy 2−102524
pyrochlorophyllide a-apomyoglobin complex, triplet state, zero-field fluoresc. ODMR 2−85709
pyromellitic N,N-dimethyldiimid-anthracene cryst. triplet exciton annihilation rate, fluorescence 2−71880
Rhodamine-6G, aq. soln. triplet state deactivation, visible-UV obs. 2−108540
rubrene, triplet lifetime, temp. depend., sensitized delayed fluoresc. obs. 2−59841
TCNQ salts, triphenylmethylarsonium $(TCNQ)_2$ and $Cs_2(TCNQ)_3$, one-dimensional triplet exciton systems, nucl. relax. 2−66940
tetracene, photoconductivity, mag. field effects, triplet exciton lifetime 2−72021
tetrachlorobenzene, exciton phonon scatt. at low temp., triplet exciton dynamics 2−109917
tetrachlorobenzene, exciton wave packet width, electron spin echo spectrosc. obs. 2−110619
tetramethyl-3-thio-1,3-cyclobutanedione-$h_{12}(d_{12})$ cryst., $n\pi^*$ transitions, visible spectra study 2−77546
tetraphenyl germanium, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl lead, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl silicon, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
tetraphenyl tin, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
5,6,11,12-tetraphenyletracene polycrystalline layers, triplet exciton pair mag.-reson. spectrum, detected from fluoresc. yield 2−116094
tetraphenylmethane, triplet state, interphenyl interactions, phosphoresc. obs. 2−90614
thioformaldehyde-$d_0(d_1)(d_2)$, ground and triplet states, vibr., SCF MO calcs. 2−85539
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390
2,4,5-trimethylbenzaldehyde, triplet state Stark spectrosc. above phosphoresc. origin 2−90593
trimethylenemethane derivatives, excitation energies calcs. 2−108410
triphenylene, excited triplet state IR spectroscopy 2−80596
two-level atoms, nonresonance effects in fluorescent Dicke model, semi-classical and quantal results 2−64908
xanthene-aromatic hydrocarbon system mixed triplet-triplet annihilation, mag. field effect 2−93256
xanthone triplet state in-pentane, multiple emission from single site 2−75341
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
AgCl, triplet excitons, hyperfine interactions ESR optical registration study 2−87629
Al(III)complex, sulphonated phthalocyanine, excited singlet and triplet state electron transfer reactions 2−78089
Ar complexes with Mg, Ca, Sr and Ba, pot. curve crossing 2−64895
Ba, Rydberg states, hyperfine struct., singlet-triplet mixing 2−90463
CF_2 triplet state, initial vibr. distrib. and relax. following prod. from reaction 2−70393
C_3H_6O species, triplet state, isomerism, geometry, STO calcs. 2−85525
CaO, F_2^{2+} defect, hole burning, optical spin-echo spectra 2−104298
CaO, triplet system orange arc bands, rot. anal. 2−70221
CaO:Mg, neutron or electron irrad., circular polarised luminesc. from F- and F_A-centres 2−110915
CrF_6^{4-} octahedral cluster, quintet-triplet electronic transitions, nephelauxetic effects 2−75175
Cu complex, $[Cu(bipyridyl)(OH)]_2SO_4.4H_2O$, triplet state, zero-field splitting, EPR obs. 2−80687
Cu_2, $a^3\Sigma_u^+$ state, Ne matrix isolation, absorpt. and fluoresc. obs. 2−114027
GaP, ODMR study of P_{Ga} antisite defect 2−98573
H-like ions, electron elastic scatt., s-, p-and d-wave phase shifts 2−108709
Hg(6^3P), optical pumping, quenching, visible triplet radiation transport 2−113948
InP: Fe, APR study 2−66900
KCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
Li, surfaces (100) and (110), BCC, H atom-cluster interactions, ab initio CI calc. 2−116325
N_2+H^+, N_2 energy loss spectrum 2−80799
$(NH_4)_2SO_4$, ferroelec., EPR study of triple state centre 2−98936
$NaNO_2:Ag^+$, triplet state, quadrupole interaction, optically detected ESR and ENDOR 2−116093
Ne_2 excimer, triplet state, O_2 quenching rate const. 2−80711
P, amorphous, radiative, triplet luminescence and metastable states, ODMR study 2−93265
RbCl:Ga, triplet excited states of Ga^+, optical detection of ESR study 2−82749
Ru(II) complex, Ru(2,2′-bis-isoquinoline)$_3^{2+}$, ligand centred luminesc. 2−90599
SO_2, crystalline, low lying electronic triplet state, phosphoresc. emission and excitation spectra 2−72535
SO_2 triplet state, EELS study 2−99235
Si, deformation caused by absorpt. at fundamental band max. 2−77465
n-Si, magnetoelectric effect, spin dependent electrical polarisabilities 2−82375
SiC:Al,N(Ti), luminescence, cross relax. optical detection 2−99180
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062

triplet state continued
Sr, Rydberg states, hyperfine struct., singlet-triplet mixing 2−90463
W (110), adsorption of α-CO, singlet-triplet interplay in charge transfer relax. process 2−105045

tritium
^{3}H-solute conc. monitoring using encapsulated plastic scintillator 2−73400
beta-decay, atomic effects and neutrino mass calc. *(Chinese)* 2−90053
breeding in $LiAlO_2$ blanket, performance of various techniques 2−113727
breeding studies in Li-blankets, on-line method 2−64633
build-up in liq. Li blanket in ICF chamber 2−75008
cryopumping, blocking by ^{3}He 2−84649
D-T: ^{3}He, liq., anomalous vapour press. meas. 2−66188
diffusion and electromigration in $ZrH_{0.028}$ and $ZrH_{0.91}$, 296 to 583K 2−56251
diffusion in dil. Ni and FCC Co alloys, mag. aftereffect meas. 2−82027
diffusion in metals, isotope effects, theory 2−98341
diffusion in Zircaloy-2, effect of low irrad. damage, O conc., δ-hydride form. 2−82025
fusion fuel handling, conference, Tokyo, Japan (Oct. 1980) 2−107022
gas, optical emission spectrum, 350-800 nm 2−75301
getters, liq. and solid acetylene, for T_2 gas 2−84638
glove box air clean-up process 2−75070
glove box air cleanup, removal system 2−75069
isotope (^{18}O,T,D) measurement techniques for hydrological purpose 2−73718
isotope separation by CO_2 laser-induced multiphoton dissoc. of pentafluoroethane-T 2−96754
liquid, homogeneous nucleation temp. meas. 2−104095
liquid, surface tension temp. depend., quantum effects 2−56302
low level tritium and gas phase, removal and recovery using U bed 2−90250
natural production in permeable rocks, rel. to groundwater ^{3}H contents 2−100381
nonequilibrium particle distrib., effects on energy evolved in a plasma 2−60726
permeation rates for fusion reactor materials 2−75000
permeation through first wall in fusion reactor 2−85376
permeation through metallic materials in HTR *(German)* 2−90240
permeation through reactor steel, corrosion scale effects *(German)* 2−90242
physical data and behaviour in fusion systems 2−75006
polyimide and polyamide-imide, stress relax. meas. in T_2 atmos. 2−88134
recovery from contaminated water by laser multiple photon dissociation 2−85380
RNA turnover in WI-38 fibroblasts and HeLa cells, effects of growth state and ^{3}H labelling level 2−62696
solubility in Zr-Al meas., getter appl. 2−86878
sorption from liq. Li using Y sorbers 2−85382
sorption from molten Li using Y metal 2−80175
spin polarised, ground state props. 2−98382
storage by incorporation in inorganic solids 2−102033
storage using molecular sieves 2−85377
target fabrication for rotating target neutron source 2−108189
technology for magnetic fusion energy program 2−85374
thermal diffusion in Nb, role in T permeation theory through fusion reactor first wall 2−85233
vacuum mechnical pump, T_2 compatible, for fusion reactors 2−84645
D-T content in glass microballoons, X-ray counting method 2−85242
D-T filled ICF target, positioning and freezing using cold mol. beam and quadrupole elec. field 2−85245
D-T mixture in glass shell, tritium, induced X-ray emission 2−67774
D-T mixtures, lasers for compression and fusion 2−69815
D-T plasma, ion tails and neutron rates due to lower hybrid waves, quasi-linear calc. 2−109541
D-T spherical high-temp. plasma in radial adiabatic expansion, analytical treatment 2−114968
D-T Tokamak reactors, plasma edge and divertor characts. 2−65747
D_2+T_2, liq. and solid, chem. exchange reactions, IR spectra study 2−96301
DT gas filled spherical targets, heavy-ion fusion, scaling laws 2−74940
H-T separation, cryogenic distillation column with feedback stream, simulation 2−90289
HT in air, prototype monitor design and performance 2−78272
HTO in air, prototype monitor design and performance 2−78272
HT(TD), muonic mols., deexcitation rates calc. *(Russian)* 2−70455
^{3}H monitor using ionisation chamber, design and performance 2−75117
T production in Li_3Bi, absorpt. in Ni, FBR blanket design 2−80220
T-H spin polarised matrix, variational theory of T=0K 2−71769
$T+F_2$, collinear reactions, semi- and quasi-classical probabilities calcs. 2−105473

tritium compounds
liquid scintillation counting of tritiated compounds, determ. of accurate counting efficiency 2−54733
ternary mixture of H/D/T compounds, CO_2 laser isotope separation 2−62412
HTO exposure, estimation of effective dose equiv. using T concs. in urine 2−117089

triton interactions *see triton-nucleus reactions*

triton-nucleus reactions
for inelastic triton-nucleus scattering, see "triton-nucleus scattering" see also nuclear fusion
fusion of D-T mixtures catalysed by muons 2−80045
(t,p), analysing powers and two-step transfer processes 2−59355
(t,p), direct processes, simultaneous transfer DWBA descript., unhappiness factors 2−79996
(t,p), simultaneous and sequential two-nucleon transfer reaction props. 2−101854
(t,pγ), γp coincidence techniques feasibility test 2−64815
^{10}B(t,α)^{9}Be, 2.429 MeV state, ang. distrib., DWBA anal. 2−64413
^{12}C(t,p)^{14}C, 18 MeV, ground and 6.59 MeV 0^+ states 2−54406
^{48}Ca(t,p), finite range DWBA anals. with realistic wave functions 2−64410
^{48}Ca(t,p)^{50}Ca, sequential and simultaneous transfer of neutron pair 2−107860
^{166}Er(t,p), ^{168}Er level excitation, rel. to IBM calcs. 2−107866
^{167}Er(t,α), 17 MeV, ^{166}Ho energy levels, spectroscopic factor observation, rotational states assignments 2−113341
Ge(t,p), even-A nuclei, shape coexistence and shape transitions 2−84949
^{1}H(^{3}H,2p2n), 2.5 GeV/c, expt. results and comparison with pole model predictions 2−59366

triton-nucleus reactions continued
$^{204}Hg(t,p)^{206}Hg$, 2.102 MeV level, nuclear gyromagnetic ratio, spin parity, and lifetime meas. 2−113364
$^{A}Ir(t,\alpha)$, A-191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
$^{A}Ir(t,\alpha)$, A=191, 193, proton separation energy meas. 2−96014
$^{A}Ir(t,p)$, A=191,193, spectroscopic strengths, dynamical supersymmetries test 2−69667
Os(t,p), IBA model calcs. 2−69565
$^{194}Pt(t,p)$, ^{196}Pt level excitation, rel. to IBM calcs. 2−107866
Pt(t,p), IBA model calcs. 2−69565
$^{82}Se(t,\alpha)$, 18 MeV, ^{81}As levels, J^{π}, spectroscopic factors, DWBA anal. 2−69539
$^{30}Si(t,p)^{32}Si$, 15 MeV, excitation energies meas. 2−54407
$^{176}Yb(t,p)$, 15 MeV, ^{178}Yb energy levels, J^{π} assignments, angular distribution comparison with DWBA calcs. 2−113332
$^{90}Zr(t,p)$, finite range DWBA anals. with realistic wave functions 2−64410
$^{90}Zr(t,p)^{92}Zr$, sequential and simultaneous transfer of neutron pair 2−107860

triton-nucleus scattering
transmission coefficients for light projectiles 2−69621
$^{27}Al(t,t)$, t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
$^{12}C(t,t)$, 15, 17 MeV, polarised triton scatt., parity depend. pot. 2−54405
$^{26}Mg(t,t)$, t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870
$^{28}Si(t,t)$, t pol., 17 MeV, cross-section, anal. power, rel. to optical model 2−107870

triton scattering *see triton-nucleus scattering*

tritons
No entries

trolleybuses *see road vehicles*

troposphere
see also atmospheric boundary layer; tropospheric electromagnetic wave propagation
aerosol layers, shortwave radiative props. evaluation uncertainties, expt. and numerical errors 2−94490
aerosol optical characterisation using computer programs 2−73686
aerosols, transport of Cl-rich particles into central and eastern United States 2−63062
aerosols over N.Europe, particle size distrib. obs. 2−63052
brominated methanes and ethanes, photochemistry in stratosphere/troposphere from UV absorpt. spectra 2−111600
convective storms, jet stream config., 500 mb vorticity advection and low level thermal advection patterns 2−106192
desert aerosols, Landsat multispectral radiometry 2−63041
dichlorodifluoromethane in Earth's atmosphere, tropospheric losses rel. to observed concs. 2−100453
formaldehyde, distrib. rel. to air chemistry 2−73668
gaseous pollutants, lidar meas. 2−63132
general circulation model of large-scale features 2−68449
geomagnetic disturbances correl. with Vorticity Area Index 2−106269
global Rossby waves, theory and obs. 2−94440
gravity wave generation by thunderstorms 2−100446
gravity waves detected by obs. of microwave emissions fluctuation 2−63056
halocarbon oxidation by OH in atmos., global, hemispheric models 2−68406
humidity remote sensing, moisture sounding at millimetre wavelengths (94/183 GHz) at high altitudes 2−117480
Indian tornadoes, distribution and assoc. meteorological conditions 2−68443
instability, effect of Earth entry into solar corpuscular stream 2−106471
IR emission meas. using balloon-borne cryogenic Fourier transform spectrometer 2−117474
jet stream double maximum in Southern Hemisphere 2−100443
large-scale circulation, nonlinear model of long waves 2−68450
laser beam propagation, meas. of turbulence-induced beam spread and wander at 1.06, 3.8 and 10.6 μm 2−117458
lidar (infrared) obs. of cloud and aerosol from space, optical calcs. 2−94500
lidar clear atmosphere multiple scattering dependence on receiver range 2−106306
lidar remote sensing of clouds, aerosol, temp. and density satellite multispectral method 2−94501
light backscattering coefficients, spatial inhomogeneities *(Russian)* 2−58121
Meteosat water vapour imagery for troposphere 2−83919
methane, global increase in atmospheric concs. between 1978 and (1980) 2−100452
Middle East, July lower troposphere, wind humidity and temp. 2−100496
moisture remote sensing by TIROS-N infrared imagery method 2−88978
nocturnal boundary layer, radiative cooling effects, model 2−78786
Northern Hemisphere, linear trends in tropospheric geopotential height and temp. patterns 2−100469
Northern Hemisphere winter blocking and cyclogenesis, unified three dimens. instability theory 2−106235
NW Pacific, upper tropospheric cold lows, diagnostics 2−112014
Pacific atmos. circulation, CO_2 conc. variability study 2−112064
photochemistry, isotropic multiple scattering and surface albedo effects 2−94419
Poker Flat, USA, turbulence spectra from meridional and zonal wind obs. 2−106241
pollution detection in troposphere and stratosphere, satellite-borne research development 2−73181
radiative flux meas. in tropospheres, rel. to heating rates and solar constant 2−58119
radiative heating of St. Louis (USA) boundary layer, pollution effects 2−63011
Roque de Los Muchachos, La Palma, solar seeing and atmospheric turbulence meas. 2−73683
sea-breeze front at Canberra, radar study of insects 2−100529
Shar, India, wind profiles from boundary layer up to 10 km 2−78761
solar wind mag sector struct. correl. with Vorticity Area Index 2−106269
South America summertime upper troposphere vorticity budget from cloud wind data 2−106193
Space Shuttle booster rocket contrib. to atmos. aerosol 2−106265
stationary planetary waves forced by topography and diabatic heating 2−117408

troposphere continued
temperature and density vertical profiles from Salyut solar disc. obs. *(Russian)* 2−58098
temperature oscillations mechanism in troposphere-stratosphere system, thermodynamic model *(Russian)* 2−73627
thermal winds determination from horizontal gradients of satellite radiance obs. 2−78877
thermally driven motions in equatorial β-plane, Hadley and Walker circulations during winter monsoon 2−112010
trace gas concs. in and above tropical boundary layer 2−106275
trace gases in troposphere and stratosphere, vertical profiles at mid-latitudes 2−63075
tropopause height and static stability of troposphere 2−94451
tropopause-lower stratosphere oberved by VHF radar 2−88955
turbulence, occurrence statistics of Richardson number less than unity 2−94460
upper troposphere cold low in western North Pacific, anal. using GMS satellite data 2−100461
volcanic eruption plume dynamics, April 1979 eruption 2−73519
warming, evidence from 1958-80 radiosonde records 2−111988
wave propagation into stratosphere, rel. to numerical modelling of stratospheric sudden warming 2−100477
wind vector remote sensing by far IR satellite imagery 2−89012
wind velocity fluctuations, power spectrum at 8 km altitude 2−100449
winter zonal circulation in upper troposphere 2−88949
zonal circulation, effect of momentum and heat sources in quasi-geostrophic model 2−73620
CS_2 residence time from free troposphere and boundary layer obs. 2−63029
H_2O vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., theory 2−80591
H_2O, vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., model 2−80592
H_2O_2, aqueous phase formation and destruction mechanisms 2−78791
NH_3 aerosol, pH control of clouds and precip., atmos. comp. meas. and modelling 2−68402
NO_x in Pacific troposphere, conc. var, from spectral obs., O_3 implications 2−73622
N_2O variability in troposphere, global scale model 2−78793
O_3 conc. increase due to aircraft emission pollution 2−106172
O_3 seasonal and meridional variability, 2-D model 2−63065
O_3 vertical profiles in equatorial Indian Ocean, MONEX obs. 2−88937
OH laser induced fluoresc. meas., influence of rot. relax. 2−94480
^{90}Sr in surface air and stratosphere, inventory of 1963-75 data 2−111599

tropospheric electromagnetic wave propagation
4 and 6 GHz depolarisation correlation on satellite to ground slant paths 2−63024
14/11 GHz rain attenuation characteristics on the Earth-space paths *(Japanese)* 2−68435
aerosol plume optical extinction, effect of particle coagulation 2−94487
Atmospheric Sciences Laboratory-MMTRN model 2−117393
attenuation and radiometer meas. along OTS slant-path at Martlesham 2−100535
Bay of Bengal region, radio refractivity during monsoon season 2−112079
British Telecom transhorizon on radio service to offshore oil/gas platforms 2−94434
cloud effects on blue-green light pulse propagation 2−94486
COMSTAR satellite propagation experiments, 19 and 28 GHz 2−94471
cross-polar statistics at 12 and 14 GHz on 30° slant-path 2−100534
cumulus, optical albedo and extinction coeff. 2−73685
depolarisation due to snowfall at 34.5 GHz 2−68466
Doppler radar obs. of C_n^2 variability over Poker Flat, Alaska 2−78812
ducting conditions at Poona, diurnal and seasonal variations up to 33.5 m height 2−68434
fading of meter waves in tropospheric propagation beyond the horizon *(Polish)* 2−100415
frequency behaviour of scattered signal in troposcatter links 2−100536
hurricane, radar reflectivity depend. on rainfall rate 2−94464
line-of-sight radio link, 160 km, received signal level measurements 2−117404
long-range tropospheric propag., effect of Earth's surface 2−63071
Lucknow-Allahabad TV link, India, VHF signal propag. 2−117406
meas. at Ballistic Research Laboratory 2−117392
microwave attenuation beyond 10 GHz, rain profile characterisation using 2nd order approx. 2−94435
microwave communication, sodar-derived boundary layer information appl. 2−78790
microwave mode conversion in troposphere due to lateral inhomogeneity 2−68462
microwave scattering by ocean wind, sensor performance simulator 2−117509
millimetre wave propagation, model for resonant transmittance 2−117394
millimetre wave turbulence measurement, techniques and instrumentation 2−117395
millimetre-wave propagation, meas. at Ballistic Research Laboratory 2−117392
millimetre-wave propagation, rel. to moisture sounding at high altitudes 2−117480
millimetre-wave snow extinction, Atmospheric Sciences Laboratory-MMTRN model 2−117393
mm waves, meteorological instruments used in experiments *(Japanese)* 2−58169
mm waves, propagation experiment programme, outline of programme *(Japanese)* 2−58113
mm waves experiments, data acquisition and processing system *(Japanese)* 2−58129
mm waves experiments, instruments for raindrop size meas. *(Japanese)* 2−58170
moisture content one-channel meas. using self-emission 1.35 cm H_2O line 2−68465
moisture sounding at millimetre wavelengths (94/183 GHz) at high altitudes 2−117480
NASA 30/20 GHz experimental satellite, effects of rain on system performance 2−106292
radar reflectivity of rain at 34.8 GHz, for non-spherical drops 2−58109
radiowaves, tropospheric effects on radiosource astrometry 2−79233
radiowaves transmitted in uniform rain-filled med., path length and attenuation 2−83887
rain attenuation prediction methods for microwave paths in Greece 2−100533

tropospheric electromagnetic wave propagation continued
rain attenuation statistics for slant path at 11.6 GHz using Italian Sirio satellite expts. 2−78749
rain fade duration on Earth-space paths, calc. of statistics 2−117432
rain scatter interference dependence on polarisations and positions of terrestrial and Earth stations 2−94477
rain-scatter coupling between space-earth radio paths, measured bounds 2−94436
rainfall reflectivity factor distrib. from attenuated wave radar 2−83864
ray tracing on tropospheric radio paths 2−78717
raypath parameters, terrestrial microwave communication appl. 2−106212
route diversity systems at freqs. above 10 GHz, performance analysis 2−83886
satellite telecommunication, link availability subject to correlated rain attenuation at ground terminals 2−106293
scatter radio links, propag. delay distortions 2−73621
SHF attenuation and phase shift due to rain in communication bands 2−58103
SHF scattering at sea surface at small grazing angles, characts. 2−73653
snow, near-millimetre wave propag. characts. 2−117396
thunderstorm cloud temp. profile meas. by radar technique 2−112178
transmission loss prediction in troposcatter communication systems 2−100532
tropopause-lower stratosphere oberved by VHF radar 2−88955
tropospheric duct excitation by EM field of groundbased source scattered by acoustic wave 2−94473
UHF TV signal propagation anomalies due to inversion layers *(Japanese)* 2−58200
vertical attenuation of 4.1 mm wave radiation in Earth's atmosphere, meas. 2−63072
water vapour, microwave excess path length estimation by max. likelihood method, multialgorithm program 2−106290
wave tilt of TE and TM mode waves over homogeneous Earth model 2−100206
wet path-delay meas. in troposphere 2−94437

TSC *see thermally stimulated currents*

TSCD *see thermally stimulated currents*

TSD *see thermally stimulated currents*

TTL *see transistor-transistor logic*

tube flow *see pipe flow*

tubes (electronic) *see electron tubes*

tuners *see tuning*

tungsten
see also nuclei with .....
(001), adsorbed H, desorption kinetics and surface restructuring 2−87025
(110) surface, chemisorption of H, photoemission and electron stimulated desorption study 2−87049
(110) surface, diffusion and tunnelling of H and D 2−82030
(110) surface with adsorbed CO, core-level processes in electron stimulated desorption 2−110151
adsorbed ferritin, field desorption imaging technique 2−76829
adsorbed K submonolayers, field emission flicker noise, cross-correlation coeff. 2−99306
adsorbed methane and CO, interactions, ESD and flash desorpt. study 2−110163
adsorbed N_2 and CO on W{100} surface, $(\sqrt{2}\times\sqrt{2})R45°$ surface phase, LEED struct. anal. 2−110142
adsorbed Pd on W curved cryst. surface, equilib. coverage distrib., field electron probe-hole study 2−56360
adsorbed Te, multiple commensurate-incommensurate transitions, LEED study 2−115560
adsorption of α-CO on (110) surface, singlet-triplet interplay in charge transfer relax. process 2−105045
adsorption of Li and Cs, adatom indirect interaction 2−71806
adsorption of N_2/O_2 mixture at low temp., FEM study 2−76804
adsorption of Se on (100) surface, AES, LEED, work function, and thermal desorption meas. 2−66362
atomic beam laser excitation for lifetime meas. in configuration $(5d+6s)^5 6p$ 2−54806
Auger profiling, obs. of artifacts 2−78005
barrier between Al and NiSi to inhibit reaction 2−87393
bicrystals, grain boundary fracture 2−83198
bremsstrahlung excited Auger electron spectra 2−105035
carburisation kinetics, effects of trace impurities *(German)* 2−105113
chemisorption and physisorption of acetylene on (100) surface at 80K 2−56344
chemisorption of Cs on (001) surface, work function lowering by multiple dipole form., full pot. linearised APW calc. 2−72050
chemisorption of Li, image pot. contrib. to sorption energy 2−104163
chemisorption of N_2 and H_2 on densely packed cryst. planes 2−115559
cold worked, grain boundary dislocations, topographic anal., field ion microscopy study 2−115242
cross-rolled, tensile and low cycle fatigue meas. 2−72808
CVD, from $W(CO)_6$, low temp. 2−87102
cyclotron masses and many-body effects, relativistic APW calc. 2−56426
desorption, electron stimulated, of H_2 and O_2, quantum effects 2−76801
diffusion, of ^{185}W, via grain boundaries and defects 2−71718
diffusion and stability of strengthening phases, review 2−104065
diffusion of Re *(Russian)* 2−76739
diffusion parameters in Ni, dynamic computer model *(Russian)* 2−76740
dispenser cathodes, M-type, activation by Os-Ru coating, Auger, XPS and ISS study 2−82091
electric spark alloying with TiN, ZrN and HfN 2−67657
electrical resistivity-temperature scale, vacancy parameters 2−98622
electron dechannelling lengths, and diffusion coeffs. *(Russian)* 2−56063
electron microscopes, directly heated tungsten hair pin cathode development 2−101498
electron mirror reflection coeff., determ. impedance *(Russian)* 2−72587
electron-stimulated desorption of O^- 2−61294
electropulse compacted, porosity influence on elastic moduli 2−111223
empirical pair potentials for He interaction with substitutional Ne(Ar) 2−65065
face, (100), unreconstructed and H reconstructed, W4f core level shift study 2−92711
fibre reinforced Cu, helical fibres tensile props. *(Japanese)* 2−77913
fibre reinforced Cu composites, tensile yield behavior, effect of thermal history *(Japanese)* 2−105238
fibre reinforced depleted U-Ti matrix, corrosion rates and electrochem. behaviour obs. 2−116566

tungsten continued
fibre reinforced Ni superalloy, high temp. composite, microstruct. stabilisation with ZrO_2 short fibres *(German)* 2−77781
field adsorption of Ne, electron-stimulated field desorption study 2−105053
field emission, photoinduced, linear intensity depend. 2−87956
field emission statistics meas. for various cryst. faces 2−93387
field emitter nonequilib. emission of excited electrons 2−116342
field evaporation, electrothermodynamic cycle calc. 2−93383
field evaporation, faulty, at divacancies in {222} 2−57271
film, plasma-enhanced CVD, elec. resist. and film stress 2−93434
first wall materials in fusion reactor, impurity ions sputtering yields 2−74921
fusion materials-radiation effects facility, use of Los Alamos Meson Physics Facility 2−85239
fusion reaction, W shielding calculations improvement 2−108131
fusion-neutron irrad. damage rates 2−103828
heat sink for INTOR divertor collector plate 2−74903
helical fibre reinforced Cu, fibre deform. under tensile load *(Japanese)* 2−105233
high purity, prep. scheme 2−105105
interaction with UO_2 2−59470
ion beam induced radiation defects and stimulated trapping efficiency 2−76516
ion implanted with Xe^+, Xe-defect configuration spatial anisotropy, ^{133}Xe TDPAC study 2−61044
ion irradiation, by H^+ and He^+ damage struct., blistering process, TEM study 2−76520
ion-irradiated, atomic resolution obs. of point defect struct. of depleted zones 2−103862
laser mirros for far VUV spectral region 2−81046
microhardness anisotropy of single crysts., Re addition influence *(Russian)* 2−67529
neutron irrad., recovery behaviour, impurity effects, elec. resist. study 2−77843
oxides, thin film, differential reflectometry 2−101445
partitioning rel. to lunar origin 2−78988
photoelectric cross-sections at L edges 2−56639
polycrystalline, deformed, grain growth during fast heating *(Russian)* 2−93542
polycrystalline, UV-bremsstrahlung, recording apparatus 2−87891
polycrystalline surface, Auger neutralization of multiply charged rare gas ions 2−99265
powder, activated sintering mechanism, defective struct. influence 2−67253
powder, effects of foreign element additions on reduction of WO_x *(German)* 2−105102
powder, fine, sintering 2−116413
proton dechannelling, lattice thermal vibrs. effect 2−109872
radiance temp. at melting pt. 2−115442
range profiles of ^3He and ^6Li ions 2−66089
reconstructed surface, backscattered channelling MeV ions, surface peak intensity 2−116322
reflectivity at 10.6 microns, laser heating effects 2−72442
rod, sintered, section rolling analysis 2−67402
scattering of keV H and He ions 2−77668
screw dislocation dynamics, irrad. softening, HVEM obs. 2−98104
single crystal, cylindrical, ⟨110⟩ zone surface struct., LEED and work function 2−61269
sputtering yield for, Monte Carlo calc. 2−77674
surface, {100}(1×1), reliability of LEED I-V spectra, incidence angle errors and symm. effects 2−76784
surface, (001), reconstruction, theory 2−110101
surface, (110), adatom structures, model 2−87011
surface, (110), adsorbed CO, neutral particle electron stimulated desorpt. reson. contributions meas. 2−56331
surface, (110), adsorbed H, angle resolved UPS and EELS study 2−92360
surface, (111), clean and adsorbed H_2, ang. resolved photoemission meas. and LCAO calc. 2−83008
surface, (111) and (100), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
surface, adsorbed Cs displacement by Sm 2−104164
surface, adsorption of Te, binding states, LEED, Auger and work function study 2−82146
surface, chemisorbed O_2 and H_2, photoemission study *(French)* 2−105052
surface, diatomic W cluster migration, computer simulation 2−86990
surface, electron stimulated desorption of methane 2−98467
surface, heated, SF_5^- form. SF_5%u%- form. 2−99233
surface, Na scatt. and electron stimulated desorption, theory of nonadiabatic processes of adsorbates 2−115543
surface, resonance tunnelling neutralisation of He^+ ions 2−62038
surface, Si adatoms atomic processes, direct obs. by FIM 2−115570
surface, substrate strain induced interaction of adatoms, diffusion and self-trapping 2−66368
surface (001), adsorbed H phase suppression by steps 2−98409
surface (001), energy-, angle-, and spin resolved photoemission by unpolarised light 2−99300
surface (001), transition to incommensurate reconstruction induced by H adsorpt. 2−56313
surface (001) struct. transition, LEED fine struct. 2−110104
surface (011), adsorption of Sc and Ti, d shell role 2−104165
surface (100), adsorbed H and temp. induced reconstruction, polarised LEED study 2−56308
surface (100), C_2H_2,CL_2 and I_2 thermal desorption, Auger spectra study 2−87067
surface (100), chemisorption of S, Auger, TDS, LEED and work function study 2−82147
surface (100), polarized LEED, const. moment transfer averaging data reduction 2−110122
surface (100), sputtering of chemisorbed N, mass effect 2−82981
surface (110), adsorption of I_2, LEED and Auger study, antiphase boundary model 2−82144
surface (110), adsorption of I_2, non-coincident adatom net model, LEED patterns 2−82145
surface (110), H chemisorption effect on LEED fine struct. *(French)* 2−104122
surface (110), LEED fine struct., effect of H chemisorption 2−81635
surface (110), low energy K^+ ion scatt., struct. effects 2−99264
surface (110), NH_3 adsorpt. and decomposition, XPS study, core level binding energy interpretation using equiv. core approx. 2−115558

tungsten continued
surface (110), thermal desorption of Xe 2−61290
surface (110), work function change on adsorption of O 2−61558
surface and Cs covered surface, H^- production by proton scatt., theoretical model 2−93351
surface at high temp., laser-activated chemisorption of SF_6 mols. 2−56366
surface core-level shifts for low-index surfaces 2−56661
surface diffusional electrotransport of ^{63}Ni *(Russian)* 2−104083
surface electronic struct., APW and warped muffin-tin calc. 2−61343
surface inelastically scattered Ar atoms, differential cross sections 2−87930
surfaces, clean and absorbate-covered, metastable He atom refl. 2−82979
surfaces, deposition and etching by means of beam plasma discharge with tube like electron beam 2−116372
surfaces (001), low energy He atom reflection, calc. 2−69850
thermionic emission, coated by LaB_6 film, by ion beam sputter deposition *(Japanese)* 2−82996
thin film, on GaAs substrate, positron-annihilation study 2−82952
thin plates, adsorbed O_2H_2 and Ag effects on conduction electron diffr. and refle ction *(Russian)* 2−71959
thin plates, adsorbed O_2H_2 and Ag effects on conduction electron diffr. and reflection *(Russian)* 2−82339
thin plates (110), multiple Sondheimer oscillations *(Russian)* 2−104416
US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
vacancy trapping at ^{111}In, TDPAC meas. 2−76487
vacuum flashed surfaces, adsorpt. of Ne and He, energy and tangential momentum accommodation coeff. 2−76805
valence band struct., angle-resolved XPS, synchrotron radiation, direct transitions and phonon effects 2−61340
wire, eddy current flaw detector 2−116667
wire, splitting, knife-edge compression test 2−116536
wire reinforced Ni-base superalloy, flow and fracture behaviour during isothermal forging 2−93617
Al/W/NiSi structure, use of thin W barrier to inhibit Al+NiSi reaction 2−98472
Ar-W high pressure arcs, heat transfer in column 2−103541
β-B:W,Ta, grown by electron-beam zone refining, distrib. patterns 2−76480
Cu coated W spheres, liq. phase sintering, rearrangement of large particles 2−88028
Cu-W, ion beam microtextured surface, optical absorption coeff. 2−83277
Cu-W, ion beam mixing study by 300 keV Kr^{4+} bombardment 2−76514
Mo-W bilayer film, solid state disilicide form., annealing and ion implantation effects 2−92371
Ni-W, ion beam microtextured surface, optical absorption coeff. 2−83277
Si:W, ion implanted, defect features 2−103796
W (001) surface atomic structure, reconstruction, FIM study 2−66331
W (100), total hemispherical emissivity, adsorbate-induced change 2−61182
W I and II lines, oscillator strengths 2−54802
W, of gas, energy and tangential momentum accommodation coeff. 2−76806
W single crystal, ^{22}Ne irrad., radiation damage, blocking minima *(Russian)* 2−59434
W, vacuum siliciding diffusion parameters, influence of NaCl activator 2−83273
W^{71+}, inelastic scatt., excitation, relativistic Born cross sections 2−114116
W:Ag,He, ion implanted, He precipitation at substitutional Ag atoms He desorption study 2−92218
W-Al_2O_3 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
W-BaO B-type dispenser cathode surface, theoretical model 2−99290
W-GaAs, refractory contacts, interface reactions and Schottky barrier form. 2−110444
W-GaAs Schottky barrier, elec. props. and interface chem., XPS study 2−115853
W-GaAs:Se^+ Schottky barrier, high temp. elec. and interdiffusion stability meas. 2−87365
W-Gd point contact M/M diode, improved performance 2−98761
W-Ni point-contact diode, expt. nonlinearity coeffs. 2−56723
W-Ni-Fe, sintered alloy, fatigue crack growth 2−99521
W-Si interface, polycryst. Si film growth and disilicide formation 2−71817
$W+He^+$, M to L shell X-ray yields ratio 2−59592
^{185}W, diffusion in W, Mo or Nb, via grain boundaries and defects 2−71718
W(110), adsorption of N_2O, XPS and UPS mes., horizontal and vertical configurations 2−73009

tungsten alloys
see also tungsten compounds
Stellite-6, in fission reactors, ^{60}Co release rates 2−80114
WC-Co, sintered, surface struct. and strength after various forms of working 2−67458
WC-Co alloys microscopic behaviour in deformation, anal. using finite elements *(Japanese)* 2−77882
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-W-C, n-carbides, struct. stability *(German)* 2−83097
Fe-Co-W semihard mag. alloys for remanent reed switch appl. 2−82626
Fe-Cr-Co-W, mag. props. and cryst. struct. *(Russian)* 2−92970
Fe-Ti(Cr)(Mn)(Ni)(Rh)(W), in contact with SiC single cryst., adhesion, friction and wear 2−88199
Fe-W-C, n-carbides, struct. stability *(German)* 2−83097
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), C activity, influence of alloying additions *(German)* 2−93491
$Hf_{1-x}Ti_xW_2$, high temp. equilib., struct. transformation 2−66177
Ir-W-Th, DOP-26, Th-doped, weld metal grain struct. and mech. props. 2−99499
Mo-W (5 wt.%), creep props., effect of substructure 2−105227
Nb-W, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
Nb-W-Ti(Zr), creep kinetics under ultrahigh vac. 2−67462
Ni-AlW, Ni_3Al based structural alloy, props. 2−72874
Ni-Cr-Co-W-Al-Ti-Nb-Hf system, refractory as-cast alloy, phase comp., struct. transforms. during high-temp. heating 2−99434
Ni-Cr-Mo-W, heat-resist., struct. and strength characts. estimation on temp. and time basis 2−111250

tungsten alloys continued
Ni-Mo-W, field vaporis., auto-ion mass spectrometry obs. *(Russian)* 2−67198
Ni-W, directionally crystallised eutectic, crystallographic struct., electron microscopy study *(Russian)* 2−91870
Ni-W, eutectic alloy, directionally solidified, precip. of Ni_4W around W fibres mosaic struct. form. 2−105146
Ni-W-Co-Cr-Al-Nb-C eutectic CoTaC-741 alloy autoradiographic investig. of Pm distrib. 2−105176
Ni-WC cermet, electrocodeposition and mech. props. 2−93462
$Ni_3(Al, W)$, heat-resistant, dendritic segregation 2−72698
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Ta-Re(Mo)(Hf)(W)(Zr), athermal solid soln. hardening 2−99437
Ta-W (10 wt.%), limiters in Doublet III, changes in near-surface microstructure 2−74901
Ta-W (10 wt.%) single crystals, hydrogen embrittlement, 77K-290K temp. range *(Japanese)* 2−67549
Ta-W alloys, elec. resist. meas. 2−98621
Ta-W-Re(Mo)(Hf)(Nb), athermal solid soln. hardening 2−99437
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-W, cooling rate effect on struct. 2−67315
TiC-W, TiN-W and TiB_2-W, sintering and props. 2−111109
U-W-B, phase constitution, X-ray diffr. photographs 2−83095
W-Al-Ge system, ternary cpds. existence and struct. 2−57333
W-Cr sintered alloys, prod. and oxidation 2−72655
W-Cr-Pd sintered alloys, Pd addition effects on oxidation 2−72885
W-Cu, liq. phase sintering, W particles rearrangement mechanism *(Korean)* 2−116406
W-Cu(Ag), powder metallurgy factors affecting elec. contact props. 2−116408
W-Fe powders, predetermined comp., electrochem. prod. 2−83064
W-Gd-B, phase comp. and cryst. struct. 2−116426
W-Ir(Ru)(Os) matrix cathodes with 10A/cm^2 current density, emission and life testing studies 2−57244
W-K-Si-Al, bubble-strengthened, swelling during sintering 2−105101
W-Ni, solubility of Ni, activated recrystallisation, liq. phase sintering 2−103997
W-Ni-Fe, sintering, effects of impurities *(German)* 2−105103
W-Ni-Fe system, thermodynamic calc. of phase diagram at 1540°C *(Korean)* 2−83085
W-Pt(Pd)/Si, shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
W-Re, single crysts., microhardness anisotropy, Re conc. depend. *(Russian)* 2−67529
W-Re cesiated foil targets heated by laser pulse as electron source for high quality electron beams 2−96358
WC-(TiC)-Co, appl. of carbide coatings 2−72883
WC-Co, as-milled Co distrib. 2−111118
WC-Co, deformed, defect struct. of WC 2−83166
WC-Co, elastic deform. during compression, math. modelling 2−77863
WC-Co, phase comp. determ. and regulation by two-freq. mag. method 2−67241
WC-Co (10%)-hardmetal, sintering, prep. and props. *(German)* 2−105114
WC-Co (25 wt.%), martensitic transform., transverse rupture strength 2−105289
WC-Co (6 wt.%), substoichiometric, η-phase particles 2−105290
WC-Co cemented carbide, bend deform. up to 1273K 2−57432
WC-Co cermet, surface modification by H ion erosion 2−93655
WC-Co hard alloy components, endurance eval. for cyclic loading conditions 2−99634
WC-Co sintered carbides, quality inspection instrument 2−83337
WC-Co sphere impingement at oblique incidence for Al erosion 2−111324
WC-Co VK6 hard metal, optimum conditions for hot pressing, characts. 2−67247
WC-Co(Ni), cavitation erosion 2−88205
WC-Ni, densification during heating under high pressure 2−72662
WC-Ni cemented carbides, prep. and props. 2−111119
WC-TiC-TaC binderless cemented carbides, effect of hot isostatic pressing 2−111120
WC-TiC-TaC-NbC-Co cemented carbide, C content effects 2−77939
WSi_2 compounds, chem. bonding, XPES and X-ray emission study 2−91862
$Zr_{1-x}Hf_xW_2$, high temp. equilib., struct. transformation 2−66177

tungsten compounds
see also tungsten alloys
nitrides, and oxynitrides, obs. of artifacts during Auger profiling 2−78005
polyacetylene:$MoCl_5(WCl_6)$ films, phys. props., dopant effects 2−104880
Al_2O_3-WO_3 layer system, electrochromic props. 2−104847
$H_3W_{12}PO_{40}$ and $H_3MO_{12}PO_{40}$, elec. cond. of hydrated cpds., and mixed crysts. 2−56584
$In_{2-x}Sn_xO_{3-y}$-WO_3-LiAlF$_4$-LiIn thin film overlayer, electrochromism 2−72569
NH_4^+/H^+-W-O system, phase diagram 2−99407
Nb_2O_5-WO_3, O vacancies, reduction and phase transition, TEM 2−97879
$PtWO_3$, hypothetical electrode material band struct. and electronic density of states 2−66447
Si/WSi_2-based composite electrodes for MOS-type capacitor structs., elec. props. 2−98752
$Sr_{0.92}Pb_{0.98}(Li_{0.008}W_{0.012}Ti_{0.46}Zr_{0.52})O_3$, impurity distrib., props. 2−86701
W-O system, phase struct., X-ray diffr. and electron microscopy study 2−60952
W-W quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
WC (0001), angle resolved photoemission results 2−82999
WC, cemented, CVD, of TiN, TiC$_x$N$_y$ and TiC, growth rate and failure mode 2−116380
WC, densification during heating under high pressure 2−72662
WC, effects of trace impurities on W carburisation *(German)* 2−105113
WC, hexagonal, band struct. and partial charges, APW calc. 2−76924
WC, ion bombardment, surface comp. changes, Auger spectrosc. obs. 2−93804
WC, oxidised and non-oxidised, adsorption of H_2 and H_2O from gas phase 2−104147
WC particles, coating by Co electrodeposition 2−83261
WC plasma coating on stainless steel plates, thermal wave imaging through radio freuqency induction heating 2−99613
WC, plasma-processed, condensation on graphite 2−105111

tungsten compounds continued
WC powders, submicroporosity, milling influence, small-angle X-ray scattering investigation 2−67269
WC rolls, roll coatings formed during Al hot rolling 2−111385
WC, sputtered film, effect of ion implantation on props. 2−87120
WC, wear of martensitic stainless steel against up to 500°C 2−83238
W_2C, bulk and grain boundary diffusion of ^{14}C 2−82020
$W(CN)_8^{4-}$, aq. soln., free energies, electron transfer, photoelectron obs. 2−110009
$W(CO)_6$, adsorbed on MgO, decarbonylation, spectrosc. obs. 2−64958
$W(CO)_6$, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
$W(CO)_6$, high press. phase transitions, Raman study 2−76650
$W(CO)_6$, IR reflectance and Raman spectra, lattice modes 2−110851
WCl_6^{-2}, force const. calc. using vibr. data 2−54986
WF_6, supercooled, high-resolution IR spectra obtained using injection laser based spectrometer 2−113972
WF_6, supercooled, ν_3 band, isotope shift, high-resolution IR laser spectroscopy 2−54853
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3, amorphous film, elec. cond., humidity depend. and meas. *(Japanese)* 2−112914
WO_3 amorphous thin films, coloration mech. study 2−99206
WO_3 anodic film, electrochromic props., ellipsometric study 2−93158
WO_3 electrochemical electrode, struct. changes in Li-organic electrolyte cells 2−115204
WO_3 electrochromic cells using $LiClO_4$-dioxolane-water electrolytes 2−93305
WO_3 film, RF reactively sputtered, electrochemichromism meas. 2−93157
WO_3 film, reactive high rate sputtering deposition, opt. characteris. 2−57288
WO_3 film, reactively sputtered, prep., elec. and optical props. 2−93420
WO_3 films, electron beam excited, exoelectron emission obs. 2−77715
WO_3 films, evaporated and annealed, electronic struct., UPS study 2−115651
WO_3 films, reactively sputtered, electrical and optical props. 2−66673
WO_3, photo- and electroluminescence, microscopic emission mechanisms 2−116269
WO_3, powder photosensitisation of H_2O photooxidation 2−78116
WO_3, scattering of keV H and He ions 2−77668
WO_3 thin film, electrochemical Li incorporation, for electrochromic display appl. 2−72454
WO_3 thin films, electrochromic colouring and bleaching, SIMS and ESCA studies 2−57055
WO_3 thin films in $LiClO_4$-propylene carbonate-water electrolyte, electrochromism 2−72455
WO_3^+, energy distrib. meas. in energy range from 0 to about 500 eV *(German)* 2−93847
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2−66492
WO_4^{2-} in aq. soln., precision Raman meas. 2−87764
WO_x, reduction, effects of foreign element additions, 10 to 200 ppm *(German)* 2−105102
W_2O_{5-x} film, adsorbed layers, excess current noise, Auger study 2−82496
$WOBr_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
$W_4(OC_2H_5)_{16}$, bonding, second order Jahn Teller effect 2−70467
$WO_3.H_2O$ film, cation insertion reactions 2−105526
n-WS_2 photoelectrochem. cell with aqueous and nonaqueous electrolyte solns. 2−116836
WS_2, photoelectrochem. props., solar cell appls. 2−67862
WS_2, sputtered dichalcogenide layers, friction props. 2−72849
WS_2, WSe_2, struct. rel. to lubrication performance 2−109901
$WSCl_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
p-WSe_2 film, polycryst. semiconductor electrode, photoelectrochem. 2−72987
WSe_2, nonbasal dislocations etching and kinetics of dissolution 2−65999
n-WSe_2, photocorrosion, anisotropic, cleavage steps, line and screw dislocations role 2−99575
n-WSe_2 photoelectrochem. cell, local spectral response meas. 2−93928
WSe_2 photoelectrodes, polycryst., photoelectrochem. cell appls. 2−57716
p-WSe_2, recomb. sites and minority carrier diffusion length, charge collection microscopy 2−87294
WSe_2, solar cells, photovoltage, kinetic model 2−83474
WSe_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
WSi_2 diffusion layer, conc. boundaries 2−98331
WSi_2:B,P,As, dopant diffusion 2−92280

tuning
see also laser tuning; receivers; resonance
gravitational wave antenna with electrically reson. transducer 2−89605
high-power RF heating system for long theta-pinch 2−91661
MINIMAFIOS multicharge ion source, expt. characts. *(French)* 2−90334
optical fibre coupler, tunable single mode 2−81102
GaAs LED, shallow-junction, surface-emitting, spectral tuning through gamma radiation 2−115287
Te cavity, optical modulation and bistability in IR region, optical tuning 2−55322

tuning forks *see vibrating bodies*

tunnel diode oscillators
CW NMR dispersion spectrometers using cryogenic tunnel diode RF oscillator 2−69217
Nb-NbO_x-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455

tunnel diode storage devices *see tunnel diodes*

tunnel diodes
see also tunnelling
metal-oxide-semiconductor diodes, tunnelling relax. time meas. 2−66641
Al-SiO_2-Si tunnel diode, metal deposition and oxide growth technology effect on electronic props. 2−56717
AlGaAs-GaAs, tunnel heterojunction, MBE growth and elec. props., multigap cascade solar cell interconnect appl. 2−57701
GaAs, tunnel junctions for multigap cascade solar cells 2−57701
GaSb, reverse-biased tunnel diode, temp. coeff. of tensor sensitivty 2−87374
$Pb_{1-x}Ge_xTe$ p-n junction diode, capacitance, press. induced phase transition 2−72055

tunnel effect *see tunnelling*

tunnel triodes *see thin film transistors*

tunnelling
see also superconductive tunnelling; tunnelling spectra; tunnelling spectroscopy
alkali halides, OH^- defect tunnelling centres decay rates, phonon coupling effects, instanton theory 2−81778
alkali halides, radiative tunnelling transitions between defects, energies calc. 2−77587
alkali metal halides, mol. crysts., lattice phonons, tunnel states 2−76329
ammonium acetate, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
amorphous ferromagnet, tunnel states *(Russian)* 2−104604
amorphous semiconductors, AC conductivity, freq. depend. loss, review 2−115747
anharmonic oscillator, matrix elements, tunnelling contrib. 2−53579
atoms in solids, tunnel transitions 2−98725
barrier transmission, linear passive dissipation effect 2−79423
biological macromolecule, electron tunnelling connection with conform. mobility and isolated degrees of freedom 2−78286
chalcogenide glass, transient currents, high speed, explanation by valence alternation pairs 2−56671
chalcogenide glasses and amorphous semicond., at. defects, review 2−65869
charged particle transmission through pot. barrier in superintense laser field 2−61081
commensurate one-dimensional conductor, interchain electron hopping influence 2−66539
defect tunnelling centres decay rates, phonon coupling effects, instanton theory 2−81778
dielectric glasses, sp. ht., time depend. 2−115432
ethylene glycol-water glasses, electron transfer, 10-160K, pulse radiolysis obs. 2−111499
ferroelectrics, glasslike props. at low temps. 2−110778
ferromagnet, amorphous, tunnelling states, spin wave relax., thermal cond. 2−98865
field evaporated ions, post-ionization, multiply charged states 2−87955
glass, line defects and tunnelling modes 2−55852
granular metal film, dielectric regime, Hall effect 2−82381
hydrocarbazoles, di- and hexa-, sigmatropic H^+ shift, tunnel effect 2−78072
isomerisation asymm. reaction, transfer theories comparison 2−105451
metal acetates, methyl group tunnelling, inelastic neutron scatt., NMR study 2−98978
metal-insulator contacts, band struct., effect on tunnelling conduction *(Russian)* 2−77199
metal-metal interface, electron transmission coeff. 2−92731
metal-oxide-semiconductor diodes, tunnelling relax. time meas. 2−66641
metal-SiO_2-n-Si structure Schottky barriers tunnelling exponent 2−82441
metallic glasses, commutative model of tunnelling states 2−115646
metallic point contact IR detectors, Green's function soln. to multiple image interactions 2−98728
metals, adsorbed atom diffusion coeffs., FEM 2−115555
metals, FCC, interstitial quantum tunnelling at low temp. 2−115468
methane, phase III, rot. tunnelling under pressure 2−110448
methane, solid, tunnelling rot. splittings, high press. Raman study 2−77502
methane-d_4, phase III, rot. tunnelling levels, inelastic neutron scatt. and heat capacity meas. 2−104012
methyl group reorientation in solids, thermally activated 2−65888
4-methyl-2,6-ditertiarybutylphenol, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
MIM structure, band struct., effect on tunnelling conduction *(Russian)* 2−77199
MIM structures, tunnel conductivity calcs. *(Russian)* 2−61611
MIS device, current-voltage characts., analytical expression 2−98756
MIS solar cells, interface states effect on performance 2−99802
MNOS capacitors, flatband voltage shifts interpretation in terms of charge distribs. 2−115902
MNOS structures in region of punchthrough current, conductance and noise 2−104498
MNOS thin oxide structs., discharging process calcs. by multiple tunnellings 2−110479
molecular crystals, single-particle rotations, book 2−58567
mordenite, optical absorpt. anisotropy by Se chains 2−87816
muonium chemistry, review 2−65113
naphthalene-d_0 (-d_8), vitreous solns., tunnel electron transfer, inverse isotope effect 2−98726
2-nitromalonaldehyde-d_0(-d_1), H^+ tunnelling and nitro group torsion 2−96548
nitromethane-d_0(-d_3), tunnel states and splitting meas. 2−60894
nonresonance subbarrier tunnelling, hopping cond. *(Russian)* 2−104329
normal metal tunnel junction phenomena, stationary state model 2−110492
3,4,9,10-perylenetetracarboxylic dianhydride, Elovich photovoltage decay kinetics 2−98696
photoelectrochemical devices, charge transfer via interface states 2−88463
polyacetylene:I, microwave harmonic mixing in metallic regime 2−104412
polyacetylene:I, non-ohmic metallic conductivity, tunnelling 2−110335
polyethylene, thermal cond., 3 to 9K, effect of microcryst. struct. 2−56272
positronium, diffusion in crystals, temp. depend. 2−76752
potential bag dynamics and tunnelling 2−101680
Pyralin, pyrolysed, elec. conduction 2−61470
quartz, γ-ray irrad., smoky, low energy density of states gap, tunnelling model, US attenuation meas. 2−61324
quartz, defects created by γ-ray, electron, and neutron irrad., thermal phonon transport study 2−56273
random impurity electric dipole system, low temp. collective props., Ising model *(Russian)* 2−116136
resonance tunneling through a three-dimensional asymmetric potential with a barrier *(Russian)* 2−101240
rotational tunnelling system, three-fold, inelastic neutron scatt. spectrum, temp. depend. 2−86596
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. 2−91830
rotational tunnelling systems, temp. depend. of inelastic neutron scatt. time depend. correlation functions 2−91831
semiconductor, deep levels, phonon-assisted tunnel ionisation, quantum theory 2−87185

tunnelling continued
semiconductor, electrostatic charge energy, effects of dielec. function spatial dispersion, field emission current 2−77711
semiconductor, luminescence quenching by non-radiative tunnelling 2−99179
strongly disordered system, cond., defect induced tunnelling 2−66513
superconductor-insulator-superconductor 2−82536
thermostimulated luminesc., phosphoresc., and photoluminesc., tunnelling pair recomb. theory 2−110911
$Ti_{0.67}V_{0.33}$, thermal and elec. cond. meas., glassy behaviour 2−87225
tunnel effect on molecular states under permutation inversion groups 2−85542
tunnel structures, photon emission, expt. study 2−82471
two-layer metal-dielectric film growth model 2−61303
Universe origin, as quantum tunnelling event 2−74135
Yang-Mills theory, tunnelling, winding number, Schrodinger eqn. 2−74605
zinc acetate, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
Al, thin film, quantum size effect study by resonant tunnelling *(Rumanian)* 2−87420
Al- amorphous Si-Ni(Au) struct., tunnelling characteristics meas. 2−66657
Al-Al_2O_3-Au(Cu)(Ag) tunnel junctions, electron energy loss function image in light emission 2−116267
Al-Al_2O_3-Pb tunnel junctions, voltage annealing with alternating polarity 2−104500
Al-Al_2O_3-n-InSb MOS struct., quantum size effects and negative resist. obs. 2−77187
Al-oxide-Pb tunnel junctions, effect of top electrode deposition rate on tunnelling charcts. 2−82473
Al-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Al-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
Al-SiO_2-p-Si MIS tunnel solar cells current mechanism, temp. depend. of dark I-V charcts. 2−105555
Al-Sn(Ag), preparation of tunnel junctions 2−77234
Al_2O_3 thin film, cond. props., tunnelling 2−110514
Al_2O_3:Cu porous anodic film, elec. props. meas. 2−82501
As, amorphous, thermal relax., specific heat 2−76702
As_2S_3, amorphous, thermal relax., specific heat 2−76702
Au (110) surface, scanning tunnelling microscopy study 2−86987
Au/$Si_{12}Te_{48}As_{30}Ge_{10}$/$Al_2O_3$/Al structure, current-voltage charcts. 2−61589
Au-Al_2O_3-Au tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Au-SiO_2 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
Au-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
Au-SiO_2-n-Si structs. with oxide grown in RF plasma, I-V charcts. calc., model 2−92775
$Bi_2Ru_2O_7$-$Pb_2Ru_2O_6$ thick film resistors, particle size effect on cond. props. 2−104367
C-polymer composites, elec. cond. props. 2−61462
$CaIrSn_4$ (110) surface, scanning tunnelling microscopy study 2−86987
$Ca(NO_3)_2$-KNO_3 glasses, low temp. thermal props. rel. to glass transition temp., water doping effect 2−56271
CaO, electron transfer between F-centres, luminescence, ODMR study 2−98999
CaO:Cr, APR study, Jahn-Teller effect 2−66899
CdS_xSe_{1-x}, fluorescence line narrowing, localised exciton states, and spectral diffusion 2−82909
CdSe-p^+-n-Si tunnel junction solar cell photoanode props. meas. 2−88427
CsI:Na, tunnelling recomb. luminesc., time evolution 2−72550
Cu, positive muon depolarisation, 5 to 365K 2−82766
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
Fe_3O_4, mixed valence, elec. cond. below Verwey temp. 2−71968
GaAs bicrysts., electron tunnelling through grain boundaries 2−66624
GaAs, radiative recomb. and light absorpt., dislocations effect 2−104962
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
GaAs surface-barrier structs., reverse current and elec. breakdown 2−92755
GaAs unipolar structures with ultrathin triangular barriers, elec. props. 2−82445
GaAs:Cr, phonon scatt., tunnelling parameter, thermal cond. study 2−61086
GaP:N epitaxial films, excitation transfer mechanism to NN_1 complexes 2−77589
GaSb, reverse-biased tunnel diode, temp. coeff. of tensor sensitivty 2−87374
H-bonded crystals, isotope, tunnelling effects 2−77459
HIO_3, cryst., phase transition under press., NQR investig. 2−110694
^{3}He, BCC, exchange integrals calc. 2−104111
^{3}He, solid, vacancies, spin polaron, variational method 2−61251
^{3}He-^{4}He solid mixtures, dil., impurity interactions, press. depend. 2−71765
^{3}He-^{4}He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
$Hg_{1-x}Cd_xTe$, impurity-to-band tunnelling 2−87179
$Hg_{1-x}Cd_xTe$-native oxide MIS struct., elec. props. meas. 2−87399
InO_x films, density of states anomalies, tunnelling study 2−110478
n-InSb, picosecond CO_2 laser interaction, electron-hole plasma generation by tunnelling mechanism 2−55244
K-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KIO_3 cryst., phase transition under press., NQR investig. 2−110694
$(K_2)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
Li-Al_2O_3-Cu layers, electron tunnelling, ESR study 2−82714
$LiNH_4SO_4$, tunnelling, reorientation, PMR study 2−93034
Mg-SiO_2-Si tunnel junctions, tunneling spectroscopy of electron space charge layers on (111)-Si 2−87403
Mg-SiO_2-p-Si tunnel junctions, subband struct. in n-inversion layers 2−61595
MgO, additively coloured, photoluminescence, mag. circular polarisation and ODMR study 2−61948
tunnelling continued
Mo-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
NH_4IO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
NH_4ReO_4, NH_4^+ ion tunnelling, non-exponential relax. in rot. frame, NMR study 2−93035
$(NH_4)_2SnCl_6$, level crossing between NQR and tunnel systems 2−77412
Na-β-Al_2O_3, low temp. microwave conductivity tunnelling model, dielec. const. 2−76736
$NaNO_2$, mol. crysts., lattice phonons, tunnel states 2−76329
NaOH, mol. crysts., lattice phonons, tunnel states 2−76329
Nb MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Nb, positive muon depolarisation, 5 to 365K 2−82766
Nb-Al_2O_3-Pb(Ag), electron tunnelling in normal and supercond. states 2−115913
$NbSe_3$, AC-induced DC cond. for CDW, tunneling theory 2−82329
$NbSe_3$, CDW cond., field and freq. depend. 2−56559
$NbSe_3$, microwave harmonic mixing 2−104411
Ni-Al_2O_3-Al tunnel junctions prod. by electron beam evaporated Al_2O_3 2−115912
Ni-SiO_2-Si metal-cermet-oxide-semicond. struct., enhanced electron injection into SiO_2 layers 2−104492
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
Pb-Sn-Te diode laser, recombination mechanisms and lasing threshold 2−90896
$Pb_{1-x}Ge_xTe$, coupled phase transitions, sp. ht. meas. 2−98277
PbSnTe diode laser, lifetime mechanisms, tunnelling currents and laser threshold 2−80956
PbTe:Tl, In single cryst. p-n junction, tunnel cond. charcts. 2−77174
$PdH_{0.82}$, proton dynamics at low temp., PMR line shape study 2−72370
$Pd_{0.4}Ni_{0.4}P_{0.2}$, amorphous, US attenuation, 0.3 to 2K, temp. and freq. depend. 2−56098
Si, atomic images in electron microscopy 2−71393
Si MOS structures, Fowler-Nordheim tunnelling data anal. 2−98749
Si MOSFET, tilted inversion layer, tunnelling 2−77193
Si, tipped inversion layers, tunnelling, Shubnikov-de Haas data 2−56705
Si-SiO_2 interface, Fowler-Nordheim tunnelling 2−82462
Si-SiO_2 interface in MOS struct. positive state generation during Fowler-Nordheim tunnelling 2−77189
Si-SiO_2 MOS interface states, optical excitation by IR light 2−56714
Si_3N_4 layers grown by plasma enhanced thermal nitridation 2−62076
SiO_2, silica fibres, LF and low temp. Raman scatt. 2−67047
SiO_2-PbO-Bi_2O_3 glass, surface cond. meas. 2−87363
SiO_2-Si interface states and charge generation by electron tunnelling 2−56720
SmB_6, mixed valence cpd., small energy gap, electron tunnelling and IR spectrum 2−56442
Ta MIM tunnel junction, background cond., oxide barrier prep. method effects 2−66656
Ta, positive muon depolarisation, 5 to 365K 2−82766
TaS_3, CDW dynamics, freq. depend. cond. meas. 2−71956
Ti_3O_5, mixed valence, elec. cond. below Verwey temp. 2−71968
Ti_4O_7, mixed valence, elec. cond. below Verwey temp. 2−71968
V, positive muon depolarisation, 5 to 365K 2−82766
W (110), diffusion and tunnelling of H and D 2−82030
W surface, resonance tunnelling neutralisation of He^+ ions 2−62038
W-Al_2O_3 cermet film, Hall effect, electronic tunnelling near percolation limit 2−77202
ZnS ceramic phosphor, electroluminescence, temp. depend. meas. 2−116268
ZnS:Cu, Al, phonon-assisted tunnelling in the electroluminescence exciting process 2−110950

tunnelling spectra
epoxide adhesives, inelastic electron tunnelling spectroscopy appl. 2−56370
2,4-hexadiyne, methyl group rotation, classical and quantum dynamics 2−80751
MIM junction doped with TCNQ, comparison of optical spectra with tunnelling spectra 2−72072
thiourea, IETS spectra, comparison of expt. and theoretical intensities 2−92778
Al oxide, absorpt. of 1,3-dihydroxy- and 1-amino-3-hydroxypropane, chemisorpt. and oxide surface sites, tunnelling spectra 2−78140
Al-oxide-Pb tunnel junctions, water infused, thermal and voltage annealing 2−82472
CO, monolayer sorption on Al_2O_3 supported Co, tunnelling spectra 2−66349
HgSe, 2-D surface electron states, tunnelling spectra study 2−72044
n-HgSe-Al_2O_3-Pb junction, tunnelling spectroscopy study 2−92777
Rh particles, Al_2O_3 supported, adsorption of NO, IETS study 2−56343
V, supercond. tunnelling, Eliashberg function, paramagnon spin fluctuations 2−66722

tunnelling spectroscopy
adsorbed layers, inelastic electron tunnelling spectra, Transfer Hamiltonian approx., Born approx. and exact coeffs. 2−56672
inelastic electron tunnelling spectroscopy, optimum meas. conditions calc. 2−61564
inelastic electron tunnelling spectroscopy, surface anal. appls. 2−64163
microvolt and millivolt molecular tunnelling spectroscopy by neutron scattering 2−71292
molecular-tunneling spectroscopy in crystals with the use of a double-level-crossing technique 2−76331
point-contact electron tunneling spectrometer 2−95560
proximity-electron-tunnelling spectroscopy, locality of information, impurity disorder effect on phononspectra 2−66720

tunnels, wind *see wind tunnels*

turbidimeters *see turbidimetry*

turbidimetry
atmosphere, relation between light scatt. coeff. and particulate matter conc. in forest fire smoke 2−105617
free swirling jets, turbulent mixing, marker nephelometry study 2−103196
polar and integrating nephelometer comparison, aerosol volume scatt. ratios determ. 2−53805
ratio turbidimeter for meas. of strongly coloured liquids 2−89782
Volz turbidimeter data for IR astronomical site testing in Italy 2−83900

turbidity
see also turbidimetry
atmosphere, integrated approach to optical propagation in low visibility weather conditions 2−106316
inhomogeneous medium near critical point, multiple light scatt. *(Russian)* 2−55077
Lake Erie, survey of discharges from natural gas drilling operation 2−111595
liposome suspensions, optical study of microstruct. 2−111633
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2−103658

turbine generators *see turbogenerators*

turbines
see also compressors; gas turbines; hydraulic turbines; steam turbines; turbogenerators; wind turbines
nonuniform rotating blades, flexibly attached, torsional vibration analysis 2−91298
rotor bore ultrasonic waveforms, advanced signal processing 2−57588
rotor noise, dependence on inlet turbulence and strut flow disturbances 2−86171

turboalternators *see turbogenerators*

turbogenerators
flow meas. using laser double focus method *(German)* 2−81415
superconducting windings bonding material requirements and development 2−62097
turbomachine flow non-stationarity and noise spectrum prediction *(French)* 2−75761

turbulence
see also atmospheric turbulence; boundary layer turbulence; cavitation; laminar to turbulent transitions; plasma turbulence; shear turbulence; turbulent diffusion; vortices
β-model theory, statistics of active regions 2−103152
acoustic turbulence, 1-D, asymptotic props., shock fronts 2−65619
active acoustic attenuation in air ducts conveying turbulent flows *(French)* 2−75948
aeroacoustics, Euromech 142 report 2−114784
air jet, heated axisymmetrical temp. and vel. profiles *(Russian)* 2−91504
air jet, self-excitation, whistler nozzle driven, laminar and turbulent flows 2−55631
air jet, turbulent axisymmetric, coherent struct. 2−60601
air stream, liq. evaporation, heat and mass transfer 2−65586
air-water two phase flow, surface effect on droplet deposition 2−55647
air/water turbulent mist flow, droplet deposition on flat plate 2−97514
anemometry method for turbulent flow meas. 2−65658
annular turbulent flow, vapour condensation 2−55546
N.Atlantic Ocean, vertical eddy diffusivity from obs. of small-scale shear and density struct. 2−88879
axisymmetric jet impinging flat plates, mass transfer, surface press. fluctuations influence 2−91503
axisymmetric swirling and nonswirling turbulent recirculating flows in wide angle diffusers 2−97518
band broadening in turbulent-flow liq. and gas chromatography, retention effects 2−116733
bed load grain size grain size distribution model in FORTRAN IV 2−117366
Benard convection, laminar and turbulent, direct numerical simulation 2−91431
blood, turbulent stresses in the region of aortic and pulmonary valves 2−116976
boundary-layer transitions, three dimens. aspects 2−81329
breaking Kelvin-Helmholtz billows, numerical study with Reynolds-stress turbulence closure model 2−109281
Burgers system, nonlinear, stability and bifurcation 2−75923
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
Casson model slurries laminar-turbulent transitions in pipeflow 2−81320
channel flow, free surface, turbulence struct. and transport mechanism study 2−65646
channel flow, jet model 2−76028
channel flow, non-local theory, heuristic approach 2−71036
channel flow, statistical props. and flow struct. 2−75938
channel flow, wall region excitation by sound 2−91537
channel flow turbulent-fluctuation energy spectra, suspended sediment effect in three dimens. 2−60660
circular and turbulent plane jets, fine scale velocity, statistics 2−91502
circular cylinder near wake, turbulence meas., downstream cylinder effects 2−75965
circular cylinder wake turbulence, upstream wake effects 2−75966
circulation system, gas bubble driven, turbulence, vel. field meas. 2−65661
combination in reactive systems, book 2−63766
combustion media diagnostics, thermometry and conc. meas., CARS appl. 2−88359
combustion tunnel, numerical modelling of turbulent flow 2−91556
compressible 2D impinging jet flowfields, Navier-Stokes computations 2−109288
compressible viscous flow at high Reynolds numbers, Navier Stokes eqn. soln. 2−70977
concentration fluctuations for chemical reaction in isotropic turbulence *(French)* 2−97666
concentration fluctuations in free turbulent jets 2−91499
contaminant dispersion in turbulent shear channel flow, estuary modeling 2−81396
convection, generation of large scale circulation 2−81338
convection dominated, finite element method for solving flow problems, upwinding technique 2−91456
convective turbulence, discrete Lorenz model, phase space and birfurcation struct. 2−112840
convectives modes in rectangular enclosures 2−70952
convergence of line-renormalized expansions in turbulence theory 2−75939
convergent and divergent flows, kinematic interaction with turbulence 2−109293
cosmic infrasound in the atmosphere *(Russian)* 2−106320
Couette flow, turbulent, phenomenological theory 2−55545
differential fractal dimension of random walk and its applications to physical systems 2−112818
diphenyl polymer, dil. solns., behaviour in turbulent flow conditions, Thoms effect *(Russian)* 2−76001
dissipative dynamical systems, statistics of turbulent transients 2−101325

turbulence continued
district heating systems pressure losses reduction of turbulent pipeline flow by means of chemical additives 2−76022
drag reduction in turbulent flow, soluble polymer addition method *(German)* 2−70998
drop deposition from turbulent stream 2−114858
duct flow, finite element soln. 2−97652
duct flow, with separation at inlet, turbulent heat transfer 2−91441
duct flows, motion of particles 2−70920
dynamo generation of small scale mag. fields, MHD eqns. 2−103225
electrically conducting fluid, turbulent flow between plates in travelling mag. field 2−86268
electromagnetically driven flow between conducting cylinders, instability sequences 2−103226
emulsions, conc. fine disperse, coalescence during turbulent stirring 2−60626
Euler eqns. as constraints on large scale props. of turbulent motion, nonlocal invariants 2−55544
explosive, polymer bonded, high explosive detonation products in varying O_2 atmospheres 2−78105
extracorporeal circulation device, flow through tubes *(French)* 2−94252
five mode truncated Navier-Stokes eqn., symmetry breaking 2−58621
fjords, effect of fjord and coastal circulation interaction on turbulence and diffusion 2−83828
flow around flat plate close to plane surface, vortex shedding, turbulence 2−75970
2Dflow between parallel plates, mass transfer, turbulence promoters effect, flow separation obs. by visualisation 2−97513
flow characteristics, influence of instrument frequency resolution 2−60512
flow distribution in perforated channels with a permeable end face 2−114903
flow generated noise, fundamental concepts 2−91413
flow in internal combustion engine during compression, computation 2−65572
flow induced vibration in shell and tube heat exchangers 2−53755
flow measurement, two-component laser Doppler anemometer system using acousto-optical splitters *(Russian)* 2−114935
flow through smooth concentric annuli, turbulent friction calcs. 2−60520
fluid mechanics, basic research needs review 2−60518
fluid mechanics, book 2−94926
forced MHD turbulence, IR props., renormalisation group approach 2−65652
free axisymmetric submerged jets turbulence development, influence of initial conditions 2−97610
free stream above turbulent spots generated in laminar boundary layer, potential flow signature 2−70903
free stream turbulence, stagnation point heat transfer 2−103159
free swirling jets, turbulent mixing, marker nephelometry study 2−103196
functional analysis, operator solutions 2−107241
galaxies, rel. to plasma containment and turbulence 2−89372
gas flow downstream of micronozzle cascade 2−55547
gas-mixture flow, kinetic theory of turbulent flows in an outside electromagnetic field 2−97686
gasdynamics of detonations and explosions, conf., Gottingen, FRG (Aug. 1979) 2−58549
grid generated turbulence, role played by chemical reactions *(French)* 2−70917
grid generated turbulence in isothermal second order chemical reaction *(French)* 2−86355
grid-generated turbulence, temp.-fluctuations, Lagrangian dispersion theory 2−109295
grid-generated turbulence decay, He and temp. fluctuations mixing 2−97517
grid-produced turbulence, energy decay law 2−97521
heat exchangers with twisted flow, velocity and static pressure distributions experimental investigation 2−97658
hierarchic model of turbulence *(Russian)* 2−60513
homogeneous fluid, nonlinear fluctuation-dissipation relation 2−86269
homogeneous isotropic three-dimens. turbulent flow, spatial structures anal. 2−65580
homogeneous isotropic turbulence, Navier-Stokes eqns. solns. 2−81313
Hopf Φ equation, approx. soln. for isotropic homogeneous turbulence 2−81322
hydrodynamic, renormalisation group anal. 2−84448
hypersonic aerodynamic tube, laser Doppler vel. meas. beam shifts due to turbulence *(Russian)* 2−114840
hypersonic shock-layer flow numerical solution, laminar, transitional and/or turbulent speeds 2−86301
identical vortices, integrable and chaotic motions 2−60555
impinging turbulent jets, low Mach number, organised wave self-generation 2−71004
impurity diffusion problem solved by Monte Carlo methods 2−60527
inclined two-phase jet, turbulence struct., gravity effect 2−60514
incompressible flows, turbulence models 2−97534
incompressible fluid flow in circular pipe with uniform blowing through porous walls 2−109290
incompressible liquid, turbulent flow around disk, boundary conditions, numerical calcs. 2−91410
incompressible non isothermal flow, two-dimens. modelling *(French)* 2−55531
incompressible turbulent wall jet, appl. to Coanda flare 2−114865
intensity determ. using probability after-effects, laser method 2−109427
interstellar molecular clouds, evidence for small-scale turbulence from formaldehyde absorpt. meas. 2−112532
inviscid homogeneous turbulence, development of mixing and isotropy 2−97516
inviscid turbulence, 2-dimens., coherent structs., statistical props. 2−60517
isotropic flow, Wiener-Hermite expansion 2−109294
isotropic turbulence convecting passive scalar, direct numerical simulation, two-point closure predictions 2−75936
isotropic turbulence in high temp. media, degeneration, radiation influence 2−114771
isotropic turbulence spectrum, information theory approach 2−97515
isotropic turbulent velocity field, closed eqn. for struct. function 2−60516
isotropic two-dimensional turbulence *(Russian)* 2−97520
isotropic velocity field, eqn. for struct. function, soln. in inertial scale interval 2−109291
jet, entrainment charact. in cross-flow 2−86316
jet, round, normal to crossflow, velocity characteristics, turbulence intensities 2−65631
jet mixing, non-isoenergetic in a const. area duct 2−91497

turbulence continued
jet noise, pressure dependence and silencing of blow-offs 2−91128
jet-boundary interaction 2−65632
jets, mechanics and environmental factors effects 2−97528
jets, noise characteristics 2−91412
jets emanating from rectangular nozzles, impingement, wall jet radial momentum flux 2−109374
jumpwise motion, kinematics of turbulent flow and solids 2−97633
laminar boundary layer, turbulent spot, wall pressure fluctuations meas. 2−75928
laser beam propagation in strong turbulence, physical implications of extended Huygens-Fresnel principle 2−65170
laser radiation fluctuations in model turbulent medium, longitudinal correlation 2−102720
liquid, highly conducting turbulent, mag. field correlation tensor *(Russian)* 2−97665
liquid jets, heat and mass transfer 2−71003
liquid metal, turbulent flow in flat induction pump channels 2−103156
liquid metal two-phase flow pattern, transverse mag. field effect, fusion reactor heat exchanger 2−80307
magnetic fields, random force-free fields, turbulence effect 2−106509
mathematical model, for flows with uniform stationary rel. gradients 2−97512
measurements with inclined hot wires, calibration procedure 2−91399
membranes elastic tubes, fluid-filled, elastic jumps 2−65649
MHD, ideal, Hamiltonian description revealing new invariants of motion 2−71038
MHD turbulence at low mag. Reynolds no. and large interaction parameter 2−76037
mixed-layer entrainment, depend. on shear stress and velocity jump 2−55594
mixing coaxial flows swirled in opposite directions 2−103155
mixing length, modified semiempirical model 2−114770
Navier-Stokes equations, truncated, transition from 5-mode to 7-mode model 2−81319
noise generated by flow over perforated surfaces, prediction 2−114783
non-equilibrium dispersed flow, boiling, heat transfer 2−55559
noncircular passages, laminar and turbulent flow, heat transfer, calcs. 2−91553
nonequilibrium phenomena: outlines and bibliographies of a workshop 2−97504
nonhomogeneous turbulence theory 2−114772
nonlinear phenomena at phase transitions and instabilities, conf., Geilo, Norway (Mar.-Apr. 1981) 2−94882
nonlinear saturation, resonant coupling, stochasticity onset 2−55740
nonreacting turbulent flow of jet in opposing stream, heat, mass and momentum transport meas. 2−65573
nozzles, reattachment flow, inclination effect on reattachment wall 2−91508
nuclear reactor pipe flow, response to wall-attached roughness element 2−108059
numerical solution of flow near the rotor of a wind turbine 2−91406
ocean, β-induced movement of isolated baroclinic eddies 2−83831
ocean, mesoscale eddies detachment from spatially growing meanders in eastward-flowing jet 2−83830
ocean turbulence due to breaking of open ocean waves 2−68345
oil flow in rough pipes, turbulent pressure loss determ. 2−55617
opposed jets discharging normally into cross stream 2−55543
optical-turbulence-meter signals, statistical charcts., linear approxs. 2−114193
ordered structures simulation in open turbulent flows 2−86265
organ pipes sound generation mechanism, wave propagation on turbulent jets, amplitude growth 2−97319
oscillating pipe flow, critical Reynolds number 2−91538
oscillations of an impinging turbulent jet: coherence characterization via conditional sampling 2−114864
N Pacific Ocean, low-freq. eddy kinetic energy spectrum in deep western North Pacific 2−106142
partial differential eqns., parallel struct. computer technique for soln. *(French)* 2−65614
permeable rectangular channel with injection from two sides, hydrodynamics 2−114906
perturbed vortex evolution 2−60548
pipe flow, dispersion of released H_2O droplets, mass transfer 2−65650
pipe flow, relation between mass transfer and corrosion 2−76024
plane free surface flows, appl. of boundary integral equation method 2−81325
plane jet, correl. of squared vel. and temp. derivatives 2−97609
plane jet, flapping motion 2−65630
plane jet deflection in crossflow by turbulent mixing and press. effects *(German)* 2−55629
plane Poiseuille flow, flow visualisation study of transition triggered by TiO_2 coated mica particles 2−109410
plane turbulent mixing layer, high-speed film, digital image anal. 2−91401
plane wall jet, velocity profile and optimum skin friction 2−86319
plumes, mechanics and environmental factors effects 2−97528
polyacrylamide solns., turbulent pipe flow, pipe diameter effect on critical Weissenberg numbers 2−70996
polymer solutions, dilute, turbulent flow classification scheme 2−103194
polymer solutions, weak, drag of plate in uniform flow 2−109372
polyoxyethylene soln., pipe flow, mass transfer, NMR study 2−103192
power-law behaviour of second-order correlation in isotropic turbulence 2−70922
predictability and information decay 2−65571
premixed flames in turbulent flows, mol. diffusion and thermal expansion effects 2−65657
probability density functions calc. method 2−109289
pseudoturbulent bed of dispersed material, heat transfer 2−103165
pulsed ultrasonic Doppler velocimeter, fluid turbulence meas. 2−76047
pulsed ultrasonic Doppler velocimeter, laminar and turbulent flow meas. 2−76048
PWR steam generator, water and shell temp. in downcomer 2−108055
randomly forced two dimens. flow, nonequilib. probability distrib. 2−97511
randomly forced two-dimens. flow, Liouvilles eqn. soln. 2−109296
rectangular duct, S-curved, 3-D turbulence and press. meas., vortices 2−75969
relative spatial diffusion in fluid turbulence, clumps, Richardson's law and intrinsic stochasticity 2−71183
research in Bangalore in the 1950s and 1960s 2−79337
turbulence continued
resistance thermometer, influence of dust contamination on freq. response 2−89710
Reynolds stress closure, turbulent, and modern continuum mech. 2−69022
Reynolds stresses meas. with pulsed wire anemometer 2−75935
rotating fluid, Lorenz equations, real and complex, with weak dissipation 2−97564
round jets, incompressible turbulent, scaling law 2−97611
Saturn atmosphere, eddy mixing coeff. determ. 2−112387
secondary turbulent flow in pipes of noncircular cross-sections 2−65647
separating flow over backsteps and cavities 2−91494
separation bubble, discrete-vortex simulation 2−97557
shear flows, fully developed, struct. of large eddies, hot-wire anemometers meas. 2−75937
shock wave decay at a perforated baffle 2−81359
shock-wave boundary-layer interaction, turbulence amplification 2−97588
single-phase flow in bent channels, laminar and turbulent flow, forced convection visualisation study 2−75951
solar atmosphere, combined determ. of turbulence and damping consts. of spectral lines 2−94687
solar atmosphere, non-thermal vel. field above faculae from OSO-8 obs. 2−94691
solar differential rotation, axisymmetric hydrodynamic model 2−106661
solar flares, turbulent vels. from obs. of impulsive phase in soft X-ray emission 2−94693
solar nebula, effects of mag. and turbulent viscosity on ang. momentum and mass distrib. 2−100776
solar wind, ground-based obs. of interplanetary disturbances 2−68585
solidification of a liquid metal flowing through a circular pipe: a prediction of nozzle blockage 2−83104
spectral analysis of turbulence in the canine ascending aorta *(Japanese)* 2−57842
spoiler control effectiveness, hinge moments and wake turbulence, design variables effects 2−75989
stable convection disappearance between free-slip boundaries 2−114796
star formation, velocity fields and turbulence effects 2−84212
statistical mechanics, max. chaos variational principle 2−55542
stellar interiors, appl. of turbulent diffusivities to development of convection theory 2−100911
stellar pulsation problem, effect of turbulent viscosity on local theories of time-dependent convection 2−89240
strange attractor theory 2−97522
subgrid turbulence modelling by homogenization 2−91398
supersonic jet coherent struct., instability and mixing zone visualisation using laser light sheets *(French)* 2−86362
supersonic mixing nozzles, laser Doppler velocimeter meas. 2−91507
surface wave, propag. on turbulent flow, asymptotic soln., appl. to ocean wave *(Russian)* 2−73593
swirling jet flow, turbulence intensity meas. 2−103154
swirling radial free jet flow *(French)* 2−109378
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
thermal plumes, axisymm., turbulent struct. 2−114794
thermally stratified flow under unstable conditions, turbulence, ordered motion 2−109389
thermoanemometric expt. at low and high turbulence intensities 2−60515
three dimensional turbulent channel flow, mean vorticity and covariance soln. 2−109297
TNT, high explosive detonation products in varying O_2 atmospheres 2−78105
transit time flowmeters, errors in cross-correlation peak location 2−97678
transition sound radiation in turbulent medium 2−114498
triangular duct with narrow apex angle, fully developed flow, turbulence and mass transfer meas. 2−70919
turbine in flotation cell, turbulence, vel. fluctuations, pumping capacity, anemometry study *(French)* 2−103153
turbomachinery rotor noise, dependence on inlet turbulence and strut flow disturbances 2−86171
turbulent gas flows using electric and mag. probes 2−109429
turbulent two-phase channel flow, phase distrib. mechanism 2−60519
two dimensional turbulence in plane channel, simulation 2−81321
two-channel optical Doppler anemometer turbulent flow spatial correl. meas. *(Russian)* 2−114944
two-dimensional turbulence, spectra 2−62977
two-dimensional turbulence, spectral energy transfer, Navier-Stokes eqn. 2−86267
two-dimensional turbulent wakes, growth behind solid and porous strips 2−65591
two-phase dispersed flow, turbulence laser velocimetry obs. 2−65636
two-phase pipe flow, phase distrib. mechanism 2−71018
type I intermittency, stat. props. 2−63823
US flowmeters, multichannel, errors due to flow structure variations in pipes 2−97674
US meas. by pulsed Doppler method employing freq. tracking, arterial disease appl. 2−100079
vertical turbulent jet with negative buoyancy 2−76009
viscoelastic fluids, turbulent heat transfer in circular tube flows 2−75940
viscous frictional torque in the flow between two concentric rotating rough cylinders 2−91464
vortex flow on slender body at large incidence 2−91460
vortex solitary waves in a rotating, turbulent flow 2−55595
wake of uniform temp. gradient in approach flow, mixing 2−70921
wakes, 2D turbulent, equilib. parameters 2−97555
wall turbulence mechanism, flow visualisation and anemometry studies 2−91400
water, channel turbulent flow struct., hot-film meas. 2−114900
water, flat duct flow, turbulent friction 2−71029
water, flow in inclined channel, turbulence, stability eqn. 2−86341
water, thermally stratified buoyant flows, mixing and heat transfer study 2−70942
water flows containing friction reducing additives, struct. 2−109292
winds and press. effects around a rough cylinder at high Reynolds number 2−86266
^{4}He, liquid, convection and turbulence, Rayleigh-Benard expt. 2−110060
^{4}He, superfluid, counterflowing, induced vorticity fluctuations 2−82049
^{4}He, superfluid, turbulence free decay 2−82051
^{4}He, superfluid, turbulence generation, dynamical rules 2−98368
^{4}He, superfluid, turbulence and cooling effect in adiabatic flow 2−115484
^{4}He, superfluid, turbulent counterflow temp. gradient uniformity 2−71751
^{4}He, superfluid turbulence, transient effects 2−76763
^{4}He turbulent superfluid-multiplicative noise in Vinen eqn. 2−82052

turbulence continued
N_2O_4, in circular pipes, dissoc., heat transfer in turbulent flow 2−70918
$2NO_2 \rightleftarrows 2NO+O_2$, friction law, averaged vel. profile in turbulent reactive tube flow *(Russian)* 2−55548
turbulence, atmospheric *see atmospheric turbulence*
turbulence in shear flow *see shear turbulence*
turbulent diffusion
boundary layer, turbulent, effect of short length surface roughness 2−75943
convection problems, computer modelling 2−91454
dynamic induced Rayleigh effect, pattern drift influence *(French)* 2−97076
flame in 2-D shear layer, probability density function 2−109306
flames, turbulent diffusion, mol. transport effects at moderate Reynolds number 2−99674
impurity diffusion problem solved by Monte Carlo methods 2−60527
instantaneous structure of mildly curved turbulent boundary layers, diffusion process 2−55551
jet, swirling, confined, turbulent mixing *(Russian)* 2−81331
longitudinal diffusivity in rectangular channels, turbulence, aspect ratio 2−97530
MHD turbulence at low mag. Reynolds no. and large interaction parameter 2−76037
open channel flow, discharge depth effect on containment dispersion 2−86332
pipe flow, eddy diffusivity, electric charging theory 2−97529
porous media, thermally-driven cavity flow, horizontal boundary layer struct. 2−91534
precipitator efficiency, turbulent diffusion effect investig. 2−109308
quasihomogeneous turbulent diffusion investig. using the probability density distrib. function of conc. 2−88357
Rayleigh-Benard convection, phase diffusion 2−70950
stochastic vel. field construction 2−109309
thermal wake behind two cylinders, diffusion zones *(French)* 2−97553
toroidal plasma, mag. lines of force diffusion study *(German)* 2−109468
transport in the near aerodynamic wakes of flat plates 2−97554
wall jet, turbulent diffusion, vel. and temp. field mean and turbulent charact. 2−91498
wide angle diffusers, axisymmetric swirling and nonswirling turbulent recirculating flows 2−97518
turbulent flow *see turbulence*
TV *see television*
twilight
see also night sky
aerosol stratification and variability of mesosphere studied by obs. of twilight *(Russian)* 2−88951
temperature of exosphere, deduced from twilight O^+ spectral emissions 2−63153
O_2 ($^1\Delta_g$), global daytime and twilight study of airglow 2−100619
twin boundaries
amethyst quartz, twinning microstruct. and growth 2−109815
brass, annealed FCC, twin boundaries, orientation and struct. *(Russian)* 2−103779
brass, grain boundary multiple special contacts *(Russian)* 2−115251
differential dislocations density calc. 2−60980
Hastelloy C-276, heterogeneous precipitates, electron microscopic anal. 2−99432
HCP crystal, {11$\bar{2}$1} twin boundaries struct., computer simulation 2−86682
Nimonic PE16, ion bombarded, damage struct. 2−109855
Nimonic PE16, solution treated, grain boundary segregation during neutron irrad. 2−109844
pseudoelasticity, review 2−88141
α-quartz, Brazil twin-boundary model 2−81797
quartz, displacive phase transformations, coexistence of structurally different regions 2−61121
quartz, microtwinning, interferometry study 2−115248
rare earth sesquioxides, monoclinic, incoherent twin boundaries and isolated wedge microtwins, high resolution study 2−60999
Si, twin interface, X-ray topography exam. of struct. and defects *(Chinese)* 2−109810
steel, austenitic stainless, deform.-induced transform., effect of strain rate and strain state 2−77887
steel, austenitic stainless grain boundary multiple special contacts *(Russian)* 2−115251
steel, stainless, annealed FCC, twin boundaries, orientation and struct. *(Russian)* 2−103779
steel, stainless, ferrite struct., rolling, plastic deform., metallography study 2−57422
troilite, meteoritic phase transitions and domains, TEM obs. 2−117641
Ag_3SbS_3, pyrargyrite, cryst., ferroelec. phase transition, elec. field effects on NQR 2−110695
Au-Cd martensite, TEM lattice imaging study, twinning dislocations 2−71472
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Cr film on (001) Cu substrate, misfit twin crystals *(Japanese)* 2−104194
Cu, annealed FCC, twin boundaries, orientation and struct. *(Russian)* 2−103779
Cu, grain boundary multiple special contacts *(Russian)* 2−115251
Cu, recrystallisation, twin and grain boundary dislocation movement obs. 2−71474
Cu, twin boundary struct., high resolution electron microscopy study 2−71471
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Fe, cast, austempered spheroidal graphite, strain hardening 2−93533
Fe-Ni (32 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Ni-C, substruct. of lenticular martensite 2−72697
Fe-Ni-C (24, 0.5 wt.%), plate martensite, deformation on cold rolling 2−57373
Fe-Si, electron irrad., defect cluster nucleation at coherent twin boundaries, electron microscopy study 2−66036
Fe-Si-C, primary stage of bainite reaction, TEM obs. 2−83109
GaSb pulled crysts., twin pits in facet regions 2−86668
In-Cd(Tl), shape memory behaviour and FCC to FCT transform. 2−93502
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
NbH_x, sound attenuation, H content effects, elastic domains 2−81898
NbH_x, twin boundary motion, sound attenuation study, microstruct. effects 2−81897
twin boundaries continued
Ni-Ti, martensitic phase, high resolution TEM study 2−60998
Si, dendritic web grown, dislocation struct., TEM and SEM study 2−91975
Si ribbons, defects, elec. characts. and crystallography, EBIC and HVEM study 2−66014
Ti_4O_7 crystallographic shear phase, oxidation, defects, electron microscope study 2−91985
Zn, twin boundary mobility, basal forest dislocation density effect, theory *(Russian)* 2−61000
ZnSe, polarity and inversion twins, high-resolution electron microscopy 2−109813
twinning
see also twin boundaries
ammonium hydrogen oxalate hemihydrate, transition to ferroelastic monoclinic phase, struct. study 2−92191
calcium homophthalate dihydrate, cryst. struct. 2−98052
deformation by moving interfaces 2−77830
diamond, structure, symm. and twinning 2−86621
ferromagnetic crystals, random ensemble, residual magnetisation calc. *(Russian)* 2−92959
graphite, He^+ bombardment, microstruct. changes 2−76524
HCP cryst., core struct. of edge dislocations under shear stress, computer calc. 2−76454
hexahelicene, lamellar twinning explaining nearly racemic composition 2−55984
interaction with slip 2−76489
martensitic transformation, creep and strain hardening model 2−83115
merohedry, X-ray intensity statistics 2−60832
misfit dislocation form. during twinning or martensitic transforms. *(Russian)* 2−76438
pseudoelasticity, review 2−88141
quartz, mechanical properties, effect of α-β transition, Dauphine twinning 2−99046
quartz, microtwinning, interferometry study 2−115248
quartz, single crystal, plastic deform., by indentation, at room temp., TEM 2−56070
α-quartz, synthetic, twisted crystals as Brazil penetration twins 2−98116
quartz crystals, twinned according to Japan twin law, X-ray topographic study 2−109814
rare earth sesquioxides, monoclinic, incoherent twin boundaries and isolated wedge microtwins, high resolution study 2−60999
shock loading, metallurgical effects, review 2−76585
steel, austenitic, stainless, annealing twins absence during radiation-induced recrystn. 2−105187
steel, austenitic stainless, surface hardening and microstruct. changes, influence of US vibr. 2−99538
steel, medium-C, track traces on surface of fatigue cracks, nature 2−99548
thin film, low loss surface imaging STEM studies 2−110181
twin packing defects in lattice, effect on X-ray scatt. 2−91916
zeolite, VSZ-4 crystals, hydrothermal growth and characteris. 2−99311
Zircaloy-2, cold rolled, stress corrosion failure in methanol-HCl media, texture dependence 2−99579
Al alloys, submicron powders, rapidly solidified, microstruct. 2−67313
Al foil, deformation twinning, TEM study 2−66013
Al twins, energy calc. *(French)* 2−87079
Au, ruptured, final separation, role of glide and twinning 2−83200
CdTe, obliquely deposited film, substructure, piezoelectric charge, high-voltage photo-emf 2−87433
CdTe, single crystals, grown from vapour, X-ray topography study *(German)* 2−60993
$Ce_2(SO_4)_3.5(H,D)_2O$, crystal synthesis and struct., X-ray, Raman spectra and thermal anal. 2−67205
Cu-Al, dispersion hardened, struct. stability and resist. to deform. *(Russian)* 2−77872
Cu-Al-Ni (14, 3.4 wt.%), shape memory alloy, shape strains assoc. with thermally-induced and stress-induced martensite 2−57350
Cu-Al-Zu, damping capacity, quenching and Zn addition effects 2−116441
Cu-Be alloy, multistage twinning of tetragonal two-phase blocks formed during ageing, γ′ particle distrib. *(Russian)* 2−67348
Cu-Ge (8.7 at.%), shock-loaded, deform. twinning, time depend. and assoc. strengthening 2−88138
Cu-Sb, chemiepitaxial layer formation, during reactive diffusion 2−76849
Cu-Si, rolled, microstruct. and texture 2−111204
CuAu vacuum deposited films, mech. twinning 2−98492
CuAu-I(II), vacuum deposited ordered thin films, mech. twinning obs. 2−82173
Dy, deform. modes of HCP single crysts. *(French)* 2−67417
Er, deform. modes of HCP single crysts. *(French)* 2−67417
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe, pure, splat-quenched, martensitic transform., microstruct. and kinetics 2−57348
Fe, twinning by laser generated shock waves 2−76456
Fe-Cr-C (3,1.5 wt.%) martensite cryst., midribs *(Russian)* 2−115249
Fe-Mn alloy, microstruct. and phase transform. mechanism, lenticular struct. origin 2−99424
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni (31.2 wt.%); direct and reverse martensitic transforms., impulse duration influence *(Russian)* 2−67335
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle disperion 2−57352
Fe-Si (3 wt.%), plastic deform. in micro- and macro-stress regions, 293 to 773K *(Russian)* 2−99484
Fe-Si (3.25 wt.%), quasibrittle fracture nucleation under strain twinning conditions *(Russian)* 2−62193
Fe-Si (3.25 wt.%) plate, fast crack development mechanism in parallel twin system 2−57482
γ-Fe_2O_3 submicron particles, morphology using high-resolution electron microscopy *(French)* 2−97872
GaSb, single cryst. Czochralski growth, twinning, seed cryst. polarity effects 2−99319
Ge film, amorphous, electron beam annealing in TEM 2−71503
Ge film, laser-crystallised, crystallite morphology and defect struct; TEM and SEM study 2−66402
$(K,Na)_{2-x}(H_2O)_x.[UO_2SiO_4].H_2O$, boltwoodite, cryst. struct., symm. twinning 2−86653
$K_2Cr_2O_7$, etching, revelation of dislocations, rel. to cryst. growth 2−91969

twinning continued
$K_3H(SeO_4)_2$, ferroelastic transition and twin structs., X-ray and optical study 2−86854
$LaSe_2$, cryst. twin law (100), form B, cryst. struct. determ. and refinement *(French)* 2−55905
$LaSe_2$, cryst. twin law (201), form A, cryst. struct. determ. and refinement *(French)* 2−55906
$LiKSO_4$, low temp. phase, phase transitions, thermal expansion and twinning 2−86861
$LiTaO_3$, ferroelec. domains and chemical twinning, dislocations and stacking faults 2−93130
Mg-Al (0.8 wt.%), high temp. deform., dynamic recrystn. and development of microstruct. 2−116455
$(Mn,Fe)_8Si_6O_{15}(OH,Cl)_{10}$, mcGillite, one-layer monoclinic struct., electron microscopy and electron ciffr. 2−115181
$(Mn,Fe)_8Si_6O_{15}(OH,Cl)_{10}$, mcGillite, polytypism and disorder, electron microscopy study 2−115182
$MnH_3P_2O_6.2H_2O$, cryst. struct. determ. 2−91881
Nb-H system, hydride phase transition, low temp. 2−57344
Ni electrodeposits, defect struct., TEM study 2−56387
Ni-Be alloy, multistage twinning of tetragonal two-phase blocks formed during ageing, γ' particle distrib. *(Russian)* 2−67348
Ni-Co galvanic coatings, struct., corrosion resist. and mech. props. 2−57540
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
PbS-Bi_2S_3, chem. twinning in PbS region, transmission electron microscopy obs. 2−76457
PbS-Bi_2S_3 system, synthetic PbS-rich homologues, microscopic study 2−115253
RuO_2, single cryst. growth by open flow chemical vapour transport technique 2−99310
Sb particles, vacuum evaporation prep., twinning, TEM study 2−91984
Sb-Te, chemiepitaxial layer formation, during reactive diffusion 2−76849
Si Czochralski wafers, heat treated, brittle and ductile, fracture and yield stresses meas. 2−92091
Si, ion implanted, secondary defects annealing, electron microscopy study 2−71485
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Mn (5 wt.%), martensitic interface, martensite, TEM lattice fringe imaging 2−57353
Ti-Mo (14-20 wt.%), β phase single crysts., stress-induced products and ductility due to lattice instability 2−105212
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
$TlBiTe_2$ single crysts., defects 2−103766
V, mechanical twinning effect on T_K *(Russian)* 2−98781
$V_2Zr(Hf)(Ta)$ superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
ZnS, revealing of defects by chem. etching 2−115239
ZnS, struct., twinning and thermal cond. 2−81744
Zr, jump-like creep at 4.2K *(Russian)* 2−83169
Zr, polycrystalline, fatigue meas., 4.2 to 293K *(Russian)* 2−88159

twistors *see magnetic storage*

two-dimensional digital filters
design for electron microscopy 2−58971

two-phase flow
adiabatic two-phase flow in VK-50 reactor core riser, hydrodynamics *(Russian)* 2−74891
air bubbles, size and rise velocity meas. in liquids 2−60608
air-solid pipe flow, laser-Doppler velocimetry meas. 2−97672
air-solid two-phase flow in pipe at low air vel., flow pattern and press. fluctuation 2−114876
air-water, two-phase flow through pipeline with gate valve and orifice plates 2−71020
air-water flow, optical probe for high-temperature local void fraction determination 2−55676
air-water interface, heat and momentum transfer 2−91523
air-water two phase flow, surface effect on droplet deposition 2−55647
annular flow stability in horizontal tubes 2−114875
ascending two-phase flow, pulsation characts. 2−114907
axisymmetric stagnation flow of spherical particle near planar surface 2−114882
Boussinesq eqn., classical, exact. soln. 2−107116
bubble and packed bubble columns, with downcomers, hydrodynamic and mass transfer characts. 2−109394
bubble size distribution meas., sewage aeration tanks model appl. *(German)* 2−81427
bubbly flow, flow struct. wave props. fluctuation meas. 2−60613
bubbly water flow past supercavitating wedge, compressibility effects 2−71008
capillary liquid jets in parallel airstream, instability and breakup 2−81379
causality violation of complex-characteristic two-phase flow equations 2−97626
channel flow turbulent-fluctuation energy spectra, suspended sediment effect in three dimens. 2−60660
coarse particles, plug flow in horizontal pipe 2−97661
concentration meas. of particles and dyes, fibre optic photometer development 2−64091
continuum theory for two phase media 2−114868
convection of fluid layer heated from below 2−100358
countercurrent flow with air and water, liquid carry-over and entrainment 2−96214
dense-phase pipeline flow, fluid friction anal. 2−103210
device for reproducing a two-phase flow by mixing liquids differing in boiling point 2−97675
differential pressure meas. instrumentation system for PWR LOCA investig. 2−96193
diffusion with a moving boundary, fixed domain method 2−109307
dilute liquid-liquid dispersions, droplet breakup in turbulent shear flow 2−114886
dilute two-phase system with viscous carrier phase, flow, numerical simulation 2−81387
direct-flow analyzer of the disperse composition of dust 2−60679
discrete solids in partially-filled pipe flow, transport models 2−97641
disperse flow, multispeed model, numerical anal. 2−81385
dispersed flow, droplet size distrib. determ. method 2−71011
dusty fluid, laminar two phase boundary layer flow over flat plate 2−81382
dusty gas, effect of uniform motion of circular cylinder 2−86324
dusty gas, two dimens. stagnation point flow near oscillating plate 2−97618
dusty gas, unsteady flow between parallel plates, one plate oscill. effects 2−114769
dusty gas, viscous incompressible unsteady pipe flow, MHD study 2−81400
dusty gas unsteady flow in elliptical and confocal channels with moving boundaries 2−109407
dusty gas with suspended particles, flow in rot. frame 2−86323
DUVAL computer code for numerical solutions to two-phase, two-dimensional flow problems 2−103204
eccentric spheres flowing in cylindrical tube 2−97639
edge wake, struct. and kinematic characteristics 2−60624
ellipsoidal particle in binary mixture, thermophoresis 2−114959
ellipsoidal particle in shear flow, model for red blood cell motion 2−100026
emulsions, conc. fine disperse, coalescence during turbulent stirring 2−60626
equilibrium two-phase heat pipe flows with variable flowrate 2−91516
ethanol-H_2O liq. droplets interaction 2−81384
evaporating droplet, vaporization and trajectory characteristic simulation 2−97619
evaporating flow inside heated porous metal, struct. 2−114883
film-vapour interface, local equilib. condition 2−98364
fission reactor, 2×6 rod bundle, controlled flow and power transients, natural convection 2−108076
fission reactors, model coolant pump steady under single and two-phase flow conditions 2−108077
fission reactors, two-phase nozzle flow expt., code verification 2−85179
flashing liquids, two-phase channel flow, flow crisis anal. 2−71009
flat-plate solar collector with fluid undergoing phase change, anal. 2−111584
flow field induced by oscill. disc in semi-infinite viscous fluid with surfactant surface film 2−114878
flow in horizontal channels, anal. using SGAA III code user's guide 2−71021
flow regime effects on integral and local slip in vertical two-phase flow 2−102161
fluid-particle suspension, torsional oscillations of disc 2−76013
fluidised beds, voidage instability; wave hierarchy interpretation 2−55660
gas bubble, motion in liq., unsteady drag at large Reynolds number 2−60609
gas bubble motion in vibr. cylindrical vessel containing two layer liq. 2−60630
gas bubbles in compressible fluids, oscills., boundary stability 2−76012
gas liquid two phase flow, liq. distrib., effect of swirl, film flowrate meas. 2−97625
gas particle suspensions through venturis, scaling laws, appl. to flow meas. 2−86328
gas-liquid countercurrent flow through multiple short paths, flooding characteristics 2−109403
gas-liquid pipe flow, review *(French)* 2−55665
gas-liquid pipe flow meas., basic standardised parameters analysis 2−65669
gas-liquid systems, speed of sound effect on hydrodynamics and heat transfer 2−91514
gas-liquid two phase flow, press. drop in inclined pipes 2−114879
gas-liquid two phase vertical flows, press. fluctuations and flow pattern recognition 2−114881
gas-liquid two-phase flow, slug flow to bubbly flow pattern conversion 2−103201
gas-nonNewtonian liquid, two-phase flow in straight horizontal tube 2−60621
gas-particle mixture, flow through axially symmetric nozzle, limiting particle streamline 2−91509
gas-particulate flow through a curved pipe 2−60632
gas-solid reacting systems, heat and mass transfer, thermodynamic approach 2−65635
gas-solid two phase flow sudden expansion 2−91511
gasdynamic jet, seeded, visualisation by laser light *(German)* 2−55681
GCRIT, critical two phase flow through orifices code 2−102006
geothermal power state-of-the-art of recovery process models 2−83453
granular materials, flow, nonlinear constitutive model, appl. to gravity flow 2−97685
gravity flow of granular materials 2−103199
heat exchange in two-phase flow about a surface located in a rectangular channel 2−60627
heat-generating boiling pools, heat transfer from vertical at inclined boundaries 2−114803
hot heterogeneous flow, sat.-centre line intensities in gas phase pyrometery, temp. meas. 2−60620
hydromagnetics, thermal convection instability of two component fluid layer 2−106501
immiscible Bingham fluids, 2-phase flow in conduit *(French)* 2−114908
inclined pipeline flow, bubbly and slug regimes, press. drop study 2−97621
inclined two-phase jet, turbulence struct., gravity effect 2−60514
jumpwise motion, kinematics of turbulent flow and solids 2−97633
laminar film flow, mathematical model, heat and mass transfer in two-phase flow 2−97495
laser Doppler anemometer, passive impurity transport velocity meas. *(Russian)* 2−114945
laser Doppler anemometry appl., simultaneous meas. of particle velocity, size and concentration *(German)* 2−64211
laser Doppler anemometry appl. data collection and processing *(German)* 2−65675
laser Doppler system with transient recorder for study of particles in flowing fluid 2−74582
liquid cylinder, equilib. shape and stability in gas flow at low Weber no's. 2−65637
liquid drops, creeping motion through a circular tube 2−55650
liquid metal two-phase flow pattern, transverse mag. field effect, fusion reactor heat exchanger 2−80307
liquid rotating in vertical plane, disperse phase distrib. *(Russian)* 2−81345
liquid-bubble mixture flow local velocity meas., using hot-wire anemometers *(German)* 2−81426
liquid-gas flows, bubble interaction study 2−60616
liquid-liquid two-phase flows in annuli, capacitance method for determ. position and struct. of interface *(German)* 2−76052
liquids, gaseous cavitation prediction, two-phase flow analogy 2−60590

two-phase flow continued
LMFBR, porous blockage, sodium boiling pattern 2−74870
measurement, γ-ray Compton profile appl. 2−108072
measurement, from reactor neutron noise anal. 2−108071
measurement, impedance, ultrasound and microwave appls. 2−108069
measurement, nuclear and optical methods 2−108073
measurement, using multiple γ-rays, tracers, activation and optical methods 2−108068
measurement by modified laser Doppler anemometry 2−65674
metallic body in aerosol stream, charging 2−97638
MHD dusty viscous flow through a circular pipe 2−109416
MHD generator, two-phase liquid metals, analytical model 2−71266
microscopically inhomogeneous flows, seed-particle-track images, rapid digitised storage 2−97676
modelling and aerodynamic characts. of two-phase media flow in diffuser channels 2−60629
multiple-exposure image interpretation methods for two-phase media flow 2−109433
multistage fluidisation, press. drop, solids conc. and mean holding time 2−109401
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
natural circulation air-lift pump, flow fluctuation rel. to flow rate 2−71042
natural circulation in multiloop PWRs, simulator programming 2−102018
Navier-Stokes fluid, random array of spheres, dynamics 2−97628
non-intrusive meas. of flowing gas temp., concentration and density, by laser apparatus *(German)* 2−81420
nonhomogeneous fluids, motion in presence of diffusion 2−60622
nuclear reactor simulators, analytical modules 2−102019
OMOD: prediction of two-phase mass flow through orifices 2−102007
once-through steam generator in Integrated Type Marine Reactor, two-phase flow stability anal. *(Japanese)* 2−71007
one dimensional flow through constrictions, transient processes, vibrations 2−71010
one-dimensional 6-eqn. model, reactor cooling appl. 2−85178
outer heterogeneous flow of gas containing droplets or particles plast blunt objects 2−65638
particle motion in nonstationary layered flow of an incompressible fluid 2−86325
particle movement in a vertically oscillating liquid 2−114872
particle-laden gas flows, thermodynamics, in convergent-divergent nozzle 2−109385
particle-liquid mass transfer in viscoelastic media 2−114880
phase flkow, axial change effects on mass transfer and dispersion coeffs. 2−71016
physical model and eqn. of motion, random particle or bubble motion 2−114887
pipe flow meas., by capacitive methods *(German)* 2−81424
pipe flow of suspension meas., using electric mocro-probe method *(German)* 2−81425
plane parallel flow of a binary mixture of fluids 2−91524
plane Poiseuille flow, flow visualisation study of transition triggered by TiO_2 coated mica particles 2−109410
porous media, three dimens., randomised, network model 2−91510
pressure transients in an idealised horizontal two fluid reservoir 2−97644
pseudoturbulent bed of dispersed material, heat transfer 2−103165
radiative fluids, transient and transport coeffs., astrophys. appl. 2−94588
rarefied media, shock wave, relax. zone, radiation struct. 2−109421
rod bundles, disperse film flow, phase interaction, channel geometry effect 2−64576
saturated liq. film, forced convection boiling heat transfer from cylinder 2−75952
sedimentation beneath inclined walls, kinematic wave theory 2−97630
separated two-phase flow in a nozzle 2−97622
shear gas flow, diffusion to a particle in arbitrary surface reaction kinetics 2−114926
simultaneous melting-condensation on vertical wall anal. 2−91439
slab core reflooding, two-phase region thickness 2−108075
solid particles injected into gas flow, penetration depth 2−60625
solid-liquid suspensions in elastic tube, one-dimens. unsteady flows 2−109397
solidification interface shape from sinusoidal heating anal. 2−91522
source-sink driven flow in two-layer rot. fluid, linearised spin-up process 2−109329
spherical particle motion in liquid, drag coeffs. in EM and gravitational fields 2−103220
steam flow, nucleation and bubble growth in heated channel, void fraction 2−91515
steam generator tubing, critical heat flux-induced temp. oscills., thermal modeling 2−70939
Stefan problem, two-phase, inequality for coeff. σ of free boundary $s(t)=2\sigma\sqrt{t}$ of Neumann soln. 2−75829
stochastic model of two phase flow pressure drop accompanied by boiling inside circular tubes 2−97624
Stokes flows distorted by a sphere straddling the interface 2−114877
stratified slurries, through horizontal venturi meters 2−109387
stratified two-phase flow condensation in horizontal or sloped tubes 2−91542
stratified two-phase flows condensation eqn. in horizontal or sloped tubes 2−91543
subcooled boiling in pipes, heat transfer and hydrodynamics 2−91420
supercritical once-through steam generator, variable pressure operation, two phase flow in furnace wall tube *(Japanese)* 2−86326
supersonic two-phase flow around obstacles, wave struct. variation 2−114844
suspended particles dispersion in uniaxial flow, stochastic theory 2−86327
suspensions, microstruct. deform., strong flow criteria 2−81383
transient subcooled two-phase flows in channels 2−97623
transient two-phase flow in nuclear reactors, various models, foundations and limitations 2−102251
transient vapour-liquid flow in channels, two-fluid description 2−97636
turbulence in two-phase dispersed flows, laser velocimetry obs. 2−65636
turbulent duct flows, motion of particles 2−70920
turbulent non-equilibrium dispersed flow, boiling, heat transfer 2−55559
turbulent two-phase channel flow, phase distrib. mechanism 2−60519
turbulent two-phase pipe flow, phase distrib. mechanism 2−71018
two-phase noise diagnosis in nuclear power plants 2−69766
unsteady two-phase flow, loss of coolant accident in power plant 2−90261
using Raman spectroscopy *(German)* 2−81421

two-phase flow continued
vapour generating tubes, heat transfer under transcritical conditions 2−91418
vapour-gas mixture, condensation process, computational method 2−60505
vapour-liquid flow, heated, droplet spectrum and entrainment 2−76016
vapour-liquid flow, interfacial exchange relations, regime-map approach 2−97634
vertical cylindrical passage, numerical anal. 2−114871
viscoelastic fluid flow past convexly curved boundaries, suspended particle effects 2−81368
viscous fluid containing solid bodies, dynamics, Navier-Stokes eqn. 2−65610
visualisation, computerised tomography and NMR scanning appls. 2−108070
void fraction, press. fluctuations effect, expt. techniques 2−91561
water drops containing salt in high pressure steam environment 2−65472
water film thickness meas. in two-phase flow by capacitance method 2−71045
wave-obstacle interaction in multicomponent two-phase medium 2−71012
wet steam in evaporator tube, boiling crisis 2−91417
CO_2 jet, Rayleigh meas. 2−111521
Cs droplets removal from Ar-Cs flowing mixt. in a closed-loop MHD generator 2−91518
β-FeOOH, rodlike crysts., dil. aqueous dispersions, light scatt. obs. of laminar, vortical and turbulent flow 2−76015
He two-phase channel flow, hydraulic charact. calcs. 2−103200
^{3}He in superfluid ^{4}He, mutual friction effects, flow impedance expts. 2−76768
Hg-Ar two phase heat transfer in vertical annulus under transverse mag. field 2−114873
Na forced convection, wall heat transfer coeff. for condensation and boiling 2−97635
SiO_2 dispersed in cyclohexane, dynamic behaviour, photon correl. spectroscopy 2−109395

two-photon spectra
absorption, effect of spatial and temporal struct. of emission 2−108937
acenaphthene, low lying singlet states, two-photon spectra 2−70363
acrolein supersonic molecular beam at 193 nm, laser photofragmentation dynamics 2−96656
acrylonitrile mol. beam, VUV laser photofragmentation, one-, two- and three-photon processes 2−96657
adiabatic two-photon absorption, time development in low intensity regime 2−75227
atom, multilevel, under two-photon reson. conditions, fluoresc. spectrum 2−64945
atom, two-photon-induced spin-orbit transitions 2−64924
atomic ionisation, radiative collision influence 2−96523
atoms, double resonance via continuum states: ionization quantum beats 2−64944
benzene, liq., three-photon ionisation spectrum 2−80749
benzene and its isotopes, $^1B_{2u}$ from $^1A_{1g}$ two photon spectra by supersonic beam multiphoton ionisation spectroscopy 2−102559
benzenes isotopically labelled, two-photon hot band spectra, Duschinsky effect 2−85680
biphenyl, Ar matrix isolated, two-colour resonance photoionisation 2−85751
2,2′-bipyridine, lowest electronic states, two-photon excitation spectra 2−70237
DCM, two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
diatomics, two-photon processes, δ-approx. (reflection) method 2−102560
DODCI, two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
fluorene-Ar(Ar_1)(Kr_1), Van der Waals mols., electronic spectroscopy by resonant two-photon ionisation 2−54907
gaseous system, stimulated Raman effect quantum statistics 2−102872
haematoporphyrin derivative, two-step laser activation 2−78289
harmonic model, displaced, Franck-Condon amplitude for two-photon processes 2−54898
hidden variables theory, two photon correl. test 2−63857
iodobenzene cations, two-photon visible dissoc. 2−70364
methyl iodide(-d_3), multiphoton ionisation spectrum with intermediate reson. in A-band region 2−70269
molecules, vacuum UV spectra using third harmonic generation in inert gases 2−70275
naphthalene, Ar matrix isolated, two-colour resonance photoionisation 2−85751
naphthalene, low lying singlet states, two-photon spectra 2−70363
naphthalene, two-photon spectrum of b_{2u} modes, vibronic activity 2−80750
narrow gap semiconductors, two-photon absorpt. coeff., pulse-width dependent, time independent 2−93209
oxazine 725, two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
phenanthrene, variable wave vector second harmonic generation, Davydov components 2−75628
1-phenyl-1-propyne, Ar matrix isolated, two-colour resonance photoionisation 2−85751
phenylacetylene, charge transfer states, two-photon obs., INDO/S calcs. 2−70366
polyene systems, intermediate states, two-photon spectra 2−90639
population trapping in photoionisation to dressed continuum states 2−64936
positronium excitation of 1^3S_1 to 2^3S_1 two-photon transition 2−70453
Rb, spin polarisation by laser driven two photon and excimer transitions 2−64946
resonant two-photon ionisation effect on AC stark effect spectrum 2−54801
rhodamine 560(590, 610, 640), two-photon absorpt. cross-section meas. at 1.06 μm 2−54908
semiconductor films, quantized, light absorpt. by two-photon transitions in neutral deep impurity centres 2−77611
semiconductors, photoacoustic meas. of nonlinear absorpt. 2−58920
semiconductors, two-photon two-exciton light absorpt. 2−87723
N,N,N′,N′-tetramethyl-p-phenylenediamine, recombination fluoresc., electric field quenching, two-photon ionisation 2−102518
thermionic detector for laser spectroscopy of excited states of atoms and molecules 2−58906
three-level atom, lambda config., excitation spectra at high photon densities 2−102450
time dependence of two photon absorption process investigated in intermediate intensity rate eqn. regime 2−102451
trifluoromethane-d_1, IR-RF two photon investig. 2−80694

two-photon spectra continued
two-atom resonance fluorescence, power broadening and two-photon correls. 2−54798
two-photon transitions to surface states, angular dependences 2−99081
^{135,137}Ba, msns Rydberg states level shifts induced by hyperfine interaction 2−64943
$Bi_{12}GeO_{20}$, $Bi_{12}SiO_{20}$, two-photon interband absorpt. spectra rel. to band struct. 2−116203
$^{79}Br_2$, two-photon processes, δ-approx. (reflection) method 2−102560
Ca, isotope shift meas. by two-photon spectroscopy 2−64915
CaF_2:Eu^{2+}, two photon luminescence excitation and freq. spectrum 2−110937
^{43}Ca, msns Rydberg states level shifts induced by hyperfine interaction 2−64943
CdP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
CdS, biexcitons, luminescence assisted two-photon spectroscopy study 2−76933
CdS, excitonic polariton and excitonic mol. dispersion curves, two-photon Raman scatt. 2−87159
CdS, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
CdTe, non-parabolic band effect on two-photon absorpt. 2−104910
Cl, two-photon absorpt., laser induced fluoresc. 2−54797
Cl_2, UV emission, excitation achieved by two-photon absorpt. 2−96588
Cs+Ar collisional narrowing in Cs two-photon transition 2−80827
^{133}Cs, transverse optical pumping, parametric resonance in zero field under two-freq. action 2−113943
Cu_2 supersonic cluster beam, laser photoionisation 2−108761
CuCl, diffusion coeffs. of exciton and excitonic mol., picosec. transient grating spectroscopy 2−61926
CuCl, excitonic mol. broadening under giant two-photon excitation, circular dichroism and light depolarisation study 2−66454
CuCl, self-induced polarisation rotation effect of elliptically polarised beam 2−108936
CuCl, two-photon absorpt. study of Γ_3 valence band 2−104909
Cu_2O, 1S exciton two-photon magnetoabsorpt. spectra, polarisation depend. meas. 2−77498
Ge, laser pulse interaction, 2.7 μm 2−77627
H, resonant two-photon transition rates 2−85610
H, two-photon transition probabilities and rel. radiation matter interaction problems, second-order eqn. appl. 2−108436
He, energy levels and Lamb shift investig. 2−75208
^{2}He, 1^1S-2^1S transition, two-photon transition probability calc. 2−113952
Hg, sequential two-photon laser-induced fluoresc. detect. 2−99737
I_2, E region states excited by two-photon spectroscopy, kinetic obs. 2−85758
I_2, ion-pair state, two-photon excitation, fluoresc. obs. 2−85721
InAs, two-photon optically pumped stimulated recomb. radiation in high mag. fields 2−93228
InSb, CC two photon magnetoabsorption spectroscopy with CO_2 lasers, energy gap 2−87748
p-InSb, two-photon magnetoabsorpt. spectra, using CW CO_2 lasers 2−93166
^{40}K, energy levels, isotope shifts, two-photon spectra 2−54824
KBr:In^+, band luminescence, two-photon spectroscopy 2−110939
K_2PtCl_6, two-photon excitation spectra in range 680-950 nm 2−57142
$KTaO_3$, two-photon interband absorpt. spectra rel. to band struct. 2−116203
LaF_3:Gd^{3+}, two-photon absorption in Gd^{3+} 2−57128
LaF_3:Gd^{3+} two-photon absorpt., Judd-Ofelt theory 2−61935
LaF_3:Gd^{3+} two-photon absorption lines, selection rule violation, anisotropy and anomalous intensity 2−77555
Li vapour, two-photon laser 2−65208
^{6}Li, isotope shift, two-photon spectra 2−54823
^{7}Li, isotope shift, two-photon spectra 2−54823
Li^*+Li, two photon optical ionising collisions 2−70206
Mo, two-photon X-ray emission from inner-shell transitions 2−102454
N, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
NH_3 FIR optically pumped lasers, two-photon light shift 2−60069
NH_3 ν_2 band Doppler-free two-photon resons., optoacoustic detect. 2−96669
NO, electronically excited Rydberg states, quenching mechanism, two photon excited fluoresc. 2−59848
NO in atmospheric flame, resonantly enhanced two photon photoionisation 2−70365
NO, rot. transitions in $A^2\Sigma^+$ ($v'=0$)-$X^2\Pi(v''=0)$ gamma band, two-photon absorptivity 2−80557
NO, two-photon fluoresc. excitation and resonant four photon ionisation spectrum, double reson. effect 2−54890
NO, vacuum UV spectra using third harmonic generation in inert gases 2−70275
$^{15}NH_3$ far IR lasers, optically pumped, two-photon light shift and Autler-Townes splitting 2−96908
Na vapour, optical second harmonic generation by a single laser beam 2−65309
Na_2 CW two-photon transitions, spectral struct. 2−59876
Na_2, spectra by laser level labelling, two-photon transitions 2−65063
^{20}Ne two photon absorpt., Doppler broadening by light shifts, compensation 2−85607
O, fluoresc. detect. induced by two-photon absorpt., lifetime and quenching rate meas. 2−70176
O, two-photon excitation in acetylene-O_2 flame 2−96526
PO in C_2H_2/air flame, two-photon ionisation processes 2−102549
Rb optical Ramsey resonance investigation using ultrahigh spectral resolution dye laser spectrometer 2−79677
Rb+He(Ar)(Xe), impact broadening and shift of nS and nD levels 2−102581
Rb+He(Ne)(Ar)(Rb), excitation transfer, atomic fluoresc., two-photon absorpt., quenching 2−70389
S, two-photon induced fluoresc. and reson.-enhanced photoionisation 2−113923
SF_6, two-photon Q branch reson., nonlinear IR obs. 2−102471
SO_3, multiphoton photofragmentation at 248 nm 2−102557
SiC, 6H- and 15R-types, two-photon interband absorpt. spectra rel. to band struct. 2−116203
Sr, 5 sns $^1S_0$ and 5 snd $^1D_2$ Rydberg series absolute energy level determ. 2−85606
Sr-Cs mixture, two-photon atomic ionisation, radiative collision influence 2−96523
two-photon spectra continued
^{87}Sr, msns Rydberg states level shifts induced by hyperfine interaction 2−64943
^{87}Sr, Rydberg state, hyperfine induced perturbation, high-resolution two photon spectra 2−59769
ZnO, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
ZnP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
ZnS, hexagonal, photoacoustic study of two-photon absorption 2−57040
ZnSe, non-parabolic band effect on two-photon absorpt. 2−104910
ZnSe, wide band semiconductor, two-photon and two-step transitions 2−108934
two-photon spectroscopy
Doppler-free two-photon heterodyne spectroscopy by single-beam freq. mod. 2−107419
hyper-Raman scattering in systems with electronic degeneracy 2−89823
laser beam applications 2−95486
molecular, review 2−108653
parametric resonance in zero field under two-freq. action 2−113943
TWT *see travelling-wave-tubes*
Tyndallometry *see turbidimetry*
type I superconductors
see also intermediate state
current induced destruction of type I superconductivity, role of one- and two-dimensional mixed state 2−61670
phase transition, type I to type II thermodynamic theory 2−82524
superheated granules, diamagnetic interactions 2−56765
Al film, AC temp. calorimetry at low temp. 2−53762
Al, granular, mag. susceptibility meas., grain clustering near T_c 2−61651
Al, impurity scatt. time, critical current density 2−82548
Al, microwave enhancement of crit. current and order parameter 2−110548
Al supercond., order parameter relax. under microwave irrad. 2−72115
Al, superconducting, magnetoabsorpt. resonances, 35 GHz 2−57067
Al, superconducting bolometer, Al+O_2 2−89808
Al superconducting film, critical mag. field 2−56800
Al superconducting strip, influence of microwaves on order parameter relax. time 2−72114
Al thin film, inhomogeneous current state, vortex lines, C-V charact. study *(Russian)* 2−82549
Al, thin narrow film, localisation and superconducting effects *(Russian)* 2−72106
Ba, pressure induced superconductivity 2−56764
a-Bi:H films, elec. and supercond. props. *(Russian)* 2−82506
$C_xKH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
Ga, nonlinear acoustic wave propag. 2−76602
Hg, films, electron localisation and superconductivity *(Russian)* 2−72107
Hg, supercooled and superheated metastable phases, average lifetime meas. *(Russian)* 2−115957
In and In-Sn(Bi), US attenuation in supercond. and intermediate states 2−77229
In film, discontinuous, supercond. transition temp., resistive meas. 2−92810
In film, localised resistive domains, model verification *(Russian)* 2−56806
In film, overlayered on $SrTiO_{3-x}$, supercond. transition temp. 2−66693
In one-dimensional strips, crit. current, temp. depend. 2−104550
In, supercond. bridges, current-voltage charact. 2−115955
In-Mn, ion beam induced precipitate dissolution, characterisation by supercond. transition temp. meas. 2−86740
Nb-Pb Josephson junction, submicron, electron beam lithographic fabrication and crit. current density meas. 2−56796
Nb_3As(A-15), supercond. transition temp. and upper critical field 2−82507
Pb film, supercond. transition, voltage decompensation 2−87461
Pb film, trapped flux, distrib. of pinning forces 2−61669
Pb, modulus defect and amplitude dependent damping, normal-supercond. transition effect 2−55978
Pb superconducting film, behaviour in states far from equilibrium 2−72125
Pb superconducting film, current-carrying, induced by mag. fields, breakdown of supercond. 2−104528
Pb superconducting film, interfaced with Formvar, influence of grain size on T_c 2−115933
Pb, supercooled and superheated metastable phases, average lifetime meas. *(Russian)* 2−115957
Pb ternary alloys, supercond. props., influence of US treatment 2−82514
Pb, thermal resist. of normal/supercond. interphase boundary 2−77228
Sn, bulk, radiation detector using supercond. tunnel junctions 2−90384
Sn film, paraconductivity, comparison with Maki-Thompson theory 2−98810
Sn, granular superconducting film, vortex mean free path noise meas. 2−104551
Sn, hollow, two-dimens. mixed state statics 2−98825
Sn small particles, NMR study 2−66712
Sn, supercond. bridges, current-voltage charact. 2−115955
Sn, superconducting critical current, directional asymmetry, ferromag. particles effect 2−92841
Sn superconducting film, current-carrying, induced by mag. fields, breakdown of supercond. 2−104528
Sn, type I supercond., current induced destruction role of one and two-dimensional mixed state 2−61670
Sn-SnO_x-Nb and Sn-Nb, tunnel and bridge-type Josephson junctions, submm wave response meas. 2−92831
Sn-Xe frozen mixtures, normal state cond. and supercond. props. 2−92798
Sr, pressure induced superconductivity 2−56764
$TiN_{1-x}O_x$, small particles and granular samples, superconductivity 2−82516
Zn, plastic deform., supercond. transition effect *(Russian)* 2−116503
type II superconductors
see also magnetic superconductors; mixed state
A15 compound, for fusion reactor magnets, ion and neutron damage studies 2−110549
A15 compound critical temps., structural factor effects, empirical expression 2−61636
A15 compounds, prep. by electron beam evaporation, superconductivity and phys. props. *(Russian)* 2−66688
A15 compounds, supercond., energy gap determ. from heat capacity meas. 2−110532

type II superconductors continued
A15 intermetallic cpds., linear thermal expansion coeff., real struct. influence 2−56223
A15 multifilamentary superconductors, alternative fabrication technologies 2−67264
A15 superconducting cpds., varying electronic density of states 2−61328
A15 superconductors, atomic disorder rel. to superconductivity 2−56769
A15 superconductors, effect of impurities on thermodynamics 2−98802
A15 superconductors, tunnelling, McMillan inversion of Eliashberg's equations 2−56792
acoustic emission triangulation, of disturbances and quenches in superconductor and superconducting magnet 2−56807
anisotropic supercond., spin-orbit effects on transition temperature 2−72108
anisotropic supercond., upper critical field, effective mass model 2−72127
C NbTi superconductor for magnets, fusion neutron damage 2−80184
Chevrel phase cpds., supercond., energy gap determ. from heat capacity meas. 2−110532
critical current measurement, elec. field and resistivity criteria, temp. and strain effects 2−92847
cylinder with longitudinal current, flux-line instability in absence of vol. pinning 2−82551
far IR laser thermal spectroscopy near superconducting gap 2−98805
magnet alloys, neutron irrad. effects, review 2−110553
magnet materials, low temp. irradiation effect 2−80182
metals, subsurface layers quality eval., electrophys. methods 2−115959
monofilamentary nonideal type II supercond. wires, linear array, abnormal transverse field effect 2−56775
nonlinear waves during low temp. strain, heat evolution *(Russian)* 2−61653
oscillating disc, hysteresis losses and mag. phenomena 2−66729
phase transition, type I to type II, thermodynamic theory 2−82524
pinning force, total, without threshold criterion 2−61675
rare earth ternary cpds., mag. and supercond. props. 2−115937
surface effects influence on hysteresis losses 2−61671
thermodynamic potentials 2−104552
thin-walled superconducting cylinder, effect of impurities on mag. field penetration 2−110533
$(TMTSF)_2AsF_6$, insulating, cond., and supercond. states under press. and mag. field 2−72103
$(TMTSF)_2AsF_6$, supercond., struct., spin-charge separation 2−65976
$(TMTSF)_2ClO_4$, deuterated, organic supercond. Meissner anisotropy 2−56776
$(TMTSF)_2ClO_4$, magnetotransport under press. 2−56556
$(TMTSF)_2ClO_4$, nonlinear effects near superconducting T_c 2−92802
$(TMTSF)_2ClO_4$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2ClO_4$, organic II donors, electrochemically grown salts, supercond., synthesis and study 2−56750
$(TMTSF)_2ClO_4$, organic supercond., mag. field depend. thermal cond. 2−92821
$(TMTSF)_2ClO_4$, organic supercond., obs. of mag. state, cooling rate influence 2−104614
$(TMTSF)_2ClO_4$, organic supercond., resistive and mag. susceptibility transitions 2−56754
$(TMTSF)_2ClO_4$, organic supercond., sp. ht. meas. 2−56778
$(TMTSF)_2ClO_4$, supercond. at zero press. obs. 2−56757
$(TMTSF)_2ClO_4$, supercond. transition in mag. fields 2−56758
$(TMTSF)_2PF_6$, magnetotransport under press. 2−56556
$(TMTSF)_2PF_6$, one dimensional organic supercond. detected via tunnel spectroscopy 2−56793
$(TMTSF)_2PF_6$, organic supercond., possibility of coexistence of SDW and supercond. 2−56759
$(TMTSF)_2PF_6$, pure and radiation damaged, magnetotransport and nonlinear effects 2−56555
$(TMTSF)_2PF_6$, quasi-one-dimensional superconductors, interchain coupling, homogeneous coupling and cross linking 2−56752
$(TMTSF)_2ReO_4$, press. depend. of metal-insulator transition and supercond. transition 2−56753
$(TMTSF)_2X$, organic metal and supercond., chemistry and electrocrystallisation 2−55871
$(TMTSF)_2X$ compounds, competition between SDW and supercond. 2−56755
$(TMTSF)_2X$ family of organic superconductors, survey of low dimensional phenomena 2−56751
$(TMTSF)_2X$ salts, prep. struct. and anion effects 2−55957
$(TMTSF)_2X$ salts, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
$(TMTSF)_2X$ superconductors, props. 2−56802
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
$(TMTTF)_2X$ family of organic charge transfer salts, supercond. obs. 2−56756
transition metal based superconductors, amorphous, review 2−66686
transition metal carbides and nitrides, Tc, charge transfer model 2−72095
vortex lattice alteration at defects, pinning *(Russian)* 2−92846
vortex-vortex system stability, cutting of bent vortex lines 2−98828
Ag-Ge, rapidly quenched alloys, superconducting investigation *(Chinese)* 2−61672
AgGa, Coulomb pseudopotential from normal-state resistivity and T_c 2−98790
Al-Si (11.3 at.%), fast quenched eutectic alloy, effect of heat treatment on supercond. props. 2−61654
Al-Si-Ge, amorphous, superconducting transition *(Chinese)* 2−104520
Al-Si(11.3 wt.%), superconducting props., heat treatment effects *(Chinese)* 2−98778
Au/Cr/Au epitaxial metal film sandwiches, supercond. transition temp. 2−87440
AuAl, Z 2−98790
$Ba(Pb, Bi)O_3$, ceramic supercond., transition temp., prep. conditions 2−82509
$BaPb_{0.7}Bi_{0.3}O_3$ films, grain boundary Josephson junction network props. meas. 2−87452
$BaPb_{0.75}Bi_{0.25}O_3$ films, grain boundary junctions, max. DC Josephson current, temp. depend. meas. 2−92832
$BaPb_{1-x}Bi_xO_3$, cryst. growth from molten KCl solvent and supercond. props. 2−77719
$BaPb_{1-x}Bi_xO_3$, fabrication and supercond. props., boundary layer Josephson junctions appl. 2−82530
$BaPb_{1-x}Bi_xO_3$ solid soln., microstruct. and supercond. 2−110518
type II superconductors continued
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
$BaPb_{1-x}Bi_xO_3$ superconducting films, RF sputtering prep. 2−83019
$BaPb_{1-x}Bi_xO_3$, superconductivity, electronic and cryst. struct. effects 2−115938
$BaPb_{1-x}Bi_xO_3$, supercond. props., effect of O^{2-} conc. 2−115939
$BaPbO_3$-$BaBiO_3$ system, Hall EMF, elec. cond., and supercond., 2.5 to 300K 2−61645
$Ba_{0.95}Sr_{0.05}Pb_{0.75}Bi_{0.25}O_3$ superconducting films, RF sputtering prep. 2−83019
$C_8KH_{0.19}$ intercalation cpd., supercond. obs. 2−110519
C_4KHg (RbHg), intercalate, superconductivity study 2−82512
$C_8KHg(RbHg)$, intercalate, superconductivity study 2−82512
$CdMo_6S_8$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$CeCu_2Si_2$, high press. superconducting transition *(Russian)* 2−82511
$CeCu_2Si_2$, superconductivity 2−66691
$Ce_{1-x}Gd_xRu_2$, self induced vortex state, Meissner effect, NMR study 2−87463
$CeRu_2(Co_2)$, superconductor with 4f electrons, photoemission study 2−104525
Co-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$Co_xMo_6S_8$, superconductive props. 2−66689
Cu-Ni alloys, elec. and mag. props. at 4K 2−77018
Cu-Pb, microstruct., mech., elec., and mag. props., depend on synthesis conditions 2−56748
Cu-Sn alloys, elec. and mag. props. at 4K 2−77018
Cu-V-Si superconducting filament produced by glass-coated melt spinning 2−83066
$Cu_{1.8}Mo_6S_8$, sp. ht. in high mag. field, 2 to 15K, thermal relax. calorimetry study 2−89716
$Cu_xMo_6S_8$, superconductive props. 2−66689
$Cu_{1.8}Mo_6S_{8-y}Se_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$Cu_{1.8}Mo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$Cu_{1.8}Mo_6S_{8-y}Te_y$, Chevrel phase cpd., elec. resist. and supercond. 2−92799
$Er_{1-x}Ho_xRh_4B_4$, direct evidence for first order phase transition at lower crit. temp. 2−61639
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−72105
$ErRh_4B_4$, coexistence of ferromagnetism and superconductivity 2−115936
$ErRh_4B_4$ film, pair tunnelling meas. 2−87454
$ErRh_4B_4$, single cryst., ferromag. and supercond., coexistence 2−56834
$Eu(Gd)Mo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
$Eu_{1.2}Mo_6$ $(S_{1-x}Se_x)_8$, press.-induced non-bulk supercond. 2−110521
$EuMo_6S_8$, valence of Eu under high press. 2−82553
$Eu_xMo_6S_8$, superconductivity, thermoelectric power, Fermi surface 2−82510
$Eu_xSn_{1-x}Mo_6S_8$, mag. props. under press. 2−56911
$Fe_xSnMo_6S_8$, influence of press. on T_c *(Russian)* 2−56763
$Gd(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
Hf-Nb-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
Hf-V-Si, amorphous, supercond. props. and microstruct. after induced crystn. 2−98785
$HgMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$Ho_{1-x}Er_xRh_4B_4$, superconductivity and magnetism 2−72098
$Ho(Ir_xRh_{1-x})_4B_4$, mag. order and supercond. props. 2−82661
$Ho_xLu_{1-x}Rh_4B_4$, superconductivity and mag. props., μSR meas. 2−72101
$HoMo_6S_8$, coexistence of ferromagnetism and superconductivity 2−72105
$Ho(Rh_{0.3}Ir_{0.7})_4B_4$, mag. struct., superconducting T_c 2−104585
In-Cr dilute superconducting alloy, tunnelling, localised excited states 2−72122
In-Ga, FCT struct., supercond. transition temp., resistive meas. 2−56749
InGe, percolating supercond., upper crit. field 2−77243
$Ir_{0.78}Y_{0.22}$ eutectics, strain-induced softening and high-press. expts. 2−56090
$KTl_{1.5}C_x$ (x=4, 8), intercalation cpd., supercond. transition temp. and crit. field 2−92844
$LaAl_2$, superconducting, US attenuation and vel. below 5K 2−56782
$La_{100-x}Al_x$, amorphous, supercond. transition temp. press. depend. 2−115932
LaB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
$La_{1-x-y}Ce_xY_y$ system, multiple supercond. transition temps. 2−98788
$La_{70}Cu_{30}$, amorphous, penetration depth, metallurgical phase separation 2−87446
$La_{1.2-x}Eu_xMo_6S_8$, superconductivity and mag. props. 2−72099
$LaFe_4P_4$, superconductivity and mag. props., Mossbauer study 2−72102
$La_{3-x}Gd_xIn$, EPR study, mag. and superconducting props. *(Russian)* 2−93002
LaS_x, elec. cond. study 2−82363
LaS_x, heat capacity in superconducting and normal states 2−82521
$La_{0.78}Zn_{0.22}$, amorphous supercond., anomalous heat relax. 2−98801
$Li_{1+x}Ti_{2-x}O_4$, fabrication and supercond. props., boundary layer Josephson junctions appl. 2−82530
Mo chalcogenides, ternary, Chevrel phase high field superconductors, review 2−66708
$Mo_6(Se_{1-x}Te_x)_8$, Chevrel phase cpds., ^{125}Te Mossbauer effect 2−77436
$NaHg_4$, superconducting, Ginzburg-Landau parameter 2−87445
Nb Cu(Ti), superlattice, sputtered, struct., elec. cond. and supercond. props. 2−61311
Nb film, internal friction in vicinity of superconductive transition 2−66707
Nb film, nonequilib. state instability, quasi-particle tunnel injection 2−87459
Nb foil, He ion irrad., supercond. props., pinning mechanisms *(Russian)* 2−66728
Nb Josephson point contact, supercond. energy gap, RF noise enhancement study 2−92829
Nb, low resist. supercond. contacts, static and HF props., microwave and Josephson radiation 2−104548
Nb, mag. props. near T_c *(Russian)* 2−61652
Nb patterned supercond. film, production using trilevel lift-off process 2−93643
Nb, peak effect near $H(c_1)$, crit. current meas. 2−77245

type II superconductors continued
Nb, point contact, crit. current-normal state resist. product meas. 2−56791
Nb, polycrystalline and single cryst., vortex pinning obs. *(Russian)* 2−115958
Nb, subsurface layers quality eval., electrophys. methods 2−115959
Nb superconducting resonators, characterisation using 10 GHz ultrastable oscillator 2−112923
Nb superconducting resonator, Q-factor, electrolytic oxidation effect 2−116618
Nb, superconductivity, paramagnon suppression, tunnelling estimates 2−61667
Nb, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
Nb, thermoelastic effect in acoustic loss at supercond. transition 2−104542
Nb:Ar, O_2 supercond. thin films, ion implantation effects on supercond. props. 2−77226
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
Nb-Cu superlattice, supercond. transition temp., proximity theory, density of states 2−66701
Nb-Ga films, supercond. energy gaps, electron tunnelling meas. *(Russian)* 2−82534
Nb-Ga high T_c supercond. wires, prep. by heating and quenching in liq. He 2−77770
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-Ge film, DC magnetron sputtering and supercond. props. meas. 2−72097
Nb-Ge films, supercond. and struct. props. rel. to sputtering conditions *(Russian)* 2−104522
Nb-Ge sputtered films, supercond. transition temp., nonuniformity within film 2−92800
Nb-NbN double-layered electrodes in Josephson tunnel junction 2−77233
Nb-NbO_x-NbN, Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
Nb-Pb Josephson junction, submicron, electron beam lithographic fabrication and crit. current density meas. 2−56796
Nb-Si, A15 phase, growth by epitaxy and composition grading 2−71827
Nb-Si, shock synthesis by gun method 2−77769
Nb-Si, supercond., electron beam evaporated, growth morphology, O_2 effects and substrate temp. 2−110207
Nb-SnO_x-Sn, Josephson junctions, point contact, bridge-type and tunnel-type, submillimeter wave response 2−56790
Nb-SnO_x-Sn and Nb-Sn, tunnel- and bridge-type Josephson junctions, submm wave response meas. 2−92831
Nb-Ta ribbon, abnormal transverse field effects, pinning characts. 2−110552
Nb-Ti, supercond. mixed state, thermal cond., upper critical field *(Russian)* 2−98799
Nb-Ti (38 wt.%), low-temp. heat capacity 2−76697
Nb-Ti (48 wt.%), supercond. thermoelectric power, 5 to 25K 2−66706
Nb-Ti alloy, phase comp., hydraulic extrusion process parameters influence 2−57330
Nb-Ti superconducting materials, review 2−67255
Nb-Zr, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
Nb-Zr (79.6 wt.%), low-temp. heat capacity 2−76697
Nb_3Al, A15 type phase, supercond., at. ordering, and stoichiometry 2−61637
Nb_3Al film, sputter deposited on SiO_x, AES anal. 2−92383
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
Nb_3Al, supercond., ultimate crit. current density *(Chinese)* 2−110556
Nb_3Al thin films, sputter deposited at high substrate temps., comp. deviation 2−87978
$Nb_3(AlGe)$, supercond., ultimate crit. current density *(Chinese)* 2−110556
$Nb_3(Al_{1-x}Ge_x)$, A15 superconductor, prep. from transformation from liq. quenched BCC phase 2−98777
$Nb_3Al(Ge)(Sn)$, supercond. props. study by electron tunnelling 2−110545
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
Nb_3Ge film, EXAFS study, superconducting props. 2−99225
Nb_3Ge film, supercond., conc. depend. of Tc 2−92809
Nb_3Ge film, supercond. fraction determ. using SAW 2−104541
Nb_3Ge films, critical mag. field temp. depend. *(Russian)* 2−61673
Nb_3Ge, heat capacity meas. using adiabatic calorimetry method 2−115430
Nb_3Ge microbridges, fabrication and I-V characteristics meas. 2−61663
Nb_3Ge RF sputtered films, surface struct., rel. to supercond. transition temp. 2−61264
Nb_3Ge superconductor, neutron radiation damage 2−80185
$Nb_3Ge(Si)$, d.c. sputtered, quenching effect on metastable cmpd. 2−93544
$Nb_{4.8}Ir_{2.7}O_{1.35}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
NbN films, prep. by magnetron sputtering 2−87977
NbN highly granular films, supercond. props., laser thermal spectroscopy 2−72113
NbN, supercond. thin film., ion beam irrad. during deposition transitio n temp. 2−82180
NbN thin film homogeneous supercond., IR transmission, scattering time effects 2−66713
NbN_x, reactive synthesis by pulse laser annealing, X-ray, AES and supercond. study 2−72642
NbN(C), single cryst., prep. and supercond. props. *(Japanese)* 2−92808
$Nb_{4.04}Pt_{3.97}O_{1.08}$, Sp.ht., 1.2 to 15K, supercond. transition temp. 2−61655
$NbSe_2$ (2H) and 2H-$NbSe_2(TCNQ)_{0.05}$, upper crit. field anisotropy and supercond. crit. field *(Russian)* 2−56801
$NbSe_2$, anomalous flux entry 2−87462
$NbSe_3$, transport props. rel. to CDW form. 2−115739
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
Nb_3Si and Nb_5Si, α-particle irrad. effects on supercond. and struct. props. 2−98167
Nb_3Si, film, production, struct. and Tc 2−110527
Nb_3Sn CVD superconducting tapes, dynamic stability 2−104554
Nb_3Sn composite wires, fabrication by solid-liquid diffusion method 2−67237
Nb_3Sn conductor, coil performance test for advanced cluster test facility 2−69923
Nb_3Sn, electron-phonon interaction, supercond. props. 2−103924
Nb_3Sn, for fusion reactor magnets, displacement cascades, TEM obs. 2−109862
type II superconductors continued
Nb_3Sn forced flow conductor production for Large Coil Program 2−75039
Nb_3Sn, infiltration process prep., supercond. props., effect of Cu and Ga additions 2−61676
Nb_3Sn large capacity conductor, resistive voltage 2−69926
Nb_3Sn monofilamentary wire, bronze processed, supercond. props., strain-induced phase transition effects 2−98783
Nb_3Sn, multifilamentary supercond., prod. by external diffusion method 2−75035
Nb_3Sn multifilamentary supercond. composites, fabrication and supercond. props. *(Chinese)* 2−110555
Nb_3Sn, neutron damage, changes in critical props. and damage-energy anal. 2−80186
Nb_3Sn, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
Nb_3Sn, supercond., low bulk pinning, min. in AC losses 2−92842
Nb_3Sn superconductor for High Field Test Facility, development and manufacture 2−75037
Nb_3Sn, surface impedance, critical temp. 2−98796
Nb_3Sn tape used for superconducting transmission lines, O_2 content effects 2−92803
Nb_3Sn, ultrafine supercond. powder form. by vapour phase reactions 2−67232
Nb_3Sn-Cu composites for fusion magnets, in-situ development 2−75033
Nb_3Sn-Ti, composite processed, Ti addition effect on supercond. props. 2−104555
Nb_3SnH_x, heat capacity, supercond. transition temp. electron phonon interaction, H content effects, expt. study 2−56206
NbTi compacted monolithic conductor, fabrication and performance 2−69925
NbTi, production and manufacture to obtain strong magnetic fields, props. *(Dutch)* 2−98780
NbTi superconducting wire for Tokamak toroidal field coil 2−69924
NbTi/Cu composite supercond., dynamic quench in superfluid ^4He, rel. to magnet cooling 2−112906
NbTi-Cu, losses under adiabatic conditions 2−66730
NbTi-Cu, multifilamentary, supercond. current stability, max. transport current meas. 2−66731
$(Nb_{0.99}Zr_{0.01})_3Sn$, supercond., mag. field penetration depth, surface treatment effects *(Russian)* 2−115947
$NdRh_4B_4$, supercond., mag. ordering, neutron diffr. study 2−104583
Ni-Ti/Cu multifilamentary supercond., proximity effect, diamag. transitions obs. 2−61664
$Ni_xMo_6S_8$, superconductive props. 2−66689
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
ε-Pb-Bi film, alloy evaporation prep. and comp. control 2−105077
ε-Pb-Bi film, alloy evaporation prep., film comp. control 2−111077
Pb-In supercond. alloys, pinning effect by dislocations *(Japanese)* 2−71467
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
Pb-In-Pb-In-Pb double tunnel junction, inhomogeneous gap states 2−82539
$PbGa_xMo_6S_8$, flux pinning force, scaling laws *(Russian)* 2−92845
$PbMo_{6\pm x}S_{8-y}$ thin film, sputtered supercond., crit. currents and scaling laws 2−61677
$PbMo_6S_8$, Chevrel phase thin films, crit. currents meas. 2−115960
$PbMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$PbMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$PbMo_6S_8$, scaling law parameters, upper critical field, critical current meas. 2−56803
$PbMo_6S_8$, supercond. and electronic props. *(Russian)* 2−98638
$PbMo_6S_8$, superconducting props. 2−66697
$Pb_{1.2}Mo_{6.4}S_8$, superconducting critical parameters *(Russian)* 2−61646
$Pb_xMo_6S_8$, superconductive props. 2−66689
$PbMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
PbTe:Tl, doping effect on superconductivity *(Russian)* 2−110525
Pd-Zr, amorphous, US absorpt. and dispersion 2−56784
$(Pd_{1-x}M_x)H$, M=Cr, Mn, Fe, mag. and supercond. ordering 2−98845
$RSnRh_4Sn_{12}$, supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
Re film, elec. and supercond. props. 2−115941
Re-Si, phase diagram and supercond. transition temp., expt. study 2−98784
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
$Sn_xEu_{1.2-x}Mo_6S_8$, supercond. props. under high press. and high mag. field 2−110551
$Sn_xEu_{1.2-x}Mo_6S_8$, anomalous supercond. props., H_{c2}, exchange interaction 2−104553
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−72100
$Sn_xEu_{1.2-x}Mo_6S_8$, mag. field induced superconductivity 2−77224
$Sn_xEu_{1-x}Mo_6S_8$, lattice instability, elec. study, supercond. props. 2−103979
$(Sn_{1-x}Eu_x)_{1.2}Mo_6Se_8$, superconductivity, press. effect 2−104531
$SnGa_xMo_6S_8$, flux pinning force, scaling laws *(Russian)* 2−92845
$SnMo_6S_8$, Chevrel phase, stoichiometry, rel. to supercond. props. 2−66242
$SnMo_6S_8$ coatings, second crit. field and crit. current density *(Russian)* 2−98826
$SnMo_6S_8$, high press. superconducting phase, cryst. struct., critical field *(Russian)* 2−56762
$Sn_xMo_6S_8$, superconductive props. 2−66689
$SnMo_6S_8(Se_8)$, supercond crit. props., depend on hexagonal cell vol. 2−61643
$SnMo_6S_8(Se_8)$, supercond. crit. field, electronic struct. 2−92843
$(TMTSF)_X$ family of organic charge transfer salts, supercond. obs. 2−56756
$(TMTSF)_2PF_6$, high press. metallic phase, low temp. ESR, evidence for singlet paired supercond. 2−56913
Ta films, amorphous and cryst., tunnelling expts. 2−92827
TaC, single cryst., prep. and supercond. props. *(Japanese)* 2−92808
$TaSe_3$, cryst. struct., superconducting props. 2−60954
Th-Nb composite, sp. ht. meas. rel. to supercond. energy gap enhancement 2−98800
$Th(Ir,Os)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694

type II superconductors continued
$Th(Ir,Ru)_2$, superconductive behaviour, transition temp., lattice consts. 2−66694
$Th_xPb_{1-x}Mo_6S_8$, supercond. props., effect of actinide component 2−66700
Ti-Nb-Si-Ge foil, struct. and supercond. props. *(Russian)* 2−92818
$TiBe_2$, possibility of p-state superconductivity 2−104524
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
TiN_x, low temp. specific heat 2−82520
$Ti_{80}Pd_{20}$ amorphous superconductor, T_c study 2−72096
$Tl_2Mo_6Se_6$, 1-D supercond., electronic struct., SCF scatt.-wave $X\alpha$ calc. 2−92461
U, martensitic transform. effect on supercond. 2−110526
α-U, superconducting transition temp., martensitic transformations, domain form. 2−98791
$U_xLa_{1-x}Mo_6S_8$ 2−66700
$U_xPb_{1-x}Mo_{6+y}S_8$, supercond. props., effect of actinide component 2−66700
V film, internal friction in vicinity of superconductive transition 2−66707
V, mechanical twinning effect on T_K *(Russian)* 2−98781
V, supercond. tunnelling, Eliashberg function, paramagnon spin fluctuations 2−66722
V, superconductivity, paramagnon suppression, tunnelling estimates 2−61667
V-Ta, superconducting Tc, specific heat calcs. 2−115935
V_3Ga superconductors, with Ga and Mg additions, composite-processed, fabrication *(Japanese)* 2−77772
V_3Ga tapes, composite processes, Ga and Mg additions effect on supercond. props. *(Japanese)* 2−77773
$V_4(HfZr)$, supercond., ultimate crit. current density *(Chinese)* 2−110556
$V_{90}M_{10}$ (M=Cr, Mn, Nb, Mo, Pd, Ta, W, Re, Pt, Au), supercond. crit. temp. and crit. field meas. 2−92805
V_3Si, amorphous supercond. film, crit. temp., thermal annealing effects 2−92801
V_3Si, Debye-Waller factor, temp. depend., 8 to 293K 2−56143
V_3Si, electron phonon spectral function, supercond. thermodynamic props. 2−104540
V_3Si film, far IR laser thermal spectroscopy 2−98805
V_3Si film, magnetron sputtering and supercond. props. 2−77738
V_3Si, film, production, struct. and Tc 2−110527
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2−86736
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
V_3Si, pressure induced electronic changes 2−82513
V_3Si, supercond., produced by pulsed laser annealing 2−56766
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
$V_2Zr(Hf)(Ta)$ superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
YB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2−66698
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2−104590
Y_9Co_7, mag. supercond., hybrid state, resist., magnetoresistance and AC susceptibility study 2−82571
$Y(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
Zr-Co, melt spun alloys, struct. and supercond. props., X-ray diffr. study 2−87437
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
$Zr_xHf_{1-x}V_2$, struct. nonstable supercond. Laves phase, electron spectrum peculiarities *(Russian)* 2−66433
$Zr_{0.76}Ni_{0.24}$, amorphous, lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526
Zr_3Pd, amorphous, upper critical field and paraconductivity 2−77244
$Zr_3Pd(Rh)$ amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

U-centres
KCl, F and U centers, excitons, local correl. effects 2−87153
$KCl(Br):OH^-$, diffusion of H 2−61206

UBV photometry *see stellar photometry*

u.h.f. tubes *see ultra-high-frequency tubes*

ultimate tensile strength *see tensile strength*

ultra-high-frequency tubes
see also microwave tubes
No entries

ultracentrifuges *see centrifuges*

ultrafiltration *see filtration*

ultrasonic absorption
acoustical characts. of biological tissue, frequency dependence meas. using resonator method 2−94106
alkalic olivine basalt, compressional wave attenuation and vel., ultrasonic anal. 2−73543
BBCA-$p^{\wedge}p^{T}$ liquid crystal mixture, US absorption study 2−71580
benzene, US studies of molecular association 2−86797
biological tissues, US attenuation coeffs., tissue differentiation, liver appl. *(French)* 2−94105
biopolymers in aqueous soln., study of acoustic relaxation mechanism 2−115365
bis-methylammonium iron tetrachloride, struct. transition study 2−103981
bromotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chlorobenzene, US studies of molecular association 2−86797
chlorodifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chloromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
chlorotrifluoromethane, vibr.-relax., ultrasonic absorpt. meas. 2−65077
condensed matter, US methods, conf., Zilina, Czechoslovakia (Sept. 1980) 2−63733
constantan film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
developments in measuring techniques of US velocity and absorption 2−81180
ultrasonic absorption continued
dielectric material, intense monochromatic US absorpt. *(Russian)* 2−91133
dislocation, point defect interactions and amplitude independent US absorpt., theory *(Russian)* 2−115229
DMF/water mixture at 25°C 2−76596
ferroelectric, displacive transformations, US attenuation study 2−56095
ferromagnetic, magnetoacoustic electron reson. of periodic domain structs. *(Russian)* 2−66882
finite amplitude ultrasound absorption in tissues 2−102969
glasses, nonresonant EM and US absorpt., quantum theory 2−98205
liquid, methane-propylene mixtures, concentration fluctuations and sound absorption 2−115358
liquids, interferometric methods of US vel. and attenuation meas. 2−102992
liver, acoustic attenuation coeff. slope estimates variation, diagnostic appl. 2−100076
MBBA nematic liquid crystal, flowing US absorption anisotropy 2−61070
MBBA-EBBA binary mixtures, acoustical props. in pulsating mag. fields 2−115357
measurement apparatus, using pulse echo overlap technique *(Japanese)* 2−114566
3-methylpentane-nitroethane critical binary mixture, critical divergence of US absorpt. 2−76598
microcomputer-controlled system for recording rapid changes of US wave vel. and attenuation 2−84600
microemulsions, US relax. investig. 2−93837
molten alkali nitrates, bulk viscosity and relaxation 2−109906
paraffins, iodised, acoustic props. *(Russian)* 2−92111
perovskites, crit. US attenuation, scaling function 2−71589
polybutadienes, linear and star-shaped, in soln., US attenuation and vel. meas. 2−76599
polymers, interchain sp. ht. ratio and US absorpt., calc. from lattice Gruneisen coeff. 2−115382
probe of stress sensitive props., review 2−56906
quartz, γ-ray irrad., smoky, low energy density of states gap, tunnelling model, US attenuation meas. 2−61324
renal failure, acute, US characterisation, rabbit expts. 2−100043
semiconductors, degenerate, US propagation, band struct. effect 2−86800
small-volume differential manometer for ultrasonic velocity and absorption measurements 2−97328
smectic A liquid crysts., viscosity divergence as $1/\omega$ 2−86558
soft tissue US attenuation tomography corrected by simulation of refraction 2−57877
spin glasses, exptl. techniques, review 2−66842
structural phase transitions, US study 2−92176
superconductor, magnetically doped, nuclear spin relax., ultrasonic attenuation 2−87450
TGS powder, phonon echo attenuation coeff., freq. depend., 10 to 60 MHz 2−66142
thiourea, phases I to V, US props. 2−109911
tissue US attenuation anisotropy effects on computerised tomography 2−57876
toluene, US studies of molecular association 2−86797
tribromomethane liquid, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
tris-sarcosine calcium chloride, ferroelastic phase transition, US study 2−66194
viscous organic liquids, US absorption above dispersion region 2−61069
Ag film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
β-Al_2O_3-Na_2O, amorphous-like acoustical props. at low temp. 2−56097
Bi, superconducting amorphous film, SAW, acoustoelec. attenuation 2−56783
Bi_2Te_3, dislocation-induced US absorpt. and elec. props. 2−92115
CS_2 liquid, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
$Ca_3(VO_4)_2$, ferroelec., elastic props., Bragg scatt. laser radiation on HF sound 2−115364
$CaWO_4:Ho^{3+}$, NMR study of EM and sound energy absorpt. *(Russian)* 2−61778
$Cd_xHg_{1-x}Se$, US attenuation and vel. meas. near zero-gap state 2−92118
Cu film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
Cu, US attenuation, impurity and dislocation effects 2−56096
$FeGe_2$, antiferromag., US attenuation anomalies at two transitions 2−104675
$Gd_{65.4}Y_{34.6}$, mag. phase transitions, elec. resist., elastic const. and US attenuation study 2−116006
Ge:Sb, US attenuation by shallow donors in mag. field 2−56649
^4He, adsorbed on SiO_2, isotherm, US attenuation phonon echo meas. 2−104107
^4He film, US method for superfluidity studies 2−61227
^4He, liquid, US attenuation near lambda point, deviations from dynamic scaling 2−56280
In and In-Sn(Bi), US attenuation in supercond. and intermediate states 2−77229
p-InSb, acoustoelectric effects, ultrasonic attenuation 2−77130
n-InSb, hypersound self-interaction in case of mag. freezeout of carriers 2−103905
$K_2Ba(NO_2)_4$, ferroelastic phase transition, US study 2−66194
$KH_3(SeO_3)_2$, ferroelastic phase transition, US study 2−66194
MnO, critical dynamics near Curie temp., US attenuation study 2−98928
Mo, US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
$(NH_4)_2BeF_4$, ferroelec., US study under hydrostatic high press. 2−115362
NbN supercond. film, possible US evidence for existence of vortex-antivortex pairs 2−56785
Pd-Zr, amorphous, supercond., US absorpt. and dispersion 2−56784
$PdH_x(D_x)$, elastic moduli, optical phonon contrib. 2−115329
$Pd_{0.4}Ni_{0.4}P_{0.2}$, amorphous, US attenuation, 0.3 to 2K, temp. and freq. depend. 2−56098
$Pd_{0.775}Si_{0.165}Cu_{0.06}$, amorphous, acoustic wave attenuation and vel. change, 0.05 to 90K 2−56101
$RbH_3(SeO_3)_2$, ferroelec. and incommensurate transitions, US study 2−66137
Se amorphous thin film on $LiNbO_3$, US attenuation and Rayleigh surface waves 2−71588
Si:B, US investigation of acceptor ground state, distrib. of splittings 2−98577
Sn, quantum oscills. of sound velocity and absorpt. *(Russian)* 2−61074
TeO_2, dislocation density and hypersound attenuation 2−103771

ultrasonic absorption continued
Ti alloys, flexural and longitudinal US wave absorption at high intensities 2−61063
W, US absorption coeff. meas. in strong mag. field *(Russian)* 2−87346
ultrasonic applications
see also biomedical ultrasonics; ultrasonic materials testing
adhesive interfaces, shear modulus gradients, US Rayleigh wave study 2−66338
distance measurement, US device appls., moving object and fixed receiver or vice-versa *(Italian)* 2−74385
echography, resolution analysis, far field directivity improvement method *(Japanese)* 2−114584
flowmeters using sing-around and Doppler effect, principles 2−76046
geodesic lens fabrication techniques in $LiNbO_3$:Ti waveguides 2−75733
high intensity US, generation and applications 2−81156
irreversible cutaneous burns, ultrasonic determ. of thermodynamic threshold parameters 2−109141
laser optical components, ultrasonic cleaning and solvent drying 2−75730
loading glass capillaries used in X-ray powder diffr., technique 2−81632
metals industries, US applications 2−62321
MIRO colour display system for ultrasonic pictures *(Italian)* 2−70793
pregnant pigs detection, US echometer appl. *(Spanish)* 2−62868
pulse echo ultrasound for steam generator tube to support gap measurement 2−64584
sensor for simultaneous meas. of level, temp. and density 2−65435
strengthening-surface finishing treatment, elec. model *(Russian)* 2−67580
Si crystal growth by Czochralski method, SiO conc. control by US vibration of immersed plate 2−111059
ultrasonic delay lines
velocity of US oscillation propagation meas., automatic unit 2−60325
GaAs SAW charge transport, monolithic delay line appl. 2−115522
Pd SAW delay line for H_2 detection 2−95335
ultrasonic devices
see also ultrasonic delay lines; ultrasonic transducers
borehole televiewer for oceanic crustal layer studies, Costa Rica Rift 2−58020
cylindrical Fresnel lenses, frequency response 2−109145
distance measurement, US device appls., moving object and fixed receiver or vice-versa *(Italian)* 2−74385
flowmeters, multichannel, errors due to flow structure variations in pipes 2−97674
multizone US thermometers for detection of critical heat flux 2−60321
pneumoacoustic generator with an angle-mounted resonator 2−114588
power accumulator using directional converter 2−75805
ultrasonic diffraction
circular piezoelectric transducer, field observations 2−102966
gratings, amplitude and phase grating contribs. to diffraction 2−102970
human tissues, excised, US backscatt. coeffs. evaluation 2−68045
medical diffraction scanning of the thyroid 2−94136
periodic interface, acoustic wave diffr., ultrasonic anomalies 2−97254
ultrasonic dispersion
cyclopentanone, ultrasonic dispersion determ. by vel. meas. 2−86191
transformer oil, acoustic dispersion study 2−109905
CsD_2PO_4, polarisation fluctuation relax. time near transition point, US dispersion study 2−82770
Pd-Zr, amorphous, supercond., US absorpt. and dispersion 2−56784
ultrasonic effects
acoustic cavitation in a highly superheated liquid 2−70742
airborne ultrasound, effects on humans, subjective study 2−94107
austenite, baionitic transformation kinetics, US treatment effect *(Russian)* 2−67325
biological structures, US effect, free radical participation, pseudomonomol. kinetics 2−100047
biological tissues, rectified diffusion and acoustic microstreaming by bubbles 2−57846
biophysical implications of bubble dynamics 2−57845
cavitation bubble collapse, study of light emission and shock waves produced 2−70740
cell killing, temp. dependence, role of membrane fluidity 2−100046
CHO cells, in vitro effects rel. to gas content, freq., radical scavengers and attachment 2−88586
Drosophila melanogaster females, US effects on longevity and reproductive capacity 2−116985
eggs, Drosophila, effects of pulsed US 2−100048
hyperthermia in malignant brain tumours treatment, tissue damage threshold and thermal dosimetry 2−62679
light diffraction by adjacent US beams, difference-differential eqns. 2−102971
light diffraction by two adjacent US beams 2−109104
mammalian cell lysis induced by US, rel. to exposure vessel, systems comparison 2−100182
mammalian cell lysis induced by US, rel. to exposure vessel, tube rot. explanation 2−100183
medical US, safety and biological effects, review, book contrib. 2−111729
nematic liquid cryst. layer, acoustooptical effect on US inclined incidence *(Russian)* 2−99088
nematic liquid crystal cell, capacity behaviour in acoustic re-orienting field 2−76292
nematic liquid crystal orientation, effect of US 2−109673
nonlinear cryst., SHG and laser radiation diffr. by acoustic waves 2−65305
orientational instability of liquid crystals in acoustic fields 2−109674
Peridinium depressum, photoregulation of US stimulated bioluminesc. 2−111735
photographic effect of ultrasound, mechanism 2−75755
PMMA, rigidity modulus near a running crack tip, US method 2−77928
Raman-Nath acousto-optical diffraction in phase grating plane 2−80897
rock, ultrasonic vibration leading to fissured traces, method for Rn emanation *(Chinese)* 2−62954
Salmonella typhimurium bacteria, mutagenic pot. of pulsed US 2−105757
skeletal muscle, US effect on microvascular haemodynamics, rat expts. 2−68047
steel, austenitic stainless, surface hardening and microstruct. changes, influence of US vibr. 2−99538
steel, low-C, ^{59}Fe self-diffusion, US treatment influence *(Russian)* 2−66281
steel, medium C, mech. props. in dynamic deform., struct. and ultrasonic vibrs. influence 2−72772
strengthening-surface finishing treatment, elec. model *(Russian)* 2−67580
tissue gaseous microbubbles, acoustically induced shear stresses 2−62678
ultrasonic effects continued
tumour, in vitro multicellular system, US induced nuclear aberrations 2−88585
tumour treatment by US, high intensity LF exposure of hamster fibrosarcomas 2−68046
Al, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Cu, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Cu, ultrasonic irrad., effect of neutron irrad. on mechanical props. *(Russian)* 2−76512
Cu-Zn, interdiffusion, ultrasound influence *(Russian)* 2−66302
Fe, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
InSb, pulled crystals, Czochralski growth, impurity distrib., US vibr. effects 2−116357
Mn-Bi, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
Ni, intercrystallite fracture obs. by high power US *(Russian)* 2−88160
Ni, plastic deform. after US hardening *(Russian)* 2−77873
Pb alloys, ternary, US crystallisation *(Russian)* 2−67201
Pb ternary alloys, supercond. props., influence of US treatment 2−82514
steel, Al, US treatment effect on C redistrib. and austenitic-martensitic transform. *(Russian)* 2−67331
$Tb_{0.27}Dy_{0.73}Fe_2$, magnetostrictive materials, US induced irreversible changes in magnetisation 2−82640
Ti-B(C), combustion under ultrasonic vibrs., capillary flow effects 2−116700
ultrasonic equipment
acoustic emission materials, inspection equipment at VNIINK Labs., USSR 2−111428
biomedical Doppler devices, evaluation using a moving string test target 2−88636
biomedical strain gauge US therapeutic exposimeter 2−111760
biomedical US Doppler gain calibration, proposed standard target 2−100073
concentrators, optimal design 2−60331
consolidometer for soil testing 2−94517
directional US Doppler system *(Chinese)* 2−97327
emulsification device using piezoelectric transducer 2−114581
high intensity US, generation and applications 2−81156
hyperthermia delivery system using scanning, focused US 2−62712
lens, annular focus, for local hyperthermia treatment of small tumours 2−94139
lens, design, charcts. and image quality 2−114567
medical, scanners, 'small parts', review, book contrib. 2−111762
medical hydrophones, miniature, angular response 2−94132
rod concentrators with a nonlinear load, calc. 2−91108
sensor for simultaneous meas. of level, temp. and density 2−65435
single path contrapropagating flowmeters, generation and propagation of pulses 2−103235
specifications unification on ultrasonic testing 2−89655
status and future problems *(Japanese)* 2−97258
transesophageal phased array for imaging the heart 2−117023
ultrasonic materials testing
acoustic channel of separate probe with rotating-beam scanning, calc. 2−62347
acoustic emission analysis of concrete for damage characterization *(French)* 2−72892
acoustic emission materials, inspection equipment at VNIINK Labs., USSR 2−111428
acoustic emission materials testing at Engineering Physics Inst., Moscow 2−111427
acoustic emission materials testing for lattice defects and flaws 2−111429
acoustic emission numerical simulation by finite difference method 2−75758
acoustic emission source wave analysis, dynamic fracture process, quantitative characterisation *(Japanese)* 2−83306
acoustic microscopy appls. to density and elasticity obs. 2−70794
acoustical birefringence in stressed and slightly anisotropic materials, experimental study 2−70862
acoustoelastic stress-measurement in rolled materials 2−78033
adhesive bonding, assessment using pattern recognition anal. 2−62333
adhesive interfaces, shear modulus gradients, US Rayleigh wave meas. 2−105408
ALOK method transit-time locus curves for US tandem testing and defect position reconstruction *(German)* 2−78046
apodized conical focusing for ultrasound imaging 2−60320
austenitic stainless steel butt welds, US inspect. using horizontally polarized shear waves 2−111445
austenitic welding material, NDT, combined methods *(German)* 2−116661
automated US inspection of adhesive bonded struct. 2−78043
automatic US testing, and recording system for welds utilising microcomputer 2−62332
backscattering signals, high frequency, origin *(German)* 2−116660
bone, cortical, US anal. of Young's modulus 2−83724
C-scan imaging using interdigital transducers 2−78030
carbon and glass fibre reinforced plastics, shear crack propag., acoustic emission monitoring 2−88317
cold cracks in welded joints, high strength, investigation using acoustic emission method 2−67668
composite laminates, NDT characterisation by means of US polar-scan 2−62327
composite materials, laboratory mock-up US inspection system 2−93727
composite materials, NDT, review 2−62338
composite materials, ultrasonic evaluation using digital imaging and image processing 2−67719
condensed matter, US methods, conf., Zilina, Czechoslovakia (Sept. 1980) 2−63733
contactless methods and facilities, current status survey 2−62345
contactless US testing technique for metallic specimens *(French)* 2−93724
crack edge mapping by US methods 2−111397
cracks in plates, shear wave scatt., extended variational soln. 2−93722
defect identification and sizing by the ultrasonic satellite-pulse technique 2−62294
diameter meas. of cylindrical and spherical defects 2−67710
digital US C-scan image construction using electronic ordered dither microprocessor-based techniques 2−62303
edge cracks, diffraction of long wavelength horizontally polarised shear waves, NDT 2−83304
fibre reinforced composites, acousto-US charact. 2−83315

ultrasonic materials testing continued
fibre-reinforced plastics, nondestructive US testing techique using echo signals 2−67674
fission reactor pressure vessel feedwater nozzle, fatigue cracks, ultrasonic testing 2−59473
fission reactors, automatic ultrasonic testing system 2−107974
flaw location for automated US testing, comparison of 3 methods 2−83322
flaw type, position and dimension charact. by transit time locus curves of US inspection *(German)* 2−62335
flaw-detector, compact and portable, model FD-410P, Mitsubishi Electric product 2−67689
flaw-to-grain echo enhancement by split-spectrum processing 2−78062
flaws, subsurface, US probability of detection 2−62330
fracture toughness, quantitative US determ. feasibility, review 2−72930
frequency anal., discrimination between defect echo and dissimilar metal boundary echo 2−93726
frequency-tracked gated-pulse spectral analyser 2−78056
gap measurement between rough cylindrical surfaces, ellipsoidal mirror use to minimise multipath and scattering effects 2−93728
glass fibre reinforced polyester resin sheet moulding cpd. imperfection monitoring by NDT 2−78042
graphite fibre reinforced Al, elasticity, ultrasonic meas. 2−93552
graphite fibre reinforced epoxy, thin struct., stress wave attenuation by US through transmission 2−62295
graphite fibre reinforced epoxy laminates, US and mech. charact. 2−78041
graphite/glass fibre reinforced epoxy var. in acoustic emission 2−72916
holographic reconstruction algorithms, potentials and limits 2−105391
immersion testing system for flaw detection 2−111417
in-situ concrete diagnosis using ultrasonic pulse velocity technique 2−57551
inhomogeneity size and shape determination from scattering of low-frequency sound waves, Born approx. 2−83305
inhomogeneous media, US probing, correlation function of pseudorandom signal 2−67716
interface elastic props., US study 2−83340
isotropic eleastic palte, US input-output for transmitting and receiving longitudinal transducers coupled to same face 2−83316
longitudinal subsurface wave parameters excited by angle beam transducer 2−62364
metal, deformation meas. by US technique 2−57577
metal-matrix composite wire appl. of torsional wave vel. meas. technique 2−92113
metals, fatigue testing, ultrasonic inspection procedures 2−93711
metals industries, US applications 2−62321
MFTF magnet cases, weld-flaws, inspection, anal., removal 2−59532
phase transformations in martensitic steel, acoustic emission analysis 2−111430
planar defects in plates, nondestructive evaluation using shear horizontal waves 2−93721
PMMA, thin walled glass microsphere filled, effective elastic moduli, US meas. 2−88118
polymers, US velocity and damping coefficient measuring device 2−62309
pulse compression system for NDT using maximal length sequences 2−111444
pulse-echo analysis, effect of transducer-reflector angulation 2−75743
pulse-echo US imaging system with adaptive learning network signal processing methods 2−81191
PVDF transducers, US appls. in medical, underwater and NDT areas 2−91201
PWR cracks and flaws detection using ultrasonic techniques 2−74866
PWR pressure vessel, ultrasonic inspection 2−102052
random measuring errors for nominal flaw dimensions, using US probe 2−67717
real time correlation system for US NDT appls. 2−111395
residual stress determ., nondestructive evaluation using acoustoelasticity meas. 2−93744
residual stress mapping using US tomography 2−105396
rough defects in solids, US eval. of geometrical and surface parameters 2−62293
scattering of shear wave pulses by surface breaking cracks−time and frequency domain analysis 2−57560
shadow flaw detection, US with recording of second transmitted pulse 2−67715
sheet moulding compound composite, NDT of localised weak areas 2−111404
sheet moulding compounds, fracture behaviour under tensile load 2−67480
soil testing using US monitoring consolidometer 2−94517
solid with cold worked surface layer, Rayleigh wave propag. 2−62299
spectroscopy, physical basis *(German)* 2−88328
spectroscopy in materials and component testing *(German)* 2−88329
steel, austenitic sheet, NDT determ. of grain size by US backscattering 2−62328
steel, austenitic stainless, 316 and 347 weldments, US inspection of fatigue cracks 2−67671
steel, austenitic stainless, weldment, US testing by transmitter-receiver type longitudinal-wave angle-beam probe 2−78040
steel, austenitic weld and overlay testing using longitudinal waves 2−83331
steel, deformation meas. by US technique 2−57577
steel, heavy-section, controlled flaw prep. for fracture mech. testing 2−72929
steel, low C cyclic stress-strain curves and internal friction at US freqs. 2−111321
steel, polycrystalline A-36, magnetically induced US shear wave vel. change, tensile stress effects 2−98924
steel, stainless, flaw-to-grain echo enhancement by split-spectrum processing 2−78062
steel austenitic weld, mechanised in-service US inspection in nuclear plants 2−99620
stress meas., appl. to J integral eval. in elastic-plastic deform. 2−78027
stress measurements with US, nondestructive evaluation of J integral 2−57550
structural plate materials, stress conc. meas. using US surface waves 2−70880
surface cleanness effect of thin defects on US refl. 2−105435
surface crack obs. with scanning acoustic microscope 2−57552
surface flaw detect. method for smooth surfaces 2−78032
thin struct., stress wave attenuation by US through transmission 2−62295
time-domain pulse analysis feasibility 2−72931
transducer-couplant effects on broadband signals, computer simulation 2−72934
turbine rotor bore ultrasonic waveforms, advanced signal processing 2−57588
weld, optimal parameter determ. for US inspection rel. to state of welding technology 2−62346
welded joint, US inspection with data processing by minicomputer 2−93739
Al alloy 2024-T351, biaxial surface stress meas., use of US Rayleigh waves 2−57561
Al, fatigue crack behaviour at low stress intensities 2−62191
Al-(Zn)-Mg, fatigue crack behaviour at low stress intensities 2−62191
Al-Cu alloys, precip. hardening, sound wave vel. and US attenuation 2−88318
C steel, US attenuation, rel. to thermal treatment 2−72896
Si, microcrack and work damage detect. using ultrasonic sonoprobe 2−57589
SiC ceramic heat exchanger tubes, assessment of US method of NDT 2−93729
SiC fibre reinforced Al, elasticity, ultrasonic meas. 2−93552
Si_3N_4, defect charact. in short wavelength regime 2−62292
Si_3N_4, reaction bonded, hot pressed, comparison of US and radiographic methods of crack detection 2−67673
Ti alloys, metastable transformations study, by acoustic charcts. meas. 2−105421
Ti, flaw-to-grain echo enhancement by split-spectrum processing 2−78062
Zr-Nb (2.5% wt.%), pressure tubes for CANDU-PHW, ultrasonic testing 2−90231

ultrasonic measurement
see also ultrasonic velocity measurement
attenuation meas. in solids under hydrostatic pressure 2−81896
bacterial cultures, growth rate meas. using US interferometry 2−73399
contactless separation meas. using focused US radiation 2−70796
flowmeters survey *(French)* 2−75802
foetus, human, Doppler US meas. of blood flow 2−83612
irreversible cutaneous burns, ultrasonic determ. of thermodynamic threshold parameters 2−109141
liquids, US power and cavitation meas. methods, review 2−70791
liquids, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
mechanical meas. of parameters in ultrasonic field in liquids 2−75813
polarization plane rotation rate in metal, meas. method 2−86189
power determination, μW range, using laser interferometry, medical appl. 2−91193
power meas., influence of membrane reflections 2−75798
Raman-Nath parameter, optical heterodyne meas. 2−109136
receiver, depend. of elec. output on orientation 2−70789
reflection measurement from submicron thickness liquid layers 2−109144
self-calibrating meas. systems *(German)* 2−53726
slightly orthotropic material, acoustoelastic determ. of stress 2−65545
specifications unification on ultrasonic testing 2−89655
spectroscopy, physical basis *(German)* 2−88328
spectroscopy in materials and component testing *(German)* 2−88329
surface characterisation by deconvolution of US echoes using extended bandwidth 2−91184
velocity and attenuation meas. using pulse echo overlap technique *(Japanese)* 2−114566
velocity of US oscillation propagation meas., automatic unit 2−60325
vibrational relaxation time meas. of O_2 using acoustic resonant technique 2−91183
wide frequency range miniature hydrophone for the measurement of pulse ultrasonic field 2−78476
α-$NiSO_4.6H_2O$, elastic consts., temp. depend., ultrasonic meas. 2−98179

ultrasonic paramagnetic resonance *see acoustic paramagnetic resonance*

ultrasonic propagation
see also ultrasonic diffraction; ultrasonic dispersion; ultrasonic reflection; ultrasonic refraction; ultrasonic relaxation; ultrasonic scattering; ultrasonic transmission
alkali-halides, dislocations attendant to HF vibr., electrostatic field effect on translational motion 2−76453
anisotropic US propag. in smectic liquid crystals undergoing polymorphic conversions 2−71584
baffled pistons, acoustic farfield of short impulsive sounds 2−81160
composite material, random, particulate, ultrasonic wave propag. at long and short wavelengths 2−61073
computer simulators of elastic waves in a solid 2−81159
hexagonal crystals, Gruneisen numbers 2−86164
internal friction mechanism in the amplitude-dependent interval 2−71554
jet, turbulent, space-time correlation for US beam propag. *(French)* 2−114507
liquid crystal, US propagation rel. near nematic-smectic A transition *(Russian)* 2−98202
organic solvents, chlorinated, compressibility, ultrasound propag. study 2−115356
piezoelectric media, excitation interaction and detect. of bulk waves and SAW 2−110773
PMMA, thin walled glass microsphere filled, effective elastic moduli, US meas. 2−88118
polarization plane rotation rate in metal, meas. method 2−86189
receiver, depend. of elec. output on orientation 2−70789
renal failure, acute, US characterisation, rabbit expts. 2−100043
SAW propagation charcts. on α-quartz with arbitrary cut 2−91115
semiconductors, degenerate, US propagation, band struct. effect 2−86800
sources, improved, circular diaphragms use for generating convergent fields in air and far-field properties 2−91186
steel, low-alloy, rolling rolls quality, forging and heat treatment influence 2−67392
stroboscopic visualization methods 2−102993
US electronics, conf., Tokyo, Japan, Dec. 1980 2−79274
α-Al_2O_3:Ni^{2+}, US self-focusing 2−66134
CdS(Se), elliptical polarization of acoustic shear waves 2−109912
$Cd_{1-x}Zn_x$, elastic consts., temp. depend., compressibility, Debye temp., US meas. 2−99468
Ga, nonlinear acoustic wave propag. 2−76602
InSb, hypersonic wave propag. in appl. mag. fields, suppression of nonlinear effects 2−115829

ultrasonic propagation continued
LiTmF$_4$, Van Vleck paramagnet, magnetoelastic interactions 2−66889
Ti alloys, metastable transformations study, by acoustic characts. meas. 2−105421
ultrasonic radiation *see ultrasonic waves*
ultrasonic reflection
acoustoelastic stress-measurement in rolled materials 2−78033
liquid cryst., acoustic and optical beam displacement, appl. to optical computing 2−86551
measurement from submicron thickness liquid layers 2−109144
pulse-echo analysis, effect of transducer-reflector angulation 2−75743
random medium, US refl. and transmission coeffs. 2−98204
Rayleigh angle reflection, examination of phase shift 2−75754
SAW resonators, reflection characteristics of open metal strip arrays 2−91105
surface cleanness effect of thin defects on US refl. 2−105435
ultrasonic refraction
composite laminates, NDT characterisation by means of US polar-scan 2−62327
limited angle multifrequency diffraction tomography 2−81175
soft tissue US attenuation tomography corrected by simulation of refraction 2−57877
ultrasonic relaxation
benzotrifluoride, acoustic relaxation meas. 2−109914
biopolymers in aqueous soln., study of acoustic relaxation mechanism 2−115365
butyloxybenzylidene octylaniline, shear mech. impedance near crystalline-B-smectic-A phase transition, US study 2−56190
high-resolution Bragg reflection technique, US spectroscopy on liquids 2−81900
liquid crystal, nematic-smectic A transition, anomalous sound attenuation, mode coupling theory 2−66131
microemulsions, US relax. investig. 2−93837
molecular crystals, US relax., Boltzmann eqn. approach 2−56099
molten alkali nitrates, bulk viscosity and relaxation 2−109906
nonanoic acid, liq., ultrasonic relax., temp. effects 2−103910
oligobutene, polymeric liquid, Brillouin scatt., ultrasonic and hypersonic relax. data 2−61916
paraffins, iodised, acoustic props. *(Russian)* 2−92111
polybutadiene, hypersonic relaxation, Brillouin scatt. obs. 2−66136
polyisoprene, hypersonic relaxation, Brillouin scatt. obs. 2−66136
polymethylphenylsiloxane, solid and solns. US relax. meas. 2−61079
statistical reverberation method for ultrasonic measurements in liquid polymeric systems 2−76604
structural phase transitions, US study 2−92176
vibrational relaxation time meas. of O_2 using acoustic resonant technique 2−91183
$Ba(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
CO_2, ultrasonic relax. meas. method 2−98207
$Ca(NO_3)_2$-KNO_3 mixture, hypersonic relax., Brillouin scatt. study, transverse mode obs. close to Rayleigh line 2−71591
$Cd_xHg_{1-x}Se$, US attenuation and vel. meas. near zero-gap state 2−92118
p-InSb, US relax. time, mag. field effects 2−56650
$LaAl_2$, superconducting, US attenuation and vel. below 5K 2−56782
Ni single cryst., magnetoelastic dispersion 2−77355
$Pb(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
Pd-Zr, amorphous, supercond., US absorpt. and dispersion 2−56784
$Pd_{0.775}Si_{0.165}Cu_{0.06}$, amorphous, acoustic wave attenuation and vel. change, 0.05 to 90K 2−56101
$RbH_3(SeO_3)_2$, ferroelec. and incommensurate transitions, US study 2−66137
Si:B, strain-split two-level acceptor ground state, US relax. study 2−71592
$Sr(NO_3)_2$, ionic-mol. cryst., US absorpt. 2−56100
ultrasonic scattering
backscattering of acoustic waves by randomly rough surfaces of elastic solids immersed in water 2−114489
crack edge mapping by US methods 2−111397
frequency-dependent angle scattering of ultrasound by liver 2−109151
human tissues, excised, US backscatt. coeffs. evaluation 2−68045
human tissues, excised, US backscatt. evaluation, principles and techniques 2−68226
inverse elastic wave scattering analysis 2−70725
limited angle multifrequency diffraction tomography 2−81175
mammalian soft tissues, time-freq.-domain anal., 1D phantom studies 2−73298
oceanic turbulence intensity determ. from scattering spectra 2−83968
renal failure, acute, US characterisation, rabbit expts. 2−100043
steel, austenitic sheet, NDT determ. of grain size by US backscattering 2−62328
surface roughness meas. using acoustic interferometry and speckle correlation 2−75812
video pulse scattering in randomly inhomogeneous medium 2−62995
ultrasonic transducers
acoustic microscope employing concave US transducers 2−81185
acousto-optical pulse-echo transducer system 2−81204
adhesive layer, factors affecting props. 2−55390
amplitude-frequency response meas. 2−109154
broad band, simple model for computing US beam behaviour 2−109153
broadband US transducers construction, expt. obs. *(German)* 2−117021
characterisation using combined schlieren, photoelastic and Raman Nath system 2−91202
contour contactless scanning of conveyor belt surfaces *(German)* 2−53734
displacement and vibration measurement in three dimensions *(Russian)* 2−91188
Doppler flow velocimeter, differential type using correl. method *(Japanese)* 2−114954
'ear' device for detect. of sounds in range 20-50 kHz, use of piezoelec. microphone *(Spanish)* 2−70800
echography, resolution analysis, far field directivity improvement method *(Japanese)* 2−114584
far zone determ. in pulsed mode operation 2−65439
flowmeter, clamp-on design 2−71044
flowmeters survey *(French)* 2−75802
frequency control using PLLs 2−97337
frequency-dependent angle scattering of ultrasound by liver 2−109151
Fresnel zone plate transducers, near field acoustic pattern 2−114598
imaging array transducer, expt. study of cross-coupling 2−65441
interdigital transducers, sound vel. difference meas. in liqs. 2−81179
linear array, meas. of acoustic power using He-Ne laser light 2−81181
ultrasonic transducers continued
magnetomechanical coupling coeff. for periodic EM-acoustic transducers 2−81198
magnetostrictive transducers, analysis of a radial-mode vibratory system with nonlinear characteristics 2−91207
medical transducers for use in ophthalmologic diagnostics, computer-aided quality assurance *(German)* 2−88638
NDT, transducer-couplant effects on broadband signals, computer simulation 2−72934
optically activated transducer for real-time diagnostic imaging 2−117042
piezoelectric, characteristics estimation using voltage transfer gain 2−75819
piezoelectric, for unconventional techniques *(Rumanian)* 2−86198
piezoelectric acoustic emission transducer, improved design 2−81201
piezoelectric ceramics, appl. in diagnostic ultrasound transducers 2−88639
piezoelectric ceramics for power transducers, automatic performance testing 2−86193
piezoelectric thickness-mode transducer, transient characts., Mason's equiv. cct. analysis 2−60335
PVDF, US appls. in medical, underwater and NDT areas 2−91201
receiver, depend. of elec. output on orientation 2−70789
resonant, driven by nonuniform electric field, acoustic fields 2−109155
SAW IDT reflection coeff. predict., four variable two port anal. 2−109148
scattering measurements, effects of phase cancellation 2−65442
sensor for simultaneous meas. of level, temp. and density 2−65435
solid horn with cross-coupling, calcs. using adjoint method 2−114580
spaced electrode piezoelectric transducers 2−55391
submarine transducer pulse cct., used for experimental tank *(Spanish)* 2−97332
transmitting and receiving longitudinal transducers coupled to same face of isotropic elastic plate, US input-output 2−83316
underwater convex transducer array design with heart-shaped directivity 2−60337
wide-band linear phase SAW filter design using slanted transducer fingers 2−81176
AlN, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
CdS:Ag ultrasonic diffusion-layer transducers, stability of parameters over 10 year period 2−114594
Fe-Co-Mn-V cryogenic magnetostrictive transducer 2−81200
$K_3Li_2Nb_5O_{15}$, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
ZnO, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
ultrasonic transmission
acoustic bonding layers, model for US transmission calcs. 2−61077
attenuation meas. in solids under hydrostatic pressure 2−81896
random medium, US refl. and transmission coeffs. 2−98204
ultrasonic velocity
see also ultrasonic dispersion
acoustical characts. of biological tissue, frequency dependence meas. using resonator method 2−94106
Al-Cu alloys, polycrystalline, second-order elastic moduli, US vel. study 2−72748
alkalic olivine basalt, compressional wave attenuation and vel., ultrasonic anal. 2−73543
aniline-cyclohexane critical mixture, acoustic anomaly at low and ultrasonic freq. 2−86798
aqueous non-electrolytes, at infinite dilution estimation of solute-solvent interaction from ultrasonic studies 2−76593
attenuation in Massilon sandstone and Vycor porous glass, effects of partial water saturation 2−86163
benzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
biopolymers in aqueous soln., study of acoustic relaxation mechanism 2−115365
n-butanol-cyclohexane mixture, US wave vel. and free vol. 2−71573
butylbenzene, liq., equation of state, elastic and thermal props., density, US vel. study *(Russian)* 2−92144
carbon tetrachloride-phenol (cresol), mol. interactions, US study 2−61067
chloroform liquid mixtures, association const. det. using US vel. data 2−71575
cholesterol-1-hexadecanol smectic liquid crystal mixtures 2−61066
cholesteryl myrisate/ethyl p-aminobenzoate liquid crystalline mixtures, US vel., density and compressibility study 2−71581
COC, smectic A-cholesteric transition, press. induced tricritical behaviour, US study 2−115409
colloidal liquids and solids, dynamics 2−109945
constantan film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
cyclohexane, liq., vibr. relax time, temp. depend., US props., Brillouin scatt. 2−103902
cyclohexanol mixtures, molecular interactions, ultrasonic studies 2−86796
cyclohexylamine-benzene(toluene)(chlorobenzene), (bromobenzene), (nitrobenzene), compressibilities, US study 2−61049
dibenzyl, cryst. struct. and elastic props. at 293K and 110K 2−60967
dioxan-lactic acid mixtures, calc. of free volume and internal pressure from US vel. and viscosity data 2−71579
electroelastic effect, correction procedure for meas. in transverse fields 2−77452
p-(p- ethoxyphenyl azo) phenyl undecylenate, liq. cryst. phase transitions, specific vol. and US vel. study 2−92199
ethylbenzene, equation of state, elastic and thermal props. *(Russian)* 2−86827
formaldehyde in aqueous soln., experimental determination at various temps. 2−56093
gelatin, aqueous soln., study of US vel. and associated parameters 2−71577
glass beads, meas. 2−114486
hexatriacontane, elastic props. and phase transitions 2−92078
hexylbenzene, liq., equation of state, elastic and thermal props., density, US vel. study *(Russian)* 2−92144
hole theory of liquids, estimation of volume and energy of hole creation using US vel. data 2−76594
human tissues, excised, US backscatt. coeffs. evaluation 2−68045
hydroxyl-carbonyl binary liquid mixtures, molecular interaction study using US meas. 2−71576
liquid crystal, US propagation rel. near nematic-smectic A transition *(Russian)* 2−98202

ultrasonic velocity continued
measurement apparatus, using pulse echo overlap technique *(Japanese)* 2−114566
metal-matrix composite wire appl. of torsional wave vel. meas. technique 2−92113
molecular complexes, det. of equilibrium const. using US meas. 2−93806
organic liquids and mixtures, study of acoustic parameters using US vel. and density data 2−71578
organic solvents, chlorinated, compressibility, ultrasound propag. study 2−115356
paraffins, iodised, acoustic props. *(Russian)* 2−92111
PBI/formic acid solns., experimental determination 2−56092
pentacosan, elastic props. and phase transitions 2−92078
phenol in aqueous soln., experimental determination at various temps. 2−56093
piezoelectric media, excitation interaction and detect. of bulk waves and SAW 2−110773
polybutadienes, linear and star-shaped, in soln., US attenuation and vel. meas. 2−76599
polyepoxides, crosslinked, additive moduli, US meas., rel. to mol. struct. 2−109881
pyridine-chloroform-methanol (n-butanol) mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
quasiisotropic elastic medium approx. in acoustoelectronic problems 2−81151
random medium, US refl. and transmission coeffs. 2−98204
semiconductors, degenerate, US propagation, band struct. effect 2−86800
spin glasses, exptl. techniques, review 2−66842
starch, aqueous soln., study of US vel. and associated parameters 2−71577
steel, low C, ductile to brittle transition temp., microstruct. and US attenuation 2−88167
steel, polycrystalline A-36, magnetically induced US shear wave vel. change, tensile stress effects 2−98924
structural phase transitions, US study 2−92176
TGS, gamma-irrad., Mande'shtam-Briouin ight scatt. 2−110879
toluene, equation of state, elastic and thermal props. *(Russian)* 2−86827
tribromomethane liquid, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
Ag film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
Al-Mg alloys, polycrystalline, second-order elastic moduli, US vel. study 2−72748
β-Al_2O_3-Na_2O, amorphous-like acoustical props. at low temp. 2−56097
Al_2O_3-SiO_2, alkali-free glass acoustic props. meas. 2−103908
Bi-Sb alloy single crystals 2−71539
CS_2 liquid, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
$Ca_3(VO_4)_2$, ferroelec., elastic props., Bragg scatt. laser radiation on HF sound 2−115364
$CdGeAs_2$, chalcopyrite, elastic behaviour, US wave vel. study 2−61052
$Cd_xHg_{1-x}Se$, US attenuation and vel. meas. near zero-gap state 2−92118
Cu film, evaporated polycryst., hypersound attenuation and phase vel., 1-24 GHz 2−109907
Fe particles in Hg, aggregate size, mag. prop., US vel. study 2−82668
FeF_2, elastic constants between 1.5 and 298K 2−115327
^4He, superfluid, meas. 2−114486
In-Bi alloys, US vel. and internal friction investigation 2−71585
$KCN_xBr_{1-x}(Cl_{1-x})$, acoustic soft modes, US vel. meas. 2−81926
$LaAl_2$, superconducting, US attenuation and vel. below 5K 2−56782
$LiCsSO_4$, ferroelec., elastic consts. near phase transition, US vel. study 2−56066
$LiTaO_3$, paraelec. and ferroelec., elastic props., US phase comparison method 2−115326
$LiTmF_4$, Van Vleck paramagnet, magnetoelastic interactions 2−66889
$LiYF_4$ and $LiY_{0.5}Tb_{0.5}F_4$, elastic consts., hydrostatic press. derivatives 2−66104
$(Mg_x, Fe_{1-x})_yO$, magnesiowustite, polycryst., elastic props., press. and temp. depend. 2−58038
Mg_2Pb, molten semiconductors, US velocity, temp. depend. 2−76600
Mg_2Sn, molten semiconductors, US velocity, temp. depend. 2−76600
MnO, mag. susceptibility and elastic consts., distance depend. exchange interaction effects 2−115995
$(NH_4)_2BeF_4$, Debye temp. and sound vel. calc. from elastic consts. 2−81919
$(NH_4)_2BeF_4$, ferroelec., US study under hydrostatic high press. 2−115362
NH_4HSO_4, ferroelec. US vel. and attenuation meas. apparatus appl. *(Japanese)* 2−114566
$(NH_4)_2SnBr_6$, US study of phase transition 2−66201
$NaNO_3$, elastic consts., compressibility, ultrasonic pulse echo superposition technique 2−61055
NbO_2, elastic consts., ultrasonic study 2−109883
Ni single cryst., magnetoelastic dispersion 2−77355
p-$Pb_{1-x}Ge_xTe$, velocity of sound quantum oscills. 2−92114
$PdH_x(D_x)$, elastic moduli, optical phonon contrib. 2−115329
$Pd_{0.775}Si_{0.165}Cu_{0.06}$, amorphous, acoustic wave attenuation and vel. change, 0.05 to 90K 2−56101
$RbH_3(SeO_3)_2$, ferroelec. and incommensurate transitions, US study 2−66137
$Rb_{0.68}WO_3$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
Sn, quantum oscills. of sound velocity and absorpt. *(Russian)* 2−61074
$(Ti_{1-x}V_x)_2O_3$, semimetallic, elastic moduli, press. depend., slow shear mode softening near x=0.04 2−81874
Tm_xSe and $TmSe_{1-y}Te_y$, intermediate valent, phonon and elastic anomalies 2−56116
UAl_2, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
V_2O_3 crysts., US vel., anomalous temp. depend. 2−66135
$Zr(Fe_{0.32}Co_{0.68})_2$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065

ultrasonic velocity measurement
benzene, US studies of molecular association 2−86797
blood flow velocity quantitative meas., double beam Doppler US method 2−100078
chlorobenzene, US studies of molecular association 2−86797
cyclopentanone, ultrasonic dispersion determ. by vel. meas. 2−86191
developments in measuring techniques of US velocity and absorption 2−81180
Doppler blood vel. signals in normal subjects, comparison of methods of recording and anal. 2−117035
Doppler blood vel. waveform, estimation method 2−117036
explosive, aluminized melt cast, axial longitudinal sound vel. US and weak shock techniques 2−76601
high speed meas. of US velocity changes 2−81182
in-situ concrete diagnosis using ultrasonic pulse velocity technique 2−57551
liquids, interferometric methods of US vel. and attenuation meas. 2−102992
liquids, US rel. and absorpt. meas. up to 1.5 GHz by high resolution Bragg reflection 2−75809
microcomputer-controlled system for recording rapid changes of US wave vel. and attenuation 2−84600
polymers, US velocity and damping coefficient measuring device 2−62309
small-volume differential manometer for ultrasonic velocity and absorption measurements 2−97328
soft tissue, acoustic vel. and attenuation const. meas. by ultrasonic CT 2−78513
tissue, rel. of propagation, meas. from US pulse-echo data 2−100077
toluene, US studies of molecular association 2−86797

ultrasonic wave propagation *see ultrasonic propagation*

ultrasonic waves
see also surface acoustic waves; ultrasonic propagation
adhesive interfaces, shear modulus gradients, US Rayleigh wave study 2−66338
alkalic olivine basalt, compressional wave attenuation and vel., ultrasonic anal. 2−73543
coherent shear waves, lower excitation and stimulated Brillouin scatt., theory 2−114365
polarization plane rotation rate in metal, meas. method 2−86189
rocks equations of state from ultrasonic wave vels. press. depend. 2−106100
sources, improved, circular diaphragms use for generating convergent fields in air and far-field properties 2−91186
visualization of three-dimensional ultrasonic wave fronts using holographic interferometry 2−81167
CdS-ZnS(ZnSe)(ZnTe), acoustoelectric domains, Brillouin scatt. 2−82408
Fe-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296
Ni-base fcc stainless alloys, surface wave studies of H damage incubation time 2−111296

ultrasonics
see also acousto-optical effects; ultrasonic applications; ultrasonic devices; ultrasonic equipment; ultrasonic waves
echolocating bat, Eptesicus fuscus, low-frequency hearing sensitivity 2−111701
physical principles and applications, book 2−58570
status and future problems *(Japanese)* 2−97258

ultraviolet astronomical observations
1982 DV, fast-moving asteroid, UBV photometry rel. to rot. period and light var. amplitude 2−68654
2A 1822−371, compact X-ray binary star, phase resolved optical spectroscopy 2−112502
2A 1822−371, optical, UV and X-ray modulation due to accretion disk bulge 2−79146
late A-type stars, search for transition zone lines 2−68765
AM 064-741, southern ring galaxy, kinematics from photometric and spectroscopic obs. 2−79216
λ Andromedae, RS CVn-like star, UV and optical spectrum obs. rel. to atmospheric inhomogeneities 2−58347
ANS UV photometry, point sources catalogue 2−106553
R Aquarii, symbiotic star, discovery and photometry of elongated extension of stellar image 2−117685
V603 Aquilae, shell search, UV spectra 2−68797
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
TT Arietis, distance and outer disc temp. from light curve and spectral obs. 2−100951
UX Arietis, RS Canum Venaticorum star, UBVR photometry during 1981 2−94784
TT Arietis, UV continuum intensity comparison with optically thick accretion disc models 2−94730
36 Atalante, rotation period, UBV photometry and lightcurve 2−73887
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission 2−68758
Barnard Loop, UV surface brightness meas. 2−74058
BD+60°562, new variable star, UBV photometry 2−79119
close binary stars, five colour band UV photometry 2−63514
binary stars, photometric and astrometric obs. of close visual binaries 2−58395
3C 249.1 and 3C 232, quasars, spectra anal. 2−94854
3C 351, quasars, intrinsic intensity ratios of broad and narrow lines 2−68918
κ Cancri, Hg-Mn star, search for medium-Z elements in UV spectrum 2−106723
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
α Canis Minoris (Procyon), photospheric vel. field from UV spectral lines profiles 2−106695
Carina Nebula towards HD 93205, interstellar vel. components comp. and physical conditions 2−117720
ST Carinae, β Lyrae type eclipsing binary, UBV photometric study 2−106812
η Carinae, remarkable spectrum of ejected material 2−63438
SX Cassiopeiae, eclipsing Be+giant stars, spectral obs. 2−84263
γ Cassiopeiae, upper limit for interstellar superheavy H I in UV spectral search 2−89343
SV Centauri, interacting early type contact binary, visible/UV obs. 2−100979
β Cephei, atmospheric velocity field from UV line profiles 2−84240
Cepheid variables with periods between one and three days, photoelectric UBV photometry 2−58361
Cepheids, classical, chromosphere anal. 2−89275
Z Chamaeleontis, dwarf nova, spectrum and photometry rel. to eccentric disc during supermaximum 2−63418
Comet Bowell (1980b), OH and CN prod. rates from IUE and ground-based obs., (April 1982) 2−84165

ultraviolet astronomical observations continued
Comet Bradfield (1979 X), CS and S production rates from IUE obs. 2−73904
Comet Bradfield (1979 X) CO_2^+ ion presence and prod. mechanism 2−84163
Comet Seargent (1978 XV) CO_2^+ ion presence and prod. mechanism 2−84163
R Coronae Borealis stars, spectrophotometric investigation *(Russian)* 2−73985
coronal loops thermal struct., implications for coronal models, EUV spectra obs. 2−58310
Crab Nebula, abundances and UV spectral obs. 2−68849
CSV 6984, new W Ursae Majoris type star, BV photometry, light curve and orbital elements 2−112500
CU Cancri (G9-8), flare star, confirmation by flare activity of photoelectric UBVR photometry 2−73990
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
59=V832 Cygni, Be star, spectroscopic obs. during 1974-1975 shell episode 2−100940
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
CG Cygni, eclipsing binary star, UBVR photometry during (1981) 2−79160
32 Cygni, obs. of Fe II UV multiplet 191 during eclipse rel. to radiative pumping model 2−68815
V1016 Cygni, planetary nebulae, UV variations from spectral obs. 2−101010
CH Cygni, symbiotic star, spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
CI Cygni, symbiotic star, UV obs. of 1980 eclipse 2−63437
CH Cygni, UV spectrum during 1977-80 outburst 2−63436
Cygnus Loop, UV spectra rel. to depletion of heavy elements 2−106848
Cygnus X-1, reddening, supergiant light var. and distance 2−63530
HR Delphini (Nova 1967), UV spectral obs. 2−79110
dM and dMe stars, chromosphere and coronal heating and UV emission line spectra 2−117666
48 Doris, rotation period, UBV photometry and lightcurve 2−73887
BY Draconis, flare star, photoelectric UBV obs. ion 1980 and (1982) 2−112460
dwarf novae, southern hemisphere and equatorial, photoelectric photometry and spectra 2−100762
1 E 0643−1648, IUE UV obs. of cataclysmic variable 2−112456
early type stars, comparison of winds in Small Magellanic Cloud/Galaxy, spectral obs. 2−84218
early type stars photospheric Si and C lines, profiles anal. and obs. 2−106702
early-type stars, Geneva photometric boxes rel. to interstellar reddening towards galactic poles 2−58327
early-type stars, N V resonance doublet, Copernicus UV obs. 2−117681
early-type stars, spectrophotometric atlas of mid-UV spectra with 1.8 Å resolution 2−63278
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. 2−58381
F2 and G2 stars in McCormick proper motion fields, uvby photometry 2−100902
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
Fairall 9, Seyfert 1 galaxy, spectra, superimposed Galaxy halo lines, obs. 2−79200
Feige 4, DB-type white dwarf and suspected EUV source, IUE spectra 2−106712
flare stars, UV spectral obs. 2−79124
flare stars in γ Cygni region, new discoveries from photographic U-band photometry 2−73862
flare stars in Orion Nebula, photographic U-band obs. 2−73863
flare stars in Praesepe region, results of U-band photographic obs. (1972 to 1974) 2−78983
galactic halo C^{3+} and Si^{3+}, distrib. and galactic struct. 2−117722
galaxies, aperture photometry rel. to Zwicky magnitude scale and estimation of blue luminosity 2−68899
galaxies, multiaperture UBV photometry of isolated galaxies 2−58449
galaxies, UV photometry of spiral and irregular galaxies by OAO rel. to spectral energy distribs. 2−74077
galaxies detected in Arecibo 2380 MHz survey, radial vels. meas. 2−101050
galaxies with UV excesses, spectroscopic obs. *(Russian)* 2−112566
giant stars, chromospheric and transit on region emission obs. rel. to mag. struct. 2−89261
giant stars, late type, Mg emission variability interpretation 2−68754
giant stars, late type, outer atmospheres nature and spectral features 2−84227
Gliese 867B, flare star, photoelectric flare obs. (1981 October 1) 2−79120
globular clusters in M31 (Andromeda Nebula), photoelectric UBV photometry *(Russian)* 2−112520
HBV 475, planetary nebulae UV variations from spectral obs. 2−101010
HD 149499B, DO white dwarf, high gravity mixed comp. stellar atm. anal. 2−68762
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 193793, WN7 star, wind vel. and circumstellar dust shell 2−84236
HD 219634, new massive eclipsing binary star, photometric obs. of eclipses rel to masses and spectral types 2−79159
HD 224113, Algol-type binary star, uvby photometry (1981 October 9 to 18) 2−94783
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 36402 in LMC interstellar bubble N51D, UV absorpt. by interstellar gas 2−79178
HD 37776, intermediate He star, confirmation of light variability 2−84229
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HD 65227, new short period Cepheid of very small amplitude, photometric obs. 2−63446
HD 87643, peculiar Be star, mass loss from Fe II lines obs. 2−68784
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
ultraviolet astronomical observations continued
HD 93206, interstellar gas column densities and abundances in Carina direction, IUE obs. 2−74057
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
He 2−131, very low excitation planetary nebula, C abundance determ. from UV spectrum 2−94817
υ Herculis, Hg Mn star, Mn abundance stratification detect. through curve of growth method 2−68783
HZ Herculis, UV light curve, effect of accretion disc 2−63530
hot stars, Voyager absolute far-UV spectrophotometry 2−89254
HR 4975, possible early-type contact system with unequal components, photometric obs. 2−79153
HR 5999 (V856 Scorpii), Herbig Ae star, strong chromospheric and transition region emission lines in UV spectrum 2−63404
hybrid atmosphere stars, red giants with double circumstellar lines 2−79092
IC 1727 and NGC 672, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
IC 2149, planetary nebula, central star, mass loss and wind vel., UV spectral obs. 2−68879
IC 2149, planetary nebula, central star wind, existence from UV spectral obs. 2−79192
IC 4997, planetary nebula, search for UV variability, UV spectral obs. 2−101011
IC 5174/75, very large interacting galaxy pair, struct. rel. to recent encounter model 2−63633
RY Indi, β Lyrae type eclipsing binary, UBV photometric study 2−106812
International Ultraviolet Explorer (IUE), obs. of UV spectra of astronomical objects 2−117591
interstellar $^{12}CO/^{13}CO$ abundance ratio towards ζ Ophiuchi, determ. from UV absorpt. lines 2−63557
interstellar C I in immediate solar vicinity, first detection 2−117734
interstellar diffuse clouds, CO density towards 14 stars, UV spectral obs. 2−101024
interstellar gas, element depletions determ. from stellar UV spectra 2−106871
interstellar grains, scattering of diffuse galactic light 2−106832
local interstellar medium, velocity anal. of spectral lines 2−63554
interstellar medium towards zeta Ophiuchi, B and Be abundance 2−79182
interstellar Mn II and Fe II lines, UV oscillator strengths and abundances 2−112522
interstellar Zn II lines, IUE obs. rel. to Zn abundances 2−63555
Io plasma torus energy sources 2−84143
Jupiter, aurora UV emission spectra 2−112377
Jupiter atmosphere, albedo, absorption model and airglow 2−79006
L 1363-3, C_2 white dwarf, UV absorpt. spectrum, obs. 2−84230
EV Lacertae, flare star, UBV photoelectric obs. in 1981 2−84243
Lanning 10, eclipsing cataclysmic variable, photometric and spectroscopic obs. 2−58321
late type dwarf and giant stars, late type, outer atmospheres nature and spectral features 2−84227
late type stars with/without high temp. outer atm., HR diagram boundary 2−89229
late-type dwarfs and subdwarfs, near UV spectra and line identification 2−58344
LB 3459 O-type subdwarf eclipsing binary visible/UV obs. 2−63504
ϵ Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
LMC, for UV extinction and interstellar 4430 Å band obs. in reddened stars 2−106898
LMC, H I Lyman α absorption profile, gas/dust ratio 2−79208
LMC supergiants, effective temp. and radii, absolute flux and flux distrib. 2−101067
LMC X−4, X-ray binary, possible disc, UV spectral obs. and light var. 2−63507
MV Lyrae, red+white dwarf model, UV spectra anal. 2−94726
M101 (NGC 5457) Sc I galaxy, dust and metallicity 2−74090
M31, element abundance gradients from supernova remnants and H II regions 2−63618
M31 and M33, spiral galaxies, structure and population from UV photometry obs. 2−112552
M31 central 50 pc, surface brightness distrib. and spectrum 2−112546
M42 and M43 (Orion nebula), obs. of forbidden O I, O II and O III lines 2−106878
M51, optical spectrophotometry of nuclear region 2−58451
M55, M71, globular clusters, CN distribs. obs. 2−63542
M 31 bulge, far UV surface brightness distrib. rel. to hot evolved stars and star form. rate 2−63632
Magellanic Clouds, C abundance in H II regions, IUE obs. 2−58444
Magellanic clouds, hot stars flux distribution, winds and extinction law, UV spectral obs. 2−68891
Markarian 509, Seyfert 1 galaxy, spectra, superimposed Galaxy halo lines, obs. 2−79200
Markarian 8 and 325, clumpy irregular galaxies, clumpy nature 2−63646
Markaryan 314 (NGC 7468), remarkable galaxy with three bright regions, photometric and spectroscopic obs. 2−101042
Mars, spectral investigations from Viking 2−112365
Mira, giant+white dwarf, components UV spectra 2−84252
AV Monocerotis, eclipsing binary, UV spectra anal. 2−74029
SY Muscae, symbiotic star brightening interpretation, UV spectra/continuum obs. 2−89270
MWC 17, BQ[] star, spectrophotometric obs. in January 1982 2−84245
NGC 2346, planetary nebula, central star, identification as eclipsing binary from UBV photometry 2−68870
NGC 2547, southern open cluster, UBV and Hβ obs. rel. to basic parameters and luminosity function 2−58416
NGC 3201, globular cluster, CN distrib. 2−63542
NGC 3603, UBV photometry of star cluster rel. to distance of giant H II region 2−68864
NGC 4151, UV continuum vars., 1978 February to 1980 May, from IUE obs. and comparison with X-ray and optical obs. 2−101063
NGC 55, Sculptor group galaxy, discovery and spectrum of large shell nebula 2−63575
NGC 6302, poly-polar nebula, wind driven, ionised gas parameters from spectral l. ves 2−89339
NGC 6664, open cluster, intermediate-band photometry 2−106823
NGC 6720 (Ring Nebula), C/O ratio, UV spectral obs. 2−63590
NGC 6720 (Ring Nebulae), ionization structure from UV obs. 2−63553

ultraviolet astronomical observations continued
NGC 672 and IC 1727, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
NGC 6853, NGC 7293, planetary nebulae, IUE obs. of central stars 2−58333
NGC 6905, planetary nebula, search for UV variability, UV spectral obs. 2−101011
NGC 7662, IUE spectra of planetary nebula 2−74061
NGC 7814, edge-on spiral galaxy, surface photometry rel. to light, colour and mass distrib. in disc. and spheroid 2−89365
O-type stars, UV view of stellar winds 2−63385
O-type stars direction, interstellar column densities, depend. on reddening 2−58431
O-type stars in open cluster IC 1805, mass loss rates from C IV reson. line profiles 2−68734
OB stars in galactic halo, spectra and photometry rel. to atmospheric parameters and chemical comps. 2−106706
RS Ophiuchi, recurrent nova, UV spectral obs. 2−79110
RZ Ophiuchi (BD+7°3832), supergiant eclipsing binary, VBLUW photometry rel. to eclipse of accretion disc 2−106788
Orion Nebula, colour gradients and flux and morphology 2−68855
Orion Nebula, optical polarisation obs. 2−68873
Orion Nebula, UV absorpt. by highly ionised atoms 2−79183
Orion reflection nebulosity, UV surface brightness meas. 2−74058
β Orionis, Copernicus UV spectral atlas and line identifications 2−106703
Pal 13, halo globular cluster, metal abundance from RR Lyrae stars spectra 2−106822
AR Pavonix, symbiotic eclipsing binary, UV spectrum during eclipse egress 2−73996
peculiar B and A stars, spectrophotometry 2−112457
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240
Il Pegasi, RS Canum Venaticorum type star, UBVR photometry during (1981) 2−106798
KP Persei, β Cephei type star, photoelectric obs. and anal. of variability 2−74000
GK Persei (Nova 180), UV spectral obs. 2−79110
h and χ Persei clusters direction, interstellar extinction towards nine stars 2−63580
ϵ Persei direction, line of sight struct. 2−117716
RR Pictoris (Nova 1825), UV spectral obs. 2−79110
α Piscis Austrini (A3 V), UV interstellar C I detection 2−117734
PKS 2152−69, radio galaxy, optical spectrum 2−79211
planetary nebulae, extinction 2−79187
planetary nebulae, integrated fluxes for emission lines in UV spectra 2−106846
Pluto, UBV photometric study near perihelion *(Russian)* 2−63313
VV Puppis, AM Herculis, time-resolved spectroscopy 2−112449
RX Puppis, symbiotic star, continuum anal. and possible hot subdwarf comparison 2−89266
KQ Puppis, UV spectrum, IUE obs. 2−106795
ζ Puppis (04f), UV spectrum rel. to warm wind model 2−63388
Q 0957+561 A, B, UV spectra of double quasar, IUE obs. of variability 2−74123
quasar candidates near 3C 345, discoveries and redshifts using slitless spectroscopy 2−106955
quasars, spectral components of UV excess 2−63616
R548 (=ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
red giant stars, metal deficient, C and N abundances 2−84233
ROB 162 in globular cluster NGC 6397, O-type subdwarf, UV spectrum 2−63406
HM Sagittae, planetary nebula, UV variations from spectral obs. 2−101010
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
V3885 Sagittarii, nova like variable, accretion disc model and wind 2−94725
RY Sagittarii, R Coronae Borealis variable, circumstellar extinction meas. from UV spectrophotometry 2−106747
V348 Sagittarii, uvby photometry during August 1981 fading 2−106736
Saturn, atmosphere emissions from Voyager 2 obs. 2−84155
Saturn, ring system reson. features and mass 2−84149
Saturn atmosphere, albedo, absorption model and airglow 2−79006
Saturn B-ring, narrow gap obs. by Voyager 2 and relation to Saturn electrostatic discharges source 2−112384
σ Scorpii, β Cephei star, UV spectrum obs. rel. to pulsation of outer layers 2−89274
α Scorpii, IUE obs. rel. to mass loss rate from supergiant component 2−58334
τ Scorpii (B0 V), UV spectrum rel. to warm wind model 2−63388
δ Scuti, refinement of fundamental pulsation freq. from photoelectric UBV photometry 2−79122
δ Scuti stars, Mg II h and k line obs. 2−73981
Seyfert 1 galaxies, spectral components of UV excess 2−63616
SMC X−1, X-ray binary, possible disc from light var. and UV spectral obs. 2−63507
SN 1980k, bright type II supernova in NGC 6946, UBV photometric obs. 2−106760
SN 1980k in NGC 6946, interstellar spectrum 2−74059
solar active region EUV spectra and hydrodynamic interpretation 2−68707
solar active regions, lower transition region, UV lines Doppler shift, obs. 2−68692
solar chromosphere temperature minimum, fine struct. and wave patterns 2−100852
solar corona H I Lyman α used to determine kinetic temps. 2−63335
solar coronal holes, EUV emission lines blueshift rel. to solar wind outflow 2−112400
solar faculae, principles and observational procedures from ground-based instruments and OSO-8 satellite 2−94690
solar flare of 1980 April 8, transition zone plasma characts. 2−58312
solar flares, impulsive EUV and X-ray emission, time histories and model tests 2−79058
solar fluxes, electron density diagnostic line ratios from O V 2−89215
solar He atom spectral line breadth of 584 angstrom line 2−68701
solar limb flare, 1980 June 29, impulsive and gradual phases obs. from Solar Maximum Mission satellite 2−100867
solar spectrum, evidence for Compton red shift in chromosphere 2−106644

ultraviolet astronomical observations continued
spiral galaxies, edge-on, surface photometry rel. three-dimensional light and mass distribs. 2−89364
star cluster system of M33, photometry, spectra and catalogue 2−106556
star clusters, circumstellar matter, ANS photometry of 2200 Å hump 2−79174
stars, presentation of OAO-2 photometry and spectrophotometry with UBV, ANS and TDI obs. 2−58329
stellar open clusters, colour-magnitude diagrams rel. to galactic struct. 2−106557
stellar three-colour photometry in Milky Way field HD 95540, results 2−58328
stellar UV spectral classification, workshop, Vilspa, Spain (1981 October 26 to 28) 2−84390
Sun, atmosphere supergranular and mesogranular scale vertical flows, spectral obs. 2−94673
Sun, H I Lyman α profiles and limb darkening 2−84184
Sun, non-thermal vel. field above faculae from OSO-8 obs. 2−94691
Sun, transition zone press. determ. from EUV obs. of O IV and N IV 2−106639
Sun, UV spectral redshift due to downflow of material 2−73945
sunspot transition region oscillations, C IV line obs. 2−63328
symbiotic stars, UV spectra model atm. anal., companion nature and spectrum origin 2−68773
SV Tauri, Algol-type binary system, photoelectric UBV photometry 2−94781
DF Tauri, T Tauri star, search for rapid light vars. 2−100919
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
BU Tauri (Pleione), shell star, UBLUW meas. (1977 to 1981) 2−94741
RV Tauri stars and yellow semiregular variables, UBV photometry 2−106749
Taurus dark clouds, interstellar reddening law 2−106850
Titan, EUV spectral emission from upper atmos. 2−68658
Titan, upper atmos. temp. and chem. composition 2−68657
4U 1735−44, X-ray burster, accretion disc struct., UV spectral obs. 2−58391
4 U 1849−31, IUE UV obs. of cataclysmic variable 2−112456
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
XY Ursae Majoris, RS Canum Venaticorum star, UBVR photometric obs. during (1982) 2−94785
variable, microvariable or suspected variable stars detected in Geneva photometry, list 2−100766
variable star, new, in γ Cygni region, discovery, U-magnitudes and light min. times 2−84281
TW Virginis, dwarf nova during outburst, winds and mass transfer, UV obs. 2−117674
BW Vulpeculae, β Cephei type variable, UV spectrum obs. rel. to pulsation of outer layers 2−73980
ER Vulpeculae, eclipsing binary star, UBVR photometric obs. during (1981) 2−58404
PU Vulpeculae, optical variability in 1979 to 1981 from UBV photometry 2−63444
white dwarfs, nearby, UV spectra rel. to nature of local interstellar medium 2−106690
Wolf Rayet stars, winds velocity characts. from UV spectral obs. 2−68795
Wolf Rayet stars winds and UV/visible P Cygni profiles 2−63452
Wolf-Rayet stars, IUE UV spectrophotometry 2−58360
Wolf-Rayet stars, UV spectra rel. to chemical nature and evolutionary status 2−63479
X-ray emitting stars, IUE UV obs. of Hyades 2−100930
yellow semiregular variables and RV Tauri stars UBV photometry 2−106749
Zodiacal light, search for short term vars. by Helios space probes 2−89197
zodiacal light, stability of brightness and polarisation from min. to max. of solar cycle (1974 to 1981) 2−89196
Be-stars, mass loss from UV spectra 2−73991
C star in SMC globular cluster Lindsay 102, discovery and spectrum 2−63430
C stars, chromosphere nature from UV spectral obs. 2−100936
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229
Hg-Mn stars, Be abundances from near UV spectra 2−112448
Mg II 2800 Å resonance line emission in different rot. vel. and metal abundance stars 2−100896

ultraviolet astronomy
see also ultraviolet sources (astronomical)
3rd IUE European Conference in Madrid, Spain (May 1980) 2−101135
background, 1700 Å feature due to massive neutrinos decay 2−89130
background radiation, procedure for separation of sky brightness 2−84104
background radiation rel. to line of sight H I column density 2−63573
C-CD array detectors for imaging in VUV 2−114471
C-CD detectors, electron bombarded, for VUV 2−114470
computer-controlled UV spectrometer and polarimeter on Solar Maximum Mission satellite 2−94578
conference, UV and VUV systems, Washington, DC, USA (April 1981) 2−106999
electrographic image detector development, far and middle UV sensitive 2−117607
Extreme Ultraviolet Explorer Mission, appl. to EUV sky survey 2−117592
Extreme Ultraviolet Explorer Mission, planned EUV sky survey 2−106477
International Ultraviolet Explorer, first three years *(German)* 2−58255
International Ultraviolet Explorer (IUE), instrumentation and performance 2−117591
interstellar absorption band at 220 nm, equivalent width catalogue 2−100760
interstellar molecular clouds, vacuum UV photolysis rel. to mols. cycling between gas and dust 2−89331
IUE data reduction, parameterisation of motion of IUE reseau grids and spectral formats 2−68616
IUE SWP camera linearity, correction algorithm 2−112340
Lyman continuum photon production rate in M33 galaxy 2−112556
massive neutrino emitted UV photons detect. from galactic halo and intergalactic medium 2−117773

ultraviolet astronomy continued
multi-anode microchannel array photon counting detectors, for UV, VUV space and ground-based studies 2−117608
planets, UV spectroscopy with rocket-borne instrument with photon-counting MCP 2−112322
solar EUV line emission diagnosis 2−89225
Space Telescope, progress report on high resolution UV spectrograph 2−117593
Space Telescope digicon, proton-induced noise 2−117590
stellar UV spectral classification, workshop, Vilspa, Spain (1981 October 26 to 28) 2−84390
stellar winds in O-type stars, UV view 2−63385
C IV resonance lines profiles in hot stars spectra, observational test of temp. struct. in stellar atmospheres *(Russian)* 2−112435

ultraviolet communication *see optical communication*

ultraviolet detectors
C-CD array detectors for imaging in VUV 2−114471
C-CD detectors, electron bombarded, for VUV 2−114470
conference, UV and VUV systems, Washington, DC, USA (April 1981) 2−106999
electrographic image detector development, far and middle UV sensitive 2−117607
LADAR for tracking explosion plumes and ejecta 2−93972
large area high speed detectors 2−101458
multi-anode microchannel array photon counting detectors, for UV, VUV space and ground-based studies 2−117608
polyacetylene films for UV radiation actinometry 2−64110
radiometer, compact, with cosine-corrected response 2−58905
solar dosimeter, miniature personal, accumulated radiation meas. in UV or other region 2−62775
InP photoconductive detectors, high-speed, for UV and X-ray regions 2−112975
Si diode linearity measuring instrumentation 2−85440
Si imaging detectors, coronene, liumogen and acrylic UV sensitive phosphors 2−116224
SnO_2/In_2O_3-GaSe heterojunction, near UV detector 2−53839
T 2−113757

ultraviolet lamps *see lamps*

ultraviolet radiometry *see photometry*

ultraviolet sources *see light sources*

ultraviolet sources (astronomical)
close binary stars, far UV excesses obs. from five colour band UV photometry 2−63514
α Canis Majoris B (Sirius B), white dwarf, implications of UV and X-ray emission *(French)* 2−73972
Cygnus Loop, UV spectra rel. to depletion of heavy elements 2−106848
EUV sources, planned sky survey by Extreme Ultraviolet Explorer Mission 2−106477
EUV sources, sky survey by Extreme Ultraviolet Explorer Mission 2−117592
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
galaxies with UV excesses, spectroscopic obs. *(Russian)* 2−112566
M82, irregular galaxy, middle/outer halo scatt. light, origin in central high UV excess source 2−79214
massive photinos, rel. to intergalactic UV radiation 2−79796
NGC 4151, UV continuum vars., 1978 February to 1980 May, from IUE obs. and comparison with X-ray and optical obs. 2−101063
NGC 4649, elliptical galaxy with strong UV flux, IUE obs. rel. to stellar content 2−68886
quasars, spectral components of UV excess 2−63616
SA 29, list of faint blue objects 2−68637
Seyfert 1 galaxies, spectral components of UV excess 2−63616
spectra of UV sources, obs. by International Ultraviolet Explorer (IUE) 2−117591
UV galaxies, activity depend. on nucleus and morphology, obs. *(Russian)* 2−94832
white dwarfs with chemically stratified atmospheres, theoretical EUV spectra 2−112438

ultraviolet spectra of inorganic solids *see visible and ultraviolet spectra of inorganic solids*

ultraviolet spectra of organic solids *see visible and ultraviolet spectra of organic molecules and substances*

umklapp process
alkali metals, electron transport props., electron-phonon and electron-electron scatt. contribs. 2−115727
anisotropic elastic continua, densities and currents, rel. to Umklapp process 2−61083
elec. cond., low freq. and temp., umklapp scatt. 2−82308
Heisenberg antiferromagnetic chain, S=1/2, with competing interactions, spontaneous dimerisation 2−77318
Lattice thermal conductivity, phenomenological model 2−98352
one-dimensional conductors, phase diagram, band filling effect 2−98545
one-dimensional metals, superconducting and insulating phases 2−115738
quasi-one-dimensional electron-phonon system, first order calc. of phonon propagator 2−110267
semiconductor superlattices, phonon-limited near equilib. transport 2−56680
superlattices, lattice thermal cond. due to mini-umklapp process 2−82044
$(TMTSF)_2X$ compounds, competition between SDW and supercond. 2−56755
$(TMTSF)_2X$ series, phase transitions 2−92589
TMTSF salts, electron-electron Umklapp scatt. rel. to supercond. 2−66696
Bi, elec. resist., charge carrier scatt. under high hydrostatic press. 2−56588
Cu, point contact spectroscopy, temp. depend., nonequilib. phonon temp. *(Russian)* 2−61565
metals, optical relax. time, freq. depend. calc. 2−66534
NaF, suitability for phaser material, phonon lifetime and scatt. 2−86815
Nb_3S_4, quasi 1-D, elec. cond., magnetoresistance 2−87247
$Nb_3S_4(Se_4)(Te_4)$, Fermi surface, band struct. and elec. cond., LCAO calc. 2−115658

uncertainty principle *see indeterminancy*

underground cables
detection of incipient faults in transmission cables using time domain reflectometry techniques: technical challenges 2−101447

underwater acoustics *see underwater sound*

underwater cables *see submarine cables*

underwater sound
see also hydrophones; oceanography; sonar
acoustic medium as generalised communication channel 2−60284
acoustic ray path calcs. taking curvature of earth into consideration 2−62996
acoustic remote sensing of atmosphere and oceans, international symposium, Calgary, Alberta, Canada, (1981 June 22 to 25) 2−94912
acoustic transmission channel characterisation 2−60286
acoustic waveguides, calc. of sound field, asymptotic behaviour of normal modes 2−109103
air bubble curtains effect on acoustic wave propag., expt. 2−75751
air bubble curtains effect on acoustic wave propag., history and theory 2−75750
array beam response in presence of amplitude and phase fluctuations 2−97302
Atlantic Ocean tidal signal in inverted echo sounders records 2−106126
attenuation parameters from normal mode measurements 2−81154
backscattering from linear arrays of gas-filled bubbles 2−86145
backscattering of acoustic waves by randomly rough surfaces of elastic solids immersed in water 2−114489
bottom interacting ocean acoustics, conf., La Spezia, Italy (June 1980) 2−53433
bottom loss measurements, lateral wave effect 2−86159
boundary reflection/diffraction effects and the parabolic-equation split-step algorithm 2−114524
coherence processing, high speed, using sectionalized Fourier transform 2−70772
coherent sound source, radiation field anal. 2−60278
communication systems 2−97257
conical reflecting arrays, low-frequency, experimental study 2−60332
convex transducer array design with heart-shaped directivity 2−60337
correlation meas. of surface-reflected underwater acoustic signals 2−86162
deep ocean sound attenuation at very low frequencies 2−86160
directivity index of arrays of random line arrays 2−97301
dolphin dispersion by underwater US wave generation 2−78355
electroacoustic meas. techniques and instrumentation 2−70792
field, normal modes and rays relation 2−91132
finite-difference treatment of interface conditions for the parabolic wave equation: The horizontal interface 2−70750
frequency response curves for normal modes in a shallow sea with a layered absorbing bottom 2−73592
gas cavitation nuclei, evolution, generation and regeneration 2−91129
general Chebyshev complex function approximation procedure and an application to beamforming 2−97303
guided mode disappearance during upslope propagation in variable depth shallow water overlying a fluid bottom 2−114527
hedero sediments, acoustic props. rel. to density and thickness meas. 2−75752
high-frequency normal-mode calculations in deep water 2−114525
holographic sonar 3D underwater ultrasonic imaging 2−75808
horizontally stratified oceans, appls. of WKBJ Green's function to acoustic propagation 2−86158
hydroacoustic equipment, optimizing Cu spheres for precision calibration 2−60323
internal waves in shallow water, sound fluctuations 2−106125
limited angle multifrequency diffraction tomography 2−81175
liquid sphere, acoustic wave focusing, reson. features 2−102964
low-frequency ambient ocean noise and sound transmission over a thinly sedimented rock bottom 2−73574
low-frequency radiator, based on discrete periodic structs. 2−102968
multibeam bathymetric swath survey systems 2−106366
normal mode attenuation in shallow water 2−62960
normal mode spatial filtering 2−70749
ocean, wave-produced bubbles obs. by side-scan sonar 2−68375
ocean acoustic propagation modelling and source characterisation by spectral density matrix eigenvectors 2−60283
ocean bottom reflectivity, effect of near surface sediment layering 2−109102
ocean bottom sediment inhomogeneities in sound scatt. model 2−117248
ocean noise field anisotropy, influence of sound scattering 2−62994
ocean surface-scatter communication channel, Kirchhoff approach 2−91163
oceanic acoustic rays in the deep six sound channel 2−73573
oceanic acoustic tomography, demonstration off Bermuda 2−106359
oceanic deep-scattering layers, review of obs. 2−78703
physical principles and applications, book 2−58570
plates, fluid loaded orthogonally stiffened, sound radiation 2−55377
position control for acoustic probe in underwater sound research 2−81193
profiling system for current and acoustic vel. meas. 2−83971
propagation, approx. to 3-D parabolic eqn. method 2−117315
propagation, effects of sub-surface bubble layer 2−114526
PVDF transducers, US appls. in medical, underwater and NDT areas 2−91201
radiation of ring-stiffened cylindrical steel shells in water *(German)* 2−97259
random ocean front, mean multipath intensity relation for sound propag. 2−109101
rare-earth iron square ring dipole transducer 2−109149
ray equivalent of a group of modes 2−86161
scattering calculations using the characteristic rays of the coherence function 2−81152
sea current meas., underwater US propag. obs. by two period M-sequence model 2−78876
sea floor, topographic features, underwater sound scatt. model 2−117311
sea shelf, acoustic wave vertical refraction and quasi modes, hydroacoustic study 2−73579
sea surface backscatter of sonar signals 2−117489
seabed materials, compressional-wave vel. meas. 2−73575
seafloor sediment acoustic refl. resonances 2−111884
seismic reflection records processing, compensation for source heave by use of a Kalman filter [underwater sound] 2−68513
shallow sea, underwater sound attenuation calcs. 2−94398
shallow-water acoustic communication channel capacity estimates 2−60287
shallow-water transmission loss prediction using the Biot sediment model 2−86157

underwater sound continued
ship-towed linear hydrophone arrays, effective lengths for flow noise 2−70751
shock formed by strong sound wave in ocean, energy and amplitude evolution 2−117357
short-range acoustic transmissions through cyclonic eddies between a submerged source and receiver 2−81153
signal processing, high-speed programmable digital systems 2−63143
sinusoids in noise, instrumental-variable frequency estimation and tracking 2−60310
sonar for scattering inhomogeneity meas. 2−83969
sound propagation in a pipe containing a liquid of comparable acoustic impedance 2−86149
sound scattering by rigid and elastic obstacles in water 2−86156
spatial stochastic systems theory and its application to fields and waves in random moving media. II. Preliminary application to scattering and reverberation 2−86151
submarine transducer pulse cct., used for experimental tank *(Spanish)* 2−97332
surface reverberation in the waveguide propagation of sound in the ocean 2−94397
symmetric bistatic volume, soln. 2−60307
tomographic approach to multiarray ocean surveillance 2−68512
two-dimensional spectral estimation by linear prediction 2−60308
US electronics, conf., Tokyo, Japan, Dec. 1980 2−79274
US scattering spectra for oceanic turbulence intensity determ. 2−83968
video pulse scattering in randomly inhomogeneous medium 2−62995
volume backscattering coeff. meas. using 87.5 kHz sonar 2−73576

undulator radiation
correction effects for relativistic electron motion 2−114172
electron beam, intense, spontaneous short-wave emission 2−85877
free electron lasers, multiphoton transitions and saturation 2−114293
intensity, rel. to beam spatial parameters 2−114175
periodic magnetic field, relativistic electron emission 2−75504
relativistic electron beam in undulator, coherent radiation prod. 2−65144
relativistic electron in undulator in strong-field mode, radiation spectrum calc. 2−102706
SPEAR, undulator in spectral range 200-1000 eV 2−85439
synchrotron radiation sources and instrumentation, review 2−108770
wiggler and undulator magnets for synchrotron radiation, overview 2−85438

unified field theories
see also supergravity; Weinberg model
18-dimensional gravitation, grand unification by Kaluza-Klein approach 2−79451
ϕ^4 euclidean scalar field theory on four and three dimensional lattice, continuum limit 2−95619
Adler-Bell-Jackiw anomaly and fermion number breaking in mag. monopole presence 2−107509
anisotropic chromodynamics, particle matrix elements for electroweak currents 2−107619
antisymmetric tensor gauge fields and gravity, unified geometry 2−101289
asymptotically flat space-time, coupled gravit. and scalar field, linearisation stability 2−112771
asymptotically non-free theories, low-energy couplings, grand unification 2−54024
axion models with no domain wall problem 2−101621
axion search in nuclear γ-transitions 2−59086
baryon asymmetry and nucleon decay in supersymmetric SU(5) GUT 2−101617
baryon number and lepton number conservation laws, book contrib., review 2−54017
Batiss experiment on neutrino oscillations and stability 2−101613
Bertotti-Robinson solutions, nonlinear electrodynamics interpretation 2−69071
Bianchi type VI_0 cosmological models with matter and EM field, exact solns. 2−106972
Birkoff's theorem in the generalised field theory 2−89592
C metrics, asymptotic flatness at spatial infinity 2−107200
Cabibbo mixing from 2nd generation Higgs bosons, spontaneously broken $SU(2)\times U(1)\times U'(1)$ 2−89921
Casner metric, interacting scalar and EM fields, model isotropisation, classical case 2−74139
Casner metric, interacting scalar and EM fields, model isotropisation, quantum case 2−74140
CERN-JINR School of Physics, Hanko, Finland (June 1981) 2−112634
charge $^2/_3$ quark mass constraints from $K_L\to\mu^+\mu^-$ and K_L-K_S mass difference 2−113189
charged lepton masses, semiclassical Reissner-Nordstrom model, leptospin splitting 2−79793
charged particles, static balance, Bonnor's conjecture anal. 2−95190
composite quarks and leptons in supersymmetric grand unification 2−101686
confinement and hadron-hadron interactions by general relativistic methods 2−95742
conformal gravity, gauge formulation 2−53638
conformally invariant theories of Weyl-Dirac type 2−107586
conformally invariant theory, unifying EM and gravity, eqns. of motion 2−112780
conservation law for general relativity, gauge theories, elementary particle physics 2−107210
cooling Universe, gauge symmetry breaking, unified interactions 2−117840
cosmic string self-intersection, galaxy formation 2−117833
cosmological, particle creation, single vacuum propagators 2−84357
cosmological grand unified theories with radiatively induced symmetry breaking 2−84359
cosmology, axion models, Z(N) breaking, domain walls role 2−74133
cosmology, Dirac large numbers hypothesis implications 2−106977
coupling constants, empirical formula connecting interactions 2−69383
CP violation in broken supersymmetric theories 2−101593
CPT and Lorentz invariance breakdown 2−69380
de Broglie wave, rel. to EM and gravit., stochastic electrodynamics calc. 2−89590
de Sitter Universe, massive spin 1/2 particle 2−58672
decoupling rel. to low-energy BRS invariance 2−74614
deformation theory in particle physics, fundamental concepts, physical theories 2−69318

unified field theories continued
dyons of charge $e\theta/2\pi$, gauge transformation topology in Georgi-Glashow model 2−59038
E_8 unification, nonlinear fermion mass relations 2−84829
E(6) grand unified gauge model, mass hierarchy for quarks and leptons 2−69393
E(6) unified theory to solve strong CP problem 2−64260
E(6) unified theory with harmless axion, massive neutrinos 2−79794
early Universe, baryon excess contrib. from grav. interaction after Planck time 2−68946
early Universe, vacuum phase transitions, primordial irregularities 2−101106
effective electroweak Lagrangian for composite models 2−74635
Einstein open metric, vacuum instability, spontaneous broken symm. phase 2−74295
Einstein-Cartan-Maxwell-Bianchi type II solutions 2−89594
Einstein-Cartan-Maxwell-Bianchi type-V cosmological models 2−112618
Einstein-Cartan-Weyl system solns., neutrino couplings to gravity 2−63877
Einstein-Dirac-Maxwell fields, exact solns., rel. to massive neutrinos 2−74297
Einstein-Maxwell eqns., five-dimens. field theory appl. 2−101286
Einstein-Maxwell eqns., stationary cylindrically symm. electrovac soln. 2−69068
Einstein-Maxwell eqns., Weyl-conjugate metrics 2−101285
Einstein-Maxwell equations, static soln. 2−79454
Einstein-Maxwell field, with Killing tensor, forces interaction 2−53631
Einstein-Maxwell fields, pseudopot. approaches 2−95186
Einstein-Maxwell theories, unification scheme 2−89591
electroweak+gravity unification 2−69384
electroweak gauge boson effects in superconductors, P violation, neutral currents 2−59079
electroweak gauge models, lepton number conservation 2−95705
electroweak interactions in case of many generations 2−64255
electroweak unification of quarks and leptons in Sp(8) and Sp(10) symplectic gauge symmetry 2−101623
elementary particle physics, conf., Jodlowy Dwor, Poland (May 1980) 2−63739
Ernst eqns., with EM fields, similarity solns. 2−95159
exotic bosons, contrib. to B- and L-violation, proton decay, neutron oscills., ν mass 2−107582
extended conformal supergravity, asymptotic freedom 2−53648
fermion masses, from large mass scale, rel. to GUTs, composite quark/lepton 2−95704
fermionic flavours and generations, unification before flavours and colours 2−95700
fine structure constant, time variability 2−74293
finite-temperature behavior of mass hierarchies in supersymmetric theories 2−79779
first order canonical formulation, Einstein-Cartan-Sciama-Kibble theory application 2−112782
five-dimensional relativity, inequivalence with Brans-Dicke theory 2−112783
five-dimensional vacuum eqns. in projective theory relativity 2−95192
free neutron charge, expt. limit 2−95685
gauge fermions model in grand unification SU(5) theory 2−84817
gauge field interactions from extra dimensional gravity 2−84499
gauge hierarchies of SU(N) grand unification 2−107575
gauge model, walls bounded by strings 2−95722
gauge theories, expt. status 2−113153
gauge theories, Lie algebra choice 2−54035
gauge theories, renormalisation group constraints, Yukawa and scalar quartic couplings 2−79806
gauge unification of relativistic and unitary spin 2−74632
general relativity, scalar plane waves 2−101259
general supersymmetric grand unification, proton decay, one-loop contribs. 2−107580
generalised electrodynamic spinor approach, ep interaction appl. 2−107585
generation nonuniversality, gauge model, intergeneration fermions 2−101626
geometric theory unifying EM and gravity 2−101282
geometrodynamics in multidimensional unified theories 2−101283
geometrodynamics in multidimensional unified theory 2−95185
gluino mass in supersymmetric theories 2−107552
grand unification, Dynkin weights, global supersymm. 2−69385
grand unification, renormalisation effects 2−95724
grand unification and possible matter-antimatter domain structure in the Universe 2−117579
grand unification era in early Universe, role of viscous dissipation 2−79256
grand unification mag. monopoles, ionisation loss, semiclassical theory 2−113181
grand unification phase transition, cosmological kinetic term 2−59074
grand unification schemes involving QCD, Z_3 graded Lie algebra su(l/m/n) *(Chinese)* 2−95674
grand unification with large supersymmetry breaking 2−84831
grand unification with large supersymmetry breaking 2−95709
grand unified gauge models, cosmological baryon asymmetry calc. 2−101614
grand unified model with Bogolubov's symmetry breaking mechanism 2−79801
grand unified model with composite fermions based on $SO(3)\times SU(8)$ group 2−69394
grand unified models, broke charge-conjugation invariance constraint on baryon asymmetry 2−64257
grand unified monopole catalysation of baryon number violation 2−113187
grand unified theories, appl. to primordial black holes and cosmic baryon number 2−79255
grand unified theories, baryon generation and symmetry behaviour at high temp. 2−59072
grand unified theories, cosmological baryon prod. vs. intermediate mass scales 2−89426
grand unified theories, effective parameters and renormalisation group 2−84826
grand unified theories, fermions and Higgs fields 2−95720
grand unified theories, hierarchical fermion masses 2−54125
grand unified theories, mag. monopole suppression 2−95707
grand unified theories, monopoles and early Universe, review 2−79790
grand unified theories, review 2−79789

unified field theories continued
grand unified theories, supersymm., cosmological consequences 2−101620
grand unified theories, supersymmetric and conventional 2−107574
grand unified theories−extended supergravities connections, Lie groups 2−58684
grand unified theories 2−113195
grand unified theories in cosmolgoy 2−117830
gravitating Julia-Zee Dyon and the cosmological term 2−84816
gravitation, Einstein-Maxwell generalised theory 2−89595
gravitation, gauge approaches, differences, critical anal. 2−53634
gravitation, gauge theory formulation, Poincare, de Sitter and conformal cases 2−53637
gravitation, spontaneous generation from quantum field, rel. to Second Law of Thermodynamics 2−53629
gravitation, symmetric affine connection 2−95184
gravitation, translation gauge theory, geometric struct. 2−95191
gravitation 2−101284
gravitational and quantum-mechanical space-time structure and special relativity foundations 2−74296
gravitino and spin zero boson masses in theories with spontaneously broken supersymmetry 2−112781
graviton creation in inflationary Universe and grand unification scale 2−112628
heavy fermions in gauge theories, general spinor loop anal. 2−107501
heavy leptons, gravitational decay in unified theories *(Russian)* 2−54228
heavy quark mass, one-loop radiative correction in $U(1)\times SU(2)\times SU(3)$ model 2−101725
Higgs boson phenomenology in standard $SU(2)\times U(1)$ electroweak model 2−107572
Higgs mesons, technicolour and effective technicolour equivalence 2−107578
Higgs mesons, technicolour theory 2−107579
Higgs physics, electroweak interaction model 2−79787
Higgs potential, general method for anal. 2−54021
high energy neutrino interactions, expt. advances 2−64312
higher dimensional gravity, spontaneous compactification 2−95199
hypercolor unification 2−95708
in $SU(2)_L\times U(1)$ 2−54038
induced Kaluza type interactions *(Chinese)* 2−79804
inflationary universe scenario, Coleman-Weinberg GUT, monopoles 2−106985
instanton-induced baryon and lepton number violating processes in $SU(2)\times U(1)$ electroweak theory 2−54027
intermediate bosons, mass in $SU(2)_L\times SU(2)_R\times U(1)_{B-L}$ electroweak gauge model 2−79813
internally structured particles, classical motions, conservation laws, geometry 2−107488
Jordan theory, stationary spherically symm. solns., black holes 2−84497
Kaluza-Klein theory [quantum fields] 2−107571
Kaluza-Klein unification of vierbein and EM fields 2−107212
Kaluza-Klein vacuum instability 2−53635
Lagrangian dynamics of polarized media 2−112775
Lagrangian field theory, invisible Goldstone bosons 2−95736
lepton topological representation 2−113254
Lie algebras in particle physics, book 2−79298
magnetic monopole thermoacoustic detectability 2−113188
magnetic monopoles, confinement at high temp. 2−64230
magnetic monopoles, massive, number density and flux in Universe 2−74634
magnetic monopoles, pair creation in energetic collisions 2−89925
Majorana neutrino masses, rel. to lepton number violation and supernovae 2−68800
massive cosmic monopole search, upper limit 2−84052
massive neutrinos, in unified theories 2−74680
massive photinos, rel. to intergalactic UV radiation 2−79796
massless fermion vacuum, dyon disappearance 2−69351
maximal grand unification model based on SU(16), gauge hierarchies and baryon nonconservation 2−95713
Maxwellian Yang-Mills fields 2−107583
minimally extended SU(5) model, cosmological baryon generation 2−68943
monopoles connected by strings, cosmological evolution 2−58516
multidimensional unified gauge theories, geodesic motion 2−74633
neutral mesons with heavy quarks and mixing angles in six-quark model 2−54105
neutrino decay and lepton number spontaneous violation in $SU(2)\times U(1)$ gauge theory 2−54154
neutrino mass, rel. to unified field theories and big bang cosmology 2−101627
neutrino mixing in $SU(3)_H\times SU(2)_L\times U(1)$ horizontal model, oscillator length 2−64254
neutrino oscillations, review 2−79788
neutrino pair prod. by muons in nucleus Coulomb field 2−54131
neutrinoless double-β decay in $SU(2)\times U(1)$ theories 2−95975
neutrinos, Dira and Majorama masses limits 2−59077
neutron electric dipole moment value in Kobayashi-Maskawa model 2−59152
neutron-antineutron oscill. in SO(10) grand unified theory 2−95719
neutron-antineutron transition amplitude in MIT bag model 2−101673
non-static EM field in general relativity 2−107178
non-symmetron in generalised field theory 2−89593
nonAbelian gauge theories, spont. symm. breaking, gauge hierarchy, Lagrangian, decoupling 2−74613
nonlinear relativistic quantum mechanics of extended particles 2−69035
nonlinear relativistic theory, internal symmetries from field theories in higher dimensions 2−95701
O(10), grand unified theories subgroup structure with appl. to fermion mass matrix 2−54020
O(10) supersymmetric grand unified theories, hierarchy problem 2−59078
O(14) unification, simultaneous soln. of strong CP and generation problems 2−64251
O(N) grand unified theories, gauge hierarchy problem 2−79792
oscillations, rel. to true neutral micro-objects *(Russian)* 2−95725
particle physics in very early Universe 2−117578
particles and fields, conf., Santa Cruz, CA, USA (Sept. 1981) 2−79265
Pati-Salam-type grand unification, uniqueness 2−54031
Planck mass problem soln. in Kaluza-Klein theories 2−95188
polarised Bhabha and Moller scatt. in $SU(2)\times U(1)$ theory 2−95813
preons with strong and electroweak quantum numbers, composite quarks and leptons 2−101687
unified field theories continued
primordial black holes and the era of superheavy-particle dominance in the early Universe 2−74138
projective relativity, unified field theory 2−112773
proton decay, B-L nonconservation in SO(10), E(6) and SU(5) GUTs 2−101715
proton decay, fully confined events at Kola Gold Field, mean lifetime estimate 2−107659
proton decay, lifetime and branching ratio, bag model calc. in SU(5) GUT 2−95827
proton decay, non exponential law 2−79873
proton decay, parity conservation and selection rules, even G parity mesons 2−113182
proton decay and fundamental length hypothesis in gravitation theory 2−58676
proton decay and SU(5) grand unified model 2−79802
proton decay operator anal. in SU(7) grand unified theory 2−84821
proton stability, review of limits and expt. prospects 2−79868
proton supersymmetric decay, enhancement factors 2−95829
pseudo-Dirac neutrinos, neutrino oscillations, neutrinoless double β-decay 2−59084
pseudo-Goldstone technicolour bosons *(Russian)* 2−107623
QCD in matrix formalism of first-order eqns. 2−64280
quantised gauge theory, dimensional reduction and $OSp(4+NM/2)$ supersymmetry 2−107520
quantised scalar field, initial behaviour rel. to pair creation in isotropic closed and open universes 2−101109
quantum field theory and math. phys. conf., Bechyne, Czechoslovakia, June 1981 2−68950
quark electric dipole moments in standard $SU(2)\times U(1)$ model 2−101717
quark-gluon model, prediction testing using electron synchrotron *(Russian)* 2−89947
quark-lepton unification in $SU(4)_{PS}\times SU(2)_L\times SU(2)_R\times SU(2)_{L'}\times SU(2)_{R'}$ model 2−54026
quarks, gravitational decay in unified theories *(Russian)* 2−54228
quaternionic metrics and SU(2) Yang-Mills 2−95196
radical unification, effective generalisation of hypercharge from isospin, SU(2) dynamics 2−59069
recent progress, conf. Bad Honnef, Germany (Sept. 1980) 2−53432
relativistic fields, manifold-based, CPT and gravit. induced thermal states 2−107483
review of 'New Physics' 2−54049
review of theoretical physics and cosmology *(Russian)* 2−89927
rishon model, low-energy electroweak phenomenology, diagrammatic rules 2−74663
rishon model, particles, hypercolour, intermediate bosons 2−113249
Roberton-Walker Universes, gravit. radiation, gauge-invariant definition 2−69065
rotating charged dust in general relativity 2−53626
rotating sample, electrogravit. induction 2−79441
second massless axion in $SU(3)_C\times SU(2)_L\times U(1)_Y$ standard model 2−89926
single bubble inflationary universe, irregularity development 2−112629
sixteen dimensional Noether supercurrents in indefinite metric quantum gravity 2−58680
$SO_{2N,2}$ covariant spinor wave equations, conformal covariance, imposition of cone condition 2−113119
$SO(10)_V\times SO(10)_H$ grand unified extended technicolour models 2−95727
$SO(10)_V\times SO(10)_H$ GUT, hypercolour, extended hypercolour, generation problem 2−113190
$SO(10)^5$ effective technicolour model, CP violation and axions 2−84824
SO(10) grand unified model, prospects for second neutral vector boson at low mass 2−95715
SO(10) grand unified model, unification constraints on mirror fermion mass scale 2−89923
SO(10) grand unified models, symm. breaking, rel. to proton decay 2−79797
SO(10) grand unified theory, Higgs scalars and $SU(2)_R$ weak bosons 2−107590
SO(10) grand unified theory, intermediate mass scale through subgroup $SU(3)\times SU(2)\times U(1)\times U(1)$ 2−84823
SO(10) grand unified theory, low-energy parity restoration tests at e^+e^-, ep colliders 2−69386
SO(10) grand unified theory, string appearance on spontaneous symmetry breaking 2−84822
SO(10) GUT, mass relations and neutrino oscillations, t mass, B lifetime 2−84819
SO(10) model, with symm. breaking hierarchy, neutrino masses *(Russian)* 2−64263
SO(10) supersymm. grand unified model, gauge hierarchy 2−95703
SO(10) supersymmetric grand unified theory, intermediate mass scales 2−101618
SO(10) supersymmetric GUT 2−101622
SO(10) theory, family structure, unification 2−69390
SO(10) unification from higher dimensions 2−58677
SO(10) unified gauge theory, CP violation, axions 2−74636
SO(14) grand unification model, possible flavour problem soln. 2−101624
SO(14) model, supersymm. grand unification 2−101625
SO(14) theory, spinor representation, $U(1)_\Gamma$ embedding and symmetry breaking 2−113183
SO(2N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
softly broken symmetry restoration at high temps. 2−107503
spin 1/2 fermion scatt., lowest order electroweak corrections, one loop amplitudes, decays, masses 2−59076
spontaneous neutron-antineutron transitions, mag. field effects 2−95717
spontaneous supersymmetry breaking in dipole field 2−107556
spontaneously broken continuous global symmetry 2−107592
spontaneously broken QCD, short-distance behaviour 2−54068
static charged dust cylinders in general relativity 2−107204
strong CP problem, supersymmetric GUT soln. 2−79778
structure of neutral currents, review, book contrib. 2−54018
$SU_{2/1}$ electroweak ghost-gauge theory, BRS algebra construction 2−113166
$SU_2\times U(1)$ theory, Zee model of neutrino mixing 2−113186
$SU(2)_L\times(2)_R\times U(1)_{B-L}$ electroweak model, low-energy phenomenology and neutral-weak-boson masses 2−69391
$SU(2)_L\times SU(2)_R\times U(1)_{B-L}$, left-right symmetric GUT, proton lifetime, quark-lepton mass ratio 2−95721
$SU(2)_L\times SU(2)_R\times U(1)_{B-L}$ gauge theory, neutrino masses, intermediate mass scales and cosmology 2−84825

unified field theories continued
$SU(2)_L \times SU(2)_R \times U(1)_{L+R}$ electroweak symmetry and parity violations in electron-nucleon scatt. 2−113185
$SU(2)_L \times U(1) \times SU(3)_c$ gauge model, spontaneously broken B-L symm., H-$\bar{H}$ oscillations 2−84820
$SU(2)_L \times U(1)$ spontaneously broken gauge theory structure 2−64249
$SU(2)_L \times U(1)$ symmetry breaking as a radiative effect of supersymmetry breaking in GUTs 2−59082
$SU(2)_L \times U(1)$ weak gauge theory, experimental test 2−59068
$SU(2) \times SU(2)_R$ theory, strong bounds on weak couplings 2−95711
$SU(2) \times U(1) \times SU(2)'$ gauge model, weak gauge bosons above or straddling standard-model masses 2−64256
SU(2)×U(1) electroweak gauge theory, role of effective pot. in symmetry breaking 2−84794
SU(2)×U(1) guage models, permutation symmetries and fermion mass matrix 2−69392
SU(2)×U(1) theory, charged lepton radiative decays in arbitrary order 2−74688
SU(2)⊗U(1) model, dynamical symmetry breaking and radiative correction to weak-isospin relation 2−95714
$SU(3)_c \times SU(2)_L \times U(1)$ supersymmetric grand unified theories predictions 2−95718
$SU(3)_C \times SU(2) \times U(1)$ gauge GUT, low-energy parameters, particle masses 2−107589
$SU(3)_c \otimes U(1)$ unification, integer charge quarks and spontaneously broken color symmetry 2−54033
$SU(3)_H \times SU(2)_L \times U(1)$ model, CP-violation from horizontal interactions 2−107593
SU(3)×SU(2)×U(1), expt. tests, GUT and beyond 2−54037
SU(3)×SU(2)×U(1)×G spontaneously broken supersymmetric theories, neutral current conservation laws 2−59060
SU(3)×SU(2)×U(1)×U(1) supersymmetric model of strong and electroweak interactions, symmetry breaking 2−84830
SU(3)×SU(2)×U(1) gauge theories, naturality problems 2−79817
SU(3)×SU(2)×U(1) model, supersymmetric extension 2−79803
SU(3)×SU(2)×U(1) supersymm. GUTs, baryon and lepton conservation 2−107584
SU(3)×SU(2)×U(1) supersymmetric GUT, proton decay 2−64248
SU(3)×SU(2)×U(1) supersymmetric model, masses, p decay, conservation laws, spontaneous breakdown 2−101599
SU(3)⊗SU(2)⊗U(1) supersymmetric ground unified theory 2−101615
SU(3)XSU(2)XU(1)XU(1) model, low-energy softly-broken supersymmetry 2−101546
SU(5) and SO(10) GUTs superheavy particles, $\sin^2\theta_W$, and proton lifetime 2−113192
SU(5) grand unified model, phase transitions 2−54036
SU(5) grand unified theories, symmetry breaking effects 2−84818
SU(5) ground unified theory, Universe and supersymmetry 2−101616
SU(5) GUT, Higgs boson mass, neutral scalar current suppression with flavour change *(Russian)* 2−113194
SU(5) GUT, Higgs particle 45-plot role, cosmological baryon to entropy ratio 2−113191
SU(5) hierarchical supersymmetric model, cosmological consequences 2−79798
SU(5) Higgs problem with adjoint+vector representations 2−54022
SU(5) model, $\sin^2\theta_W$ and M_X two-loop anal. 2−64259
SU(5) model with nonminimal Higgs field, symmetry breaking patterns 2−107595
SU(5) monopole solns. using 5×5 tensor representation 2−95702
SU(5) representations, SU(3)×SU(2)×U(1) content 2−54030
SU(5) supersymmetric model, symmetry breaking, ground states 2−95710
SU(5) supersymmetric theory, weak mixing angle, unification mass 2−59075
SU(5) theory, family structure, unification 2−69390
SU(6) unification model for nñ oscillation without left-right symmetry 2−64253
SU(7) grand unified models, hypercharge generators, breakdown 2−69389
SU(7) grand unified theories, generation problem 2−64262
SU(7) grand unified theory, CP violation *(Chinese)* 2−54032
SU(7) grand unified theory with four generations of light fermions 2−64261
$SU(8)_L \times SU(8)_R$ grand unified model, spontaneous breaking and asymptotic freedom *(Russian)* 2−74639
$SU(8)_L \times SU(8)_R$ grand unified model, symmetry hierarchy and radiative corrections *(Russian)* 2−54034
SU(8)×SU(8) grand unified model, axion elimination 2−95755
SU(9) grand unified model, modified Higgs mechanism for symmetry breaking *(Chinese)* 2−95723
SU(9) theory, fermion mass changes due to axion suppression 2−101628
SU(l|m|n) graded algebra, local gauge theory, superunified model appl. 2−59048
SU(N) nonAbelian gauge theories, symm. breaking, gauge boson condensation 2−74604
subconstituent models and composite symmetries 2−79852
sum rules for neutrino oscills. *(Russian)* 2−74637
super-cosmology, supersymmetric theories, baryon asymmetry, proton decay 2−68945
supergravity, progress report 2−112793
superheavy confined monopole annihilation, energy loss mechanisms 2−64247
superheavy magnetic monopoles 2−84828
superheavy monopoles and baryon asymmetry 2−59083
supersymmetric flavour unification model SU(11), invisible axion and proton decay 2−95726
supersymmetric gauge theories, patterns of symmetry breaking 2−113131
supersymmetric grand unified theories and the early universe 2−107577
supersymmetric SU(5) grand unified model construction 2−79800
supersymmetric SU(5) model, naturally massless Higgs doublets 2−113184
supersymmetric SU(5) model, ordinary SU(5) predictions, proton decay mode 2−107594
supersymmetric technicolour model of particle physics 2−107576
supersymmetric theories, broken global symmetries 2−79799
supersymmetric theories, mass independent renormalisation, soft symm. breaking 2−107588
supersymmetric unification, cosmological implications, phase transitions, baryon no. 2−59081
supersymmetric unification models *(Russian)* 2−59087
supersymmetry, multidimensional space combination, interaction unification 2−101585
supersymmetry application 2−95699
supersymmetry breaking scale, baryon asymmetry of Universe 2−113193
Synge model, with EM field, soliton stability 2−69074
tilted EM Bianchi type III cosmology, exact soln. 2−106970
tilted EM Bianchi type VI_0 cosmological model, Einstein-Maxwell eqns. integration 2−106971
time-averaged neutrino oscill. 2−69395
U(1)⊗SU(2)⊗SU(2)′ gauge theory, unification and family structure as consequences of universality 2−54023
unitary field theory with gravo-electric induction *(German)* 2−79250
Universe baryon asymmetry in axion GUT model, invisible axions, Higgs field 2−68942
Universe closure, effect of neutrino mass and right-handed neutrino abundance 2−117819
Universe evolution in baryon symm. cosmology based on grand unified theories 2−117838
very early Universe, supercooled phase transitions 2−58517
weak, strong and EM interactions, unified model 2−79805
weak boson mass spectra in extended gauge models $SU(2)_L \times U(1) \times G$ 2−107573
weak interactions and symmetries 2−59098
weak nonleptonic processes of strange and charmed mesons, unified SU(4) description 2−59085
Weyl geometry, length integrability, field eqns., cosmology 2−58673
white dwarfs, astrophysical constraints on broken supersymmetry 2−94723
Witten-type supersymmetric models, light singlet particles and cosmological consequences 2−107591
Yang-Mills theory, supersymmetric, particle unification, supergravity 2−69319
Z_{2K} cyclic group, fermion generation labeling in composite models, t mass 2−101688
B decays, penguin effects in five flavour SU(2)×U(1) model, QCD corrections 2−95826
Δ(1232), electroproduction, pol. e, P violation, in electroweak theories 2−74695
$e^-e^- \rightarrow e^-e^-$, polarised Moller scatt. electroweak model tests 2−64311
e^+e^-, Bhabha polarised scatt., multiboson electroweak gauge models 2−54132
e^+e^- annihilation, polarised beams, radiative corrections in standard electroweak model 2−113279
e^+e^- annihilation, role in studying weak neutral currents 2−89957
e^+e^- annihilation, sum rules, in electro-weak gauge theories 2−54195
$e^+e^- \rightarrow \mu^+\mu$, 34.6 GeV CM, charge asymmetry meas. 2−89954
$e^+e^- \rightarrow \mu X$, beauty lifetime, weak mixing angles, standard model anal. 2−89973
K_L-K_S mass difference, left-right symmetric electroweak theory, constraint on mass scale 2−64250
n-ñ oscillation time evaluation 2−101619
n-ñ oscillations period estimation 2−54028
$NN \rightarrow eX$, nucleon decay and neutron oscill. inside nucleus, nuclear effects 2−54150
$\nu_2 \rightarrow \nu_1\gamma$, massive neutrinos radiative decays in SU(2)×U(1) model 2−54153
$\nu_e(\bar{\nu}_e)N$, limits for oscillation parameters, majoron emission and L violating decays 2−79861
$\bar{\nu}_e$ oscillation parameters study 2−101702
ν_e-ν_μ mixing in SO(10) grand unified theory 2−54025
$\bar{p}p \rightarrow e^+n\phi^0$, possible alternative for neutrino oscillations in interaction data 2−113263
$p \rightarrow e^+\gamma$, radiative proton decay in SU(5) GUT, 3q annihilation 2−79795
$\bar{P} \rightarrow K^+\bar{\nu}_\mu$, supersymm. models calc. 2−74684
$p \rightarrow \omega e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$p \rightarrow \pi^0 e^+$, lifetime in static bag model, branching ratio in SU(5) GUT 2−79871
$\bar{p}p$, collider energies, gauge vector boson pair prod. in SU(2)×U(1) model 2−84928
$\bar{p}p$, pseudoscalar meson flux, axions, ghosts, standard model chiral predictions test 2−89984
$\bar{p}p$, toponium prod. and decay characts. study 2−107698
$\bar{p}p$, W^+W^-, $W^\pm\gamma$ prod. in quark-antiquark annihilation 2−107702
t quark mass, quark-lepton generation number in SU_5 GUT *(Russian)* 2−84827
X^+ in superheavy H, in interstellar matter, search 2−89343
Z-γ mixing in superconductors, P-violation from Josephson effect 2−59080
$Z^0 \rightarrow W^\mp X^\pm$, test of weak boson self-coupling below W^+W^- threshold 2−84843
H, atomic, multiple cavity expts. to detect parity nonconservation 2−96760
H-$\bar{H}$ oscillations, double proton decay and grand unified theories 2−89924
SO(10) and E_6 models, invisible axion at an intermediate symmetry breaking scale 2−64252
SU(3)×SU(2)×U(1)y model, supersymmetric extension 2−79783
$^{235}U(n,f)$, thermal, electron and antineutrino spectrum cal., $\bar{\nu}$ oscillations 2−80041

unijunction transistors
magnetic sensor, high sensitivity, using inijunction transistor 2−64070

unimolecular layers *see monolayers*

uninterruptible power supply *see emergency power supply*

units (measurement)
see also constants; dimensions; measurement; nomenclature and symbols
ampere definition based on combined Josephson and quantised Hall expt. 2−101376
ampere realisation, discrepancy between direct and indirect methods 2−101374
ampere realisation in SI system using moving coil apparatus 2−101377
capacitance, resistance and inductance, progress at NPL (India) 2−101375
definition, reproduction, and maintenance of the units for physical quantities and standards 2−58769
disperse systems statistical parameters determ. 2−58990
EM magnitudes, metrological assurance developments *(Rumanian)* 2−74393
EMF units reproduction accuracy increase 2−89652
gravitation, linear field eqns., Gaussian-like unit system 2−53616
laser radiation displacement influence on units transmission of relative distribution of power density 2−86023

units (measurement) continued
laser radiation wavelength unit, Soviet meas. standards 2−58773
laser-radiation energy meas., working standard errors determ. 2−84591
length measurement with laser interferometer, atm. influence compensation, metric unit conversion 2−112966
length standards and calibration 2−79528
length unit reproduction, high-precision test installation 2−53732
magnetic induction unit, Soviet primary standard 2−69125
magnetisation, CGS vs SI units 2−79524
metre, prospects of new definition 2−63961
neutron flux density unit reproduction by neutron-activation method 2−96406
neutron radiation absorbed energy meas., maximum error evaluation 2−59657
photon dosimetry and radiation protection, SI units 2−85402
plane angle as dimensional quantity 2−69133
precision EM meas., conf., Boulder, CO, USA (June-July 1982) 2−101128
probability of events computing, in unit-dimension transmitting system 2−58767
radiation protection and the International Commission on Radiation Units and Measurements 2−69999
radiological SI units 2−53715
Rumanian national calibration system *(Rumanian)* 2−74380
SI, DC and LF meas. 1982 state and trends 2−101373
SI, foundations and fundamental principles 2−53716
SI electromagnetic units, importance in electrodynamics and chromodynamics 2−58768
SI ohm redeterm. at NPL 2−101378
SI units appl. 2−95303
specific strength, units of meas. 2−95304
standard time and frequency signals transmission, over Cuban TV channels 2−69145
standards and units of meas., review 2−107288

universe *see cosmology*

universe models *see cosmology*

untuned power amplifiers *see power amplifiers*

upper atmosphere
see also exosphere; ionosphere; magnetosphere; mesosphere; radiation belts; thermosphere
aerosol chemical enrichment, role of cometary material 2−100615
aerosols, suspended, distrib. *(Russian)* 2−106372
density fluctuations effect on artificial satellite orbit forecasting and determ. 2−106472
density variations caused by geomagnetic disturbances 2−63158
drag coefficient acting on artificial satellite orbit *(Chinese)* 2−112299
dynamical cooling induced by dissipating internal gravity waves 2−73736
gamma-rays with E>40 MeV, quasi-periodic vars. 2−89092
gravity wave propagation, dispersion formula for modal interference 2−73742
gravity wave propagation, study of nightglow variations *(Russian)* 2−73737
guided acoustic-gravity waves due to auroral electrojets 2−63156
heat budget numerical models of thermosphere 2−94545
High-Altitude Plasma Instrument for Dynamics Explorer-A 2−58180
infrared emission intensity (63 microns) from $O(^3P_1)$ 2−100617
irregular wind simulation, appl. of jet flow of compressible gas in gravity field 2−73735
limb emission analysis using SPIRE 2.7 μm data 2−117514
long-period oscill. at 60 to 110 km altitude 2−94546
low latitude region, density perturbation during mag. substorm activity 2−106376
low-energy particles in upper and middle atm., interaction model 2−73813
lunar tides, vars. in ionospheric A1-absorption at low latit. during solar min. 2−106387
mesopause, nightglow emissions rel. to NO and water vapour concs., noctilucent clouds and radio wave absorpt. 2−112201
Meteor Wind Radar System at Waltair, Nagarampalem field station, meteor echoes in upper atmosphere 2−117491
millisecond light pulse occurrence rel. to solar activity 2−83981
movements caused by 2-D motion of Earth's surface 2−112188
near-Earth UV environment, review of obs. 2−117513
neutral components photoionisation rate coeffs., solar activity depend. 2−106570
neutral constituent height profile calc. 2−106378
neutral mass spectrometer on Dynamics Explorer B 2−58178
neutral temperature in lower E-region, meas. via vertical HF sounding in presence of acoustic wave 2−100636
nightglow intensity variations due to vertical motion of atmos. 2−68545
outgoing radiation, effects of refl. by natural surfaces 2−78895
precipitating protons, ionisation and electron flux determ. method 2−106355
rotation rate from orbital inclination of 1972-05 B satellite 2−100702
satellite orbit inclination changes due to aerodynamic lift 2−73817
shuttle lidar resonance fluorescence, Na and K meas. 2−100606
solar radiation intensity and ion production rate, in upper atmosphere, vertical profiles *(Chinese)* 2−100624
subsonic probe measurements of middle-atmosphere electrical parameters 2−94544
temperature and composition by analytical static model 2−68543
temperature of exosphere, deduced from twilight O^+ spectral emissions 2−63153
thermosphere, global model of species density using mag. coords. 2−73739
lower thermosphere, planetary-scale waves in zonal winds 2−89058
thermosphere global circulation and temp., influence of magnetosphere 2−73738
thermosphere metastable species photochem. processes, review 2−89059
thermosphere mid-latitude temp., solar and geomag. activity influences 2−73740
thermosphere O_2 conc. derived from MSIS model and observations 2−73743
thermosphere oscills. at midlatitude seen in Doppler spectra obs. 2−100608
turbopause height and temp. in polar region from Ar/N_2 profile 2−73734
UV scatt. of 58.4 nm reson. radiation field in He geocorona 2−83980
Wind and Temperature Spectrometer on Dynamics Explorer 2−58177
wind measurement by radar obs. ionospheric drift 2−106356
wind variations over Waltair from meteor trials radar obs. 2−78892

upper atmosphere continued
wind velocity fluctuations, power spectrum at 86 km altitude 2−100449
winds in high-latitude thermosphere 2−73741
soft X-rays due to solar radiation scatt. and fluoresc. 2−89057
zonal mean flow of atmos. up to 100 km, 3-D global model 2−73638
H atom escape from Earth atmos. due to charge exchange collisions 2−63152
N atomic density of thermosphere, long-term variations 2−63154
NO conc. and IR emissions in auroral region 2−89056
NO IR line parameters for upper atm. 2−73732
Na layer observation, appl. of flashlamp-pumped tunable laser radar system 2−94511
O and N_2 density deduced from photoelectron obs. 2−89063
O atom association rates and airglow excitation mechanisms 2−63157
O conc. meas. using analyzer with semiconductor sensors 2−100584
O^+ ^2P state production by electron impact in auroral region 2−89064
O_2 density of thermosphere controlled by solar activity 2−100607
O_2, UV photoabsorpt. cross-section into $^3\Pi_u$ state 2−63155

uranium
see also nuclei with .....
see also fission of uranium
analysis of sea, lake and spring water, fission track determ. 2−67922
atom, gamma ray incoherent scatt. at 662 keV 2−80543
CDW incommensurable, atomic displacements in α-U 2−103691
concentration absolute determ. by hyperpure Ge LEPS 2−116742
concentration in coal, gamma-ray spectra meas. 2−67781
concentration meas. in water using solid state nuclear track detectors 2−67921
cylinder, impact deformation meas. at high temp. 2−83172
deposits in volcanotectonic depressions, classification scheme 2−63140
determination in rocks by γ-spectrometry 2−54504
diffusion in Re, meas. using solid state nuclear track detector 2−66291
electrochemically marked, residual contamination and corrosion, SEM and ion microprobe anal. 2−83269
enrichment, technological developments in USA 2−102086
estimation in plants using fission track technique 2−67898
exploration in sandstone areas, track-etch method data interpretation 2−68526
fallout from Chinese nuclear weapons test (16th Oct. 1980) *(Italian)* 2−68473
fission materials, hazard pot. anal. *(German)* 2−85152
fuel in nuclear power plants, choice and economical characts. *(Croatian)* 2−69708
geologic deposits in United States, aerial radiometric survey obs. 2−73503
geophysical prospecting by α-track technique 2−68525
Gulf of Aqaba, phosphate pollution of sediments studied by U concs. 2−68390
hollow cathode discharge and atlas, optogalvanic effect for pulsed laser wavelength calibration 2−71270
hollow-cathode discharge, optogalvanic effect, mechanistic study 2−91696
inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
isotope separation using high-power 16 μm lasers, UF_6 multiphoton absorpt. 2−75453
isotopes, gasdynamic separation, theory 2−75998
isotopic anal. using automated mass spectrometer 2−74563
lung, human, U fragments anal. using CR-39 plastic autoradiography 2−68175
martensitic transformation effect on supercond. 2−110526
measurement for nuclear safeguards, automated analytical instrumentation appl. 2−74804
meteorite (Hvittis), U distrib. in enstatite chondrite 2−79047
meteorite U distrib. in silicate inclusions 2−89204
mill tailings and closed low-level waste disposal sites, long-term monitoring 2−74800
minerals, U-bearing veins and inclusion, U-content calc. 2−68523
nuclear fuel supply situation and future availability in western World *(German)* 2−105536
ore, eval. using modified automatic spark counting system 2−75120
ore, prospecting, extraction and prospecting *(French)* 2−58140
ore exploration by ^{222}Rn release 2−73725
oxidation in O_2 and CO_2, surface spectroscopy 2−80059
positron annihilation photons Doppler broadening 2−67141
procurement in USA, foreign/domestic supplies 2−64529
recovery from alpha waste 2−108031
recovery from aqu. soln. using calcined CaO-Al_2O_3-SO_3 powders 2−80144
recovery from seawater, ion exchange method 2−64555
reserves exploitation economics 2−105537
seawater chemical composition (U, K, Rb, Cs) alteration due to hydrothermal circulation 2−68386
shock wave data interpretation with elastic viscoplastic model 2−71556
slab, steady state fast neutron spectra, comparison of diffusion and transport theory 2−59445
stockpiling, amount, form and economics, European utility view 2−102074
superconducting transition temp., martensitic transformations, domain form. 2−98791
supply analysis, price rel. to demand 2−64530
trace content determ. in stainless steel using solid-state track detectors 2−70113
traces determ. using solid state track detectors 2−67920
ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908
$BaTiO_3$:U, ceramic, room temp. elec. resist. and permittivity meas. 2−57003
LiF:U, fluoresc. and MCD spectra 2−57160
Li_4WO_5:U phosphors, spectral props. 2−77545
NaF:U, fluoresc. and MCD spectra 2−57160
Pu/(U+Pu) ratio determ. in FBR fuel pellets by X-ray fluoresc. anal. 2−85139
Re:U, dopant diffusion, obs. in solid-state nuclear track detector 2−110039
SiO_2-Al_2O_3-CaO MgO:Ce, U glass-forming melts, U chem., redox interactions 2−93771
$ThBr_4$:U^{4+}, absolute oscill. strength determ. 2−61859
$ThBr_4$:U^{4+}, incommensurate, optical absorption spectrum, lineshape anal. 2−110899
γ-U, chem. diffusion of Ta in samples fabricated for positron studies 2−110052

uranium continued
α-U, chemisorption of O_2, CO_2 and CO_2, electron spectroscopic studies 2−56337
α-U, field ion microscopy 2−86622
U II fluorescence studies, laser induced, by U photoionisation 2−96524
U, thermal emission mass spectrometry, ion source 2−74567
U/scintillator, multicell hadron calorimeter in AFS expt. at CERN ISR, test results 2−70035
U/Th relative fission rate in geological samples, fission radiography 2−112154
$U+H^+$, L-shell ionisation cross sections Dirac-Hartree-Slater calcs. 2−114093
$U+He^+$, M to L shell X-ray yields ratio 2−59592
U+U, positron spectra calcs. 2−96690
U^{40+}+Sn, projectile charge state distrib., target thickness depend., inner shell vacancy prod. 2−75399
U^{44+}+C foil, zero degree electron emission, energy spectra and dwell time depend. 2−75389
U^{44+}+inert gas target, highly charged inert gas recoil ion prod. 2−114097
^{234}U, α-particle recoil damage, preferential solution effects 2−108256
^{235}U in Brazil, abundance, correl. with Gabon Oklo reactor and continental drift implications 2−117280
^{235}U, inertially controlled ignitor in controlled thermonuclear fusion 2−113734
^{235}U systems, subcritical limits 2−96223
^{235}U systems, subcritical limits 2−96224
^{235}U target prep. on thick backings by heavy-ion sputtering technique 2−108178
^{238}U resonances, Doppler chem. binding effect rel. to activation rate 2−107963

uranium alloys
C UCoAL, absorption of H_2, thermodynamic and struct. study 2−56196
metallic glasses, based on U, Np or Pu, formation 2−72651
U-Ti alloys, bonding, Auger spectra study 2−65920
U-W-B, phase constitution, X-ray diffr. photographs 2−83095
UAl_2, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
UAl_2, spin fluctuation suppression in high mag. fields, magnetisation and magnetoresist. meas. 2−92865
$U(Fe_{1-x}Mn_x)_2$, effective Curie-Weiss const., susceptibility and magnetisation meas. 2−72165
UMnAl, absorption of H_2, thermodynamic and struct. study 2−56196
UNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
$UNi_{5-x}Cu_x$, band struct., photoemission study 2−104240
$UNi_{5-x}Cu_x$, intermediate valence theory, lattice const. and paramag. susceptibility 2−76988
UPd_3, f and d electrons, resonant photoemission study 2−116336
UPd_3, f-states, optical refl. study 2−77550
W fibre reinforced depleted U-Ti matrix, corrosion rates and electrochem. behaviour obs. 2−116566

uranium compounds
see also uranium alloys
complexes, UV and visible absorption spectra calcs. 2−96585
fluoride melts of U, Th, Be, Li mixtures specific elect. cond. meas. 2−56235
$LiUO_2AsO_4.4D_2O$, cryst. struct., powder neutron diffr. study 2−65936
polynuclear uranyl fluoride complexes, luminesc. and vibr. spectra 2−99123
UC-PuC fuel pins, neutron irrad., swelling, microstruct., fission gas release 2−80108
UO_2, Zircaloy cladded combustible CARAMEL fuel for research reactors *(French)* 2−96093
$Ba_{1-x}U_xTiO_3$ ceramic, U doping and sintering atmos. effects on elec. and dielec. props. 2−116107
Be_2C -graphite-UC_2 reactor fuel material, enthalpy and sp. ht. meas. at 1980K 2−115428
$CoUS_3$, mag. props. and struct. *(French)* 2−72143
$Cs_2(UO_2)_2F_6(OH_2)_2$, vibr. and electronic spectra meas. 2−72488
$Cs_4(UO_2)_2F_8.2H_2O$, vibr. and electronic spectra meas. 2−72488
Gd_2O_3-U_2, burnable poison appl., in PWRs 2−80098
$HUO_2PO_4.4H_2O$, hydrogen gas sensor using electrochemical concentration cell 2−112888
K_2WO_4-UO_2WO_4, reactions, and phase diagram, DTA study 2−88066
Li_2O-P_2O_5:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
NaF:U, luminesc., EPR of U^{5+} 2−110918
Na_2O-CaO-SiO_2:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
$(Pu,U)O_2$ fuels, unirradiated, Pu solubility determ. *(German)* 2−85138
PuO_2-UO_2 mixed oxide fuel rods construction and manufacture *(German)* 2−96095
$Rb_2(UO_2)_2F_6(OH_2)_2$, vibr. and electronic spectra meas. 2−72488
$Rb_4(UO_2)_2F_8.2H_2O$, vibr. and electronic spectra meas. 2−72488
$Sm_{1-x}U_xO_{2\pm x}$, mixed oxide lattice parameters 2−59462
$(Th, U)O_2$, stability of simulated fission product phases 2−80061
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
$(U, Gd)O_2$ solid soln., near stoichiometric, Gd effect on thermal cond. 2−80060
(U,Pu)C, swelling investigation 2−64479
$(U,Pu)O_2$, combustible fuel elements irrad. in fast reactor, ^{13}C presence *(French)* 2−96096
$(U,Pu)O_2$, enthalpy values 2−80084
$(U,Pu)O_2$ fuel element, strongly radioactive, X-ray microanal. *(French)* 2−67786
$(U,Pu)O_2$ fuel pellets fabrication from gel microspheres 2−108028
$(U, Pu)O_{2-x}$, relationship between FBR fuel and product quality *(German)* 2−96094
U complex, UO_2SO_4 (urea)$_2$, cryst. struct. 2−98033
UAs, order-incommensurate disorder mag. transitions *(Russian)* 2−56859
UAs, rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2−72153
UAs_xSe_{1-x}, electronic struct. and magnetism 2−66605
UC, density, lattice parameters and elec. resist. up to 100 kbar 2−76387
UC, fission products effect on thermophysical parameters 2−96113
UC fuel pins, intragranular fission gas diffusion model, for LMFBR 2−80106
UC LMFBR fuel rods, modelling code, URANUS 2−90227
UC-PuC, fuel element fabrication and test 2−80110
UC-PuC, reactor fuel processing for LMFBR 2−80143

uranium compounds continued
UC-PuC fuel pins, He-bonded, irrad. performance in EBR-II 2−80103
UC-PuC fuel pins, He-bonded, transient performance in TREAT 2−80105
UC-PuC fuel pins, irrad. performance in EBR-II 2−80102
UC-PuC mixed fuel, He-bonded, irrad. to goal burnup, behaviour in EBR-II 2−80104
UC-PuC mixed fuel, performance modelling code LIFE-4C, verification expts. 2−80109
U_2C_3, neutron irrad., mag. susceptibility, Neel temp., lattice consts. 2−66073
UCl_4, phase transform., cryst. symmetry, NQR study 2−110704
UCl_4-$CaCl_2$ melt, density and surface tension meas. 2−113676
UCl_4-$MgCl_2$ melt, density and surface tension meas. 2−113676
UF, UF_2, UF_3 and UF_4, gaseous equilibria, reaction enthalpies and entropies, bond dissoc. energies 2−60709
UF_4, sputtering by fast hevy ions 2−99239
$2UF_4+H_2=2UF_3+2HF$, equilib. consts., vapour press., entropy and heat of vaporisation 2−93773
UF_5, laser induced emission spectrum 2−96587
UF_6, IR multiphoton absorpt., laser isotope separation of U 2−75453
UF_6, isotope separation by CF_4 and CO_2 lasers, γ-ray spectra study 2−113671
UF_6, laser induced fluoresc. and absorpt., temp. controlled vacuum cell and two-stage pumping system 2−84637
UF_6, liq., ^{235}U enrichment effect, ^{19}F NMR 2−116084
UF_6, ν_3 transition, 16 μm, vibr. anharmonicity consts. 2−108450
UF_6, photophysical and photochem. props. rel. to laser isotope separation 2−75452
UF_6, supercooled, high-resolution IR spectra obtained using injection laser based spectrometer 2−113972
UF_6, supercooled, ν_3 band, isotope shift, high-resolution IR laser spectroscopy 2−54853
UF_6, two-colour IR isotopically selective decomp. 2−75448
UF_6+SF_6, sensitised dissoc. by laser-excited absorber 2−65070
UF_x (x=4,5,6), XPS of 4f levels, binding energies 2−93379
UH_3, isotope separation 2−96122
U(IV) cpds., nephelauxetic effect 2−59860
$U_xLa_{1-x}Mo_6S_8$ 2−66700
UN, fission-damaged, phys. and mech. props. 2−113620
UN single crystal, neutron scatt. from spins and phonons 2−56837
β-U_2N_3, elec. and mag. props. mag. transition temp. 2−87281
UO_2, 4f-photoelectron intensities and satellites 2−82998
UO_2, Al clad fuel cores, compacted and extruded, failure mechanisms 2−85164
UO_2 and (U, Pu) mixed oxide fuels 2−107952
UO_2, CEA fuel rod components design for power reactor assemblies *(French)* 2−96091
UO_2 close to stoichiometry, chemical potential 2−113631
UO_2 complexes with Schiff bases, spectral props. 2−80586
UO_2, densification, fission-induced 2−76508
UO_2, elec. cond., effects of doping with Cr_2O_3, Gd_2O_3, TiO_2, La_2O_3 and Nb_2O_5 2−87262
UO_2 electrolysis in chloride melts, cathodic processes 2−54531
UO_2, emissivity over 1000K to 3130K range 2−86913
UO_2, enthalpy values 2−80084
UO_2, f and d electrons, resonant photoemission study 2−116336
UO_2, fission gas release, effect of irrad.-induced resoln. 2−107951
UO_2 fuel, Indian experience on prod. and quality control 2−85163
UO_2 fuel, swollen, with nonuniform grain size, interconnected pores stability 2−93481
UO_2 fuel pellets, fracture toughness, rel. to design specification 2−102078
UO_2 fuel pellets, low-density, fabrication tests 2−93479
UO_2 fuels, qualitative approach for characterisation 2−85160
UO_2, high pressure behaviour, X-ray powder diffr. study 2−56178
UO_2, high temp. data on Seebeck coeff., elec. cond., thermal cond., specific heat 2−115796
UO_2, interaction with W and Mo 2−59470
UO_2, irradiated, diffusion coeffs. of gaseous and volatile species 2−102042
UO_2 kernelled HTR fuel particles, production of CO during burn-up 2−102045
UO_2, LWR fuel rod calcs., fuel charact. requirement 2−85149
UO_2, LWR fuels prod. and structural props. characterisation *(German)* 2−85134
UO_2, LWR fuels prod. and charact. *(German)* 2−85158
UO_2 monocrystal, ^{12}C irrad., blocking, radiation damage *(Russian)* 2−59434
UO_2 pellets, occluded gas anal. by mass spectrometer and fuel quality control 2−85140
UO_2 pellets, thermal shock resist., bench tests and calcs. *(German)* 2−85144
UO_2, polycryst., creep behaviour 2−86779
UO_2, porous, low-temp. Kr adsorpt. 2−61297
UO_2 powder manufacture, LWR fuel quality control, prod. parameters determ. *(German)* 2−96088
UO_2 powders, positron lifetime spectra 2−80062
UO_2, shock-compression parameters from 5 to 330 GPa 2−103901
UO_2, sintered, retention and release of water 2−90222
UO_2, sintering, low temp., effect of O_2 partial press. *(Korean)* 2−67233
UO_2 surfaces, laser irrad., evaporation mechanism and kinetics 2−93330
UO_2 thin film, inverse photoemission, 5f state cross section 2−111032
UO_2, water reactor fuel, performance-related charcts. 2−85133
UO_2, XPS evidence for 5f bonding participation 2−80729
UO_2^+, impurity in alkali halide aq. solns., photolum. spectra meas. *(Russian)* 2−77593
UO_2^{2+}, electron transfer bands, wave numbers, relativistic calcs. 2−96475
UO_2^{2+} salt cryst., luminsc. kinetics 2−67106
UO_2-(U,Pu)O_2 system, interdiffusion and chem. diffusion 2−85146
UO_2-Gd_2O_3, LWR fuels prod. and charcts. *(German)* 2−85158
UO_2-Gd_2O_3, thermal cond. and plasticity meas. *(German)* 2−85147
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, mixed-oxide fuel, U and Pu distrib. *(German)* 2−96090
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
UO_2-PuO_2 fuel pellet shape and structure influence on fuel pins operating behaviour 2−85148
UO_2-PuO_2 pellets, structure development during reduction sintering from granulated powders 2−85161
UO_2-PuO_2 pellets fabrication using granular technique, process parameter influence 2−85162

uranium compounds continued
UO_2-UC_2 spherical nuclear fuel, prod., appl. using thermochem. principles 2−108021
$UO_2+4C \rightarrow UC_2+2CO$, carbothermic reduction rate determ. 2−102083
UO_{2-x}, hypostoichiometric, equilib. vapour press. and comp. at high temp. 2−80058
UO_{2-x}, oxygen diffusion 2−80085
U_3O_8, recovery from phosphate rock 2−102091
U_4O_{9-y}, nonstoichiometric, heat capacity and elec. cond., 300 to 1200K 2−110006
$UO_2HPO_4.3H_2O$, solid, protonic cond. 2−92272
$UO_2(NO_3)_2.6H_2O$, cryst. and frozen solns., visible spectra and fluorescence decay rates 2−61949
$UO_2(NO_3)_2.6H_2O$, conversion to UF_6, in reprocessing plant 2−102090
$UO_2SeO_4.4H_2O$, crystal struct. 2−76393
$UO(UO_2)_3$, gaseous, relativistic mol. orbital calcs. 2−90448
UO_2WO_4-$Na_2(K_2)(Rb_2)(Cs_2)WO_4$, solid-phase synthesis, struct., IR and luminesc. spectra 2−87752
$UO_2(2,2,6,6\text{-tetramethylheptane-3,5-dionato})_2$, mean vibr. amplitudes, normal coord. anal. 2−64948
UP-USe system, nature of step-like transition 2−103982
UPS, ^{31}P NMR Knight shift meas. 2−104723
UPSe, ^{31}P NMR Knight shift meas. 2−104723
UPTe, ^{31}P NMR Knight shift meas. 2−104723
$U_xPb_{1-x}Mo_{6+y}S_8$, supercond. props., effect of actinide component 2−66700
US, rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2−72153
US single crystal, neutron scatt. from spins and phonons 2−56837
USb_xTe_{1-x}, core level binding energies and heat of formation, UPS study 2−67193
USb_xTe_{1-x}, electronic struct. and magnetism 2−66605
USe, critical exponent β, zero-field magnetisation, neutron scatt. study 2−61698
U_3Si_2, cyclic intergrowth and crystal structures 2−65975
UTe, f and d electrons, resonant photoemission study 2−116336
UTe, rock-salt struct., mag. excitations and lattice vibr., neutron diffr. study 2−72153
UTe single crystal, neutron scatt. from spins and phonons 2−56837
U_3Te_5, cubic, ferromagnetic struct. study 2−104586
$(U_{0.06}Th_{0.94})S$, spin fluctuation temp., press. depend., elec. resist. meas. 2−56827
$U_{1-x}Th_xSb$, Kondo behaviour, ferromag. and antiferromag. behaviour, transport and mag. meas. 2−77032
$U_xTh_{1-x}Sb$, f and d electrons, resonant photoemission study 2−116336
$U_xTh_{1-x}Sb(U_xY_{1-x}Sb)$, electronic struct. and magnetism 2−66605
$U_xY_{1-x}Sb$, electronic struct. and magnetism 2−66605

Uranus
1980 May positions, ESO La Silla GPO astrograph obs. 2−79024
astrometric observations of outer planets and minor planets, (1980 to 1982) 2−106611
comet families, orbits and origin and evolution in planet eruption theory 2−84171
occultation by Uranus and rings, 1982 April 22, times from 2 μm obs. 2−68665
occultation of 9.9 mag star on 1982 May 1, prediction *(Japanese)* 2−73823
ring system, radial widths, optical depth and eccentricities from occultation obs. anal. 2−63310
ring system, satellite-ring particles orbital resonances rel. to sharp edges of rings 2−112383
ring system inclination to equatorial plane 2−106613
rings and gravitational reson., existence of sixth satellite 2−100827
zenith distance residuals in 1979 from Danjon astrolabe, Chile, obs. 2−63311
D/C ratio of atmosphere 2−79025
o-$H_2 \rightarrow$p-H_2 conversion in Jovian planetary atmospheres 2−100782

urban planning *see town and country planning*

u.v. astronomy *see ultraviolet astronomy*

u.v. detectors *see ultraviolet detectors*

V-centres
see also H-centres
alkali halides, radiative tunnelling transitions between defects, energies calc. 2−77587
α-quartz, electronic struct., cyclic cluster calc. 2−61393
ruby cryst., additional absorpt. spectra irrad. with fast electrons and γ-rays *(Russian)* 2−82880
AgCl:Br^-, pure and doped, band-gap-irrad., luminesc. centres, ODMR and level-anticrossing spectra 2−56980
α-Al_2O_3 cryst., additional absorpt. spectra irrad. with fast electrons and γ-rays *(Russian)* 2−82880
CdS, F^+ centres and oxygen radicals, impurities effect 2−93006
CsI:Na, tunnelling recomb. luminesc., time evolution 2−72550
GeO_2:Zn(Mg), X-irrad., hole centre ESR study 2−87592
KBr, Raman scatt. induced by V-centres 2−67037
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KCl, prod. and decay of hole centres, pulse radiolysis study 2−71444
KCl, radiation-induced F- and V-centres formation by γ-rays 2−66058
KCl:$PbCl_2$, X-ray irrad. V_F centres, optical production, thermoluminescence, ESR and light absorption study 2−57194
Mg, electron irrad., surface defect peak in EELS, V^--centres 2−92715
MgO (001), chemisorption of H_2 and CO, ab initio SCF calc. 2−104158
MgO, thermoluminescent mechanisms involving transition metal ion impurities and V-type centres under UV irrad. 2−116279
NaCl, γ-irrad., radiation induced F-and V-centres, thermal destruction 2−115226
NaCl, laser-induced primary defect form. role in optical breakdown 2−66057
NaCl, radiation-induced F- and V-centres formation by γ-rays 2−66058
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988

V_H-centres *see H-centres*

V-VI semiconductors *see semiconductor materials*

vacancies (crystal)
see also Frenkel defects; impurity-vacancy interactions; Schottky defects; vacancy condensation loops; vacancy-dislocation interactions
alkali halides, Schottky defect formation entropy and vacancy pair formation enthalpy calc. 2−109786
alkali metals, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
alloys, binary, cubic, tracer diffusion via vacancies, Monte Carlo calc. 2−86938
alloys, binary substitutional, vacancy wind effect in diffusion, Monte Carlo calc. 2−92255
anharmonic cryst., imperfect, unsymmetrised self-consistent field approx. 2−81921
anthracene, slip planes crystal growth and photodimerisation 2−86598
atom pair relative displacements for vacancy mechanism from random walk theory 2−56241
BCC transition metals, vacancy clusters, binding energies and electronic struct., tight binding calc. 2−109789
binary liquid, defective two sublattice model 2−99387
CCP lattice, vacancy pair defects, free energy 2−60975
clusters, athermal formation in cascades of atomic collision 2−56061
collision cascade, vacancy spatial struct. 2−76434
computer simulation, boundary conditions 2−55966
core p-vacancy levels in crystal field, multiplet struct. calcs. 2−98580
creep, high-temp., pore growth and closure at inter-grain boundary *(Russian)* 2−66111
defects, bound and unbound, pressure variation of Gibbs energy 2−98348
diamond:N, ion implanted, defect form., annealing and interactions, cathodoluminescence study 2−116277
diffusion in strained cryst., theory 2−104050
embrittlement, continuum theory 2−109895
equilibrium crystal, vacancy correlation factor and small clusters 2−115221
FACSIMILE code for void swelling and creep calc. with vacancy loops 2−67468
fission reactor fuel, oxide, swelling and gas release during fast temp. transients 2−90223
fluoride heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
fusion reactors, pulsed, irradiation creep enhancement 2−85221
grain boundary motion, vacancy-controlled, theory 2−66010
graphite, neutron irradiation, defect prod. and annealing behaviour 2−80189
ideal vacancy and surface states, tight binding calcs. 2−104227
II-VI single crystal, intrinsic defects, formation kinetics in coexistence with equil. vapour phase 2−86662
III-V semiconductors, antistructure defect form. kinetics and migration rel. to self-diffusion 2−104056
III-V semiconductors, defect electronic struct., tight-binding calcs. 2−76978
inhomogeneously stressed cryst., dislocation and vacancy kinetics *(Russian)* 2−76439
interstitial loops and vacancy loops, intrinsic bias differential 2−91954
ion channelling studies of defects 2−81840
ionic crystals, point defect pair relax. modes, approx. solns. for three-shell model 2−61016
irradiated materials, absence of pore formation, vacancy diffusion *(Russian)* 2−56010
irradiated metals, defect clusters, generation rate, distrib. profile 2−98079
Ising ferromagnet, two-dimens., with high cond. of imperfections, sp. ht. 2−104648
Ising model with random sublattice vacancies, phase diagram 2−95273
isotropic solid, cascade processes, thermal and shift peaks effects *(Russian)* 2−71525
lattice defects study by channelling 2−71532
metal, irradiated, recovery during second stage of annealing *(Russian)* 2−62138
metal, void nucleation, stress and temp. driven 2−76429
metals, bubble nucleation and growth, low temp., by He bombardment 2−76536
metals, cascade damage, ion-irrad. study 2−103860
metals, defect structs. below surface after neutron or ion irrad., monoenergetic positron study 2−92052
metals, FCC, vacancy migration, trapping and clustering by γ-ray spectra 2−56996
metals, finite cluster description of electromigration 2−86956
metals, grain boundary struct. review 2−60997
metals, He bubble form. and swelling 2−109788
metals, oxide film growth, conditions for form. of new oxide 2−87090
metals, radiative creep, effect of defect struct. 2−88151
metals, self-diffusion entropies and activation volumes 2−71701
metals, swelling, radiation-induced, effect of defect struct. 2−86721
micas, 1 M, distortions of octahedra and octahedral sheets rel. to stability 2−60960
oxide heterovalent solid soln. with unidirectional solubility, impurity energy of soln. 2−71651
pure metals, multiphase layered oxide growth, general formulation 2−77990
α-quartz, electronic struct., cyclic cluster calc. 2−61393
radiation damage phenomena, cascade diffusion theory as general method for modelling 2−103841
rare earth cpds., $R_{2-x}Sr_{2+x}Cu_2O_{6-y/2}$ (R=Sm, Eu, Gd), cryst. struct. and elec. props., O vacancies *(French)* 2−91917
recombination cross section for interstitials and vacancies as a function of vacancy concentration 2−65988
refractory, trap activation model for H retention and isotope exchange 2−69846
semiconductors, ideal vacancy and surface states 2−104226
simple-cubic tight-binding solid, vacancy-vacancy effective interaction in bulk and on surface 2−56008
size effect, Gibbs pot. 2−55967
steel, austenitic stainless, electron irrad., swelling behaviour, influence of He 2−109836
steel, austenitic stainless, structure, effect of cold working and annealing 2−67370
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, low alloy, fatigue failure at inclusions, influence of vacant lattice sites 2−83199
surface diffusion, molecular dynamics study 2−87061
swelling characteristics for cryst. with diffusional anisotropy under irrad. 2−61021
thin films, void formation, gas bubble detachment model, vacancy trapping 2−76428
tracer diffusion, vacancy assisted, response at small vacancy conc. 2−82008

vacancies (crystal) continued
transition metals, vacancy clusters, electronic struct., binding energy, atomic relax. 2−87174
Ag dilute alloys, electric field gradients, point defects, PAC meas. 2−93085
Ag film, bicryst., gas bubble growth 2−115607
Ag film, void growth 2−115606
Ag, self-diffusion rate, hydrostatic press. and temp. depend. 2−61194
Ag-Sn (16.5 wt.%) alloy, rapidly quenched, residual resist. increase, vacancy form. energy 2−88231
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
AgCl:$CdCl_2$, point defects, hypernetted chain eqns. for lattice gas model, solns. 2−61015
Al alloys, vacancies generation study during oxidation, electron microscope method 2−72897
Al, interatomic pots. and electronic props., ab initio calc. 2−56460
Al, ion implantation radiation damage, Mossbauer study and math. model 2−81835
Al, irradiated with Al ions, pure and He doped 2−86747
Al, plastically deformed, lattice defect trapped at In impurities, PAC study 2−92022
Al, quenched, clustering process of vacancies 2−55964
Al, vacancies, formation vol. and energy, lattice distortion and nonlinear screening, theory 2−98073
Al, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
Al-Cu, vacancy migration energy, quenching rate 2−86942
Al-Zn (4 wt.%), GP zones, ageing and reversion, elec. resist. meas. *(Japanese)* 2−83143
Al-Zn (9.87 at.%), defect struct., vacancy migration, effect of H_2O in annealing atmosphere 2−76451
AlN epitaxial films, cathodoluminescence and optical absorption 2−99195
η-Al_2O_3, surface states, luminescence study 2−61955
β-Al_2O_3-M_2O, triply occupied mirror planes 2−71659
Al_2O_3-Na_2O, β and β″ phases, chem. coloration 2−67767
Al_2O_3-XO_2-Na_2O (X=Si, Te, Ge), ionic conductor, elec. props. and struct. 2−110030
Au dilute alloys, elec. field gradients, point defects, PAC meas. 2−93085
Au, self-diffusion rate, hydrostatic press. and temp. depend. 2−61194
Au, stage III recovery, single vacancies, migration energy 2−91956
BaO-TiO_2:Nb, (Sb), (La) system, phase diagrams, influence of foreign atoms on cryst. lattice 2−66179
$BaTiO_3$:Al, acceptor doped, nonstoichiometry 2−77042
$Bi_{12}GeO_{20}$, photoluminescence spectra, effects of annealing, Al doping, X-ray and γ-ray irrad. *(Russian)* 2−61936
BiI_3, IR photoluminescence due to lattice defects *(Russian)* 2−93274
BiI_3:Gd, luminescence spectra *(Russian)* 2−61974
$Bi_{12}XO_{20}$ (X=Ge, Si) energy levels in forbidden zone *(Russian)* 2−61930
CaF_2, fluorite, thermoluminescence rel. to pretreatment history 2−72566
$CaTiO_3$, defect struct., elec. cond. study 2−103750
$CaTiO_3$, elec. cond., 800 to 1100°C, defect struct. 2−66554
$CdSiP_2$, Hall study of electrically active centres *(Russian)* 2−56623
$CdSiP_2$, intrinsic defect effect on elec. props. 2−61481
Co-Ga, mag. and struct. props., Mossbauer study 2−116097
Co-Ga alloys, B2 struct., defect struct. and lattice parameters *(German)* 2−81784
CoO, creep and point defects, O diffusion 2−109893
$Co_{1-x}O$, defect diffusion in single-and poly-crystals 2−110047
Cu alloys, dil., single vacancies and clusters, interstitials, spontaneous recomb., elec. resist. meas. 2−76435
Cu, deformed, isothermal elec. resist. changes rel. to stage III recovery 2−67366
Cu dilute alloys, electric field gradients, point defects, PAC meas. 2−93085
Cu, electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
Cu, heavy ion-irrad., vacancy loop form. 2−103863
Cu, neutron and electron irradiations, initial damage rates study of internal friction 2−92046
Cu, Ni partial diffusion coeff. after ion irrad., fusion neutron effects simulation 2−86757
Cu, polycrystalline, low temp. fatigue, grain size effect *(Japanese)* 2−77920
Cu, single vacancies and clustered interstitials, spontaneous recomb., elec. resist. meas. 2−76435
Cu, vacancy, electronic struct., self-consistent calcs. of soln. of embedding problem 2−76982
Cu:^{119}In (^{119}Sb), Mossbauer study of impurity-vacancy interactions 2−86705
Cu:Kr, ion implanted, cryst. defects, positron annihilation and TEM study 2−81781
Cu-Ge, heavy ion-irrad., vacancy loop form. 2−103863
Cu-Pd, ordering process during continuous process *(Japanese)* 2−77820
Cu-Zn, interdiffusion, ultrasound influence *(Russian)* 2−66302
Cu-Zn (0.9-8 at.%), intrinsic diffusion coeffs. and vacancy flow factor 2−98350
$CuInSe_2$, impurity states, after annealing, elec. cond. study 2−66475
$CuInTe_2$, electrical characts. 2−92648
Cu_2S, chalcocite, Cu vacancy ordering and transition to djurleite, TEM study 2−115222
Fe, Ni ion irrad., simulation studies 2−109857
Fe, positron trapping and detrapping 2−77616
Fe, vacancy migration at 220K, HVEM obs. 2−81828
γ-Fe vacancy pore-point defect interaction, computer modelling 2−92024
α-Fe, vacancy-type point defect, dipole force tensors, computer calc. 2−71438
α-Fe:C, electron irrad., vacancies and impurities, positron lifetime study 2−66065
Fe:C, positron trapping and detrapping 2−77616
Fe-Al (10 to 50 at.%), quenched from 1100°C, 10 to 26.5 at.% Al during tempering *(German)* 2−111215
Fe-B, amorphous and cryst., electron irrad., vacancies, elec. cond. study 2−92038
Fe-Cr-Al (22,4 wt.%), void form. mechanism at substrate oxide interface 2−67610
Fe-Cr-Ni alloys, electron-irrad., swelling and Ni segregation 2−111182
Fe-Si (1-4 wt.%), simultaneous creep and oxidation, 973-1073K 2−105214
α-$FeGa_2S_4$ (1T), mag., elec. and Mossbauer props. *(French)* 2−72389
FeO, wustite, struct. and morphology, vacancy and interstitial clusters *(French)* 2−86644
vacancies (crystal) continued
$Fe_{1-x}O$, wustite, 3-D modulated struct., six dimensional anal. 2−81728
Fe_2O_3, hematite, shock compressed, point defect generation, positron annihilation study 2−86795
γ-Fe_2O_3, phase transition, influence of fine crystalline struct. 2−86852
$Fe_{3-\delta}O_4$, nonstoichiometry, point defects and cation diffusion 2−71435
$Fe_{0.909}S$, magnetic transitions and crystal struct. 2−82598
$Fe_{1-x}S$, Mossbauer study of Fe vacancy distrib. 2−81783
α-$Fe_{1-x}Si_2$, multiparticle atomic correlations, Mossbauer spectroscopy study 2−66960
GaAs, deep acceptor at 77 MeV, photoluminesc. study 2−57145
GaAs, defect energy level press. depend. 2−104295
GaAs, positron annihilation at low temp. 2−62009
GaAs:B, electron irradiated, IR study of annealing 2−56033
GaAs:Cr, deep level photoluminescence, vacancies and annealing 2−99190
GaAs:Cu, electron irrad., photoluminescence 2−61967
p-GaAs:Cu, electron irrad., photoluminescence 2−87851
GaAs:Si(Cd), positron annihilation at low temp. 2−62009
GaAs(110), vacancies and adsorbed H, electronic struct. calc. 2−110422
GaP, donor-Ga vacancy complex form., electron trap behaviour 2−115688
GaSb, native defects, MS-Xα calcs. 2−82270
GaSe:Ni(Fe)(Cr), luminescence spectra, absorption edge, struct. defects *(Russian)* 2−93273
Ga_2Se_3, ordered and disordered phases, struct., electron diffr. and microscopy obs. 2−60957
Ge epitaxial layers, LPE growth in γ-radiation field, struct. and electrophysical parameters 2−115599
Ge, high purity, detectors, correl. between DLTS meas. and performance 2−70060
Ge, radiation defects, light sensitivity and space orientation, IR spectra study 2−87826
Ge:Cu, in-diffusion and annealing 2−98337
Ge:H, vacancy vibrational behaviour, renormalisation group method 2−81918
$(GeO)_4Ga_2S_5$, cryst. struct. determ. *(French)* 2−91886
GeTe, elastic props., room temp. 2−81872
He partitioning, low doses, trap theory 2−86715
^{3}He BCC cryst., sound vel. and defects, temp. depend. 2−98380
^{3}He, solid, vacancies, spin polaron, variational method 2−61251
^{3}He-^{4}He solid solns., dil., spin diffusion coeffs. and NMR relax times, temp. depend., 0.4 to 2K 2−76770
HgCdTe, transport props. rel. to acceptor levels 2−92633
$Hg_{1-x}Cd_xTe$, bulk vacancy electron states, tight binding calc. 2−87178
HgTe, stoichiometric deviation, X-ray diffr. investig. 2−104007
In, vacancy energy characts. from effective pair pots. *(Russian)* 2−60974
InAs, electron irrad., vacancies and defect states, positron annihilation study 2−116295
n-InP, diffusion of ^{110}Ag from vapour 2−86941
InP, elec. props., positron annihilation radiation defects 2−115292
In_6WO_{12}, cryst. struct., relation to fluorite struct., X-ray diffr. study 2−81726
(K, Bi^{3+}, Bi^{5+}) pyrochlore, thermally induced cation migration, structural study 2−66285
K, vacancies and self-interstitials 2−103749
KCl, γ-ray irrad., impurity-vacancy dipoles, ionic cond. study 2−109790
KCl:Br^-(Sr^{2+})(Ba^{2+}), X-ray irrad., H_D ntype defects, ESR study 2−110641
KCl:Eu, F-centre colouring 2−109791
KCl:Mn^{2+}, positron annihilation, impurity induced positive ion vacancies 2−99213
KCl:Pb^{2+}, EPR study 2−56930
KCl:Pb^{2+} excited in A absorpt. band, time resolved spectra 2−104921
$K_x(Ga_xGe_{1-x})O_2$, ionic cond. and cryst. chem. *(French)* 2−92269
$K_x(Zn_{x/2}Ge_{1-x/2})O_2$, ionic cond. and cryst. chem. *(French)* 2−92269
$La_{0.33}NbO_3$, thermal quenching prep., crystallisation and struct. 2−91924
$(LaO)_4As_2S_5$, cryst. struct. determ. *(French)* 2−91886
LiAl, Hall mobility of positive carrier 2−110330
β-LiAl, positive carrier conc. rel. to Li vacancies, Hall effect and lattice parameters study 2−56552
LiF (001) surface, H_2 adsorption atop an anion vacancy 2−61279
LiF crystal, dielec. losses under deform. by conc. load 2−66984
LiF, plastic deformation under tension and compression, density changes, dislocation form. 2−61057
LiF:Mg, impurity-vacancy pair clustering, trimer form., dielec. losses and TSC meas. 2−115419
LiH, X-rayed at low temps., ESR studies of Mn^{2+} centre 2−98950
LiH:S, ionic conduction, impurity effects 2−76735
$LiTaO_3$, nonstoichiometric, defect struct. model fitting to neutron powder diffr. data 2−65807
9$LiTaO_3$:Ta_2O_5, cryst. struct., powder neutron diffr. study 2−65935
$(Mg,Fe)_2SiO_4$, atomic C depth profiling meas. 2−99721
Mg, vacancy props., positron annihilation, thermal expansion studies 2−103753
$Mg_{0.04}Fe_{2.96}O_4$, cryst. struct. determ., cryst. defects 2−91888
MgO (001), chemisorption of H_2 and CO, ab initio SCF calc. 2−104158
MgO, atomic C depth profiling meas. 2−99721
MgO, cathodoluminesc. emission in SEM 2−110954
MgO:Fe^{3+}, quenched crystals, kinetic reactions 2−57380
Mo, detrapping of implanted He and N 2−81808
Mo, electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
Mo irradiated with Ar ions, defects study using thermal desorption spectrometry 2−76517
Mo, surface damage from diamond-saw emitting, positron lifetime study 2−61266
Na, vacancies and self-interstitials 2−103749
$NaAl_3(PO_4)_2(OH)_4$, localised hole centres, paramagnetic defect EPR study 2−66919
NaCl:Ca^{2+}, low temp. soln. hardening due to lattice distortion around impurity-vacancy pairs 2−98077
NaCl:Ca^{2+}, MFP of dislocations, NMR study 2−109807
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaF:Li, single crystal, stability of electronic colour centres 2−91958
NaI:Ca, thermal depolarisation 2−93104
Nb, vacancy and interstitial annealing and migration, PAC study 2−86663
Nb:Fe(Co)(Cr), electromigration and self diffusion, effective valence, radioactive tracer method *(French)* 2−76756
Nb-H system, hydride phase transition, low temp. 2−57344
NbO, effect of vacancies on electronic struct. 2−61330

vacancies (crystal) continued
α-Nb_2O_5, defect struct., thermogravimetric obs. and oxygen partial press. depend. 2−65990
Nb_2O_5:Al(Cr), CC acceptor doped, defect struct., elec. cond. study 2−92613
Nb_2O_5-WO_3, O vacancies, reduction and phase transition, TEM 2−97879
Ni and Ni-C solid solutions, microhardness, effect of neutron irrad. 2−103847
Ni, cold deformed, local cryst.-amorphous state phase change obs. 2−57374
Ni, diffusion parameters of W, dynamic computer model *(Russian)* 2−76740
Ni, electron irrad., vacancy cluster form. and radiation-induced refining, HVEM obs. 2−81829
Ni, irrad. creep, pulsed, 15 MeV deuterons 2−86751
Ni-Cr, quenched, short range order form. and vacancy annihilation on annealing, elec. cond. study 2−115723
Ni_3Al, irradiated, defect aggregation 2−103748
NiGa, vacancy conc. and mobility 2−103751
NiO, creep and point defects, O diffusion 2−109892
PLZT ceramic, reduced, dark cond. and optical absorpt. 2−104374
Pb, splat cooled excess vacancy conc., lattice parameter and elec. resist. meas. 2−71440
Pb-Ag (0.038 at.%), kinetics of Ag precip. 2−111187
Pb-Sn alloys, effect of precipitation on positron annihilation 2−67144
PbF_2, neutron study of anion disorder, fast-ion cond. 2−92258
$PbMoO_4$, formation of Pb^{3+}, influence of foreign ions 2−115219
$Pb_{1.5}Nb_2O_{6.5}$, pyrochlore type, cryst. struct. determ. *(German)* 2−65974
$PbSe_xTe_{1-x}$, localised deep defect states 2−92530
PbTe, $H^+(Ag^+)(Sn^+)$ ion-implanted, elec. props. 2−104377
$Pb(Zr,Ti)O_3$, impurity doping effects 2−86689
Pd-Te, liq. and solid alloys, thermodynamic props. 2−67297
Pt, ion-irradiated, atomic resolution obs. of point defect struct. of depleted zones 2−103862
Pt, vacancies formation vol. and energy meas. 2−98076
Se, diffusion kinetics and correl. factors, random-walk method 2−61196
Si (111) 7×7 surface, chemisorption of Cl and H, electronic struct., DV-XX cluster calc. 2−66613
Si (111) chemisorbed H, Cl, Ag, vacancy and chemisorptive bond elec. struct. 2−82417
Si, diffusion of As and P enhanced by thermal oxidation 2−71720
Si, diffusion of P, nonequilibrium vacancies influence 2−92252
Si, dislocation free, formation of self-order agglomerates during cryst. growth 2−81782
Si, electron and γ-irrad., defect prod. and lifetime control 2−109833
p-Si, electron irradiated, elec. level of vacancy 2−115696
Si, lattice response near vacancy, Green's function calc. 2−81905
Si, neutral divacancy, EPR spectrum, extended Huckel calc. 2−91957
Si, neutron and electron irrad., divacancy charge, IR study 2−76431
Si, neutron irrad , EPR obs., review 2−110638
Si, neutron irrad., diffuse X-ray scatt. obs. of defects 2−109849
Si, neutron irrad., radiation defects due to Si transmutation into P, elec. cond. study 2−115308
Si, neutron irrad., vacancies, mag. susceptibility study 2−115309
Si oxidation enhanced dopant diffusion and growth or shrinkage of oxidation-induced stacking faults 2−66015
Si, oxidation stacking faults stacking faults and oxidation enhanced diffusion 2−66020
Si, point defects, diffusion mechanisms and shrinkage and growth of extended defects, theoretical anal. 2−71443
Si, point defects, negative-U props., expt. study 2−71918
Si, proton and γ-irrad., defect clusters, Hall effect study 2−115225
Si, proton irrad., rearrangement of intrinsic defects during annealing, Hall coeff. meas. 2−109863
Si, radiation defect laser annealing 2−103814
Si, self ion implanted, residual lattice disorder after pulsed laser irrad. 2−76494
Si, stacking fault growth and shrinkage kinetics in oxidizing ambient containing a Cl cpd. 2−98117
Si surface (111), reconstructed, electronic struct. in vacancy model 2−87360
Si, thermal oxidation, enhanced dopant diffusion and defect form. 2−66296
Si, vacancy and chemisorptive bond elec. struct. 2−82417
Si:As, dopant clustering, generalized model 2−115417
Si:As, ion irradiated, point defect chains, high resolution TEM study 2−71479
Si:B, proton irrad., impurity distrib. and diffusion 2−61203
Si:H, implanted, radiation defects study by DLTS 2−92522
Si:H, vacancy vibrational behaviour, renormalisation group method 2−81918
Si:P, high conc. diffusion, vacancy percolation 2−82028
Si:P, O, electron and neutron irrad., point defects and colour centres, DLTS study 2−103754
Si-SiO_2 junction, interface electronic struct. 2−110485
SiC (6H), vacancy deep levels traps, EPR, optical absorpt. and Hall effect study 2−56483
SiC, phonon dispersion, atomic force consts. 2−86808
SiC:B 2−115302
SiC:N (6H), exchange-coupled vacancy pairs, ESR study 2−116062
Sn, electro-plated coatings, grain size effect on whisker growth 2−115635
Sn-Pb, electro-plated coatings, grain size effect on whisker growth 2−115635
SnSb thin films, obliquely vacuum-deposited, elec. cond., defect density and struct. 2−66662
SnTe, soln. of impurities, behaviour of group IV elements 2−71650
$Sr_{0.02}Pb_{0.98}(Li_{0.008}W_{0.013}Ti_{0.46}Zr_{0.52})O_3$, impurity distrib., props. 2−86701
$Sr(Sr_{1/3}Nb_{2/3})O_3$, band gap, electron mobility, Schottky disorder, elec. cond. meas. 2−61530
$SrTiO_3$:La, quenched, highly reduced, electronic cond. 2−56583
$Sr_{1-x}TiO_3$, elec. cond., 850 to 1050°C, comp. depend. 2−87274
Su:B(P), heavily doped, defect formation under electron irrad. 2−103822
β-Ta_2O_5, defect struct., non-stoichiometry, thermogravimetry study 2−91953
Ta_2O_5:Al(Cr), acceptor doped, elec. cond., majority defect model 2−92615
Te, diffusion kinetics and correl. factors, random-walk method 2−61196
α-Te_2MoO_7 and β-$TeMo_5O_{16}$, industrial oxidation catalysts, X-ray diffr. and electron microscopy study 2−61157
$ThNb_4O_{12}$, slow-cooled sample, Th-vacancy ordering 2−60928
$Th_{0.9}Y_{0.1}O_{1.95}$, X-ray irrad., luminescence study 2−67130

vacancies (crystal) continued
Ti_2O_3, Ar sputtered, photoemission studies 2−116330
TiO_2(B) to anatase transformation, crystallographic shear explanation *(French)* 2−66206
TlSe, single crystal, photoelectrical props., influence of laser beam irradiation *(Russian)* 2−92680
Tm_xSe, local prop. variation, Mossbauer study 2−87633
U, positron annihilation photons Doppler broadening 2−67141
UC, density, lattice parameters and elec. resist. up to 100 kbar 2−76387
UN, fission-damaged, phys. and mech. props. 2−113620
W, electrical resistivity-temperature scale, vacancy parameters 2−98622
W, ion irrad., faulty field evaporation at divacancies in {222} 2−57271
W, ion-irradiated, atomic resolution obs. of point defect struct. of depleted zones 2−103862
W, vacancy trapping at ^{111}In, TDPAC meas. 2−76487
W:Ag,He, ion implanted, He precipitation at substitutional Ag atoms He desorption study 2−92218
WO_3:S, doping imperfect struct. and electron and ion transfer phenomena meas. 2−86691
Zn, positron annihilation Doppler broadening profile anisotropy 2−72576
$ZnGeP_2$, intrinsic defect effect on elec. props. 2−61481
ZnS, intrinsic-defect hole conductivity, photoluminescence study 2−110927
ZnS, vacancy optically detected mag. resonance 2−77425
ZnSe, heteroepitaxial, deep defects 2−92512
ZnSe, vacancy defect energies 2−98574
α-Zr, vacancies, form. and binding energy, Lennard-Jones pot. calc. 2−98078
ZrO_2, structural chemistry 2−97977
ZrO_2-Y_2O_3:Yb crystals, Yb implanted yttria stabilised, O vacancies, channelling study 2−109867

vacancy condensation loops
ion implanted with Xe^+, Xe-defect configuration spatial anisotropy, ^{133}Xe TDPAC study 2−61044
metals, void ordering during irrad., bifurcation and phase transition 2−61020
X-ray diffuse scatt. study, numerical anal. 2−66000
Al-Fe, solid solns., secondary quenching defects features 2−62153
CdSb, γ-irrad., X-ray scatt. near K-absorpt. edge *(Russian)* 2−62015
Cu, ion implanted with Xe^+, Xe-defect configuration spatial anisotropy, ^{133}Xe TDPAC study 2−61044
FeS_2, pyrite, deformed, defect struct., TEM study 2−98107
Mo:N,H, defect-gas impurity interactions, positron annhilation study 2−67142
Pb-Au, yield stress and resist., effect of composition and thermal treatment 2−83165
Si, neutron irrad., dislocation loops, X-ray diffuse scatt. study 2−71458

vacancy-dislocation interactions
diffusion of point-defects in strained crystal, theory 2−104050
irradiated material, point defect-edge dislocation rate consts. and bias factors using lattice relax. and Monte Carlo simulations 2−86718
quartz, shock-metamorphosed, defects study 2−115227
Al-Mg(Cu)(Ag), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Cu-Sn(Al)(Zn), Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235
Ni-Cr, Portevin-Le Chatelier effect rel. to solid solubility *(Japanese)* 2−105235

vacuum apparatus
includes apparatus for producing, maintaining and handling vacuum per se
see also vacuum gauges; vacuum pumps; vacuum techniques
5 kV vacuum feedthrough connector with low capacitance and microphony 2−75122
belljar vacuum system fixture for use in vacuum coating system 2−93427
brazing machine power and coolant switching unit 2−74396
conference, Tokyo, Japan (1981) *(Japanese)* 2−112649
cryostat, demountable vacuum seal appl. 2−89720
Daresbury synchrotron radiation source, vacuum instrumentation 2−84639
demountable plastic-to-metal vacuum pipe joints for low temps. 2−58838
devices, thermal desorption meas. for estimating bakeout characts. 2−76830
differential thermal analysis apparatus for use up to 1000°C 2−69178
discrete vaporisation system in standard VUP-4 instrument 2−116361
Doublet III and Big Dee Tokamak vacuum vessels, design 2−85246
electrostatic modelling of electron-beam-generator/vacuum-diode interface 2−95389
evaporation source, highly stabilized in water-cooled carousel housing 2−84636
glass, vacuum durability, isotherm 2−72843
glass vacuum device for meas. photodesorption efficiency, of mols. 2−84732
high-vacuum demountable field-emission electron/ion microscope for use at 4.2K 2−58965
mechanical vacuum pumping, equipment for appls. involving corrosive and aggressive materials 2−79598
microprocessor controlled, dry pumped, high-vacuum coating system for thick film depositions 2−69183
multi-chamber dry etching system for fabricating VLSI 2−69184
sealing of transmission of rotation to high-temperature vacuum chambers 2−74429
TMX-Upgrade vacuum system 2−80200
ultrahigh vacuum apparatus for combined low-energy electron diffraction, Auger spectroscopy, MeV ion scattering, and nuclear microanalysis 2−89733
ultrahigh-vacuum gate and fast-demounting joint sealed with fusible metal 2−64057
vapour traps for use with vacuum diffusion pumps, design 2−107334
He leak detection in Tokamak vacuum system in D_2 atmos. 2−84640
UF_6, laser induced fluoresc. and absorpt., temp. controlled vacuum cell and two-stage pumping system 2−84637

vacuum control
automatic control of gas pressure in a vacuum system 2−107338
standard leaks, methods for calibration 2−74431
Ti sublimation pumps in ultrahigh vacuum, long-term automatic operation 2−84646

vacuum deposited coatings
actinide targets preps. for solid state research 2−108182
anthracene, elec. cond. and blue electrolum. 2−116270

vacuum deposited coatings continued
bromanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
composition and properties as function of evaporator construction 2−57303
condensate layer thickness calc. 2−99343
conference, Tokyo, Japan (1981) *(Japanese)* 2−112649
defect growth, computer simulation 2−92417
electron vaporizer, used to prepare films of high-melting metals 2−74428
hydrocarbons, polycyclic aromatic, films, struct. and props., substrate temp. effect 2−104205
iodanil, organic semicond., epitaxial growth mechanism on KCl 2−92391
metal film, vacuum condensed, texture form., ion beam induced 2−115601
metal films, mol. beam condensed, elec. and supercond. props., review *(Russian)* 2−56726
metallic thin film deposition methods using ion beam technology 2−57304
optical coating deposition condition optimisation 2−77742
optical film waveguides obtained by RF sputtering, cathode-ray vaporisation, loss mechanisms, ion polishing improvement 2−75672
perylene red mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
perylene red vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
phthalocyanine films, visible and near UV absorpt. spectra, metal atom effect 2−99201
phthalocyanine molecules, vacuum deposited on Al, interface orientation, reflection absorption IR spectra 2−93299
phthalocyanine mols., vacuum deposited on Al_2O_3, interface orientation, reflection absorpt. IR spectra study 2−76822
phthalocyanine thin films, cryst. defect orientations and growth mechanism 2−82151
polyphthalocyanine, polymerised, thin film prep. by thermal vaporis. in vacuum, characteris. *(Russian)* 2−93424
TiN formed by evaporation as a diffusion barrier between Al and Si 2−92394
TTF-TCNQ films, struct. and props., substrate temp. effect 2−104205
violanthrene A film, UV photoelectron spectra, temp. depend. 2−62050
Ag evaporated film, surface plasmon nonradiative decay, photoacoustic obs. 2−61997
Ag evaporated films, surface morphology under anodic and cathodic load and during ageing 2−98504
Ag films, struct. and internal stresses in various gases, ultrahigh vacuum measurements 2−82174
Ag small particles vapour deposited onto AgBr, NaCl substrates, height determ. 2−98483
AgBr evaporated layers, $Na_2S_2O_3$ breakdown, electron microscopy obs. 2−88367
Al, epitaxial growth on polycryst. Si surface, micro-probe RHEED study 2−61308
Al films, vacuum deposited, effects of impurities on emittance 2−98317
Al mirror specular reflectance standards, prep. and calibration 2−114405
Al-Ag granules in complex film, plasma resonance absorpt. bands 2−116289
Al-Cu thin films, large grain growth during recrystn. annealing, elec. resist. and TEM study 2−111203
$AlSb_xAs_{1-x}$, vacuum deposition, optical and transport props., impurity states 2−82498
Au epitaxial clusters, struct. and shape 2−110183
Au, evaporated film, tensile fracture *(Japanese)* 2−82182
Au evaporated film, tensile fracture, SEM and TEM obs. *(Japanese)* 2−115631
Au, film, tensile fracture mechanism, SEM study *(Japanese)* 2−92428
Au particles vacuum deposited onto AgBr films 2−110193
Au particles vacuum deposited onto AgBr films, habit 2−110194
Au small particles vapour deposited onto AgBr, NaCl substrates, height determ. 2−98483
Au-Al_2O_3(MgO) granular films, optical props., topological considerations 2−62002
B amorphous film, internal stress, Young's modulus and thermal expansion meas. 2−82187
Bi film, evaporated, elec. resistivity, temp. depend. 2−92792
Bi small particles vapour deposited onto NaCl substrate, height determ. 2−98483
Bi_2O_3 thin films, characterisation by XPS 2−62043
C evaporated films, electron transport, semicond. and hole metal behaviour 2−61461
C_{60} exoelectron transfer through evaporated films *(Japanese)* 2−57275
C film formation by laser evaporation and ion beam sputtering 2−116370
C stripper films prep. and characterisation 2−108173
CaF_2 films, thermoluminescence and thermally stimulated exoelectron emission, γ-ray irrad. effects 2−57191
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
CdS:Te film, vacuum deposited, dark cond. and photocond. meas., doping effects 2−61623
CdS_xTe_{1-x}, solid soln. films, vacuum deposited, condensation diagram and phase changes meas. 2−110208
p-CdTe-Te film, mol. beam deposited, props. 2−104192
$CdTe_xSe_{1-x}$ semiconducting cmpds., laser induced formation 2−115593
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
Co textured films, NMR and mag. meas. *(Russian)* 2−98994
Cr film, evaporated, scanning ion microscope study, ion probe forming and secondary electron images *(Japanese)* 2−113051
Cr films, vacuum deposited, interaction with various gases, internal stress and resist. study 2−82186
Cr-Au film, vacuum deposited, partial press. and temp. effect on props. 2−76871
Cu films, defect density and elec. props. from annealing study of elec. resistance 2−110495
CuAu vacuum deposited films, mech. twinning 2−98492
CuAu-I(II), vacuum deposited ordered thin films, mech. twinning obs. 2−82173
Dy-Cu amorphous films, crystallisation, TEM and electron diffr. study 2−92415
Er_2S_3 vacuum condensates, struct. 2−71822
Fe-Ni film, struct. ordering and mag. anisotropy, Mossbauer study *(Russian)* 2−93074
Fe-Ni films, periodic domain walls interactions, electron microscopy study *(Russian)* 2−87560

vacuum deposited coatings continued
Fe-Sb layered films, absence of mag. moment, Mossbauer study 2−115592
Ge, amorphous, evaporated, struct. study by neutron diffr. 2−86566
In film, overlayered on $SrTiO_{3-x}$, supercond. transition temp. 2−66693
In, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
InO_x films, density of states anomalies, tunnelling study 2−110478
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$-WO_3-$LiAlF_4$-LiIn thin film overlayer, electrochromism 2−72569
Li-B film, electron diffr. study 2−110182
LiF films, thermoluminescence and thermally stimulated exoelectron emission, γ-ray irrad. effects 2−57191
MgF_2 films, vacuum deposited, Young's modulus, internal stress and internal friction meas. 2−82185
Mn film, elec. resist., DC elec. field effect 2−87421
Mo coatings, high-hardness, vac.-arc discharge plasma deposited, struct. 2−72871
MoO_3 thin film MIM capacitors, elec. characts., temp. depend. 2−115914
$MoSi_2$ films, sputtered and coevaporated, cryst. struct. changes on annealing 2−115590
Na_2KSb films, growth for photocathodes 2−83029
Nd_2O_3 films, electron beam evaporated, dielec. props. meas. 2−72422
Ni-Al coevaporated films, hardness and grain size, optical and electron microscopy study 2−82184
Ni-Fe, ultrahigh vacuum deposition, magnetisation, resistivity and stress 2−82482
NiCr thin films, sequential heat treatment effect on resist. and TCR 2−110496
$NiSi_2$ coevaporated film, lattice structure 2−98484
PbI_2, cryst. and thin films, electronic absorption spectra meas. 2−67071
PbS, natural galena, electron beam evaporated film, optical and electronic props. meas. 2−61621
$Pb_{0.8}Sn_{0.2}Te$ epitaxial films produced by vacuum evaporation, high mobility produced by annealing 2−82486
$Pb_{0.83}Sn_{0.17}Te$ solid soln. epitaxial films, absorpt. edge obs., 100 to 300K, band struct. model *(Russian)* 2−61913
PbTe film, charge carrier conc. and mobility variations after deposition 2−66680
PbTe films, electron mobility, temp. depend. meas. 2−110505
Pd film, elec. resist., DC elec. field effect 2−87421
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
$Rb_4Cu_{16}I_7Cl_{13}$ thin film preparation and electrical conductivity 2−77216
Re film, elec. and supercond. props. 2−115941
Se amorphous film, surface relief form. by laser bombardment 2−86728
Se amorphous vacuum condensates, cryst. 2−104181
Se, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
Si evaporated and sputtered films, multithreshold HF/DF pulsed laser damage meas. 2−65286
Si film, polycryst., low temp. mol. beam deposition 2−57295
Si, solar cell, polycrystalline vacuum deposited, on foreign substrate 2−105571
Si, UHV-deposited thin films, laser cleaning of (100), (110) and (111) surfaces 2−83250
Si:H, amorphous film, vacuum evaporated, substitutional doping by ion implantation, elec. cond. and EPR study 2−55850
Si:H amorphous films, H_2 evolution 2−93950
SiO film overlays on XY-quartz, Rayleigh wave propag. 2−66335
Sn film, struct. rel. to elec. and optical props. 2−115623
Sn, vacuum deposited thin films, microstruct. 2−116369
Sn, vacuum evaporated submicron particulate monolayer form. beneath heated polymer surface 2−77740
SnI_2 thin films, refr. index dispersion in transparent region 2−87886
SnSb thin films, obliquely vacuum-deposited, elec. cond., defect density and struct. 2−66662
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
SnTe vacuum evaporated thin films struct. param. from X-ray studies 2−103707
Ta, film growth of evaporated layers, struct. changes, elec. resist. study 2−92414
Te corrosion-resistant film deposition for ablative optical recording media 2−62243
Te films, sputtered and evaporated, struct. changes by laser writing, TEM study 2−91009
TiN, formed by evaporation as diffusion barrier between Al and Si 2−83028
TiNx, thin film, optical props., produced by reactive evaporation and ion-beam sputtering 2−104981
V_2O_5, evaporated thin film, electrochromism *(Japanese)* 2−62000
WO_3 electrochromic cells using $LiClO_4$-dioxolane-water electrolytes 2−93305
WO_3 thin films, electrochromic colouring and bleaching, SIMS and ESCA studies 2−57055
Y_2O_3-SiO_2 UV laser mirror deposition and optical characteristics *(Hungarian)* 2−55213
Yb_2O_3 film, vacuum deposited, DC elec. props. 2−92793
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS-MgF_2 dielectric narrow-band interf. filter stabilisation 2−70661
ZnS-MgF_2 quarterwave layers forming dielec. laser mirrors, temp. depend. of phase anisotropy 2−97145
ZnSe-CdSe thin film electrodes, photoelectrochem. performance meas. in aq. polysulphide electrolyte 2−78230

vacuum deposited thin films *see vacuum deposited coatings*

vacuum deposition
used for EVAPORATED layer production in vacuum
see also electron beam deposition
adhesion of film-substrate systems, problems, resolution 2−86235
belljar vacuum system fixture for use in vacuum coating system 2−93427
conference, Tokyo, Japan (1981) *(Japanese)* 2−112649
evaporation source, highly stabilized in water-cooled carousel housing 2−84636
film deposition meas. under vacuum with two gauges 2−74430
metal film, ion plating on plastic substrate 2−116386
metal layers, amorphous phase form. by mol. beam condensation, prep. and struct., review *(Russian)* 2−56381

vacuum deposition continued
metallic thin film deposition methods using ion beam technology 2−57304
microprocessor controlled, dry pumped, high-vacuum coating system for thick film depositions 2−69183
optical coatings, energy related, device appl., review 2−81037
optical coatings, vacuum deposition, process control and automation 2−75741
particle production in vacuum chamber, size and density control 2−83053
planar magnetron-type RF sputtering device, high deposition rate *(Japanese)* 2−67216
polyphthalocyanine, polymerised, thin film prep. by thermal vaporis. in vacuum, characteris. *(Russian)* 2−93424
probe for optical in-situ measurement of growth and etch rates 2−72626
solid-vacuum interface, thermodynamic equilib. rel. to vacuum deposition 2−61310
steel, alloy, coatings based on component nitrides obtained by plasma flow condensation in vacuum *(Russian)* 2−67219
thin film, cryopump attachment 2−64058
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
Ag, epitaxial growth on mica, previous substrate heat treatment effects, RHEED study 2−93428
Ag film, growth on Pd, AES and electron microscopy study *(French)* 2−71839
$AgSbSe_2$ film, growth and cryst. 2−115620
Al high quality, vacuum deposition on porous substrates 2−87988
Al highly reflective coatings for the UV 2−97148
Al, vacuum condensate, heterogeneous struct. formation 2−105107
Al-SiO_2-Si structure, prep. under UHV conditions 2−56716
Au 2−110193
CdS, hot wall epitaxial growth, elec. props. 2−93430
CdS-CuS thin film heterojunction solar cell, fabrication 2−116833
CdTe films, large grained (111)-orientated, quasi-rheotaxy growth and solar cell appl. 2−105079
CdTe, hot wall epitaxial growth, elec. props. 2−93430
Cu, on muscovite mica, RHEED study of epitaxy 2−115617
GaP thin film, vacuum deposited, heteroepitaxial growth, struct., characterisation 2−87985
Ge, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
HfO_2 interference coating, form. in vacuum, refr. index drift 2−114482
$Hg_{1-x}Cd_xTe$ film growth by laser included evaporation and deposition 2−87989
In_2O_3:Sn conducting layers, thermal vacuum deposition technique 2−105076
In_2Te_3 thin films, growth and props. 2−71840
Ni-Ag co-evaporated amorphous thin films, thermal evolution 2−71835
e-Pb-Bi film, alloy evaporation prep. and comp. control 2−105077
e-Pb-Bi film, alloy evaporation prep., film comp. control 2−111077
Pd thin films, elec. resist., annealing and thickness effects 2−98764
Sb film, amorphous, vacuum deposited, estimation of density changes associated with growth 2−71838
Si, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Si, ion beam epitaxial growth on Ge and Si at 400K 2−99339
Si:H amorphous film prep., evaporation method 2−62069
Si-CaF_2-Si heteroepitaxial structs. formation by vacuum deposition, etching characts. 2−83026
p-Si-CdS solar cell, single source evaporation prep. and efficiency meas. 2−116800
TiN thin films, preparation method 2−105075
a-ZnSe, film deposition, control and reproducibility 2−67217
a-ZnTe, film deposition, control and reproducibility 2−67217
ZrO_2 interference coating, form. in vacuum, refr. index drift 2−114482

vacuum gauges
see also barometers; ionisation gauges; manometers; vacuum measurement
calibration transfer standard, using spinning rotor gauge 2−79603
film deposition meas. under vacuum with two gauges 2−74430
gas flow local velocity meas. at low pressures 2−74390
magnetic discharge manometric transducers, time characts. 2−69189
magnetic fusion devices, press. and gas flow meas. techniques 2−55789
spinning rotor viscosity gauge, vacuum gauge and transfer standard appl. 2−84652

vacuum measurement
see also vacuum gauges
ionization gauge, reference, for vacuum press. meas., 10^{-5} to 1 Pa 2−107337
partial pressure monitoring, in industrial vacuum plant 2−89734
standards review, primary 2−95313
two-channel vacuum meter with digital display 2−74439

vacuum polarisation *see quantum electrodynamics*

vacuum pumps
see also cryopumping; diffusion pumps; ion pumps
alloys, vacuum induction melting 2−69177
dangerous gases, high throughput pumping with multistage roots vac. pump 2−79599
EBT vacuum system problems and development 2−80202
fluids selection criteria 2−69185
fore pumps, computation of performance of mech. boosters 2−74437
mechanical vacuum pumping, equipment for appls. involving corrosive and aggressive materials 2−79598
pumping fluids, technology and appls. 2−79597
turbomolecular pumps, leakage mag. field effects meas. 2−84643
turbomolecular pumps, statistical theory 2−84642
ultimate vacuum, of single struct. vapour pumping groups 2−74433
ultra-high vacuum turbomolecular pumps *(Polish)* 2−95390
Pd membrane pumps in thermonucl. power plants, material sputtering effects 2−79601
T_2 compatible vacuum mechnical pump for fusion reactors 2−84645
Ti sublimation pumps in ultrahigh vacuum, long-term automatic operation 2−84646
UF_6, laser induced fluoresc. and absorpt., temp. controlled vacuum cell and two-stage pumping system 2−84637

vacuum sintering *see sintering*

vacuum techniques
includes techniques for producing, maintaining and handling vacuum per se
see also cryopumping; getters
airlock system for hoar frost free specimen exchange in freeze-etch vacuum plants 2−84604
all-glass tubular solar thermal collectors evacuation and deterioration 2−105594
alloys, vacuum induction melting 2−69177
American Vacuum Soc., conf., Anaheim, USA (Nov. 1981) 2−79275
American Vacuum Society short courses for Scientists, engineers and technologies 2−84408
conference, Tokyo, Japan (1981) *(Japanese)* 2−112649
dangerous gases, high throughput pumping with multistage roots vac. pump 2−79599
elastic metal gasket, Helicoflex, sealing performance 2−84641
epoxide resins for vacuum-tight cement mounting of optical windows in crystals 2−74423
FED, vacuum pumping system design 2−80342
freeze-fracturing at low temperatures. I. A device for fracturing biological specimens at 77-10K under high vacuum 2−84605
gas permeability of powders solidified at high and ultrahigh cooling rates 2−67235
internal stress meas. in metallic films, ultrahigh vacuum technique 2−82174
laser light scatt. for microparticle detection in HV voltage gap 2−90970
LMFBR secondary coolant, H partial press. in Ar over Na 2−80156
metallic glass-metal matrix composite, fabrication feasibility using vac. hot pressing 2−99372
photoelectric device, for metallurgy plant appl. 2−116762
power flow for vacuum insulated inductive loads 2−97830
precision high vacuum target barrel for scatt. chamber system 2−90336
sealing materials and dielectric breaks for fusion reactor appl. 2−80190
spectrophotometer with recording in single-pulse mode 2−69262
synchrotron radiation X-ray topography; ultra-high-vacuum heating camera 2−95576
target translation under vacuum for channelling expts. 2−81857
TFTR, vacuum vessel design and fabrication 2−80199
TMX-Upgrade vacuum system 2−80200
training in vacuum technology, lab. package 2−84427
ultra high vacuum valve for storage ring vacuum protection 2−85421
ultrahigh vacuum studies, novel O_2 source 2−79595
CO laser, all-glass vacuum-insulated, N_2-cooled 2−114247
He flow cryostat, high voltage, for solid insulator surface strength study in vac. 2−64049
Ti+H_2 self-propag. high-temp reaction, hydride synthesis 2−111112

vacuum tubes
see also diodes; tetrodes; triodes
cold-cathode switching tube for high-temp. electronic components and cct. designs 2−100605

valence bands
acenes, electronic struct., ab initio interpretation of XPS data 2−90444
bound exciton and hole, three-body model in any number of dimensions 2−110260
chalcopyrite compounds, ternary, energy band features rel. to electronegativity scale 2−61347
covalent crystal, dynamical aspects of correlation corrections 2−71895
crystals with diamond and sphalerite structs., valence bands, spin-orbit interaction 2−76898
effective-mass theory for electrons in heterostructures 2−110231
II-VI semiconductors, (110) surfaces, angle-resolved photoelectron spectroscopy, valence band struct. *(Japanese)* 2−116339
III-V semiconductors, Schottky barrier form. and MOS interface states, unified model 2−87372
III-VI semiconductors, chem. bond characts. 2−76919
Invar, XPS of valence and shell electrons, temp. variations *(Russian)* 2−67192
mean internal potential, rel. to density, calc. of phys. characteristics 2−110311
metal-insulator contacts, band struct., effect on tunnelling conduction *(Russian)* 2−77199
metals, plasmon satellite in valence band PES spectra 2−116334
MIM structure, band struct., effect on tunnelling conduction *(Russian)* 2−77199
mixed conductors, semicond.-metal transition, superionic transition, phenomenological model 2−61529
naphthothia-diazines and naphthoselina-diazines, electronic struct., STO-3G calc. and XPS meas. 2−90445
paraphenylenes, electronic struct., ab initio interpretation of XPS data 2−90444
poly(p-xylylene), photocond. and vacuum UPS study 2−77113
polyacetylene:$AsF_5(I_2)$, pure and doped, electronic struct. as meas. by EELS 2−67161
polymers, elec. cond., bond gaps, valence effective Hamiltonian study 2−76890
polyphenylenes, doped conducting complexes, elec. cond. and optical props. 2−77043
polyphenylenesulphides, doped conduction complexes, elec. cond. and optical props. 2−77043
rare-earth impurities, near valence instability 2−61396
semiconductor, interband electron Raman scatt. of light, Coulomb interaction effects 2−87798
semiconductor, nonequilibrium current carrier spectrum, relationship to carrier temp. after pulse photoexcitation 2−66590
semiconductor thin film, size quantisation of holes and carriers, energy spectrum and effective mass *(Russian)* 2−82499
semiconductor-semiconductor interface, electron-hole systems work function and band struct. 2−87382
semiconductors, pseudopotential theory, total energies, phonon freq., bulk modulus 2−87130
Si:H, amorphous oxidised films, valence band spectra 2−104300
X-ray-excited Auger and photoelectron spectroscopy, review 2−99299
AgF(Cl)(Br), electronic struct. calcs. 2−110249
$BaPb_{1-x}Bi_xO_3$, electronic struct. study 2−110432
$Bi_{1-x}Sb_x$, semicond., valence band struct., elec. and thermal cond. study 2−87143
BiSeI(Br), band struct., pseudopotential calcs. 2−71860
Bi_2Te_3-Sb_2Te_3, energy spectrum of solid solutions 2−110239
CO_2, valence bands, solid and gas phase UPS study 2−67190

valence bands continued
Ca_xAl_{1-x} metallic glasses, electronic struct., photoemission and soft X-ray spectra 2−104234
$CdCr_2Se_4(S_4)$, occupied d-band position, photoemission determ. 2−83005
$Cd_{0.7}Mn_{0.3}Te$, valence band, XPS and UPS studies 2−93369
CdP_4, CdP_2, Cd_3P_2, electronic struct., X-ray spectral investig. 2−82221
CdTe, valence band, XPS and UPS studies 2−93369
$Ce(Ag_{0.3}Pd_{0.7})_3$, mixed valency photoemission study 2−87199
$CeAl_3$, electronic struct., XPS and bremsstrahlung isochromat spectroscopy 2−56434
CeH_x, valence band and 4f and 3d levels, XPS study 2−77704
$CePd_3$, mixed valency photoemission study 2−87199
$CeRh_3$, mixed valency photoemission study 2−87199
$CeRu_2(Co_2)$, superconductor with 4f electrons, photoemission study 2−104525
CoSi, extreme UV valence band photoemission 2−111022
Cr compounds, maximal-valent, L_3MM Auger transitions under ion bombard. 2−105028
Cr, electron energy loss spectra for clean and oxidized surfaces 2−56663
Cr-C, X-ray emission and photoelectron spectra meas. 2−87906
Cu, resonant photo- and Auger emission at 3p threshold 2−108434
CuCl, two-photon absorpt. study of Γ_3 valence band 2−104909
$CuCl_2$, valence band photoemission spectra, electron correl. effects 2−72605
$CuCr_2S_4$, spinel, spin polarised electronic band struct. 2−71861
$CuGaSnSe_4$ energy gap values, temp. var., optical refl. study 2−56438
$CuInS_2$, photoluminescence, exciton and near edge emission, energy gap 2−93250
$CuInTe_2$, electrical characts. 2−92648
CuO, resonant photo- and Auger emission at 3p threshold 2−108434
p-CuO:Li, conduction and valence band edge positions, photoelectrochem. determ. 2−56440
Cu_2O, resonant photo- and Auger emission at 3p threshold 2−108434
FeSe, extreme UV valence band photoemission 2−111022
Ga surface, oxidation, photoemission spectra study 2−93376
GaAs (001)-2×4 reconstructed surface band struct. 2−72042
GaAs, density of states of photoemitting bands, Kindig-Spicer method 2−56416
GaAs, ion implanted, excitation size determ. 2−87156
GaAs, probability of cond. band-acceptor optical transitions 2−116254
GaAs-Ag interface, formation, struct., electronic states 2−104485
GaP:Fe crystal, electron irradiated, IR absorpt. 2−61908
GaP-AlP(100) superlattice band struct. 2−110460
Gap:N, N-N pair exciton spectra, J-J coupling and local field effects 2−82248
Ge, energy and stress depend. hole masses 2−66426
p-Ge, IR obs. of light hole accumulation *(Russian)* 2−57098
Ge/Ni, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge/Pd, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge-GaAs (110) interface, amorphous and cryst. films, electronic struct., XPS study 2−110456
H_2O, valence bands, solid and gas phase UPS study 2−67190
$HfSe_3$, valence band, photoemission study 2−116333
$Hg_{1-x}Cd_xTe$, electronic struct., UPS study and virtual cryst. breakdown 2−87942
In halides, valence band struct., XPS study 2−71865
InAs-GaAs, heterojunction band discontinuities, MBE growth, XPS study 2−77166
InGaAsP-InP BH laser, 1.3 μm., hole-burning at high energy tails in spontaneous emission spectra 2−75569
InP:Zn(C)(Mg) epitaxial layers, shallow acceptor excited states, luminesc. study 2−57156
InSb, band struct. calcs., hydrostatic press. effects 2−92457
InSb, far IR cyclotron resonance under intrinsic photoexcitation, electron temp. 2−93013
p-InSb, free and bound hole excitations, intraband transitions, magneto-optical studies 2−93165
La-Si compounds, X-ray K_β and $L_{2,3}$ emission bands of Si 2−57217
LaH_3, XPS core level and valence band spectra 2−76925
Li-Fe-S system, elec. cond. and electronic struct., XPS study 2−104371
β-LiAl, positive carrier conc. rel. to Li vacancies, Hall effect and lattice parameters study 2−56552
MnSi, extreme UV valence band photoemission 2−111022
n-$MoSe_2$, transverse photoconductivity, electronic mobility anisotropy 2−104419
N_2, solid, valence-band photoemission, partial cross sections and density of states effects 2−93363
NH_3, valence bands, solid and gas phase UPS study 2−67190
N_2O_4, valence bands, solid and gas phase UPS study 2−67190
Na_xWO_3, electronic struct., photoemission study 2−115656
Nb halides, electron struct. *(Russian)* 2−66441
Nb, photoemission studies of clean and oxidised surfaces 2−77695
Nb_3Sn, photoemission studies of clean and oxidised surfaces 2−77695
Ni/Si systems, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Ni-Si, interfacial cpd. form. and electronic struct., photoemission and AES study 2−82036
$NiMnCrO_4$ spinel valence struct., X-ray spectroscopic determ. 2−115652
$NiPS_3$, electronic states, reflectivity, optical absorpt., XPS 2−57246
$PbCl_2$, XPS, satellites on core and valence bands 2−67194
PbF_2, XPS, satellites on core and valence bands 2−67194
$Pb_{1-x}Ge_xTe$, C_{3v}-phase, band struct. 2−92467
p-$Pb_{1-x}Ge_xTe$, velocity of sound quantum oscills. 2−92114
PbI_2, XPS, satellites on core and valence bands 2−67194
$PbSe_{1-x}Te_x$ film, IR absorption due to valence state-localised state transitions 2−77608
$Pb_{1-x}Sn_xTe$ (x=0.59 to 1), valence bonds energy separation, Hall coeff. meas. 2−72010
p-$Pb_{1-x}Sn_xTe$, valence band struct., elec. props. *(Russian)* 2−87144
PbTe:Sn(Ge), donor and acceptor props., elec. and thermal cond. meas. 2−66480
PbTe:Tl(Na), density of states in valence band, sp. ht. and Hall coeff. meas. 2−82515
Pd/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pt/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pt-Si (100), PES study of interface states 2−77152
Pu, core level and valence band XPS spectra 2−105036
Ru-Cr, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
Ru-Fe, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
RuO_2 film, reactively sputtered, ESCA spectra meas. 2−57255
SO_2, valence bands, solid and gas phase UPS study 2−67190
Sb_2Te_3-Bi_2Ge_3, solid solns., energy spectrum 2−76920
Si, energy and stress depend. hole masses 2−66426
p-Si, hole-acoustic phonon transition rate angular depend. 2−110237
p-Si, interband electronic Raman scatt. calcs. 2−104883
Si, laser excited, electronic struct. dynamic response, photoemission study 2−72606
Si, X-ray K_β and $L_{2,3}$ emission bands 2−57217
Si:B,Fe, quenched-in trap level at E_v+0.45 eV 2−104291
Si:H, amorphous, electronic struct. by soft X-ray spectroscopy 2−104301
Si:H, amorphous, Schottky diode spectral response, gap states effect 2−87753
a-Si:H, electronic props., CPA calc. 2−56430
Si-AlN-Au(Al), interface barrier heights, internal photoemission study 2−82464
SiO_2, amorphous, electronic states, theoretical model of disorder 2−71857
n-Si; hole injection from ions in soln. 2−56690
α-Sn, fluctuation slot in valence band *(Russian)* 2−61357
$SnS_2(Se_2)$, angle-integrated photoemission, band struct. 2−67189
TiN, electronic struct., photoemission study 2−104249
Tl halides, valence band struct., XPS study 2−71865
$UNi_{5-x}Cu_x$, band struct., photoemission study 2−104240
UO_2 and UPd_3, f and d electrons, resonant photoemission study 2−116336
UTe and $U_xTh_{1-x}Sb$, f and d electrons, resonant photoemission study 2−116336
V compounds, maximal-valent, L_3MM Auger transitions under ion bombard. 2−105028
V, normalised wave functions, Green's function method *(Russian)* 2−115642
$V_3Ge(Al)$, electronic struct., X-ray study *(Russian)* 2−110235
VPt system, bandstruct. study 2−104242
W (011), valence band struct., angle-resolved XPS, synchrotron radiation, direct transitions and phonon effects 2−61340
WO_3 films, evaporated and annealed, electronic struct., UPS study 2−115651
Y_2O_3-In_2O_3-Fe_2O_3, superhigh freq. props., Fe and In ions electron struct. influence *(Russian)* 2−66442
$(Zn_xCd_{1-x})_3P_2$ solid soln., electronic struct., X-ray emission spectra and XPS study 2−110986
$ZnGeP_2$, press. depend. of pseudodirect gaps 2−87141
ZnO, surface (1010), localized and delocalized charge transfer during adsorpt. 2−110425
ZnO, valence band struct. *(Chinese)* 2−92451
ZnP_2, tetragonal, valence band, X-ray emission spectra and pseudopot. study 2−57218
ZnP_2, Zn_3P_2, electronic struct., X-ray spectral investig. 2−82221
Zn_3P_2, AC photocond., spectral response 2−77109
ZnSe-GaAs(110) and ZnSe-Ge(110), heterojunction band discontinuities, XPS study 2−111024
ZrN, electronic struct., photoemission study 2−104249
ZrS_3, valence band, photoemission study 2−116333
$ZrSe_3$, valence band, photoemission study 2−116333
$ZrTe_3$, valence band, photoemission study 2−116333

valence bond calculations *see VB calculations*

valency
alloy, dilute, oxidation, parabolic growth of nonuniformly doped oxides containing aliovalent impurities 2−72865
chalcogenide glass, transient currents, high speed, explanation by valence alternation pairs 2−56671
concentrated fluctuating-valence model, renormalisation group study 2−98597
cubic compounds, binary and ternary, effective ionic charges rel. to optical dielec. const. 2−57005
metals, generalised impurities, thermodynamic scaling theory 2−56490
metals, impurity configurational fluctuations, scaling approach 2−56507
metals, pseudopot. theory, density functional formalism 2−115637
mixed valence compounds, screening effects in core-level spectra 2−110309
mixed valency species, excitation models, vibr. line shapes 2−110884
noble metals, solute valency and electromigration, theory 2−82039
rare earth elements, inner-shell electron binding energy calcs. *(Chinese)* 2−108348
transition metals, solute valency and electromigration, theory 2−82039
α-Al_2O_3:V, zero field splitting, g-factors *(Chinese)* 2−110310
Al_2O_3-SiO_2-Fe_2O_3, heat treated, Fe valence-coordination state, Mossbauer study 2−103662
As_2Se_3:Au(Pt), vitreous, impurities location and valency, XPS and Mossbauer study 2−76320
$BaTiO_3$:Y_2O_3 (Nb_2O_5), elec. props., phase composition, valence state of cations 2−110347
Ca-Yb-O, bivalent Yb form. 2−111468
$CdCr_2S_4$ crystal, ferromag. resonance, nonstoichiometry effect 2−104709
Ce, α-γ transition, construction of electronic state for γ phase 2−56189
Cu alloys, dilute, elec. field gradient, valence and size effect contribs. 2−104325
EuB_6, compressibility, valency and intermediate valence effects 2−56072
$EuMo_6S_8$, valence of Eu under high press. 2−82553
FeO-V_2O_3-P_2O_5 glasses, internal friction and elec. cond., interpret. w.r.t. valency state of V ions 2−92606
GdB_6, compressibility, valency and intermediate valence effects 2−56072
Ge-P-S glass:Mn^{2+}, ESR study 2−104694
LaB_6, compressibility, valency and intermediate valence effects 2−56072
Na_2O-CaO-SiO_2 glass melts, oxidation state and O activity 2−92233
Nb:Fe(Co)(Cr), electromigration and self diffusion, effective valence, radioactive tracer method *(French)* 2−76756
$NiMn_2O_4$, elec. cond., cation valencies, thermoelectric power and thermal expansion 2−66559
Pr, valence transition under press. 2−56502
$PuSb_2$, magnetic props. 2−92872
RAl_2, X-ray L_3 absorpt. edge study 2−62018
RNi_2Ga, mag. susceptibility and cryst. struct. meas. *(Russian)* 2−61695
SmB_6, compressibility, valency and intermediate valence effects 2−56072
SmS, press. induced change of valence, phonon coupling, extended Falicov-Kimball model 2−56183
TmSe(Te)(S), surface effects on core level binding energies 2−115843

valve voltmeters *see voltmeters*
valves
see also diaphragms
flow control using globe valve 2−65651
liquid crystal memory light valve using smectic-cholesteric liq. cryst. mixture 2−72468
PWR feedwater control valves, computerised acoustic monitoring 2−74892
ultra high vacuum valve for storage ring vacuum protection 2−85421
valves (electronic) *see electron tubes*
Van Allen radiation belts *see radiation belts*
Van de Graaff accelerators
Daresbury Nuclear Structure Facility 2−64708
FN tandem modifications for quantitative ^{10}Be meas. 2−64704
Harwell Tandem, ion beam optics 2−70028
JAERI tandem accelerator, C deposition apparatus to produce long-lived stripper foils 2−96344
tandem injector, beam bunching, calc. program 2−64729
ultrahigh vacuum apparatus for combined low-energy electron diffraction, Auger spectroscopy, MeV ion scattering, and nuclear microanalysis 2−89733
Van de Graaff generators
No entries
Van der Pol oscillators *see relaxation oscillators*
Van der Waals forces
alkali halide, static dielec. const. and static polarisability, vol. depend. 2−57001
alkali halide crystal compressibility 2−98178
alkali halides, cryst., van der Waals pots. calcs. 2−97983
alkalike atom+inert gas atom, collisions, van der Waals forces, excited state lifetimes 2−75369
alkaline earth chalcogenides, cryst., van der Waals pots. calcs. 2−97983
atom surface scattering, low energy limit of reflection and sticking coeffs., long range forces 2−111006
attraction between two solids, structural chirality influence 2−104842
binary van der Waals fluid, interfacial density profiles 2−109647
charge density susceptibility in k space 2−70371
collision-induced polarisability, at. susceptibility rel. to dispersion forces in light wave field *(Russian)* 2−108438
complexes, degenerate states of coupled vibrs., dynamic Jahn-Teller effect 2−59878
condensed media, Van der Waals forces contrib. to free energy *(Russian)* 2−56222
dispersion interaction temp. depend. 2−114068
fluid phase interface struct., theory 2−115492
fluorene-Ar(Ar_1)(Kr_1), Van der Waals mols., electronic spectroscopy by resonant two-photon ionisation 2−54907
fluorite type AB_2 crystals, cohesion and thermodynamical props., Debye temp., Gruneisen and force const. 2−61169
glyoxal complexes, vibr. predissoc. decay channels 2−59867
inert gas solids, van der Waals pots. calcs. 2−97983
ionic crystal, NaCl struct. cohesive and surface energy eval. 2−65915
ionic solids, van der Waals pots. calcs. 2−97983
lecithin bilayers, ripple phase, mol. interaction, statistical mech. model 2−99914
lipid monolayers phase transitions theoretical model 2−78300
liquid-vapour interface, density profile, generalised van der Waals theories 2−92309
macroscopic bodies, attraction, correction term *(Russian)* 2−55021
membranes, flat bilayer, with const. surface charge, interaction 2−99908
molecule-surface interaction, van der Waals interaction, mol. rotation 2−65068
molecules, rot. predissoc., coupled channel formalism calcs. 2−80756
nematic liq. cryst., alignment on anisotropic substrate, Van der Waals forces, interfacial free energy 2−55840
P-odd forces due to two-photon exchange, cryst. level splitting appl. *(Russian)* 2−71936
quasimolecules, intramolecular interactions, mol. beam spectroscopic studies 2−75365
spin Van der Waals model, long-range order 2−56809
surface phase mechanics and thermodynamics, review *(French)* 2−66341
tanane, ferroelec. and ferroelastic transition, intermol. forces and statistical mech. 2−93123
toner photoconductor adhesion in electrophotographic system, charge, size and shape effects 2−107437
viscoelastic thin films, on plane surface, stability 2−82084
Ag particles, van der Waals forces enhancement, coagulation rate meas. 2−93822
Ar, liquid, small-angle neutron scatt., van der Waals forces 2−60867
Ar-H_2 Van der Waals mol., multichannel rot. predissoc. studied by complex-coordinate coupled channel formalisms 2−80745
Ar-N_2 van der Waals mol., multichannel rot. predissoc., numerical calcs. 2−59879
C particles, van der Waals forces, coagulation rate meas. 2−93822
Cs, Rydberg-Rydberg interactions in dense systems 2−90649
H_2+He(Ne), van der Waals pot. hypersurfaces, bond dist. depend. 2−59882
^{4}He, superfluid, adsorbed film, density profile calc. 2−104109
Hg+inert gas, interaction pot. determ. on basis of diffusion coeff. temp. depend. 2−108669
Na, liquid, small-angle X-ray scatt., collective mode 2−60867
NbS_2-2H and intercalated, Raman scatt. spectra 2−87792
Van der Waals molecules *see quasimolecules*
vanadium
see also nuclei with .....
air pollution in New York City (1972-79) 2−93960
atom and ions, valence state structs., electron correl. effects 2−108399
atomic energy level and Grotrian diagrams, VI to Cr XXIV, book 2−63757
band struct., XPS, NMR and sp. ht. studies 2−104243
band structure, normalised wave functions, Green's function method *(Russian)* 2−115642
BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
determination in air (Tehran) by neutron activation anal. 2−78162
electronic heat capacity, electron band theory description 2−81977
film, internal friction in vicinity of superconductive transition 2−66707
hydrogen permeation, surface impurity layer effects 2−85241
vanadium continued
inhomogeneities, density and dimensions, very cold neutron spectrometry 2−92047
ion implanted, mech. props. study after neutron irrad. 2−71511
lattice dynamics, screening of short range pot. by local field correction 2−56122
lattice location of O impurities by ion channelling technique 2−81843
magnetic susceptibility and local moments, temp. depend. in paramag. state 2−104576
materials with Z_2=23-30, electronic stopping cross section for 30-300 keV protons 2−66086
muffin-tin pot., non self consistent, model of self-consistency simulation 2−98522
neutron irrad., preimplantation of He effect on microstruct. 2−85215
neutron irrad., strength changes 2−71510
porous, eqn. of state and phase diagram parameters, calc. from expt. data 2−71607
positive muon depolarisation, 5 to 365K 2−82766
positron annihilation radiation, two-dimensional correlation, rel. to Fermi surface topology 2−66423
precipitation of interstitial solns., initial stages, computer simulation *(Russian)* 2−77824
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
pulsed neutron scatt. in themal energy range 2−115104
superconducting transition temperature, mechanical twinning effect *(Russian)* 2−98781
superconductive tunnelling Eliashberg function, paramagnon spin fluctuations 2−66722
superconductivity, paramagnon suppression, tunnelling estimates 2−61667
surface (100), clean, LEED study 2−61267
surface damage during irrad. in plasma accelerator 2−113737
surface struct., O_2 and CO adsorption, LEED and Auger study 2−71783
thermal oxidation, optical consts., ellipsometric study 2−83291
thermotransport of H and D 2−82029
X-ray absorpt. spectra and electronic struct. 2−67150
Al_2O_3:V, nonequilib. phonon propag. by quasidiffusion 2−92297
α-Al_2O_3:V_t zero field splitting, g-factors *(Chinese)* 2−110310
$AlPO_4$:V^{4+}, X-band ESR spectrum, spin Hamiltonian parameters 2−56917
CaF_2:V^{3+}, transferred hyperfine interaction 2−66506
CdS:V, excited state lifetimes, 4 to 300K, luminesc. study 2−57162
GaAs:V, photoluminesc., optical absorpt., and ESR study 2−82916
GaP:V, photoluminesc., optical absorpt., and ESR study 2−82916
H solubility in metals, deviations from Sievert's law 2−71656
He bubble behaviour, alloying effects 2−86742
$HfSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
Si:V, deep levels under hydrostatic press., isothermal capacitance study 2−66477
Si:V, Zn, donor-acceptor complexes, DLTS and TSC meas. *(German)* 2−98579
$ThGeO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
$ThSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902
TiO_2:V^{4+}, illumination and oxidation effects on ESR spectra 2−56922
V, slip plane choice at deform. temps. $T \leq 0.15\ T_m$ 2−86673
V thin films, on oxidised Si wafers, scanning Auger microscopy studies on high-temp. annealing 2−76863
V XII spectra, intercombination lines obtained from Tokamak plasma 2−71262
V^{2+} in aq. soln., thermal electron transfer correl., photoelectron emission 2−70408
V:H_2, ultra small angle X-ray and neutron scatt. 2−86521
V:MgF_2, cryst. struct. computer simulation 2−55924
V^{2+}:MgF_2 solid state laser for fusion appls. 2−97062
V-GaAs structure, anodization and Rutherford backscatt. meas. 2−110184
V-H, dissolved H, elastic dipole interaction of point defects 2−91961
V-Si (111), Schottky barrier formation, soft XPS study 2−110445
ZnS:V, excited state lifetimes, 4 to 300K, luminesc. study 2−57162
$ZrSiO_4$:V^{4+}, ESR and absorpt. spectra 2−66902

vanadium alloys
see also vanadium compounds
dilute, fusion-neutron irrad. damage rates 2−103828
Elinvar, Fe-Mn-V-C, dispersion hardened, nonmag., mech. characts. 2−62132
$Ti_{0.67}V_{0.33}$, thermal and elec. cond. meas., glassy behaviour 2−87225
V_3Si, thermal and elec. cond. 2−56548
VC C_2Zr, lattice stability in premartensitic temp. range *(Russian)* 2−97981
Al-Mg-V, candidate material for NET/INTOR first wall, development and evaluation 2−69834
Al-V low-activation alloys, fusion reactor suitability 2−64649
Au-V, dil. alloy, impurity optical absorpt. meas. 2−99160
Co-V, mag. moment distrib., neutron scatt. study 2−72172
Co-V FCC alloy, quenched from 1200°C, elec. resist. 2−104345
$(Co_{0.78}Fe_{0.22})_3V$ alloy, ordered, microstruct. 2−72719
Cr-Co-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-Fe-V alloys, mag. susceptibility and thermal expansion 2−98855
Cr-V, dilute alloys, elastic consts., mag. transition 2−86774
Cr-V, spin density wave states, tight-binding approx. 2−66751
Cr-V single crystals, growth by floating-zone technique 2−77726
Cr-V solid soln. systems, high-temp. X-ray investigs., lattice and thermal props. *(Russian)* 2−66156
Cu-V-Si superconducting filament produced by glass-coated melt spinning 2−83066
$(Fe,Ni)_3V$ long range ordered alloy, resistance to neutron and ion irrad. 2−85217
$(Fe,Ni)_3V$, long-range ordered alloys, fusion reactor appl., mech. props. 2−85218
Fe-Co-Mn-V cryogenic magnetostrictive transducer 2−81200
Fe-Co-V, Vicalloy-2, phase and struct. transitions, mag. props. *(Russian)* 2−61714
Fe-Ni-V, σ phase, range of stability 2−62100
Fe-Ni-V and Fe-Ni-Co-V, maraging kinetics, specific elec resist. obs 2−105204
Fe-Sb-V, dil., impurity pair interactions, resist. and NMR meas. 2−82317
Fe-Ti-V-N system, complex nitrides form. in liq. metal 2−67295
Fe-V, dil., impurity hyperfine fields, press. and temp. depend. 2−104610
Fe-V, dilute alloy, electron irrad., impurity-interstitial trapping sites, mag. aftereffect spectra study 2−56895

vanadium alloys continued
Fe-V, mag. moment distrib., diffuse neutron scatt. study 2−72151
Fe-V, σ-phase and solid soln., V self diffusion coeff. meas. 2−98328
Fe-V (2.4 at.%), C diffusivity 2−92282
Fe-V-C, cold rolled, containing carbides, recrystallisation 2−83137
Fe-V-C ferritic steel, carbide precipitate size, EELS and energy dispersive anal. 2−67362
Fe-V-Si-Mn-C, internal friction meas. *(Russian)* 2−88115
Fe-X-C (X=Ti, V, Nb, W, Cr, Mo), Ç activity, influence of alloying additions *(German)* 2−93491
$Fe_{1-x}V_x$, disordered, spin wave dispersion relations 2−77279
$Fe_{3-x}V_xSi$, Mossbauer study of Fe hyperfine fields 2−87635
Ga-V melts, contact reactions with quartz and graphite, X-ray diffr. study 2−82085
HfV_2H_4, Laves phase, H ordering, thermodynamic description 2−86629
HfV_2H_x, low temp. phase, H-atom configuration, NMR study 2−72375
Ir-V film, contact reaction with Si 2−86950
Nb-V, spectrochemical anal. using photon emission from sputtered atoms, surface O contamination effect 2−77677
Nb-V alloys, sputtered clusters 2−93341
Nb-V-O, ternary solid soln., modelling O activities 2−104021
Nb-Zr-V-C, high-temp. creep in vac., long ageing and V additions influence 2−99504
NbV alloys, secondary ion emission, target morphology effects 2−99279
Ni-Co-V(Cr), σ phase, range of stability 2−62100
$(Ni_{0.6}Fe_{0.4})_{0.89}V_{0.11}$, substruct. develop. during cold working, neutron diffr. and microscopical obs. 2−83133
Pd-Au-V solid soln., elec. props. *(Russian)* 2−92562
Pd-V-H, H diffusion study 2−82024
Si-VSi_2, directional eutectic, structure, comp. dependence, expt. study *(Russian)* 2−99410
Ti-Al-Cr-Mo-V, mech. props., statistical anal. 2−72763
Ti-Al-Mo-V, salt corrosion tendency, alloying influence 2−88287
Ti-Al-V, mech. props. after β-annealing 2−67398
Ti-Al-V, orthopaedic implants, fracture cause 2−105855
Ti-Al-V (6, 4 wt.%), cavitation erosion behaviour, nitriding effects 2−111331
Ti-Al-V (6, 4 wt.%), texture hardening in dentate rolling *(Japanese)* 2−77838
Ti-Al-V (6,4 wt.%), compact specimen, initial notch shape effect on fatigue pre-cracking and fracture toughness testing 2−78028
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
β-Ti-Al-V (6,4 wt.%), fatigue crack initiation identification by plastic replication 2−111407
Ti-Al-V (6,4 wt.%), He^+ irrad., surface swelling 2−74931
Ti-Al-V (6,4 wt.%), high temp. phase transformations and thermal and mechanical props. meas. 2−71625
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
Ti-Al-V (6,4 wt.%), low cycle fatigue crack propag., influence of minor cycles 2−67493
Ti-Al-V alloy, improvement of fatigue life by ion implantation 2−57444
Ti-Al-V sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Al-V surface, response to XeF laser pulse 2−110989
Ti-Al-V-Sn, temp. depend. of sustained-load subcritical crack growth 2−111297
Ti-Al-V-Sn (6,6,2 wt.%), internal H-induced crack growth effect of stress state 2−99535
Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
Ti-Al-V(-Mo), low cycle fatigue, effect of stress-strain behaviour 2−57439
Ti-Al-Zr-V-Mo-B sheet, elastic props. anisotropy and texture hardening *(Russian)* 2−116502
Ti-Al(-V), tensile props., influence of test temp. and microstruct. 2−111236
Ti-V, anomalous solid soln. struct. *(Russian)* 2−97994
Ti-V, β-ω transform under press., stacking solition model for diffuse omega phase 2−71639
Ti-V-Cr-Mo, VT3-1, α″ phase form. and decomp. *(Russian)* 2−99385
Ti-V-Fe-Al, shape memory with large temp. hysteresis 2−111249
Ti-V-(Al)(Al-Mo), ion irradiated, segregation 2−109859
Ti-Vi(Mo), magnetic susceptibility variation with ageing rel. to microstruct. changes 2−83247
α- Ti-Zr-Mo-V, optimum heat treatment selection 2−105200
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
V-Cr alloys, elastic const. C_{44}, temp. variation 2−92079
V-Cr-Ti (1,0.1 wt.%), neutron irrad., preimplantation of He effect on microstruct. 2−85215
V-Cr-Ti (15, 5 wt.%) unirradiated high temp. fatigue in vacuum, comparison with 316 stainless steel 2−72805
V-H alloys, low freq. internal friction study 2−116479
V-H alloys, low freq. internal friction study 2−116480
V-H and V-D systems, modified phase diagrams, TEM obs. of transforms. 2−72671
V-H-D system, isotope effects on thermodynamic functions *(German)* 2−110016
V-Nb-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V-Nb(Al), dil. alloys, radiation-induced defects, interaction with O 2−103840
V-Si, liq., enthalpy of form. 2−105127
V-Sn-Cu system, phase comp., stoichiometry and homogeneity, microstruct., X-ray and microhardness study 2−66172
V-Ta, superconducting Tc, specific heat calcs. 2−115935
V-Ta-Al(Cr)(Mo), ternary alloys, fabricability and tensile strength 2−67497
V-Ti, ion implanted, mech. props. study after neutron irrad. 2−71511
V-Ti (20 wt.%), He bubble behaviour, alloying effects 2−86742
V-Ti (20 wt.%), He injected and neutron irrad., tensile props. and microstruct. 2−71509
V-Ti(Nb)(Ta)(Al)(Cr)(Mo)(Fe) binary alloys, fabricability and tensile strength 2−67496
$VAl_{0.42}$, one-particle pot. determ., cryst. struct., lattice dynamics 2−109938
γ-$VD_{0.75}$, incommensurate density modulations, electron diffr. and TEM study 2−91878
V_3Ga superconductors, with Ga and Mg additions, composite-processed, fabrication *(Japanese)* 2−77772
vanadium alloys continued
V_3Ga tapes, composite processes, Ga and Mg additions effect on supercond. props. *(Japanese)* 2−77773
V_3Ge, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
V_3Ge, supercond., energy gap determ. from heat capacity meas. 2−110532
$V_3Ge(Al)$, electronic struct., X-ray study *(Russian)* 2−110235
β-$VH_{0.59}$, pulsed NMR study of two types of H 2−61777
VH_x, α solid solns., H diffusion mobility and activation energy *(Russian)* 2−104051
VH_x, Jahn-Teller resonance states, electron-phonon interaction, HF calc. 2−82302
$VH_x(VD_x)$ film, press.-comp. isotherms, vibrating quartz microbalance meas. 2−98501
$V_2H(V_2D)$, B→α transition, press. effects meas. 2−98269
V_2Hf, lattice stability in premartensitic temp. range *(Russian)* 2−97981
V_2Hf, mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2−61693
$V_4(HfZr)$, supercond., ultimate crit. current density *(Chinese)* 2−110556
$V_{90}M_{10}$ (M=Cr, Mn, Nb, Mo, Pd, Ta, W, Re, Pt, Au), supercond. crit. temp. and crit. field meas. 2−92805
V_9N_4 and $V_{32}N_{16}$, N ordering, neutron and electron diffr. obs. 2−91879
VPd_3, itinerant ferromagnetism study 2−66750
VPt system, bandstruct. study 2−104242
VPt_3, FCC and tetragonal, ferromagnetic props., critical behaviour 2−82603
V_3Pt, band struct., XPS, NMR and sp. ht. studies 2−104243
VSi_2 (V_3Si), band struct., LCAO EHT calc. 2−82219
V_3Si, amorphous supercond. film, crit. temp., thermal annealing effects 2−92801
V_3Si, anomalous E_g phonon and electronic Raman scatt. 2−57089
V_3Si, band struct., photoemission with synchrotron radiation *(Japanese)* 2−93377
V_3Si, cubic, electronic struct., nonorthogonal tight binding calc. 2−76913
V_3Si, Debye-Waller factor, temp. depend., 8 to 293K 2−56143
V_3Si, electron phonon spectral function, supercond. thermodynamic props. 2−104540
V_3Si, electron props. and permittivity, optical absorpt. spectra study *(Russian)* 2−93216
V_3Si film, magnetron sputtering and supercond. props. 2−77738
V_3Si, film, production, struct. and Tc 2−110527
V_3Si, for fusion reactor magnets, ion and neutron damage studies 2−110549
V_3Si, neutron irrad., NMR and mag. susceptibility, annealing effects *(Russian)* 2−93021
V_3Si, neutron irrad., normal-state resistivity anal. 2−56550
V_3Si, neutron irrad., struct. order and supercond. transition temp., neutron diffr. study 2−86736
V_3Si phase, type of formation and homogeneity 2−86894
V_3Si, prep., supercond. props. and normal state susceptibility 2−115931
V_3Si, pressure induced electronic changes 2−82513
V_3Si, Raman scatt., phonon linewidth and mag. susceptibility 2−57090
V_3Si, supercond., produced by pulsed laser annealing 2−56766
V_3Si superconducting film, far IR laser thermal spectroscopy 2−98805
V_3Si-H system, NMR parameters and supercond. transition temp. *(Russian)* 2−98982
V_5Si_3, thermal and elec. cond. 2−56548
$V_3Sn(Ga)(Al)(Ir)(Pt)(Au)$, A15 struct. cpds., quadrupole interactions, cluster model interpretation 2−66510
V_2Zr, mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2−61693
V_2Zr, specific heat anomalies 2−66249
$V_2Zr(Hf)(Ta)$ superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
$Y(Co,V)_5$, metastable character, decomposition behaviour, precipitation 2−67342
$Y(Co_{1-x}V_x)_5$, struct. and mag. props. 2−91874
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
$Zr_xHf_{1-x}V_2$, struct. nonstable supercond. Laves phase, electron spectrum peculiarities *(Russian)* 2−66433

vanadium compounds
see also vanadium alloys
12Kh18N10T welded steel, effect of inoculation on corrosion resistance of chromium-nickel deposited metal 2−93661
Class II mixed valence oxovanadates, hopping and delocalised electrons 2−66497
complexes, UV and visible absorption spectra calcs. 2−96585
hydrides, Pd coated, TEM samples preparation 2−84744
oxides, interatomic Auger transitions, rel. to metal oxidation 2−82965
vanadyl acetoacetonate, in n-alkanes, rot. relax., ESR obs. 2−85702
$50P_2O_5+FeO_{50-x}+(V_2O_5)_x$, phosphate glass, XANES study of V 2−87904
$(Bi_2O_3+V_2O_5)$-SiO_2 flux, HoO_3 solubility determ. by thermogravimetric method, applic. to $R_2Si_2O_7$ single cryst. growth 2−105059
CaO-B_2O_3-V_2O_5-Fe_2O_3, glass, Mossbauer and ESR studies 2−66963
CaO-MgO-V_2O_5, phase diagram 2−111157
$CdK_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$Cd(NH_4)_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$(Cr_{1-y}V_y)_{0.14}Te$, mag. phase diagram, thermomagnetic props., mag. moments 2−87494
$Cs_3V_3P_{12}O_{36}$, cryst. struct., X-ray diffr. study 2−65970
FeO-V_2O_3-P_2O_5 glasses, internal friction and elec. cond., interpret. w.r.t. valency state of V ions 2−92606
$FeVNb_2Se_{10}$, low dimensional conductors, cryst. struct., X-ray diffr. study 2−115197
$Fe_{0.5}V_{5.5}O_{13}$, cryst. growth, elec. resist., Mossbauer spectra, and mag. susceptibility 2−83014
$Fe_xV_{3-x}O_4$, solid solution, IR spectra, elec. cond. and DTA study 2−87751
$Fe_xV_{3-x}S_4$, Raman study 2−87793
Li-V_2S_8, electrochemical insertion of Li, Thompson method, EMF study 2−116707
$Li(N_2H_5)SO_4:VO^{2+}$, elec. cond. and stimulated thermo-current studies 2−71706
$Lu_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
MgO-V_2O_3-VO_2 sytem, phase diagram *(French)* 2−72674

vanadium compounds continued
MoO_3-V_2O_5 system, phase equilibria, electron microscopy and X-ray diffr. study 2−115391
$OVCl_3$, matrix isolated and vapour phase; force consts., vibr. IR obs. 2−108515
PbO-V_2O_5, equimolar system, new phases 2−93496
Sb_2O_3-V_2O_5 system, evidence of mixed valence compounds *(French)* 2−56921
SeO_2-V_2O_5-MoO_3, glass formation at high pressure 2−86576
SiO_2-Na_2O-CoO-V_2O_5 glass, Co^{2+} spin-lattice relax. by V^{4+} EPR study 2−72335
$(Ti_{0.9}V_{0.1})_2O_3$, spin glass, nonlinear susceptibility, field depend. 2−66831
$(Ti_{1-x}V_x)_2O_3$, semimetallic, elastic moduli, press. depend., slow shear mode softening near x=0.04 2−81874
$Tm_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
V complex, VO(IV)-quadridentate naphthaldimine ligands, mag. and spectral props. 2−110849
V complex, $V(CH_2NO)_4^{2-}$, isotope effects, struct., IR obs. 2−75269
V complex, vanadyl bisacetylacetonate in frozen liq. cryst., ENDOR study 2−72377
V complexes, bis(acetylacetonato)VO(IV) and adducts in frozen soln., ENDOR study 2−110729
V complexes, VO(IV)-β-diketonates, EPR study of substituent effects 2−110626
V^{5+} complexes, vanadyl esters and esterchlorides, quadrupole coupling consts., NQR and NMR study 2−66933
V^{3+}:guanidinium aluminium sulphate hexahydrate, mag. props. 2−92873
V-Ni-P, phase diagram at 1070K, phase anal. 2−83099
V-O system, cryst. geometric characts., X-ray and electron diffr. study 2−103732
V-O system, phase relations, homogeneity, X-ray diffr. study 2−66173
V-Zr-O, phase equilibria, penetration of Li at 670K 2−72681
VB_2, ion implantation, H/D isotope exchange, local mixing model 2−56048
$V_6(C,N)_{0.77\ to\ 0.83}$ trigonal ordering, neutron diffr. study 2−86849
VC coatings, appl. to hard-metal tools 2−72883
VC coatings on Cu, 316 stainless steel, Mo, Ta, graphite for fusion device, thermal fatigue props. 2−74909
VC-based carbide phase, thermal vibrs. of ats., effect of alloying elements *(Russian)* 2−103912
$V(CO)_6$, dissociative electron attachment reactions, influence on thermalisation of electrons by CO_2 2−72967
$V(CO)_6$, EPR spectra and mol. struct., Jahn Teller modes, hyperfine struct. anal. 2−70295
VC_xO_y, elec. resist., conc. and temp. depend., 25-1000°C 2−56579
VC_xO_y, quadrupole effects and chem. bonding 2−110723
VCl_3, 3p spectra splitting of transition metal ions in XPS 2−57247
VCl_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
VCl_4, electronic structure and spectra SW Xα calcs. 2−114051
$VCl_3(VOCl_3)$, electron impact dissociative ionisation, mass spectra study 2−96750
$(V_{0.99}Cr_{0.01})_2O_3$, metal-insulator transition, domain effects 2−76928
VF_2, cryst. struct. determ. 2−55924
VH, H isotope separation appl. in temp. swing process 2−80830
β-$VH_{0.59}$, H superstruct. and diffusion, ^1H NMR, Fourier transformed spectra, spin-spin and spin-lattice relax. times 2−82739
β-$VH_{0.72}$, H diffusion, superstructure, ^1H NMR study 2−104731
VH_2, ^{51}V and ^1H nucl. spin-lattice relax. 2−98984
VH_2, band struct., Fermi surface, and optical absorpt. spectra 2−104246
$V_6Mo_6O_{40}$, prep. and X-ray characterisation 2−65964
VN heteroepitaxy on sapphire *(Russian)* 2−71814
VN, thermal and elec. cond. characts. rel. to electron energy spectrum 2−71987
VO, higher multiplicity Σ electronic states, spin-orbit distortion, hyperfine struct. 2−80418
VO molecule, dissociation energy calc. 2−90730
VO_2 rot. struct., spin-orbit coupling, Fourier transform IR obs. 2−75262
VO^{2+} dispersion mode adsorbed on SiO_2 and Al_2O_3 surfaces, ESR study 2−116057
VO_2 and VO_2:Al, IR absorpt. 2−104879
VO_2 based two-phase films, optical constants determ., use for data recording *(Russian)* 2−61996
VO_2 film metal-semicond. phase transition, laser resonator Q-switching 2−90952
VO_2 metal-semiconductor phase transition materials, resolution capability of data carriers *(Russian)* 2−60028
VO_2 thick films, screen printing prep. and elec. cond. thermal switching props. 2−111104
VO_2:Nb, elec. and Seebeck effect meas. 2−66553
VO_2-$CrNbO_4$ ($FeNbO_4$), solid solns., phase transitions, ^{51}V 2−110669
VO_2/V_3Si/Si, semiconductor-superconductor-semiconductor, Josephson junction fabrication *(Japanese)* 2−82537
V_2O_3 based alloys, transition metal double doping effects on elec. resist. and phase diagrams 2−92565
V_2O_3 crysts., US vel., anomalous temp. depend. 2−66135
V_2O_3-La_2O_3 system, phase equilib. relations 2−67306
V_2O_4, oxidised surface state model, appl. to catalysis 2−82419
V_2O_4-P_2O_5 glasses, struct. characterisation, density and molar volume 2−65872
V_2O_5, amorphous, struct. anal. by large angle X-ray scatt. 2−97925
V_2O_5 amorphous phase, hydrated 2−55847
V_2O_5, electrochromic colouring, optical absorpt. and IR transmission spectra meas. 2−116156
V_2O_5, emission by laser produced plasma 2−109830
V_2O_5, evaporated thin film, electrochromism *(Japanese)* 2−62000
V_2O_5, L_3MM Auger transitions under ion bombard. 2−105028
V_2O_5 layers deposited from gels, threshold switching obs. 2−87350
V_2O_5, oxidised surface state model, appl. to catalysis 2−82419
V_2O_5, role in sintering process of NiZn ferrites 2−88041
V_2O_5, single cryst., anisotropy of X-ray emission spectra and electronic struct. 2−62019
V_2O_5, X-ray absorpt. spectra and electronic struct. 2−67150
V_2O_5-B_2O_3-P_2O_5 glasses, electronic cond. and dielec. relax. rel. to struct. 2−61471
V_2O_5-based glasses, elec. props. 2−82352
V_2O_5-P_2O_5 glass, metal-semicond.-metal struct., dielec. depolarisation currents and loss meas. *(Russian)* 2−61612
V_2O_5-P_2O_5 glass alloys, forming in electrochemical cells, threshold switching 2−67276
vanadium compounds continued
V_2O_5-P_2O_5/Au(Al) (graphite) struct., contact limited conduction, work function effects 2−72056
V_2O_5-P_2O_5-MoO_3, glass, threshold switching in bulk specimens 2−98703
V_3O ϵ-phase, deposition phase superstructure cell characts. *(Ukrainian)* 2−103706
V_3O_5, high temp. modification, cryst. struct. at 458K 2−71402
V_6O_{13}, oxidised surface state model, appl. to catalysis 2−82419
V_6O_{13} single cryst., physical, elec. and mag. props. 2−66251
V_2O_{2x-1}, microsyntactic intergrowth, high resolution TEM obs. 2−91851
$VOAsO_4.nH_2O$, layered structure, interaction between $[VOXO]^2_\infty$ layers 2−71421
α-$VOPO_4$ ($2H_2O$), paramagnetic centres, hydration, ESR study 2−82707
$VOPO_4.nH_2O$, layered structure, interaction between $[VOXO]^2_\infty$ layers 2−71421
$VOSO_4.3D_2O$, cryst. struct. determ., hydrogen bonding 2−91897
VS, electronic charge density and bonding in NiAs-type solid 2−76921
VS_2, VSe_2, struct. rel. to lubrication performance 2−109901
V_3S_4, mag. susceptibility, mag. moments and sp. ht. 2−98852
$VS_2(Se_2)$, intercalated with transition metals, X-ray absorpt. spectra and electronic struct. 2−67150
$VSbO_4$, chem. anal. and ESR expt. *(French)* 2−56921
VSe_2 intercalated with Li, elec. props. 2−66529
VSe_2-1T, lattice instability and electron-lattice interaction, Jahn-Teller mechanism 2−98210
$V_{1+x}Se_2$-1T, cryst. struct., X-ray diffr. study 2−81735
$VT_{0.5}$ and $VT_{0.75}$, triton relax. time obs. of phase transitions 2−110684
$Yb_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
$ZnRb_2(SO_4)_2.6H_2O$:VO^{2+}, Tutton salts, EPR spectra, multiple trapping sites 2−61755
$ZnSO_4.7H_2O$:VO^{2+}, EPR anal. 2−56916
vanadium phosphate semiconductor glasses *see amorphous semiconductors*
vaporisation
see also boiling; evaporation; heat of vaporisation; sublimation
discrete vaporisation system in standard VUP-4 instrument 2−116361
droplets, spheroidal, Ledenfrost temp. and time for vaporisation calc. 2−75834
electron vaporizer, used to prepare films of high-melting metals 2−74428
ethyl alcohol, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2−60503
fusion targets, particle beam, shock effects meas. 2−69811
n-hexane, laminar boundary layer, heat and mass exchange with vaporisation and combustion 2−60503
jets, submerged diffusion flame in immiscible fluid, combustion 2−60594
laser interaction with aerosols, vaporisation front, solitary wave 2−83941
laser torch, atomisation and thermodynamic equilib. of matter 2−107414
magnetite scale in steam generator tubes, thermophysical props., operating parameters effect 2−75835
Periodic Comet Schwassmann-Wachmann 1, CO and CO_2 vaporisation rel. to outbursts 2−106624
shock wave propag., vaporisation heat and mass transfer 2−114849
steel, Si, grain oriented, laser processing for reducing core loss 2−72255
transient vaporization from a surface into vacuum 2−98383
water, in porous media, self-vaporisation *(French)* 2−81940
water drop, internal optical field induced by laser action at 0.69 μm, vapour bubble growth 2−97046
Al alloys, laser irrad. at 0.35 μm, thermal and mechanical coupling coeffs., expt. and theoretical study 2−86448
Al_2O_3-$BaAl_2O_4$ system, phase relations relevant to hexagonal $BaAl_{12}O_{19}$ 2−57338
B_2O_3 glass melt, Na and B vaporisation 2−81939
Cu, phase transformation wave excitation by action of square surface heat pulse 2−62120
DyC_2, atomisation energy, electrothermal AAS meas. 2−109967
Hg_2, vaporisation equilib., mass spectrometric obs. 2−103965
Li oxide systems, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
Li_2O-SiO_2, sublimation and vaporisation, high temp. mass spectrometric obs. 2−113037
$NaBO_2.2SiO_2$ glass melt, Na and B vaporisation 2−81939
Si_3N_4, polyphase composited powder, volatilisation rel. to sintering 2−111131
Ti-Al-V surface, response to XeF laser pulse 2−110989
vaporising *see vaporisation*
vapour density *see density of gases*
vapour deposited coatings
see also CVD coatings; plasma deposited coatings; sputtered coatings; vacuum deposited coatings
carbon tetrachloride, struct. by neutron diffr. 2−55848
cryopump application in industrial vacuum technology *(German)* 2−79602
electron vaporizer, used to prepare films of high-melting metals 2−74428
film on Mo, D^+ irradiation effect 2−66081
laser deposited thin polycomponent films, stoichiometry and opt. props. 2−105090
lead phthalocyanine thin film, struct., one-dimens. elec. cond. and dynamic switching obs. 2−72086
low loss surface imaging STEM studies 2−110181
particle size and strain determ. from Fourier X-ray line shape anal. of single reflection 2−97846
residual stresses, calc. method, growth process influence *(Russian)* 2−77755
superconducting films, metastable, vapour deposited, review 2−98792
tetrabenzo(a,cd,j,lm)perylene film, impurity controlled, crystn. rate, absorpt. and fluorescence spectra study 2−56395
tetracene films, vapour-deposited, struct., electron diffr. 2−81674
thin evaporated films, adhesion, nature of forces, influencing factors 2−87975
TTF-TCNQ thin film, struct., one-dimensional elec. cond. and dynamic switching obs. 2−72086
Al film, evaporated, oxidation studied by AES, EELS and electron stimulated desorpt. 2−76855
Al-Al_2O_3 films, cluster size distrib. near metal-insulator transition 2−82169
Al-Cu layer, evaporated, interface elec. resist. and Auger profiling 2−77160
Al-Te contacts, needle struct., current-voltage characts. after different types of aging *(French)* 2−61566
Au film, (111), vapour deposited, surface and inclined planar defect electron-microscope images 2−71844

vapour deposited coatings continued
B isotope targets prepared by vapour deposition 2—108179
B vapour deposited coatings, ion implantation, temp. cycling effects 2—74924
Be film, struct., condensation rate effects, supercond. transition temp. *(Russian)* 2—98477
Be foils, high purity, prep. by vapour deposition 2—108195
Be, superconducting thin film, transition temp., vapour deposition procedure effects *(Russian)* 2—98782
Bi layer, vapour deposited, photolithography and optical characts. control for photography 2—89846
a-Bi:H films, elec. and supercond. props. *(Russian)* 2—82506
C, diamond-like, ion-beam deposited, improved optical elements for high powered lasers 2—65323
Ca isotope targets prepared by vapour deposition 2—108179
Co-Si film, laser melted, lamellar eutectic solidification 2—116431
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2—72264
Cu-Ag, amorphous films with high stability 2—104196
Fe film, evaporated at oblique incidence, columnar struct. 2—98493
n-$Ga_xAl_{1-x}Sb$—p-GaSb heterojunction, elec. and photoelec. characterization 2—98732
Ge-As-Se glass, ion beam deposited, use as optical coating 1 to 16 μm laser damage 2—65324
In_2O_3 thin films, electron beam evaporated, elec. props. 2—98776
Mg isotope targets prepared by vapour deposition 2—108179
Ni film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2—61019
NiCr thin film resistance layers, factors affecting props. *(Hungarian)* 2—77754
PbTe thin films, flash deposited, relax. processes 2—87113
Pd-Ag two-layer polycryst. films, low temp. homogenization *(Russian)* 2—92289
$Pd_{80}Si_{20}$ evaporated film, amorphous, radioactive tracer diffusion 2—92429
Se, ion plated on α-brass, adhesion and interface chemistry 2—66405
^{76}Se targets, C coated, prep. by evaporation 2—108181
a-Si films, localised states investigation using field effect technique *(Chinese)* 2—66670
SiO film, step coverage growth, computer calc. 2—82176
SiO, obliquely evaporated film, struct. effect on nematic liq. cryst. orientation *(Japanese)* 2—92403
SnO_2 film, vapour deposition, Rutherford backscatt. study 2—71812
SnO_2:P thin film gas sensor, sensing characteristics meas. 2—79559
T target fabrication for rotating target neutron source 2—108189
$TaSi_2$ evaporated and sputtered films, resist., stress and etching behaviour under various residual gas conditions 2—87094
Ti coatings, exposed in MACROTOR and MICROTOR 2—92392
TiC coating on Mo, thermal and mechanical props. 2,—69902
TiN coating on Mo, thermal and mechanical props. 2—69902
TiN films deposited on Si, characterisation 2—110212
TiO_2 dielectric coatings, optical strength, water adsorption process influence 2—70638
$VH_x(VD_x)$ film, press.-comp. isotherms, vibrating quartz microbalance meas. 2—98501

vapour deposited thin films *see vapour deposited coatings*

vapour deposition
see also chemical vapour deposition; crystal growth from vapour; electron beam deposition; ion plating; plasma deposition; sputtering; vacuum deposition
film stress control for improved device performance, using simultaneous ion bombardment 2—99331
flash evaporation technique for low melting point materials 2—88004
glass substrate, factors affecting film formation *(Russian)* 2—67586
ionized cluster beam deposition, vaporized metal cluster form., kinetic energy effect 2—115603
laser evaporation of thin polycomponent films 2—105090
surface coatings deposited by CVD and PVD *(German)* 2—83035
target preparation of vapour deposition, Weizmann Institute activities report 2—108192
thermal interaction of particles with substrate during gas-thermal metal coating *(Russian)* 2—67213
Ag/IAg8/Te vaporisation cells, printed cct. power supplies appl. *(Spanish)* 2—88419
Al on glass, mirror aluminization at Okayama Astrophysical Observatory *(Japanese)* 2—117605
As_2Se_3 film, photostructural changes, influence of prep. method 2—99353
BeO film growth by reactive ionised cluster beam deposition technique, thin film device appls. 2—83039
CdS thin film, single source evaporation, characterisation 2—83042
GaAs layers, elec. field effect on growth, in GaAs-$AsCl_3$-H_2 system 2—57302
Ge-As-Se glass, ion beam deposited, use as optical coating 1 to 16 μm laser damage 2—65324
GeO_2:Sb glass optical fibre prepared by vapour-phase axial deposition 2—81088
In/Sb co-adsorption layers, on W field emitter tips 2—62077
NaF polycrystalline thin film material for photochemical hole burning optical memory 2—111083
Nb, film, stress modification by ion bombardment during deposition 2—82180

vapour-liquid transformations *see liquid-vapour transformations*

vapour phase epitaxial growth
see also molecular beam epitaxial growth
bromanil, organic semicond., epitaxial growth mechanism on KCl 2—92391
CVD, bibliography (1960-1980) 2—58578
CVD epitaxial reactor, phenomenological model 2—105083
film growth by ion beam techniques 2—116364
gas flow patterns in horizontal epitaxial reactor cells observed by interference holography 2—70907
II-VI compound crystal growth, characterisation and device appls., conf., Durham, England (April 1982) 2—107003
II-VI semiconductors, bulk and epitaxial growth, impurity role 2—116347
II-VI semiconductors, film deposition on mica, effect of island sublayers of Ag 2—88005
III-V semicond. epitaxial growth, appl. to compound semiconductor device technology 2—77741
iodanil, organic semicond., epitaxial growth mechanism on KCl 2—92391
laser evaporation of thin polycomponent films 2—105090

vapour phase epitaxial growth continued
semiconductors, plasma-enhanced CVD growth, ion-surface interactions, review 2—110201
SOS films, and interfaces, chem. aspects 2—91847
Ag, epitaxial growth on mica, previous substrate heat treatment effects, RHEED study 2—93428
Ag film, ion beam epiplantation on Si 2—116389
Ag VPE growth on Ag(Cu), Auger line shape anal. 2—110186
Ag/Au epitaxial system, initial stages of growth, LEED study 2—92404
Al, epitaxial growth on polycryst. Si surface, micro-probe RHEED study 2—61308
Al film on Ge{111}, reactions and surface atomic struct. 2—86991
AlGaAs, organometallic VPE growth, O_2 gettering by graphite and SiC baffles 2—67220
$Al_xGa_{1-x}As$, metalorganic VPE grown, residual shallow acceptors, photoluminescence study 2—93245
$Al_xGa_{1-x}As$-GaAs heterostruct. photovoltaic converters, fabrication by VPE 2—105562
Au 2—110193
Au film, epitaxial growth on pure and doped NaCl and KCl substrates 2—115621
Au particles vacuum deposited onto AgBr films, habit 2—110194
$Cd_xHg_{1-x}Te$ high quality epitaxial films, growth by sputter deposition 2—116362
CdS epitaxial layer preparation in $Cd(CH_3)_2$-$(CH_3)_2S$-H_2 system 2—87996
CdS, hot wall epitaxial growth, elec. props. 2—93430
$CdS_{1-y}Se_y$ epitaxial layers grown by H_2 transport from elements, photolum. props. 2—99172
CdTe, bulk grown and epitaxial samples, minority carrier diffusion length 2—115776
CdTe films, large grained (111)-orientated, quasi-rheotaxy growth and solar cell appl. 2—105079
CdTe, hot wall epitaxial growth, elec. props. 2—93430
$CoSi_2$-Si system, epitaxy, effects of nucleation and growth 2—115610
Cu, VPE growth on Cu, Auger line shape anal. 2—110186
CuI, epitaxy on Cu(111), growth by chemical reaction with I_2 vapour 2—76844
Fe epitaxial growth on W(110), periodic lattice distortions, LEED and Auger study 2—82170
(Ga,In)(As,P) microwave and optoelectronic heterostruct. growth using multibarrel reactors 2—77747
(Ga,In)As, equilib. consts. derivation from LPE, VPE growth data, solid activity coeffs. determ. 2—98481
GaAlAs DH shallow proton stripe geometry laser grown by MO-CVD 2—55206
$Ga_{0.73}AlAs_{0.27}$ CW room-temp. visible single quantum well diode laser grown by MOCVD 2—85960
GaAs and related cpds., conf. Oiso, Japan (Sept. 1981) 2—94906
GaAs, epitaxial film growth on amorphous substrate, CLEFT process, TEM and cathodoluminescence study 2—77749
GaAs, high purity OMCVD grown using trimethyl and triethyl gallium sources, acceptor incorporation 2—99350
GaAs, in situ etching using $AsCl_3$ in MOVPE 2—99348
GaAs, interdiffusion coeffs. of growth components 2—56382
GaAs, lateral expitaxial CVD, growth on Ge-Si substrates with low dislocation density 2—116371
GaAs MOCVD layers, low temp. growth at atm. pressure 2—93441
GaAs, metalorganic VPE layers, impurity redistribution, SIMS study 2—115582
GaAs, proton irradiated, profiles interpretation obtained by C(V) technique 2—98663
GaAs, transition region width between active and buffer layers *(Chinese)* 2—67222
GaAs undoped epitaxial layers grown by CVD, residual impurity depend. on growth time 2—56404
GaAs:Be, p-type doping in metalorganic VPE, hole conc. and cond. 2—105089
GaAs:Ge(Sn)(Se)(Zn), doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2—98129
GaAs:Mg, organometallic-VPE growth, doping control 2—87991
GaAs:S, VPE *(Chinese)* 2—93435
GaAs:Si, highly doped, MOVPE grown, photolum., SIMS and Hall meas. 2—77568
GaAs:Si epitaxial layers, multilevel doping using single $AsCl_3$:$SiCl_4$ doping source 2—55994
$GaAs/Ga_{1-x}Al_xAs$ solar cell fabrication using VPE, performance evaluation 2—73124
GaAs-GaAlAs graded refractive index separate confinement heterostructure laser grown by organometallic VPE 2—96975
GaAs-GaAlAs low-threshold oxide stripe lasers grown by MOCVD 2—85959
GaAs-GaAlAs multiple quantum well lasers grown by MO-CVD, far-field radiation patterns 2—114271
GaAs-GaAlAs-GaAs rectifying structures fabricated by metalorganic CVD composition grading 2—115871
GaAs-Se(S), comparison of H_2S and H_2Se n-type doping by MOCVD 2—103800
$Ga_{0.47}In_{0.53}As$ growth on InP substrates using metalorganic process, factors influencing growth 2—87099
$Ga_{0.47}In_{0.53}As$, VPE growth and charact. for microwave device appls. 2—83043
$Ga_{0.47}In_{0.53}As$-InP LP-MO CVD superlattices, two-dimensional electron gas props. 2—66629
GaInAsP-InP BH 1.5 μm lasers fabricated by hybrid combination of LPE and VPE 2—60101
$Ga_xIn_{1-x}As_yP_{1-y}$, VPE growth and charact. for microwave device appls. 2—83043
GaN epitaxial layer, optimized growth conditions 2—66391
GaP thin film, vacuum deposited, heteroepitaxial growth, struct., characterisation 2—87985
GaP:N, Te VPE layer, minority carrier lifetime, dislocations influence 2—115920
GaP:N,Te, epitaxial layers, photoluminescence study 2—61968
Ge, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2—93429
Ge ion beam deposition, epitaxial growth 2—116388
$Hg_{1-x}Cd_xTe$, metalorganic CVD epitaxial growth 2—88000
HgTe, epitaxial growth by MOVPE process, props. 2—62071
HgTe-CdTe lattice matched Schottky barrier heterojunction, metal organic CUD epitaxial growth and elec. props. meas. 2—87366

vapour phase epitaxial growth continued
InAs-InAsSbP heterostruct. grown by organometallic VPE 2−98498
InGaAs, metalorganic VPE growth on InP substrate 2−61309
InGaAs:Te, VPE growth for photodetectors 2−111086
$In_{0.53}Ga_{0.47}As$-InP undoped VPE layers, photoluminesc. meas. 2−99167
InGaAsP/GaAs superlattice struct., hydride VPE growth 2−99352
InGaP/GaAs superlattice struct. hydride VPE growth 2−99352
InP thin heteroepitaxial film on CdS, vapour growth 2−71833
InP:Cd, VPE growth and photolum. characterisation 2−88002
InP:Te, VPE growth for photodetectors 2−111086
IrO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
$K_3LiNb_5O_{15}$ films for SAW devices 2−82111
$LiNbO_3$ film, plasma assisted deposition and struct. *(Japanese)* 2−115595
Nb-Si, A15 phase, growth by epitaxy and composition grading 2−71827
$Pb_{0.8}Sn_{0.2}Te$ epitaxial films produced by vacuum evaporation, high mobility produced by annealing 2−82486
$Pb_{1-x}Sn_xTe$ hetero-layers for IR diode lasers, hot-wall epitaxial growth 2−60103
Pd_2Si epitaxial film, ion beam induced, growth mechanisms and thermal stability 2−115604
RuO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
Si abrupt epitaxial junctions 2−115877
Si, amorphous UHV deposited film on Si(111), epitaxial regrowth 2−104197
Si, CVD epitaxial layer, growth rate temp. profile 2−115583
Si, epitaxial growth on Ag (111) film on mica substrate, RHEED study 2−93429
Si epitaxial growth using SiH_2Cl_2, hillocks and stacking faults obs. 2−93437
Si, epitaxial layer, gas phase autodoping profile 2−115268
Si ion beam deposition, epitaxial growth 2−116388
Si, ion beam epitaxial growth on Ge and Si at 400K 2−99339
Si low pressure epitaxy for bipolar VLSI 2−87993
Si:P, CVD epitaxial growth, P doping process obs. 2−93439
Si:P(As), CVD VPE grown, doping element incorporation, total press. depend. calc. 2−91998
Si-CaF_2-Si heteroepitaxial structs. formation by vacuum deposition, etching characts. 2−83026
Si-CaF_2-Si heteroepitaxial struct., prep. by vac. deposition and charact. 2−115612
$Si-Si_{1-x}Ge_x$ epitaxial multilayer films, electron mobility enhancement 2−115921
SiC epitaxial layer growth process for gaseous phase, thermodynamic anal. *(Bulgarian)* 2−87992
SiC:P, growth kinetics, solubility and polytypy 2−76850
Te, VPE growth with partially ionised vapour, expt. study 2−116368
Ti-Ag layered crystals, VPE synthesis, soft X-ray monochromator appl. 2−83040
TiO_2, rutile, epitaxial film growth on rutile {100} surface reacted with Ga_2O_3 in air 2−110196
ZnS, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnS(Se), Z 2−116235
ZnS(Se):Mn, epitaxial layers grown organometallic CVD 2−116378
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZnSe, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnSe, VPE grown film on GaAs, optoelectric props. control 2−116382
ZnSe, ZnS_xSe_{1-x}, growth and doping by organometallic CVD 2−111087
ZnTe, CVD epitaxial growth, closed tube method, transport rates, expt. and thermodynamic anal. 2−57306

vapour pressure
see also humidity; vaporisation
n-alkene-n-alkyne mixtures, intermol. interactions, thermodynamic and optical props. *(German)* 2−85764
benzene, reference values 2−58771
D-T: ^3He, liq., anomalous vapour press. meas. 2−66188
ethylene, fluid, thermodynamic prop. formulation 2−65680
fluoroform-d_0(-d), liq., vapor press., isotope effects meas. 2−76646
hexafluorobenzene, reference values 2−58771
inert gas crystals, Salter vap. press. eqn., anharmonic effects 2−115381
organic compounds, hydrophobic, Henry's law consts. 2−76683
polar substances, vapour-liq. equilib., dipole hard sphere perturbation theory 2−66189
solid gases, review 2−115121
(Ag, Tl, K)NO_3-H_2O electrolyte solns., water activities, vapour press. meas. 2−105498
^{249}Bk, metal, vapour press. and thermodynamics 2−104022
Cd-Au alloy, dil. liq., EMF and vapour press. values, equil. and second law of thermodynamics confirmation 2−81981
Cd-In, liq., vapour press. and calorimetric meas. 2−67298
Ga-As, nonstoichiometric solutions 2−109994
Ga-P solutions, evap. of P and vapour press. of P_2, influence of Sn and In 2−56168
HPO_3, hydrated microdrop, normal-super liq. transform., SEM study 2−98258
^4He, liquid, permittivity, molar volume and crit. phenomena near λ-point *(Russian)* 2−98371
Hg-Sn alloy, dil. liq., EMF and vapour press. values, Duhem integration, second law of thermodynamics confirmation 2−81982
$Hg_{0.8}Cd_{0.2}Te$, mercury vapour press. at liquidus temp. 2−66184
HgSe, sublimation press. determ., 620 to 933K 2−81941
In-P solutions, evap. of P and vapour press. of P_2, influence of Sn and In 2−56168
In_2Te_3, evaporation, 725-895K, mass spectroscopic investigation 2−86845
Ne physisorbed on Grafoil near monolayer completion, neutron diffr. and vapour press. study 2−98462
Pb-Sn-Se, p_{tot}-x-y diagram calc., 973-1353K 2−72677
$2UF_4+H_2=2UF_3+2HF$, equilib. consts., vapour press., entropy and heat of vaporisation 2−93773
UO_{2-x}, hypostoichiometric, equilib. vapour press. and comp. at high temp. 2−80058

vapour pressure measurement
ebulliometric apparatus, reference values, benzene and hexafluorobenzene 2−58771
vapour pressure measurement continued
temperature-compensated differential tensimeter for gas adsorption by low surface area solids meas. 2−95361
LiBr-methanol, vapour press. eqn. and meas. *(German)* 2−98257

vapour-solid transformations *see solid-vapour transformations*

varactors
No entries

variable-frequency oscillators
Nb-NbO_x-Pb Josephson junctions for narrow-linewidth tunable microwave oscillators 2−87455

variable stars
see also cataclysmic binary stars; eclipsing binary stars
δ Cephei, turbulence during pulsations from spectral anal. 2−106721
Abell 41, planetary nebula, nucleus, identification as ultra-short-period binary star from light vars. 2−94718
Ae/Be binary stars, period distrib. and period-rot. vel. rel. anal. 2−74031
Ae/Be short period binaries, possible mass transfer and relation to Algol binaries 2−74031
Algol-like binary stars, transient photometric disturbances obs. 2−112483
o Andromedae, Be star, search for short-term radial-velocity vars. 2−73988
o Andromedae, Be star, shell episode, model 2−73994
o Andromedae, recurrent shell star, linear polarisation obs. in April 1982 rel. to new shell episode 2−94737
λ Andromedae, RS Canum Venaticorum star, Hα photometry 2−89305
λ Andromedae, RS CVn star, Balmer line profiles from different model chromospheres 2−79155
λ Andromedae, RS CVn-like star, UV and optical spectrum obs. rel. to atmospheric inhomogeneities 2−58347
Z Andromedae, UBVRJHKLMN photometry of symbiotic star 2−117686
Ap stars, models of surface inhomogeneities rel. to spectrum vars. 2−94746
Ap stars, photometric obs. of four objects 2−94744
V1343 Aqilae (SS 433), review of models 2−63472
R Aquarii, binary long period variable, model involving companion photosphere under circumstellar shell 2−58350
R Aquarii, eclipsing symbiotic star, light curve, 1933 to 1981 and orbital period 2−100942
R Aquarii, symbiotic star, discovery and photometry of elongated extension of stellar image 2−117685
R Aquarii, symbiotic star, jet and assoc. radio source nature, obs. 2−94732
R Aquarii, variability, nebulae and blue continuum 2−106754
R Aquarii and jet, supercritical accretion and nova outburst 2−100956
V1343 Aquilae, (SS 433), non-stability of precession period from spectroscopic obs. *(Russian)* 2−112468
V794 Aquilae, cataclysmic variable star, short-term light vars. detect. by high speed photometry 2−106732
TT Aquilae, Cepheid, period and photometric obs. 2−63464
V1343 Aquilae, relativistic jets nature, role of mass transfer between components 2−79128
IM Aquilae, RR Lyrae star, period changes obs. 2−100947
V1343 Aquilae (SS 433), 164 day period in emission/absorpt. lines, visible obs. 2−63466
V1343 Aquilae (SS 433), 164 day period secular change 2−58354
V1343 Aquilae (SS 433), absorpt. system, supercritical accretion disk wind scenario 2−84077
V1343 Aquilae (SS 433), accretion disc models involving black hole or neutron star 2−63474
V1343 Aquilae (SS 433), conf., Rome, Italy (October 1980) 2−58539
V1343 Aquilae (SS 433), disc motions/binary orbital period from theoretical anal. 2−117676
V1343 Aquilae (SS 433), evidence for form. from Wolf-Rayet star supernova 2−63594
V1343 Aquilae (SS 433), law of variation of precession period, (1978 to 1981) *(Russian)* 2−112469
V1343 Aquilae (SS 433), light var. in close binary model, visible obs. 2−63467
V1343 Aquilae (SS 433), line motion, visible obs. 2−73993
V1343 Aquilae (SS 433), model and evolutionary status 2−63471
V1343 Aquilae (SS 433), monoenergetic beams model from spectral anal. 2−84234
V1343 Aquilae (SS 433), nutation and pseudoregular precession, 6-day periods 2−63432
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433), photometric behaviour in 1979 and (1980) 2−68782
V1343 Aquilae (SS 433), relativistic models 2−63475
V1343 Aquilae (SS 433), X-ray and radio intensity var. correl., X-ray obs. 2−63470
V1343 Aquilae (SS 433) neutron star with accretion disc+B-type star, model 2−63473
V1343 Aquilae (SS 433) polarisation obs. and model 2−63468
RV Arietis, brightness var. obs. using SBG satellite-borne camera *(Russian)* 2−79113
TT Arietis, distance and outer disc temp. from light curve and spectral obs. 2−100951
γ and 56 Arietis, magnetic Ap stars, nature of vars. of H lines 2−94745
TT Arietis, novalike variables, fading, visual magnitude estimates (March 4 to 24 1982) 2−58366
UX Arietis, RS Canum Venaticorum star, UBVR photometry during 1981 2−94784
KR Aurigae, cataclysmic binary star, orbital period from spectroscopic obs. 2−68791
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission, UV/visib le obs. 2−68758
SU Aurigae, RW Aurigae star, 1900 to 1979 light curve anal. 2−117669
RW Aurigae, T Tauri star, obs. of rapid line profile variability 2−73963
SU Aurigae, T Tauri star, rapid and slow spectrum vars. obs. 2−100920
RW Aurigae, T Tauri star, spectral and photometric obs. anal. *(Russian)* 2−68768
KR Aurigae, unique variable star and X-ray source, new optical minimum obs., (December 1981) 2−63443
BD+13°3224, pulsating H-deficient star, period, uvby obs. 2−63451
BD+40°4145, member of NGC 6910, variability obs. from BV photometry 2−106734
BD+60°562, new variable star, UBV photometry 2−79119
Be stars, evidence for large amplitude variability in parameters 2−68836

variable stars continued
Be stars, long-term radial vel. vars. 2−84239
Be stars, mass losing rot. mag. wind, Weber and Davis theory modified 2−63201
Be stars, short term line profile and radial vel. vars. obs. 2−68767
Be stars evidence for individuality from visible and far UV spectra 2−68836
Be stars open clusters, different types, CM diagram anal. 2−84289
Be type stars, H_α profile catalogue *(French)* 2−58362
Be-stars, IR photometry of 46 bright southern objects 2−79107
Be-type stars in Pleiades, energy distrib. from UV/visible photometry obs. 2−63545
BY Draconis stars in Pleiades, periods and light curves 2−63448
XX Camelopardalis, Li and Ba abundances from Coude spectra 2−63434
XX Camelopardalis, R CrB star absorpt. spectrum var. and microvariability *(Russian)* 2−78969
XX Camelopardalis, R CrB star microvariability due to absorpt. spectrum var., photometry obs. *(Russian)* 2−78968
28 Canis Majoris, Be star, photometric and spectroscopic periods differences, obs. 2−100934
VY Canis Majoris, main line OH masers, VLBI obs. 2−63419
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
Y Canum Venaticorum, semiregular variable, photometric obs., (1980 to 1981) 2−100946
RS Canum Venaticorum stars, Hα profile, surface phenomena 2−106777
RS Canum Venaticorum stars, MK standards, visible energy distrib. and temp. 2−74012
RS Canum Venaticorum stars, photometric obs. 2−100990
RS Canum Venaticorum stars, spots effect on radii and luminosity 2−73953
RS Canum Venaticorum stars, tidal coupling with differentially rot. convective envelopes 2−58382
RS Canum Venaticorum stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
RS Canum Venaticorum stars starspots heat flow in convective zone 2−73954
RS Canum Venaticorum stars wave like distortion in light curve, anal. 2−63505
TW Capricorni, W Virginis star, light curve obs., 1978 to 1979, rel. to period changes 2−100944
AG Carinae, galactic S Doradus star, spectral characts. and shell nature, visible obs. 2−106727
η Carinae, high resolution obs. of Hα line profile 2−106724
η Carinae, remarkable spectrum of ejected material 2−63438
γ Cassiopeia, Be star, X-ray flux and spectrum, obs. 2−63460
κ Cassiopeiae, B-type supergiant star, obs. of short-period light variability 2−94715
SX Cassiopeiae, Be+giant stars, eclipsing, spectral classification and continuum radiation origin, obs. 2−84263
β Cassiopeiae, delta Scuti star, radial vel. var. visible obs. 2−94757
AB Cassiopeiae, eclipsing binary star, δ Scuti pulsational groups. of hot component from BV photometry 2−106733
cataclysmic binaries origin from star-planet systems 2−112454
cataclysmic binary, secondary low mass main sequence star secular evolution and period gap 2−117661
cataclysmic binary stars, progenitors and birthrate comparison with Type I supernovae 2−106741
cataclysmic binary stars, radiation emissions and accretion 2−100959
cataclysmic variable candidates from Palomar Green survey, spectra and finding charts 2−106748
cataclysmic variables, minimum period, gravitational radiation and mass loss effects 2−106717
UY Centauri, SC star, composition using model atm. and curve of growth 2−63412
β Cephei, atmospheric velocity field from UV line profiles 2−84240
EM Cephei, short-period variable Be star, spectroscopy 2−112466
μ Cephei, SRc star, light var. and pulsations, anal. 2−106722
β Cephei stars, nonradial pulsations, g-modes and r-modes 2−68778
β Cephei stars pulsations, excitation mechanisms and He capacity bump 2−94758
Cepheid CNO abundances anomalies and implications 2−117673
Cepheid instability strip, left hand side, vibr. stability against nonradial oscills. 2−73998
Cepheid period-luminosity-colour relation unsuitability as distance indicator 2−106728
Cepheid variables, anal. for spectroscopic binaries using simultaneous photometric and radial vel. study 2−100939
Cepheid variables, local theories of time-dependent convection in stellar pulsation problem 2−89240
Cepheid variables, periods distrib. rel. to evolution of massive stars 2−106682
Cepheid variables, short-period, radii and masses from photometric and radial vel. study 2−112452
Cepheid variables, short-period, simultaneous photometric and radial velocity study 2−63442
Cepheid variables in LMC, intrinsic relations, interstellar reddenings and period-luminosity relation 2−58353
Cepheid variables with periods between one and three days, photoelectric UBV photometry 2−58361
Cepheids, binary detection and occurrence from vel. curves 2−89279
Cepheids, characteristics from B-type companions uvbyβ photometry 2−68796
Cepheids, classical, chromosphere anal. from UV obs. 2−89275
Cepheids, convective overshooting at core boundary, HR-diagram loops 2−79081
Cepheids, heavy element opacities reexamination 2−117680
beat Cepheids, model atmospheres 2−89281
Cepheids, period-luminosity relation zero point refining from kinematic obs. 2−106752
beat cepheids, photometric search 2−89282
Cepheids, reddening from BVRI data 2−89251
classical Cepheids, resonance phenomena 2−79116
beat Cepheids, resonances in multimode formalism 2−89232
Cepheids in Magellanic Clouds as test for recent star form. 2−117672
Cepheids in nearby dwarf galaxy Sextans A, period, magnitude and distance modulus 2−101035
Cepheids near-IR photometry, use as nearby galaxy distance indicator 2−84103

variable stars continued
Cepheids with tangled magnetic fields, nonlinear models 2−68780
o Ceti, long period variable, diameter, TiO in atm. effects, visible obs. 2−63433
2 Ceti, new Be star, Hα emission line profile obs., (1982 September 5) 2−117683
o Ceti (Mira), 1965-1980 spectral line weakening 2−63429
ZZ Ceti stars, colour index, evolution, statistical anal. 2−100917
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
ZZ Ceti stars, models, oscills. nonadiabatic anal. 2−84214
ZZ Ceti stars, temp. as unique predictor of variability, spectra anal. 2−94712
chaotic oscillations from adiabatic nonlinear coupling between pairs of adiabatic radial linear modes 2−106725
classical Cepheids and galactic spatial chemical inhomogeneities 2−112586
CoD−35°10525, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
CoD−60°4826, possible new RR Lyrae star, discovery on objective prism plate 2−79077
α Columbae, spectrophotometry of B8Ve star 2−89277
FK Comae Berenicis, coalescing binary, mass transfer, Hα obs. and anal. 2−117675
cool high polarisation stars, circumstellar dust extinction and luminosity 2−94858
S Coronae Austrinae, YY Orionis star, visible spectra and photometry obs. 2−63408
S Coronae Austrinae, YY Orionis type star, peculiarities of activity and envelope 2−68770
R Coronae Borealis, 49-day cycle detect. from photometric obs., (1980 to 1981) 2−100946
R Coronae Borealis, Li and Ba abundances from Coude spectra 2−63434
β Coronae Borealis, magnetic Ap star, nature of vars. of H lines 2−94745
R Coronae Borealis, polarisation and photometry at 1977 minimum 2−84246
RT Coronae Borealis, RS CVn star, wavelike distortion and photometric soln. *(Chinese)* 2−112491
UU Coronae Borealis (HD 137050), Johnson BVR magnitudes (1969 and 1973) 2−79087
R Coronae Borealis at maximum, mass, pulsations, period, luminosity, radius, UBVRI obs. 2−63462
R Coronae Borealis stars, spectrophotometric investigation *(Russian)* 2−73985
CSV 5885, 8736, pulsating variable stars, light elements from Sky-patrol-plates obs. elements from Sky-patrol-plates obs. 2−112459
CU Cancri (G9-8), flare star, confirmation by flare activity of photoelectric UBVR photometry 2−73990
P Cygni, application supercritical accretion disc wind theory 2−84077
59=V832 Cygni, Be star, spectroscopic obs. during 1974-1975 shell episode 2−100940
V460 Cygni, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
X Cygni, Cepheid, turbulence during pulsation from spectra anal. 2−106721
CG Cygni, eclipsing binary, light curve distortion behaviour from UBVR photometry during (1981) 2−79160
ZZ Cygni, eclipsing binary, photometric obs. and search for δ Scuti-type pulsations 2−68819
V470 Cygni, ellipsoidal variable, orbit, photometry anal. 2−89302
V1057 Cygni, FU Orionis star, IR photometric obs. rel. to origin of IR flux 2−89262
χ Cygni, Mira variable, time series IR spectroscopy 2−58348
V1016 Cygni, peculiar emission-line star, visible and near IR spectral vars. 2−84241
V645 Cygni, possible biconical nebula, assoc. OH maser, UHF obs. 2−106855
P Cygni, radio star, comparison of precise optical and radio positions 2−89319
XZ Cygni, RR Lyrae star, appl. of integral method for light curve plotting and mean radius determ. *(Russian)* 2−94734
V802 Cygni, RR Lyrae star, period revision and amplitude change obs. 2−100948
XX Cygni, SX Phoenicis star, reddening, temp., radial vel. and surface gravity, uvbyβ obs. 2−94756
CI Cygni, symbiotic star, IR excess, UBVRJHKLMN obs. 2−106753
CH Cygni, symbiotic star, spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
V1329 Cygni (HBV 475), peculiar emission-line star, expanding motions in ionised envelope 2−68781
V1391 Cygni Hα emission star, photographic B-magnitude and Hα intensity 2−84110
differential speckle interferometric study 2−73856
differential variable-star photometry system at the Rothney Astrophysical Observatory 2−112331
S Doradus, continuum energy distrib. and spectra variations, obs. 2−94729
S Doradus, temps. for central star and envelope from VBLUW obs. 2−106726
BY Draconis, flare star, photoelectric obs. (1979 July 11 to 31) 2−106731
BY Draconis, flare star, photoelectric UBV obs. ion 1980 and (1982) 2−112460
29 Draconis, probable new RS Canum Venaticorum star, BV photometry and light var. characts. 2−58405
BC Draconis, RR Lyrae star, period, BV obs. 2−63440
DK Draconis, RS CVn star, starspot evidence from photometric obs. 2−112487
BY Draconis, slow light variations, obs. 2−58358
AG Draconis, symbiotic star nature 2−106739
BY Draconis stars, spots effect on radii and luminosity 2−73953
BY Draconis stars, starspots heat flow in convective zone 2−73954
BY Draconis stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
1 E 0643−1648, IUE UV obs. of cataclysmic variable 2−112456
E 1551+718, X-ray source, identification with uncatalogued dwarf nova 2−106965
early-type emission-line stars, book 2−94934
early-type ultra-short period variables, photometric obs. 2−63410
eclipsing cataclysmic binaries, He I line emission and He abundance 2−89269

variable stars continued
ellipsoidal variable stars, photometric discovery of five new objects 2−112496
λ Eridani, Be star, new emission line phase, Hα emission line profile obs., (1982 September 8) 2−117683
S Eridani, identification as δ Scuti star from photometric obs. 2−58363
extreme C stars, photometric periods rel. to circumstellar dustshells morphology 2−112447
FG-type variable supergiants, BVRI obs. 2−100985
flare stars, book 2−68984
flare stars, electron-cyclotron masers as source of radio bursts 2−112312
flare stars, gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons 2−106494
flare stars, observational approach to early stages of stellar evolution 2−106672
flare stars, origin of Balmer decrement 2−84247
flare stars, UV spectral obs. 2−79124
flare stars in γ Cygni region, new discoveries from photographic U-band photometry 2−73862
flare stars in Orion and Pleiades, colour indices, UBV obs. 2−58357
flare stars in Orion Nebula, photographic U-band obs. 2−73863
flare stars in Praesepe region, results of U-band photographic obs. (1972 to 1974) 2−78983
G117-B15A, ZZ Ceti star binary, pulsation period from photometry anal. 2−68761
ζ Geminonorum, Cepheid, angular diameter from lunar occultation obs. 2−73949
U Geminorum, 1970-1979 observations anal. 2−84251
U Geminorum, dwarf nova, IR light curve anal., system nature, JHK obs. 2−100931
YY Geminorum, spectroscopic eclipsing binary, Hβ line var. and active regions sectorial struct. var. 2−94790
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
OT Geminorum (HD 58050), Be star, light variations from photoelectric BV photometry 2−73989
Geneva photometry, of 333 variable, microvariable or suspected variable stars 2−100766
Gliese 867B, flare star, photoelectric flare obs. (1981 October 1) 2−79120
GR 306, new suspected variable in Pegasus, photographic obs. 2−94738
GX 339-4, optical counterpart, fast optical activity, accretion disc origin, visible obs. 2−84276
H2252−035, non-synchronous rotator, spectral/photometry obs. anal. 2−100955
HD 119213, 170000, 173650, Ap stars, line blocking effect on light curves 2−106720
HD 136905, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58407
HD 137147, HD 137050, Johnson BVR magnitudes 2−79087
HD 147010, Ap Si star, spectrum variability and rot. period 2−68788
HD 185151, RS CVn star, chromospheric activity from visible obs. 2−100975
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 199178 (FK Comae star), polarisation var. with rot. due to mag. active region 2−94731
HD 200775, Herbig Be star, Balmer emission lines 2−106730
HD 200925, Cepheid, mass, evolutionary status and period, UBV obs. 2−58355
HD 208664, δ Scuti star, freq. anal. BV obs. 2−100953
HD 215441, Ap star, mag. field surface struct. rel. to mag. vars. 2−84237
HD 219634, massive new eclipsing binary star, photometric evidence for intrinsic light vars. 2−79159
HD 26337, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58406
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 32918 and 36705, Fk Comae stars identification, rot. broadening and spectra 2−100952
HD 37776, intermediate He star, confirmation of light variability 2−84229
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HD 65227, new short period Cepheid of very small amplitude, photometric obs. 2−63446
HD 78616 (Q.81), new β Cephei star in Harvard Standard Region E4, photometric obs. rel. to period and light curve 2−94736
HD 81410, new RS Canum Venaticorum binary star, BV photometry and orbital elements 2−79168
HD 8357, RS CVn star, optical variability determ. 2−94778
HD 87643, peculiar Be star, mass loss from Fe II lines obs. 2−68784
HDE 269006, S Doradus star, temps. for central star and envelope from VBLUW obs. 2−106726
Herbig emission stars, near IR photometry 2−73977
AM Herculis, visual magnitude estimates, (1982 June 23 to July 8) 2−106804
V644 Herculis δ Scuti star, orbital motion from radial vels. meas. *(French)* 2−58396
AM Herculis (3U 1809+50), new optical decline, visual magnitude estimates (1982 March 29 and April 19) 2−68823
BL Herculis models, pulsation modes effect on light curve 2−58352
BL Herculis stars, theoretical models for field variables rel. to light curves 2−112450
BL Herculis stars in globular clusters, investigation of period changes 2−79101
HH100, photometric obs. of nearby variable IR source 2−94816
HR 1225, δ Scuti star, period determ., V obs. 2−63463
HR 151, 239 and 7461, δ Scuti stars with Ap star charact., nature 2−100954
HR 2577, Be+giant stars, mass and orbit determ. 2−63532
HR 5999 (V856 Scorpii), Herbig Ae star, strong chromospheric and transition region emission lines in UV spectrum 2−63404
HR 7275, photometric period for RS CVn-type binary 2−84270
HR 7308, peculiar classical Cepheid, results from radial vel. meas. and BV photometry 2−89272
HR 7308, peculiar classical Cepheid, UBVRI photometry 2−106746
HR 7308, unique Cepheid variable, photoelectric light curve during (1981) 2−100941
IR emission of cosmic dust sources 2−63379
variable stars continued
IRC+10216, C star, acetylene in shell, abundance from IR spectra 2−112458
IRC 10216 (=CW Leonis), shell 30 micron feature obs. 2−100937
KW 207 (HD 73576), δ Scuti star, evidence for radial and nonradial pulsations from photoelectric obs. 2−106718
L19-2, ZZ Ceti star, oscillation, photometric obs. 2−100929
EV Lacertae, flare star, photoelectric obs. in 1981 2−84244
EV Lacertae, flare star, photoelectric obs. in (1976) 2−106735
EV Lacertae, flare star, superflare occurrence, U-obs. *(Russian)* 2−68793
EV Lacertae, flare star, UBV photoelectric obs. in 1981 2−84243
AR Lacertae, RS Canum Venaticorum type binary star, photoelectric photometry (1976 to 1977) 2−106810
EW Lacertae (HD 217050), Be star, mag. field and shell disturbances, visible obs. 2−79115
X Leonis, dwarf nova, visual magnitude obs., (1970 to 1979) 2−106737
α Leonis, probable new Be star, obs. of variable weak emission in Hα 2−112442
CW Leonis (IRC+10216), circumstellar molecular emission and mass loss rate 2−68928
CW Leonis (IRC+10216), molecular line obs. 2−63435
CW Leonis (IRC+10216), rot. temps. of cyanodiacetylene 2−63559
CW Leonis (IRC+10°216), $HC_{11}N$ detection in cool C star 2−58369
20 Leonis B (HR 3889), Scuti star, photoelectric obs. 2−89276
EH Librae, δ Scuti star, period variation and mass function, photometric obs. *(Chinese)* 2−63439
long-period variable stars, mass loss rates theory 2−94748
long-period variables, theoretical growth rates, periods and pulsation consts. 2−106715
Luminous Stars in Northern Milky Way catalogues, list of named variable stars 2−63277
RY Lupi, T Tauri star, variable circumstellar extinction as cause of optical and IR variability 2−79098
RR Lyrae, spectral peculiarities from visible obs. *(Russian)* 2−79112
α Lyrae (Vega), possible microvar, WBVR photometry 2−117671
RR Lyrae field stars and galactic disk age 2−58412
RR Lyrae instability strip red edge, depend. on mass, luminosity, He abundance *(Chinese)* 2−79114
RR Lyrae Oosterhoff period groups and globular cluster system age 2−58411
RR Lyrae stars, C abundance from visible photometry/spectra obs. 2−73978
RR Lyrae stars, model atm., absolute magnitude uvbyβ photometry obs. 2−63457
RR Lyrae stars, periods and photometric elements, obs. *(Russian)* 2−79111
RR Lyrae stars, towards galactic anticentre, extinction, period, BV obs. 2−63426
RR Lyrae stars 24, 28 and 43 in globular cluster M15, light curve anal. *(Chinese)* 2−112517
RR Lyrae stars in globular cluster NGC 6864, anal. 2−74035
RR Lyrae stars in halo globular cluster Pal 13, spectra and metal abundance 2−106822
RR Lyrae stars in Magellanic Clouds, metallicity, ages and mass determ., obs. 2−89357
RR Lyrae stars towards galactic anticentre, metal abundances, visible obs. 2−63427
RR Lyrae stars used to determine Galaxy outer halo abundance 2−63269
in M28 (NGC 6626), globular cluster, catalogue of positions, magnitudes and periods 2−94626
microvariability detection from photometric series anal., appl. to XX Camelopardalis *(Russian)* 2−78969
microvariability detection from photometric series dispersion and power spectral anal. *(Russian)* 2−78968
Mira, giant+white dwarf, components UV spectra, obs. 2−84252
Mira variables, shell expansion vel. rel. to period and 1 μm intensity var. 2−106729
Mira variables in southern hemisphere, objective-prism discoveries 2−79077
R Monocerotis, absorption line vels. rel. to NGC 2261 and proper motions of (HH-39) 2−106841
R Monocerotis, shell dust grains aligned by mag. field, contrib. to NGC 2261 polarisation 2−63581
BT Monocerotis (Nova Monocerotis 1939), eclipsing nova, photometric obs. 2−68776
R Muscae, Cepheid variable, UV, optical and IR obs. 2−89273
SY Muscae, symbiotic star, JHKL magnitudes, (1982 February 4) 2−63450
SY Muscae, symbiotic star brightening interpretation, UV spectra/continuum obs. 2−89270
MWC 17, BQ[] star, spectrophotometric obs. in January 1982 2−84245
MWC 349, peculiar emission-line stars, near IR spectral vars. 2−84241
new variable star in γ Cygni region, discovery, approximate position and light min. times 2−84281
in NGC 6864 globular cluster, anal. 2−74035
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109
Nova Aquilae 1982, 10 μm emission feature discovery and 2.3 to 20.0 m photometry 2−94750
Nova Aquilae 1982, 10 μm silicate emission feature obs. and photographic magnitudes 2−112461
Nova Aquilae 1982, optical and IR magnitudes (1982 April 14) 2−68790
Nova Aquilae 1982, visual magnitude estimates, (1982 April 8 to May 7) 2−84249
Nova Coronae Austrinae 1981, re-discussion of distance 2−79117
novae in M31, discoveries, precise positions and spectra of four novae 2−112462
OH 104.9+2.4 and 127.8−0.0, MERLIN obs. of OH/IR star shells 2−106740
OH/IR maser stars, type II, search for IR counterparts, luminosities, IR obs. 2−58349
RS Ophiuchi, recurrent nova, new brightening, visual magnitude obs., (1982 June 22 to July 21) 2−94754
FU Orionis, far-IR obs. 2−100916
FU Orionis, pre-main-sequence star, spectral energy distrib. obs. 2−73970
α Orionis, semi-regular variable, BV photometry 2−58365
YY Orionis stars, spectral line form. in infalling envelopes using multi-level H I atom 2−89260
FU Orionis stars (fuors), evolutionary connection with T Tauri stars 2−100921

variable stars continued
γ Pegasi, β Canis Majoris star, profile vars. of Si III lines and Mg II doublet 2−73982
γ Pegasi, β Cephei star, atmospheric velocity field from UV line profiles 2−84240
EQ Pegasi, red dwarf binary flare star, detect. of microwave emission from both components 2−68775
II Pegasi, RS Canum Venaticorum type star, UBVR photometry during (1981) 2−106798
KP Persei, β Cephei type star, photoelectric obs. and anal. of variability 2−74000
XY Persei, antiflare star, photographic investigation of light variability *(Russian)* 2−73984
X Persei, Be star, detect. of Hα, obs. 2−84242
53 Persei stars, nonradial pulsations, g-modes and r-modes 2−68778
PG 1550+191, AM Herculis star, discovery of M-type dwarf component from spectrophotometry at red wavelengths 2−94755
SX Phoenicis, AI Velorum star, fundamental and overtone periods rate of change 2−63454
photographic observations of variable stars in Cygnus and Cepheus, results 2−94738
TX Piscium, C star, determ. of $^{12}C/^{13}C$ and C/O ratios 2−63421
SZ Piscium, eclipsing RS CVn star, light curve and components, model implications 2−74013
RZ Piscium, RW Aurigae star, model involving absorbing matter above photosphere 2−63401
59 Piscium, suspected δ Scuti star, photometric constancy from photoelectric obs. 2−106704
Pleiades flare stars, UBV obs. 2−63544
pre-main-sequence stars, radio obs., results and interpretations 2−73966
pulsating stars, distrib. law of stellar p-modes 2−84215
RX Puppis, symbiotic star, spectra anal. and circumstellar shell activity, UV obs. 2−89266
R548 (=ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
red giant variable stars in 47 Tucanae, photometric obs. 2−79125
red variable stars, catalogue of positions *(Russian)* 2−73986
GY Sagittae, Cepheid nature and membership of OB assoc., visible obs. 2−100933
HM Sagittae, peculiar emission-line star, visible and near IR spectral vars. 2−84241
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
HM Sagittae, symbiotic star, IR and visual photometric obs. *(Russian)* 2−63465
WY Sagittae (Nova 1783), eclipsing binary star, orbital period and ephemeris from five eclipse timings 2−89278
V3885 Sagittarii, nova like variable, accretion disc model and wind, UV obs. 2−94725
RY Sagittarii, pulsating R Coronae Borealis star, period decrease rel. to evolution 2−112465
RY Sagittarii, R Coronae Borealis star, visual magnitude estimate (Feb. 28 1982) 2−58367
RY Sagittarii, R Coronae Borealis star, visual magnitude estimates, (1982 May 10 and 12) 2−84248
RY Sagittarii, R Coronae Borealis variable, circumstellar extinction meas. from UV spectrophotometry 2−106747
EY Sagittarii, supposed Cepheid variable, probably nonvariable from BVR$_c$I$_c$ photometry 2−94739
V1670 Sagittarii, Type II Cepheid variable, period and amplitude determ. 2−100943
V348 Sagittarii, uvby photometry during August 1981 fading 2−106736
V4024 Sagittarii (=MWC 311), Be star, H and H emission line vars., (1975 to 1982) 2−94752
TT arietis, nova-like variable, new minimum, apparent visual magnitude obs., (1982 July 21) 2−94753
σ Scorpii, β Cephei star, pulsation of outer layers 2−89274
ζ^1 Scorpii, variability and mass loss in extreme supergiant 2−63407
V884 Scorpii (=HD 153919=4U 1700−37), absence of optical pulses from photometric obs. 2−106799
δ Scuti, refinement of fundamental pulsation freq. from photoelectric UBV photometry 2−79122
MY Scuti, RR Lyrae star, period determ., linear and parabolic elements 2−100945
δ Scuti stars, Mg II h and k line obs. 2−73981
δ Scuti stars, pulsational mode typing from line profile-model comparison 2−63424
δ Scuti stars in eclipsing binary systems, absolute magnitudes, rot. vels. and pulsation consts. 2−106733
semiregular variable stars, short period, different type of maser star 2−63420
RW Sextantis, cataclysmic binary, accretion disc with hot wind, model and line anal. 2−94724
shell stars, Balmer continuum radiation deficit 2−58359
SS 433, nature and model *(Russian)* 2−68792
symbiotic star nature 2−106739
symbiotic stars, main sequence star accreting from red giant scenario 2−84077
AU Monocerotis, Algol type binary, ephemeris for long-period intrinsic var. rel. to UBV obs. in January to February (1983) 2−94780
T Tauri, discrepancy between optical and radio positions 2−89258
T Tauri, double star detect. and model, speckle interferometry obs. 2−74019
V471 Tauri, RS CVn-like binary star, photoelectric light and colour vars. 2−84273
DR Tauri, T Tauri star, photometric obs. (1980 to 1982) 2−94716
DF Tauri, T Tauri star, search for rapid light vars. 2−100919
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
V711 Tauri (HR 1099), RS Canum Venaticorum star, BV photometry and light curve, January and February, (1982) 2−112499
V711 Tauri (HR 1099), RS Canum Venaticorum star, Hα emission obs. 2−63511
θ^{2}Tauri (HR 1412), δ Scuti star, pulsation props. from photoelectric obs. 2−79121
BU Tauri (Pleione), 1980-2 photometry of shell star 2−79118
BU Tauri (Pleione), shell star, UBLUW meas. (1977 to 1981) 2−94741
T Tauri stars, absence of coronal line emission 2−63402
T Tauri stars, Balmer decrement, contrib. of envelope 2−58341
variable stars continued
T Tauri stars, case for anisotropic mass loss 2−94721
T Tauri stars, evidence for charact. max. temp. in circumstellar dust 2−73964
T Tauri stars, extinction props. 2−73976
T Tauri stars, linear polarisation and colour 2−58345
T Tauri stars, mass loss and struct., SHF obs. 2−68753
T Tauri stars, obs. of rapid line profile variability 2−73963
T Tauri stars, observational approach to early stages of stellar evolution 2−106672
T Tauri stars, OH and H_2O maser sources evolution 2−112541
T Tauri stars, turbulent velocities and mass outflow, visible obs. 2−68766
T Tauri stars, UV radiation levels rel. to young Sun 2−73929
T Tauri stars, winds anal. from CO lines obs. 2−100925
RV Tauri stars and yellow semiregular variables, UBV photometry 2−106749
4 U 1849−31, IUE UV obs. of cataclysmic variable 2−112456
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
XY Ursae Majoris, RS Canum Venaticorum star, UBVR photometric obs. during (1982) 2−94785
α Virginis, line profile var. due to rot. and β Cephei pulsation effects, visible obs. 2−63459
ρ Virginis (HR 4828), possible Maia type variable, photoelectric and spectrographic obs. 2−112441
visual binary systems with variable stars components, list of 112 objects 2−100770
BW Vulpeculae, β Cephei type variable, pulsation of outer layers 2−73980
SV Vulpeculae, Cepheid, turbulence during pulsation from spectra anal. 2−106721
ER Vulpeculae, eclipsing binary, UBVR photometric obs. of intrinsic light vars. 2−58404
ES=2 Vulpeculae, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
PU Vulpeculae, optical variability in 1979 to 1981 from UBV photometry 2−63444
CK Vulpeculae (Nova 1670), recovery of oldest nova 2−94733
yellow semiregular variables and RV Tauri stars UBV photometry 2−106749
ZB 33, very short period variable star, spectroscopic and photographic obs. *(French)* 2−63447
Be-stars, mass loss from UV spectra 2−73991
C stars, chromosphere nature from UV spectral obs. 2−100936
C stars, circumstellar shells development rel. to optical obscuration and IR emission 2−94735
C stars, IR excess and shell dust 2−112471
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229
variable structure systems
see also multivariable systems
solar powered central receiver, quadratic optimal control 2−57687
variational calculus *see variational techniques*
variational techniques
A=3-4 nuclei, binding energy, radii, form factors, Jastrow variational calc. 2−59261
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
alkali metals, liq., internal energy and entropy, Gibbs-Bogolyubov variational technique 2−56221
annular jet initial region, wake-induced and jet vortices and covariance obs. 2−91501
atoms, Thomas-Fermi eqn., modified variational soln. 2−96420
bar, variable section, torsion, theory of small elastico, plastic deform. *(Russian)* 2−91268
BCC crystal-melt interface, mol. theory 2−92343
Bingham flow through conduits with sudden section change *(French)* 2−55669
Bose gas, weakly interacting, density distrib. in external pot. 2−53660
Bose systems, two-dimensional, quasi long range order 2−107230
bound states, quantum light calcs. using Schwinger var. principle 2−102369
bound states, Schrodinger eqn. closed form soln. 2−101230
boundary value problems, variational method, electrostatics appl. 2−114149
calculus of variations, inverse problem, general soln. 2−113257
charged particle scatt. in laser field, variational formulation and low-freq. approx. 2−96689
classical anharmonic single oscillators, statistical mech., extended variational method 2−101305
classical field theory, boundary conditions anal. in variational formulation 2−95586
classical mechanics, variational calculus, inverse problem, Lagrangian formalism 2−74198
composite shells under impulsive loads, elastic-plastic deform. 2−65493
composites, isotropic, plane wave dispersion and attenuation, variational estimates 2−97414
composites, random, plane wave dispersion and attenuation, variational estimates, general theory 2−97413
conducting rods electromagnetic fields calc. using variation method *(Hungarian)* 2−55024
conservative mechanical systems, var. solutions, freq. condition 2−94999
contact problems for the elastic beam 2−114671
cylinder, incompressible, elliptic, under finite deforms., stability 2−55466
dense relativistic matter, variational approach using functional techniques 2−79134
diabatic states, novel variational definition 2−102412
diffraction gratings, perfectly conducting, variational theory, ghost study appls. 2−75511
diffusing ions, NMR relaxation by impurity centres, variational calc. 2−66945
diffusion problem, variational principle 2−112849
drag of flat plate in slip flow, bivariational calcs. 2−75917
elasticity, constrained problems, finite element methods 2−79362
elasticity, linearized theory, variational principles, stress functions 2−112703
elasticity theory, linear, three-dimens., boundary functions, dual variational problems 2−63821
electric fields, cylindrically symmetrical, static and steady-state, determ. using variation method *(Hungarian)* 2−85858

variational techniques continued
electromagnetic field problems, time-depend., variational formulation 2−53541
electron density functional method for mol. systems calcs. 2−90646
elliptic variational inequalities, mixed formulation and approximation 2−84436
EM wave scattering from random magnetic objects, vector variational expressions 2−65140
equivalent Lagrangians, calculus of variations, inverse problem, review *(Spanish)* 2−63818
ferroelectric, thermoactivated motion of 180°-domain walls, variational calc. 2−110790
ferromagnetic jellium model, surface characteristics, var. technique 2−72134
flow near rotating disc, boundary layer thickness, variational calc. 2−75968
fluid dynamics, Riabouschinsky functional, second variation 2−53532
fluid mechanics, Eulerian, Lagrangian eqn. of motion 2−75921
gauge theory, variational techniques, book 2−74181
general relativity, varational formulation, 'Palatini method' origin 2−84432
general relativity, variational principle 2−101253
generalised anharmonic oscillator in D dimensions, variational approach 2−101235
generalised diffusion matrix, variational theorem 2−89639
Hamilton's principle in approximate dynamics 2−94994
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
hamiltonian U(1) and Z_N models, gauge invariant variational study, critical space-time dimensionality 2−59039
heat conduction, steady-state problems, direct analysis using counter-variational principle *(Russian)* 2−65444
heat conduction problems, numerical soln. by parabolic time-space elements 2−60345
Heisenberg magnet, anisotropic, cluster variational calc. 2−92954
heterogeneous materials, bounds for effective cond. by finite element method 2−98606
impurity states in anisotropic crystals, appl. of perturbative-variational approach 2−82275
inhomogeneous scattering equations, variational principles 2−95142
intermediate valence, variational study 2−56505
Ising model, bond dilute, phase diagrams, renormalisation group and replica methods 2−61725
Ising model, frustrated, variational real space renormalisation group 2−101336
Ising model, triangular, two- and three-spin, variational approx. 2−72248
Josephson current, in nonsymmetric proximity systems, theory *(German)* 2−61661
lattice gases, particle distrib. functions 2−107251
lattice Schwinger model and anomalies 2−101562
light nuclei ground and excited states in the three-body model, variational study 2−79960
linear materials, plane problems, uncoupled thermoviscoelastic response for all Poisson ratios, finite element formulation 2−81243
long-wavelength scattering, trial functions in variational approximations 2−55045
lower and upper bounds for the eigenvalues of the Fokker-Plank equation in detailed balance 2−84540
magnetoplasmas, symmetric, collisional transport theory, perturbative-variational method 2−109465
magnetostatics, 3D mag. vector problem, point iterative algorithm 2−55013
magnetostatics, complementary and dual energy finite element principles 2−55006
manifestly covariant eqns. of motion for particle in external field 2−112758
many-body systems, decaying states, variational approach, generator coord. method 2−74238
MHD, infinite conductivity, variational principle *(Russian)* 2−76038
molecular chain, soliton characteristics, variational approach *(Russian)* 2−76945
molten metal crystallisation via cooling sheath *(French)* 2−71383
multicomponent diffusion decay, numerical soln., conservation variational principle 2−108151
multipole potential variational calc. from arbitrary localised charge distrib. 2−95033
multiquark hadrons in nonrelativistic quark-potential models 2−54067
non-Gaussian parametric systems, functional statistical anal. 2−112685
non-local field theories, canonical constants of motion 2−95581
nonlinear hyperbolic heat conduction eqn., variational methods *(German)* 2−103001
nonpotential interactions, geometrical treatment 2−95052
nuclear collective motions, semiclassical theory, variational derivation 2−84970
optical waveguide with rectangular cross section, variational analysis 2−55325
parabolic distribution system parameter estimation by means of variational-difference methods *(Russian)* 2−74195
perfect fluids, eqns. of motion, variation principles 2−112710
perturbation equation, first order, variational solutions 2−63836
plasma, neoclassical transport coeffs., variational calc. using full Fokker-Planck collision operator 2−76083
plasma instability, kinetic modes, energy integral and variational principle 2−60743
plasticity, Hencky model, dual variational principles and energy theorem *(French)* 2−97392
plate, cantilever, thick, flexure anal., Castigliano variational principle 2−97400
plate, thin, large displacement bending and post buckling analysis, finite element models 2−109212
plate, thin, unbounded, stability near hole, pure bending in its phase *(Russian)* 2−91270
plate theory, variational iteration method substantiation 2−58619
plates, bending, frictionless contact *(French)* 2−55516
plates, stiffened, free vibr. anal. by including inplane inertia effect 2−103079
plates, thermoviscoelastic, dynamic problem soln. by Laplace transform-finite element method 2−81246
plates, thick, rectangular, laminated, composite, non-linear bending 2−70849
plates, thin, energy method in nonlinear theory 2−109180
variational techniques continued
point injection into laminar cell, Hele-Shaw flow model 2−86255
polar crystals, surface or interface weak coupling polaron *(Chinese)* 2−110266
polaron effective mass and radius at finite temps., path integral calcs. 2−98558
polarons, path integral formalism, functional variational approach *(Russian)* 2−76942
polyatomic molecules, internal rot. and harmonic vibr. calcs. 2−90511
projection variation method for self adjoint operation on a Hilbert space 2−69050
QCD_{3+1}, finite N, master fields and variational method for gluon condensation 2−95747
quantum statistical mechanics, driven systems, eqns. of motion, variational technique 2−101311
quantum theory, bound-state and scatt. problems, variational methods 2−84479
quantum wells, exciton binding energy 2−115668
refined orthogonal variational treatment of continuum distorted waves 2−105442
resonances, complex coordinates theory 2−79392
resonances, variational principles 2−95088
rigid-plastic solids obeying non-assoc. flow laws, variational principles, adjoint operator, prescribed jumps 2−69019
rigid-plastic solids obeying non-assoc. flow laws, variational principles, unprescribed jumps 2−69020
ring, nonlinear-elastic, bulging, action of radial load *(Russian)* 2−91244
rod, elastic, inhomogeneous, energy anal. 2−112704
ruby, optical properties, high press. effects, theoretical studies 2−87739
S-matrix poles calc. using Schwinger variational principle 2−113852
scattering operator functions, variational principles 2−89580
second order correl. energy calcs. for atoms and mols. 2−113860
self-consistent meson fields with vanishing expectation values 2−84963
semiconductor; degenerate band, bound polaron energy, variational and perturbation calc. 2−115674
semiconductor, polar, donor-acceptor pairs, electron-hole correlation effect, variational calc. 2−56475
semiconductor depletion layer determ., using quasi-variational inequality *(French)* 2−87252
semiconductors, donor-bound exciton complexes, variational calc. 2−61368
semiconductors, nonlinear screening of negative point charges 2−82261
semimetals, transport coeffs. determ. 2−110337
shafts, elastic, rotating, stability principles including variational principles 2−103069
shear horizontal waves, nondestructive evaluation of planar defects in plates, theory and expt. 2−93721
shear wave scattering from cracks in plates, extended variational soln. 2−93722
shell, spherical, fluid-filled, under a point load, large deflection 2−103027
shells, elastic flexible shallow, variational principles of theory 2−114660
simple fluids, hypernetted chain approx. 2−103580
spin 1 ferromag. chains, spin wave excitation spectrum, variational approx. 2−104601
spurious centre-of-mass problem in dynamically determined basis, comment 2−59306
statistical and quantum mechanics, unified variational principle 2−89610
statistical mechanics, quantum variational principle 2−89611
Stormer's problem, variational eqns. *(French)* 2−75501
Sturm-sequence check for eigenproblems resulting from variational principles with subsidiary conditions 2−53491
$SU(n)/Z_n \times SU(n)/Z_n$ spin system, phase struct. in two dimens. 2−101518
surface polaron, ground-state energy, phase diagram 2−56657
symmetry conserving Hartree-Fock-Bogoliubov theory, variational eqns. soln. 2−95950
thermodynamic partition function, Lippman-Schwinger variational approx. 2−74370
three-body exchange reactions, classical var. rate calcs. 2−105461
three-body problem, triple collision, variational eqn. props. *(French)* 2−53497
three-particle distribution function, variational method 2−53686
turbulence, statistical mechanics, max. chaos variational principle 2−55542
two-electron atoms, variational method for three body problem 2−108336
valence-fluctuation systems, model, variational ground states, mag. responses and dilution behaviour 2−56519
viscoelasticity, asymmetric linear, variational theorems *(French)* 2−70848
water waves, finite amplitude, modulation theory 2−81351
wave bundle propag. in nonlinear media, variational-difference study *(Russian)* 2−95031
K^+p scatt., spin-flip cross section bound from variational calculus 2−107686
D_2O, anharmonic vibr. problem, soln. by var. method 2−113962
^{153}Eu, ground and excited bands microscopic calc. 2−79927
F_2, ground and excited states, variational cellular calcs. 2−80447
GaAs, carrier mobility, electron-electron scatt. effect 2−77040
^AGd, A=153, 154, yrast band, ground and excited band microscopic elec. 2−79927
Ge, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
H, positron scatt., quadratic variational methods for calc. S-wave phase shifts 2−75425
H_2, anharmonic vibr. problem, soln. by var. method 2−113962
H_2, one-dimensional molecule, δ-function interactions and wave functions 2−79317
$H_2O+D_2O \rightarrow 2HDO$ equilibr. const., by direct summation over rot. vibr. states 2−99663
H_2Se, anharmonic vibr. problem, soln. by var. method 2−113962
^3H, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
^3He, liquid, ground state energy, lowest order constrained variation calc. and backflow effects 2−98373
^1He, solid, vacancies, spin polaron, variational method 2−61251
^3He, superfluid, B-phase, shear viscosity, Landau parameters effect 2−104098
^3He-^4He liq. mixtures, density matrices and momentum distribs., variational calc. 2−104105
^AHe, A=3, 4, binding energy, size, form factor, NN pot. in many-body variational approach *(Russian)* 2−59259
Hg, gaseous, electron stabilisation of high-density fluctuations 2−86379
NH_3, lower vibr. energy levels, variational calc. 2−80576

variational techniques continued
NO_2, anharmonic vibr. problem, soln. by var. method 2−113962
Ne, electron scatt., 10-100 eV, model pot. calcs. 2−96746
Ne_2, ground and excited states, variational cellular calcs. 2−80447
^{20}Ne, configuration mixing calc. with basis states using HF method 2−54264
$^{16,18}O_3$, anharmonic vibr. problem, soln. by var. method 2−113962
Si, muonium and positronium impurities, spatial dispersion influence, variational calc. 2−115257
T-H spin polarised matrix, variational theory of T=0K 2−71769

varistors
TiO_2 varistors, prep. and props. 2−57320
ZnO varistor, influence of SiO_2 inclusions 2−66241
ZnO varistor ceramics, thermal cond., intergranular phase and void effects 2−71744

varnish
ceramic glaze, CuO-doped, Pb^{2+} release, effects of alkaline substitution and addition of trivalent ions 2−77955
light-diffusing AK-5192 varnishes for translucent silicate-glass screens 2−77969
mirrors with Al reflective layers, back side protection with varnish coatings 2−97147
protective properties, inhibitors influence 2−67655

Vavilov-Cherenkov radiation *see Cherenkov radiation*

VB calculations
benzoid hydrocarbons, individual Kekule valence structs., graph-theoretical approach 2−80486
benzoid systems, individual Kekule valence structs., graph-theoretical approach to pseudodegenerate states 2−80487
bond-orbital wavefunctions, bonding, charge transfer, UB anal. 2−64851
exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
film, uniaxially oriented, growth mechanisms in ion based processes 2−115602
hydrocarbons, energy and electron distrib. variations, valence-bond method calcs. *(French)* 2−75191
hydrocarbons, high-spin, existence, theory and calcs. 2−108404
metal phthalocyanines-formic acid, complexing ability, VB and MO calcs., IR obs. 2−90551
methane, electronic energy and bond-stretching force const. calc. using single-centre min. basis set 2−70148
nonalternate hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
nonbenzoid hydrocarbons, individual Kekule valence structs., graph theoretical approach 2−80488
polyenes, finite, correl. states, exact PPP results 2−75190
SCF valence bond method, effective spin Hamiltonian 2−108392
xylylenes, valence bond description 2−108393
BeF, bonding and consequent unusual progression of vibr. spacings, VB calcs. 2−80489
C-Li, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
CO chemisorption on Ni(100), vibr. freq. and ionisation pot., generalised valence bond methods 2−66370
H+formaldehyde, rate const., pot. energy surface, transition state theory, ab initio CI calcs. 2−72980
HPF^+, electronic struct., geometry and charge distrib. calcs. 2−59705
H_2SiSi and its isomers, stability and bonding, generalised valence bond pot. study, SCF MO calc. 2−64884
Li_2C, electronic struct., ab initio GVB, SCF and CI calcs. 2−108357
NH_3, inclusion of 3d orbitals in hybrid orbitals, VB calcs. 2−102394
Ni (100), decomposition of methanol 2−83413
NiC, electronic struct., ab initio GUB calcs. 2−85559
O_2, exchange interaction between degenerate π orbitals and orbital valence, theory 2−85560
PF_2^+, electronic struct., geometry and charge distrib. calcs. 2−59705
PH_2^+, electronic struct., geometry and charge distrib. calcs. 2−59705

VCR *see video tape recorders*

vector diagrams *see vectors*

vector meson dominance model
1^- glueball and OZI-violating couplings in J/ψ prod., vector dominance model 2−74673
global isospin invariance, effective gauge theory, rel. to vector dominance model 2−79750
pion EM form factor using extended VDM 2−95838
scalar meson decay, triangular quark diagrams, rel. to vector dominance model *(Russian)* 2−95825
SHEBA, neutron and γ-ray spectrum meas. for criticality monitors 2−96198
$\gamma\gamma$, high energy, vector meson diffractive prod., energy depend. 2−113317
$\gamma\gamma \rightarrow \rho\rho$, threshold enhancement, low energy vector dominance model description 2−113319
γN, charmed hadron inclusive photoproduction in VDM *(Russian)* 2−74694
γp, 25-70 GeV, Λ and $\bar{\Lambda}$ inclusive prod., KDM and quark fusion anal. 2−59159
$\pi^0 \rightarrow e^+e^-$, rare decay, vector dominance model 2−79864
$\Upsilon' \rightarrow {}^*2\pi$, scalar meson dominance model 2−101712
$\Upsilon'(\Upsilon) \rightarrow \pi^+\pi^-\gamma$, scalar meson dominance model 2−101713

vector mesons *see meson resonances*

vectors
Bernoulli-Laplace-Lenz vector, integrals and symmetry 2−107193
ECG long term recording, vectorial/statistical detect. of ventricular ectopic depolarisation 2−62817
EM wave scattering from random magnetic objects, vector variational expressions 2−65140
iterative optical vector-matrix processors, use of acoustooptic transducers 2−80905
light mixture description through linear algebra 2−53814
ocean acoustic propagation modelling and source characterisation by spectral density matrix eigenvectors 2−60283
pyroclastic surge deposits from May 18, 1980 eruption of Mount St., Helens, weighted vector anal. 2−94332
shell, thin, nonlinear theory based on attached vectors concept *(Ukrainian)* 2−55417
spin-1 particles, vector field, dually invariant theory 2−113145

velocity
see also acoustic wave velocity; ion mobility; light velocity
circumstellar expanding envelopes, ionisation and vel. struct. 2−63370

velocity continued
G43.2−0.1, new OH maser source, circular polarisation and radial vels. obs. *(Russian)* 2−106946
Cu plate, accelerated by reacting and detonating explosives, free surface vel. meas. 2−76591

velocity analyzers *see particle separators*

velocity control
artificial heart using electronically commutated brushless DC motor 2−94253
DC motors phaselock loop control by optical tachometers, velocity and direction information recovery techniques 2−74404
myoelectric hand controller with proportional control 2−68200
telescope rotational speed control using 24 V synchronous motors 2−106529
turbine flowmeter, static compensation of slip error *(Russian)* 2−60680

velocity measurement
see also acoustic wave velocity measurement; anemometers; angular velocity measurement; flow measurement; flowmeters; laser velocimeters; light velocity measurement; stroboscopes
accelerometers, signal derivation, effect of noise 2−79542
accuracy estimate for velocity meas. of objects moving beyond turbulent layer 2−112876
arteries, great, vel. profiles visualisation 2−88673
distributed-energy-store railgun projectile velocity meas. 2−95330
EM gauge for radial particle vel. meas. in two-dimens. flow 2−69147
excited particles, velocity distrib. meas. using Doppler broadening of spectral lines 2−107312
flame velocity meas. using laser-enhanced ionisation flame velocimeter 2−91557
flow velocity distrib. meas., white-light speckle method 2−103229
flow velocity distribution meas. in horizontal circular pipe using laser Doppler velocimeter *(Japanese)* 2−114956
gas properties, measurement without inertia *(French)* 2−63967
hot-film static-pressure probe for flow meas. 2−97670
hot-wire anemometer meas. corrections, appl. to boundary-layer flow 2−114952
impact testing of polymers based on velocity and acceleration meas. 2−105427
large droplets, light scatt. device for sizing and velocimetry using ring-shaped laser beam 2−95316
laser beam meas. of blown sand vel. distrib. 2−89697
laser Doppler vel. meter with low freq. modulation, meas. in photon counting regime 2−64005
laser velocity meter signal, low-freq. component suppression *(Czech)* 2−95329
laser-enhanced ionisation flame velocimeter, for flame vel. meas. 2−91557
metallic substances hardness testing dynamic method using digital recording and measurement instrumentation *(Spanish)* 2−57563
muscle fibre conduction vel., meas. using a gradient threshold zero-crossing method 2−117108
noncontact meas. using optical spatial filter detector *(Japanese)* 2−114410
noncontact sensor using spatial filter with parallelogram field-of-view 2−53741
nonNewtonian flow, use of laser velocimeters *(French)* 2−91563
optical fibre array, for image velocity sensing 2−70676
plasma ions, transverse velocity meas. using a sensor 2−84743
pulsed ultrasonic Doppler velocimeter, fluid turbulence meas. 2−76047
pulsed ultrasonic Doppler velocimeter, laminar and turbulent flow meas. 2−76048
scattered light speckle metrology development, strain, displacement and velocity meas. 2−91356
sondes in planetary atmospheres, positions and vels. from radio techniques 2−84105
stream-varying mass vel. and elec. cond., EM method meas. 2−58842
turbulent intensity determ. using probability after-effects, laser method 2−109427
velocity vector, optimisation of parameters of instrument for meas. tangential components 2−60047
wave-amplitude vacillation investigation using light-speckle velocity meas. technique 2−109428
wind speed in Rumania, recording equipment *(Rumanian)* 2−68505
CO_2 chirp-pulse-compression rangefinder-velocimeter 2−109012
GaAs, electron drift velocity meas. using variable frequency microwave time-of-flight technique 2−98664

velocity meters *see velocity measurement*

velocity microphones *see microphones*

velocity-modulation tubes
No entries

velocity spectrometers *see mass spectrometers*

Veneziano model
No entries

Venus
albedo in 0.2-4 μm range, implications for atm. comp. 2−84129
atmosphere, aerosol component measured by Venera 11/12 descent vehicles, IR/visible obs. 2−68643
atmosphere, far IR airborne spectroscopy and spacecraft radiometry 2−100790
atmosphere, gas chromatography by Venera 13 and 14 probes *(Russian)* 2−106580
atmosphere, H escape 2−84134
atmosphere, halide clouds and volatile element chem. 2−100794
atmosphere, haze particles IR props. 2−73886
atmosphere, MF, wave propag. from Venera 9 and 10 bistatic radiolocation 2−58280
atmosphere, minor constituents, mass spectrometry by Venera landers *(Russian)* 2−106579
atmosphere, optical properties and radiative heat exchange 2−68645
atmosphere, optical properties and radiative heat exchange 2−100795
atmosphere, scattered solar radiation ang. distrib., visible/IR obs. 2−84130
atmosphere, thermal periodicities, Pioneer Orbiter IR radiometer meas. 2−100791
atmosphere, Venera 13 and 14 spectrophotometry *(Russian)* 2−106581
atmosphere, water vapour conc., Venera 13 and 14 meas. *(Russian)* 2−106582
atmosphere, wind speed and turbulence from Venera Doppler meas. *(Russian)* 2−106583
atmosphere, wind vel. from Venera 13 and 14 acoustic meas. *(Russian)* 2−106584

Venus continued
atmosphere age, determination from crater statistics data 2−78995
atmosphere circulation, temporal changes rel. to irregularities of planetary rotation rate *(Russian)* 2−100792
atmosphere D/H ratio, outgassing implications 2−100793
atmosphere physics, book *(Russian)* 2−84392
atmosphere top, solar radiation aspects 2−58278
atmosphere-solar wind interactions 2−100695
atmosphere-surface interactions, implications for atmospheric evolution 2−112364
atmospheric convection zone, model of resonance interaction 2−84122
Beta Regio region, gravity anomalies and topography 2−112361
bow shock, position and three-dimens. shape 2−84131
bright ring shaped craters, origin and erosion 2−73885
chemical weathering of igneous rocks, role in buffering of atmospheric comp. 2−89179
clouds, X-ray obs. of Fe 2−117622
daytime ionosphere, ionic composition model 2−100786
EM field in atmosphere, Venera 13 and 14 meas. *(Russian)* 2−106585
evolution and origin, appl. of rapidly escaping H-thermosphere dynamics model 2−58276
haze at high-altitude indicated by far IR obs. 2−78993
high-temperature electronics applications in space exploration 2−89106
ionopause, turbulent accumulation of interplanetary magnetic fluxes 2−63290
ionopause attitude calc. 2−84133
ionosphere, electron density depletion regions due to parallel elec. fields 2−73883
ionosphere, nightside electron precipitation 2−78998
ionosphere and upper atmos., characts. 2−78997
ionosphere interaction with solar wind 2−78992
ionosphere model with keV electron impact ionisation 2−100788
ionosphere particle removal by solar wind 2−106468
ionosphere plasma motion and mag. field convection 2−112363
magnetic tail, mag. field config., solar wind and interplanetary field effects 2−84132
magnetosheath, accel. of ionospheric O^+ 2−73884
mesosphere and lower thermosphere struct. 2−78994
microseisms at Venera 13 and 14 landing sites *(Russian)* 2−106589
middle atmosphere, UHF/SHF absorpt. by SO_2 and SO_3 in CO_2 atm. 2−58279
motion in 1961-72 period, numerical integration method *(Russian)* 2−78991
nightside ionosphere, low energy electrons in planet optical shadow as source 2−68644
panorama sequence from Venera 13, image evolution *(Russian)* 2−106587
perturbations on lunar orbital motion, errors in ephemerides 2−73872
perturbations on Moon in ELP 2000, soln. 2−73870
Pioneer Venus, multiprobes subsonic drag determ. from flight data 2−94577
Pioneer Venus Orbiter mission, review of results 2−68646
plate tectonics, quantitative tests 2−73881
plate tectonics and surface topography implications 2−78996
radar reflection, meas. of global surface radar reflectivity by Pioneer Venus Orbiter 2−117621
review 2−117620
rock composition, Venera 13 and 14 X-ray radiometry *(Russian)* 2−106588
solar wind absorption in dayside ionosheath due to charge exchange 2−73882
solar wind contaminated by O^+ from Venus ionosphere 2−117553
space missions/general 2−63213
surface characts. using Venera 9 and 10 bistatic radiolocation 2−58280
surface rock, X-ray fluoresc. spectrometry by Venera 13 and 14 2−117619
tectonic and volcanism global-scale zones 2−100787
thermosphere, CO_2 IR bands first order approx. model 2−112360
topographic map 2−89174
topography, comparison to Earth, plate tectonics presence test 2−63289
upper atmosphere and ionosphere, probe meas. 2−89178
Venera 13 and 14, lander missions *(Russian)* 2−106479
Venera 13 and 14 landing sites, geology-morphology *(Russian)* 2−106586
Venus Orbiting Imaging Radar (VOIR) spacecraft, preview 2−68596
VOIR mission description 2−63214
O corona, comet-like interaction with solar wind 2−100789
O escape from atmos. to space 2−112362

Verdet constant *see Faraday effect*

Verneuil process *see crystal growth from melt*

vertex functions
see also elementary particle interactions; elementary particle theory; quantum field theory of interactions
Bose systems, quantum field theory, higher effective actions 2−89888
cut vertex formalism, rel. to operator product expansion 2−79880
electron mass operator radiative corrections in two dimens. QED approx. 2−69398
Euclidean Green function, generating functional, Legendre transform., cluster irreducibility 2−74610
general vertex model, solutions to triangle equations with variables on faces 2−107510
high-order tadpoles, triangle vertex integrals, dimensional regularisation 2−101527
higher Legendre transforms, relationship to Bethe-Salpeter kernels and r-field projectors 2−74595
pion form factor at intermediate momentum transfer in QCD 2−107661
pion prod. and aborpt., microscopic theory 2−79985
QCD, fragmentation functions, scaling, timelike cut vertices 2−79751
QCD, generalised gap eqn. derivation 2−107620
two-dimensional models, West's proof of confinement 2−84852
W-T identities, interacting vertices in non-Abelian gauge thoery 2−59001
e^+e^-→hX, P violation, QCD calc., cut vertex method 2−79898
pd backward scatt., polarisation, relativistic effects, Bethe-Salpeter eqn. 2−107681

very large scale integration *see large scale integration*

vibrating bodies
see also elastic waves; pendulums; piezoelectric oscillations; vibrations
acoustic loading effects on oscillating rod bundles 2−60411
annular drum, effect of air cavity 2−70786
annular plate vibration and stability under conservative and other loads 2−91299
annular plates, polar orthotropic, natural freqs. 2−65508
annular plates of varying thickness, large amplitude free vibrs. 2−55478
annular sandwich plates of linearly varying thickness, free axisymmetric transverse vibrations 2−91295
annular sector plates with different degrees of elastic restraint along edges, free vibr. 2−75893
array single-element transducer vibration analysis 2−55379
automobile passenger compartment, structural-acoustic finite element anal. 2−75780
baffled pistons, acoustic farfield of short impulsive sounds 2−81160
beam, effects of shear flexibility and rotary inertia on dynamic stiffness and vibrations 2−86219
beam, infinite, periodically supported, response to harmonic transverse point force 2−75757
beam, longitudinal vibrs. 2−81220
beam, thin-walled T, forced flexural vibrs. 2−81284
beam, vibrating, in free-clamped config., inverse problem 2−55482
beam, vibrating, with nonhomogeneous boundary conditions, linear partial differential eqn. soln. 2−55493
beam elastically restrained against rotation at one end and carrying a guided mass at the other 2−114528
beam supported at axially oscillating mount, destabilising effect of Coulomb friction on vibr. 2−60450
beam with intermediate supports, vibration frequency response 2−114540
beam with tip mass optimal cross-sectional area determ. 2−75891
beam-reinforced sandwich panel with fluid middle layer driven by line force, sound radiation 2−60291
beams, linearly tapered, dynamic anal. 2−55480
beams, periodic and disordered, flexural waves and deflection mode shapes 2−109109
beams, tapered cantilever, uncoupled vibrs. treated by Dean and Plass dynamic variational principle 2−60451
beams, thin-walled open section, free vibr. with unconstrained damping 2−97427
beams, transverse vibrs., exact vs. approx. solns. 2−91314
bending waves in parallel plates excited at a point, amplitude differences, impact sound reduction *(German)* 2−102973
bimodulus composite material cylindrical shells, vibration analysis 2−97265
bimodulus composite materials, laminated plates, behaviour 2−97385
bridge vibration, infrasound generation *(Japanese)* 2−91137
cantilever beams, material damping 2−65504
cantilevers, min.-weight, multi-constraint 2−60448
circular arches, theory of matrix and interpolation *(Chinese)* 2−81273
circular plate on elastic foundation, axisymmetric vibrs., Mindlin theory 2−75894
circular plates with stepped thickness, transverse vibrs. 2−75876
composite shell, cylindrical, glued with stiffeners, optimum design w.r.t. dynamic restrictions 2−60453
conical shell, axisymmetric wave propag. 2−109105
coupled bending-bending vibrations of pretwisted tapered cantilever beams treated by the Reissner method 2−114532
coupled fluid-structure system, vibr. anal. computation 2−109225
cross ply laminated circular cylindrical panels, buckling and vibr. 2−97429
curved plate assemblies subjected to membrane stresses, analysis using finite strip method 2−97272
cylinder, circular, hollow, with laminated periodic struct., free torsional vibrs. 2−60446
cylinder, viscoelastic, reinforced by shell with annular ribs, forced vibrs. 2−91304
cylinder of finite dimensions, dynamic problem of elasticity theory 2−81282
cylindrical bars, with amplitude-dependent modulus, longit. vibr. 2−65506
cylindrical machine casing, vibr. response to oscillatory bearing forces 2−75889
cylindrical shells, axially compressed stiffened, vibrs., effect of geometrical imperfections 2−65507
cylindrical shells, fluid-loaded, model coupling 2−70755
damped skeletal machine foundation, vibration isolation 2−70754
Dean and Plass method calculations of the flexural frequencies of Timoshenko beams 2−97267
diaphragm-driven vibration excitation method for cavities 2−60292
direct variational method for non-conservative system stability 2−86165
distributed parameter systems, oscillatory damped 2−97419
double-beam system interconnected by several springs, internally damped, steady-state response 2−81158
dynamic response of an orthotropic cylindrical shell to rapid heating 2−114708
elastic plates, nonlinear vibrs. under transient press. loading 2−75890
elastic sphere, lowest resonances study *(French)* 2−114715
FASOR−a program for stress, buckling and vibration of shells of revolution 2−70855
fin, elastic, vibr. in liq. stream *(Russian)* 2−81272
finite coupled plates, energy transmission, appln. to L-shaped structure 2−97264
finite coupled plates, energy transmission, theory 2−97263
finned heat exchanger tubes, natural frequency correction for stiffening 2−91297
flexibly clamped cantilever with concentrated mass at free end, eigenfrequencies 2−97266
flexibly-suspended solid body, setting-up of spatial oscillations, vibr. table design *(Russian)* 2−65473
flexural transducer using shear mode piezoelectric ceramics, finite element analysis 2−91200
flexurally vibrating plate driven by sources of arbitrary impedance, compensation of acoustic radiation 2−60289
flow induced vibration in shell and tube heat exchangers 2−53755
fluid/structure interaction analysis in the consideration of directivity patterns of hull-mounted transducers 2−114583
framework dynamic response by FFT 2−109215
free circular plate under nonconservative edge loading, vibration and stability 2−91300
frequency analysis of structures by integrated force method 2−114539
fundamental frequency of an elastic system and an improved displacement function 2−97274
glass fibre reinforced plastic cylindrical shells, triple-layer, dynamic stability 2−114710
Green's-type formulas for flexurally vibrating plates 2−70758
heat exchangers, water-gas type, vibrations *(French)* 2−55402
immersed shell struct., natural vibr. modes *(French)* 2−65511

vibrating bodies continued
impulse-absorbing pneumatic cylinder, modelling 2−114534
infinite acoustic fluid, impulsively excited oscill. response 2−91138
isotropic degenerate models of finite torsional vibrations 2−55470
laminated composite plates, cracked, sudden stretching 2−65518
large amplitude flexural vibration of layered composite plates with cutouts 2−114535
laser anemometry, appln. to investigation of ultrasonic vibratory systems 2−89800
laser probe for SAW measurements 2−81184
limit cycles in self-excited multi-degree-of-freedom systems 2−97262
liquid sphere, acoustic wave focusing, reson. features 2−102964
lumped parameter model for the iterative analysis of cylinderlike anti-vibration mounts 2−114529
mechanical harmonic oscillator immersed in a medium, frequency response 2−70864
mechanical impedance gauge based on vibrating rod strain meas. 2−91353
membrane, circular, axisymmetrically deformed by uniform press., longit. vibrs. 2−60460
membranes and plates, vibrations of cross-shaped, I-shaped and L-shaped bodies 2−109106
modal analysis using digital test equipment 2−91147
modified discrete systems, calcs. using modal constraint method 2−114538
Mooney material hollow circular cylinders, finite free torsional oscillations 2−91294
multidimensional system with several equilib. nonlinear vibrs. 2−55412
non-linear vibrations of a harmonically excited autoparametric system 2−97269
non-linearly coupled resonant oscillators, regular perturbation technique 2−97275
nonlinear nonconservative system, component mode anal. 2−75892
nonuniform rotating blades, flexibly attached, torsional vibration analysis 2−91298
orthotropic skew plates, clamped, natural frequencies 2−97273
oscillatory system, uniformly valid asymptotic soln. for $d^2y/dt^2+y=a+\epsilon y^2$ 2−65509
panel, parallelogram cylindrical, natural vibrs. 2−97421
piezoceramic plates, calc. of flexural modes using energy method 2−70757
piston diaphragm, rectangular, acoustic radiation resistance 2−109110
plate, cantilever, sectoral three-layer with fixed curved lesser edge, free vibrs. 2−114716
plate, diffused, angularly vibr., real-time imaging and strain distrib. anal., shearing interferometry 2−69244
plate, elastic, rectangular, with elastically attached reinforcing rib, eigen-freq. bounds 2−55475
plate, elastic circular, on elastic half space, vibr., direct soln. method 2−97426
plate, general vibrs., non-linear propag. of waves in thermoviscous fluid 2−53531
plate, rectangular, restrained at edges, free vibrs. 2−55490
plate, simply supported skew, approx. formulae for natural freqs. 2−55474
plate, with variable elastic modulus, variable density, central hole, extensional vibrs. 2−60444
plate triangular, equilateral, large amplitude free vibrs., tri-linear coords. appl. 2−75896
plates, anisotropic, laminated, natural vibr. modes 2−60458
plates, fluid loaded orthogonally stiffened, sound radiation 2−55377
plates, free circular, with elastic constraints and added mass along edge segments, vibrs. 2−97428
plates, laminated, statics and dynamics, expt. investigation 2−55489
plates, orthotropic, elliptical, vibr., large amplitude transverse shear and rotatory inertia effects 2−70861
plates, rectangular, orthotropic, non-linear vibration, perturbation soln. 2−75882
plates, stiffened, free vibr. anal. by including inplane inertia effect 2−103079
plates, transversally isotropic, lying on elastic base, free vibrs., taking account of shear deform. 2−65513
punch press, pure tone vibration shaker tests 2−86167
quartz resonator, third overtone, eqns. of motion of elastic plates 2−109220
rectangular cantilever crystal plates, stresses under transverse loading 2−97430
rectangular crystal plates, extensional vibrations calc. 2−91293
rectangular panels, acoustic radiation efficiency 2−97276
rectangular parallelepiped, response to simulated acoustic emission burst 2−70756
rectangular parallelepiped with rigid-lubricated boundaries, forced vibr. response 2−65505
rectangular plate, flexural vibrs., Rayleigh-Ritz method, use of simply supported plate functions 2−75895
rectangular plate resting on symmetrically distributed point supports, and soln. for free vibr. anal. 2−60449
rectangular plates clamped at opposite edges, natural frequencies 2−91302
reed generators, air-driven, acoustic admittance meas. 2−75756
rod, cylindrical, connected to an elastic half space, forced torsional vibrs. 2−103081
rod bundles, elastic, random coupled vibr. 2−97418
rods, component heterogeneous, longit. vibrs., elastic modulus determ. 2−114717
sandwich vibration-absorbing structures, extension of effective temp.-freq. domain 2−114544
sapphire cylinders, torsional vibrs., electrostatic method investig. 2−103076
second order non-linear equations of motion for spinning highly flexible line elements 2−86166
shaft, rotating axially loaded homogeneous, stability behaviour 2−75874
shell, cylindrical, orthotropic, with attached mass, small vibrs., natural freqs., mode configs. 2−55487
shell, cylindrical, radiation near a thin elastic plate 2−97422
shell, finned cylindrical, with a frame, free vibrs. 2−91306
shell, thick-walled, nonhomogeneous, finite, free torsional vibrs. 2−60445
shell container, elastic, partially filled with inviscid incompressible liq., hydroelasticity, spectral problem 2−55476
shell of revolution, piezoelectric, ceramic, numerical anal. 2−60459
shell structures, stresses, use of doubly curved finite elements 2−55479

vibrating bodies continued
shells, cylindrical, reinforced with elastic rings, free vibrs. 2−65512
shells, flat, natural vibr. modes 2−60458
shells, noncircular, cylindrical, fluid-filled, natural frequencies, exact asymptotic formula 2−81270
shells, ribbed, dynamics studies 2−114719
shells, shallow, simply supported on elliptical bases, vibr. anal. 2−103080
shells, truncated conical, with variable modulus of elasticity under periodic compressive forces, dynamic instability 2−60435
shells with Timoshenko-Mindlin type shear deflections and rotatory inertia 2−114537
singing sand, freq. measurements 2−70753
slab lined with compliant layers, acoustic reduction 2−114542
small vibration meas., novel optical technique 2−64082
solid mechanics problems, point least squares method with B-splines appl. 2−86209
solid rectangular parallelepiped, natural oscills., analytic soln. 2−60452
sound radiation from a plate, influence of bubble layer 2−114533
sound radiation of ring-stiffened cylindrical steel shells in water *(German)* 2−97259
Space Shuttle Thermal Protection System file vibration response, analytic and experimental evaluations 2−114536
sphere acoustic radiator, influence of perfectly reflecting wall on field and impedance 2−114505
stationary structural system parameter estimation from non-stationary random vibration data, locally stationary model 2−97271
steady state out-of-plane response of an internally damped ring supported by springs in some bays 2−97270
steady vibration response variance analysis 2−60443
stiffened annular plates, vibration and stability 2−109107
stress analysis by holographic intrferometry and strain-gauge technology *(German)* 2−97481
string, reson. spectra, oscilloscope expts. 2−79332
string, vibrating, in presence of fixed straight obstacle, almost-periodic motion *(French)* 2−75848
structural parameters identification, freq. domain for white noise input 2−114541
structural vibration anal., freq. depend. damping, transfer functions and numerical Fourier transform. 2−75888
structure natural freqs. and modal shapes, vibr. analysis using UNCLE finite element scheme 2−97388
structure-born sound transmission between source and receiving structure, effective mobilities, theory and expt. 2−114530
structure-born sound transmission between source and receiving structure, effective mobilities, estimation procedures 2−114531
structure-to-structure mech. interaction anal., three dimens. 2−107930
structures, vibr. anal., use of screw translational symm. 2−58596
subsonic flexible tube flutter anomaly, fluid and structural damping model 2−91545
superresolution ultrasonic imaging system by forced vibration of object 2−70774
tapered cantilever beams with elastic foundation, stability subjected to concentrated follower force at free end 2−97268
thermoelastic damping theory 2−81277
thermoelastic thin plates, vibration dynamics 2−97415
thermoelastic waves in circular cylinder, dispersion and energy dissipation 2−102974
three-layer panels, flat and spherical, trapezoidal, with honeycomb filler, natural vibrs. 2−81279
Timoshenko beams, second frequency spectrum 2−86168
tube banks, staggered vibrating, in cross flow of water, flow and hydraulic resistance *(Russian)* 2−91548
tube bundle in a confined fluid, eigenfreqs. 2−75881
tube bundles in transverse flow, vibrs. *(French)* 2−55666
tuning-fork vibrator, piezoeaccelerometers transverse sensitivity meas. 2−65549
two layered beam with imperfect bonding, vibration and stability 2−109223
ultrasonic imaging system using Doppler-modulated wave fronts 2−109142
ultrasonic magnetostrictive transducers, analysis of a radial-mode vibratory system with nonlinear characteristics 2−91207
ultrasonic wave radiator, hollow cylindrical vibrating system 2−91135
umbrella-shaped body vibrating in a fluid, average force acting on the body 2−70759
unified Timoshenko beam finite element 2−91296
vessel with liquid containing compressible sphere, finely disperse inclusions motion 2−91520
vibration-impact systems, quasi-conservative, investigation by averaging method 2−114711
vibration-isolation elements, influence of elastic dissipation parameters, load characteristics, and degree of lateral constraint or damping properties 2−114543
vibromotor annular motion convertors, holographic interferometry of wave processes 2−58812
viscoelastic damping layers, effect on sound field generated in waveguides by flexurally vibrating plates 2−60290
viscoelastic layer situated in water next to flexurally vibrating plate, vibration damping properties 2−61274
viscoelastic plate, temp. dependent response to nonstationary random excitation 2−55376
whirling instabilities in heat exchanger tube arrays 2−97261

vibration control
see also damping
microphotography lab. vibration control 2−58930

vibration measurement
see also seismometers
accelerometer appl., calibration and standards 2−53717
audio component vibration meas. by laser vibrometer 2−89703
axial torsional oscillations, automatic recording 2−114744
confocal Fabry-Perot sensor, optical displacement sensor for acceleration and vibration meas. 2−58889
digital frequency controller *(German)* 2−95368
electronic speckle pattern interferometric vibr. mode anal. 2−79659
fibre optic interferometer for vibr. meas. *(Japanese)* 2−84619
gas turbines, vibration and overspeed monitoring 2−91136
glass fibre rectangular multilayer plate vibrs., time-average defocused speckle photography 2−53827
heterodyne interferometry, vibr. meas. method 2−74496

vibration measurement continued
holographic interferometry, time average, in Fourier plane, for high amplitude vibr. anal. 2−114221
hydroelastic gate model, transducers for force and vibration meas. *(German)* 2−76053
in-flight vibration measurement in A310 Airbus *(French)* 2−95364
laser speckle subjective method, appl. to solid mechanics problems 2−91354
light-focusing optical fiber displacement-vibration probe 2−97218
mechanical Q-factor, instrum. 2−95367
mechanical vibrometer, operating principles and capabilities 2−63810
metrology with $Bi_{12}SiO_{20}$ crystals, real-time 2−85914
mode anal. using electronic speckle pattern interferometry, instrument 2−83324
nuclear reactor vibration characts. meas., w.r.t. safety in earthquakes *(German)* 2−64599
optical mixing spectroscopy, tuning and control, appl. to vibr. meas. 2−69257
piezoeaccelerometers transverse sensitivity meas., using tuning-fork vibrator 2−65549
polymer, damping meas. by coated beam method 2−67675
precordial LF vibr. meas. system, development of optical transducer, heart disease diagnosis appl. *(Japanese)* 2−117047
rotating structure analysis using image derotated hologram interferometry and moire techniques 2−86243
saw, rotating circular, vibr. mode recording using CRT display 2−103120
seismic effects on structures, research using high performance large vibration table system *(Japanese)* 2−89022
skin vibrations of singer's face, neck, larynx and sternum, holographic interferometry meas. 2−57882
small vibration meas., novel optical technique 2−64082
speckle pattern interferometry appl. 2−79657
synchronous accumulation of vibration signal under conditions of nonidealness of strobing process 2−67712
time-average in-plane moire method for the analysis of nonsinusoidal cyclic loading 2−91347
torsion pendulum for studying phase transitions in ferroelastic crysts. 2−107319
transducer calibration, comparison and direct methods 2−58806
ultrasonic transducer for displacement and vibration measurement in three dimensions *(Russian)* 2−91188
vibration pick-up model GCS-1 design *(Chinese)* 2−69166
C fibre reinforced plastic struct., vibration technique for NDT *(German)* 2−78050

vibrational states in disordered systems
alkali metal molten salts and binary mixtures, pseudo-Gruneisen parameters 2−98230
amorphous materials, phonon spectra 2−56138
amorphous solid, spatial random processes and local plane wave modes in vibr. states 2−92135
amorphous structure, geometrical nature and elementary excitations, theory 2−115139
benzene, liq., inelastic neutron scatt., 1.5 to 15 eV 2−109636
benzenes, halogenated, in decalin, dielectric and far IR study, γ-process charact. 2−61892
dielectric glasses, sp. ht., time depend. 2−115432
1,2-difluorotetrachloroethane, Brillouin scatt. in glass transition region 2−61915
EBBA, amorphous and cryst. phases, vibr. density of states 2−56141
entropy of disordered solids at low temperatures 2−56220
epoxy resin monomers, unreacted DGEBA type, local order investig. by light scatt. 2−93212
fluorohafnate glass, comparative study of vibrational charact. with fluorozirconate glass 2−57076
fluorozirconate glass, comparative study of vibrational charact. with fluorohafnate glass 2−57076
glasses, alkali metal cation characteristic vibrs. 2−57077
glasses, nonresonant EM and US absorpt., quantum theory 2−98205
HfF_4 based highly transparent glasses, IR absorpt. meas. 2−60203
liquid metals, non-simple, sound vel. and entropy, Percus-Yevick phonon description 2−61068
localisation of exciton states, dipole-dipole interaction 2−66496
MBBA, amorphous and cryst. phases, vibr. density of states 2−56141
methylene chloride, in decalin, dielectric and far IR study, γ-process charact. 2−61892
organic glass, impurity dephasing by optical modes 2−86822
PAA, amorphous and cryst. phases, vibr. density of states 2−56141
Peierls dimerized condensate, IR activity 2−61910
phonon life-time calc. 2−86821
phonon physics, conference, Bloomington, IN, USA (Aug.-Sept. 1981) 2−53414
polyacetylene, collective fields, functional integral formalism 2−92588
polyacetylene, soliton diffusion, acoustic phonons 2−115379
polyacetylene, soliton diffusion, optical phonons 2−109935
polyacetylene ring, quantum ground state 2−86823
polyethylene, highly drawn linear, gauche defects, accordion-type laser Raman scatt. obs. 2−67041
polyethylene, polycrystalline, neutron inelastic scatt., polarisation props. of optical phonons 2−61099
polyethylene, thermal cond., 3 to 9K, effect of microcryst. struct. 2−56272
polymer gels, transverse modes, light scatt. 2−98231
polymers, helix struct., vibr. spectrum low-freq. branches and low temp. thermal capacity *(Russian)* 2−56137
polymers, impurity dephasing by optical modes 2−86822
polyoxymethylene single cryst., phonon dispersion curves and elastic props. 2−92136
Vycor, porous, low temp. thermal cond. 2−56270
As, amorphous, temp. depend. of EXAFS 2−105002
As_2S_3, amorphous, time-resolved phonon spectroscopy 2−56140
$Ca(NO_3)_2$-KNO_3 glasses, low temp. thermal props. rel. to glass transition temp., water doping effect 2−56271
$CuCl_2$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
$Fe_{40}Zr_{60}$:Kr, amorphous, vibr. densities of states, inelastic neutron scatt. study 2−56142
β-Ga, metastable, neutron inelastic scatt. study of phonons at melting temp. 2−56119
(Ge, Sn)-Se system, glass form. and vibr. props. 2−86578
Ge, amorphous, far-IR vibr. spectra using double-beam Fourier transform spectrometer 2−113003

vibrational states in disordered systems continued
GeO_2, vitreous, vibr. selection rules in Raman and IR spectra 2−57082
N_2, liq., inelastic neutron scatt., 1.5 to 15 eV 2−109636
NaOD solution, interaction induced light scatt. spectra of amorphous solid and liq. 2−57113
P, amorphous, vibr. spectra, inelastic neutron scatt. meas. 2−56139
Rb, liq., model, phonon spectrum 2−66155
Sb_2O_3, vitreous, IR and Raman spectra, valence force field calcs. 2−72503
Se, amorphous, defect vibrs., Green function-CPA calc. 2−98233
Se, amorphous, second-order Raman scatt. 2−61904
Se, amorphous, struct. factor and collective excitations, neutron scatt. study 2−98232
Si, amorphous, far-IR vibr. spectra using double-beam Fourier transform spectrometer 2−113003
a-Si CVD films, anneal-stable, struct. order, Raman scatt. study 2−81679
Si:H, amorphous film, optical props. *(Korean)* 2−57201
a-Si:H films, Raman scatt. under high press. 2−72505
Si-Ge, amorphous, defect vibrs., Green function-CPA calc. 2−98233
SiO_2, amorphous, freq. spectrum, mol. dynamics simulation 2−61100
SiO_2, fused, evidence for struct. contrib. to phonon lifetimes 2−76628
SiO_2 gel to glass transform., Raman and IR spectra study 2−77506
SiO_2 glass, thermodynamic, struct. and dynamical props., mol. dynamics study 2−76321
$SrBr_2(Cl_2)$ aq. solns., vibr. dynamics, Raman scatt. study 2−57085
$ZnCl_2$ aq. solns. and melts, vibr. dynamics, Raman scatt. study 2−57085
$ZnCl_2$ solutions in D_2O, local order and dynamics, small angle neutron scatt. study 2−55828

vibrations
see also lattice dynamics; molecular vibration; vibrating bodies
acoustic data analysis in noise and vibration problems, aeroacoustic appls. *(French)* 2−91194
acoustic excitation, response of structures 2−91141
acoustic waves in solids, vibration transmission and sound radiation 2−91145
acoustically excited structures, statistical energy analysis 2−91143
alloy, dissipative properties under cyclic tension-compression, static tension effect 2−99631
ambulation of normal men, LF self-generated vibr. 2−116958
annular double-plate systems, internally damped, axisymmetrical steady-state response 2−103085
Applied Mathematics and Mechanics Society Meeting, Wurzburg, Germany (April 1981) 2−84377
arcs, elastic, free out-of-plane vibr. 2−103086
beams, centrifugally stiffened, vibr. modes 2−103078
beams, stepped, under gravity, nonlinear free vibr. anal., transfer matrix method 2−75879
bone conduction thresholds, changes with vibrator contact area 2−94069
channel and pipe flows of slightly non-Newtonian liquid, random longit. vibr. influence 2−55671
composite cylinders and spheres, elastic vibr. determ. 2−86220
conforming axisymmetric shell element 2−109216
cylinders, elastic membrane, rot., vibr. anal. 2−63809
data analysis techniques in noise and vibration problems, report 2−91139
dynamic testing integration into product design cycle 2−101398
elastic elements of systems with many degrees of freedom, vibr. damping 2−75849
elastic layer, vibr. of circular crack under three-dimens. loading 2−55494
elastic systems nonlinear vibr., amplitude incremental var. principle 2−91315
elastic systems with amplitude-dependent hysteresis friction, multifreq. resonance vibrs. 2−114633
finite viscoelastic solid on springs, excitation and dynamic response 2−114683
flow generated noise, fundamental concepts 2−91413
fluid-structure interactions in model test system, perturbation analysis 2−91307
harmonic oscillator, one dimensional, multiharmonic force effect on vibr. 2−79428
homogeneous space, elastic piecewise, with spherical symm., non-steady-state radial vibrs. 2−55481
impulsive vibrations, whole-body, slow vertex pots. evoked in recumbent men 2−111712
loudspeaker cone vibration modes, computerized analysis and observation 2−55393
luminous fog lamp mounting assembly dynamic design and mechanical strength enhancement *(Russian)* 2−79351
magnetostrictive polycryst. material vibrs., hysteresis damping, phenomenological theory 2−66883
metal balls, continuous inspection of hardening quality on prod. line 2−93698
multimass array of solid bodies lowering the order of system of differential eqns. of motion 2−81220
natural vibr. freqs. for gas outside circular cylindrical surface 2−60700
non-stationarity and nonlinearity in data analysis 2−91144
nonlinear in-plane and out-of-plane vibrations in solar arrays 2−93891
nonlinear vibrating string, characterisation of breakdown points 2−89524
nonlinear vibrations with almost periodic parametrical excitations *(German)* 2−53503
on-line density meter for viscous liquids and slurries 2−89693
parametric vibration, approx. method of anal. 2−58598
pendulum, inverted, optimal parametric stabilisation 2−81218
pendulum made up of mass, pivoted weightless rod and spring, rotational vibr. 2−97366
piano hammer and string, experimental study of force-time curves *(Japanese)* 2−91179
piezoelectric crystal plate, anisotropic, spatial elastic vibrs. and normal waves *(Ukrainian)* 2−81274
piezopolymer microphones, sensitivities to air-borne sound and vibration *(German)* 2−86192
pipelines, composite, dynamic processes 2−114720
plane frames, linearly elastic, exact dynamic stiffness matrix, transcendental eigenvalue problem 2−109189
plate, circular, of variable modulus of elasticity, vibr. numerical calc. 2−109218
plate, circular, rigid-plastic, in a damping medium, dynamic response 2−103082
plate, large inextensional deform., eqns. of motion 2−89537
plate, nonhomogeneous magnetostrictive thin circular, with central hole, dynamic vibr. and stresses 2−109217

vibrations continued
plate, rectangular, thermal gradient vibr. anal. 2−81281
plates, infinite, elastic plate vibrs. by boundary integral eqns. 2−81271
plates, vibrations, Chaldni's law 2−53468
pressure field of sound source, imaging techniques 2−91146
reduced impedance method anal. 2−79345
rotating flexible rod vibr., uniform real-variable asymptotic approx. 2−89528
rotating machinery vibration anal. using finite elements 2−69012
saw teeth, meas. of vortices in wake 2−60528
shell, cylindrical, nonlinear response to transient acoustic wave 2−91308
shell, cylindrical, thickness variation effect on axisymmetric vibrs. 2−75880
solid-fluid mixture vibration problem soln., existence and uniqueness *(French)* 2−84442
speckle photography, error of lateral sinusoidal vibrs., simple analytical soln. 2−74488
steady vibration response variance analysis 2−60443
steel, medium C, mech. props. in dynamic deform., struct. and ultrasonic vibrs. influence 2−72772
stiffened annular plates, vibration and stability 2−109107
stochastic excitation of elastic structures and examples of flow-generated noise 2−91142
stress fields fluctuation in continuous media 2−91140
stress intensity factor determination, vibration method 2−86240
structures amplitude-frequency characteristics, determ. using explosive loading 2−114634
struts, steel, subjected to impulsive loading with linear attenuation, dynamic anal. *(Chinese)* 2−103073
thermal instability in a porous medium with random vibrations 2−97642
two-phase flow, one dimensional flow through constrictions, transient processes, vibrations 2−71010
Van der Pol systems solution, using hodograph transformation 2−89526
vertical pile in waves, transverse oscillations 2−86221
vibrational loads,influence on attenuation factor of optical cables 2−60461
vocal cord vibration, automated anal. from ultra high-speed films using angular bend function *(Japanese)* 2−117046
Al, solidification, low-frequency vibration influence obs. 2−116432
Co-Sn eutectically solidification, low-frequency vibration influence obs. 2−116432
Cu-Mn-Al alloy, influence of static tension on vibration damping behaviour *(Japanese)* 2−97416
Fe, cast, resonance testing 2−62302
KH_2PO_4 crystal, forced resonance acoustic vibrs. *(Russian)* 2−103909
Sn, solidification, low-frequency vibration influence obs. 2−116432

vibrations, crystal lattice *see lattice dynamics*

vibrations, molecular *see molecular vibration*

vibrometers *see vibration measurement*

vibronic states of molecules *see molecular vibronic states*

video and audio discs
medical emergency simulation by microcomputer and video disc 2−83696
optical disc characterisation 2−91006
optical disc readout, coherent scanning model 2−85899
recording media for laser beam memory 2−55285

video cassette recorders *see video tape recorders*

video recording
see also video and audio discs; video tape recorders
broadcast telecine equipment Rank Xerox Mk III, advertising agency appl. 2−74537
FeRRIT, 35 mm/17.5/16 mm audio recorder/reproducer, audio post production appl. 2−101480
film/video sound dubbing system, HTV, Welsh/English languages 2−101479
intermodulation distortion in sound channels in music recording *(Russian)* 2−64155
microelectronics appls., general discussion 2−69271
oscillogram storage using video recording *(German)* 2−64012
post-production dubbing by computer-assisted digital sound mixer 2−109134
USSR, development in 11th 5 year period *(Russian)* 2−58943
videotape editing system for film post-production 2−95512

video signals
microcomputer system for acquisition and processing of video data 2−79548
NMR spectrometer, video pulse signal simulator with specified envelope form 2−69214
optical transmission by glass fibres, survey *(German)* 2−75717
pulse scattering in randomly inhomogeneous medium 2−62995
signal enhancement of UHF TV signals to occurrence of inversion layers *(Japanese)* 2−58200
solid state camera for low cost image processing 2−84731
standard time and frequency signals transmission, over Cuban TV channels 2−69145
two-dimensional digital filter design for electron microscopy 2−58971

video tape recorders
geophysical digital data storage on videocassette system 2−58128

videophones *see videotelephony*

videotelephones *see videotelephony*

videotelephony
optical fibres, component performance and price forecast to year 2000 2−65368

vidicons *see television camera tubes*

viewing screens *see screens (display)*

virial coefficients *see equations of state*

virtuons (virtual phonons) *see phonons*

viscoelasticity
see also creep; internal friction; stress relaxation
air bubble rising axially in a tube, viscoelastic effect 2−55644
asymmetric linear, variational theorems *(French)* 2−70848
asymptotic soln. of stochastic integro-differential eqns. with small parameters 2−109209
bar, reinforced composite material, cylindrical non-stationary wave propag. *(Russian)* 2−75887
beam, complex elastic modulus meas. by driving point impedance method, impedance head transmission function effect 2−75860
biological materials, model for viscoelastic behaviour 2−100030
blood, viscoelastic law with relax. time *(French)* 2−68034
cellular convection in a viscoelastic fluid 2−60539

viscoelasticity continued
celluloid, softened, deform. under combined stress, viscous-viscoelasticity model *(Japanese)* 2−92082
collagen fibres, viscoelastic model 2−105718
column, perfect viscoelastic, dynamic stability 2−81262
composite, viscoelastic-elastic, sandwich seal 2−109203
composite unidirectional material, nonlinear viscoelastic anal. 2−91280
continuum constitutive modelling, shock waves 2−69015
convergent numerical scheme for viscoelastic fluids 2−60497
crack propagation in visco-elastic medium, stress and strain response anal. *(French)* 2−84444
cracked standard linear viscoelastic body, steady state solns. 2−75906
creeping materials, energy balance approach to fracture 2−91324
cylinder, helium, torsion waves *(Russian)* 2−91292
cylinder, viscoelastic, reinforced by shell with annular ribs, forced vibrs. 2−91304
cytokinesis in animal cells, viscoelastic model 2−57793
damping layers, effect on sound field generated in waveguides by flexurally vibrating plates 2−60290
deformable shell particles, in conc. suspension, non-Newtonian viscosity 2−86248
dynamic models, deform. processes 2−101170
dynamic problem solution 2−112707
Earth, elastic viscoelastic response to surface loading rel. to Lake Bonneville 2−106070
Earth interior, refl.-refr. of general P- and SV-waves in elastic and inelastic solids 2−105955
Earth surface, quasi-static strains and tilts due to faulting in layered half-space with viscoelastic layer 2−100205
elastico-visco-plastic media, motion in pipes, hydrodynamic charact. calc. *(Russian)* 2−91365
elastomers, strength and useful life, network degree influence *(German)* 2−67532
electromagneto-thermo-mechanical plane wave attenuation in magneto-thermo-viscoelastic media, mag. field effect 2−55047
epoxy binders, strain-strength props. above glass transition temp. 2−83186
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
epoxy systems, elastomer filled, viscoelastic fracture 2−67512
epoxy thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
erythrocyte membrane, viscoelastic behaviour 2−100020
ethylene-propylene-diene rubber blend with polypropylene, sulphonated and unsulphonated, struct., physical and rheological props. 2−116486
fibre reinforced composite with viscoelastic matrix, stress dynamic redistrib. in broken fibre *(Russian)* 2−81258
fibre reinforced composites, viscoelastic, crack development kinetics 2−114731
finite bodies, viscoelastic responses, quadrature form of correspondence principle 2−97402
finite element calculation of viscoelastic fluid flows, approximate error 2−60586
finite viscoelastic solid on springs, excitation and dynamic response 2−114683
flow between eccentric rotating cylinders, linear stability 2−97506
flow due to plate which starts oscillating in presence of parallel stationary plate 2−91490
flow past rigid spheres and spherical bubbles 2−60553
fluctuating flow of viscoelastic fluid past porous plate in rot. medium with applied mag. field 2−114856
fluid, entrainment by rotating drum 2−60551
fluid, viscoelastic 2−60582
fluid interfaces, surface compositional elasticity and sorption parameters 2−76812
fluid mechanics, and polymer processing, deform. rate softening of memory 2−65554
fluids, flow through porous media, modelling 2−60633
framed underground structures, dynamic response 2−109190
free surface problems induced by motions perturbing the natural state of simple solids 2−75856
glass, thermal lens formation by radiation at softening temperature *(Ukrainian)* 2−114672
glass, unified model of kinetic treatments of glass transition and viscoelastic props. 2−66221
glass fibre reinforced plastic, elec. insulation, liq. medium influence on strength and deform. props. 2−99576
Kramers Kronig transforms, rels. between viscoelastic quantities 2−91367
laminar visco-elastic flow and heat transfer between two stationary uniformly porous discs of different permeability 2−91384
laminated plates, dynamic contact problems, numerical simulation 2−114739
layer situated in water next to flexurally vibrating plate, vibration damping properties 2−61274
linear materials, plane problems, uncoupled thermoviscoelastic response for all Poisson ratios, finite element formulation 2−81243
linear viscoelastic media, diffusion theory 2−114668
linear viscoelasticity problems, solns. 2−55454
lipid bilayers, viscoelasticity and phase transitions 2−116723
lipid monolayers, viscoelasticity and phase transitions 2−116723
liquid film on plane surface, stability 2−82084
liquid in converging channel, laminar flow development and heat transfer 2−109413
liquid viscous bodies, under various modes of loading, deformation and stress calc. *(Czech)* 2−109262
membrane surface flow in viscous fluids, red blood cell mech. appls. 2−111635
metals, deform., rate-dependent, elevated temps., constitutive eqns. 2−105265
monomolecular layers, insoluble, dynamical props. under press. *(French)* 2−62646
nonlinear viscoelastic bodies under harmonic excitation, approx. theory of behaviour 2−60428
nonlinear viscoelastic polymer, unloading process, birefringent effect 2−109201
nonlinear viscoelasticity theory based on temporarily cross-linked network model 2−75912
organic coatings on multiple glass fibre strands dynamic mechanical testing 2−78023
organic crystals, dynamic compaction under shock 2−72648
oscillatory infinite integrals, numerical evaluation by extrapolation, viscoelasticity appls. 2−79364

viscoelasticity continued
particle-liquid mass transfer in viscoelastic media 2−114880
1,5- and 2,4-pentanediol, viscoelastic liqs., struct. relax., Brillouin light scatt. 2−72514
phase-relief recording, optical characts. for Newtonian and viscoelastic layers 2−114208
plate, temp. dependent response to nonstationary random excitation 2−55376
plate, viscoelastic, cracked, dynamic anal. by finite element method, J-integral 2−103102
plates, thermoviscoelastic, dynamic problem soln. by Laplace transform-finite element method 2−81246
plates, viscoelastic, ageing, with linear cracks, durability *(Ukrainian)* 2−103092
PMMA, dynamic bulk and shear moduli and relax. 2−93548
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2−62160
PMMA, glassy state relax. characteris. by low press. CO_2 sorption, preswelling influence 2−65883
poly(γ-methyl glutamate) films, mech. props. and aggregated states of α-helical chains 2−111217
poly(vinyl acetate), temp. depend. of viscoelastic softening and terminal dispersions 2−99475
polybutadiene, stereoirregular, characteristic ratios 2−99142
1,2-polybutadiene characterisation above glass transition temp. 2−72774
polycarbonate, deformability prediction in complex stressed state 2−83189
polydimethylsiloxane networks, end-linked containing unattached PDMS, stress relax. and viscoelasticity 2−67411
polyester, unsaturated, thermosetting resin beams, quenched, viscoelastic anal. of residual stress 2−116473
polyester resin, styrene-crosslinked unsaturated, dynamic mech. relax., styrene ring substituents effect 2−109989
polyesterionomer, melt rheology, ionic content effect 2−91366
polyethylene, crosslinked low-density, drawing depend. of mech. and transport props. 2−93549
polyethylene, high-density, dynamic birefringence, α-relax. mechanism 2−110812
polyethylene film, elec. ageing, radiothermolum. obs., relax. characts. *(Russian)* 2−93288
polyethylene oxide-polyvinyl acetate blends, compatibility assessment using morphology, mech. and thermal props. 2−109694
polyethyleneterephthalate fibre, β_2 relax., dielec. meas. 2−104805
polyisoprene, stereoirregular, characteristic ratios 2−99142
polymer, glassy, deform. props. prediction using dislocation analogy 2−62183
polymer, glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
polymer, glassy, free vol. fraction, excess entropy and mech. deform. 2−61176
polymer, glassy, nonequil. nature obs. using Fickian diffusion of alkane permeants 2−66292
polymer, nonlinear stress in oscillatory shear fields, reptative motions 2−109904
polymer, partially cured, glass transition temp. as nonequil. parameter, effect on dynamic mech. response 2−66224
polymer, stress response and energy dissipation under periodic triangular strain loading 2−114675
polymer melts and solutions, complex shear modulus during periodic shear flow 2−81308
polymer solution, stress relax. in double-step shear deforms., stress components eval. 2−97482
polymeric fluids, transient shear flow behaviour according to Leonov model, viscoelasticity 2−55526
polymers, coke filled, strength and deform. props. 2−83188
polymers, deformability prediction in complex stressed state 2−83189
polymers, linear and filled, flow, eqns. of motion of nonlinear viscoelastic liq. appl. 2−81250
polymers, linear eqns. of viscoelasticity, aftereffect kernels choice 2−91272
polymers, US velocity and damping coefficient measuring device 2−62309
polymers, viscoelastic, Bucci relax. times obtained from thermal sampling 2−111220
polypropylene, activation enthalpy for vol. relax., thermal stimulation 2−92108
polypropylene films, uni- and biaxially oriented, struct. and props. 2−86593
polypropylene melt, supercooled condition, viscous and viscoelastic characts., 140-230°C *(Russian)* 2−91364
polystyrene, high-press. CO_2 effects on T_g and mech. props., plasticisation effect 2−115413
polystyrene solutions, conc., behaviour in large amplitude oscillating shear fields 2−86768
polyurethanes SKU-10, opt. and mech. props. under pulsed and static loads 2−62159
polyvinyl acetate, nonequil. annealing behaviour, water sorption and glass transition, dielec. and thermal meas. 2−66223
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, filled, plasticized, rheological and mech. props. 2−67413
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
refractory, viscoelastic stress response of commercial struct. in service at high temp., model 2−83160
reinforced plastics, linear eqns. of viscoelasticity, aftereffect kernels choice 2−91272
rigid polar molecules, in soln., dielec. props. and solvent viscoelastic behaviour 2−110758
rigid punch sliding on elastic and viscoelastic layer 2−97464
rod, buckling *(French)* 2−70847
rod, inhomogeneous isotropic viscoelastic square, torsion 2−81257
rod, linear viscoelastic, compressed, nontrivial solns. 2−103070
rod, reinforced, viscoelastic, compressed and stretched, stability 2−55464
rod, viscoelastic, impulsive loading method, isochromatic fringe pattern obs. of shock waves 2−60492
rod bundles, elastic, random coupled vibr. 2−97418
rods, viscoelastic, stability under influence of sliding force, thermomech. coupling effect 2−65498
shell, viscoelastic shallow spherical, stability under variable loading 2−60437
shock wave propagation in materials with memory 2−97590
simple liquid in prefreezing regime, viscoelasticity 2−98177
steel, austenitic stainless, creep and plastic strains at 593°C, under step stress changes, ageing effects 2−99509
viscoelasticity continued
step-change tests, elastic recovery 2−81305
stress-strain state, determ. using method of successive approximations 2−81252
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
thermo-viscoelastic rods, acceleration and shock wave propag. and decay 2−81268
thermodiffusion, coupled problem, in viscoelastic bodies 2−79503
thermorheologically simple materials, viscoelasticity, thermomech. theory 2−65495
thermoviscoelastic solids, invariant integrals, crack tip fields 2−75853
thermoviscoelasticity, boundary-value problems, soln. construction and investigation 2−60404
tidal deformation of viscoelastic body, cations for Earth rot. 2−105887
torsion test to identify hereditary-type constitutive equation 2−97394
tube, viscoelastic, fluid filled, wave propag. 2−81269
unsteady viscoelastic flow through magnetofluidynamic porous medium in circular pipe 2−97662
vibration elastoviscosimeter based on a micro-controller *(Russian)* 2−114955
viscoelastic fluids, flow between two flat plates interrupted by slit, hole press. calc. 2−60656
viscoelastic melt-solid particle system in melting chamber, rheological props. 2−109259
viscoelastic-elastic composite, general theory 2−109202
viscoelastic-plastic flow in pipes, rheological props. 2−114904
Weissenberg effect, yield stress and viscoelasticity interaction 2−97483
Al alloy, 2618-T61, simultaneous stress relax. in tension and creep in torsion 2−105269
Be, shock wave data interpretation with elastic viscoplastic model 2−71556
FeBSiC metallic glass, creep and homogeneous plastic flow 2−105257
U, shock wave data interpretation with elastic viscoplastic model 2−71556
viscometers
see also viscosity measurement
capillary viscometers taking into account surface tension effects 2−91567
Ferranti-Shirley cone and plate viscometer 2−81412
high-temperature modification for rheological investig. of polymer solns. *(German)* 2−70888
oscillating sphere magnetic microheometer for meas. of viscoelastic props. of biological secretions 2−68208
spinning rotor viscosity gauge, vacuum gauge and transfer standard appl. 2−84652
vibration elastoviscosimeter based on a micro-controller *(Russian)* 2−114955
viscoplasticity *see plasticity*
viscosimeters *see viscometers*
viscosity
see also electroviscous effect; internal friction; viscosity of gases; viscosity of liquids
air bubble rising axially in a tube, viscoelastic effect 2−55644
borate glasses, viscosity, temp. depend. at const. struct. temp. 2−104047
boundary layer in intersection of cylindrical surface and a plane 2−60495
bubble migration in rot. liq. filled sphere 2−97637
cosmology, viscous dissipation and unification in early Universe 2−79256
crystals, two dimensional, defect motion and stress relaxation, shear modulus 2−61208
dielectric crystals, first and second viscosities 2−98321
drop in a viscous non-homogeneous non-stationary flow, drag force *(Russian)* 2−103203
drops, close interaction calc. taking into account internal circulation and the slip effect 2−114857
dusty gas unsteady flow in elliptical and confocal channels with moving boundaries 2−109407
dusty viscous flow through a circular pipe 2−109416
dwarf novae viscous accretion disc outbursts and mass flow, light curve anal. 2−63456
Earth mantle, viscosity rel to models of convection currents 2−117279
elastomer-filler interaction, filler effect on viscosity 2−57390
ferroelectrics, doped displacive, shear viscosity 2−115366
flow field induced by oscill. disc in semi-infinite viscous fluid with surfactant surface film 2−114878
flow in bent tube undergoing deformation 2−60645
fluid flow past an array of spheres 2−86250
gas-liquid two phase flow, press. drop in inclined pipes 2−114879
gels, cylindrical, shear waves and internal viscosity, theory and light scatt. study 2−103135
germanate glass, viscosity, temp. depend. at const. struct. temp. 2−104047
glass, non-Newtonian viscous flow obs. 2−92247
glass, window, elec. cond. relaxation, rel. to viscosity in glass-transition interval 2−71988
glass fibre suspensions, viscosity 2−65555
glass formation, continuous cooling approx. 2−55855
hypersonic laminar viscous flows past spinning cones at angle of attack 2−91482
incompressible fluid flow along an elastic wall, stability 2−114766
incompressible viscous flow, unsteady Navier-Stokes eqn. finite element soln., fractional step method 2−75918
incompressible viscous flow in cascade, numerical method *(French)* 2−76027
incompressible viscous flows, Lagrangian-Eulerian finite element formulation 2−55530
laminar vortex-sink flow of compressible fluid *(German)* 2−97580
low Reynolds number flow due to impulsively started circular cylinder 2−60550
membrane microviscosity, extraction from translational and rot. diffusion coeffs. 2−62567
Navier-Stokes fluid, random array of spheres, dynamics 2−97628
non-Newtonian fluid channel flow, nonisothermal with viscous heating 2−91536
ordered structures simulation in open turbulent flows 2−86265
particle motion in nonstationary layered flow of an incompressible fluid 2−86325
phospholipid vesicle tether formation, surface viscosity meas., anal. 2−67971
phospholipid vesicle tether formation, surface viscosity meas., expts. 2−67972
plasmas with dissipative phenomena, mixture approach 2−71095
polybutadiene, stereoirregular, characteristic ratios 2−99142

viscosity continued
polyisoprene, stereoirregular, characteristic ratios 2−99142
polymer glass, Case II diffusion theory 2−92253
power law time independent fluids, thermohydraulics in corrugated tubes 2−91427
PVC, plastisol viscosity and particle size distrib. 2−82005
randomly forced two dimens. flow, nonequilib. probability distrib. 2−97511
silicate glass, water content influence on viscosity, T_g, thermal expansion and hardness 2−93632
sintering parameters, calc. for viscous solids 2−83058
solar nebula, effects of mag. and turbulent viscosity on ang. momentum and mass distrib. 2−100776
stellar pulsation problem, effect of turbulent viscosity on local theories of time-dependent convection 2−89240
unsteady viscous supersonic flow over a short flap 2−86297
viscoelastic fluids subject to plane Couette and oscillatory flow, local order theory 2−55533
viscous flow in oscillatory spherical annuli, numerical study 2−55663
water thermohydraulics in corrugated tubes 2−91427
Al, effective viscosity at high strain rate 2−83157
Ar, Lennard-Jones fluid, Couette flow, shear rate depend. viscosity function *(French)* 2−97497
$Mn_{54}Al_{43}C$, magnetic viscosity 2−72291
Na_2O-B_2O_3-SiO_2-Nb_2O_5, glass props., Nb_2O_5 influence 2−71648
PbO-B_2O_3 glasses, microstruct. charcts. by phys. prop. meas. 2−91800
PbO-SiO_2 (40 wt.%) glass, Narayanaswamy struct. relaxation model, expt. check 2−103659

viscosity measurement
see also viscometers
adsorbed mixed monolayers, dynamic surface tension and surface dilational viscosity, meas. technique 2−98386
automatic measurement by capillary *(French)* 2−60677
incompressible non-Newtonian fluids, normal stress effects 2−55616
metallic melts, vibration viscometry, review 2−103230
physico-chemical magnitudes, metrological assurance *(Rumanian)* 2−74381
rotating coaxial cylinder rheometer, dynamic viscosity unsteady meas. 2−103228
vibration elastoviscosimeter based on a micro-controller *(Russian)* 2−114955

viscosity of gases
benzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
Boltzmann eqn. for steady flow, Hilbert expansion 2−109439
chlorobenzene vapour, second virial coeff. and viscosity coeff. evaluation with regard to intermol. pot. *(German)* 2−91575
chlorobenzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
dilute gas shear viscosity, molecular shape effect 2−81437
dilute gas shear viscosity in weak thermal gradient 2−109441
dilute hard-sphere gas, self-diffusion, shear viscosity and heat cond. calcs. 2−81432
dissociating gases, transport phenomena calcs. 2−86308
fluorobenzene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
gravitational instability in presence of rot. and thermal radiation *(Italian)* 2−114961
hard-sphere gas, vel. distribution, large energy behaviour calc. 2−103237
irreversible kinetic eqns., distrib. function proportional force, *(French)* 2−69083
phenol vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
rarefied gases, viscosity, rel. to mol. repulsion energy 2−80770
shear viscosity coeff., Green's function calc. method 2−86367
simple fluids, transport props. at low temps. and high press. 2−71691
toluene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
transonic flow, integral equation, supercritical solns., artificial viscosity appl. 2−55612
p-xylene vapour, viscosity coeffs., dipole and quadrupole interactions effects *(German)* 2−109445
Ar-N_2 mixtures, gaseous, viscosities, capillary flow meas. 2−110026
CO, and binary mixtures, diffusion coeffs., viscosity meas. 2−114960
H_2-He system, shear viscosity SBE cross sections, close-coupled and coupled-state calcs. 2−81431
N_2, and CO mixtures, diffusion coeffs., viscosity meas. 2−114960

viscosity of liquids
see also lubrication
abietic acid, supercooled, dielec. relax., viscosity and DC cond. meas. 2−57016
n-alkane mixtures, viscosity coeff. meas. at saturation pressures, 283-378K 2−71689
4-alkylphenyl 4-alkoxybenzoate mixtures, anisotropic props. rel. to mol. length 2−76282
amorphous thermoplastic polymers, chain entanglement at high-T_g 2−76274
binary liq. mixtures, entropy of mixing, mass density and viscosity meas. 2−86917
bromopentanes, steady state shear viscosities 2−61185
butyl alcohol-butyraldehyde, dynamic viscosity meas. 2−104044
n-butyraldehyde, dynamic viscosity at various temp. and pressures 2−61186
cellulose derivatives, solns., intrinsic viscosity, Yamakawa model 2−104046
chloroform-acetone binary liq. mixtures, viscosities 2−71687
cholesteric systems, exhibiting blue phases, anomalous bulk viscosity 2−104045
computer simulation of behaviour 2−60850
Czochralski and CACRT crystal growth numerical simulation of convective flow in melt 2−105064
deformable shell particles, in conc. suspension, non-Newtonian viscosity 2−86248
diallyl phthalate polymer below gel point, rheology 2−65553
diatomic model fluid, vortex viscosity, fluctuation expression 2−65597
dilute electrolyte solutions, concs., molar vols. and viscosities *(German)* 2−56236
dioxan-lactic acid mixtures, calc. of free volume and internal pressure from US vel. and viscosity data 2−71579

viscosity of liquids continued
diphenyl polymer, dil. solns., behaviour in turbulent flow conditions, Thoms effect *(Russian)* 2−76001
discotic mesophase, Freedericksz transition, phys. parameters meas. 2−76286
disperse system, solid-liquid-gas, effects of surface tension and viscosity of liq. medium 2−66322
dye molecules, excited state lifetime and fluoresc. quantum yield, solvent viscosity effects 2−70320
electroviscous effect, EHD origin, study under unipolar DC injection 2−82004
ethanol, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
ethanol-water-ethylene glycol mixture, viscous behaviour 2−71688
fluid layer, convective, heat flux 2−70953
n-hexane-n-hexadecene, viscosity coeff. meas. 2−71690
hole theory of liquids, estimation of volume and energy of hole creation using US vel. data 2−76594
hydrazine, supercooled aq. soln., viscosity, Poiseuille flow meas., photon correl. spectroscopy 2−98322
hydroxypropyl cellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
hydroxypropylmethylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
interacting sphere suspensions, shear viscosity conc. depend., cluster theory 2−93817
interacting sphere suspensions, shear viscosity conc. depend., Huggins coeff. calcs. 2−93818
isobutyraldehyde, dynamic viscosity at various temp. and pressures 2−61186
ketone liquids, dielec. relax. times and thermodynamic props., UHF study 2−87663
liquid, highly conducting turbulent, mag. field correlation tensor *(Russian)* 2−97665
liquid metal-O_2 system, correlations for thermodynamic and kinetic props. of gas solutes 2−98286
liquid-solid interface, viscosity effect 2−98392
liquids, pure, bubble coalescence, flow and deform. soln. 2−60618
lutidines, dielectric relax. times, viscosity effect 2−57015
macromolecular solns. temp. depend. of viscosity 2−116948
magnetised liquid cylindrical layer break-up, viscosity and nonuniform heating effects 2−86281
melts, flow props. and 5-parameter eqn. calcs. 2−71682
melts, glass transition temp. and flow behaviour, conc. effects 2−71683
metallic melts, vibration viscometry, review 2−103230
metals, liq., self-diffusion and viscosity *(Russian)* 2−66268
methylcellulose, eq. soln., temp.-viscosity relationships *(Japanese)* 2−86919
methylmethacrylate-acrylonitrile random copolymers behaviour in dilute soln. 2−92248
microemulsion, anomalous shear viscosity obs. near crit. point 2−97631
microemulsion viscosity and elec. cond. meas. rel. to petroleum recovery 2−93828
molten alkali nitrates, bulk viscosity and relaxation 2−109906
naphthalene-Cu interface, viscosity and thickness of quasi-liquid layer during melting *(Russian)* 2−115396
Natrosol 250 HHR, aqueous soln., rheological props., power law behaviour 2−76003
nematic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
nematic liquid crystals, twisted cell displays, viscous props., temp. depend. electrooptical performance 2−65857
nematic liquid crysts., order parameter and hydrodynamic viscosity temp. depend. 2−71337
nematic liquid crysts., rotational viscosity coeff. meas. 2−110024
nematics, dielectric relaxation and Doolittle's law 2−116117
Newtonian liquids, viscosity temp. depend., BASIC computer calcs. *(German)* 2−71693
organic liquids, densities, viscosities and flow behaviour models 2−82003
oxide glass and slightly nitrided glass melts, viscosity temp. relation 2−56238
PAA polymeric additives, effect on viscosity, mol. wt. depend. *(German)* 2−98324
phage T2 DNA solns., hydrodynamic props., investigation using a rot. viscometer 2−67929
PMMA soln. viscosity in good and poor solvents 2−76724
poly(2,6-dimethyl-1,4-phenylene oxide) in soln., conformational behaviour, sedimentation and permeabilities 2−75479
poly-n-nonyloxyphenol poly-p-methacryloyl oxybenzoate, hydrodynamic and conform. props. *(Russian)* 2−108755
polybutadienes, linear and star-shaped, in soln., US attenuation and vel. meas. 2−76599
polybutaneamide solns., solubility, viscosity and stability *(Russian)* 2−76725
polydimethylsiloxane pre- and post-breakdown events obs., viscosity and rate of voltage effects 2−99035
polydimethylsiloxane-diethyl carbonate, conc. fluctuation dynamics 2−103972
polydimethylsiloxanes, performance as damping fluids 2−115323
polyesterionomer, melt rheology, ionic content effect 2−91366
polyethylene, low density, stainless steel non-agglomerating spherical powder filled, rheological anal. of melt 2−114749
polyethylenes, chlorosulphonated, solns., rheology 2−70886
polyisoprene chains, unperturbed dimensions 2−75478
polymer dilute solutions effective viscosity near confining boundaries 2−98323
polymer solns., viscosity power law study 2−110023
polymer solution, rodlike, flow through fine pores, pure size influence on rheological behaviour 2−76018
polymer solution, semi-dil., de Gennes theory comparison 2−56237
polymer solutions, local viscosity investig. by electrolytic conductivity 2−71692
polymeric associates conc. soln., viscosities 2−86769
polypropene, dynamic viscosity determ. 2−55528
polypropylene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
polypropylene melt, supercooled condition, viscous and viscoelastic charcts., 140-230°C *(Russian)* 2−91364
polystyrene in mixed solvents at high temp., unperturbed dimensions, intrinsic viscosities meas. 2−109651

viscosity of liquids continued
polystyrene melt, flow behaviour obtained with various capillary rheometers *(Japanese)* 2−81376
polystyrenes, high impact, melt rheology at high shear stresses 2−109261
propionic acid/tri-n-butylamine system, permittivity and viscosity meas. 2−72409
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, dynamic viscosity determ. 2−55528
PVC melt, elongational flow behaviour 2−75913
pyridine-chloroform-methanol (n-butanol) mixtures, degree of mol. interaction and other thermodynamic props. 2−71574
rubber solution, temp. transitions, mech. losses, vibr. freq., effective viscosity, struct. development *(Russian)* 2−65837
silicon tetraethoxide, sol-gel transition in hydrolysis rel. to form of glass fibre and films 2−77793
simple fluids, transport props. at low temps. and high press. 2−71691
smectic A liquid crysts., viscosity divergence as $1/\omega$ 2−86558
smectic liq. crysts., dynamic props. and struct., theoretical and expt. study *(Hungarian)* 2−103599
solutions, intrinsic shear and bulk viscosities, microscopic theory 2−86918
solvent-solute mutual viscosity, influence on relax. time *(German)* 2−104042
square-well fluid, self-diffusion coeff. analytical expression 2−81995
trans-stilbenes-donor-acceptor substituted, in nonpolar and low visions solvents, viscosity depend. of fluoresc. quantum yields *(German)* 2−82921
styrene-acrylonitrile random polymer, in ethyl acetate 2−99143
supercooled liquids, viscosity meas. at high shear rates 2−82006
suspension of rigid rods, bimodal and polydisperse, damped oscillations in viscosity 2−75916
suspension of rigid rods, monomodal, damped oscillations in viscosity 2−75915
three-phase packed and fluidised bed, heat transfer coeff. 2−71013
toluene-acetone binary liq. mixtures, viscosities 2−71687
tri-n-octylammonium halides, benzene solns., viscosity, partial molar vols. and expansibilities 2−110025
1,2,4-trichlorobenzene-n-decane-n-tetradecane mixtures, melting, density, viscosity and thermodynamic props. 2−71666
viscous dissipation rates of velocity component kinetic energies 2−70840
viscous liquids, mixing and fluid dispersion 2−81406
water, nonBoussinesq convective behaviour near maximum density 2−70951
water, supercooled liq. permittivity meas., dielectric relax. time 2−66981
water-saturated porous media, viscosity variation effect on convection 2−70944
wave-obstacle interaction in multicomponent two-phase medium 2−71012
Al, high-purity, viscosity and density, 670-950°C 2−66272
$As_{1-x}S_x$ glass-forming liqs., viscosity and struct. transition 2−61187
CO_2, liquid, shear viscosity meas. 2−104043
$CaO-SiO_2$-CaO melt, viscosity and elec. cond. *(Japanese)* 2−76720
$CaO-SiO_2$-MnO melt, viscosity and IR spectra obs. 2−61184
$CaO-SiO_2$-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
^{3}He, liq., dynamic correlations, memory functions, shear viscosity, collective modes 2−66311
^{3}He, superfluid, B-phase, shear viscosity, Landau parameters effect 2−104098
^{3}He-^{4}He solution, saturated, vibr. wire behaviour, mean free path effect and boundary limitations 2−76765
^{3}He-^{4}He solutions, spin polarised, transport phenomena and sound propag. 2−76767
KF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
$MnO-SiO_2-Al_2O_3$ melt, viscosity and IR spectra obs. 2−61184
NaF-ThF_4 melt, density and kinematic viscosity temp. depend. 2−113675
Na_2O-SiO_2-CoO melt, viscosity and elec. cond. *(Japanese)* 2−76720
Na_2O-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
Sb-Te alloy, absolute viscosity, temp. and comp. depend., Sb_2Te_3 intermetallic behaviour 2−82002
Se, glass formation, defects, viscosimetry study in elec. and mag. fields 2−91782
Sn-Tl-Hg, liq. alloys, viscosity and elec. resist. 2−71694
Ti, C content influence, correl. with equilib. diagram 2−66273
Zr, C content influence, correl. with equilib. diagram 2−66273

visibility
see also atmospheric optics; brightness; light transmission
aerosol effects, implications of aerosol composition in marine and coastal boundary layer 2−117390
astronomical seeing deconvolution from galaxies brightness profiles, appl. to (M32) 2−84320
Atlantic Ocean, transparency vertical distrib. obs. 2−117356
atmosphere, aerosol modelling rel. to electro-optical systems performance in marine environments 2−117455
atmosphere, experimental study of aerosol light scatt. 2−68481
atmosphere, influence of horizontal visibility on global UV radiation at ground level 2−100462
atmosphere, influence of sulphate and nitrate aerosols 2−68480
atmosphere, integrated approach to optical propagation in low visibility weather conditions 2−106316
atmosphere, light extinction coeffs., visibility and aerosol comp. in Houston Texas 2−112124
atmosphere, optical extinction depend. on depth of mixing layer 2−68482
atmosphere, statistical anal. methods for visibility trend data 2−63086
atmosphere, visibility rel. to cloud base height 2−100559
atmosphere, visibility statistics obtained from airports in USA 2−68479
atmosphere of California, USA, visibility trends 2−83943
atmosphere with haze light extinction scale height features 2−112127
atmospheric aerosol, particle size distrib. and visibility in Calgary 2−105620
Binchuan, site testing *(Chinese)* 2−63087
cloudiness at near-equatorial stations, Tanzanian obs. 2−68469
geostationary satellites, visibility and apparent magnitude rel. to visual obs. 2−106476
holography, far-field, object shape, fringe visibility and resolution 2−75541
lidar and transmissometer measurement comparisons over slant and horizontal paths 2−106315
lighting parameters effects on eye performance assessment, influence of task detail, task eccentricity and observer age 2−73240
medical image unsharpness rel. to threshold visibility of edges, bars and disks 2−73246
ocean colour index and Secchi disc visibility obs. 2−117349

visibility continued
oculomator mechanism obs., saccadic eye movement as function of task visibility level 2−73234
stabilised vision through a bleaching window 2−94059
telephotometer, field testing and data analysis for prototype automated field instrument 2−112186
NE United States, seasonal visibility and pollutant sources 2−62518
SW USA, regional visibility rel. to particle concs. 2−112123
visible horizon calc. as function of altitude 2−107057
windblown dust effect on IR and optical visibility 2−117444

visible and ultraviolet spectra of inorganic solids
alkali metal glass, mixed, structural features 2−71370
borate glass, dye mol. spectral probe, using photochemical hole burning 2−108974
diamond:N, vacancy-related colour centres, spectroscopic study 2−98082
ellipsometry, LEED, and EELS study 2−61295
feldspars, X-ray irrad. defects, thermoluminesc. and optical absorpt. study 2−110958
ferroelectrics, band structure and VUV optical props., Kramers-Kronig anal. 2−110883
fluorohafnate glass, UV absorpt. edge obs. 2−57117
fluorophosphate glass:Co^{2+}, absorption spectra of Co^{2+} meas. at solid-liquid transformation 2−104924
fluorozirconate glass, UV absorpt. edge obs. 2−57117
graphite-$NO_2^+X^-$ (X^- = PF_6^-, SbF_6^-) salts, transport and optical props. 2−98645
I-III-IV Se_4 compounds, energy gap, visible-UV absorpt. 2−104904
II-IV-V_2 compounds, bond structure of pseudodirect bandgap systems, review 2−66448
(M = Mn, Fe, Co, Ni, Cu), charge transfer bands 2−87808
metal complexes, metal-formylhydrazide, synthesis and characterisation 2−110848
metallic thin films, polycryst., optical refl. and elec. resist., effect of grain boundary scatt. 2−99205
mixed valency species, excitation models, vibr. line shapes 2−110884
mordenite, optical absorpt. anisotropy by Se chains 2−87816
photochromic glass, spectral response of high excitation intensity 2−99149
polyacetylene:Br, amorphous film, elec. and optical props. 2−110511
quartz, fused, shock compressed, elec. resist. and emission spectra meas. 2−71964
rare earth metal complex, elemental anal., NMR, IR, UV-visible study 2−110672
ruby, optical hole-burning and ground state energy transfer 2−65314
ruby, UV absorption induced by ionising radiation 2−67077
ruby, visible absorpt. spectrum, shock wave effects 2−72449
ruby cryst., additional absorpt. spectra irrad. with fast electrons and γ-rays *(Russian)* 2−82880
semiconductor, photoexcited, time-resolved refl., two-wavelength picosecond dye laser appl. 2−57119
semiconductors, direct gap, optical absorpt. and refr., complex optical dielec. function 2−93139
semiinfinite crystals, Wannier-Mott excitons, wave functions and normal-incidence refl. 2−82244
silver sulphamides, cond., photocond., and luminesc. studies 2−77111
SOS films, near-surface crystallinity meas. by UV reflectance 2−93218
SOS films, optical characterisation of Si and sapphire surfaces rel. to discrete device performance 2−93219
strontium tartrate tetrahydrate, Co^{2+} centres, optical absorpt. studies 2−115220
tetrabenzo(a,cd,j,lm)perylene film, impurity controlled, crystn. rate, absorpt. and fluorescence spectra study 2−56395
$(TMTSF)_2PF_6$, metallic, IR and visible reflectance meas. 2−57092
transition metal halides, final state interactions of inner core absorption excitation 2−67075
Ag (110), adsorbed O_2, ellipsometric study near Ag plasma freq. 2−92364
Ag colloid, form. on float glass surface by heat treatment, optical props. 2−92398
Ag films, clean and adsorbate-covered, optical spectra 2−87890
Ag island films, optical plasma reson. absorpt. half-width, size effect 2−67132
Ag particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
Ag, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Ag-Ge, amorphous film, struct., elec. and optical props. 2−82483
AgCl, band struct. and density of states, APW-LCAO calc. 2−115663
$AgFeCl_4$, cryst. struct., mag., optical, and ionic cond. props. 2−92266
$AgGaS_2$, piezooptical, electrooptical and birefringence consts., meas. in visible region *(Russian)* 2−77490
AgI, absorption spectra at press. up to 136 kbar 2−110882
Al films, granular, reson. absorpt. of light, plasma reson. 2−67134
Al, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
Al-Ag granules in complex film, plasma resonance absorpt. bands 2−116289
AlAs-$Al_xGa_{1-x}As$-GaAs superlattices, absorption meas. at high press. 2−82933
AlAs-GaAs superlattices, exciton associated optical absorption spectra at 300K 2−104913
AlN epitaxial films, cathodoluminescence and optical absorption 2−99195
α-Al_2O_3 cryst., additional absorpt. spectra irrad. with fast electrons and γ-rays *(Russian)* 2−82880
Al_2O_3:(Fe), temperature depend. of Fe acceptor level 2−110898
$AlSb_xAs_{1-x}$, vacuum deposition, optical and transport props., impurity states 2−82498
As_2S_3, glassy, photocond. and absorpt. spectra, photoinduced changes *(Russian)* 2−115825
Au particles, dye coated, absorption and luminescence, extinction cross section, particle size effects 2−77580
$AuAl_2$, optical props., elec. cond. 2−61861
B_2O_3-NaF glass systems, optical basicity study 2−82812
$BaCl_2$:Sn, absorpt. spectra of S^2-configuration Sn ion 2−77553
$BaPb_{1-x}Bi_xO_3$ superconducting film, FR sputtered, supercond. and optical props. 2−66690
$Ba_xSr_{1-x}O_6$, ferroelectric, dielec. and optical props. in fund. absorption region 2−77481
$BaTiO_3$, electronic spectra of TiO_6^{8-} clusters 2−93222
$BaTiO_3$, thermoluminesc. and absorpt. spectra 2−93290

visible and ultraviolet spectra of inorganic solids continued
$BeAl_2O_4:Cr^{3+}$, alexandrite, ground state absorpt. determ. over tunable lasing region, 830 to 690 nm 2−60088
$BeAl_2O_4:Cr^{3+}$, alexandrite, excited-state absorpt. in lasing wavelength region 2−85973
BeF_2-NdF_3 based glasses, absorpt. and emission spectra of Nd^{3+}, at. struct. computer simulation 2−57149
Bi, liquid, optical absorpt. 2−87813
$Bi_{12}GeO_{20}$, $Bi_{12}SiO_{20}$, two-photon interband absorpt. spectra rel. to band struct. 2−116203
$Bi_{12}GeO_{20}$, single cryst., vac. UV refl. spectra 2−72520
$Bi_{12}GeO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
Bi_2S_3 thin film, semicond. liq. junction solar cell and chalcogenide props. 2−78212
Bi_2Se_3, semicond., optical absorption spectra meas. 2−78212
$Bi_{12}Si_{-x}Ge_xO_{20}$, single crystal, optical desorpt. 2−110894
$Bi_{12}SiO_{20}$:Cr, light induced charge transfer processes, optical absorption and EPR 2−99159
$Bi_{12}SiO_{20}$:Nd(Fe), edge absorpt. spectrum, optical heterogeneities, X-ray spectral microanalysis 2−67091
$Bi_{12}XO_{20}$ (X=Ge, Si) energy levels in forbidden zone *(Russian)* 2−61930
CS_3MnCl_5, antiferromag. ordering and mag. struct. below 0.6K, magnetoabsorpt. and MCD study 2−77493
$Ca_2NaMg_2V_3O_{12}$, ESR and optical absorpt. spectra of red V ions 2−110624
CaO, ion irrad., F^+ and F centre form. and annealing, UV spectra and volume study 2−76437
$CaO:Eu^{3+}(Er^{3+})(Pr^{3+})$, site selective spectroscopy, UV and fluoresc. study 2−110895
$CaTiO_3$, electronic spectra of TiO_6^{8-} clusters 2−93222
$CdBr_2$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
$CdCO_3$, optical consts. and polarisation depend. reflection spectra meas. 2−87729
$CdCl_2$-CuCl photochromic glass, colloidal darkening mechanism 2−97135
CdF_2:Eu, localised impurity excited states degenerate with cond. band, absorpt., cond., thermoluminesc., and ESR study 2−56473
$CdGa_2S_4$, semicond., exciton states in optical spectra obs. 2−110890
$CdGa_2S_4$, semicond., localised states, impurity absorption and photocond. spectra 2−110298
$CdGa_2S_4$, ternary semicond., electronic spectrum in region of fundamental absorption edge 2−57123
$Cd_xHg_{1-x}Te$, compositional uniformity, directed crystn. from melt 2−76333
$CdIn_2S_4$, fundamental absorpt. edge meas., doping effects 2−61927
$CdIn_2Se_4$, α- and β-polytypes, optical props. in region of fundamental absorption edge 2−93223
CdS, dipole selection rules, reflection spectra, group representation 2−93226
CdS, electron irrad., exciton reflection spectra and photo EMF, elec. field effects 2−82877
n-CdS, exciton refl. spectrum, inversion layer effect 2−116207
CdS, plastically deformed, light propag. obs., dislocations effect 2−67024
CdS, refl. spectrum, additional boundary conditions, linear response theory 2−77548
CdS sprayed thin film, optical reflectance and transmittance 2−110969
CdS thin film, reflectivity spectra near excitonic transition 2−82878
CdS:Cu, electron irrad. prod. defects interaction with impurities, elec. and optical props. study 2−56035
$CdS(Se):Ni^{2+}$, optical spectra, isotope splitting const. 2−57163
$CdS_{1-x}Se_x$:Te, isoelectronic impurity-exciton interactions, visible spectra study 2−61395
CdS_xSe_{1-x} sprayed thin films, struct. props. and optical band gap 2−110199
CdSb, symm. density of states peaks, photomodulated absorpt. *(Russian)* 2−71851
n-CdSe, electrodeposited, Fermi level pinning, low-field electrolyte electrorefl. spectra 2−57059
CdSe, phase spectra of refl. light in exciton reson. region 2−104911
CdSe sprayed films, struct., optical and photocond. props. 2−98698
CdTe, non-parabolic band effect on two-photon absorpt. 2−104910
$CdTe_xSe_{1-x}$ semiconducting cmpds., laser induced formation 2−115593
$CdWO_4:Ni^{II}$, electronic ligand-field spectrum meas. 2−72526
$Cd_{1-x}Zn_xS$ films, electron bombardment evaporation, visible absorpt. spectra meas. 2−72572
Ce, vacuum UV absorpt. spectra 2−93217
$CePd_3$, f-states, optical refl. study 2−77550
Co complex, 2-fluoro- and 4-fluoro-2-nitroaniline cobalt(II), mag. moments, IR and visible study 2−93203
Co complex, $Co(acac)_2$, cryst. field splitting, UV absorpt. study 2−67072
Co-Cr film, RF sputtered, perpendicular mag. anisotropy, magneto-optical Kerr effect and reflectivity meas. 2−61878
$CoBr_2$, cryst. field splitting, UV absorpt. study 2−67072
$CoCl_2$, cryst. field splitting, UV absorpt. study 2−67072
CoF_2, cryst. field splitting, UV absorpt. study 2−67072
Cr films, clean and adsorbate-covered, optical spectra 2−87890
$CrAl_2S_4+_y$, spinel, homogeneity region 2−76695
CsBr(Cl):Ag^+, far UV spectra, fluorescence and optical bleaching studies 2−110901
CsCl(Br), X-ray irrad., colloid form., optical props. 2−56030
$Cs_2NaBi_xY_{1-x}Cl_6$, optical centre conc. effects on electron lattice coupling, optical props. study 2−57151
$CsNpF_6$, parametrisation of optical spectrum 2−99115
$Cs_2NpO_2Cl_4$, cryst., electronic struct., charge transfer transitions 2−82853
$CsNpO_2(NO_3)_3$, cryst., electronic struct., charge transfer transitions 2−82853
$Cs_2ZnCl_4:Ni(II)$, polarised electronic spectra at temps. betwen 300 and 10K 2−77557
Cu complex, 2-fluoro-and 4-fluoro-2-nitroaniline copper(II), mag. moments, IR and visible study 2−93203
Cu complexes, ESR and optical absorpt. 2−98943
Cu, refl. at visible, IR wavelengths, wavelength and temp. depend. 2−67083
α-Cu-Zn(Ga)(Al)(Ge), electronic struct., piezorefl. study 2−57052
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
CuBr(Cl)(I)-Ag system light-sensitivity spectra, correl. with Cu halide absorpt. spectra 2−67079
CuCl, biexciton reson. linewidth, collision broadening or not? 2−87155
CuCl, diffusion coeffs. of exciton and excitonic mol., picosec. transient grating spectroscopy 2−61926

visible and ultraviolet spectra of inorganic solids continued
CuCl, electron-hole plasma form. after subpicosec. photoexcitation 2−99175
CuCl, excitonic mol. broadening under giant two-photon excitation, circular dichroism and light depolarisation study 2−66454
CuCl, two-photon absorpt. study of Γ_3 valence band 2−104909
$CuGa_xIn_{1-x}S_2$ solid solns., growth and props. 2−83017
$CuGaS_2$, band gap temp. depend., exciton reflection spectra 2−104252
$CuGaS_2$, luminesc. and refl. spectra of free excitons 2−104963
$CuGaSnSe_4$ energy gap values, temp. var., optical refl. study 2−56438
$CuInSe_2$, amorphous and crystalline, optical props. 2−87889
$CuInSe_2$, thin film, prep. by RF sputtering, optical props. 2−110962
$CuIn_2Se_{3.5}$, optical props. near fundamental absorpt. edge 2−99151
Eu, vacuum UV absorpt. spectra 2−93217
Fe complex, $Fe(bipyridyl)_3^{2+}$ electronic struct. of metal-to-ligand CT states 2−92535
Fe extinction from 195-650 nm 2−94804
Fe, initial stages of high-temp. oxidation 2−78001
Fe, optical absorption anomaly *(Russian)* 2−61928
Fe, passivation film, automatic ellipsometry study 2−57524
FeCo, energy band struct. and optical props. due to order-disorder transition 2−82220
FeF_3 thin films, localised electron states, optical absorption study 2−82268
Fe_3O_4 2−94804
$FePS_3$, layer phases, optical and mag. props., intercalation-induced modifications 2−82875
e-GaAs, hot carrier, picosecond absorpt. spectroscopy 2−92640
GaAs, ion implanted, excitation size determ. 2−87156
GaAs, oscillator strength and lifetime broadening of exciton polaritons 2−93141
GaAs:Cr, deep level optical spectroscopy 2−71902
GaAs:N, radiation damage and near edge optical props. 2−71523
GaAs:Si, thermally stimulated optical absorpt., impurity level spectroscopy 2−104292
GaAs-$Ga_{1-x}Al_xAs$ multiquantum well struct., band edge absorpt. and gain spectra after short pulse excitation 2−62003
GaAs-$Ga_xIn_{1-x}P$ DH, interface recomb. and carrier confinement study 2−77605
GaP, exciton electroabsorption spectrum, Schrodinger eqn. calc. 2−116154
GaP, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
GaS(Se), uniaxially deformed, absorpt. and photoluminesc. spectra, energy bands 2−67081
GaSe, intercalated, low temp. reflection spectra and photoluminesc., exciton characts. *(Russian)* 2−67112
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
GaSe-anthracene (Na) intercalation cpds., ESR, photocond., and optical meas. 2−77367
Gd, magneto-optical props. in interband absorpt. region *(Russian)* 2−61877
Gd, vacuum UV absorpt. spectra 2−93217
$Gd_3Ga_5O_{12}:Nd^{3+}$ garnet films prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
$Gd_2(MoO_4)_3$, band structure and VUV optical props., Kramers-Kronig anal. 2−110883
Gd_2O_3, C-type, Stark levels, cryst. field splitting, UV study 2−66505
Ge, interband Faraday and Kerr effects 2−72463
Ge, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
Ge-GaAs interface, two-dimens. electron states, light scatt. study 2−110885
Ge-Si:H, amorphous sputtered alloys, elec., optical and struct. props. 2−98644
GeO_2, glassy, minimum optical losses 2−110891
GeS, electroreflection spectra, changes under ion bombardment 2−82876
GeS_2, glassy and cryst., pressure-optical studies, network topology analysis 2−67021
$GeSe_2$, optical props., visible spectra study 2−67073
$Ge_{1-x}Si_x$, spin-orbit splitting, electrorefl. study 2−116155
HfC_xN_{1-x}, spectral reflectance, interband absorption and carrier density 2−99152
HfN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
$HfSe_2(Te_2)$, optical transitions, symm. depend., refl. spectra 2−57120
Hg_2Br_2, single crystal; UV absorpt. spectra meas. 2−110881
Hg_2Cl_2, single crystal, UV absorpt. spectra meas. 2−110881
$Hg_{1-x}Mn_xTe$, optical absorpt. 2−77549
In film, coated with phthalocyanine mols., luminesc. and transmittance meas. 2−85731
InBr, direct and indirect exciton spectra, absorption and reflection study 2−56446
InGaAsP, optical props. meas., angle of incidence reflectance spectroscopy appl. 2−53847
In_2O_3 RF sputtered films, optical props. 2−57202
InSe, intraband light absorption, high nonequilib. carrier conc. induced by laser beam 2−87799
$In_{2-x}Sn_2O_{3-y}$ film, reactively electron beam evaporated, optical, IR and elec. cond. props. 2−57198
$In_{2-x}Sn_xO_{3-y}$ film, reactive electron beam evaporation prep. and elec. and optical props. 2−105078
IrO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
IrO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
KBr, piezoreflectivity studies on refl. structs. near 8.6 eV 2−82822
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KBr(I), UV two-photon absorpt. 2−104908
KCl, cryst., electron injection, role of space charge on F centre focus 2−65991
KCl crystals, γ irrad. influence on absorpt. coeff. at CO_2 laser radiation wavelength 2−87828
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831
KCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
KCl:Pb, radiation kinetics during intense excitation in A absorpt. band 2−110932
KCl-KBr mixed cryst., colour centres, Mollwo-Ivey relationship 2−61933
$K_3Fe(CN)_6$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
KI:Li^+, F and M centres, luminescence and absorption spectra 2−67115
KI:Sn^{2+}, cryst. field effects, visible-UV study 2−72523

visible and ultraviolet spectra of inorganic solids continued
KI:Sn^{2+}, spectral line shape, visible-UV study 2−72524
KI(Br)(Cl):NO_3^-, UV irrad., NO_3^- photochem. transformation obs. 2−93237
$K_{0.33}MoO_3$, optical refl. spectra, optical consts. 2−87814
$K_2Pt(CN)_4$-$K_2Pt(CN)_6$ cryst., laser excited luminesc. and absorpt. study of mixed valence 2−71932
K_2PtCl_4, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
$K_{1.75}Pt(CnN)_4.1.5H_2O$, electronic props. and Peierls transition, polarised refl. study 2−82858
$KTaO_3$, two-photon interband absorpt. spectra rel. to band struct. 2−116203
La, vacuum UV absorpt. spectra 2−93217
LaF_3:Gd^{3+} two-photon absorpt., Judd-Ofelt theory 2−61935
La_2O_3-BaO-B_2O_3 and La_2O_3-BaO-PbO-B_2O_3 system glasses, very pure, absorpt. curve and colour 2−93227
LiCl:Mn^{2+} (M=Mn, Fe, Co, Ni, Cu), charge transfer bands 2−87808
LiD single crystals, exciton-absorpt. edge and Urbach rule 2−67080
$LiErP_4O_{12}$, absorpt. spectra and Stark energy levels of Er^{3+} ion 2−57118
LiF:U, fluoresc. and MCD spectra 2−57160
$LiFeCl_4$, cryst. struct., mag., optical, and ionic cond. props. 2−92266
$LiGa_5O_8$:Cr^{3+}, tetrahedral coordination, energy levels, absorpt. spectra 2−67088
LiH single crystals, exciton-absorpt. edge and Urbach rule 2−67080
$LiKSO_4$:Cr^{3+}, optical absorpt. and EPR spectra 2−116212
$LiNaSO_4$:Cr^{3+}, optical absorpt. and EPR spectra 2−116212
$LiNbO_3$, single crystal, effects of γ-irradiation on dielectric consts. and optical transmission 2−61814
$LiNbO_3$, single crystal, optical uniformity, expt. study 2−86065
$LiNbO_3$:Eu^{3+}, polarised optical absorption bands, splitting 2−82835
Li_2O, neutron and γ-irrad., defect production, optical absorpt. study 2−86737
Li_2O-P_2O_5:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
Li_4WO_5:U phosphors, spectral props. 2−77545
$LuPO_4$:Nd^{3+}, Eu^{3+}, optical spectra, crystal field interactions 2−67074
(Mg,Fe)SiO_4 olivines, single cryst. spectra, 5000-40000 cm^{-1}, up to 200 kbar 2−93214
$Mg_3Al_4Si_5O_{18}$:TiO_2, changes in spectral props. at initial stages of crystn. 2−72529
MgO, electron beam evaporated film, optical absorpt., RHEED and cathodoluminesc. study 2−93306
MgO films, electron beam evaporated, RHEED, optical absorpt. and cathodoluminesc. 2−110209
MgO powder, spectra due to O^{2-} transition, appl. to interstellar 220 nm feature 2−84302
$Mg_3Si_2O_5(OH)_4$, electronic absorpt. spectra, crystal field parameters 2−104907
$MgWO_4$:Ni^{II}, electronic ligand-field spectrum meas. 2−72526
MoS_2-metal Schottky barriers, photovoltaic effect and optical absorption 2−115862
$Na_2Ag_4S_3$, temp. depend. of elec. cond. and self-diffusion of Ag^+ 2−76728
NaCl crystals, γ irrad. influence on absorpt. coeff. at CO_2 laser radiation wavelength 2−87828
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaCl:Pb, precipitation behaviour, luminescence and UV spectra study 2−115418
NaCl:Sr(Ca)(Cd), Pb, clustering processes, use of Pb^{2+} as optical probe 2−57131
$NaCrS_2$, a new mineral from a meteorite (caswellsilverite) 2−68681
NaF:Ca^{2+}, γ-ray irrad. $F_{2(1)}$ centres, optical absorption spectra study 2−76976
NaF:Ce^{3+}, F-centres, luminescence and optical study 2−77601
NaF:Cu^+, single cryst., UV absorpt. and fluoresc. study 2−67084
NaF:U, fluoresc. and MCD spectra 2−57160
NaI, excitation spectra of exciton luminescence, hot exciton effects 2−66457
$NaNO_3$ near lambda transition, fundamental absorpt. edge 2−99150
Na_2O-CaO-SiO_2:UO_2^{2+} glass, energy levels, absorpt. and fluoresc. study 2−77565
Na_2O-PbO-SiO_2:Fe^{3+} glass, spectroscopic behaviour of Fe^{3+} 2−77554
NbH_2, band struct., Fermi surface, and optical absorpt. spectra 2−104246
$NdAlO_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
$NdCl_3$, paramag. susceptibility and optical spectra *(French)* 2−92856
NdF_3, paramag. susceptibility and optical spectra *(French)* 2−92856
$(NdO_2)_2CO_3$, type Ia and II, optical absorption spectra and electron diffr. patterns 2−116204
NdOCl, paramag. susceptibility and optical spectra *(French)* 2−92856
Ni and Ni-Cr (5 at.%), ferromag., optical props., temp. depend. *(Russian)* 2−61923
Ni complex, 2-fluoro- and 4-fluoro-2-nitroaniline nickel(II), mag. moments, IR and visible study 2−93203
Ni complex, cis-octahedral Ni(II) diamines, single cryst. electronic spectra, at 10K 2−82874
Ni, ferromagnetic, band struct. calc., optical absorpt., photoemission and magneto-optical data anal. 2−66434
Ni, film, UV absorption spectra, absorption coeff. 2−82939
Ni, initial stages of high-temp. oxidation 2−78001
Ni, UV spectra, fundamental absorpt. band asymmetry meas. *(Russian)* 2−93215
Ni-Mn (9 at.%), refractive index, UV study, temp. effect 2−67014
NiF_2 thin films, localised electron states, optical absorption study 2−82268
Ni(II)Cd(II) and Ni(II)Hg(II) mixed complexes, chem. anal., spectra, EPR study 2−110630
$Ni_{0.86}Mn_{0.14}$, optical cond. meas. 1 to 4.9 eV, rel. to electron struct. *(Russian)* 2−99147
Ni_3Mn, optical consts., 0.25 to 17 μm, alloy ordering effects *(Russian)* 2−87728
$NiPS_3$, electronic states, reflectivity, optical absorpt., XPS 2−57246
$NiPS_3$, layer phases, optical and mag. props., intercalation-induced modifications 2−82875
$NiSO_4.7H_2O$, solid powders, UV-vis. diffuse reflectance spectrosc. 2−99153
NiSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
$NpO_2Cl_4^{2-}$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
$NpO_2(NO_3)_3^-$, electronic struct., f-f transitions, spectrosc. obs. 2−82852

visible and ultraviolet spectra of inorganic solids continued
Os complex, Os(bipyridyl)$_3^{2+}$ electronic struct. of metal-to-ligand CT states 2−92535
OsF_6, energy levels, vibronic coupling, IR and visible study 2−116189
Pb, liquid, optical absorpt. 2−87813
PbF_2-GaF_3-ZnF_2(MnF_2):Er^{3+}, fluoride glasses, optical transition probabilities, Judd-Ofelt method 2−61960
$Pb_5Ge_3O_{11}$:Nd^{3+}, cryst. growth and spectroscopic props. 2−99178
PbI_2, cryst. and thin films, electronic absorption spectra meas. 2−67071
PbI_2 film, prep. by iodination of PbS film, X-ray characterisation 2−67215
PbI_2, secondary radiation and reflection spectra, polaritons and excitons *(Russian)* 2−92486
PbI_2:Ga(In), exciton spectra, refl. and photoluminesc. spectra 2−67118
$PbMg_{1/3}Nb_{2/3}O_3$, reflectivity, dielectric const., electrooptic effect., vacuum UV reflection spectra obs. 2−61924
PbO film/B_2O_3-Na_2O glass interaction, UV spectra and cation conc. profile meas. 2−86945
$PbTiO_3$, electronic spectra of TiO_6^{8-} clusters 2−93222
$PbTiO_3$, reflectivity, dielectric const., electrooptic effect., vacuum UV reflection spectra obs. 2−61924
Pd complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
Pt complex, one-dimens. semicond. reflectance, absorpt. and luminesc. study 2−61961
PtSi, reflectivity spectra meas., 0.05 to 4 eV 2−93198
RbBr:Mg^+, optical absorption, thermolum. and emission studies 2−61986
RbBr(I), UV two-photon absorpt. 2−104908
Rb_2CrCl_4, optical and magneto-optical study 2−93220
Rb_2CrCl_4:Mn^{2+}, ionic ferromag., impurity induced absorpt. bands 2−110896
$RbFeCl_{3-x}B_x$, magnetically disordered, optical, Raman and MCD study 2−77544
RbI:Eu^{2+}, thermoluminescence and optical absorpt., effect of γ-irrad. 2−57192
Rb_2ZnCl_4, optical props. changes at successive phase transitions 2−77476
Rh, dielec. function, empirical band calc. 2−66435
Rh, electronic energy bands and optical props. KKR calc. 2−66432
Ru complex, Ru(bipyridyl)$_3^{2+}$ electronic struct. of metal-to-ligand CT states 2−92535
RuO_2 films, reactive sputtering and electronic struct., AES, photoemission and optical absorpt. study 2−82502
RuO_2, optical props., 0.5 to 9.5 eV, electronic struct. 2−57125
RuO_2, VPE growth on TiO_2, chemical interdiffusion, optical absorption and SEM study 2−92401
Sb_2S_3, UV and dielec. props. 2−99148
ScH_2, electronic energy bands and optical props. 2−82224
Se, monoclinic, anisotropy in reflectivity and band struct. 2−61925
Si, amorphous, melting temp., time resolved optical refl. meas. 2−56163
Si, amorphous, RF sputtered, optical props. by spectroscopic ellipsometry *(Chinese)* 2−67012
Si, amorphous film, laser beam induced crystn., optical recording appl. 2−65325
Si amorphous films, glow discharge and sputter deposited, optical bandgap, absorption coeff. meas. 2−71856
Si film, produced by field emission deposition, props. 2−71836
Si, microcrystalline, plasma deposited, charact. 2−92405
Si, optical absorpt. coeff., 1.6 to 4.7 eV, meas. at high temp. 2−99146
Si, optical constants, reflectivity, ellipsometry study 2−82811
Si oxides, motive and thermal, UV reflectance study 2−104977
Si, uniaxially stressed, free carrier absorpt. spectra *(Russian)* 2−87818
Si:As^+(P^+), ion implanted, cryst. damage, spectroscopic ellipsometry study 2−92049
Si:H, amorphous film, optical props. *(Korean)* 2−57201
Si:H, amorphous film, reactive ion beam sputtering, optical props. 2−83041
a-Si:H, Ga(As), ion implanted, absorpt. and photocond. spectra 2−115820
a-Si:H, N films, optical and elec. props., solid-state image pickup device appl. 2−82935
Si:H amorphous film, DC sputtered, characterization by optical and nuclear methods 2−93308
Si:P, ion implanted, wavelength modulation spectrum 2−104916
Si-Al, amorphous thin film, thermopower, elec. cond. and optical absorption 2−72079
SiC, 6H- and 15R-types, two-photon interband absorpt. spectra rel. to band struct. 2−116203
SiC, crystal and film, optical props. in VUV, refl. spectra meas. 2−57126
SiO_2, vitreous, absorpt. band at 242 nm 2−104922
SiO_2, vitreous and crystalline, UV reflectance spectrum 2−93224
SiO_2:Al, vitreous, radiation colour centres, multiple nature, ESR and optical absorpt. study 2−72348
Sm, vacuum UV absorpt. spectra 2−93217
SnO_2 films, pyrolitic prep., optical selectivity and crystallisation 2−87887
SnO_2:F,Sb film, spray coated, dopant effects on elec. cond. and optical absorpt. props. 2−72088
SnO_2:F(Sb,F) film, elec. resist. and optical absorpt. and reflection spectra meas. 2−66675
SnS_2 films, optical absorpt. edge meas. 2−87885
$SrMO_4$-$Eu_2(MO_4)_3$ (M=Mo, W), defect formation, electrochemical props. 2−109783
$SrTiO_3$, electronic spectra of TiO_6^{8-} clusters 2−93222
$SrTiO_3$:Cr^{3+}, photoelectronic and optical props. 2−82402
$ThPd_3$, f-states, optical refl. study 2−77550
TiN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
$TiN_{1-x}C_x$ films, optical consts. and spectral sensitivity meas. 2−104980
$TiS_2(Se_2)$, optical transitions, symm. depend., refl. spectra 2−57120
$TlPbI_3$, Tl_3PbI_5, Tl_3PbBr_5, crystal growth, elec. and optical props. 2−87967
$TlSnI_3$,$TlSn_2I_5$, crystal growth, elec. and optical props. 2−87967
TmSe, mixed valent cpd., dielec. response, anomalous features 2−56457
$UO_2(NO_3)_2.6H_2O$, cryst. and frozen solns., visible spectra and fluorescence decay rates 2−61949
UPd_3, f-states, optical refl. study 2−77550
VH_2, band struct., Fermi surface, and optical absorpt. spectra 2−104246
V_2O_5, electrochromic colouring, optical absorpt. and IR transmission spectra meas. 2−116156
V_3Si, electron props. and permittivity, optical absorpt. spectra study *(Russian)* 2−93216
WO_3, amorphous film, colour centres, optical absorpt. and EPR study 2−66492
WO_3 amorphous thin films, coloration mech. study 2−99206

visible and ultraviolet spectra of inorganic solids continued
WO_3 films, reactively sputtered, electrical and optical props. 2—66673
WO_3-P_2O_5 glass, colour centres, optical absorpt. and EPR study 2—66492
Xe, cryocrystals, exciton spectra, polariton and spatial dispersion effects 2—82904
Xe, solid, optical absorpt. at high press. 2—93225
Xe, solid, optical props. under very high press. 2—87731
YAG:Cr^{3+}, Czochralski grown, colour centres, optical absorption spectra study 2—91959
Zn thin films, optical props. 2—67137
$ZnCl_2$:Co^{2+}, glass, absorption spectra of Co^{2+} meas. at solid-liquid transformation 2—104924
$ZnCr_2Se_4$ spinel, reflectance spectra, band struct. 2—87811
ZnO, exciton refl. spectra, influence of ion implantation 2—67082
ZnO, excitons exhibiting spatial dispersion, refl. and transmission spectra, additional boundary conditions 2—57122
ZnO, heavily doped, band gap narrowing, optical transmission study 2—104250
ZnO, RF. sputtered film, heat treatment effects on elec. and optical props. 2—72087
ZnO, refl. spectrum, additional boundary conditions, linear response theory 2—77548
ZnO(S):Ni^{2+}, optical spectra, isotope splitting const. 2—57163
ZnP_2, reversible H-like series in optical spectra *(Russian)* 2—57124
α-Zn_3P_2 film, optical band gap 2—62004
ZnS:Cn(Pb), Gudden-Pohl effect flash spectra depend. on elec. field 2—87817
ZnS_xSe_{1-x} solid solns., exciton states, effect of disorder 2—115671
ZnSe, non-parabolic band effect on two-photon absorpt. 2—104910
ZnSe, phase spectra of refl. light in exciton reson. region 2—104911
ZnSe surface, reflectivity spectra near excitonic transition 2—82878
ZnTe, exciton reflection, amplitude-phase spectra, Brewster effect 2—77551
$ZnWO_4$, cryst. growth and scintillation props. 2—57282
Zr, oxidation, X-ray photoelectron and UV studies 2—105368
ZrF_4-ThF_4-YF_3(LuF_3)(ScF_3)(AlF_3), glass forming area, thermal expansion and UV absorption edge *(French)* 2—115146
ZrN, CVD coatings, optical props., Kramers-Kronig anal. 2—87888
ZrS_2, optical transitions, symm. depend., refl. spectra 2—57120

visible and ultraviolet spectra of organic molecules and substances
2-acetylanthracene solution in n-propanol, electronic spectrum, vibr. struct. dynamics 2—80719
acetylene, $\tilde{A}$-$\tilde{X}$ transition in 220 nm wavelength region, fluoresc. excitation spectrum 2—59851
acetylene, isotopically labelled, fragmentation, visible-UV emission study 2—85756
acetylene+He^+(Ar^+), excitational dissoc. optical emission from excited fragments 2—105470
acetylene photoexcitation, photofragment emission, fluoresc. obs. 2—65040
acridine, fine-struct. luminesc. 2—80718
alkane radical cation, spectroscopic identification 2—80735
alkane radical cations, radiation prod., the use of freons and perfluoro(cyclo)alkanes as matrix 2—80642
allylbenzene-(R)-3,7-dimethyl-7-octene copolymers, opt. active, chiroptical props., main chain-side group distance depend. 2—61867
amino coumarins, in supersonic Ar jet, $\pi\pi^*$ absorpt., UV and fluoresc. study 2—114011
7-amino coumarins, substituted, types C311, C47, C102, C152, C481, spectral and lasing behaviour *(Chinese)* 2—65211
9-aminoacridine, fine-struct. luminesc. 2—80718
aminoanthraquinone dyes, spectra, solvent effects 2—75302
aminophthalimide, solvent effects on absorption and fluoresc. *(German)* 2—54894
anthracene, solns., absorbing and non-absorbing excited transients investig. 2—84717
anthracene, vibronic excitons, thermorefl. spectra study 2—82832
(anthracene), (picric acid), polarisability and absorpt. ten sor orientation 2—87810
anthranilic acid, soln. amplified spontaneous emission 2—96590
aromatic cpds. in cyclohexane soln., triplet state form., picosec. pulse radiolysis 2—108532
aryl ethylenes, and related cpds., assoc., photochem. reactions, spectrosc. obs. 2—54867
arylethylenes, UV photoelectron and absorpt. spectra 2—85687
azo dyes, aggregation effect on visible spectra 2—64992
benzene, isotope and derivatives, vibrationally excited, visible and IR obs. 2—63769
benzene, shock wave heating, band-shape, UV obs. 2—59816
benzene clusters, UV spectr a 2—75487
benzene-Br atom complex, matrix isolation IR and UV spectra 2—108494
benzene-d_0(d_1-d_6) vibronic Jahn-Teller state splitting, UV obs. 2—108543
benzene-naphthalene solid solns., symm. forbidden transitions, intensity enhancement 2—110888
benzenes, substituted, absolute extinction coeff., oscillator strength, valence-shell electronic transitions 2—108537
benzenes isotopically labelled, two-photon hot band spectra, Duschinsky effect 2—85680
benzenethiol, adsorbed on Cu(III) at 300K, angular resolved UPS and XPS spectra 2—78134
benzocyclenones, isopropyl substituted, UV spectra, steric interaction, ^1H NMR chemical shift 2—70274
benzophenone amino derivatives, electronic absorpt. and emission spectra 2—75306
benzoquinoline derivatives struct., mol. weight determ., IR and visible spectra 2—114125
1,12-benzperylene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2—65042
bi-(4,4-dimethyl-2,5-cyclohexadiene-1-ylidene), conformation, IR, Raman, UV and fluoresc. obs. *(German)* 2—75276
binaphthyl spiro cyclophosphazene derivatives, isomeric 1,1′ and 2,2′ forms, UV obs. 2—108549
biphenyl-d_0(d_{10}), matrix photoionisation, isotope shift, UV-visible obs. 2—70350
2,2′-bipyridyl-I$2, complex, form. thermodynamics, visible and far IR obs. 2—108517
brominated methanes/ethanes, absorpt. spectra and atmospheric photochemistry 2—111600
carbon tetrachloride, liq., electron pulse irrad., transient absorpt. 2—80647
β-carotene anions, electronic absorpt. and ESR spectra 2—108539
chlorine-e_6 and complexes, luminesc. spectral-polarisation study 2—70328

visible and ultraviolet spectra of organic molecules and substances continued
chlorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)$←$\tilde{X}^1A'$ absorpt. spectra 2—54862
chlorodiacetylene cation, spectroscopic studies 2—75343
p-chlorophenyl isocyanate, vibr. and electronic spectra, assignments 2—90534
chloroplasts, absorpt. spectrum struct. 2—105674
cholesteric liq. cryst., monodomain, total light reflection obs. and numerical calc. 2—87727
coronene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2—65042
coumarin dyes, substituted, laser gain characts. 2—108869
18-crown-6-$K_2C_2O_4$, IR and Raman vibr. spectroscopy 2—75282
18-crown-6-$K_2Cr_2O_7$, IR and Raman vibr. spectroscopy 2—75282
18-crown-6-$KMnO_4$, IR and Raman vibr. spectroscopy 2—75282
di-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2—90620
diacetylene in solid Ar, near UV spectra at 9K, vibr. struct. 2—108545
diacetylene mol. in solid Ar at 8K, photolysis, vacuum UV spectra, vibr. struct. 2—80648
dibenzenetitanium, struct., spectra, chem. props. 2—67045
dichloroacetylene cation, spectroscopic studies 2—75343
2,3-dichloropyridine, UV electronic absorpt. spectrum 2—75308
2,5-dichloropyrine, UV electronic absorpt. spectrum 2—54861
1,1-dicyanoethylenes, phenyl-containing, π-electron struct. investig. 2—90461
dihalogenotoluenes, UV absorpt. spectra, Π-Π^* transition, solvent effect 2—54860
6,7-dihydroxycoumarin, aq. soln., pH effect, fluoresc. and UV-visible study 2—65049
10,10-dimethylanthracen-9-one cryst. electronic spectra of spin-orbit/vibronic coupling in $3n\pi^*$ states 2—72519
9,10-dimethylanthracene in ethanol, dye laser excited photoacoustic spectrum 2—107421
2, 5-dimethylpyrazine, UV absorpt. spectrum obs. and anal. 2—90563
dipalmitoylphosphatidylcholine vesicles, small, unilamellar, photon correl. spectroscopy study of stability 2—111632
diphenyl butadiene, rot. diffusion, UV picosec. pump-probe spectrosc. 2—80643
1,8-diphenyl-1,3,5,7-octatetraene, fluoresc. and absorpt . spectra, transition moments, intensity distrib. 2—90608
diphenylmethane type system, intramol. interfragment interaction 2—114066
diphenylpolyenes, singlet-singlet absorption spectra, laser flash photolysis obs. 2—59815
ditetramethylammonium uranyl tetrabromide, vibr., luminescence, IR and Raman study 2—61895
DNA intercalating mols., comparison between quinacrine and chloroquine ring-ring interaction with adenine and thymine 2—85679
dye absorbed molecule surface interaction, polarised absorpt. and fluoresc. spectroscopy 2—71795
dye monolayer assemblies on Ag films, exciton surface plasmon interactions 2—71879
enzymes, photoabsorpt. and photoelectron spectra in vacuum-UV region 2—105658
ethanol glass, dye mol. spectral probe, using photochemical hole burning 2—108974
ethanol-water, solvated electrons, ESR and optical absorpt. study 2—66892
ethynethionyl radical, 4114 Å absorpt. spectra and rot. const. 2—75300
flavinyltryptophan peptides, preferred conformation, polarised emission props. 2—62553
fluorobenzaldehyde vapour, $\tilde{A}^1A''(n\pi^*)$←$\tilde{X}^1A'$ absorpt. spectra 2—54862
formaldehyde, high resolution study of $^rR(K''=3)$ struct. of 3390 Å band 2—85686
formaldehyde, $\tilde{X}^1A_1$ system, selective vibr. excitation by stimulated emission pumping 2—96586
formaldehyde-d_0-d_2, $^1A_2$←$^1A_1$ absorpt. spectrum, absolute spectrum, absolute vibronic intensities 2—85685
free base porphin, isolated, ultracold, laser spectrosc. 2—80698
fulminic acid, rare gas matrix isolated, isomerisation, photolysis, IR and UV obs. 2—75264
haematoporphyrin derivative, fluoresc. and absorpt. props. 2—62558
harmine, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2—96627
harmol, absorpt. and fluoresc. spectra, pH depend., tautomeric equilib. 2—96627
hexacene, soln., electronic spectra of ground and triplet state, dication and dianion 2—59817
hydrocarbon complex, I_2 saturated, contact charge transfer interaction, UV absorpt. spectra 2—108547
hydrocarbons, unsaturated, photoionisation, visible absorpt. spectra 2—114008
4′-hydroxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2—85719
imitrin vapour phase dye lasers in visible range 2—75565
indoles, substituted, UV and IR spectra 2—108548
light-harvesting chlorophyll a/b-protein complex, fine struct. of circular dichroic spectrum 2—67946
liquid crystal, electrochemically induced coloration 2—71334
liquid crystals, dye-doped, electronic absorpt. spectra, intermol. interactions anisotropy effects 2—110886
malachite green heucocyanide, intramol. electron transfer, psec. resolved fluoresc. and transient absorpt. 2—114026
mesopheophytin a and complexes, luminesc. spectral-polarisation study 2—70328
metal complexes, metal-formylhydrazide, synthesis and characterisation 2—110848
methacrylonitrile-styrene copolymers in dil. soln., conform. changes, light scatt. obs. 2—60866
methane, red bands spectra for different column densities, appl. to giant planets 2—90560
methane-d_1(d_3), electron impact, dissociative excitation, balmer emission, isotope effect 2—54975
4-methoxy benzonitriles, electronic and vibr. spectra and thermodynamic functions 2—75464
4-methoxybenzylidene-4′-perfluorobutylaniline, smectic liq. cryst., Urbach rule 2—65854
methyl cyanide, VUV absorpt. spectra 2—96592
methyl iodide, absorpt. spectrum in extreme VUV region 2—75304
methyl iodide(d_3), multiphoton ionisation spectrum with intermediate reson. in A-band region 2—70269

visible and ultraviolet spectra of organic molecules and substances continued
methylamine-d_2, 0-0 band rot. struct., in UV absorpt. spectrum 2−90562
4′-methyloxyflavone, singlet states, dissoc. consts., fluoresc. and UV obs. *(German)* 2−85719
mixed valency species, excitation models, vibr. line shapes 2−110884
mono-aza-stilbenes, rot. isomers, quantum yields, lifetimes, fluoresc. and absorpt. obs. 2−90620
1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-dianhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
naphthalic anhydride, CNDO/S CI MO calcs., MCD and UV obs. 2−54887
2,6-naphthyridine electronic spectrum, n,π^* states 2−75307
nematic liq. cryst., orientation degree and direction, polarisation absorption spectroscopy technique 2−115134
m-nitroaniline, electro-optic cryst., anharmonicity of vibrs. 2−67044
nitrosoacetylene, struct. calc. by ab initio SCF and GVB calcs., consts. rel to IR, microwave and visible spectra 2−59698
nitroxides, visible spectra, solvent effects and N hyperfine splitting consts. 2−114012
nucleosides related to cytidine and uridine, opt. activity and electronic absorpt. spectra, CNDO calcs. 2−78288
[2.2]paracyclophanes-electron acceptor, charge-transfer complex, solvent and struct. effects on stability and form. 2−108550
paraquat dimer mols., electrochem. behaviour, bielectronic mediation appls. 2−85802
pentacene films, elec. field modulated spectra 2−67078
pentachlorophenolamine complexes, dipole moments, IR and UV spectra, solvent and temp. effects 2−80589
perfluoropyridine cation, in Ne matrix, optical absorpt. spectrum 2−108541
α,β-perylene, optical absorpt., exciton-lattice interaction 2−87809
(perylene)$_2AsF_6$, PF_6, polarisability and absorpt. tensor orientation 2−87810
phenyl alkyne cations, Ar matrix isolated vibr., visible UV obs. 2−108544
phenyl nitrenes, spectral and photochem. props. 2−70318
photosynthesis, modelling using spectroscopy of polymer films with high conc. of zinc phthalocyanine 2−105679
photosynthesis modelling, solid polymer films with high protoporphyrin IX conc., spectral characts. 2−78312
phthalocyanine, free base, in normal alkane matrices, laser fluoresc. and excitation spectra 2−96614
phthalocyanine films, visible and near UV absorpt. spectra, metal atom effect 2−99201
phthalocyanine molecules coated on In films, luminesc. and transmittance meas. 2−85731
poly(p-phenylene), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly(p-phenylene sulphide), conjugated polymer, elec. cond. and optical absorpt., theory 2−71954
poly-N-epoxypropylcarbazole, films and solns., absorption and emission spectra meas. 2−67119
trans-polyacetylene:Li film, visible spectra 2−116206
polyacetylene, lightly doped, optical absorpt. spectrum, nonsoliton theory 2−110887
polyethylenimine backbone polynucleotide models, UV absorpt. spectra 2−116866
polymer, glassy, dye laser calorimetry, linear absorpt. coeff., 605-675 nm 2−93221
polymer thin-film optical waveguides, ageing process, visible-UV study 2−109039
polyphenylenes, doped conducting complexes, elec. cond. and optical props. 2−77043
polyphenylenesulphides, doped conduction complexes, elec. cond. and optical props. 2−77043
polypyrrole film, neutral and oxidised, prep. and characterisation 2−81693
polyvinyl alcohol, vibr. spectra, effects of simultaneous UV irrad. and heating 2−57121
POPOP vapour phase dye lasers in visible range 2−75565
porphyrin complexes, with group IV transition metals, picosecond spectroscopy 2−99154
porphyrins, etio-, corpo- and meso-, fine-struct. luminesc. on selective laser excitation 2−111619
potassium hydrogen maleate:Cu^{2+}, EPR and optical absorpt. spectra, spin Hamiltonian parameters 2−98948
propynal, near reson. vibr.-vibr. energy transfer under single collision conditions 2−85762
pseudoisocyanine iodide photoisomers form., picosecond time resolved kinetic studies, quantum yield 2−72991
pseudoisocyanine monomers and J-aggregates in aqs. soln., picosecond kinetics and transient spectra 2−70272
pulsed tunable dye-laser microspectrofluorometer 2−105859
pyrazine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
pyridine, on surface of laminar silicates, interaction, optical electronic spectrosc. 2−54868
pyridine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
pyridinium N-oxide perchlorates, acetonitrile soln., H bonds, UV obs. 2−80645
pyrimidine dissolved in liquified gases, $n\pi^*$ absorpt. band study, 270-330 nm 2−80646
rare earth ethylsulphates, high press. phase transition mechanism 2−76666
trans-retinal, laser photochem. evolution, Raman and visible spectrosc. obs. 2−62410
trans-N-retinylidene n-butylamine, laser photochem. evolution, Raman and visible spectrosc. obs. 2−62410
rhamnose single cryst., X-irrad. at 4K, absorpt. spectrum of trapped electrons 2−87824
rhodamine 6G, ethanol soln., assoc., impurities effects. 2−105477
rhodamine 6G, ethanol solns., associate struct., spectrosc. obs. 2−105478
rhodamine 6G, mols. in soln., absorption spectra, environmental effects 2−96481
rhodamine B dimeric states, visible absorpt. spectra 2−72954
rhodamine dyes, submonolayer coverages on SiO_2, reson. second harmonic generation, UV study 2−55261
Rhodamine-6G, aq. soln. triplet state deactivation, visible-UV obs. 2−108540
Rhodopseudomonas sphaeroides, subpicosec. spectroscopy of primary processes in reaction centres 2−78306

visible and ultraviolet spectra of organic molecules and substances continued
solid solutions, burning out of metastable dips in absorpt. spectra, theory 2−91000
spiropyran, ultrafast form. of transients in photochromism 2−108534
styrylpyridines, conformational equilib., absorpt. and fluoresc. spectra in soln. 2−108614
TCNQ salt, (MTPA) $(TCNQ)_2$, polarisability and absorpt. tensor orientation 2−87810
TCNQ salts, alkali-crown ether-TCNQ systems, mag. props., vibr., ESR and UV study 2−110563
p-terphenyl-pentacene, delocalised dimer states, temp. depend. dephasing, photon echo expts. 2−104905
tetrabutylammonium bromide, intrinsic absorpt. and exciton luminesc. obs. 2−110933
tetracene films, elec. field modulated spectra 2−67078
tetramethyl-3-thio-1,3-cyclobutanedione-$h_{12}(d_{12})$ cryst., $n\pi^*$ transitions, visible spectra study 2−77546
thienyl-ethylenes, UV photoelectron and absorpt. spectra 2−85687
thioformaldehyde, mag. rot. spectrum of singlet-triplet perturbations in $\tilde{A}^1A_2$ state 2−114007
thioformaldehyde, UV $\tilde{B}^1A_2 \leftarrow \tilde{X}^1A_1$ absorpt. spectrum 2−70273
thioformaldehyde-$d_0(d_2)$, vibr., rot., UV obs. 2−75305
$(TMTSF)_2ClO_4$, reflectance spectrum, 30 to 290K, band parameters 2−87815
toluene, shock wave heating, band-shape, UV obs. 2−59816
trans-polyacetylene, density of states, elec. cond., optical absorpt. and EELS calc. 2−77026
trifluoronitrosomethane, state-selective photodissociation dynamics, visible obs. 2−65060
2,4,5-trimethylbenzaldehyde, triplet state Stark spectrosc. above phosphoresc. origin 2−90593
1-triphenylphosphazo-1-dimethyl-amino-2,2-dicyanoethylene, cryst. struct. and spectral study 2−98061
tropylium cation, bridged, charge transfer transitions, MCD, UV obs., CNDO/S calcs. 2−85717
TTF-p-chloranil, neutral-to-ionic transition, optical refl. spectra study 2−110889
TTF-TCNQ, polarisability and absorpt. tensor orientation 2−87810
UV spectroscopy of DNA, far- and vacuum-, prospects and difficulties 2−94259
vapour phase dye lasers in visible range 2−75565
p-xylene, multiphoton ionisation mass spectroscopy at 193 and 248 nm 2−70348
zinc dithizonate, thin film, photochromic switching, optical absorpt. and photovoltaic study 2−87882
zinc porphyrin, nematic liq. cryst. matrix, laser photolysis 2−108533
$AlCl_3$, chelation with C-methylated flavonoids, UV spectrosc. obs. 2−75303
1,2-benzpyrene in n-paraffin solns. at 77K, quasi-line delayed fluoresc. spectra 2−65042
CCN radical, Doppler limited dye laser excitation spectroscopy, spin-orbit and spin-rot. coupling const. 2−108538
7-diethylamino-3(2′-benzoxazplyl)-coumarin vapour phase dye lasers in visible range 2−75565
Pb(II)tetraphenylporphyrin, cation radical, optical and ESR spectra 2−80682
SiCl, electronic states, rot., mol. consts., UV obs. 2−54866
TCNQ salts, based on azkapyrido-cyanides, highly conducting, synthesis and phys. props. 2−98633

visible astronomical observations
0104-408, extragalactic radio source, optical identification and precise position 2−106943
0351+026, optical nebulosity nature and H I props., obs. nature and H I props., obs. 2−89400
0430.6−6133, 0626.7−5426, X-ray clusters of galaxies, optical investigations 2−89389
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
1979 VA, Apollo asteroid, discovery account 2−63300
1980 S 13, 25, Tethys Lagrangian satellites, longitude differences from Tethys (May 1982) 2−89192
1980 S 6, photographic obs. and longitude separation from Dione 2−68656
1980 S 6 ('Dione B'), positional obs. and longitude difference from Dione (May 1982) 2−89192
1982 DV, fast-moving asteroid, UBV photometry rel. to rot. period and light var. amplitude 2−68654
1982 DV, UBV photometry (March 19 to 25 1982) 2−58290
1982 FT, Mars-crossing asteroid, independent discovery report, orbital elements and ephemeris (1982 May 1 to June 20) 2−68653
1982 FT, semiaccurate posns. (1982 March) for fast-moving asteroid 2−68648
1982 HR, fast-moving asteroid, precise positions, 1982 April 29 to May 2, and ephemeris 2−68652
1982 HR, fast-moving asteroidal object, discovery and precise positions, (1982 April 24 to 26) 2−68650
1982 RA, fast-moving asteroid, BV photometry, (1982 September 22) 2−117625
1982 RA, fast-moving asteroidal object, discovery and semi-accurate positions (1982 September 13) 2−112368
1982 RA, fast-moving asteroidal object, precise positions, 1982 September 13 to 19, and ephemeris 2−117623
1982 RB, fast-moving asteroidal object, discovery and semi-accurate positons 2−112369
1982 RB, fast-moving asteroidal object, semiaccurate positions (1982 September 14 to 21) 2−117624
2345+007, double quasar, identification as third gravitational lens 2−68924
A_1 field, blue objects classification from visible spectra obs. 2−68926
2A 0526−328, X-ray cataclysmic variable, optical and X-ray study 2−112506
A 0538−66, X-ray transient, optical polarisation 2−58392
3A 0557−383, identification as extreme Seyfert galaxy, luminosity 2−58504
3A 0729+103, identification with cataclysmic variable and photometric and spectroscopic obs. 2−63521
A 1367, spiral-rich cluster of galaxies photometry 2−106937
2A 1822−371, degenerate star shell emission, component masses and orbital period 2−79145

visible astronomical observations continued
A-type stars, possible Fe abundance vars. among superficially normal stars 2−63361
AB 6, binary WR star in SMC, mass ratio 2−89264
Abell 2069, X-ray cluster of galaxies with multiple subcondensations, X-ray and optical obs. 2−68910
Abell 370, galaxies colour indices and nature, CCD photometry obs. 2−68908
Abell 41, planetary nebula, nucleus, ultra-short-period binary star, orbital period from light vars. 2−94718
Abell 76, ring galaxy, star formation and metallicity 2−117746
Abell 98, two-component cluster, internal dynamics, redshift obs. 2−89385
active galactic nuclei in clusters of galaxies 2−106882
active galaxies X-ray sources, identification and X-ray/optical luminosity-redshift relations 2−117795
Algol-type binaries, short period, spectroscopic survey for gaseous discs during primary eclipse 2−106813
AM 064-741, southern ring galaxy, kinematics from photometric and spectroscopic obs. 2−79216
Am stars, spectrophotometric studies rel. to effective temps., radii and bolometric magnitudes 2−84238
AM-4, intergalactic globular cluster discovery 2−74041
o Andromedae, Be star, search for short-term radial-velocity vars. 2−73988
BX Andromedae, eclipsing binary, light minimum time from photoelectric photometry 2−58399
RX Andromedae, eclipsing dwarf nova, orbit, spectral obs. 2−73995
o Andromedae, recurrent shell star, linear polarisation obs. in April 1982 rel. to new shell episode 2−94737
λ Andromedae, RS Canum Venaticorum star, Hα photometry 2−89305
λ Andromedae, RS CVn-like star, UV and optical spectrum obs. rel. to atmospheric inhomogeneities 2−58347
Ap stars, photometric obs. of four objects 2−94744
Ap stars in Scorpio-Centaurus association, slow metal enrichment 2−100935
R Aquarii, eclipsing symbiotic star, light curve, 1933 to 1981 and orbital period 2−100942
R Aquarii, symbiotic star, discovery and photometry of elongated extension of stellar image 2−117685
V794 Aquilae, cataclysmic variable star, short-term light vars. detect. by high speed photometry 2−106732
IM Aquilae, RR Lyrae star, period changes obs. 2−100947
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677
V1343 Aquilae (SS 433), 164 day period in emission/absorpt. lines 2−63466
V1343 Aquilae (SS 433), line motion 2−73993
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433), photometric behaviour in 1979 and (1980) 2−68782
Arakelian 144 (MGC 10-12-23), spectrophotometry of high surface brightness galaxy 2−89368
Arakelian 583, high surface brightness, spectrophotometric obs. 2−106908
Arakelyan 144, spectrophotometry of nucleus of galaxy *(Russian)* 2−74106
Arakelyan galaxies of high surface brightness, emission lines spectrophotometry *(Russian)* 2−106925
RV Arietis, brightness var. obs. using SBG satellite-borne camera *(Russian)* 2−79113
γ and 56 Arietis, magnetic Ap stars, nature of vars. of H lines 2−94745
TT Arietis, novalike variables, fading, visual magnitude estimates (March 4 to 24 1982) 2−58366
UX Arietis, RS Canum Venaticorum star, UBVR photometry during 1981 2−94784
105 Artemis, HD 197999 occultation, min. diameter determ. 2−112371
asteroid astrometry (1976-1979) at Uppsala Observatory and Kvistaberg Station 2−63296
asteroid astrometry in 1978 at Uppsala Southern Station 2−63293
asteroid positions from Bordeaux Observatory (1977) used to determine star equatorial coords. errors *(French)* 2−63297
asteroid positrons in March 1980 with ESO Schmidt telescope, La Silla 2−63295
asteroids, (1972, 1979-80) 2−100803
asteroids, discoveries and astrometric obs. at ESO-La Silla, and reference stars dependences 2−112349
asteroids, Minor Planet Circulars 6345-6424, precise posns. 2−63302
asteroids, Minor Planet Circulars 6481-6572, precise posns. 2−63301
asteroids, Minor Planet Circulars 6573-6652, precise posns. 2−58294
asteroids, Minor Planet Circulars 6643-67750, precise posns. 2−58295
asteroids, Minor Planet Circulars 6751-6838, precise posns. 2−73889
asteroids, Minor Planet Circulars 6839-6898, precise posns. 2−84141
asteroids, Minor Planet Circulars 6899-6988, precise posns. 2−84142
asteroids, Minor Planet Circulars 6989-7054, precise posns. 2−94635
asteroids, Minor Planet Circulars 7055-7166, precise posns. 2−100806
asteroids, Minor Planet Circulars 7167-7278, precise posns. 2−117626
asteroids, positions of 11 objects, (1981 February 26 to March 14) 2−100805
asteroids, topocentric posns., Wroclaw photographic obs. (1980) 2−79001
astrometric observation of Sun and planets, appl. to FK4 orientation determ. *(Russian)* 2−106480
astrometric observations of Sun, planets and lunar occultations, rel. to determ. of FK5 equinox and equator 2−68598
36 Atalante, rotation period, UBV photometry and lightcurve 2−73887
KR Aurigae, cataclysmic binary star, orbital period from spectroscopic obs. 2−68791
AB Aurigae, Herbig Ae star, mass flow and chromosphere emission 2−68758
RW Aurigae, T Tauri star, obs. of rapid line profile variability 2−73963
RW Aurigae, T Tauri star, photosphere spectrum at max. light *(Russian)* 2−68768
SU Aurigae, T Tauri star, rapid and slow spectrum vars. obs. 2−100920
KR Aurigae, unique variable star and X-ray source, new optical minimum obs., (December 1981) 2−63443
B and Be stars, Hα and He I line profiles from photographic spectrophotometry 2−68767
Barnard Loop Nebula, nearby nebulosities, H I features correl., visible obs. 2−58432
BD+22°669, spectroscopic binary, orbit and mass, possible Hyades member, spectral obs. 2−63503
visible astronomical observations continued
BD+40°4145, member of NGC 6910, variability obs. from BV photometry 2−106734
BD+60°562, new variable star, UBV photometry 2−79119
Be stars, long-term radial vel. vars. 2−84239
Be type stars, H_{α} profile catalogue *(French)* 2−58362
binary stars, photometric and astrometric obs. of close visual binaries 2−58395
binary stars, speckle interferometry at KPNO 2−117709
binary stars, spectroscopic and close visuals, separation, interferometric obs. 2−63525
binary stars with luminous cool primaries and hot companions, BVRI obs. 2−100985
α Bootis, search for oscills. 2−68755
44=i Bootis, W Ursae Majoris star, single night light curve, (1982 April 7 to 8) 2−112497
bright galaxies, intermediate band filter spectrophotometry obs. 2−101053
bright galaxies, UBV obs. and photometric transformations 2−106905
bright galaxies redshift, visible spectral obs. 2−63622
3C 120, radio galaxy, optical obs. rel. to large-scale radio struct. 2−68912
βC 273, surrounding nebulosity galactic nature from deep CCD obs. 2−84345
3C 351, quasars, intrinsic intensity ratios of broad and narrow lines 2−68918
3C 48, detection of galaxy underlying QSO 2−74122
4C radiogalaxies in poor clusters, red shifts, clustering props. and radio parameters 2−79225
53 Camelopardalis, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
XX Camelopardalis, Li and Ba abundances from Coude spectra 2−63434
AC Cancri, cataclysmic eclipsing binary, colour indices, magnitude, spectral obs. 2−63531
Canes Venatici ring galaxy, discovery of new object 2−112557
28 Canis Majoris, Be star, photometric and spectroscopic periods differences 2−100934
β Canis Minoris, Be star, unsuccessful search for rapid light variability 2−73987
α Canis Minoris (Procyon), anal. of chemical comp. using model atmosphere method 2−94717
α^2 Canum Venaticorum, Ap star, existence of radial mag. field gradient in stellar atmosphere 2−94743
Y Canum Venaticorum, semiregular variable, photometric obs., (1980 to 1981) 2−100946
RS Canum Venaticorum stars, Hα profile, surface phenomena 2−106777
RS Canum Venaticorum stars, MK standards, visible energy distrib. and temp. 2−74012
RS Canum Venaticorum stars and related objects, coordinated radio and Hα survey 2−112503
TW Capricorni, W Virginis star, light curve obs., 1978 to 1979, rel. to period changes 2−100944
Carina Nebula, gas motion from Ca II and Na I line obs. 2−68869
ST Carinae, β Lyrae type eclipsing binary, UBV photometric study 2−106812
AG Carinae, galactic S Doradus star, spectral characts. and shell nature 2−106727
η Carinae, high resolution obs. of Hα line profile 2−106724
η Carinae, remarkable spectrum of ejected material 2−63438
α Carnis Majoris, Am star, CNO abundances 2−68759
Case 1, red+white dwarf, period and mass 2−68810
Case 2, white dwarf, parallax obs. 2−63217
κ Cassiopeiae, B-type supergiant star, obs. of short-period light variability 2−94715
β Cassiopeiae, delta Scuti star, radial vel. var. 2−94757
SX Cassiopeiae, eclipsing Be+giant stars, spectral obs. 2−84263
DO Cassiopeiae, eclipsing binary, light minimum time from photoelectric photometry 2−58399
TV Cassiopeiae, eclipsing binary, photoelectric timings of primary minima using folding method 2−74022
AB Cassiopeiae, eclipsing binary star, δ Scuti pulsational groups. of hot component from BV photometry 2−106733
PV Cassiopeiae, eclipsing binary star, apsidal motion meas. from photoelectric times of minima 2−106776
ι Cassiopeiae, radial vel. and equivalent width vars. in Ap-star 2−79104
cataclysmic binaries, spectrophotometric survey of 31 stars 2−73979
cataclysmic variable candidates from Palomar Green survey, spectra and finding charts 2−106748
SV Centauri, interacting early type contact binary, visible/UV obs. 2−100979
V436 Centauri, SU Ursae Majoris star, radial vel. curve and orbital period 2−68777
V757 Centauri, W Ursae Majoris star, orbit, spectral obs. 2−63534
HI Cephei, eclipsing binary star, magnitudes and times of minima from photographic obs. 2−94738
VV Cephei, Hα line profiles rel. to struct. of Hα emission envelope around early-type component 2−68827
EM Cephei, short-period variable Be star, spectroscopy 2−112466
VW Cephei, W UMa system, photoelectric obs. and light curve vars. 2−79150
VW Cephei, W Ursae Majoris star, light min. times and light curves from photoelectric obs. 2−63519
VW Cephei, W Ursae Majoris star, new photoelectric light curves 2−89307
Cepheid variables with periods between one and three days, photoelectric UBV photometry 2−58361
beat Cepheids, coude spectra of atmospheres 2−89281
Cepheids in LMC, BV photometry rel. to reddenings and period-luminosity relation 2−58353
o Ceti, long period variable, diameter, TiO in atm. effects 2−63433
2 Ceti, new Be star, Hα emission line profile obs., (1982 September 5) 2−117683
Cetus, object on Carte du Ciel zone−1°, no.7, Algiers Observatory 1911 plate 2−106563
313 Chaldaea, synodic rot. period, colour indices and light curve obs. 2−68647
Z Chamaeleontis, dwarf nova, spectrum and photometry rel. to eccentric disc during supermaximum 2−63418
chromosphere Ca II, vel. oscills. phase differences between two lines 2−58313
Cl 2244−02 galaxies colour indices and nature, CCD photometry obs. 2−68908

visible astronomical observations continued
clusters of galaxies, shape and orientation determ. 2−74110
clusters of galaxies, substructure from surface number density contour maps 2−106938
clusters of galaxies in Southern Hemisphere photometry and spectra obs. 2−106936
CoD−35°10525, YY Orionis star, radial vel., spectral and photometry obs. 2−63408
α Columbae, spectrophotometry of B8Ve star 2−89277
Coma cluster central region galaxies, D_{25} diameters and positions *(French)* 2−63643
39 Comae Berenicis, and field, visual/astrometric binary, parallax obs. 2−63217
Comet Austin (1982g), discovery posns., magnitude and appearance 2−84167
Comet Austin (1982g), precise positions, 1982 July 2 to 15, improved orbital elements and corrections to ephemeris 2−94657
Comet Austin (1982g), precise positions, 1982 June 19, orbital elements and ephemeris 2−89199
Comet Austin (1982g), precise positions, 1982 June 21 to 23, parabolic orbital elements and ephemeris 2−89201
Comet Austin (1982g), precise positions, 1982 June 26 and 27, orbital elements and ephemeris 2−89202
Comet Austin (1982g), spectrum obs. and total visual magnitude, coma dia. and tail length estimates 2−112394
Comet Austin (1982g), total visual mag. estimates and coma diameters (July 1982) 2−100833
Comet Austin (1982g), total visual magnitude, coma diameter and tail length estimates (1982 September 4 to 20) 2−117631
Comet Austin (1982g), total visual magnitude estimates and coma diameter (1982 July 2 and 3) 2−94655
Comet Austin (1982g), visual magnitude estimate, (1982 August 2) 2−100836
Comet Austin (1982g), visual obs., elements and ephemeris (1982 Aug.-Dec.) 2−106621
P/Comet Borrelly (1980i), 1981 obs. summary 2−68675
Comet Bowell (1980b), coma diameter and total visual magnitude (Feb. 26 to March 4 1982) 2−58305
Comet Bowell (1980b), JHK photometry and total visual magnitude-estimates, (1982 May 25 to July 10) 2−94654
Comet Bowell (1980b), OH and CN prod. rates from IUE and ground-based obs., (April 1982) 2−84165
Comet Bowell (1980b), total visual magnitude estimate (1982 April 23) 2−73912
Comet Bradfield (1980 XV), head during post-perihelion phase, emission features 2−84169
P/Comet Churyumov-Gerasimenko (1982f), recovery and precise positions (1982 May 31 and June 1) 2−79036
P/Comet d'Arrest (1982e), recovery, precise positions, 1982 April 23 to May 16, and orbital elements 2−73911
P/Comet du Toit-Hartley (1982b, 1982c), magnitudes from red-sensitive exposure, (1982 May 1) 2−68677
P/Comet Grigg-Skjellerup (1982a), mag. estimates and ephemeris continuation (1982 June-Aug.) 2−84168
P/Comet Grigg-Skjellerup (1982a), total visual magnitude estimates (1982 May 14 to 27) 2−79038
P/Comet Grigg-Skjellerup (1982a), total visual magnitude estimates, (1982 April 20 to May 12) 2−89200
P/Comet Gunn, total magnitude estimates (1982 May 22 and 23) 2−79037
P/Comet Halley, unsuccessful search, (1981 December 18) 2−63318
Comet Hartley (1982h), discovery and approximate positions, (1982 July 11 and 13) 2−94653
Comet Hartley (1982h), precise positions, 1982 July 15 to 17, and ephemeris 2−94656
Comet Howard-Koomen-Michels (1979 XI), Sun collision and orbit 2−79040
Comet Ikeya-Seki (1965 VIII), ion tail helical structures 2−89203
comet magnitude, coma and tail obs. (1980-1) 2−68674
P/Comet Peters-Hartley (1846 VI=1982h), precise positions, 1982 July 11 to 20, orbital elements and ephemeris 2−100832
P/Comet Schwassmann-Wachmann 1, new outburst, visual magnitude estimates, (1982 April 13 to 15) 2−63317
P/Comet Schwassmann-Wachmann 1, total visual magnitudes and coma diameters (1982 April 16 to 20) 2−68676
P/Comet Scwassmann-Wachmann 1, colour and CO^+ emission 2−68668
Comet West (1976 VI), spectrum energy distrib. and flux *(Russian)* 2−79029
Comet West (1976 VI), tail structure rel. to solar wind vel. *(Russian)* 2−79032
comets, brightness and polarisation depend. on phase angle 2−73910
comets, Minor Planet Circulars 6345-6424, precise posns. for eight objects 2−63302
comets, Minor Planet Circulars 6481-6572, precise posns. for 16 objects 2−63301
comets, Minor Planet Circulars 6573-6652, precise posns. for 18 objects 2−58294
comets, Minor Planet Circulars 6643-67750, precise posns. for 13 objects 2−58295
comets, Minor Planet Circulars 6751-6838, precise posns. for 11 objects 2−73889
comets, Minor Planet Circulars 6839-6898, precise posns. for 14 objects 2−84141
comets, Minor Planet Circulars 6899-6988, precise posns. for 23 objects 2−84142
comets, Minor Planet Circulars 6989-7054, precise posns. for six objects 2−94635
comets, Minor Planet Circulars 7055-7166, precise posns. for 16 objects 2−100806
comets, Minor Planet Circulars 7167-7278, precise posns. for 14 objects 2−117626
comets, topocentric posns., Wroclaw photographic obs. (1977-80) 2−79001
comets, visual magnitudes, coma dia. and tail details for eight objects (1980-2) 2−106620
comets, visual obs. (1948-82) of mags., tails and comae 2−94651
comets in 1981, Agassiz Station obs. of magnitudes 2−94650
compact extragalactic objects, photometric observations and structure 2−74085
comparison stars, Johnson BVR magnitudes 2−79087

visible astronomical observations continued
S Coronae Austrinae, YY Orionis star, spectral and photometry obs. 2−63408
S Coronae Austrinae, YY Orionis type star, BV photometry rel. to peculiarities of atmosphere and envelope 2−68770
R Coronae Borealis, 49-day cycle detect. from photometric obs., (1980 to 1981) 2−100946
ι Coronae Borealis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
R Coronae Borealis, Li and Ba abundances from Coude spectra 2−63434
β Coronae Borealis, magnetic Ap star, nature of vars. of H lines 2−94745
R Coronae Borealis, polarisation and photometry at 1977 minimum 2−84246
UU Coronae Borealis (HD 137050), Johnson BVR magnitudes (1969 and 1973) 2−79087
R Coronae Borealis stars, spectrophotometric investigation *(Russian)* 2−73985
Crab Nebula, filament spectrophotometry 2−101004
Crab Nebula, O III deep image of jet 2−117733
CSV 5885, 8736, pulsating variable stars, light elements from Sky-patrol-plates obs. elements from Sky-patrol-plates obs. 2−112459
CSV 6984, new W Ursae Majoris type star, BV photometry, light curve and orbital elements 2−112500
CSV 8883, 101915, eclipsing binary stars, light elements from Sky-patrol-plates obs. 2−112459
CU Cancri (G9-8), flare star, confirmation by flare activity of photoelectric UBVR photometry 2−73990
CW 1103+254, AM Herculis star, visible and IR photometry and polarisation and spectroscopic obs. 2−94751
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
65 Cybele, diameter from AGK3+19°0599 occultation 2−63298
59=V832 Cygni, Be star, spectroscopic obs. during 1974-1975 shell episode 2−100940
V380 Cygni, eclipsing binary, He abundance in atmosphere of primary rel. to evolutionary status 2−100977
ZZ Cygni, eclipsing binary, photometric obs. and search for δ Scuti-type pulsations 2−68819
V836 Cygni, eclipsing binary star, photoelectric obs. 2−74023
CG Cygni, eclipsing binary star, UBVR photometry during (1981) 2−79160
CI Cygni, eclipsing symbiotic star; visual and photogrpahic light curves, (1967 to 1981) 2−100949
55 Cygni, emission line star, abundances from spectral obs. 2−117682
V1016 Cygni, peculiar emission-line star, visible and near IR spectral vars. 2−84241
P Cygni, radio star, comparison of precise optical and radio positions 2−89319
XZ Cygni, RR Lyrae star, effect of heavy elements content on light curve plotting and radius determ. *(Russian)* 2−94734
V802 Cygni, RR Lyrae star, period revision and amplitude change obs. 2−100948
φ Cygni, spectroscopic binary, mass, orbit and luminosity, speckle interferometric obs. 2−79149
CI Cygni, symbiotic star, H vars. and near IR spectrum 2−68789
CH Cygni, symbiotic star, spectroscopic and photometric behaviour in (1981) *(Russian)* 2−112470
V444 Cygni, Wolf-Rayet eclipsing binary, approximation of narrow-band light curve via special polynomials *(Russian)* 2−94779
α Cygni (Deneb), generalized Compton effect in spectra 2−106696
Cygnus A, stellar component and poor cluster, spectroscopy and photographic photometry 2−89381
Cygnus Loop, monochromatic photographs with fibre glass image tube *(Russian)* 2−101027
Cygnus Loop, SNR, knots vel. dispersion 2−68848
Cygnus OB2 association, comparison of precise optical and radio positions for member stars 2−89319
Cygnus OB 2 association stars, wind vel. law and mass loss, visible/IR obs. 2−68841
DEM 45, 137, 165, 174 and 208, LMC Wolf Rayet ring nebulae, kinematics obs. 2−68779
diffuse interstellar clouds, methyline and methyline ions absorpt. 2−89323
RW Doradus, W Ursae Majoris star, spectral type 2−68821
S Doradus at maximum light, spectra 2−94729
48 Doris, rotation period, UBV photometry and lightcurve 2−73887
DE Draconis, eclipsing binary, spectroscopic orbit, model and rotation effects, spectral obs. 2−58387
BY Draconis, flare star, photoelectric obs. (1979 July 11 to 31) 2−106731
BY Draconis, flare star, photoelectric UBV obs. ion 1980 and (1982) 2−112460
29 Draconis, probable new RS Canum Venaticorum star, BV photometry and light var. characts. 2−58405
BW Draconis, W Ursae Majoris star, times of photoelectric minima from BV photometry 2−84282
dwarf novae, southern hemisphere and equatorial, photoelectric photometry and spectra 2−100762
1E 1402.3+0416, new BL Lacertae object discovered by Einstein Observatory, optical spectral index 2−94838
E 1405−451, AM Herculis-type binary evidence from polarization 2−68822
E 1551+718, X-ray source, identification with uncatalogued dwarf nova 2−106965
1E 2259+586, X-ray and optical posns. and IR pulsations 2−79164
early-type stars, Geneva photometric boxes rel. to interstellar reddening towards galactic poles 2−58327
early-type ultra-short period variables, photometric obs. 2−63410
eclipsing binary stars, photoelectric minima during 1980 and 1981 from BV obs. 2−112498
eclipsing binary stars, photoelectric times of minima for eight objects 2−89310
eclipsing binary stars in southern hemisphere, times of minima 2−112495
eclipsing cataclysmic binaries, He I line emission and He abundance 2−89269
Einstein deep survey fields in Cetus, Pavo, Eridanus, optical counterparts UBVRI obs. 2−84350
ellipsoidal variable stars, photometric discovery of five new objects 2−112496
emission line galaxies, nuclei, gas characts. and ionising mechanism 2−63629

visible astronomical observations continued
emission line spectra objects, reddening relations from VBLUW and UBV photometry 2−101016
equatorial stars, declinations of 100 objects *(Russian)* 2−78982
λ Eridani, Be star, new emission line phase, Hα emission line profile obs., (1982 September 8) 2−117683
UX Eridani, eclipsing binary star, photoelectric minimum light times obs. 2−68820
S Eridani, identification as δ Scuti star from photometric obs. 2−58363
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. 2−58381
15 Eunomia, occultation by SAO 77636, obs. from South Africa 2−106596
164 Eva, rotation period and light curve, UBV obs. 2−58286
extreme C stars, circumstellar dust shells morphology from optical spectropolarimetery 2−112447
F2 and G2 stars in McCormick proper motion fields, uvby photometry 2−100902
F, G and K-type stars, space and ground-based spectrophotometry 2−100898
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
far-red objects on CCD images of galactic centre 2−117759
fireball over Midlands (1982 August 16) 2−117633
flocculi in sunspot groups, brightness variations assoc. with mag. fields 2−84201
Fornax cluster galaxies, colour magnitude relation at UBV wavelengths 2−79222
galactic nuclei, O III forbidden emission line widths 2−84313
galactic stars in direction of LMC, radial vels. from objective-prism plates *(French)* 2−100763
galactic supergiant stars spectra, equivalent width meas. 2−100926
galaxies, aperture photometry rel. to Zwicky magnitude scale and estimation of blue luminosity 2−68899
galaxies, bulge component rotation 2−84315
galaxies, image-tube spectrograms of clumpy irregular objects 2−58446
galaxies, interacting, radial vels. 2−58456
galaxies, late-type, of low surface brightness, optical and H I study 2−94834
galaxies, multiaperture BV photometry of southern objects 2−106918
galaxies, multiaperture UBV photometry of isolated galaxies 2−58449
galaxies, optical identifications for 5 GHz sources 2−112603
galaxies, optical spectra and redshifts 2−101069
galaxies, spectroscopic characts. and differential redshifts of companion galaxies 2−74078
galaxies, surface photometry and luminosity distribs. for eight edge-on galaxies 2−101040
galaxies, Tully-Fisher relation in blue and IR rel. to depend. on Hubble type 2−63615
galaxies behind Virgo cluster, radial vel. meas. *(Russian)* 2−63656
galaxies detected in Arecibo 2380 MHz survey, radial vels. meas. 2−101050
galaxies with UV excesses, spectroscopic obs. *(Russian)* 2−112566
galaxy redshifts survey, density field and induced gravity field 2−68881
galaxy redshifts survey, large scale space distrib. 2−58448
Galilean satellites, 1979 mutual eclipses and occultations *(French)* 2−100807
Galilean satellites, astrometry from Leander McCormick Observatory for 1978-9, 1980, 1981 oppositions 2−73891
Galilean satellites of Jupiter, positions obs. and comparison with Sampson-Lieske theory 2−79010
gamma-ray burst (1978 November 19) optical candidates, BV and near-IR photometry 2−94865
Geminid meteor stream, 1980, anal. of visual, photographic and radio obs. 2−106630
ζ Geminonorum, Cepheid, angular diameter from lunar occultation obs. 2−73949
81 and χ Geminorum, orbits of spectroscopic binaries from photoelectric radial vels. 2−112507
YY Geminorum, spectroscopic eclipsing binary, Hβ line var. and active region sectorial struct. var. 2−94790
ζ Geminorum, ten-day Cepheid variable, radial vel. curve from spectra in Hα region 2−106745
OT Geminorum (HD 58050), Be star, light variations from photoelectric BV photometry 2−73989
geostationary satellites, visual obs. techniques and results 2−106476
GF 2.4+1.4, ring nebula assoc. with Wolf-Rayet star, photographic and spectroscopic obs. 2−63562
GL 618, bipolar nebula, early planetary nebula, radial vel. struct. 2−63571
1687 Glarona, positron, visible obs. from ESO, La Silla (1980) 2−63294
Gliese 867B, flare star, photoelectric flare obs. (1981 October 1) 2−79120
globular clusters compositions from visible spectra obs. 2−101000
globular clusters in galaxies, specific cluster freq. rel. to galaxy mergers 2−106921
globular clusters in M31, optical polarization meas., magnetic fields 2−63547
globular clusters in M31 (Andromeda Nebula), photoelectric UBV photometry *(Russian)* 2−112520
GR 306, new suspected variable in Pegasus, photographic obs. 2−94738
Greenwich Obs. Time and Latitude Service, Time Report (April to June 1981) 2−78931
Greenwich Obs. Time and Latitude Service, Time Report (July to September 1981) 2−100707
Greenwich time report, Royal Greenwich Observatory Time and Latitude Service, (January to March 1981) 2−68599
V Gruis, eclipsing binary star, new orbital period and light curve from photometric obs. 2−112495
H2252−035, non-synchronous rotator, spectral/photometry obs. anal. 2−100955
H 0139−68, AM Herculis star, high speed photometric obs. 2−63517
H 0139−68 X-ray source identification with AM Herculis-type star 2−94788
1024 Hale, positron, visible obs. from ESO, La Silla (1978) 2−63294
HBV 475 (V1329 Cygni), peculiar emisson-line star, line profiles rel. to expanding motions in ionised envelope 2−68781
HD 101065 temperature, visible spectral obs. 2−94702
HD 105262, bright field horizontal branch star, spectral obs. 2−94714
HD 111980 and 149414, halo cool subdwarf binaries, spectroscopic orbits and comp., 2−100922
visible astronomical observations continued
HD 112127, K-type giant, Li abundance, model atm. anal. 2−79088
HD 136905, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58407
HD 137147, HD 137050, Johnson BVR magnitudes 2−79087
HD 147010, Ap Si star, spectrum variability and rot. period 2−68788
HD 149499, white dwarf and main sequence star, distance from parallax obs. 2−106791
HD 153919 (4U 1700−37), optical eclipses and precession effects in X-ray binary 2−117710
HD 181602, spectroscopic binary, orbit from radial vel. obs. 2−68825
HD 185151, RS CVn star, chromospheric activity 2−100975
HD 189178, spectroscopic binary, orbital elements for primary component 2−106811
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 193793, WN7 star, wind vel. and circumstellar dust shell 2−84236
HD 208095, spectroscopic binary masses from visible spectra 2−74028
HD 219634, new massive eclipsing binary star, photometric obs. of eclipses rel to masses and spectral types 2−79159
HD 224113, Algol-type binary star, uvby photometry (1981 October 9 to 18) 2−94783
HD 25354 and 152107, binary Ap stars, spectral var. and orbit/rot. synchronism 2−112455
HD 26337, new RS Canum Venaticorum variable star, spectroscopic and photometric obs. 2−58406
HD 27130, eclipsing binary in Hyades, obs. rel. to mass-luminosity relation and cluster distance 2−68811
HD 29647, Hg-Mn star, radial vel. distance and luminosity *(Russian)* 2−68794
HD 30849, HD 53116, variable Ap stars, supplementary Stromgren photometry and periods 2−94740
HD 32918 and 36705, FK Comae stars identification, visible spectra/photometry obs. 2−100952
HD 37776, intermediate He star, confirmation of light variability 2−84229
HD 58050, Be star, unsuccessful search for rapid light variability 2−73987
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
HD 65227, new short period Cepheid of very small amplitude, photometric obs. 2−63446
HD 78616 (Q.81), new β Cephei star in Harvard Standard Region E4, photometric obs. rel. to period and light curve 2−94736
HD 80077, B2 supergiant spectroscopic binary, luminosity 2−100923
HD 81410, new RS Canum Venaticorum binary star, BV photometry and orbital elements 2−79168
HD 86161, WR star with neutron star companion, mass and orbit 2−73983
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
HDE 245770, X-ray binary Hα emission line variability *(Russian)* 2−68829
Herbig Haro objects, emission line spectra, model and ion abundances 2−63578
DI Herculi, B-type eclipsing binary, mass, radius and orbit 2−63500
φ Herculis, HgMn star, absorpt. line symmetries from line profile meas. 2−63431
AM Herculis, visual mag. estimates (1982 May) 2−79167
AM Herculis, visual magnitude estimates, (1982 June 23 to July 8) 2−106804
AM Herculis, VRI photometry and circular polarisation during low state, (1982 March 6 to April 19) 2−74025
V644 Herculis δ Scuti star, orbital motion from radial vels. meas. *(French)* 2−58396
AM Herculis (3U 1809+50), new optical decline, visual magnitude estimates (1982 March 29 and April 19) 2−68823
AM Herculis (3U 1809+50), visual magnitude estimate, (1982 April 16) 2−68824
BL Herculis stars in globular clusters, investigation of period changes 2−79101
HH-39, Herbig-Haro object, proper motions and relation to R Monocerotis and (NGC 2261) 2−106841
Himalia (Jupiter VI), precise posns. (1982 April 29) 2−100811
HJ 2215−086, optical counterpart light curve anal., visible spectra/photometry obs. 2−74011
HR 4006 (G3.5 III), spectroscopic binary star, radial vel. orbit 2−106815
HR 465, spectrum of Ap star near rare-earth min. phase 2−106719
HR 4975, possible early-type contact system with unequal components, photometric obs. 2−79153
HR 7024, spectroscopic binary orbit, radial vel. obs. 2−79169
HR 7308, peculiar classical Cepheid, radial vel. meas. and BV photometry rel. to pulsation and physical parameters 2−89272
HR 7308, unique Cepheid variable, photoelectric light curve during (1981) 2−100941
HR 7739, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
Hyades, BVRI photometry of possible cluster members 2−106829
Hyades K-type giant stars, rot. vels. meas. rel. to ang. momentum history 2−63397
Hydra I galaxy cluster, membership from red shifts 2−101082
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
Iapetus (Saturn VIII), precise posns. (1982 April) 2−100825
IC 1727 and NGC 672, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
IC 4329A, Seyfert galaxy, optical polarisation due to disc dust grains 2−68890
IC 443, SNR knots, vel. dispersion, optical spectra 2−68848
IC 5174/75, very large interacting galaxy pair, struct. rel. to recent encounter model 2−63633
RY Indi, β Lyrae type eclipsing binary, UBV photometric study 2−106812
interstellar diffuse bands, high resolution obs. 2−58423
interstellar diffuse gas near Pleiades, spectroscopic study 2−58426
interstellar medium pre-shock densities from SNR and emission nebulae, VBLUW photometry 2−101015
interstellar polarisation curves, meas. using simultaneous IR/optical polarimeter 2−106540

visible astronomical observations continued
irregular galaxies, global props. from optical and radio obs. 2−101054
irregular galaxy H II regions giving galaxy evolution and star form. histories 2−117743
Jupiter, inner satellites and ring, 900 nm obs. 2−73894
Jupiter, photographic positional obs. with long focus astrograph during (1975) graphic positional obs. with long focus astrograph during (1975) *(Russian)* 2−94636
Jupiter, plasma torus characts. from forbidden line anal. 2−58296
Jupiter and Galilean sateiites, 1978 December positions, Uccle double astrograph obs. 2−79007
Jupiter astrolabe observations at CERGA Observatory (January 1978-May 1979) *(French)* 2−100808
Jupiter magnetosphere, Na emission of Io origin plasma and motion 2−73893
Jupiter plasma torus, Fabry-Perot/CCD obs. of forbidden S II and S III emissions 2−112373
Kazarian 1, 3, 4 and 6, UV excess galaxies, morphology and spectrophotometry obs. 2−58454
Kazaryan 120, QSO, spectral obs. and anal. 2−117790
Kepler's SNR, model and shock propag. from visible spectra 2−112530
Khavtasi 141, interstellar dark cloud complex, optical extinction from star counts 2−68874
KW 207 (HD 73576), δ Scuti star, evidence for radial and nonradial pulsations from photoelectric obs. 2−106718
EV Lacertae, flare star, photoelectric obs. in 1981 2−84244
EV Lacertae, flare star, photoelectric obs. in (1976) 2−106735
EV Lacertae, flare star, UBV photoelectric obs. in 1981 2−84243
BL Lacertae, flux and polarisation obs. and model 2−117745
AR Lacertae, RS Canum Venaticorum type binary star, photoelectric photometry (1976 to 1977) 2−106810
SW Lacertae, W Ursae Majoris star, new minimum times, 1980 and 1981, rel. to orbital period vars. 2−79161
Lalande 21185, red dwarf star, study of intensive 40-yr Sproul plate series 2−79089
Lanning 10, eclipsing cataclysmic variable, photometric and spectroscopic obs. 2−58321
late type dwarfs, spectral characts. and radial vel. 2−58335
late type stars, spectral line asymmetries and convective velocities 2−68729
late-type main-sequence stars, rot. vels. rel. to Ca II H and K emission and mag. struct. 2−68764
LB 3459 O-type subdwarf eclipsing binary visible/UV obs. 2−63504
LD23, new eclipsing binary in Cygnus, approximate position, finding chart, and BV magnitudes 2−84109
Lemogne Crater soil, photometric studies 2−68639
α Leonis, angular diameter from lunar occultation obs. 2−73949
X Leonis, dwarf nova, visual magnitude obs., (1970 to 1979) 2−106737
α Leonis, probable new Be star, obs. of variable weak emission in Hα 2−112442
AM Leonis, W Ursae Majoris star, BV and narrow-band obs., (1977 to 1981) 2−84274
XY Leonis, W Ursae Majoris star, new times of minima and orbital period vars. 2−106800
ϵ Leonis (HD 84441), IAU radial-velocity standard, search for radial vel. vars. 2−106713
20 Leonis B (HR 3889), Scuti star, photoelectric obs. 2−89276
Lindsay 102, SMC globular cluster with C star member, BV photometry rel. to age 2−63430
LMC, for UV extinction and interstellar 4430 Å band obs. in reddened stars 2−106898
LMC member stars, catalogue and radial vels. from objective-prism plates *(French)* 2−100763
146 Lucina, occultation of AGK3+17° 1309, 1982 April 18, obs. from Barcelona and Meudon 2−84139
146 Lucina, occultation of AGK3 +17°1309 on 1982 April 18. obs. 2−68651
RY Lupi, T Tauri star, optical and IR photometry rel. to cause of light variability 2−79098
Lyman α, intergalactic absorption lines in close QSO pair spectra 2−84309
α Lyrae, CNO abundances 2−68759
β Lyrae, Hα profile, image isocon obs. (1974-5) 2−106806
MV Lyrae, IUE and optical obs. at intermediate and low states 2−106744
β Lyrae, magnetic field intensity from 100 spectrograms *(Russian)* 2−74032
RR Lyrae, spectral peculiarities *(Russian)* 2−79112
α Lyrae and field, astrometry, parallax obs. 2−63217
RR Lyrae stars, C abundance from visible photometry/spectra obs. 2−73978
RR Lyrae stars in Magellanic Clouds, age, mass and metallicity, spectral obs. 2−89357
RR Lyrae stars towards galactic anticentres 2−63427
Lyrid meteor stream, brief intense return, (1982 April 22) 2−68679
M101, distance modulus determ. from dia. of giant ringlike H II region 2−68900
M101 H II regions, element abundances and electron temps. 2−68889
M16 HH1, Herbig Haro object identification 2−63582
M17, optical linear polarisation map 2−112536
M31, element abundance gradients from supernova remnants and H II regions 2−63618
M31, globular cluster optical polarization meas., magnetic fields 2−63547
M31, isophotes, B-surface photometry 2−63624
M31, obs. of optical warp 2−68887
M31, search for globular clusters, BV obs. 2−63642
M31 (Andromeda Galaxy), struct. of S6 spiral arm *(Russian)* 2−106926
M31 globular clusters, dynamics and metallicity 2−106825
M32, elliptical galaxy, deconvolution of brightness profile from seeing 2−84320
M32 and M81 early type galaxies, vel. dispersion and radial vel. 2−63635
M33 nucleus, optical struct., mass and rot. and luminosity 2−74089
M42 and M43 (Orion nebula), obs. of forbidden O I, O II and O III lines 2−106878
M51, optical spectrophotometry of nuclear region 2−58451
M55, M71, globular clusters, CN distribs. obs. 2−63542
M5 and M71, globular clusters, giant stars HR diagram positron and mass loss, obs. 2−100999
M67, open cluster membership from relative proper motion anal. *(Chinese)* 2−112518
M81/M82 group, Sculptor type galaxies discovery and survey 2−112598

visible astronomical observations continued
M87, jet mag. field struct. from polarimetry in UBV 2−106915
M87, jet morphology, UBV obs. 2−84322
M-type dwarf stars, discoveries on southern red-sensitive objective-prism plates 2−100761
M-type giants and supergiants, Li abundance 2−84225
M-type Hα emission stars, discoveries on southern red-sensitive objective-prism plates 2−100761
Magellanic Clouds globular clusters, late-type stellar content from IR and visual obs. 2−58414
Magellanic Stream direction, detect. of galactic refl. nebulae 2−58469
Magellanic Stream region, detect. of diffuse emission region in Hα 2−58469
Markarian 1066, Seyfert 2 galaxy, struct. from spectral obs. 2−117750
Markarian 1400 to 1500, nature and spectral obs. 2−117613
Markarian 290, Seyfert 1 galaxy, central region struct 2−63627
Markarian 298(=IC 1182-4), Seyfert 1 galaxy, centre struct. 2−117749
Markarian 325 (NGC 7653), clumpy irregular galaxy, recent star forming activity 2−112554
Markarian 325 (NGC 7673), clumpy irregular galaxy, imagery 2−74093
Markarian 348, mass, radial vel. and diameter from visible spectra obs. *(Russian)* 2−68907
markarian 376, Seyfert galaxy, optical polarisation obs. 2−68890
Markarian 421 and 501, CCD photometry of BL Lac objects 2−101029
Markarian 509, Seyfert galaxy, emission line profiles anal. 2−89354
Markarian 558, nucleus parameters from spectral obs. 2−117760
Markarian galaxies in Bootes, redshift distrib. rel. to intergalactic void 2−68898
Markarian galaxies red shift determ. 2−74098
Markaryan 314 (NGC 7468), remarkable galaxy with three bright regions, photometric and spectroscopic obs. 2−101042
Markaryan 744, Seyfert galaxy, spectroscopic obs. rel. to internal vel. field 2−101041
Mars, astrolabe observations at CERGA Observatory (February 1980-May 1980) *(French)* 2−100796
Mars, IR refl. spectra and chem. composition of surface 2−89181
Mars, obs. of Rima Tenuis, (December 1981 and January 1982) 2−58281
Mars, Olympus Mons, aureole deposits, Voyager Orbiter pictures 2−58284
Mars, spectral investigations from Viking 2−112365
Mars, surface props., opposition effect, Viking Orbiter TV pictures 2−100799
McMath 13043, sunspot motion from mag. δ config. during flare 2−84202
Melotte 66, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
Merate Observatory time and latitude results, Danjon astrolabe obs. (1981) 2−105882
metallic line stars spectra, catalogue of Ca II K line profiles/equivalent widths 2−84111
meteor path plotting, errors in visual obs. 2−106628
methane on Jovian planets and Titan 2−90560
minor planets, astrometric obs., (1980 to 1982) 2−106611
102 Miriam, position, visible obs. from ESO, La Silla (1978) 2−63294
BM Monocerotis, Algol-type binary, light minimum timings rel. to orbital eccentricity and apsidal motion 2−100988
AV Monocerotis, eclipsing binary, UV spectra anal. 2−74029
BT Monocerotis (Nova Monocerotis 1939), eclipsing nova, photometric obs. 2−68776
MWC 17, BQ[] star, spectrophotometric obs. in January 1982 2−84245
Neptune, astrometric obs., (1980 to 1982) 2−106611
Neptune occultation of star by possible third satellite 2−79027
Nereid, orbital elements 2−112388
NGC 1068, Seyfert galaxy size and power, speckle obs. 2−63655
NGC 1097, hot spots and amorphous nucl. region 2−74102
NGC 1365, Seyfert like nucleus surrounded by H II regions, visible obs. 2−58470
NGC 1947, elliptical galaxy, dust lane rot., spectral obs. 2−68895
NGC 2243, open cluster, chem. comp. from red giant model atm. and spectra 2−89316
NGC 2261, cometary nebula illuminated by R Monocerotis, polarisation obs. 2−63581
NGC 2346, planetary nebula, central star, identification as eclipsing binary from UBV photometry 2−68870
NGC 2440, ionisation struct., extinction and spectra 2−106860
NGC 2547, southern open cluster, UBV and Hβ obs. rel. to basic parameters and luminosity function 2−58416
NGC 2997, hot spot galaxy, structure and dynamics of nucleus 2−89378
NGC 3067, Sb III galaxy, evidence for nonluminous matter, visible/UHF obs. 2−79201
NGC 3115, absorption line vel. and vel. dispersion profiles in S0 galaxy 2−84316
NGC 3201, globular cluster, CN distrib. 2−63542
NGC 326, 750, 751, radio close double elliptical galaxies 2−73861
NGC 3504, barred spiral galaxy, evidence for predominantly circular internal motions 2−106919
NGC 3603, UBV photometry of star cluster rel. to distance of giant H II region 2−68864
NGC 3718, peculiar lenticular galaxy, polarisation and reddening due to interstellar matter 2−63628
NGC 3783, Seyfert galaxy, emission line profiles anal. 2−89354
NGC 40 and 7026, planetary nebulae, expansion vel. field 2−84299
NGC 4151, Seyfert galaxy, new brightening, approximate B-magnitudes (1982 June 9 to August 19) 2−112561
NGC 4185, galactic nucleus, nearby supernova, discovery and photographic magnitude (March 22 1982) 2−58371
NGC 4303 (M61), search for H II regions, photometry obs. 2−84328
NGC 4388, Seyfert galaxy in Virgo cluster, nature and emission props., obs. 2−89374
NGC 4565 and 891, edge on spiral galaxies, search for globular clusters 2−79202
NGC 4649, elliptical galaxy with strong UV flux, IUE and optical obs. 2−68886
NGC 4736, spheroidal galaxy, vel. dispersion and radial vel. 2−63635
NGC 5128, interstellar spectral lines in globular clusters 2−117731
NGC 5128 (Centaurus A), structure from Hα obs. 2−79218
NGC 5426 and 5427, interacting spiral galaxies, mass distrib. and surface photometry 2−101064
NGC 5548, Seyfert 1.5 galaxy, nucleus structure 2−117740
NGC 55, Sculptor group galaxy, discovery and spectrum of large shell nebula 2−63575

visible astronomical observations continued
NGC 581, proper motion determ. using plate sequence of cluster *(Russian)* 2−78971
NGC 5963, low surface brightness spiral, mass-to-light ratio 2−101031
NGC 6302, poly-polar nebula, wind driven, ionised gas parameters from spectral lines 2−89339
NGC 6334 interstellar complex, struct. and dynamics of 3.5 pc diameter filamentary shell 2−112535
NGC 6503, spiral galaxy, mass and vel. fields from Hα obs. 2−112560
NGC 6643, rotation and mass distrib. in spiral galaxy 2−117772
NGC 6664, open cluster, intermediate-band photometry 2−106823
NGC 672 and IC 1727, interacting galaxies, rot. and mass from spectroscopic obs. *(French)* 2−58464
NGC 6822, Local Group irregular galaxy, catalogue of diffuse nebulae and emission-line stars 2−106559
NGC 6823, classification of stellar spectra in cluster region *(Russian)* 2−79175
NGC 6823 field, stellar photometry and spectra rel. to struct of inner edge of local spiral arm *(Russian)* 2−94831
NGC 6864, globular cluster variable stars anal. 2−74035
NGC 7006, anomalous globular cluster, IR colour-magnitude diagram and spectra rel. to second parameter 2−68843
NGC 7293, planetary nebula, radial vel. and struct. 2−74050
NGC 7528 H II complex, IR sources 1/2. assoc. visible stars extinction 2−79191
NGC 7814, edge-on spiral galaxy, surface photometry rel. to light, colour and mass distrib. in disc. and spheroid 2−89365
NGC 925, barred spiral, ionised gas vel. field 2−68896
843 Nicolaia, recovery of long-lost object (1981 May) 2−100802
NJL 79, dwarf cepheid in ω Centauri, BV photometry rel. to period, absolute magnitude and mass 2−79109
North Galactic Pole region, deep radio/optical survey for 5C 12 catalogue 2−106558
northern PZT stars catalogue, compilation from meridian circle catalogues of 1950's ($NPZT_{58}$) 2−100758
northern PZT stars catalogue ($NPZT_{74}$), meridian circle obs. 2−100759
Nova 4 in M31, spectroscopic obs., (1982 September 27) 2−117684
Nova 5 in M31, discovery, H and blue magnitudes and precise position 2−117684
Nova Aquilae 1982, 10 μm silicate emission feature obs. and photographic magnitudes 2−112461
Nova Aquilae 1982, IR spectra features and visual mag. estimates 2−100950
Nova Aquilae 1982, optical and IR magnitudes (1982 April 14) 2−68790
Nova Aquilae 1982, visual magnitude estimates, (1982 April 8 to May 7) 2−84249
Nova Coronae Austrinae 1981, spectrophotometry (9-10 April 1981) 2−79108
Nova Serpentis 1970 (FH Serpentis), spectral obs. during early decline stage 2−94742
novae in M31, discoveries, precise positions and spectra of four novae 2−112462
novae in M31, spectroscopic obs. of Nova 4 and discovery of (Nova 5) 2−117684
44 Nysa, colour indices and amplitude at 1981 opposition 2−106595
O3 type stars, membership and spectrum 2−58343
O-type stars, N anomalies 2−79091
OB stars in galactic halo, spectra and photometry rel. to atmospheric parameters and chemical comps. 2−106706
OB stars in SMC, spectral classification and rot. vel. 2−74101
OB-type eclipsing binaries, optical spectra 2−63515
Of-like stars with circumstellar shells, spectral classifications for LMC objects 2−84235
UU Ophiuchi, Algol-type binary, light minimum time obs. and new ephemeris 2−100987
TT arietis, nova-like variable, new minimum, apparent visual magnitude obs., (1982 July 21) 2−94753
RS Ophiuchi, recurrent nova, new brightening, visual magnitude obs., (1982 June 22 to July 21) 2−94754
V566 Ophiuchi, W Ursae Majoris star, times of photoelectric minima and new light curve 2−89308
RZ Ophiuchi (BD+7°3832), supergiant eclipsing binary, VBLUW photometry rel. to eclipse of accretion disc 2−106788
Orion Nebula, optical polarisation obs. 2−68873
Orion population stars, absence of coronal line emission 2−63402
Orion Taurus Eridanus region, Hα obs. 2−58432
CN Orionis, dwarf nova, periodic light vars. obs. 2−68787
β Orionis, evidence for Compton red shift in stellar chromosphere 2−106644
Pal 13, halo globular cluster, metal abundance from RR Lyrae stars spectra 2−106822
Palomar 14, outer halo globular cluster, structural characts. from star counts 2−106828
Parkes 2700 MHz resurvey of ±4° declination zone, optical identification 2−89394
peculiar B and A stars, spectrophotometry 2−112457
γ Pegasi, β Canis Majoris star, profile vars. of Si III lines and Mg II doublet 2−73982
DI Pegasi, eclipsing binary star, photoelectric minimum light times obs. 2−68820
II Pegasi, RS Canum Venaticorum type star, UBVR photometry during (1981) 2−106798
Pegasus dwarf irregular galaxy, photometry of resolved stars 2−63617
Pegasus I galaxy cluster, 21 cm and optical survey of gas-rich spiral galaxies 2−79205
KP Persei, β Cephei type star, photoelectric obs. and anal. of variability 2−74000
XY Persei, antiflare star, photographic investigation of light variability *(Russian)* 2−73984
X Persei, Be star, detect. of Hα, obs. 2−84242
β Persei, precise optical posns. of radiosource *(French)* 2−58410
γ Persei, spectroscopic possible eclipsing binary, orbit, mass, luminosity, speckle interferometry obs. 2−79149
β Persei (Algol), photoelectric minimum timings rel. to new period and ephemeris 2−74024
PG 1550+191, AM Herculis star, discovery of M-type dwarf component from spectrophotometry at red wavelengths 2−94755
PG 1550+191, AM Herculis star, polarisation and period 2−84265
photograpic observations by Schmidt telescope at Tautenburg, review of 21 years of operation *(French)* 2−94597
visible astronomical observations continued
59 Piscium, suspected δ Scuti star, photometric constancy from photoelectric obs. 2−106704
PKS 0215+015, BL Lac object at high redshift, spectrophotometry and polarimetry 2−58442
PKS 0215+015, optical absorption lines in high redshift BL Lac object 2−112564
PKS 0254−334, QSO, pair, common absorpt. lines interpretation 2−63703
PKS 2152−69, radio galaxy, optical spectrum 2−79211
planetary nebulae, discoveries on southern red-sensitive objective-prism plates 2−100761
planetary nebulae, expansion vels. meas. from [O III] emission line profiles 2−79197
planetary nebulae, forbidden O III expansion vel. meas. rel. to nebulae internal motions 2−89337
planetary nebulae in centre of M31, velocity modulated photographs 2−74042
planets, Danjon astrolabe obs., FK4 equinox and equator corrections *(Chinese)* 2−63218
Pluto, astrometric obs., (1980 to 1982) 2−106611
Pluto, polarisation of reflected light 2−79026
Pluto, UBV photometric study near perihelion *(Russian)* 2−63313
Pluto appulse to star, 1982 April 15, no occultation at Harvard College Observatory 2−63312
Pluto-Charon system, speckle interferometric obs. (1980 June 5) 2−106612
PSR 0531, Crab pulsar, Cherenkov emission from electron showers from γ ray pulses 2−74005
VV Puppis, AM Herculis, time-resolved spectroscopy 2−112449
QSO 0095+561, double quasar light var., B-obs. 2−68920
QSO 0957+561, short period var. detect. *(French)* 2−101088
QSO candidates from Jodrell Bank 966 MHz survey 2−89406
QSOs, optical identifications for 5 GHz sources 2−112603
QSOs at large redshift, spectral energy distrib., intervening clouds effects 2−68919
Quadrantils, shower radiant and activity (1971 to 1980) 2−84175
quasar candidates near 3C 345, discoveries and redshifts using slitless spectroscopy 2−106955
quasar spectra and space density decrease in $z \gtrsim 3.5$ range 2−63700
quasars clustering, results from objective prism survey 2−79242
quasars compact companions, nature and redshifts 2−89399
quasars X-ray luminosity, relations with optical spectroscopic features 2−89402
quasars X-ray sources, identification and X-ray/optical luminosity-redshift relation 2−117795
R136a, possible supermassive star, speckle interferometry rel. to ang. dia. 2−94719
R548 (=ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
radio galaxies, very distant, with strong emission lines, redshifts and spectroscopy 2−106917
radio sources of Parkes survey, 2.3 GHz accurate positions and optical identifications and positions 2−79234
radiosources, optical posns., Herstmonceux-Cambridge program 2−58479
rapidly oscillating Ap stars, photometric obs. and oblique pulsator model 2−112463
RC 0050-2722, very low luminosity dwarf star, optical and near IR spectrophotometry 2−79097
red giant stars, metal deficient, C and N abundances 2−84233
red giant variable stars in 47 Tucanae, photometric obs. 2−79125
red stars near dark cloud L1454, catalogue and VI photometry 2−106560
red variable stars, catalogue of positions *(Russian)* 2−73986
redshifts of parent galaxies of supernovae, spectrum features 2−101052
reference stars for asteroids positions, dependences for catalogue improvement and perturbation studies 2−112349
rel. to abundances of interstellar Fe, Ti and H_2 2−106847
ring nebulae assoc. with Wolf-Rayet stars, Fabry-Perot obs. of stellar wind blown bubbles 2−68853
ring nebulae assoc. with Wolf-Rayet stars, obs. of NGC 3199, anon (MR 26), RCW 58 and (RCW 104) 2−68854
ring planetary nebulae, morphology, O III forbidden line obs. *(French)* 2−63577
S and MS-type stars, discoveries on southern red-sensitive objective-prism plates 2−100761
GY Sagittae, Cepheid nature and membership in OB assoc. 2−100933
RZ Sagittae, new SU UMa-type dwarf nova, 1981 Oct. supermax. 2−117678
HM Sagittae, peculiar emission-line star, visible and near IR spectral vars. 2−84241
FG Sagittae, spectrum in 3700 to 5000 Å range during 1979 to (1980) 2−100938
HM Sagittae, symbiotic star, IR and visual photometric obs. *(Russian)* 2−63465
WY Sagittae (Nova 1783), eclipsing binary star, orbital period and ephemeris from five eclipse timings 2−89278
V356 Sagittarii, 1979 October mid-point of primary eclipse 2−79151
EG Sagittarii, eclipsing binary, depths of eclipses rel. to orbital period 2−100986
RY Sagittarii, pulsating R Coronae Borealis star, period decrease rel. to evolution 2−112465
RY Sagittarii, R Coronae Borealis star, visual magnitude estimate (Feb. 28 1982) 2−58367
RY Sagittarii, R Coronae Borealis star, visual magnitude estimates, (1982 May 10 and 12) 2−84248
EY Sagittarii, supposed Cepheid variable, probably nonvariable from BVR_cI_c photometry 2−94739
V1670 Sagittarii, Type II Cepheid variable, period and amplitude determ. 2−100943
V348 Sagittarii, uvby photometry during August 1981 fading 2−106736
V4024 Sagittarii (=MWC 311), Be star, H and H emission line vars., (1975 to 1982) 2−94752
Saturn, dynamical features of northern hemisphere 2−84150
Saturn, E-ring photometry (1979-80) 2−100820
Saturn, ring system reson. features and mass 2−84149
Saturn, spatially resolved reflectivity from 3000 to 6000 Å obs. 2−73900
Saturn, Voyager 2 photographic results 2−84152
Saturn atmosphere, aerosol struct. model from polarisation obs. 2−73902
Saturn atmosphere, methane and NH_3 bands longitudinal variability 2−73901
Saturn ring system, periodic variation of spoke activity 2−79018

visible astronomical observations continued
Saturn rings, thickness and scatt. props. from March 1980 obs. 2−79019
Saturn satellites, mutual events (in April 1980) 2−106604
Saturn satellites astrometry from Leander McCormick Observatory for 1978-9, 1980, 1981 oppositions 2−73891
Saturn VIII (Iapetus), precise positions (1981 March 1 to 12) 2−89193
V884 Scorpii (=HD 153919=4U 1700−37), absence of optical pulses from photometric obs. 2−106799
δ Scuti, refinement of fundamental pulsation freq. from photoelectric UBV photometry 2−79122
MY Scuti, RR Lyrae star, period determ., linear and parabolic elements 2−100945
Sersic 129-1 cluster galaxies, colour magnitude relation at UBV wavelengths 2−79222
Sersic 159-03 (2A 2315−428), X-ray galaxy cluster, optical spectra 2−94866
Seyfert galaxies, emission-line profiles 2−101056
Seyfert galaxies, UBVR obs. 2−117751
Sharpless 106, bipolar H II region, internal motions from radial vels. meas. 2−74071
Sharpless 106, bipolar nebula, nature 2−68856
Sharpless 308, ring nebula assoc. with Wolf-Rayet star, study of interstellar environment 2−68852
1009 Sirene, recovery and precise positions, (1982 July 14 and 15) 2−94634
SMC stars spectra, equivalent width meas. 2−100926
SN 1980k, bright type II supernova in NGC 6946, UBV photometric obs. 2−106760
SN 1980k in NGC 6946, interstellar spectrum 2−74059
SN 1980k in NGC 6946, progenitor upper mass limit 2−94759
SN 1982 c,d in anonymous galaxies 0903+50 and 1004+68, field search (1982 March 1) 2−58372
SN in anonymous spiral galaxy in Grus (1982 May 30) 2−79130
SN in NGC 4536, photometric obs. (1981 March-July) *(Russian)* 2−74001
SN in NGC 7713, discovery and photographic mag. 2−100965
solar active region, photospheric mag. field strength meas. rel. to active region coronal evolution 2−106638
solar active region, progressive brightenings obs. in wing of Hα line 2−94692
solar corona, struct. and dynamic features on June 30, 1973 from joint Soviet-French investigations 2−68715
solar corona, struct. struct. near maximum of (cycle 21) 2−106643
solar corona intensities, shapes and polarisation, use of eclipse camera 2−112405
solar eclipses, correl. of light deflection by Sun with ellipticity of solar corona 2−100880
solar faculae, principles and observational procedures from ground-based instruments and OSO-8 satellite 2−94690
solar flare, 1973 July 29, revised temp. and electron density values for post-flare loops 2−100873
solar flare, 1979 November 8, gamma-ray and optical obs. 2−106642
solar flare, 1980 December 17, high time resolution obs. by digital CCD camera 2−100868
solar flare, 1981 July 26, Zeeman splitting of Fe I lines rel. to flare mag. transients *(Russian)* 2−112417
solar flare remote brightnings and type III radio bursts 2−73939
solar flare spectrum 2−58317
solar Na I centre to limb lines, intensities 2−68700
solar prominence (quiescent) of 15 Oct. 1969, spectral obs. 2−68708
solar quiescent prominences, oscillatory motions obs. *(Russian)* 2−63355
solar spectrum, absolute meas. of bisector of Fe I 6301.5091 Å line 2−89218
solar spectrum, equivalent widths of Fe I lines rel. to internally consistent scale of oscillator strengths 2−58247
solar spectrum, evidence for Compton red shift in chromosphere 2−106644
solar spectrum, oscillator strengths, radiative lifetimes and electronic transition moment of CN red system 2−106641
solar surges and relation to radio bursts 2−73940
spectrophotometric standard stars, energy distribs. in continuous spectra *(Russian)* 2−94704
spectroscopic binary stars in Scorpius OB 1 association, radial vel. studies of three new massive binaries 2−112493
spicule brightness distribution measured during partial solar eclipse 2−117652
spiral galaxies, edge-on, surface photometry rel. three-dimensional light and mass distribs. 2−89364
spiral galaxies, luminosity profile from visible surface photometry obs. 2−79203
spiral galaxies in nine clusters, UBV photometry and 21 cm survey rel. to H I contents and colour props. 2−79223
ST 3, WC-O VI star spectrum 2−68786
star cluster system of M33, photometry, spectra and catalogue 2−106556
stars, meridian observations from Brorfelde (1969-1975), star position brighter than 11th magnitude 2−100767
stars, presentation of OAO-2 photometry and spectrophotometry with UBV, ANS and TD1 obs. 2−58329
stars in NGC 6823 cluster, spectral classification *(Russian)* 2−79175
stars of astrophysical interest, objective-prism discoveries in southern hemisphere 2−79077
stellar, radial velocities from Herstmonceux and Kottamia (1964-1971), catalogue 2−94628
stellar 11 μm sources, positrons from interferometric technique 2−94580
stellar angular diameters, meas. from two-colour lunar occultation obs. 2−79079
stellar common proper motion group, age, compositions and distance 2−94801
stellar open clusters, colour-magnitude diagrams rel. to galactic struct. 2−106557
stellar photometry, secondary sequences for limiting JF photography 2−106819
stellar speckle pattern spatial-temporal statistics meas. at Mauna Kea, Hawaii 2−63267
stellar spectra, discoveries on southern red-sensitive objective-prism plates 2−100761
stellar three-colour photometry in Milky Way field HD 95540, results 2−58328
subspot umbral fine structures, morphological study 2−63341
Sun, anisotropy of solar flare activity, (1957 to 1973) *(Russian)* 2−94679
visible astronomical observations continued
Sun, assoc. between coronal structs. and type III radio burst sources 2−106651
Sun, atmosphere supergranular and mesogranular scale vertical flows, spectral obs. 2−94673
Sun, chromosphere above sunspot umbra, line spectra 2−100883
Sun, Co abundance determ. from Co I lines absolute oscillator strengths 2−112315
Sun, Ellerman bombs, morphology and evolution 2−100886
Sun, Fe I 557.6 nm line shift and asymmetry, centre-limb var. 2−100881
Sun, Fourier transform spectrometry of Fraunhofer line asymmetry 2−79071
Sun, granulation observations used to test Canary Islands as observatory site 2−84091
Sun, low degree 5-minute oscill. modes detect. from spectra obs. 2−84209
Sun, McMath 14943, sunspot model/physical conditions from spectra obs. 2−84200
Sun, meas. of limb brightening at extreme solar limb from photoelectric eclipse obs. 2−94686
Sun, optical flares, longitudinal distrib. pattern 2−106659
Sun, photosphere, nonacoustic 5 minute period vertical traveling waves, detect. from spectral obs. 2−84194
Sun, positional obs., at CERGA astrolobe in (1980). *(French)* 2−100855
Sun, quiescent prominence velocity fields 2−68709
Sun, radius changes in 1974 to 1981 period 2−58319
Sun, spectral irradiance during 1980, Mauna Loa Observatory meas. 2−89217
Sun, vars. in photospheric limb darkening as diagnostic of changes in solar luminosity 2−63342
sungrazing comet, discovery of third object on SOLWIND data (1981 July) 2−100835
sungrazing comet, second object from SOLWIND data (1981 Jan.) 2−100834
sunspot, intensity ratios of Ca II K to H spectral line cores 2−100877
sunspot penumbral filaments width distribs., photographic obs. 2−68706
sunspot propagating oscillations from photospheric and chromospheric lines obs. 2−58314
sunspot structure, use of five minute oscills. as subsurface probe 2−89224
sunspots, angle of inclination of symmetry axes to solar surface 2−94688
sunspots, early eighteenth century sunspot observations 2−73947
sunspots, mag. field obs. rel. to distrib. according to mag. flux values 2−94689
supergiant stars spectral energy distribution 2−84231
supernova in anonymous galaxy in Centaurus, discovery and photographic magnitude, (1982 April 16) 2−68803
supernova in anonymous galaxy in Centaurus, discovery and photographic magnitude (1982 June 22) 2−89287
supernova in anonymous galaxy in Telescopium, discovery and photographic magnitude (1982 June 21) 2−89286
supernova in anonymous galaxy in Telescopium, discovery and apparent photographic magnitude 2−94760
supernova in NGC 4490, discovery and photovisual magnitude, (1982 April 15) 2−68801
supernova in NGC 4490, magnitude estimates, (1982 March 29 to April 22) 2−68802
supernova in NGC 521, discovery and photographic magnitude (1982 August 19) 2−112474
supernova in NGC 7713, confirmation, spectroscopic obs. and BV photometry 2−106759
supernova near NGC 1332, discovery and photographic magnitude, (1982 March 29) 2−63483
supernovae in anonymous galaxies in Phoenix and Fornax, discoveries, approximate positions and magnitudes 2−117691
supernovae in anonymous galaxies in Phoenix and Pavo, discoveries, approximate positions and magnitudes 2−112473
RW Tauri, accretion disc, visible spectral obs. 2−94769
SV Tauri, Algol-type binary system, photoelectric UBV photometry 2−94781
α Tauri, ang. diameter and limb darkening from occultation obs. 2−100918
T Tauri, discrepancy between optical and radio positions 2−89258
V471 Tauri, eclipsing binary, radial vel. curve and orbital elements from spectroscopic obs. 2−63516
20 Tauri, He weak star, abundance from model atm. anal. 2−73997
119 Tauri, M-type supergiant, atm./shell occultation obs. in Hα and continuum light 2−68760
V471 Tauri, RS CVn-like binary star, photoelectric light and colour vars. 2−84273
DR Tauri, T Tauri star, field, magnitudes for comparison star sequence 2−94716
DR Tauri, T Tauri star, photometric obs. (1980 to 1982) 2−94716
V711 Tauri (HR 1099), RS Canum Venaticorum star, BV photometry and light curve, January and February, (1982) 2−112499
V711 Tauri (HR 1099), RS Canum Venaticorum star, Hα emission obs. 2−63511
θ^2Tauri (HR 1412), δ Scuti star, pulsation props. from photoelectric obs. 2−79121
BU Tauri (Pleione), shell star, UBLUW meas. (1977 to 1981) 2−94741
T Tauri stars, obs. of rapid line profile variability 2−73963
T Tauri stars, optical and IR photometry rel. to charact. max. temp. in circumstellar dust 2−73964
T Tauri stars, turbulent velocities and mass outflow 2−68766
RV Tauri stars and yellow semiregular variables, UBV photometry 2−106749
Taurus dark clouds, interstellar reddening law 2−106850
time and latitude, Danjon astrolabe obs. at Rio de Janeiro, May 1977 to December 1979 2−100706
Tokyo Astronomical Obs., Time and Latitude Bulletins (January-March 1982) 2−106481
Tokyo Astronomical Obs., Time and Latitude Bulletins (July to September 1981) 2−68600
Tokyo Astronomical Observatory, Time and Latitude Bulletins (October to December 1981) 2−84065
triple galaxies in Karachentseva's list, radial vel., absolute magnitude and dimension s 2−63686
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
4U 2129+47, X-ray binary, radial vel., mass, spectral line origin 2−68930

visible astronomical observations continued
UGC 12423, giant cluster spiral, optical morphology rel. to 21-cm VLA obs. 2−106890
UGC 7576 (=MCG 5-29-86), optical photometry of peculiar disk galaxy 2−117755
Uranus, astrometric obs., (1980 to 1982) 2−106611
Uranus, ring system inclination to equatorial plane 2−106613
Uranus and four satellites, 1980 May positions, ESO La Silla GPO astrograph obs. 2−79024
Uranus zenith distance residuals in 1979 from Danjon astrolabe, Chile 2−63311
AN Ursae Majoris, AM Herculis star, 1979 minimum, energy distrib. 2−63423
W Ursae Majoris, light minimum times and (O-C) residuals 2−58398
W Ursae Majoris, new photoelectric times of minima (1976 to 1982) 2−89309
AN Ursae Majoris, polar, BV photometry during low state (1982 March 20 and April 20) 2−74025
XY Ursae Majoris, RS Canum Venaticorum star, UBVR photometric obs. during (1982) 2−94785
ε Ursae Majoris, spectral var. of Ap star 2−79105
W Ursae Majoris (BD+56°1400), eclipsing binary star, photoelectric obs. 2−89306
W Ursae Majoris stars, BV photoelectric light curves rel. to parameters of systems 2−58393
UV excess stars, spectral classification 2−100907
UV objects in control field far from bright galaxies, 250 identifications 2−84344
vA 771, spectroscopic binary, possible membership of Hyades 2−63503
variability of emission-line spectra and optical continua 2−106906
variable, microvariable or suspected variable stars detected in Geneva photometry, list 2−100766
variable stars, newly discovered, in Cygnus, approximate positions, finding charts, and BV photometry 2−84109
variable stars in Cygnus and Cepheus, photographic obs. (1965 to 1970) 2−94738
new variable stars in direction of Sagittarius bright cloud B, astrometric and photometric catalogue 2−112348
variable stars in globular cluster M28 (NGC 6626), magnitudes, periods and positions 2−94626
variable stars in Pleiades, periods and light curves 2−63448
vB 166, spectroscopic binary, orbit and possible membership of Hyades 2−63503
Venus, panorama sequence from Venera 13, image evolution *(Russian)* 2−106587
Venus atmosphere, aerosol component measured by Venera 11/12 descent vehicles, IR/visible obs. 2−68643
Venus atmosphere, scattered solar radiation ang. distrib. 2−84130
Venus atmosphere, Venera 13 and 14 spectrophotometry *(Russian)* 2−106581
AH Virginis, eclipsing binary star, photoelectric minimum light times obs. 2−68820
α Virginis, line profile var. due to rot. and β Cephei pulsation effects 2−63459
ρ Virginis (HR 4828), possible Maia type variable, photoelectric and spectrographic obs. 2−112441
Virgo cluster galaxies, colour magnitude relation at UBV wavelengths 2−79222
visual binary stars, list of new discoveries at Nice 2−100764
visual binary stars, masses, mass ratios and parallaxes of seven objects from astrometric studies 2−106693
visual binary stars, new observations and orbits for 25 stars *(Russian)* 2−100993
visual binary stars, position angles+separation from visible interferometric obs. *(Russian)* 2−68830
visual binary stars measurement, new photographic method 2−74016
ER Vulpeculae, eclipsing binary star, UBVR photometric obs. during (1981) 2−58404
ES=2 Vulpeculae, new bright Be star, Hα line profile from spectroscopic obs., (1982 July 5) 2−94749
PU Vulpeculae, optical variability in 1979 to 1981 from UBV photometry 2−63444
AM Herculis-type eclipsing binary (1114+18), photometric, polarisation and spectrum vars. and ephemerides 2−58408
CK Vulpeculae (Nova 1670), recovery of oldest nova 2−94733
W63, supernova remnant, radial vel. field of optical filaments 2−74073
WC stars in LMC H II region 30 Doradus, detect. and luminosities, visible spectral obs. 2−58368
white dwarf binary system, discovery 2−79165
white dwarfs spectroscopic and photometric obs. 2−73968
Wolf 294 and field, parallax obs. 2−63217
Wra 977 (4U 1223−62), B1.5 supergiant, spectroscopic orbit 2−106814
X-ray emitting QSOs, visual and IR photometry 2−106949
53 Kalypso, synodic rot. period, colour indices and light curve obs. 2−68647
yellow semiregular variables and RV Tauri stars UBV photometry 2−106749
ZB 33, very short period variable star, spectroscopic and photographic obs. *(French)* 2−63447
Zodiacal light, search for short term vars. by Helios space probes 2−89197
zodiacal light, stability of brightness and polarisation from min. to max. of solar cycle (1974 to 1981) 2−89196
Ba stars, spectral classification, visible obs. 2−63400
C star in SMC globular cluster Lindsay 102, discovery and spectrum 2−63430
C stars, discoveries on southern red-sensitive objective-prism plates 2−100761
C stars in Carina dwarf spheroidal galaxy, spectra and photometry rel. to galaxy age 2−68774
C stars in Draco dwarf spheroidal galaxy, spectra and photometry 2−68723
H 0139−68, AM Herculis star, optical and near-IR polarisation obs. 2−106803
H II regions, bright rims, Hα and forbidden N II and O III obs. *(French)* 2−106852
H II regions surrounding O-type stars, emission measures and radii 2−63563
H poor stars, photoelectric obs. of six stars rel. to search for light variability 2−84229
Hα emission objects in region in Vela, search and catalogue 2−78979
visible astronomical observations continued
Hα emission stars, new discoveries in region of γ Cygni 2−84110
He-rich stars, periodic spectrum vars. 2−106743
Ti abundance towards high galactic latitude stars, Ti II obs. 2−84301

vision
see also colour vision; eye; vision defects; visual perception
accommodation and vergence, control theory approach 2−116911
accommodation in human eye, objective continuous meas. using IR optometer *(German)* 2−100083
accommodative and vergence controllers, quantitative theory of control sharing 2−78331
accommodative defocus rel. to acuity development in infant Macaca nemestrina monkeys 2−78329
accommodative mechanism of human eye, math. model, mech. considerations 2−99962
accommodative oscillation, enhancement of average accommodative response, simulation study 2−116908
acuity development in infants and young children, operant preferential looking assessment 2−111685
acuity of human infants, effect of focus 2−67993
acuity testing, relative legibility of numerals 2−73225
Aplysia photosensitive neuron, simulation by physically-based model 2−83563
association amacrine cells, rel. to selectivity in pigeon retina 2−105699
binocular vision, single, technique to meas. accommodative convergence, heterophoria and AC/A 2−94255
binocular vision, zone of clear single vision rel. to zone of zero-associated phoria 2−73237
brainstem auditory, visual and somatosensory evoked pots. in leukodystrophies 2−111698
carp retina, nonlinear characts. of receptive field of horizontal fields 2−105703
checkerboard reversal pattern and flash VEPs in dialysed and non-dialysed subjects 2−62603
Clare-Bishop neurons, responses to 3D movement of a light stimulus 2−68001
computer displays, review of research on impact on human visual system 2−73227
cone cell model, hardware, operational characts. 2−83565
cones, general model for adaptation 2−111672
contact angle, optical comparator meas., optometry appl. 2−105810
cortex, cat, contrast gain control 2−99957
cortex, cat, intracortical microstimulation of neurons 2−67997
cortex, macaque, orientation and direction selectivity of cells 2−67999
cortex, macaque, spatial freq. selectivity of cells 2−68000
cortex, primary of cats, columnar organisation of spatial sensitivity 2−57803
cortex activation recorded by dynamic emission computerised tomography of inhaled ^{133}Xe 2−62746
cortical magnification factor in rhesus, reason for anisotropy 2−57812
dark adaptation, early, rel. to receptor pot. and lateral effects on retina 2−68008
detectability of amplitude- and freq.-modulation of suprathreshold sine-wave gratings 2−57826
dichoptic visual-evoked response, anal. of temporal freq. effect 2−94025
digital image quality and interpretability by military photointerpreters, database and hardcopy studies 2−55085
distant acuity in pigeons, rel. to viewing angle 2−62616
electronic human eye, artificial vision system *(Spanish)* 2−68195
embryonic development of visual cortex after removal of one eye 2−57805
encoding of image in cerebral cortex, model 2−99946
ERG, local, of primates, fractional recording and component anal. 2−57948
ERG a-wave slope as a measure of photoreceptor activity 2−57802
ergo-optometric topics review 2−57800
event-related potentials to visual and auditory events in young infants 2−62600
evoked cortical responses, classification using features from single EEG records 2−78506
evoked potential, blur induced changes 2−111660
evoked potential, human, revelation of cortical components by binocular stimulation 2−67996
evoked potential dependence on stimulated retinal area change rel. to different pattern displacements 2−111664
evoked potentials, computer procesing utilising digital filtering techniques 2−57916
evoked potentials, short latency, in man 2−111665
evoked potentials, steady state, in the alert primate 2−116913
evoked potentials, stress-induced shifts of dipole generators 2−62613
evoked potentials in albinos, efficacy of pattern stimuli in detecting misrouted optic fibres 2−94028
evoked potentials in hemiparkinsonism 2−94030
evoked potentials rel. to eye dominance 2−62601
evoked pots., LED implant in frontal sinus of cat 2−62607
evoked response, effect of accommodation 2−73230
eye movement position signal, physiological measure 2−57815
field of vision in kittens, development 2−111667
ganglion cell acuity in hooded rats 2−62610
grating temporal sensitivities, rel. to multiple spatial freq. channels in human vision 2−99966
hyperacuity and interpolation by the visual pathways 2−111675
image quality, conf., San Diego, CA, USA (Aug. 1981) 2−107000
image structure description in terms of light and dark blob ordered hierarchy 2−68011
imaging system assessment, visible and IR, symposium, Reading, Berks., England (April 1981) 2−112639
infant acuity testing, rel. to negative preference 2−99997
insect eye, mechanical model 2−88712
instrument operator visual sensitivity fluctuations rel. to readings variation 2−68016
intracellular light responses in intact in vivo cat eyes 2−94035
intraretinal recordings of slow elec. responses to steady illumination, rhesus monkey obs. 2−57810
lambda responses and visual signal detect. 2−94029
laser speckle visual evoked response, contrib. of central retina 2−105698
lateral inhibition, optical and information aspects 2−94031
LEDs as expt. stimulators 2−62874
lightness scale from image intensity distributions 2−105694
mesencephalon, deep, of blinded frogs, light -sensitive units 2−94039

vision continued
microelectronic visual and tactile devices to aid speech and understanding in the deaf 2−78489
multiplication noise in human visual system at threshold, quantum fluctuations, min. detectable energy 2−78334
neuro-ophthalmology system based on a PET computer for evoked response, EOG and ERG tests 2−117121
neurobionic model of perception processes *(Russian)* 2−62608
neurochemically classified interneurons of goldfish retina, local patterns of spatial organisation 2−68002
occulomotor system, human, biotechnical investig. *(Russian)* 2−99958
ocular component, anal. by vergence contrib. to back vertex power of anterior segment 2−62594
optometry, optics appls. in biomedical sciences, conf., Graz, Austria (Sept. 1981) 2−107021
optometry, role in vision research, review 2−112633
pattern reversal evoked potential amplitudes: life span changes 2−62602
pattern vision dynamics 2−111663
pattern-evoked potentials and Bloch's law 2−99960
peripheral field, transformations, model of early stages of human system 2−94027
photochemical step, theory 2−83564
photomechanical movements in the trout retina following brief flashes of light 2−67998
photopic visual threshold performance, conceptual model 2−57816
photoreceptors, light absorpt., transverse incidence 2−62615
photoreceptors, spectral anal. of spatial sampling, prevention of aliasing by topological disorder 2−111674
photosensitive epilepsy, interhemispheric differences, intermittent photic stimulation 2−62605
photosensitive epilepsy, interhemispheric differences, pattern sensitivity thresholds 2−62604
pigments of retina of 'four-eyed' fish 2−94023
preferential looking techniques, rel. to infant visual acuity underestimation 2−100186
prism bar vergences, normalisation 2−116909
propagating inhibition rel. to flash diameter and duration 2−57811
proximal convergence, effects of base-out training 2−73231
psychophysic threshold meas. with variable threshold, integrating staircase method *(German)* 2−62620
pupillary diameter ocular fatigue relation *(Spanish)* 2−88542
receptor interactions and visual persistence 2−116914
receptor sensitivity formula refinement 2−62545
retina, cat, receptive field props. of X and Y cells, contrast sensitivity meas. 2−111670
retina, differences in the kinetics of rod and cone synaptic transmission 2−73235
retina, electronic model based on freq. characts. of vision *(Japanese)* 2−62606
retina, rabbit, linear visual streak, dendritic struct. of A-type horizontal cells 2−99961
retina, ratfish, intracellular recordings and HRP injections 2−94034
retinal ganglion cell responses, principal components anal. of variability sources 2−67995
retinal horizontal cells, information processing 2−68003
retinal Muller cells, photo-induced changes in extracellular K^+ conc. rel. to transretinal pot. generation 2−57801
retinal on and off pathways, central connections, rhesus monkey obs. 2−88541
retinal sensitivity in rats, pupillary light reflex. meas. 2−111673
retinoscopy, dynamic, evaluation of monocular estimation method 2−105695
rhodopsin, conversion on light irrad., orientational changes of absorbing dipole of retinal 2−62614
rod and cone channels, interactions above threshold, test of various models 2−111669
rod and cone responses, summation at absolute threshold 2−94038
rod external segments, native, release of Ca^{2+} on partial bleaching of rhodopsin 2−68006
rod out segment suspension, light-dependent rhodopsin-phosphorylation *(German)* 2−68010
rod out segments, modelling birefringence change correlated with metarhodopsin II formation 2−94036
rod outer segment birefringence bands rel. to daily disc membrane synthesis 2−111668
rod outer segments, bounce, near-IR scatt. 2−62599
rod outer segments and disc vesicles, bovine, shrinkage effects, refractive index, IR scatt. 2−62598
rod system, saturation and adaptation 2−116915
Rushton, W.A.H., vision and neurophysiology contributions 2−63795
Rushton, William, recollections of and contributions to neurophysiology and vision (1925-52) 2−63796
saccades, corrective, effect of shifting saccade goal 2−57809
saccadic movements, global visual processing 2−99965
scanning open and closed polygons 2−94032
scotopic ERG, simulation with electronic model 2−99959
sensitivity, spectral characts., math. modelling with aid of programmable calculator *(Czech)* 2−99968
sensitivity changes caused by on- and off-transients 2−99969
sensitivity control, lateral interactions 2−68009
signal processing in the insect eye 2−88543
snakes, IR 'vision', heat sensitive pit organs 2−73201
spatial-frequency, simultaneous recognition of 2 components 2−57824
spatial-frequency amplitude and phase information, contribs. to visual processing 2−73245
stimulus vergence rel. to mean accommodation response, accommodation microfluctuations and ocular optical quality 2−67994
striate cortex, cat, spatio-temporal organisation of receptive fields 2−73233
subjective image quality, sampling, OTF shape and anisotropy effects 2−55086
tectal processing of visual signals from caudalmost part of frog visual field 2−57808
telescope system astigmatism and field curvature correction, psychophysical meas. 2−105873
threshold, human visual system, multiplication noise, profit estimation of parameters 2−99967
threshold measurement, undergraduate laboratory expt. 2−79315
thresholds for discrimination and detect., spatial props. of chromatic and achromatic mechanisms 2−99979
TV pupillometer, solid-state 2−62875

vision continued
VDU instrument for meas. of visual contrast, spatial and temporal resolution 2−73410
vergence limits meas. method, rot. grid technique 2−105856
vergence system, course and effect of visual training 2−105697
vertebrate retina, origin and signal-shaping mechanism of fast photosignal 2−68007
vertebrate retina response anal. 2−94026
K^+ channels, Ca^{2+}-activated and light-dependent, selectivity for monovalent cations 2−94011

vision defects
see also contact lenses
acuity reduction, rel. to blur threshold meas. in optometric tests 2−88547
amblyopia, clinical trials using rotation gratings treatment 2−62593
amblyopia, discriminability of spatial phase relationships 2−99996
amblyopia, rel. to hyperacuity: Vernier, Snellen and grating acuity obs. 2−99991
amblyopia in monkeys 2−111678
amblyopic visual system, contrast sensitivity as function of exposure duration 2−111661
ametropia, component and correlation 2−88536
angle lambda changes during growth, theory and clinical appl. 2−111657
anomalous correspondence, covariation with accommodative vergence 2−94024
astigmatic eye, corrected system, 4×4 system matrix 2−62595
astigmatism, regular, due to local toricity of ocular surface 2−99943
asynchronous cortical input and asthenopia 2−111662
biofeedback techniques in visual and ophthalmologic disorders treatment, review 2−78481
blindsight, human, plasticity obs. 2−111688
central field, clinical comparison of the Friedmann visual field analyser and tangent screen perimetry 2−94022
colour defects, historical review of 1st 4 decades of 20th century *(Italian)* 2−53477
colour vision defects, rel. to occupational hazards 2−83566
corneal astigmatism, effects of lifting the lids 2−116907
dichromatic colour blindness, evidence for more than 2 kinds of cones 2−78339
dyschromatopsia, clinical use of human retinal late-receptor pot. 2−99950
hypermetropia corrected with spectacles or contact lenses, AC/A ratio and convergence 2−88538
immobile eye, stimulation, visual following expts. 2−111671
lens opacification in cold cataracts, identification of scatt. elements responsible 2−62597
optokinetic nystagmus, monocular, postnatal development in infants 2−57807
phoria measurements using chromatic targets 2−99970
presbyopia, Space Shuttle suit alert system visual acuity problem 2−105842
protanopic patient with retinitis pigmentosa, foveal pi mechanism early-stage abnormality 2−116918
protanopic patient with retinitis pigmentosa, parafoveal retina short-wavelength-sensitive mechanism field sensitivity 2−116919
red-green colour defects, review of new obs. 2−99974
red-green colour deficients, congenital, large-field colour match homogeneity 2−78337
refractive error, accuracy of multimeridional refr. 2−73229
residual vision in the low vision patient, review of concepts 2−116905
retinal cell loss following brain damage to cat 2−105701
retinitis pigmentosa patients, psychophys. studies of cone optical bandwidth 2−111684
rod monochromat, temporal summation obs. 2−62617
strabismus, different kinds, interocular transfer of tilt aftereffect 2−73238
stratismus, humans with alternating fixation, binocular vision 2−99992
systems analogue mime for colour vision and vision disorders in humans 2−94260

visual auroras *see aurora*

visual perception
3-dimensional image illusion techniques from 2-dimen. image observations *(Russian)* 2−73243
after-flash effect, decrease in threshold on luminance edge dark side 2−116929
animal ambulatory motion, visual interpretation 2−83568
apparent movement, interpolation precision, hyperacuity 2−73248
binocular depth perception 2−83572
binocular rivalry, cooperation between different spatial frequencies 2−94047
binocular rivalry, suppression rel. to orientation and spatial freq. 2−94055
binocular rivalry mechanism, tritanopic considerations 2−68019
binocular vision, neural models of brightness perception and retinal rivalry 2−73239
binocular vision, reliability of fixation disparity curves 2−62619
blur threshold meas. in optometric tests, rel. to acuity reduction 2−88547
brain function exam. possibilites 2−78344
cascade and channel plate image intensifiers, output pulse height distribution simulation 2−78345
cervical cells, differently stained, detectability and diagnostic output for quality assessment of classification 2−73313
chromostereopsis, interpupillary distance meas. 2−88546
colour, processing colour information of images obtained with drum processor 2−65173
colour appearance, model 2−99985
colour appearance grids and chromatic adaptation transforms, anal. 2−99986
colour appearance modes: aperature colour rel. to object colour 2−99990
colour appearance using min. energy stimulus and 2 pairs of fundamental colours 2−99989
colour saturation, rel. to test field size and surround luminance 2−99984
colour TV hue-rotation patterns, visual temporal freq. response 2−116923
colour-word (Stroop) test and localisation of interference by brain pots. 2−57823
conspicuity of objects, effect of density of background elements 2−116924
contour curvature analysis: hyperacuities in the discrimination of detailed shape 2−62623
contrast increment thresholds of rhesus monkeys 2−111686
contrast sensitivity, temporal, rel. to cortical magnification 2−111689
contrast sensitivity at high velocities 2−62625
contrast sensitivity in children for sinusoidally modulated gratings 2−99994

visual perception continued
contrast sensitivity of human infants to gratings differing in duty cycle 2—94053
cyclofusional stimuli containing depth cues, human response 2—88539
dichoptic colour fusion, wavelength discrimination studies 2—99993
dichoptic colour perception and the X-Chrom lens 2—73236
dichromatic colour blindness, evidence for more than 2 kinds of cones 2—78339
digital display optimal update rate selection 2—94049
disappearance of stabilised chromatic gratings 2—62621
displacement thresholds, effects of reference lines for various movement durations 2—94058
dot pattern orientation assignment, optimisation mechanisms 2—68017
fatigue in display work, laser optometer expts. 2—88548
flicker photometry and heterochromatic brightness matching, rel. luminous efficiency of 2° and 10° fields *(Japanese)* 2—64084
fly flight, visual cues for landing reflex 2—83570
frame-repeated pictures, visual perception of motion 2—83573
fusional response to vertical disparity, nonmotor component, second look using afterimage method 2—94050
ghosts of moving objects, delay kinetics *(Italian)* 2—57821
gratings, anisotropies of perceived contrast and detect. speed 2—111687
Hermann Grid illusion, stereoscopic presentation expts. 2—62626
hyperacuity, rel. to amblyopia:Vernier, Snellen and grating acuity obs. 2—99991
hyperacuity for luminance phase angle in the human visual system 2—94061
illuminant direction determination 2—78343
image quality and observer performance 2—111681
impulse response derivation 2—116930
integrating visual information from successive fixations 2—73241
lantern for colour perception testing 2—100084
letter identification, recovery and nonmonotone masking effects 2—111683
letter recognition by the human observer conceived as an information processor 2—73249
lighting parameters effects on eye performance assessment, influence of task detail, task eccentricity and observer age 2—73240
local surface orientation inference from motion fields 2—94051
localisation during tracking on steady background and during steady fixation on moving background 2—83569
low vision adults, visual perception evaluation, Frostig Figure Ground Test 2—62618
medical image contrast sensitivity rel. to surround 2—73247
medical image quality assessment rel. to visual perception 2—73307
medical image unsharpness rel. to threshold visibility of edges, bars and disks 2—73246
medical images, contrast-detail-noise approach to display conditions study 2—111757
medical images, noisy, phys. statistics theory for detectability of target signals 2—83539
medical images, pixel size rel. to image quality, lesion detectability 2—73357
medical imaging and visual psychophys., conf., Brussels, Belgium (July 1981) 2—68973
memory like effects in fly vision, spatio-temporal interactions in wide field neuron 2—99983
meridional variations in acuity and contrast sensitivity in monkeys raised with externally applied astigmatism 2—94056
microcomputer-controlled laboratory for meas. of visual discrimination learning in rodents 2—62877
monochrome and colour displays perceptibility calc. under various illumination conditions 2—78341
monocular rivalry, problems for an after-image explanation 2—111691
motion, apparent path composed of a serial concatenation of translations and rots. 2—94048
motion, discontinuous, effect of motion sweep duration and number of stations upon interpolation 2—116927
motion and vision, isotropic and anisotropic spatial responses 2—78342
motion blur restoration, neural mechanism 2—68005
motion direction, effect of positional disparity on tuned neurons in cat visual cortex 2—99963
movement, implications of vestibulo-ocular reflex, effect of convergence 2—62612
movement, perceived rate rel. to contrast 2—57825
moving object and wide-field pattern processing in flies after interneuron removal 2—111680
mutual interaction between rough and fine pattern components 2—88550
myocardial perfusion scintigraphy using ^{201}Tl, lesion detectability using math. model 2—73358
noisy image optimal restoration for human observer 2—68020
noisy medical images, human signal detect. performance 2—111756
nuclear medical images, visual anal., data comparison using receiver operating characteristic indices 2—105819
object colour perception under high pressure Na illuminants 2—99975
oculomator mechanism obs., saccadic eye movement as function of task visibility level 2—73234
oculoparalytic illusion, visual-field dependent spatial mislocalisations by partially paralysed humans 2—88549
orientation perceived rel. to contrast 2—94054
perception of direction of gaze and direction of locomotion 2—73242
position discrimination, rel. to detect. 2—100000
primate visual cortex, columnar architecture and computational anatomy, segmentation and feature extraction via spatial frequency coded difference mapping 2—83567
psychological septum, investigation of its function 2—116921
psychophysical methods for retinal defocus monitoring: spatial freq. thresholds vs. border enhancement 2—94046
pursuit eye movements, retinal location and visual localisation 2—99998
radiographic images, boundaries perception, general principles and their appl. 2—68110
radiographic images interpretation, object representation as boundary circuits in image, principles 2—94159
radiographs interpretation, visual acuity testing with aid of chart 2—73226
radiography, movement observation in the presence of X-ray quantum noise 2—73356
random dot kinematograms, segregation of differently moving areas rel. to displacement 2—94060
random dot motion perception, basis of area and dot number effects 2—116925
visual perception continued
reality sensation estimation in picture patterns construction *(Japanese)* 2—105704
receiver operating characteristics anal. of scintigraphic-like images 2—111679
rod afterimage, delayed, expt. obs. 2—116928
rotation illusion prod. by expanding 1 eye's image vertically 2—111690
scene perception in manual control 2—94052
small objects of random luminance, detect. in pulse noise background 2—105705
spatial information, reconstruction in humans 2—83571
spatial phase relationships, discriminability in amblyopia 2—99996
spatial-frequency adaptation, localised effects 2—94037
stabilised vision through a bleaching window 2—94059
stereo photography, convergency limits 2—74533
stereoacuity development for crossed and uncrossed disparities in human infants 2—68018
strotoscopic effect, comparison between man and fish 2—57822
STYCAR ball acuity rel. to contrast and blur 2—94045
subjective image quality, effects of sampling, OTF shape and OTF anisotropy 2—111682
suppression during opening, closing and blinking of the eyes 2—99995
suprathreshold stimuli perception during saccadic eye movement 2—62622
temperature difference of FLIR, min. resolvable, four-bar pattern tilt effect 2—107321
tilt aftereffect, colour-contingent, spatial freq. specificity 2—94057
tilt aftereffect, interocular transfer in different kinds of strabismus 2—73238
tilt aftereffect induced with moving contours, directional specificity 2—116926
tilt aftereffect rel. to gravity 2—99999
time patterns visualisation in dynamic scintigraphic imaging 2—73244
vertical disparities detection, psychometric curves 2—62624
yellow perception, differences of unique loci between individuals 2—99987

visualisation, particle track *see particle track visualisation*

vitreous state
see also electron energy states of amorphous solids; glass; glass transition (polymers)
anorthite, glass form., transient nucleation in non-isothermal crystn. 2—109685
B_2O_3, vitreous, continuous random network model 2—60890
brittle glass polymers, tensile strength elevation by entanglements 2—93621
chlorobenzene/cis-decalin mixtures, mol. rot. in glassy, amorphous, and cryst. phases, NMR and DSC study 2—103630
cholesteryl hydrogen phthalate, in glassy cholesteri phase, mol. relax. 2—81667
cyclohexanol, glassy cryst. and cryst. phases, sp. ht. and thermal cond., 1.5 to 20K 2—56205
EBBA, amorphous and cryst. phases, vibr. density of states 2—56141
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2—62161
ethanol glass, dye mol. spectral probe, using photochemical hole burning 2—108974
ethylene glycol-water glasses, electron transfer, 10-160K, pulse radiolysis obs. 2—111499
glassy state struct. calcs. 2—97935
glycerol, glassy, NMR hole burning slow mol. rot. study 2—104722
MBBA, amorphous and cryst. phases, vibr. density of states 2—56141
MBBA, disorder-cryst. transition in frozen liq. cryst. state, X-ray diffr. obs. 2—60891
o-terphenyl, glass form., transient nucleation in non-isothermal crystn. 2—109685
organic glass, impurity dephasing by optical modes 2—86822
PAA, amorphous and cryst. phases, vibr. density of states 2—56141
phosphates, polymeric vitreous, gas phase synthesis laws 2—111084
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2—62160
PMMA, glassy state relax. characteris. by low press. CO_2 sorption, preswelling influence 2—65883
poly-n-butyl methacrylate, laser light scatt. obs. in glass transition regime 2—67070
polymer, amorphous, in glassy state, conformational anal. by magic angle spinning ^{13}C-NMR 2—66931
polymer, glassy, free vol. fraction, excess entropy and mech. deform. 2—61176
polymer, glassy, inhomogeneous dissipative structure using variational principle of nonequil. thermodynamics 2—61142
polymer, glassy, nonequil. behaviour, review 2—60892
polymer, glassy, nonequil. nature obs. using Fickian diffusion of alkane permeants 2—66292
polymer, partially cured, glass transition temp. as nonequil. parameter, effect on dynamic mech. response 2—66224
polymer glass, nonequil. props., conf., Las Vegas, USA (Aug. 1980) 2—58535
polymeric glasses, excess entropy and stress-strain behavior 2—76710
polystyrene film, atactic, glassy, craze healing kinetics 2—62247
polystyrene film, biaxially oriented, glassy, gas transport, effect of tensile strain, time and temp. 2—61205
polyurethane acrylate, UV-cured coatings on opt. fibres, sub-T_g annealing, correl. with microbending loss of fibre 2—60251
polyvinyl acetate, nonequil. annealing behaviour, water sorption and glass transition, dielec. and thermal meas. 2—66223
Schiff bases, photochromic and thermochromic, NQR spectra 2—110824
$AgI:Ag_2B_4O_7$, vitreous electrolytes, struct. and ion dynamics 2—61197
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2—86896
B_2O_3, vitreous, struct. study 2—109679
$CaSiO_3$, ceramic-forming glass, thermal expansion 2—71673
C(glassy)-CdS-metal, switching struct., with potential barrier, elec. charcts. 2—87407
GeO_2, glassy, minimum optical losses 2—110891
GeO_2, vibr. selection rules in Raman and IR spectra 2—57082
GeO_2, vitreous, dielec. relax. and losses, elec. cond. 2—99032
GeO_2, vitreous, near IR absorption of H_2O, OH group vibr. bands 2—99125
H_2, orientational glass, distrib. of local quadrupolarisations, NMR spectra 2—110654
Sb_2O_3, vitreous, IR and Raman spectra, valence force field calcs. 2—72503

vitreous state continued
$(Sb_2S_3)_x(SbI_3)_yFe_z$, glassy semicond., spin glass like behaviour 2−56871
Se glass, dye laser Raman scatt. 2−99130
Se, glassy, bonding coord. defect, positive-U system 2−110303
SiO_2, free energy of structural models, bond lengths and energies 2−97924
SiO_2, fused silica, nonbridging O defect center, dynamic Jahn-Teller effect study 2−87194
SiO_2, vitreous, absorpt. band at 242 nm 2−104922
SiO_2, vitreous, large block, elastic props., nonuniform distrib. 2−103898
SiO_2, vitreous, mech. of O diffusion 2−76732
SiO_2 vitreous, near IR absorption of H_2O, OH group vibr. bands 2−99125
SiO_2, vitreous, planar rings, energy minimisation argument and Raman spectra 2−91790
SiO_2, vitreous, struct. in bulk and surface layers, gas probe anal. 2−91801
SiO_2, vitreous, with small OH conc., absorpt. by 3D impurities, thermooptical interferometric study 2−104923
SiO_2, vitreous and crystalline, UV reflectance spectrum 2−93224
SiO_2:Al, radiation colour centres, multiple nature, ESR and optical absorpt. study 2−72348
SiO_2:B, solid state track autoradiography study of B distrib. 2−92016
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2−103658

vitrification
see also glass transition (glasses)
ceramic-like body, process design, prod. from recycled waste glass, microstruct. and devitrification 2−111127
chalcogenide systems, vitrification capacity estimation from phase diagram 2−86570
continuous cooling approx. 2−55855
crystallization, kinetic theory 2−103954
float glass, effect of 5% hematite on devitrification behaviour Mossbauer and X-ray study 2−109686
gel to glass transform. by sintering, densification and crystn. phenomena 2−77794
germanate glass 2−91810
glass structure, contrib. of W.H. Zachariasen 2−91787
glass structure and diffusion, mol. dynamics calc. 2−91789
glasses, commercial, microstruct. and rel. to workability 2−91804
glycerine, liq. fracture strength, temp. depend. 2−61051
polystyrene isothermal enthalpy, vitrification press. and cooling rate effects 2−110014
PVC, glassy, vitrified at elevated press., nonequil. processes 2−66222
PVC glass, vitrified at elevated press., nonequil. processes, conform. and enthalpic changes 2−86873
radioactive waste, by direct induction heating in ceramic container 2−59472
radioactive waste, high-level, small-scale vitrification facility 2−64509
Shirasu volcanic glass-CaO-MgO system, glass form. composition range, props. *(Japanese)* 2−88049
silicates, sol-gel transition, gel-to-glass conversion 2−76315
water, pure liq., vitrification by high press. jet freezing, X-ray diffr. study 2−103952
weapons material waste, vitrification 2−64511
zeolite from TMI-2, vitrification plant 2−64512
Al_2O_3-CaO melt, solidification and vitrification 2−72686
$As_{1-x}S_x$ glass-forming liqs., viscosity and struct. transition 2−61187
BaF_2-MnF_2-RF_3 (R=Dy, Ho, Er, Tm, Yb, Lu, Y), glass form., quenching, IR study *(French)* 2−91808
(Ge, Sn)-Se system, glass form. and vibr. props. 2−86578
MgO-B_2O_3 glass, phase relations, NMR and X-ray diffr. study 2−98247
Na_2O-B_2O_3-SiO_2 glass form. kinetics, from alkoxides in soln. 2−76316
Na_2O-SiO_2 gels prep. for gel-glass process, action of atmospheric agents 2−76317
$(PbO)_m.SiO_2$ glass, M=1, 2, 4, struct. and devitrification, ^{29}Si NMR study 2−110655
Sb-O-Te system, metastable phase vitrification and crystn. 2−103647
ScF_3-BaF_2-$YF_3(ThF_4)(NaF)$, glass, phys. props. *(French)* 2−91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2−91809
Se, glass formation, defects, viscosimetry study in elec. and mag. fields 2−91782
Se-Ge, vitrification capacity estimation from phase diagram 2−86570
SeO_2-TeO_2-M_nO_m (M_nO_m=V_2O_5, MoO_3, Nb_2O_5, Sb_2O_3, La_2O_3), glass formation at high pressure 2−86576
SeO_2-V_2O_5-MoO_3, glass formation at high pressure 2−86576
SiO_2 and SiO_2-TiO_2 glasses prep. by sol-gel process 2−77795
SiO_2 gel to glass transform., Raman and IR spectra study 2−77506
SiO_2-B_2O_3 system, glass form. by gel process from metal alkoxides 2−88048
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
Tl-Se-Te, physicochemical props. 2−76313
ZrF_4-BaF_2-YbF_3 (GdF_3), fluoride glass, prep., optical and physical props. 2−102891
ZrF_4-ThF_4-$YF_3(LuF_3)(ScF_3)(AlF_3)$, glass forming area, thermal expansion and UV absorption edge *(French)* 2−115146
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934

vitroceramics *see ceramics; vitreous state*

Vlasov equation
anisotropic plasmas, EM dispersion relation, numerical calc. 2−81461
bumpy cylinder, kinetic stability anal., Vlasov-Maxwell eqns. 2−103372
bunched beam problems with anharmonic space charge forces, Vlasov's eqn. 2−108210
disk galaxies dynamics, Vlasov simulation in axisymmetric case 2−74104
disk galaxies dynamics, Vlasov simulation in nonaxisymmetric case 2−74105
dispersion functional technique appl. to Vlasov plasma and fluid model 2−55722
electrostatic double layers, 1-D Vlasov model, ion heating 2−65735
electrostatic field generation and hot electron reduction in a laser produced plasma 2−97761
EM circularly polarised modes with electron streaming along appl. mag. field 2−103321
inhomogeneous plasma, general formulation for treating linear instability, Vlasov eqn. 2−55720
inhomogeneous plasmas, linearised Vlasov eqn. for arbitrary equilib. Hamiltonian 2−55721
Vlasov equation continued
initial boundary value problems, appl. to linear accelerators *(Russian)* 2−97708
ion plasma waves, nonlinear wave modulation, Lagrangian representation 2−55718
isoscalar giant reson. energies and long mean free path nucl. fluid dynamics 2−85018
laser plasma, homogeneous and inhomogeneous, stimulated scatt. and harmonic radiation *(Chinese)* 2−76086
magnetic plasma, EM wave effects on electrons 2−103399
magnetised plasma, incident EM wave, decay instability, Vlasov model 2−65724
Maxwell-Vlasov and Poisson-Vlasov eqns., Hamiltonian struct., Poisson struct., collisionless plasma 2−65697
Maxwell-Vlasov equation, gauge groups, Poisson brackets 2−114976
multibeamlet neutral injection, high transparency, primary ion tetrode optics design, theoretical anal. 2−81495
multiple collision solution of the linearized Vlasov equation 2−60728
neutral beam injection; magnetic blocking direct recovery efficiency calc. 2−81494
open problems, existence and uniqueness of solns. 2−60730
plasma, two-dimens., numerical simulation, implicit method 2−97780
plasma confinement, optimal control 2−97766
plasma instability, Vlasov-Fokker-Planck description 2−76126
plasma kinetic theory, review, book contrib. 2−71093
plasma oscillations, linearised, quantum effects 2−71140
relativistic electron beam equilibria with non-circular cross section 2−113797
relativistic electron beam nonlinear interaction with surface wave 2−65736
resistive hose instability, multicomponent model 2−103353
shell, elastic, cylindrical, subjected to lateral dynamic press. anal. using Vlasov eqns. 2−114636
spectrum of a Vlasov-Fokker-Planck operator 2−60727
splitting scheme integration of the two-and-one-half-dimensional Vlasov equation 2−71078
stellar systems dynamics, Vlasov simulation for infinite homogeneous case 2−74103
stochastic particle acceleration in turbulent plasma 2−112822
three-wave interaction kinetic theory in a magnetized, inhomogeneous plasma 2−81471
Vlasov-Fokker-Planck operator, point spectrum 2−76085
Yang-Mills Vlasov plasma, noncanonical hamiltonian structure 2−95606

VLSI *see large scale integration*

V_2O_5-P_2O_5 semiconducting glasses *see amorphous semiconductors*

vocoders
see also speech synthesis
speech intelligibility tests based on hearing sensation sharpness 2−102982

voice *see speech*

voice coders *see vocoders*

voice communication
speech recognition, anal. and feature parameters *(Japanese)* 2−97315

voids (solid)
ABS resin, thin films, plastic deform. mechanisms, TEM study 2−99487
alloy, austenitic, microstruct. development, effects of pulsed dual-ion irrad. 2−109852
alloy, binary, FCC and BCC, electron irrad., rad. induced segregation at internal sinks 2−86731
Astroloy, wrought, grain boundary void nucleation during high temp. creep 2−93575
Astroloy, wrought, grain boundary voids nucleation in intergranular fatigue crack vicinity 2−93626
brass, 70/30, mechanism of ductile fracture tensile test *(Japanese)* 2−111282
cavities in dense random packings 2−65886
cavity growth, by coupled surface and grain-boundary diffusion, numerical anal. 2−110048
ceramic particle-PMMA composite, optimum strength 2−105280
ceramic polycrystals, struct. reliability, processing-depend. phenomenon 2−77908
ceramics, creep fracture in polycrysts. containing small amount of liq. phase 2−83197
composite material, heat conduction, air void distrib. *(Russian)* 2−82041
cracks propagation, by cavitation 2−103087
creep, irrad. and thermal, by dislocation climb, theory 2−86709
creep fracture, intergranular, aggressive environments 2−83201
creep fracture by void growth 2−77940
creep-fatigue, mechanistic approach to creep-dominated failure 2−88183
damage structures irrad. with cascade of various PKA energy spectra 2−109825
defect identification and sizing by the ultrasonic satellite-pulse technique 2−62294
deformation, separation of cavitation-strain and creep-strain 2−76567
dislocation sink strengths, rate theory of irrad. damage 2−86716
ductile flow and fracture in two dimens. 2−70865
ductile fracture, three dimens. constitutive relations, symposium, Dourdan, France (June 1980) 2−53427
ductile fracture by cavity nucleation between larger voids 2−115348
ductile material containing spherical voids, localisation 2−72799
ductile material failure by void coalescence in localised shear bands 2−97439
embrittlement, continuum theory 2−109895
faceted and spherical, TEM contrast, computer simulation 2−76255
FACSIMILE code for void swelling and creep calc. with vacancy loops 2−67468
fracture processes in superplastic flow 2−72828
fusion material, ICFR, He interaction with displacement damage, rate theory applic. 2−85232
fusion material, total He generation cross sections for fast neutrons 2−85231
fusion material, void nucleation by gas atoms, He generation rate and conc. effect 2−86720
fusion reactor first wall, irrad. creep characts. 2−85220
growth, effect of precip.-matrix interface sinks 2−86661
irradiated materials, absence of pore formation, vacancy diffusion *(Russian)* 2−56010
light interstitials, diffusion through nonuniformly distributed traps 2−104073
light ion bombardment, simulation of neutron-induced mech. prop. changes 2−103864

voids (solid) continued
metal, void growth during irrad., cyclic pulsed temp. effect 2−86717
metal, void nucleation, stress and temp. driven 2−76429
metals, He bubble form. and swelling 2−109788
metals, void ordering during irrad., bifurcation and phase transition 2−61020
microstructural features, computational models 2−76694
Mn, irrad. with 46 MeV Ni^+, microstruct. before and after 2−92051
NDT related stress problems, displacement discontinuity method appl. 2−103121
neutron irradiation defects, annealing 2−109840
Nimonic PE16, ion bombarded, damage struct. 2−109855
point defect sink strength, thin foil, with bulk recombination 2−60970
polystyrene, high-impact, rubber-toughened, internal struct. of rubber particles and craze breakdown 2−105297
porous plastic solid, void nucleation effects on shear localisation 2−99486
propellant, solid, shock-induced instability due to crack-like defects 2−78106
rings, thin, ductile failure, inertia effects 2−103063
sheet metal forming, physical behaviour 2−105222
shet metal forming, plastic instability 2−105223
stainless steel, electron irradiated, void swelling 2−61039
steel, austenitic stainless, electron irrad., swelling behaviour, influence of He 2−109836
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, austenitic stainless, irrad. in EBR-II and HFIR, swelling, microstruct. development and He effects 2−108109
steel, austenitic stainless, irradiated in EBR-II and HFIR, swelling and microstruct./microchem. evolution 2−108110
steel, austenitic stainless, microstruct., dual ion-irrad., influence of He injection rate 2−109853
steel, austenitic stainless, Nb-stabilised, neutron irradiated, void-swelling and precipitation 2−105154
steel, austenitic stainless, neutron irrad., type 316, increased He content effect on void form. and solute segregation 2−109846
steel, austenitic stainless, rapidly solidified, path A prime candidate alloy, microstruct. after Fe and He ion irrad. 2−108115
steel, austenitic stainless, swelling and microstruct., fission-fusion correl. 2−85222
steel, austenitic stainless, void nucleation, during HVEM irrad., effect of implanted He 2−109834
steel, austenitic stainless, void swelling, 1.1 MeV N-ion irrad., TEM study 2−109854
steel, austenitic stainless, void swelling, during HVEM irrad. 2−109835
steel, austenitic stainless, void swelling in type 316 under long time proton irrad. 2−102038
steel, austenitic stainless 316, radiation induced evolution, neutron spectra effects 2−109845
steel, austenitic stainless 316, yield strength changes during fission or fusion irrad., microstruct. origins 2−71507
steel, austentic stainless 316, Ti effect on microstructs. changes rel. to void swelling 2−86741
steel, C, spheroidised, tensile fracture, 710-735°C *(Japanese)* 2−72812
steel, cavity growth during diffusion saturation with Ni from vap. phase *(Russian)* 2−104059
steel, Cr-Mo-V, high temp. ductility, compositional effects 2−111238
steel, dual-phase, deform. characts., effect of martensite vol. fraction 2−67443
steel, ferritic, ion irradiation, void swelling and solute segregation 2−85212
steel, FV548, irradiated with 1 MeV electrons, void nucleation and growth 2−103819
steel, lightly doped, pulsed elec. field action near voids and nonmetallic inclusions *(Russian)* 2−67572
steel, low C, cold forming, bendability, tensile props. and particle struct. 2−88128
steel, martensitic stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
steel, Nb-microalloyed, void growth and final fracture 2−67515
steel, spheroidized type 1090, permeation, trapping and damage by hydrogen 2−116602
steel, stainless, austenitic, ion irrad. mode effects on void form. 2−86756
steel, stainless, austenitic, precip. and cavity form. during irrad. 2−86735
steel, stainless, cavity swelling, model based on fission-fusion correl. 2−85226
steel, stainless, radiation-induced struct. changes 2−86714
steel, stainless, type 304, dual-ion bombarded, crit. cavity sizes 2−109861
steel, stainless, Type 316, fusion radiation damage simulation expt., He-to-DPA ratio calcs. 2−85230
steel, stainless, Types 304 and 316, dual ion bombarded, He partitioning to extended defects 2−86755
steels, Cr (12 wt.%), sulphide inclusions effects on fracture toughness and fatigue crack growth 2−105296
steels, ferritic stainless, fast neutron irrad., microstruct. obs. 2−108108
strengthening effect of voids, theory 2−103759
superlattice of voids, neutron scattering, theory 2−76240
thin films, void formation, gas bubble detachment model, vacancy trapping 2−76428
Ag film, bicryst., gas bubble growth 2−115607
Ag film, void growth 2−115606
Al alloy, extruded, creep damage 2−111227
Al, fast neutron irrad., positron annihilation 2−87894
Al, fusion neutron simulation study, comparison of electron and self-ion damage 2−85225
Al, irradiated with Al ions, pure and He doped 2−86747
Al magnetron sputtered film overlaid with plasma SiN film, trapped Ar induced deformation 2−82155
Al, neutron irrad., shallow positron traps 2−82295
Al, pure, cavities formation at and away from grain boundaries during 600 MeV proton irradiation 2−66078
Al, quenched, clustering process of vacancies 2−55964
Al-Si, fracture, fractographic features 2−111302
Al-Zn-Mg-Cu, superplastic alloy, cavitation, influence of hydrostatic press. and multiaxial straining 2−116494
Al_2O_3 anodic films, cryst. and amorphous, voids, TEM study 2−93666
Al_2O_3, ceramic neutron irrad. damage 2−115301
α-Al_2O_3 sintering, voids and boundary migration, electron microscope study 2−113046
Au epitaxial film, short support free, residual resist. determ. from current-voltage curves *(German)* 2−72080
Au, ruptured, final separation, role of glide and twinning 2−83200
CU_2Mg-type struct., at dias. in voids rel. to unit-cell dimensions 2−109747
Cr_3Si-type struct., at. dias. in voids rel. to unit-cell dimensions 2−109747
Cu and alloy, low ductility failure and cavitation during grain boundary migration *(Japanese)* 2−105301
Cu and Cu-Ge, low dose fission neutron irrad. damage 2−103829
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu, erosion wear mechanism, solid particle, 90° impact 2−88209
Cu, fatigue-induced grain boundary cavities, small angle neutron scatt. study 2−93581
Cu foil, electron irradiated, effect of vacuum environment on void nucleation 2−76506
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu, spallation by ductile void growth 2−72786
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
Fe, cavity growth during diffusion saturation with Ni from vap. phase *(Russian)* 2−104059
Fe, erosion wear mechanism, solid particle, 90° impact 2−88209
Fe, ion irradiation, void swelling and solute segregation 2−85212
Fe, low dose fission neutron irrad. damage 2−103829
Fe, neutron irrad., TEM study 2−103838
Fe, Ni ion irrad., simulation studies 2−109857
Fe, oxidation, high temp., growth of haematite blades 2−78019
Fe, pure, trapped H, thermal anal. 2−66290
α-Fe, triple beam ion irrad., depth distrib. of displacement damage 2−86752
Fe-Cr-Al (22,4 wt.%), void form. mechanism at substrate oxide interface 2−67610
Fe-Cr-Ni alloys, electron-irrad., swelling and Ni segregation 2−111182
Fe-Cr-Ni alloys, neutron irrad., swelling under electron irrad., reactor conditioning effect 2−109837
Fe-Cr-Ni-based alloys, commercial, electron irrad., void swelling 2−103820
Fe-Cr-Ti-Mo-TiO_2, dispersion strengthened, void swelling in HVEM, influence of fabrication procedure 2−111189
Fe-Cr-Ti(Si), ion irradiation, void swelling and solute segregation 2−85212
Fe(-Cr), triple beam ion irrad., microstruct. 2−109856
Ge film, amorphous, electron beam annealing in TEM 2−71503
Ge, surface topography, self-ion bombardment effects, 30 to 500 keV 2−71516
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
LiF and ^{6}LiF TLD polycryst., SEM obs. of neutron irrad. damage, surface defects, TL and response and recovery 2−115298
$Li_{3+x}(P_{1-z}Si_z)O_4$, Li^+ ion diffusion, NMR spin-lattice relax. study 2−115455
Mg, polycrystalline, grain boundary during high temp. deform. *(Japanese)* 2−55983
$MgAl_2O_4$, ceramic, neutron irrad. damage 2−115301
MgO, ceramic, neutron irrad. damage 2−115301
Mo alloy TZM, void swelling after high fluence neutron irrad. 2−85213
Mo, low dose fission neutron irrad. damage 2−103829
Mo, neutron irrad., anneal hardening, influence of purity, cold work and alloying elements 2−103843
Mo, neutron irrad., void coarsening during annealing 2−86734
Mo:N,H, defect-gas impurity interactions, positron annhilation study 2−67142
Mo-Re, re effect on void swelling, in-situ obs. in HVEM 2−86743
Mo-Ti and alloy TZM, void swelling behaviour under heavy ion bombard. 2−86744
Nb and alloys, ion irradiated by $^{58}Ni^+$ and $^3He^+$, swelling 2−85216
Nb, irradiated by He ions, bubble evolution, blistering cut-off mechanism *(French)* 2−76515
Nb, voids superlattice, neutron scattering, theory 2−76240
Ni, cavities depth distrib. induced by 20 keV He ion irrad. 2−86748
Ni, fatigue induced cavities, small-angle neutron scattering 2−105274
Ni, fracture initiation and dynamic recrystn. during hot deform. 2−105317
Ni, He bubble growth at dislocations, kinetics and phys. mechanisms 2−109826
Ni, high temp. oxidation, cavity form. mechanism 2−93682
Ni, irrad. creep, 17 MeV deuterons, stress depend. 2−86749
Ni, nonstationary Ni^+ irradiation regimes effect on void formation 2−56050
Ni superalloy, γ'-strengthened, particle misfit effect on void form. under electron and neutron irrad. 2−109838
Ni, void swelling, pulsed ion beam effects 2−85214
Ni:He, ion implanted, damage profiles, swelling due to Ni ion irrad. 2−103805
Ni-Al-In, β' phase, void distrib., X-ray small angle scatt. and TEM 2−105411
Ni-alloys, cast, grain boundary voids formation after cold-working and annealing 2−57375
Ni-base superalloy, powder consolidated, superplastic response, effect of heat treatment 2−93570
NiO, occluded gases within microscopic cavities, Raman spectra and gas-phase chromatography 2−61013
$Ni_{80}P_{20}$, metallic glass struct., tunnel states, computer model 2−81688
PbTe single crystals grown by vertical Bridgman technique, micro-size defects 2−97958
Si, amorphous film, laser crystallisation, rel. to density 2−56407
Si:H, As, amorphous film, optical absorption, doping and temp. depend. 2−82945
Si:H amorphous films, H_2 evolution 2−93950
Si:H amorphous sputtered film, microstruct. and H bonding environments 2−76847
Si_3N_4, defect charact. in short wavelength regime 2−62292
Sn-Pb alloys, superplastic, superanelasticity 2−83147
V-C(Mo)(Nb)(Fe), neutron irrad., void form., effect of substitutional and interstitial elements 2−103849
W wire reinforced Ni-base superalloy, flow and fracture behaviour during isothermal forging 2−93617
Zn-Al eutectoid, superplastic, cavitation, effect of grain size 2−111231
ZnO varistor ceramics, thermal cond., intergranular phase and void effects 2−71744

Voigt effect *see magneto-optical effects*

volatilisation *see vaporisation*

volcanology
E Africa, magmas origin depths rel. to lithospheric thinning assoc. with continental rifting 2−106078
E Africa, obs. of volcanic earthquakes at Nyiragongo and Nyamuragira in Western Rift Valley 2−111906
Alaid, April 1981 eruption effect on stratosphere particulate conc. levels 2−73624
Alaid Volcano, Kurile Islands, eruption in April 1981 rel. to stratosphere aerosol increase over Europe 2−100450
Aleutian arc, tholeiitic and calc-alkaline magmatism patterns 2−100331
Central America volcanic front, lava petrogenesis model 2−62932
Archaean volcanoes of Abitibi Belt, Ontario and Quebec, form, comp. and development 2−100340
Argos system for data collection and location by satellite 2−112153
basaltic magma solidification during flow in dike 2−106048
book 2−89498
calc-alkaline magma systems, mixing, volatiles effect 2−88832
climatic effects of volcanic eruption plumes 2−63082
Columbia River basalts, magma evolution and eruptions 2−83784
Diamant-Burgos volcanic system in SW Martinique, magma mixing, quartz bearing basalts *(French)* 2−111905
East Eifel, Germany, Quaternary volcanoes, palaeomagnetic dating 2−106052
eruptions, particles emitted effect on climate 2−106278
explosivity index, explosive magnitude for historical volcanism 2−62931
fission track dating appl. to Plio-Pleistocene 2−73723
Fuego 1974 eruption and aerosol dispersion in lower stratosphere 2−63040
Galapagos Rift, volcanism, structure and hydrothermal activity 2−58026
Gamitagama greenstone belt, southern Superior Province, precise U-Pb zircon ages 2−94316
Glacier Peak, Washington, recent volcanic activity from radiocarbon dating 2−78624
global volcanism, chronology and directory, book 2−84394
Hamersley Basin, NW Australia, Precambrian basic volcanics rel. to struct. and isostasy of lower crust- and upper mantle 2−117256
Isle of Ischia, Gulf of Naples, <33000 yr K-Ar dating of volcano-tectonic horst 2−111903
Italian peninsula, volcanic activity rel. to delineation of North Central Italian upper mantle anomaly 2−62924
Juan de Fuca plate aseismic subduction, volcanic activity anal. 2−62938
Kilauea Iki Lava Lake melt zone, seismic vel. and thermal convective expts. 2−73520
Kilauea Volcano, Hawaii, rain chemistry in summit area 2−63036
Kilauea volcano, Hawaii, S isotopes of basalts and volcanic glass 2−88822
Kurohime, volcano, Japan, petrological evidence for magma mixing 2−58024
Lake Baikal region, intrusive dykes rel. to local anomalies in heat flux distrib. 2−73500
landforms of Earth and Moon, comparison 2−100778
Le Piton de la Fournaise, Reunion, Feb. 1981 eruption 2−83790
Loihi, Hawaii, active submarine volcano, hydrothermal deposits, geology and chemistry 2−100344
Long Valley caldera, California, magmatic resurgence rel. to 1980 Mammoth Lakes earthquakes 2−106064
maar volcanism in Signal du Luguet massif, France *(French)* 2−73518
magma ascent velocity and modeling 2−106047
magma chambers, layered convection and crystal layers in multicomponent systems 2−106116
magma intrusion, rel. to physico-rheological model for Tangshan earthquake 2−94308
magnetic field anomalies associated with volcanoes, earthquakes and similar tectonically active regions 2−78540
mantle fragments in high velocity eruptions, metasomatic introduction of volatile bearing minerals before melting 2−73506
Marion Island (S.Indian Ocean), volcanism due to rapid deglaciation 2−68322
Mauna Kea, Hawaii, significance of 1973 earthquake 2−68290
Mount Etna, correl. between soil temp. meas. and Rn activity 2−68293
Mount Etna, magma movements, gravimetric detect. 2−88849
Mount St. Helens, ash analysis 2−58028
Mount St. Helens, chemical changes in lakes within blast zone of eruption 2−88929
Mount St. Helens, laser Raman spectroscopic anal. of ash from 1980 May 18 eruption 2−100343
Mount St. Helens, obs. of COS and CS_2 in ash from 18 May 1980 eruption 2−78623
Mount St. Helens, Washington, weighted vector anal. applied to surge deposits from May 18, 1980 eruption 2−94332
Mount St. Helens (18 May 1980 eruption), effect on surface temp. 2−100345
Mount St. Helens eruption, lidar meas. of aerosols 2−78622
Mount St. Helens eruption plume, effect of NW US surface temp. 2−111907
Mount St. Helens volcanic cloud, effect on turbidity at Ann Arbor 2−78842
Mt. Fuji, Japan, seismicity obs. and possible future eruptions 2−58025
Mt. Hood region, Oregon, USA, volcanicity of last 15 million years 2−88846
Mt. Hood Volcano, Oregon, USA, aeromagnetic survey 2−88739
Mt. Hood volcano, Oregon, USA, elec. resist. struct. obs. 2−88848
Mt. Hood volcano, Oregon, USA, heat flow obs. 2−88847
Mt. St. Helens, ash U and Th decay series nuclide concs. 2−106050
Mt. St. Helens, eruption plume chem. and radioactivity 2−58027
Mt. St. Helens, heat flow, geological implications 2−100328
Mud Volcano, Yellowstone, USA, hydrothermal changes rel. to seismicity 2−88845
Myoko volcano, Japan, petrological evidence for magma mixing 2−58024
Novo-Tolbachinsky eruption, Kamchatka, USSR, ash particle sizes 2−73521
oceanic plates, discrete and continuous intrusion models rel. to plates thermal struct. 2−106023
ophiolitic volcanogenic sulphide deposits, Troodos Complex, Cyprus, Pb isotopic comp. 2−62925
organic contamination of Mt. St. Helens ash due to pyrolosis of plants 2−106051
Pacific non-hotspot volcanoes origin 2−117270
Pacific volcano, seamount and volcanic island occurrence 2−117270
Pelly Mountains, SE Yukon Territory, geological setting and tectonic significance of Mississippian felsic metavolcanic rocks 2−78649
pyroclastic surges, computer-assisted mapping 2−117271
pyroclastics, SEM investigations of surface structs. and comparison with irghizites 2−88875
Rockall Trough, Eocene volcanic ash deposits 2−117291
Sardinia, Oligo-Miocene rift volcanism rel. to early history of W Mediterranean Basin 2−106079
E Savant Lake-Crow Lake metavolcanic-metasedimentary belt, NW Ontario, U-Pb zircon ages 2−94317
Snake River Plain, Idaho, USA, new category of volcanism 2−88825
Soufriere, ash transport across Atlantic to Africa 2−106056
Soufriere, eruption plume dynamics, April 1979 obs. 2−73519
Soufriere, St.Vincent, ash cloud development obs. 2−106055
Soufriere, St.Vincent, eruption of 1979 AD 2−106053
Soufriere, St.Vincent, magma chamber rel. to crust obs. 2−106063
Soufriere, volcanic gas chem. of April 1979 eruption 2−106061
Soufriere (St.Vincent), eruption plume aerosol composition 2−106060
Soufriere aerosol contrib. to stratosphere 2−106279
Soufriere eruption on St.Vincent in 1979, tephra deposits 2−106054
Soufriere eruption plume, particle size distribs. 2−106059
Soufriere eruption plume spread, 17-19th April 1979 obs. 2−106058
Soufriere volcanic column skirt clouds 2−106057
steady state activity, evidence from polygenetic volcano eruptions 2−100341
Taupo Volcanic Zone, New Zealand, geophys. study 2−100342
Tolbachik eruption of 1975-6, Kamchatka, melt/gas phase relationships 2−73522
transmagmatic fluids nature *(Russian)* 2−111908
tuff flow direction from palaeomagnetic data, San Juan Mtns., Colorado 2−106049
Tuva, USSR, metallogeny, importance of tectonic-magmatic activity 2−83815
Vavilov volcano area in Mediterranean Sea, bottom relief and magnetometry 2−83807
Yellowstone caldera area, USA, seismic vel. struct. 2−88826
NO_2 atmos. conc. near to Soufriere Volcano April 1979 eruption 2−106062

volt-ampere meters
see also power measurement; wattmeters
No entries

Volta effect *see contact potential*

voltage *see electric potential*

voltage comparators *see comparators (circuits)*

voltage control
photomultipliers with reflector output, anode sensitivity control 2−64773
solar battery simulators design with improved charact. *(Russian)* 2−116835

voltage-controlled oscillators *see variable-frequency oscillators*

voltage controllers *see voltage regulators*

voltage distribution
see also electric breakdown; overvoltage; surface discharges; transients
arc static voltage gradient as nonlinear one-dimensional Elenbaas-Heller eqn. eigenvalue *(German)* 2−60830

voltage dividers
see also potentiometers
HV pulse registration with subnanosecond resolution using liquid resistive divider 2−84662

voltage doubler rectifiers *see voltage multipliers*

voltage drop *see electric potential*

voltage measurement
see also potentiometers; voltmeters
100 kV subnanosecond direct voltage monitors 2−95334
automated RF amplitude-phase meter for continuous and pulsed signals *(Russian)* 2−58850
crack microgauge based on AC field meas. 2−78052
electronic multimeter for AC/DC current and voltage meas. 2−84666
electrooptical method of measuring high-voltage pulses 2−69199
electrophysiological lead system, apparatus for mag. induced interfering voltage meas. *(German)* 2−62797
EMF standards maintenance and comparison at BIPM 2−112927
EMF units reproduction accuracy increase 2−89652
fracture toughness testing of irrad. ferritic steel using electropot. technique 2−88310
Hall effect, double AC measurement method *(French)* 2−58846
Hall voltage meas. method 2−107344
homogeneous resistive materials, pot. fluctuation meas., Green's function anal. of induced EMF between electrodes 2−58851
HV, errors of optoelectronic measurements due to lack of parallelism of the light beam in the Kerr cell 2−95399
HV pulse registration with subnanosecond resolution using liquid resistive divider 2−84662
Kelvin method, conditions necessary to get meaningful meas. 2−53785
micropower pulse frequency modulator for use in an optically isolated catheter system for sensor voltage meas. 2−88645
MOS capacitors, nonequilibrium surface potential vs. gate voltage charcts. meas. 2−92774
picosecond voltage pulses, oscilloscope meas. 2−79607
rapid true RMS digital wideband voltmeter *(French)* 2−79569
p-Si/methanol interface photoelectrochemical cell characterisation using capacitance-voltage measurements and cyclic-voltammetric measurements 2−105578
n-Si/methanol interface photoelectrochemical cells characterisation using capacitance-voltage and cyclic-voltammetric measurements 2−105577
skin potential monitor and display system 2−68185
solar cell I/V charcts. automatic meas. 2−99789
standard, AC Josephson effect 2−63962
standard based on Josephson point-contact junction 2−112930
standardisation, voltage unit reproduction based on Josephson effect Italian (IEN) participation 2−112929
standardisation using Josephson potentiometer 2−112928
steel, crack development determination, electropotential method appl. 2−116642
thermoelectric power meas. technique at low temp. *(French)* 2−101419
transient voltage measurement of gaseous ionisation, sensitivity and error anal. 2−97822

voltage measurement continued
VSWR measurement, use of voltage characts. near min. and max. *(Czech)* 2−79616
$Bi_{12}SiO_{20}$, optical fibre sensor, electric field intensity and voltage meas. 2−65369
voltage multiplier rectifiers *see voltage multipliers*
voltage multipliers
see also potential transformers
600 kV Marx module for high-density Z-pinch experiment 2−90415
Particle Beam Fusion Accelerator (PBFA-I), HV modular interconnecting and operating systems 2−90326
voltage quadrupler rectifiers *see voltage multipliers*
voltage reference diodes *see avalanche diodes; Zener diodes*
voltage regulation *see voltage control*
voltage regulator diodes *see avalanche diodes; Zener diodes*
voltage regulators
see also voltage control
beta-ray monochromator, current regulator for magnetic lens 2−107447
digital bias voltage controller for semiconductor detectors 2−108258
voltage stabilizers *see voltage regulators*
voltage transformers *see potential transformers*
voltage transients *see transients*
voltammetry (chemical analysis)
see also polarography
differential normal pulse voltammetry, theory 2−111526
paraquat dimer mols., electrochem. behaviour, bielectronic mediation appls. 2−85802
polyacetylene, $(CH)_x$, cathode and anode active materials, appl. to light-weight rechargable batteries 2−78203
polypyrrole films, electrochemical and cond. props., chem. modification, SEM and voltammetric study 2−77217
p-Si/methanol interface photoelectrochemical cell characterisation using capacitance-voltage measurements and cyclic-voltammetric measurements 2−105578
triangular waveform generator, electronic switching, appl. to cyclic voltammetry 2−93846
Co complexes, Co(III)/Co(II) complexes with o-phenanthroline and related ligands, redox couples for electrochem. energy storage 2−57620
voltmeters
see also digital voltmeters; potentiometers
No entries
volume compandors *see compandors*
volume diffusion *see diffusion in solids*
volume measurement
biomedical circulation measurement technique, indicator dilution using a fluorsc. indicator 2−117044
cardiac stroke volume meas., expt. evaluation of impedance and EM methods in dogs 2−117112
cardiac volume estimation by 2D echocardiograms recorded from 1 extracorporeal point 2−94131
ear canal volume, evaluation of tympanometric estimates 2−88640
gallbladder, automatic volumetry system using US tomography *(Japanese)* 2−78403
medical US volume measurements, comparison of prolate ellipsoid method and parallel planimetric area method 2−117020
mobile automatic installation for testing metering vessels 2−63977
polymer, degree of cyrstallinity, volumetric meas. 2−71360
sensors and actuators development for pressure-volume-flow relations meas. in isolated rabbit hearts 2−100189
vortex flow *see vortices*
vortex flow (superconductivity) *see flux flow*
vortex lattice pinning *see flux pinning*
vortex state (superconductivity) *see mixed state*
vortex structure (superconductivity) *see flux-line lattice*
vortexes *see vortices*
vortices
see also cavitation; turbulence
3-dimensional vortex structs. in cavities 2−60552
accretion flows in astrophysics, vortex funnels theory 2−58233
aircraft wake vortices detection and analysis, measuring system *(Dutch)* 2−114957
annular jet initial region, wake-induced and jet vortices and covariance obs. 2−91501
annular jets, excited, of low Mach number 2−55630
atmosphere, low-latitude upper-level vortex over Brazil, METEOSTAT IR obs. 2−111992
axial pump impellers, flow field 2−70958
axisymmetric flow in a toroidal tube with current 2−103213
axisymmetric solitary waves in Bose condensate 2−101180
axisymmetric vortex flows with Bernoulli const. surface discontinuity 2−81343
barotropic fluid, twisted potential streams motion, extremal formulation and nomogram *(Russian)* 2−65594
bluff structures, stationary and vibrating, similarity in wakes 2−65592
bounded region perfect incompressible fluid flow, velocity and vortex vectors 2−55549
cavitation inception, secondary vorticity effect 2−65598
cavity flow, vortex-driven acoustic oscills., nonlinear resonant interactions 2−65645
coherent structure in turbulent shear flow, research prospects 2−81326
coherent structure in turbulent shear flows 2−81327
collision of dipolar vortex states (modons) 2−78758
compressible Navier-Stokes equations soln. using integral method 2−91373
compressible vortical flow Hamiltonian formulations in computer simulations 2−114835
conducting liquid, vortical MHD flow, heat transfer 2−103167
conducting media, EM forces, Hall effect, MHD flow 2−86348
conference, Aachen, Germany (March 1980) 2−68969
confined vortex, laminar boundary layer near rotating end wall 2−97565
confined vortices, dynamics, flow visualisation and laser-Doppler anemometer meas. 2−97562
conformally flat space-time with perfect fluid and heat flux, Einstein eqns. solns. 2−84491
convection rolls, instability, mean flow generation 2−109324
Couette to Taylor vortex flow transition, boundary and fluctuation effects 2−70908
vortices continued
diaphragm in 2-dimens. channel, flow separation 2−86334
diatomic model fluid, vortex viscosity, fluctuation expression 2−65597
discussion for student understanding 2−79309
domain comparison theorems for flows with vorticity 2−70964
Earth mantle convection currents, vertically elongated vortices model 2−117279
extratropical cyclone producing severe storms, available potential energy budget 2−112017
falling parabolic jets, Poiseuille flow, instabilities, vorticity induced waveforms 2−76030
finite-area vortex regions, instability, merger and breaking 2−109333
flow around flat plate close to plane surface, vortex shedding, turbulence 2−75970
flow behind two coaxial circular cylinders, vortex wakes, press. fluctuations 2−97567
flow induced vibration in shell and tube heat exchangers 2−53755
flow model for the effect of a slanted base on drag 2−86311
flow past finite circular cylinder at high subcritical and supercritical Reynolds number 2−75967
flow simulation, discrete vortex method appl. 2−76020
flow visualisation studies of vortices 2−81347
flowmeter for non-corrosive gas 2−109426
fluid dynamics research, contrib. to aircraft design 2−70966
generation in axisymm. shear flow 2−86283
geophysical flows, nonlinear hydrodynamic stability of planetary vortices 2−100563
Gortler vortices stability in boundary layers 2−91459
heat transfer to air from a yawed cylinder, independence principle 2−55564
hurricane passage over ocean, heat budget 2−83833
hydrodynamics in two dimensions and vortex theory 2−97486
ideal fluid, analogy with point particle classical mechs. 2−114753
identical vortices, integrable and chaotic motions 2−60555
impinging turbulent jets, low Mach number, organised wave self-generation 2−71004
impulsively-started flow about four types of bluff body 2−97566
incompressible flow at high Reynolds no., elliptic-vortex method for approx. Navier-Stokes eqn. 2−97487
incompressible flows, two- and three-dimensional vortex methods 2−103179
incompressible fluid, electrically conducting transient laminar-vortical flow, travelling mag. field effect 2−86253
incompressible fluid, vorticity-shear local interaction 2−86284
incompressible fluid two dimens. flow hydrodynamic eqns. struct., integral invariance 2−109326
incompressible viscous flow in cascade, numerical method *(French)* 2−76027
inflated buildings, two dimens., cross wind effect on boundary layers 2−70927
inviscid shear flows, finite amplitude waves, Couette-Poiseuille channel flow 2−97575
inviscid stability of plane Couette flow, convection of initially conc. vorticity, calcs. 2−114763
inviscid turbulence, 2-dimens., coherent structs., statistical props. 2−60517
irrotational flow, evolution of patches of vorticity 2−103175
isotropic turbulence in high temp. media, degeneration, radiation influence 2−114771
jet, round, normal to crossflow, velocity characteristics, turbulence intensities 2−65631
Jupiter, Rossby vortex as model of Great Red Spot 2−100813
Kaplun's optimal co-ordinates 2−55539
Kelvin waves, stability 2−55591
Kosterlitz-Thouless transition, review *(Japanese)* 2−81933
laminar flow, 2D, about cylinder oscillating in uniform stream 2−97501
laminar vortex flow, mass transfer, forced convection *(French)* 2−55561
laminar vortex-sink flow of compressible fluid *(German)* 2−97580
laser anemometer meas. of boundary layer susceptibility to planar and three dimens. disturb. *(Russian)* 2−114942
laser Doppler anemometer, flow investig. in vortex chamber *(Russian)* 2−114938
laser double focus method appl. to turbomachine complex flow processes obs. *(German)* 2−81415
liquid rotating in vertical plane, disperse phase distrib. *(Russian)* 2−81345
liquid-filled ellipsoids, instabilities of spin-up and spin-down flows 2−70916
liquids, adsorbed solutes, bubble motion, surface activity 2−60617
longitudinal vortices in boundary layer 2−114818
low Reynolds number flow due to impulsively started circular cylinder 2−60550
macromolecules, dil. solns., Couette flow, embryo cells and overstability 2−91466
Maxwell fluid, diffusion of vorticity 2−97568
metals, molten, local velocity and mass transfer meas. using incorporated mag. probe 2−114949
mixing-layer-wedge system, self oscillating vortex form., nonlinear stability theory 2−70910
modulated wavy vortex flow in laboratory and rotating reference frames 2−55596
multichannel laser anemometer investig. of laminar-turbulent flow transition *(Russian)* 2−114939
Navier-Stokes fluids, steady rectilinear complex-lamellar universal motions 2−114820
neutron star rheology, crust superfluid vortex line pinning 2−58378
ocean, ageostrophic instability of ocean currents 2−73577
ocean, synoptic vortices, numerical simulation *(Russian)* 2−100391
pipe flow, vortex breakdown, flow visualisation 2−55593
plane free surface flows, appl. of boundary integral equation method 2−81325
plane sound wave scatt. by vortex pair 2−86285
plane wall near vortex ring, flowfield, smoke visualisation study 2−75974
planetary gyres, homogenisation of pot. vorticity 2−117327
potential flow, vortex filament motion and decay, Navier-Stokes eqns. 2−70965
pressure fluctuations meas. on fixed and oscillating square section cylinders 2−91547
pressure pulsations in subsonic or supersonic flow over recess 2−60654
quasigeostrophic fields stability induced by pot. vorticity 2−65569
quasiperiodic motions, integrability 2−55597
rectangular duct, S-curved, 3-D turbulence and press. meas., vortices 2−75969

vortices continued
rise of buoyant plumes in stratified environment, numerical study of flow development 2−97615
Rossby soliton stability in rotating shallow liquid *(Russian)* 2−109347
rotating $^3P_2$ neutron superfluid, mag. vortices 2−58377
rotating Couette flow, stability of a hollow vortex 2−75977
rotating thermally driven flows, high vorticity regions 2−81346
rotational flow, Taylor- and wavy-vortex waves, spatial and temporal charact. 2−70959
saw teeth, meas. of vortices in wake 2−60528
self-sustained low-freq. components in impinging shear layer 2−65595
shallow basin, vorticity waves 2−100389
shear flow, vortex shedding patterns and pressure around low aspect ratio cylinder at transitional Reynolds numbers 2−65600
shedding, from rectangles in 2-dimens. time-depend. flow 2−65596
shedding behind 2-dimens. bluff bodies, investig. 2−65664
simple medium, rot. motion, vortex, EM radiation, geometric optic formulation 2−109336
sine-Gordon system, two-dimens., vortex solns., phase transitions and Josephson junction appl. 2−69028
slender body spinning, Magnus forces, vortex model 2−70955
small-scale structure in unstable fluids, contour dynamical method 2−63824
solidification, two-dimens., natural convection, vorticity, anal. 2−70947
solitary toroidal vortices in plasma, turbulence *(Russian)* 2−109484
solitary waves in rotating turbulent flow 2−55595
sound wave-vorticity wave resonant interaction in shear flows 2−70743
spin fluids, two-dimens., vortex dynamics, Heisenberg model 2−104094
stabilisation of vortex shedding in three-dimensional flow in circular pipe *(Japanese)* 2−60559
stability of a steady vortex filament, nonlinear Schrodinger eqn. anal. 2−75973
stratified flow, vortex breakdown study 2−65593
strong-current pinching discharge, local high temp. plasma form. *(Russian)* 2−97764
structure of a linear array of uniform vortices 2−60557
subharmonics and vortex merging in mixing layers 2−91465
superfluid films, vortex-boundary interactions 2−82066
superfluid vortex in neutron stars, neutrino cyclotron radiation 2−79135
supersonic laminar viscous flow past a cone, heat transfer, flow separation, vortices 2−109362
swirling pipe flow, unsteady vortex breakdowns, flow modes 2−81344
synergetics, chaos and order in nature, conf., Schloss Elman, Bavaria, FRG (April-May 1981) 2−58543
Taylor expt., multiplicity of flows 2−109284
Taylor vortex flows, transitions calc. 2−60561
Taylor vortex mode excitation 2−60554
Taylor vortices, form. between heated rot. cylinders 2−114819
Taylor vortices and its boundary condition, local amplitude eqn. 2−109335
Taylor vortices between two concentric rotating spheres 2−91463
Taylor-vortex flow between concentric cylinders, steady states investigated by flow visualisation 2−109330
thermals, simulation 2−106284
thin wings with arbitrary sideslip at subsonic and supersonic speeds 2−81353
three dimensional supersonic flow around cylinder, vortex pattern computation 2−109325
three dimensional turbulent channel flow, mean vorticity and covariance soln. 2−109297
three-dimensional incompressible fluid flow, numerical simulation 2−103178
tornado-type wind energy system flow anal. within the tower using numerical model 2−75945
transport in the near aerodynamic wakes of flat plates 2−97554
tropical cyclones, large scale circulations 2−112020
turbulent flow in internal combustion engine during compression, computation 2−65572
turbulent separation bubble, discrete-vortex simulation 2−97557
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
turbulent shear flows, two-dimensional, vorticity and scaling laws calc. 2−65580
turbulent vortex evolution 2−60548
two-dimensional non-abelian spin models, vortex condensation 2−79765
two-dimensional vortex lattices, melting in self-consistent harmonic approx. 2−110065
two-layer rotating fluid, source-sink driven flow, linearised spin-up process 2−109329
universal Strouhal number assessment for two-dimensional bluff bodies 2−55590
Universe, dynamical importance of vorticity and shear 2−117825
unstable gas flow modes in a ranque vortex tube 2−109332
viscoelastic fluid flow past rigid spheres and spherical bubbles 2−60553
viscous diffusion simulation for extension of surface vorticity method to boundary layer and separated flows 2−70911
viscous liq., vortex press. and vel. field determ. technique 2−70957
viscous rotating fluid flow past a sphere, vorticity, differential eqns. 2−103177
vortex blower, blade angle effect and performance theoretical anal. 2−91462
vortex breakers in an air jet 2−75972
vortex chamber, tangential injection, aerodynamics study 2−70974
vortex shedding cell lengths behind circular cylinder, roughness and shear effects 2−86289
vortex sheet, stabilising effects on finite core 2−114817
vortex sheet, stability to two-dimens. disturbances 2−70960
vortex-asymetry onset on slender pointed forebodies, similarity relation 2−91461
vortex-leading-edge interaction 2−75975
vortex-street wake, stability props., inviscid model 2−114816
wakes, two-dimens. formation at very high Reynolds number, secondary shedding effect 2−103171
water waves, far field asymptotic behaviour and localised vorticity distrib. diffusion 2−114829
wavy Taylor vortex flow, fractional mode numbers 2−103149
Weis-Fogh circulation-generation mechanism, separation vortex 2−97560
wind driven circulation in rectangular cavity, ADI anal. 2−109328
β-FeOOH, rodlike crysts., dil. aqueous dispersions, light scatt. obs. of laminar, vortical and turbulent flow 2−76015
^{4}H liquid, vortex generation, second sound damping by thermal pulses *(Russian)* 2−71748
vortices continued
He II, superfluid, vortex line struct. near λ point *(Russian)* 2−61234
He superfluid thin film, electron spectrum *(Russian)* 2−61248
^{3}He, superfluid, rotating, NMR study *(Russian)* 2−82060
^{3}He, superfluid, rotating, NMR study, vorticity 2−86969
^{3}He-A, influence of rotation on NMR signal *(Russian)* 2−71758
^{3}He-A, rotating, vortex lines, analytic and singular, order parameters and energies 2−56289
^{4}He, superfluid, counterflowing, induced vorticity fluctuations 2−82049
^{4}He, superfluid, first-sound subharmonic generation, bifurcation universality 2−56281
^{4}He, superfluid, group representations, spectrum of states 2−98370
^{4}He, superfluid, ion-vortex ring transition quenching 2−82050
^{4}He, superfluid, quantised vortex lines, photographic studies 2−61229
^{4}He, superfluid, rotating, Tkachenko waves 2−104093
^{4}He, superfluid, rotating, mutual friction, freq. depend. 2−104096
^{4}He, superfluid, turbulence generation, dynamical rules 2−98368
^{4}He, superfluid, vortex lines and vortex arrays, normal oscill. modes 2−110070
^{4}He, superfluid, vortex motion near solid boundary protuberance *(Russian)* 2−56278
^{4}He, superfluid, vortex photography study of quantised vortex lines 2−110067
^{4}He, superfluid film, two dimens. electron system, electron dimples-vortex pair interactions, theoretical anal. 2−61247
^{4}He superfluid films, vortices, finite freq. nonlinear effects, Debye-Huckel approx. 2−66313
^{4}He superfluid thin films, vortex dynamics 2−56282
^{4}He superfluid unsaturated film, vortex pinning 2−56295
VTR *see video tape recorders*
vulcanisation
2-oxo-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
polychloroprene-nairite p vulcanizates, link disposition, thiourea derivatives effect, NQR study 2−93052
2-thio-hexahydropyrimidines, 1-substituted, mass spectra, rel. to vulcanising activity 2−96775
waiting line theory *see queueing theory*
wakes
aerodynamic force meas. on cylindrical struct. in the wake of parallel cylinder 2−81340
aircraft wake vortices detection and analysis, measuring system *(Dutch)* 2−114957
airfoil, near-wake, mean velocity and turbulent struct. meas. 2−55589
airfoil trailing edge, turbulent boundary layer, Navier-Stokes eqn. 2−65574
annular jet initial region, wake-induced and jet vortices and covariance obs. 2−91501
annular jets, excited, of low Mach number 2−55630
bluff structures, stationary and vibrating, similarity in wakes 2−65592
boundary layer on moving surface, singularities in solns. of eqns. 2−55537
charged particle energy losses in condensed matter 2−98172
charged particle moving incondensed matter, oscillatory wake 2−56059
circular cylinder near wake, turbulence meas., downstream cylinder effects 2−75965
circular cylinder wake turbulence, upstream wake effects 2−75966
computerised optical-scanning tomography of turbulent wakes and exhaust plumes 2−76050
deep flow over cross-stream ridges, obstacle shape and viscosity effects 2−97558
equilibrium parameters for two-dimensional turbulent wakes 2−97555
flat plate, symmetric turbulent wake development 2−114813
flow behind two coaxial circular cylinders, vortex wakes, press. fluctuations 2−97567
flow past finite circular cylinder at high subcritical and supercritical Reynolds number 2−75967
fluidised beds, gas flow, bubble clouds and wakes, three-phase model 2−71025
gas bubble, motion in liq., unsteady drag at large Reynolds number 2−60609
laminar incompressible flow, large Reynolds number, wake flowfield development calc. 2−70896
ordered structures simulation in open turbulent flows 2−86265
periodic charact. near wake of rod with blunt sectional shape rot. about one end *(Japanese)* 2−91458
plasma structure behind cylinder in supersonic nonisothermal plasma flow 2−71123
plates, reacting, orderly system distributed along a stream, conc. field 2−81402
profile-in-channel flow, oscillations, excitation features 2−114909
Reynolds stress in boundary layers and wakes, high resolution LDA meas. 2−109298
rotor stator axial spacing effects on time variant aerodynamics 2−65611
saw teeth, meas. of vortices in wake 2−60528
separation bubble, time averaged, scaling parameters 2−97604
supersonic objects in anomalously relaxing gases, wakes obs. 2−86282
thermal wake behind two cylinders, diffusion zones *(French)* 2−97553
transport in the near aerodynamic wakes of flat plates 2−97554
turbulence model of two dimens. near and far wakes 2−97552
turbulent boundary layer and wake, confluent region 2−86275
turbulent shear flows, conf., Toulouse, France (May 1981) 2−58545
turbulent shear flows, two-dimensional, vorticity and scaling laws calc. 2−65580
turbulent wake of uniform temp. gradient in approach flow, mixing 2−70921
two-dimens. formation at very high Reynolds number, secondary shedding effect 2−103171
two-dimensional turbulent wakes, growth behind solid and porous strips 2−65591
vortex-street wake, stability props., inviscid model 2−114816
wave model of mesothermal plasma near wakes 2−86396
Walsh functions
see also encoding; filtering and prediction theory; signal processing
two-dimensional Walsh transform system using a fly's eye lens for pattern recognition 2−114204
two-dimensional Walsh transforming device using an integrated optical circuit 2−86135
two-dimensional Walsh transforming device using integrated optic device 2−65413

Wannier functions
metals, Wannier functions, model Hamiltonian 2−56474
one-electron theory of crystalline solids in homogeneous elec. field 2−66508
semiconductor, Wannier-Stark ladder, impurity effects in strong elec. fields 2−76893
transition metals, total energy computation by model electron density functional 2−61384
α-Fe, scattered wave functions and electronic states 2−87172
LiCl, energy band calcs., self interaction correction, density of states 2−66445
Mo, scattered wave functions and electronic states 2−87172

warning systems *see alarm systems*

waste disposal
see also radioactive waste
alpha waste management strategy within fuel cycle, incentives for integration 2−107991
N Atlantic deep water dumpsite 106, pollutant dispersal obs. 2−106144
bedded salt repository for spent nuclear fuel, mine layout optimization 2−74816
bedded salt repository for spent nuclear fuel, near field salt temperatures 2−74814
bedded salt repository for spent nuclear fuel, thermal criteria 2−74812
bedded salt repository for spent nuclear fuel, uncoupling thermal problems 2−74813
coal conversion, liquid and solid waste, pollution control technology 2−67804
crystalline nuclear waste, coating to improve inertness 2−107955
Danish high-level waste disposal facility in Mors Dome, preliminary design 2−107987
deep geological nuclear waste repositories, data transmission alternatives assessment 2−64470
developing guidelines on managing radioactive waste 2−102034
dumping packaged low level wastes in the deep ocean 2−64480
electroplating waste water in-stream neutralisation, meas. and control aspects *(German)* 2−105610
geologic depositories for nuclear waste, media temp. from finite length line source superposition model 2−74815
geologic disposal of nuclear waste 2−102026
geothermal power economic viability in comparison to other energy sources *(Dutch)* 2−105532
glass matrix for radioactive waste disposal, surface effects on leaching 2−93649
Gulf of Thailand, waste dispersion 2−78263
high level waste management, heat transfer in storage and processing 2−74824
high level waste vitrification, computer thermal anal. for storage canisters, review 2−74823
high-level waste repository sites, instrumentation reliability study 2−64472
long-term onsite radwaste storage 2−113668
low heat generating defense nuclear waste depository temps., sensitivity calcs. 2−74819
low level rad. waste, ground disposal, radiological safety study *(Japanese)* 2−96123
low level radioactive waste incineration *(German)* 2−113618
LWR waste in Switzerland, repositories for final disposal 2−107985
methane gas from wastes−state of the art 2−116773
minerals, α-recoil damage and preferential soln. effects, implications for nuclear waste disposal 2−64778
modular dry storage of spent LWR fuel 2−113669
nuclear fuel and waste management problem 2−69712
nuclear fuel waste disposal vault, nuclide inventory for post-closure phase 2−113667
nuclear power station radioactive waste disposal status in West Germany *(German)* 2−85127
nuclear waste disposal facility, methodology for consequence anal. 2−107988
nuclear waste in glass, pressure depend. of glass dissolution 2−104001
nuclear waste in groundwater aquifers and boreholes, suitability 2−116856
nuclear waste management in Switzerland 2−102035
nuclear waste management policy in France 2−107989
nuclear waste related to elec. prod. unit, management cost 2−107979
nuclear waste repositories ventilation cooling, rectangular ducts, forced convection 2−74817
oil fired, burning municipal solid waste, energy recovery, five methods evaluation 2−99754
organic recycling, effect on energy, employment and environmental problems 2−73089
radioactive, radiological protection activities of German Federal Republic *(German)* 2−59479
radioactive, storage in mines, techniques, risks and problems *(German)* 2−59457
radioactive liquid wastes, calcining at Idaho National Engineering Laboratories 2−90233
radioactive low level waste, ocean disposal, history 2−96086
radioactive waste, high level forms, fission product transmutation effects 2−73172
radioactive waste, space disposal possibility 2−107949
radioactive waste disposal conditioning in graphite matrix 2−107992
radioactive waste disposal policy in Federal Republic of Germany 2−107980
radioactive waste disposal site methods for meas. of hydrologic characts. 2−78873
radioactive waste processing, hydrocylcone separators, two types, evaluation 2−80128
radionuclide mobility in synthetic rock 2−93976
reactor waste, symp., Kungalv, Sweden (Sept. 1981) 2−112656
renewable energy resources, recycling of municipal, agricultural and industrial wastes 2−67847
review of waste management practices at nuclear facilities pays 2−113670
rock mass meas. instrumentation for Basalt Waste Isolation Project 2−74797
rocks, in-situ fracture mapping to characterise geological sites for nuclear waste disposal 2−74798
sewage sludge, γ-ray treatment with spent nuclear fuel 2−74831
shale, simulated by cement mixture, for nucl. waste dumping, thermal diffusivity meas. by Angstrom's method 2−68333
shielded containers for highly active vitrified waste 2−64481

waste disposal continued
simulated high level waste glass, fracturing in canisters 2−74822
solar-thermionic generator for radioactive waste disposal space vehicle 2−73132
spent nuclear fuel storage under water, natural convection 2−74818
Swedish nuclear fuel cycle, waste management 2−102036
Swiss LWR waste repositories, storage capabilities 2−107984
thermal oxidizers convert industrial waste into valuable energy 2−78194
UK view of the management of high-level waste 2−102037
vitrification of nuclear waste with low heat generation 2−74821
WIPP site, New Mexico, USA, radioactive waste disposal, geotechnical instrumentation systems 2−74801
WIPP site in New Mexico, USA, for radioactive waste disposal, geotechnical field meas. 2−74799
$BaAl_2Ti_6O_{16}$-$CaTiO_3$-$CaZrTi_2O_7$ ceramic, devel. and testing as high level nuclear waste form 2−107956
^{85}Kr disposal and storage problems *(German)* 2−90246
Na_2O-FeO-SiO_2 simulated waste glass, chem. durability, press. effects and surface layer form. 2−93651
$NaZr_2(PO_4)_3$, ceramic, sintering prep., appl. to radioactive waste disposal 2−90226
Pu contaminated materials from nuclear fuel cycle, treatment and disposal 2−107978
U mill tailings and closed low-level waste disposal sites, long-term monitoring 2−74800

water
see also groundwater; heavy water; hydroxonium ion; ice; moisture; seawater; steam
absorption in phosphosilicate glass film 2−115630
adsorbed layer on Re(0001), stability under electron impact *(French)* 2−76808
adsorbed on Ag(110), adsorption and reaction studies 2−87034
adsorbed on Ag electrode, photochemical activation effect on surface enhanced Raman scatt. 2−110828
adsorbed on Au electrode, effect on electrolyte interface, work function and pot. of zero charge meas. 2−61557
adsorbed on Fe(100), bonding and electron energy loss spectra 2−87030
adsorption, on oxidised and non-oxidised WC 2−104147
adsorption, on quartz, influence on propane adsorption on quartz *(Japanese)* 2−61281
adsorption and decomp. on Co surfaces, LEED, UPS, surface pot., and thermal desorption study 2−104160
adsorption in $(SN)_x$, proton-spin lattice relax. time 2−61781
adsorption of H_2O, D_2O and HDO on Ag electrodes, surface enhanced Raman spectra 2−90554
adsorption on Au film, work function and thermal desorption mass spectrometry study 2−98468
adsorption on Cu, chemisorbed O effects, XPS obs. 2−67188
adsorption on GaAs, surface oxide phase form., UPS, XPS and SIMS study 2−115544
adsorption on Ni (111), preadsorbed O effect of azimuthal ordering 2−104157
adsorption on polycryst. Ag surfaces, SIMS investig. 2−105516
adsorption on Ru (001), IR study 2−67060
adsorption on $SrTiO_3$ (100), EELS and UPS study 2−115537
adsorption on Ti (001), photon stimulated desorption and UPS study 2−115553
adsorption on TiO_2, SIMS study 2−104168
air, DC electric breakdown of positive point plane gaps, NO_x, CO_2 and H_2O conc. effects 2−91698
air-water, two-phase flow through pipeline with gate valve and orifice plates 2−71020
air-water interface, heat and momentum transfer 2−91523
air-water system, flow in packed bed, heat transfer 2−109399
air-water two phase flow, surface effect on droplet deposition 2−55647
air/water turbulent mist flow, droplet deposition on flat plate 2−97514
alkaline, electrolysis, growth rate, departure radius and population of O_2 bubbles 2−99684
analysis by neutron activation and X-ray fluorescence methods 2−93848
aquatic environmental database and anal. system, power station appls. 2−78276
atmosphere, anomalous H_2O vapour absorption, implications for radiative convective models 2−106313
atmosphere, H_2O and NO_x seasonal conc. variations at stratopause 2−88956
atmosphere, obs. of stratosphere chem. composition 2−83890
atmosphere molecular clusters responsible for far IR spectral absorpt. 2−83940
atmosphere water vapour measurement, appl. of portable monitor for day or night use 2−106543
atmospheric vapour, weak absorpt. lines meas. by time resolved intracavity laser spectroscopy 2−63091
atmospheric water vapour content from radiometric meas. 2−117385
bipolar cell for advanced alkaline water electrolysis 2−99849
bleachable radiation absorber for Er^{3+}:YAG laser *(Russian)* 2−108919
boiling, critical heat flux determ. 2−60538
boiling, isolated nucleation sites 2−75841
Brownian motion, rot. transport, from light scatt. 2−89626
bubbly water flow past supercavitating wedge, compressibility effects 2−71008
cavitating lip, acoustic emission and sonoluminesc., dissolved gases effect 2−55622
cavitation induced by shock wave refl. 2−70999
Ceres, evidence for water of hydration in clay minerals, obs. 2−73888
channel turbulent flow struct., hot-film meas. 2−114900
chemisorption on Si (100) and (111), EELS study 2−87051
cluster ions, high mol. wt., form. in expansion of ionised gas mixtures 2−108760
clusters 2−90754
coadsorption with O_2 on Ru(001), vibr. and struct. props. 2−104150
in comets, photochemical heating of H_2O-dominated cometary atmosphere 2−112389
convective response of a mass of water near 4°C to a constant cooling rate applied on its boundaries 2−75960
cryofilm, IR optical props. 2−87883
crystallisation, grapevine tissue, possible mechanism of process, ^1H NMR obs. 2−111615
crystallisation in plant tissues 2−57783
deep water, weakly nonlinear steady gravity-capillary waves 2−91473
deep-water waves, instability and breaking 2−55600

water continued
dense, mol. interaction at high temp. 2−91746
desorption, IR laser-induced, from CaF_2 optical surface 2−115530
desorption and absorption on quartz glass ampoules during Ge chem. transport *(German)* 2−93440
dielectric properties, book on liq. state of matter 2−94930
dielectric thin film, thickness and refractive index determ. 2−82815
diffusion in fused SiO_2 and Fe-making slags 2−104072
diffusivity in soil rel. to bulk density, estimation method 2−78889
dimer, H-bonds, vibr. intensity, ab initio calcs. 2−85528
dimer form. kinetics in rarefied vapour streams 2−62395
dimers, environmental effects, self-consistent reaction field, CNDO/INDO calcs. 2−108384
dipole polarisabilities, mol. moments, HF approx. 2−108351
distilled, effects on microhardness and microbrittleness of crystallised-glass materials 2−99525
distilled water, attenuation coeffs. in 414-662 nm range, dual beam pulse laser method *(French)* 2−64126
distilled water, change in elec. cond. under influence of elec. explosion *(Russian)* 2−61424
drop, internal optical field induced by laser action at 0.69 μm, vapour bubble growth 2−97046
droplet, light backscatt. and glory effect visualisation 2−79308
droplet, partial-wave resonances for electric light scattering 2−75528
droplet drag in accel. and decel. flow 2−65666
droplets, light scatt. device for sizing and velocimetry using ring-shaped laser beam 2−95316
droplets, supercooled, reorientation during freezing on ice substrates 2−92162
droplets with insoluble absorbing cores, IR absorpt., heat prod. 2−112128
drops containing salt in high pressure steam environment 2−65472
electric breakdown props. in 1 kHz repetitively pulsed burst conditions 2−99042
electrolysis, electrocatalysts and separators for use in KOH and LiOH solutions 2−62407
electrolysis, solar generator performance with load matching 2−99792
electrolysis using solid polymer electrolyte 2−71715
electrons, low-energy, stopping power of liq. water 2−86765
equation of state, appl. to models of major planets 2−73878
equation of state and elec. cond. in 100 GPa shock press. range 2−92143
evaporation from capillaries, corona discharge field effect 2−114626
expanding vapour flows, cluster conc. determ., time of flight mass spectra 2−55002
film, air desorpt., cryotrapping vacuum pump appl. 2−86976
film and transient boiling, effect of porous coatings on heat exchange 2−60535
films, rewetting of hot dry surfaces, correl. for predicting quench front velocity 2−114622
flat duct flow, turbulent friction 2−71029
flow beneath stagnant film, Reynolds ridge form. 2−65604
flow boiling heat transfer enhancement with polymer additives 2−55567
flow in inclined channel, turbulence, stability eqn. 2−86341
flow in vertical channels, press. drop meas *(Hungarian)* 2−109436
flow through heated porous layer, evaporative cooling, temp. distrib. 2−65639
flows containing friction reducing additives, struct. 2−109292
fluid, in space between two structureless walls, Monte Carlo calcs. 2−115128
freezing rate, heat transfer, finite element anal. 2−55407
gas bubble behaviour and ohmic potential drop during water electrolysis 2−72989
gas bubble behaviour during water electrolysis 2−99685
glycerine-water, immersion of plane plate, natural convection 2−55566
glycerine-water, spreading kinetics over glass during selective wetting 2−66323
H_2 production by alkaline electrolysis of water, research progress from 1976-1980 *(French)* 2−105604
H-bonding, ab initio MO calcs. 2−80469
heat transfer in a horizontal tube at supercrit. press. *(Japanese)* 2−55577
heat transfer to air from a yawed cylinder, independence principle 2−55564
heated surface, free convection inception 2−81209
heptane-water-tetraoxyethylene glycol dodecyl ether, low water content, dielec. obs. 2−93830
homogeneous nucleation over range of temp. and supersaturation 2−103949
horizontal layer, turbulent thermal convection 2−55562
human body, total water determ. by ^3H dilution, use of saliva samples 2−100093
hydrodynamically stable-flow in annuli, burnout at varying heat inputs 2−91541
hydrogen bond systems, mag. field effects on proton transfer *(Ukrainian)* 2−104037
immobilised protein systems, ^2H NMR of water 2−67951
impinging jets, forced convection boiling, burnout heat flux 2−70935
interaction with Ti(001) surface, desorption study 2−87028
intermolecular pots., X-ray scatt. 2−86537
interstellar H_2O masers in W49N, rel. to distrib. of $^2\pi_{3/2}$ J=3/2 OH maser emission 2−79188
interstellar high-velocity H_2O masers, search in regions of star form. 2−74072
interstellar masers, associated IR sources, JKL obs. 2−94807
interstellar masers evolution 2−112541
IR spectroscopic props. of H_2O dissolved in some O_2 bases 2−80605
IR water vapour channel, METEOSAT obs. of vortex over Brazil 2−111992
isentropic compression, one-dimens. finite difference calc. 2−69194
isentropic compression, one-dimens. impact expt., finite difference simulation 2−69195
laminar boundary layers, heated, stability, minimum critical Reynolds number estimation 2−109272
laser breakdown mechanism in bombardment of water targets with CO_2 laser pulses 2−60367
liq., sound absorpt. mechanism, thermodynamic theory 2−81894
liquid, gaseous cavitation prediction, two-phase flow analogy 2−60590
liquid, H_2 pair correl. function meas. 2−103594
liquid, IR spectra, struct., continuous model 2−76273
liquid, pressure effects on struct. X-ray diffr. study 2−81657
liquid, refr. index press. and temp. derivatives meas. 2−116143
liquid, rot. correl. time, quadrupole coupling consts., PMR relax. study 2−85690
water continued
liquid, supercooled, permittivity meas., dielectric relax. time 2−66981
liquid water content of clouds, sensor calibration 2−89044
2,6-lutidine-water mixtures, wetting transition, capillary parameters meas. 2−71775
Mars, regolith-atmosphere exchange of H_2O and CO_2 rel. to atmospheric history and climate change 2−112367
Mars atmosphere, H_2O seasonal and global variations 2−89180
maser detection in Sharpless 106 molecular cloud, SHF obs. 2−101017
maser emission in southern galaxies, obs. of NGC 4945, NGC 253 and LMC 2−94852
maser outburst in Orion, nature and line profiles, model *(Russian)* 2−68877
maser search near H II region Sharpless 106, obs. 2−101012
maser source of water vapour line, interplanetary oscillations 2−100829
maser survey of Magellanic clouds, SHF obs. 2−79204
mean excitation energy physical state effect as determ. from α-particle stopping power meas. 2−81861
mesopause, H_2O concs. from nightglow emissions rel. to noctilucent clouds and radio wave absorpt. 2−112201
mesospheric water vapour absorption at 22 GHz and H_2O mixing ratio 2−63046
methanol-water mixture, Raman spectra, H-bonds 2−96579
microemulsions in organic media, dynamic light scatt. 2−93826
moderating effect on neutron flux meas., In foil activation method, Cd corrections 2−69996
molecular motion, activation energy temp. depend., pulse NMR method obs. 2−93024
molecular polarisability, ab initio HF calcs. 2−90449
molecule, anharmonic vibr. problem, soln. by var. method 2−113962
molecule, approx. HF wave functions, reduced local energy criterion 2−80452
molecule, coupled cluster singles and doubles method 2−54738
molecule, deuterated, rot.-vibr. spectra in 9160-9390 cm^{-1} region, rot. and centrifugal consts. 2−108497
molecule, double zeta pseudopotentials, pseudo-FSGO calcs. 2−102371
molecule, electron impact excitation 2−114119
molecule, energy and property optimisation, Gaussian basis set calcs. 2−70119
molecule, extended geminal models, electron correl. energy calc. 2−102398
molecule, force consts., pot. energy and derivative calcs. 2−108360
molecule, geometrical basis set calcs. 2−108353
molecule, geometry, force consts., test of new SCF method 2−108367
molecule, ground state, HF energy, corrections to an incomplete basis set 2−108366
molecule, inner-valence ionisation, satellite peaks, symmetry adapted cluster CI calcs. 2−64886
molecule, IR absorpt. lines, intensities, broadening coeffs. and press. shifts 2−59801
molecule, IR spectra, computer plots of normal modes depending on time 2−80611
molecule, LF motions in low temp. matrices 2−75272
molecule, local and normal vibr. state, harmonically coupled anharmonic-oscillator model 2−75231
molecule, localised atomic orbitals for atoms in molecules 2−54760
molecule, localised orbitals, rel. to Fermi hole 2−113877
molecule, microwave spectrum, use in atm. remote sensing *(Chinese)* 2−78886
molecule, normal coordinate treatment and force constant refinement in cartesian coordinates 2−113953
molecule, photodissociative channels at 1216 Å 2−111498
molecule, polarisability calcs. assuming additivity of atomic static polarizabilities and dispersion coefficients 2−85837
molecule, pot. energy of ground state, MCSCF and MR-CI calcs. 2−102396
molecule, search in Seyfert galaxy and 250 spectra, intervening galaxy constraints 2−74100
molecule, spectral line broadening and shift, Stark effect 2−108479
molecule, vertical ionisation pots. calc. by perturbation corrections to Koopmans' theorem 2−70445
molecule, vibr. spectrum, local mode degeneracies in higher overtone states 2−59782
molecule, vibr. struct., SCF calcs. 2−108365
molecule, vibr.-rot., quadrupole moment, g-factor, spin-rot., ab initio SCF calcs. 2−64867
molecule, wave-number calibration tables, 500-900 cm^{-1} region 2−113971
molecule 2−108555
molecule dissoc., pot. hypersurfaces calc. by unrestricted Moller-Plesset perturbation theory 2−93753
molecules in conc. aq. ZnCl solns., NMR and H^+ spin-lattice relax. 2−110674
muon spin resonance by strong pulsed RF field with pulsed muons 2−93096
muonium, detect. by pulsed muons 2−59973
near IR absorption spectrum, rel. to meteorological lidar developments 2−106335
neutron scatt., dynamic corrections, in free mol. approx. 2−109652
nonBoussinesq convective behaviour near maximum density 2−70951
nonlinear wave problems, Fourier method, appl. to solitary-wave interactions 2−75981
oil thickness variation on wavy water in the presence of wind 2−86292
optical breakdown threshold, temperature depend. 2−98156
oscillatory flow at 4°C past an infinite porous plate, hydromag. free convection effects 2−81401
perfluorosulfonate ionomer membranes, phase separation 2−86881
permeation, nonequilib., in SiO_2 thin films 2−92250
photolysis, effect of surface recombination on efficiency 2−99811
photooxidation, sensitisation by WO_3 powder 2−78116
photovoltaic water pumps developments and utilisation in developing countries 2−111563
proton small angle multiple scatt., lateral displacement 2−92053
Raman spectra, Fermi reson. band, association model 2−99120
Raman spectra in temp. range 75-295K 2−87773
Rayleigh-Benard convection, max. density region effects *(German)* 2−97546
refractive index measurement in 3 μm region 2−95444
resonant absorption by water polymers in the atmosphere 2−73651
S/I thermochemical water splitting cycle studies 2−99845

water continued
saline, laminar buoyancy-driven flow near melting ice surface, transport meas. 2−70901
saline, laminar buoyancy-induced flows near melting ice surface 2−70900
saturated liq. film, forced convection boiling heat transfer from cylinder 2−75952
saturated porous media, viscosity variation effect on convection 2−70944
self-vaporisation of water in porous media *(French)* 2−81940
Sharpless 106, bipolar nebula nearby H_2O maser, search for 20 μm source 2−68856
sheet jets issuing from slit nozzles; linear stability theory, appl. to fusion reactors 2−60602
shock front, laser-generated optical signal reflection 2−70491
shock waves, weak plane, regular refl. from free surface *(Russian)* 2−109367
shock waves generated by detonation of pentolite spheres 2−76558
shock-compressed, temp. meas. using pyrometer 2−89719
solar H_2 production using two-step-thermochemical cycles 2−83522
solitary surface wave, oblique interactions 2−97571
SOPHOCLE photovoltaic concentrator generator producing energy for water electrolysis cell 2−99795
spectroscopic and transport props., model calcs. and expt. results interpretation 2−91749
splitting, H_2 prod., thermochem. cycles 2−57743
Stokes waves, nonlinear diffr. by circular cylinder for arbitrary uniform depth 2−109339
stopping power of liq. water, density effect 2−86766
stratified solar storage for use in domestic scale systems 2−73155
structure, many-body effects 2−115126
structure, percolation theory appl. 2−63938
supercooled, mol. vibr., H bond enthalpy, Raman obs. 2−110839
supercooled, Raman spectra, H-bonds 2−61890
supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
supercritical pressure, heat transfer deterioration, flow direction and grooved surface effect *(Japanese)* 2−55576
surface gravity waves, evolution, effect of long internal waves 2−70972
tetramer, geometry, energetics and elec. props. 2−113878
thermal cond., high press effects 2−56269
thermal diffusivity, determ. by flash heating of three-layered cell 2−61217
thermally stratified buoyant flows, mixing and heat transfer study 2−70942
thermodynamic equilibrium of water-ice system *(French)* 2−69115
thermodynamic properties, Fortran library of subroutines 2−96098
thermodynamic props., ideal-gas 2−114963
thermodynamic props. STP computer code 2−96099
thermohydraulics in corrugated tubes 2−91427
thin film thickness meas. in two-phase flow by capacitance method 2−71045
thin slender jets 2−76007
trimer, geometry, energetics and elec. props. 2−113878
troposphere, O_2 and H_2O millimetre-wave spectra rel. to model for atmospheric reson. transmission 2−117394
two-phase flow obtained by injection of liquefied N_2 2−97675
ultrahigh-energy EM cascades development including LPM effect 2−73809
vapour, absorpt. spectra obs., AlGaAs laser freq. stabilisation appl. 2−60129
vapour, absorption spectrum, 9160 to 9400 cm^{-1} 2−54852
vapour, adsorption on Cr-Ni austenitic steel surface (100), AES studies 2−66343
vapour, CARS spectrum, temp. depend. meas. 2−85676
vapour, line parameters, IR tunable diode laser meas. 2−90530
vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., theory 2−80591
vapour absorpt. line shape, N_2 broadening, IR continuum absorpt., model 2−80592
vapour conc. in Venus atmosphere, Venera 13 and 14 meas. *(Russian)* 2−106582
vapour interaction with Ti film, elec. cond. and work function 2−66354
vapour lab. jet simulation of rocket plume, radiometric obs. of 752.033 GHz rot. absorpt. line 2−90520
vitrification of pure liq. water by high press. jet freezing 2−103952
W49N, H II region, H_2O maser maps, obs. 2−68914
water, natural convection across tilted rectangular enclosures, aspect ratio effects 2−114809
water-2, 6-lutidine binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
water-alcohol mixtures, cluster formation 2−55001
water-ethanol, solvated electrons, ESR and optical absorpt. study 2−66892
water-ethanol, supercooled, sound velocity anal., Brillouin light scatt. study 2−76597
water-isobutyric acid binary mixtures, elect. conductivity fluctuations near crit. point, flow effect 2−110408
water-oil (air) interfaces, phase transitions in monolayers 2−66324
water-oil microemulsion, dynamic scaling near critical phase transition point 2−115400
water-oil-nonionic surfactant system, phase inversion 2−93824
water/high-energy solid interface, adsorption of hydrocarbon, thermodynamics of displacement wetting 2−76780
water/Si boundary, leaky SAW rel. meas., by reflection acoustic microscope using line focus beam 2−104133
waterlike mols., fluid system Monte Carlo simulations, thermodynamic props. 2−65830
waves, drift vel. investig. 2−65602
waves, far field asymptotic behaviour and localised vorticity distrib. diffusion 2−114829
waves, finite amplitude, modulation theory 2−81351
waves, wind generated, laminar boundary layer flow model, nonlinear theory 2−114830
waves, wind generated, quasilinear approx. 2−73578
waves, wind-driven gravity-capillary waves, steady state distrib. 2−70970
$CaO-CO_2-H_2O$ system, high press. differential anal. 2−93756
D_2O, Raman spectra in temp. range 75-295K 2−87773
Fe, in natural waters, corrosion kinetics 2−99586
H^+ lifetime, temp. and density depend. 2−70282
H_2 production, sulphur-iodine thermochemical water-splitting cycle bench scale testing preliminary results 2−73156
H_2 production by H_2O electrolysis in alkaline media at intermediate temp. 2−99848
water continued
H_2 production by thermochemical decomposition of water using bench scale plant employing Mark-13 process 2−83521
H_2 production by water electrolysis using off-peak nuclear power, economics *(French)* 2−105603
H_2 production using solid polymer electrolyte water electrolysis 2−73157
HDO, hyperfine struct., beam maser meas., rot. transition freq. and deuterium quadrupole coupling tensor 2−80578
HDO in solid hydrates, Raman and IR intensity features of vibr. modes 2−108513
HDO vapour, absorption spectrum, 9160 to 9400 cm^{-1} 2−54852
H_2O 401 vibration relax. time meas. using acoustooptic laser spectrometer 2−85789
H_2O clusters, +ve and −ve, prod. using supersonic mol. beam source with β-emitter 2−90758
$H_2O \rightarrow O(^1D_g)+H_2(^1\Sigma_g^+)$, photodissoc., pot. energy surfaces, MRD CI calcs. 2−90636
$H_2{}^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
H_2O-alkaline earth dichloride systems, solid-liq. equilib., liquidus curve *(French)* 2−76643
H_2O-alkaline earth dichloride systems, solid-liq. equilib., diagrams *(French)* 2−76644
H_2O-Ar vapour, enthalpy of mixing, assoc. model 2−86886
H_2O-D_2O mixtures, neutron diffraction obs. at 25°C 2−109653
H_2O-D_2O-isobutyric acid, phase behaviour near critical point, phase diagram, scatt., ang. depend. 2−61119
H_2O-trichloromethane vapour, enthalpy of mixing, assoc. model 2−86887
H_2O+Ar, dissociative excitation, crossed mol. beam and luminesc. study 2−57602
$H_2O+Ar^+(He^+)(Ne^+)$, reaction rate consts. and branching ratios, kinetic energy depend. 2−93788
H_2O+Ba^+, cross section, mass spectroscopy 2−105464
$H_2O+CO_2 \rightarrow H_2CO_3$, hydration, theoretical models for activation by cationic binding sites 2−57600
$H_2O+D_2O \rightarrow 2HDO$ equilibr. const., by direct summation over rot. vibr. states 2−99663
H_2O+H, reaction rate enhancement, quasiclassical trajectory study 2−88338
$H_2O+HCO_3^-$, O isotope exchange, rate and equilib. factor 2−88350
H_2O+I^+, recombination, Monte Carlo classical trajectory method 2−111481
H_2O+Li_2O reaction surface, ab initio MO calc. 2−83368
$H_2O+Mg^{2+}(Ca^{2+})$ interactions pseudopotentials representation 2−75366
H_2O+NO, NO excited rot. levels, radiative lifetimes and electronic quenching rate const. 2−70343
$H_2O+O(^1D_2)$ quenching, $O(^3P_1)$ yields 2−105492
$H_2O+O(^1D) \rightarrow 2OH$, energy partitioning, OH rot. relax. 2−57601
$(H_2O)_2$, equilib. internuclear distance and interaction energy calc. using perturbative CI method 2−102399
$(H_2O)_2$, geometry and relative stabilities, exchange interactions effects 2−59883
$(H_2O)_2$, photoelectron spectrum, vertical ionisation energies 2−59856
$(H_2O)_2$, valence ionisation energies, CI calcs., photoelectron spectrum assignment 2−96463
$(H_2O)_2$-Li^+, vibr. intensity, ab initio calcs. 2−85528
$(H_2O)_8+D^+$, solvating collisions, trajectories calcs., mechanism 2−90654
$(H_2O)_n$ monolayer cluster on AgI hexagonal substrate, Monte Carlo studies 2−110140
HOD, LF motions in low temp. matrices 2−75272
$(H_2O)_nH^+$, collision-induced dissoc. using triple quadrupole 2−102678
H_2O...HF, H-bonded heterodimer, conformation, pot. energy function, from microwave rot. spectra 2−75253
HTO exposure, estimation of effective dose equiv. using T concs. in urine 2−117089
HTO in air, prototype monitor design and performance 2−78272
HTO in atmos., produced by Chinese nucl. bomb tests 2−100526
Hg, flow in vertical annuli, free convection heat transfer 2−55563
$Hg(ClO_4)_2$-$HClO_4$-H_2O, vibr., IR and Raman study *(Russian)* 2−87801
$(NH_4)_2SO_4$-H_2O-ethanol-benzene tricrit. mixt., thermodynamic model 2−56158
Ni-Cr stainless steels corrosion resistance in thermochemical cycle of hydrogen production using concentrated sulphuric acid 2−72863
^{226}Ra concentration in water, monitoring system 2−67925
$SO_4^{2-}+H_2O$ interactions, X-ray diffr. study in presence of Ni and Mg ions 2−78073
TiO_2-Be electrodes physical props. anal. during photoassisted oxidation of water 2−73127
U concentration meas. in water using solid state nuclear track detectors 2−67921

water boilers *see boilers*

water conditioning *see water treatment*

water cooling towers *see cooling towers*

water pollution
see also water pollution detection and control
L'Adour river, France, water quality study *(French)* 2−94415
Agfardlikavsa Fjord, W Greenland, seasonal water mixing 2−88892
aquifer in Kent, England, contamination by salt from coal mine 2−63005
Arctic Ocean, tritium in freshwater discharge from rivers 2−68354
artificial radioactivity in the North Sea 2−58085
N Atlantic deep water dumpsite 106, pollutant dispersal obs. 2−106144
Chao Phraya River estuary, Thailand, heavy metal pollution 2−93954
chlorinated waters distribution patterns in coastal areas, appl. of halocarbons as tracer substances 2−111604
Columbia River, Washington, USA, radioactivity due to upstream reactors 2−57745
contaminant dispersion in turbulent shear channel flow, estuary modeling 2−81396
Denmark coastal waters, pollution by heavy metals 2−78698
La Dordogne river, France, water quality study *(French)* 2−94415
fallout radionuclides in fluvial-marine systems, transport mechanism for ^{210}Pb, ^{137}Cs, and Pu 2−99856
flow, numerical anal. of transport phenomena, seawater intrusion example 2−106159
groundwater rel. to surface water contamination 2−62512
Gulf of Aqaba, phosphate pollution of sediments studied by U concs. 2−68390
Gulf of Thailand, waste dispersion 2−78263
Gulf of Venice, Italy, surface sediments heavy metal pollution 2−63099
Hudson River, PCBs in tidal sediments 2−62509

water pollution continued
N.Ireland, fertiliser nitrate concs. in rivers 2−67899
Irish Sea, ^{137}Cs pollutant concentrations 2−105608
Lake Erie, effect of generating station discharge on water temps. 2−88918
Lake Erie, Long Point Bay pollution rel. to watershed land use 2−83854
Lake Erie, survey of discharges from natural gas drilling operation 2−111595
Lake water quality of Long Point Bay 2−83855
Ligurian Sea, Italian coast, trace metals in sediments 2−83527
limnic ecosystems, water quality models 2−73608
longshore dispersion of pollutants over flat beach 2−117358
Lough Neagh, Northern Ireland, anthropogenic changes in sedimentary flux of Mg, Cr, Ni, Cu, Zn, Hg, Pb, and P 2−105609
marine primary productivity inhibition by atmospheric particulates 2−62524
models and movement (book) 2−53441
Mono Lake, California, chemistry of elevated Pu concs. 2−94408
Mono Lake, California, concs. of fallout and natural radionuclides 2−94407
southern North Sea, Cu, Zn and Cd concs. 2−78699
oceans, distrib. of anthropogenic CO_2 in Atlantic and Southern Oceans 2−88910
oil pollutants effect on remote radiometric results of water temp. meas. 2−62513
oil pollution from Ixtoc I blowout (Gulf of Mexico) 2−100400
oil slick dispersal by evaporation, theory 2−106147
oil slick-open water temp. contrast *(Russian)* 2−117359
Olympic National Park, Washington, USA, pollutant monitoring results 2−99854
petroleum hydrocarbons in the Arctic ocean surface water 2−93952
Puget Sound sediment azaarene content 2−111966
radioactive contamination of Atlantic, N.Sea, Mediterranean, Black Sea 2−117363
radioactive liquid effluents, collective dose commitment to UK population 2−105839
radioactive pollution of sea, study of dispersal processes *(German)* 2−100401
radioisotopes, environmental movement, sensitivity anal. of model 2−73173
Ravenglass estuary, surface sediments, γ-emitting fission products 2−83528
river water quality data, interactive data management system 2−58095
river water quality modelling, random differential eqns. 2−78264
world rivers, C,N, and P transport, review 2−106148
rivers, transverse mixing models, parameter identification 2−58096
rivers in Canada and Japan, methylmercury/Hg ratios 2−93955
W Scheldt estuary, Belgium, water quality study 2−105612
sensitivity analysis for transport of radionuclide in a groundwater flow system 2−93953
Lake St. John, Quebec, Canada, temp., chemistry and water quality *(French)* 2−88916
volcanic ash pyrolysis of plant material affecting water composition 2−106051
CO_2 buildup in N.Pacific due to fossil fuel combustion 2−78697
^{14}C, projected estimate of biosphere content due to nucl. power programme 2−62526
Hg in Saguenay Fjord sediments, 1940-76 chronology 2−62511
Hg in seawater around Japanese archipelago 2−62510

water pollution detection and control
see also water treatment
aromatic compounds, simple, struct. luminesc. in matrices, environmental anal. appls. *(German)* 2−80720
chlorinated waters distribution patterns in coastal areas, appl. of halocarbons as tracer substances 2−111604
coal conversion, liquid and solid waste, pollution control technology 2−67804
electroplating waste water in-stream neutralisation, meas. and control aspects *(German)* 2−105610
extraction/gas chromatography technique 2−93973
gamma-(X)ray emitting radioisotopes, produce for monitoring contaminated low level water *(Japanese)* 2−67924
hair, human, heavy metal pollution monitoring, by neutron activation anal. 2−57666
industrial effluents electrochemical treatment *(French)* 2−88486
ion chromatography anal. of power station water and effluent *(German)* 2−93844
isotope hydrology of shallow alluvial aquifer Han R. Valley, near Seoul 2−58092
marine radionuclide distribution from towed sea-bed spectrometer 2−116860
Peconic River, anthropogenic radionuclides, behaviour and transport 2−57746
phenolic wastewater, purification by parametric pumping, nonequilib. dead volume model 2−83526
rivers, pollutant discharge site, position for optimum dispersal 2−57744
technology development and tracers appl. 2−67923
thermoexoemission detectors for monitoring rad. contamination of effluents 2−116857
trace pollutants determ. in urban snow using PIXE techniques 2−67910
urban waste water transportation system, modelling and simulation 2−73180
waste water from citric acid production, radionuclide X-ray fluoresc. anal. 2−78164
X-ray fluoresc. tracers development for pollutant path tracing in small water system 2−67909
B, determ. in coastal seawater, coulometric method 2−99855
^{137}Cs, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
^{226}Ra concentration in water, monitoring system 2−67925
^{226}Ra in water, development of a continuous monitor 2−67911
Rn concentration meas. in air and water using Kodak LR-115 track detector 2−67914
^{90}Sr, conc. in Baltic Sea and Skagerrack (summer and autumn 1979) 2−105611
Th ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908
U in sea, lake and spring water, fission track determ. 2−67922
U ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908

water purification *see water treatment*
water supply
see also dams
L'Adour river, France, water quality study *(French)* 2−94415
Agano irrigation water system, centralised monitoring and control system *(Japanese)* 2−73601
design of a commercial solar-powered greenhouse with irrigation water from saline water sources 2−67825
La Dordogne river, France, water quality study *(French)* 2−94415
drought forecasting, Yakima Valley 1977 case 2−74193
energy consumption in Israeli industry and agriculture 2−83442
future availability and economics prospects review *(French)* 2−57673
multiple-effect solar distiller for fresh water supply, design features 2−67831
stochastic modelling, pipeline processing on AP120B 2−111971
water-energy model, regionalisation scheme 2−67848
water treatment
see also desalination
boilers in industrial plants, CO_2 corrosion in water/steam cycle *(Hungarian)* 2−99589
electroplating waste water in-stream neutralisation, meas. and control aspects *(German)* 2−105610
industrial effluents electrochemical treatment *(French)* 2−88486
sewage treatment plants energy consumption, absorption heat pump utilisation of energy yielded *(German)* 2−88410
urban waste water transportation system, modelling and simulation 2−73180
watthour meters
see also power measurement
No entries
wattless power *see reactive power*
wattmeters
see also power measurement; volt-ampere meters
laser, calorimetric, thermocouple sections selecting system 2−81007
sampling wattmeters, principles and theory of operation 2−79612
wave equations
see also Dirac equation; Schrodinger equation
acoustic and EM oscills. theory, integral eqn. methods for boundary-value problems *(German)* 2−101189
acoustic impedance condition for ondulated boundary 2−86140
affine algebra $C_2^{(1)}$, Hirota-Satsuma 2−74232
asymptotic solutions of linear partial differential equations 2−107122
Benjamin-Ono eqn. direct linearisation 2−107108
Benney's eqns., linearisation 2−89545
bion, theory in one-dimens. sine-Gordon system, quantum statistical mech. 2−53662
boundary value problems 2−114495
Boussinesq eqn., classical, exact. soln. 2−107116
Boussinesq equation, similarity solns. 2−84453
charged spin-1 particle, relativistic wave eqn. *(Russian)* 2−74620
classical dynamical systems, Green's functions 2−58601
computability from initial data 2−95059
coupled gravitational and magnetic waves, propagation through magnetised plasma and dust 2−112767
coupled nonlinear wave equation, symmetries and conservation laws 2−112717
disordered 1-D anharmonic chain, soliton dynamics, Korteweg de Vries model 2−107121
dual Hamiltonian formulations and completely integrable systems 2−107104
dyadic Green functions for time depend. wave eqn. 2−95034
dynamic thermoelasticity with two relax. times, three-dimens. soln. 2−79363
finite dimensional wave eqns., associated Lie algebras, Lorentz invariance 2−53932
Hamiltonian systems, integrable, canonical coords. 2−74261
Helmholtz equation, transform. soln. method 2−63825
inhomogeneous Helmholtz eqn., vol. integrals of ellipsoids 2−84459
integrability by Estabrook and Wahlquist method 2−107106
integrable Hamiltonian systems 2−107105
integrable systems symplectic struct. 2−107112
integrals of the test wave Hamiltonian: a special case 2−107110
intrinsic characterisation of orthogonal R separation for Laplace equations 2−107118
inverse scattering for one-dimens. Stark effect, appl. to KdV eqn. 2−84449
K de V eqn., Lax operators 2−112718
Kirchhoff type equations and multivalued functionals 2−95135
Klein-Gordon equation, ground-state logarithmic perturbation theory appl. 2−64889
Klein-Gordon equation, high-energy asymptotic expansion and Regge trajectories for even power pot. 2−95599
Korteweg de Vries eqn. with space dependence, Lie-Backlund transformation and Painleve transcendent calc. 2−101177
Korteweg de Vries equations, coupled, integrability 2−74268
Korteweg de Vries system, recurrence, theoretical and expt. study 2−101175
Korteweg-de Vries eqn., and functions, Gaussian series, periodic solns. 2−53533
Korteweg-de Vries eqn., conservation laws and symmetries, explicit formulae 2−58628
Korteweg-de Vries eqn., cylindrical, scale and Bucklund transformations calc. 2−101178
Korteweg-de Vries eqn., inverse scatt. transform., alternative representations 2−107115
Korteweg-de Vries eqn., Lie-Backlund symm., rel. to sine-Gordon eqn. 2−53936
Korteweg-de Vries eqn., soliton solns., elec. transmission line expt. study 2−74228
Korteweg-de Vries eqn. and cylindrical eqn., reduction to Painleve eqn. 2−74226
Korteweg-de Vries surfaces and Backlund curves 2−101181
Korteweg-deVries-Burgers generalised eqns., group analysis 2−53510
Kortweg-de Vries eqn., infinite charge set, conservation 2−53534
Kortweg-de Vries eqns., direct linearisation 2−107109
linear relativistic wave eqns., non locality, gauge invariance 2−69316
massless fields, wave eqns. 2−59044
Mel'nikov condition derivation for appearance of homoclinic points 2−69027
membranes, oscillations, wave equations 2−69005

wave equations continued
meson and glueball masses from one-parameter pot. and relativistic wave eqn. 2−84849
mixed wave-equation problem, solution *(Russian)* 2−76021
multiparabolic approx. technique for graded-index opt. fibres 2−96842
multiple-pole solutions of the modified Korteweg-de Vries equation 2−84451
multiplicity of states in shells of equivalent fermions 2−84527
near-integrable systems with damping, adiabatic invariants theory 2−101184
nonlinear equations, Galerkin method of approx. soln. 2−107111
nonlinear evolution eqns. integrable by Z_2-graded quadratic bundle 2−101179
nonlinear evolution equations, group representations 2−69323
nonlinear group representations and applications to nonlinear equations 2−101605
nonlinear wave eqn. invariant in Poincare group, solns. *(Russian)* 2−89549
nonlinear wave equation 2−79377
nonlinear wave equations, existence of nontrivial periodic solutions 2−69026
nonlinear weakly negative dispersive medium, two-dimensional wave local energy decay 2−95026
numerical solution of mixed problem for two-dimensional wave equation *(Russian)* 2−95118
photons and electrons, wave function eqns. 2−113200
quark and meson fields, dynamic theory 2−95789
reciprocally invariant electrodynamics on quantum space-time 2−74640
reduced one-dimensional wave equation, spectral theory 2−107122
relativistic first-order wave equations, lower bound on minimal degree of matrices 2−101523
relativistic systems on phase space, procedure for quantisation 2−95583
self-dual Kerr-Schild metrics and null Maxwell fields 2−95157
sine-Gordon eqn., generalised time-depend., kink product solutions 2−89544
sine-Gordon equation, infinite charge set, conservation 2−53534
sine-Gordon equation, Lie-Backlund symm., rel. to Kortweg-de Vries eqn. 2−53936
sine-Gordon equation, radially symm. solns., solitary ring wave propag. 2−53538
sine-Gordon soliton kinks, wave mechanics 2−101186
sine-Gordon system, two-dimens., vortex solns., phase transitions and Josephson junction appl. 2−69028
single integral eqn. for wave scatt. 2−95035
singularities of solutions of semilinear wave equations 2−95032
sloping beach, conservation laws for shallow water waves 2−117326
$SO_{2N,2}$ covariant spinor wave equations, conformal covariance, imposition of cone condition 2−113119
soliton solutions, Backlund transformation vs. the dressing method 2−74230
soliton statistical mechanics, path-integral approach 2−101187
solitons, charge and momentum carrier role in conjugated polymers *(French)* 2−53540
spheroidal wave eqn., collective and global props. 2−107120
stationary phase method modification criticised 2−89543
supersymmetric relativistic spinning particles, scalar interactions 2−113114
time-independent elastic wave eqn., parabolic approximation 2−65503
transformation groups for soliton eqns. 2−84455
two-dimensional Korteweg-de Vries eqn., symmetries 2−107114
van der Pol type nonlinear wave eqn., stable self-excitation anal. 2−58656
Volterra equation, extended, soliton solns. 2−74227

wave functions
see also orbital calculation methods
1/f noise and diffraction, unified treatment 2−101494
A=6 nuclei structure in α+2N model, ground and excited states variational study 2−79948
acetylene-derived radical, lowest-lying doublet states, MCSCF CI wavefunctions calcs. 2−96465
alkaline earth atoms, two electron Rydberg states 2−70160
alpha reduced widths nucl. dynamic effects 2−113426
angular momentum on lattice 2−107170
atomic excited states classification and calculation 2−85568
atomic inelastic scattering, angular momentum in intense laser field 2−80785
atoms, momentum space wave function estimation 2−96417
$B^3\Pi(0_u^+)$ state, spontaneous predissociation 2−80746
baryon-baryon and pion-deuteron scatt., reson. 2−69481
baryons and dibaryons, colour elec. instabilities 2−101816
Bloch electrons in mag. field, dimensionality and props. of wave functions 2−76880
bond-orbital wavefunctions, bonding, charge transfer, UB anal. 2−64851
boson and fermion wave function classification by Lie superalgebra chains *(Chinese)* 2−95692
bound states, quantum light calcs. using Schwinger var. principle 2−102369
bound-muon decay, expressions for electron spectra 2−69462
charged spin-1 particle, relativistic wave eqn. *(Russian)* 2−74620
cluster energies and wavefunctions, CI and CCD calcs. 2−80494
composite system on a light front, vector of state angular condition *(Russian)* 2−69055
Compton profiles, profile analysis using plane wave approx., non-impulse effects 2−108655
conjugated π systems, charge and spin correl. structs., full CI wave functions anal. of PPP Hamiltonian 2−80496
Coulomb and atomic wave functions, relativistic recoil and spin corrections 2−85523
Coulomb-modified nucl. scatt. 2−113427
curved space time, wave function in classical gravitational field 2−84487
deformed nuclei, interacting boson approx. wave functions and transition rates 2−54284
deuteron-nucleus collisions, projected three-body theories 2−85066
diatomic molecules, restricted and multiconfiguration HF eqns. soln. 2−108332
electret state, induced polarisation paramagnetism 2−110749
electron densities in search of Hamiltonians 2−112739
energy-independent nuclear optical pot. props. 2−54337
equations of motion method, theory *(Russian)* 2−53593
exlusive processes in QCD 2−54091

wave functions continued
Faddeev eqns. for finite-range forces, additional reduction *(Russian)* 2−54274
false vacuum decay and density of states in random, repulsive pot. 2−84476
formaldehyde, π^*-n phosphoresc., spin-orbit interaction 2−80713
four-dimensional space, homogeneity and isotropy consequences *(Russian)* 2−79405
Green's functions for the rapid computation of nonrelativistic wave functions 2−112738
hadron interferometry, dynamics vs. symmetrisation 2−53661
Hamiltonian lattice gauge theories, gauge-invariant variational methods 2−95627
heavy mesons exclusive decay study 2−101706
heavy-ion fusion cross section, frictionless formula, nucl. structure effects 2−107879
heterojunction between 2 semiconductors with different effective mass, wave function connection rules 2−110463
Hulthen potential, non-zero ang. momentum states, analytic approx. 2−95099
inelastic electron scatt. form for 2^+ states excitation in $1f_{7/2}$ nuclei 2−54361
integral dependent spin couplings in CI calculations 2−80499
interacting boson, model, description of nucl. deform. effects 2−95945
interacting boson mode wave functions calcs. 2−95940
intermediate energy nuclear reactions by p, d, α on light ions 2−54371
intrinsic charm model, 5-quark wave function calc. 2−101670
intrinsic RPA HF state, approximate ang. momentum projection 2−74738
inverse scatt. problem nonuniqueness and presence of E=0 bound states 2−84478
K-electron capture shakeoff probabilities calc. using Dirac-Fock-Slater wave functions 2−85003
k.p interpolation scheme 2−116296
lepton spectrum inducing pot., elementary construction 2−84870
level crossings, master eqn. 2−54348
linear relativistic wave eqns., non locality, gauge invariance 2−69316
Lippmann-Schwinger eqn., uniqueness of scatt. wavefunction 2−95107
liquids, radiolysis, o- and p-H_2 prod., spin correl. effects 2−99697
low-energy direct nuclear reactions, resonating group method 2−54345
Lowdin spin-adapted wave functions, recurrent const. 2−112725
mesic molecules, adiabatic expansion conversion in three-body problem *(Russian)* 2−59980
methane, approx. HF wave functions, reduced local energy criterion 2−80452
momentum density maps for molecules 2−108347
Morse rotating oscillator, energies, wave functions and matrix elements 2−80764
multiple scattering model, interstitial integrals 2−108342
multiplicity of states in shells of equivalent fermions 2−84527
N=z nuclei, mag. moments of T=0 states 2−79946
negative ions, anal. radial orbitals, Groups II, III and IV 2−64868
nonrelativistic coloured constituent quark models, explicit gluonic components in multiquark wave functions 2−95752
nonrelativistic quark model, momentum depend. effects, beyond wave function at origin 2−69432
nuclear matter single particle wave functions of σ-τ phases 2−79964
nuclei with N=Z, HFS method parameters calc. in relativistic model *(Russian)* 2−90032
nucleus-nucleus pot., various exchange contrib. degree of nonlocality 2−54270
open shell systems, average occupation number in SCF process 2−102368
Pade type variational functions, convergence behaviour 2−85521
paired electrons in mag. field, wave functions, many-electron approx. 2−95061
photons and electrons, wave function eqns. 2−113200
polyatomic mols., high-lying vibr. states, statistical wavefunction method calcs. 2−90495
polyatomic vibr. excited mol., coupled Morse oscill., energy spacings and wave functions 2−80508
potential energy gradient derivation for arbitrary electronic wave function 2−80761
Preedom-Wildenthal interaction, central and noncentral component effects 2−95936
QCD, quark model pion and Goldstone pion 2−54096
QCD at nucl. dimensions, book contrib. 2−113221
quantum mechanics, probability rule derivation 2−95103
quarkonium, relativistic correction to dipole decay amplitudes 2−95842
quasielastic electron knockout in atoms, molecules and solids, wave functions 2−102630
rearrangement scattering unified theory 2−54340
relativistic systems on phase space, procedure for quantisation 2−95583
resonances, complex coordinates theory 2−79392
ring π systems, covalent states, UHF wave functions 2−102362
Rydberg series, spectrum anal. from MQDT, computer program 2−64905
SAMO method, comparison with transferability of atomic potentials method 2−108344
SCF convergence tests of coupling operators 2−75169
Schrodinger eqn. exact soln. for particle in tetrahedral box 2−95065
Schrodinger wave functions, mass depend. for exponential pot. 2−112734
Schrodinger wave functions, perturbation expansion coeffs., recurrence relations 2−53565
second-order perturbation energy, calc. from external double excitations, CASSCF calcs 2−64887
self-consistent meson fields with vanishing expectation values 2−84963
semiclassical Wigner function, pure state condition 2−58648
semiinfinite crystals, Wannier-Mott excitons, wave functions and normal-incidence refl. 2−82244
short-range correl. on one- and two-body props. of nuclei 2−54266
single-particle currents in the cranked harmonic oscillator model 2−90027
spectrum generating algebra and closed form expression for r^k-radial Coulomb matrix elements 2−95041
spin adapted many-electron wavefunctions *(Russian)* 2−53592
stochastic phase space formulation and non-potential interactions 2−95051
superconducting condensate, invariant system, macroscopic wave function 2−115942
supersymmetric dual string theory, loops and renormalisation 2−89952
tachyons, spin zero, wavefunction transforming as scalar field imaginary mass system, reduction 2−95591
4-thiouracil triplet state, zero field splitting, EHT MO calc. 2−108390

wave functions continued
time-dependent linear and quadratic potentials, propagators calc. using inverse Weierstrass transform 2−101216
two-electron atoms, variational method for three body problem 2−108336
vector mesons, with natural J^{PC}, unified Bethe-Salpeter wave functions, mass 2−74609
virial theory, boundary conditions for wave functions approx. 2−69037
β decay, orbital K-electron shakeoff 2−54325
(γ,π) on ^{6}Li, ^{12}C, ^{24}Mg, ^{28}Si, ^{40}Ca *(Russian)* 2−90089
$\gamma N \rightarrow (J/\psi)X$, momentum distrib. for inelastic J/γ photoproduction in QCD 2−54177
$\gamma N \rightarrow c\bar{c}X$, charmed particles photoproduction cross section, valence gluons contrib. calc. *(Russian)* 2−74696
μ^- inclusive capture rate calc. in heavy nuclei 2−101881
$\mu^- p \rightarrow \mu^- J/\psi X$, deep inelastic heavy reson. prod., azimuthal depend. 2−101737
(p,α), microscopic form factor for DWBA anal. 2−54374
$(\vec{p},\pi^+)$, relativistic one nucleon model description for reaction mechanism 2−80009
pp, 50 GeV/c, elastic scatt. at CERN SPS, quark multiple scatt. model 2−84918
$(\pi^+,^3He)$, pion-induced fission study in model using harmonic oscillator cluster wave functions 2−80038
π, wave function and EM form factor, large momentum behaviour, QCD and renormalisation theory 2−59148
$\psi \rightarrow \eta(\eta')\gamma$, pseudoscalar mesons mixing in $SU(3)_c$ quark-gluon model 2−54145
^{27}Al(^{6}Li,^{6}He), 34 MeV, microscopic DWBA anal. 2−90132
Ar, electron impact excitation near-threshold 2−96738
Au, alpha particle stopping cross section at energies below 3 MeV 2−66085
^{10}B$(\gamma,\pi^+)^{10}$Be, differential and total cross section calc. 2−85023
BaI, hyprfine struct. in 6p5d configuration and isotope shifts in transitions 6s5d-6p5d, fluoresc. spectra 2−96758
Be atom, idempotent density matrices from X-ray diffr. struct. factors 2−54752
Be, atomic excited states, wave function determ. 2−85568
Be-like ions, configuration interaction wavefunctions for spin-orbit electric dipole transitions 2−96497
^{8}Be nuclear cluster structure and α-α elastic scatt. unified study 2−95948
^{A}Bi, A=203, 205, in-beam studies and shell model features 2−113394
CI, term energies and oscill. strengths, Thomas-Fermi Hartree Fock calcs. 2−80459
CO, CI and coupled cluster approx. relationship 2−59710
^{12}C(t,p)^{14}C, 18 MeV, ground and 6.59 MeV 0^+ states 2−54406
^{40}Ca(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
^{48}Ca(p,p′), 44.4 MeV, 10.212 MeV 1^+ state excitation 2−69658
Cu, alpha particle stopping cross section at energies below 3 MeV 2−66085
Cu complex, Cu(2,5-diphenyloxazole)$_2$$(ClO_4)_2$·4$H_2O$ ground state wavefunction and EPR 2−82702
GaP-AlP(100) superlattice band struct. 2−110460
H oscillator, four-dimens., wave function expansion 2−85516
H_2, doubly-excited states, correlated prolate-spheroidal wavefunction 2−54743
H_2, electron scattering, energy unresolved differential cross-section calcs. 2−102623
H_2, one-dimensional molecule, δ-function interactions and wave functions 2−79317
H_2^+, energy values in superstrong mag. field, adiabatic approx. 2−59724
H_2^+ ion, mol. struct., scatt. theory calc., convergence props. 2−54751
HCl, electronic struct. and photodissoc. 2−102376
H_2O, approx. HF wave functions, reduced local energy criterion 2−80452
$H_2^{16}O$, self-broadening coeff. of lines belonging to $2\nu_2$, ν_1 and ν_3 bands, meas. and calc. 2−54897
^{2}H, asymptotic D to S state ratio determ. from sub-Coulomb (d,p) meas. 2−84964
^{2}H form factor, six-quark structure 2−95913
^{3}H, photoeffect moments calc. using hyperspherical harmonics formalism 2−59240
He, ground state, struct., exact 1-electron model 2−80445
He, ground state, wave functions, variational marginal amplitudes 2−80414
He I and isoelectronic sequence, Fock expansion for S-states, first terms *(French)* 2−54762
He isoelectronic series, energy and transition probabilities correl. wavefunctions calcs. 2−113874
He, relativistic wave functions for non-penetrating Rydberg states 2−80510
He, S, P, D states, mass polarisation effect and oscill. strengths 2−59697
He^-, double excited states 2−70156
^{3}He(π^-,π^0), T_π=200 MeV, differential cross section meas. 2−54447
^{4}He, nucleon-trinucleon overlap function parameterisation and meson exchange corrections effect 2−113377
^{4}He(p,2p)^{3}H, 250,350,500 MeV, energy sharing spectra, coplanar symmetric and quasifree ang. distrib. 2−54391
Li atom, idempotent density matrices from X-ray diffr. struct. factors 2−54752
Li, relativistic wave functions for non-penetrating Rydberg states 2−80510
(^{6}Li,d) on ^{26}Mg, ^{27}Al, ^{29}Si, ^{31}P, 36 MeV, cluster representation of ^{6}Li and finite-range DWBA anal. 2−64439
^{6}Li, alpha-deuteron structure prediction by three-body models 2−84982
^{6}Li, cluster model description of structure 2−84981
^{6}Li, sum rule for bremsstrahlung cross section in resonating-group method 2−54248
N, transition in fourth spectrum 2−96472
^{14}N$(\gamma,\pi^\pm)^{14}$C, charged pions threshold photoproduction study 2−95988
Ne, atomic excited states, wave function determ. 2−85568
Ne ion, 1s2s2p^N configuration, Auger transition 2−85605
^{20}Ne, low-lying state wave functions, realistic Hamiltonian, from (p,p′) 2−84965
^{16}O(^{16}O,X), complex heavy-ion optical pot., double-folding calc. 2−54421
^{16}O$(\gamma,\pi^+)^{16}$N, differential and total cross section calc. 2−85023
^{17}O, magnetic form factor, higher order effects 2−54255
^{208}Pb(p,t)^{206}Pb, sequential pick-up mechanism in 3^+ transition 2−69662
Rb, electron impact excitation 2−70427
^{A}Se(d,^{6}Li)Ge, A=74,76,78,80,82, 45 MeV, first excited 0^+ states in Ge isotopes 2−74733
^{28}Si(^{6}Li,^{6}Li), elastic scatt., cluster-folding model anal. 2−85068
Sm, tensor polarisability determ. by quantum beat spectroscopy 2−59744
wave functions continued
Yb, tensor polarisability determ. by quantum beat spectroscopy 2−59744
^{A}Yb, A=161, 163, 165, 167, rotationally perturbed wave functions test 2−79959
^{90}Zr, total weight of six-quark drops 2−79961

wave mechanics
see also wave equations; wave functions
Bohr collective Hamiltonian, general soln. 2−101825
de Broglie wave, rel. to EM and gravit., stochastic electrodynamics calc. 2−89590
double well Hamiltonians, twisting trick 2−107139
heavy molecule translational relaxation in low-density light gas, quantum effects 2−114081
quantum ray equations 2−107153
scalar fields, relativistic aspects *(French)* 2−74266
wave packets semiclassical mol. dynamics 2−89560
Wigner-Eckart theory, wave mechanical formalism, teaching 2−63778

wave power generation
Bristol cylinder design and performance 2−88405
Queen's University wave energy project 2−105531
regenerative energy sources−potential and limits *(German)* 2−73046
renewable sources of energy for electricity 2−88400
Salter's duck wave energy device in extreme waves 2−78240
Salter's nodding duck scheme *(German)* 2−67817
UK research, Government funding for sea trials 2−73063
wave energy devices, multiple scatt., plane-wave approx. 2−99759

wave propagation
see also acoustic wave propagation; electromagnetic wave propagation
acoustoelastic effect of thickness oscillations 2−91363
asymptotic solutions of linear wave equations 2−107122
bar, reinforced composite material, cylindrical non-stationary wave propag. *(Russian)* 2−75887
Benjamin-Ono equation nonlinear self-modulation problem 2−107117
boundary and interface problems in regions with very rough boundaries 2−63829
bruce, J.W. Giblin, P.J. Gibson, C.G. (Dept. of Pure Math. Univ. of Liverpool, Liverpool) 2−79379
chaotic behaviour of nonlinear evolution equation with fifth order dispersion 2−112715
conical shell, axisymmetric wave propag. 2−109105
dayside magnetopause, ion trapping boundary and longitudinal standing waves 2−63173
diffraction pattern dislocations for continuous waves and pulses 2−101182
diopter, microlocal parametric defn. *(French)* 2−79375
directional cylindrical waves, non-linear propag. 2−53530
dominant modes in tunnels, propag. characts. 2−89547
elastic wave diffraction, boundary method, seismic SH wave scattering appl. 2−88764
elastic wave diffraction, in multiply-connected hexagonal anisotropic layer *(Ukrainian)* 2−114706
finite lines, wave propag., evanescent wave and cutoff frequency *(French)* 2−74233
glass fibres, optical soliton amplification and reshaping 2−97210
hereditary-elastic body, waves, propag. of discontinuities 2−60456
hyperelastic multilayer media, nonlinear waves stability 2−114709
hyperelastic rods, varying cross-sections, accel.-wave propag. 2−84460
inhomogeneous dispersive media, intensity calc., ray approx. 2−53537
inhomogeneous elastic media, move scatt. 2−101188
long wave reflection by planar interfaces 2−95025
microlocal parametrics in ellipic and mixed regions *(French)* 2−79376
monomolecular layers, insoluble, dynamical props. under press. *(French)* 2−62646
multiple scattering and waves in random media, conf., Blacksburg, VA, USA (March 1980) 2−63745
nonlinear dispersing inhomogeneous media, nonlinear problem sol. near caustic, high-freq. asymptotics 2−79374
nonlinear media, wave propag., differential eqns. charact. forms 2−89548
nonlinear waves, theory, Tamm-Dankoff method 2−107123
nonlinear weakly negative dispersive medium, two-dimensional wave local energy decay 2−95026
pair summator eqns. with kernels in form of Bessel functions, solution 2−95029
periodic system of inhomogeneous slabs, wave propag., 4-parameter formulae 2−84458
periodic system response to moving load, free-wave propag. eqns. 2−55491
piezoelectric crystal plate, anisotropic, spatial elastic vibrs. and normal waves *(Ukrainian)* 2−81274
plane 1-dimens. wave propag. in variable and const. viscosity media 2−79378
plastic wave, 1-dimens., propag. in medium with linear and discontinuous unloadings 2−81276
plate, elastic pulses propag., epicentral responses, acoustic emission mechanism 2−91310
plate, elastic pulses propag., general responses, acoustic emission mechanism 2−91311
plate, elastic pulses propag., point source models w.r.t. acoustic emission mechanism 2−91309
random media, functional methods for waves 2−63827
random systems, wave propag. and transport problems, hopping cond. 2−66520
reduced one-dimensional wave equation, spectral theory 2−107122
relativistic hydromagnetic wave propagation and instability in an anisotropic Universe 2−89131
rough surface, coherent multiple scatt. 2−63828
scattering theory and diagnostic applications 2−63830
seismic head waves propag. at curvilinear refracting boundary, inverse kinematic problem 2−105992
seismic Rayleigh wave transmission through vertical contact, calc. via improved version of Alsop's method 2−117237
seismic reflected-diffracted waves in crustal fracture zone model 2−83750
seismic refracted wave travel-time curve inversion theory *(Russian)* 2−105960
seismic SH wave scattering by surface irregularities, boundary method appl. 2−88764
seismic wave propag. in wet granular media *(Chinese)* 2−105936
seismic wave propagation, method of Richardson extrapolation in ray problem 2−73476
seismic wave propagation, refl.-refr. of general P- and SV-waves in elastic and inelastic solids 2−105955

wave propagation continued
seismic waves meas. of intersection phase and group vels. and Q-factor using Wiener filtering 2−88748
self-oscillating wave propag. along strip, anal. 2−53539
sine-Gordon equation, radially symm. solns., solitary ring wave propag. 2−53538
sparsely populated media, coherent wave propag., Foldy-Twersky integral eqn. 2−65142
spatial stochastic systems theory and appl. to fields and waves in random moving media 2−53535
springs, large displacements and dynamic stability, helical finite elements 2−114630
statistically inhomogeneous and anisotropic absorptive medium, two-freq. radiative transfer eqn. 2−63946
steady-state oscills., exterior problems, nonorthogonal series method 2−95028
surface water waves over variable depth bottom, three dimens. eqns. approx. 2−65605
thermoviscoplastic medium, coupling accel. waves, symmetry and hyperbolicity conditions 2−74224
thermoviscous fluid, non-linear propagation of waves induced by general vibrations of plates 2−53531
time and space varying dispersive media, wave propag., WKB calcs. 2−101185
wave bundle propag. in nonlinear media, variational-difference study *(Russian)* 2−95031
waveguide, rectangular, propag. of HF longit. waves *(Ukrainian)* 2−81275
weak-dispersive wave kinetics *(Ukrainian)* 2−112713
weakly dispersive media, finite amplitude cylindrical and spherical waves 2−58627

wave scattering *see scattering*

waveform analysis
see also spectral analysis
ambulatory ECG processing by general-purpose minicomputer 2−117101
cross-correlation flowmeter, technique development using signal processing 2−114958
seismic sounding, airgun signal waveforms in airgun-OBS seismic refraction profiling expt. 2−117225
seismic waves, computed waveforms in transversely isotropic media 2−88776

wavefront-reconstruction imaging *see holography*

waveguide antennas
microstrip antennas, developments and trends towards bandwidth increase 2−68108
microstrip spin-wave antenna, impedance anal. 2−98866

waveguide attenuators
liquid-crystal optical attenuator, polarisation-independ., fibre-optics appls. 2−65346

waveguide components
see also directional couplers; optical waveguide components; strip line components; waveguide attenuators
noise generator, cryogenic 2−74471
quarter wave plates for subMM wavelengths 2−97154
C fibre reinforced plastics, appls. to RF components of satellite payloads *(German)* 2−88052

waveguide theory
see also guided electromagnetic wave propagation; optical waveguide theory
dielectric waveguide, surface waves, dimensionality transformation 2−114427
Earth-ionosphere waveguide, VLF signals phase variations at sunrise 2−73778
excitation of media with spatial dispersion of waveguide type 2−115015
irregular open waveguide, bilateral equivalent boundary conditions for EM field on rough surface *(Ukrainian)* 2−55023
leaky waves supported by a square wire mesh with bonded junctions above a reactive surface, modal eqn. 2−55049
permittivity measurement, waveguide method, appropriate dielec. thickness determ. *(Russian)* 2−95393
planar dielectric waveguide, finite element analysis of discontinuity problems 2−65353
plasma waveguides, short particle beam instability 2−103382
propagation in transversely magnetized compressible plasma between two parallel planes 2−97744
rotating linear media, relativistic electrodynamics, appl. to guided wave propag. *(French)* 2−70480
semiconductor films with negative differential cond., EM wave propag. 2−98686
two-mode waveguide, randomly perturbed, wave propag. modeling 2−89550
waveguide filled with moving dispersive medium, EM wave energy 2−79381

waveguides
see also acoustic waveguides; circular waveguides; dielectric-loaded waveguides; dielectric waveguides; optical waveguides; plasma filled waveguides; rectangular waveguides
coaxial, 16/4.58 mm characteristic impedance meas., high-precision verification system 2−53743
GaInAsP-InP BH integrated laser with butt-jointed built-in DBR waveguide, 1.6 μm CW operation 2−80987

waves
see also charge density waves; elastic waves; electromagnetic waves; gravitational waves; gravity waves; liquid waves; magnetohydrodynamic waves; magnetostatic waves; ocean waves; oscillations; plasma waves; spin density waves; spin waves; surface waves (fluid); wave propagation
atmosphere, finite-amplitude baroclinic waves at min. critical shear 2−100471
atmosphere, four-dimensional anal. of easterly waves during GATE period 2−100466
atmosphere, free Rossby wave instability at finite amplitude 2−100472
tropical atmosphere, mixed Rossby-gravity and inertial-gravity modes rel. to Walker circulation stability 2−100468
atmosphere, northeasterly trades wave rel. to upper cold low in western North Pacific 2−100461
atmosphere, thermally driven Rossby and Kelvin waves in equatorial β-plane 2−112010
atmosphere, three-dimensional model of ship waves in lee of isolated topography 2−100474
boundary-layer transitions, three dimens. aspects 2−81329
waves continued
compressed detonation wave in a gas 2−114836
compressible laminar boundary layer, oscillations, heat transfer and skin friction 2−86258
de Broglie's phase waves, phys. props. 2−63783
dispersive wave phenomena, analytic singularities based on topological singularities of dispersion relations 2−101176
drift waves, nonlinear, energy conservation in coherent renormalization *(Chinese)* 2−74225
excitation by sub-surface sources 2−97576
exothermic reaction zone in porous media, filtrational combustion wave stability 2−114889
falling parabolic jets, Poiseuille flow, instabilities, vorticity induced waveforms 2−76030
flat plate boundary layers, waves and flow transitions 2−70909
floating hemisphere undergoing forced periodic oscillations, wave forces 2−109343
fluctuating nonlinear waves, reson. test field model 2−65606
fluidised beds, voidage instability; wave hierarchy interpretation 2−55660
free wave packet spreading 2−79312
free-surface flow past oscillating singularities at resonant frequency 2−97572
galactic shock waves and corrugation waves, numerical simulation 2−101071
in galaxies, generation of spiral density waves by bars in differentially rotating discs 2−101044
gas, vibrationally relaxing, nonlinear breaking of wave fronts 2−103183
gas flows with vibr. relax., behaviour of discontinuities 2−60564
Green Bay, Lake Michigan, numerical models and obs. of long-wave motion 2−106160
homogeneous medium, linear wave propag., kinematic wave theory 2−109344
impinging turbulent jets, low Mach number, organised wave self-generation 2−71004
internal wave, interactions, induced diffusion approx. 2−70971
internal waves, Hamiltonian dynamics 2−91467
inviscid shear flows, finite amplitude waves, Couette-Poiseuille channel flow 2−97575
ionosphere, wave-like oscillation rel. to HF phase path fluctuation during solar eclipses (1980 February 16) 2−106386
irrotational flow around a horizontal cylinder in waves 2−91476
Kadomtsev-Petviashvili eqn., similarity solns. 2−97570
laminar boundary layer, estimates of errors incurred in asymptotic representations of isolated wave packet 2−109277
liquid-solid interface, viscosity effect 2−98392
long internal solitary waves, viscous decay in quiescent fluid 2−91472
longitudinal wave motion, mag. coupled analog system 2−79331
metal films, electron liquid, quantum waves, resonance approx. *(Russian)* 2−87414
natural waters, effect of waves on temp., humidity, wind profiles and turbulent exchange over surface layer *(Chinese)* 2−88944
nonequilibrium gas dynamics, sonic discontinuity behaviour, waves shocks 2−71039
nonlinear internal waves in stratified and sheared medium 2−60567
nonlinear media, four-wave interactions 2−55727
nonlinear waves in ideal fluid in elastic variable-section tube *(French)* 2−103209
relativistic gasdynamics, rarefaction wave 2−97668
rod, circular cylindrical, plastic wave propag. 2−103083
Rossby nonlinear waves in channel of finite width 2−97569
rotational flow, Taylor- and wavy-vortex waves, spatial and temporal charact. 2−70959
solar interior, wave-rotation interactions in active picture of differential rot. 2−79082
solitary waves in unbounded stratified fluids 2−91475
stationary waves in a laboratory flume 2−91468
stellar interiors, wave-rotation interactions in active picture of differential rot. 2−79082
Taylor vortex flow, fractional mode numbers 2−103149
transient wave propagation in bubbly liquids 2−91469
travelling waves superposition in circular Couette system 2−70973
troposphere, enhanced wave propag. rel. to numerical modelling of stratospheric sudden warming 2−100477
two superimposed fluids, interface internal waves, multipole expansions 2−81350
two-dimensional solid-state ferroelec. self-wave medium, nonlinear switching waves obs. 2−89546
two-phase bubbly flow, flow struct. wave props. fluctuation meas. 2−60613
vertical pile in waves, transverse oscillations 2−86221
vibrationally relaxing gas, accel. wave breakdown 2−114822
viscoelastic flow due to plate which starts oscillating in presence of parallel stationary plate 2−91490
viscous liquid, thin film flow in gas jet, droplet detachment 2−60566
water surface, effect of waves on reflected image 2−100560
wave energy devices, multiple scatt., plane-wave approx. 2−99759
wave operator, elementary soln. *(French)* 2−58626
wavefront set based on trace distrib. *(French)* 2−58625
weak discontinuities in relativistic viscous fluid associated to transverse anal. longitudinal waves *(French)* 2−70967
Wilton ripples, bifurcation phenomenon 2−103174

waxes
films used as IR photographic recording medium 2−114393

waxing *see polishing*

weak ferromagnetism
see also canted spin arrangements; Morin temperature
antiferromagnet, weak ferromag. moment stimulation by nonreson. mag. and sound pumping *(Russian)* 2−116044
magnesium acetate tetrahydrate:Co^{2+}, EPR spectra 2−61757
quasi-one-dimensional and two-dimens. cpds., differential susceptibility meas. and mag. phase diagrams 2−56840
spontaneous magnetisation meas. in weak ferromag. cryst. *(Japanese)* 2−115985
$CoCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
α-$(Fe_{1-c}Al_c)_2O_3$, Mossbauer study 2−87637
$FeBO_3$, phonon parametric excitation, FMR nonlinear relax. 2−77349
α-Fe_2O_3, haematite, weak ferromag., magnetoresist. anisotropy meas. *(Russian)* 2−92659
$MnCO_3$, antiferromag., cryst. growth and mag. props. 2−66792

weak ferromagnetism continued
MnSi, itinerant electron helicoidal mag., magnetisation and magnetoresistance 2−110605
MnSi, magnetisation and magnetoresistance 2−110606
MnSi, weak itinerant ferromag., magneto-volume effect 2−66887
Mn_3Sn, mag. struct. and weak ferromagnetism, polarised neutron diffr. study 2−110568
Mn_3Sn, spin struct., polarised neutron diffr. study 2−66773
$Mn_3Sn(Ge)$, triangular spin config. and weak ferromag., polarised neutron diffr. study 2−77269
Ni_3Al, weak itinerant ferromag., magnetocrystalline anisotropy 2−92900
$NiCO_3$, antiferromag., cryst. growth and mag. props. 2−66792
Pt-Co(Fe), weakly ferromag. alloys, elastic diffuse neutron scatt. 2−98849
weak interactions, elementary particle *see elementary particle weak interactions*
weak interactions (atomic physics)
conference, Cambridge, MA, USA (Aug. 1980) 2−68959
neutrinoless double-beta decay and muonium-antimuonium transitions 2−69440
parity and time reversal violating interactions obs. by trapped ion spectroscopy 2−70440
parity violating eN force, at. physics exptl. results 2−79775
parity violation, expt. searches, review 2−70435
parity violation effects induced by neutral currents 2−70434
quantum electrodynamics and unified electroweak theories 2−59957
time reversal symmetry and parity expts. 2−70433
Ar^{17+}, H-like parity violating effects in 2 $^2S_{1/2}$→1 $^2S_{1/2}$ transition 2−54007
H, atomic, multiple cavity expts. to detect parity nonconservation 2−96760
H atoms, parity nonconservation expts. in RF cavities, theory 2−90725
H, induced transitions, role of damping and T invariance 2−64911
H, Laporte's rule, expt. test, mixing of parity doublet 2−54804
Li isoelectronic sequence, even-parity quartet P states, corrective results 2−102655
Pt, radiative lifetimes meas. for odd parity levels using laser excited technique 2−102433
Tl, parity nonconservation, relativistic many-body theory 2−85566
weak interactions (molecular physics)
diatomic mol. $^2\Pi$ electronic state, rot. inelastic collisions with structureless target 2−96685
polyatomic molecules, hyperfine struct. corrections, P odd effects *(Russian)* 2−108736
$Se(CN)_2$, HeI valence PES, broken symm. effects 2−90627
weapons
Enewetak Atoll, β- and γ-comparative dose estimates in nuclear weapons testing 2−73365
enhanced radiation weapon, protection calcs. from ANISN code 2−113749
high-powered chemical lasers, development, weapon appls. *(French)* 2−60071
nuclear, radioactive waste, vitrification 2−64511
wear
see also abrasion; hardness
bonded solid film, effect of load area of contact and contact stress on wear mechanisms 2−88224
brass, wear expts. in SEM 2−67571
brittle solid, hysteresis in abrasive wear 2−67559
bronze-graphite antifriction material, sintered, struct. and mech. props. 2−67556
carbon steels, wear characts. under varying lead *(Japanese)* 2−62344
cast Fe, abrasion-resist., transition wear behaviour 2−88215
cast Fe products, friction and wear 2−88221
cathode erosion resistance in high-current vacuum arc regime 2−83233
ceramics, friction and wear against metals 2−88210
coefficients, magnitude, scatter and uses 2−88200
debris particles, prep. technique for TEM 2−111446
diamond composite, textile yarn guide applic. feasibility 2−72893
diamond materials, friction and wear against metals 2−88210
die, asymmetric, rigid, acting on nonhomogeneous half space, contact problem with wear 2−103112
ductile materials, modelling of low rel. erosion by spherical particles 2−86790
ductile metals, formation of wear debris by abrasion 2−88216
electrodes, erosion during electrospark alloying *(Russian)* 2−62232
electron approach to wear mechanism 2−109903
erofuge, apparatus for particle erosion testing 2−72850
erosion-corrosion behaviour, appl. of thin layer surface activation technique 2−88299
Fe, electrolytic, friction and wear, strain and failure processes investigation by acoustic emission method 2−116633
felt-tip pens, writing on overhead projectors, pressure meas. apparatus *(German)* 2−53729
formaldehyde copolymer, serviceability, effect of radiation 2−83223
freezing point depression, within shear field, ref. to transformations occurring during wear 2−88213
fretting-initiated fatigue, aircraft material/structure degradation 2−67479
fusion reactor first wall, welded joint, microstruct. and erosion during ion bombard. 2−113738
fusion reactor first wall material, radiation blistering, review 2−113735
grooving, controlled, force and energy meas., abrasive wear study 2−57488
high speed photography techniques and appls. 2−101483
laboratory wear tests, applicability to practical systems 2−88330
materials classification using centrifugal erosion tester 2−72850
materials in dry friction, theory 2−86236
measurement by thin layer activation technique using high energy ion beams 2−95324
metallic solid, wear meas. using Falex Lubricant Testing Machine 2−111425
metallic subsurface zones, characts. in sliding and impact wear 2−88208
metals, corrosion scales, elevated-temp., erosion rate 2−67570
metals, dissimilar, unlubricated sliding wear, review of recent literature 2−57494
metals, ductile, erosive wear, by particle-laden high rel. liq. jet 2−67567
metals, friction and wear, strain and failure processes investigation by acoustic emission method 2−116633
metals, review of abrasive wear 2−105346
Metglas 2826, Ni-Fe-base metallic glass, dynamically compacted, mech. props. 2−99527
wear continued
PMMA, serviceability, effect of radiation 2−83223
PMMA, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polyamide, serviceability, effect of radiation 2−83223
polycarbonate, serviceability, effect of radiation 2−83223
polyethylene, high-density, cryst., wear, morphological study 2−83240
polyethylene, serviceability, effect of radiation 2−83223
polyethylene, ultrahigh mol. wt., wear characts. against high density alumina 2−88222
polyethylene, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
polymeric compositions, wear behaviour in dry reciprocating sliding 2−83236
polymeric materials, expt. verification of fatigue wear eqn. 2−111326
polymeric materials, impact friction and wear 2−67564
polymers, friction and wear, book 2−79295
polymers, semicryst., sliding against steel, wear and material transfer 2−83241
polymers sliding on polymeric films, wear and friction props. 2−88204
polystyrene, serviceability, effect of radiation 2−83223
polytetrafluoroethylene, formation mechanism of wear particles 2−88212
PTFE, semicryst., sliding against steel, wear and material transfer 2−83241
PTFE, wear behaviour in dry reciprocating sliding 2−83236
PTFE based composites, filler effect on friction and wear behaviour 2−111325
PVC, wear against sliding steel discs, SEM, TEM of fatigue fracture surfaces 2−88223
Pyrex borosilicate glass, time depend. erosion by glass beans, computer simulation 2−67552
quantitative wear rates using stable tracers and INAA 2−83234
refractory lining of industrial furnace, wear testing using (γ, n) 2−99609
sliding surfaces, behaviour of adhered fragments and form. of wear particles 2−88201
solar energy conversion technologies, solid-liq. interface research needs 2−88464
stacking fault energy role, on galling and wear behaviour 2−88218
steel, 0-2 tool type, electron beam surface melted, sliding wear behaviour 2−88220
steel, alloy, nitrosulphurised, wear props. 2−62233
steel, austenitic stainless, abrasive wear, electrochem. polarisation influence 2−88198
steel, austenitic stainless, fretting wear, from 20 to 650°C in air 2−88211
steel, austenitic stainless, impregnation of H during friction in H_2SO_4, influence on wear 2−67555
steel, boriding, with high-freq. current heating 2−67644
steel, C, impact wear of tool steel, surface topography 2−88225
steel, C, lubricated wear transition 2−83239
steel, C (0.45%), fretting wear, from 20 to 650°C in air 2−88211
steel, Cr, wear resistance, effect of chem. comp., tempering and austenitising 2−72848
steel, Cr-Mn, medium C, design for wear appls. 2−83235
steel, high C, friction and wear, strain and failure processes investigation by acoustic emission method 2−116633
steel, high-speed, struct. and props., Ce addition effect 2−111242
steel, low alloy, surface treated, cavitation erosion 2−88205
steel, martensitic stainless, wear against WC up to 500°C 2−83238
steel, medium C, cavitation resist. of Cr diffusion coatings 2−72872
steel, mild, erosion by normal impingement of hard steel spheres 2−67553
steel, mild, spherical wear debris form. in mode II fatigue cracks 2−93636
steel, mild, wear expts. in SEM 2−67571
steel, Ni-Cr, wear meas. using Falex Lubricant Testing Machine 2−111425
steel, stainless 13 wt.% Cr hardened, surface working effect on fatigue strength and wear 2−111386
steel, stainless and C, cavitation damage under pressure conditions by a vibratory test *(Japanese)* 2−57491
steel, stainless and C, cavitation erosion test, comparison of results, venturi and vibratory facilities *(Chinese)* 2−62231
steel, tool, wear under boundary lubrication, effect of heat treatment 2−88206
steel, wear mechanisms of boundary-lubricated surfaces 2−67561
steels, ion-implanted, surface hardness and abrasive wear resist. 2−57490
steels, stainless, abrasive-corrosive wear 2−88214
Stellite, Co-base, cavitation erosion 2−88205
surface films and metallurgy related to lubrication and wear 2−109902
Al alloys, dispersion hardened composites, fabrication and wear props. 2−57363
Al alloys, oxidative wear, pin-on-disc expts. 2−111328
Al, erosion by WC-Co sphere impingement at oblique incidence 2−111324
Al, spherical wear debris form. in mode II fatigue cracks 2−93636
Al, wear expts. in SEM 2−67571
Al-Si, as-cast and age-hardening, wear, friction and surface topography in dry sliding 2−83237
Al-steel-Pb admixed alloys, wear-resistant, prod. by dynamic compaction 2−88025
Al_2O_3, effects of Cr_2O_3 additions on sintering and mech. props. 2−99375
C fibre reinforced Al, chopped fibres, prod. by powder metallurgy, dry wear *(Japanese)* 2−105344
Cr-C hard facing, wear transitions, effect of high gas press. 2−88202
Cu, eroded single crysts., subsurface defect struct. 2−62237
Cu, erosion wear mechanism, solid particle, 90° impact 2−88209
Cu single crystal, melting during solid particle erosion 2−67562
Cu single crystals, erosion at 30° incidence of glass spheres 2−111329
Cu, wear mechanism, obtained by repetitive impacts 2−88207
Cu:B, cavitation-erosion resist., effect of B implantation 2−88197
Cu-Ni alloys, friction and wear 2−88217
Cu-Ni system, diffusion erosion phenomenon *(Russian)* 2−77988
Fe, cast, cavitation resist. of Cr diffusion coatings 2−72872
Fe, erosion wear mechanism, solid particle, 90° impact 2−88209
Fe-Al bronze, laser-surface-melted self-quenched, cavitation erosion 2−76491
Fe-base binary alloys, in contact with SiC single cryst., adhesion, friction and wear 2−88199
Fe-Cr-Ni-Al coatings, for resisting fretting wear in temp. range 20-700 °C 2−88291
MgO, single cryst., wear props., roles of brittle microfracture and plastic flow 2−62235

wear continued
Na_2O-SiO_2 glass, abrasive wear, scale effect 2−67563
Ni:B, cavitation-erosion resist., effect of B implantation 2−88197
PVC, rigid, wear, effect of mol. wt., surface roughness and sliding speed 2−111323
SiC, anisotropic tribological props. 2−88219
Ti, cavitation erosion behaviour, nitriding effects 2−111331
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-V (6, 4 wt.%), cavitation erosion behaviour, nitriding effects 2−111331
TiB_2 coatings, electrodeposited, sliding wear props. 2−62236
WC-Co(Ni), cavitation erosion 2−88205
WC-Ni cemented carbides, prep. and props. 2−111119

wear, abrasive *see abrasion*

wear resistant coatings
boride eutectic coating on steel 38KhNM using high-freq. current heating 2−67644
deposition, high rate of uniformly thick films onto spherical surfaces 2−87981
electroplating alternatives for Au in electronics and decorative industries 2−67665
electroplating with Au and Ag, future trends, substitute materials and cost reduction 2−67667
glass, antireflection polished, strengthened by ion exchange 2−97134
ion plating methods *(Hungarian)* 2−93445
polymer film deposition in low press. reactive plasma, characteris. and applics., review 2−57287
powder coatings produced by elec.-pulse sintering and weld facing for engine valve units, wear resist. 2−67659
steel, low-C, boronising treatment 2−105354
steel, tool and constructional, wear resistance improvement by electrospark alloying *(Russian)* 2−67551
Zircaloy, surface oxidation, protective coating form. 2−99607
Al_2O_3, deposited on cemented carbides, increase in wear characts. *(Korean)* 2−62073
C, diamond-like, quasi-amorphous hard film deposition and characteris., review 2−57307
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Cr-C hard facing, wear transitions, effect of high gas press. 2−88202
Cu coated Ti-Al-Mo-Zr, plastic deform. and diffusion annealing effect on props. 2−67645
Fe alloy, electrolytic, wear resist. optimisation, math. model *(Russian)* 2−67628
Fe, grey cast, local electric arc remelting for generation of wear resistant layers 2−111363
NbC coatings, appl. to hard-metal tools 2−72883
Ni-Cr_3C_2 electroless composite coatings for wear resistant applics., prep. and characts. 2−67666
Ni-Cr-Cr_2O_3 films, RF sputter-deposited struct. and comp. 2−87983
TiC coatings, appl. to hard-metal tools 2−72883
TiC(N) CVD coatings on tool steels *(Hungarian)* 2−57305
TiN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
VC coatings, appl. to hard-metal tools 2−72883
ZrC coatings, appl. to hard-metal tools 2−72883
ZrN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492

weather *see meteorology*

weather forecasting
500 mb height, statistical prediction using eigenvectors 2−88960
accuracy limits due to small scale weather var. appl. to La Guardia Airport, New York 2−78724
adjustment to geostropy, initial conditions of primitive eqn. model 2−73663
airborne meteorological data acquisition and communications system ASDAR 2−68527
Anderson Creek, California, wind prediction model 2−100480
Argos system appls. 2−111990
Atlantic tropical cyclones, track forecasting 2−73615
Australian wet season onset prediction from Darwin rainfall anal. 2−106181
bora in Novaya Zemlya, forecasting, canonical correl. 2−106287
British Isles, short-range temp. forecast for gas industry 2−73648
climatic predictability, sea ice role, coupled atmosphere-sea ice model 2−112113
super computer application to forecasting 2−73618
computer systems in use 2−94433
cyclone forecast errors for NMC LFM-II model in 1978-9 cool season 2−106196
data collection and processing, limitations and future trends 2−73625
dynamical predictability of monthly means 2−78780
El Nino event forecasting using linear prediction techniques 2−73645
England and Wales mesoscale model with sea-breeze initial conditions 2−100508
FGGE 4-D data-assimilation of ECMWF 2−88939
FGGE research activities at ECMWF 2−100565
frontal overrunning and offshore-onshore temp. diff. across central Gulf Coast 2−83915
frontal rain, forecasting using weather radar network 2−112018
mesoscale frontal rainband occurrence prediction, theory 2−100505
global circulation during FGGE special obs. periods 2−100504
hailstorm, cloud origin and movement prediction, appl. to Fort Collins storm 2−78723
heavy rain occurrence associated with Chinese upper-level troughs *(Chinese)* 2−112097
humidity of surface layer air, forecasting procedure 2−73661
hurricane prediction using remotely-sensed rainfall rates 2−112019
Illinois, temp. and precipitation normals and prediction 2−83912
Indian summer monsoon regime, drought foreshadowed by solar activity 2−68477
initialization approach for weather prediction models 2−100524
linear prediction methods for systems with periodic statistics 2−73645
local predictability, empirical orthogonal function estimates 2−88959
maximum surface temperature from 1000-850 mb thickness lives and cloud cover 2−78810
Meteorological Office, new operational forecasting system devel. 2−100495
model optimisation for CRAY-1 and CYBER 205 computers 2−100435
monthly forecasting with physical model 2−78721

weather forecasting continued
North America-North Atlantic region cyclone frequency prediction 2−106195
Northamptonshire, heavy rain forecasting methods 2−78879
NWS precipitation forecast accuracy (1966-78) 2−111991
persistence probability model developed using data from USA 2−112053
pollution prediction models for oxidant conc. in California coast region 2−63014
precipitation forecasts for 12 hour period, radiosonde profile appl. 2−100425
rainfall prediction using five-level primitive eqn. model with unequal interval of vertical levels *(Chinese)* 2−73613
sea-state forecasting with numerical models 2−106133
short term hydrodynamic forecasting scheme 2−100515
space obs. appl., 1980s state and trends 2−73669
statistical forecasting on different time scales 2−94430
stochastic predictions of cataclysmic events 2−111989
strategies in forecasting and anal. 2−117430
subjective probability forecasting, operational and expt. results 2−117428
synoptic situation forecasting during Mei-Yu period in China *(Chinese)* 2−88991
temperature extremes, MOS appl. to Met. Office NWP model 2−83917
temperature forecasting in Northern Hemisphere, use of automatic group analogue scheme 2−100598
thunderstorm forecasting, 500 mb cyclonicity effects 2−83918
thunderstorm path prediction using convective overturning model 2−83908
TIROS-N moisture data use in numerical weather prediction 2−100457
tornado development from Oklahoma dryline 2−94442
tropical cyclone forecasting using bivariate normal distrib. 2−112052
tropical cyclones over Indian seas, forecasting intensity and motion 2−68442
United States, forecast model applied to drought of 1980 AD 2−78721
United States, forecasting of winter temp. climate 2−78720
United States, objective operational max.-min. temp. forecast errors, synoptic scale and mesoscale contrib. 2−106190
United States, Univ. of Wisconsin long-range model 2−88938
United States winter temperature forecasts, models 2−106198
W Washington State, USA, diurnal circulation effect on forecasting and precipitation, wind anal. 2−106191

webs (membranes) *see membranes*

weighers *see balances*

weighing
air-buoyancy correction determ. 2−69142
biological technique for body weight estimation, radiobiological expts. appl. *(Russian)* 2−88700
Czochralski crystal puller automated by the weighing method 2−67208
force and weight measurement, review 2−107303
gas analyzers, sorption, surface acoustic waves appl. 2−73025
inclination device with projected scale *(German)* 2−112872
polymers, stratified structures, determ. by plasma etching gravimetry *(German)* 2−67690
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982

weighing machines *see balances*

weight, atomic *see atomic mass*

weight, molecular *see molecular weight*

weight indicators *see balances*

weight measurement *see weighing*

weightlessness experiments *see zero gravity experiments*

Weinberg model
beta function calc. using background field quantisation 2−53979
CP violation, mass matrix in Higgs-boson model 2−69387
double charged Higgs bosons and lepton number violating processes 2−69388
flavour-changing lepton decay, review 2−79877
gauge field theory, book 2−84399
geomagnetic symmetry breaking and Weinberg-Salam model 2−79791
grand unified extension, Yukawa and quartic scalar couplings 2−95706
gravitational instability, Higgs boson mass, conformal invariance 2−89922
hadron weak decays in SU(2)×U(1) model 2−54141
heavy Higgs boson, decay into vector bosons, Weinberg model calc. 2−74644
Laplace transform analysis, pseudoscalar meson properties 2−113178
local gauge invariance theories and spontaneous symmetry breaking *(French)* 2−89911
massless neutrinos and the stellar stopping power via the V-A and Weinberg interactions 2−73836
neutrino photoproduction on electrons in two dimens. QED approx. 2−59090
neutrino propagator, EM corrections in Weinberg theory, deflection in external field 2−59070
nuclear matter, pionic field, soliton-like states *(Russian)* 2−101831
one-loop effects in Weinberg-Salam theory *(Russian)* 2−74638
quark-lepton correspondence in model with $(SU(2)_L \times U(1))_{WS} \times U(1)'_H \times U(1)''_H$ symmetry 2−54029
quaternionic Weinberg-Salam theory 2−107587
Salam-Weinberg theory expt. verification 2−69396
scalar parameters in effective gauge theories, Weinberg method appl. 2−59071
SO(10) grand unified model, unification constraints on mirror fermion mass scale 2−89923
spin 1/2 fermion scatt., lowest order electroweak corrections, one loop amplitudes, decays, masses 2−59076
$SU(2)_L \times SU(2)_R \times U(1)$, dynamical symm. breaking 2−107581
SU(2)×U(1) Weinberg-Salam model, strongly interacting Higgs sector effects 2−64246
SU(5) model, spontaneous CP breaking, natural flavour conservation and baryon asymmetry 2−64258
superweak CP violation and right-handed horizontal interactions in Weinberg-Salem theory 2−59073
unification with gravity 2−69384
weak interaction theory, comparison with expts., review 2−79811
$e^+e^- \rightarrow e^+e^-$, Bhabha scatt. around Z_0 pole 2−95811
$e^+e^- \rightarrow Z^0 \rightarrow W^- H^+$, Higgs sector struct. *(Russian)* 2−59088
γ-Z mixing, effective charges, a = −3 gauge 2−74631
Λ_c^+ decays, hard and soft gluonic effects, Weinberg-Salam weak Hamiltonian 2−84893
$\nu_\mu(\bar{\nu}_\mu)$p, elastic scatt. cross section meas. 2−95815

Weinberg model continued
$\nu_\mu(\bar{\nu}_\mu)p$ elastic scatt., cross sections, Weinberg-Salam theory, form factors *(Russian)* 2−113264
νd, d splitting, cross section calc. using currents of second kind 2−101704
$\nu N \rightarrow \nu X$, radiative corrections from Weinberg-Salam and quark-parton models *(Russian)* 2−113280
pn, elastic scatt. at high energies, parity violation 2−95864
pp, elastic scatt. at high energies, parity violation 2−95864
$p\bar{p}(p\bar{p}) \rightarrow HX$, associated prod., Weinberg model 2−84925
$\pi^- \rightarrow e\bar{\nu}\gamma$, branching ratio, Weinberg model calc. 2−59141
$\pi\pi$ scattering length, current algebra and S*(980) background contrib. 2−95716
$Z^0 \rightarrow l^+l^-$, charge and helicity asymms., Weinberg model calc. 2−107611
Ar^{17+}, H-like parity violating effects in $2\ ^2S_{1/2} \rightarrow 1\ ^2S_{1/2}$ transition 2−54007
Weissenberg cameras *see cameras; X-ray crystallography apparatus*
welding
see also electric welding; electron beam welding; laser beam welding; lead bonding
12Kh18N10T welded steel, effect of inoculation on corrosion resistance of chromium-nickel deposited metal 2−93661
cold cracks in welded joints, high strength, investigation using acoustic emission method 2−67668
cross weld samples, creep rupture, effect of specimen size, simplified approach 2−103894
FED frame seal welder and cutter 2−80298
fibrous composites, constituents interactions during explosive welding, orthogonal propag. of sandwiching front 2−62091
fusion reactor first wall, welded joint, microstruct. and erosion during ion bombard. 2−113738
GCFR fuel pins, remote pressurisation and resealing 2−108022
grain growth diagrams, steel welds 2−116422
heat flow, dimensional anal. 2−109321
JET, remote welding and cutting 2−80297
joint, US inspection with data processing by minicomputer 2−93739
reinforcement bead of welded joint, tangential component of magnetic field 2−89756
residual stresses and fracture props., effects on weld repair processes service performance 2−62222
spot-welded joints, magnetographic inspection of compensating interference from surface irreg. 2−83333
steel, austenitic stainless, welded joint, stress corrosion cracking in boiling $MgCl_2$ soln. *(Japanese)* 2−72868
steel, austenitic stainless, weldment, US testing by transmitter-receiver type longitudinal-wave angle-beam probe 2−78040
steel, Cr-Mo-V martensitic stainless, weldments, transform. and tempering 2−88107
steel, low C, structural, fracture toughness in grain coarsened region of weld heat-affected ones 2−62190
steel, maraging, Ni and Cr effect on thermal stresses and relax. capability, thermal welding simulation *(Russian)* 2−67386
steel, Ni-Mn-Mo, high-strength cast maraging, ageing influence on mech. props. 2−67397
steel, Ni-Mo-Co, age-hardening, weld struct., hot stage microscopic invest. 2−111190
steel, stainless, martensitic, stress-rupture strength of metal and weld joints, Cl ions and H_2S containing medium 2−99602
steel, stainless, weld solidification struct. and transform. behaviour, effect of quenching 2−99412
steel, stainless, welds, radiography mottling theory 2−88294
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
steel, welded joints, crack detection and location using AMUR-6 acoustic emission apparatus 2−83330
steel weldments, fatigue strength, low cycle, evolution method at elevated temps. *(Japanese)* 2−105412
steel wire, high tensile, friction welded, SCC behaviour 2−111357
Al-Ag-Al strip, pressure-welded, interdiffusion layer struct., ultramicrotomed thin section method 2−71738
Al-Zn-Mg, stress corrosion behavior of weldments, effect of heat input rate and postweld heat treatment *(Korean)* 2−67633
Ir-W-Th, DOP-26, Th-doped, weld metal grain struct. and mech. props. 2−99499
Mg-Zn-Cd alloy, wrought MA15, cyclic crack resist. of metal and weld joint 2−99556
Mo, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Nb, adhesional interaction with Mo, Nb, $MoSi_2$ and $NbSi_2$, siliconising effect 2−72941
Nb-Zr (1 wt.%) alloy, fatigue failure in various struct. states 2−99547
Ni-Nb-Cr-Mn weld metals, struct. stability *(Slovak)* 2−116446
Ti-Al-V (6,4 wt.%), laser welded, microstruct. and mech. props. 2−77935
welding electrodes
arc welding coated electrodes heat treatment conditions selection 2−93520
Wentzel-Kramers-Brillouin calculations *see WKB calculations*
Wertheim effect *see Wiedemann effect*
wetting
adsorbed films, wetting and clustering 2−86979
adsorption and capillary condensation at contact line in change of phase heat transfer, wetting 2−71772
capillaries, meniscus, equilib. profile of transition zone 2−66321
cohesion parameters applic. to wetting and adhesion, review 2−104119
commensurate adsorbed surface phases, domain walls and melting 2−110148
displacement, thermodynamic anal. 2−76780
electrostatic withdrawal of nonwetting conducting liquid through holes in thin isolating films *(Russian)* 2−86981
electrowetting effect, continuous, appl. to displays and other electro-optical devices 2−76777
fluid-solid interfaces, wetting transitions 2−115501
glass, molten, on Pt alloy, wettability, bond parameter approach *(Chinese)* 2−61253
glycerine-n-hexane, spreading kinetics over glass during selective wetting 2−66323
glycerine-water, spreading kinetics over glass during selective wetting 2−66323
liquid metals, penetration into diamond powder, high static press. 2−82082
2,6-lutidine-water mixtures, wetting transition, capillary parameters meas. 2−71775
wetting continued
meniscographic transducer based on optoelectronic principle 2−64210
one-dimensionally inhomogeneous mag. system, mean field theory 2−66740
spreading of liquids, resistance from sharp edged microsteps 2−61254
surfaces, hot dry, rewetting by water films, correl. for predicting quench front velocity 2−114622
vertical surface, hot, wetting by flowing liquid film 2−110094
β''-Al_2O_3, wetting by liq. Na 2−66325
Al_2O_3-Cr_2O_3 solid solutions, wetting by liq. metals, Cr_2O_3 content influence 2−61261
Fe, solid, role of adsorption on wetting, by liq. Pb alloys *(French)* 2−71771
Fe/molten Ag system, wetting behaviour 2−82080
Ga-Ti(V)(Cr) melts, contact reactions with quartz and graphite, X-ray diffr. study 2−82085
Hg, electrostatic withdrawal through holes in SiO_2 film *(Russian)* 2−86981
LaB_6/Cu(Cu-Ni) system, wetting and the contact reaction 2−71777
LaB_6-Co(Ni) systems, wetting and contact reactions 2−77780
$Na_3Zr_2Si_2PO_{12}$, wetting by liq. Na 2−66325
Pd crystallites, wetting phenomena, alternating heating in O_2 and H_2 2−86974
Si, powder wetting and dispersion without deflocculants 2−115491
TiC, contact reactions with Fe-Ni (Si) (Cr) 2−67597
whiskers (crystal)
carbide directional γ/γ' eutectic, struct. defects after long-term strength tests *(Russian)* 2−98092
IR diodes at 10.6 μm, EM effective length of whisker structures 2−95469
metal whiskers, yield strength size dependence, optical and electron microscopy study 2−115633
metal-semiconductor whisker structures, growth model 2−104212
α-Al_2O_3 whiskers grown on stainless steels, technique and performance potential 2−57728
AgCl whisker-like crystals grown from vapour phase, light and electron microscopic obs. 2−98507
Bi, I-V curves at 4.2K *(Russian)* 2−56576
Cu, atomic scatt. factors using Pendellosung intensity beat meas. 2−81713
Cu, growth by chemical reduction, elec. field effect 2−87121
Cu-Sn whiskers, stress-extension behavior, size and conc. depend. 2−61320
Fe whiskers, Barkhausen jump field distrib. 2−87540
Fe whiskers, dislocations by stress appl., X-ray transmission topography 2−115634
GaAs, whisker growth during MBE 2−76876
GaAs whiskers, elec. cond., hydrostatic press. influence 2−77064
HfC whiskers, growth by CVD *(Japanese)* 2−105057
InSe, cryst. grown from melt, struct. transition, X-ray diffr. study 2−55942
NaCl whiskers, unwinding of the Eshelby twist 2−98505
SbSI acicular crystals, prep. and elec. field alignment 2−98508
Sn, electro-plated coatings, grain size effect on whisker growth 2−115635
Sn-Pb, electro-plated coatings, grain size effect on whisker growth 2−115635
whistlers
see also ionospheric electromagnetic wave propagation; magnetospheric electromagnetic wave propagation
coherent wave-particle interactions in magnetosphere 2−100666
detection using whistler counter (used for ISIS whistler data) *(Japanese)* 2−58173
direction-finding meas. of whistlers at Okinawa, Japan *(Japanese)* 2−58172
electron beam nonlinear radiation in whistler range, theoretical model 2−94556
ELF wave injection experiments 2−84039
hot anisotropic plasma, propag. at small angle to mag. field, refr. index 2−89084
ionospheric exit points obs. in Canada 2−89065
Landau resonant wave-particle interaction, theory 2−84040
low-latitude propagation to ground, effect of parallel elec. fields 2−84004
magnetosphere, ground-based and satellite whistler obs. rel. to plasmapause-plasmasphere struct. and dynamics *(French)* 2−106382
magnetosphere, whistler wave propag., electron enforced gyroresonance 2−112249
magnetosphere ducts, mag. and elec. fields, models *(Chinese)* 2−84015
measurement of polarisation and intensity with ground based receiver 2−58141
oblique mode propagation in hot anisotropic plasma 2−68565
plasma duct, whistler wave self-focusing *(Russian)* 2−97737
propagating whistler waves in inhomogeneous plasma, Schrodinger eqn. 2−91624
propagation in DC elec. field, theory 2−84041
propagation in density ducts 2−68566
propagation in plasma waveguides *(Russian)* 2−76104
Trimpi effect of subionospheric VLF amplitude variations 2−100643
VLF emission mechanism 2−68570
white dwarfs
2A 0311−227, AM Herculis star, wavelength independent modulation from accretion column emission 2−94775
2A 0526−328, X-ray cataclysmic variable, rotating white dwarf+subluminous red giant model 2−112506
accreting C-O white dwarf models, off-centre Type I SN detonation 2−89284
accreting nonmagnetic degenerate dwarfs, X-ray and UV radiation 2−117670
accreting star, C-burning model 2−58337
accreting white dwarfs, He shell flash and evolution 2−89252
accreting white dwarfs, secular evolution rel. to Type I supernovae 2−112439
accretion in binary system, evolution model up to Type I supernova 2−63482
R Aquarii, eclipsing symbiotic star, light curve, 1933 to 1981 and orbital period 2−100942
AE Aquarii, red dwarf+white dwarf eclipsing binary, flicker spectrum 2−63526
N603 Aquilae, accretion disc surrounding white dwarf, UV spectral obs. 2−68797
V603 Aquilae (Nova Aquilae 1918) circumstellar shell and accretion disc nature, UV/visible obs. 2−117677

white dwarfs continued
astrophysical constraints on broken supersymmetry 2−94723
atmospheres, hydrogenic atoms in mag. fields, scaling laws for photoionisation cross section 2−63240
binary system with two DA white dwarfs, discovery 2−79165
binary systems with common envelopes, evolution and mass loss 2−63537
binary white dwarf systems, new model for Type I supernovae 2−63484
α Canis Majoris B (Sirius B), still little-known white dwarf, review *(French)* 2−73972
Case 1, red+white dearf, period and mass, visible obs. 2−68810
Case 2, and field, parallax obs. 2−63217
cataclysmic binary stars, effect of gravit. wave radiation on mass exchange and evolution *(Russian)* 2−106751
cataclysmic variables, evolution of compact binary star systems 2−68812
catalogue 2−58272
ZZ Ceti stars, colour index, evolution, statistical anal. 2−100917
ZZ Ceti stars, interior structure and composition from oscills. anal. 2−106714
ZZ Ceti stars, models, oscills. nonadiabatic anal. 2−84214
ZZ Ceti stars, temp. as unique predictor of variability, spectra anal. 2−94712
charged particles relativistic ejection by strong magnetic field 2−106694
cold dense matter mixed lattice phases 2−63223
cool non DA white dwarfs, model atm. struct. 2−84226
CW 1103+254, AM Herculis star, visible and IR photometry and polarisation and spectroscopic obs. 2−94751
CW 1103+254, new AM Herculis star, photometry, spectrum and polarisation obs. 2−84250
CI Cygni, eclipsing symbiotic star; visual and photogrpahic light curves, (1967 to 1981) 2−100949
deformation energy release due to rotation 2−58373
dense plasma physics, enchancement of thermonuclear reaction rates due to strong screening 2−100725
dwarf nova outbursts and convective accretion disks 2−117679
dwarf novae, influence of tidal effects on the structure of accretion discs 2−79126
dwarf novae, white dwarf accretion disk, model 2−79127
E 1405−451, E 1013−477, identification with AM Herculis type cataclysmic variables 2−63378
energy loss, light pseudoscalar particle role 2−84086
EF Eridani (2A 0311−227), mag. white dwarf binary, complex emission-line struct. 2−58381
EUV continuous spectra, of white dwarfs with chemically stratified atmospheres 2−112438
faint blue objects at high galactic latit., obs. in Palomar Schmidt field centred on (Selected Area 28) 2−100769
Feige 4, DB-type white dwarf and suspected EUV source, IUE spectra 2−106712
formation on degenerate Fe core collapse in supernova model 2−106688
G117-B15A, ZZ Ceti star binary, pulsation period from photometry anal. 2−68761
U Geminorum, dwarf nova, IR light curve anal., system nature, JHK obs. 2−100931
H 0139−68, AM Herculis star, high speed photometric obs. 2−63517
H 0139−68, AM Herculis star, two-pole mag. white dwarf model rel. to polarisation obs. 2−106803
HD 149499, white dwarf and main sequence star, distance from parallax obs. 2−106791
HD 149499B, DO white dwarf, high gravity mixed comp. stellar atm. anal., UV obs . 2−68762
AM Herculis, multiwavelength obs. during low state 2−89299
AM Herculis, radio emission detect., origin in white dwarf magnetosphere, model and SHF obs. 2−74020
AM Herculis, VRI photometry and circular polarisation during low state, (1982 March 6 to April 19) 2−74025
AM Herculis (3U 1809+50), new optical decline, visual magnitude estimates (1982 March 29 and April 19) 2−68823
AM Herculis (3U 1809+50), visual magnitude estimate, (1982 April 16) 2−68824
hot accreting white dwarfs, props. in in quasi-static approximation 2−106691
hot DB dwarfs, Einstein obs. of soft X-ray luminosities 2−89255
EX Hydrae, U Geminorum star, orbit from visible spectra/photometry obs. 2−100932
L19-2, ZZ Ceti star, oscillation, photometric obs. 2−100929
L 1363-3, C_2 white dwarf, UV absorpt. spectrum, obs. 2−84230
Lanning 10, eclipsing cataclysmic variable, photometric and spectroscopic obs. 2−58321
MV Lyrae, IUE and optical obs. at intermediate and low states 2−106744
MV Lyrae, red+white dwarf model, UV spectra anal. 2−94726
magnetic white dwarfs, influence of magneto-optical effects on continuum 2−112443
Mira, giant+white dwarf, components UV spectra, obs. 2−84252
BT Monocerotis (Nova Monocerotis 1939), eclipsing nova, photometric obs. 2−68776
open cluster white dwarf survey, turnoff mass leading to progenitor mass limit determ. 2−68763
origin, evolution through planetary nebula stage 2−68878
CN Orionis, Z Cam star, light curve anal. 2−106738
progenitor stars, final evolutionary stages mass loss effects 2−68750
VV Puppis, AM Herculis, time-resolved spectroscopy 2−112449
VV Puppis, AM herculis star, cyclotron spectrum and polarisation props., model 2−58409
R548 (=ZZ Ceti), multicolour photometry rel. to nonradial g-modes pulsation model 2−106689
SA 29, list of faint blue objects 2−68637
RZ Sagittae, new SU UMa-type dwarf nova, 1981 Oct. supermax. 2−117678
spectroscopic and photometric obs. 2−73968
structure, numerical function values for slowly rotating partially degenerate semirelativistic isothermal spheroids 2−63409
V471 Tauri, eclipsing binary, radial vel. curve and orbital elements from spectroscopic obs. 2−63516
V471 Tauri, RS CVn-like binary star, photoelectric light and colour vars. 2−84273
time dependent accretion in X-ray binaries, shock height oscills., hydrodynamic solns. 2−94773
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
white dwarfs continued
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129, X-ray binary, compact object nature, visible obs. 2−68930
AN Ursae Majoris, polar, BV photometry during low state (1982 March 20 and April 20) 2−74025
UV spectra of nearby white dwarfs, rel. to nature of local interstellar medium 2−106690
TW Virginis, dwarf nova during outburst, winds and mass transfer, UV obs. 2−117674
X-ray binary stars, effect of mag. field on critical luminosity of neutron stars and degenerate dwarfs 2−112505
C/O white dwarf, accretion rate effect on evolution, nova 2−89268
C_2 white dwarfs, influence of C_2 absorpt. bands on UBV magnitude 2−63403
H shell flashes on accreting white dwarfs, envelope expansion 2−89256
H shell flashes on accreting white dwarfs, recurrence period 2−89257
H-rich white dwarfs evolution to ZZ Ceti stars 2−100917
H-shell burning and diffusion, accretion rate effects 2−89253
He rich white dwarfs, hot subdwarfs as possible progenitors 2−63398
He-rich stars with metal features, grain accretion from interstellar medium, model 2−117667
white noise
charged two-component fluid in equilib., nonlinear hydrodynamic fluctuation theory 2−103581
Hopf bifurcation with fluctuating control parameter, Fokker-Planck eqn. soln. 2−84541
optical instruments having multiplex coding, pot. noise stability 2−53810
point random motion steering, bang-bang strategies using interrupted obs. 2−53494
random growing rate models, noise induced long-time tail, critical slowing down 2−112827
resonance medium, EM noise charact. filtering under collision, radiation trapping conditions 2−90851
wideband amplifiers
10 kHz flux-controlled magnetic core loss tester 2−74473
impact mass spectrometer for Giotto probe, electronic system 2−78955
NQR coherent relaxometer, receiver section, wideband amplifier with mixer 2−89764
NQR spectrometer, regenerative wideband transistorised transducer 2−89768
voltage amp. for NMR pulse spectrometer 2−107355
Widmanstatten structure
steel, high-speed, tempered carbides, precip. sequence interpret. 2−105150
steel, low alloy, high strength, cold metals, nature of acicular ferrite 2−67286
Fe-base superalloy A-286, effect of composition and high energy rate forging on precipitation 2−111183
Ti-Al-Mo (5,4 wt.%), fatigue and dislocation behaviour, effects of H 2−99520
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
Wiedemann effect
No entries
Wiedemann-Franz law *see Lorenz number*
Wien effect
No entries
Wigner coefficients *see Clebsch-Gordan coefficients*
Wigner crystal
electron-phonon interactions, phonon damping and freq. shift, renormalisation *(Russian)* 2−81916
quantum, 2-D cyclotron resonance, optical conductivity, memory function technique 2−56940
ripplon-limited mobility of two-dimensional crystal of electrons, expt. 2−56297
stability anal. for charge ordered ground state 2−92490
TTF-TCNQ, partial ionicity, cohesion, charge correls. 2−109733
two dimensional, shear modulus calc., anharmonic effects 2−61378
two dimensional, with random array of pinning centres 2−61377
two-dimensional, RMS electron displacement in quantising mag. field *(Russian)* 2−66464
CeB_6 mixed valence cpd., anomalous props. 2−56511
GaAs-AlGaAs heterojunction, two-dimensional magnetotransport in the extreme quantum limit 2−82376
^{4}He, superfluid, ripplon scatt. from 2D Wigner lattice, electron lattice mobility meas. 2−61231
Si inversion layers, Wigner glass and cond. oscills. 2−98753
SmB_6 mixed valence cpd., anomalous props. 2−56511
Wigner effect *see radiation effects*
Wigner lattice *see Wigner crystal*
Wilson cloud chambers *see cloud chambers*
Wimshurst machines *see electrostatic generators*
wind
aerosol composition in marine and coastal boundary layer, vars. with wind shifts and airmass changes 2−117390
Aircraft Dropwindsonde System in Global Weather Experiment 2−106328
Alaska, USA, wind power potential of highland sites 2−112060
Alaskan Beaufort Sea coast, sea breeze model 2−112048
Alaskan Beaufort Sea Coast sea breeze obs. 2−112047
Anderson Creek, California, wind prediction model 2−100480
Andhra cyclone (1977), Bay of Bengal surges, effect of wind stress forcings 2−68373
Antarctic Ocean, circulation and climate during last 120 years 2−117325
E Antarctica, katabatic winds due to large scale temp. inversions 2−106186
Arabian Sea cyclone of 16-19 June 1979, winds and ang. momentum 2−88967
equatorial Atlantic, wind obs. (during 1979 AD) 2−106268
Atlantic hurricanes development, role of momentum eddy fluxes 2−78768
Atlantic Ocean, equatorial region, remote forcing evidence from surface temp. and wind obs. 2−111949
Atlantic Ocean near Barbados, deep ocean currents rel. to wind 2−94374
balloon ascent through horizontal winds, theory 2−94466

wind continued
Baltic Sea, internal wind boundary layers in nearshore zone rel. to wind fetch 2−68410
Baroda, south Gujarat, freq. distrib., data use for wind power anal. 2−88968
Bay of Bengal, cyclone wind threat estimates 2−112075
Bay of Bengal/Arabian Sea, two simultaneous cyclones interaction and movements 2−112077
Belgium, weather (during 1981 AD) *(French)* 2−106203
Belgium, weather during 1980 AD *(French)* 2−68447
Belgium, wind power pot. and wind distrib. 2−105530
bora in Novaya Zemlya, forecasting, canonical correl. 2−106287
Boulder Atmospheric Observatory, convective boundary layer wind speed and temp. 2−106245
boundary layer, model for wind flow over low arbitrary hills 2−100433
boundary layer, temp., humidity, wind profiles and turbulent exchange over water surface layer *(Chinese)* 2−88944
boundary layer produced by sea-breeze flow over land *(French)* 2−83884
boundary layer profile over rough terrain *(Chinese)* 2−112003
boundary layer vegetation cover layer, wind speed and shear stress profiles, phenomenological model 2−78807
boundary layer wind profiles, effect of surface roughness 2−78728
boundary layer wind profiles, Rossby Similarity and turbulent formulations 2−100429
boundary layer winds, 3-D model 2−117414
moored buoy wind meas. accuracy during STREX program 2−112057
canopy flow index for two-storey forest 2−78729
centimetric wind waves in currents 2−73580
Chicago, USA, buildings and trees affecting wind obs. 2−112066
coastal marine boundary layer, land breeze and elevated refr. layer formation 2−68463
coastal site wind fluctuations in surface layer *(German)* 2−100421
convective storms, jet stream config., 500 mb vorticity advection and low level thermal advection patterns 2−106192
Coral Sea, low-level trade winds 2−112069
crosswind velocity measurement using laser-Doppler anemometry 2−106326
cyclone, vertical motion, horizontal spiralling wind field rel. to press. field 2−112074
Deacon number in surface boundary layer 2−68415
determination of wind speed, by satellite microwave radiometry method 2−100599
direction over ocean surface, isotherm movements *(Russian)* 2−100392
diurnal oscillations due to solar tides 2−106251
divergence, single Doppler radar appl. 2−88963
Doppler shift (wind) and width (temp.) determ. with Fabry-Perot spectrometer, analytical description 2−83950
duststorm monitoring system combining satellite and surface data 2−63130
E-region, electron density redistribution under effect of stationary homogeneous wind system 2−73749
Ekman layer fluctuations over short lead times, optimal prediction 2−83914
El Nino event forecasting using linear prediction techniques 2−73645
energy potential in Andaman, Nicobar and Lakshadweep Islands, anal. 2−67815
extreme windpseeds, prediction by sector 2−100492
extreme winds distrib. along Pacific coast of USA 2−83913
Florida, wind roses rel. to pollutant concs. 2−112006
frontal development, wind shift nature *(German)* 2−73650
geostrophic wind subject to orographic forcing, theory *(German)* 2−100444
geotriptic wind over orographically modified terrain *(German)* 2−106207
GMS satellite wind data, appl. to anal. of upper cold low in western North Pacific (July 1979) 2−100461
Gotland island (Sweden), boundary layer model of wind 2−94426
Green Bay, Lake Michigan, numerical models rel. to wind forcing of water motion 2−106160
Guatemala City, effect of wind vel. on atmospheric Pb concs. 2−105622
discrete gust model for wind energy conversion systems 2−112061
gust structure in neutral surface boundary layer 2−100479
Haardt descent into Rhine valley during MESOKLIP, slopewind circulation and obs. 2−117429
heterogeneous terrain wind energy charact., numerical model 2−78733
hills of moderate slope in airflow, 3-D model 2−100506
hurricane and tornado vortex boundary layer struct. 2−68420
hurricane Iva (13 Aug. 1978 over NE Pacific), wind and wave obs. 2−88954
hurricane response to local heat and momentum sources 2−94449
hurricanes, origin, nature and effects (book) 2−63763
India, cloud mass types and western disturbances from satellite obs. 2−112083
Indian Ocean, cloud motion rel. to ship wind obs. 2−111998
Indian Ocean wind stress patterns during 1979 summer monsoon 2−94455
Indian sea areas, cyclonic storms and depressions in 1979, wind, press. and tracks 2−88965
inversion capped convective boundary layer, mean horizontal wind 2−106259
ionospheric altitude wind determination by radar method 2−106356
January standing wave pattern, simulation including transient eddies effects 2−106222
jet stream, low level, assoc. with subsynoptic system, numerical forecasting expt. *(Chinese)* 2−88947
jet stream double maximum in Southern Hemisphere 2−100443
jet stream geostrophic and ageostrophic winds, velocities 2−78784
katabatic wind at Bruggen, Germany (27 Feb. 1975) 2−73646
Lake Erie, wind stress determ. from water level fluctuations using inverse method 2−106151
lakes, inverse method for wind stress determ. from water level fluctuations 2−106151
Leh, India, windchill determ. 2−112076
local winds, speed and direction, topography effects 2−100490
long-period oscill. at 60 to 110 km altitude 2−94546
lower atm. mol. absorpt., optical meas. of atm. winds 2−68478
marine aerosol distribution, wind speed depend. modelling by gamma function 2−106261
marine boundary layer, wind and relative humidity rel. to aerosol modelling 2−117389
marine boundary layer, wind speed rel. to bulk transfer coeffs. of turbulent fluxes 2−117384
wind continued
marine boundary layer model of large-scale wind 2−94456
marine environments, wind speed and relative humidity rel. to aerosol modelling 2−117455
measurement accuracy of Doppler sodar technique 2−112180
measurement accuracy of rising balloon wind profiles 2−112179
measurement accuracy of SEASAT microwave instruments 2−89040
measurement accuracy of SEASAT microwave scatterometry 2−89038
measurement by balloon borne optical interferometry 2−68517
measurement by SEASAT microwave instrumentation 2−89041
measurement by SEASAT microwave scatterometry 2−89039
measurement of surface wind by obs. of cloud motion in trade wind area 2−112177
mesoscale buoyancy or gravity waves, power spectra study 2−100447
mesoscale wind variability in lower 5 km of atmos. 2−112065
mesosphere meridional winds during summer 2−78757
mesosphere wind field correlation with auroral electrojet fluctuations 2−83993
mid-latitude forcing in basic state zonal wind field, cross equatorial response 2−106221
Middle East, July lower troposphere, wind humidity and temp. 2−100496
mixed layer depths, obs. comparison with models, use of temp., wind and MOS forecasts 2−78805
mountain range causing leftward deflection on N Hemisphere wind 2−83904
mountainous region atmos. flow and effect of Coriolis force *(Russian)* 2−78759
mountainous region wind fields, multi-level fine-mesh model 2−63017
near-surface wind, appl. of model of boundary layer flow over low hills to real terrain 2−100428
neutral boundary layer wind, use of asymptotic similarity theory 2−106168
Newhall Pass, California, Santa Ana wind flow from tree deformation anal. 2−78804
Northern Hemisphere stratosphere, signal of Southern Oscillation 2−106194
ocean circulation, simple model of interaction between fjord and wind-driven coastal circulation 2−83828
ocean currents along nearshore frontal zone off SE United States, thermal wind effects 2−83829
ocean surface wind speed and direction, spaceborne scatterometer meas. 2−106351
ocean surface wind vector determ. from radar backscatter meas. 2−106371
ocean wave height and period prediction rel. to wind speed, JONSWAP result anal. 2−68376
equatorial Pacific dynamic response to sea surface temp. anomalies 2−117410
Pacific Ocean, vars. in tropical sea surface temp. and surface wind fields assoc. with El Nino 2−111931
tropical Pacific wind field and Southern Oscillation 2−112021
paddy field surface layer, Kolmogorov constant for CO_2+wind 2−111994
Peking radiation inversion, wind and temp. effects 2−78821
planetary waves, meridional shear effects and critical latitudes 2−106225
planetary waves, meridional shear effects for nonsingular wind profiles 2−106224
Poker Flat, USA, stratosphere/troposphere turbulence spectra from meridional and zonal wind obs. 2−106241
remote measurement of marine wind by SEASAT microwave scatterometry 2−89035
remote sensing, SASS wind ambiguity removal by direct minimisation 2−112013
remote sensing by SEASAT microwave scatterometry, atm. attenuation corrections 2−89037
remote sensing method for mid-troposphere by far IR satellite imagery 2−89012
remote sensing of marine winds by SEASAT-A microwave scatterometry 2−89036
remote sensing of wind speed, three-dimensional meas. technique using laser vector velocimetry 2−58132
upper Rhine valley, wind rose calc. from large scale winds 2−63023
Rocky Mountains standing wave momentum exchange with ground 2−100507
rural atmospheric boundary layer, near-ground wind struct. 2−100491
saddle wind flow observations 2−78732
scatterometer sensor for vector meas. over ocean, computer performance simulation program 2−117509
sea breeze phenomena, non-hydrostatic model 2−73612
sea breezes, radar study of insects in sea-breeze front at Canberra 2−100529
sea ice, oscills., forced by wind *(Russian)* 2−62981
sea ice wind stress measurement methods and obs. *(Japanese)* 2−94392
sea surface stress determ. by Seasat-SASS, case study with JASIN DATA 2−83827
SEASAT radar altimetry for waveheight and wind speed 2−89033
SEASAT radar altimetry system for ocean and atmos. meas. 2−89024
semidiurnal tide at equinoxes improved heating rates and wind related influences spectral anal. 2−78764
Shar, India, wind profiles from boundary layer up to 10 km 2−78761
shear, sources and detection 2−100417
shear meas. using ground-based Doppler radar 2−89045
ship waves in lee of isolated topography, model of wind speed and temp. 2−100474
Sierra Nevada Mountains, barrier winds 2−112049
slope wind behaviour, model *(German)* 2−88935
slope winds induced by surface temps., 2-D linear theory 2−63022
snow relocation, wind speed, snow concentration and humidity vertical profiles 2−111970
South China Sea 10-12 December 1978 cloud organisation and mesoscale features 2−112044
South Park, Colorado, boundary layer local wind system struct. 2−78803
Southern Hemisphere eddy statistics, geostrophic wind, freq./spatial depend. 2−78782
spaceborne synthetic aperture radar, conf. at Baltimore, USA, (March 1980) 2−68958
speed and direction indicator, remote display, log scale 2−117473
speed errors measured with cup anemometer due to atm. turbulence effects 2−73649
speed measurement, use of radioactive source emitted particles displaced by air movements *(French)* 2−100592

wind continued
speed over oceans from scanning multichannel microwave radiometric meas. 2—73558
speed relative to atmosphere dust content 2—63058
springtime reversal of stratospheric circulation at 30 mb level 2—117381
squall line over Korhogo, Ivory Coast, dynamics and thermodynamics 2—100488
stationary planetary waves forced by topography and diabatic heating 2—117408
Strait of Gibraltar, wind flow rel. to surface press. pattern 2—100494
stratosphere, effect of mean zonal wind distrib. on numerical models of sudden warming 2—100477
strong wind-shear over Bahrain aircraft descent obs. 2—68470
surface wind distributions in Thailand 2—78809
Sweden, wind directions rel. to possible origins of airborne Hg 2—68467
terrain height and roughness effect on wind profile 2—68417
thermal winds determination from horizontal gradients of satellite radiance obs. 2—78877
thermosphere, gravity wave generation from wind shear, equatorial spread-F occurrence 2—112215
lower thermosphere, planetary-scale waves in zonal winds 2—89058
thermosphere, radar obs. over Budrio, Italy 2—100610
thermosphere, time depend. var. from O I forbidden line obs. 2—100609
thermosphere global circulation and temp., influence of magnetosphere 2—73738
thermosphere neutral wind gradients and reversals at Arecibo, Fabry Perot obs. 2—112189
thermosphere perturbations due to O^+ precipitation 2—106377
thermosphere semidiurnal propagating tidal modes, assoc. wind and temp. struct. 2—106375
thermosphere winds at high-latitudes 2—73741
thunderstorm density current affecting boundary layer winds *(Chinese)* 2—112094
tidal effects, solar and lunar semidiurnal components 2—106252
tidal winds in mesosphere, obs. from Australia and Japan 2—63047
tornado development in severe frontal rainband 2—94443
trade-wind boundary layer, diurnal vars. 2—112022
tropical atmosphere, effect of zonal mean wind on stability of Walker circulation 2—100468
tropical cyclones cloud spirals and wind field 2—88969
tropical easterly jet, numerical model of barotropic instability 2—73637
tropical lower stratosphere with semidiurnal wind oscills. 2—68433
tropical oceanic winds, comparison of buoy obs. and models 2—94459
troposphere, NO_x concentration var., effects of wind 2—73622
troposphere wind distribution in quasi-geostrophic model 2—73620
typhoon, lowest 1 km outside eye, dynamics 2—100458
typhoon development along tropical convergence zone, model *(Chinese)* 2—78736
United Kingdom, windiness index 2—112072
upper atmosphere, Meteor Wind Radar System at Waltair, Nagarampalem field station, meteor echoes 2—117491
upper atmosphere density perturbation, travelling atm. disturbances and large scale winds effects 2—106376
upper atmosphere wind simulation, appl. of jet flow of compressible gas in gravity field 2—73735
upper atmosphere wind variations over Waltair from meteor trails radar obs. 2—78892
velocity fluctuations, power spectrum at 8 km and 86 km 2—100449
Venice sea breeze rel. to daily global solar radiation 2—111996
vertical shear in boundary layer over USSR (1961-70) 2—106283
vertical struct. of oscillations classical tidal theory formulation 2—63064
vertical wind shear and buoyancy effects on convective storm structure 2—112016
violent valley winds, role of inversion layer in air flow dynamics 2—100470
Visakhapatnam, India, boundary layer wind and temp. anal. 2—88970
W Washington State, USA, diurnal circulation effect on forecasting and precipitation, wind anal. 2—106191
water wave generation by wind, Miles' theory 2—68423
West Florida Shelf, wind forced sea level variability, and press. 2—111944
wind rose calc. from large-scale wind (for irregular terrain area) 2—63023

wind energy *see wind power*

wind power
20 kW Darrieus wind energy convertor in Argentina 2—99757
aerogenerator materials, impact of environment, review 2—67809
Alaska, USA, wind power potential of highland sites 2—112060
alternative energy sources, economic impact on electric power systems, analysis method 2—105535
assessment of the solar and wind resource in Northeast Utilities service territory, USA 2—73087
Austrian national economy, significance of unconventional energy sources *(German)* 2—73045
Baroda, south Gujarat, wind freq. distrib., data use for wind power anal. 2—88968
Belgium, wind power pot. and wind distrib. 2—105530
Bonneville Power Administration service area, extreme winds distrib. 2—83913
California, wind energy programme 2—57676
combined wind-electric/conventional generation systems reliability anal. 2—73062
computer code for designing wind and solar powered desalting plants 2—67832
customer-owned dispersed wind-powered generators, prep. by utilities 2—93867
Danish wind energy project 2—78180
desalination, solar and wind energy appls. 2—73070
dispersed array of wind turbines, estimation of total wind power 2—93865
energy potential and basic principles *(French)* 2—67807
energy potential in Andaman, Nicobar and Lakshadweep Islands, anal. 2—67815
energy sources, new and renewable, information sources, book 2—58564
federal role in wind energy commercialization, United States 2—57675
generators for wind power 2—93863
discrete gust model for wind energy conversion systems 2—112061
integrating small wind power conversion systems with diesel/hydraulic and diesel/battery storage 2—93864
Netherlands, technical studies and administrative steps *(Dutch)* 2—62455
Netherlands research and development programs, review of problems *(Dutch)* 2—78182

wind power continued
performance assessment and cost effectiveness of wind energy conversion systems 2—93866
regenerative energy sources—potential and limits *(German)* 2—73046
renewable sources of energy for electricity 2—88400
small scale energy systems for developing countries: the intermediate technology development group power programme 2—73068
small wind-gust generator arrays for Antarctica 2—67811
testing small windmills, Denmark 2—105528
utilisation as energy sources, various aspects *(German)* 2—93862
wind and solar powered reverse osmosis desalination units—design, start up and operating experience 2—67813
wind energy for the Federal Republic of Germany technical and economic potential 2—88402
Wind Energy Research and Development Programme, in Canada 2—67816

wind power plants
aeroelastic wind energy convertor, performance 2—78181
characteristics of a small wind-power system with DC generator 2—99758
combined wind-electric/conventional generation systems reliability anal. 2—73062
Cretan windmill design and performance 2—83450
design of Growian large wind energy converter 2—99756
effective output and availability of wind turbines for household loads 2—67808
experimental installation, Italian mountain location, description *(Italian)* 2—67837
generators for wind power 2—93863
high solidity vertical axis windmills, analytic model of aerodynamic performance 2—86357
integrating small wind power conversion systems with diesel/hydraulic and diesel/battery storage 2—93864
interface with electric utility systems 2—73060
irrigation pumping in USA, sale of excess electricity to utility 2—116774
Netherlands, technical studies and administrative steps *(Dutch)* 2—62455
small and vertical axis wind turbines, appls. 2—78179
thermal energy storage from wind power plant *(German)* 2—62502
tornado-type wind energy system flow anal. within the tower using numerical model 2—75945
utilisation as energy sources, various aspects *(German)* 2—93862
Wind Energy Research and Development Programme, in Canada 2—67816
wind-assist electric power systems, energy transfer model 2—88403
windmills in Netherlands, planning *(Dutch)* 2—116775

wind tunnels
aerodynamics of slender slot in wind tunnel wall study 2—114834
airframe noise, large scale model meas. using cross-correlation techniques 2—70746
capabilities related to test sections, cryogenics, and computer-wind tunnels integration 2—95387
flow-excited cavity tone spectra at low Mach nos. in wind tunnels 2—114523
heated flat plate, mixed, forced and free convection study 2—91449
hypersonic shock-layer flow numerical solution, laminar, transitional and/or turbulent speeds 2—86301
laminar-turbulent boundary layer transition, vel. fluctuations distrib., skewness coeff. 2—109278
liquid natural gas, spills, vapour dispersion simulation 2—99865
models, position and deform. meas. using optical sensor *(French)* 2—107300
parabolic trough solar collectors mean wind loading anal. by wind tunnel force and moment tests 2—78228
pipe probe for low speed flow meas., wind-tunnel tests 2—65659
radioactive pollution monitoring, stack gas diffusion from nuclear power station obs. 2—116859
resonant-cavity parallel baffles as duct silencers 2—60294
self-streamlining wind tunnel, development of transonic section 2—71040
shapes travelling at 6.85 Mach number, large amplitude oscillatory motions, schlieren photography 2—114951
sidewall boundary layer effects in two-dimens. subsonic and transonic wind tunnels 2—114776
slotted transonic wind tunnel, supersonic flow development 2—109363
subsonic wind tunnel at NASA, inlet aerodynamics 2—86359
supersonic gas flow meas., by electron beams *(German)* 2—81423
USA National Transonic Facility wind tunnel fan and jet noise control 2—60297
wideband active sound control, adaptive digital filtering algorithm 2—91153

wind turbines
265 kW wind turbine design and construction 2—105529
capacity factor of a wind turbine cluster 2—67812
Danish wind energy project 2—78180
determination of the troposkien shape and stresses in a tapered blade for a vertical axis wind turbine 2—67810
effective output and availability of wind turbines for household loads 2—67808
electric power generation for irrigation pumping in USA, sale of excess electricity to utility 2—116774
high solidity vertical axis windmills, analytic model of aerodynamic performance 2—86357
high-capacity machines integration into elec. power grid 2—111536
numerical solution of flow near the rotor of a wind turbine 2—91406
small and vertical axis wind turbines, appls. 2—78179

windings
see also coils; machine windings
superconducting windings for MHD generators, computational models of potential-field sources 2—93933
winding prestrain for circular solenoid for ELMO Bumpy Torus, anal. 2—69922

wires (electric)
see also conductors (electric)
low temperature heat sink for electrical leads in vacuum cryostat 2—79591
metallic, longitudinal magnetoresist., quasiclassical kinetic eqns. 2—61615
metallic thin films and wires, TCR, effects of thermal expansion, differential thermal stress and size effect 2—115916
plating by cathode sputtering 2—72621
thin wires, resistivity, surface scatt., Matthiessen's rule, roughness effects 2—82338

wires (electric) continued
wire electrode erosion quality determ. through vibration behaviour anal. *(German)* 2−78111
Mo, eddy current flaw detector 2−116667
W, eddy current flaw detector 2−116667

WKB calculations
alpha decay, fission approach 2−85006
anharmonic oscillator eigenvalues 2−74250
anharmonic oscillators, three-dimens., analytic WKB energy expressions 2−69042
atom surface scattering, low energy limit of reflection and sticking coeffs., long range forces 2−111006
benzene, linear transitions to highly excited stretching vibrs. 2−113964
diffused waveguide, numerical method for refr. index profile reconstruction 2−97174
dissipative heavy-ion collisions, quantum dynamical semigroup theory 2−113560
elastic collisions, glory energy range total cross-sections, semiclassical calcs. 2−80774
electrolytic soln., surface tension, self-consistent theory 2−98385
electronic energy-levels in dense plasmas 2−71084
granular materials, resistivity at zero temp. coeff. 2−66600
high-energy elastic scatt. at fixed angle, multidimensional WKB approach 2−107568
kink free energy calc., WKB approx. 2−79495
lasers with active media, resonator mode calc. using WKB method 2−108915
linearly expanding universe, quantised scalar field behaviour at low energy 2−112617
matrix model, large N, baryons, WKB wave functions 2−74616
nonadiabatic scatt. problems, generalisation of geometric optical series approach 2−69038
nuclear fragmentation theory, Schrodinger eqn. with time depend. mass parameter 2−54342
path integrals and the WKB approximation 2−107065
polymerisation reactions, stochastic theory, WKB approx. 2−83384
rotating nonisothermal compressible stratified atmosphere, Alfven wave propag. WKB approx. 2−109346
semi-classical WKB method *(French)* 2−69031
Stokes' in WKB theory 2−95077
time and space varying dispersive media, wave propag., WKB calcs. 2−101185
waveguides, dielectric, graded-index, planar, optical modes, WKB approx. 2−102923
whistler wave propagation in plasma waveguides *(Russian)* 2−76104
H, Stark effect, WKB soln. 2−113929
^{4}He+ 0s-shell-nucleus, equivalent local potentials from WKB calcs. 2−59264

Wolf-Rayet stars
3.3 μm emission line-identified with C IV (11-10) transition group 2−63453
AB 6, binary WR star in SMC, mass ratio, visible spectral obs. 2−89264
binary Wolf-Rayet stars, conservative and non-conservative evolutionary computations 2−63480
binary Wolf-Rayet stars, reason for absence of assoc. X-ray pulsars *(Russian)* 2−106750
chemical nature of Wolf-Rayet stars, results from UV spectra rel. to evolutionary status 2−63479
V444 Cygni, Wolf-Rayet eclipsing binary, approximation of narrow-band light curve via special polynomials *(Russian)* 2−94779
DEM 45, 137, 165, 174 and 208, LMC Wolf Rayet ring nebulae, kinematics obs. 2−68779
early-type emission-line stars, book 2−94934
evolution, connection with O-type stars 2−63477
evolution of single with mass loss, rel. to origin of Wolf-Rayet stars 2−63391
evolutionary status, implications of theoretical evolution of massive stars with mass loss by stellar wind 2−63392
expanding circumstellar envelopes, ionisation and vel. struct. 2−63370
formation scenarios 2−89248
galactic Wolf-Rayet stars, IUE UV spectrophotometry 2−58360
HD 191765, eclipsing binary Wolf-Rayet star with low-mass companion, photometric and spectroscopic vars. *(Russian)* 2−100957
HD 193077, neutron star secondary with possible OB third star, periods, spectra anal. 2−58351
HD 193793, WN7 star, wind vel. and circumstellar dust shell, UV obs. 2−84236
HD 197406 (WN7), possible candidate for runaway Wolf-Rayet star 2−63478
HD 50896, WN5 star, stellar wind rel. to kinematics of assoc. ring nebulae (Sharpless 308) 2−68852
HD 5980 in SMC, eclipsing WR star, nature, orbit and masses, visible spectra obs. 2−89265
HD 86161, neutron star comparison, mass and orbit, visible obs. 2−73983
HD 90657, WN4+O4-6 Wolf-Rayet binary, orbital elements and masses 2−106716
IR and radio emission from Wolf-Rayet and related stars, review 2−63415
LMC WC stars in H II region 30 Doradus, detect. and luminosities, visible spectra obs. 2−58368
LSS 4065 and 4064 in open cluster C1715−387, radiation and mass loss 2−89317
LSS 4368, peculiar WC star, obs. of assoc. ring nebula (G2.4+1.4) 2−63562
in M33 H II region NGC 604, correl. with interstellar wind driven bubbles 2−74052
mass loss and evolution of O-type and WR stars, symposium, Vancouver Island, Canada (1978 June 5 to 9) 2−58541
mass loss determination 2−68740
mass loss effects on evolution 2−68833
Of-like stars with circumstellar shells, spectral classifications for LMC objects 2−84235
origin, critical rates of mass loss from OB-type stars for evolution to Wolf-Rayet configuration 2−63393
origin, implications of massive stars losing mass+ang. momentum, evolution 2−63362
origin, model of evolution of massive common envelope binary star with mass loss 2−63537
radiatively-driven stellar winds theory, line acceleration 2−106668

Wolf-Rayet stars continued
radio and IR, emission from Wolf-Rayet and related stars, review 2−63415
ring nebulae assoc. with Wolf-Rayet stars, kinematics of stellar wind blown bubbles 2−68853
ring nebulae assoc. with Wolf-Rayet stars, obs. of NGC 3199, anon (MR 26), RCW 58 and (RCW 104) 2−68854
V348 Sagittarii, WC10 star, uvby photometry during August 1981 fading 2−106736
CV Serpentis, UBVR photometry and WC8 star characts. *(Russian)* 2−74033
ST 3, WC-O VI star spectrum 2−68786
supernova leading to form. of W50 and V1343 Aquilae (SS 433) 2−63594
γ Velorum, IR spectrum 2−112467
γ Vetorum (WC8+09 I), radio emission obs. at 2 cm rel. to mass loss rate 2−63476
WC 10 stars, 3 μm emission features obs. 2−89243
winds and UV/visible P Cygni profiles 2−63452
winds velocity characts. from UV spectral obs. 2−68795
WN7/WN8 stars, as massive O-type stars in advanced stages of evolution 2−63478
N V resonance doublet, Copernicus UV obs. 2−117681
^{22}Ne surface abundance and cosmic ray composition and accel. 2−94568

wolfram *see tungsten*

wood
gasification to liquid fuels, research and development aspects 2−78176
petrified, geological age assessment by ESR 2−62920
tree cellulose, climatic significance of H isotope ratios 2−89000
utilisation of wood and peat as fuel in Finland 2−99751

work function
see also electron emission; Schottky effect
directionally solidified eutectics as field emission cathodes 2−57274
disperse systems, semiconductor-metal phase transition, mixed state and transition hysteresis 2−71870
electronic struct. and magnetism 2−104241
EOS structure, single electrode pots. related to flat-band voltage meas. 2−82454
intermetallic compounds, work function of emitted electrons, chem. comp. effect *(Russian)* 2−104465
liquid metal alloys, simple model and rel. to Miedema's variables 2−116722
metal surface, O_2 adsorpt. and oxide form., photoemission studies, review 2−116331
metal-ionic insulator interface dipole energy theory 2−115891
metal-semiconductor contact, Schottky barrier heights rel. to interface states 2−98719
metals, nonlocal and local exchange, work function and surface energies 2−87370
metals, work functions, relation between theory and expt. 2−92728
metals electronic surface props., propagation matrix method, Schrodinger eqn. soln. 2−82438
methanol, chemisorpt. and condensation on Pd (100), spectrosc. obs. 2−93812
MOS struct., work function difference meas. technique 2−104495
MOS structure, single electrode pots. related to flat-band voltage meas. 2−82454
poly-1-vinyl-1,2,4-triazole-metal boundaries, charge carrier photoinjection 2−61587
polyphenylacetylene:$AsF_5(I_2)$, thin films, Schottky barriers, elec. props., doping reactions 2−77212
polypyrrole-Si (a-Si:H) contacts, Schottky barrier formation 2−92727
quantum theory, application to mol. problems 2−95119
rare gas adsorbates, local work function determ. by photoemission 2−82436
semiconductor, secondary electron emission ang. depend. changes due to work function red. 2−62026
semiconductor covered with thin film, work function, interface state effect *(French)* 2−61559
semiconductor-semiconductor interface, electron-hole systems work function and band struct. 2−87382
simple metals, face dependent surface props. 2−98721
spectrosc. obs. 2−92344
steel, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
surface electronic structure, review 2−82425
surfaces, atomically clean, prep., struct. and props. 2−82103
transition metal surfaces, work function, polarisation model, Huckel LCAO MO calc. 2−115858
Ag, adsorbed pyridine, surface enhanced Raman scatt., chemisorpt. and charge transfer role 2−110872
Ag surface, (110), (100) and (111), work function, Auger and LEED study 2−77155
Ag surface (110), NH_3 adsorption, thermal desorption spectroscopy and EELS study 2−66372
Al (111), overlayer of O, position, electronic and binding props. 2−82135
Al, lattice relax. at surface, work function, surface energy 2−87008
Al-GeS, work function determ. method 2−61553
Al-SiO_2-Si MOS struct., H_2 anneal effects on metal-semicond. work function difference 2−92771
Al(100), electron spectroscopic study of CO adsorption 2−76819
Au (111), spin polarised photoemission, band struct., workfunction effects 2−99301
Au electrode, interface with electrolyte, effect of adsorbed water, work function and pot. of zero charge meas. 2−61557
Au film, adsorption of water, work function and thermal desorption mass spectrometry study 2−98468
CdS thin film, work function, surface pot., annealing effects *(Russian)* 2−87373
Co, adsorption and decomp. of water, LEED, UPS, surface pot., and thermal desorption study 2−104160
CoO, undoped and Cr doped, segregation and near surface diffusion, work function study 2−76682
Cr (100), chemisorption of Cl and surface chloride form., struct. and kinetic study 2−66366
Cr (110), chemisorption of CO, EELS and AES study 2−57225
Cr epitaxial film on W (110) face, adsorbed O and Cs effect on work function, two-stage oxidation phenomenon *(Russian)* 2−61298
Cr, surface (110), chemisorpt. of O and initial oxidation 2−115567
Cs, work function by Thomas-Fermi-Dirac method 2−82429

work function continued
Cs-O mixed film coadsorpt. on Nb (110), work function and thermal stability *(Russian)* 2−104166
Cu (100), adsorption and coadsorption of Cs and O_2, LEED, AES, and work function meas. 2−82140
Cu (100) and (110), O_2 chemisorption, UPS, EELS, LEED and work function study 2−87071
Cu (111), clean and Na covered, CO adsorption, surface state shifts, UPS study 2−98716
Cu (111), O_2 chemisorption, UPS, EELS, LEED, AES and work function meas. 2−87072
Cu, secondary electron emission enhancement by adsorbed Pb and Sn monolayers 2−62025
Cu, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
Fe adsorption on Fe (001) and (110), work function study 2−92722
Fe overlayer growth on Ag(110), LEED and AES studies 2−98489
GaAs (110), chemisorption of Ge, UPS and work function studies 2−110412
n-GaAs, surface photovoltage meas. and Fermi level pinning, electron tunnelling through dipole layers 2−87392
GaAs-Ag interface, formation, struct., electronic states 2−104485
GaAs-Ga interface formation, electronic props., photoemission LEED and Auger study 2−98744
Gd (0001), adsorption of Xe, charge transfer instability absence 2−115552
Ge-GaAs heterojunction, work function, interface state effect *(French)* 2−61559
HfN electric spark alloyed coatings on Mo and W 2−67657
InP MIS Schottky diodes, plasma oxidation prep. and characts. 2−61591
Ir surface, adsorption of H_2, N_2, work function changes, field emission study 2−87047
K submonolayer adsorbed on W, field emission flicker noise, cross-correlation coeff. 2−99306
K, work function by Thomas-Fermi-Dirac method 2−82429
LaB_6, adsorption of O on (100), (110), and (111) surface, UPS, XPS, and LEED meas. 2−66365
LaB_6 surface, coadsorption of Cs and O_2, work function change and Auger study 2−87068
Li alloys, work function of emitted electrons, chem. comp. effect *(Russian)* 2−104465
Mg, lattice relax. at surface, work function, surface energy 2−87008
Mg surface, adsorbed O_2 layer, photoelectric work function meas., Fowler method 2−87371
Na, lattice relax. at surface, work function, surface energy 2−87008
Na, surfaces (100) and (110) lattice relaxation 2−56311
Na, work function by Thomas-Fermi-Dirac method 2−82429
Na_xWO_3, electronic struct., photoemission study 2−115656
Nb, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
NbC_x (111), (110) and (100) surfaces, electron work function, thermoemission meas. 2−82440
Ni (100), H_2 and CO coadsorpt., electron spectroscopy study 2−76827
Ni (110), adsorption of N_2, O_2, and CO at 20K, UPS and work function meas. 2−104159
Ni (110), chemisorption of Cl 2−56346
Ni surface, (110), adsorbed O, atomic structure, LEED, AES, EELS and work function study 2−66329
Ni surface, (111) and (211), initial oxidation kinetics, RHEED and X-ray emission study 2−57542
Ni surface, adsorption of Ar, Kr, Xe, CO, O_2, N_2, electronic binding energies of valence levels, UPS study 2−82437
Ni surface, O_2 and H_2 adsorption kinetics, surface struct. effects, Auger, LEED and work function meas. 2−87066
Ni surface, stepped, CO adsorpt. and dissociation, FEM study 2−92358
Ni, work function, electrolytic hydrogenation effect *(Russian)* 2−66623
Pd (110), chemisorpt. of Cl 2−56346
Pd (111), chemisorption of Br and dibromide form. 2−66364
Pt (110) chemisorpt. of Cl 2−56346
Pt{001}, adsorption of chlorobenzene and benzene, angle-resolved photoemission meas. 2−56340
Rb, work function by Thomas-Fermi-Dirac method 2−82429
Re, adsorbed Ba film, work function, elec. props. *(Russian)* 2−61560
Re, oxidised, thermionic emitters of positive ions 2−57242
Ru (001) coadsorption of H_2 and CO, work function, XPS, UPS and thermal desorption study 2−71805
Ru-Si contact, Schottky barrier height, effect of silicide form. 2−104466
Si, surfaces (111) and (100), ionization and desorpt. kinetics, atomic beam interaction study 2−115566
Si-metal contacts, fabricated by chemical reduction and electroless methods, barrier heights 2−110471
Sn, work function, temp. depend. field emission current meas. 2−115856
Sn-GeS, work function determ. method 2−61553
SnO_2-Si solar cell, barrier height, temp. and voltage depend. 2−78219
SnO_2(110), surface reconstruction effects on work function and surface cond. 2−115857
Te, adsorbed layer on W(110), multiple commensurate-incommensurate transitions, LEED study 2−115560
Ti alloys, high melting point, low temp. plasma interaction *(Russian)* 2−99595
Ti film, adsorption of water vapour, elec. cond. and work function 2−66354
TiC field emitter, field emission ion and electron microscopy, AES and atom-probe studies 2−115520
TiN electric spark alloyed coatings on Mo and W 2−67657
V, chemisorbed O, sputtering, secondary ion emission escape vel. depend. 2−77679
V_2O_5-P_2O_5/Au(Al) (graphite) struct., contact limited conduction, work function effects 2−72056
W (001), chemisorption of Cs, work function lowering by multiple dipole form., full pot. linearised APW calc. 2−72050
W (001) surface electronic struct., APW and warped muffin-tin calc. 2−61343
W (100), adsorption of Se, AES, LEED, work function, and thermal desorption meas. 2−66362
W (110), chemisorption of H, photoemission and electron stimulated desorption study 2−87049
W (110), work function change on adsorption of O 2−61558
W dispenser cathodes, M-type, activation by Os-Ru coating, Auger, XPS and ISS study 2−82091
W single crystal, cylindrical, ⟨110⟩ zone surface struct., LEED and work function 2−61269
work function continued
W surface (100), adsorption of Te, binding states, LEED, Auger and work function study 2−82146
W surface (100), chemisorption of S, Auger, TDS, LEED and work function study 2−82147
W-BaO B-type dispenser cathode surface, theoretical model 2−99290
W(001), adsorbed H, desorption kinetics and surface restructuring 2−87025
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342
ZrN electric spark alloyed coatings on Mo and W 2−67657

work hardening
see also cold working
brass, vibration-hardening treatment, influence of polymer-containing oil media, mech. characts. 2−99603
brass sheet, 70/30, plastic yield behaviour 2−111239
Cu Cu, Cu-Al, deform., effect of low-temp. irrad. 2−93564
dislocation mean free path calc. by computer simulations 2−71448
ductile materials, deformed in torsion, failure anal. 2−56074
elastic work-hardening beams and plates, springback after elastic-plastic pure bending 2−55436
elastic work-hardening rectangular plate, springback after biaxial pure bending 2−55437
elastic-plastic memory type materials with general work-hardening, math. theory 2−109206
elastic-plastic strain hardening material, ductile tearing instability anal., piecewise power law hardening 2−60468
fatigue crack growth model, threshold region 2−92093
FCC crystal, multislip, theoretical approach compared with expt. data 2−103775
FCC metals, pure, fatigue, role of strain hardening 2−111257
layer superstructure, domain-boundary hardening theory *(Russian)* 2−93529
martensitic transformation, creep and strain hardening model 2−83115
metal, FCC, saturation of flow stress 2−93574
metal, strain hardening, Orowan mechanism below the root of yielding crack-like notch 2−111267
metal forming, rigid-plastic anal. using finite element method, formulation for finite deform. 2−105180
metallic materials, tensile test diagram construction, with deform. anisotropy 2−105406
metals, deform., rate-dependent, elevated temps., constitutive eqns. 2−105265
metals, deformed, theory of dislocation cell sizes 2−103760
metals, ductile, abrasive wear *(German)* 2−83242
nonuniform plastic flow in tension, discontinuous straining effects 2−62141
pipes, circumferentially cracked, bending failure by flattening 2−65534
plastic materials, rate type, with combined work-hardening, simple shear deform. 2−65490
polycrystal, grain size effect on work hardening 2−111200
polycrystalline material, creep constitutive eqn. based on creep-hardening surface concept 2−81879
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
rings, thin, subjected to opposed conc. loads, strain hardening influence on deform. 2−97395
rolling, rheological properties of material effect on stress and strain states 2−99450
steel, alloy, hot deform., struct. form. and stress-strain diagram during unstable stage *(Russian)* 2−77876
steel, alloy, physicomech. props., influence of surface-active substances during plastic deform. 2−83191
steel, austenitic, strain hardening, depend. on struct. parameters 2−77844
steel, austenitic stainless, annealed, subcrit. crack growth and instability, mechanism of initiation 2−57438
steel, austenitic stainless, creep constitutive eqns., evaluation under repeated multiaxial loading 2−116515
steel, austenitic stainless, cyclic strain hardening, during fatigue, elevated temps. 2−93530
steel, austenitic stainless, nonuniform plastic flow in tension, discontinuous straining effects 2−62141
steel, austenitic stainless, strengthened by phase strain hardening and ageing 2−72741
steel, austenitic stainless, strengthening by low temp. deform. 2−105182
steel, austenitic stainless, thermal shock fatigue, Type 304 and 316 steels 2−57443
steel, austenitic stainless deform.-induced transform., effect of strain rate and strain state 2−77886
steel, C, hot deform., struct. form. and stress-strain diagram during unstable stage *(Russian)* 2−77876
steel, C, plastic flow, elevated temps., effect of C content 2−67524
steel, Cr, fracture toughness, correl. with sulphide inclusion level *(German)* 2−93615
steel, diffuse necking in sheet tensile specimens 2−116496
steel, dual-phase, struct.-prop. relationships 2−105253
steel, fatigue strength, residual stresses and surface hardening effects eval. 2−111103
steel, ferritic-martensitic, plasticity *(German)* 2−83195
steel, high strength, notched, criterion for plastic failure 2−62228
steel, high strength low alloy, fatigue crack initiation and strain-controlled fatigue 2−67520
steel, KhN77TYuR, dynamic recrystallisation and work hardening *(Russian)* 2−105178
steel, low alloy, rheological props. of ShKh15 2−72778
steel, low-C sheet, strain rate effect as strain to fracture 2−105338
steel, martensitic Cr-Mo-V type, performance under low-cycle fatigue at elevated temp. *(French)* 2−78054
steel, mild, cold forming suitability 2−72718
steel, mild, fatigue, deform. behaviour and dislocation struct. *(Japanese)* 2−72811
steel, Mn-Mo-Nb, pipeline, yielding behaviour 2−105256
steel, Ni, hot deform., substruct. effect on austenite strength 2−72735
steel, Ni-Mo, austenitic, strengthened by phase strain hardening and hydroextrusion, mech. props. 2−72715
steel, Ni-Ti, austenitic, a high-strength, fatigue limit, grain size and γ-phase stability influence 2−72822
steel, stainless, Type 316, stress/strain relation, modified Hollomon eqn., grain size depend. 2−67453

work hardening continued
steel, structural, of various strengths, temp. and strain rate effect at tensile and elongation props. 2−62164
steel, structural, toughening by preliminary thermomech. treatment, grain size red. *(Russian)* 2−62149
steel, vibration-hardening treatment, influence of polymer-containing oil media, mech. characts. 2−99603
steels, austenitic stainless, type AISI 304 AND AISI 316, dynamic testing, for large reactor structs. 2−74825
strain ageing, dynamic and static, strain depend. 2−67384
strain hardening curves, meas. technique for obtaining true stresses and strains *(Russian)* 2−93527
strain hardening curves of polycryst. materials, math. approx. 2−99448
strain hardening deformable media, mech. anisotropy eval. based on mathematical interpretation of kinematic-isotope hardening *(Bulgarian)* 2−99453
strain hardening extrusion, slip-line field analysis using expt. flow patterns 2−116463
strain hardening extrusion, slip-line field construction from expt. flow patterns 2−116462
Zircaloy-4, recovery and recrystallisation *(French)* 2−62143
Al alloy, 2618-T61, simultaneous stress relax. in tension and creep in torsion 2−105269
Al alloy 2024-T3, dimpled loaded hole fatigue strength, mean stress effects 2−67513
Al alloys, stress-strain behaviour, large strain deform. 2−111237
Al and alloys, strain localisation under tension 2−111246
Al, defect structure, offer low-temp. plastic deform. *(Russian)* 2−67444
Al, numerical analysis of Hopkinson bar experiments on dislocation dynamics 2−71446
Al, pure, wire drawing 2−67364
Al, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Al-Be alloys, Be dispersion strengthened, work hardening and recovery in high temp. creep *(Japanese)* 2−77880
Al-Li alloys, cyclic and monotonic ductility, effect of slip distrib. 2−67419
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Al-Zr alloys, microstruct. and mech. props., effect of plastic strain *(Korean)* 2−62172
Cd-Ag, warm deform. and texture strengthening 2−111199
Co-Cr-Mo-C alloys, strengthening mechanisms, room temp. 2−67371
Cu, containing Al_2O_3 particles, yield point and strain hardening *(Russian)* 2−105226
Cu, diffuse necking in sheet tensile specimens 2−116496
Cu, flow stress in polycryst., grain size depend., texture hardening concept 2−72780
Cu, powder compacted specimens, ductile fracture, influence of porosity 2−77948
Cu, recrystn. after tensile deform. of single crysts. *(Chinese)* 2−62135
Cu, single crysts., strain hardening at high strains and dynamic recovery 2−116457
Cu, strain hardening, monotonic and cyclic deform. 2−62136
Cu, strain rate effect on mech. prop changes at high strains 2−105184
Cu, subjected to critical work-hardening, annealing phenomena *(French)* 2−99463
Cu-Al (3 at.%), dislocation struct. effect on flow stress, X-diffr. and electron microscope study 2−91982
Cu-C steel multilayer composite, dislocation density and diffusion processes study by thermo-EMF method 2−67381
Cu-Fe, containing α-Fe particles, back stress hardening and static and dynamic hardening 2−67358
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Cu_5NiZn, ordering alloy, mech. props. 2−105216
Fe, cast, austempered spheroidal graphite, strain hardening 2−93533
α-Fe, Mn and N_2 additions effect on work hardening, 200-400° C 2−67369
Fe-Cr(Al), mech. props., effect of fast neutron irrad. 2−103844
Fe-Si (3 wt.%), plastic deform. in micro-and macro-stress regions, 293 to 773K *(Russian)* 2−99484
Mo alloys, mechanical properties and nature of fracture, in ductile-brittle transition temp. range 2−72820
Mo polycrystals, cold-worked, mechanism of work softening at elevated temp. 2−67375
NaCl, dislocation slip orientation depend., NMR study 2−109806
NaCl type crystals, effect of dislocation forest on work hardening *(Russian)* 2−88102
NaCl:Ca^{2+}, MFP of dislocations, NMR study 2−109807
Ni, subjected to critical work-hardening, annealing phenomena *(French)* 2−99463
Ni-Al (14.4 at.%), containing coherent precipitates, cyclic hardening, TEM study 2−99447
NiO, single cryst. deformed at room temp., TEM obs. of dislocations, high work hardening rate origin 2−103767
Si:O crystal, Czochralski grown, deformed, dislocation configurations 2−76448
Sn-Pb eutectic, superplastic behaviour in as-worked state 2−67442
Ta, single and bicrystals, work hardening and deformation *(Russian)* 2−105179
Ti, stress-strain relationship, usefulness of Hollman eqn. 2−67415
Ti-Al, mech. props. and thermal stability, comp. depend. *(Russian)* 2−77874
Ti-Al-V alloy sheet, acoustic emission during deform., microstruct. influence, twin form. 2−88324
Ti-Al-V(-Mo), low cycle fatigue, effect of stress-strain behaviour 2−57439
Zr, deform., mech. eqn. of state and strengthening mechanisms 2−93556

workers *see personnel*

wrapping *see packaging*

Wratten filters *see optical filters*

X^0 meson resonances *see eta meson resonances*

X-ray absorption
see also X-ray absorption spectra
chemical effects in X-ray transmission meas. 2−67147
human muscle and fat tissue, computerised tomography, attenuation in vivo and in vitro 2−94157
multilayers, absorbing, X-ray Bragg condition 2−65792
source and appl. of γ-rays and X-rays, symposium, Ann Arbor, MI, USA (June 81) 2−58525
Ge, X-ray photoemission and refl. near K absorpt. edge 2−72607

X-ray absorption spectra
see also EXAFS
calculation method for cryst. spectrometer and mirror anal. 2−69309
chemical shifts, use in density determinations, theory 2−77622
DRON-2.0 X-ray diffractometer, low-temp. attachment for recording X-ray absorption spectra 2−95571
edge problem, core-hole Green's function, dispersion theory 2−82267
metals, multielectron core excitation spectra, surface effects 2−87912
metals, X-ray absorpt. edge spectra, Nozieres-de Dominics theory, temp. effect 2−72578
metals, X-ray absorption, emission and photoemission spectral lineshapes 2−111033
near edge structure calc. using XANES program 2−67148
quartz, X-ray specular refl. and anomalous scatt. near Si K absorpt. edge 2−82953
rare earth chalcogenides, rare earth valence evaluation by X-ray absorption spectroscopy 2−57214
transition metals, X-ray absorpt. spectra, K- and L-edges 2−77624
$50P_2O_5+FeO_{50-x}+(V_2O_5)_x$, phosphate glass, XANES study of V 2−87904
AlF_3, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
BBr_3, B K photoabsorpt. spectra 2−80649
BCl_3, B K photoabsorpt. spectra 2−80649
BF_3, B K photoabsorpt. spectra 2−80649
CdP_4, CdP_2, Cd_3P_2, electronic struct., X-ray spectral investig. 2−82221
Ce alloys, surface and bulk props. of Ce, XPS and X-ray absorption spectra 2−57268
Ce intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
γ-Ce, mixed valence, X-ray absorption spectra 2−76991
Ce, oxidised, resonant photon stimulated ion desorption 2−87048
$CeCo_5(Ce_2Co_7)(CeCo_2Si_2)$, X-ray L_{III} absorpt. spectra of tetravalent Ce *(Russian)* 2−99218
$CeCu_2Si_2$, mixed valence, X-ray absorption spectra 2−76991
CeM_2Si_2 (M=Fe, Co, Ni, Cu), valence state of Ce rel. to thermoelec. power, X-ray absorpt. spectra meas. 2−61448
$CePd_3$, mixed valence, X-ray absorption spectra 2−76991
Co complex, thiourea and diphenylthiourea based, K absorption edge shifts 2−62016
$CrCl_3.6H_2O$, cryst. field splitting, K X-ray absorpt. spectra, MO theory 2−62017
CsCl, direct radiative recombination of core-hole highly excited states 2−87911
Cu complex, bis(creatinium)tetrachlorocuprate(II), single cryst., X-ray absorpt. study 2−87899
Cu X-ray K edge, absorption and anomalous dispersion meas. 2−116298
$CuMO_2$ (M=Fe, Cr, Ga), characterisation and chem. bonding, X-ray absorption study *(French)* 2−82955
CuM_2O_4(M=Fe, Cr, Ga), characterisation and chem. bonding, X-ray absorption study *(French)* 2−82955
$Cu_xMg_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
$Cu_xZn_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
$Cu(en)_2^{2+}$ exchanged Y zeolite, X-ray absorpt. obs. 2−93324
EuB_6, K emission and absorpt. spectra, band struct. 2−87900
$FeCl_3.6H_2O$, cryst. field splitting, K X-ray absorpt. spectra, MO theory 2−62017
KCl, electron struct and X-ray absorption spectra, APW calc. 2−56441
KCl, electron struct. and X-ray absorpt. spectra, core hole effect in cluster approx. 2−98536
KMF_3, M=Mn, Fe, Co, Ni, Cu, multiplet struct. in reflection spectra 2−110980
KPF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
LaB_6, K emission and absorpt. spectra, band struct. 2−87900
Li, K absorption spectrum, band struct. and density of states, initial state approx. 2−87901
Li-Mg, BCC solid soln., soft X-ray emission and self-absorpt. spectra meas. 2−99229
LiF, soft X-ray absorpt. spectra by pot. scanning, numerical inversion 2−93323
Mg, K absorption spectra, satellite struct. 2−87902
$MgCl_2.6H_2O$, Cl K-absorpt. spectra, absorpt. fine struct. 2−105000
Mn compounds, chemical effects on main peak 2−57211
$MnNi_2O_4$, struct., elec. cond. and X-ray spectra 2−65954
NH_4F (Cl)(Br), quasimol. features in X-ray K absorption spectra 2−105004
Na, X-ray absorption edge spectra, spin-orbit and exchange effects 2−105001
Na-Cs, Cs 5p absorpt. edge 2−110979
Na_2AlF_3, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
NaF, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
NaF, soft X-ray absorpt. spectra by pot. scanning, numerical inversion 2−93323
Na_2SiF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
Ni-Cu, L_{II}, L_{III} X-ray absorpt. spectra and density of states, KKR CPA calc. 2−99223
O adsorbed on Al surfaces, K-edge, angle-resolved XPS and extended X-ray absorpt. fine struct. spectroscopy appl. 2−70339
P^{n+} (n=12, 13), transitions and lifetimes meas., X-ray and beam-foil time-of-flight spectra 2−113920
Pd, X-ray absorpt. spectra, Land M-edges 2−77624
Pr, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
$PrCo_5$, X-ray L_{III} absorpt. spectra of tetravalent Pr *(Russian)* 2−99218
RAl_2, X-ray L_3 absorpt. edge study 2−62018
RGa_2, X-ray absorpt. spectrum study 2−77621
RP(RS), band struct., calc. and X-ray emission and absorpt. spectra study 2−110246
Re compounds chemical shifts of X-ray L_{III} absorption discontinuity 2−99221
Rie compounds, bond length determ. from X-ray absorption spectroscopy 2−77619
SF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
SbSI, ferroelec., temp. depend. of Sb L_1 absorption edge near T_c 2−110975

X-ray absorption spectra continued
Si:H, amorphous, electronic struct. by soft X-ray spectroscopy 2−104301
SiO_2-TiO_2, glass, X-ray spectral study of chem. bond character 2−105007
Sm, double-vacancy excitations in L atomic levels, X-ray absorpt. spectra 2−70168
Sm, metallic, Sm $M_{4,5}$ emission of absorpt. spectra 2−57210
SmB_6, K emission and absorpt. spectra, band struct. 2−87900
SmB_6, Sm $M_{4,5}$ emission of absorpt. spectra 2−57210
$Sm_{1-x}R_xB_6$ (R=La, Gd, Dy), solid solns., valence states, X-ray absorption spectra study 2−87202
$Sm_{1-x}Y_xS$, mixed valent, X-ray absorption studies 2−57215
$SrCl_2.6H_2O$, Cl K-absorpt. spectra, absorpt. fine struct. 2−105000
Ti, X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
TiC, X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
TiN, X-ray absorption spectra, electron relax. effects, core-hole potential 2−87903
Tm, mixed valence, X-ray absorption spectra 2−76991
TmSe, mixed valence, X-ray absorption spectra 2−76991
V, X-ray absorpt. spectra and electronic struct. 2−67150
V_2O_5, X-ray absorpt. spectra and electronic struct. 2−67150
$VS_2(Se_2)$, intercalated with transition metals, X-ray absorpt. spectra and electronic struct. 2−67150
Yb intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
ZnP_2, Zn_3P_2, electronic struct., X-ray spectral investig. 2−82221
Zr-Nb, soft X-ray absorpt. spectra and density of states calcs. 2−104999

X-ray analysis
see also electron probe analysis; X-ray chemical analysis; X-ray crystallography; X-ray diffraction examination of materials; X-ray spectroscopy
biological specimens simultaneous use of enery-dispersive and wavelength-dispersive spectrometers 2−113091
Ewald Oseen theorem in X-ray freq. region, microscopic anal. 2−79724
glass, X-ray microprobe analysis, limits of resolution and detectability, energy dispersive system 2−88393
mammalian tissue, cryoprep. for X-ray microanal. in STEM 2−83714
TEM and STEM, computer control for X-ray and energy loss line profiles and images 2−107472
thin film, X-ray microanalysis method, development 2−116765
thin films, X-ray spectra optimisation for quantitative anal. 2−69303
Al-Cu films, X-ray microanalysis using STEM *(German)* 2−97876

X-ray apparatus
see also biomedical equipment; X-ray crystallography apparatus; X-ray monochromators; X-ray spectrometers; X-ray tubes
bent cylindrical mirror appl. to X-ray beam lines 2−85434
BESSY experimental facility, status report 2−85415
collimator for producing low divergence beams 2−95572
diagnostic, automatic image recognition, comparative analysis 2−78410
diagnostic equipment, radiation quality improvement 2−78412
EMP produced by nuclear explosion, simulation aid by electron pulse direct injection into air 2−96357
fluorescent X-ray source, rigid, for monoenergetic radiation studies in radiographic imaging 2−78424
focusing method using bent diffraction crystals 2−53909
glass, float, X-ray mirror reflectivities from 3.8 to 50 keV 2−84755
goniometer for line adjustment in nanoradian range, X-ray interferometry appl. 2−89862
grazing-incidence mirror system, props. and performance 2−84762
Greninger nets for backscattered Laue analysis 2−84421
HASYLAB, synchrotron radiation facility at DORIS storage ring, survey 2−85416
holographic X-ray gratings production using synchrotron radiation 2−84768
image intensities, effects of optical feedback on characts. 2−58985
interferometer, parallel beam *(Russian)* 2−89880
ion chambers for fluoresc. and laboratory EXAFS detection 2−84765
microfresnel zone plates, batch production method 2−84774
minor surface roughness effect on scatt. of ultrasoft X-radiation 2−87898
mirror reflectivities from 3.8 to 50 keV 2−84756
multiparameter multichannel anal. system for X-ray sources 2−84767
phosphor, luminescence kinetics examination in non-stationary X-ray field 2−64203
photoconductor-thermochromic film struct. for X-ray visualisation 2−84776
point focusing X-ray camera and the study of the total external reflection 2−53910
real time X-ray topography using a fluorescent screen *(Japanese)* 2−84775
resonance transition radiation as tunable X-ray source 2−64200
resonance transition radiation for producing X-rays 2−64199
shadow projection microscopy of microwire 2−64207
slitless X-ray collimator 2−58984
small-angle X-ray focusing chamber for synchrotron radiation analysis 2−113088
transmission and reflection gratings for soft X-ray anal. 2−84757
transmission grating goniometer elements for synchrotron radiation facilities 2−84771
transmission gratings use for optical constant meas. in soft X-ray range 2−87726
ultra-high-vacuum heating camera for in situ synchrotron radiation X-ray topographic studies 2−95576
ultrathin window production for X-ray microradiography 2−107479
SiC, chemical vapour deposited, mirror material evaluation for synchrotron radiation 2−86071

X-ray applications
see also radiation therapy; radiography
ablative acceleration meas. by streaked X-ray shadowgraphy, comparison with optical meas. 2−79722
austenitic welding material, NDT, combined methods *(German)* 2−116661
cancer patients therapy using combined local hyperthermia and irradiation 2−62725
fractography, review *(Japanese)* 2−78034
grain size measurement with X-rays, SOL-X on-line NDT method 2−105394
inspection system, real-time, high-energy, development *(Japanese)* 2−78051
isotropic bodies of cubic crystals, Young's modulus and Poisson's ratio determ. from X-ray meas. *(German)* 2−83320

X-ray applications continued
laser fusion targets, coating thickness variations meas., automated computer anal. of X-ray radiographs 2−79533
medical imaging techniques survey 2−78400
nuclear fuel elements inspection 2−74868
plasma, laser produced, monochromatic X-ray images using single-cryst. double reflection spectrometer 2−97783
polypropylene, stress determ. using X-rays *(German)* 2−116662
polystyrol, stress determ. using X-rays *(German)* 2−116662
residual stress meas. using half-width method, statistical anal. 2−67682
source and appl. of γ-rays and X-rays, symposium, Ann Arbor, MI, USA (June 81) 2−58525
speech research, steerable X-ray microbeam appl. 2−57938
steel, C, ground and at layers, X-ray stress meas. *(Japanese)* 2−78012
steel, high speed, unidirectionally deformed layers, ψ splitting and microscopic residual shear stress in X-ray stress meas. *(Japanese)* 2−78011
Fe, unidirectionally deformed layers, ψ splitting and microscopic residual shear stress in X-ray stress meas. *(Japanese)* 2−78011
Pb, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
Si:As, ion implanted, pulsed X-ray annealing 2−115286
Si(Li) multi-element detector for coronary arteries non-invasive imaging 2−70061
Th, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935
U, inner-shell/subshell photoionisation cross section meas. using variable energy X-ray source 2−64935

X-ray astronomical observations
see also X-ray sources (astronomical)
2A 0526−328, X-ray cataclysmic variable, optical and X-ray study 2−112506
A 0538−66, 69 ms periodic X-ray pulsations discovered 2−89314
3A 0729+103, identification with cataclysmic variable and photometric and spectroscopic obs. 2−63521
2A 2315−428 field, Einstein obs. of confused region 2−94866
Abel 1763, X-ray galaxy cluster, X-ray meas. and cluster mass to radius of 1.4 Mpc 2−68909
Abell 1560, 2356 and 2384, clusters X-ray emission anal. and evolution 2−101077
Abell 2069, X-ray cluster of galaxies with multiple subcondensations, X-ray and optical obs. 2−68910
Abell 2218, X-ray obs. implications for Sunyaev-Zel'dovich effect 2−89387
Abell 2241E and W, galaxy clusters, radio and X-ray obs. 2−94846
Abell 496, cooling intracluster gas, X-ray anal. 2−84336
active galactic nuclei in clusters of galaxies 2−106882
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), X-ray and radio intensity var. correl. 2−63470
Ariel V high energy X-ray obs. journal 2−101093
α Aurigae (Capella), X-ray spectrum obs. rel. to coronal struct. and UV emission 2−112485
burster discovery at $\alpha=18^h12^m$, $\delta=-12.2°$, possible identification with (Serpens X-2) 2−112610
3C 371, N galaxy-BL Lacertae object, X-ray light curve anal. 2−112543
3C 58, supernova remnant, spectra and emission props. 2−79185
RS Canum Venaticorum stars, X-ray luminosity, age and activity, rot. effects 2−79148
Carina Nebula, X-ray emission and assoc. early-type stars 2−84293
γ Cassiopeia, Be star, X-ray flux and spectrum, obs. 2−63460
α Centauri A and B, individual X-ray sources, coronal emission, obs. 2−58336
CG 075+00 gamma-ray source field, search for corresponding X-ray sources 2−74126
CG 189+1 gamma ray source field, search for corresponding X-ray sources 2−74126
Circinus X-1, X-ray spectrum obs. in low state 2−112504
cosmic background flux upper limits from M87 X-ray and γ-ray obs. 2−63714
CTB 80, supernova remnant spectra and emission props. 2−79185
Cygnus X-1, hard X-ray spectrum obs. 2−74015
Cygnus X-3, OSO-8 X-ray obs., period 2−106780
diffuse 1 keV background origin, rocket-borne obs. 2−101095
BY Draconis stars, X-ray luminosity, age and activity, rot. effects 2−79148
1E 1402.3+0416, new BL Lacertae object, discovery by Einstein Observatory 2−94838
E 1551+718, X-ray flux rel. to identification with uncatalogued dwarf nova 2−106965
1E 2259+586, X-ray and optical posns. and IR pulsations 2−79164
extragalactic X-ray sources, log N-log S relation and luminosity functions from complete sample 2−58270
extragalactic X-ray sources, medium sensitivity survey rel. to log N-log S relation 2−58271
F-type stars, X-ray luminosity function from magnitude limited stellar X-ray survey 2−112422
field stars X-ray emission, survey 2−68722
G109.1−1.0, similar object to SS 433, X-ray and SHF/UHF obs. 2−63710
G292.0+1.8, X-ray morphology rel. to asymmetric SN explosion 2−117732
galaxy clusters, X-ray studies with Einstein Observatory 2−117781
galaxy clusters containing classical double radio sources, X-ray emission obs. 2−58474
GB 720514 and GB 740723, burst sources correl. with X-ray sources 2−63707
globular cluster X-ray emission due to cluster wind interaction with galactic halo 2−58502
GX349+2, GX17+2, flaring X-ray sources, evidence for periodicity in X-ray intensities 2−94867
GX 301−2=4U 1223−62, X-ray flares and pulse period 2−79166
GX 301−2 (4U 1223−62), pulsating X-ray source, X-ray flare obs. (1982 April 5 to 7) 2−63522
H 1741−280, soft X-ray transient, discovery, approximate position, and X-ray flux 2−89408
H 1909+096, X-ray binary, X-ray pulsations, neutron star pulsation models 2−94774
Hercules X-1, X-ray binary, hard X-ray line emission obs. 2−79154
HZ Herculis, X-ray binary precessing tilted accretion disc periodic mass transfer models 2−84264

X-ray astronomical observations continued
hot DB dwarfs, Einstein obs. of soft X-ray luminosities 2−89255
interstellar X-ray line emission from C and O atoms 2−63549
LMC supernova remnants, X-ray spectra classification 2−79177
M81(=NGC 3031), nucleus X-ray source detect. and Seyfert activity 2−94827
Markarian 501, hard X-ray/γ-ray, obs. anal. 2−74087
MSH 15−52, X-ray pulsar discovery in SNR shell 2−84255
MXB 1636−53, X-ray bursts anal. and obs. 2−94772
MXB 1728−34, periodic emission from black hole accretion disc 2−89297
MXB 1730−334, discovery of 0.5 sec. oscills. in flat top bursts 2−112508
narrow emission line galaxies, X-ray spectrum and time variability 2−74081
narrow emission line galaxies 2−89347
NGC 3607 group of galaxies, hot intergalactic matter X-ray emission obs. 2−84335
NGC 5408, irregular galaxy, X-ray emission from star formation burst 2−106911
North Polar spur, X-ray line emission from C and O atoms 2−63549
Orion Nebula Trapezium region, X-ray sources list and identification 2−74075
peculiar galaxies, X-ray obs. from Einstein Observatory 2−84311
PKS 2155−304, relativistically beamed synchrotron radiation from BL Lac object 2−63608
PSR 0531+21 (Crab pulsar), pulsed emission 2−117694
PSR 1822−09, pulsed emission, X-ray and γ-ray upper limits 2−117695
PSR 1913+16 companion, possible pulsar in propeller phase, X-ray emission anal. 2−84258
Puppis A, X-ray image, shocked interstellar medium structure 2−101006
QSO 1525+227, X-ray flux, evidence for 200 second variability 2−94855
quasars with absorption line systems, X-ray emission detect. 2−112604
quasars X-ray luminosity, relations with optical spectroscopic features 2−89402
SN 1006, spectrum anal. 2−89329
solar corona, obs. of X-ray lines of He-like O and Ne ions 2−106640
solar corona, Skylab obs. of active region coronal evolution 2−106638
solar corona Mg XI emission in McMath 14352 active region 2−68714
solar flare, 1973 July 29, revised temp. and electron density values for post-flare loops 2−100873
solar flare soft X-ray spectra obs. from Hinotori satellite, Fe line spectra and time vars. of X-class flares 2−100851
solar flare X-ray spectra, high resolution obs. with rotating spectrometers on Hinotori satellite 2−63344
solar flares, impulsive EUV and X-ray emission, time histories and model tests 2−79058
solar flares, obs. of impulsive phase in soft X-ray emission 2−94693
solar flares, spatial struct. of ≳100 keV X-ray sources 2−63343
solar impulsive flares, X-ray spectra, anal. 2−117644
solar limb flare, 1980 June 29, impulsive and gradual phases obs. from Solar Maximum Mission satellite 2−100867
solar two-ribbon flares, X-ray obs. rel. to energetics 2−100870
stellar X-ray survey, magnitude limited, rel. to F-type stars X-ray luminosity function 2−112422
Sun, corona active regions, Ca and Cr ions used for plasma diagnostics 2−63332
Sun, flare X-ray burst sources, impulsive and gradual components, origin and obs. 2−79062
Sun, flares of 1980 April 13 and May 9, spectra 2−94616
Sun, m-dm bursts assoc. with hard X-ray bursts, positions 2−100888
Sun, SMM obs. in 3-30 keV range, evolution of 1980 April 10 flare 2−100887
Sun, X-ray obs. of impulsive solar flares *(Russian)* 2−112415
Sun, X-ray spectra from flares and non-flaring active regions 2−84192
supernova remnant associated compact radio sources, X-ray/UHF/SHF obs. 2−63690
4U 1702−42, Hakucho obs. of X-ray bursts 2−68817
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129+47, neutron star accretion disc model scatt. radiation 2−94771
Vela pulsar, pulsed emission, X-ray and γ-ray upper limits 2−117695
Vela X-1, Ariel V hard X-ray obs. 2−106778
Vela X-1, Hakucho satellite obs. (1-22 keV) of X-ray binary *(Japanese)* 2−68814
Vela X-1 (4U 0900−40), spin down episode detect. from COS-B obs. 2−106787
Wolf 630, multiple star red dwarf X-ray source, coronal X-ray emission anal. 2−106790
X-ray binary periodic sources, spectrum versus phase from balloon X-ray obs. 2−63502
X-ray pulsar, Hakucho obs. of neutron star *(Japanese)* 2−112501

X-ray astronomy
see also X-ray sources (astronomical)
AXAF, X-ray scattering meas. of reflecting surfaces 2−58254
cosmic background, spectrum and origin 2−117803
development up to Einstein Observatory era 2−63711
Einstein objective grating spectrometer, calibration and efficiency 2−89146
evolution of Universe, stars and solar system, results from IR and X-ray astronomy 2−101108
Exosat, European X-ray observatory, mission objectives and scientific instruments 2−117566
Exosat objectives, hardware and operations schedule 2−117565
extragalactic X-ray astronomy with the Einstein Observatory 2−117781
gas scintillation proportional counter camera for X-ray astronomy appl. 2−78951
gas scintillation proportional counters for Japanese astron. satellite 2−94609
Hinotori satellite, hard X-ray telescope *(Japanese)* 2−68615
historical perspective, European contributions 2−79247
imaging gas scintillation proportional counter for X-ray astronomy 2−78950
quasars, X-ray absorption line detectability 2−74124
satellite-borne X-ray burst spectrometer for solar flares obs. 2−112329
soft X-ray background, origin in interstellar extended adiabatic blast wave 2−58424
solar flare hard X-ray pulsations, origin *(Russian)* 2−73934

X-ray astronomy continued
solar flare X-ray spectra, non-steady-state appearance 2−68713
solar X-ray burst emission due to betatron accel. 2−73935
spectrometer for hard X-ray and soft gamma ray telescope, design 2−112326
ultrasoft X-rays, camera window 2−84096
HgI_2 solid state detector for X-ray astronomy 2−78953
X-CO_2 filled position sensitive proportional counter for X-ray astronomy appl. 2−78952

X-ray binary stars
see also cataclysmic binary stars
0921−63, eclipsing halo X-ray binary, orbit, model and photometric/spectral obs. 2−84266
A0538−66, X-ray transient, UV spectra anal. 2−94770
2A 0311−227, AM Herculis star, light curve fluctuations anal., VRI obs. 2−94775
2A 0311−227 (EF Eridani), AM Herculis star, accretion column model, visible/IR obs. 2−89311
2A 0311−227 (EF Eridani), mag. white dwarf binary, complex emission-line struct. 2−58381
2A 0526−328, X-ray cataclysmic variable, optical and X-ray study 2−112506
A 0538−66, 69 ms periodic X-ray pulsations discovered 2−89314
A 0538−66, optical polarisation obs. 2−58392
3A 0729+103, identification with cataclysmic variable and photometric and spectroscopic obs. 2−63521
2A 1822−371, compact X-ray binary star, phase resolved optical spectroscopy 2−112502
2A 1822−371, degenerate star shell emission, component masses and orbital period, visible obs. 2−79145
2A 1822−371, optical, UV and X-ray modulation due to accretion disk bulge 2−79146
accreting neutron stars, hard X-ray spectra of polar hot spot 2−84267
accreting nonmagnetic degenerate dwarfs, X-ray and UV radiation 2−117670
accretion disc coronae around eclipsing systems, spectra 2−89298
accretion disc structure, role of X-ray heating 2−74030
accretion disk orientation 2−74034
V1343 Aqilae (SS 433), review of models 2−63472
V1343 Aquilae, (SS 433), non-stability of precession period from spectroscopic obs. *(Russian)* 2−112468
V794 Aquilae, cataclysmic variable star, short-term light vars. detect. by high speed photometry 2−106732
V1343 Aquilae, relativistic jets nature, role of mass transfer between components 2−79128
V1343 Aquilae (SS 433), 164 day period in emission/absorpt. lines, visible obs. 2−63466
V1343 Aquilae (SS 433), 164 day period secular change 2−58354
V1343 Aquilae (SS 433), absorpt. system, supercritical accretion disk wind scenario 2−84077
V1343 Aquilae (SS 433), accretion disc models involving black hole or neutron star 2−63474
V1343 Aquilae (SS 433), conf., Rome, Italy (October 1980) 2−58539
V1343 Aquilae (SS 433), disc motions/binary orbital period from theoretical anal. 2−117676
V1343 Aquilae (SS 433), evidence for form. from Wolf-Rayet star supernova 2−63594
V1343 Aquilae (SS 433), law of variation of precession period, (1978 to 1981) *(Russian)* 2−112469
V1343 Aquilae (SS 433), light var. in close binary model, visible obs. 2−63467
V1343 Aquilae (SS 433), line motion, visible obs. 2−73993
V1343 Aquilae (SS 433), model and evolutionary status 2−63471
V1343 Aquilae (SS 433), monoenergetic beams model from spectral anal. 2−84234
V1343 Aquilae (SS 433), obs. of simultaneous radio and X-ray activity 2−112453
V1343 Aquilae (SS 433), optical outburst Hα and V-obs. 2−63469
V1343 Aquilae (SS 433), photometric behaviour in 1979 and (1980) 2−68782
V1343 Aquilae (SS 433), relativistic models 2−63475
V1343 Aquilae (SS 433), X-ray and radio intensity var. correl., X-ray obs. 2−63470
V1343 Aquilae (SS 433) neutron star with accretion disc+B-type star, model 2−63473
V1343 Aquilae (SS 433) polarisation obs. and model 2−63468
KR Aurigae, orbital period from spectroscopic obs. 2−68791
KR Aurigae, unique variable star and X-ray source, new optical minimum obs., (December 1981) 2−63443
burst sources, accreting neutron star envelope, shell flashes 2−94863
burster discovery at $\alpha=18^h12^m$, $\delta=-12.2°$, possible identification with (Serpens X-2) 2−112610
burster emission regions nature 2−117708
bursters, oscillations due to neutron star nonradial pulsations or crust oscills. 2−58483
RS Canum Venaticorum stars, tidal coupling with differentially rot. convective envelopes 2−58382
RS Canum Venaticorum stars, X-ray luminosity, age and activity, rot. effects, obs. 2−79148
AM Herculis-type eclipsing binary (1114+18), photometric, polarisation and spectrum vars. and ephemerides 2−58408
Circinus X-1, optical counterpart is not object L of Whelan et al. 2−68826
Circinus X-1, X-ray spectrum obs. in low state 2−112504
Compton scattering, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
V1357 Cygni (Cygnus X-1), light curve anal., UBV obs. 2−106816
Cygnus X-1, γ-ray emission 2−89151
Cygnus X-1, Compton-cooled feedback mechanism for high and low spectral states 2−63529
Cygnus X-1, hard X-ray spectrum obs. 2−74015
Cygnus X-1, maximum electron temperature attainable 2−63709
Cygnus X-1, polarisation variations modeling, effect of orbital eccentricity 2−63524
Cygnus X-1, reddening, supergiant light var. and distance, UV obs. 2−63530
Cygnus X-3, 1975-1980 activity in SHF 2−84284
Cygnus X-3, γ-ray anal. from $>10^{17}$ eV EAS obs. 2−84283
Cygnus X-3, OSO-8 X-ray obs., period 2−106780
Cygnus X-3, photon energies above 500 GeV 2−74026

X-ray binary stars continued
Cygnus X-3, star model with pulsar component 2−106781
dipole and spin axes orientation change 2−79152
dwarf cataclysmic binary stars, effect of gravit. wave radiation on mass exchange and evolution *(Russian)* 2−106751
dwarf novae, viscous boundary layer and hard X-rays 2−79103
1 E 0643−1648, IUE UV obs. of cataclysmic variable 2−112456
1E 1405−451, AM Herculis star, two second variability 2−94777
E 1405−451, AM Herculis-type binary evidence from polarization 2−68822
E 1405−451, E 1013−477, identification with AM Herculis type cataclysmic variables 2−63378
E 1551+718, identification with uncatalogued dwarf nova 2−106965
1E 2259+586, X-ray and optical posns. and IR pulsations 2−79164
evolution of compact binary star systems, implications for X-ray sources 2−68812
G109.1−1.0, similar object to SS 433, X-ray and SHF/UHF obs. 2−63710
GX349+2, GX17+2, flaring X-ray sources, evidence for periodicity in X-ray intensities 2−94867
GX 301−2=4U 1223−62, X-ray flares and pulse period 2−79166
GX 301−2 (4U 1223−62), pulsating X-ray source, X-ray flare obs. (1982 April 5 to 7) 2−63522
GX 339−4, accretion flow cyclotron radiation 2−94776
GX 339-4, optical counterpart, fast optical activity, accretion disc origin, visible obs. 2−84276
H2252−035, non-synchronous rotator, spectral/photometry obs. anal. 2−100955
H 0139−68, AM Herculis star, high speed photometric obs. 2−63517
H 0139−68, identification with AM Herculis-type star 2−94788
H 1909+096, X-ray pulsation due to neutron star pulsations, models 2−94774
HD 153919 (4U 1700−37), optical eclipses and precession effects 2−117710
HD 219634, massive new eclipsing binary, possible identification with X-ray source (4U 2316+61) 2−79159
HDE 226868 (Cygnus X-1), optical spectrum obs. rel. to radial vels. and orbital elements 2−112486
HDE 245770, Hα emission line variability, obs. *(Russian)* 2−68829
Hercules X-1, Fokker-Planck eqn. for radiation transfer in strongly magnetised plasma 2−78945
Hercules X-1, hard X-ray line emission obs. 2−79154
Hercules X-1, precessing tilted accretion disc periodic mass transfer models, from X-ray obs. 2−84264
Hercules X-1, vertical struct. of accretion disc rel. to 35-day cycle 2−63368
HZ Herculis, circulation currents in irradiated stellar atmosphere rel. to light curve 2−112433
AM Herculis, multiwavelength obs. during low state 2−89299
AM Herculis, radio emission detect., origin in white dwarf magnetosphere, model and SHF obs. 2−74020
HZ Herculis, spectral line profiles, taking mass transfer into account 2−94786
HZ Herculis, UV light curve, effect of accretion disc, UV obs. 2−63530
AM Herculis, visual mag. estimates (1982 May) 2−79167
AM Herculis, visual magnitude estimates, (1982 June 23 to July 8) 2−106804
AM Herculis, VRI photometry and circular polarisation during low state, (1982 March 6 to April 19) 2−74025
AM Herculis (3U 1809+50), new optical decline, visual magnitude estimates (1982 March 29 and April 19) 2−68823
AM Herculis (3U 1809+50), visual magnitude estimate, (1982 April 16) 2−68824
AM Herculis stars, 2-second period, standoff accretion shock height instability, model predictions 2−94777
HJ 2215−086, optical counterpart light curve anal., visible spectra/photometry obs. 2−74011
LMC X−4, possible disc, UV spectral obs. and light var. 2−63507
low-mass X-ray binaries, vertical struct. of accretion discs 2−63368
LS 1 +61°303, radio X-ray binary, model of periodic radio emission, SHF obs. 2−68915
MV Lyrae, red+white dwarf model, UV spectra anal. 2−94726
magnetized neutron stars, evolutionary diagram 2−106767
magnetized neutron stars, low-luminosity accretion 2−89291
misaligned binaries, Roche potential and critical lobe 2−89300
MSH 15−52, SNR, X-ray pulsar discovery in SNR shell, obs. 2−84255
MXB 1636−53, X-ray bursts anal. and obs. 2−94772
MXB 1728−34, periodic emission from black hole accretion disc 2−89297
MXB 1730−334, discovery of 0.5 sec. oscills. in flat top bursts 2−112508
MXB 1730−335, Rapid X-ray Burster, nature of two modes in type II bursts *(Russian)* 2−112509
nature and history of developments up to Einstein Observatory era 2−63711
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron star component, atm. and environment 2−63712
neutron stars, X-ray bursts spectra rel. to mass and radius determ. 2−68933
OB-type X-ray binary stars, effects of mass loss on evolution 2−63536
periodic sources, spectrum versus phase from balloon X-ray obs. 2−63502
GK Persei (Nova 1901), UV spectral obs. 2−79110
PG 1550+191, AM Herculis star, polarisation and period, visible obs. 2−84265
PSR 1913+16 companion, possible pulsar in propeller phase, X-ray emission anal. 2−84258
pulse period distrib., gap due to accretion torque induced neutron star slow down 2−58388
VV Puppis, AM Herculis, time-resolved spectroscopy 2−112449
rapid X-ray burster, auroral precipitation model 2−79147
recurrent X-ray sources, effect of stellar wind vel. on eccentric-orbit binary model 2−84275
2 S 0921−630, optical counterpart eclipsing binary, light curve anal. 2−106789
2S 1223−624 (GX 301−2), flares and orbital period determ. 2−89312
Serpens X-2, possible identification with new X-ray burster 2−112610
RW Sextantis, cataclysmic binary, accretion disc with hot wind, model and line anal. 2−94724
SMC X−1, possible disc from light var. and UV spectral obs. 2−63507
SS 433, nature and model *(Russian)* 2−68792

X-ray binary stars continued
steady accretion disks structure, depend. on mass of central star and accretion rate 2−100913
stellar evolution theory, results from obs. of X-ray binary starts 2−101108
stellar winds in binary X-ray system, effects of X-ray heating and ionisation 2−106775
V711 Tauri (HR 1099), far UV obs. at quadrature rel. to props. of outer atmosphere 2−63499
tidal evolution of close binary systems of high eccentricity, appl. to X-ray binary star 2−89304
time dependent accretion onto magnetised white dwarfs, shock height oscills., hydrodynamic solns. 2−94773
transients, neutron star thermonuclear evolution model and accretion 2−94860
two stream nonradial accretion model 2−74014
3U 0352+30 (=X Persei), detect. of Hα, obs. 2−84242
4U 0900−40, light curve anal., supergiant rot. axis forced precession effects, UBV obs. *(Russian)* 2−68828
4U 12234-62 (Wra 977), B1.5 supergiant, spectroscopic orbit 2−106814
4U 1700−37 (=HD 153919=V884 Scorpii), absence of optical pulses from photometric obs. 2−106799
4U 1702−42, Hakucho obs. of X-ray bursts 2−68817
4U 1735−44K, burster, accretion disc struct., UV spectral obs. 2−58391
4U 1822−37, eclipsing X-ray binary, X-ray spectrum simulation 2−89313
4 U 1849−31, IUE UV obs. of cataclysmic variable 2−112456
4U 1915−05, X-ray burster, discovery of 50-minute binary period and 22-magnitude optical counterpart 2−63510
4U 1915−05, X-ray burster, discovery of 50-minute periodic absorpt. events 2−63509
4U 2129+47, compact object nature, mass, spectral line origin, visible obs. 2−68930
4U 2129+47, low mass X-ray binary, UBV photoelectric photometry of optical counterpart 2−89303
4U 2129+47, neutron star accretion disc model scatt. radiation, obs. 2−94771
AN Ursae Majoris, AM Herculis star, 1979 minimum, energy distrib., visible obs. 2−63423
AN Ursae Majoris, AM Herculis star, two second variability 2−94777
AN Ursae Majoris, polar, BV photometry during low state (1982 March 20 and April 20) 2−74025
Vela X-1, Ariel V hard X-ray obs. 2−106778
Vela X-1, Hakucho satellite obs. (1-22 keV) *(Japanese)* 2−68814
Vela X-1, neutron star component interaction with accretion disc 2−63712
Vela X-1 (4U 0900−40), spin down episode detect. from COS-B obs. 2−106787
Wolf-Rayet stars, reason for absence of assoc. X-ray pulsars *(Russian)* 2−106750
X-ray pulsar, Hakucho obs. of neutron star *(Japanese)* 2−112501
H 0139−68, AM Herculis star, optical and near-IR polarisation obs. 2−106803

X-ray characteristic temperature *see Debye temperature*

X-ray chemical analysis
see also electron probe analysis; X-ray diffraction examination of materials; X-ray fluorescence analysis
achromatic proton microbeams 2−95544
aerosol particulate samples, X-ray powder diffr. system for chem. speciation 2−105630
Amsterdam proton microbeam and its appl. 2−95549
archaeological artifacts, proton induced X-rays study 2−99730
beam exit window materials effect on detection sensitivity in PIXE anal. 2−99717
biliary and urinary calculi anal., PIXE and other methods comparison 2−68203
biological samples trace element anal. using proton microprobe 2−100168
carotenoids, autoxidation kinetics, X-ray diffr. study 2−99667
chemical state analysis, using two-crystal vacuum X-ray spectrometer 2−89875
depth profile of foreign atoms in bulk material using PIXE anal. 2−116739
electron beam geometry influence, Monte Carlo method study *(French)* 2−73031
electron microprobe, transmission stage for Cambridge Stereoscan 600 2−57943
element concentration assignment in PIXE anal. 2−99727
elemental mapping with Karlsruhe nucl. microprobe 2−99725
energy-dispersive electron microprobe techniques, for rare-earth element determ. 2−67794
evaporated and implanted layers characterisation by RBS and PIXE anal. 2−99724
foil, energy dispersive X-ray anal. 2−73032
foil, X-ray analysis, single-scattering model, spatial resolution 2−116766
glia and glioma cells, human, elemental characterisation by nuclear microprobe 2−68202
Heidelberg proton microprobe 2−95542
human teeth root surfaces, meas. of corrosion products from dowels with proton microprobe 2−100090
low-Z impurities lattice location study by ion channelling 2−81843
Melbourne scanning proton microprobe developments 2−95543
microanalysis near absorption edge using synchrotron radiation, quantitative results 2−57661
microanalysis using charged particle accelerators, conf., Namur, Belgium (Sept. 1981) 2−94883
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
nutrient elements in apples during growth period, elemental study by PIXE 2−67776
Oxford 1 μm proton microprobe 2−95541
oxides, phase comp. determ., semiquantitative X-ray method 2−93708
PIXE depth profiling technique appl. to near surface Ar distrib. in semicond. 2−99716
PIXE sample characterization, review 2−111523
polycrystalline mixtures, qualitative X-ray phase anal., computer appl. 2−67688
proton microprobe, spatial intensity profile characterisation for external beam 2−95545
proton microprobe for K X-ray studies 2−99726
relative intensity factors for K, L and M shell X-ray lines 2−88395

X-ray chemical analysis continued
roll coatings formed during Al hot rolling with different material rolls 2−111385
scanning microprobe anal. and microscopy, conference, Karlsruhe, Germany (June 1981) 2−68955
scanning PIXE meas. with Eindhoven cyclotron, data handling 2−95548
scanning proton microprobe appl. to biology and medicine 2−100167
semiconductor alloys, with multiple epitaxial layers, X-ray composition anal., electron beam excited, with high spatial resolution 2−66401
steel, austenitic, strongly radioactive, X-ray microanal. of C diffusion *(French)* 2−67786
steel, austenitic stainless, fuel pin cladding, neutron irradiated, energy dispersive X-ray spectrometry, STEM anal. 2−69709
steel, Cr-Mo-V, martensitic stainless, stress corrosion cracking susceptibility 2−78017
steel, stainless, oxidation investig. using automated scanning proton microbeam 2−111351
steels, monolayer grain boundary segregations, detection using STEM-EDS X-ray microanal. 2−67351
surface anal. of conversion and passivation films, low energy electron induced X-ray spectra 2−83426
target preparation of biological specimens for SPIXE meas. 2−100166
TEM, X-ray elemental anal. 2−67793
TEM, X-ray microanal. 2−67792
thick insulating sample microbeam anal., thin foil technique appl. 2−95536
tissue sections at cellular resolution, elemental mapping using nucl. microprobe 2−99920
trace pollutants determ. in urban snow using PIXE techniques 2−67910
two-dimensional anal. of solid materials using nucl. microprobe, techniques development and comparison 2−95547
Al-Fe(4wt.%), STEM-EDS X-ray microanal. of rod-shaped precipitator 2−67795
Al-Mg (8wt.%), grain boundary segregation 2−88087
Al-Si (Mg)(Zu), thermal cycling influence on alloying elements soln. 2−72738
Al-Zn (15 and 25 wt.%), intercryst. precipitation *(French)* 2−116448
Au items of ancient jewellery, milliprobe and microprobe anal. 2−99729
B fibre reinforced Al, fracture and strength characts., chemical action effect *(Russian)* 2−72795
Br determ. in blood serum using PIXE spectrometry 2−78163
Co sheet, P vapour reaction kinetics and mechanism *(Japanese)* 2−78006
Co-Ge-Te, phase equilibrium cross-sections 2−72679
D-T content in glass microballoons, X-ray counting method 2−85242
FeB, compositional and chem. state, XPS study 2−77706
$FeSi_2$, compositional and chem. state, XPS study 2−77706
GeAs, I_2 chem. vapour transport, thermodynamics and kinetics 2−97949
InSb, LPE regrowth by CW laser annealing, expt. study 2−56029
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
Mo, interaction with molten Cu 2−72873
Ni surface, (111) and (211), initial oxidation kinetics, RHEED and X-ray emission study 2−57542
Ni/Cr thin-film structures, sputter depth profiles obtained from emission of Auger electrons and X-rays 2−77682
Pd-In-Sc system, polythermal PdIn-PdSc cross-section investig. 2−57332
Si, heat treated wafers, metal decorated haze microdefects, TEM and energy dispersive X-ray anal. 2−91946
Si(Li) detector and data processing system for energy-dispersive X-ray microanalysis 2−90373
Si(Li) detector and proportional counter calibration for microbeam PIXE anal. 2−59601
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
$(U,Pu)O_2$ fuel element, strongly radioactive, X-ray microanal. *(French)* 2−67786
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137

X-ray crystallography
For results of structure analysis see crystal atomic structure
see also X-ray crystallography apparatus; X-ray crystallography calculation methods; X-ray crystallography technique
Bragg optics of a logarithmic spiral surface 2−76234
diffraction phenomena, Thomson theory inconsistency, physical optics approach 2−115087
diffraction phenomena, Thomson theory inconsistency 2−115088
distorted crystal, X-ray dynamical diffraction 2−86500
double refraction and dichroism 2−103556
dynamic theory at Bragg angles near $\pi/2$ 2−65794
electron density distrib. and bonds in crystals, X-ray diffractometry investig. 2−60834
high-pressure X-ray crystallography, 1933-1980: a bibliography 2−63771
incoherent dynamic diffr. from randomly disordered crystals, mutual coherence fomalism 2−76237
low energy X-ray interaction coeff., photoabsorpt., scatt. and reflection 2−107024
multiple diffraction of X-rays 2−86506
non-crystalline substances, diffr. studies, book 2−58566
noncentrosymmetric crystal, electron distrib. study by diffr. methods, error estimation 2−103557
perfect crystals, X-ray and neutron diffraction integrated intensities in transmission 2−86502
powder diffraction with single-cryst. monochromator, polarisation factor 2−65791
randomly disordered cryst., dynamic X-ray diffr. coherence description 2−97841
Rietveld analyses and pattern decomposition studies, suggested guidelines for publication 2−81615
spherical wave diffr., kinematical theory 2−97839
statistical dynamical theory of diffr. in crystals 2−76235
surface defect containing cryst., X-ray scatt. 2−86499
surface X-ray waves *(Russian)* 2−81619
three-beam diffraction, intensity attenuation and enhancements 2−91721
X-ray excitation theory in the Bragg geometry 2−86501
Fe-Si, multistereo synchrotron X-ray topography, defects depth determ. 2−91722
Si, multistereo synchrotron X-ray topography, defects depth determ. 2−91722

X-ray crystallography apparatus
see also goniometers; X-ray diffractometers; X-ray monochromators
angular setting for X-ray diffr. meas. in range of angular seconds *(German)* 2−89879
automated X-ray orientation system for meas. of angles of cut of doubly rotated quartz crystals 2−97859
automatic high-resolution instrument for recording X-ray diffr. patterns 2−86513
camera for single cryst. studies at high temps. under controlled atmosphere 2−65803
concave crystal mirror optimum position relative to X-ray macrosource 2−64202
curved Bragg crystal spectrometers, geometrical aberrations 2−113085
energy dispersive EXAFS camera development for EXAFS spectra meas. 2−84769
focusing camera for macromolecular crystallography with synchrotron radiation 2−81628
goniometer for large single crystals 2−97855
microchannel plate X-ray detector for synchrotron radiation 2−85475
microprocessor-controlled continuous-flow cryostat for single-crystal X-ray diffraction in the range 10-300K 2−97849
monolithic goniometer for pure rotation and fine orientation control 2−89877
MWPC imaging detector for small angle X-ray diffr. study 2−96375
Peltier effect cooling device for X-ray powder diffractometry *(French)* 2−81631
protein crystallography, crystal cooling device for use with synchrotron radiation 2−68209
rotation stage for precise alignment at the 10^{-3} sec of arc level 2−64204
small-angle X-ray scatt. system with linear position-sensitive detector 2−64198
spectrometer, high resolution broad range 2−81623
synchrotron topography, high temp. deform. stage 2−97852
synchrotron X-radiation sources, reflecting range and partiality calcs. 2−115094
topography station at Daresbury Laboratory 2−86508
Weissenberg goniometer, low temp., with closed-cycle cooling to 28K 2−65804
X-ray scattering beam line at National Synchrotron Light Source 2−84764
Si(Li) multichannel X-ray detector, for crystal struct. determ. 2−54719

X-ray crystallography calculation methods
absorption effects from surface miscut in reflection diffractometry, reduction by averaging 2−81630
anomalous scatterers position in cryst. struct., two-wavelength techniques 2−115092
BCC solid solutions, ω phase, interference effects among variants, theory 2−97835
biological macromolecules, struct. determ. by small angle scatt. 2−88509
Bragg diffraction from a material of circular cross section, theory 2−97838
9-bromo-10-methylanthracane, diffuse X-ray scatt. anal. 2−109773
close-packed structure, X-ray diffr. effects generated by stacking faults, calc. method *(Russian)* 2−66018
computer programs, array processor appl. 2−65798
computer programs, Cambridge Crystallography Subroutine Library, review 2−65810
crystal plate with step-like impurity atom distrib., surface relaxation 2−66337
Debye-Scherrer photograph indexing for orthorhombic cryst., algorithm and computer programme *(Chinese)* 2−76239
electron density distribs. for structs. with superstruct. effects *(German)* 2−81616
experimental correction for primary and secondary extinction 2−109629
extinction problems, statistical dynamic theory 2−65795
fibre diffr. patterns, anal. for helical macromol. struct. studies 2−115100
intensity variances and χ^2 distrib., no. of reflections, degrees of freedom *(German)* 2−91723
iterative entropy maximisation using imperfect data, for electron density images 2−91720
Karle-Hauptman determinantal method for phase determ. of small structs. 2−97836
lattice consts., determ., geometrical correction 2−86518
lattice consts. and cryst. orientation, computer program 2−115098
Laue case rocking curves, spherical wave theory 2−86505
line broadening, variance, corrections for truncation, curvature and instrumental effects 2−81627
line profile anal., variance and fourth moment calc. 2−97847
linearly disordered crystal, electron density distrib. describing Bragg scatt. 2−109625
macromolecular structure refinement with X-ray and neutron diffr. data from single crysts. 2−60840
macromolecules, phase problem, determinantal soln. using stereochem. information 2−97833
molecular structure, with probability ellipsoids of atomic thermal vibrs., graphical representation, ELLIDS program 2−55811
multilayers, absorbing, X-ray Bragg condition 2−65792
multiwavelength method with synchrotron radiation, termination errors 2−65806
nonperfect crystals, curved X-ray trajectory determ., dynamical theory 2−103558
orientation space resolution, rel. to pole-figure resolution 2−109628
phase relationships appl. to complex structs. MAGEX procedure 2−115091
powder diffr., probability scoring technique for phase identification 2−115097
powder diffr. pattern indexing by iterative correction method *(Chinese)* 2−109627
powder diffr. patterns, complex, profile equation technique 2−65800
powder diffraction, overlapping peak intensities 2−55809
powder diffraction, search-match system 2−86498
powder diffraction phase analysis, quantitative 2−115089
powder diffractometery, phase anal., minicomputer algorithm 2−115096
powder indexing method based on successive dichotomies *(French)* 2−115099
powder spectra calculations, program, PROVA 2−109633
profile-fitting method for the analysis of diffractometer intensity data 2−97844
protein crystallography, atomic coordinates, RMS errors calc. 2−99876
quantitative X-ray diffr. anal., optimisation improvement 2−97854

X-ray crystallography calculation methods continued
reflection curve, of a packing defect in Bragg case 2−55987
Rietveld refinements, profile shape functions 2−97853
Roentgenographic particle size and distortion determ., distortion distrib. influence 2−109632
secondary extinction, rel. to crystal analysis 2−86503
section topography, intermediary form. 2−97857
single Bragg reflection intensity formula 2−109626
small-angle X-ray scatt., slit-smeared correlation function determ. 2−65796
spherically symm. density distrib., recovery from its self-convolution, computer program 2−65805
structure factors, invariant phase information in two-beam Bragg intensity near three-beam point 2−76236
structure factors calc. from symm. operators 2−97856
twinning by merohedry, X-ray intensity statistics 2−60832

X-ray crystallography technique
anomalous dispersion technique, partial struct. factors determ., computer simulation 2−81633
area detector data acquisition system for macromolecules X-ray studies and other diffr. expts. 2−85478
Bragg backscattering, meV energy resolution 2−86507
Bragg reflection anatomy and improved X-ray integrated intensity 2−81620
coplanar four-beam reflections, X-ray absorpt. 2−103561
crystal perfection evaluation by means of asymm. Bragg refls. 2−97851
crystal struct. determ. using partial Patterson function 2−86603
dislocation structures in deformed crystals, X-ray anal., review 2−91718
distortion distributions, axial edge dislocation for cylindrical crystallite 2−115090
double crystal topography, with curved samples, plane wave approx. 2−86504
double-crystal arrangement, influence of dispersion and vertical divergence on reflection curve 2−109631
energy-dispersive X-ray diffraction, defocusing effects in reflection technique 2−109634
epitaxial layers, absolute lattice parameter meas. method 2−82159
glass structure, diffraction methods anal. 2−55859
goniometry of modified doubly rotated quartz cuts 2−97858
lattice constants determ. using measured beam and cryst. tilts 2−97848
lattice defect imaging by double diffractometric transmission topography 2−71289
loading glass capillaries used in X-ray powder diffr., technique 2−81632
macromolecular crystallography, fiber diffraction data, phasing using isomorphous replacement and layer line splitting 2−97834
macromolecule crystallography using X-ray synchrotron source 2−102670
microscopic equipment, methods, appls. and related topics, list of publications 2−53449
minerals, Young's modulus determ. by X-ray method 2−99616
morphological orientation determ. of struct. elements in films, small-angle X-ray scatt. method 2−91717
multibeam X-ray topographic method for a double-crystal arrangement 2−91719
multiple diffracted X-rays in crystals, coherent dynamical interaction 2−86515
multiwavelength method with synchrotron radiation 2−65806
nondestructive residual stress meas. using X-ray diffr. 2−72937
oscillation camera data processing, reflecting range and prediction of partiality 2−81629
particle size and strain determ. from Fourier X-ray line shape anal. of single reflection 2−97846
phase determination and appl. to direct method 2−97842
phase determination using multiple diffraction, theory 2−97843
photographic method for reconstructing three-dimensional information 2−103560
piezoelectric crystal blank, dissymmetry used for Φ, Ξ angle sign determ. by non destructive method 2−88302
polarisation ratio for crystal-monochromated X-rays 2−115093
polycrystal scatt. topography, scatt. tomography 2−86516
polycrystalline materials, crystallite dimensions, X-ray Laue photography determ. technique 2−65801
polymorph proportion estimation in sintered SiC usig powder diffr. 2−65943
powder goniometer expt. on highly oriented powders, hk rod inensities distrib. 2−115095
real time topography with X-ray image magnification 2−86509
Rietveld method in neutron and X-ray powder diffraction 2−97862
section topography, interference patterns for finite incoherent source, theory and expt. 2−115102
semiconductor crystal with thin disruptive layer, external photoeffect during Bragg diffr. 2−105051
solidified gases, low-melting-point, specimen prep. for low temp. powder diffractometry 2−97850
stress determination using Pendellosung effect, X-ray diffr. 2−103562
structure factors obs. by single cryst. diffractometry, method of estimating standard deviations 2−55810
suppression of glitches in X-ray meas. 2−84770
synchrotron X-ray topography, multistereoscopic imaging technique 2−81624
thin film thickness determ., X-ray diffr. method 2−101385
travelling Rayleigh waves on piezoelectric crystal surface, direct imaging by stroboscopic X-ray topography 2−110124
ultramicrohardness tester in SEM and X-ray topography study of deformation zone 2−83339
Voigt function use in single line method for anal. of X-ray diffr. line broadening 2−81626
Al, determ. of atomic scattering factors by Pedellosung-beat meas. using white radiation 2−71291
Si lattice deformation meas. using X-ray multiple refraction 2−60835

X-ray detection and measurement
see also X-ray spectrometers
adjustable field drift chamber, construction and performance *(Chinese)* 2−80396
bandpass X-ray diodes and X-ray multiplier tubes 2−79730
beam pulse spectral quality determ. using p-n junction *(French)* 2−96349
Compton scatter imaging system, sensitivity, appls. 2−79723
dosimetry related materials, X-ray mass attenuation coeffs. meas. 2−113758
electrets, X- and γ-dose meas. appl. 2−75055

X-ray detection and measurement continued
fluorescence spectra obtained with HgI_2 detector, computer anal. 2−58980
gas scintillation counter performance at high count rates 2−108249
gas scintillation proportional counter camera for X-ray astronomy appl. 2−78951
gas scintillation proportional counters for Japanese astron. satellite 2−94609
gaseous detectors, recent trends in evolution 2−90351
imaging gas scintillation proportional counter for X-ray detection 2−78950
imaging gas scintillation proportional counter props. 2−90359
intensity meas. using resonant nuclear scattering 2−85494
ion chambers for fluoresc. and laboratory EXAFS detection 2−84765
ionisation chamber for exposure dose rate meas. of X- and γ-rays 2−102345
low-background hard X-ray spectrometer, APACHE, 10.6 μm laser fusion expts. appl. 2−101508
methane gas flow proportional counter, self-induced space charge effect on gas gain 2−90357
microchannel plate X-ray detector for synchrotron radiation 2−85475
microchannel plates, soft X-ray quantum detection efficiency 2−75105
microdosimetric parameters for photons rel. to depth in water using wall-less and walled counters 2−68167
multiplication ionisation chamber survey meter for low level X- and γ-ray monitoring 2−59558
multistep parallax-free X-ray imaging counter 2−75098
multiwire proportional counters, read-out method 2−102341
MWPC, multielement detector system for synchrotron X-ray source 2−85476
MWPC imaging detector for small angle X-ray diffr. study 2−96375
organ dose estimation in rats exposed to X-rays, TLD implantation method 2−73368
PIXE sample characterization, review 2−111523
polarisation factor determ. for repeatedly reflected X-ray beam, theory 2−95569
portable multichannel analyser from on-site radiation monitoring 2−54725
portable photon measuring and imaging system, safeguards appl. 2−80398
proton microprobe for K X-ray studies 2−99726
pulsed X-rays dosimetry with ionisation chambers 2−96314
radiation detectors for X-ray and γ-ray spectroscopy, needs and prospects 2−58974
radiation monitor for pulsed X-ray sources using ionisation chamber 2−75056
reference ionisation-chamber system for fast absorpt. meas. 2−59593
Roentgen transition radiation detectors, traversing particle ionisation energy loss *(Russian)* 2−90400
semiconductor detectors, soft X-ray energy spectrum, carrier out-diffusion effects calc. 2−80397
semiconductor spectra, prospects for near state-of-the-art anal. in laboratory 2−58978
small-angle X-ray focusing chamber for synchrotron radiation analysis 2−113088
small-angle X-ray scatt. system with linear position-sensitive detector 2−64198
source and appl. of γ-rays and X-rays, symposium, Ann Arbor, MI, USA (June 81) 2−58525
suppression of glitches in X-ray meas. 2−84770
sychrotron radiation X-ray energy and line shape meas. using diffraction markers 2−79729
synchrotron radiation instrumentation, conf., Ithaca, NY, USA (July 1981) 2−84369
TFTR, X-ray pulse height anal. system 2−80292
time digitiser with 10 MHz conversion rate for X-ray detector positional read-out 2−64807
TLD, energy response to 4-12 keV X-rays 2−75066
transition radiation meas. from plastic fibres 2−64816
transmission and reflection gratings for soft X-ray anal. 2−84757
two-dimensional electro-optical X-ray detectors survey 2−85474
ultrasoft X-ray radiation spatial distribution, polarization and spectrum measurement using multisectional gas counter 2−64774
ultrasoft X-rays from celestial sources, camera window 2−84096
vacuum arc anode, X-ray detection 2−91688
visualisation using photoconductor-thermochromic film struct. 2−84776
CdS DRM-2 semiconductor sensor for use in clinical radiometry *(Russian)* 2−62738
CdTe, appl. to pulsed X ray detection in medical tomography 2−83652
^{55}Fe soln., international comparison of activity meas. 2−108317
Ge detectors, α-emitting nuclides as absolute efficiency calibration source 2−59580
Ge detectors, timing props. 2−113823
Ge, intrinsic, X-ray fluorescence spectrometer, fundamental parameter-based calibration model 2−58976
Ge intrinsic planar crystal, balloon-borne solid state cosmic X-ray detector 2−100748
HgI_2, Fano factor meas. rel. to X-ray detector appl. 2−79731
HgI_2 solid state detector for X-ray astronomy 2−78953
HgI_2 spectrometry for low-energy X-rays 2−58975
InP photoconductive detectors, high-speed, for UV and X-ray regions 2−112975
Pb, L_1, L_2 and L_3 subshells, X-ray fluoresc. yields and Coster-Kronig transition probabilities 2−70114
^{125}Sb-^{154}Eu-^{155}Eu, NBS long-lived mixed-radionuclide standards, photon emission rates determ. 2−59579
Si detectors for X-ray, ion and electron spectrometers, low temp. characts. 2−75108
Si diffused junction X-ray detectors 2−70054
Si diffused p-n junction X-ray and γ-ray detector, design, fabrication and characts. 2−59596
Si diode linearity measuring instrumentation 2−85440
Si multichannel semicond. detectors for high energy X-ray and electron beams 2−96371
Si(Li) detector array, multielement detector system for synchrotron X-ray source 2−85476
Si(Li) detector efficiency curve for X-ray parallel beam 2−59600
Si(Li) detector low energy efficiency using M-shell X-rays 2−59592
Si(Li) detector response treatment as probability density function 2−102335
Si(Li) multi-element detector for X-ray flux meas. 2−70061
Si(Li) multichannel X-ray detector, for crystal struct. determ. 2−54719

X-ray detection and measurement continued
X-CO_2 filled position sensitive proportional counter for X-ray astronomy appl. 2−78952
Xe ionisation chamber for digital radiography 2−68127

X-ray diffraction
see also X-ray crystallography; X-ray diffraction examination of materials; X-ray diffractometers; X-ray scattering
amplitude in slightly deformed cryst. Takagi eqn., perturbative soln. *(Chinese)* 2−76233
conference, Denver USA (Aug. 1981) 2−89459
focusing method using bent diffraction crystals 2−53909
Laue diffraction, symmetrical Bragg case 2−103559
nonperfect crystals, curved X-ray trajectory determ., dynamical theory 2−103558
spherical wave diffr., kinematical theory 2−97839

X-ray diffraction examination of liquids
see also liquid structure
azobenzene monomers and azobenzene-base polymers, struct. features of liq. cryst. state *(Russian)* 2−60885
binary liquids, multiwavelength method with synchrotron radiation 2−65806
cholesterol based liq. cryst. polymers, X-ray struct. study 2−103621
ethane, liq., struct. functions, X-ray diffr. study and Monte Carlo simulation 2−103592
float glass, effect of 5% hematite on devitrification behaviour Mossbauer and X-ray study 2−109686
four-component systems, with polymeric surfactants, form. and struct. investig. 2−93827
heavy water, liq., pressure effects on struct. X-ray diffr. study 2−81657
N-(4-n-heptoxylbenzylidene)-4-n-hexylaniline, smectic-F to H transition, AC sp. heat and X-ray meas. 2−86868
heptyloxybenzylidene-heptylaniline, smectic B phases, synchrotron X-ray study 2−103617
HxBPA, temp. depend. of lattice parameters in S_G^1 and S_G^2 phases 2−86556
liquid crystalline polymers, microheterogeneous struct., X-ray scatt. 2−91773
methylalcohol liq., H-bands, X-ray diffr. study 2−103591
molecular fluids, small angle X-ray anal. of orientation fluctuations 2−76281
nematic liq. cryst. binary mixtures of terminal nonpolar cpds., reentrant nematic phase, X-ray study 2−109984
4-nonanoate 4′-cyanobiphenyl, bilayer S_A phase, tilted monolayer cybotactic groups evidence 2−55842
4-nonyloxylphenyl-4-nitrobenzoyloxybenzoate, reentrant nematic and smectic phases *(French)* 2−92195
octyloxycyanobiphenyl, nematic, surface smectic A order, synchrotron X-ray diffr. study 2−71341
4′-N-p-pentyloxycarbonyloxy-benzylidene amino velerophenone, order parameters and distrib. function in smectic A phase, X-ray diffr. study 2−103606
polyethylene, molten, local struct., wide-angle X-ray scatt. 2−109659
polyethylene terephthalate-p-acetoxybenzoic acid copolyester, oriented liq. crystalline, struct. anal., wide angle X-ray scatt. 2−109671
polymer, comb-like, with phenylbenzoate side groups, liq. cryst. ordering *(Russian)* 2−76278
smectic A liq. cryst., X-ray diffr. study 2−65858
smectic-A order at surface of nematic liq. cryst., synchrotron X-ray diffr. study 2−86564
solution scattering studies, information content and retrieval, degrees of freedom and data reduction 2−81625
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
water, intermolecular pots., X-ray scatt. 2−86537
water, liq., pressure effects on struct. X-ray diffr. study 2−81657
Ag-In melt, X-ray investigation, hard sphere model *(Russian)* 2−86541
Ar, scaling corrections to X-ray scatt. near liquid-vapour critical point 2−98256
Cs liquid, structure factors, X-ray study 2−60870
$FeCl_3$, hydrolysed soln., coordination., X-ray diffr. study 2−65841
Ga-In, interference functions, radial atomic distrib. and elec. resist. 2−103595
He, X-ray scatt. studies 2−110059
In, interference functions, radial atomic distrib. and elec. resist. 2−103595
In-Te, molten, liq. struct., X-ray diffr. study 2−115131
$InBr_3$, conc. soln., struct., X-ray diffr. study 2−115127
$InCl_3$, conc. soln., struct., X-ray diffr. study 2−115127
Li-Pb, liq. alloy, chem. short-range order, neutron and X-ray diffr. study 2−97906
$MnSO_4$ solution, aq., X-ray diffr. study 2−91755
N_2, intermol. electron density distrib., diffr. anal. 2−91750
Na, small-angle X-ray scatt., collective mode 2−60867
$NiBr_2$ aq. soln., X-ray diffr. investig. 2−90742
Rb liquid, structure factors, X-ray study 2−60870
$SO_4^{2-}+H_2O$ interactions, X-ray diffr. study in presence of Ni and Mg ions 2−78073
$SrCl_2$, aq. solns., X-ray diffr. study 2−115129
Te-Tl melt, short range order struct. 2−103590

X-ray diffraction examination of materials
for results of crystal structural analysis see crystal atomic structure
see also X-ray chemical analysis; X-ray diffraction examination of liquids; X-ray diffraction examination of microstructure; X-ray diffraction examination of molecular structure
α-/nylon 12, unit cell determination, X-ray diffr. study 2−97938
A15 intermetallic cpds., linear thermal expansion coeff., real struct. influence 2−56223
A^NB^{8-N} compounds, X-ray struct. amplitudes, anharmonic core vibr. effects 2−81762
actin filaments, SI-decorated, struct. calc. from X-ray diffr. data, phases from electron micrographs 2−116879
acyclic alditols, conformations anal., energy calcs. 2−75164
adrenocorticotropic hormone oligopeptides, crystallisation expts. 2−78283
adsorption-induced variation of diffraction lines of a substrate with stacking-faults 2−92361
aerosols, atmospheric, X-ray methods for chem. characterisation 2−67907
alkali borate glasses and melts, microstruct., X-ray scatt. study 2−91794
p-n-alkoxy benzylidene-p-amino benzoic acid, smectic C phase, chain ordering, X-ray diffr. study 2−86553

X-ray diffraction examination of materials continued
alloy films, simultaneous X-ray EDS meas. of thickness and composition *(Chinese)* 2−109630
anthra[9,1-cd:10,5-c'd']bis[1,2]dithiol (diselenol) and their polyiodides, prep. 2−93465
area detector data acquisition system for macromolecules X-ray studies and other diffr. expts. 2−85478
BCC alloys, diffuse ω phase, Bragg maxima displacement, theory 2−97840
benzene, melting and mol. motions, X-ray diffr. study 2−109959
binary alloy, composition-modulated films, for studying stability and crit. phenomena in solid solns. 2−56402
biological macromolecules, struct. determ. by small angle scatt. 2−88509
bis(3,3,3-triphenyl propanoyl)peroxide, cryst., neophyl rearrangements, X-ray and EPR obs. 2−67742
bis-tetramethylammonium iron tetrachloride, phase transition X-ray study in modulation wavenumber 2−81945
1,2-bis-[4-n-alkyloxybenzoyl]-hydrazines, thermotropic cubic mesophases, expt. study 2−65849
9-bromo-10-methylanthracane, diffuse X-ray scatt. anal. 2−109773
cellophane, fine struct., X-ray and electron diffr. obs. 2−103666
cellulose hydrate, struct transformations by heat treatment, $AlCl_3$ effects 2−109979
cellulose nitrates, rel. between distrib. of nitrate ester groups and interchain d(110) spacings, ^{13}C NMR, X-ray spectra 2−110666
channels in crysts., optical microscopy, X-ray topography, and contrast calcs. *(French)* 2−98071
9-chloro-2,3-dihydro[1,3]thiazino[3,2-a]benzimidazole-4(3H)-one, preliminary crystallographic study 2−81770
corundum, twin packing defects in lattice, effect on X-ray scatt. 2−91916
18-crown-6, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
18-crown-6-alkali complexes, mol. mechanics, struct. flexibility, ligan specificity and macrocyclic effect 2−109777
crystalline phases, fission fragment damage 2−102058
4-cyano-4′-octyloxy biphenyl, solid cryst. polymorphism 2−103738
deuteromethane, intermediate phase struct., X-ray studies *(Russian)* 2−98050
1,4-diacetyl-1,4-dihydro-2,3-diphenylpyrazine cryst. struct. and conform. anal. 2−75310
diamond, X-ray phases, expt. determ. and appl. to direct method 2−97842
dicalcium barium acrylate, ferroelastic phase transition, lattice const. and birefringence 2−92187
1,4-dichlorobenzene, lattice dynamics, rigid mol. approx. calcs., NQR and X-ray diffr. obs. 2−110693
2-(3′,5′-dimethyl-1′-pyrazolyl)benzothiazole, preliminary crystallographic study 2−81770
ductile metals, formation of wear debris by abrasion 2−88216
epitaxial layers with quasiperiodic struct., X-ray diffr. 2−81617
ferredoxin, anomalous scatterers position in cryst. struct., two-wavelength techniques 2−115092
fibres, carbide coating produced by liquid metal transfer agent method 2−88245
GaAs:Cr wafers, EPR charact., etch-pit-density and X-ray double diffraction meas. *(Japanese)* 2−66907
graphite, Cr_xC_y diffusion layer form. 2−83289
graphite, physisorbed monolayer of Kr, commensurate melting and commensurate-incommensurate transition, X-ray study 2−115548
graphite, pyrolytic, thermally scatt. radiation diffr., X-ray and Mossbauer γ-ray diffr. study 2−62014
graphite, reactor irradiated, diffuse X-ray and thermal neutron scatt. 2−71287
graphite intercalation cpds., rod intensities distrib., powder goniometer expt. and simulated spectra calcs. 2−115095
graphite pyrolytic cryst., diffr. pattern caused by thermal X-ray diffuse scatt. 2−81621
graphite with submonolayer Ar, melting, synchrotron X-ray study 2−104153
graphite-$NO_2^+X^-$ ($X^-=PF_6^-$, SbF_6^-) salts, transport and optical props. 2−98645
α-HgI_2 single crystals, plastic defects, X-ray topographs 2−109784
high pressure effects on solids, symposium, Bad Honnef, Germany (Aug. 1981) 2−74162
$HMTSF(TCNQ)_x(TCNQF_4)_{1-x}$ solid soln., Mott transition 2−92471
ice, phase transition, VII to VIII, X-ray study 2−71630
imidazole, cryst., electric field gradient calcs. from X-ray diffr. data 2−98602
lignins, amorphous, X-ray diffractograms, temp. depend. 2−76327
lithium formate monodeuterate, lattice energy, electrostatic term, determ. from electron density 2−115173
MBBA, disorder-cryst. transition in frozen liq. cryst. state, X-ray diffr. obs. 2−60891
metal/Si systems, electron beam induced reactions 2−86955
metallic glasses, local struct., Mossbauer and X-ray diffr. study 2−103645
methane, intermediate phase struct., X-ray studies *(Russian)* 2−98050
mica, oxybiotite, coexisting 1 M and 2 M_1 cryst. struct., polytypism 2−91856
N,N′-di-n-hexyladipamide, a model for nylon 6,6 2−76323
Nylon 12, α form, formation from melt and quenched state under high press., DTA and X-ray study 2−72684
nylon 12, soln. crystn., morphology, crystal form and thermal behaviour 2−91818
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
nylon 6/inorganic salt fiber, struct. and dynamic mech. behaviour, drawing effect 2−109695
phase boundary thickness, small angle X-ray scatt. determ., error anal. 2−65799
plastic molecular crystals, diffuse X-ray scatt. due to orientational correl. 2−103668
poly(γ-methyl L-glutamate-co-γ-benzyl L-glutamate) film, irreg. layer lattice 2−86583
poly(acetylene), mol. struct. and elec. cond. 2−98609
poly(ethylene terephthalate), crystal perfection and crystallinity, melting behaviour, wide angle X-ray diffr. 2−65879
poly(tetrafluoroethylene), cryst. transformation and mol. disorder, X-ray diffr. study 2−92178
polyacetylene:Br, amorphous film, elec. and optical props. 2−110511

X-ray diffraction examination of materials continued
trans-polyacetylene oriented film, cryst. struct., X-ray scatt. study 2−91819
polyamides crystalline stoichiometric adducts with phosphoric acid 2−86584
polybis-p-toluene sulphonate diacetylene, single cryst. perfection, synchrotron radiation topography, defects role in solid-state polymerisation 2−71373
polybutylene terephthalate, elastic modulus of cryst. regions, conform. relation 2−93550
polycrystalline materials, crystallite dimensions, X-ray Laue photography determ. technique 2−65801
polyesters, rigid-chain, thermotropic liq. cryst., crystallites 2−76303
polyethylene, crystallites and lattice distortions, temp. depend. *(Russian)* 2−65884
polyethylene, linear, absolute integrated small-angle X-ray scatt. obs. during crystn., mass density determ. 2−115150
polyethylene oxide fractions, fractionation in mixtures during crystn. 2−91817
polyethylene terephthalate films, ethylamine soln. treated, biaxially stretched, fine struct. *(Japanese)* 2−86590
polymethyl-1-pentene, isotactic small angle X-ray scattering 2−86585
polyoxymethylene single crystal, SAXS determ. of max. amorphous surface layer 2−86587
polypropylene, rolled, mech. props. rel. to struct. 2−67377
polypropylene films blended with ethylene-propylene copolymers and polyisobutylene, morphology, crystallisation, melting 2−65881
polystyrene derivatives, amorphous, X-ray diffractograms, temp. depend. 2−76327
polystyrene ionomers, sulphonated, microphase separation, small- and wide-angle X-ray scatt., cluster form. 2−115152
polyvinyl-polypeptide block copolymers, polypeptide chain folding 2−91825
PVC, conf., Cleveland, OH, USA (Aug. 1980) 2−74153
PVC, high-temp. struct. changes, X-ray diffractometer investig. 2−76652
qualitative analysis, Bayesian method of composition and state determ. *(Russian)* 2−84750
quartz, X-ray irrad., X-ray topograph under high electrostatic field 2−110112
quartz crystal, splitted Laue-spots intensity change at piezodeformation *(Russian)* 2−81777
rare earth-copper-gallium system, RCu_2-RGa_2 sections, phase form. and crystallographic charact. *(Ukrainian)* 2−83080
rare earth-gallium-nickel system, phase comp. and crystallographic charact. *(Ukrainian)* 2−83079
rare earth-Si-Fe alloys, self-powdering, X-ray diffr. and electron microscopy invest. *(Chinese)* 2−62249
residual stresses, local, determ. from X-ray meas. *(German)* 2−93747
sarcoplasmic reticulum, liq. diffr. anal., solvent electron contrast variation 2−62559
semiconductor wafer wire bonding process, characterisation by X-ray diffr. topography 2−78031
Si, twin interface, X-ray topography exam. of struct. and defects *(Chinese)* 2−109810
α-Sialon, stability at high temps. 2−83145
silicates, sol-gel transition, gel-to-glass conversion 2−76315
sodium hydrogen oxalate monohydrate, prep. and morphology, X-ray diffr. 2−115159
solid solution, inhomogeneous, scatt. of X-rays, thermal neutrons and electrons *(Russian)* 2−91716
solid solutions, substitutional, order-disorder transitions, review 2−98245
SOS epitaxial films, defects and strain after CW laser annealing, Rutherford backscatt./channelling and TEM study 2−81799
SOS structures, CVD growth, surface defect and strain reduction by ion implantation and solid phase epitaxy 2−66384
steel, 30HGV and St45, expt. X-ray elastic constants 2−111225
steel, alloy, nitrosulphurised, wear props. 2−62233
steel, austenitic stainless, intergranular corrosion, struct. influence 2−72876
steel, austenitic stainless, phase transform, H-related 2−111298
steel, C, Cr_xC_y diffusion layer form. 2−83289
steel, Cr-Ni-Mo-Mn, Mo distrib. during long-term holding between 554 and 654°C *(French)* 2−72700
steel, ferritic, monolayer grain boundary segregation using STEM-EDS X-ray microanal. 2−111412
steel, mag. field treatment, field strength depend., X-ray obs. *(Russian)* 2−67354
steel, martensitic stainless, wear against WC up to 500°C 2−83238
steel, mild, electrodissoln. and passivation in alkaline sulphide solns. 2−116588
steel, Mn, struct. and phase comp., tempering temp. influence 2−105199
steel, stainless, maraging, tempering and struct. influence on temp. depend. of mech. props. 2−67396
steel, stainless, X-ray texture analysis, tube specimens prep. method 2−93717
steel, structural and tool, stress distribution in specimens with fatigue cracks, X-ray diffr. determ. 2−67697
steel, tool, vol. fraction or primary carbides, new procedure for determ. 2−57564
steel, unprotected, corrosion in inert-gas atmos. containing water vapour, O_2, SO_2, N_2 and CO_2 2−67616
steel, X-ray line broadening, determ. using Fourier coeffs. 2−71288
steels, alloy and C, martensite struct. after quenching and tempering *(Russian)* 2−99460
surface layer, deformed, X-ray residual stress meas. and d-$\sin^2\psi$ diagrams *(Japanese)* 2−71780
SYNROC, damage cross-section of heavy ions 2−115313
TCNQ salt, $(NMP)_x(Phen)_{1-x}(TCNQ)$, X-ray obs. of crossover of $2k_F$ to $4k_F$ scatt. 2−86859
TCNQ salt, NMP-TCNQ, X-ray scatt. of $q_2=a^*/3$ diffuse lines 2−86511
tetrachloro-o-benzoquinone, cryst., phase transitions, ^{35}Cl NQR and X-ray investig. temp. depend. 2−110691
tetramethylammonium trichlorocuprate trichloromanganate, X-ray struct. study *(French)* 2−98056
TGS, ferroelec. domain boundaries, X-ray topographic image contrast 2−77462
TGS, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
thermotropic liquid crystalline polymers, synthesis by poly(acryloyl chloride)+mesogenic cpds. interactions 2−115136
X-ray diffraction examination of materials continued
TiN formed by evaporation as a diffusion barrier between Al and Si 2−92394
$(TMTSF)_2PF_6$, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
$(TMTSF)_2PF_6$, compressibilities, X-ray diffr. study 2−115338
$(TMTSF)_2X$ salts, X-ray diffuse scatt. study of struct. transitions, rel. to supercond. 2−56181
TMTSF-DMTCNQ, anisotropic thermal expansion, X-ray diffr. meas. 2−56225
torsion bar, internal stress generated by plastic loading, X-ray meas. *(German)* 2−62336
transition metal nitride surface films, prep. and characterisation 2−82165
two dimensional crystal, static structure factor, finite size effects on Bragg peaks 2−76330
water, pure liq., vitrification by high press. jet freezing, X-ray diffr. study 2−103952
X-ray diffuse scatt. study of struct. transitions 2−56181
X-ray stress measurement by centroid method, statistical anal. *(Japanese)* 2−105413
xenon clathrate hydrate, struct. 1, far-IR spectrum and X-ray diffr. 2−110843
Ag-La (25 at.%), phase diagram invest., thermal anal. and X-ray meas. 2−67301
Ag-Sn (1.2 at.%), dislocation band struct. produced by bending stress, X-ray topography study 2−86679
$Ag_4Al_3Si_3O_{12}I$, synthesis by solution-solid mixing, X-ray diffr. charcts. 2−83052
$Ag_{1-x}Cu_xI$, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
AgI, polymorphic transition, enthalpy change, differential scanning calorimetry and X-ray diffr. obs. 2−60914
α-AgI, state of order, diffuse X-ray and neutron scatt. study 2−71425
Ag_2O, high-press. induced phase transition 2−92180
$Ag_3SBr_{0.5}I_{0.5}$, superionic conductor, cryst. struct. and phase transition study 2−109758
$AgSbSe_2$ film, growth and cryst. 2−115620
Al alloy 2024-T3, perforated sheets, reinforcement by thermal shock with laser beams 2−116452
Al, anelastic relax. of self-interstitials, X-ray diffuse scatt. study 2−56082
Al, anodic films, porous, cell walls, STEM/energy-dispersive X-ray anal. 2−86988
Al, conventionally and shock-wave-deformed, correlation between texture and substruct. 2−99445
Al, determ. of atomic scattering factors by Pedellosung-beat meas. using white radiation 2−71291
Al rod fibre texture changes during drawing of initial {112}⟨111⟩ and Goss orientations 2−57369
Al-Fe-Si alloys, commercial purity, DC casting, form. of intermetallic cpds. 2−88060
Al-Li-Mg system, Guinier-Preston zones, coarsening mechanism, SAXS study 2−62129
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al-Ti-Be, grain refinement, Be-enhanced 2−83086
Al-Zn-Mg, aged at 20, 80 and 120°C, decomp., quench conditions influence *(French)* 2−72743
Al-Zn-Mg, decomp. kinetics, effect of small Mg additions 2−99388
Al-Zn-Mg, slatiness of fracture after rolling 2−111303
AlN film, basal orientation, RF diode sputtering, low temp. growth 2−72623
AlN, multilayer polytypes form. during sintering 2−76404
β-Al_2O_3-Na_2O, polycrystalline, X-ray obs. of surface layers 2−67587
β-Al_2O_3-Na_2O:Ce, elec., mag., and phys. props. 2−82012
Am_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
As-S-Ag system glass, phase separation and struct. changes on Ag addition to As_2S_3, fractured surface obs. 2−103649
AsF_5-graphite (polyacetylene)(p-polyphenylene) association reaction, thermodynamics and kinetics meas. 2−93775
β-As_4S_3, thermal expansion, compressibility, X-ray diffr. study 2−115438
$As_{0.005}Se_{0.995}$, amorphous, crystallisation, scanning calorimetry and X-ray diffr. study 2−91780
Au film, condensed, lattice dynamics and substruct. *(Russian)* 2−92425
Au film, surface roughness determ. from X-ray diffr. meas. 2−110180
Au/Co/Si(SiO_2) thin film condensate, electrophys. props., heat treatment influence 2−104505
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Au-Fe spin glasses, at. short-range order, X-ray determ. 2−92941
Au_4Mn disordered alloy, short-range order and ferromag. props., X-ray diffr. study 2−97990
B_2O_3 glasses and melts, microstruct., X-ray scatt. study 2−91794
B_2O_3-SiO_2 gels, crystn. rel. to glass prep. 2−76309
BaF_2-MnF_2-GaF_3, ternary system, identification of 4 new structural types *(French)* 2−55948
$Ba(NO_3)_2$, stacking faults and dislocations due to liquid inclusion presence 2−91989
BaO-TiO_2:Nb, (Sb), (La) system, phase diagrams, influence of foreign atoms on cryst. lattice 2−66179
$BaTiO_3$, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
$BaTiO_3$-$SrTiO_3$ ceramic mixture, reaction rates 2−77789
$BaVS_3$, stoichiometric, phase transitions at 240K and 80K, X-ray diffr. study 2−61125
Be, structure factors, primary and secondary extinction correction 2−109742
$BiVO_4$, ferro- to paraelastic transition at high-press. and temp. 2−98274
Bi_2WO_6, polymorphism, differential dilatometry and DTA study 2−60913
C, amorphous, short range atomic struct., comparison of diffr. analyses 2−71354
C atomic arrangement by X-ray diffr., radial distrib. anal. 2−81673
C fibres, surface structure effect on strength, in appl. of carbide coating in metal melt 2−83067
C, prep. by low-temp. reduction of PTFE, radial electron density distrib. meas. 2−76308
$C_{24}K$, graphite intercalation cpd., mass- and charge-density modulation, X-ray diffr. study 2−81951
CO_2, thermal expansion, X-ray diffr. study, 5 to 195K *(Russian)* 2−81991
$Ca_3Al_2P_2Si_2O_{15}$, crystal struct. and chem. formula confirmation 2−91902
$Ca_2Fe_2O_5$-$LaFeO_3$ system, Mossbauer resonance study 2−61801

X-ray diffraction examination of materials continued
$Cd_xHg_{1-x}Te$, sputter deposited epitaxial film, X-ray, TEM and Rutherford backscatt. obs. 2−116362
CdI_2, single cryst. purification and growth by zone refining, X-ray diffr. obs. of polytypism 2−93415
$CdIn_2S_4$ spinel, lattice thermal expansion, 28 to 685°C 2−104033
$CdIn_2S_4$-In_2S_3 solid soln., vaporization chemistry and thermodynamics 2−116720
$CdIn_2Se_4$, semicond., lattice consts. and thermal expansion, X-ray diffr. study 2−92240
CdS, shock induced defects and transition 2−71555
CdS:In(Sb) film, vacuum evaporated, elec. and optical props. 2−61631
CdS:Te film, vacuum deposited, dark cond. and photocond. meas., doping effects 2−61623
CdSe, heteroepitaxial films, struct. charact. 2−92381
CdTe film, heteroepitaxial, MBE growth on InSb (001) 2−56374
CdTe, single crystals, grown from vapour, X-ray topography study *(German)* 2−60993
CdTe-Ge system, phase diagram, determ. by DTA and X-ray diffr. *(Japanese)* 2−105122
$Cd_{1-x}Zn_xS$ films evaporated by electron bombardment, struct. study 2−71834
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2−87973
$Ce_{75.5}Co_{24.5}$, amorphous, temp. depend. of mag., thermal and transport props. 2−115967
Co/$Si(SiO_2)$ thin film condensate, electrophys. props., heat treatment influence 2−104505
Co-base wear-resistant alloys, carbide transform. during ageing 2−77851
Co-Ga alloys, B2 struct., defect struct. and lattice parameters *(German)* 2−81784
Co-Ge liq. alloys, liq. struct. and elec. cond. *(Russian)* 2−91761
Co-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
Co-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
$Co_{100-x}B_x$ metallic glasses, structural investigation 2−86571
$Co_{70.3}Fe_{4.7}Si_{15}B_{10}$, amorphous, crystn., Mossbauer and X-ray diffr. study 2−103636
Co_3O_4-CoO, spray pyrolysed Co black, high temp. selective absorber 2−67891
Cr, electron beam evap. thin film, struct. and props. *(Korean)* 2−57301
Cr powder, thermal vibr. anharmonicity, temp. depend. 2−103933
Cr-Fe-C alloy with precip. $(Cr,Fe)_{23}C_6$ phases, nonrandom site occupation, parameters 2−72705
Cr-Mo and G-V solid soln. systems, high-temp. X-ray investigs., lattice and thermal props. *(Russian)* 2−66156
Cr-Mo-O system, stability and morphology 2−67305
Cr(Mo)(W)-Gd-B, phase comp. and cryst. struct. 2−116426
Cs-In, phase diagram, cryst. struct., liquid immiscibility, X-ray diffr. study 2−66176
Cs_3BiCl_6 ceramic, ferroelastic transitions, DTA, X-ray, dielec. and TSC meas. *(French)* 2−109889
$CsDy(MoO_4)_2$, thermal expansion coeffs., X-ray studies *(Russian)* 2−61178
$Cs_6Mo_2O_9$, $Cs_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
Cu, polycryst., X-ray attenuation coeffs., 5 to 50 keV 2−86624
Cu whiskers, atomic scatt. factors using Pendellosung intensity beat meas. 2−81713
Cu/Sn, bimetallic thin films, interfacial reaction kinetics 2−66298
Cu-Al (10.1 wt.%), bronze, cast, characterisation using X-ray diffr. and microscopy *(French)* 2−88104
Cu-Al (3 at.%), dislocation struct. effect on flow stress, X-diffr. and electron microscope study 2−91982
Cu-Al-Mn alloys, influence of Mn on phase shifts *(French)* 2−99543
Cu-Be (2 wt.%), quenched and aged, struct. and props. after deform. to large strains 2−93569
Cu-Be (2 wt.%) alloy strips, residual stress profiles along rolling direction, X-ray diffr. obs. 2−67367
Cu-Be-Co (13.1, 0.2 at.%), rapid solidification effect on ageing *(Japanese)* 2−105137
Cu-Fe-Se system, phase equilibria and stability field, X-ray, electron microprobe and DTA study 2−116429
Cu-Ni alloy film deposition by RF sputtering, rate and chem. composition *(Japanese)* 2−87982
Cu-Ni-Sn (10, 6 wt.%), spinodal, high cycle fatigue behaviour 2−99532
Cu-Si thin films, simultaneous X-ray EDS meas. of thickness and composition *(Chinese)* 2−109630
Cu-Sn, martensitic transform., influence of β-phase holding *(Russian)* 2−67333
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
$Cu_xCo_{3-x}O_4$, props. of spinel prep. at low temps. and normal press. 2−55945
$Cu_xMg_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
CuO-NiO-MgO system, X-ray powder diffr. study at 1000°C 2−86636
Cu_2O, high-press. induced phase transition 2−92180
$Cu_{2-x}S$, CDW and struct. transition, X-ray diffr. study 2−92189
$Cu_xZn_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
Cu_xZr_{1-x} ($25 \leq x \leq 70$) metallic glasses, crystn. charcts. 2−97928
Dy-Ni phase diagrams, X-ray and DTA study *(Chinese)* 2−93488
Er-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
$Er(Mn_{1-x}Cu_x)_2$ quasibinary system, HCP struct., stability, Cu effects investig. 2−115179
EuB_6, compressibility, valency and intermediate valence effects 2−56072
Eu_2O_3, plasma sprayed, X-ray struct. investigs., plasma jet enthalpy effect 2−99577
Fe, cast, white and grey, Cr_7C_3 diffusion layer form. 2−83289
Fe films, RF sputtered, lattice expansion 2−60922
Fe whiskers, dislocations by stress appl., X-ray transmission topography 2−115634
Fe-B alloy, amorphous, heat treatment conditions influence on crystn. and struct. *(Russian)* 2−65868
Fe-B-Cr(Co)(Ni), metallic glasses, crystn. behaviour 2−71368
Fe-Co powder, form., struct., and mag. props., electrolysis conditions effect 2−83063
Fe-Co-Bi, amorphous film, magnetisation, Mossbauer study 2−72263
Fe-Cr system, lattice dynamical parameters, X-ray diffr. study *(Russian)* 2−61101

X-ray diffraction examination of materials continued
Fe-Cu binary alloy, selective oxidation, optical, X-ray and SEM obs. 2−99605
Fe-Ni, splat-quenched, martensitic transform., microstruct. and kinetics 2−57349
Fe-Ni-Co, phase transitions occurring during heating *(Russian)* 2−62119
Fe-Sb layered films, absence of mag. moment, Mossbauer study 2−115592
Fe-Si (3 wt.%), synchrotron X-ray topography, multistereoscopic imaging technique 2−81624
Fe-Si alloy, single cryst., mag. domain walls, X-ray diffraction contrast obs. 2−87521
Fe-Si-Al, Sendust, order-disorder transform. and dislocation configuration, TEM study 2−83108
Fe-Zr 2−55857
$Fe_{80}B_{20}$ alloy glass, partial radial distrib. functions calc., X-ray and neutron diffr. 2−91814
$Fe_{80}B_{20}$, amorphous, crystn., annealing, elec. resist. meas. 2−55853
Fe_xB_{100-x} amorphous film, sputtered ferromag., Mossbauer investig. 2−66957
$Fe_{78}B_{20}Mo_2$, amorphous, crystn., annealing, elec. resist. meas. 2−55853
$Fe_{4.7}Co_{70.3}Si_{15}B_{10}$, amorphous struct., X-ray diffr. study 2−65866
$Fe_xCu_{1-x}Rh_2Se_4$, magnetic and crystallographic props. 2−92860
$(Fe_{1-x}Ni_x)_{75}B_{2S}$, amorphous, magnetisation and crysts. 2−72266
γ-Fe_2O_3, DC elec. cond., effect of adsorbed O_2 and water 2−115752
Fe_2O_3, goethite-derived, origin of preferential X-ray line broadening 2−97837
α-Fe_2O_3, solid state conversion from α-FeOOH 2−56179
Fe_2O_3:Si, (Ge)(Mg), solid solubility, elec. and photoelectric behaviou r 2−61146
$Fe_2O_3.H_2O$ gel, pure, prep., struct. and mag. props. 2−67769
$Fe_2O_3.xH4d2O$ gel, pure, prep., struct. and mag. props. 2−67770
FeS_2 electrodes in Li-Al cells, phase relationships 2−88422
$Fe_{0.909}S$, magnetic transitions and crystal struct. 2−82598
$Fe_{1-x}S$, pyrrhotines, mag. transitions near Curie point 2−87506
Ga-Ti(V)(Cr) melts, contact reactions with quartz and graphite, X-ray diffr. study 2−82085
GaAs, bonding, charge density anal., X-ray diffr. study 2−81710
GaAs, oxide layer struct., diffuse X-ray scatt. study 2−71831
GaAs, oxide removal from chemically etched surfaces, electron and X-ray diffr. 2−116561
GaAs, struct. changes in high elec. field, X-ray diffr. study 2−98043
GaAs, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
GaAs:Si, interface struct. between Ga facet grown region and normal region *(Chinese)* 2−110167
GaAs:Si, ion implanted rad. damage, X-ray rocking curve study 2−66075
$GaAs-Ga_{1-x}Al_xAs_{1-y}P_y$ heterostructure lattice matching rel. to laser fabrication *(Chinese)* 2−66375
GaN epitaxial layer, optimized growth conditions 2−66391
GaP, oxide removal from chemically etched surfaces, electron and X-ray diffr. 2−116561
GaSb, Czochralski growth of low dislocation density crystals, X-ray study 2−93407
GaSe, intercalated with Na^+ and Ca^{2+}, prep. and elec. props. 2−66549
GaSe, struct. phase transition, exciton refl. and photoluminesc. spectra 2−103985
GaSe-Sb, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
$GaSe-Sb_2Se_3$, phase diagrams, immiscibility of liq. phase, expt. study 2−71614
Gd-In system, phase diagram study *(Chinese)* 2−111136
GdB_6, compressibility, valency and intermediate valence effects 2−56072
$GdDy(MoO_4)_3$, ferroelectric-ferroelastic transition, X-ray topographic study 2−61840
$GdGa_5O_{12}$ garnet, formation, DTA and X-ray phase anal. 2−67207
$Gd_3Ga_5O_{12}$, lattice const. determ. using measured beam and cryst. tilts 2−97848
$Gd_3Ga_5O_{12}$:Nd^{3+} garnet films prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
Ge, electron photoemission during X-ray diffr. 2−105050
Ge epitaxial film on Si(100), RF sputter deposition, struct. and elec. meas. 2−66386
Ge, high pressure struct. phase transition, X-ray diffr. study using synchrotron radiation 2−103975
Ge, internal strain tensor, bond-bending parameter, X-ray study 2−91864
Ge plates, surface treatment effect on X-ray diffraction, struct. 2−86514
Ge, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Ge, X-ray diffr., multiwave Pendellosung fringes of (200) forbidden reflection *(Russian)* 2−60839
Ge, X-ray forbidden refls., spectral depend. 2−60838
Ge:Si, ion implanted, rad. damage, X-ray rocking curve study 2−66075
Ge:Si, solid solubility, diffusion, decomposition, X-ray diffr. study 2−66232
Ge-As solid soln., dissoc. total diffuse X-ray scatt. meas. 2−65927
heterostructure photoanode, energy diag. and photoelectrochem. props. 2−98747
Hf, surface nitride films, Auger and X-ray charact. 2−92396
$HfTe_5$, low-dimensional metallic, giant resist. and X-ray diffr. anomalies 2−87244
$Hg_{3-\delta}AsF_6$, powder pattern X-ray scatt. lineshape 2−76238
α-HgI_2, lattice const. thermal expansions 2−98312
HgTe, stoichiometric deviation, X-ray diffr. investig. 2−104007
Ho-Ni-Al, isothermal sections at 800°C, X-ray analysis *(Ukrainian)* 2−77802
In-Cd(Tl), shape memory behaviour and FCC to FCT transform. 2−93502
$In_{1-x}Ga_xAs_{1-y}P_y$ epitaxial layer, X-ray rocking curve in symm. Bragg case 2−115584
InP, agitated gas flow technique for high press. synthesis *(Chinese)* 2−99320
InSb, electron photoemission during X-ray diffr. 2−105050
InSb:Bi solid soln., Bi donor level form., X-ray struct. study 2−115702
InSe, intercalated with Na^+ and Ca^{2+} prep. and elec. props. 2−66549
In_xSe_{1-x}, polycryst. and amorphous, elec. cond., switching phenomena and struct. changes obs. 2−87349
Ir, eqn. of state and volume compression under high press., α—ε transition 2−115385
Ir-V film, contact reaction with Si 2−86950

X-ray diffraction examination of materials continued
KD_2PO_4, ferroelectric fluctuation, diffuse X-ray and neutron scatt. anal. 2−61837
$KF-PrF_3$ system, phase diagram and solid solubility, DTA and X-ray diffr. study *(French)* 2−86841
KH_2PO_4, ferroelec. transition Debye-Waller factor and thermal expansion coeff. 2−57024
$K_2O-B_2O_3-SiO_2$ glasses and melts, microstruct., X-ray scatt. study 2−91794
K_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
$K_2O-MgO-SiO_2$, fluorine containing melt, prep. of microceramics by solidification *(Japanese)* 2−83074
$K_2SO_4-Na_2SO_4-ZnSO_4$ glass, struct., X-ray diffr. study 2−97933
K_2SeO_4, incommensurate superlattice, X-ray diffr. study 2−55943
$K_2WO_4-Rb_2WO_4$, solid solutions, phase diagram, X-ray and DTA study 2−88064
$K_6W_2O_9$, $K_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
K_2ZnCl_4, high temp. phase transitions, lattice consts., X-ray diffr. study 2−92186
La-Co-Ni phase diagram, X-ray and metallographic study *(Chinese)* 2−93489
La-Ni system, phase equilib., microhardness meas. *(Ukrainian)* 2−77803
LaB_6, compressibility, valency and intermediate valence effects 2−56072
LaB_6-Co(Ni) systems, wetting and contact reactions 2−77780
Li intercalation cpds., form., in situ X-ray diffr. effects 2−65944
Li/SO_2 cell, discharge products, X-ray diffr. and DSC study 2−78196
Li_nCrO_x cathodes in Li/organic electrolyte batteries, props. 2−93889
$Li_{0.5}Fe_{2.5}O_4$, for ferrimagnetic pastes, prep. and props., effect of additions of glass and Bi_2O_3 2−88034
$LiFeSnO_4$ phase, cryst. struct. characts. 2−65942
$Li_2Ge_7O_{15}$, dielect. props. and phase transition 2−57006
α-$LiIO_3$, elec. field related extinction reduction in diffraction expts. 2−97861
Li_nMoO_3 cathodes in Li/organic electrolyte batteries, props. 2−93889
Li_3N, anharmonic thermal vibrs., fast ionic conduction 2−109937
$LiNbO_3$, shock loaded, crystallographic props. 2−71413
$LiNbO_3$:Ti integrated optical device fabrication, Ti oxidation process, $(Ti_xNb_{1-x})O_2$ phase form. 2−75735
$LiNbO_3-Fe_2O_3$, congruently melting, phase rel. 2−62110
$Li_2O-Al_2O_3-SiO_2$ gels, crystn. rel. to glass prep. 2−76309
$Li_2O-Al_2O_3-SiO_2-TiO_2$ glass ceramics, cryst. props., grain growth, electron and X-ray study 2−66244
$Li_2O-Al_2O_3-SiO_2-TiO_2$ glass ceramic, phase anal., Raman and X-ray obs. 2−110853
Li_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
$Li_2O-K_2O-SiO_2$ glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Li_2O-ZrO_2, cpd. form., thermal and X-ray obs. 2−83102
$LiTaO_3$, ferroelec. domain boundaries, computer simulation, X-ray and electron microscope study 2−87717
$LiTaO_3$ large cryst., Czochralski grown, low angle tilt boundaries, edge dislocations and cracking 2−91843
β-$Li_{0.36}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
Li_xVO_2, preparation and lattice parameters 2−81752
β-$Li_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
Mg, electron irradiated, Frenkel defects study by diffuse X-ray scatt. 2−65989
Mg-Mg_2Cu-AgMg system, partial phase diagram, eutectic and peritectic reactions 2−57334
MgF_2, phase transitions in shock-compressed samples, X-ray study 2−76667
$MgFe_2O_4$, low temp. formation, characterisation 2−62093
MgO, periclase, shock-loaded, struct. deform. 2−76586
$MgO-B_2O_3$ glass, phase relations, NMR and X-ray diffr. study 2−98247
$MgSiO_3-MgGeO_3$, phase relation diagram, physicochemical anal. 2−66175
Mn-Ni(Co) layered mag. thin films, magnetisation and struct. 2−72302
Mn-Si (25 to 37.5 at.% Si), phase comp. and thermodynamic props. 2−83094
MnAs, mag. phase transition, magnetisation, elec. resistivity, mag. field effects 2−72207
MnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
$MnSO_4.5H_2O$, X-ray diffr. study 2−91755
MnTe, antiferromag. semicond., Mossbauer and X-ray study 2−61795
Mo, anelastic relax. of self-interstitials, X-ray diffuse scatt. study 2−56082
$MoO_3-V_2O_5$ system, phase equilibria, electron microscopy and X-ray diffr. study 2−115391
$Mo_{50}Ru_{33}B_{17}$, metallic glass, inertial confinement fusion target material appl., characts. 2−87104
MoS_2 films, lubrication and failure mechanisms, substrate surface finish influence 2−110216
NC_4BeF_3 crystals, phase transitions study 2−109976
$(NH_4)_2BeF_4$, incommensurate superlattice, X-ray diffr. study 2−55943
$NH_4H_2PO_4$ crysts., dislocation-free, dipyramid faces, growth from soln., growth stoppages in presence of impurity obs. 2−65899
NH_4HSeO_4, dielec. and struct. props., isotope effect, pyroelec. and X-ray studies 2−57022
$(NH_4)_2ZnBr_4$, ferroelectric phase transition, NQR study 2−104821
$(NH_4)_2ZnCl_4$, coexistence of lattice superperiods near phase transitions, X-ray diffr. study 2−92184
N_2O, thermal expansion, X-ray diffr. study, 100 to 182K *(Russian)* 2−81991
Na_4AO_4 (A=Si,Ge), low-temp. orthorhombic variety, X-ray diffr. *(French)* 2−55950
$NaBO_2-CdO(CdB_4O_7)$, phase diagrams, DTA, X-ray phase anal. and IR spectra study 2−66174
$Na_{0.5}Bi_{0.5}TiO_3$, ferroelectric, structural phase transitions, X-ray diffr. study 2−67002
$NaCd(HCO_2)_3$, cryst. growth and struct. characterisation, etching, X-ray diffr. and IR study 2−91920
$Na_2O-Ca_2O-SiO_2$ glass microstruct., laser scatt., small angle X-ray scatt. and TEM 2−91799
Na_2O-GeO_2 glass struct., EXAFS and X-ray diffr. study 2−91792
Na_2O-SiO_2 gels, crystn. rel. to glass prep. 2−76309
Na_2O-SiO_2 gels prep. for gel-glass process, action of atmospheric agents 2−76317
β-$Na_{0.33}V_2O_5$, struct. phase transition, X-ray diffr. study 2−65910
β-$Na_xV_2O_5$, quasi-one-dimens. cond., EPR 2−92997
X-ray diffraction examination of materials continued
Nb, Pd and Ni coated, hardening and fracture initiation, H_2 absorption-desorption effects *(Japanese)* 2−57458
Nb:H_2, ultra small angle X-ray and neutron scatt. 2−86521
Nb-Ga-Si system, crystallographic phases, supercond. transition temp., X-ray diffr. study 2−86837
Nb-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Nb-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Nb-Zr-C, embrittlement during ageing, X-ray, SEM and TEM study *(Russian)* 2−93585
Nb_3Al films, ion irrad., supercond., struct. disorder and phase transitions 2−98786
Nb_3Ge bulk metastable alloys, containerless undercooling and solidification 2−57340
Nb_3Si, A15 phase, high press. annealing prep., struct. and supercond. props. 2−77778
$Nb_{81}Si_{19}$, amorphous, crystn. under high press. and form. of A15 phase 2−86572
Nd-In system, phase diagrams and lattice spacings of cpds. 2−111141
Ni, electrodeposited, cryst. struct., positron annihilation, Mossbauer and X-ray study 2−104178
Ni film, condensed, radiation stability, struct. anal. and small-angle X-ray scatt. *(Russian)* 2−61019
Ni films and coatings, porosity and internal stresses, annealing and thermal cycling effects *(Russian)* 2−76870
Ni single crystal, (110), white synchrotron radiation topography, mag. field effect 2−86623
Ni-Al-In, β' phase, void distrib., X-ray small angle scatt. and TEM 2−105411
Ni-Cu, diffusion coeff., conc. dependence, X-ray study *(Russian)* 2−98329
Ni-Mn-Si-B, amorphous, mictomag. props. 2−116010
Ni-P-B coatings, heated in air, struct. and props. *(Russian)* 2−57382
Ni-Pt interaction with Si 2−86953
Ni-Ta solid solns., short-range order, conc. and temp. depend., X-ray diffr. study 2−115178
Ni-Ti sintered specimens pressed from powder mixture, phase comp., mech. and elec. props. 2−67248
Ni-Zr 2−55857
$NiMnCrO_4$ spinel valence struct., X-ray spectroscopic determ. 2−115652
$NiO-Y_2O_3$, directionally solidified eutectic, crystallography 2−109762
Np_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
Os-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
P, amorphous, intermediate range order, X-ray diffr. and Raman scatt. study 2−91779
P, black, single cryst. growth from melt, X-ray structural characterisation 2−111056
P_4S_3, specific heat, thermal expansion and cryst.-plastic transition, neutron and X-ray diffr. study 2−115429
Pb and Pb-Bi (In) films, strain relax. meas. on Si substrates 2−82189
Pb thin films, on substrate, low-temp. strain behaviour 2−110218
Pb-Bi film, Josephson junction counterelectrode, strain distrib., X-ray study 2−82179
Pb-Ca-Sn, phase diagram, Pb rich corner 2−105123
$PbBi_2Nb_2O_9$, ferroelasticity, Curie temp., birefringence and spontaneous strain 2−81876
PbI_2 film, prep. by iodination of PbS film, X-ray characterisation 2−67215
$PbMo_6S_8$, supercond. and electronic props. *(Russian)* 2−98638
PbO, polymorphic, thermal expansion, phase transitions, dielec. props., X-ray study 2−76716
PbO_2, defect struct., X-ray diffr. and TEM 2−76446
$Pb_3(PO_4)_2-Pb_3(AsO_4)_2$, stepwise ferroelastic transition, Raman X-ray, neutron and stress birefringence study 2−115402
PbS, growth of single crystals from natural galena 2−116356
PbTe epitaxial film, misfit strain 2−92423
PbTe epitaxial layers on BaF_2, misfit and thermal strains, magneto-optical and X-ray study 2−82175
PbTe films, RF sputtered, struct. props. obs. by X-ray asymm. refls. 2−110197
$PbTiO_3$, phase transition in low temp. range, lattice consts. meas. 2−81947
Pd-GaAs interface reactions, struct. characterisation by X-ray diffr. 2−110172
Pd-Pb(Sn), thin film couple, single intermetallic cpd. form., X-ray diffr. obs. 2−92288
Pd-Si interfaces, X-ray study of domain struct. and stress in Pd_2Si films 2−115614
$Pd_{1-x}Ag_xHy$, α-α' phase transition of H, X-ray scatt. study 2−103977
Pd_4Ge, metallic glass, crystn. kinetics 2−81682
Pr-Tb-O film, thermally evaporated, struct., optical and elec. props. 2−110189
Pt:O coating on glass microsphere, DT induced disruption 2−115594
Pu_xWO_3, synthesis, X-ray powder diffr., Mossbauer spectra 2−62086
$RbCaF_3$ lattice parameters and thermal expansion coeffs., precise determ. 2−92237
$(Rb_{1-x}K_x)_2ZnCl_4$, thermal hysteresis of modulation wavevector, X-ray study 2−109975
Rb_2NaHoF_6, phase transition and low temp. struct. 2−66209
$RbVF_4$, structural phase transitions, sp. ht., optical and X-ray diffr. studies 2−115403
$Rb_6W_2O_9$, $Rb_6W_2O_9$, polymorphism study, DTA, high-temp. X-ray diffr. *(French)* 2−55877
$Rh_{0.92-x}B_xSi_{0.08}$ glasses, struct., mech. and elec. props. 2−103650
Ru-Sn-M (M=rare earth, Y, Sc, Ca, Sr, Th), supercond. and mag. transition temp. 2−115934
RuO_2 sputtered film, struct. and metallic cond. props. meas. 2−110493
Sb-Zn, amorphous, form. and crystn. 2−76322
Sb_2S_3-PbS glass, prep. and props. 2−71367
Sb_2Te_3 single cryst. growth by hot wall epitaxy 2−93418
Sc, high pressure phase transition 2−81953
Se, amorphous, crystallisation, scanning calorimetry and X-ray diffr. study 2−91780
Si (111), adsorbed Br, surface registration, X-ray standing waves determ. 2−104151
Si amorphous thin film, microwave plasma CVD fabrication 2−111093
Si, bent, strain conc. factors around holes and inclusions, X-ray topography study 2−98189
Si, bent cryst., dynamic diffr. focusing of X-rays 2−60836

X-ray diffraction examination of materials continued
Si, bent crystal, contrast effects in synchrotron X-ray topographs 2−60837
Si, creep fractured, growth kinetics of plastically deformed regions at crack tips, X-ray synchrotron topography 2−86788
Si cryst., perfect, oxidation-induced anisotropic deforms., dynamical X-ray diffr. 2−86517
Si, deformed, stacking faults, dislocations, X-ray moire pattern study *(Russian)* 2−91990
Si dislocation crystal, X-ray Laue diffr., dynamical oscillations obs. 2−115241
Si, dislocation mechanisms, X-ray synchrotron topography study 2−97852
Si, dislocation study by X-ray plane wave images 2−103774
Si, elliptically polarised X-rays from linearly polarised X-ray diffr. 2−86510
Si, fracture and crack propagation, dislocation generation, X-ray study 2−115346
Si, internal strain tensor, energy dispersive X-ray study using 006 forbidden reflection 2−66102
Si, ion implanted, CW laser annealing, dislocation nucleation, growth and suppression 2−56021
Si, ion implanted, rad. damage, crystalline props., X-ray rocking curve study 2−66075
Si lattice deformation meas. using X-ray multiple refraction 2−60835
Si, melting and cryst. growth, X-ray topographic obs. 2−65900
Si, neutron irrad., diffuse X-ray scatt. obs. of defects 2−109849
Si, neutron irrad., dislocation loops, X-ray diffuse scatt. study 2−71458
Si particle reinforced Al, SAS1-50 composite, internal stresses and dimens. instability under cyclic thermal load 2−62210
Si, precipitation of O, effect of C impurities 2−66240
Si, self ion implanted, residual lattice disorder after pulsed laser irrad. 2−76494
Si single crystal, X-ray interference by wavefront division 2−58972
Si, stacking fault morphology, annealing temp. effect 2−66021
Si, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Si, synchrotron X-ray topography, multistereoscopic imaging technique 2−81624
Si, thermoelectric effects, X-ray interferometry study 2−98682
Si wafers, HCl etched {111}, deep etch pits and facet form. obs. 2−76447
Si, X-ray forbidden refls., spectral depend. 2−60838
Si, X-ray mode selection and intensity enhancement in crysts., appl. to X-ray sources 2−81622
Si:B epitaxial layer, lattice parameter determ. by means of asymm. Bragg refls. 2−97851
Si:B^+, inhomogeneous implanted surface layers studied by X-ray rocking curves meas. 2−92315
Si:P, dislocation clusters and P diffusion, TEM and X-ray topography study 2−91973
Si/Pd-W(Pd-Si)(Pt-W)(Pt-Si), shallow silicide contact of high Schottky barrier formation, expt. study 2−66622
Si/PtSi/Ti-W/Al system, compound form. and interdiffusion, SEM, X-ray, Auger and microprobe studies 2−71740
Si-Si_3N_4 interface, defect evolution, synchrotron X-ray topographic obs. 2−98471
SiC, sintered, α and β polymorph proportion estimation procedure using X-ray diffr. 2−65943
SiC:B, Al epitaxial layers, lattice deformation and perfection, X-ray study 2−92406
Si_3N_4, neutron irradiated, X-ray anal. of internal strain 2−93557
SiO_2 thin films, effects of humidity on stress 2−92427
SiO_2-Fe_2O_3 system, gel-glass transform., Mossbauer spectra, thermal anal., and X-ray diffr. 2−76318
SiO_2-Na_2O-CaO-MgO-R_2O_3 (R=rare earth) glass struct., diffr. methods anal. 2−55859
Si_2ON_2, neutron irradiated, X-ray anal. of internal strain 2−93557
Sm-In system, phase diagrams and lattice spacings of cpds. 2−111141
SmB_6, compressibility, valency and intermediate valence effects 2−56072
$Sm_xCe_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$SmCo_5$-Sn(Fe), alloying addition effect on X-ray diffr. relative intensity *(Chinese)* 2−97993
Sm_5Co_{19}, intergrowth and stacking faults, electron microscope obs. 2−115255
$Sm_xLa_{1-x}B_6$ solid solution, valence and lattice consts. 2−66500
$Sm_{0.85}Tm_{2.15}Fe_5O_{12}$, epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
Sn film, graphoepitaxial electrodeposition, expt. study 2−87083
SnO_2 films, pyrolitic prep., optical selectivity and crystallisation 2−87887
SnO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
SnO_2:Sb thick films, spray deposited, elec. cond., Hall mobility and optical gap meas. 2−82415
SnO_2:Sb thin films, spray pyrolysed, X-ray diffr. and AES study 2−104204
SnO_2-Nb_2O_5, reactions after annealing, X-ray anal. 2−88065
$SnRh_4Sn_{12}$ R_x (R=rare earth), supercond./mag. cmpds., struct. distortion in primitive cubic phase 2−76403
SnTRe, epitaxial film, effect of thermal treatment on comp. and struct., Mossbauer and X-ray study 2−66399
SnTe films, vacuum deposited, microstruct., X-ray diffr. study 2−115598
SnTe vacuum evaporated thin films struct. param. from X-ray studies 2−103707
$Sr(NO_3)_2$, growth strains, synchrotron radiation X-ray section topography study 2−86512
SrO-BaO-Al_2O_3-TiO_2-SiO_2 system, crystallised-glass materials, isomorphous substitutions, X-ray diffr. study 2−71615
SrO-Li_2O_5-P_2O_5:Mn, Ce, luminesc. system, whitlockite phase struct. 2−98015
$SrSiO_3$-$BaGeO_3$, solid solutions, phase reactions, IR spectra 2−72693
Ta-In(Tl), phase diagram determ. using X-ray powder diffr. 2−67300
Ta-Se binary system, high press. prep., phase relations, X-ray powder diffr. study 2−61113
Tb-Fe amorphous films, mag. props., sputtering induced recrystn. effect 2−72300
Tb-In system, phase diagrams and lattice spacings of cpds. 2−111141
Tb_4Co_3 amorphous alloy, transition to spin glass state, magnetisation, mag. susceptibility meas. 2−61720
$ThNb_4O_{12}$, slow-cooled sample, Th-vacancy ordering 2−60928
ThNiAl, absorption of H_2, thermodynamic and struct. study 2−56196
ThO_2-UO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136

X-ray diffraction examination of materials continued
$ThSiO_4$ dimorphs, huttonite and thorite, metamict states 2−56046
Ti coatings, vapour-deposited, exposed in MACROTOR and MICROTOR 2−92392
Ti, surface nitride films, Auger and X-ray charact. 2−92396
Ti-Al (1.65 to 10 wt.%), oxidation behavior, effect of Al *(French)* 2−57526
Ti-Al based alloys, precipitation of metastable phases, X-ray diffr. and mech. props. meas. *(Russian)* 2−77825
Ti-Al-Mo, α'' phase form. and decomp. *(Russian)* 2−99385
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2−67315
Ti-Fe film, composite cathode sputtered, struct. and comp., expt. study 2−56390
Ti-Ni-Cu, phase diagram in Ti-rich region *(Japanese)* 2−105119
Ti-V-Cr-Mo, VT3-1, α'' phase form. and decomp. *(Russian)* 2−99385
TiB_2 coating for fusion reactor first wall, characterisation by lattice constant meas. 2−74912
TiC, fused single-cryst., struct. and props., melting conditions influence 2−81779
TiO_2, phase transitions in shock-compressed samples, X-ray study 2−76667
TiO_2/SnO_2 ceramic moisture sensor, elec. resistance stability, SEM, powder X-ray diffr. exam. 2−74398
TiO_2-RhO_x, structural, thermogravimetric and ESR study 2−87581
$Ti_{80}Pd_{20}$, amorphous alloy, struct. anal. 2−71351
$TlBiTe_2$-2PbTe cross section, solid soln. form., physicochem. and electrophys. props. 2−57337
Tl_2S-GeS_2 system, phase equilibria, DTA, X-ray diffr. and hardness study 2−66171
TmSe, mixed valence cpd., high press. neutron and X-ray diffr. studies 2−56509
TmSe, pressure-induced valence transition, X-ray diffr. study 2−82233
$Tm_3(Tm_xGa_{2-x})Ga_3O_{12}$, Czhochralski growth, optical and X-ray topography quality obs. 2−93413
U-W-B, phase constitution, X-ray diffr. photographs 2−83095
UMAl (M=Ni,Co,Mn), absorption of H_2, thermodynamic and struct. study 2−56196
UO_2 fuels, qualitative approach for characterisation 2−85160
UO_2, high pressure behaviour, X-ray powder diffr. study 2−56178
UO_2-PuO_2, mixed oxide fuel, at. homogeneity evaluation 2−85136
UO_2-PuO_2, Pu conc. distrib. determ. using X-ray diffr. line profile anal. *(German)* 2−85137
V:H_2, ultra small angle X-ray and neutron scatt. 2−86521
V-O system, phase relations, homogeneity, X-ray diffr. study 2−66173
V-Sn-Cu system, phase comp., stoichiometry and homogeneity, microstruct., X-ray and microhardness study 2−66172
$VAl_{10.42}$, one-particle pot. determ., cryst. struct., lattice dynamics 2−109938
V_2O_3-La_2O_3 system, phase equilib. relations 2−67306
V_2O_5, amorphous, struct. anal. by large angle X-ray scatt. 2−97925
V_2Zr(Hf), lattice stability in premartensitic temp. range *(Russian)* 2−97981
V_2Zr(Hf)(Ta) superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
W fibre reinforced Cu composites, tensile yield behavior, effect of thermal history *(Japanese)* 2−105238
W-Al-Ge system, ternary cpds. existence and struct. 2−57333
WC powders, submicroporosity, milling influence, small-angle X-ray scattering investigation 2−67269
WC-TiC-TaC-NbC-Co cemented carbide, C content effects 2−77939
$(Y,Sm,Lu,Ca)_3(Fe,Ge)_5O_{12}$ films, H^+ implanted, laser annealing 2−76492
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2−61742
Y-Cu-Ga system, phase form. and crystallographic charact. *(Ukrainian)* 2−83080
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2−82508
YAG, flux grown, surface and bulk growth-induced strains 2−57280
YIG epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
YIG phase containing glass ceramics, prep. and mag. charact. 2−67278
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334
YIG:Tm,Ca,Ge,Ne layers, ionimplanted, annealing effects on cryst. and mag. props. 2−77333
YMn_2, first-order struct. phase transition, lattice parameter study *(Russian)* 2−103974
YSmLuCaGeIG:Ne(H), ion implanted bubble garnet film, mag. and cryst. props. 2−82644
Yb_2O_3-Fe_2O_3-CoO (NiO)(CuO)(ZnO), phase diagrams, quenching method X-ray study 2−76639
Zn-Sb system, crystallisation charact., metastable states, phase diagrams X-ray diffr. study 2−81935
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2−57286
ZnO, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO-B_2O_3-Li_2O-H_2O system, crystallisation, characterisation by X-ray diffr. 2−103962
ZnO.Al_2O_3, gahnite, behaviour of Cr^{3+} and Fe^{3+} ions 2−98296
α-ZnP_2, lattice dynamics, X-ray diffr. study 2−56146
ZnS, 2H to 3C solid state transform, X-ray diffr. study 2−98272
ZnS film, electron beam evaporated, growth and struct., expt. study 2−111076
ZnS, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnSe, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnTe, heteroepitaxial films, struct. charact. 2−92381
Zr, surface nitride films, Auger and X-ray charact. 2−92396
Zr-Mo-Al, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846

X-ray diffraction examination of materials continued
$Zr(Ca, Mn)_2(Fe,Al)_4Ti_3O_{16}$, cubic cryst. cpd. found in Radwaste ceramic, characteris. 2−103705
$Zr_{1-x}Co_x$, crystallisation and struct. transition, X-ray and thermal anal. 2−109677
β-Zr(Fe) phase, effect of Ti in stabilisation 2−105166
$Zr_{1-x}Hf_xMo_2(W_2)$, high temp. equilib., struct. transformation 2−66177
$Zr_{1-x}Hf_x(Ti_x)Mo_2(W_2)$, high temp. equilib., struct. transformation 2−66177
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
ZrO_2, crystallisation and transform. under hydrothermal conditions 2−111170
$ZrTe_5$, low-dimensional metallic, giant resist. and X-ray diffr. anomalies 2−87244

X-ray diffraction examination of microstructure
see also crystal microstructure
aero gas turbines, corrosion prevention by organometallic cpd. additives 2−116623
amethyst quartz, twinning microstruct. and growth 2−109815
ceramic-like body, process design, prod. from recycled waste glass, microstruct. and devitrification 2−111127
diamond, variety III, internal structure X-ray section topography study 2−109785
ferrous materials, plasma-nitriding in N_2-H_2-CH_4 gas mixtures *(German)* 2−88292
heterojunction, defect form. 2−92374
metal, FCC, texture, graphic kinematics using computer *(French)* 2−78055
metallic superlattice superconductivity and magnetism 2−92819
multibeam X-ray topographic method for a double-crystal arrangement 2−91719
order-disorder transform., metallographic, resistivity, microanal. and X-ray obs. 2−111171
polypropylene, isotactic, microparacryst. globules study by SAXS and TEM 2−91824
pyroceramic cement, vitreocrystalline, struct. and mech. props. after heat treatment 2−72723
quartz crystals, twinned according to Japan twin law, X-ray topographic study 2−109814
SOS films, model for X-ray rocking curve half-widths interpretation 2−91977
SOS films, struct.-props. rels. associated with haze 2−91907
steel, austenitic stainless, ion-irrad., void swelling and microchem. segregation 2−111181
steel, B, type 10B35, X-ray factography on const. fatigue fractured surface *(Japanese)* 2−77919
steel, Cr-Mo, low C, tempering behaviour, effect of C content 2−77853
steel, Cr-Mo, segregation of embrittling elements to prior austenite grain boundaries 2−93517
steel, Cr-Mo-Ni-W-V, carbide obs. *(Chinese)* 2−62145
steel, low C sheets, Mn and N effect on recrystallisation texture *(Japanese)* 2−105181
steel, low-alloy, strengthening mechanism of NiAl precipitate *(Korean)* 2−116453
steel, low-C, chem. scaled, anomalous interlayers 2−99416
steel, maraging, 00Kh11N10M2T, struct. changes and mech. props. caused by reverse α to γ transition *(Russian)* 2−77819
steel, medium-C, railway wheels, rolling texture, X-ray determ. 2−99623
steel, mild and low-alloy, high strength residual stress near fatigue fracture surface, meas. by X-ray method *(Japanese)* 2−77918
steel, Mn-Si-(Nb), low alloy, heat treated, $M_{23}C_6$ type carbides form. 2−116469
steel, stress intensity factors during brittle crack propagation and at arrest in ESSO specimens *(Japanese)* 2−77916
steels, textured, X-ray method for determ. of retained austenite 2−93730
TGSe, crystalline, X-ray topography and laser tomography 2−71290
wafer, single crystal, lapping and polishing damage investig. by X-ray double-and triple-crystal diffr. *(Chinese)* 2−93690
Ag bicrystal, struct. of large-angle Σ=13 [001] twist grain boundary 2−71470
Ag, Lomer-Cottrell locks by mech. straining, X-ray topography 2−109805
Al, high-temp. creep, dislocation density and internal stresses *(Russian)* 2−67447
Al-Cu (4wt.%), GP zones at initial stages of ageing small-angle X-ray scatt. *(Japanese)* 2−83142
Al-Mg, dispersion hardening, X-ray matrix reflections, double maxima study *(Russian)* 2−93522
Al-Mn (1 wt.%) alloy, texture development during continuous grain growth 2−105186
Al-Zn alloys, precip. sequence, X-ray scatt. and electron microscopy study *(French)* 2−116442
$Al_xGa_{1-x}As$ epitaxial film, homogeneous, high resistivity, synthesis 2−116397
Al_2O_3 fibre, prep. and changes of microstruct. by heat treatment *(Japanese)* 2−116417
Au, bicrystal, struct. of large-angle Σ=13 [001] twist grain boundary 2−71470
BN, pyrolytic, high press. and high temp. effect 2−105167
$Ba_3P_6O_{18}.9H_2O$, preparation and props. 2−72643
Be-Cu-Fe, phase relations in Be rich section 2−111146
$Ca_2Mg_{1-x}Fe_{2x}Si_{2-x}O_7$ crystalline phase anal. 2−71416
CdSe-ZnS, phase diagram, DTA and X-ray phase anal. 2−72676
Co-Cr-W, processed by liq. phase sintering, microstruct. invest. 2−67310
Co-Ge-Te, phase equilibrium cross-sections 2−72679
Cu-Ni, sputter-enhanced diffusion at high temps. 2−92279
Cu-Ni-Mn, grain boundary reaction after ageing *(Japanese)* 2−77848
Cu-Ni-Sn (10.8.wt.%), grain boundary reaction after ageing *(Japanese)* 2−77849
Cu-Pd, ordering process during continuous process *(Japanese)* 2−77820
CuCl films on mica, MBE 2−115622
$CuCr_2Se_4$-InSe(In_2Se_3)(CuInSe$_2$) solid soln. form., DTA and X-ray phase anal. 2−109993
Cu_2MnAl, Heusler alloy, decomp. of β-phase 2−88086
Fe-Al-Si alloy, sputtered granules, characters, before and after annealing *(Russian)* 2−67368
Fe-Ni Invar alloys, high-temp. superstruct., X-ray diffr. study *(Russian)* 2−61154
Fe-Si (2.9 wt.%), slip geometry, hydrostatic press. effects, expt. study *(Russian)* 2−116499

X-ray diffraction examination of microstructure continued
Fe-Si (5 wt.%) alloy, supercooled ingots, cryst. struct. features 2−67318
$Fe_x(As_{15}Te_{37}Si_{25}Sb_{27})_{1-x}$ film, sputtered, phys. props. 2−92421
GaAs substrates and GaAs-$Al_xGa_{1-x}As$ DH epitaxial wafer, defects meas. by X-ray topography *(Chinese)* 2−67669
$[rGa(OH)_2]_6P_6O_{18}.12H_2O$, preparation and props. 2−72643
$Gd_{16}Co_{84}$ sputtered film, amorphous, radioactive tracer diffusion 2−92429
In_2O_3:Sn film, transparent conductive, prep. by pyrolysis method 2−111091
InP, inclusions 2−71433
InP, single crystals, dislocation free, cryst. growth by LEC technique 2−97965
InP-InGaAsP-InP DH wafer, LPE grown, misfit dislocations 2−98096
InSb-In_2GeTe, thermographic, X-ray and microscopic investigation 2−109995
La_2O_3-NiO system, phase transitions in air, X-ray anal. 2−109971
$Li_2Cu_2(MoO_4)_3$, electrical cond., ionic and electronic 2−72034
Mg-Al-Y system, phase diagram, isothermal sections at 400°C 2−83091
Mn-Cu, FCC to FCT transform., crystallographic and morphological obs. 2−57347
Mo-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
Na_2O-CaO-$Ca_3(PO_4)_2$-Na_3PO_4-Na_2SiO_3-$CaSiO_3$, subsolidus struct. 2−111151
Nb-Al-C alloys, fast quenched, metallography and X-ray anal. 2−111207
NbC_x, single cryst., prep., struct. and mech. props. 2−98108
$NbSi_2$ film, phys. and elec. props. 2−104193
Ni-base superalloy, 718, sintered and heat treated, phase anal. 2−67290
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
Ni-Cr-C, phase diagram, 1000-1200°C, thermodynamic study *(Czech)* 2−116425
Ni-Zn ferrite fillers for elastic magnetic materials 2−72658
β-NiAl, X-ray topographic study of α-Al_2O_3 surface film 2−88275
NiSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
Pb ternary alloys, supercond. props., influence of US treatment 2−82514
Pb-In films, thermal cycling between room and liq. He temps., microstruct. changes 2−111214
Pb-In-Au:O film for Josephson tunnel junction base electrode 2−98499
PbO-V_2O_5, equimolar system, new phases 2−93496
PbTe, polycrystalline, sublimation-grown, cryst. perfection 2−93391
Pd-B alloys, phase relations, X-ray diffr., DTA and resist. meas. *(German)* 2−83098
Pd-Si amorphous alloy, neutron irrad. effects studied by positron annihilation 2−103826
PtSi, composition changes due to Ar^+ ion bombardment, AES meas. 2−103866
Sb_2S_3 film, photosensitive, prep. by dip-dry technique, struct. and props. 2−111070
Si, dislocation free, formation of self-order agglomerates during cryst. growth 2−81782
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
Si, single cryst., floating zone growth, defects study *(Chinese)* 2−109796
Si, stress relaxation deform. at edge dislocation 2−76580
Si:B, laser beam annealing, recrystn. 2−103812
Si:BF_2^+, ion implanted, wafer bending and stress, thermal annealing effect, X-ray topography 2−115311
Si_3N_4, reaction bonded, mech. props., creep and thermal shock behaviour, influence of microstruct. variables 2−116541
Sm(Co, Cu, Fe, Zr)$_{7.4}$ permanent magnet, precip. hardened, microstruct. 2−71657
steel, Al, US treatment effect on C redistrib. and austenitic-martensitic transform. *(Russian)* 2−67331
α-Te_2MoO_7 and β-$TeMo_5O_{16}$, industrial oxidation catalysts, X-ray diffr. and electron microscopy study 2−61157
TiN powder, shock treatment effect, microstrain increase 2−105112
ZnO film, preferred orientation controlled by RF sputtering 2−61314
Zr-Ir system, phase equilib. study using thermal anal., metallographic and X-ray methods 2−83090

X-ray diffraction examination of molecular structure
see also molecular configurations
actinoxanthin, mol. struct., X-ray diffr. study 2−67943
barnase (a ribonuclease), molecular structure 2−83549
biological macromols., X-ray studies, review 2−63794
catalase, beef liver, mol. struct., X-ray diffr. study 2−67942
catalase, Penicillium vitale, mol. struct., X-ray diffr. study 2−67941
16α, 17α-cyclohex-3′-enoprogesterone, cryst. and mol. struct. and biological activity, X-ray diffr. study 2−67940
cytochrome c, cryst. and soln., comparison of struct. by high-angle X-ray scatt. 2−57774
DNA, B form structure, refinement on X-ray and energy criteria basis 2−105646
enniatin B, ionophonic antibiotic, mol. and cryst. struct., X-ray diffr. study 2−67939
leghaemoglobin derivatives, ferro and ferri states, multichannel X-ray diffractometry study 2−57778
lipid-water systems, phasic transition models, evaluation by optical analogy 2−57776
macromolecule crystallography using X-ray synchrotron source 2−102670
macromolecules, anomalous X-ray scatt., use of synchrotron radiation 2−68224
N,N′-di-n-hexyladipamide, a model for nylon 6,6 2−76323
oligotripeptide isomorphous to collagen, (gly-pro-pro)$_{10}$, diffr. effects in X-ray patterns 2−111622
peptides, molecular size and confirmation 2−99880
polymers thermal expansion effect on diffr. intensity from molecules 2−80849
protein crystallography, crystal cooling device for use with synchrotron radiation 2−68209
proteins, molecular size and confirmation 2−99880
proteins, X-ray diffr. study, multiwavelength method with synchrotron radiation 2−65806
retinal photoreceptors, intact vertebrate, lamellar structure, verification of phases 2−62596
ribonuclease A cryst., conformation, temp. depend., laser-Raman spectra and X-ray diffr. 2−73190

X-ray diffraction examination of molecular structure continued
ribosomal RNA, struct., X-ray neutron scatt. and electron microscopy study 2−67944
stellacyanin, metal-binding site studies 2−93985
tomato bushy stunt virus, struct. of expanded state 2−88503
2,4,6-trinitrotoluene, mol. struct., X-ray investig., direct calcs. 2−85552
visual cell photoreceptor membrane, struct. change due to light damage, small-angle X-ray investig. 2−105759
Cu (II) complex, bis(N-benzylpyridoxaldiminato) copper (II), struct., ESR and X-ray obs. 2−54883

X-ray diffractometers
automatic reflection location with X-ray diffractometers 2−74580
Bragg diffractors with graded-thickness multilayers 2−84751
DRON-2.0 X-ray diffractometer, low-temp. attachment for recording X-ray absorption spectra 2−95571
flat specimens holder 2−113090
four-circle, uniaxial stress apparatus, appl. to Si and diamond 2−65797
interferometer, X-ray interference by wavefront division 2−58972
low-temperature attachment 2−113089
multichannel diffractometer with mosaic detector, protein crystallography appl. 2−57778
rock prism specimen jig, for Philips diffractometer 2−79726
solid state detector, N-pattern display 2−65802
triple crystal diffractometer, intensity distrib. of parallel (+n, −n, +n) setting crystals, triple cryst. diffractometer studies with different collimator-analyser 2−81618
two-axis diffractometer for synchrotron X-rays at DORIS 2−84766
two-channel diffractometer system, for rapid X-ray phase anal. 2−93696
wide-angle X-ray diffractometer, microprocessor appl. 2−84773
He gas high-pressure cell for X-ray powder diffraction studies 2−79725

X-ray effects
see also biological effects of X-rays
alkoxy radical radiation products, g-tensor and H^+ coupling tensors 2−85695
anode plasma heating by X-rays in high power diodes, theory 2−86482
deoxycytidine-5'-phosphate monohydrate, X-irrad., low-temp. thermoluminescent behaviour 2−61987
feldspars, X-ray irrad. defects, thermoluminesc. and optical absorpt. study 2−110958
gamma radiation amplification from X-ray excited nuclear states 2−114227
L-histidine, radiation damage, thermoluminescence study 2−61032
methyl radicals displacement in X-irrad. lithium acetate dihydrate 2−70300
MOS capacitors, X-ray irrad. effects, deep traps 2−77194
MOS structures, radiation damage by X-ray irradiation *(Chinese)* 2−66645
organic conductors, X-ray irrad. induced defects, damage prod. mechanisms 2−92032
polyethylene fibres, influence of low-temp. radiolysis on strength *(Russian)* 2−57402
α-polyvinylidene fluoride, X-ray induced current transients, carrier traps 2−110338
propaneoate radical, environment in X-irrad. L-alanine crystal, ENDOR spectra 2−70304
PTFE, surface composition, XPS study, X-ray flux effects 2−57251
PVC oxygen-free film, X-ray-induced dehydrochlorination, XPS 2−87944
quartz, X-ray irrad., X-ray topograph under high electrostatic field 2−110112
quartz resonators, radiation induced cond. and high temp. Q changes meas. 2−98335
steel, austenitic stainless, hydrogen induced phase transform. under X-irrad. *(Japanese)* 2−77821
strontium tartrate tetrahydrate, X-irradiated, ESR 2−82718
TCNQ salt, TMTSeF-DMTSNQ, pure and irradiated, mag. props. 2−98958
TCNQ salt, TMTSF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TGS, nonequilib. ferroelec. cryst., relax. currents 2−110341
thiophosphate O,O,O-triester of methyl β-D ribopyranoside, X-irrad., EPR spectra 2−61769
$(TMTSF)_2PF_6$, low temp. cond., Hall effect and magnetoresist., effect of radiation damage 2−87240
$(TMTSF)_2PF_6$ superconductor, X-ray irradiation induced defects 2−92031
TMTSF-DMTCNQ, low temp. metallic state and superconductivity 2−72104
TMTSF-DMTCNQ, X-ray irrad., elec. props. of stable metallic phase 2−87145
TMTSF-DMTCNQ superconductor, X-ray irradiation induced defects 2−92031
trehalose, X-ray irrad., alkoxy and hydroxyalkyl radical form., ESR study 2−110646
(triphenylarsenicdifluoride)$^-$, X-ray irrad., EPR spectra 2−82716
TTF-TCNQ, X-ray irrad., damage prod. mechanism 2−61033
TTT_2I_3, X-ray irrad., damage prod. mechanism 2−61033
type 316, first wall material evaporation in ICF reactor utilising gas protection 2−74920
As_2S_3, glassy and cryst., X-ray luminesc. and thermoluminesc. meas. 2−61993
$Bi_{12}GeO_{20}$, photoluminescence spectra, effects of annealing, Al doping, X-ray and γ-ray irrad. *(Russian)* 2−61936
C, first wall material evaporation in ICF reactor utilising gas protection 2−74920
CaF_2:O, X-irrad., O centre, EPR and ENDOR study 2−61764
$CaSO_4$ phosphor, thermolum. and thermally stimulated exoelectron emission, SO_x^- radicals role 2−77602
$CaSO_4$, X-irrad., ESR of thermoluminesc. centres 2−66916
$CaSO_4.2H_2O$, gypsum, X-ray irrad., EPR spectra 2−66915
CsCl(Br), X-ray irrad., colloid form., optical props. 2−56030
FeCo and $Fe_{0.5}Co_{0.4}Cr_{0.1}$ films, polycryst., subjected to X-irrad., magnetisation *(Russian)* 2−66876
GeO_2:Zn(Mg), X-irrad., hole centre ESR study 2−87592
KBr, Raman scatt. induced by V-centres 2−67037
KBr:Na, thermo- and photostimulated recomb. of defects, spectra studies 2−110959
KBr:Tl^+, X-ray irrad. induced defects, optical and TSC meas. 2−81825
KCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
KCl, X-ray irrad. dielectric props. study 2−66973
X-ray effects continued
KCl:Br$^-$(Sr^{2+})(Ba^{2+}), X-ray irrad., H_D ntype defects, ESR study 2−110641
KCl:CrO_4^{2-}, Ca^{2+}, X-irrad., EPR and thermoluminesc. glow curves 2−56919
KCl:Eu, F-centre colouring 2−109791
KCl:Eu^{2+}, X-irrad., luminesc. and cond. props., elec. field effects *(French)* 2−116262
KCl:Pb^{2+}, EPR study 2−56930
KCl:$PbCl_2$, X-ray irrad. V_k centres, optical production, thermoluminescence, ESR and light absorption study 2−57194
KCl:Sr, interstitial centres and thermoluminescence 2−72565
$KH_{2x}D_{2(1-x)}PO_4$, X-ray and gamma irrad., domain struct. freezing 2−82802
LiH, X-ray irradiated, thermolum., TSC and F centre annealing at low temps. 2−116278
LiH, X-rayed at low temps., ESR studies of Mn^{2+} centre 2−98950
$LiNbO_3$:(Ni), γ- and X-ray irradiated, ESR, optical absorpt. and elec. cond. 2−98951
$MgAl_2O_4$, spinel, γ- and X-irrad., defect trap levels TSC and thermoluminesc. study 2−56608
$Mg(NH_4)_2(SO_4)_2.6H_2O:CrO_4^{2-}$, irradiated, EPR studies 2−61753
$NH_4MgPO_4:Ni^{2+}.6H_2O$, X- and γ-irrad. damage, EPR and absorpt. spectra study 2−57135
Na, liq., dissoln. of Au and Ag wires, dynamic X-radiography 2−111398
$NaBrO_3$, synchrotron radiation damage and induced decomp., white radiation topography obs. 2−103815
NaCl crystals, γ- and X-irradiated, dislocation models of mechanoluminescence 2−77595
NaCl, X-ray irrad. dielectric props. study 2−66973
NaCl:(Ca^{3+})(Sr^{2+}), irradiated crysts., IR props. 2−99127
NaCl:Mn, γ and X-ray irrad. charge compensation thermoluminescence and optical absorption spectra 2−61988
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
NaCl:Sr, X-irrad., thermoluminesc. study 2−57196
NaF:Li, single crystal, stability of electronic colour centres 2−91958
$PbZrO_3$ ceramic, dielec. props., X-ray irrad. effect 2−110745
Si:H,O,N, amorphous, ESR of impurity associated defects 2−82699
SiO_2 fibres, polymer clad, X-ray-induced transient attenuation at low temps. 2−114437
SiO_2 MOS struct., X-ray induced photocurrent, contact injection effects meas. 2−82395
SiO_2-Ge, recombinative luminescence *(Russian)* 2−61962
SiO_2-Na_2O (Li_2O)(K_2O) glasses, X-ray irrad.-induced defects, ESR study 2−98960
$SrCl_2$:K, photochemically coloured, thermally stimulated depolarisation currents meas. *(Russian)* 2−116112
SrF_2:Ni, X-ray irrad., luminesc. meas. 2−110921
$Th_{0.9}Y_{0.1}O_{1.95}$, X-ray irrad., luminescence study 2−67130

X-ray emission spectra
see also appearance potential spectra; conversion electron spectra
alkali metal glass, mixed, structural features 2−71370
alkali metal metavanadates, X-ray emission spectra, second coord. sphere effects 2−90567
atomic collisions, inner shell alignment, X-ray polarization 2−90677
atoms, forbidden lines in X-ray emission spectra, transition rate CF calcs. 2−102424
combination with high-resolution electron microscopy, application to chem. problems 2−97878
dynamic effects and final-state rule, numerical model 2−82958
free atoms and molecules, core-electron binding energies in the soft X-ray range obtained in X-ray emission 2−96637
graphite intercalation cpd. with alkali metals, C KVV Auger line shape and X-ray emission 2−87920
heel effect for various target angles, radiography 2−64205
ice, amorphous and cryst. state, electronic struct., X-ray emission study 2−87907
imploding wire plasma pinches, X-ray emission and streak photography study 2−65743
inner-shell ionisation by ultra relativistic electron impact, density effect search 2−70426
ion impact on surfaces, excited state formation, review 2−67177
k-edge filtered spectra, utility of calc. model 2−83646
L X-rays from solid W target of medical radiography tube 2−111776
L-shell X-rays by low-energy proton impact, relative intensity ratios 2−96704
laser compressed plasmas, simulation of X-ray line emission spectra 2−65700
Mζ emission lines used as calibration standards in soft X-ray region 2−105006
mamography, optimum X-ray spectra 2−117068
matrix correction method for radioisotope X-ray emission anal. *(Bulgarian)* 2−88386
metals, free electron, X-ray emission satellite band shapes, electron-hole recombination 2−77626
metals, multielectron core excitation spectra, surface effects 2−87912
metals, X-ray absorption, emission and photoemission spectral lineshapes 2−111033
metals, X-ray spectra, low energy double plasmon satellites 2−62020
mixed valence system, fluctuation effects at 0K 2−56495
nuclear reactions, united-atom K X-ray production, theory 2−101860
plasma, X-ray bremsstrahlung and characteristic line emission, calc. for Maxwellian electron distrib. 2−76197
plasma impurities, radiative processes, book contrib. 2−71120
radiographic noise Wiener spectra, energy-dependent behaviour in LF limits 2−105832
rare earth silicides, Si K_α emission spectra, energy shift, cryst. struct. effects 2−99227
screening effects in emission of satellites in L and M X-ray spectra 2−85583
steel, surface layers formed by friction, AES and X-ray emission spectra study *(Russian)* 2−93635
STEM appl. in solid state chemistry, cathodoluminescence, EELS, XES techniques 2−65821
transition metals, electron-electron interactions, plasmons, satellite lines in X-ray emission spectra 2−72580
transition metals, electronic struct. and soft X-ray emission spectra 2−76911

X-ray emission spectra continued
vibrations in high resolution X-ray emission spectra, pot. energy surfaces, bond lengths and force consts. 2−65003
Al, liquid, 3p electron density of states 2−82199
Al, muonic X-ray cascade, refilling rates 2−85847
Al-Mg-Si(Ge), age-hardening precipitates, microanal. 2−93513
Al_2O_3-Na_2O-Si_2O thin films, X-ray emission spectra, Al coordination 2−110985
Ar, electron impact, characteristic X-ray and bremsstrahlung cross-sections 2−102646
Ar, satellite struct. in L X-ray emission spectrum 2−80526
Ar-like mols., $L_{II,III}$ emission spectra, many-electron effects 2−90568
Au, atom, transversely pol. electrons scatt., Rontgenbremsstrahlung emission asymmetry 2−85585
Au, muonic X-ray cascade, refilling rates 2−85847
Au+Au ion collisions, threshold behavior of MO X-ray anisotropy spectra 2−59919
Br ion bombardment on light-ion target, L X-rays perturbation 2−77625
C V and VI X-ray emission lines, interstellar studies 2−63549
CC Cr-C, X-ray emission and photoelectron spectra meas. 2−87906
CO_2, CK and OK emission spectra, core state vibr. excitations and symmetry breaking 2−70276
CO_2, vibr. fine struct., natural lifetime, K X-ray emission obs. 2−54869
Ca_xAl_{1-x} metallic glasses, electronic struct., photoemission and soft X-ray spectra 2−104234
$Ce(Ni_{1-x}Cu_x)_5$ and $Ce(Co_{1-x}Cu_x)_5$, mixed valence, Ce^{3+}-Ce^{4f} electronic transition, X-ray K line shift study 2−56497
Cl containing compounds, Cl atom and orbital population from ^{35}Cl NQR freq. and X-ray emission spectra 2−108565
$(Cr,Fe,Al,Mg)_3O_4$ spinel, cation atom distrib., channelling effect in electron-induced X-ray emission 2−98018
Cr, K series X-ray emission spectra 2−57216
$CrCl_2$, Kβ′ satellite plasma oscills. theory 2−67152
$Cr_2(SO_4)_3$, Kβ′ satellite plasma oscills. theory 2−67152
CsCl, direct radiative recombination of core-hole highly excited states 2−87911
Cu, $K\alpha_1$ X-ray emission lineshape, core hole effects 2−87909
Cu-Mn (10 at.%), spin glass, lattice location of Mn 2−71489
$CuFeS_2$, electronic struct., X-ray emission and XPS study and Xα calc. 2−92455
EuB_6, K emission and absorpt. spectra, band struct. 2−87900
Fe-Al (45 at.%) film, electronic struct., X-ray emission spectra study 2−61338
H^++Au(Dy), L-subshell ionisation, cross sections, X-ray spectra 2−54941
He, antiprotonic, X-ray transitions, strong interaction effects 2−108743
He muonic and pionic atom cascade, X-ray emission meas. 2−90744
$He+F^{8+}(F^{9+})$, radiative electron capture processes, X-ray prod. cross sections 2−96725
$^3He(\pi^-,X)$, total and partial K-X-ray yields, pnn-and dn-reaction channels 2−113569
Ho, muonic X-ray cascade, refilling rates 2−85847
In, muonic X-ray cascade, refilling rates 2−85847
La-Si compounds, X-ray K_β and $L_{2,3}$ emission bands of Si 2−57217
LaB_6, K emission and absorpt. spectra, band struct. 2−87900
Li-Mg, BCC solid soln., soft X-ray emission and self-absorpt. spectra meas. 2−99229
Mg, muonic X-ray cascade, refilling rates 2−85847
^{24}Mg, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
Mo, two-photon X-ray emission from inner-shell transitions 2−102454
N^{4+}+atom, L-shell vacancy rearrangement probabilities on Kα X-ray satellites, at. number depend. 2−96709
$NaNO_3$, N KVV Auger line shapes, XES and photoelectron data 2−59818
NbO, effect of vacancies on electronic struct., X-ray emission spectra calc. 2−61330
$Ne+F^{8+}$, excited states, electron excitation and capture, X-ray spectra 2−75418
Ne^{8+}+He(Ne)(Ar)(methane)(Xe), Kalpha X-ray lines, electron capture rate coeff. determ. 2−65072
^ANe, A=20, 22, pionic K_α X-ray energies and linewidths 2−108742
Ni (100), direct transitions in isochromat spectra 2−87913
Ni, K emission band, one electron model, dipole approx. 2−87908
Ni, soft X-ray emission spectra, correlation effects calc. 2−99230
Ni, X-ray K emission band meas. 2−99231
Ni+Ni ions, delta electrons and continuous X-ray generation 2−96721
O VII and VIII X-ray emission lines, interstellar studies 2−63549
^{192}Os, triaxially deformed charged distribs. on quad. parameters from muonic X-ray expts. 2−95910
^{31}P muonic atoms, X-ray transition, QED test, μh interactions 2−59974
$Pb+H^+$, ionisation, anisotropy of Pb L_3 subshell X-ray emission line 2−75407
Pt_2Si localized growth causing Ti/Pt/Au beam lead metallization instability, soft X-ray spectra 2−115608
RP(RS), band struct., calc. and X-ray emission and absorpt. spectra study 2−110246
Re, electronic struct. and X-ray emission, relativistic calcs. 2−98532
Ru-Cr, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
Ru-Re, X-ray fluorescence, K-emission band struct. *(Russian)* 2−116300
Si, X-ray K_β and $L_{2,3}$ emission bands 2−57217
Si:H, amorphous, electronic struct. by soft X-ray spectroscopy 2−104301
SiO_2:P(Bi)(Pb), growth on Si, X-ray spectra 2−77960
SiO_2-Al_2O_3 amorphous thin films, coordination and bond character of cations 2−99228
SiO_2-TiO_2, glass, X-ray spectral study of chem. bond character 2−105007
^{28}Si, muonic atoms, X-ray transition, QED test, μh interactions 2−59974
Sm, electronic struct., X-ray emission spectra 2−87910
Sm, metallic, Sm $M_{4,5}$ emission of absorpt. spectra 2−57210
SmB_6, electronic struct., X-ray emission spectra 2−87910
SmB_6, K emission and absorpt. spectra, band struct. 2−87900
SmB_6, Sm $M_{4,5}$ emission of absorpt. spectra 2−57210
Sm_2O_3, electronic struct., X-ray emission spectra 2−87910
SmS, electronic struct., X-ray emission spectra 2−87910
SmSe, electronic struct., X-ray emission spectra 2−87910
Sn and intermetallic cpds. with Fe, Co and Ni, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Sr^{29+}, F-like ions, $2s^22p^5$-$2s2p^6$ transitions obs. 2−102403
Ti-H bonding, hybridised states 2−87905
V_2O_5, single cryst., anisotropy of X-ray emission spectra and electronic struct. 2−62019

X-ray emission spectra continued
WSi_x compounds, chem. bonding, XPES and X-ray emission study 2−91862
Xe, XES, breakdown of one-electron picture in $3d^{-1}$ to $4p^{-1}$ 2−54796
Y^{30+}, F-like ions, $2s^22p^5$-$2s2p^6$ transitions obs. 2−102403
$(Zn_xCd_{1-x})_3P_2$ solid soln., electronic struct., X-ray emission spectra and XPS study 2−110986
$ZnCr_xFe_{2-x}O_4$ spinels, cation atom distrib., channelling effect in electron induced X-ray emission 2−81742
ZnP_2, tetragonal, valence band, X-ray emission spectra and pseudopot. study 2−57218
ZrC, energy band struct. and X-ray emission spectra, APW calc. 2−110984
$Zr_xHf_{1-x}V_2$, struct. nonstable supercond. Laves phase, electron spectrum peculiarities *(Russian)* 2−66433
ZrN, energy band struct. and X-ray emission spectra, APW calc. 2−110984

X-ray fluorescence analysis
aerosols, atmospheric, trace element anal. using photon-induced X-ray fluoresc. 2−111606
aerosols, atmospheric, X-ray methods for chem. characterisation 2−67907
aerosols and waters, analysis by neutron activation and X-ray fluorescence methods 2−93848
automated qualitative wavelength-dispersive X-ray fluorescence analysis 2−88398
bone phantoms, factors affecting in vivo X-ray fluoresc. meas. of Pb 2−68112
bone Sr content, in situ meas. by X-ray fluoresc. anal. 2−62869
brass, radioisotope induced, for industrial appl. *(Bulgarian)* 2−88385
conference, Denver USA (Aug. 1981) 2−89459
EDXRF spectrometer, inelastically scatt. radiation distrib. from Al 2−99216
electron spectroscopy techniques 2−73041
elemental composition determination methods 2−105523
empirical coefficient methods for fluorescent X-ray spectrometry *(Chinese)* 2−78146
energy dispersive spectra anal., dead time correction errors 2−64208
energy dispersive X-ray fluoresc., spectrometer, exciting beam multiple total reflection 2−53907
fine-focus X-ray fluoroscopy 2−88297
hybrid X-ray fluoresc. system, toroidal monochromator appl. 2−53908
Iogansson X-ray fluorescence spectrometer, aperture improvement 2−58983
low level tracers quantitation in X-ray fluoresc. excitation anal. 2−62743
magmatic rocks and sediments, Sr and Rb abundance determ. 2−83972
matrix correction method for radioisotope X-ray emission anal. *(Bulgarian)* 2−88386
metallic thin films, quantitative analysis method using x-ray fluorescence *(French)* 2−73037
Rembrandt drawing study using X-ray fluorescence 2−67775
semiconductor detectors, soft X-ray energy spectrum, carrier out-diffusion effects calc. 2−80397
soft and ultrasoft, X-ray spectrometer using total reflection monochromator 2−116757
source and appl. of X-rays and γ-rays, symposium, Ann Arbor, MI, USA (June 81) 2−58525
spectra obtained with HgI_2 detector, computer anal. 2−58980
spent nuclear fuel reprocessing, remote control using computerised X-ray fluorescence 2−64557
steel, alloy type, carbide precipitates, comp. and morphology, STEM and X-ray microanalysis, replica technique 2−67352
steel, stainless, duplex austenite-ferrite alloys, weld metal microstructures, heat treatment, TEM, EDS study 2−67406
steel, X-ray fluorescence analysis, calibration standards 2−73040
steels, X-ray quantitative-analysis, of intermetallic phases, nitrides and oxides *(Czech)* 2−67787
STEM appl. in solid state chemistry, cathodoluminescence, EELS, XES techniques 2−65821
superheavy elements in monazite, X-ray spectrochem. anal. 2−83436
ternary samples, calibration curves in X-ray fluoresc. spectrometry 2−88397
tracers development for pollutant path tracing in small water system 2−67909
tritium induced X-ray emission from glass shell inertial fusion targets 2−67774
Venus surface rock, X-ray fluoresc. spectrometry by Venera 13 and 14 2−117619
waste water from citric acid production, radionuclide X-ray fluoresc. anal. 2−78164
Ag alloys, Roman, analysis by scatt. and X-ray fluoresc. of monoenergetic gamma-rays 2−116738
$AgNO_3$-$NaNO_3$, molten, current-induced comp. gradients 2−57654
Au monolayer, thickness meas., X-ray fluorescence anal. 2−69140
Br in blood serum, determ. by ^{125}I excited X-ray fluoresc. anal. 2−68123
CaS, prep., crystal growth by CVT and luminescence 2−116349
Cu monolayer, thickness meas., X-ray fluorescence anal. 2−69140
Cu/Au double layers, thickness meas., X-ray fluorescence anal. 2−69140
Cu-Cr sputtered thin film, precipitate morphologies, annealing effects, electron microscope and EDX study 2−67353
Fe, determ. in lateritic ores, using radioisotope X-ray fluoresc. 2−57665
Fe films, RF sputtered, lattice expansion 2−60922
Fe, X-ray fluorescence analysis, calibration standards 2−73040
Fe-V-C ferritic steel, carbide precipitate size, EELS and energy dispersive anal. 2−67362
FeCo and $Fe_{0.5}Co_{0.4}Cr_{0.7}$ films, polycryst., subjected to X-irrad., magnetisation *(Russian)* 2−66876
$Gd_3Ga_5O_{12}$:Nd^{3+} garnet films prep. by LPE, crystallographic and optical characterisation, laser appls. 2−83044
$GeSe_2$/Ag system, Ag sensitisation kinetics and diffusion 2−115589
Nb_3Al thin films, sputter deposited at high substrate temps., comp. deviation 2−87978
Ni, determ. in lateritic ores, using radioisotope X-ray fluoresc. 2−57665
Pb monitoring for industrial hygiene survey 2−67906
Pu/(U+Pu) ratio determ. in FBR fuel pellets by X-ray fluoresc. anal. 2−85139
S particulate meas. with dichotomous sampler, on-line analysis 2−73178
Si, solar cell, thickness of Ag and Pd layers, X-ray fluoresc. anal. 2−88396
Sn film, graphoepitaxial electrodeposition, expt. study 2−87083

X-ray fluorescence analysis continued
Th ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908
U ultratrace conc. determ. in natural water by X-ray fluoresc. 2−67908
X-ray fluorimetry *see X-ray fluorescence analysis*
X-ray lasers
channelled electrons, stimulated emission possibility, optical and X-radiation generation 2−116208
channelled electrons, X-ray stimulated emission, theory 2−85979
multiply ionised ions, hydrogenic states, X-ray laser pumping with ionising radiation 2−55132
progress and trends in X-ray laser research, hydrogenic ions inverted in laser-produced plasmas 2−70550
progress and trends in X-ray laser research 2−108855
Al XII plasma laser, resonantly photopumped, theory 2−90873
H^+-Cs, plasma, charge exchange, population inversion, laser charact. 2−108861
He^+ plasma dynamic recombination laser, population inversion 2−108852
He-like ions, optical pumping rel. to gain at X-ray wavelengths 2−70536
Ne IX plasma laser, resonantly photopumped, theory 2−90873
X-ray monochromators
beryl, soft X-ray monochromator crystal, stability in synchrotron radiation 2−84759
CHESS, Cornell High Energy Synchrotron Source, current status 2−85414
design for soft X-ray range 2−84761
double crystal monochromator, performance and appl. in energy region 800-4500 eV 2−84758
grating parameters optimisation for soft X-ray monochromators 2−84763
grating/crystal monochromator for spectral range 5 eV to 5 keV 2−84760
hybrid X-ray fluoresc. system, toroidal monochromator appl. 2−53908
LURE, French synchrotron radiation facility, status report 2−85417
National Synchrotron Light Source VUV and soft X-ray beam lines, performance charact. 2−85435
plane grating and elliptical mirror config. for synchrotron radiation monochromators 2−58989
powder diffraction with single-cryst. monochromator, polarisation factor 2−65791
soft and ultrasoft X-ray fluorescent spectrometer using total reflection monochromator 2−116757
synchrotron X-radiation sagittal focusing with curved crystal 2−84753
synchrotron X-radiation sources, reflecting range and partiality calcs. 2−115094
transmission and reflection gratings for soft X-ray anal. 2−84757
transmission X-ray mirror using soap films 2−84754
wide bandpass monochromators for synchrotron radiation 2−84752
β-Al_2O_3, soft X-ray monochromator crystal, stability in synchrotron radiation 2−84759
Ti-Ag layered crystals, VPE synthesis, soft X-ray monochromator appl. 2−83040
X-ray photoeffect *see X-ray photoelectron spectra*
X-ray photoelectron spectra
acenes, electronic struct., ab initio interpretation of XPS data 2−90444
adsorption of N_2, NH_3, N_2O and NO on Dy, XPS and Auger electron spectra 2−62429
alkali silicate glass, corrosion behaviour in water, ESCA obs. 2−93656
aluminosilicate glass, electron irrad., composition changes, XPS and nucl. anal. 2−92319
Auger and PES, review 2−99299
benzal-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
benzenethiol, adsorbed on Cu(III) at 300K, angular resolved UPS and XPS spectra 2−78134
chemisorption of NO and NH_3 on Co, UPS, XPS and work function meas. 2−62430
coal liquefaction vessel components, surface anal. of corrosion 2−83279
complexes core binding energy, XPS study, ligand group shift 2−85735
β-copperphthalocyanine, O_2 thermal desorption, exciton dissociation, XPS study 2−92342
core level binding energy meas., comparison of APS and FRESCA data 2−83430
4,4'di(p-nitrobenzal)-phenylenediamine, XPS, EHT calcs., electronic struct. 2−54895
3-dimethylamino-2-propenal, XPS 2−90623
dynamic effects and final-state rule, numerical model 2−82958
Dyson orbitals approach to studies of XPS and EXAFS 2−110976
electron spectrometer, sample, solution, chem. modification and introduction system for XPS 2−79718
film, superthin surface, thickness determ. by XPS, elastic scatt. of photoelectrons influence *(Russian)* 2−67191
fluctuating valence materials, replicated core levels and 4f excitation energies 2−56504
fluorophenyl retinal and its bacteriorhodopsin analogue, XPS study 2−111625
foils, electrodeposited, ESCA signal intensity dependence on surface area (roughness) 2−110098
free atoms and molecules, core-electron binding energies in the soft X-ray range obtained in X-ray emission 2−96637
glass surfaces, ion beam effects, XPS study 2−99252
graphite intercalation cpd. with F, chem. synthesis by ion implantation, optical reflectivity 2−92006
halides, valence band struct., XPS study 2−71865
inert gas impurities in alkali hosts, spectra model calcs. 2−116216
insular films, XPS meas. 2−57253
Invar, XPS of valence and shell electrons, temp. variations *(Russian)* 2−67192
localised states, XPS, SCF XαSW calcs. 2−111035
metal, X-ray photoemission spectra, shake-off sidebands due to final state interaction shape resons. 2−111031
metal film, electrodeposited, sputtering yield 2−77676
metal oxide film, electrodeposited, sputtering yield 2−77676
metal surfaces, monocrystalline, and chemisorbed species, photoemission study *(French)* 2−105052
metallic elements, density functional calcs. of Auger and XPS shifts 2−93370
metals, Auger and X-ray photoemission shifts, embedded-atom calcs. 2−54822
metals, Fermi-sea recoil effects in XPS, one dimensional model 2−87951
metals, multielectron core excitation spectra, surface effects 2−87912
metals, X-ray absorption, emission and photoemission spectral lineshapes 2−111033
metals and alloys, surface roughness inspection for exoemission investigations, X-ray photoelectron spectroscopy study 2−57581
metals and alloys, X-ray excited Auger spectra, Fermi energy and dipolar barriers, review 2−116329
naphthothia-diazines and naphthoselina-diazines, electronic struct., STO-3G calc. and XPS meas. 2−90445
nitro-aromatic amines, polar, shake-up satellites in nitro N 1s spectra 2−96638
p-nitrobenzalaniline, XPS, EHT calcs., electronic struct. 2−54895
overlapping spectra, resolution using factor anal. 2−95570
paraphenylenes, electronic struct., ab initio interpretation of XPS data 2−90444
polyacetylene, Br doped, XPS and elec. cond. study 2−93368
polyacrylonitrile, electropolymerised film, photoemission and meta-emission spectrosc. 2−93380
polymer film surface treatment by electric discharge, temp. effects 2−105353
polymer surfaces, asymmetric model for XPS 2−93378
porous oxalate, behaviour in high vac. of XPS spectrometer 2−99739
potassium thiocyanato complexes, ESCA investigation, binding energies 2−83434
2-propenal, and derivatives, XPS 2−90623
2-propenamide, XPS 2−90623
PTFE, surface composition, XPS study, X-ray flux effects 2−57251
PTFE, X-ray damaged, improved adhesion of Ni films, XPS study 2−76872
PVC oxygen-free film, X-ray-induced dehydrochlorination, XPS 2−87944
rare earth alloys, core-level spectroscopy, 4f count determ., 4f hybridisation 2−83006
rare earth metals, surface shifts, photoelectron spectra study 2−105046
relative intensities in solids, photoelectron mean free paths taking into account elastic collisions 2−105037
semiconductor, heavily doped, Fermi-sea recoil effects in XPS, one dimensional model 2−87951
semiconductor-metal interfaces, chem. and electronic struct. 2−82458
Si:H, amorphous oxidised films, valence band spectra 2−104300
solar energy conversion technologies, solid-gas interface meas. techniques, review 2−87044
solar energy conversion technologies, surface analytical techniques, review 2−88412
steel, galvanised sheet, chromate passivated, ESCA obs. 2−111382
steel, grain boundary P segregation during tempering, stress effects, XPS study *(Russian)* 2−116444
steel, stainless, Cr-Ni, anodic oxide film, XPS study *(Chinese)* 2−62250
steel, stainless, passive anodic oxide film, composition, ESCA and SIMS study 2−82090
surface atoms, detection efficiency 2−83423
surface spectroscopies review, for semiconductor characterisation 2−78158
TCNQ salt, Cu-TCNQ semicond. films, AES, XPS, and IR refl. study 2−93302
TCNQ salt, TMTTF-TCNQ, charge transfer, Raman shift, XPS and elec. cond. meas. 2−87237
terephthal-bis-p-nitroaniline, XPS, EHT calcs., electronic struct. 2−54895
tetraphenyldithiapyranylidene, and cpds., XPS 2−80725
tetraphenylphosphonium complexes, ESCA chem. shift and low binding energy satellites 2−75352
tetraphenylphosphonium thiocyanato complexes 2−83434
thin passive films, comparison of AES and XPS anal. 2−78004
thiocyanato complexes, ESCA investigation, binding energies 2−83434
TMTSF complexes, XPS study 2−77703
transition metal complexes, charge distrib., 2-parameter relation calcs., XPS data 2−75165
transition metal compounds, inner core excitation spectra, absorpt. spectra 2−72598
transition metal compounds, inner core excitation spectra, p-XPS 2−72597
transition metal cyanide complexes, ESCA chem. shift and low binding energy satellites 2−75352
transition metal fluorosilicates, surface damage under Ar ion bombardment, XPS studies 2−61045
transition metal interacalates, M_xTaS_2 (M=Fe, Mn, Ni), X-ray core level photoemission, charge transfer effects 2−111023
transition metal oxides, satellites in XPS 2−59859
trifluoromethylgermanes, UV and X-ray photoelectron spectra, binding energies, CNDO/2 and EESOP charge calcs. 2−70335
Ag (111), I_2 monolayer, core electron spectroscopy 2−72604
Ag (111), methanol adsorpt., oxidation and decomposition, UPS and XPS study 2−76826
Ag alloy, dilute, impurity d-bands and core level binding energy shifts 2−56482
Ag deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Ag film, surface photoemission in 4d band 2−87952
Ag film on Al(100), electronic structure, XPS study 2−115647
Ag surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Ag surface, adsorbed pyridine, resonantly stimulated desorption by polarised IR laser radiation 2−104149
AgCl, band struct. and density of states, APW-LCAO calc. 2−115663
AgCl, photodecomposition, XPS study 2−111497
$Ag_2IF.H_2O$, cryst. struct., XPS, X-ray and neutron diffr. study 2−76389
Ag(110) with adsorbed H_2O, adsorption and reaction studies 2−87034
Al, (111), blue coloured surface obs. during high temp. oxidation 2−88280
Al alloy conversion coatings, corrosion protection, adhesive bond durability, cracking 2−83270
Al alloys, corrosion-preventing coatings, surface studies 2−83266
Al, oxide coatings, corrosion protection Auger and XPS study 2−83268
Al, oxide film chem. composition, influence on surface props., SIMS, XPS, AES 2−104209
Al-phthalocyanine interface, surface photovoltage, XPS and I-V characterisation 2−56691
Al-Si compounds, XPS study of silicates, Auger parameter rel. to refractive index 2−99740
Al-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
AlAs thin film, MBE growth, oxidation, XPS study 2−83257
βAl_2O_3-Na_2O, segregation to surface, electron induced, AES and XPS 2−115422
$Al(OH)_3$, behaviour in high vac. of XPS spectrometer 2−99739
As_2S_3/Ag system, photodoping mechanisms, ESCA studies 2−115147
As_2Se_3:Ag(Cu), amorphous, XPS study 2−57249

X-ray photoelectron spectra continued
As_2Se_3:Au(Pt), vitreous, impurities location and valency, XPS and Mossbauer study 2−76320
Au alloy, dilute, impurity d-bands and core level binding energy shifts 2−56482
Au deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Au surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Au-β-PbF_2 thin film interface, XPS and elec. meas. 2−87080
Au-GaAs (110) interface, Schottky barrier, thermal effects, XPS and UPS study 2−110441
Au-Ni, core hole satellites in XPS 2−57260
Au-Si, electronic props. 2−98512
Au-SiO_2 MIS structures, quantum-mechanical image-force theory test 2−104494
B, first wall coatings by plasma CVD 2−74910
$BaPb_{1-x}Bi_xO_3$, electronic struct. study 2−110432
Bi-SiO_2 cermet films, elec. and optical props., H addition effects 2−82505
BiC, first wall coatings by plasma CVD 2−74910
Bi_2O_3 thin films, characterisation by XPS 2−62043
C fibre surfaces, XPS and heat treatment effects 2−99296
CO adsorbed on Ni (001), core level angle resolved XPS, single scatt. theory, mol. vibr. effects 2−111034
Cd surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
$Cd_{0.2}Hg_{0.8}Te$, anodic oxide layers, interface struct., SIMS-AES XPS investig. 2−104208
$Cd_{0.7}Mn_{0.3}Te$, valence band, XPS and UPS studies 2−93369
CdS films, chemisorption of O_2, XPS study 2−99292
CdS-Cu, interface form., Schottky barriers, interdiffusion and chem. processes, XPS study 2−77182
CdS-$CuInSe_2$ solar cells, annealing and interface effects, EELS, AES, SIMS and XPS study 2−83491
CdS-$CuInSe_2$ solar cell, interface formation, comp. and stability, XPS, EELS and AES study 2−111554
CdS-Ge interface, X-ray photoemission spectra of band discontinuities 2−82447
CdS(Se)-Al-Au interface, Schottky barrier modulation, soft XPS study 2−110442
CdTe, valence band, XPS and UPS studies 2−93369
CdTe-metal interface, Schottky barrier form., XPS, UPS, AES, LEED, I-V and C-V meas. 2−115861
Ce alloys, surface and bulk props. of Ce, XPS and X-ray absorption spectra 2−57268
$Ce(Ag_{0.3}Pd_{0.7})_3$, mixed valency photoemission study 2−87199
$CeAl_3$, electronic struct., XPS and bremsstrahlung isochromat spectroscopy 2−56434
CeH_x, valence band and 4f and 3d levels, XPS study 2−77704
$CePd_3$, mixed valency photoemission study 2−87199
$CeRh_3$, mixed valency photoemission study 2−87199
$CeRu_2(Co_2)$, superconductor with 4f electrons, photoemission study 2−104525
$Ce_{1-x}Sc_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xPd_3$, electronic struct. of Ce 2−71933
Co_3O_4-CoO, spray pyrolysed Co black, high temp. selective absorber 2−67891
Cr (100), chemisorption of Cl and surface chloride form., struct. and kinetic study 2−66366
Cr complexes, $Cr_2(O_2CCH_3)_4$, photoelectron spectra, interpretation using ab initio MO calcs. and correl. effect 2−96635
$CrBr_3$, 3p spectra splitting of transition metal ions in XPS 2−57247
$CrCl_3$, 3p spectra splitting of transition metal ions in XPS 2−57247
Cs, $3p_{3/2}$ level study by XPS 2−102654
Cs halides core binding energies, XPS 2−85744
Cu (II) ions intercalated in alpha-and gamma-$Zr(HPO_4)_2$ compounds, X-ray induced photoreduction rates 2−93761
Cu (100) chemisorbed CO, XPS satellite struct. 2−83007
Cu alloy, dilute, impurity d-bands and core level binding energy shifts 2−56482
Cu chromite catalysts, XPS struct. elucidation and correl. with catalytic activity 2−105038
Cu density of unoccupied electronic states, soft X-ray appearance, pot. spectrosc. obs. 2−111028
Cu deposits, on Al(100) substrate, electronic struct. evolution 2−82443
Cu, resonant photo- and Auger emission at 3p threshold 2−108434
Cu surface, adsorpt. of ethylene (H_2O), chemisorbed O effects, XPS obs. 2−67188
α-Cu-Zn, oxidation, low temp., XPs ESCA study 2−111352
$Cu_{0.9}Al_{0.1}$, bulk and surface electronic struct. 2−104238
$CuFeS_2$, electronic struct., X-ray emission and XPS study and Xα calc. 2−92455
Cu(II) diethyldithiocarbamate chelate, struct., XPS obs. 2−75355
CuO, resonant photo- and Auger emission at 3p threshold 2−108434
Cu_2O, resonant photo- and Auger emission at 3p threshold 2−108434
$CuSO_4.5H_2O$, behaviour in high vac. of XPS spectrometer 2−99739
Cu(110) with adsorbed Xe, commensurate-incommensurate transition, PES study 2−104154
DyS, bulk and surface valence states 2−104247
$EuCu_2Si_2$, valence fluctuation study by 3d core level XPS 2−57269
$EuFe_4Al_8$ mixed valence cpd., magnetically ordered, XPS study 2−56513
EuS, bulk and surface valence states 2−104247
Fe (110) surface, exchange splitting, binding energies 2−77149
Fe, initial stages of high-temp. oxidation 2−78001
Fe, passive film formation in polyphosphate solns., XPS study 2−93672
Fe surface, P covered, segregation, XPS, AES and EELS study 2−92221
Fe surface (100), coadsorpt. of CO and H_2 2−56363
Fe-B, refractory layers, powder bonding element distrib., bonding states 2−93471
Fe-Cr, passive film, ESCA, AES and SIMS study 2−111366
FeB, compositional and chem. state, XPS study 2−77706
$Fe_{1-x}Mn_xTi$, hydrogenation and oxidation characts., Mn additive effect, subsurface role 2−76690
$Fe_{32}Ni_{36}Cr_{14}P_{12}B_6$, thin passive films, comparison of AES and XPS anal. 2−78004
$Fe(OH)_3$, behaviour in high vac. of XPS spectrometer 2−99739
$FeSi_2$, compositional and chem. state, XPS study 2−77706
$FeTi_x$, H_2 storage props., XPS, Mossbauer and metallographic study 2−92347
GaAs (110) relaxed surface, angular resolved initial state spectra 2−87948
X-ray photoelectron spectra continued
GaAs, surface comp., X-ray photoelectron spectroscopy and ellipsoid meas. *(Ukrainian)* 2−104124
GaAs, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
GaAs, surface oxide phase form. by H_2O or O_2 adsorpt., UPS, XPS and SIMS study 2−115544
GaAs surface state reduction by plasma growth of oxyfluorides 2−110427
GaAs, X-ray photoelec. emission and refl. from polar (111) and ($\bar{1}\bar{1}\bar{1}$) faces 2−105049
GaAs-Ag interface, formation, struct., electronic states 2−104485
GaAs-W(Ta)(Re)(Ir)(Mo), refractory contacts, interface reactions and Schottky barrier form. 2−110444
GaSe, layered semicond., oxidation, XPS and AES study 2−57502
GaSe-SnO_2 heterostructure, depth profile, XPS and AES study 2−61299
Ge (111) surface, electronic struct., photoemission meas. 2−66609
Ge, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Ge, X-ray photoemission and refl. near K absorpt. edge 2−72607
Ge:H, (111) surface, electronic struct., photoemission meas. 2−66609
Ge/Ni, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge/Pd, monolayer metal coverage, interface electronic struct., XPS study 2−82455
Ge-Ag, interface electron struct., XPS study 2−82422
Ge-GaAs (110) interface, amorphous and cryst. films, electronic struct., XPS study 2−110456
Ge-Se, amorphous, valence and inner shells, XPS study 2−116332
GeS, core level line widths, XPS study 2−57263
GeSe, core level line widths, XPS study 2−57263
$GeSe_2$:Ag, amorphous, XPS study 2−57249
Ge_xSe_{1-x}:Ag amorphous films, Ag photodoping, XPS study 2−57245
(Hg,Cd)Te, photochemical oxidation 2−111345
$Hg_{0.8}Cd_{0.2}Te$, anodic oxidation, electrochemical and XPS study 2−77964
$Hg_{0.8}Cd_{0.2}Te$, surface anodic oxide film composition, ion beam effects, XPS study 2−71832
$Hg_{1-x}Cd_xTe$, cleaved (110) surface room temp., evaporation stability, XPS and UPS study 2−87040
$Hg_{1-x}Cd_xTe$ native oxide reduction by CVD SiO_2 2−111516
$Hg_{1-x}Cd_xTe$, plasma anodised, interface study 2−104489
In surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
InAs-GaAs, heterojunction band discontinuities, MBE growth, XPS study 2−77166
InP-Ge interface, X-ray photoemission spectra of band discontinuities 2−82447
InP-metal interface, Fermi level pinning and chem. struct., XPS study 2−110475
KC_{24}, stage two intercalation compound, in-plane charge distribution, XPS study 2−62046
KC_8, stage one intercalation compound, in-plane charge distribution, XPS study 2−62046
$KCr(SO_4)_2.12H_2O$, behaviour in high vac. of XPS spectrometer 2−99739
LaB_6, adsorption of O on (100), (110), and (111) surface, UPS, XPS, and LEED meas. 2−66365
LaH_3, XPS core level and valence band spectra 2−76925
Li/SO_2 battery anodes, surface struct., electrode chemistry, SEM and XPS study 2−82095
Li-Fe-S system, elec. cond. and electronic struct., XPS study 2−104371
Mg, X-ray photoelectron spectra, shake-up satellites calcs. 2−59765
Mn, resonant photoemission 2−90489
Mo complexes, $Mo_2(O_2CH)_4$ and $Mo_2(O_2CCH_3)_4$, photoelectron spectra, interpretation using ab initio MO calcs. and correl. effect 2−96635
Mo(100), change in surface polarisability with oxidation, XPS of physisorbed Xe 2−77451
N_2O, adsorpt. on W(110) and Ru(001), XPS and UPS mes., horizontal and vertical configurations 2−73009
Na, X-ray photoelectron spectra, shake-up satellites calcs. 2−59765
Na_2O-CaO-SiO_2 glass, bonding props., XPS study 2−93367
Na_2O-CaO-SiO_2 glass, electron bombardment, Na atom prod. absence XPS study 2−98160
Na_xWO_3, conduction band photoelectron spectroscopy, core holes and Fermi surface 2−105040
Naβ-alumina surface study using XPS and Auger methods 2−92329
Nb/Al overlayer struct., surface oxidation, grain boundary diffusion, XPS study 2−67601
Nb/Pb thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
Nb/Pb-In thin film Josephson junctions, tunnelling barrier struct., Auger and XPS study 2−115956
NbO, effect of vacancies on electronic struct., XPS calc. 2−61330
$Nb_{55}Rh_{45}(Nb_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
Ni (100), adsorption of N_2 and CO, photoemission study 2−56335
Ni (100), H_2 and CO coadsorpt., electron spectroscopy study 2−76827
Ni (100) reactions between adsorbed CO and O, XPS/LEED studies 2−83414
Ni, core hole satellites in XPS 2−57260
Ni, initial stages of high-temp. oxidation 2−78001
Ni silicides, electronic struct., photoemission study 2−110247
Ni, sputter deposited on polymer surfaces, XPS study of 'hot' atom interactions 2−93805
Ni, surface (001), adsorbed CO, core level angle resolved XPS, single scatt. theory, mol. vibr. effects 2−111034
Ni/Si systems, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Ni-Cr, oxidation and reduction, scanning Auger and XPS study 2−83278
Ni-Fe (25 at.%), ESCA studies, anodic dissolution, passivation effects 2−83296
NiO supported on B modified SiO_2, dispersion of Ni determ. by TEM and XPS meas. 2−56202
$NiPS_3$, electronic states, reflectivity, optical absorpt., XPS 2−57246
O adsorbed on Al surfaces, K-edge, angle-resolved XPS and extended X-ray absorpt. fine struct. spectroscopy appl. 2−70339
Pb ultra thin overlayers on Ag surface, oxidation, UPS and XPS study 2−83267
$PbCl_2$, XPS, satellites on core and valence bands 2−67194
PbF_2, XPS, satellites on core and valence bands 2−67194
PbI_2, XPS, satellites on core and valence bands 2−67194
Pb(II) diethyldithiocarbamate chelate, struct., XPS obs. 2−75355
PbInAu film, RF oxidation, oxide composition 2−76858

X-ray photoelectron spectra continued
PbO-SiO_2 system, glass and cryst. phase struct., XPS study 2−87943
Pd alloy, dilute, impurity d-bands and core level binding energy shifts 2−56482
Pd, sputtering on to polyester film, XPS obs. 2−111026
Pd, surface catalytic reactions, H_2 sensitive MOS-struct. and UPS, XPS study 2−88379
Pd/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
Pd-Cu (110), chemisorbed CO, Pt core level shifts, XPS study 2−77143
$PdH_{0.6}$, XPS/UPS study of electronic struct. 2−72600
Pn-In-Au, RF oxidation, XPS and ellipsometric study 2−57530
Pt (111), water form. from coadsorbed O and H, XPS and temp. programmed reaction obs. 2−83411
Pt, chemisorption of CO, 4f surface core level shifts, soft XPS study 2−67195
Pt growth, on Rh, and evolution of interface under thermal treatment 2−82152
Pt surface, adsorbed O_2, UPS, XPS and AES studies 2−76803
Pt/Si system, chem. bonding and charge redistrib., valence band and core level correlations 2−82223
PtBi, band struct. and optical props. 2−76916
$Pt_{10}Ni_{90}$, surface (111) composition determ. by AES, XPS and ion scatt. spectroscopy 2−98410
Pu, core level and valence band XPS spectra 2−105036
Rh double oxides $MRhO_2$, MRh_2O_4, $RhMO_4$, and Rh_2MO_6, electronic struct., XPS and ESCA data 2−70338
Ru (001), adsorption of N_2O, XPS, UPS, and thermal desorption study 2−61296
Ru (001) coadsorption of H_2 and CO, work function, XPS, UPS and thermal desorption study 2−71805
$RuCl_3$, ESCA spectrum and band struct. 2−99298
RuO_2 film, reactively sputtered, ESCA spectra meas. 2−57255
Sb overlayer on GaAs(110), LEED/AES/XPS/TDS characterization 2−87060
Sb surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
Si (111)-Pd (V), Schottky barrier formation, soft XPS study 2−110445
Si film, deposited in $SiCl_4$-H_2 RF discharge, struct. and optical props. 2−61313
Si, surface layer struct., external photoeffect under X-ray diffr. conditions 2−98402
Si:H, amorphous thin film, pure and hydrogenated, adsorbed O_2 layer, electronic struct., XPS and UPS study 2−57254
Si-Al-O system compounds, chem. state plots, line energies ESCA study 2−83425
Si-F amorphous film, grown from SiF_2 disproportionation, F conc. determ. 2−92021
Si-Pt, interface states, XPS study 2−82423
Si-Pt(Pd)(Ni) interface bonding, XPS study 2−110477
Si-SiO_2 interface, electron irrad., trapped charge sites, XPS study 2−77140
SiC single cryst., XPS, AES and friction studies 2−93633
Si_3N_4 thin films, comp. and electron stress effects, X-ray photoelectron spectra study 2−83001
SiO_2-InP interface, plasma-enhanced CVD growth, XPS and TEM study 2−110169
Si(111)-Ni interfaces and thin films, valence photoemission study 2−105044
Sm compounds, normal and mixed-valent, core level EELS and XPS spectra 2−72588
SmS, bulk and surface valence states 2−104247
Sn (II) diethyldithiocarbamate chelate, struct., XPS obs. 2−75355
Sn and intermetallic cpds. with Fe, Co and Ni, electron struct., X-ray and X-ray electron spectra obs. *(Russian)* 2−67153
Sn surface oxidation, study by photoelectron and Auger spectroscopy 2−83265
$SnCl_2$/$SnCl_4$ sensitizing agents comparison in electroless deposition of Ag on glass using XPS 2−72641
$Sn(OH)_2$, behaviour in high vac. of XPS spectrometer 2−99739
Ta (111), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
$Ta_{55}Rh_{45}(Ta_{55}Ir_{45})$, metallic glass, electronic struct., UPS and XPS study 2−76908
TaS_2, X-ray core level photoemission, charge transfer effects 2−111023
Th(111) chemisorption of O_2, CO and CO_2, electron spectroscopic studies 2−56337
Ti, nitride coating in H plasma, X-ray photoelectron spectra 2−74935
TiC coatings deposited onto graphite and Mo by electron beam evaporation, charact. 2−71825
TiN, electronic struct., photoemission study 2−104249
TiN film on Mo, stainless steel, C, prep. for fusion reactor first wall 2−74913
Ti_2O_3, Ar sputtered, photoemission studies 2−116330
$Ti(OH)_4$, behaviour in high vac. of XPS spectrometer 2−99739
Tl halides, valence band struct., XPS study 2−71865
$TlNO_3$, struct. param. derived from O 1s ionisation pot., XPS 2−85743
TmS, bulk and surface valence states 2−104247
TmSe(Te)(S), surface effects on core level binding energies 2−115843
$Tm_xY_{1-x}Se(S)$, single site mixed valence, PES studies 2−110308
α-U, chemisorption of O_2, CO_2 and CO_2, electron spectroscopic studies 2−56337
UF_x (x=4,5,6), XPS of 4f levels, binding energies 2−93379
$UNi_{5-x}Cu_x$, band struct., photoemission study 2−104240
UO_2, XPS evidence for 5f bonding participation 2−80729
V, band struct., XPS, NMR and sp. ht. studies 2−104243
VCl_3, 3p spectra splitting of transition metal ions in XPS 2−57247
VPt system, bandstruct. study 2−104242
V_3Pt, band struct., XPS, NMR and sp. ht. studies 2−104243
W (011), valence band struct., angle-resolved XPS, synchrotron radiation, direct transitions and phonon effects 2−61340
W (111) and (100), chemisorbed $O_2(H_2)$, 4f core electron binding energy shifts, XPS study 2−105041
W dispenser cathodes, M-type, activation by Os-Ru coating, Auger, XPS and ISS study 2−82091
W, surface (110), NH_3 adsorpt. and decomposition, XPS study, core level binding energy interpretation using equiv. core approx. 2−115558
W-GaAs Schottky barrier, elec. props. and interface chem., XPS study 2−115853
WO_3 thin films, electrochromic colouring and bleaching, SIMS and ESCA studies 2−57055

X-ray photoelectron spectra continued
WSi_2, compounds, chem. bonding, XPES and X-ray emission study 2−91862
YbS, bulk and surface valence states 2−104247
$(Zn_xCd_{1-x})_3P_2$ solid soln., electronic struct., X-ray emission spectra and XPS study 2−110986
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515
$Zn(OH)_2$, behaviour in high vac. of XPS spectrometer 2−99739
ZnSe-GaAs(110) and ZnSe-Ge(110), heterojunction band discontinuities, XPS study 2−111024
ZnSe-Ge heterojunction interface, nature of band discontinuities 2−104463
Zr, oxidation, X-ray photoelectron and UV studies 2−105368
ZrN, electronic struct., photoemission study 2−104249
$Zr(OH)_4$, behaviour in high vac. of XPS spectrometer 2−99739

X-ray photography *see radiography*

X-ray production
see also X-ray tubes
betatron, variable energy betatron, X-ray energy variation method 2−54696
Daresbury synchrotron radiation source, vacuum instrumentation 2−84639
discharge, multichannel creeping, X-ray emission 2−91703
elliptically polarised X-rays, generation and proof 2−89882
EM waves direct conversion into hard radiation on free electrons at cyclotron autoreson. 2−113781
flash X-ray tube, microwave and hard X-ray prod. 2−101507
heavy ion+atom, double-collision processes, scatt. angle depend. 2−102595
laser-generated plasma X-ray sources, keV range 2−107475
Linac, 10 MV, induced radioactivities in head 2−102287
multiple relativistic electron beams, injection and propagation into preformed plasma channels 2−96334
plasma, local regions in high-current punch as soft X-ray microradiography source 2−107480
resonance transition radiation source 2−64199
resonance transition radiation tunable source 2−64200
vacuum arc anode, X-ray detection 2−91688
H^++Ti(Cr)(Co)(Ni)(Cu)(Zn), K-shell X-ray prod. cross section meas. in energy range 300-2400 keV 2−90492

X-ray protection *see radiation protection*

X-ray reflection
ammonium biphthalate single cryst., X-ray spectrometric props. 2−87893
Bragg optics of a logarithmic spiral surface 2−76234
laminar crystal, X-ray plane wave dynamic reflection 2−60833
multilayers, absorbing, X-ray Bragg condition 2−65792
point focusing X-ray camera and the study of the total external reflection 2−53910
quartz, X-ray specular refl. and anomalous scatt. near Si K absorpt. edge 2−82953
Al, oxide film form., EXAFS study in total yield and refl. modes 2−57212
Ge, X-ray forbidden refls., spectral depend. 2−60838
Ge, X-ray photoemission and refl. near K absorpt. edge 2−72607
NaF, electron density by γ-ray diffractometry 2−76998
Si, X-ray forbidden refls., spectral depend. 2−60838
SiC, reflectivity meas. at 4.4 nm 2−93322
V_3Si, Debye-Waller factor, temp. depend., 8 to 293K 2−56143

X-ray scattering
see also Compton effect; X-ray diffraction
anomalous dispersion technique, partial struct. factors determ., computer simulation 2−81633
atoms, closed shell, radial electron density moments and X-ray scatt. factors 2−75184
bone, mineral orientation in rabbit femur, small-angle X-ray scatt. study 2−62556
Bragg backscattering, meV energy resolution 2−86507
coherence properties of X-ray sources, partially coherent X-radiation in crystals, dynamic 2−58988
coherence properties of X-ray sources, synchrotron radiation spatial coherence 2−60002
collimated photon scatt., nondestructive examination appl. 2−57549
computerised tomography, effects of scatt. 2−94172
defect-induced lattice displacements, static Debye Waller factor, Bragg scatt. intensities 2−92138
dislocation loops, X-ray diffuse scatt. study, numerical anal. 2−66000
fan beam imaging systems, scatt. radiation 2−68128
graphite, pyrolytic, thermally scatt. radiation diffr., X-ray and Mossbauer γ-ray diffr. study 2−62014
graphite pyrolytic cryst., diffr. pattern caused by thermal X-ray diffuse scatt. 2−81621
inverse dielec. matrix, off diagonal elements, inelastic X-ray scatt. study 2−110974
liquid crystalline polymers, microheterogeneous struct., X-ray scatt. 2−91773
metal, dynamic electron-electron Coulomb correlations, direct evidence 2−56452
metallic glass, binary, diffuse X-ray and neutron scatt., chem. short range order 2−55858
minor surface roughness effect on scatt. of ultrasoft X-radiation 2−87898
myosin S-1, X-ray scatt. rel. to steric blocking model of muscle control 2−105656
polydisperse systems, X-ray and neutron scatt., small-angle, proportionality of scatt. vector 2−115101
polymethyl-1-pentene, isotactic small angle X-ray scattering 2−86585
polyoxymethylene single crystal, SAXS determ. of max. amorphous surface layer 2−86587
quartz, X-ray specular refl. and anomalous scatt. near Si K absorpt. edge 2−82953
quasi-two-dimensional crysts., imperfect, diffuse X-ray and thermal neutron scatt. 2−71287
reflecting surfaces for AXAF, high resolution meas. 2−58254
small angle X-ray scatt., phase boundary thickness determ., error anal. 2−65799
small-angle X-ray scatt., slit-smeared correlation function determ. 2−65796
TCNQ salt, $(NMP)_x(Phen)_{1-x}(TCNQ)$, X-ray obs. of crossover of $2k_f$ to $4k_f$ scatt. 2−86859

X-ray scattering continued
TCNQ salt, NMP-TCNQ, X-ray scatt. of $q_2=a^*/3$ diffuse lines 2−86511
Thomson theory inconsistency, physical optics approach 2−115087
Thomson theory inconsistency, physical optics approach 2−115088
time characteristics of a backscattered X-ray pulse close to the interface between two media 2−104997
Al, fast neutron irrad., interstitial clustering in cascades, diffuse X-ray scatt. 2−103833
Al, inelastically scatt. radiation in EDXRF spectrometer, expt. and theoretical distribs. 2−99216
Be atom, idempotent density matrices from X-ray diffr. struct. factors 2−54752
Be, polycryst., spectra of inelastically scatt. X-rays 2−116297
Be, X-ray spectrum near Raman band, electronic struct. calc. 2−72577
$CaCO_3$, calcite, anomalous transmission of thermally scattered X-rays 2−110973
$CaO-MgO-SiO_2(-TiO_2)$ diopside glasses, nucleation kinetics, small-angle X-ray scatt. study 2−115141
CdSb, γ-irrad., X-ray scatt. near K-absorpt. edge *(Russian)* 2−62015
Cu-Al single cryst., X-ray diffuse scatt. effects 2−81714
Cu-Au, X-ray diffuse scatt. and ordering energy *(Russian)* 2−77618
Cu-Mg alloy, disintegration kinetics upon natural ageing, X-ray diffuse scatt. study 2−77850
GaAs, X-ray photoelec. emission and refl. from polar (111) and $(\bar{1}\bar{1}\bar{1})$ faces 2−105049
Ge, X-ray photoemission and refl. near K absorpt. edge 2−72607
He, liquid, X-ray scatt. studies 2−110059
Li atom, idempotent density matrices from X-ray diffr. struct. factors 2−54752
Si, neutron irrad., dislocation loops, X-ray diffuse scatt. study 2−71458

X-ray sources (astronomical)
see also X-ray astronomical observations
0430.6−6133, 0626.7−5426, X-ray clusters of galaxies, optical investigations 2−89389
A 0535+26, balloon borne γ-ray obs. 2−58252
3A 0557−383, identification as extreme Seyfert galaxy, luminosity, visible spectral obs. 2−58504
A 1367, X-ray cluster of galaxies, optical photometry 2−106937
2A 2315−428 field, Einstein obs. of confused region 2−94866
Abel 1763, X-ray galaxy cluster, X-ray meas. and cluster mass to radius of 1.4 Mpc 2−68909
Abell 1560, 2356 and 2384, clusters X-ray emission anal. and evolution 2−101077
Abell 2069, X-ray cluster of galaxies with multiple subcondensations, X-ray and optical obs. 2−68910
Abell 2241E and W, galaxy clusters, radio and X-ray obs. 2−94846
Abell 566, cluster of galaxies, X-ray galaxies and diffuse X-ray emission obs. 2−106934
accretion flow, X-ray heated, stability and time depend. 2−117575
accretion flow, X-ray heated, steady flow region 2−117574
active galactic nuclei in clusters of galaxies 2−106882
active galactic nuclei in early evolutionary states accounting for X-ray/γ-ray backgrounds 2−117739
active galaxies, identification and X-ray/optical luminosity-redshift relations 2−117795
Ariel V high energy X-ray obs. journal 2−101093
KR Aurigae, unique variable star and X-ray source, new optical minimum obs., (December 1981) 2−63443
α Aurigae (Capella), X-ray spectrum obs. rel. to coronal struct. and UV emission 2−112485
black holes, accreting supercritically, X-ray emission 2−84077
burst sources, accreting neutron star envelope, shell flashes 2−94863
burst sources, spectra rel. to determ. of neutron stars mass and radius 2−68933
burst sources, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
burster discovery at $\alpha=18^h12^m$, $\delta=-12.2°$, possible identification with (Serpens X-2) 2−112610
3C 371, N galaxy-BL Lacertae object, X-ray light curve anal. 2−112543
α Canis Majoris B (Sirius B), white dwarf, implications of UV and X-ray emission *(French)* 2−73972
RS Canum Venaticorum stars, Hα profile, surface phenomena 2−106777
RS Canum Venaticorum stars, photometric obs. 2−100990
Cassiopeia A, multiwavelength comparison with Tycho's SNR 2−89325
α Centauri A and B, individual X-ray sources, coronal emission, obs. 2−58336
Centaurus A, X-ray transition radiation emission 2−117533
clusters of galaxies, 102.5 MHz obs. of X-ray clusters 2−112599
clusters of galaxies and microwave emission, Sunyaev-Zeldovich effect 2−106933
compact sources and burst sources, gravitational energy 2−89144
compact sources emission, contrib. of X-ray transition radiation 2−117533
Compton scattering, energy exchange between free electrons+EM radiation 2−63228
cosmic rays acceleration and origin 2−89087
Cygnus Loop, shock waves rel. to UV spectra and X-ray emission 2−106848
Cygnus X-1 and late stages of stellar evolution 2−100960
DK Draconis, RS CVn star, starspot evidence from photometric obs. 2−112487
1E 1402.3+0416, new BL Lacertae object, discovery by Einstein Observatory 2−94838
E 1551+718, identification with uncatalogued dwarf nova 2−106965
Einstein deep survey fields in Cetus, Pavo, Eridanus, optical counterparts UBVRI obs. 2−84350
extragalactic sources, SHF obs. 2−79244
extragalactic X-ray sources, log N-log S relation and luminosity functions from complete sample 2−58270
extragalactic X-ray sources, medium sensitivity survey rel. to log N-log S relation 2−58271
F-type stars, X-ray luminosity function from magnitude limited stellar X-ray survey 2−112422
flare stars, radio and X-ray emission in fast electron hypothesis, book 2−68984
G292.0+1.8, X-ray morphology rel. to asymmetric SN explosion 2−117732
galactic bulge class 2 sources 2−84077
Galactic disk, unresolved X-ray emission, spectrum and disk parameters 2−68892

X-ray sources (astronomical) continued
galactic nuclei, X-ray emission, self-absorbed cyclotron high harmonics, Comptonisation 2−84332
galaxies active nuclei, time-dependent X-ray spectra of Compton-cooled plasmas 2−78948
galaxy clusters, halo, magnetic field distribution from X-ray and radio map anal. 2−58505
galaxy clusters, X-ray luminosity rel. to vel. dispersion 2−101079
galaxy clusters, X-ray surface brightness distrib. rel. to clusters substructure 2−106938
galaxy clusters containing classical double radio sources, X-ray emission obs. 2−58474
galaxy clusters X-ray emission, role of inverse Compton scatt. 2−58505
gamma-ray bursts, comptonised X-ray source model for burst spectra 2−89410
GB 720514 γ-ray source, corresponding X-ray burst 2−63707
globular clusters emission due to cluster wind interaction with galactic halo obs. 2−58502
GX349+2, GX17+2, flaring X-ray sources, evidence for periodicity in X-ray intensities 2−94867
gyrosynchrotron radiation from mildly relativistic, nonthermal and thermal electrons, simplified expressions 2−106494
H 0139−68, identification with AM Herculis-type star 2−94788
H 1741−280, soft X-ray transient, discovery, approximate position, and X-ray flux 2−89408
HD 185151, RS CVn star, chromospheric activity from visible obs. 2−100975
HD 8357, RS CVn star, optical variability determ. 2−94778
HR 7275, photometric period for RS CVn-type binary 2−84270
Hyades late type stars, X-ray sources identification as binaries 2−112516
M81(=NGC 3031), nucleus X-ray source detect. and Seyfert activity, obs. 2−94827
maximum electron temperature attainable from Thomson depth of sources at efficiency limit 2−63709
MX 0053+60 (γ Cassiopeiae) Be star, X-ray flux spectrum obs. 2−63460
MXB 1730−335, rapid burst star, burst mechanism 2−68935
MXB 1730−335, Rapid X-ray Burster, nature of two modes in type II bursts *(Russian)* 2−112509
N49, supernova remnant in LMC, possible association with anomalous gamma-ray transient, (1979 March 5) 2−68934
narrow emission line galaxies, X-ray spectrum and time variability 2−74081
neutron star accretion and thermonuclear processes evolution, X-ray burst luminosity 2−94859
neutron stars, X-ray emission on supercritical accretion 2−84077
NGC 3607 group of galaxies, hot intergalactic matter X-ray emission obs. 2−84335
NGC 4151, UV continuum vars., 1978 February to 1980 May, from IUE obs. and comparison with X-ray and optical obs. 2−101063
NGC 5408, irregular galaxy, X-ray emission from star formation burst 2−106911
NGC 6814 and 4151, Seyfert galaxies, maximum electron temperature attainable 2−63709
OB-type supergiants, coronal X-ray emission rel. to cool stellar winds ionisation 2−63389
Of stars, coronal X-ray emission rel. to cool stellar winds ionisation 2−63389
Orion Nebula, X-ray sources optical counterparts 2−58430
in Orion Nebula Trapezium region sources list and identification, obs. 2−74075
β Persei B (Algol B), X-ray emission rel. to variable He I 10830 Å absorpt. line 2−112484
Perseus galaxy cluster, hard X-ray flux rel. to multifreq. VLBI obs. of nucleus of (NGC 1275) 2−74080
Population II, trapped line radiation 2−106957
power-law sources in 3-50 keV range 2−63713
PSR 0531+21 in Crab Nebula, X-ray emission nature 2−63712
QSO 1525+227, X-ray flux, evidence for 200 second variability 2−94855
quasar candidates near 3C 345, identifications with Einstein X-ray sources 2−106955
quasars, EHF obs. 2−74120
quasars, identification and X-ray/optical luminosity redshift relation 2−117795
quasars, radio loud and radio quiet, contrib. to X-ray background 2−63716
quasars, X-ray selected objects, redshift distrib. 2−117792
quasars with absorption line systems, X-ray emission detect., obs. 2−112604
radiation supported plasma layer, struct. and stability 2−106960
radio galaxies, inverse Compton radiation spectra from relativistic flows in compact radio sources 2−74114
recurrent X-ray sources, effect of stellar wind vel. on eccentric-orbit binary model 2−84275
Serpens X-2, possible identification with new X-ray burster 2−112610
SMC X-1, possible correl. with GB 740723 γ-ray source 2−63707
SN 1006, spectrum anal. from X-ray obs. 2−89329
stars, magnitude limited stellar X-ray survey rel. to F-type stars X-ray luminosity function 2−112422
supernova remnant candidates in SMC, 843 MHz obs. 2−112537
supernova remnants, effects of metal-rich ejecta on X-ray luminosities 2−112527
supernova remnants X-ray emission, effect of non-equilibrium ionisation 2−68868
supernovae, Type II, theory of radio and X-ray emission 2−106756
T Tauri stars, optical and IR photometry rel. to hot circumstellar dust 2−73964
temperature from spectral distrib. 2−101092
Tycho's SNR, multiwavelength comparison with Cassiopeia A 2−89325
Tycho's SNR, X-ray spectra, lack of strong Fe emission, model 2−94803
4U 1702−42, Hakucho obs. of X-ray bursts 2−68817
4U 2316+61, possible identification with massive eclipsing binary star (HD 219634) 2−79159
Vela pulsar, pulsed emission, X-ray and γ-ray upper limits 2−117695
2 XRS catalogue 2−58273
I Zw 187, simultaneous multispectral obs. of X-ray bright BL Lacertae object 2−63607

X-ray spectra
see also X-ray absorption spectra; X-ray chemical analysis; X-ray emission spectra
adsorbates and small condensed mols. containing O and N, X-ray excited Auger spectra 2−83433
ammonium biphthalate single cryst., X-ray spectrometric props. 2−87893
atomic, X-ray energy levels, relativistic SCF calcs. 2−113921
atomic ions, plasma impurities, X-ray spectra 2−103451
atoms, closed shell radial electron density moments and X-ray scatt. factors 2−75184
heavy ion collisions, high energy electron emission cross section 2−54950
KL X-ray transition energies, and ionisation pots., local spin density calcs. 2−110983
l X-ray satellite energies 2−79290
metals and alloys, elect. struct., symposium, Gaussig, Germany (Apr. '81) 2−68968
Rydberg series, spectrum anal. from MQDT, computer program 2−64905
solid state physics conf., Copenhagen, Denmark (Aug. '81) 2−89440
theoretical spectra for const. potential in 25-300 kV range *(Bulgarian)* 2−85581
K^-p atom, anomalous Coulomb effect 2−59981
C-foil+$Cl^+(Fe^+)(Cu^+)(Br^+)$, projectile K X-ray emission, target thickness depend. 2−75394
Cd V, UV and X-ray spectra of $4d^75s$-$5d^75p$ transitions 2−96496
CdV, UV and X-ray spectra of $4d^8$-$4d^75p$ transitions 2−96495
Co-Cr-Al-Y (22, 11, 0.5 wt.%) coating, oxide form. at 700°C 2−116621
Cr^{22+} in laboratory plasma, X-ray spectra *(Russian)* 2−108415
Ge, intrinsic, X-ray fluorescence spectrometer, fundamental parameter-based calibration model 2−58976
HgI_2 spectrometry for low-energy X-rays 2−58975
Mo ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
NaF, core excitons, atomic energy calcs. 2−110259
NaF, core excitons, Na $L_{II,III}$ edge 2−110258
NaF, core excitons, X-ray edges 2−110257
Nb halides, electron struct. *(Russian)* 2−66441
Nb_3Sn, form. kinetics by diffusion method *(Russian)* 2−66301
Pb, L_1, L_2 and L_3 subshells, X-ray fluoresc. yields and Coster-Kronig transition probabilities 2−70114
Pd ions, unresolved transition arrays, soft X-ray spectra, appl. to plasma diagnostics 2−85584
Si^{n+}, transition energies, lifetimes and fluoresc. yields 2−59738
Sn muonic atoms, electronic K X-rays shifts 2−54994
Sn XX, XXI, XXII, spectrum obs. in extreme UV, 20 to 85 Å 2−54794
$^{125}Te^m$, M4 K-conversion coeff. meas. of 109.3 keV transition 2−69606
Y_2O_3-In_2O_3-Fe_2O_3, superhigh freq. props., Fe and In ions electron struct. influence *(Russian)* 2−66442

X-ray spectrometers
see also X-ray crystallography apparatus
crystal spectrometer and mirror anal. using X-ray absorpt. spectra calcs. 2−69309
curved Bragg crystal spectrometers, geometrical aberrations 2−113085
energy dispersive X-ray fluoresc., spectrometer, exciting beam multiple total reflection 2−53907
energy-dispersive, development of adjustable aperture 2−113091
EXAFS spectrometer and detector system, appl. to amorphous Ge-Se 2−116299
graphite mosaic X-ray spectrometer without collimators 2−113086
hard X-ray measurement, spectrometers physical charcts. 2−106527
hard X-rays spectrometry using Si/Ge alloy detectors 2−64742
high resolution broad ray X-ray crystal spectrometer 2−81623
hybrid X-ray fluoresc. system, toroidal monochromator appl. 2−53908
Iogansson X-ray fluorescence spectrometer, aperture improvement 2−58983
lattice deformation meas. instrument for single crystals 2−58982
low-background hard X-ray spectrometer, APACHE, 10.6 μm laser fusion expts. appl. 2−101508
pulsed transistor reset preamplifier for high resolution spectroscopy 2−64811
PV9500 X-ray spectrometer, system software 2−79728
satellite-borne X-ray burst spectrometer for solar flares obs. 2−112329
semiconductor detectors, soft X-ray energy spectrum, carrier out-diffusion effects calc. 2−80397
soft and ultrasoft X-ray fluorescent spectrometer using total reflection monochromator 2−116757
two-crystal vacuum X-ray spectrometer for chem. state anal. 2−89875
X-ray imaging spectrometer for solar flare imaging, Solar Maximum Mission 2−100743
Ge, intrinsic, X-ray fluorescence spectrometer, fundamental parameter-based calibration model 2−58976
Si detectors for X-ray, ion and electron spectrometers, low temp. characts. 2−75108

X-ray spectroscopy
see also appearance potential spectroscopy; X-ray crystallography; X-ray diffraction; X-ray spectra
Auger and photoelectron spectroscopy, review 2−99299
diffraction gratings for synchrotron radiation spectroscopy, fabrication method 2−101506
EM, analytical, high-resolution, local composition of specimen area 2−95563
energy and wavelength dispersive, current status 2−79727
energy-dispersive electron microprobe techniques, for rare-earth element determ. 2−67794
EXAFS, noise level and energy resolution effects 2−95575
fluorescence spectra obtained with HgI_2 detector, computer anal. 2−58980
hard X-rays spectrometry using Si/Ge alloy detectors 2−64742
laboratory X-ray source appl. to EXAFS spectroscopy 2−58973
multi-pinhole camera for X-ray film spectroscopy 2−58977
multichannel analyser for fusion X-ray spectrometry 2−85500
phosphor, luminescence kinetics examination in non-stationary X-ray field 2−64203
plasma, X-ray spectrographs, convex curved cryst., source size line broadening, theory 2−65757
polycrystalline mixtures, qualitative X-ray phase anal., computer appl. 2−67688
radiation detectors for X-ray and γ-ray spectroscopy, needs and prospects 2−58974
radioactive implant induced X-ray emission 2−59581
refractory metals radioactive sources prep. and characterisation for X-ray and electron spectrometry 2−59582
semiconductor spectra, prospects for near state-of-the-art anal. in laboratory 2−58978
smectic B phase crystal for 200-1200 eV soft X-ray spectroscopy 2−79721
soft X-ray absorpt. spectra by pot. scanning, numerical inversion 2−93323
source and appl. of γ-rays and X-rays, symposium, Ann Arbor, MI, USA (June 81) 2−58525
spot spectroscopy: local spectroscopic measurements within laser-produced plasmas 2−115049
steels, monolayer grain boundary segregations, detection using STEM-EDS X-ray microanal. 2−67351
STEM, correlation between specimen current, beam current and X-ray yield, 75-200 keV 2−67151
synchrotron radiation X-ray energy and line shape meas. using diffraction markers 2−79729
TEM, X-ray elemental anal. 2−67793
TEM, X-ray microanal. 2−67792
transuranics, assay in environmental samples, X-ray/γ-ray spectrometer appl. 2−54713
tube focal spots alignment for spectral meas. 2−68132
Al-Fe(4wt.%), STEM-EDS X-ray microanal. of rod-shaped precipitator 2−67795
Ge detectors for high X-ray and γ-ray dose-rates systems 2−59595
HgI_2 spectrometry for low-energy X-rays 2−58975
InCl, photolysis analysis using X-ray techniques *(Russian)* 2−74554
^{125}Sb-^{154}Eu-^{155}Eu, NBS long-lived mixed-radionuclide standards, photon emission rates determ. 2−59579
Si lattice deformation meas. using X-ray multiple refraction 2−60835

X-ray transport *see photon transport theory*

X-ray tubes
3-electrode short pulse X-ray generators, HV power unit 2−58981
biomedical X-ray tube focal spot sizes rel. to angiography 2−105827
computerised tomography tubes, life increase method 2−94165
flash X-ray tube, microwave and hard X-ray prod. 2−101507
focal spots alignment for spectral meas. 2−68132
L X-rays from solid W target of medical radiography tube 2−111776
medical therapy tube targets, high-resolution pinhole photography 2−100095
radiography, heel effect for various target angles 2−64205

X-rays
see also cosmic ray X-rays; photons
collimation by one asymmetrical Bragg reflection 2−89881

X-Y model
abelian gauge theories and spin systems, massless phases and symmetry restoration 2−53926
dimethyl ammonium in tetrachloride, layered cpd., elastic and thermal props. 2−81873
flowing states and vortices in XY model in external field 2−53694
frustration in two dimensions, renormalisation group method 2−74360
Ising model, fully frustrated 2-D correlation functions 2−66857
Mattis-Heisenberg model, spin quantum number in ground state 2−77251
Monte Carlo simulation of quantum spin systems 2−104566
one-dimensional systems, exact solns., review *(Japanese)* 2−82554
ordered spin system, critical dynamics of longit. component 2−56882
planar model, perturbative anal. 2−77254
quantum spin models, two dimens., approx. mapping on staggered eight-vertex models 2−101366
quantum XY spin chain, solitons and magnons 2−66797
random anisotropy, in X-Y model *(Russian)* 2−104634
short-range interactions, numerical studies 2−66844
spin glass phase transition in random-axes XY magnet 2−92918
spin-$^1/_2$ anisotropic Heisenberg model, Migdal-Kadanoff renormalisation group approach 2−77317
spin-$^1/_2$ XY model, 2-dimens., crit. behaviour 2−66823
squaric acid, antiferroelec. phase transition, realisation of Baxter model 2−82790
surfaces, order-disorder transitions 2−115549
three dimensional, collective modes rel. to quantum lattice 2−110058
two dimensional frustrated x-y model, phase transition, scaling eqns. 2−63923
two-dimensional classical XY model in random p-fold system breaking field 2−89635
two-dimensional non-abelian spin models, vortex condensation 2−79765
CdMn, hexagonal, spin glass behaviour 2−66861
K_2CuF_4, two-dimens. ferromag., mag. susceptibility, X-Y anisotropy in Heisenberg system 2−116011
K_2CuF_4, two-dimensional planar ferromag. Kosterlitz-Thouless transition 2−66826
$RbFeCl_3$, triangular XY-like antiferromag., incommensurate mag. phase transition 2−116004

Xalpha calculations
acetylene, ionisation energy, XαSW method with universal potential 2−75183
alkaline earth fluorides, electronic struct., cluster calc. by multiple scatt. Xα method 2−61350
atomic local exchange and correlation potentials for electron scattering at solid surfaces 2−105019
chloromethanes, photoelectron spectra by SCF Xα scatt. wave calcs. 2−64873
diatomic first and second row mols., SCF-Xα-SW electron densities with overlapping sphere approx. 2−90451
1,1-dichloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
fluoroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
Invar, magnetovolume effects, molecular orbital study 2−66884
localised core levels, spin-polarised calcs., Slater transition state method, errors 2−59699
MSXALPHA program, adaptation ACQI for numerical atomic orbitals data 2−54767
MSXALPHA program, modification to accommodate twenty-six asymmetry point groups 2−54768
polar surface of compound crystals, electronic struct. 2−110416
ruby, optical properties, high press. effects, theoretical studies 2−87739
SCF convergence rates in UF and Xalpha methods 2−70133
small molecules, ionisation pots., MS- and LCAO-Xα calcs. 2−64846

Xalpha calculations continued
tetrachloroethylene, Σ and Π electron shape reson., multiple scatt. Xalpha calcs. 2−80471
transition metal alloys, magnetovolume effects, molecular orbital study 2−66884
d^1-transition metal oxohalo complexes, electronic struct., SCF-MS-Xalpha study 2−70145
transition metals sulphides, first and second row, electronic struct., SCF-SW-Xalpha cluster calcs. 2−70143
X-ray transition energies, KL, and ionisation pots., local spin density calcs. 2−110983
Al-Fe, Fe impurity mag. moment, cluster approx. calc. with k-dependent boundary conditions *(Russian)* 2−115972
Al_{13} clusters, cubo-octahedral, electronic struct. calc. 2−82269
Al_2O_3, localised states, XPS, SCF Xα SW calcs. 2−111035
$Al_{12}V$ clusters, cubo-octahedral, electronic struct. calc. 2−82269
B_2, energy differences using an accurate local density functional, spin-flip energies calc. using Xalpha approx. 2−70122
C_2, energy differences using an accurate local density functional, spin-flip energies calc. using Xalpha approx. 2−70122
CO, free and chemisorbed, core-hole screening 2−102404
CO, ionisation energy, XαSW method with universal potential 2−75183
CO, valence Auger spectrum, MS Xalpha calcs. 2−80739
CO_2, ionisation energy, XαSW method with universal potential 2−75183
Co(II) complex, N,N′-ethylenebis(acetylacetonatiminato)Co(II) EPR/ENDOR and semiempirical calcs. study 2−116089
Cr, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
$(CrOCl_4)^-$, electronic struct., SCF-MS-Xalpha calc., EPR spectra, EHT calcs. 2−70144
Cu clusters, inadequacy of symmetry restricted HF theory in determ. s- and d-like ionisation pots. 2−102668
Cu-Fe, Fe impurity mag. moment, cluster approx. calc. with k-dependent boundary conditions *(Russian)* 2−115972
$CuCl_6^{5-}$, electronic struct., multiple scatt. Xalpha calc., harmonic force const. 2−108376
$CuCr_2S_4$, spinel, spin polarised electronic band struct. 2−71861
$CuCr_2Se_4(Te_4)$, spin-polarised electronic band struct. 2−104245
$CuFeS_2$, electronic struct., X-ray emission and XPS study and Xα calc. 2−92455
$F_3NO(PO)$, photoelectron spectra, bond struct., Xα approx. 2−54769
Fe, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
Fe complex, (cyclobutadiene)iron tricarbonyl, bonding, photoelectron spectra and photoionisation, Xalpha SW calcs. 2−102382
Fe-S proteins, electronic struct. calc. on active site models 2−108746
FeS_4^{5-} cluster, radial densities calc. by multiple scatt. Xalpha method, bonding, Mossbauer isomer shift data 2−96450
GaSb, native defects, MS-Xα calcs. 2−82270
H_2 potential curve, electron exchange parameter effects, $X_α$-SW calcs. 2−90450
HNb_6I_{11}, H bonding, interstitial, calcs. 2−80472
IO_6^{2-}, back donation effect, Xα calcs. 2−80474
$IrCl_6^{3-}$ electronic struct., relativistic calc. 2−102401
KCl, optic phonons, ab initio calc. 2−66147
Kr, BCC-FCC allotropy, F-bands and metallisation 2−56185
LiCl:$Cu^+(Ag^+)$, luminesc. props. and impurity electronic struct. 2−57161
Mo-Mo quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
N_2, ionisation energy, XαSW method with universal potential 2−75183
NF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
NH_4 radical, ground state, electronic struct., Rydberg spectra, SCF-Xα-SW calcs. 2−64874
N_2O, ionisation energy, XαSW method with universal potential 2−75183
NaCl:Cu^+, Cu^+ electronic struct., multiple scatt. $X_α$ method appl. to $CuCl_6^{5-}$ cluster 2−87192
NaCl:$Cu^+(Ag^+)$, luminesc. props. and impurity electronic struct. 2−57161
Nb_6I_{11}, H bonding, interstitial, calcs. 2−80472
Ni clusters, inadequacy of symmetry restricted HF theory in determ. s- and d-like ionisation pots. 2−102668
Ni complex, bis(O-phenylenediamido)nickel electronic struct., EHT and MS Xalpha calcs. 2−75189
Ni surface, chemisorbed CO(N_2), SCF-Xα SW model cluster calcs. 2−61278
Ni_4 cluster, Xα LCAO and Xα scatt. wave calc. comparison 2−96786
$NiCl_2$, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
PF_3, photoelectron spectra, bond struct., Xα approx. 2−54769
$PbMo_6S_8$, electronic struct. and charge distrib., CSF MS Xalpha calcs., relativistic effect 2−96451
Pt (100), catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
$Pt(PH_3)_4$, catalytic activity, electronic struct., SCF-Xα-SW MO calc. 2−61546
RuO_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
SF_6, electron struct. of excited X-ray states, X-ray absorpt. spectra 2−110981
Si (111) 7×7 surface, chemisorption of Cl and H, electronic struct., DV-XX cluster calc. 2−66613
Si (111) chemisorbed H, Cl, Ag, vacancy and chemisorptive bond elec. struct. 2−82417
Si, transition metal interstitials, impurity states, many electron effects, SCF Xα cluster calc. 2−82283
Si, transition metal interstitials, impurity levels, many electron effects, SCF Xα cluster calc. 2−82284
Si, vacancy and chemisorptive bond elec. struct. 2−82417
Si:$P_2(P_s^+)$, multiple scatt. Xα mol. cluster model of complex defects 2−76977
SiF_6^{2-}, back donation effect, Xα calcs. 2−80474
SiH_4, ionisation energy, XαSW method with universal potential 2−75183
SnO, $(X^1Σ)$ state, gas phase high temp. photoelectron spectroscopy 2−80724
Ti complex, Zregler-Natta catalysts, reaction path SCF-$X_α$-SW MO study 2−108377
$TiBr_4$, electronic structure and spectra SW Xα calcs. 2−114051
$TiCl_4$, electronic structure and spectra SW Xα calcs. 2−114051
TiI_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
$Tl_2Mo_6Se_6$, 1-D supercond., electronic struct., SCF scatt.-wave Xα calc. 2−92461
V, BCC, surface (001), O chemisorpt., Xα cluster model calcs. 2−98461
VCl_4, core photoemission satellites, SCF Xalpha MO calcs. 2−85741
VCl_4, electronic structure and spectra SW Xα calcs. 2−114051
W-W quadruple bonds in cpds., SCF-Xα-SW calcs. and PES 2−85736
$WOBr_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475

Xalpha calculations continued
$WSCl_4$, electronic spectra, SCF-Xα-SW calcs. 2−80475
Xe atoms, low energy electron elastic scatt., Xalpha calc. 2−59936
Xe, BCC-FCC allotropy, F-bands and metallisation 2−56185

xenon
see also nuclei with .....
absorbed on Cu, He beam impact, order, disorder, nucleation and energy changes 2−98399
adsorbed layer on graphite, bound state resonant scatt. of atoms 2−87935
adsorbed monolayer on lamellar halides, two-dimens. condensation, critical temp. 2−66350
adsorbed on Ag (111), two-dimens. gas phases 2−61293
adsorbed on Al(111), photoemission studies 2−62048
adsorbed on Cu (110), commensurate-incommensurate transition, PES study 2−104154
adsorbed on Gd (0001), charge transfer instability absence 2−115552
adsorption energy profiles at flat and stepped metal surfaces 2−115561
adsorption on exfoliated graphite compressed and uncompressed 2−87059
adsorption on Ni (110), electronic binding energies of valence levels, UPS study 2−82437
adsorption on stainless steel, types 304 and 316, He^+ irrad. effects 2−76525
angular distrib. parameters for electron spectrometer calibration 2−85468
arc lamp radiation-induced temp. rise in Si 2−56009
atom, $5s5p^66p$ reson., spin-orbit branching ratios and angular asymmetry param., photoionisation cross section 2−70203
atom, 'perfect' electron elastic scatt. 2−96735
atom, diamag. susceptibility, new Thomas-Fermi model test 2−85543
atom, electron and positron scatt., total cross section meas. 2−114114
atom, electron impact excitation, electron-photon angular correl. 2−80818
atom, long-lived excited, autoionising resonances in photoionisation 2−54814
atom, matrix isolated in Ar, emission spectra, excitation spectra and lifetimes 2−54795
atom, metastable, laser mag. reson. 2−65021
atom, metastable, quenching by O containing compounds, reson. fluoresc. study of reaction prod. 2−59890
atom, multiphoton ionisation for breakdown triggering or control 2−96529
atom, multiple hole levels and Auger spectra 2−64942
atom, resonantly enhanced multiphoton ionisation, third harmonic generation 2−85609
atom, third harmonic generation multiphoton ionisation, cooperative effects 2−90493
atom, XES, breakdown of one-electron picture in $3d^{-1}$ to $4p^{-1}$ 2−54796
atomic beams, elastic electron scatt., spin polarisation 2−102627
atomic closed-shells ions, radial electron density moments and X-ray scatt. factors 2−75184
atoms, low energy electron elastic scatt., Xalpha calc. 2−59936
atoms, multiphoton ionisation studied by photoelectron spectrometry 2−75223
atoms, Rydberg states, optical lines shifts and broadenings, collision effects 2−113933
atoms, third-harmonic generation and multiphoton ionisation 2−70205
BCC-FCC allotropy, F-bands and metallisation 2−56185
cryocrystals, exciton spectra, polariton and spatial dispersion effects 2−82904
crystal, band struct., Gaussian OPW calc. 2−61349
crystal, interatomic forces, cohesive energy and elastic constants. 2−55882
crystal, self-trapping of excitons and holes *(Russian)* 2−98552
desorption of Ar and Ne, transition state theory rate consts. 2−111514
discharge, ns and nd Rydberg states, spectroscopic study using laser excitation and optogalvanic detection 2−113899
elastic electron scatt., cross section data compilation 2−54964
electron drift vel. meas. 2−86378
electron elastic scatt. angular distrib. 2−102621
electron trapping 2−110410
electronic pressures in heavy-element materials, self consistent relativistic LMTO calcs. 2−92499
equations of states derived from shock wave expts., theoretical anal. 2−71602
flashlamps, visible light emission theoretical model 2−55713
gas, breakdown by CO_2 laser radiation near metal surfaces 2−97699
gas, four-wave difference freq. mixing, tunable and coherent radiation in VUV 2−108955
gas, luminous layers in prebreakdown region at low press., Monte Carlo simulation 2−97702
gas, narrowband tunable VUV radiation generated by nonresonant sum- and difference-freq. mixing 2−60152
gas, refr. index determ. in vacuum spectral region using third harmonic generation 2−109454
gas, solubility in liq. n-alkanes, temp. depend. and thermodynamic functions 2−109996
gas and liq., quasi-free electron state, density depend., photoinjection meas. 2−103253
gas excited by ^{252}Cf fission fragments, recombination luminesc. time delay 2−90361
gas mixture with methane in imaging proportional counter 2−108235
ion implanted into W(Cu), Xe-defect configuration spatial anisotropy, ^{133}Xe TDPAC study 2−61044
ionisation coeff. and breakdown potentials obs. 2−103266
ionisation sampling resolution and relativistic rise, dE/dx meas. 2−108312
ionisation yield due to electron impact 2−70425
isotope separation in DC arc 2−85829
lamp, appl. in coherent forward scatt. spectrometry 2−88391
laser, $5d[3/2]_1^0$-$6p[3/2]_1$ transition in weak mag. field, polarisation bistability obs. 2−90870
liquid, γ-ray detectors, present status and future plans 2−90362
liquid, electron dynamics meas. *(Russian)* 2−71993
liquid, hot-electron thermalisation, density depend. 2−103807
liquid, luminescence yield, LET depend. 2−90363
liquid, nucleation near crit. point 2−71624
liquid, shock compression to 130 GPa 2−66130
liquid, vapour nuclei curvature effect on surface tension 2−115505
liquid and solid, hot electron emission *(Russian)* 2−87957
liquid and solid scintillators, UV emission time depend. meas. 2−90364
marker layers, ion implanted, in Al anodic barrier films, direct obs. 2−71481
matrix for naphthalene, phosphorescence spectra, electronic transitions 2−61957

xenon continued
molecule, pair polarisabilities, SCF calcs. 2−113870
monolayer adsorption on Cu(110), surface structs. and uniaxial phase transitions 2−66367
nonideal plasma, absorpt. coeff. in visible spectrum 2−81459
physisorbed on Cu(110), temp. depend. photoemission line slopes 2−71796
plasma, at mag. reson., atomic conc. meas. technique 2−115048
plasma, radiation transport mechanism at shock wave fronts 2−65703
polycrystalline, growth and cryst. struct. 2−93394
positron diffusion, elastic cross sections 2−76057
positron-gas cross-section measurements 2−75420
radioabsorptiometric assay, breath-by-breath, of Xe in expired air 2−100092
recycling apparatus used in computerised tomography studies 2−79590
RF discharge columns in narrow tubes, striae obs. 2−103477
RF-ion source for texturing 2−105390
solid, electron dynamics meas. *(Russian)* 2−71993
solid, lattice dynamic props., self-consistent average-phonon eqn. of state 2−81922
solid, optical absorpt. at high press. 2−93225
solid, optical absorpt. edge at very high press., rel. to metallisation 2−110244
solid, optical props. under very high press. 2−87731
solid, sublimation press. and zero temp. cohesion energy, determ. from sp. ht. data 2−103970
solid and liquid, hot electron thermalisation following subnanosec. pulse irrad. 2−72015
submonolayer on graphite, density-functional theory 2−98444
thermal desorption from W(110) 2−61290
thick target prod. using UWIS isotope separator 2−96345
Townsend coeff. determ. at high press. 2−86496
vapour, VUV coherent radiation generation through four-wave mixing enhanced by two-photon resons. 2−90983
Ar-Xe, ionisation coeff. determ. at high press. 2−86496
Ar-Xe high-pressure electrical-discharge laser, pulsed lasing mechanism 2−70546
Ar-Xe photoionisation proportional scintillation chamber, energy transfer 2−64760
Ar-Xe-NF_3 mixtures, electron attachment const. determ. 2−80809
Cs+Xe collision, perturber vel. and temp. effects on line profiles 2−54917
He-Xe, hollow cathode discharges, VUV study 2−97823
He-Xe, near-Lorentzian mixture, diffusion coeff. temp. depend. 2−86370
He-Xe, quasiLorentzian mixture, thermal diffusion factor 2−86371
He-Xe 3.51 μm laser radiation scatt. 2−70597
He-Xe high-gain single-mode laser, mode-pulling, mode-splitting and pulsing, 3.51 μm 2−55198
He-Xe lasers, noise, influence of the Penning process 2−114242
He-Xe plasma recombination laser excited by 10.6 μm laser pulses 2−96898
Hg-Xe system, metal-insulator transition 2−66451
Ne^{2+}+Xe, electron capture excitation from metastable ion at 40 keV 2−96719
Sn-Xe frozen mixtures, normal state cond. and supercond. props. 2−92798
UO_2 pellet, pulse n irrad., ^{137}Xe and ^{137}I release *(Japanese)* 2−64476
X-CO_2 filled position sensitive proportional counter for X-ray astronomy appl. 2−78952
Xe II, Stark widths and broadening of homologous rare-gas ions 2−70181
Xe III, $5p^4$ ground configuration, transition probabilities for forbidden lines, Auger transitions 2−64927
Xe, solid, photo-induced diffusion of Cu *(Russian)* 2−98340
Xe^+ $^2P_{3/2}$ ground state, thermal energy charge transfer 2−90692
Xe^+ implanted Ni thin film, range profile and sputtering efficiency 2−66091
Xe-Kr adsorbed bilayer on Pd, interlayer diffusion, photoemission and Auger study 2−104081
Xe+Ar^+, excitation collisions studied by monitoring resulting luminesc. 2−108675
Xe+Ar^{2+}, single electron capture products, energy loss spectra meas. 2−102607
Xe+CO_2, thermal energy collisions, change in m_i 2−80782
Xe+F, mol. form. at. beam scatt. study with mag. anal. 2−108738
Xe+F 2−80784
Xe+H_2(N_2), relativistic correction to interaction coeffs. 2−75202
Xe+HCl^+, charge exchange reactions, rate coeffs., selected ion flow study 2−88341
Xe+He^+, charge transfer reaction, combined drift-tube and beam luminesc. study 2−99671
Xe+HgX_2 (X=Cl, Br, I), dissoc. excitation rate consts. meas. 2−116693
Xe+$I_2(B^3\pi)$, rotationally inelastic transitions, rate consts., laser induced fluoresc. 2−85786
Xe+I($^2P_{3/2}$), interaction pots., crossed-beam meas. 2−108661
Xe+K, 4p $^2P_{3/2}$-7s $^2S_{1/2}$ transition, effect of collisions 2−59732
Xe+K, II interaction, pot. param. 2−108677
Xe+K^+(Li^+) 2−102567
Xe+Kr slow collisions, rot. induced 4fσ excitation 2−96705
Xe+Li_2*, rot. inelastic cross sections, vel. depend. 2−108685
Xe+Li^+, clustering reactions, forward and backward rate coeff., energy depend. 2−83365
Xe+Li*, Li fine struct. transitions, rate coeff. 2−54938
Xe+methylmercury halides, dissoc. excitation rate consts. meas. 2−116693
Xe+N_2, charge changing cross sections at velocities up to 4×10^9 cm/sec 2−105479
Xe+Na, interaction potential determ. from scatt. cross-sectional meas. 2−70390
Xe+Ne^{+2}, excited ions lifetime meas. long-lived ions preparation, selective electron capture appl. 2−102616
Xe+Ne^{2+}, initial to final state-selective 1-electron capture cross-sections meas. 2−90690
Xe+Ne^{8+}, Kalpha X-ray lines, electron capture rate coeff. determ. 2−65072
Xe+O_2^+, near-reson. charge transfer, vibr. and electronic energy effects 2−75415
Xe+Rb, impact broadening and shift of nS and nD levels 2−102581
Xe+Xe, M-shell excitation, ion-photon and ion-Auger electron coincidence meas. 2−102575
Xe+Xe, Rydberg atom, state changing, ionisation, electric field effects 2−114096
xenon continued
Xe+Xe^+(Xe^{2+}), symmetric reson. charge transfer, drift tube study 2−108696
Xe^++Cl^-, ion-ion recombination, reaction rates 2−99672
Xe^++Xe, symmetric reson. charge transfer, drift tube study 2−108696
Xe^++He, electronic and vibronic transitions, translational energy spectroscopy 2−54935
Xe^{2+}+Xe, symmetric reson. charge transfer, drift tube study 2−108696
Xe_2 and Xe_3, photoelectron-photoion coincidence spectroscopy for obtaining photoelectron spectrum 2−80862
Xe_n^{2+} microclusters, Coulomb explosions, computer simulation 2−90755
Xe($^3P_2$)+HCl, XeCl form., vibr. enhancements, rate const. determ., fluoresc., 2−72966
^{129}Xe adsorbed on Y zeolites, NMR signal shifts, density depend. 2−82727
^{129}Xe NMR solvent shifts, reaction field model 2−75314
^{129}Xe, spin exchange with Rb, nucl.-spin polarisation study 2−85575
^{133}Xe, airborne in medical clinics, instrument for survey monitoring 2−83662
^{133}Xe implanted in pyrolytic graphite, lattice location study by Mossbauer effect 2−55999
^{133}Xe radiation exposure dosimetry for workers in nuclear medicine laboratories 2−94206
^{133}Xe radiations, evaluation of TLDs response in the Three Mile Island accident 2−64691
Xe*+IBr reaction, steric effect, photodissoc. polarisation obs. 2−111477
Xe_2* excimer, de-excitation by SF_6 and N_2, time resolved fluoresc. study, rate const. meas. 2−70316

xenon compounds
SeF* excimer laser discharge stabilization by low-current density electron beam 2−114257
Xe hydrate, acoustic vel. from Brillouin spectra obs. 2−109909
Xe-HCl, far IR spectra, temp. depend., intermol. pot. well depths 2−102473
XeBr excimer laser, short-electron-beam-excited 2−96925
XeBr high-power high-efficiency elec.-discharge-pumped laser, output characts. 2−55119
XeBr laser, electron-beam pumping and control 2−96926
XeBr laser, high-pressure UV-preionised discharge-pumped 2−55120
XeBr, powerful pulsed laser installation 2−108900
Xe_2Br*, electron beam excited, formation and quenching kinetics 2−102573
XeCl discharge laser electrode profiles, analytical design method 2−96966
XeCl electron beam excited laser generation, special features 2−96917
XeCl excimer laser, discharge stablised electron-beam excitation 2−96927
XeCl excimer laser, edge-plane rail-gap switch 2−96999
XeCl excimer laser, short-electron-beam-excited 2−96925
XeCl high pressure gas discharge laser, short pulse X-ray preionisation 2−90932
XeCl laser, 0.5 GW, electron-beam excited 2−60066
XeCl laser, active mode locking 2−96921
XeCl laser, divergence and spectrum control 2−55133
XeCl laser, elec. excitation using mag. pulse compression cct. with thyratron 2−60094
XeCl laser, handling of chemical problems 2−96996
XeCl laser, high-pressure UV-preionised discharge-pumped 2−55120
XeCl laser, Raman freq. down-conversion in H_2 gas 2−97117
XeCl laser, third and fifth harmonic conversion expts. 2−108956
XeCl laser excited by a high-current proton beam 2−96920
XeCl laser pumped by high-intensity electron beam 2−80936
XeCl laser radiation, long pulse, Raman conversion via second Stokes shift in H_2 2−60154
XeCl laser radiation higher-Stokes-order Raman conversion in H_2 2−60161
XeCl minilaser, high repetition rate, gain and saturation intensity parameters 2−96923
XeCl, optical excitation of neutral channel upper laser levels, fluoresc. efficiency 2−85952
XeCl, powerful pulsed laser installation 2−108900
XeCl pulsed-periodic excimer lasers, average power optimisation 2−55203
XeCl self-sustained discharge laser, kinetic model 2−108856
XeCl TEA laser, UV preionised, 308 nm operation 2−114250
XeCl/Xe_2Cl laser, excited state kinetics study using synchrotron radiation 2−96928
Xe_2Cl, excimer state, absorpt. and emission transition probabilities 2−96583
Xe_2Cl laser performance, electron beam pumped, N_2 effect 2−108859
Xe_2Cl tunable blue-green laser, fluoresc. and laser parameters meas. for 520 nm transition 2−96924
XeF, at. beam scatt. study with mag. anal. 2−108738
XeF C→A laser, photolytically pumped, multijoule performance 2−60070
XeF discharge excited laser, radiant performance study 2−70547
XeF electron beam pumped lasers, chem. degradation products 2−102780
XeF excimer laser, discharge stabilised electron-beam excitation 2−96927
XeF excimer laser, short-electron-beam-excited 2−96925
XeF excimer laser pumping possibility with ionisation by an external low-power source 2−60139
XeF laser, high-pressure UV-preionised discharge-pumped 2−55120
XeF laser emitting 2-nsec. pulses of near-diffr.-limited divergence 2−70599
XeF laser gain-dependent dispersion 2−97049
XeF laser mixtures, selective removal of F_2 impurity 2−55179
XeF, pot. energy curves, dissoc. energy, ionisation pot. 2−54783
XeF, powerful pulsed laser installation 2−108900
XeF TEA laser, UV preionised, 35 nm operation 2−114250
XeF_2 photolysis, 108-220 nm range, XeF(B,C,D) excimer absolute quantum yield spectral dependences 2−62421
XeF_6, mol. level splitting, Longuet-Higgins groups 2−102415
XeF(B), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF(C→A) laser performance, electron beam pumped, N_2 effect 2−108859
XeF(C), transfer and quenching rate consts. in low vibr. levels 2−73000
XeF* nuclear pumped laser anal. 2−96929
Xe_2F*, emission spectra and quenching kinetics meas. 2−114023
$XeOF_4$+SF_6 sensitised dissoc. by laser-excited absorber 2−65070
Xe.HCl, anisotropic pot. energy surfaces obtained from mol. beam spectra and rot. line broadening 2−80514
Xe.HF, anisotropic intermol. pot. obtained from mol. beam spectra 2−80766

xerography *see electrophotography; reproduction (copying)*
xeroradiography *see electrophotography*
XPS *see X-ray photoelectron spectra*
Yang-Mills theory
β-function computation by background field method, Feynman rules and renormalisation 2−89885
Abelian dominance and quark confinement 2−84853
algebraic interpretation in general relativity 2−107211
axial gauge, Ward identities, Yang-Mills theory 2−53966
background field method at two loops for pure Yang-Mills theory 2−113103
bag fusion in SU(2) Yang-Mills matter and colour deconfinement 2−84847
Bohm-Aaron expt., interference bands *(Russian)* 2−53980
BPS monopole scatt., classical dynamics 2−53962
BRS and antiBRS symmetry of Yang-Mills Lagrangian, gauge invariance, renormalisability 2−64217
Cauchy problem for coupled Yang-Mills and scalar fields in the Lorentz gauge 2−84780
chromohydrodynamics, gauge-invariant Poisson brackets 2−95606
classical SU(2) Yang-Mills field, spherically symmetric soln. 2−113124
classical SU(N) Yang-Mills eqn., static spherically symmetric soln., rel. to static source *(Chinese)* 2−79771
classical Yang-Mills field under small fluctuations, nonlinear stability study 2−101564
classical Yang-Mills fields, review 2−53983
classical Yang-Mills theory, fields of an infinite plane of color 2−53978
dual BRS identities and renormalisation 2−84782
dyon, Julia-Zee, fermion emission, S-matrix 2−69350
dyon field topology and mag. charge relation 2−95602
dyon spin and statistics, use of Dirac string rots. 2−84879
Einstein-Yang-Mills eqns. solns. by non-Abelian plane wave 2−74602
Einstein-Yang-Mills equations, absence of stationary solns. 2−84490
Einstein-Yang-Mills equations, class of source-free equations 2−95580
Einstein-Yang-Mills monopoles and dyons, stability 2−89883
Faddeev-Popov ghosts, classical configs. from SU(2) Yang-Mills theory 2−89892
field equations with sources, non-Abelian Coulomb soln. and type-II soln. 2−95622
finitely separatd multimonopoles generated as solitons 2−53959
gauge field interactions from extra dimensional gravity 2−84499
gauge formulation of gravitation theories 2−95195
gauge unification of relativistic and unitary spin 2−74632
geometrodynamics in multidimensional unified theories 2−101283
geometrodynamics in multidimensional unified theory 2−95185
gluon gas, Stefan-Boltzmann law, SU(3) Yang-Mills calc. 2−54070
gravitation, internal Yang-Mills theory of Poincare group 2−53633
hadron structure, pairing scheme in Yang-Mills gauge theory 2−84862
indefinite metric formulation 2−59026
infrared asymptotic behavior of the gluon propagator 2−95648
instability of quantum Yang-Mills field and vacuum fluctuations 2−64229
interaction of classical Yang-Mills charges 2−113102
internally structured particles, classical motions, conservation laws, geometry 2−107488
Kallen's theorem and the unphysical nature of Abellian external fields in Yang-Mills theory 2−59014
Kaluza-Klein theory and extended BRS symmetry 2−107219
large-N lattice QCD with fundamental and adjoint action terms 2−79759
lattice QCD with fermions, high temp. behaviour 2−95750
lattice thermodynamics, SU(2) system 2−107511
lattice Yang-Mills theories, infinite vol. limit for pressure 2−84785
linearisation of source free Yang-Mills field equations 2−113134
linearised ten-dimensional supergravity, auxiliary field and superspace lagrangian 2−79460
loop space formulation 2−69359
Lorentz gauge effects, asymptotic convergence to free fields 2−113142
massive and massless Yang-Mills Lagrangians with quartic coupling of Faddeev-Popov ghosts 2−79773
massive fields, gauge invariance, one loop counterterm 2−113101
massive Yang-Mills fields, gauge covariant 2−95608
maximum four-dimens., post Newtonian approx. 2−74305
Maxwellian Yang-Mills fields 2−107583
mechanical model with constraints 2−74590
Minkowski space, self-duel Yang-Mills field, spinors *(Russian)* 2−95657
N=1, D=10 and N=4, D=4 super Yang-Mills theory, geometric structure 2−53947
N=1 supersymmetric Yang-Mills theories, renormalisation, classical theory 2−59017
N=1 supersymmetric Yang-Mills theories, renormalisation, radiative corrections 2−59018
N=1 supersymmetric Yang-Mills theory, supercurrent, classical case 2−59010
N=1 supersymmetric Yang-Mills theory, two loop axial anomaly 2−59032
N=2 super-Yang-Mills model, with central charge, superfield formulation 2−74607
N=4 Yang-Mills and N=8 supergravity as limits of string theories 2−89953
non-abelian gauge fields, space-time symmetries 2−74592
nonAbelian, in time-depend. external fields, Bogoliubov transform. method 2−74606
noninteger topological charge, fractionally charged self-dual soln. 2−84886
one loop correction, in theory with external sources 2−95641
Planck mass problem soln. in Kaluza-Klein theories 2−95188
pseudoscalar mass spectrum as evidence for gluons, anomalies and topological charge 2−59136
pure Su(3) and SU(2) Yang-Mills theories without Higgs scalars, magnetic monopoles 2−101553
QCD_3, perturbative results at finite temp. 2−101640
QCD, Maxwell eqns., semiclassical approach 2−69407
QCD, renormalisation and CP violation 2−95754
QCD, summation of nonleading logarithms 2−74645
quantum gravity in multiply connected three space 2−95207
quantum theory of gravitation 2−95200
quark confinement, Abelian dominances, oblique confinement, η' mass 2−101653
quasi-Abelian Yang-Mills configurations, topological props. and mag. charge 2−107525
quaternionic metrics and SU(2) Yang-Mills 2−95196
Yang-Mills theory continued
Rarita-Schwinger field in non-abelian Klein-Kaluza theories 2−101524
real self-dual Yang-Mills theory, infinite parameter symmetry group 2−95615
removable singularities in Yang-Mills fields 2−53920
renormalisation, background field method, gravity and Yang-Mills theory 2−107507
self-dual SU(2) Yang-Mills system, t' Hooft's ansatz, local conservation laws 2−113109
self-dual Yang-Mills eqn., Kac-Moody algebra 2−53973
selfdual Yang-Mills eqns., nonlinear partial differential eqns., Backlund transforms. 2−53938
singlet collective variable formulation, 1/N expansion 2−74608
SO(N) gauged Poincare supergravity theories, vanishing β-functions 2−84509
soliton supermultiplet in 4+1 dimensions 2−53942
source and soln. characterisation 2−95644
source and soln. characterisation 2−95645
source free gauge field eqn. linearisation 2−95661
sourceless static Yang-Mills systems 2−59022
spatial topology and Yang-Mills vacua 2−112788
static configurations with external sources, energy solns. 2−69340
static Euclidean anti-self-dual SU(2) Yang-Mills eqns. perturbation 2−79772
static monopole and geodesics 2−58997
stationary Yang-Mills fields with current sources 2−53976
$SU_{2/1}$ electroweak ghost-gauge theory, BRS algebra construction 2−113166
SU(2) gauge theory, symmetry breaking 2−79739
SU(2) multimonopoles close together, Higgs fields 2−84792
SU(2) Yang-Mills eqns., with sources, nonAbelian solns. 2−69356
SU(2) Yang-Mills theory in (1+1) dimensions, finite-lattice method 2−53944
SU(2) Yang-Mills-Higgs eqns. on R^3, non-minimal soln. existence 2−113098
SU(2) Yang-Mills-Higgs monopoles in Atiyah-Drinfeld-Hitchin-Manin-Nahm construction 2−101563
SU(2)-SO(3) lattice gauge theory, 2nd order deconfining transition, continuum limit 2−79743
SU(3) Yang-Mills system, gluon matter, thermodynamic props., Monte Carlo simulation 2−101648
SU(3) Yang-Mills theory, finite-energy soln. 2−95584
SU(N) gauge field eqns., exclusion of dyon soln. 2−84810
supercurrent anomaly in analytic regularisation, supersymmetric Yang-Mills 2−113167
supergraphs for supersymmetric theories, covariant rules and higher loop finiteness 2−113161
superspace gauge theories with central charges 2−53948
supersymmetric, N=1, supercurrent, renormalisation 2−59011
supersymmetric, particle unification, supergravity 2−69319
supersymmetric constraints and gauge fields on superspace 2−89916
supersymmetric dual string theory, loops and renormalisation 2−89952
supersymmetric field theories, quantum superspaces 2−95688
supersymmetric gauge theories, patterns of symmetry breaking 2−113131
supersymmetric instanton *(Russian)* 2−79785
supersymmetric theories, indices, triality and UV divergences 2−89920
supersymmetric theories, quartic mass matrix and renormalisation constants 2−107540
supersymmetric Yang-Mills theories, symmetry breakdown and condensates 2−79767
supersymmetric Yang-Mills theories, three-loop beta-function 2−79761
supersymmetric Yang-Mills theory, effective lagrangian 2−84801
ten-dimensional super Yang-Mills theory, off-shell representations with central charges 2−113106
three dimensional massive Yang-Mills and gravity theories 2−64218
time-non-local conserved currents 2−95594
tunnelling, winding number, Schrodinger eqn. 2−74605
U(1) problem, role of instantons 2−84781
uniform colour electric field, particle creation and Yang-Mills vacuum decay 2−95746
vortex solutions with a smooth core 2−101536
W-T identities, interacting vertices in non-Abelian gauge thoery 2−59001
Yang eqn. generalisation, gravitational gauge field eqns. *(Chinese)* 2−69314
Yang-Mills-Dirac equations, rel. to Cauchy-Riemann eqns. in twistor space *(Russian)* 2−95656
Yang-Mills-Higgs fields, flow-dimens. Minkowski space, global existence 2−53924
Yang-Mills-Higgs fields in flow-dimens. Minkowski space, global existence 2−53923
$\rho \rightarrow \pi\pi\gamma$, tests for ρ meson as gauge particle 2−54164
Su(n) Yang-Mills theory, four-dimens., dense instanton gas, statistical mech. 2−53990

yield point
see also yield strength; yield stress
crack-tip fracture stress under general yielding of ligament *(Chinese)* 2−62189
Cu Cu, Cu-Al, deform., effect of low-temp. irrad. 2−93564
fibre reinforced composite plates, circular, reinforcement optimisation 2−81249
loci of single crystals with definite orientation, computer supported description *(German)* 2−111255
metals, plastic, Brinell hardness rel. to mech. characts. 2−116635
models of structurally inhomogeneous media, yield point distrib. appl. 2−81255
polyacrylonitrile, I swelling, creep yield and conformational transition 2−76275
polystyrene, high impact microcomposite thermoplastic, stress crazing, temp. effect 2−77926
steel, austenitic, strain hardening, depend. on struct. parameters 2−77844
steel, fatigue and inelastic deformation under nonuniform stressed state 2−116545
steel, mild, aged, plastic behaviour 2−93559
steel, mild, hollow cylinders, strength of surface layer 2−57434
steel, stainless, yield point, temp. depend. at low temps. 2−67463
steel, yield point, stress and strain gradient influence *(French)* 2−75864
steel type medium, energy dissipation and yield limit determ., strain/temp. coupling effect *(Polish)* 2−83180
viscoplastic material, spherical cavity collapse 2−60430

yield point continued
Al, deformed, elec. resistivity recovery during isochronous annealing, kinetics *(Russian)* 2−92563
Al, shear band form., effect of large deform. 2−67416
Al-Mg (4 wt.%) alloy, mech. alloyed powder alloy, tensile behaviour 2−105259
Cu, containing Al_2O_3 particles, yield point and strain hardening *(Russian)* 2−105226
Cu, strength controlling processes, temp. and strain rate effects 2−77891
Cu-Be, AE generated during tensile deform *(Japanese)* 2−105232
Cu-Cr multilayer composites, yield point, struct. influence *(Russian)* 2−67446
Fe, grey cast type medium, energy dissipation and yield limit determ., strain/temp. coupling effect *(Polish)* 2−83180
In thin films, strength characts., struct. and temp. effect 2−76875
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435
Mo, yield point, neutron irrad. and impurites effects, thermal activation anal. *(Russian)* 2−115333
Ni-Cr-Mo-W, heat-resist., struct. and strength characts. estimation on temp. and time basis 2−111250
Ti-Al-V, mech. props. after β-annealing 2−67398
Ti-Ni, phase hardening during martensitic transformations *(Russian)* 2−93504

yield strength
cracks, double symmetrical, interf. effect on general yield strength 2−91266
diamine cured epoxy resins, microballoon filled, acoustic. mech. and phys. props. 2−60322
explosive, aluminized melt cast, axial longitudinal sound vel. US and weak shock techniques 2−76601
fatigue-induced surface plasticity, meas. method 2−88306
fibre reinforced composites, plasticity anal., elastic moduli, yield conditions, hardening rules and stress conc. factor derived 2−99510
fusion materials, mechanical-radiation effects test capsule for simulating in-reactor environments 2−88311
graphite fibre reinforced resin, tensile testing at 316°C, gripping system appls. 2−105399
hot-work tool steels, performance 2−67473
ice, columnar-grained, compressive strength, const. strain- and stress-rate 2−66106
Inconel X750, stress corrosion cracking, yield strength, rel. to heat treatment, Zr levels 2−83300
insulating materials for supercond. magnets, low temp. irradiation effect 2−80182
metal whiskers, yield strength size dependence, optical and electron microscopy study 2−115633
metals, Orowan mechanism for abrupt localized flow and fracture initiation ahead of yielding notch 2−111266
metals, sheet, FCC and BCC, planar anisotropy rel. to texture *(Korean)* 2−116505
metals, shocked, thermodynamic props. of cryst. and fused quartz determ. from radiation emission 2−69193
metals and alloys, yield strength, review *(Chinese)* 2−62165
miniature tensile specimen technology for neutron irrad. materials testing 2−88312
nuclear reactor constructional materials, liq. Na influence on strength, calc. method 2−96112
polyethylene films in active environments, local yielding 2−76576
polymer blends, phys. and thermodynamic props., review 2−67450
polymers, microtension test, new scale of specimen 2−78035
polypropylene, rolled, mech. props. rel. to struct. 2−67377
shock loading, metallurgical effects, review 2−76585
steel, alloy, high strength, crack arrest toughness 2−77931
steel, alloy, high strength, H stress cracking, effect of P conc. 2−77938
steel, austenitic, high Mn content plate for fusion reactor construction 2−69835
steel, austenitic stainless, 316, cold worked, 20%, tensile props. correl. 2−72714
steel, austenitic stainless, evaluation of ASTM A276 type XM19 for marine applications 2−105382
steel, austenitic stainless, strengthened by phase strain hardening and ageing 2−72741
steel, austenitic stainless 316, rapidly solidified, high Ti stabilised, mech. props. and struct., irrad. effects 2−72765
steel, austenitic stainless 316, yield strength changes during fission or fusion irrad., microstruct. origins 2−71507
steel, barothermomechanical treatment effect on struct. and temper embrittlement susceptibility 2−57386
steel, C, 1018, thick walled cylinders under external press., collapse 2−93584
steel, C, pearlitic, H cracking 2−105321
steel, C, type Ck 35, hydrogen embrittlement detection by AE 2−62192
steel, Cr-Mo, low alloy, mech. props. improvement by cyclic heat treatment *(Korean)* 2−67387
steel, Cr-Mo-V type, pearlitic, stresses influence during ageing on loss of strength 2−99549
steel, Cu(-Ni), powder metallurgy materials, characteristic props. relevant to fatigue design 2−83226
steel, ferritic stainless, 26 Cr-1Mo, substruct. influence on strength 2−111234
steel, low alloy, metastable austenite, mech. props. 2−105254
steel, low alloy, struct. and props. after rolling, rel. to austenite transform. kinetics 2−72745
steel, low-alloy, low-pearlite, V addition effect on struct., phase comp., and mech. props. 2−72818
steel, low-C low-alloy, Si and Ni additions effect on mech. props. 2−105333
steel, low-pearlite with Nb and V, strengthening phase precip. during hot deform. 2−62133
steel, martensitic, ferritic, Cr-Mo-V-W, low temp. irrad. with (n,α)He prod., effect on tensile props. 2−71508
steel, martensitic stainless HT-9, hydrogen compatibility, effect on fracture and ductility 2−72766
steel, Mn-Nb-V, low-pearlite, struct. and mech. props. after controlled rolling 2−57385
steel, Ni-Co-Mo-(W)-Ti, maraging, props. after high-temp. treatment 2−67395
steel, Ni-Mo, austenitic, strengthened by phase strain hardening and hydroextrusion, mech. props. 2−72715
steel, Si-P, dual-phase, development of high strength sheets 2−105251

yield strength continued
steel, stainless, Type 316 irrad., miniature tensile specimen testing 2−88312
steel, stainless 410, stress corrosion cracking in boiling 70% NaOH soln. 2−67661
steel, stress-relieved SAW metal, Nb microalloyed, mech. props. and microstruct. 2−105192
steel, structural, of various strengths, temp. and strain rate effect on yield strength 2−62163
steel, structural, of various strengths, temp. and strain rate effect at tensile and elongation props. 2−62164
steel, transformation behaviour of synthetic weld heat-affected zone, Ni effects 2−72673
steels, Cr-Mo-V-Nb, with (n,α) He, yield strength, tensile strength, neutron hardening 2−80122
thermoelastic-viscoplastic mode with a rate-dependent yield strength 2−97404
thin walled structures, expt. determ. of uniaxial compression charact. 2−91283
transversely isotropic solids, yielding and failure, expt. 2−91262
Zircaloy-4, O containing duplex, deform. behaviour 2−99501
Al, symmetric rod impact technique for dynamic yield determination 2−69165
Al/AlN coatings, sputter deposition prep. using pulsed gas processes, characterisation and mech. props. 2−83021
Al-Al_3Ni, chill-cast, directionally solidified, effect of hot-rolling 2−83141
Al-Si-Mg-Sr, hypoeutectic, modified by pure Sr, microstruct. and mech. props. 2−99386
Al-Zn-Mg, stress corrosion behavior of weldments, effect of heat input rate and postweld heat treatment *(Korean)* 2−67633
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
Al-Zn-Mg-Cu-Cr, 7XXX series alloys, influence of microstruct. and strength on fracture 2−111293
Be, reshock and release behaviour 2−71563
Be, shock compressed, strain rate effects 2−71541
Cd-Ag, warm deform. and texture strengthening 2−111199
Cu-Al (9.8-11 wt.%), dual-phase struct.-prop. relationship, alloy behaviour 2−77834
Cu-Be (2 wt.%) alloy strips, residual stress profiles along rolling direction, X-ray diffr. obs. 2−67367
$(Fe,Ni)_3V$ long range ordered alloy, resistance to neutron and ion irrad. 2−85217
$(Fe,Ni)_3V$, long-range ordered alloys, fusion reactor appl., mech. props. 2−85218
Fe, pure, H_2 effect on deform. and fracture microprocess *(Chinese)* 2−62188
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-Cr-Al alloys, rapidly quenched, microstructs., mech. props., elec. cond. 2−111332
Fe-Mn-Al-C, nonequilib. ordered austenite wire fabrication by in-rotating-water spinning method, mech. props. 2−93532
Fe-Ni-Cr, Alloy 800, mechanical behaviour at 838K 2−77888
Fe-Ni-Y_2O_3, martensite morphology, affect of inert oxide particle disperion 2−57352
Fe-P-Ni(Mo), powder premixes, sintered props., effect of Cu 2−88026
H_2, solid, yield strength, temp. depend. *(Russian)* 2−61250
Ir-W-Th, DOP-26, Th-doped, weld metal grain struct. and mech. props. 2−99499
Mg-Li-Y system, isothermal sections and mech. props. in Mg-rich region 2−111142
Mo alloys, improvement of mech. props. in CTR gaseous environment 2−108106
NaCl crystals, vacancies and impurity dipoles effect on mech. props. 2−71543
NaCl:Pb^{2+}, yield stress, solid soln. precip. and dissolution effects, IR absorpt. study 2−57366
Nb, mech. props. and struct., influence of long high-temp. holds 2−88114
Nb-W, mech. props. and struct., influence of long high-temp. holds 2−88114
Ni-Al-Co(Cr)(Fe)(Mn)(Si) $L1_2$ cpds., melt quenching, improved mech. props. 2−116472
Ni-Co-Cr superalloy, wrought, struct., microchem. and mech. props., effect of Co 2−99438
Pd and Pd-Ag alloy, preliminary H impregnation influence on mech. props. 2−99554
Si, Czochralski grown, yield stress, O precip. and dissolution effects 2−57365
Ta, strength, temp. and deform. rate influence, plastic deform. mechanisms 2−67464
Ti-Al-Mo and Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
Ti-Al-V (6,4 wt.%), high temp. phase transformations and thermal and mechanical props. meas. 2−71625
Ti-Al(Al-V)(Mo-Zr), fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768

yield stress
see also yield point; yield strength
alkali halide, divalent cation-doped, mech. strengthening and impurity precip. 2−88093
alloy, dislocation motion during ageing, particle distrib. influence, computer simulation *(Russian)* 2−91963
alloy, thermomechanically treated, creep yield stress 2−99479
aromatic copolyesters containing rigid binaphthyl units, mech. and thermal props. 2−67452
crack growth, plane strain, equivalence of final stretch and crack tip opening angle 2−60482
crack tip, under anti-plane shear deform., slip band development *(Japanese)* 2−103880
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
fibre inclusions embedded in elastic plate, yield loci 2−55450
grain boundary dislocations, spreading, yield stress depend. 2−66011
metals and alloys, yield strength, review *(Chinese)* 2−62165
nylon 6 and 6,6, NH_3 plasticisation effect on cryst. state deform., NH_3 absorpt. extent and morphology 2−116506
plane strain cumulative fracture 2−97445

yield stress continued
plasticised epoxide, fracture under superposed hydrostatic pressure 2−105293
polycrystal, grain size effect on work hardening 2−111200
polyethylene, stress/strain behaviour change on soaking in environmental stress cracking medium 2−67579
polymers, friction coefficient eqn. 2−111327
polypropylene-polyethylene copolymers, random and impact, fracture toughness 2−67535
polystyrene, toughened, crazed, strain rate depend. of yield stress, model and eqn. development in terms of craze growth 2−67424
porous metals, yield locus 2−99477
soft-sphere crystals, shear-induced melting, thermodynamic props. 2−71621
solid solution hardening, stress equivalence theory 2−77835
steel, austenitic stainless, compatibility with $Li_{17}Pb_{83}$ eutectic 2−111372
steel, Cr, fracture toughness, correl. with sulphide inclusion level *(German)* 2−93615
steel, deform., process development with temp., acoustic emission study of A508 and A533B 2−57423
steel, eutectoid, thermomechanically treated, fatigue initiation study 2−77934
steel, ferritic-martensitic, plasticity *(German)* 2−83195
steel, high strength, intercritically rolled, dynamic mech. props. 2−88113
steel, high strength low alloy, fatigue crack initiation and strain-controlled fatigue 2−67520
steel, low alloy, fatigue failure at inclusions, influence of vacant lattice sites 2−83199
steel, low C, structural, fracture toughness in grain coarsened region of weld heat-affected ones 2−62190
steel, mild, aged, plastic behaviour 2−93559
steel, mild, strain rate, deform. paths, plastic flow 2−57408
steel, sized, Bauschinger effect in alternating plastic deform., elec. contact method and hardness meas. 2−57427
steel, temper rolling metallurgical and mech. phenomena *(French)* 2−93545
steel, V, continuously cooled, strengthening contrib. at peak hardening from precip. 2−72710
steel, V, mech. props. rel. to $\gamma \rightarrow \alpha$ transform. kinetics 2−83112
steel plates loaded by uniaxial in-plane compression, evaluation of elastic-plastic analyses 2−91265
steel stainless, dense powder metallurgical, prod. methods and mech. props. 2−99371
steels, ferritic stainless, improvements of irradiation embrittlement 2−67506
styrene-butadiene biblock copolymer solns. in selective solvents, rheological and morphological behaviour 2−75914
tube, cylindrical, thick-walled, under press. non-homogeneity effect on yield stress 2−70844
WC-Co alloys microscopic behaviour in deformation, anal. using finite elements *(Japanese)* 2−77882
Zircaloy-2, oxygen embrittlement on long-term exposure to fission product oxides 2−69707
Al alloy, instability and failure of internally pressurized ductile metal cylinders 2−99526
Al alloys, dispersion hardened composites, fabrication and wear props. 2−57363
Al alloys 7075, acoustic emission and inclusion fracture 2−62298
Al, deformed, elec. resistivity recovery during isochronous annealing, kinetics *(Russian)* 2−92563
Al, Hugoniot elastic limit of 2024 specimen, impact expt. 2−93565
$Cd_xHg_{1-x}Te$, mech. props. in four-point bending, lower yield stress 2−115336
Cu, containing Al_2O_3 particles, yield point and strain hardening *(Russian)* 2−105226
Cu, pure, instability and failure of internally pressurized ductile metal cylinders 2−99526
Cu, radiation hardness, influence of neutron irrad. on yields stress 2−103846
Cu-Mn alloy, solid soln. hardened, crit. resolved shear stress, low temp. anomaly 2−93523
Cu-Ni-Cr, spinodally decomposed, high cycle fatigue 2−67472
Cu-Sn whiskers, stress-extension behavior, size and conc. depend. 2−61320
Cu-Ti, spinodally decomposed, high cycle fatigue 2−67472
Cu-Ti, strength and ductility, 4 to 70K *(Japanese)* 2−105234
Cu_3Au, ordered and disordered, containing SiO_2 particles, critical shear stress, Orowan stress 2−86778
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322
Fe-Cr (0-15 wt.%), mech. props. changes by fast neutron irradiation 2−67504
Fe-Cr(Al), mech. props., effect of fast neutron irrad. 2−103844
Fe-Si-Al, Sendust polycrystals, plastic deform. *(Japanese)* 2−57416
Fe-Si-Al, Sendust polycrystals, deformability *(Japanese)* 2−57417
Fe-Si-Al, Sendust single cryst., plastic deform. *(Japanese)* 2−57415
Fe-Ti alloy, dil., dislocation relax. peaks and solid soln. softening 2−111224
Hf, neutron irrad., dimens. stability, strength, hardness 2−80155
Mo, yield point, neutron irrad. and impurites effects, thermal activation anal. *(Russian)* 2−115333
Mo-Ti (0.3-2 wt.%), nitrided *(Japanese)* 2−83176
NaCl:Ca^{2+}, low temp. soln. hardening due to lattice distortion around impurity-vacancy pairs 2−98077
Na_2O-SiO_2 glasses, mech. props., finite element method calcs. 2−111232
Ni-based oxide dispersion strengthened alloys, crystallographic texture 2−99444
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
$Ni_3(Al,Nb)$, single crysts., tension/compression flow stress asymm. 2−67418
Pb-Au, yield stress and resist., effect of composition and thermal treatment 2−83165
Si Czochralski wafers, heat treated, brittle and ductile, fracture and yield stresses meas. 2−92091
Si, heat-treated, Czochralski grown, compression tests, dislocation study, TEM and etch pit obs. 2−60985
Ti alloy, deform. and failure in low-cycle fatigue region, severe cooling effect 2−57479
Ti-Al(-V), tensile props., influence of test temp. and microstruct. 2−111236
yield stress continued
α-β Ti-Mn alloy, fatigue crack propag., plastic zone sizes and strain partitioning 2−72835
TiC, RF floating zone grown single crystal, high temp. deform. mech. 2−105242
yielding *see plastic deformation*
yielding, serrated *see serrated yielding*
Young's modulus
alkali-halide, CC dislocation oscillatory motion, electrostatic field effect 2−71463
annular plates, polar orthotropic, natural freqs. 2−65508
aromatic copolyesters containing rigid binaphthyl units, mech. and thermal props. 2−67452
bone, cortical, US anal. of Young's modulus 2−83724
ceramic particle-PMMA composite, optimum strength 2−105280
composites, aligned short-fibre reinforced, stiffness fibre-end crack effects 2−97442
epoxy resins, linear and network, phys. ageing phenomena below glass transition 2−62161
fatigue crack growth, environmentally assisted, outline model 2−81881
femur, human, material props. and strength behaviour of compact bone tissue *(German)* 2−105710
ice, mech. props. 2−115349
internal friction and Young's modulus defects due to dislocation motion anharmonism 2−115353
isotropic bodies of cubic crystals, Young's modulus and Poisson's ratio determ. from X-ray meas. *(German)* 2−83320
MANGALIOY, elinvar type alloys, nonferromag., characts. *(Japanese)* 2−77881
minerals, Young's modulus determ. by X-ray method 2−99616
non-propagating threshold of fatigue cracks, numerical approach 2−66113
osteons, single, human, strain dependence of dynamic Young's modulus 2−62651
plate, circular, of variable modulus of elasticity, vibr. numerical calc. 2−109218
PMMA, glassy, phys. ageing effect on stress relax., correl. with Young's modulus 2−62160
PMMA, Young's modulus of craze, crit. temp. for craze growth, interferometric obs. 2−105206
polyether-polyurethane zwitterionomers, phys. props. and phase segregation 2−67451
polyethylene, cryst. polymer chemorheology and Young modulus meas. 2−111218
polyethylene, highly oriented sheets, lateral compliances and Poisson ratio 2−83149
polyethylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polymer, glassy, dynamic bulk and shear moduli and relax., meas. techniques 2−93548
polyoxymethylene whisker reinforced polymers, Young's moduli, acoustic props. 2−93547
polypropylene, rolled, mech. props. rel. to struct. 2−67377
polypropylene, thermal expansion, relationship to elasticity, Gruneisen coeff. 2−86912
polypropylene films, uni- and biaxially oriented, struct. and props. 2−86593
polystyrene, high-press. CO_2 effects on T_g and mech. props., plasticisation effect 2−115413
polyurethane acrylates, UV curable, phys. props. rel. to chem. struct. 2−86581
quartz single cryst., fracture toughness, room temp. *(Japanese)* 2−67507
rock, crack effects on elastic moduli, thermal shock role, correl. with earthquake magnitude 2−73548
sapphire single cryst., fracture toughness, room temp. *(Japanese)* 2−67507
Se-Sn-As system, chalcogenide glasses, glass transition temp., mech. and elastic props. 2−109687
soap bubble rafts, pot. and force law between different-size bubbles 2−98390
steel, low alloyed powders and compacts, hot ductility, correl. with other props. 2−88148
stress distribution due to crack determ. using dislocation layers 2−55497
surfaces, thin films and interfaces, mechanical props., mech. marginal oscillator meas. method 2−56317
thin hard coatings, effect on Hertzian stress field, finite element anal. 2−93652
viscoelastic beam, complex elastic modulus meas. by driving point impedance method, impedance head transmission function effect 2−75860
Pb-Bi alloys, temp. dependence 2−72747
Al-Li-Mg, Mg effect on Young's modulus 2−57391
Al_2O_3, effects of Cr_2O_3 additions on sintering and mech. props. 2−99375
Al_2O_3, sintered, variable microstruct., strength meas. *(French)* 2−88154
B amorphous film, internal stress, Young's modulus and thermal expansion meas. 2−82187
C fibre reinforced Al-Si, TiC barrier coating effect on reaction between components 2−99373
C fibre reinforced phenol resin composites, Young's modulus, repeated heat cycles effect 2−83154
C fibre reinforced plastics, Young's modulus, heating temp. depend. 2−77866
$CdGeAs_2$, chalcopyrite, elastic behaviour, US wave vel. study 2−61052
Co-Si-B with and without group IV-VIII transition metals, amorphous wire prod. by melt spinning into rotating water, mech. props. 2−105104
Cu, single cryst., low temp. peak, deform. and annealing effect 2−88127
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322
Fe foil, stress meas. using slip initiation 2−72792
Fe-Ni Invar alloys, Young modulus anomaly, alloying effect *(Russian)* 2−77857
Fe-Ni-Ti, phys. props., reverse martensitic transform. effect *(Russian)* 2−67334
$Fe_{40}Ni_{40}B_{20}$, metallic glass, short-range ordering during structural relax. 2−71359
GeTe, elastic props., room temp. 2−81872
Li_2O-P_2O_5 glass fibres, mech. props. and struct. aspects rel. to drawing process 2−93608
MgF_2 films, vacuum deposited, Young's modulus, internal stress and internal friction meas. 2−82185
Mn ferrite crystal, Young's modulus and internal stresses, mag. field effects 2−56909

Young's modulus continued
$(Mn_{1-x}Fe_x)_{0.95}Cu_{0.05}$, γ-phase, damping capacity and Young's modulus 2−57394
$Mn_{1-x}Ni_x$, γ-phase, damping capacity and Young's modulus 2−57394
Mo, electropulse compacted, porosity influence on elastic moduli 2−111223
Na_2O-B_2O_3 phase-separated glasses, fracture toughness to Young's modulus relationship 2−93609
Nb(C,N), fracture props., Young's modulus, Hertzian indentation testing 2−62216
NbC, fracture props., Young's modulus, Hertzian indentation testing 2−62216
NbN, fracture props., Young's modulus, Hertzian indentation testing 2−62216
Ni-Mn (5 wt.%), interaction of slip bands and grain boundaries 2−99494
PbO-B_2O_3 phase-separated glasses, fracture toughness to Young's modulus relationship 2−93609
$PbZr_{1-x}Ti_xO_3$-polyvinylidene fluoride composite, piezoelec. and dielec. const. and Young's modulus meas. 2−93119
SiO_x, stress-strain curves and internal stresses, bulge and tensile tests 2−82190
TaS_3, elastic anomalies at CDW transition 2−76564
Ti, textured, Young modulus anisotropy *(Russian)* 2−77858
Ti-Al based alloys, precipitation of metastable phases, X-ray diffr. and mech. props. meas. *(Russian)* 2−77825
Ti-Al-V (6,4 wt.%), deform. modes of α-phase as function of O conc. and ageing 2−77889
W, electropulse compacted, porosity influence on elastic moduli 2−111223

ytterbium
see also nuclei with .....
4f levels, surface effects, UPS study 2−98706
amorphous film, crystn. under gaseous He stream, T≤4.2K *(Russian)* 2−115586
atom, gamma ray incoherent scatt. at 662 keV 2−80543
atom, photoionisation cross section meas. from excited states rel. to laser isotope separation 2−64939
atom, tensor polarisability determ. by quantum beat spectroscopy 2−59744
atomic vapour, laser optical pumping with vel. changing collisions 2−59762
binding energies of 4f electrons in metallic rare-earth materials 2−56462
growth and perfection of single crystals 2−76349
piezoresistive gauges, calibration eqns. 2−69152
relativistic 2p excitation energy calcs. 2−115686
Rydberg states calc. using model pot. method 2−64891
thin film, avalanche crystallisation *(Russian)* 2−61131
$BaFe_{12}O_{19}$:Yb, dopant effects on mag. props. 2−92968
CdF_2:Er, Yb, energy transfer, reson. effects 2−72549
Er, Yb:glass, $Er^{3+4}I_{13/2}$ level population inversion charact. 2−55171
GaP:Yb epitaxial films, photoluminesc., effect of γ-irrad. 2−93267
$HfSiO_4$:Yb^{3+}, EPR study 2−72341
InP:Yb, impurity electron state, ESR, photoluminescence and mag. susceptibility study 2−104307
Y_2O_3:Yb^{3+}, energy levels, cryst. field anal., fluoresc. and IR study 2−72534
Yb^+, ionisation energies, polarisability, transition probability, one-electron spectrum anal. 2−80519
^{168}Yb, isotope shift meas. by selective laser mass spectroscopy 2−108427
^{169}Yb phytate radiopharmaceutical for liver scintigraphy 2−117085
ZnO:Cu,Yb, phosphors, photo- and electro-luminesc. studies 2−110909
ZnS_xCdS_{1-x}:Yb, phosphor, visible image formation from IR radiation 2−77563
ZrO_2-Y_2O_3:Yb crystals, Yb implanted yttria stabilised, O vacancies, channelling study 2−109867
$ZrSiO_4$:Yb^{3+}, EPR study 2−72341

ytterbium alloys
binding energies of 4f electrons in metallic rare-earth materials 2−56462
intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
ternary alloys, behaviour of molar volumes 2−86893
valence fluctuation systems, systematics 2−56498
AuYb dilute monocrysts., magnetostriction, ion-lattice coupling parameters 2−92985
$(Eu_{1-x}Yb_x)_{80}Au_{20}$, amorphous, elec. field gradient at S-state ion, Mossbauer study 2−104761
$Eu_{60}Yb_{20}Au_{20}$, amorphous, Mossbauer study 2−82757
$KbAl_3$, mixed valence cpd., anomalous NMR shifts 2−56958
$KbCu_2Si_2$, mixed valence cpd., optical absorpt. signature near 20 meV 2−57111
$Y(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
Yb-Au, surface segregation study using surface shifted core levels 2−105047
Yb-H, phase boundaries at 295K, film resist. study 2−86880
$YbAl_2$ mixed valence cpd., elastic props. 2−56067
$YbAl_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2−104319
YbCuAl, mixed valence cpd., anomalous NMR shifts 2−56958
$YbCu_2Si_2$, mixed-valence cpd., paramag. neutron spectra meas. 2−104577
$YbCu_2Si_2$, valence fluctuation and Cu NQR temp. depend. 2−56512
$Yb_{1-x}Eu_x$, mag. interactions, Mossbauer, magnetisation and resist. meas. 2−72382
Yb_xIr_3, cryst. struct. 2−55887
$YbNi_{1-x}Cu_x$, mixed valence states, cryst. struct. and transformations, X-ray study 2−104319
$Yb_{1-x}R_xAl_3$, (R=Nd, Eu, Gd, Dy, Er) exchange and electron spin-lattice relax., ESR study 2−82712

ytterbium compounds
see also ytterbium alloys
intermediate valence cpds., X-ray L_{III} absorption edge 2−57213
BaF_2-ThF_4-ZnF_2-YbF_3, glasses, stabilization and IR transmission, DTA study 2−97929
Ca-Yb-O, bivalent Yb form. 2−111468
$Eu_xYb_{1-x}(NH_3)_6$, dilute alloys, EPR spectra, Eu^{2+} hyperfine struct. 2−104684
$K_3Yb(NH_2)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2−98022
$KYb(PO_3)_4$, monoclinic struct. with anion chain struct. 2−65947
$Rb_3Yb(NH_2)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2−98022
$Sm_{1-x}Yb_xB_6$, valence instabilities and elec. props. 2−56595

ytterbium compounds continued
$SrYb_2F_8$, disordered, luminescence, nonlinear excitation delocalisation *(Russian)* 2−72545
$Sr_{1-x}Yb_xF_{2+x}$, defect parameters ionic cond. study 2−115453
$(Yb,Y)_3Fe_5O_{12}$, epitaxial bubble film, rare earth segregation 2−72633
$YbAlB_4$, mixed valence cpd., elec. resist., mag. susceptibility, sp. ht. 2−56517
$Yb(AlMn)O_4$, cryst. struct. 2−60945
$YbAsO_4$, mag. ordering, ^{170}Yb Mossbauer meas. 2−99006
$YbCl_3$ gas phase, UVPES 2−85739
$Yb_2Cu_2O_5$, cryst. struct. data 2−81757
YbF_3-BaF_2-MnF_2, glass form., quenching, IR study *(French)* 2−91808
$YbFe_2O_{4\pm\delta}$, hexagonal cpd., magnetisation 2−116033
$Yb(GaM^{2+})O_4$ (M=Mg, Mn, Co, Cu, Zn), cryst. struct. 2−60945
$Yb_xMo_6S_8$, mag. props. under press. 2−56911
$YbNbO_4$, cryst. struct. refinement 2−103726
Yb_2O_3, cubic, lattice and binding energies 2−60916
Yb_2O_3 film, vacuum deposited, DC elec. props. 2−92793
Yb_2O_3, grain boundaries, interface crystallography *(French)* 2−86685
Yb_2O_3, spectral and heat capacity Schottky contribs. 2−81975
Yb_2O_3 thin films, dielec. loss factor and capacitance 2−110760
Yb_2O_3 thin films, elec. cond. and permittivity in MIM struct. 2−98775
Yb_2O_3:Gd^{3+}, Stark levels, cryst. field splitting, fluoresc. study 2−66505
Yb_2O_3-Fe_2O_3-CoO (NiO)(CuO)(ZnO), phase diagrams, quenching method X-ray study 2−76639
Yb_2O_2S, α-phase, normal coordinate anal. of Raman and IR vibrs. 2−87781
YbS, bulk and surface valence states 2−104247
YbS(Se)-$GeS_2(Se_2)$ reaction and phase diagrams 2−105131
YbS(Se)-$SnS_2(Se_2)$ reaction and phase diagrams 2−105131
$Yb_3Sb_5O_{12}$, cryst. struct. and dielec. props. 2−109755
$Yb_3Sb_5O_{12}$, phase transitions, dielec., thermal expansion and second harmonic generation study 2−115406
$Yb_2(SeO_4)_3.8H_2O$, mag. susceptibilities, paramag. Curie temp., thermal and hyperfine props. 2−61691
YbTe-Sb_2Te_3, cross-section of Yb-Sb-Te system, expt. study 2−88062
$Yb_2V_2O_7$, cryst. struct., rel. to mag. props., superexchange pathways 2−91923
$Yb_2V_2O_7$, ferromagnetic behaviour, cryst. field effects 2−104591
ZrO_2-YeO_3, thermoionic cathode, Auger electron spectroscopy 2−110113

yttrium
see also nuclei with .....
atom, ground and excited atomic levels, hyperfine struct. determ. by level-crossing optogalvanic spectroscopy 2−70180
Auger MNN spectra and electron localisation 2−93334
K shell electron incoherent scatt. functions for 145 keV gamma rays 2−70209
magnetoresistance, transverse, Fermi surface topology 2−104228
nuclear spin-lattice relax., ab initio semi-relativistic ASA-SCF-LMTO linear tetrahedron calc. 2−98985
optical properties of metals, data collection 2−93138
photoelectric cross sections 2−96514
photoelectric cross-section at K edges 2−56639
sorber properties to improve ^3H sorption from liq. Li 2−85382
sorption of T from molten Li 2−80175
spectra, 40-95 Å 2−85582
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
α-Al_2O_3:Y, isoelec. donor 2−98642
$ScFe_2H_{3.4}$:Y $ScCo_2H_{3.4}$:Y, effects on sorption-desorption characteristics 2−87014
^{90}Sr-^{90}Y toxicity, haematological studies, femoral CFUs kinetics and spleen cells mitogen response 2−117017
$Th_{0.9}Y_{0.1}O_{1.95}$, X-ray irrad., luminescence study 2−67130
α-Y, fast diffusion and electrotransport of Co, Fe and Ni 2−86933
Y IV, spectrum and energy levels, 300-5000 Å 2−75210
Y^{30+}, F-like ions, $2s^22p^5$-$2s2p^6$ transitions obs. 2−102403
$Y+H^+$(^{3}He-ion), inner shell ionisation cross sections, projectile charge depend. 2−70387
$YFeO_3$, supersonic domain boundary dynamics *(Russian)* 2−82635
^{90}Y beta-rays, toxicity on inhalation of relatively insoluble fused aluminosilicate particles by mice 2−68071

yttrium alloys
see also yttrium compounds
Fecralloy surface, oxide layers nuclear reaction anal. 2−99723
$Ce_{1-x}Y_xAl_2$, demagnetization, mag. susceptibility and sp. ht. 2−56892
$Ce_{1-x}Y_xAl_2$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xPd_3$, electronic struct. of Ce 2−71933
$Ce_{1-x}Y_xPd_3$, intermediate valence and Gd^{3+} ESR 2−56927
Co-Cr-Al-Y (22, 11, 0.5 wt.%) coating, oxide form. at 700°C 2−116621
Co-Cr-Al-Y vacuum plasma sprayed coatings 2−62274
Cr-Al-Y-M (M=Co, Ti, Si, Ni, Mn, Pt, Fe), alloying additions effect 2−116451
$Dy_{2-x}Y_xFe_{17}$, mag. props. 2−115984
Fe-Ni-Cr-Al-Y alloys, high-temp. oxidation, adherence of Al_2O_3 scale 2−105367
Gd-Y, critical field anomalies and anisotropy 2−98878
Gd-Y alloys, mag. phases, temp. depend. of elastic props. 2−82564
$Gd_{65.4}Y_{34.6}$, mag. phase transitions, elec. resist., elastic const. and US attenuation study 2−116006
$Gd_xY_{1-x-y}Ce_yBe_{13}$, cond. electron lattice relax. due to Ce ion 2−72350
$Gd_xY_{1-x}Fe_3$, indirect exchange param. 2−71942
$Ho_{1-x}Y_xCo_2$, Curie temp., magnetisation and NMR, Co local environment effect 2−116071
$Ir_{0.78}Y_{0.22}$ eutectics, strain-induced softening and high-press. expts. 2−56090
$La_{1-x-y}Ce_xY_y$ system, multiple supercond. transition temps. 2−98788
Mg-Al-Y system, phase diagram, isothermal sections at 400°C 2−83091
Mg-Li-Y system, isothermal sections and mech. props. in Mg-rich region 2−111142
$Nd_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
Ni-Cr-La-Y-Al, La, Y and Al addition effects on high temp. oxidation 2−93685
$Ni_{66}Y_{33}$, amorphous, EXAFS study, struct. charcts. 2−110978
$Pr_{1-x}Y_xCo_2$, Curie temp. magnetisation and NMR, Co local environment effect 2−116071
$Tb_xY_{1-x}Co_5$, magnetocrystalline anisotropy meas. *(Russian)* 2−98872
$Th_{6-x}Y_xMn_{23}$, mag. and crystallographic charcts. 2−56854
$Tm_{0.1}Y_{0.9}Ag$, mag. props., mag. struct. and cryst. field scheme, neutron scatt. study 2−115978

yttrium alloys continued
Y-Co, amorphous, mag. props. due to 3d magnetism 2—72269
Y-Co alloy, Y_5Co_{19} phase identification by thermomag. anal. 2—77292
Y-Co amorphous powders, mech. grinding prep., struct. and mag. props. *(Russian)* 2—61742
Y-Cu-Ga system, phase form. and crystallographic charact. *(Ukrainian)* 2—83080
Y-Fe, amorphous, mag. props. due to 3d magnetism 2—72269
Y-H(D) system, solid solutions, resistivity meas., isotope effects 2—66524
Y-Ir system, supercond. transition temp., heat capacity and susceptibility meas. 2—82508
Y-Ni, amorphous, mag. props. due to 3d magnetism 2—72269
YAl, lattice dynamics, inelastic neutron scatt. meas. 2—56117
$Y(Al_{1-x}Fe_x)_{12}$, mag. and cryst. struct., magnetisation and Mossbauer spectra study 2—72150
$Y(Co,M)_5$, (M=Ni, Cu, Al, Ti, V, Cr, Mn, Fe), metastable character, decomposition behaviour, precipitation 2—67342
YCo_2, ^{59}Co Knight shift anisotropy, spin echo study 2—110668
YCo_2 powders, ferromagnet and Mossbauer props., grinding effects *(Russian)* 2—87546
YCo_5, density of states and mag. moments, appl. of CPA and continued fraction method 2—66411
Y_4Co_3, elec. resist., mag. susceptibility, and magnetisation, press. depend. 2—104590
Y_5Co_7, mag. supercond., hybrid state, resist., magnetoresistance and AC susceptibility study 2—82571
$Y(Co_{1-x}Fe_x)_2$ and $Y(Ir_{1-x}Fe_x)_2$, mag. ordering 2—98845
YCo_5H_x, NMR spin echo study 2—56972
$Y(Co_{1-x}M_x)_5$, M=Ni, Cu, Al, Ti, V, Cr, Mn, Fe, struct. and mag. props. 2—91874
$Y_2(Co_{1-x}Mn_x)_{17}$, ^{59}Co NMR, influence of easy direction of magnetisation 2—104740
$Y_2(Co_{1-x}Mn_x)_{17}$, NMR spin echo study 2—93060
$Y_2(Co_{1-x}Mn_x)_{17}$, Y transferred hyperfine fields, NMR study 2—66951
YFe_2, amorphous, melt-spinning prep., mag. props. 2—72267
YFe_2, amorphous, struct. relax., Mossbauer study 2—72383
YFe_2, amorphous, struct. ordering, neutron scatt. study 2—97923
YFe_2, amorphous and crystalline, Mossbauer study 2—110734
YFe_2, local mag. fields temp. depend., vol. expansion effects, NMR study 2—56955
$Y_{0.33}Fe_{0.67}$ amorphous spin glass, spin dynamics, inelastic neutron scatt. study 2—98892
$Y(Fe_{1-x}Co_x)_2$ crystal struct. deform., elastic props. *(Russian)* 2—92074
$Y_{1-x}Gd_xAl_2$, cryst. struct., mag., elec. and ESR props. 2—92564
YMn_2, first-order struct. phase transition, lattice parameter study *(Russian)* 2—103974
$YMn_{2-2c}Co_{2c}$, mag. order occurrence, comp. depend. 2—82646
YNi_2, heat capacity meas. 2—92916
$Y_3(Ni_{0.5}Si_{0.5})_2Si_2$, Ta_3B_4-type cryst. struct., X-ray diffr. study 2—97991
$Y_{1-x}Pr_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2—61706
$Y_xR_{1-x}Pd_3$, (R=Pr,Nd,Tb,Dy,Ho,Er,Tm), cryst. field parameters and cryst. field linewidths 2—87204
$Y_{1-x}Sm_xCo_5$, magnetisation and magnetocrystalline anisotropy meas. 2—61706

yttrium compounds
see also yttrium alloys
ceria-yttria high-density ceramics, preparation 2—88036
optical absorpt. and fluoresc. spectra, crystal field anal. 2—72525
rare earth magnetic garnet epitaxial bubble film, rare earth segregation 2—72633
$Y_{3-x-y}La_xPb_zFe_{5-y}Ga_yO_{12}$, epitaxial layers, interface anal. using SIMS 2—82171
YIG, mag. phase diagram, Faraday effect and absorption coeff. in fields up to 10 MG 2—87508
YIG ferrimagnetic double layer, magnetostatic vol. wave prop., dispersion 2—82672
YIG layer, reduction in high freq. H_2 plasma *(Russian)* 2—67738
ZrF_4-ThF_4-YF_3, glass forming area, thermal expansion and UV absorption edge *(French)* 2—115146
AlF_3-YF_3-GdF_3-CaF_2-SrF_2-BaF_2-NaF_6-$PF_6(AsF_6)$ glass, optical and thermal props. 2—115145
Al_2O_3-Y_2O_3 dispersion strengthened alloys, convergent beam diffr. anal. of dispersoids 2—99436
BaF_2-$(Y,R)F_3$ (R=rare earth) system, phase diagrams and phase struct. 2—109954
$BaTiO_3$:Y_2O_3, elec. props., phase composition, valence state of cations 2—110347
BiYIG, film, bubbles, mag. props. 2—72315
$(BiYLu)_3Fe_5O_{12}$ bubble film, mag. props., FMR study 2—72317
$CaLa_{1-x}Y_xCrO_4$ solid solns., struct. and mag. study 2—76391
$Ca_3Y_2Ge_3O_{12}$:Tb^{3+} garnet, luminescence studies 2—61952
Er^{3+}:YAG laser, water and ethanol as bleachable radiation absorbers *(Russian)* 2—108919
$(Er_{2.2}Y_{0.8})Fe_5O_{12}$, Faraday rotation anisotropy 2—72460
$(Eu,Tm,Y,Ca)_3(Fe,Ge)_5O_{12}$ thin film system, domain boundaries *(Russian)* 2—77338
$Eu_{0.53}Y_{2.45}Pb_{0.03}Fe_{3.85}Ga_{1.1}$ $4O_{12}$ epitaxial bubble film, dynamic props. 2—72319
Fe-garnet films, hard-stripe domains, investig. 2—104673
GaAs-YIG layered struct., magnetostatic surface wave amplification 2—115988
$Gd_3Fe_5O_{12}$-$Y_3Fe_5O_{12}$, system, cation interdiffusion 2—71736
$KY(MeO_4)_2$, (Me=Mo,W), Nd^{3+} and Er^{3+} ion spectra in crystal fields, Stark struct. 2—76999
$K_3Y(NH_2)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2—98022
$KY(WO_4)_2$:Ho^{3+}, 2-μm stimulated emission 2—104915
$(LaO)_2S$-$(YO)_2S$:Eu, STEM analytical and cathodolum. studies 2—72560
$LiTb_{0.9}Y_{0.1}F_4$, randomly diluted Ising dipolar-coupled ferromagnet, mag. eqn. of state 2—61730
$LiTb_{1-p}Y_pF_4$, random uniaxial dipolar ferromagnet, critical behaviour 2—92935
$LiTb_pY_{1-p}F_4$, random dipolar-coupled ferromag., mag. eqn. of state 2—104617
$LiYF_4$ and $LiY_{0.5}Tb_{0.5}F_4$, elastic consts., hydrostatic press. derivatives 2—66104
$LiYF_4$:Ho^{3+},Er^{3+}, multifreq. and cascade prod. of induced emission, delayed induced afterglow from Ho^{3+} 2—87819

yttrium compounds continued
$LiYF_4$:$Ho^{3+}(Er^{3+})$, high-efficiency deep-red lasers pumped by doubled Nd:YAG laser 2—60087
$LiYF_4$:Nd, CW laser operation, comparison with Nd:YAG 2—60086
$Li_{0.5}Y_{0.5}Zr_{0.5}S_2$:$Cr^{3+}$, NMR ionic motion studies 2—110676
$Na_2LiYSi_6O_{15}$, cryst. struct., X-ray study, block-diagonal least squares method 2—81720
Na_2O-Y_2O_3-SiO_2, glass transition temp., relation to glass comp. 2—66219
$Na_3YSi_2O_7$, cryst. struct. study 2—115202
$Na_5YSi_4O_{12}$ ceramic superionic cond., sintering prep. and characterisation 2—83056
$NaY_9(SiO_4)_6O_2$, cryst. struct., X-ray study, block-diagonal least squares method 2—81738
Ni-Cr-Al-Y_2O_3, dispersion and precip. hardened superalloy, recrystn., influence of hot working 2—111196
Ni-Cr-Al-Y_2O_3, oxide dispersion and precip. strengthened, creep and rupture 2—111299
NiO-Y_2O_3, directionally solidified eutectic, crystallography 2—109762
$Rb_3Y(NH_3)_6$, cryst. struct. and IR spectra, expt. determ. *(German)* 2—98022
ScF_3-BaF_2-YF_3, glass, phys. props. *(French)* 2—91809
ScF_3-ThF_4-YF_3, glass, phys. props. *(French)* 2—91809
Si-Y-Al-O-N glasses, microhardness and elastic moduli 2—111278
Si_3N_4:Y_2O_3, sintering behaviour and microstructural development 2—93480
Si_3N_4-Y_2O_3 (6 wt.%), density, microstruct. and strength, heating rate effects 2—116467
Si_3N_4-Y_2O_3-SiO_2, strengthening by post-fabrication heat treatment 2—83131
SiO_2-Y_2O_3-Si_3N_4, phase diagram, computer-based calc. 2—62101
$Sm_{0.75}Y_{0.25}S$, electron-phonon coupling in intermediate-valence compounds 2—56133
$Sm_{0.75}Y_{0.25}S$, intermediate valence cpd., lattice dynamics 2—56111
$Sm_{1-x}Y_xS$, mixed valent, X-ray absorption studies 2—57215
$Sm_{1-x}Y_xS$, surface core-level shift calcs. 2—104457
$Sm_xY_{1-x}S$, EXAFS theory, valence fluctuation 2—82956
ThO_2:Y_2O_3 electrochem. probes, for O_2 anal., in liquid Na reactor coolant 2—90265
$Th_{6-x}Y_xMn_{23}$ hydrides, mag. props. 2—87512
$(Tm_xY_{1-x})_2(SO_4)_3.8H_2O$, effect of dilution on mag. ordering 2—66812
$Tm_xY_{1-x}Se(S)$, single site mixed valence, PES studies 2—110308
$Tm_xY_{1-x}VO_4$:Gd^{3+}, EPR study of Jahn-Teller induced random strains 2—77368
$U_xY_{1-x}Sb$, electronic struct. and magnetism 2—66605
$(Y,Bi)_3(Fe,Ga)_5O_{12}$ film, two-layer, bistable mag. bubble domain wall dynamics 2—66880
$(Y,Eu,Tm,Ca)_3(Fe,Ge)_5O_{12}$ system films, FMR study of mag. parameters *(Russian)* 2—77385
$(Y,Nd)Al_3(BO_3)_4$, optical rotation saturation and circular dichroism 2—104843
$(Y,Sm,Lu,Ca)_3(Fe,Ge)_5O_{12}$ films, H^+ implanted, laser annealing 2—76492
YAG CW laser engineering 2—60108
YAG, computer controlled growth method *(Japanese)* 2—105055
YAG, flux grown, surface and bulk growth-induced strains 2—57280
YAG, interface shape control using IR radiation convergence type heater in F2 growth 2—93410
YAG pumped tunable dye lasers, characts. and appls., review 2—96940
YAG, single cryst., Czochralski grown, dislocations and inclusions, birefringence study *(Chinese)* 2—109709
YAG:Cr^{3+}, Czochralski grown, colour centres, optical absorption spectra study 2—91959
YAG:Er^{3+}, energy levels of Er^{3+}, absorpt. and fluoresc. spectra 2—116252
YAG:Er^{3+}, fluoresc. spectra of Er^{3+}, energy level diagram 2—67097
YAG:Fe cathodoluminesc. props., Fe ions absence effects 2—110957
YAG:Nd, absorpt. and stimulated emission cross sections, nonreciprocity due to vibronic interactions 2—82879
YAG:Nd continuously excited laser resonator acousto-optic switch *(Polish)* 2—97006
YAG:Nd crystals, Czochralski grown, defect disclosure by thermolum. 2—93289
YAG:Nd crystals, radiation colour centres rel. to growth defects, absorpt. and luminesc. obs. 2—71445
YAG:Nd garnet, fluorescence lifetimes, particle size and refractive index effects 2—67114
YAG:Nd(Ti), laser props. 2—90898
YAG:R^{3+} garnets, multiphonon nonradiative transition probability 2—110936
$YAl_3(BO_3)_4$, crystal struct. study 2—76399
$YAl_3(BO_3)_4$, optical rotation saturation and circular dichroism 2—104843
$Y_3Al_{5-x}Fe_xO_{12}$, mag. circular dichroism and IR absorption spectra of $^6A_1$-^4E transition 2—87749
$YAlO_3$:$Eu^{3+}(Pr^{3+})$, perturbed ^{27}Al photon echo ENDOR double reson. 2—104745
$YAlO_3$:Ho^{3+}, 2-μm stimulated emission 2—104915
$YAlO_3$:$Nd^{3+}(Er^{3+})(Dy^{3+})$, luminescence and cryst. field splitting 2—116239
$YAlO_3$:Pr^{3+}, two-pulse photon echo ENDOR study 2—98997
$Y_3Al_5O_{12}$, garnet, thermal expansion, optical dispersion, refractive index 2—66261
$Y_3Al_5O_{12}$:Tb single crystal, phosphor's produced by ion implantation 2—76472
YB_6, supercond., electronic struct., phonon modes, Eliashberg function, muffin tin approx. 2—66698
$Y_{1-x}B_xCoO_3$, B=Ca,Sr, Mossbauer emission study of defect 2—87631
Y_2BaCuO_5, crystal structure *(French)* 2—91914
$(YBiCa)_3(FeSi)_5O_{12}$, bubble film, growth induced anisotropy, FMR 2—72316
$Y_2BiFe_{3.8}Ga_{1.2}O_{12}$ epitaxial film, nonlinear resonance of domain walls 2—87563
$Y_{2.1}Bi_{0.9}Fe_{3.9}Ga_{1.1}O_{12}$ thin films, domain struct. near phase transition from homogeneous to domain state 2—61745
$YCl(OH)_2$, maximum degree of order polytypes, theory for inequivalent OD layers 2—97974
$YCrO_3$, elec. cond., use as anodes in high-temp. O_2 conc. cell 2—77038
$YCrO_3$, magnetoelastic props., domain struct. changes at spin reorientation transition 2—104680
$YCrO_3$-Cr, cermets, struct. and props. 2—60370
$Y_2Cu_2O_5$, cryst. struct. data 2—81757

yttrium compounds continued
$(Y_{1-x}Er_x)_3Al_5O_{12}$, garnets, 3 μm stimulated emission and spectroscopic props. 2−93229
YF_3-BaF_2-MnF_2, glass form., quenching, IR study *(French)* 2−91808
$Y_3Fe_4AlO_{12}$ single crysts., stability region and growth conditions in BaO-B_2O_3-BaF_2 solvents 2−62057
$Y_3Fe_4GaO_{12}$ single crysts., stability region and growth conditions in BaO-B_2O_3-BaF_2 solvents 2−62057
$Y_3Fe_{5-x}Ga_xO_{12}$, mag. ordering influence on lattice reflection spectra *(Russian)* 2−72467
$YFeO_3$, NMR intensity in domain walls, spin-echo method, low temp. anomalies 2−87626
$YFeO_3$ orthoferrite crystal, oblique cylindrical domains, dynamics in gradient pulsed field 2−116031
$YFeO_3$, Raman scatt. from mag. excitations 2−77528
$Y_3Fe_5O_{12}$ epitaxial garnet film, Faraday ellipticity 2−87745
Y_3Ga_5, mag. props., struct., anal. 2−66763
$Y(GaMn)O_4$, cryst. struct. 2−60945
$(YGdTm)_3(FeGa)_5O_{12}$, bubble motion, vertical Bloch line annihilation during creep 2−77343
$Y_2GeBe_2O_7$, cryst. struct., prep. and mag. susceptibility meas. 2−103719
YH_x, disorder of site occupation 2−91910
YIG, amorphous, electric field gradient sign distrib., Mossbauer study 2−82765
YIG, amorphous, Mossbauer Zeeman spectrum, linewidth asymm. 2−110736
YIG, amorphous, second order quadrupole shift in Mossbauer spectrum 2−77440
YIG, amorphous speromag., quadrupole energy shifts of ^{57}Fe Mossbauer lines 2−72386
YIG, Bloch line dynamics *(Russian)* 2−92958
YIG, domain wall mobility, initial susceptibility freq. spectra study 2−92957
YIG epitaxial film, magnetostriction const. meas. by double crystal X-ray diffr. 2−56903
YIG, FMR linewidth anisotropy origin, magnetostriction 2−77380
YIG film, ion-implanted substituted, depth-selective ^{57}Fe Mossbauer spectroscopy 2−82751
YIG film, magnetization meas. from ferrimag. resonance and antiresonance 2−66875
YIG film, magneto-optical 3 layer unidirectional TE-TM mode converter, film thickness and waveguide length effects calc. 2−55358
YIG films, oblique magnetization, volume and surface magnetostatic wave propag. 2−116040
YIG, magnetostatic and magnetoelastic waves, interaction with growth striations obs. 2−115991
YIG, microcrystalline, activation energy, synthesis by hot spray, spray dry and sol-gel methods 2−72659
YIG, microsruct. and grain size, ferromagnetic resonance and ESR study 2−115425
YIG phase containing glass ceramics, prep. and mag. characts. 2−67278
YIG, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2−77320
YIG, polycrystalline, thermal cond., 77-300K *(Russian)* 2−98358
YIG, saturation magnetisation and Curie temp. relationship meas. 2−116036
YIG, solubility and enthalpy in PbO-B_2O_3-$Fe_2O_3(Ga_2O_3)$ high temp. solvent 2−109991
YIG, spin waves, mag. props. 2−66795
YIG, spin-wave instability threshold in single crysts., meas. for oblique pumping 2−98859
YIG, visible and IR refractive index dispersion *(Chinese)* 2−110794
YIG:Bi single cryst., polar Kerr rotation spectra *(Chinese)* 2−77482
YIG:Bi thin films, waveguide type optical isolator appls., magneto-optical props. *(Japanese)* 2−81076
YIG:Ca film, mag. dichroism study of Fe^{4+} centres 2−72461
YIG:Ca(Ge)(Si) garnets, rapid diffusion processes 2−71719
YIG:Fe^{2+}, irreversible photomag. effect 2−98918
YIG:Ga, Gd film, confined stripe domain lattice, mag. domain walls normal modes obs. 2−92980
YIG:Ga-ZnO, SAW parametric amplification obs. 2−92332
YIG:Gd, Tm, Ga, He^+ implanted, mag. and cryst. props. 2−77334
YIG:La, Ga(Tm, Ca,Ge) films, Ne^+ implanted, magnetisation, FMR and X-ray study 2−98967
YIG:Pr^{4+}, cryst. growth from melt, spontaneous magnetisation and mag. anisotropy meas. 2−77273
YIG:Si, mag. domain struct., photoinduced mag. effects 2−104672
YIG:Si(Ge), magnetocrystalline anisotropy of Fe^{2+} at zero temp. 2−56848
YIG:Tm,Ca,Ge,Ne layers, ionimplanted, annealing effects on cryst. and mag. props. 2−77333
YLuBiIG epitaxial films, Bi content and growth-induced anisotropy 2−93457
Y_2MoO_6:Eu^{3+}, spectroscopic props. 2−93254
Y_2O_3, 2−110930
Y_2O_3, additive in sintering of MgO and $MgO.Al_2O_3$, effect 2−57324
Y_2O_3, melting point measurements, in solar furnace in different atms. 2−58830
Y_2O_3, N_2O adsorption, formation of O^- 2−92339
Y_2O_3 optical thin film, refractive index meas. during film deposition 2−82944
Y_2O_3 phosphor, Eu activated, chem. transport method cryst. growth, red luminesc. 2−111040
Y_2O_3, photoelectric cross sections 2−96514
Y_2O_3:Ce^{3+}(Sm^{3+})(Dy^{3+})(Yb^{3+})(Nd^{3+})(Er^{3+}), energy levels, cryst. field anal., fluoresc. and IR study 2−72534
Y_2O_3:Gd^{3+}, ESR absorption spectra, hyperfine structure 2−66911
Y_2O_3:Gd^{3+}, Stark levels, cryst. field splitting, fluoresc. study 2−66505
Y_2O_3:Nd laser oscillation props., point defect conc. effects 2−96954
Y_2O_3:Nd powders, fluorescence lifetimes, particle size and refractive index effects 2−67114
Y_2O_3-BeO, phase equilibrium study 2−66168
Y_2O_3-In_2O_3-Fe_2O_3, superhigh freq. props., Fe and In ions electron struct. influence *(Russian)* 2−66442
Y_2O_3-Nd_2O_3, solid solutions, determ. of mixing enthalpy 2−110002
Y_2O_3-SiO_2, UV laser mirror deposition and optical characteristics *(Hungarian)* 2−55213
YOBr:Eu^{3+}, cryst. field effects, fluoresc. study 2−66503
YOCl Tb^{3+}, Stark level, cryst. field anal., fluoresc. study 2−66504
YOCl:Eu^{3+}, cryst. field parameters, overlap model 2−82298
Y_2O_2S film, RF sputtered, luminescent, high purity deposition 2−93423
yttrium compounds continued
Y_2O_2S, hot pressing, accretive recrystallisation 2−77785
Y_2O_2S phosphor, carrier migration, cathodoluminesc. study 2−116272
Y_2O_2S:Tb^{3+}, X-ray phosphor prep., luminesc. props. 2−67096
YPO_4:Pr^{3+} (Nd^{3+}), IR spectra, Zeeman effect and fluoresc. obs. 2−72522
$Y(Rh_{1-x}Ru_x)_4B_4$, supercond. crit. temp., comp. depend., role of B 2−87439
YRhSi, cryst. struct. and mag. props. 2−55946
$Y_2Ru_2O_7$, IR spectra and elec. cond. 2−110835
YS, electron-phonon coupling in intermediate-valence compounds 2−56133
δ-YS_x (x=1.491, 1.497), heat capacity, 0.3 to 20K 2−56209
$(YSmCa)_3(FeGe)_5O_{12}$ epitaxial film, cylindrical mag. domain behavior in ion implantation advancement channel 2−77347
$(YSm)_3(FeGa)_5O_{12}$ epitaxial films, bubble domain parameters, effect of easy magnetisation axis tilt *(Russian)* 2−104669
$Y_{3-x}Sm_xFe_5O_{12}$, exchange interaction and mag. anisotropy 2−72187
$Y_{2.6}Sm_{0.4}Ga_{1.1}Fe_{3.9}O_{12}$ epitaxial bubble garnet film, mag. props. 2−87561
$(YSmLuCa)_3(FeGe)_5O_{12}$ films, ion implanted, cubic anisotropy meas. 2−77340
$(YSmLuCa)_3(GeFe)_5O_{12}$-metal interface, mag. parameters, bubble memories 2−72318
YSmLuCaGeIG:Ne(H), ion implanted bubble garnet film, mag. and cryst. props. 2−82644
$YTaO_4$, cryst. struct. study 2−98038
$(YTmBi)_3(FeGa)_5O_{12}$ (110) garnet film with orthorhombic anisotropy, replication of bubble states 2−72312
$Y_2Tr_2O_7$, IR spectra and elec. cond. 2−110835
ZrO_2-Al_2O_3-Y_2O_3, solid electrolyte, phase equilib. 2−111160
ZrO_2-Y_2O_3, partially stabilised, anal. using STEM 2−77827
ZrO_2-Y_2O_3, sputter deposited, microstruct. control 2−115619
ZrO_2-Y_2O_3 (8 wt.%), polycrystalline, annealing effect on elec. cond. 2−76734
ZrO_2-Y_2O_3 ceramics, high-purity, effect of grain boundaries on cond. 2−71712
ZrO_2-Y_2O_3 ceramics, rare earth oxide stabilised, elec. conducting, for MHD generator electrodes 2−88043
ZrO_2-Y_2O_3 single crystal, room temp. strength and fracture 2−111274
ZrO_2-Y_2O_3 solid soln., O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2−116096
ZrO_2-Y_2O_3:Yb crystals, Yb implanted yttria stabilised, O vacancies, channelling study 2−109867
ZrO_2-Y_2O_3-Bi_2O_3, Bi_2O_3 effect on elec. and mech. props. 2−67265
ZrO_2-Y_2O_3-Nd_2O_3, ceramic, thermal aging rel. to struct. and electrophysical props. 2−111208
$(ZrO_2)_{0.88}$-$(Y_2O_3)_{0.12}$, d.c. and a.c. elec. props. 2−104376

Yukawa potential *see meson field theory; nuclear forces*

Z-centres
KBr:Eu, with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KCl:Ca(Sr)(Eu), with Z-centres, narrowband IR luminesc. and absorpt. spectra obs. 2−116245
KCl:Eu^{2+}, γ-irrad., optical, EPR, and ITC meas. 2−109831
KCl:Eu^{2+}, impurity-vacancy complexes, conversion under γ-irrad. and F-band bleaching, ESR study 2−76499
LiF TLD-100 phosphor, sensitisation and supralinearity, Z-centres and nonluminescent centres role, expt. study 2−99197
LiF:Mg, Ti, thermoluminesc., Z-centre model 2−57195
NaCl:Sm, thermolum. and optical absorption studies of Zi centres 2−72568
NaF:Ca^{2+}, γ-ray irrad., colour centres and interstitials, luminesc. spectra 2−110960
RbBr:Mg^+, optical absorption, thermolum. and emission studies 2−61986
ZnSe:Al, IR absorption and defects 2−87823

Z pinch *see pinch effect*

Zeeman effect
see also atomic spectra; Hanle effect; spectral line breadth
Γ_3 doublet system, cubic, mag. resonance, nuclear interactions in mag. field 2−93026
amorphous materials, effect of EFG sign on ^{57}Fe Mossbauer spectra 2−99007
anthracene/tetracyanobenzene, charge transfer cryst., ODMR and EPR spectra calc., triplet excition coherent motion effects 2−56445
atom, two-photon-induced spin-orbit transitions 2−64924
atom+diatomic mol. collision, rotational energy transfer, m_j selection rule 2−70403
atomic absorption instrumentation 2−78165
atomic spectra, M_1-E_1 interf. effects in crossed mag. and elec. fields 2−70179
atoms, modulated Hanle signals in partially coherent fields 2−70199
atoms, Zeeman coherence relax., reson. radiation capture effects 2−90474
benzene molecules, reorienting, proton spin-lattice relax. 2−61784
chlorin photoisomer, in n-hexane, S_1←S_0 transition, Zeeman effect, photochem. hole-burning obs. 2−80697
chlorocarbene metastable states, high-resolution laser spectroscopy 2−75335
condensed media, localised electron states energy spectra *(Russian)* 2−110278
2,6-dimethyl-3-nitroaniline, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
diphenylmethylene, mixed crystals, in benzophenone, Zeeman spectra, triplet-triplet absorpt., mag. field effects 2−87743
disordered two-dimens. systems, density of states, mag. field effect 2−82198
ferromagnetic film, dipolar surface spin waves 2−66873
glycyl-L-alanine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
glycylglycine, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
Group IIB halide mol. complexes, struct. NQR obs. 2−85696
magnetic 4π goniometer for Zeeman-split NQR 2−80657
methoxy radical, Jahn-Teller energy surface, spin-orbit splitting and Zeeman effect, perturbation theory 2−75198
methyl silane, ground vibronic state, Stark and Zeeman effects, mol. beam mag. reson. 2−85697
methylglyoxal-d_4, first electronically allowed transition, fluoresc. excitation and quantum beat spectra 2−102522
molecular cryst., triplet exciton coherent motion, model calc. 2−56445

Zeeman effect continued
molecular doublet-doublet transitions in high field-low field limit 2−85716
molecular pairs, triplet excitons, nonresonant coherent motion, EPR props., Zeeman effect 2−82696
molecular system, Zeeman degenerate, saturated double reson. line shapes 2−108594
MOS, positive magnetoresist. due to mag. field parallel to surface 2−61600
NQR, Zeeman effect, pulsed spectrometer appl. spin. echo envelope shape 2−93055
optical resonances with subnatural linewidths, prod. mechanism 2−64931
optically thin gas-filled cell, double RF-optical reson. eqns. 2−102421
paramagnetic gas kinematic coeffs. depend. on mag. field, resonance struct. *(Russian)* 2−71056
paramagnets, double gamma reson. study 2−116104
pyrazine, jet-cooled, picosecond excitation, fluoresc. decay and quantum beats, mag. field effects 2−90601
resonance medium, EM noise charact. filtering under collision, radiation trapping conditions 2−90851
ruby:Cr^{3+} effect of ^{27}Al nuclei on hypersound intensification *(Russian)* 2−77422
ruby, multiple resonant combination scatt. with spin flip and trapping of phonons *(Russian)* 2−92129
semimagnetic semiconductors, acceptor states in mag. field 2−98582
solar flare, 1981 July 26, Zeeman splitting of Fe I lines rel. to flare mag. transients *(Russian)* 2−112417
trimethylimidazole, CP-MAS ^{13}C NMR spectra, ^{14}N quadrupole effects 2−102504
two-level atom, mag. reson. signal in rapid freq. scanning conditions 2−70171
white dwarfs, magnetic, influence of magneto-optical effects on Zeeman triplets 2−112443
$Al_2O_3:Cr^{3+}$, multiple reson. spin-phonon Raman scatt. by acoustic phonons in mag. field 2−116198
Ar II, beam foil excitation, Zeeman quantum beats, cascade effects 2−54937
$AsCl_3$, single cryst., asymmetry parameters Zeeman NQR study 2−110713
Ba, lifetime perturbations in Rydberg sequences, Zeeman effect and hyperfine struct. meas. 2−59722
$^{137}Ba^+$, ground-state hyperfine splitting precision determ. by ion-storage technique 2−65106
CF, rot., Zeeman hyperfine struct., laser mag. reson. obs. 2−90584
$Cd_{1-x}Mn_xTe$, Zeeman effect of mag. excitations, Raman scatt. study 2−67048
n-CdS, field-induced exchange stiffness and dispersion, spin-flip Raman spectra 2−93194
CdS, two-photon magnetospectroscopy of A-exciton states 2−104260
CdS(Se):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
CdTe, magnetoluminescence, electron and hole g-factors, Zeeman effect 2−99193
$Co_xFe_{3-x}O_4$, ^{57}Fe Mossbauer study 2−77428
$Co_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
Cr^{3+} pairs, interacting mag. ions, D_{3h} symmetry 2−98874
$Cs_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$Cs_2NaHoCl_6$, enhanced nucl. spin antiferromag. ordering 2−104589
$Cs_2NpO_2Cl_4$, cryst., electronic struct., charge transfer transitions 2−82853
$CsNpO_2(NO_3)_3$, cryst., electronic struct., charge transfer transitions 2−82853
Cu^{2+}, compounds Cl NMR, elec. quadrupole interactions *(Japanese)* 2−70294
Fe, effective Lande factor of mag. effective line 2−73941
GaAs, far IR magneto-absorption, Zeeman effect, cyclotron resonance 2−99099
GaAs, photoexcited electron system, far IR magnetoabsorpt. and cyclotron reson. study 2−87744
GaP:Cu, photoluminescence, excitons 2−116249
GaP:Ni, charge state of Ni^{2+}, piezoabsorpt. and Zeeman meas. 2−99087
Ge, IR study of indirect exciton Zeeman effect 2−67053
Ge:As, donor ground state, diamag. and Zeeman shifts, four-wave mixing spectroscopy 2−99096
H, induced transitions, role of damping and T invariance 2−64911
H, quadratic Zeeman effect symmetry on Fock hypersphere 2−90476
H, Rydberg series, quadratic Zeeman effect, Sturmian functions appl. 2−80534
H, Zeeman effect 2−80533
H_3BNH_3, ^{11}B, ^{10}B and ^{14}N nucl. quadrupole double reson. 2−80669
He, muonic, hyperfine struct interval and Zeeman effect 2−70452
He, Zeeman splitting of 5876 Å line 2−70184
^3He, superfluid B, collective modes, in weak mag. field, Fermi liquid corrections 2−82058
$IrBr_6^{2-}$, Zeeman levels, mag. optical activity-reson. Raman spectra 2−85668
K+He(Ne)(Kr), excited states, transition cross sections, fluoresc. obs. 2−75408
$K_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$KCu(CN)_2$, coordination bonds, spin-lattice relax., NQR study 2−110712
$(K_2\gamma)_{0.78}[(NH_4)_2]_{0.22}SnCl_6$, NH_4^+ librational tunnelling, Zeeman relax. NMR study 2−87611
$LiH_3(SeO_3)_2:Cu^{2+}$, EPR spectra, g and A matrices, Q tensor 2−82709
$LiYF_4:Er^{3+}$, spin-lattice relax. anisotropy, ESR study 2−72343
$LuPO_4:Pr^{3+}(Nd^{3+})$, IR spectra, Zeeman effect and fluoresc. obs. 2−72522
$MgO:Cr^{3+}$, nonradiative transitions and energy levels 2−72548
N, metastble ^2P state, EPR spectrum 2−64901
Na atom, Pachen-Back effect of D-lines under high mag. field 2−80531
Na coherence effects in resonant four-wave mixing spectroscopy 2−59745
Na, laser deceleration and velocity bunching 2−54825
$NaClO_3$ single cryst., Zeeman-split NQR using mag. 4π goniometer 2−80657
NaI, resonance Raman scatt. induced by F-centres, electron-phonon coupling 2−87788
Ne, $2p^5nd$ configs., Zeeman patterns, level crossings and splittings 2−75336
$Ni_xMn_{3-x-y}Fe_yO_4$, solid solns., Zeeman spectra, Mossbauer study 2−61792
$NpO_2Cl_4^{2-}$, electronic struct., f-f transitions, spectrosc. obs. 2−82852
$NpO_2(NO_3)_3^-$, electronic struct., f-f transitions, spectrosc. obs. 2−82852

Zeeman effect continued
OH radical, microwave-microwave double reson. in presence of collisions, reson. and nonreson. pumping *(French)* 2−54885
$^{16}O^-$, trapped negative ions, Zeeman reson. spectroscopy 2−64913
PCl_3, single cryst., asymmetry parameters Zeeman NQR study 2−110713
β-PdH_x, electronic hyperfine coupling, PMR study 2−72371
Pt, conduction electron g-factor anisotropy, de Haas-van Alphen effect meas. 2−92445
$Rb_3Cr_2Cl_9(Br_9)$, optical absorpt. and Zeeman study 2−98871
$^{32}S^-$, trapped negative ions, Zeeman reson. spectroscopy 2−64913
$SbCl_3$ complexes, with organic donors, coordination state, NQR study 2−75318
$SbCl_3$-aramatic hydrocarbon complexes, single crysts., isotope and Zeeman effects, NQR study 2−77413
Se_2, $B^3\Sigma_u^-$ state, Lande factors and perturbations, pulsed dye-laser studies 2−75462
n-Si, magnetoelectric effect, spin dependent electrical polarisabilities 2−82375
Si:Cu, luminescence, excitons and impurity states 2−104946
SiC:Al,N(Ti), luminescence, cross relax. optical detection 2−99180
$SnCl_2.xH_2O$, x=1.5 and 2, ^{35}Cl NQR spectra, Zeeman effect, PMR 2−61787
YIG, amorphous, electric field gradient sign distrib., Mossbauer study 2−82765
YIG, amorphous, Mossbauer Zeeman spectrum, linewidth asymm. 2−110736
YIG, amorphous, second order quadrupole shift in Mossbauer spectrum 2−77440
YIG, amorphous speromag., quadrupole energy shifts of ^{57}Fe Mossbauer lines 2−72386
$YPO_4:Pr^{3+}$ (Nd^{3+}), IR spectra, Zeeman effect and fluoresc. obs. 2−72522
^{89}Y, ground and excited atomic levels, hyperfine struct. determ. by level-crossing optogalvanic spectroscopy 2−70180
ZnO(S):Ni^{2+}, optical spectra, isotope splitting const. 2−57163
ZnS:Mn^{2+}, hexagonal and cubic, Zeeman effects on ^4E-levels 2−115720
ZnSe:Mn^{2+}, Zeeman splitting of $^4T_1$, $^4T_2$, and ^4E states, luminesc. study 2−57063
ZnTe:P, Li, magnetoluminescence, electron and hole g-factors, Zeeman effect 2−99193

Zener breakdown *see Zener effect*

Zener diodes
No entries

Zener effect
see also Zener diodes
No entries

Zener relaxation
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
Ag-Zn, irradiated, Zener relax. of point defects 2−56082

zero-gap semiconductors *see narrow band gap semiconductors*

zero gravity experiments
aligned columnar microstructure, preferential growth in reduced gravity 2−62117
Biorack project, European contribution to space biology 2−117098
bubble migration inside a liq. drop in a space laboratory 2−57312
chlorotrifluoromethane gas/liq. crit. points, holographic interferometry 2−98251
drop, thermocapillary and buoyant flow in space laboratory 2−76779
human adaptation to simulated zero g 2−105843
immiscible liquid oscills. in free space or spherical containers in zero gravity environment 2−110090
interferometry and holography in a low-gravity environment, materials processing in space expts. 2−70515
materials science and engineering in space 2−57313
materials science in space, microgravity research 2−57278
self-gravity acceleration and space-time flattening 2−101297
Spacelab payload for materials science expts. 2−116346

zero sound
see also liquid helium sound propagation
fermion systems, acoustic plasma modes 2−110071
^3He, acoustic attenuation in first and zero sound regions 2−76761
^3He, liquid, strong zero sound excitation *(Russian)* 2−82056
^3He, liquid, zero sound damping, density response function, Green's function method 2−66316
^3He, normal liq., thermal boundary resist. with small particles 2−82062

zeros *see poles and zeros*

zeta-potential *see electrokinetic effects*

zinc
see also nuclei with .....
absorption and dispersion study of 4s4p ^3P-4p^2 ^3P multiplet 2−85598
air pollution in Germany, deposition and emission sources *(German)* 2−78825
Arctic Ocean, Zn, Cd, Cu, Al vertical profile obs. 2−62997
atom, elastic electron scatt. cross section, resonances obs. 2−108710
atom, electron impact excitation, decay of autoionised state, postcollisional interaction effect 2−54966
atom, near threshold double photoionisation 2−85602
atom, relaxed orbital binding energy calcs. 2−80833
atomic spectrum, isotope shifts and hyperfine struct. 2−113916
atoms, slow electron impact excitation special features 2−80825
bicrystal dislocation struct., compressibility anisotropy influence 2−103768
corrosion in acidic media, inhibiting action of benzene thiols 2−57514
corrosion inhibition in $CoCl_2$, Mossbauer study 2−111365
creep rate, pulse current freq. and external mech. stresses effects *(Russian)* 2−77875
crystal, tensile stress-strain relations, constitutive relations calcs. 2−67407
determination in air (Tehran) by neutron activation anal. 2−78162
determination in waste water by radionuclide X-ray fluoresc. anal. 2−78164
diffusion in AlAs-GaAs superlattice, along layers 2−56253
diffusion in GaAs, open-tube method 2−104060
diffusion in III-V semiconductors, open tube method 2−92278
diffusion profiles meas. in ion implanted GaAs 2−92285
dislocation block boundaries, two-layer *(Russian)* 2−98093
electric quadrupole interaction, Mossbauer study, freq. modulation technique 2−93084
electrical resist. anisotropy meas. 2−98617

zinc continued
electrodeposited, incoherent nucleation and dislocation struct. 2−109952
electrodeposited on surface with modified dispersed phase substrate, micro-distrib. of electrodeposit *(Russian)* 2−67627
electrodes, packed-bed, in galvanic cells 2−62467
electron drag and phonon drag on mobile dislocations distinction using mag. field influence 2−109809
electron emission during elastoplastic deform. *(Russian)* 2−57276
electron irrad., electroplastic effect 2−115339
electron-plastic effect, in irradiated crysts. *(Russian)* 2−61038
film, laser-photodeposited, optically induced microstructures, TEM and SEM obs. 2−98486
HCP, static lattice Green function, force model dependence and asymptotic props. 2−109934
impression creep and dislocation controlled plastic flow, high temp. study 2−88147
interaction cross section with low energy neutrons 2−59446
interstellar Zn, abundances determ. from IUE obs. 2−63555
liquid, mag. susceptibility calcs. 2−98843
liquid, structure factors, pseudopotential and WCA method 2−65844
Magela Creek, N.Territory, Australia, natural trace metal concs. 2−88930
magnetothermoelectric power and magnetic-breakthrough orbits, oscillations obs. *(Russian)* 2−98627
materials with Z_2=23-30, electronic stopping cross section for 30-300 keV protons 2−66086
miniature Ag/Zn batteries, construction and mass production technology 2−116791
molten, liquid metal embrittlement of steel, stress conc. effect *(Japanese)* 2−77922
morphological stability, of vapour grown single crystals 2−115170
North Sea, trace metal concs. 2−78699
oral Zn absorption, simple blood sample method 2−68114
phonon dispersion calc. 2−61088
phonon spectra and cryst. struct. 2−115370
plastic deform., supercond. transition effect *(Russian)* 2−116503
pollution of Denmark coastal waters by heavy metals 2−78698
polymer coating adhesion applied as hot melt, test temp. effect 2−67637
positron annihilation Doppler broadening profile anisotropy 2−72576
protons in Be, Al, Ti, V, Fe, Co, Ni, Cu, Zn, Mo, Rh, Ag, Sn, Ta, Pt, Au, stopping power meas. 2−64820
range profiles of ^{3}He and ^{6}Li ions 2−66089
sputtering, atomic excitations, optical spectrometry study 2−77689
thermal diffusivity determ. of solid materials near melting point 2−115394
thermoelectric behaviour of metal powders depending on press. *(German)* 2−77024
thin film, prep. by photodissociation of organometallic gases 2−83036
thin films, optical props. 2−67137
twin boundary mobility, basal forest dislocation density effect, theory *(Russian)* 2−61000
vapour, dimerisation in supersonic carrier gas 2−65122
vapour, resonantly enhanced SHG 1601 and 1792.5 Å 2−60159
$Al_xGa_{1-x}As$:Zn, acceptor states, photoluminesc. study 2−104931
Be target, Ar^+ ion sputtering, at. excitation 2−75372
$CuInTe_2$:Zn, elec. props., hole mobility and conc., annealing effects 2−87279
GaAS:Zn, polycrystalline, scanning cathodolum. microscopy 2−71313
GaAlAs:Zn, variable gap semicond., photon transport of carriers, photoluminescence study 2−116256
$Ga_{1-x}Al_xAs$:Zn, MOCVD grown, elec. props. of Zn 2−98774
$Ga_{1-x}Al_xAs$:Zn, metalorganic CVD film, elec. cond. 2−56733
GaAs:^{64}Zn, ion channelling, electronic stopping power, SIMS study 2−103867
GaAs:Zn, Cd, hot photoluminescence spectrum and polarisation 2−82894
GaAs:Zn, doping by vapour phase epitaxy, carrier Hall mobility *(French)* 2−98129
GaAs:Zn, F- and C-centres, vibr. props., Green's function calc. 2−86811
GaAs:Zn, implanted, pulsed ruby laser annealing, SIMS and elec. obs. 2−56023
GaAs:Zn, ion implanted, depth distrib., annealing, SIMS and Rutherford backscattering obs. 2−56000
GaAs:Zn, ion implanted, laser annealing, expt. study 2−61024
p-$Ga_{0.47}In_{0.53}As$:Zn-SiO_2 MIS struct., interface states and field effects meas. 2−98758
GaP:Zn, density, plastic deform. effects, defect struct. 2−71545
GaP:Zn, O, photoinduced Zn, O dissociation, photoluminescence 2−87859
GaP:Zn,O, IR upconversion obs., IR quantum counter appl. 2−70605
Ge:Zn, deep impurity states, energy levels and majority carrier capture cross sections 2−71900
GeO_2:Zn, X-irrad., hole centre ESR study 2−87592
He-Zn ion lasers with transverse RF discharge excitation 2−86002
He-Zn laser, hollow cathode, with an additional command electrode 2−114248
He-Zn lasers, noise, influence of the Penning process 2−114242
InGaAsP:Zn, acceptor impurities, photoluminescence study 2−99189
InGaAsP-InP DH 1.3 μm laser, doping effects exam. by SEM and V-I characts. *(Chinese)* 2−90885
$In_{1-x}Ga_xAs_{1-y}P_y$:Zn junction laser, SEM EBIC study 2−102821
$In_{1-x}Ga_xP$:Zn, epitaxial film, photo-, electro- and cathodoluminescence involving deep levels 2−116258
$In_{1-x}Ga_xP$:Zn, photoluminesc., $0.6<x<1.0$ 2−57148
$InGaPAs_{0.01}$:Zn LPE layer on GaAs, doping effect on physical, elec. and optical props. 2−110501
InP:Be, Zn, Cr, Se, doping profiles, SIMS anal. 2−103806
InP:Zn epitaxial layers, shallow acceptor excited states, luminesc. study 2−57156
InSb:Zn, deep levels in band gap, photocond. study 2−115706
p-InSe:Zn, annealing behaviour, photoluminesc. study 2−92276
Ni/Zn batteries, vibrating Zn electrodes, mass transfer enhancement 2−88421
Ni-Zn alkaline battery electrodes, temp. limitations 2−88423
Ni-Zn traction battery, operational characts. during traction applications *(Russian)* 2−116799
Pb-Zn-Pb junction, Josephson supercurrent oscill. temp. depend. 2−82544
Pb-Zn-Pb superconductor-normal-superconductor junction, self-field effects 2−110540
PbO_2-Zn battery performance characts., comparison with conventional Pb-acid cell 2−78202
Si:Zn, Cr(Fe)(Mn)(V), donor-acceptor complexes, DLTS and TSC meas. *(German)* 2−98579
zinc continued
Si:Zn,Co, epitaxial layers, doping laws and electrophysical props. 2−66025
Si:Zn junction, pot. distrib. *(Russian)* 2−92734
Si:Zn layers, ion implantation, damage annealing 2−103798
Si:Zn surface, nonuniform depletion relax., expt. study *(Russian)* 2−115849
Zn (II), self-diffusion in agar gel 2−61223
Zn II CW laser transitions at 4911.6, 4924.0, 6102.5 and 7588.5 Å, electron beam excitation of He-Zn mixture 2−85939
Zn ions, Born-approx. electron ionisation cross section, oscillator strengths, proton stopping power calc. 2−96644
Zn solid/Zn-In(Bi)(Sn)(Pb) liquid, equilib. struct. transitions of solid-liq. interface 2−93487
Zn V, $3d^8$-$3d^74p$ transitions, UV spectra 2−70172
Zn:Al, single cryst., steady-state creep rates, Al doping effect 2−88150
Zn/Ni ratio meas. in cosmic radiation using Lexan polycarbonate track detector 2−68580
$Zn+H^+$, K-shell X-ray prod. cross section meas. in energy range 300-2400 keV 2−90492
Zn+Se(S), mechanochem. reaction, positron annihilation study 2−105446

zinc alloys
see also brass; zinc compounds
rare earth alloys, RInZn, lattice parameters and struct. characts., X-ray diffr. study 2−91876
Ag-Zn, internally oxidised, containing various alloying additions, elec. contact charact. 2−83248
α-Ag-Zn, irrad., vacancy and self-diffusion mobility, Zener relax. study 2−56244
Ag-Zn, irradiated, Zener relax. of point defects 2−56082
Ag-Zn(-Au), disordering temp. changes under action of γ-irrad. *(Russian)* 2−61123
$Ag_{48}Zn_{50}Au_2(Cu_2)$, order-disorder transform., metallographic, resistivity, microanal. and X-ray obs. 2−111171
Al-Ca-Zn superplastic alloy matrix-metallic glass composite, fabrication feasibility using vac. hot pressing 2−99372
Al-Cu-Mg-Zn, acoustic emission during static deform. 2−72777
Al-Cu-Mg-Zn-Cr powder, effect of compression by high omnidirectional pressure on struct. and props. 2−72654
Al-Mg-Zn, 7070, crack closure and crack propag. rates 2−56076
Al-Mg-Zn-Cu, 7075-T7351, localised corrosion, environmental factors 2−67640
Al-Zn, ageing, microcalorimetric studies 2−99458
Al-Zn, irradiation induced solubility decrease and precipitation 2−71655
Al-Zn, NMR and diamag. susceptibility meas. *(Russian)* 2−93020
Al-Zn, strain localisation under tension 2−111246
Al-Zn, thermal cycling influence on alloying elements soln. 2−72738
Al-Zn (11 wt.%), long range internal back stresses, new evaluation technique 2−105220
Al-Zn (15 and 25 wt.%), intercryst. precipitation *(French)* 2−116448
Al-Zn (15-25 wt.%), grain boundary migration mechanism *(French)* 2−86684
Al-Zn (38 wt.%), morphological features of discontinuous reactions 2−67344
Al-Zn (4 wt.%), GP zones, ageing and reversion, elec. resist. meas. *(Japanese)* 2−83143
Al-Zn (4-12 wt.%), ingot, unidirectionally solidified from bottom, seeded by single crysts., struct. 2−99418
Al-Zn (45 wt.%), corrosion protection coating, SIMs study 2−93683
Al-Zn (49 at.%), positron lifetime and γ-line Doppler broadening studies 2−87896
Al-Zn (6.8 wt.%) single crysts., dechannelling of fast ions by spherical GP zones 2−86762
Al-Zn (9.5 at.%), high temp. creep mechanism and dissolution process, expt. study 2−88146
Al-Zn (9.87 at.%), defect struct., vacancy migration, effect of H_2O in annealing atmosphere 2−76451
Al-Zn alloys, cellular decomp. 2−83120
Al-Zn alloys, precip. sequence, X-ray scatt. and electron microscopy study *(French)* 2−116442
Al-Zn composite material, prep. and treatment optimum conditions *(Russian)* 2−67257
Al-Zn-Cu, electron diffr. determ. of soft directions in cryst. lattice at premartensite stage 2−60925
Al-Zn-Mg, aged at 20, 80 and 120°C, decomp., quench conditions influence *(French)* 2−72743
Al-Zn-Mg, decomp. kinetics, effect of small Mg additions 2−99388
Al-Zn-Mg, fatigue crack behaviour at low stress intensities 2−62191
Al-Zn-Mg, high tensile strength, environmental fatigue strength and fracture *(Japanese)* 2−93612
Al-Zn-Mg, isothermal ageing, O-180°C, after direct quench, mech. props. and microstruct. 2−93536
Al-Zn-Mg, microhardness with technical impurities, development during two-step ageing treatment 2−93537
Al-Zn-Mg, slatiness of fracture after rolling 2−111303
Al-Zn-Mg, stress corrosion cracking susceptibility, effect of thickness of tartaric acid-anodised film 2−67604
Al-Zn-Mg, stress corrosion behavior of weldments, effect of heat input rate and postweld heat treatment *(Korean)* 2−67633
Al-Zn-Mg, struct. and strength after duplex ageing 2−72727
Al-Zn-Mg (4.5, 1 wt.%), extruded rod, anisotropic yield rel. to age hardening *(German)* 2−111191
Al-Zn-Mg alloys, influence of alloying additions (Cr, Cu and Li) on thermal oxidation 2−105359
Al-Zn-Mg granules, resist to deform. 2−116412
Al-Zn-Mg-Cu, high-strength, powder metallurgical, props. and heat treatment 2−72740
Al-Zn-Mg-Cu, near threshold fatigue crack growth rates, effect of purity and dispersoid type 2−72840
Al-Zn-Mg-Cu, precip., DSC study 2−99430
Al-Zn-Mg-Cu, recrystallised grain size, effect of heating rate 2−57371
Al-Zn-Mg-Cu, superplastic alloy, cavitation, influence of hydrostatic press. and multiaxial straining 2−116494
Al-Zn-Mg-Cu (6.2, 2.5, 1.7 wt.%), fatigue crack growth, micromechanisms 2−105273
Al-Zn-Mg-Cu alloy V95, fatigue crack kinetics, influence of water and its inhibiting 2−88282
Al-Zn-Mg-Cu alloys, fractography of long-transverse SCC 2−77977
Al-Zn-Mg-Cu-Cr, 7XXX series alloys, influence of microstruct. and strength on fracture 2−111293

zinc alloys continued
Au-Ag-Pd-Cu-Zn, dental white gold alloy, age hardening, X-ray, SEM and TEM study 2−67359
Au-Zn, incommensurate two-dimens. antiphase struct., HVEM study 2−97995
Au-Zn dilute alloys, low-temp. specific heat calcs. 2−61165
Au_3Zn, H phase, out of step period 2−71658
Au_3Zn, high resolution images by high-voltage electron microscopy 2−81636
Ba-Zn alloys, liq. 2−72670
Cd-Zn eutectic alloys, etch pit generation, chemical, electrolytic and ion beam methods 2−88252
$Cd_{1-x}Zn_x$, elastic consts., temp. depend., compressibility, Debye temp., US meas. 2−99468
Cu-Al-Zn, β-type alloy, internal friction amplitude dependence meas. *(Russian)* 2−99469
Cu-Al-Zu, damping capacity, quenching and Zn addition effects 2−116441
Cu-Ni Zn system, ternary diffusion paths prediction 2−104082
Cu-Zn, dil. alloy, electrical resist. anisotropy meas. 2−98617
α-Cu-Zn, electronic struct., piezorefl. study 2−57052
Cu-Zn, grain boundary migration, diffusion-induced morphology 2−109811
Cu-Zn, interdiffusion, ultrasound influence *(Russian)* 2−66302
α-Cu-Zn, oxidation, low temp., XPs ESCA study 2−111352
β-Cu-Zn, quenched, elec. resist. and hardness recovery on annealing 2−92568
Cu-Zn (0.9-8 at.%), intrinsic diffusion coeffs. and vacancy flow factor 2−98350
Cu-Zn Al, martensitic, rapid solidification effects 2−111175
Cu-Zn alloys, grain boundary migration, diffusion-induced 2−81794
Cu-Zn-Al, diffusivity of Zn, effects of Al 2−61193
Cu-Zn-Al, martensite structures for various quenching conditions 2−93510
β-Cu-Zn-Al, ordered, martensitic phases, premartensitic states and struct. *(Russian)* 2−62123
Cu-Zn-Al, shape memory alloys, ageing effects 2−77852
Cu-Zn-Al, shape memory alloys, review 2−88143
Cu-Zn-Al, thermoelastic martensitic transform., nucleation, localised soft mode model 2−99427
Cu-Zn-Al (32.23, 1.84 wt.%), martensitic transform. and shape memory effect *(Chinese)* 2−62122
Cu-Zn-Al quenched alloys, martensitic structs., electron diffr. study 2−62124
Cu-Zn-Al shape memory alloy, rapid solidification and assoc. effects 2−67322
β-Cu-Zn-Sn (33.8, 3.1 wt.%), pseudoelastic polycryst., fatigue 2−67517
Cu_5NiZn, ordering alloy, mech. props. 2−105216
CuZnAl, martensitic, high resolution electron microscopy of boundaries 2−71473
ErZn, magnetisation, magnetostriction and paramag. susceptibility 2−104676
Fe-Zn, electrodeposition, pulse current characts. influence on comp. *(Russian)* 2−67228
Fe-Zn, grain boundary migration, diffusion-induced, morphology 2−109811
Gd-Zn, charge transfer and isomer shift, ^{155}Gd Mossbauer spectra 2−104777
$La_{0.78}Zn_{0.22}$, amorphous supercond., anomalous heat relax. 2−98801
Li-Zn, impurity solubility, dislocation and deformation effects, ESR study *(Russian)* 2−103996
Mg-Zn, amorphous, electron transport props., comp. depend. 2−104339
Mg-Zn-Cd, wrought MA15, cyclic crack resist. of metal and weld joint 2−99556
Mg-Zn-Gd, amorphous, elec. resist., mag. interference effect 2−82312
$Mg_{0.7}Zn_{0.3}$ metallic glass, nearly free electron energy bands, pseudopot. formalsm 2−71855
$Mg_{70}Zn_{30}$, amorphous, crystn., positron annihilation, X-ray diffr. and elec. resist. study 2−103635
Mn-Zn ferroferrites, loss relationships, response to mag. disturbance 2−82627
Mn-Zn ferrous ferrites, raw material and process condition effects on props. 2−83059
Ni-Zn, thermodynamic data 2−111145
$Ni_3Zn_6Ga_4$, crystal struct., phase diagram meas. 2−109749
Pb-Cd-Zn ternary system, microstructures of eutectic and near-eutectic specimens 2−111162
Sb-Zn, amorphous, form. and crystn. 2−76322
TmZn, polarised neutron study, mag. prop. 2−72157
Zn solid/Zn-In(Bi)(Sn)(Pb) liquid, equilib. struct. transitions of solid-liq. interface 2−93487
Zn-Al, casting, mech. props. 2−62113
Zn-Al, steady state creep near eutectoid transformation, microstructural anal. 2−77868
Zn-Al (1.1 wt.%), superplastic, ageing influence of deform. behaviour *(Czech)* 2−67438
Zn-Al (22 wt.%), comparison of constant strain rate and creep testing procedures 2−99617
Zn-Al (22 wt.%), eutectoid decomp. kinetics *(German)* 2−67287
Zn-Al (22 wt.%), eutectoid, thermomech. treatment effect on superplasticity 2−105195
Zn-Al (22 wt.%), superplastic, stress-strain rate curve at low strain rates 2−57429
Zn-Al (22 wt.%), superplastic eutectoid alloy, mech. props. 2−83181
Zn-Al (22 wt.%), superplastic, low-strain-rate Region I controversy 2−105260
Zn-Al (2.2 wt.%), superplastic, strain and strain-rate dependent props. under biaxial stresses 2−105266
Zn-Al alloys, thermal cycling effect across eutectoid transformation temp. on superplasticity 2−67440
Zn-Al eutectic, superplastic, fracture behaviour *(Japanese)* 2−57460
Zn-Al eutectoid, microstructural aspects of superplasticity 2−83182
Zn-Al eutectoid, superplastic, fracture strain and strain rate sensitivity *(Japanese)* 2−57459
Zn-Al eutectoid, superplastic, cavitation, effect of grain size 2−111231
Zn-Bi, molten, surface tension, rel. to thermodynamic enthalpy and activities, eqns. 2−61260
Zn-Bi alloys, molten, density and surface tension 2−61259
Zn-Cd, creep rate, pulse current freq. and external mech. stresses effects *(Russian)* 2−77875
Zn-Cr, dilute, cryst. field effect on magnetisation 2−82660
zinc alloys continued
Zn-Cu, peritectic cooling curves interpret. 2−105118
Zn-Fe, delta phase stability meas. 2−111144
Zn-Mn, dilute, cryst. field effect on magnetisation 2−82660
Zn-Sb, liq. alloys, elec. resist. in cpd. forming conc. range 2−115724
Zn-Sb system, crystallisation characts., metastable states, phase diagrams X-ray diffr. study 2−81935
ZnMn, dilute mag. alloy, spin glass behaviour 2−92937
ZnMn, hexagonal, spin glass behaviour 2−66861

zinc compounds
see also zinc alloys
acetate, dynamic nuclear polarisation by the cooling of tunnelling methyl groups 2−93064
bis(tetradecylammonium) zinc chloride, phase transitions, room temp. to 438K, thermal, dielec., and optical meas. 2−56176
chalcogenides, mechanochemical synthesis, explosions *(German)* 2−62053
coal hydrocracking, using molten salts as catalysts 2−73051
conductor-insulator-semiconductor organic solar cells, development, features and characts. 2−83499
excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
phthalocyanine, bulk trapping states, ohmic and SCL currents meas. 2−98662
phthalocyanine films, photocurrent generation, elec. field and temp. depend. 2−61512
stearate, solid lubricant, effect on pressing behaviour of atomised Fe powder 2−67245
sulphides, IR matrix isolation spectra 2−75284
thermochemical H_2 cycles utilising $ZnSO_4$ decomposition 2−73160
ZnSe:Li, p-type cond. 2−115925
ZnSe, lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnTe-CdS thin film photovoltaic cells, optical and elec. props. meas. 2−116824
$2n(ClO_4)_2.6H_2O$, bending mode, hypochromic effect, IR study 2−99114
BaF_2-ThF_4-ZnF_2-YbF_3, glasses, stabilization and IR transmission, DTA study 2−97929
$BaZnGeO_4$, cryst. struct. of room temp. phase 2−65937
Bi_2O_3-ZnO, melt, solubility of Pt 2−71652
(Ca,Zn)S phosphors, phosphorescence decay, trapping levels, luminescence processes 2−61942
CaO-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
CdO-ZnO-P_2O_5 glasses, elec. conduction at high elec. fields, Poole-Frenkel effect 2−56599
CdS-ZnS, electroabsorption spectra, effective masses 2−77491
CdS-ZnS(ZnSe)(ZnTe), acoustoelectric domains, Brillouin scatt. 2−82408
CdSe-ZnS, phase diagram, DTA and X-ray phase anal. 2−72676
CdSe-ZnSe-CdS, fusibility diagrams calc. 2−86843
$(CdTe)_{1-x}$-$(ZnSe)_x$ powders, photoacoustic spectroscopy meas. 2−92464
$Cd_{3-x}Zn_xAs_2$, Shubnikov de Haas oscills. 2−92673
$Cd_{1-x}Zn_xS$ films, electron bombardment evaporation, visible absorpt. spectra meas. 2−72572
$Cd_{1-x}Zn_xS$ films evaporated by electron bombardment, struct. study 2−71834
$Cd_{1-x}Zn_xS$ mixed crystal photoconductive films for electrophotographic recording *(German)* 2−87342
$Cd_{1-y}ZnS$-Cu_xS thin film solar cell with improved ternary cpd. layer 2−116821
$Cd_yZn_{1-y}S$ chemically sprayed thin films for solar cells, carrier density depend. on Zn conc. 2−115928
$Co_xZn_{1-x}Fe_2O_4$, Mossbauer spectra, isomer shifts, quadrupole coupling consts. and effective mag. fields calc. 2−82755
Cr_xTe_y-$Zn_xCd_{1-x}S$ heterojunction photoelectronic convertors with improved parameters 2−116807
CuII/ZnII bis-(diethyl-dithiocarbamate), ^{13}C ENDOR study 2−77418
CuO-ZnO-Al_2O_3 system, reduction process, rel. to catalysts for methanol synthesis 2−83373
Cu_2S/(Cd,Zn)S solar cells, fabrication and characterisation, SEM study 2−73122
$Cu_xS/Cd_{1-y}Zn_yS$/CdS evaporated back-wall bifilm solar cells, growth and conversion efficiency meas. 2−105563
$Cu_xZn_{1-x}Fe_2O_4$, spinel ferrites, iono-covalent bonding, X-ray diffr. and absorption chemical shift study 2−65919
$Cu_xZn_{1-x}Fe_2O_4$ system, Curie temp., cation distrib., magnetisation 2−56851
$Cu_xZn_{1-x}Fe_2O_\delta$ system, elec. resistivity and Curie transition 2−87256
$(Fe_{1-x}^{3+}Zn_x^{2+}Fe_x^{3+})O_4^{2-}$ ferrites, thermopower-composition depend. 2−61499
$Fe_xMn_{1-x}F_2$, random anisotropic antiferromag., crit. behaviour, mag. birefringence study 2−77295
FeZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
$Fe_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., field induced 'exchange-flips' 2−66811
$Fe_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
$Fe_xZn_{1-x}Fe_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
GaAs-ZnSe heterostructure, photosensitivity spectra and luminesc. 2−92691
GeO_2-ZnO-K_2O glass cladding for 940 cm^{-1} CO_2 laser transmitting hollow-core fibre waveguide 2−102946
$Hg_{1-x}Cd_xTe$, conductivity-type conversion, annealing effects 2−87272
$Hg_{1-x}Cd_xTe$, disordered, band struct., CPA calc. 2−87138
K_2O-ZnO-B_2O_3 glass, microhardness 2−105335
K_2SO_4-Na_2SO_4-$ZnSO_4$ glass, struct., X-ray diffr. study 2−97933
K_2SO_4-$ZnSO_4$:$Cu^{2+}(Mn^{2+})$, glass, dopant site symmetry, ESR study 2−98947
K_2ZnCl_4, high temp. phase transitions, lattice consts., X-ray diffr. study 2−92186
$K_2Zn(SO_4)_2.6H_2O$, IR and Raman spectra, phonon modes 2−87787
$Li_{0.2}Zn_{0.6}Fe_{2.2}O_4$, mag. ordering at low temp. 2−66770
$Li_{0.5-x/2}Zn_xFe_{2.5-x/2}O_4$ ferrite, magnetisation curves 2−72274
$Mg_xZn_{1-x}Fe_2O_4$, Mossbauer spectra, isomer shifts, quadrupole coupling consts. and effective mag. fields calc. 2−82755
Mn-Zn ferrite single crystal, plastic deform. *(Japanese)* 2−67435
Mn-Zn ferrite synthesis from Na_2O-B_2O_3 flux under CO-CO_2 ambients 2−72612

zinc compounds continued
Mn-Zn spinel ferrites, prep. by wet chemical method, Mossbauer study 2−56990
MnZn ferrite, monocrystalline 2−87530
MnZn ferrite, temp. and time stability 2−82694
MnZn ferrites, humidity and resistivity 2−87276
MnZn ferrites, hydrostatic press. effect on both sides of thermal spectra secondary peak 2−87570
$Mn_{0.65}Zn_{0.35}F_2$, diluted antiferromag., random-field effects, NMR study 2−66942
$Mn_{0.957}Zn_{0.043}F_2$, mag. phase diagram meas., random fields effects 2−72196
$Mn_{1-x}Zn_xF_2$, heat capacity meas. for x<0.1 2−72210
$Mn_xZn_{1-x}F_2$, dil. Ising antiferromag., crit. behaviour, random field effects 2−66854
$Mn_xZn_{1-x}F_2$, dilute anisotropic antiferromag., random field effects on crit. region 2−87511
$Mn_xZn_{1-x}F_2$, randomly diluted antiferromag., nuclear relaxation study 2−77401
$Mn_{1-x}Zn_xFe_2O_4$ ferrite, exchange interactions and canted-collinear struct. transition temp. calc. 2−110575
$Mn_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
$(Mn_{1-x}Zn_x)_3(PO_4)_2$, cryst. struct. and homogeneity ranges, X-ray diffr. study 2−115195
$Mn_xZn_{1-x}Te$, disordered, mag-correlations, neutron diffr. study 2−66758
$(NH_4)_2ZnBr_4$, ferroelectric phase transition, NQR study 2−104821
Na_2O-SiO_2-ZnO melt, viscosity and elec. cond. *(Japanese)* 2−76721
Na_2O-ZnO-B_2O_3-SiO_2 glasses, chem. durability, effect of Zn^{2+} adsorption 2−93648
$1.67[(Na_2O)_x(K_2O)_{1-x}].1.33ZnO.10.34Ga_2O_3$, mixed alkali effect, cond. minimum 2−61200
Na_2SO_4-K_2SO_4-$ZnSO_4$, glass, reorientation, IR band-shape anal. 2−67065
$Na_2Zn_3[Fe(CN)_6]_2.xH_2O$, cryst. struct., X-ray diffr. study 2−81719
Ni-Zn ferrite, extraordinary Hall effect and carrier scatt 2−82383
Ni-Zn ferrite fillers for elastic magnetic materials 2−72658
Ni-Zn ferrite/$Pb(Zr,Ti)O_3$ ceramic composite, dynamic magnetoelectric effect 2−116049
NiZn ferrite, Cu^{2+} substituted, Jahn-Teller effect on ground states 2−66502
NiZn ferrite, Villari effect depend. on magnetocrystalline props. and magnetostriction 2−87567
NiZn ferrites containing Co, magnetostriction meas. 2−87568
NiZn ferrites physical and technological effects of V_2O_5 or Bi_2O_3 on props. 2−88041
$Ni_{0.3}Zn_{0.7}Fe_2O_4$, dielectric spectrum, radio and optical freq. 2−99019
$Ni_{0.3}Zn_{0.7}Fe_2O_4$:Ti^{4+}, magnetisation and cryst. struct. study 2−77274
$(Ni_{0.4}Zn_{0.6})Fe_2O_4$ ferrite, switching and surface line emission spectrum obs. under pulse voltage 2−115831
$Ni_{0.5}Zn_{0.5}Fe_2O_4$, polycryst., magnetisation, bulged wall Globus model, friction and energy terms calc. 2−77320
$Ni_{1-x}Zn_xFe_2O_4$, spinel ferrite, charge transfer transitions in Dember photoEMF 2−110401
PbF_2-GaF_2-ZnF_2:Er^{3+}, fluoride glasses, optical transition probabilities, Judd-Ofelt method 2−61960
PbO-ZnO-B_2O_3, critical load for median crack initiation in Vickers indentation 2−111279
PbO-ZnO-B_2O_3 glass, relation of K_{Ic} to median crack indentation load in Vickers indentation *(Japanese)* 2−67508
Rb_2ZnBr incommensurate struct., Raman spectra, superspace selection rules 2−61909
Rb_2ZnBr_4, phase transition, thermodynamic props. 2−71635
$Rb_2ZnBr_4(Cl_4)$, superstructure selection rules 2−103739
Rb_2ZnCl_4, elastic behaviour, temp. depend., commensurate-incommensurate transition, Brillouin spectra study 2−61053
Rb_2ZnCl_4, ferroelectrics, incommensurate phase Raman scatt. 2−116197
Rb_2ZnCl_4, incommensurate state, elastic stiffness const. temp. depend., Brillouin scatt. 2−115360
Rb_2ZnCl_4, intermediate phase, average structure, X-ray determ. 2−98007
Si-$Zn_xCd_{1-x}S$ heterojunction solar cell, elec. props. 2−115875
SiO_2-Na_2O-CaO-ZnO glass, microindentation hardness 2−93582
SnO_x-ZnS(A)-Cu_xS-ZnS(A)-Al, A=Ag,Mn,Sm, thin film struct., electrolum., cathodolum. and photolum. meas. 2−87871
ThF_4/ZnS coated Si and SiO_2 substrates, small-scale laser induced damage obs. and morphology 2−81819
Tl_2Te-Zn(Cd)Te, phase equilibria, degree of dissociation 2−72678
Yb_2O_3-Fe_2O_3-ZnO, phase diagrams, quenching method X-ray study 2−76639
Zn (II) complex, 5-benzythio-1,2,4-triazole, IR obs. 2−113991
Zn complex, 2-amino- and 2-ethylamino-1,3,4-thiadiazole complexes, IR and Raman obs. 2−54848
Zn II complex, $Zn(4\text{-cyanopyridine N-oxide})_2(NCS)_2$, struct., vibr., mag. moments, IR study 2−77518
Zn-Sn-Se phase diagram and electronic props., LPE 2−116428
$ZnAl_2S_4$, thiospinel, thermodynamic props. 2−86906
$ZnBr_2$-methanol-(LiBr), solvation, heat of mixing determ. 2−66238
$Zn_xCd_{1-x}S/Cu_2S$ single crystal photovoltaic solar cell preparation and performance characts. 2−78222
$(Zn_xCd_{1-x})_3P_2$ solid soln., electronic struct., X-ray emission spectra and XPS study 2−110986
ZnCdS:Mn^{2+}, electrolum. and photolum. props. 2−57184
$Zn_{1-x}Cd_xS$, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
$Zn_{1-x}Cd_xS$:Ag phosphor layer on SiO_2 and Zn_2SiO_4:Mn particles 2−110952
$Zn_{1-x}Cd_xS$:Cu, Al cathodoluminescent phosphor, saturation obs. at high current density 2−116273
$Zn_xCd_{1-x}S$, localised exciton states *(Russian)* 2−82243
$Zn_xCd_{1-x}S$-Cu_2S single crystal photovoltaic cell, optimum performance 2−116822
$Zn_xCd_{1-x}S$-Cu_2S structure., Cd and Zn cross diffusion, AES, ESCA and atomic absorpt. spectra study 2−66299
ZnCl conc. aq. soln., NMR of H_2O and H^+ spin-lattice relax. 2−110674
$ZnCl_2$ aq. solns. and melts, vibr. dynamics, Raman scatt. study 2−57085
$ZnCl_2$ battery electrolytes, transference numbers of Zn ion species 2−88418
$ZnCl_2$ solutions in D_2O, local order and dynamics, small angle neutron scatt. study 2−55828
$ZnCl_2$:Co^{2+}, glass, absorption spectra of Co^{2+} meas. at solid-liquid transformation 2−104924

zinc compounds continued
$ZnCl_2L_2$ tetrahedral complexes, interligand effects, vibr. spectrosc. obs. 2−90517
$Zn(ClO_4)_2.6H_2O$:Mn^{2+}, EPR study of phase transition 2−81946
$Zn_{0.85}Co_{0.15}Fe_2O_4$, mag. struct., neutron diffr. and Mossbauer study 2−66775
$ZnCr_{2x}Al_{2-2x}S_4$, dil. insulating system, mag. phase diagram 2−110591
$ZnCr_xFe_{2-x}O_4$ spinels, cation atom distrib., channelling effect in electron induced X-ray emission 2−81742
$ZnCr_2S_4$, thiospinel, thermodynamic props. 2−86906
$ZnCr_2Se_4$ spinel, reflectance spectra, band struct. 2−87811
$Zn_{1-x}Cu_xCr_2S_4$, solid soln. with spinel struct., X-ray investigation 2−62107
$Zn_xCu_{1-x}Fe_2O_4$, ferrite, mag. ordering 2−66819
ZnFOH cryst., ^{19}F nuclei mag. shielding 2−92549
ZnF_2−BaF_2−$DyF_3(HoF_3)$, spin glasses, AC susceptibility, local anisotropy 2−92876
$ZnF_2.4H_2O$ cryst., ^{19}F nuclei mag. shielding 2−92549
$ZnFe_2O_4$, bonding, EXAFS study 2−99226
$ZnFe_2O_4$, IR transmission and reflection spectra 2−57074
$(ZnFe_2O_4)_x(\gamma Fe_2O_3)_{1-x}$, hematite precipitation, kinetic study by elec. cond. *(French)* 2−92201
$ZnGeP_2$, intrinsic defect effect on elec. props. 2−61481
$ZnGeP_2$ nonlinear cryst. refractive index, temp. depend. 2−61856
$ZnGeP_2$, press. depend. of pseudodirect gaps 2−87141
$ZnGeP_2$:Mn^{2+}, ESR spectrum 2−82708
Zn(II) complex, 2-aminobenzothiazole zinc, conductometric, IR and Raman study 2−110867
$ZnIn_2S_4$, electron trap distrib., elec. cond. meas. 2−92520
$ZnMn_2O_4$, cation distribution, X-ray diffr. study 2−60958
$Zn(NH_4)_2(SO_4)_2.6H_2O$, crystal growth from aq. soln., mag. field effect 2−109711
$Zn(NO_3)_2$, aq. soln., Raman spectra using high temp. high press. furnace technique 2−89820
$ZnNb_2O_6$ single crystals, flux growth, X-ray diffr. obs. of columbite struct. 2−99313
$(Zn)_x(Ni)_{1-x}Fe_2O_4$, Mossbauer spectra, mag. props. 2−77439
ZnO (000$\bar{1}$) surfaces, chem. etched, topography study 2−98401
ZnO, adsorpt. of HD, config. effects, IR spectrosc. obs. 2−61886
ZnO, adsorption of CO_2, effect on surface acidity, IR study 2−82131
ZnO, adsorption of H_2 and D_2, coverage induced IR freq. shifts 2−115539
ZnO, clean and adatom treated surface props. 2−110115
ZnO, coadsorption of CO and H_2, vibr., IR study 2−115540
ZnO, diode-sputtered films, surface acoustic waves 2−104132
ZnO, dye sensitized, donor-acceptor complex formation, photocurrent meas. *(Japanese)* 2−61507
ZnO, effective core pot. calcs., pseudopotential method 2−64861
ZnO, exciton refl. spectra, influence of ion implantation 2−67082
ZnO, excitons and polaritons in mag. field, theory and two-photon Raman scatt. study 2−104258
ZnO, excitons exhibiting spatial dispersion, refl. and transmission spectra, additional boundary conditions 2−57122
ZnO film, c-axis orientation, energetic atom bombardment influence 2−98476
ZnO film, electronic props., defects, morphology and adsorp. depend. 2−104515
ZnO, film, obtained by oxidation of ZnSe, for US transducers 2−86194
ZnO film, preferred orientation controlled by RF sputtering 2−61314
ZnO film, RF sputtered, cryst. orientation, X-ray diffr. and RHEED study 2−57286
ZnO film, reactive planar magnetron sputtered, pressure and angle of incidence effects 2−56393
ZnO films, reactive magnetron sputtering prep., transition from insulating to highly cond. state 2−83022
ZnO films, substrate biased RF sputtering of semicond. and insulating films 2−111071
ZnO, green cathodolum. and ESR spectra 2−116275
ZnO, heavily doped, band gap narrowing, optical transmission study 2−104250
ZnO, light scattering spectrum, thermal noise *(Russian)* 2−82872
ZnO, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnO on SiO_2 substrate, RF sputtering, TEM anal. 2−56410
ZnO, photoelectric cross sections 2−96514
ZnO, piezoelectric films, high rate deposition using magnetron sputtering 2−93421
ZnO, piezoelectric films, low temp. growth by RF reactive planar magnetron sputtering, transducer appl. 2−93422
ZnO piezoelectric films formed by RF reactive ion plating, SAW device appl. 2−93446
ZnO piezoelectric thin films, for SAW appls. 2−97338
ZnO piezoelectric thin films, for SAW devices 2−97339
ZnO, RF, sputtered film, heat treatment effects on elec. and optical props. 2−72087
ZnO RF sputtered films, carrier conc. of function of surface acceptor state density, gas sensor appl. 2−98772
ZnO, refl. spectrum, additional boundary conditions, linear response theory 2−77548
ZnO single cryst., Ar ion bombarded, electron energy loss spectroscopy 2−116310
ZnO, single cryst., piezoelec. semicond., hydrothermal growth and charact. 2−77723
ZnO soln. growth using Te as solvent 2−93398
ZnO, solubility in ZnSe, grown from melt 2−86702
ZnO sputtered films, energy anal. of high-energy neutral atoms 2−87927
ZnO, sputtered thin films, correlation between film quality and photoluminescence 2−87842
ZnO surface, laser irradiated, neutral particle emission induced by high density electronic excitation 2−77629
ZnO, surface, two-dimens. plasmon spectra, low energy EELS study 2−61544
ZnO, surface (10$\bar{1}$0), localized and delocalized charge transfer during adsorpt. 2−110425
ZnO, surface exciton polariton, attenuated total refl. meas. 2−115666
ZnO surfaces, decomp. of ethanol and acetaldehyde, thermal desorption and surface cond. meas. 2−105508
ZnO surfaces, ideal and relaxed, electronic struct. 2−56660
ZnO surfaces, Madelung pots., effect on photoemission spectra and work functions 2−66342
ZnO, thermodesorpt. of atomic O 2−67768

zinc compounds continued
ZnO thick- and thin-film SAW devices 2−75816
ZnO thin film, c-axis orientation and surface morphology, sputtering gas press. influence *(Japanese)* 2−92402
ZnO thin films, bias sputtered, electrical and optical props. 2−104395
ZnO thin films, RF sputtered, charact. by X-ray diffr. and SEM 2−115618
ZnO, valence band struct. *(Chinese)* 2−92451
ZnO varistor, influence of SiO_2 inclusions 2−66241
ZnO varistor ceramics, thermal cond., intergranular phase and void effects 2−71744
ZnO:Co nonstoichiometric single cryst., growth and elec. props. 2−77051
ZnO:CoO, enhancement of elec. cond. by doping 2−98643
ZnO:Cu, deep Cu centre, lattice distortion effects, SCF-LCAO cluster calc. 2−104297
ZnO:Cu,Yb(Tm), phosphors, photo- and electro-luminesc. studies 2−110909
ZnO:In, ODMR and ENDOR study 2−82748
ZnO:In(Ga), ESR and ODMR obs. of shallow donors 2−116061
ZnO:Ni^{2+}, optical spectra, isotope splitting const. 2−57163
ZnO-$Al_2O_3(SiO_2)(TiO_2)$, struct. and chem. comp. of transition region 2−76851
ZnO-B_2O_3-Li_2O-H_2O system, crystallisation, characterisation by X-ray diffr. 2−103962
ZnO-based green phosphor, mechanism of formation in presence of ZnS 2−111508
ZnO-Bi_2O_3-CoO-MnO-Sb_2O_3, ceramic, influence of comp. on dielectric losses 2−87660
ZnO-containing glass, X-ray microprobe analysis, limits of resolution and detectability, energy dispersive system 2−88393
ZnO-$CuInSe_2$ thin film solar cell, spray pyrolysis prep. 2−105566
ZnO-merocyanine-dye thin film photovoltaic cells, prep. and spectral response, electron diffr. study 2−83478
ZnO-metal contacts props. 2−61588
ZnO-PVK photoreceptor, dye sensitisation for electrophotography 2−84729
ZnO-polymer, photoreceptors, photosensitivity, photocurrent kinetics 2−61509
ZnO+CO=Zn(gas)+CO_2, reaction free energy 2−53708
$Zn(OH)_2$, behaviour in high vac. of XPS spectrometer 2−99739
ZnO.Al_2O_3, gahnite, behaviour of Cr^{3+} and Fe^{3+} ions 2−98296
β-ZnP_2, galvanoanisotropic effects, quasi-Hall effect 2−77095
α-ZnP_2, lattice dynamics, X-ray diffr. study 2−56146
ZnP_2, monoclinic, photovoltaic effect 2−87322
ZnP_2, optical activity, temp. depend. 2−110808
ZnP_2 photoelectrochemical cell photocathode, appl. to solar cells 2−116840
ZnP_2, reversible H-like series in optical spectra *(Russian)* 2−57124
ZnP_2, tetragonal, valence band, X-ray emission spectra and pseudopot. study 2−57218
ZnP_2, wide band semiconductor, two-photon and two-step transitions 2−108934
ZnP_2, Zn_3P_2, electronic struct., X-ray spectral investig. 2−82221
ZnP_2:As, impurity vibr., Raman scatt. study *(Russian)* 2−77540
Zn_3P_2, AC photocond., spectral response 2−77109
Zn_3P_2, band structure model of absorpt. coeff. and photovoltaic props. 2−82222
α-Zn_3P_2 film, optical band gap 2−62004
Zn_3P_2 thin-film solar cells, status as emerging materials PV technologies 2−57712
$ZnRb_2(SO_4)_2.6H_2O:VO^{2+}$, Tutton salts, EPR spectra, multiple trapping sites 2−61755
ZnS, 2H to 3C solid state transform, X-ray diffr. study 2−98272
ZnS ceramic phosphor, electroluminescence, temp. depend. meas. 2−116268
ZnS, crystals, powders, films, thermoluminesc., luminesc. temp. depend. and damping 2−77604
ZnS, effect of sensitization on energy spectra of local levels *(Russian)* 2−53881
ZnS, electron-hole drops, luminesc. and optical gain meas. 2−87847
ZnS epitaxial growth on Wall and Cu, substrate ion planing effects 2−83048
ZnS film, electron beam evaporated, growth and struct., expt. study 2−111076
ZnS film, ultrahigh vacuum deposited and RF sputtered, optical consts. meas. 2−72573
ZnS film on CdS substrate, laser film thickness modulation and small pattern generation 2−66396
ZnS films, struct. and dislocation density, X-ray diffr. study 2−104203
ZnS, form of Cu_xS and Zn secondary phases, dislocation and stacking fault decoration 2−115240
ZnS, Hall photoelectric effect meas. 2−87317
ZnS, hexagonal, photoacoustic study of two-photon absorption 2−57040
ZnS, high resolution in scanning cathodolumin. of edge emission 2−116274
ZnS, IR window materials for CO_2 laser, absorpt. coeffs, photoacoustic spectroscopy 2−70633
ZnS, intrinsic-defect hole conductivity, photoluminescence study 2−110927
ZnS layers, TSC investigation of traps *(Russian)* 2−87659
ZnS, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnS, mechanism formation of ZnO-based Green phosphor 2−111508
ZnS metal Schottky barrier contacts, exptl. study 2−72057
ZnS, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnS, peizoelec., effect of mag. field on photovoltaic current and photocurrent 2−110385
ZnS phosphor layer on Zn_2SiO_4:Mn particles, prep. and cathodoluminescence 2−110952
ZnS phosphors, cryst., radiative recomb. centres, cathodolum. meas. 2−110955
ZnS, photoluminesc. quenching by DC elec. field 2−110818
ZnS, planar defects, luminescence study 2−82889
ZnS, polishing induced phase transforms. of single crysts. for device applic. 2−72852
ZnS polytype, stacking fault sequences, high resolution electron microscopy study *(Chinese)* 2−91987
ZnS, radiative recombination of electron-hole drops and nonequilib. electron-hole plasma obs. 2−66459
ZnS, Raman scattering efficiencies for Γ-phonons 2−57100
zinc compounds continued
ZnS, revealing of defects by chem. etching 2−115239
ZnS, shock induced phase transition stresses 2−98200
ZnS, single crysts., growth by I_2 transport, depend. of struct. on growth conditions 2−99309
ZnS soln. growth using Te as solvent 2−93398
ZnS, struct., twinning and thermal cond. 2−81744
ZnS, undoped organometallic grown, shallow and deep centre photolum. and cathodolum. 2−116235
ZnS, vacancy optically detected mag. resonance 2−77425
ZnS, ZnS/ThF_4 films, impurity initiated short pulse laser damage 2−65282
^{67}ZnS, Mossbauer spectrum under high press. 2−61802
ZnS:Ag, photolum. and elec. props. study of Ag doping 2−110944
ZnS:Ce, Li phosphors, luminesc. excitation and emission spectra 2−57155
ZnS:Cn(Pb), Gudden-Pohl effect flash spectra depend. on elec. field 2−87817
ZnS:Co(Ni), amphoteric exciton trapping by 3d impurities 2−76937
ZnS:Cr^+, cubic, ESR spectrum, press. influence 2−66909
ZnS:Cu, Al, phonon-assisted tunnelling in the electroluminescence exciting process 2−110950
ZnS:Cu, Br phosphor, electroluminesc. and lattice const. meas. 2−93283
ZnS:Cu, donor-acceptor recombination, ODMR study 2−99185
ZnS:Cu, Eu, Cl, electron multiplication process, luminesc. kinetics study 2−67121
ZnS:Cu, ODMR study of IR photolum. 2−93066
ZnS:Cu, Sm(Eu)(Tm), electrolum. and photolum., quantum yield meas. 2−110943
ZnS:Cu_2S single crystal, microbrittleness, impurity effects 2−83210
ZnS:Eu, influence of cryst. lattice field on Eu^{2+} emission spectra 2−87866
ZnS:Fe, CVD polycrystalline films, incorporation of Fe impurities 2−116379
ZnS:Ge^{3+}(Sn^{3+}), photosensitive EPR, g-factors and hyperfine interaction 2−77369
ZnS:I, iodine transport grown, channelling and ionoluminesc. spectra study 2−56058
ZnS:I cubic crysals, blue self-activated luminesc., N, P and Ag ion implementation effect 2−116237
ZnS:Mg AC thin film electroluminescent devices, luminescence-voltage characts. 2−104967
ZnS:Mn, Cu, Cl DC electrolum. films, field enhanced changes in comp. and struct. 2−116263
ZnS:Mn, epitaxial layers grown organometallic CVD 2−116378
ZnS:Mn, pulse excited, afterglow of Mn centres 2−110924
ZnS:Mn, RF sputtered thin film, electroluminescence *(Japanese)* 2−61979
ZnS:Mn,Cu,Cl, amorphous and cryst. electrolum. film, elec. cond. props. meas. 2−87429
ZnS:Mn AC electrolum. thin film device, Mn^{2+} emission saturation 2−116265
ZnS:Mn AC thin film electrolum. devices, UV irrad., current and light generation 2−116266
ZnS:Mn electrolum. films grown by at. layer epitaxy, ageing process 2−116264
ZnS:Mn electroluminesc. material, image storage tube appls. *(Czech)* 2−82826
ZnS:Mn film, sputter deposit, luminesc. and struct. props. variation with annealing 2−93287
ZnS:Mn sputtered thin films, cathodoluminescence and struct. props. 2−110956
ZnS:Mn thin films, physical and elec. characts. 2−61622
ZnS:Mn-Cu_xS p-n heterojunction DC electroluminesc. struct, degradation theory based on donor diffusion 2−57186
ZnS:Mn^{2+}, EPR spectrum, axial field parameter 2−66905
ZnS:Mn^{2+}, electrolum. and photolum. props. 2−57184
ZnS:Mn^{2+}, hexagonal and cubic, Zeeman effects on ^{4}E-levels 2−115720
ZnS:Ni^{2+}, optical spectra, isotope splitting const. 2−57163
ZnS:O, band gap variation due to dopant 2−76922
ZnS:O, grown from melt, O content, activation anal. 2−86702
ZnS:TbF_3 thin films, electroluminescence quenching obs. 2−99194
ZnS:V(Cr)(Co)(Ni)(Cu), excited state lifetimes, 4 to 300K, luminesc. study 2−57162
ZnS/Ag beam displacers and axicons with polarization-preserving single-layer-coatings 2−114396
ZnS/MgF_2 multilayer optical filter for light sources 2−114394
ZnS/MgF_2 reflective coatings, loss factors, surface scatt., volume scatt. and absorptance *(Chinese)* 2−55061
ZnS-Ag-ZnS heat reflecting filter, optimal design 2−81058
ZnS-Cu luminophore, decay time determ. from photocount statistics 2−102755
ZnS-Ge multilayer narow-band interf. filters 2−70663
ZnS-MgF_2 dielectric narrow-band interf. filter stabilisation 2−70661
ZnS-MgF_2 quarterwave layers forming dielec. laser mirrors, temp. depend. of phase anisotropy 2−97145
ZnS-Na_3AlF_6, multi-layer interference filter, temp.-effect on peak transmission wavelength *(Korean)* 2−55304
ZnS-SrF_2 nine-layer dielectric mirrors, radiation strength 2−70598
ZnS_xSe_{1-x}, donor-A-centre pairs, ODMR and phosphoresc. study 2−56978
$Zn(SCN)_2$:Pb(Sn), excitation spectra, luminesc. 2−104927
ZnS_xCdS_{1-x}:Ag(Yb)(Ni), phosphor, visible image formation from IR radiation 2−77563
ZnS_xO_{1-x}:Cu,Sn, phosphor, electrolum. 2−57182
$ZnSO_4.7H_2O:VO^{2+}$, EPR anal. 2−56916
ZnS_xSe_{1-x}, elec. and optical props., compositional disorder effects, photoluminescence and excitonic spectra 2−57171
ZnS_xSe_{1-x}, growth and doping by organometallic CVD 2−111087
ZnS_xSe_{1-x} solid solns., exciton states, effect of disorder 2−115671
ZnS_xSe_{1-x} thin film, high elec. cond. props. meas. and CVD prep. 2−98768
$Zn_{1+y}(S_xSe_{1-x})$ single crysts., vapour growth and stoichiometry control 2−93393
$ZnSb_2O_4$, cryst. struct. and cryst. growth from Sb_2O_3 flux 2−98004
$ZnSb_2O_4$, struct. evolution, dilatation, vibr., rigidity *(French)* 2−91911
ZnSe (110) surface, angle-resolved photoelectron spectroscopy, valence band struct. *(Japanese)* 2−116339
ZnSe, absorpt. calorimetry and laser induced damage threshold meas. 2−60146
ZnSe, angle resolved photoelectron spectroscopy of Zn 3d core level *(Japanese)* 2−116340
ZnSe, band struct., nonlocal pseudopot. calc. 2−110245

zinc compounds continued
ZnSe, band structure, tight binding calc. 2−66443
ZnSe, blue emission of cathodoluminesc. 2−77598
ZnSe, bulk and epitaxial growth, impurity role 2−116347
ZnSe, carrier mobility, temp. depend., polaron effects, carrier scatt. mechanisms 2−66558
ZnSe, clean and adatom treated surface props. 2−110115
ZnSe crystal vapour phase growth, longit. stress during fabrication cooling time 2−91844
ZnSe crystal with macroscopic inhomogeneities, SHG 2−114370
ZnSe crystals, damage threshold, struct. defect. influence 2−61029
ZnSe crystals, vol. defect influence on absorpt. at 10.6 μm wavelength 2−55284
ZnSe crystals stoichiometry when obtained from melt 2−104006
ZnSe cubic monocrystals, natural birefringence, cause *(French)* 2−82821
n-ZnSe, deep level transient spectroscopy of electron traps 2−115693
ZnSe direct-gap crystals, three-photon absorpt. 2−97079
ZnSe, edge emission, collective phenomena, radiative recombination 2−77579
ZnSe, electron-hole drops, luminesc. and optical gain meas. 2−87847
ZnSe, epitaxial optical film, prod. by RF sputtering 2−116363
ZnSe, exciton-impurity complexes, photoluminesc. spectra study 2−72552
ZnSe, exciton-plasmon Mott transition 2−56443
ZnSe Film, DC cond. mechanism and dielectric props. 2−104510
a-ZnSe, film deposition, control and reproducibility 2−67217
ZnSe film on GaAs, elec. props. and impurity profile 2−61014
ZnSe grown by organometallic CVD on GaAs, blue cathodoluminesc. obs. at room temp. 2−104969
ZnSe, Hall photoelectric effect meas. 2−87317
ZnSe, heteroepitaxial, deep defects 2−92512
ZnSe in Sn, LPE, phase diagram and electronic props. 2−116428
ZnSe LEDs, effect of residual impurites 2−57183
ZnSe, LPE, by temp. difference method 2−116394
ZnSe, LPE grown, deep electron traps, TSC, photocapacitance and DLTS study 2−56466
ZnSe, LPE growth on ZnS and ZnTe using Te and Te-Se as solvents 2−93398
ZnSe, LPE heteroepitaxial growth of $CuInSe_2$ from In soln. 2−57310
ZnSe, laser window materials, optical distortion and far field meas. 2−97041
ZnSe, lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnSe, light-induced refr. index dispersion in impurity absorpt. region 2−77480
ZnSe, low temp. single crystal growth, chemical vapour transport 2−116348
ZnSe MIS structures, blue electroluminescence and I-V charcts 2−61982
ZnSe, mag. and elec. props., effect of disorder 2−82356
ZnSe, mean-square dynamic displacements and X-ray characteristic temp. 2−66157
ZnSe, melt-grown crysts., mech. props. during flexure, prep. conditions influence 2−57404
ZnSe metal Schottky barrier contacts, exptl. study 2−72057
ZnSe, non-parabolic band effect on two-photon absorpt. 2−104910
ZnSe, optical ceramic, synthesis and props. 2−111123
ZnSe, organometallic CVD of thin film single crystal layers at atmos. press. 2−116377
ZnSe, phase spectra of refl. light in exciton reson. region 2−104911
ZnSe, phonon anomalies, Raman spectra study 2−98221
ZnSe, phonon scatt. at impurity pairs, luminesc. excitation spectra 2−57177
n-ZnSe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
ZnSe, polarity and inversion twins, high-resolution electron microscopy 2−109813
ZnSe, radiative processes in electron-hole drops and exciton-exciton interaction 2−104961
ZnSe, Raman intensity press. depend. 2−93182
ZnSe, Raman scattering efficiencies for Γ-phonons 2−57100
ZnSe, reson. electronic Raman scatt. and electronic structs. of bound exciton complex 2−67036
ZnSe, self activated centre, excited states, polarisation spectroscopy study 2−110291
ZnSe, shock induced phase transition stresses 2−98200
ZnSe single cryst., photoluminesc. microcomputer-corrected spectrosc. meas. 2−58910
ZnSe, single cryst., photoluminesc. spectra, Bi and Sb impurity effects 2−72541
ZnSe soln. growth using Te, Se and As_2Se_3 as solvents 2−93398
ZnSe, stimulated photoluminescence, lasing mechanism 2−99183
ZnSe surface, reflectivity spectra near excitonic transition 2−82878
ZnSe, thin film, prep. by photodissociation of organometallic gases 2−83036
ZnSe thin films, selective area MBE, electrolum. device appl. 2−92387
ZnSe, two-photon absorption coeffs., band structure calcs. 2−65293
ZnSe, undoped organometallic grown, shallow and deep centre photolum. and cathodolum. 2−116235
ZnSe, VPE grown film on GaAs, optoelectric props. control 2−116382
ZnSe, vacancy defect energies 2−98574
ZnSe, Wannier-Mott excitons, wave functions and normal-incidence refl. 2−82244
ZnSe, wavefront conjugation by degenerate four-and six-photon mixing 2−90994
ZnSe, wavefront reversal during degenerate six-photon interaction 2−108966
ZnSe, wide band semiconductor, two-photon and two-step transitions 2−108934
ZnSe, window material for HF/DF chemical lasers 2−81040
ZnSe, Zn-annealed, deep levels and associated carrier recomb. processes 2−110289
ZnSe:Ag(Au) LPE layers, luminesc. spectra, acceptor levels 2−116250
ZnSe:Al, IR absorption and defects 2−87823
ZnSe:Al, photoluminescence obs. 2−61971
ZnSe:Co(Ni), amphoteric exciton trapping by 3d impurities 2−76937
ZnSe:Cu, photoluminesc. bands, ODMR study 2−56979
ZnSe:Cu,Cl phosphor, activated, recombination centres, photoluminesc. study 2−87850
ZnSe:Ga, MBE growth and elec. cond. and photoluminesc. props. meas., blue LED appl. 2−87986
ZnSe:Ga diffused single cryst., elec. props. and impurity profile 2−61014
ZnSe:Ga(In), defect levels 2−115691
zinc compounds continued
ZnSe:Li, donor-induced acceptor-pair splittings, excitation spectroscopy study 2−82906
ZnSe:Mn_x epitaxial layers grown organometallic CVD 2−116378
ZnSe:Mn^{2+}, Zeeman splitting of $^4T_1$, $^4T_2$, and ^4E states, luminesc. study 2−57063
ZnSe:Ni(Fe), near IR photolum. detect. 2−116236
ZnSe:O, grown from melt, O content, activation anal. 2−86702
ZnSe:Tl, p-type layer, elec. cond., photocurrent decay 2−115926
ZnSe-CdSe thin film electrodes, photoelectrochem. performance meas. in aq. polysulphide electrolyte 2−78230
ZnSe-$CuGaTe_2$ heterostruct., LPE growth of $CuGaTe_2$ from Bi soln. and elec. props. 2−62084
ZnSe-GaAs heterojunction, photovoltaic props. meas. 2−73121
ZnSe-GaAs(110) and ZnSe-Ge(110), heterojunction band discontinuities, XPS study 2−111024
ZnSe-Ge heterojunction interface, nature of band discontinuities 2−104463
ZnSe-$In_{2-x}Sn_xO_{3-y}$ interface props., examination 2−66638
ZnSe-$Zn_{1-x}Cd_xTe$ heterojunction, photocond. spectral response, theory and expt. 2−98733
ZnSe(:Al), growth and doping by organometallic CVD 2−111087
$ZnSe_xS_{1-x}$ MIS diodes, blue and violet electroluminescence emission 2−72067
ZnSe(Te), surface electronic state spectroscopy resonances 2−115842
p-$ZnSiAs_2$ crystals, H^+ irradiated, elec. props. study 2−76527
$ZnSiAs_2$ thin-film solar cells, status as emerging materials PV technologies 2−57712
Zn_2SiO_4-based phosphors, luminesc. props., tunnelling pair recomb. theory 2−110911
$ZnSiP_2$, $ZnSiAs_2$, purification by sublimation in hermetically sealed system 2−93389
$ZnSnAs_2$ LPE growth on ZnSe substrate from Sn soln. 2−77756
$Zn_xSn_yFe_{3-x-y}O_4$, Mossbauer study of A site cation arrangement 2−93071
p-$ZnSnP_2$ Schottky diodes, current-voltage charcts., photosensitivity and recomb. radiation spectra 2−115863
ZnT, edge emission, collective phenomena, radiative recombination 2−77579
ZnTe (110), elastic LEED, electron exchange effects and relativistic corrections 2−65815
ZnTe (110) surface, angle-resolved photoelectron spectroscopy, valence band struct. *(Japanese)* 2−116339
ZnTe (110) surface, kinematical anal. of LEED intensities *(Japanese)* 2−115512
ZnTe, angle resolved photoelectron spectroscopy of Zn 3d core level *(Japanese)* 2−116340
ZnTe, appl. of picosecond spectroscopy and correlated single photon counting method *(Japanese)* 2−112999
ZnTe, band structure, tight binding calc. 2−66443
ZnTe, bound exciton time decay, radiative and nonradiative transition rate study 2−76932
ZnTe, CVD epitaxial growth, closed tube method, transport rates, expt. and thermodynamic anal. 2−57306
ZnTe, clean and adatom treated surface props. 2−110115
p-ZnTe, deep level transient spectroscopy of hole trap 2−115693
ZnTe, electron-hole drops, luminesc. and optical gain meas. 2−87847
ZnTe, excited electronic states, picosecond time-resolved photoelectron spectra study 2−111025
ZnTe, excited states of bound excitons, photolum. and magnetooptical spectroscopy 2−116238
ZnTe, exciton reflection, amplitude-phase spectra, Brewster effect 2−77551
a-ZnTe, film deposition, control and reproducibility 2−67217
ZnTe, film deposition on mica, effect of island sublayers of Ag 2−88005
ZnTe, heteroepitaxial films, struct. charact. 2−92381
ZnTe, ion implantation postrange defects and 1.59 eV luminescence origin, expt. study 2−99169
ZnTe lattice dynamics under hydrostatic press., Raman spectra 2−86805
ZnTe, luminesc. and lasing under laser excitation 2−77571
ZnTe, O diffusion during laser annealing, photolum. obs. 2−115463
p-ZnTe, photoelectrochem. determ. of minority carrier diffusion length 2−115777
ZnTe, production of ohmic contacts 2−77180
ZnTe, Raman scattering efficiencies for Γ-phonons 2−57100
ZnTe, resonance Bose condensate creation with k=0, nonlinear exciton effects 2−115665
ZnTe, S-shaped elec. cond. characteristics at low temp., expt. study 2−77074
ZnTe, single cryst., nonlinear interaction of laser pulses 2−108977
ZnTe:Cl, EPR study of deep Cl-associated centre 2−110642
ZnTe:P, distance donor-acceptor pairs, luminescence decay 2−110941
ZnTe:P, Li, magnetoluminescence, electron and hole g-factors, Zeeman effect 2−99193
$(ZnTe)_{1-x}$-$(ZnSe)_x$ powders, photoacoustic spectroscopy meas. 2−92464
$ZnWO_4$, cryst. growth and scintillation props. 2−57282
$ZnWO_4:Ni^{II}$, electronic ligand-field spectrum meas. 2−72526

zirconium
see also nuclei with .....
atmosphere, ^{95}Zr from Chinese nucl. bomb tests 2−100526
atom, Lande g-factors, multimode saturation reson. in optogalvanic spectroscopy 2−85578
atom, sputtered, CW laser induced fluoresc. spectroscopy 2−80529
atoms, beam-foil spectra for 15-160 MeV, from 6 to 60 nm 2−96492
creep, viscous, activation energy eval. through temp. change tests, α-phase specimens 2−72926
deformation, mech. eqn. of state and strengthening mechanisms 2−93556
dislocation motion, simulation in an internal stress in creep 2−81791
fibre texture by time-of-flight neutron diffr. 2−57370
gettering efficiency in respect to C and N in Li 2−80177
impurity in Tokamak, CW laser fluorescence spectroscopy 2−97790
isotopic composition in terrestrial/extraterrestrial samples, implications for ^{92}Nb as solar system chronometer 2−84116
jump-like creep at 4.2K *(Russian)* 2−83169
liquid, viscosity, C content influence, correl. with equilib. diagram 2−66273
monatomic vapour, density meas. by laser resonant absorption 2−91588
nuclear spin-lattice relax., ab initio semi-relativistic ASA-SCF-LMTO linear tetrahedron calc. 2−98985

zirconium continued
omega to alpha transition thermal effects and T-p diagram, sp. ht. study *(Russian)* 2−88054
oxidation rate calc. 2−62266
polycrystalline, fatigue meas., 4.2 to 293K *(Russian)* 2−88159
powders, prep. process 2−111108
radiation-induced dimensional changes 2−103809
sputtered-atoms surface normal vel. distrib. for light-ion irradiation 2−77651
superconducting and normal state, cryst., very low temp. sp. ht. 2−61656
surface nitride films, Auger and X-ray charact. 2−92396
vacancies, form. and binding energy, Lennard-Jones pot. calc. 2−98078
X-ray emission lines used as calibration standards in soft X-ray region 2−105006
Bi ion irrad., dislocation loops 2−86758
α-Fe_2O_3:Zr single crysts., growth and photoelectrochemical study 2−62052
$Gd_3Ga_5O_{12}$:Mg, Zr, channelling study 2−81841
$HfTe_5$:Ar, low-dimensional cond., Hall effect and transverse magnetoresist. 2−92663
Zr ions on PLT Tokamak, magnetic dipole lines above 2000 Å 2−103454
Zr, oxidation, X-ray photoelectron and UV studies 2−105368
Zr XIV spectra, 40-95 Å 2−85582
Zr:O, dislocation motion, impurity atmospheres and effective activation parameters, theory 2−115233
ZrI radiative lifetimes, time resolved laser induced fluoresc. 2−80542
ZrI, radiative lifetimes meas. using at. beam source 2−96512

zirconium alloys
see also zirconium compounds
crack nucleation and propagation, hydrogen induced, acoustic emission obs. 2−72936
diffusion bonding to C steels, reactor appl. 2−64545
hydride precipitate stacks form., elastic strains role 2−72704
irradiation creep and growth in reactors *(Japanese)* 2−96087
MANGALIOY, elinvar type alloys, nonferromag., charact. *(Japanese)* 2−77881
stresses induced by oxide layers in fission reactor 2−85155
VC C_2Zr, lattice stability in premartensitic temp. range *(Russian)* 2−97981
Zircalloy cladding, irrad., stress corrosion cracking under constant load 2−80090
Zircaloy, dynamic response of fusion reactor components with temperature-dependent properties 2−69838
Zircaloy, irrad., rapid stress corrosion crack growth 2−93676
Zircaloy, neutron irrad., microstruct. and dimens. changes, irrad. growth theory 2−109848
Zircaloy, stress corrosion crack propag. in I_2, effects of texture and microstruct. 2−67638
Zircaloy, thermal neutron radiography, point spread functions due to neutron scatt. 2−99610
Zircaloy, unirradiated, stress corrosion crack propag. 2−83276
Zircaloy cladding, ductility loss by inner surface oxidation 2−59461
Zircaloy fuel cladding tube, biaxial stress effect on I_2 SCC 2−83275
Zircaloy fuel rod embrittlement, assessment in water accident situations 2−96119
Zircaloy-2, cold rolled, stress corrosion failure in methanol-HCl media, texture dependence 2−99579
Zircaloy-2, corrosion in 340°C water, LiOH effects, comparison with Zr-Nb (2.5 wt.%) 2−77981
Zircaloy-2, corrosion in high temp. water, ion beam induced nucl. reaction study 2−57517
Zircaloy-2, diffusion of T, effect of low irrad. damage, O conc., δ-hydride form. 2−82025
Zircaloy-2, neutron irrad., evidence of basal or near basal slip 2−86675
Zircaloy-2, oxygen embrittlement on long-term exposure to fission product oxides 2−69707
Zircaloy-2, steam oxidised, oxide/α and α/β phase interface advance kinetics 2−66300
Zircaloy-2 fuel cladding, iodine effect on fatigue props. 2−59460
Zircaloy-2 sphere, in the Ar and Ze, thermal accommodation coeffs. 2−74827
Zircaloy-4, Cr, Sn and O content effect on solid state phase boundary temp. 2−83083
Zircaloy-4, O containing duplex, deform. behaviour 2−99501
Zircaloy-4, oxidation kinetics, high temp., simulation of parabolic and linear behaviour 2−111370
Zircaloy-4, reaction in steam-H_2 mixture at high temp. 2−83274
Zircaloy-4, recovery and deform. substruct. in high temp. plasticity, stationary and non stationary stress 2−83173
Zircaloy-4, recovery and recrystallisation *(French)* 2−62143
Zircaloy-4, solid state phase equilib., 750 to 1050°C 2−83082
Zircaloy-4 fuel cladding, anisotropic creep behaviour 2−90243
Zircaloy-4 tubing, determ. of critical I_2 conc. for stress corrosion cracking, 500-900°C 2−105371
Zircaloy-IV/D_2O system, thermal neutron spectrum 2−101960
Al-$Al_3(Ti_xZr_{1-x})$ alloy, dispersion strengthening and lattice parameters of dipsersed phase w.r.t. x 2−72713
Al-Cr-Zr, powder metallurgical, heat resistant, props. 2−72875
Al-Cu, Mn, Ti, Cd and Zr impurities effect on ageing, electron microscopy study *(Russian)* 2−93539
Al-Li-Cu-Zr-Cd system alloys, microstruct.-prop. rels. 2−111210
Al-Li-Mn(Zr)(Mg)(Cu), corrosion behaviour, correl. with microstruct. 2−88253
Al-Mg-Mn-Zr-Ca-Ti, chem. comp. optimisation rel. to fracture toughness, Mn, Zr, Cr and Ti additions effect 2−77945
Al-Zr alloys, microstruct. and mech. props., effect of plastic strain *(Korean)* 2−62172
Be-Mo-Zr amorphous alloy, ^{9}Be NMR line breadth and Knight shift 2−104720
Be-Nb-Zr amorphous alloy, ^{9}Be NMR line breadth and Knight shift 2−104720
$Ce_2Co_{17-x}Zr_x$, struct. and mag. props. 2−61741
Co-Fe-Cu-Zr-Sm(-Ti), permanent magnet, microstruct., SEM study 2−92224
Co-O-Zr(Ti), liq., solubility of oxides 2−98295
Co-Zr, intermediate phases, heat of formation, direct reaction calorimetry study 2−99699
Co-Zr amorphous film, coevaporated, magnetisation and ferromag. reson. studies 2−72264
Co-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
Co-Zr sputtered amorphous film, struct., soft mag. props. and magnetostriction meas. 2−87534
Co-Zr-Cr(Mo), amorphous alloys, Curie temp. and mag. thermal expansion, press.-depend. meas. 2−72323
$Co_{1-x}Ni_xZr_2$, supercond., anisotropy of normal state props. 2−110324
$Co_{90}Zr_{10}$ and $Co_{36}Zr_{94}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Cr-Rh-Zr dil. alloy, grain boundary relax., internal friction study *(Russian)* 2−93546
Cr-Zr-N alloy system, phase equilibria *(Ukrainian)* 2−67288
Cu barriered Zircaloy cladding tube for BWR fuel 2−80092
Cu Zr metallic glasses, electronic density of states, cluster calc. 2−71848
Cu-Zr, amorphous, press. depend. of elec. resist. meas. 2−77016
Cu-Zr, amorphous, thermoelec. powers and resistivities 2−98611
Cu-Zr, dil., D permeation meas., trapping impurities effect 2−56254
Cu-Zr metallic glass, sputtering prep. and props. 2−82948
$Cu_{40}Zr_{60}$ metallic glass, elec. resist. as function of press. and temp. 2−56547
$CuZr_2$, electronic density of states for cryst. and amorphous phases 2−76909
$Cu_{33}Zr_{67}$, metallic glass struct., tunnel states, computer model 2−81688
$Cu_{50}Zr_{50}$, glass, partially crystallised, shear bands interactions with crysts., TEM study 2−71372
$Cu_{57}Zr_{43}$ amorphous alloy, EXAFS spectra meas. and calc. 2−99222
$Cu_{60}Zr_{40}$, amorphous, initial quench effect on thermal behaviour 2−91813
$Cu_{60}Zr_{40}$ glass, electronic struct. 2−104236
$Cu_{60}Zr_{40}$ metallic glass, bend testing, heat treatment effect on mech. props. 2−88322
$Cu_{60}Zr_{40}$ metallic glass, as-quenched, low-temp. relax. under tensile stress, dilatometric obs. 2−91812
$Cu_{68}Zr_{32}$, amorphous, elastic moduli, hardness and density 2−99472
Cu_xZr_{1-x} ($25 \leq x \leq 70$) metallic glasses, crystn. charcts. 2−97928
$Cu_{50}Zr_{40}Fe_{10}$, amorphous, thermoelec. powers and resistivities 2−98611
$Cu_{60}Zr_{40}O_x$ alloy, polyphased microcryst.-amorphous, high resolution imaging 2−71356
$cu_{60}Zr_{40}$, amorphous, EXAFS study, struct. charcts. 2−110978
Fe-Al-Mo-Zr alloys, precip. hardening by ZrC 2−93524
Fe-O-Zr(Ti), liq., solubility of oxides 2−98295
Fe-Zr amorphous alloy, ferromag.-spin glass transition, magnetisation study 2−72220
Fe-Zr amorphous sputtered films, elec. and mag. props. 2−71948
Fe-Zr metallic glass, struct. investig. by X-ray diffr. 2−55857
$Fe_{74}Zr_{26}$, amorphous, mag., Mossbauer, and resist. study 2−72384
$(Fe_{1-x}Co_x)_{90}Zr_{10}$ amorphous alloys, mag. induced anisotropy meas. 2−92896
$Fe_{40}Zr_{60}$:Kr, amorphous, vibr. densities of states, inelastic neutron scatt. study 2−56142
$Fe_{90}Zr_{10}$, amorphous, sp. ht., suceptibility, resist. 2−72224
Mo-Ti-Zr (0.5, 0.08 wt.%), dispersion-strengthened, activation energy meas. for creep 2−67426
Mo-Ti-Zr-C, powder metallurgical, props. 2−111228
Mo-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Mo-Zr, ion bombarded by 10 meV $^4He^+$ ions, depth depend. of radiation hardening 2−88095
Mo-Zr-C, cubic solid soln., prep. and props. 2−71395
Nb-Mo-Ti-Zr MN-1 alloy, nitriding effect on heat-resisting props. 2−111247
Nb-Mo-Zr, carbide form. and embrittlement in technical Ar at 1100°C 2−72821
Nb-W-Mo-Zr-Re, deform. and fracture, alloying and heat treatment influence 2−111252
Nb-W(Mo)(Ta)-Ti, creep kinetics under ultrahigh vac. 2−67462
Nb-Zr, dil. alloy, low temp. sp. ht. meas. *(Russian)* 2−86897
Nb-Zr, gaseous impurity effects on mech. props., interstitials role 2−57538
Nb-Zr, thermal expansion meas., 4 to 10K *(Russian)* 2−92238
Nb-Zr (1 wt.%), fatigue failure in various struct. states 2−99547
Nb-Zr (1 wt.%), He bubble behaviour, alloying effects 2−86742
Nb-Zr (79.6 wt.%), low-temp. heat capacity 2−76697
Nb-Zr-C, embrittlement during ageing, X-ray, SEM and TEM study *(Russian)* 2−93585
Nb-Zr-N, strengthened by ZrN precip., ageing charcts. 2−83132
Nb-Zr-V-C, high-temp. creep in vac., long ageing and V additions influence 2−99504
Nb-ZrN alloy, high temp. hardness changes *(Russian)* 2−72794
Nb-Zr(Ti)(V)(Ta), dil. alloys, diffusion of O, appl. of McNabb-Foster trapping eqns. 2−76744
Ni-O-Zr(Ti), liq., solubility of oxides 2−98295
Ni-Zr, amorphous, thermoelec. powers and resistivities 2−98611
Ni-Zr cast superalloy, solution and transform. of Ni_5Zr *(Chinese)* 2−62098
Ni-Zr-Co-Cr-Al-Ti powders, rapidly solidified, shock wave consolidation 2−62089
NiCrAl-Zr alloys, oxidation features, AES study 2−88273
$NiZr_2$ metallic glass, diffusion rates of Pb, Pt and Au, pretreatments effect 2−71726
$Ni_{11}Zr_9$ phase, cryst. struct. and thermal expansion, X-ray study 2−97992
$Ni_{33.3}Zr_{66.7}$, metallic glass, diffusion rates of Au 2−104057
$Ni_{64}Zr_{36}$, metallic glass, diffusion rates of Au 2−104057
Pd-Zr, amorphous, supercond., US absorpt. and dispersion 2−56784
$Pd_{30}Zr_{70}$ metallic glass, elec. resist. as function of press. and temp. 2−56547
Pd_xZr_{1-x}, surface segregation due to H absorpt. 2−56345
Sm-Co-Cu-Fe-Zr, permanent mag., struct., sintering and annealing effects *(Russian)* 2−88226
Sm(Co, Cu, Fe, Zr)$_{7.4}$ permanent magnet, precip. hardened, microstruct. 2−71657
$Sm_2(Co,Fe,Cu,Zr)_{17}$ sintered permanent magnets, coercive force and struct., Sm content effect 2−72278
$Sm_2(Co, Fe, Cu, Zr)_{17}$ permanent magnet, coercivity 2−72284
Sm_2Co_{17-x}, struct. and mag. props. 2−61741
$Sm(Co_{0.66}Fe_{0.21}Cu_{0.10}Zr_{0.06})_{7.4}$, struct. transformations and coercive force meas. *(Russian)* 2−98913
$Sm(Co_{0.69}Fe_{0.22}Cu_{0.07}Zr_{0.02})_{7.22}$, magnetic hardening 2−72283
$Sm_2(Co_{1-x}Zr_x)_{17}$, struct. and mag. props. 2−72280
Ta-Re(Mo)(Hf)(W)(Zr), athermal solid soln. hardening 2−99437
Ti-Al-Mo-Zr, Cu coated, plastic deform. and diffusion annealing effect on props. 2−67645
Ti-Al-Mo-Zr, struct. and mech. props., relationship offer superplastic deform. 2−62178

zirconium alloys continued
Ti-Al-Mo-Zr-Sn-Si, metastable α'' phase, struct. transformation on cold rolling, X-ray study *(Russian)* 2−99440
Ti-Al-Sn-Zr-Mo 6242 alloy, interface phase form. along α/β phase boundaries 2−72703
Ti-Al-Sn-Zr-Mo (5,2,4,6 wt.%), low cycle fatigue crack nucleation, role of microstruct. 2−57470
Ti-Al-Sn-Zr-Mo (6,2,4, 6 wt.%), low cycle fatigue, cyclic deform. behaviour 2−57471
Ti-Al-Sn-Zr-Mo (6,2,4,2 wt.%), shear bands, occurrence during isothermal hot forging 2−57383
Ti-Al-Sn-Zr-Mo prealloyed spherical powders, consolidation 2−77777
Ti-Al-Sn-Zr-Mo-Si, fatigue, low cycle high temp., effects of dwell 2−62208
Ti-Al-Sn-Zr-Mo-Si (6, 2, 4, 2, 0.1 wt.%), H_2 effect on fatigue crack growth 2−72806
Ti-Al-V-Sn-Zr, static strength, gas absorpt. influence 2−88152
Ti-Al-Zr alloy, IMI 685, planar slip material, short fatigue crack growth 2−93605
Ti-Al-Zr-Mo-Si (6, 5, 0.5, 0.25 wt.%), silicide precip. 2−83128
Ti-Al-Zr-Mo-W system, equil. diagram, struct. and props., influence of Zr, Mo and W 2−57331
Ti-Al-Zr-Mo(W), cooling rate effect on struct. 2−67315
Ti-Al-Zr-V-Mo-B sheet, elastic props. anisotropy and texture hardening *(Russian)* 2−116502
Ti-Mo-Sn-Zr, salt corrosion tendency, alloying influence 2−88287
Ti-Mo-Zr, fast neutron irrad., H_2 effect on mech. props. at high temp. 2−72768
βTi-Mo-Zr-(Al), metastable, deform. and fracture 2−57433
Ti-Zr solid solns., phase diagram, $\alpha \rightleftarrows \beta$ transition 2−88077
α- Ti-Zr-Mo-V, optimum heat treatment selection 2−105200
$Ti_{50}Be_{40}Zr_{10}$, specific heat, superconducting T_c 2−87448
V_2(Hf,Zr) Laves phase composite superconductors, effect of strain on crit. parameters 2−82552
V_4(HfZr), supercond., ultimate crit. current density *(Chinese)* 2−110556
V_2Zr, mag. props. near phase transition, susceptibility and spin-lattice relax. meas. *(Russian)* 2−61693
V_3Zr, specific heat anomalies 2−66249
V_2Zr superconducting Laves phase, cryst. struct. *(Russian)* 2−91871
Zn-Nb, superconductivity, specific heat 2−87447
Zn-Nb-Mo, superconductivity, specific heat 2−87447
Zr-Al, H_2, D_2 and T_2 solubility meas., getter appl. 2−86878
Zr-Al alloy, compatibility in Tokamak 2−69851
Zr-Co, melt spun alloys, struct. and supercond. props., X-ray diffr. study 2−87437
Zr-Cu, crystalline and amorphous, enthalpy effects 2−61174
Zr-Cu metallic glass, density of states and comp. short range order, NMR and mag. study 2−104726
Zr-Cu-Cr-Fe, phase diagram, isothermal section of Zr corner 2−83093
Zr-Fe(Co)(Ni)(Rh)(Pt), amorphous, thermal stability study 2−104029
Zr-Ir system, phase equilib. study using thermal anal., metallographic and X-ray methods 2−83090
Zr-Mo (2 at.%), pressurised, diffuse streaking accompanying $\alpha \rightarrow \omega$ transform. 2−67324
Zr-Mo-Al, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Nb, fuel cladding, thermal expansion coeff. anistropy 2−54507
Zr-Nb, soft X-ray absorpt. spectra and density of states calcs. 2−104999
Zr-Nb (2.5 wt%), corrosion in 340°C water, LiOH effects, comparison with Zircalloy-2 2−77981
Zr-Nb (2.5 wt.%), metallographic obs. of hydride morphology at H_2 induced crack tip 2−88174
Zr-Nb (2.5% wt.%), pressure tubes for CANDU-PHW, manufacture, inspection, mech. props. 2−90231
Zr-Nb-Mo-V, β solid soln., decomposition, precipitation kinetics and struct. mechanism 2−77829
Zr-Pd(Fe)(Co)(Ni)(Cu), metallic glass, electronic struct. calc. 2−98529
Zr-Si, non-equilib. superconductor, rapidly quenched from melt 2−110520
Zr-Sn (1.5-9 wt.%), ageing response, potential for precip. hardening 2−77846
Zr-Ti-Ga solid solns., mag. and X-ray struct. investig. *(Russian)* 2−67292
$Zr_{1-x}Co_x$, crystallisation and struct. transition, X-ray and thermal anal. 2−109677
Zr_xCu_{1-x}, amorphous, supercond., thermal props. 2−98803
β-Zr(Fe) phase, effect of Ti in stabilisation 2−105166
$Zr_{100-x}Fe_x$, amorphous, hyperfine field distrib., spin coupling, Mossbauer study 2−104756
$Zr(Fe_{1-x}Al_x)_2$, Fe moment localisation, mag. props. 2−82572
$Zr(Fe_{1-x}Al_x)_2$, ferromag., mag. props., conversion to superparamagnet and spin glass on H_2 absorption 2−92965
$Zr(Fe_{0.32}Co_{0.68})_2$, acoustic study of elastic behaviour, temp. and mag. field effects 2−56065
$ZrH_{0.028}$ and $ZrH_{0.91}$, diffusion and electromigration of T, 296 to 583K 2−56251
$(Zr_{0.9}Hf_{0.1})Fe_2$, hyperfine mag. field at ^{181}Ta, radiation defects influence, TDPAC meas. 2−56986
$Zr_{1-x}Hf_xFe_2$, isomer shift and quadrupolar interaction, Mossbauer study 2−104778
$Zr_{1-x}Hf_x(Ti_x)Mo_2(W_2)$, high temp. equilib., struct. transformation 2−66177
$Zr_xHf_{1-x}V_2$, struct. nonstable supercond. Laves phase, electron spectrum peculiarities *(Russian)* 2−66433
$ZrMn_{2-x}Fe_xHy$, C14 struct., mag. props., H absorpt. effects 2−98853
$(Zr_{1-x}Nb_x)Fe_2$, spin wave stiffness const. determ., inelastic neutron scatt., magnetisation meas. 2−115989
$Zr_{0.76}Ni_{0.24}$, amorphous supercond., lattice sp. ht. and thermal cond., 0.1 to 5K, thermal annealing effect 2−56779
$Zr_{1-x}Ni_x$, amorphous, phase transforms., X-ray diffr., DSC, and TEM study 2−97934
$Zr_{76}Ni_{24}$, amorphous, supercond. transition temp., effect of config. changes 2−104526
$ZrNiH_x$, interstitial site occupation of H atoms 2−86664
Zr_3Pd, amorphous, upper critical field and paraconductivity 2−77244
Zr_3Pd amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
Zr_3Rh amorphous superconducting ribbons quenched at elevated substrate temperature 2−77225
$Zr_{75}Rh_{25}$ system, supercond. props. variation on amorphisation *(Russian)* 2−56781

zirconium compounds
see also zirconium alloys
bis(methylphosphonate) surface texture and crystallinity 2−86982
nitride films, on surface of Zr, Auger and X-ray charact. 2−92396
oxides, phase comp. determ., semiquantitative X-ray method 2−93708
Zircaloy, surface oxidation, protective coating form. 2−99607
Al-Si-Mg-ZiO_2, dispersion hardening 2−57362
Al_2O_3-ZrO_2-$Bi_2O_3(CoO_2)(SuO_2)$ refractories, thermal shock resist., $Bi_2O_3(CoO_2)(SuO_2)$ effect 2−93623
Al_2O_3-ZrO_2-Cr_2O_3-SiO_2, ER 216 refractory material, fusion cast, zonality of ruby *(Czech)* 2−86896
Al_2O_3-ZrO_2-MgO, MgO and ZrO_2 effects on microstruct. and mech. props. 2−88038
Al_2O_3-ZrO_2-SiO_2 refractories, props. with different ZrO_2 and SiO_2 concs. 2−88188
Al_2O_3-ZrO_2.SiO_2, AZS, refractories, corrosion by vapours of NaOH and Na_2CO_3 2−116560
$Ba_{4-x}Zr_{2+X/2}F_{16}$, diffusion and rotation of F, NMR study *(French)* 2−66925
CaO-TiO_2-ZrO_2 system multiphase ceramics for bushing prod., mech. props. 2−67478
$Ca_4Zr_{19}O_{44}$, existence and stability in ZrO_2-CaO system, phase diagram 2−81759
K_2ZrF_6, high resolution TDPAC meas. 2−56988
Li_2O-ZrO_2, cpd. form., thermal and X-ray obs. 2−83102
Li_2O-ZrO_2-$Na_2O(Al_2O_3)$, subsolidus phase equilibria 2−116430
$Li_{6-x}R_{1-x}Zr_x(BO_3)_3$, (R=rare earth), ionic cond. study *(French)* 2−71714
$Li_{0.5}Y_{0.5}Zr_{0.5}S_2$:$Cr^{3+}$, NMR ionic motion studies 2−110676
Li_2ZrO_3, appl. as solid breeder material 2−69852
$Mn_2ZrF_8.6H_2O$, cryst. struct. determ. 2−86647
Mo-ZrN composite powder, room- and high-temp. thermal cond. 2−66308
Mo-ZrO_2, condensates, second phase particles distrib. *(Russian)* 2−67314
$NaZr_2(PO_4)_3$, ceramic, sintering prep., appl. to radioactive waste disposal 2−90226
$Na_2ZrSi_3O_9.2H_2O$, cryst. struct. study 2−98040
$Na_2ZrSi_3O_9.3H_2O$, cryst. struct. study compounds 2−115201
$Na_3Zr_2Si_2PO_{12}$, wetting by liq. Na 2−66325
$Pb(Hf_{1-y}Zr_y)_{1-x}Ti_xO_3$, ferroelectric-antiferroelectric transition *(French)* 2−99068
$Pb(Sn_{1-y}Zr_y)_{1-x}Ti_xO_3$, ferroelectric-antiferroelectric transition *(French)* 2−99068
$Pb(Zr,Ti)O_3$ composition piezoelectric ceramic preparation and props. 2−88030
$Pb(Zr,Ti)O_3$, impurity doping effects 2−86689
$Pb(Zr,Ti)O_3$, piezoelectric effect 2−87686
$Pb(Zr,Ti)O_3$, poling method 2−87653
$Pb(Zr,Ti)O_3$-polymer composites, preparation and props. 2−88045
$Pb(Zr,Ti)O_3$-polymer composite, preparation and transducer applications 2−88046
$PbZr_{1-x}Ti_xO_3$, Ti distrib., ferroelectric transition 2−86654
$PbZr_xTi_{1-x}O_3$, solid soln., ferroelec.-paraelec. transition, tricritical point 2−93126
$Pb(Zr_xTi_{1-x})O_3+yMnO_2$ solid solution, piezoelectric props. 2−87684
$(Sr_{0.8125}La_{0.1875})(Zr_{0.75}Fe_xRu_{0.25-x})_3O_{3-\delta}$, mixed perovskite oxide, elec. cond. and thermal stability meas. 2−82354
SrO-ZrO_2 system, electroconductometric analysis, struct. transitions obs. 2−98262
V-Zr-O, phase equilibria, penetration of Li at 670K 2−72681
Zr-H, melting point, p-T phase diagram at high press. of H 2−71618
ZrC, CVD, microstructs. 2−105169
ZrC coatings, appl. to hard-metal tools 2−72883
ZrC, diffusion of metal fission products 2−85153
ZrC, energy band struct. and X-ray emission spectra, APW calc. 2−110984
ZrC, phonon dispersion, deform. dipole model 2−86807
ZrC-C composites, strength 2−116544
ZrC-ZrB_2 system, compressive creep of two-phase alloys, superplastic phenomena 2−99506
ZrC_x ($0.9 \leq X \leq 1.01$), enthalpy and specific heat, temp. and conc. depend. in region of homogeneity 2−71670
ZrC_xN_{1-x}, band struct., elec. cond., Fermi energy, carrier density and mobility, two-band model 2−66438
$Zr(Ca, Mn)_2(Fe,Al)_4Ti_3O_{16}$, cubic cryst. cpd. found in Radwaste ceramic, characteris. 2−103705
$Zr_{0.94}Ca_{0.06}O_{1.94}$, partially stabilized, elec. cond. rel. to temp. and O_2 partial press. 2−115833
$ZrCl_4$ doped polyacetylene, metallic elec. cond. and EPR spectrum meas. 2−77027
$ZrCo_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2−104575
$ZrCr_2D_4$, phase transition, X-ray and neutron diffr. studies 2−103686
ZrF_4-BaF_2-LaF_3(ThF_4) glasses, polarised Raman scatt. study 2−57086
ZrF_4-BaF_2-YbF_3 (GdF_3), fluoride glass, prep., optical and physical props. 2−102891
ZrF_4-BaF_2-($BaCl_2$), glasses, mixed cond. as function of temp. 2−115832
ZrF_4-ThF_4-YF_3(LuF_3)(ScF_3)(AlF_3), glass forming area, thermal expansion and UV absorption edge *(French)* 2−115146
ZrF_4+F^-, enthalpies of reaction, mass spectrometric determ. 2−116719
$ZrF_4+ZrF_5^-$, enthalpies of reaction, mass spectrometric determ. 2−116719
ZrF_5^-, heat of form., mass spectrometric determ. 2−116719
ZrH_2, electron-phonon coupling parameter rel. to occurrence of supercond. 2−66462
ZrH_2, electronic struct., electron-phonon coupling 2−66444
ZrH_2, FCC-FCT phase transition, electronic theory 2−71641
ZrH_x, proton site occupancy, PMR line shape study 2−116088
$ZrHNa(PO_4)_2$, γ-ray effects investig. 2−76502
ZrN, CVD coatings, optical props., Kramers-Kronig anal. 2−87888
ZrN electric spark alloyed coatings on Mo and W 2−67657
ZrN, electronic struct., photoemission study 2−104249
ZrN, energy band struct. and X-ray emission spectra, APW calc. 2−110984
ZrN, high-purity sputtered tribological coatings on steel, deposition and characteris. 2−57492
ZrN, thermal and elec. cond. charcts. rel. to electron energy spectrum 2−71987
ZrN-Al_2O_3 composite powder, room- and high-temp. thermal cond. 2−66308
ZrN_x, reactively sputtered film, refr. index and absorpt. coeffs. 2−93304

zirconium compounds continued
$ZrNi_2Si_2$, magnetic susceptibility and electrophys. props. *(Russian)* 2—104575
ZrO, $B^1\Pi$-$A^1\Delta$ system, rot. and vibr. anal., IR spectra obs. 2—59794
ZrO exhaust-gas-sensor electrolytes, tubes, closed-end, test method for strength and fracture 2—93688
ZrO_2, additive in sintering of MgO, effect 2—57324
ZrO_2, CaO stabilised, calc. of n, p-type conductivity surfaces 2—98717
ZrO_2 ceramic, sputter deposition of Pb, interfacial reaction, Auger line shape and factor anal. 2—83429
ZrO_2 ceramics, meas. of crystallographically transformed zone produced by fracture 2—99531
ZrO_2, crystallisation and transform. under hydrothermal conditions 2—111170
ZrO_2, cubic, stabilised with Y_2O_3, refr. index and optical transmission meas. 2—107388
ZrO_2 film on Si substrate, thickness determ. by Monte Carlo method *(Chinese)* 2—110179
ZrO_2, films, impurity initiated short pulse laser damage 2—65282
ZrO_2, highly dispersed powder, hydrothermal modification 2—99461
ZrO_2, in C fibre effect of low temp. Ar plasma 2—67585
ZrO_2 interference coating, form. in vacuum, refr. index drift 2—114482
ZrO_2, melting point measurements, in solar furnace in different atms. 2—58830
ZrO_2 on Zr (0001) crystallographic relationship, transmission electron diffr. study 2—109727
ZrO_2, polymorphism, high press. transitions, Raman spectra study 2—91859
ZrO_2, second phase influence on deform. and recrystn., of Bi_2Te_3-based alloys 2—83170
ZrO_2 short fibres, microstruct. stabilisation of W fibre reinforced Ni superalloy *(German)* 2—77781
ZrO_2, sintered, struct. and fracture behaviour 2—88187
ZrO_2, sintering and crystalline transform., effect of variations in polymerised oxides 2—111130
ZrO_2, sputter deposited, microstruct. control 2—115619
ZrO_2, structural chemistry 2—97977
ZrO_2, thermal shock stability *(French)* 2—88155
ZrO_2, Yt-stabilised, electrolytes, operation in ultra-high vac. cell 2—79595
ZrO_2:Ti optical thin film, refractive index meas. during film deposition 2—82944
ZrO_2-Al_2O_3-CaO, sub-solidus phase equilib. 2—111161
ZrO_2-Al_2O_3-Y_2O_3, solid electrolyte, phase equilib. 2—111160
ZrO_2-B_2O_3-SiO_2 glasses, leachability, immobilisation of radioactive wastes 2—102046
ZrO_2-CaO (Y_2O_3) solid solns., O vacancy diffusion, ^{181}Ta gamma-gamma angular correlation study 2—116096
ZrO_2-CaO(Y_2O_3), sputter deposited, microstruct. control 2—115619
ZrO_2-Gd_2O_3 cubic lattice solid solution microstructure 2—116624
ZrO_2-Gd_2O_3(Eu_2O_3) single crystals of tetragonal struct., Raman scatt., domain struct. existence 2—93191
ZrO_2-MgO-Nb_2O_5(Ta_2O_5), ordered fluorite related phase 2—111159
ZrO_2-Sc_2O_3, electron beam induced reduction, high resolution electron microscope study 2—78086
ZrO_2-Y_2O_3, partially stabilised, anal. using STEM 2—77827
ZrO_2-Y_2O_3 (8 wt.%), polycrystalline, annealing effect on elec. cond. 2—76734
ZrO_2-Y_2O_3 ceramics, high-purity, effect of grain boundaries on cond. 2—71712
ZrO_2-Y_2O_3 single crystal, room temp. strength and fracture 2—111274
ZrO_2-Y_2O_3:Yb crystals, Yb implanted yttria stabilised, O vacancies, channelling study 2—109867
ZrO_2-Y_2O_3-Bi_2O_3, Bi_2O_3 effect on elec. and mech. props. 2—67265
ZrO_2-Y_2O_3-Nd_2O_3, ceramic, thermal aging rel. to struct. and electrophysical props. 2—111208
ZrO_2-YeO_3, thermoionic cathode, Auger electron spectroscopy 2—110113
ZrO_2-zircon ceramics, prep. from plasma dissociated zircon 2—83073
$(ZrO_2)_{0.88}$-$(Y_2O_3)_{0.12}$, d.c. and a.c. elec. props. 2—104376
ZrO_2(-PbO) powder, shock-induced chem. and struct. modifications 2—76583
$(ZrO_2)_x(C_eO_2)_{1-x}$ solid solns., elec. cond., O_2 press. depend. *(French)* 2—98704
$Zr(OH)_4$, behaviour in high vac. of XPS spectrometer 2—99739
ZrO_2MgO (CaO)(Y_2O_3) ceramics, rare earth oxide stabilised, elec. conducting, for MHD generator electrodes 2—88043
ZrP_2O_7:Li^+(Na^+)(K^+)(Ag^+), solid electrolyte, ionic cond. meas. 2—92256
α-$Zr(PO_4)_2M_2$ (M=Li^+, Na^+, K^+, Cs^+) Mg Kα ESCA spectra, shake up struct. enhancement by sputtering 2—57252
ZrS_2, lattice dynamical anisotropy, two phonon reson. Raman scatt. study 2—98220
ZrS_2, optical transitions, symm. depend., refl. spectra 2—57120
ZrS_2, p-d gaps, relativistic corrections 2—110240
ZrS_2, $ZrSe_2$, struct. rel. to lubrication performance 2—109901
ZrS_2-1T, low energy electron reflection, energy depend. 2—87925
ZrS_3, depend. of phonon spectrum on hydrostatic press., Raman scatt. data 2—109922
ZrS_3, unresolved Raman excitation profiles, totally symmetric vibrs. 2—116185
ZrS_3, valence band, photoemission study 2—116333
ZrS_3(Se_2), conduction band struct. 2—71864
$ZrS_{3-x}Se_x$, elec. resistivity and thermopower 2—71980
$ZrSe_2$, elec. resist., T^2 temp. depend. 2—66550
$ZrSe_2$ intercalated with Li, elec. props. 2—66529
$ZrSe_2$, p-d gaps, relativistic corrections 2—110240
$ZrSe_3$, valence band, photoemission study 2—116333
$ZrSi_2$, formation, radioactive ^{31}Si marker study 2—115472
$ZrSiO_4$ glaze, crystn. kinetics, particle disperseness depend. 2—103658
$ZrSiO_4$, refractories, corrosion by vapours of NaOH and Na_2CO_3 2—116560
$ZrSiO_4$:Nd^{3+}(Yb^{3+}), EPR study 2—72341
$ZrSiO_4$:V^{4+}, ESR and absorpt. spectra 2—66902
$ZrTe_3$, valence band, photoemission study 2—116333
$ZrTe_5$, electronic struct., elec. props., absence of phase transition 2—87142
$ZrTe_5$, electronic struct. calcs. 2—110232
$ZrTe_5$, low-dimensional metallic, giant resist. and X-ray diffr. anomalies 2—87244
$ZrTe_5$, negative evidences for CDWs and SDWs 2—56553
$ZrTe_5$, thermoelec. power and elec. resist., 7 to 380K 2—92571
$Zr_xTi_{1-x}Se_2$, EXAFS spectra 2—72579

zodiacal light
see also sky brightness
galactic and zodiacal light surface brightness measurements with the Atmosphere Explorer Satellites 2—94644
Helios measurements (December 1974 to January 1981) 2—94645
short term variations of zodiacal light, optical search by Helios space probes 2—89197
stability of zodiacal light meas. from min. to max. of solar cycle (1976 to 1981) 2—89196
zonal heating *see atmospheric thermodynamics*
zone melting
ceramic-metal composites, internal centrifugal zone growth, mathematical modelling 2—60897
ceramics, internal centrifugal zone growth, mathematical modelling 2—60897
microcomponent concentration influence on plane crystn. front stability 2—55870
Bi, Bridgman and zone-levelling cryst. growth, preferred orientation, effect of growth mode 2—111055
Cr-V single crystals, growth by floating-zone technique 2—77726
$CuInS_2$, liquidus curve meas. and zone melting cryst. growth 2—105065
$(Mg_{1-x}Fe_x)_2SiO_4$, single-crystal olivine, floating-zone growth 2—77727
NbO_2 single crysts., growth by float zone method 2—93416
Si, crystn. by zone melting, contamination with C 2—87972
Si films, 3 in. diameter, zone-melting recryst. on SiO_2-coated Si substrate 2—99330
Si, micro-zone melted, cellular growth 2—93414
Si, neutron transmutation doped, floating zone grown in H_2 and Ar, annealing behaviour *(Chinese)* 2—109820
Si single crystals, floating zone growth in double-ellipsoid mirror furnace 2—62062
Si thin polycryst. rod growth by pulling from melt on pedestal, impurity distrib. 2—76347
Si:O crystals, indentation rosettes and dislocation locking by O 2—98111
TiC, RF floating zone grown single crystal, high temp. deform. mech. 2—105242
ZnSe crystals stoichiometry when obtained from melt 2—104006
zone plates (optical) *see optical zone plates*
zone refining
cuprous halides, cryst. growth techniques and defect chemistry, re view 2—83015
AgI-RbI(KI), eutectic mixture, impurity behaviour during crystn. refining 2—111064
β-B:W,Ta, grown by electron-beam zone refining, distrib. patterns 2—76480
CdI_2, single cryst. purification and growth by zone refining, X-ray diffr. obs. of polytypism 2—93415
(Ce, Tb)$MgAl_{11}O_{19}$ single crystal, prep. and X-ray charact. 2—87973
NbN(C), single cryst., prep. and supercond. props. *(Japanese)* 2—92808
Si-Au-Al, distrib. ratio of Al, zone refining with temp. gradient 2—71487
TaC, single cryst., prep. and supercond. props. *(Japanese)* 2—92808
W, high-purity, prep. scheme 2—105105
zoology
beetle antifreeze capabilities (Rhagium sp.) 2—105663
caterpillar, hair for temp. regulation 2—67961
crayfish tail-flip motor neuron circuitry 2—57797
earthquake precursory acoustic emission causing animal behaviour changes *(Chinese)* 2—57981
fish, lateral line stimulation patterns rel. to rigidity 2—88573
fly flight, visual cues for landing reflex 2—83570
four-eyed fish (Anableps), visual pigment types 2—94023
homing instinct in animals, possible methods *(Japanese)* 2—94267
mouse, brown adipose tissue thermogenesis suppression during lactation 2—93992
retina with multiple efferent systems, in teleost fish 2—57804
swordfish, brain temp. maintenance by exothermic tissue 2—105665
zoosemiotics *see biocommunications*
Zr *see zirconium*

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